Glan Llyn
Phase 5E2

Desk Study & Phase 2 Geo-Environmental Interpretative Report

Glan Llyn, Newport

Phase 5E2

Desk Study & Phase 2 Geo-Environmental Report

For

Brighton STM Developments Limited (BSTMDL)

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Executive Summary

This presents the salient points of the report and should not be referred to in isolation.

Summary	Rodgers Leask Ltd (RLL) were commissioned by Brighton STM Developments Ltd (BSTMDL) to prepare a combined Desk Study and Phase 2 Geo-Environmental Interpretative Report for Phase 5E2 of the Glan Llyn development on the former Llanwern steelworks (hereafter referred to as the 'Site'). The Site is proposed to be developed for residential end-use with gardens, open space and associated infrastructure.
Site Location and Description	The Site is irregular in shape and covers approximately 7.0 hectares and is located within the Glan Llyn development at the former Llanwern Steelworks, approximately 5.8km to the east of Newport at National Grid Reference 336520E, 186397N. Prior to the recent earthworks, the site comprised an area used for the storage of excavated Made Ground originating from the wider Llanwern Site.
History	Historically, the Site exclusively comprised agricultural land segregated into seven fields by hedgerows and drains, until 1967 when the Site formed part of Llanwern Steelworks. Following construction of the steelworks, the eastern side of the Site comprised open space with tracks, posts and part of a pipeline and water tower. The central and western areas of the Site was occupied by two travelling booms that extended east to west along the northern boundary of the Site. A Lime Plant was located in the approximate centre of the Site with hoppers, conveyors, pipeline and grids. Railway sidings entered the Site from the northwest with an associated embankment. As the steelworks expanded, numerous unnamed buildings were located within the Site and a Hydrogen Production Plant was positioned on the southeastern section of the Site. Additionally, a pond was located on the southeastern corner of the Site, connecting to a southern reen. The Site was partially demolished by 2006 and above ground structures were completely demolished to slab level by 2009.
Geology / Ground Conditions	Previous ground investigations, undertaken by Atkins (2014/ 16) and RLL (2020/ 21), encountered Made Ground from ground level within all exploratory holes at thicknesses of 0.20m to 3.00m overlying Tidal Flat Deposits from depths of 1.10m to 10.60m, which generally comprised soft to firm silty clay with a horizon of silty clayey amorphous peat from 3.90m to 6.00m. The Tidal Flat Deposits were found to overly the Mercia Mudstone Group from 10.60m to a maximum encountered depth of 12.35m. Seven locations refused at depths between 0.60m and 1.50m within slag layers or large cobbles/ boulders, due excavation difficulties. Oily sheens or hydrocarbon odours were not encountered in the 2021 RLL ground investigation. Buried obstructions such as concrete piles and rebar were encountered in three locations at depths of between 0.70m to 2.60m in the 2021 RLL ground investigation. Perched water was encountered in 14 locations, at depths of between 0.50m to 1.50m. Regional groundwater was encountered twice within

	one location (CWCP18) within the very soft fibrous peat of the Tidal Flat Deposits at 6.00mbgl rising to 5.00mbgl, and again within the very stiff silty clay of the Mercia Mudstone Group at 12.10mbgl rising to 11.00mbgl. A radiological walkover survey was undertaken for the Site in 2022 and concluded that radiation within the surveyed area was not elevated above site specific background radiation levels.
Hydrology and Hydrogeology	The Mercia Mudstone Group is classified as a Secondary B Aquifer. The Tidal Flat Deposits are classified as Secondary (Undifferentiated) Aquifer. The Site is located within a privately drained system. Drain 4 and its associated treatment lagoon is present on the eastern boundary of the Site, this is to be removed in the final development. The next nearest surface water feature, on completion of the development, is proposed to be located approximately 160m north of the Site. The Site lies within an area shown as having a Low Flood Risk from Sea according to Natural Resources Wales Flood Risk mapping.
Controlled Waters	With regard to controlled waters, the following pathways are considered applicable to the Site, following completion of the development and once relevant approvals have been granted to allow discharge into Monks Ditch: ▪ Leaching of soil-borne contamination in Made Ground and subsequent lateral migration through permeable pathways in Made Ground to Monks' Ditch via onsite reens; and ▪ Newly created preferential pathways associated with the redevelopment of the Site e.g. foundations and infrastructure. As such, it is recommended that this report is read in conjunction with the Phase Specific Controlled Waters Risk Assessment.
Contamination (Human Health)	Chemical analysis has identified concentrations higher than the S4ULs for a residential end use with plant uptake (1% SOM) for arsenic, nickel, lead, vanadium, zinc, aliphatic TPH >C8-C10, aliphatic TPH >C10-C12, aliphatic TPH >C12-C16, aromatic TPH >C8-C10, aromatic TPH >C10-C12, aromatic TPH >C12-C16, aromatic TPH >C16-C21, aromatic TPH >C21-C35, aromatic TPH >C35-C44, benzene, phenanthrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[a]pyrene and dibenz(a,h)anthracene across the Site. Asbestos was identified within 4 of the 83 soil samples tested in the form of loose fibres at concentrations of <0.001% to 0.063%. The presence of asbestos and elevated contaminants identified on site are a risk to human health and will be managed through the remedial works.
Ground Gas and Radon	No gas monitoring was undertaken during the RLL 2021 ground investigation. A programme of shallow gas monitoring is recommended following any turnover and earthworks reengineering. The Site is located in an area where 1-3% of properties being above the action level, however no radon protection measures are required in the construction of the new development.
Recommendations	Following the completion of the ground investigations, RLL recommends the following are completed:

	▪ Removal of identified hotspot contamination on a grid square basis, and subsequent validation testing and reporting. ▪ Turnover of the Made Ground to natural geology with removal of obstructions. ▪ Reengineering of materials in accordance with the approved Remediation Strategy and Earthworks Specification to an appropriate specification to achieve the required formation level. ▪ Chemical and geotechnical validation of the placement of material following turnover. ▪ A programme of shallow gas assessment is recommended following the earthworks to turnover and reengineer the Site. ▪ Concrete classification testing should be undertaken in accordance with BRE Special Digest 1. ▪ Phase-specific geotechnical assessments relating to the proposed development. ▪ Construction of buildings and hardstanding with suitable construction materials to break the pathway with underlying Made Ground, to intercept rainwater and to reduce infiltration. ▪ A 600mm clean cover system, suitable for a residential with plant uptake end use, will be required in areas of residential gardens and landscaping. ▪ Consultation with the water supply company in relation to the potential use of barrier pipe. ▪ Preparation of a Piling Risk Assessment; ▪ Preparation of an MMP to facilitate the reuse of excavated materials and import of soil for use in the cover system.

Contents

1.0 Introduction 1
1.1. Terms of Reference 1
1.2. Proposed Development 1
1.3. Purpose 1
1.4. Objectives 2
1.5. Scope 2
1.6. Sources of Information 3
1.7. Limitations and Confidentiality 3
2.0 Site Location and Description 5
2.1. Site Location 5
2.2. Site Boundaries and Surrounding Area 5
2.3. Site Walkover 6
2.4. Site History - Ordnance Survey Maps 6
2.5. Site History – Aerial Photographs 9
2.6. Site History - Available Information 10
3.0 Ground Conditions and Mining Review 11
3.1. Published Geology 11
3.2. BGS Borehole Records 11
3.3. Mining History 11
3.4. Railway and Tunnel Features 12
3.5. Radon 12
3.6. Potential for Ground Stability Hazards 12
3.7. Hydrogeology 12
3.8. Hydrology 13
3.9. Unexploded Ordnance (UXO) 13
4.0 Regulatory Review 14
4.1. Authorisations and Consents 14
4.2. Environmental permits, incidents and registers 14
4.3. Waste Management and Hazardous Substances 14
4.4. Landfills and Other Waste Sites 15
4.5. Current Land Use: Industrial Data 15
4.6. Designated Environmentally Sensitive Areas 15
4.7. Archaeology 15
4.8. Radiation 15
5.0 Preliminary Conceptual Site Model 17
5.1. Preliminary Risk Assessment 17

5.2. Potential Sources of Soil Contamination related to the Sites historical past and current use 17
5.2.1. On-site 17
5.2.2. Off-site 18
5.3. Ground Gas / Vapour 18
5.4. Potential Pathways 18
5.5. Potential Receptors 19
5.6. Pollutant Linkages 20
6.0 Ground Investigations 24
6.1. Existing Reports 24
6.2. Encountered Ground Conditions 24
6.2.1. General Made Ground 24
6.2.2. Superficial Deposits 25
6.2.3. Solid Geology 25
6.2.4. Perched Water 25
6.2.5. Groundwater 25
6.2.6. Encountered Buried Obstructions or Services 26
6.2.7. Visual/ Olfactory Evidence of Contamination 26
6.2.8. Instability 26
6.3. Gas Screening 26
7.0 Radiological Walkover Survey 27
8.0 Chemical Testing 28
8.1. Risks to Human Health 28
8.1.1. Methodology 28
8.1.2. Results 28
8.1.3. Asbestos 29
8.1.4. Groundwater 30
9.0 Conceptual Site Model (CSM) 31
9.1. Potential Pollutant Linkages 31
9.1.1. Sources 31
9.2. Potential Receptors 31
9.2.1. Potential Pathways 32
9.2.2. Preliminary Remediation Assessment 33
9.2.3. Proposed Sequence of Mitigation 33
10.0 Geotechnical Testing 36
10.1. Sampling and Testing 36

10.2. Classification Testing 36
10.2.1. Natural Moisture Content 36
10.2.2. Material Grading and Classification 36
10.3. BRE Total Expansion Tests 36
11.0 Conclusions and Recommendations 38
11.1. Conclusion 38
11.2. Recommendations 39

Appendices

Appendix A: Drawings and Plans
Appendix B: Site Walkover Photographs
Appendix C: Historical Maps
Appendix D: Envirocheck Report
Appendix E: UXO Risk Report
Appendix F: Exploratory Hole Logs
Appendix G: Chemical Testing and Laboratory Certificates
Appendix H: Geotechnical Testing and Laboratory Certificates
Appendix I: Radiological Walkover Technical Note

1.0 Introduction

1.1. Terms of Reference

Rodgers Leask Ltd (RLL) was commissioned by Brighton STM Developments Ltd (BSTMDL) to prepare a combined Desk Study and Phase 2 Geo-Environmental Interpretative Report for Phase 5E2 of the Glan Llyn development in Newport (hereafter referred to as the 'Site').

The Site is situated within the ongoing redevelopment of the former Llanwern Steelworks. The Site location plan is shown on Drawing 18669-RLL-22-XX-RP-O-0298, included in **Appendix A**.

In July 2024 the Client, St Modwen Developments, was rebranded to be called Revantage Real Estate, then in 2025 to Brighton STM Developments Limited (BSTMDL). Any reference to the previous company names in this report should be referred to accordingly.

1.2. Proposed Development

It is understood that the Site is proposed to be redeveloped for a residential end use with gardens and public open spaces. An illustrative masterplan (ref. 8111-08-A011, Rev P09, dated April 2019) is available in **Appendix A**.

The development will form part of the wider Glan Llyn development.

1.3. Purpose

This report has been prepared to support the discharge of Planning Condition 27 of the Outline Planning Permission Reference 06/0471 for the proposed development of residential development Phase 5E2 as part of a wider mixed-use development at Llanwern, Newport.

Planning Condition 27 states the following.

"(27) Prior to the commencement of each phase of development as defined by Condition 03 (or at such other date or stage in development or for such specified activities or works as may be agreed in writing with the Local Planning Authority), the following components of a scheme to deal with the risks associated with contamination relating to that phase or activity shall each be submitted to and approved, in writing, by the Local Planning Authority:

(1) A preliminary risk assessment which has identified:
- *(a) all previous uses;*
- *(b) potential contaminants associated with those uses;*
- *(c) a conceptual model of the site indicating sources, pathways and receptors;*
- *(d) potentially unacceptable risks arising from contamination at the site.*

(2) A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.

(3) The site investigation results and the detailed risk assessment (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

(4) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are complete and identifying any requirements for longer term monitoring of pollutant linkages, maintenance and arrangements for contingency action. Any changes to these components require the express consent of the Local Planning Authority.

Reason: To ensure that the proposed development will not cause pollution of the environment or harm to human health."

The scope of this report is detailed in Section 1.4 below. It is considered that this report addresses the requirements of Condition 27 part 1 and 2. Part 3 and part 4 will be addressed in future reporting including a Remediation Strategy and Validation Report.

1.4. Objectives

The objectives of this report is to:

- Obtain desktop information to assist in the assessment of potential environmental and ground related issues that may have implications for the proposed development.
- Review the available information to determine the anticipated ground conditions and identify the potential for contamination to be present within the Site boundary, including formulation of an initial Conceptual Site Model.
- Present the findings of the ground investigations, by others, undertaken to date, providing an indication of the nature and extent of any contamination within the Site.
- Produce a refined Conceptual Site Model for the site using the findings of the desktop study and ground investigation works, including identification of Source Pathway Receptor Linkages that require mitigation.
- Make outline recommendations for remedial actions, where required, to mitigate unacceptable risks.

1.5. Scope

In order to achieve the outlined objectives, the scope of the study includes:

- A review of existing geo-environmental data for the Site including a review of historical maps and existing ground investigation data.
- A site visit/ walkover survey.
- Undertake an intrusive ground investigation, including chemical and geotechnical laboratory testing.

- An assessment of the levels of contamination present within the soils on Site against generic screening criteria based on the results of laboratory testing of samples collected during the investigation.

1.6. Sources of Information

The following documents and data sources have been reviewed in preparation of this Desk Study & Phase 2 Geo-Environmental Interpretative Report and should be read in conjunction with it:

- Landmark Envirocheck Report, Historical Map Pack (**Appendix C**).
- Landmark Envirocheck Report, Datasheet. 287158115_1_1, dated November 2021 (**Appendix D**).

The following reports have been prepared to be read in conjunction with this report:

- IOM, Assessment of asbestos contamination at former Llanwern Steelworks Site, Newport, Wales, ref. 610-34464 Rev 1, dated March 2024; and
- RLL, Phase 5E2 Controlled Waters Detailed Quantitative Risk Assessment Addendum, ref. 18669-RLL-24-XX-RP-O-0635-P01, dated August 2026.

1.7. Limitations and Confidentiality

All conclusions and recommendations made within this report are based upon and limited to the factual information obtained as part of this investigation. No responsibility can be taken by RLL for information obtained by third parties and it has been assumed that all third-party information provided is true and correct.

No liability can be accepted for conditions not revealed within the exploratory holes or pits undertaken by this investigation. The exploratory points cover only a small proportion of the total site area. RLL has where necessary undertaken extrapolation between locations and no responsibility can be taken for different conditions which may occur between locations.

RLL has undertaken the work in accordance with our understanding of current best practice at the time of undertaking the report. Further assessment and revision of the report may be required should new information come to light or legislation/ changes to best practice be introduced after the date of issue of the report.

RLL has prepared the report for the sole use and reliance of the Client. The report may not be used or relied upon by any unauthorised third party without the explicit written agreement of RLL.

The interpretive work undertaken within this report remains the intellectual property of RLL and must not be divulged to any commercial third party without prior written agreement of RLL.

At the time of writing, detailed information on the proposed structures, such as detailed layout, loadings and serviceability limits, was not available. Accordingly, where geotechnical design advice is provided it is for information only and should be

reassessed by a competent specialist once the development layout and structural loadings are known.

2.0 Site Location and Description

2.1. Site Location

The Site is located within the Glan Llyn development at the former Llanwern Steelworks, approximately 5.8km to the east of Newport City Centre, at approximate National Grid Reference 336520E, 186397N. The wider Glan Llyn development covers approximately 250 hectares and is proposed to be redeveloped for residential, commercial and open space use. The Site location plan is included on RLL Drawing 18669-RLL-22-XX-RP-O-0298 in **Appendix A.**

The Site is irregular in shape covering an area of approximately 7.0ha and is located on the southern boundary in the southeast corner of the wider Glan Llyn development.

The Site historically housed various infrastructure associated with the former Llanwern Steelworks including a travelling boom, drive house, Holts domestic water tower, lime kilns, screen house, hoppers, conveyors, lime bunkers, radioactive store and the air products hydrogen plant.

Drain 4 crossed the western side of the Site in an approximate north-south orientation. The Site currently comprises an area used for the stockpiling of construction materials and Made Ground from the wider Llanwern development, with the Biogenie Water Treatment Facility located along the western boundary on Drain 4.

The Site boundary is shown on drawing PJA Drawing 02554-F-5E210, **Appendix A**.

2.2. Site Boundaries and Surrounding Area

- North: The Site is bounded to the north by the wider undeveloped Glan Llyn development.
- East: To the east, is Monks' Ditch River, beyond which is Queens Way Road and the developed part of Indurent Park, Newport.
- South: The Site is bounded to the south by Queens Way (A4810) Road, beyond which is the Tarmac Llanwern Concrete Plant and agricultural fields.
- West: To the west of the Site is Phase 4H, which forms part of the Glan Llyn development currently undergoing construction.

The southern Site boundary is physically bounded by 2m high metal palisade fencing and the western boundary comprises heras fencing. The eastern boundary is physically bounded by Monks' Ditch River, beyond which there is temporary metal mesh fencing that borders Queens Way Road. There are no physical boundaries along the northern Site boundary.

2.3. Site Walkover

A site walkover was conducted in August 2021 by an RLL Engineer. The purpose of the site walkover was to provide a general description of the Site. Copies of relevant photographs are included in **Appendix B**.

At the time of the walkover, the Site had been demolished to slab level and housed several stockpiles of subsoil material, several smaller stockpiles of construction materials; and stockpiled Made Ground originating from the wider Llanwern site. The southwest corner of the Site housed the Biogenie Water Treatment Facility on Drain 4 and a main haul route ran through the stockyard with numerous smaller haul routes and tracks were present.

Vegetation was predominantly found on overgrown stockpiles and along the southern Site boundary palisade fencing along the Queensway, very little vegetation was present on the open areas and haul routes.

2.4. Site History - Ordnance Survey Maps

Historical Ordnance Survey maps have been assessed to identify former land uses at the Site and the surrounding area. Records have been obtained from a Landmark Envirocheck Report commissioned for Site in 2022 (**Appendix C**).

Map Date	Site Feature	Adjacent Features
1883 – 1887 OS	The Site comprised part of five open fields, segregated by drains hedgerows and trees. Black Wall Reen is shown to cross the eastern side of the Site in an approximate north to south orientation. A sluice gate system is indicated on the northeast corner of the Site, where Black Wall Reen splits to the east to form Brass Gout Reen. Non-coniferous trees are shown to line the eastern side of Black Wall River and a footpath is shown on the western side.	Surrounding land is characterised by open agricultural fields segregated by reens and trees. Black Wall Reen extends beyond the Site in an approximate north to south orientation, with no flow direction indicated. Middle Reen is located approximately 20m west of the Site in a northwest to southeast orientation, with a southerly flow direction. Beyond which are Kings Wall Reen and Ellens Reen. A farmhouse is located approximately 30m north of the Site. Decoypool Farm and Decoy Pool (marshy pond) are located approximately 480m northwest of the Site. The Great Western Railway (South Wales Division) Mainline and Llanwern Station are located approximately 440m north the Site. The mainline is orientated approximately east to west. Various farms and residential properties are shown within approximately 1km (Monkspill Cottage 850m north, Pwll-pan 1km north, Tatton Farm 900m southwest, New House 600m southeast).

Map Date	Site Feature	Adjacent Features
1902 OS	Little significant change is observed within the Site, with the exception of the removal of trees on the field boundaries. Additionally, Black Wall Reen is shown to have a southerly flow direction and Brass Gout Reen is shown to flow west towards the sluice gate system.	Coniferous and non-coniferous trees are shown alongside Brass Gout Reen. Decoy Pool is renamed Old Decoy Pool. Little significant change is observed within 1km. A trigonometrical station is located approximately 10m north of the Site.
1921-1922 OS	Little significant change.	Llanwern Lime Works and Goods Shed located from approximately 900m north. Ellens Reen and Middle Reen are indicated to have a southerly flow direction.
1954 OS	No significant change.	Llanwern Golf Club House is shown to the north of the Great Western Railway line. Roman Burials (found AD 1925) shown to the west of Llanwern Golf Club.
1965 OS	No significant change.	Little significant change is observed within 1km.
1967-1968 OS	The Site is shown to form part of the Spencer Steelworks (later known as the Llanwern Steelworks). The eastern side of the Site largely comprised open space inclulding tracks, posts, part of a pipeline and a water tower. The central and western parts of the Site comprised two travelling booms that extended east to west along the northern boundary of the Site. A Lime Plant was located in the approximate centre of the Site with associated hoppers, conveyors, pipeline and grid. A track crosses the Site running east to west, with an embankment shown on the western side where the track branches out to encircle an unnamed large building (presumed to be a substation). Railway sidings extend into the northwest corner of the Site.	Mapping shows the surrounding area to comprise the Spencer Steelworks (later known as the Llanwern Steelworks). Within the steelworks, land to the north largely comprised open space with various tracks, unnamed buildings, conveyors, hoppers, chimneys, pipelines and gas holder. Railway sidings extend from the west of the site northwards, beyond which is marshy ground, ponds, drains, various tanks and a cooling tower. The Site is bounded to the south by Queens Way Road, beyond are drains orientated east to west, marshy ground, ponds and a Slag Processing Plant with associated infrastructure and slag heaps. Land to the immediate east of the Site is bounded by the now channelised Monks Ditch River, formed into two conduits with a southerly flow direction. Beyond Monks Ditch is characterised by marshy ground and ponds.
1973 OS	Little significant change.	Previous marshland and ponds located to the east of the Site now shown as open space with a road extending north to south. The tanks located to west of the Site are shown to form part of the Benzole Refinery. To the northwest of the Site a Benzole Plant and Benzene Plant with associated gas holder, conveyors and travelling charger car are present.

Map Date	Site Feature	Adjacent Features
1983 – 1989 OS	The Site evolved in line with the expansion of the steelworks, with the Lime Plant removed from the centre of the Site. The track road on the western side of the Site no longer extends around the western unnamed building but instead meanders down to the southwest corner of the Site. A drain surrounded by an embankment follows the southern Site boundary in an approximate east to west orientation, partially up the eastern Site boundary. The southeastern part of the Site now comprises numerous conveyors and unnamed buildings with connecting roads. Railway sidings are no longer present on the western side of the Site.	Additional infrastructure associated with the steelworks is located to the east of the Site, including a cooling tower, conveyor, unnamed buildings and connecting roads. The land to the south of the Site has evolved in line with the southwestern section of the Site, with numerous conveyors and unnamed buildings with connecting roads. Coal storage dumps are shown in the open space. The majority of the railway sidings that were previously located to the west of the Site have been removed. The marshy ground is now open space with further conveyors, chimneys, unnamed buildings and roads beyond.
1992 OS	Little significant change.	Little significant change.
1995 OS	A Hydrogen Production Plant now occupies the southeastern area of the Site, with associated tanks and buildings. A pond is shown in the southeast corner of the Site, connected to southern watercourse. Embankments are shown on the western and eastern sides of the Site.	Several embankments, pits and tracks are located to the north, south, west and east of the Site.
2001 Aerial Photography	Little significant change.	Little significant change.
2006 OS	Little significant change.	Little significant change.

Map Date	Site Feature	Adjacent Features
2021 OS	Above ground structures associated with the Llanwern Steelworks have been demolished within the Site, leaving vacant land in its place.	The land surrounding the west and south of the Site comprises open space following the demolition of above ground structures associated with the Llanwern Steelworks. To the east of the Site, beyond Monks Ditch, the Queens Way Road has been renamed Monks Ditch Drive. Beyond which the Celtic Business Park has begun development with three commercial units shown to the south and the CAF factory shown to the north. A residential area associated with the Glan Llyn development is shown approximately 480m west of the Site. Notable features include Glan Llyn West Primary School, numerous residential houses with private gardens, numerous roads, recreational park areas and an updated surface water drainage network.

2.5. Site History – Aerial Photographs

Historical aerial photography included in the Landmark Envirocheck Report and photography from other sources[1] provides additional information relating to the Site (**Appendix C**).

1947: Low resolution black and white photography shows the Site comprising fields use for agricultural purposes. Monks Ditch is visible to the east and Decoy Pool and Decoypool Farm are identifiable to the north of the Site.

1979: Low resolution black and white photography shows the Site to comprise part of the Llanwern Steelworks. The travelling boom can be observed running parallel to the northwestern boundary and conveyors are present on the northeastern side of the Site. The lime plant and associated conveyors and hoppers are observed in the centre of the Site and access roads and tracks are photographed across the eastern and central parts of the Site. A water tank is present in the south-east corner of the Site.

1985: Low resolution colour photograph shows limited change to the eastern side of the Site. The lime plant along with associated conveyors and hoppers has been demolished in the centre of the Site.

1991: Moderate resolution colour photograph shows clusters of trees around the travelling boom on the northern Site boundary. A large material stockpile is photographed across the south-central to southwestern side of the Site and the Hydrogen Production Plant is seen to occupy the southeastern corner of the Site.

2006: Moderate resolution colour photograph shows much of the Site to have undergone demolition to slab level, with the footprint of the demolished buildings and

[1] Google Earth Pro, Accessed 27/02/2026, BNG 336317E, 186693N, URL: https://earth.google.com/

hydrogen production plant visible. The substation is still standing on the western side of the Site, along with a smaller building in the southwest corner. Four stockpiles in the centre of the Site and evidence of excavations on the eastern side of the Site.

2016: Moderate resolution colour photograph shows all remaining above ground structures demolished. The majority of the Site is covered by numerous large stockpiles in the form of windorws, orientated east to west on the central to eastern side of the Site and north to south on the north-western side of the Site. A carpark associated with the Glan Llyn development compound is present on the southwest corner of the Site.

2018: Moderate resolution colour photograph, little change was observed across the Site besides the movement of some stockpiles, with fewer stockpiles observed across the Site. Haul routes can be observed on the north-western and central sides of the Site.

2021: Moderate resolution colour photograph shows the addition of the Drain 4 treatment lagoon associated with the Biogenie Water Treatment Facility on the northwestern corner of the Site. Little change was observed across the rest of the Site, apart from vegetation indicated over the stockpiles and construction materials photographed on the north-east corner.

2.6. Site History - Available Information

According to the Royal Commission on the Ancient and Historical Monuments of Wales[2], the Llanwern Steelworks were built between 1958 and 1962 for Richard & Thomas Baldwin, and was subsequently owned by British Steel, and is currently owned by Tata Steel Europe (formerly known as Corus Group). Reportedly due to the lack of a deep-water iron ore unloading terminal, the Steelworks struggled and steel making ceased in 2001 with demolition commencing in 2004.

Blueprints and a Historical Site Layout Plan of the wider Llanwern Steelworks site indicate that the Site comprised the Lime Plant with associated lime kilns, lime bunkers, conveyors, hoppers and screen house. A travelling boom is located along the northern Site boundary, a water tower and a Drivehouse was located on the eastern side of the Site; numerous tracks and roads were present across the Site. Later blueprints show the Site to comprise an Air Products Hydrogen Plant on the southeast corner, a radioactive store in the centre of the Site and part of a large factory building on the northern section of the Site.

The historical overlays of the Site are shown on RLL Drawings 18669-RLL-22-XX-RP-O-0300 and 18669-RLL-22-XX-RP-O-0299, and the original Operational Site Layout Drawing (ref. 839181, dated December 1999), included in **Appendix A**.

[2] https://coflein.gov.uk/en/site/86821/

3.0 Ground Conditions and Mining Review

3.1. Published Geology

Information pertaining to the underlying ground conditions at the Site has been obtained via the BGS Onshore Geoindex.

The published geological information shows the Site to be void of Made Ground. However, due to the Site's history, Made Ground is likely to be present associated with the previous development and subsequent demolition.

Superficial deposits are shown to comprise Tidal Flat Deposits.

Tidal Flat Deposits are described by the BGS as 'unconsolidated sediment, mainly mud and/ or sand. They may form the top surface of a deltaic deposit. Normally a consolidated soft silty clay, with layers of sand, gravel and peat.'

The underlying bedrock is shown to be the Mercia Mudstone Group.

The Mercia Mudstone Group is described by the BGS as comprising 'predominantly red, less commonly green-grey, mudstones and subordinate siltstones with thick halite bearing units in some basinal areas. Thin beds of gypsum/anhydrite are widespread; sandstones are also present'.

There is a fault approximately 600m north of the Site which trends roughly north to south and extends northwards away from Site.

3.2. BGS Borehole Records

The nearest non-confidential BGS borehole record is located approximately 240m east of the eastern Site boundary. Record ST38NE/11 was drilled to 30.50m and encountered topsoil to 0.5m overlying Tidal Flat Deposits which comprised layers: soft brown clay to 1.07m, soft grey-blue clay to 2.29m, brown fibrous peat to 3.96m, soft blue clay to 6.25m, a bed of red coarse grained sandstone to 6.55m, soft blue clay to 7.93m and soft sandy grey-blue clay containing pebble gravel to 9.30m depth. Underlying the Tidal Flat Deposits from 9.30m to 30.50m was the Mercia Mudstone Group, comprising firm reddish brown clay becoming firmer with depth to 30.50m.

3.3. Mining History

The Site does not lie in a coal mining reporting area, as defined by the Coal Authority[3].

Information presented within the Landmark Envirocheck Report (2021) shows two BGS recorded mineral sites located 237m south of the Site associated with the Llanwern Steelworks Slag, and 362m southeast associated with the Llanwern Works.

[3] The Coal Authority Map Viewer (arcgis.com)

Three records of extractive industries or potential excavations from 1950-1980 are recorded on the Site and fourteen recorded within 500m of the Site. Two of the records of extractive industries recorded onsite are related to pipelines and the other relates to the lime plant.

There are no other records relating to historical mining or extraction activities within 500m of the Site (**Appendix D**).

3.4. Railway and Tunnel Features

Information presented in the Landmark Envirocheck report (**Appendix D**) indicates that there are no railways, underground railways or tunnels present within 250m of the Site boundary.

However, it is known that railway sidings and tunnels were present throughout the wider Llanwern Steelworks during its history.

3.5. Radon

Information available from the 'UK Maps of Radon'[4] interactive map, shows the Site to lie within a radon affected area, where the maximum radon potential is 1-3%. As such, the site is in an area at low risk from radon, and no radon protection measures are required in the construction of the new development.

3.6. Potential for Ground Stability Hazards

The Site has been given the following BGS classifications with regards to ground stability hazards (**Appendix D**):

- Potential for Collapsible Ground Stability Hazards: **No Hazard**
- Potential for Compressible Ground Stability Hazards: **Moderate**
- Potential for Ground Dissolution Stability Hazards: **No Hazard**
- Potential for Landslide Ground Stability Hazards: **Very Low**
- Potential for Running Sand Ground Stability Hazards: **Moderate**
- Potential for Shrinking or Swelling Clay Ground Stability Hazards: **Low**

3.7. Hydrogeology

Information presented in the Landmark Envirocheck Report (**Appendix D**) indicates that the underlying Mercia Mudstone Group strata is defined as a Secondary B Aquifer and the superficial Tidal Flat Deposits are defined as Unproductive Strata.

Secondary B Aquifers are classified as comprising 'predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifer'.

[4] UKradon - UK maps of radon

Unproductive Strata classification has been given to cases where 'rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow'.

There are no records relating to groundwater abstraction licences for the Site.

The Site is not located within a groundwater Source Protection Zone and there are no reported Source Protection Zones within 500m of the Site boundary.

3.8. Hydrology

Information presented in the Landmark Envirocheck Report (**Appendix D**) indicates that the nearest surface water feature is located 9m southeast; numerous other surface water features are recorded within 500m of the Site boundary, primarily comprising reens and drains.

The Site is located within a privately drained system. Drain 4 and its associated treatment lagoon is present on the eastern boundary of the Site.

There are eleven records of surface water discharge consents within 500m of the Site, all of which are expired. The nearest surface water discharge consent was located 333m northwest of the Site, related to the former Llanwern Steelworks, from 1975 to 1986 for receiving water 'Stream Number 5'.

The Site lies within an area shown as having a Low Flood Risk from Sea according to Natural Wales Flood Risk mapping[5] from Natural Resources Wales.

3.9. Unexploded Ordnance (UXO)

Regional Unexploded Bomb Risk maps obtained from Zetica indicates that the Site is in a low risk area for UXO. The UXO report is presented in **Appendix E**.

[5] https://check-your-flood-risk.naturalresources.wales/?culture=en-GB

4.0 Regulatory Review

4.1. Authorisations and Consents

Data regarding Natural Resources Wales and Local Authority authorisations and consents has been obtained for the Site via a Landmark Envirocheck Report (**Appendix D**) commissioned for Site and the adjacent plot (Phase 5E1) in 2021. Only the information considered pertinent to the Site has been included in this report.

The Landmark Envirocheck Report contains factual information which is produced from a database of records obtained from various sources including; Local Authorities, Environment Agency (Wales Region), Natural Resources Wales and UK Health Security Agency (formerly Public Health England).

4.2. Environmental permits, incidents and registers

There are four records of Integrated Pollution Controls within 500m of the Site. The most recent of which is located 93m south of the Site relating to an ICP minor variation associated with Iron and Steel processes within the Metal Industry for Cambrian Stone Ltd, in 1999.

There is one record of prosecutions relating to authorised processes recorded within 1000m of the Site. It relates to the failure to use best practicable means to prevent emission of noxious or offensive substances, for the B O S Plant of the former Llanwern Steelworks in 1992, located 874m east of the Site and resulting in a guilty verdict.

There are nine Local Authority Pollution Prevention and Controls located within 500m of the Site. The most recent relates to the blending, packing, loading and use of bulk cement for Tarmac Limited in 2007, located 407m south of Site. There is one record of NIHHS (Not Active) located 155m northeast of the Site, named B.S.C. located on the former Llanwern Steelworks. There are no records of enforcements within 500m of the Site.

There are eleven Discharge Consents recorded within 500m of the Site. The nearest is located 333m east of the Site relating to an unspecified discharge type into receiving water ‘Stream Number 5’ for British Steel Corporation, in 1975.

4.3. Waste Management and Hazardous Substances

There is one record of a Registered Waste Treatment or Disposal Site located approximately 113m west of the Site, related to Bitmac Ltd for the authorised waste of Sulphuric Acid (Acid Tars) within the wider former Llanwern Steelworks.

There is one licensed waste management facility (Landfill Boundaries) recorded within 500m of the Site. It is categorised for industrial waste, located 127m southeast of the Site for Corus Strip Products P P C, in 1979.

A Planning Hazardous Substance Consent record is located 191m northwest of the Site, relating to British Steel for liquified extremely flammable gas and natural gas within the wider former Llanwern Steelworks. A Control of Major Accident Hazard Site (COMAH) record is located within the Site relating to British Oxygen Co Limited within the former Llanwern Steelworks. Neither of these records are currently active.

There are four contemporary trade directory entries within 500m of the Site, the closest of which is 93m south of the Site and is associated with stone products for Tarmac Western Ltd; the entry is shown as inactive. The closest active entries are both located 420m south and relate to a quarry and concrete & mortar ready mixed processes for Tarmac Trading Ltd.

4.4. Landfills and Other Waste Sites

The Landmark Envirocheck Report (2021) indicates that there are no active or historical landfills recorded on the Site or within 500m of the Site boundary.

4.5. Current Land Use: Industrial Data

Information presented in the Landmark Envirocheck Report (2021) presents 38 records of industrial data relating to manufacturing and production activities within 250m of the Site boundary, all relating to tanks or industrial features associated with the historical Spencer Steelworks, Tarmac Western Ltd or the Celtic Business Park.

4.6. Designated Environmentally Sensitive Areas

Reference to the Natural England 'MAGIC' maps website[6] and the Landmark Envirocheck Report (2021) indicates that there is a Site of Special Scientific Interest (SSSI) located 244m southwest relating to the Gwent Levels – Nash and Goldcliff.

No further designated environmentally sensitive sites are recorded within 500m of the Site.

4.7. Archaeology

A preliminary search of the Historic Wales[7] archaeological database (accessed August 2024) indicates no records within the Site boundary.

4.8. Radiation

The historical Blueprints and Historical Site Layout Plan, as shown on RLL Drawings 18669-RLL-22-XX-RP-O-0300 and 18669-RLL-22-XX-RP-O-0299, and the original Operational Site Layout Drawing (ref. 839181, dated December 1999) (**Appendix A**), show a radiation store was present in the approximate centre of the Site.

[6] https://magic.defra.gov.uk/magicmap.aspx (Accessed August 2024)
[7] https://historic-wales-rcahmw.hub.arcgis.com/ (Accessed August 2024)

Potential for radiation contamination may be present associated with the Made Ground surrounding the location of the demolished radiation store. This should be investigated further as part of the ground investigation.

5.0 Preliminary Conceptual Site Model

5.1. Preliminary Risk Assessment

This section provides a qualitative risk assessment of the risks posed from potential on and off-site contamination sources, identified by the desk-based information presented in the previous sections.

The conceptual model below has been developed based on the commonly adopted source-pathway-receptor model as recommended within Land Contamination Risk Management (LCRM).

5.2. Potential Sources of Soil Contamination related to the Sites historical past and current use

5.2.1. On-site

The Site has historically been occupied by the Llanwern Steelworks and included infrastructure such as the Lime Plant, kilns, hoppers, conveyors, pipelines, substation, railway sidings, water tower, Drivehouse, hydrogen production plant and radioactive store. Contaminants associated with the steelworks are likely to be widespread throughout the Made Ground, however elevated concentrations and specific contaminant types are anticipated to be localised around former infrastructure.

Potential contaminant sources are summarised in the following table.

Summary of Potential On Site Sources of Contamination		
Source	Site Area	Key Contaminants
Historical Steelworks infrastructure	Whole Site	Heavy metals, asbestos, PAHs, TPHs.
Made Ground	Whole Site	Heavy metals, asbestos, PAHs, TPHs.
		VOCs and SVOCs
		Decaying organic constituents with potential to generate ground gas (carbon dioxide and methane).
	Isolated locations surrounding historical radioactive store	Potential for radioactive contamination associated with the historical radioactive store.
Natural Strata	Whole Site	Potential for ground gas (carbon dioxide and methane) from organic materials in the Tidal Flat Deposits. Potential for sulphates and pyrites in the underlying Tidal Flat Deposits and Mercia Mudstone Group.

Asbestos may be present where former above ground structures have historically been demolished.

5.2.2. Off-site

The surrounding site on all sides historically formed part of the Llanwern Steelworks. These features are likely to present similar sources of contaminants as described in the above table.

5.3. Ground Gas / Vapour

There are no records of active or historic landfill sites situated within 500m of the Site. The Site is underlain by Tidal Flat Deposits, which comprises discontinuous pockets or layers of peat, which may give rise to methane. The Site is underlain by Made Ground which may give rise to carbon dioxide, methane and vapours.

One potential infilled feature has been identified within the Site and three potential infilled features have been identified within 500m of the Site. However, these have not been recorded as landfills but rather as potential pond, marsh, river stream or docks and therefore are unlikely to present a significant source of gas.

The Site is not shown on the UK Mining Remediation Authority Map[8] to lie within an active or historic coal mining area.

5.4. Potential Pathways

With regard to the assessment of risk to human health, the following pathways are considered to be potential exposure routes based on residential with plant uptake end-use, in accordance with the CLEA Documentation:

- Dermal contact.
- Direct ingestion of soil.
- Inhalation and ingestion of soil dust.
- Inhalation of gases / vapours.
- Ingestion of contaminated water via plastic pipes.

With regard to Controlled Waters, the following pathways are considered applicable:

- Downward infiltration through soils
- Lateral migration through soils towards the nearest surface feature Newly created preferential pathways associated with the redevelopment of the site e.g. deep boreholes/piles/sewers.

[8] Mining Remediation Authority Map Viewer (Accessed 16/07/2026)

5.5. Potential Receptors

The following are considered to be potential receptors for contamination:

Receptor		Additional information
Human Health	Site end users Construction/maintenance workers	A female child will be regarded as the critical receptor.
Controlled Waters	Unproductive Strata – superficial. Secondary B Aquifer – bedrock.	Low vulnerability, Secondary Aquifer.
	Kings Wall Reen, East Lake and associated development drainage network within 500m.	
Other	Neighbouring buildings	Residential properties under construction to the west of the Site and the Indurent Business Park, Newport located to the east.
	Underground structures	Underground structures such as concrete piles.
	Flora and fauna	

5.6. Pollutant Linkages

Based on the information above, the following potential pollutant linkages are considered applicable to the site. The risk classification has been qualitatively derived in accordance with LCRM. The terminology used is taken from CIRIA C552, and a summary of the principal terms are provided in **Appendix G**.

Pollutant Linkage	Source	Pathway	Receptor	Probability	Consequence	Preliminary Risk	Comment
1	Contaminated Soils	Ingestion of soil, dermal contact, inhalation of dust	Site end users Construction workers; maintenance workers	Likely	Medium	Moderate	Given the Site's history, it is likely that the Made Ground soils contain elevated chemical concentrations harmful to human health, therefore it is plausible that future site users and neighbours could be exposed to these soils. An intrusive ground investigation including chemical analysis of the Made Ground is required, including assessment to establish the level of risk and determine appropriate mitigation.
2		Inhalation of soil dust	Members of the public adjacent to the site during construction	Likely	Medium	Moderate	
3	Contaminated Soils and Groundwater	Leaching and groundwater flow to surface water	Kings Wall Reen and East Lake and associated development drainage network within 500m.	Likely	Medium	Moderate	It is likely that potential contaminants present within the Made Ground may leach into the underlying perched water/ groundwater and migrate via groundwater pathways to nearby surface water receptors, as well as the associated drainage infrastructure. There is also potential for contaminants to migrate vertically into the Secondary B Aquifer.
4		Downward migration into groundwater.	Secondary B Aquifer. Unproductive Strata.	Likely	Medium	Moderate	

Pollutant Linkage	Source	Pathway	Receptor	Probability	Consequence	Preliminary Risk	Comment
5		Leaching of sulphate and corrosive contaminants	Buried concrete structures and services	Likely	Medium	Moderate	An intrusive ground investigation including soil chemical analysis is required to determine the contaminants present, assess the risk and determine the appropriate mitigation.
6	Contaminated Water Supplies	Ingestion of water, Migration of organic contaminants via plastic pipes	Humans – Site End Users	Likely	Medium	Moderate	It is possible that contaminants in the Made Ground have potential to impact water supplies, where plastic pipework is present. Certain organic contaminants may permeate the pipe material and affect the water quality. An intrusive ground investigation, including soil chemical analysis is required to determine the contaminants present in the Made Ground, assess the level of risk and determine appropriate mitigation measures.
7	Ground gas from Made Ground and natural soils	Migration of asphyxiant and explosive gas into confined spaces	Site end users, construction/ maintenance workers in trenches.	Likely	Severe	High	Made Ground is present on the site which potentially contains decaying organic components generating ground gas. In addition, the Tidal Flat Deposits are expected to contain pockets of peat which may also generate gas. A programme of ground gas monitoring should be undertaken to assess the Site gas characteristic situation and determine the appropriate gas protection measures.

Pollutant Linkage	Source	Pathway	Receptor	Probability	Consequence	Preliminary Risk	Comment
8	Potential for ammoniacal nitrogen in the underlying natural soils.	Leaching and groundwater flow to surface water.	Kings Wall Reen and East Lake and associated development drainage network within 500m.	Unlikely	Mild to moderate	Low	The presence of discontinuous layers of peat within the Tidal Flat Deposits may generate higher concentrations of ammoniacal nitrogen. However, these are naturally occurring deposits overlying strata classified as Secondary B Aquifer/ Unproductive Strata and groundwater vulnerability is limited. Given the natural origin of the soils and the proposed works are not anticipated to significantly disturb the underlying natural deposits, the potential for adverse effects is considered low. No significant pollutant linkage is considered likely under the proposed site use.
9	Potential sulphate generation from pyrites within the Mercia Mudstone.	Leaching of sulphate into groundwater and soils.	Buried concrete structures and services	Low likelihood to likely	Moderate	Low to Moderate	The Mercia Mudstone may contain pyrite which can result in the leaching of sulphates through oxidation. Sulphate laboratory testing should be undertaken and classification in accordance with BRE Special Digest 1 to determine the concrete class required for future structures.
10	Radioactive contamination from made ground	Direct contact with contaminated soils.	Site end users, construction/ maintenance workers.	Low to moderate (subject to verification through radiological survey)	Severe	Moderate	Given the Site's historical inclusion of a radioactive store, there is a low to moderate probability that radioactive contamination is present in the vicinity of the radioactive store. A radiological walkover survey should be conducted in the areas surrounding the historical radiation
11		Ingestion/inhalation of soil and dust, external radiation exposure.	Site end users, construction/ maintenance workers.				

Pollutant Linkage	Source	Pathway	Receptor	Probability	Consequence	Preliminary Risk	Comment
12		Migration via groundwater.	Secondary B Aquifer. Unproductive Strata.				store to determine whether background (baseline) levels of radiation are exceeded and to identify the appropriate mitigation measures.

6.0 Ground Investigations

6.1. Existing Reports

Three historical ground investigations have been undertaken at the Site, two by Atkins in 2014 and 2016 and one by RLE 2020-2021, all covering the wider Llanwern development. As part of this ground investigation, ten exploratory holes including boreholes and trial pits (MSY011, MSY012, MSY013, MSY014, MSY015, CWCP18, TP-AK32, TP-AL33, TP-AV28 and TP-AV29) were drilled/ excavated within the Site boundary. No other information aside from the borehole logs were provided from the Atkins 2014 and 2016 ground investigations.

The following table provides a summary of the exploratory holes that were located within the Site boundary.

Summary of Historical Exploratory Holes within the Site Boundary	
Report	**Exploratory Holes**
Atkins (2014)	Five Trial Pits.
Atkins (2016)	Two Cable Percussion Boreholes and two Window Sample Boreholes.
RLL (2020/21)	Eighty-five Trial Pits.

RLL Drawing 18669-RLL-23-XX-DR-O-0580-P02, presented in **Appendix A,** shows the location of the exploratory holes.

The historical logs within the Site boundary are presented in **Appendix F**; logs for locations CWCP17 (Atkins) and AU28 (RLL) could not be located.

6.2. Encountered Ground Conditions

The Site was generally found to be underlain by Made Ground overlying superficial deposits, reported as Tidal Flat Deposits. The solid geology consists of the Mercia Mudstone Group, and this was encountered in one location (CWCP18).

6.2.1. General Made Ground

Made Ground was encountered within all 92 exploratory holes from ground level, with a range in thickness between 0.20m to 3.00m, and is generally heterogeneous and comprises:

- Dark brown/ brown/ black occasionally silty sandy gravelly CLAY;
- Soft to firm dark brown gravelly CLAY;
- Dark brown/ brown/ black/ grey/ bluish grey occasionally clayey sandy GRAVEL;
- Black grey gravelly SAND;
- Orange brown/ black/ brown gravelly clayey SAND;

- Grey/ red occasionally sandy GRAVEL of slag;
- Loose red GRAVEL;
- White CLAY (Lime);
- Dark brown clayey GRAVEL;
- Grey/ black occasionally sandy cobbly GRAVEL;
- Brown silty GRAVEL;
- Light brown and white sandy very gravelly CLAY; and
- Brown and white very sandy clayey GRAVEL.

Gravel and cobble components comprised fine to coarse, angular to subrounded red brick, concrete, clinker, coal, limestone, slag, mudstone, quartz, shale, flint and ash; in addition to fragments of plastic, metal fragments, rebar, pig iron, wood and rootlets.

Seven locations (CWWS18, AL33, AM32, AM34, AN32, AN34 and AK33) refused at depths of 0.60mbgl and 1.50mbgl. Refusal occurred within fused slag layers or due to large cobbles/ boulders.

6.2.2. Superficial Deposits

Tidal Flat Deposits were encountered beneath the Made Ground in 27 locations. The top of the strata was encountered from depths of 1.10mbgl and 3.00mbgl. The base of the strata was encountered in one location (CWCP18) at a depth of 10.60mbgl.

The Tidal Flat Deposits are heterogeneous and generally comprise:

- Firm bluish grey silty CLAY;
- Soft brownish grey silty CLAY;
- Very soft dark grey fibrous PEAT;
- Very soft grey clayey SILT;
- Soft grey/ bluish grey CLAY; and
- Soft to firm bluish grey and black CLAY.

6.2.3. Solid Geology

The Mercia Mudstone Group was encountered at one location (CWCP18) at 10.60mbgl. The base of the stratum was not encountered but it was recorded to a maximum depth of 12.35mbgl. The Mercia Mudstone was described as very stiff reddish brown silty CLAY (Grade IVb).

6.2.4. Perched Water

Perched water was encountered in 14 locations, typically within the Made Ground or towards the base of the Made Ground perched on top of the Tidal Flat Deposits at depths between 0.50m to 1.50m bgl.

6.2.5. Groundwater

Groundwater was encountered twice within one location (CWCP18) within the very soft fibrous peat of the Tidal Flat Deposits at 6.00mbgl rising to 5.00mbgl, and again

within the very stiff silty clay of the Mercia Mudstone Group at 12.10mbgl rising to 11.00mbgl.

6.2.6. Encountered Buried Obstructions or Services

Buried obstructions or services were encountered in 3 exploratory locations as detailed in the following table.

Encountered Buried Obstructions			
Borehole	**Depth (m)**	**Strata***	**Remarks**
AV28	0.80 – 2.60**	MG	Concrete pile
AV29	0.70 – 2.20**	MG	Concrete pile
AK34	0.80 – 1.80**	MG	Concrete pile with rebar

Notes: *MG= Made Ground **base of obstruction not encountered.

6.2.7. Visual/ Olfactory Evidence of Contamination

During the intrusive investigations, visual or olfactory evidence of contamination was not encountered.

6.2.8. Instability

Stability was recorded within 81 of the 92 exploratory holes; 79 locations were recorded as being stable and 2 were recorded as unstable due to collapsing sides in both locations.

6.3. Gas Screening

No gas monitoring was undertaken during the previous ground investigations. A programme of shallow gas monitoring is required following turnover and earthworks reengineering.

A site-specific ground gas assessment is recommended following the completion of the earthworks.

7.0 Radiological Walkover Survey

A radiological walkover survey was undertaken by RLL in September 2022 to assess the presence of potential radioactive contamination associated with the historical radioactive store, highlighted during the Preliminary Risk Assessment.

The radiological survey was undertaken using a Series 900 Mini-Monitor with a 44B scintillation detector. The instrument measures ambient gamma radiation to record areas of elevated radioactivity relative to background conditions.

The radiological survey results are presented and discussed within the RLL Phase 5E2 Radiological Walkover Technical Note (ref. 18669-RLL-23-XX-RP-O-00400-P01), available in **Appendix I**. The note found that the area surrounding the historical radioactive store did not present elevated radiation above site specific background radiation levels and no further remedial requirements are considered necessary.

8.0 Chemical Testing

8.1. Risks to Human Health

8.1.1. Methodology

To assess the risk posed to the health of site end users, the concentrations of contaminants recorded in soils have been compared to appropriate Site Assessment Criteria (SAC). These have been derived using the Contaminated Land Exposure Assessment Model (CLEA). SACs used in this generic quantitative risk assessment, include:

- Defra Category 4 Screening Levels (C4SLs) (Defra, 2014); and
- Land Quality Management & Chartered Institute of Environmental Health (LQM & CIEH, 2015) Suitable for use levels (S4ULs).

Where C4SL or S4UL are not available for a contaminant or are not considered appropriate for the risk assessment reference has been made to the Environment Agency Soil Guideline Values (SGV), the LQM/CIEH Generic Assessment Criteria (GAC) and the Environmental Industries Commission GAC (EIC GAC).

The C4SL and EA SGV have been derived based on the CLEA default value for Soil Organic Matter (SOM) content of 6% and a sandy loam soil type. The LQM/CIEH S4UL and GAC and the EIC GAC are based on 1%, 2.5% and 6% SOM content and a sandy loam soil type.

The Site has been assessed based on a residential end use with plant uptake as defined in the Environment Agency (EA) CLEA model v1.071 'Updated technical background to the CLEA model Science Report – SC050021/SR3'.

8.1.2. Results

148 soil samples were collected during the RLL 2020/ 2021 ground investigation with contamination testing taken from the Made Ground. No samples were taken during the Atkins 2014 and Atkins 2016 ground investigations.

Samples were tested for heavy metals, polycyclic aromatic hydrocarbons (PAH), total petroleum hydrocarbon (TPH-CWG), gasoline range organics (GROs), BTEX, pH, soil organic matter (SOM), cyanide, phenols, ammoniacal nitrogen and select samples were also tested for asbestos.

The samples are conservatively assessed against LQM/ CIEH 2024 S4ULs (Suitable for Use Levels) for a residential end use with plant uptake (1% SOM). A summary of exceedances is presented in the following table, and the chemical analysis results are presented in full in **Appendix G**.

Summary of Exceedances of S4ULs Residential with Plant Uptake Criteria.			
Contaminant	**Screening Criteria Value (mg/kg)**	**No. of Exceedances**	**Exceedance Concentration Range (mg/kg)**
Arsenic	37	7	41 – 280
Nickel	130	1	270

Summary of Exceedances of S4ULs Residential with Plant Uptake Criteria.			
Contaminant	**Screening Criteria Value (mg/kg)**	**No. of Exceedances**	**Exceedance Concentration Range (mg/kg)**
Lead	200	5	242 – 1400
Vanadium	140	3	571 – 660
Zinc	3700	1	5700
Aliphatic TPH >C8-C10	27	2	84 – 330
Aliphatic TPH >C10-C12	130	2	400 – 1300
Aliphatic TPH >C12-C16	1100	2	1600 – 4900
Aromatic TPH >C8-C10	34	1	240
Aromatic TPH >C10-C12	74	2	150– 710
Aromatic TPH >C12-C16	140	2	840 – 3200
Aromatic TPH >C16-C21	260	2	780 – 3100
Aromatic TPH >C21-C35	1100	2	2600 – 4400
Aromatic TPH >C35-C44	1100	1	2000
Benzene	0.087	14	<0.18
Phenanthrene	95	1	110
Benzo[a]anthracene	7.2	7	7.30 – 20.00
Chrysene	15	2	18 – 21
Benzo[b]fluoranthene	2.6	27	3 – 33
Benzo[a]pyrene	2.2	26	2.30 – 26.00
Dibenz(a,h)Anthracene	0.24	27	0.258 – 3.900

The exceedance locations are shown on RLL Drawing 18669-RLL-26-XX-DR-O-0897-P01 (**Appendix A**).

14 of 148 samples were shown to exceed the screening criteria for benzene. It should be noted that no samples had concentrations above the limit of detection for benzene. The detection limit for benzene tested listed by the laboratory for 14 samples as 180µg/kg (0.18mg/kg) which is greater than the screening value of 87µg/kg (0.087mg/kg) and causes a significant skew in the results. Where samples are reported at the detection limit, for screening purposes, it has been conservatively assumed that the value is 180µg/kg. The true concentration is likely to be lower than this value.

No samples were collected from the natural ground (Tidal Flat Deposits) as part of the RLL 2020/ 2021 ground investigation.

8.1.3. Asbestos

Asbestos was identified in 4 samples from the 83 analysed; a summary of the asbestos identified is given in the below table.

Summary of Asbestos Identified within the Site		
Location (Depth in m bgl)	**Asbestos Type**	**Quantification (%)**
AT36-2 (1.80)	Chrysotile (Fibres/ Clumps)	0.005
AO36-2 (1.80)	Chrysotile (Bitumen)	0.063
AO32-1 (2.00)	Amosite (Fibres/ Clumps)	0.005
AW29-1 (0.60)	Chrysotile	<0.001

Asbestos was identified in four samples; all positive samples were quantified to ascertain the weight for weigh concentration of asbestos in soil and returned results ranging between <0.001% to 0.063%.

The Institute of Occupational Medicine (IOM) risk assessment report for the reuse of soils containing asbestos at Llanwern (Ref. 401134-IOM-14-XX-RP-Z-0001) and has been agreed with Natural Resources Wales, states the following:

- Within the clean cover system, a minimum of 0.6m of clean soil will be placed across the Llanwern site and an asbestos content of <0.001% is permitted within the subsoil component of the clean cover; topsoil will be imported to Site and contain no trace asbestos.
- Beneath the cover system, soil will be screened and, if asbestos contamination is less than 0.02% (200PPM) in the soil, that soil may be below the cover system of residential areas.

8.1.4. Groundwater

No samples of perched water were taken during the previous ground investigations.

Historical investigations undertaken by Atkins across the wider development have identified elevated concentrations of contaminants associated with the Site's former usage that may present a risk to Controlled Waters.

Further assessment of the risk posed by the Site as part of the wider development has been completed via preparation of a Controlled Waters Detailed Quantitative Risk Assessment (Ref. 18669-RLE-19-RP-O-0006) for the wider development and a phase specific addendum to this (Ref. 18669-RLL-24-XX-RP-O-0635-P01).

Due to the history of the Site, it is anticipated that further remedial works including turnover of the Made Ground will be undertaken with post remedial monitoring of water and gas following the completion of the earthworks.

9.0 Conceptual Site Model (CSM)

This section provides a qualitative assessment of the risk posed from potential on and off-site contamination sources identified from the information presented in the previous sections. The CSM considers the findings of all ground investigations that have been undertaken at the Site.

The assessment carried out assumes that the Site will be redeveloped for a residential with plant uptake end-use, as the most sensitive of the proposed uses. Should the end use be altered, potential pathways and receptors should be re-assessed.

The conceptual site model below has been developed based on the commonly adopted source-pathway-receptor model as recommended within the Environment Agency Land Contamination Risk Management guidance and the Welsh Government's Contaminated Land Statutory Guidance for Wales 2012, and the Welsh Government, Natural Resources Wales & Welsh Government's Development of Land Affected by Contamination: A Guide for Developers (2017).

9.1. Potential Pollutant Linkages

9.1.1. Sources

The Site makes up part of the former Llanwern Steelworks; the Site historically comprised a travelling boom in the north; a drive house, numerous pipelines and a water tower on the eastern side; lime kilns, a screen house, several hoppers, conveyors and lime bunkers in the central part of the site; and a radioactive store and an air products hydrogen plant in the south.

Chemical analysis has identified concentrations higher than the human health screening criteria for arsenic, nickel, lead, vanadium, zinc, aliphatic TPH >C8-C10, aliphatic TPH >C10-C12, aliphatic TPH >C12-C16, aromatic TPH >C8-C10, aromatic TPH >C10-C12, aromatic TPH >C12-C16, aromatic TPH >C16-C21, aromatic TPH >C21-C35, aromatic TPH >C35-C44, benzene, phenanthrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[a]pyrene and dibenz(a,h)anthracene. Asbestos was identified within 4 of the 83 soil samples tested in the form of loose fibres or bitumen at concentrations of <0.001% - 0.063% w/w.

9.2. Potential Receptors

The following receptors (current and proposed) have been identified at the Site. Given the absence of significant ecological designations in the vicinity of the Site, ecological receptors are not considered below.

Humans:

- Construction workers and maintenance workers; and
- Residents on and off-site (current and future).

Controlled Waters:

- Mercia Mudstone Group (Secondary B Aquifer) and Tidal Flat Deposits (Secondary [Undifferentiated] Aquifer); and
- Kings Wall Reen, East Lake and associated development drainage network within 500m.

Property:

- Existing and proposed buildings and services on and immediately surrounding the Site; and
- Proposed infrastructure on the Site.

9.2.1. Potential Pathways

Human Health

There is the potential for exposure of site end users to contaminants in soils via the following pathways, based on a residential with plant uptake end use (Environment Agency CLEA land use scenario):

- Direct soil and dust ingestion;
- Dermal contact with soil directly and indoor dust;
- Plant uptake followed by consumption of homegrown produce;
- Inhalation of vapours;
- Inhalation of dust; and
- Inhalation of gases.

Due to the levels of contamination encountered it is recommended that appropriate risk assessments and method statements are prepared and safety measures (use of PPE/ hygiene rules) implemented in order to provide adequate protection for construction workers.

Imported subsoil and/ or topsoil will be required to form part of the cover system. Materials that are required to be imported to Site, will have to be assessed and validated in line with the agreed import criteria detailed in the remediation strategy and site-specific Materials Management Plan (MMP).

Investigation and assessment of gases and vapours have been excluded in this Desk Study and Phase 2 report and will be addressed post-remediation.

Radon protection measures are not required.

Controlled Waters

It is considered that due to the low permeability nature of the underlying Tidal Flat Deposits, there is no feasible pathway for vertical migration of contaminants into the underlying Mercia Mudstone Aquifer.

Currently Monks Ditch crosses the wider development within a concrete channel and no connection with the private drainage system currently exists. It is proposed that the future surface water network of reens and lakes will discharge via a pumping

system into Monk's Ditch. This on-site surface water system will discharge, via a permit, into Monks Ditch once the specified quality criteria are met and the application to connect the system is approved.

Monks Ditch is not currently a receptor (it is understood to be hydraulically isolated as it flows between the Glan Llyn development and the business park the east, within a concrete channel), although it could potentially be a future receptor if surface water discharge is permitted into the Monks Ditch.

With regard to Controlled Waters, the following pathways are considered applicable to the Site, following completion of the development and once relevant approvals have been granted to allow discharge into Monks Ditch:

- Leaching of soil-borne contamination in Made Ground and subsequent lateral migration through permeable pathways in Made Ground to Monks' Ditch via onsite reens.

As such, a Site Specific Detailed Controlled Waters Risk Assessment (Ref. 18669-RLL-26-XX-RP-O-0865) has been undertaken for the Site and should be read in conjunction with this report.

Structures

Concrete classification testing has not been undertaken. A Design Sulphate (DS) class and Aggressive Chemical Environment for Concrete (ACEC) class should be derived for the Site in accordance with the recommendations given within BRE SD1 and based on pH and sulphate testing.

A site-specific ground gas assessment is recommended following the earthworks.

9.2.2. Preliminary Remediation Assessment

The Site has previously undergone various phases of ground investigation.

Based on the ground investigations to date, it is recommended that the provision of clean cover is likely to make the Site suitable for human health.

In terms of the risk to controlled waters some material is anticipated to be removed to break the linkage to the identified receptor (private reen network). To do this the Made Ground will be tested, re-assessed and where the soil does not meet the reuse criteria it will be excavated, removed, and replaced with suitable fill that meets the criteria. Prior to filling, excavations of unsuitable material shall be validated to demonstrate compliance with the Remediation Strategy.

The installation and validation of gas and vapour mitigation measures may be required following completion of the post-earthworks ground gas risk assessment.

9.2.3. Proposed Sequence of Mitigation

The proposed remedial approach is to remove unsuitable material based on the grid of chemical testing and turnover the Made Ground to the Tidal Flat Deposits, to

depths between 0.60m to 3.60mdgl (approximately). The Made Ground turnover and re-engineering (including compaction) will remove obstructions and reduce the hydrological conductivity of this material. Based on the results of chemical testing, the Made Ground is not suitable for reuse at shallow depths within residential plots but is likely to be suitable for use as part of the reengineered formation beneath 600mm of clean cover.

The introduction of buildings and hardstanding with suitable construction materials to break the pathway with underlying Made Ground shall intercept rainwater and subsequently reducing infiltration to Controlled Waters (private reen network).

To break the identified contamination linkages, the following sequence of mitigation measures are required:

- Identify, remove and validate the removal of gross contamination and potential obstructions on a grid square basis, and subsequent validation testing and reporting;
- Excavation of Made Ground to the Tidal Flat Deposits and removal of unsuitable material and buried obstructions to facilitate reengineering and reuse of the Made Ground;
- Off-site disposal of impacted soils that do not meet the reuse criteria (where required);
- Reengineering of the Made Ground in accordance with the approved Remediation Strategy and Earthworks Specification to an appropriate specification to achieve the required formation level;
- Chemical and geotechnical validation of the placement of material following turnover;
- Site-specific geotechnical assessment and validation relating to the proposed development;
- Installation of a 600mm clean cover system, suitable for a residential with plant uptake end use, will be required in areas of residential gardens and landscaping;
- Consultation with the water supply company in relation to the potential use of barrier pipe;
- Preparation of a Piling Risk Assessment;
- With respect to asbestos, a minimum of 600mm of clean soil (in accordance with Llanwern Asbestos Risk Assessment prepared by IOM) will be placed across the Llanwern site. Made Ground material will be screened and, if asbestos contamination is less than 0.02% (200PPM) then it may be used in residential areas below the clean cover. The materials used in the preparation of the site will be recorded in a validation report assessing compliance with the approved criteria;
- A Design Sulphate (DS) class and Aggressive Chemical Environment for Concrete (ACEC) class should be derived for the Site in accordance with the recommendations given within BRE SD1 and based on pH and sulphate testing; and

- A programme of shallow gas monitoring and vapour assessment is recommended following the turnover and reengineering of the Made Ground to determine whether protective measures are needed with proposed buildings.

The risk to Controlled Waters has been assessed in both the sitewide CWRA (ref. 18669-RLE-19-RP-O-0006) and phase specific CWRA (ref. 18669-RLL-24-XX-RP-O-0635-P01) to further determine whether additional works are required to protect Controlled Waters receptors post-development. This, along with a formal Remediation Strategy should be agreed with Natural Resources Wales (NRW) and Local Authority (LA).

10.0 Geotechnical Testing

10.1. Sampling and Testing

Geotechnical sampling was undertaken by an RLL Engineer during the ground investigation.

Samples collected on Site were sent for geotechnical laboratory testing, which were undertaken in accordance with BS1377:1990. Laboratory testing was undertaken by Celtest and included the following:

Summary of Geotechnical Testing Undertaken on Samples	
Test	**Number of Samples Tested**
Water Content	90
Particle Size Distribution by Wet Sieve	90
Compaction Using 4.5kg rammer	83
Total Expansion BRE Tests	45

The above testing provided results to show the principal geotechnical properties of the major geological units identified during the ground investigation. A summary of the geotechnical laboratory results is presented in the following sections, and the laboratory data is included within **Appendix H**.

10.2. Classification Testing

10.2.1. Natural Moisture Content

83 compaction tests (4.5kg rammer) were undertaken on samples of Made Ground between 0.20m and 2.20m and recorded an optimum moisture content for the Made Ground of 7.7% to 36%.

Water content tests were undertaken on 90 samples and recorded water content between 1.5% and 40.9%.

10.2.2. Material Grading and Classification

Particle size distribution tests were undertaken on 90 samples of the Made Ground on Site. The results of the particle size distribution tests on the Made Ground indicate the material can be generally described as a silty sandy GRAVEL with occasional cobbles, falling into Class 1A & 1B – General Granular Fill. This grading of material, when compacted/ reengineered, is likely to have limited permeability (approximately 10-6 or 10-7), classed as poor draining soils and therefore inhibiting the downward migration of infiltrated rainwater into the Made Ground.

10.3. BRE Total Expansion Tests

45 samples were scheduled for testing in accordance with BRE 481 Part B - Appendix B to determine the expansion of steel slag (over 28 days at 80°C), between 0.20m and 2.20m, and recorded a total expansion of -2.43% to 4.7%. It is worth

noting that the BRE test is a conservative test crushing material >20mm and placing it in a bath of water at 80°C for 28 days.

According to the RLL Technical Note (ref. 17480-RLE-18-XX-RP-O-001, dated March 2018) Geotechnical Guidance for Reuse of Made Ground Containing Slag, the guideline average expansion value considered to be acceptable is 2.5%.

Of the 45 samples tested, the mean value recorded was 0.4%; and three samples (AL32-1 (0.5m), AS36-1 (1.0m) and AV34-2 (1.8m)) produced results over 2.5%, with expansion values of 3.8% to 4.7%.

A full copy of the results are included in **Appendix H**.

11.0 Conclusions and Recommendations

11.1. Conclusion

The Site is located within the Glan Llyn development at the former Llanwern Steelworks, approximately 5.8km to the west of Newport City Centre at approximate National Grid Reference 336520E, 186397N. The Site covers an area of approximately 7.0ha and is located on the southern boundary on the southeast corner of the wider Glan Llyn development. It is understood that the Site is proposed to be redeveloped for a residential end use.

Historically, the Site exclusively comprised agricultural land segregated into part five fields by hedgerows and drains, until 1967 when the Site formed part of the Llanwern Steelworks. The Site housed various infrastructure associated with the former steelworks including a travelling boom which ran along the northern side of the Site, as well as a drive house, numerous pipelines and a water tower on the eastern side of the Site. The centre of the Site comprised lime kilns, screen house, hoppers, conveyors, and lime bunkers; while a radioactive store and air products hydrogen plant occupied the southern side of the Site. The Site was partially demolished by 2006 with the demolition completed to slab level by 2016.

Three previous ground investigations were undertaken by Atkins in 2014 and 2016, and RLL in 2020/2021, as part of ground investigations on the wider Llanwern site. The Site was generally found to be underlain by Made Ground overlying Tidal Flat Deposits, underlain by bedrock of the Mercia Mudstone Group. Tidal Flat Deposits were encountered in seven boreholes underlying the Made Ground from 1.10m to 10.60m. The bedrock of the Mercia Mudstone Group was encountered in one location (CWCP18) underlying the Tidal Flat Deposits from 10.60m; it was described as being very stiff reddish brown silty CLAY.

The 2021 RLL ground investigation comprised 85 trial pits within Phase 5E2. General Made Ground was encountered within all exploratory holes from ground level to depths of between 0.30m to 3.00m. Superficial deposits of Tidal Flat Deposits were encountered underlying the Made Ground in 17 locations from depths of 1.70m to 3.10m. Regional groundwater and perched water were not encountered in any of the 85 locations.

Oily sheens or hydrocarbon odours were not encountered during the previous ground investigations. Buried obstructions concrete, rebar or asphalt were not encountered in any of the locations; however historical piles were encountered on three occasions and seven refusals occurred within fused slag layers or due to large cobbles/ boulders. Fragments of concrete, rebar, metal, brick, timber, pig iron and fused slag was recovered as gravel within the Made Ground.

148 soil samples were collected and scheduled for analysis within the Made Ground. Chemical analysis has identified concentrations higher than the S4ULs for a residential end use with plant uptake (1% SOM) for arsenic, nickel, lead, vanadium, zinc, aliphatic TPH >C8-C10, aliphatic TPH >C10-C12, aliphatic TPH >C12-C16, aromatic TPH >C8-C10, aromatic TPH >C10-C12, aromatic TPH >C12-C16, aromatic TPH >C16-C21, aromatic TPH >C21-C35, aromatic TPH >C35-C44,

benzene, phenanthrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[a]pyrene and dibenz(a,h)anthracene.

Soils containing asbestos were recorded in four locations with concentrations of between <0.001% and 0.063% w/w. In accordance with the IOM report, soils with concentrations below 0.02% (200PPM) are considered suitable for reuse in residential areas.

No water sampling has been undertaken within the Site during the previous ground investigations. Ground investigations undertaken across the wider development have identified elevated concentrations of contaminants that may potentially present a risk to Controlled Waters, this has been assessed in the DQRA.

A Site-specific ground gas and vapour assessment is recommended following the earthworks, comprising a programme of shallow ground gas monitoring and vapour assessment following the turnover of the Made Ground to natural geology and reengineering of the site won Made Ground to formation levels. Radon protection measures are not required.

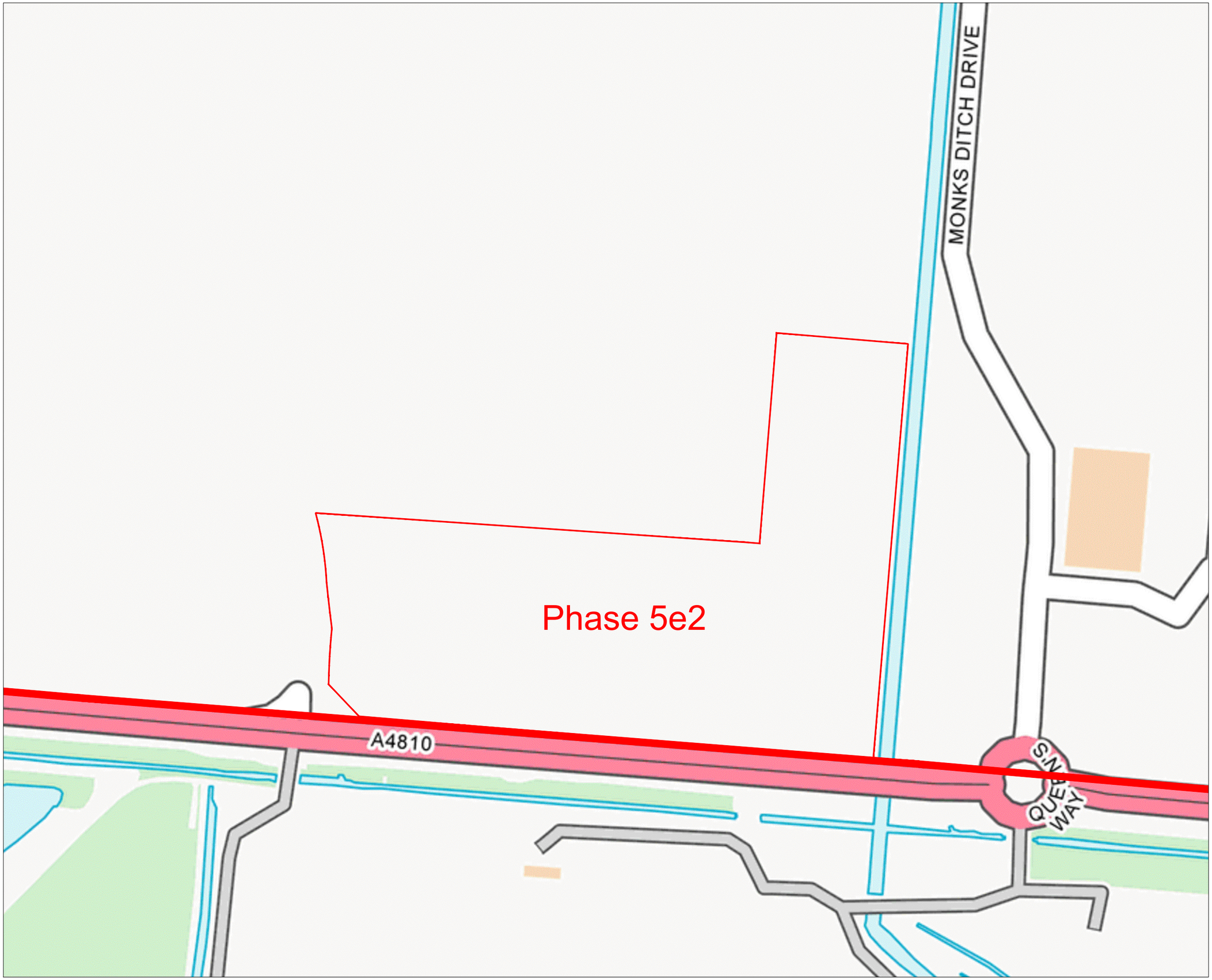
11.2. Recommendations

Following completion of the ground investigation the RLL recommends the following is completed:

- Removal of identified hotspot contamination on a grid square basis, and subsequent validation testing and reporting.
- Turnover of the Made Ground to natural geology with removal of obstructions.
- Reengineering of materials in accordance with the approved Remediation Strategy and Earthworks Specification to an appropriate specification to achieve the required formation level.
- Chemical and geotechnical validation of the placement of material following turnover.
- A programme of shallow gas monitoring and vapour assessment is recommended following the earthworks to turnover and reengineer the Site.
- Concrete classification testing should be undertaken in accordance with BRE Special Digest 1.
- Phase-specific geotechnical assessments and validation relating to the proposed development.
- Construction of buildings and hardstanding with suitable construction materials to break the pathway with underlying Made Ground, to intercept rainwater and to reduce infiltration.
- A 600mm clean cover system, suitable for a residential with plant uptake end use, will be required in areas of residential gardens and landscaping.
- Consultation with the water supply company in relation to the potential use of barrier pipe.
- Preparation of a Piling Risk Assessment;
- Preparation of an MMP to facilitate the reuse of excavated materials and import of soil for use in the cover system.

Appendices

Appendix A
Drawings and Plans



GENERAL NOTES

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KEY:

Approximate Site Boundary

Rev	Date	Amendments	By	Chk

Client

St Modwen Developments

Project

P18-669 Llanwern Reclamation

Drawing Title

Phase 5e2

Site Location Plan

INFORMATION

	Drawn	Checked	Date
1:1250 @ A1	SR	CW	10.08.22

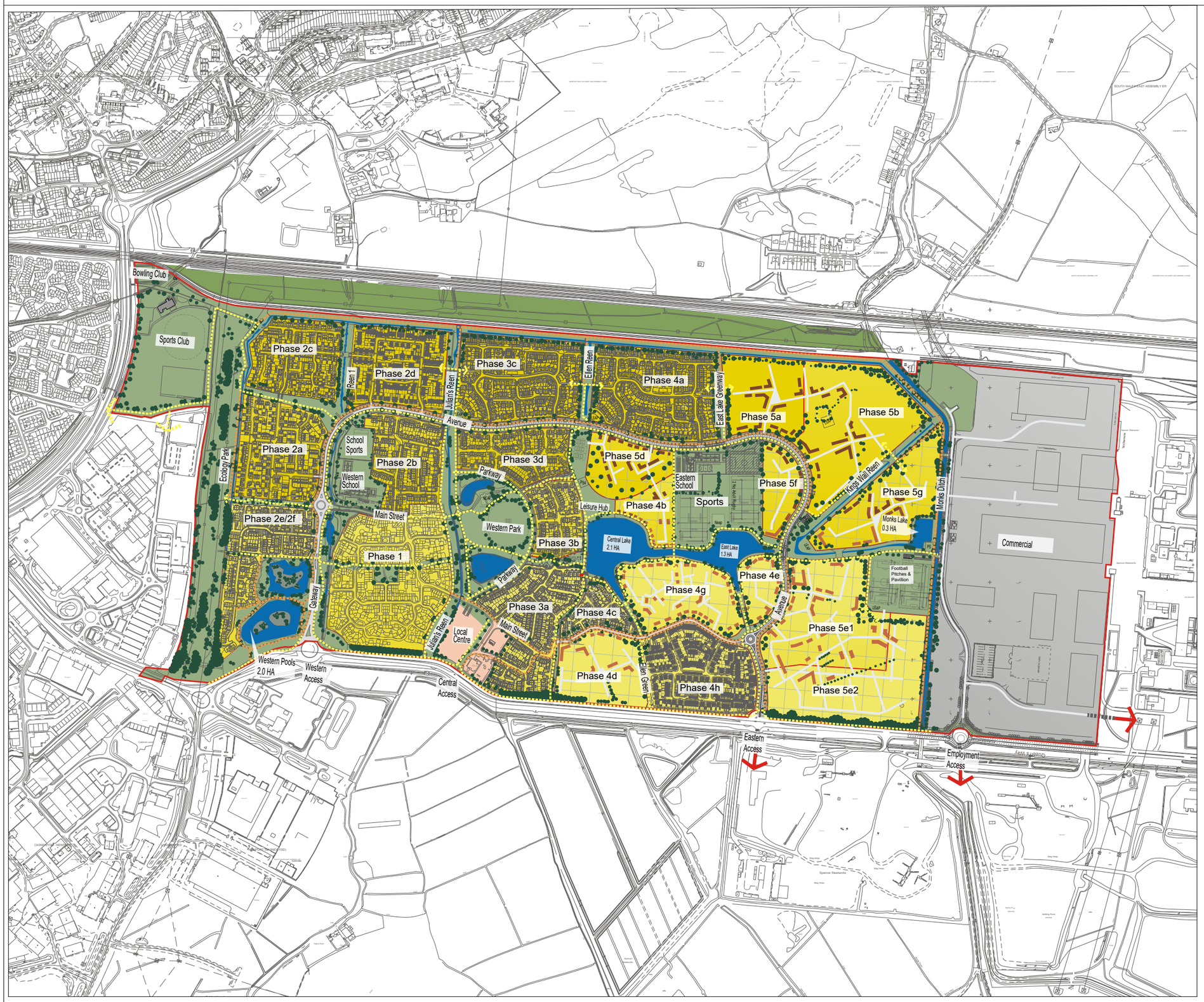
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Glan Llyn -ESAMP Indicative Masterplan



SGP
Architects + Masterplanners

Waterfront House,
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LE19 1SX
t: +44 (0)116 247 0557
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SGP File Ref:	8111-08-A011	**Drawing No:**	8111-08-A012
Project No:	8111-08	**Rev:**	**Rev P19**
Drawn By:	NV	**Scale:**	1:5000 @A1
Date:	10/04/2019		

Notes:
Residential areas quoted are approximate gross site areas and include Leaps, Laps and on plot road infrastructure

Notes:
Residential areas quoted are approximate gross site areas and include Leaps, Laps and on plot road infrastructlayture

0 50 100 200 250 300 400 500
Metres at scale 1:5000

ST.MODWEN

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A3 1:2000 40 60 80 100 120 140

N W E S

Phase 4e

Phase 5e1

Phase 5e2

Outfall to be no closer than 100m

Changing

SW Outfall

SW Outfall

Newport & District

Gwent County

LAP

FW POC
Suitable for
120 Plots

5.5m access
road location to
be agreed

FW POC
Suitable for
150 Plots

5.5m access road location to
be agreed

Ø1200 Culvert

FW POC
SW POC
Utilities POC

8m Easement to Monks Ditch

The Avenue

QUEEN'S WAY

QUEEN'S WAY

Pipeline

Pipe Lines

El Sub Sto

FB

CR

Spencer Steelworks

KEY

- Infrastructure drainage provided by Seller
- Infrastructure design and construction to be undertaken by purchaser under licence.
- Hard and Soft Landscaping by purchaser
- Infrastructure provided by Seller
- 3m wide combined cycle / footpath. Design may be incorporated into site layout. To be approved by seller

Provision of 4No. LAP by purchaser
Locations shown as indicative only.

NOTES

These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre-construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9

- Foul Drainage
  Seller to provide infrastructure drainage up to Foul POC

Surface Water Drainage
Seller to provide infrastructure drainage as shown
Purchasers' SW to design with consideration for submerged outfall up to 4.65m AOD water level.

- Utilities
  Utility point of connection to be agreed with Purchaser.

- Levels
  Minimum Finished Development level 6.50m AOD. Contour levels indicated are finished ground levels, the site will prepared to formation levels, approx. 750mm below FGL.
  Refer to As-Built survey for level info.
  Tolerance on levels + - 50mm.
  Refer to Atkins specification regarding maximum development levels

- Entrances / Pedestrian links
  Location to suit Purchasers site layout, to be in accordance with Glan Llyn Western Sub-Area masterplan.

- Site Infrastructure
  The design and construction of all infrastructure outside of phase boundary is to be approved by the seller and relevant adopting authorities. The seller will assume maintenance responsibility for all culverts and headwalls.

REV	DATE	REVISION NOTE	BY

PJA
Seven House - High Street
Longbridge - Birmingham
B31 2UQ - Tel: 0121 475 0234
Birmingham - Bristol
Exeter - London - Reading
pja.co.uk

CLIENT
St. Modwen Developments

PROJECT
Llanwern
Newport

DRAWING TITLE
Phase 5e2
Engineering Constraints

DRAWING ISSUE STATUS
INFORMATION

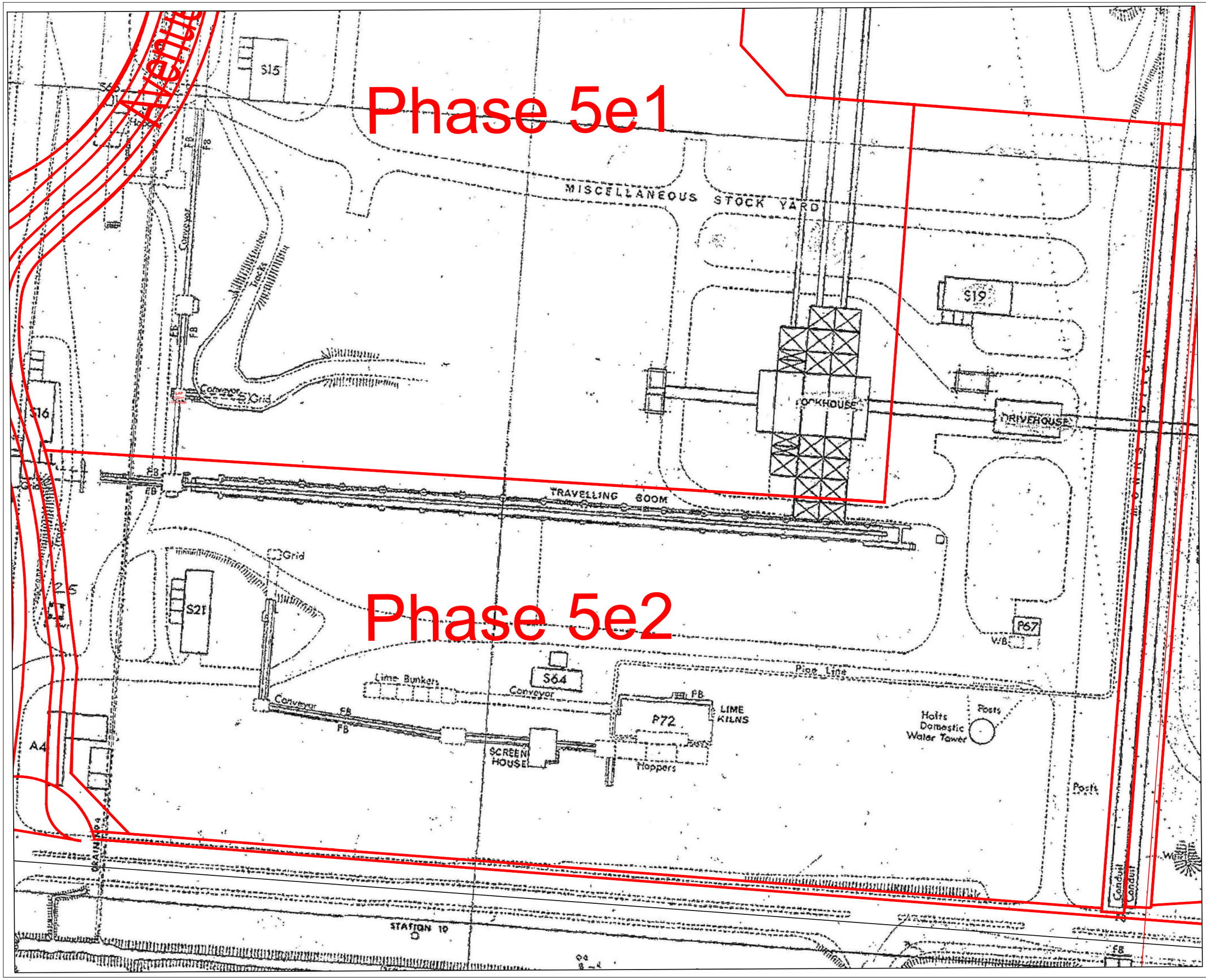
PJA JOB No.	SUB-CODE	DRAWING NO.	REVISION
02554	F	5e210	P0

Revision Letter : P - Prelim / A - Approval / T - Tender / C - Construction

BIM DRAWING REFERENCE

SCALE	DRAWN	REVIEWED	DATE
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Rev	Date	Amendments	By	Chk

Client

St Modwen Developments

Project

P18-669 Llanwern Reclamation

Drawing Title

Phase 5E2

Historical Obstructions Plan

INFORMATION

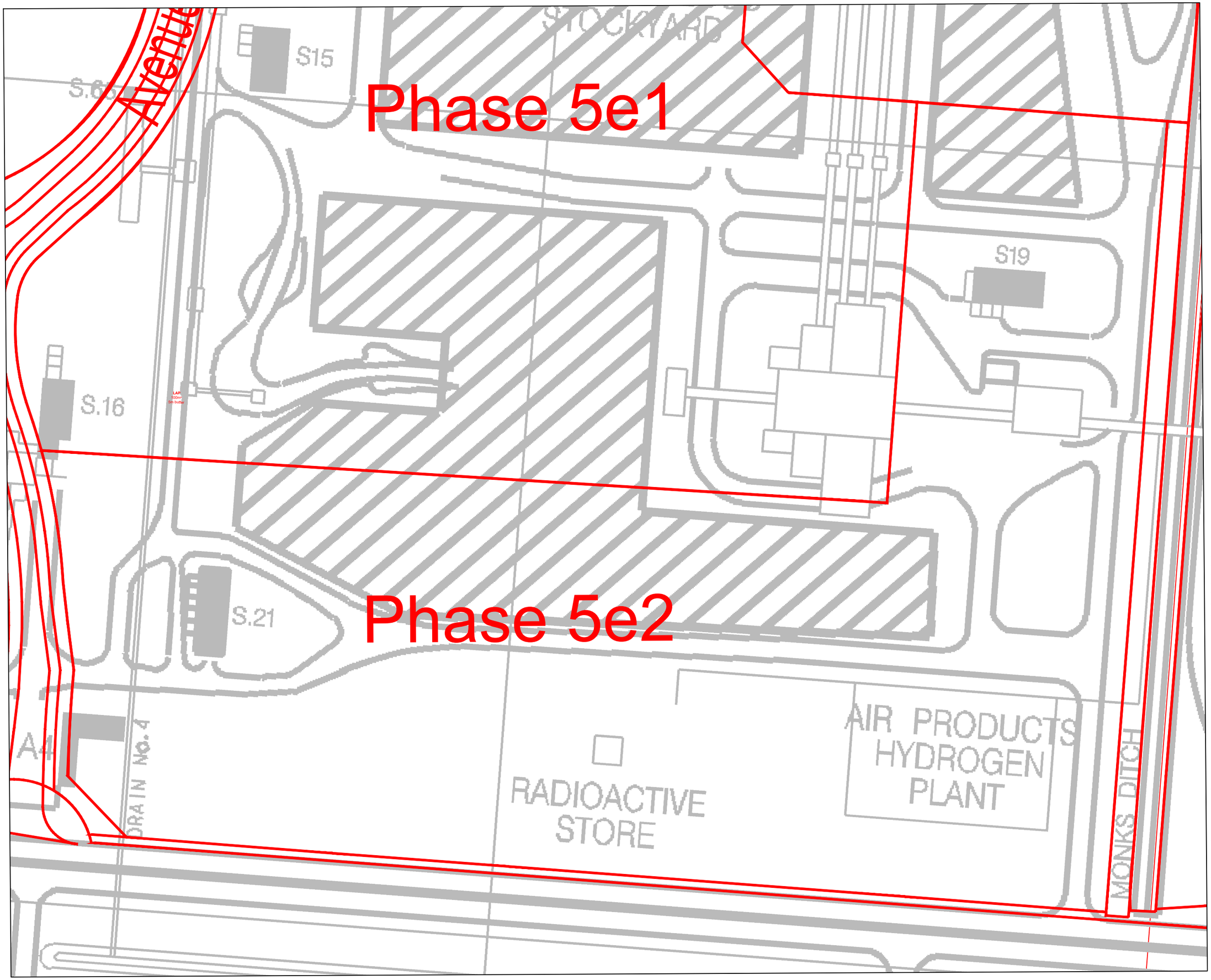
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Rev	Date	Amendments	By	Chk

Client

St Modwen Developments

Project

P18-669 Llanwern Reclamation

Drawing Title

Phase 5E2

Historical Working Plan Overlay

INFORMATION

	Drawn	Checked	Date
NTS	SR	CW	10.08.22

Drawing No. Rev.

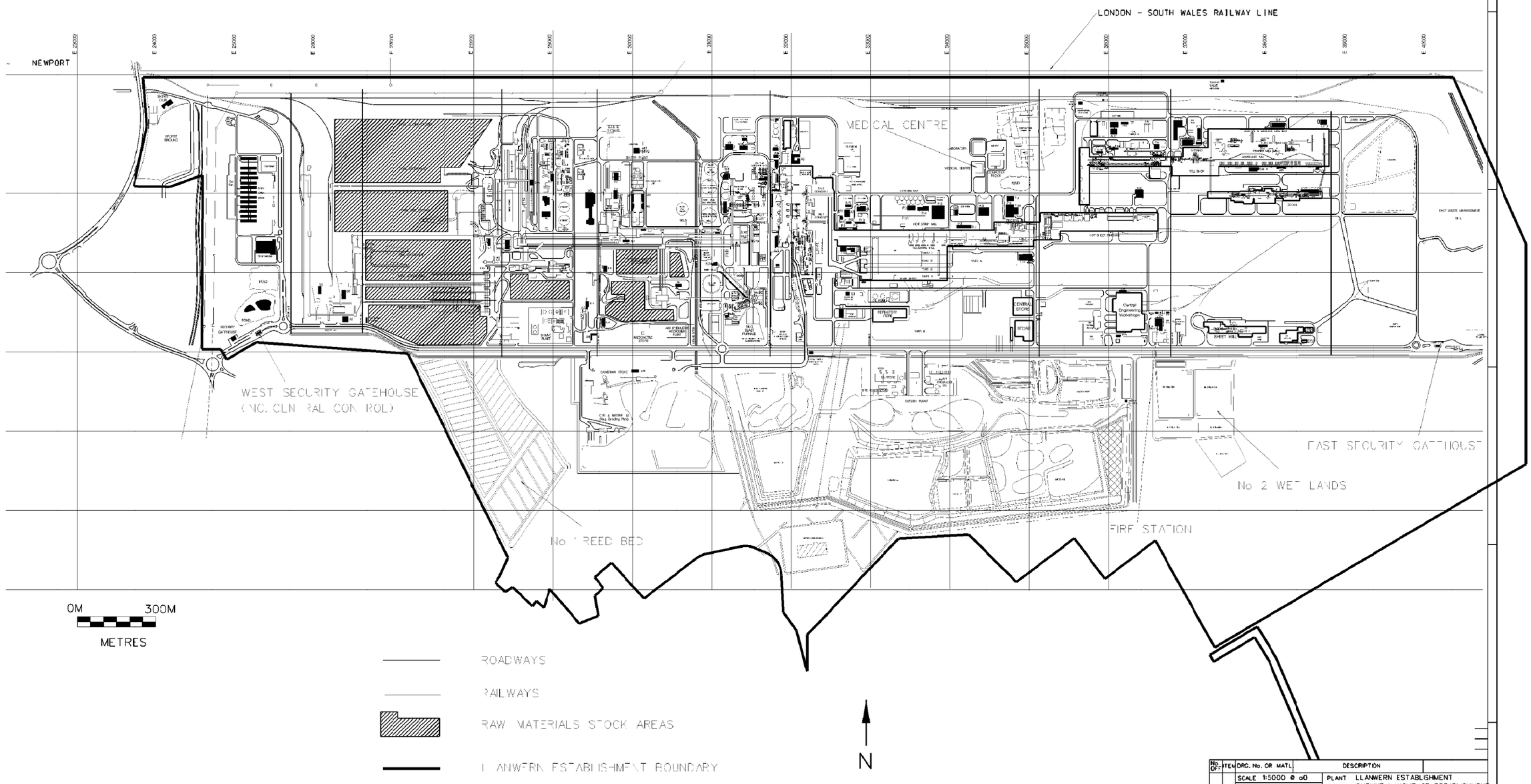
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ORIGINATING OFFICE DRG.No. 839181	RECEIVING OFFICE DRG.No.	FIRST ANGLE PROJECTION	CONFIDENTIAL - BRITISH STEEL LIMITED	DO NOT SCALE

MAP 1
APPENDIX 15.1



No. OFF	ITEM	DRG. No. OR MATL	DESCRIPTION
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		UNIT OF MEASUREMENT	SECTION OUTLINE LAYOUT OF ESTABLISHMENT
		DRAWN N.W.C. 09.12.99	DESCRIPTION
		CHECKED	ROADS, RAILS AND STOCKING AREAS FOR COMAH REPORT
		TRACED	
		PASSED	COPYRIGHT-BRITISH STEEL LIMITED© 19

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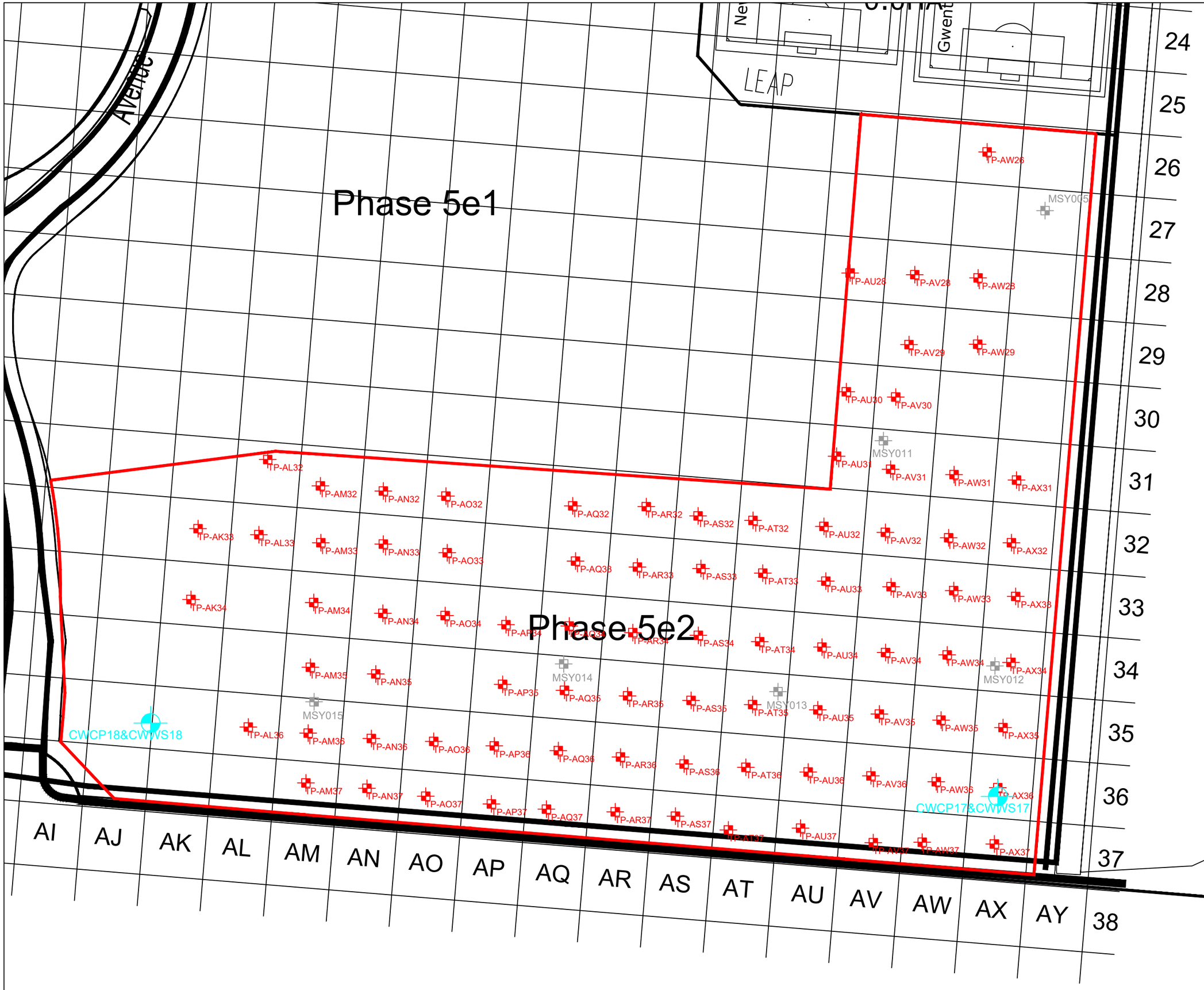
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DRG.No. 839181
RECEIVING OFFICE
DRG.No.

DIVISION STRIP PRODUCTS
WORKS LLANWERN

British Steel Limited

C.A.D.

PRELIMINARY No 5 7/2/01



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KEY:

- ATKINS (2014) TRIAL PIT LOCATIONS
- ATKINS (2016) EXPLORATORY HOLE LOCATIONS
- RLE (2020/21) TRIAL PIT LOCATIONS

Rev	Date	Amendments	By	Chk
P02	26/05/2026	Added Trial Pit Locations	AMS	CW
P01	13/03/2024	First Issue	ET	FT

Client

Brighton STM Developments Limited (BSTMDL)

Project

P18-669 Llanwern Reclamation

Drawing Title

Phase 5E2 Exploratory Hole Location Plan

INFORMATION

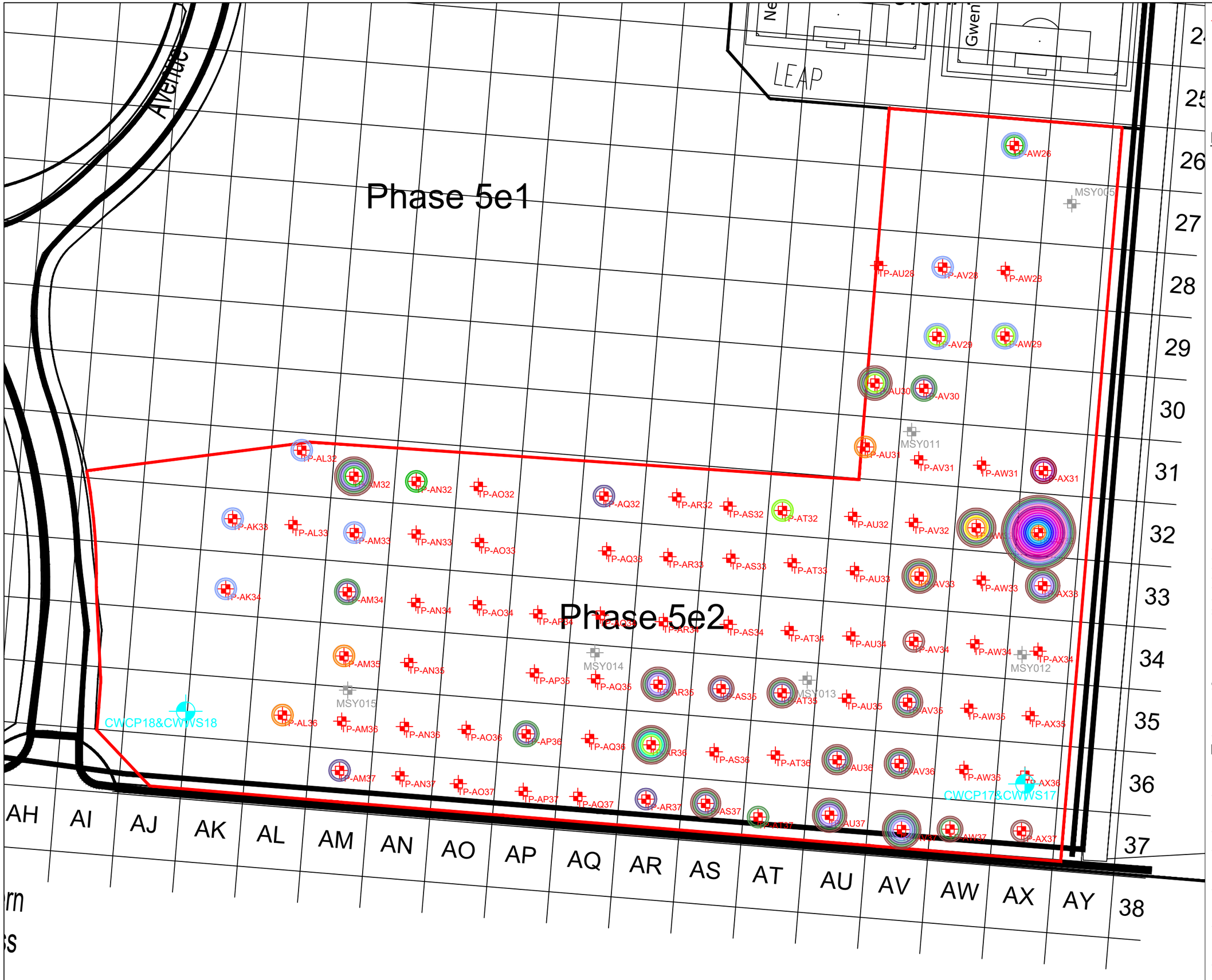
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KEY:

- ATKINS (2014) TRIAL PIT LOCATIONS
- ATKINS (2016) EXPLORATORY HOLE LOCATIONS
- RLE (2020/21) TRIAL PIT LOCATIONS
- ARSENIC EXCEEDANCE
- NICKEL EXCEEDANCE
- LEAD EXCEEDANCE
- VANADIUM EXCEEDANCE
- ZINC EXCEEDANCE
- ALIPHATIC TPH >C8-C10 EXCEEDANCE
- ALIPHATIC TPH >C10-C12 EXCEEDANCE
- ALIPHATIC TPH >C12-C16 EXCEEDANCE
- AROMATIC TPH >C8-C10 EXCEEDANCE
- AROMATIC TPH >C10-C12 EXCEEDANCE
- AROMATIC TPH >C12-C16 EXCEEDANCE
- AROMATIC TPH >C16-C21 EXCEEDANCE
- AROMATIC TPH >C21-C35 EXCEEDANCE
- AROMATIC TPH >C35-C44 EXCEEDANCE
- BENZENE EXCEEDANCE
- PHENANTHRENE EXCEEDANCE
- BENZO[A]ANTHRACENE EXCEEDANCE
- CHRYSENE EXCEEDANCE
- BENZO[B]FLUORANTHENE EXCEEDANCE
- BENZO[A]PYRENE EXCEEDANCE
- DIBENZ[G,H,I]PERYLENE EXCEEDANCE

Rev	Date	Amendments	By	Chk
P01	29/05/2026	First Issue	AMS	CW

Client

Brighton STM Developments Limited

Project

P18-669 Llanwern Reclamation

Drawing Title

Phase 5E2 Chemical Soil Results

S4UL Exceedance Location Plan

INFORMATION

	Drawn	Checked	Date
NTS	AMS	CW	29/05/26

Drawing No. 18669-RLL-26-XX-DR-O-0897

Rev. P01

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Appendix B
Site Walkover Photographs



Southern boundary of 5e2, occupied by several stockpiles of subsoil.



South West corner of 5e2 bounded by the Queens Way and Celtest water treatment works.



Eastern part of 5e2, comprising of smaller stockpiles including construction waste.



Central and Eastern part of 5e2 comprises of stockpiles and an open area containing construction waste.

Appendix C
Historical Maps

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Sloping Masonry
Pylon
Pole
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

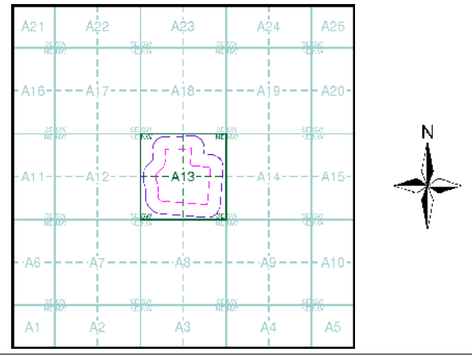
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Monmouthshire	1:10,560	1886 - 1887	3
Monmouthshire	1:10,560	1902	4
Monmouthshire	1:10,560	1922	5
Monmouthshire	1:10,560	1938 - 1954	6
Historical Aerial Photography	1:10,560	1947	7
Historical Aerial Photography	1:10,560	1947	8
Monmouthshire	1:10,560	1954	9
Ordnance Survey Plan	1:10,000	1965	10
Ordnance Survey Plan	1:10,000	1973	11
Newport	1:10,000	1983	12
Ordnance Survey Plan	1:10,000	1989	13
10K Raster Mapping	1:10,000	1999	14
10K Raster Mapping	1:10,000	2006	15
VectorMap Local	1:10,000	2021	16

Historical Map - Slice A



Order Details

Order Number: 287158115_1_1
Customer Ref: P18-669 5e1/5e2
National Grid Reference: 336530, 186530
Slice: A
Site Area (Ha): 14.1
Search Buffer (m): 1000

Site Details

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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Fireproof Building
- Prominent Fireproof Building
- Non-fireproof Building
- Non-fireproof Building (non-dwelling)
- Factory, mill, and flour mill, with chimneys
- Factory, mill, and flour mill, without chimneys
- Power Station, drawn to scale
- Hydroelectric Power Station
- Radio Station, drawn to scale
- Telephone Station, drawn to scale
- Abandoned Open-pit Mine or Quarry
- Open-pit Salt Mine
- Pit
- Oil Deposit or Well
- Oil Seepage
- Tailings Pile
- Fuel Storage Tanks
- Natural Gas Tank
- Bench Mark
- Drill Hole
- Burial Mound
- Triangulation Point on Burial Mound
- Single-track Railroad
- Double-track Railroad and Station Building
- Coniferous Forest
- Deciduous Forest
- Mixed Forest
- Lawns
- Citrus Orchard
- Wet Ground
- Scattered Vegetation

243,8 — Values for prominent elevations

186.0 — Numbers for spot elevations, depth soundings, contour lines, etc.

0,2 — Velocity of the current, width of river bed, depth of river

Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	ъ (–)
Д д (D)	Л л (L)	У у (U)	ы (Y)
Е е (E)	М м (M)	Ф ф (F)	ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Partly Demolished Buildings
- Demolished Buildings
- Built-Up Area with Fireproof Buildings Predominant
- Built-Up Area with Non-Fireproof Buildings Predominant
- Individual Fireproof Building
- Prominent Industrial Building
- Individual Dwelling, Fireproof
- Ruins of an Individual Dwelling
- Factory or Mill Chimney
- Factory or Mill with Chimney
- Factory or Mill without Chimney
- Mine or Open Pit Mine
- Operating Shaft or Mine
- Non-Operating Shaft or Mine
- Salt Mine
- Tailings Pile
- Pit
- Stone Quarry
- Gas Pump or Service Station
- Fuel Storage or Natural Gas Tank
- Oil or Natural Gas Derrick
- Small Hydroelectric Power Station
- Power Station
- Transformer Station
- Cemetery
- Burial Mound (height in metres)
- Triangulation Point on Burial Mound
- Triangulation Point
- Bench Mark
- Bench Mark (monumented)
- Telegraph Office
- Telephone Station
- Radio Station
- Radio Tower
- Airfield or Seaplane Base
- Landing Strip
- Main Highway
- Highway under Construction
- Improved Dirt Road (former truck road)
- Double-track Railroad with First Class Station
- Dismantled Railroad
- Railroad Under Construction
- Shore Embankment
- River or Ditch with Embankment
- Well
- Water Reservoir or Rain Water Pit
- Spring
- Isobath with value
- Heavy (Index) Contour Line
- Contour Line and Value
- Half Contour Line
- Spot Elevation Value
- Coniferous
- Deciduous
- Mixed
- Scrub

Key to Numbers on Mapping

ST38NE_Newport

No.	Description
29	Mill (Steel)
71	Railway Station

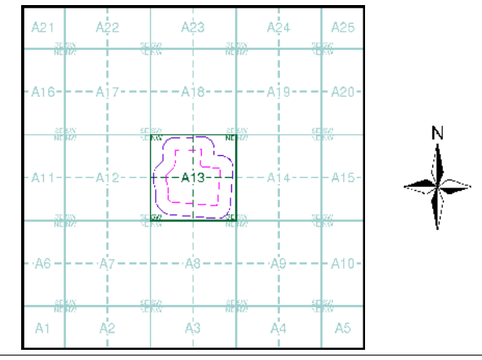
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
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Monmouthshire	1:10,560	1902	4
Monmouthshire	1:10,560	1922	5
Monmouthshire	1:10,560	1938 - 1954	6
Historical Aerial Photography	1:10,560	1947	7
Historical Aerial Photography	1:10,560	1947	8
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10K Raster Mapping	1:10,000	1999	14
10K Raster Mapping	1:10,000	2006	15
VectorMap Local	1:10,000	2021	16

Russian Map - Slice A



Order Details

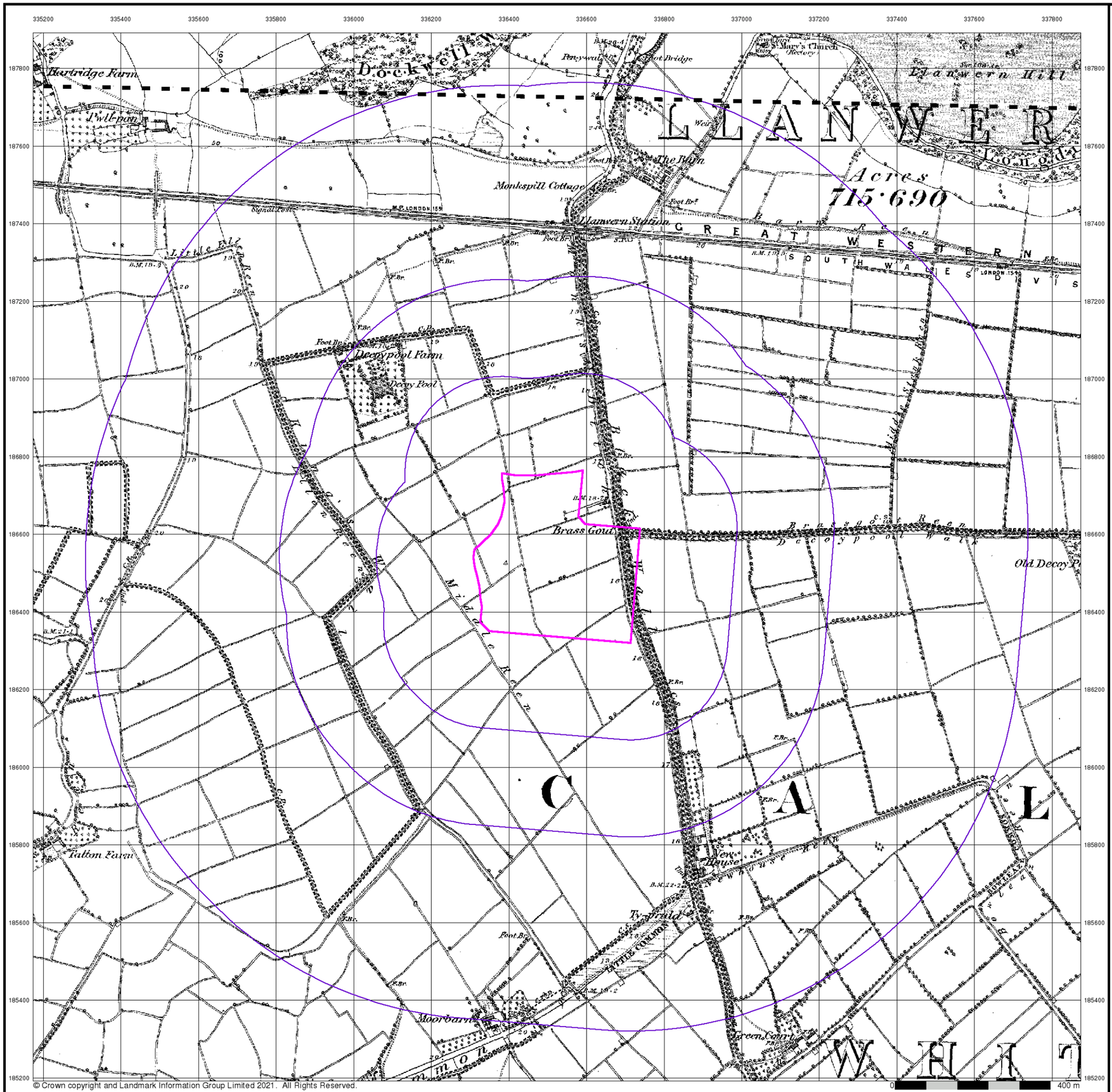
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National Grid Reference:	336530, 186530
Slice:	A
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Monmouthshire

Published 1886 - 1887

Source map scale - 1:10,560

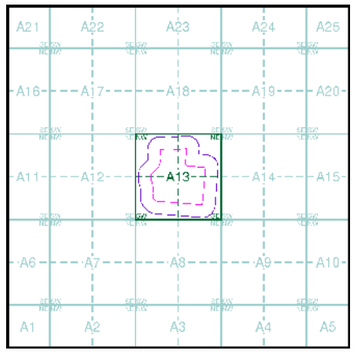
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Map Name(s) and Date(s)

02900
1886
1:10,560

03400
1887
1:10,560

Historical Map - Slice A



Order Details

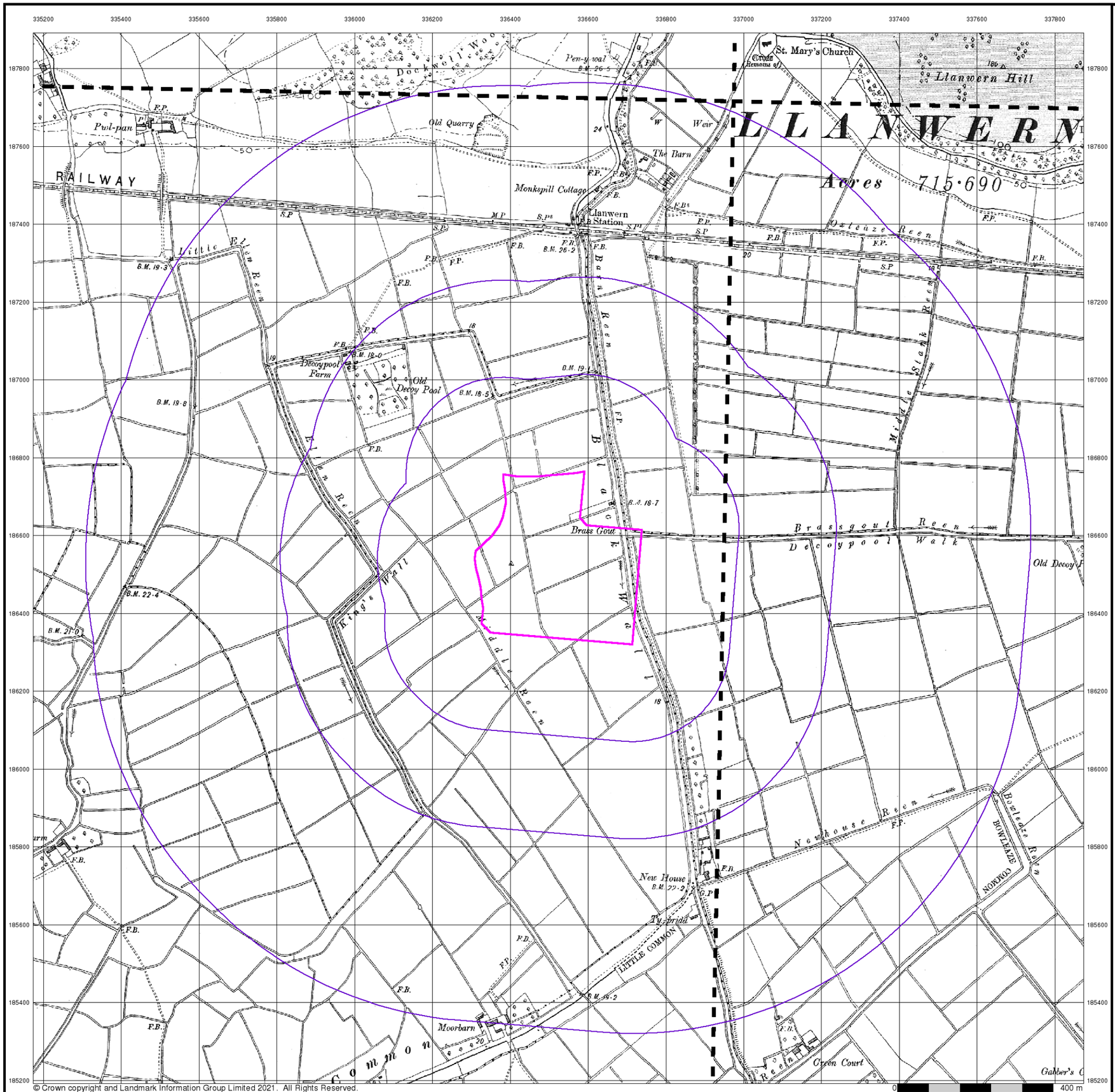
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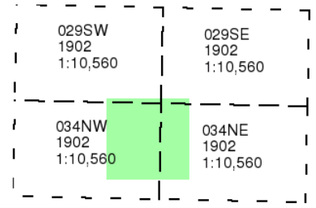
Monmouthshire

Published 1902

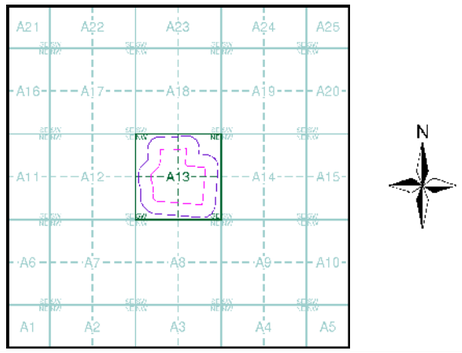
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

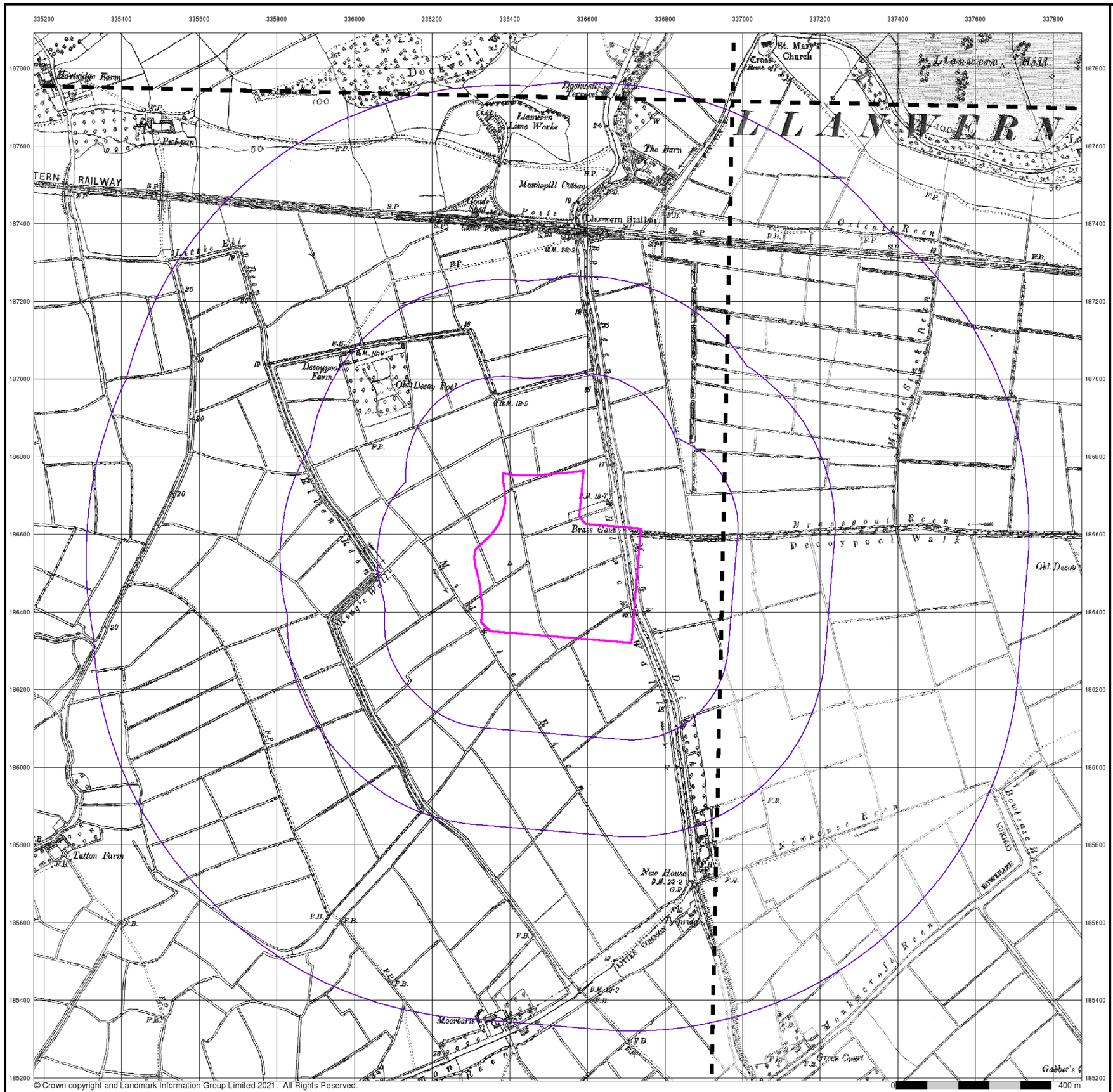
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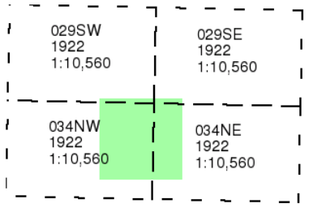
Monmouthshire

Published 1922

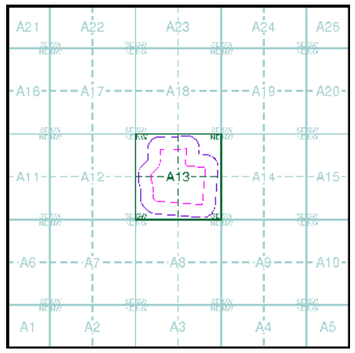
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

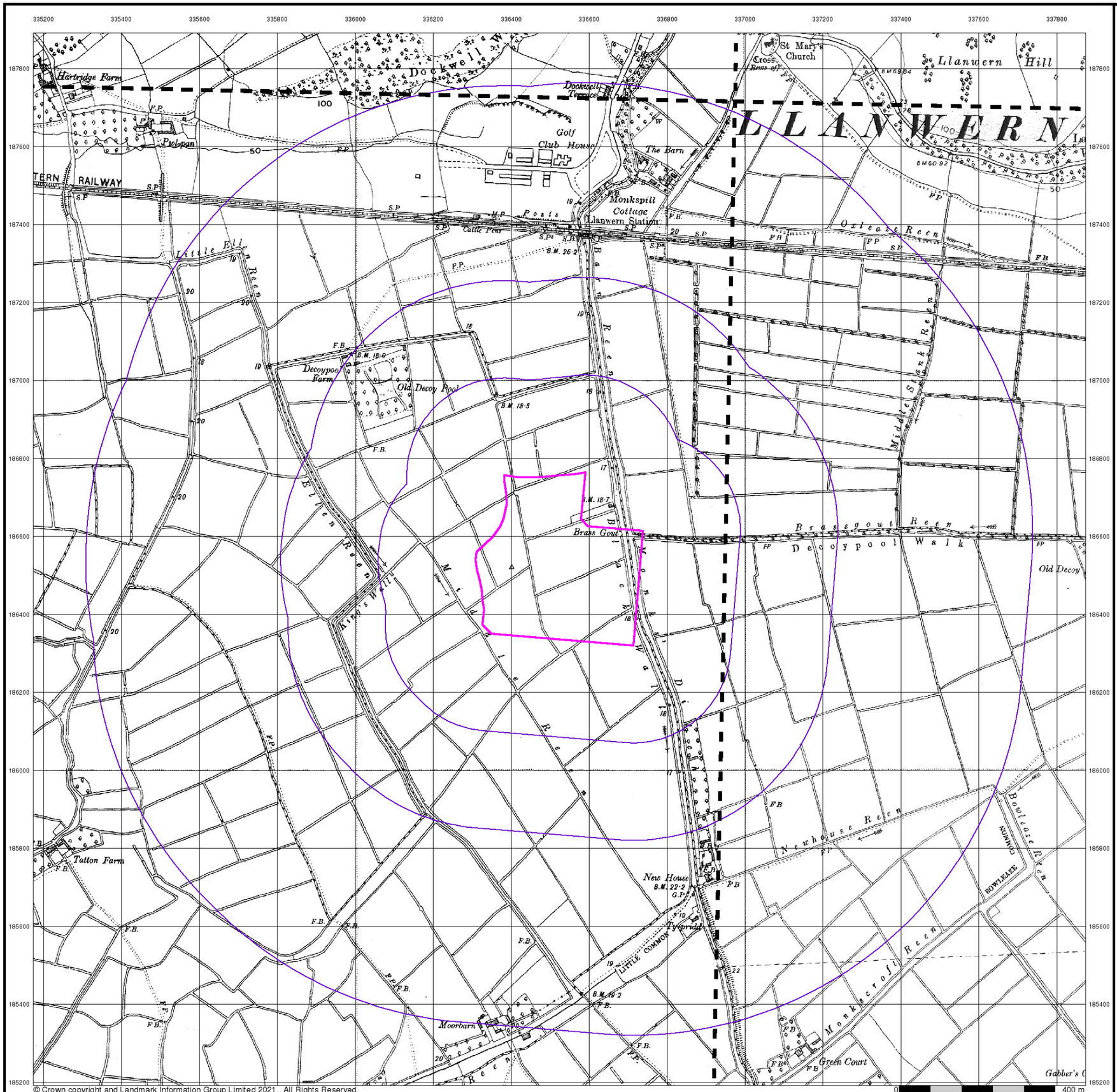
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National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
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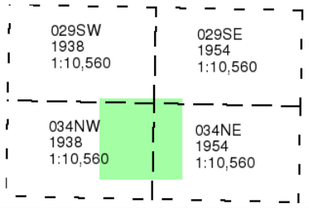
Monmouthshire

Published 1938 - 1954

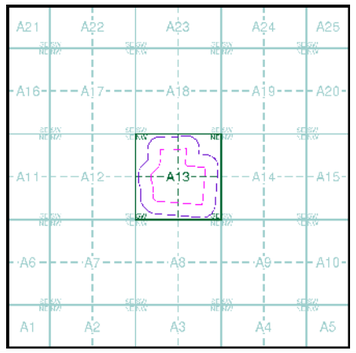
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

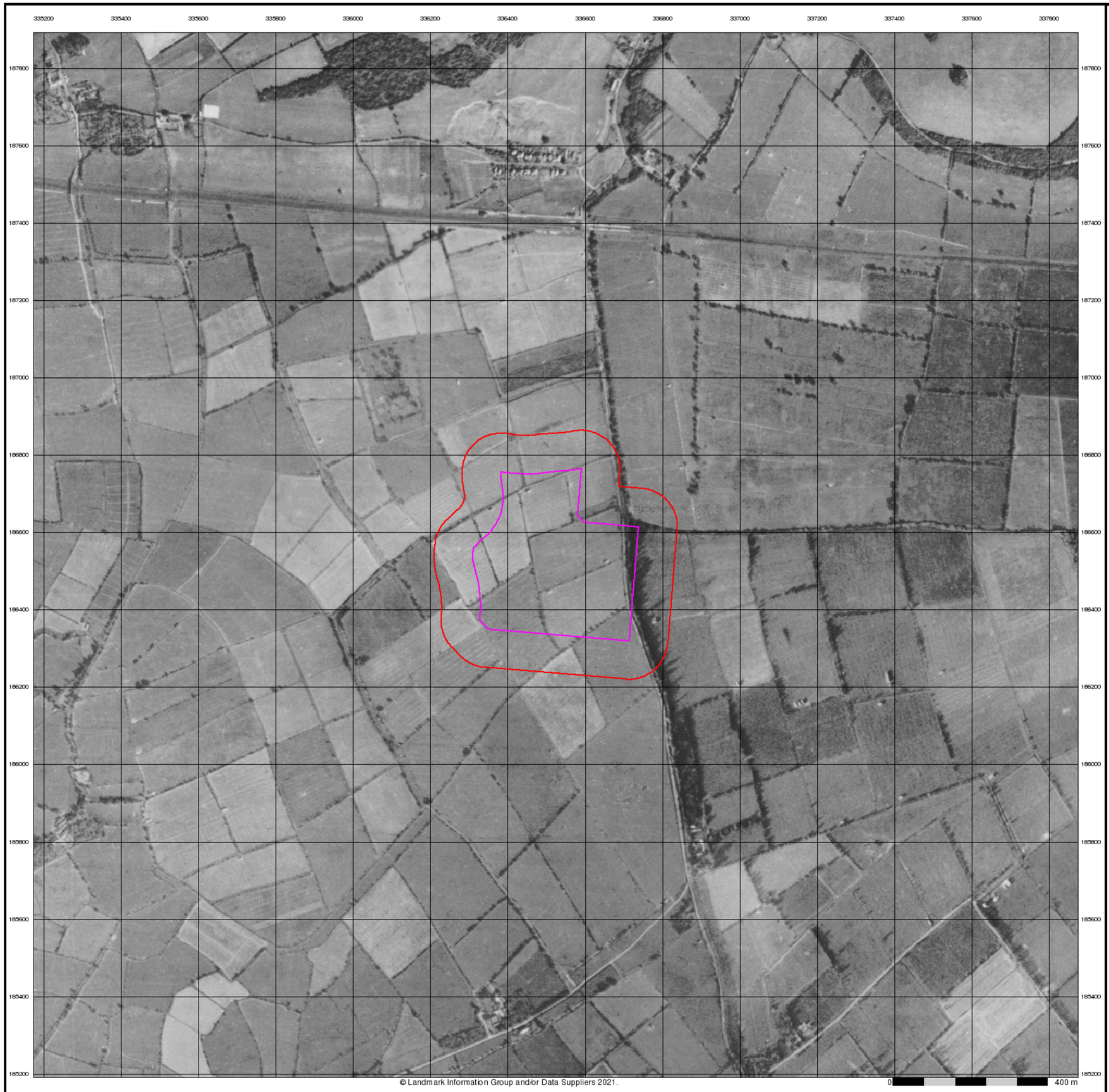
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Historical Aerial Photography

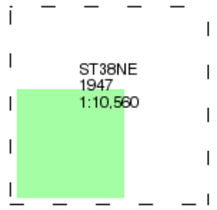
Published 1947

Source map scale - 1:10,560

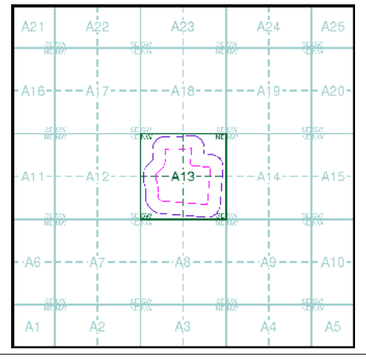
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



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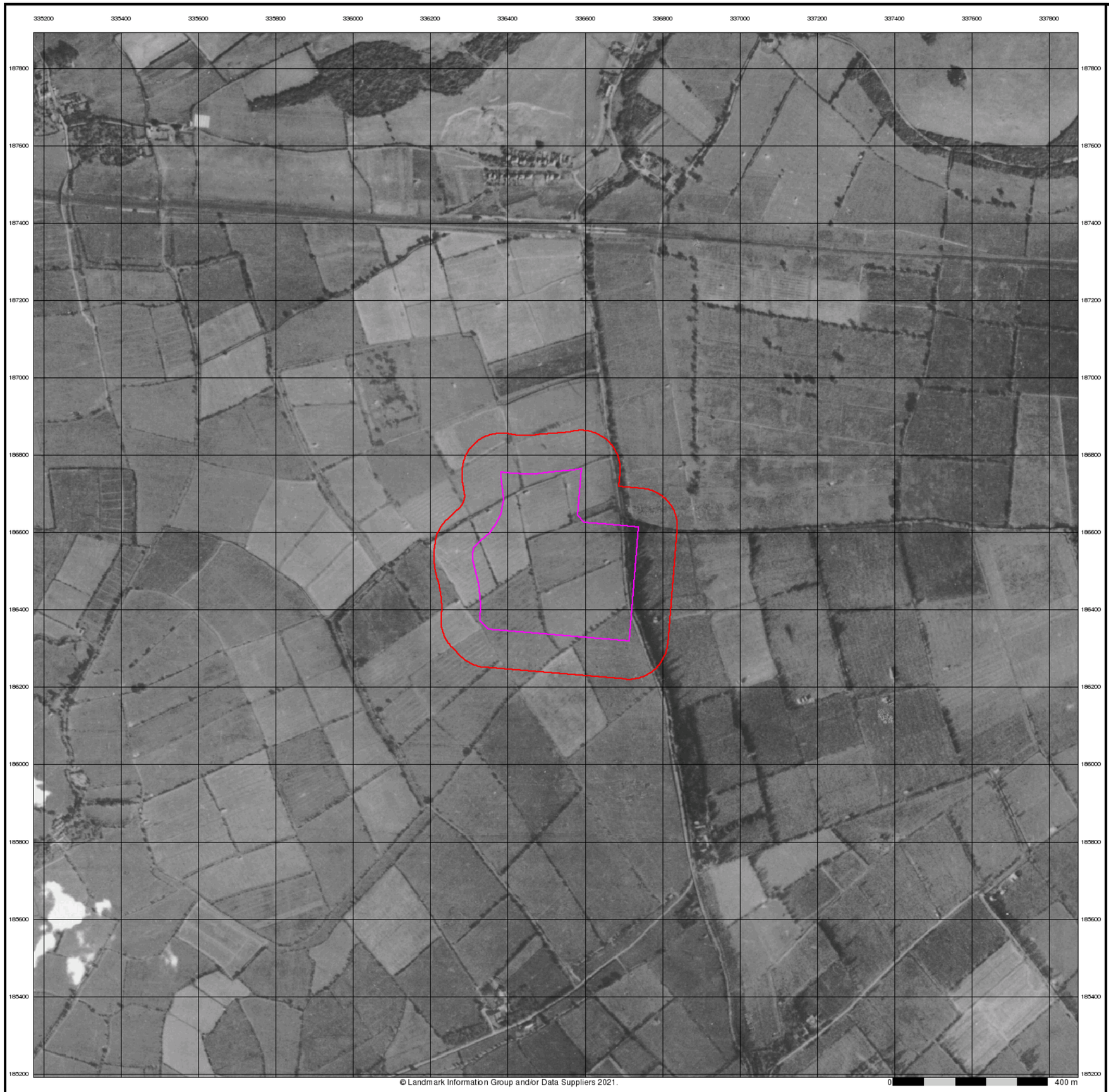
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Historical Aerial Photography

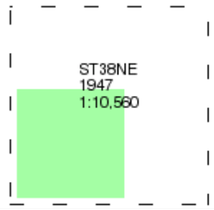
Published 1947

Source map scale - 1:10,560

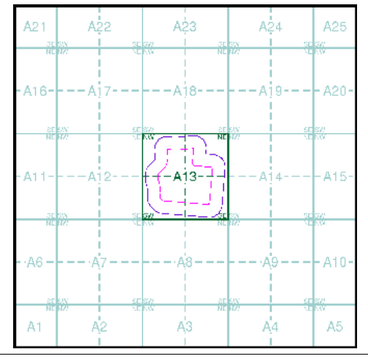
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



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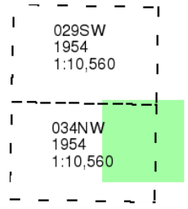
Monmouthshire

Published 1954

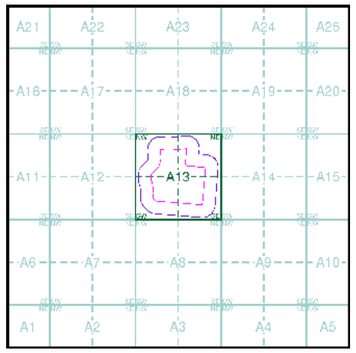
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



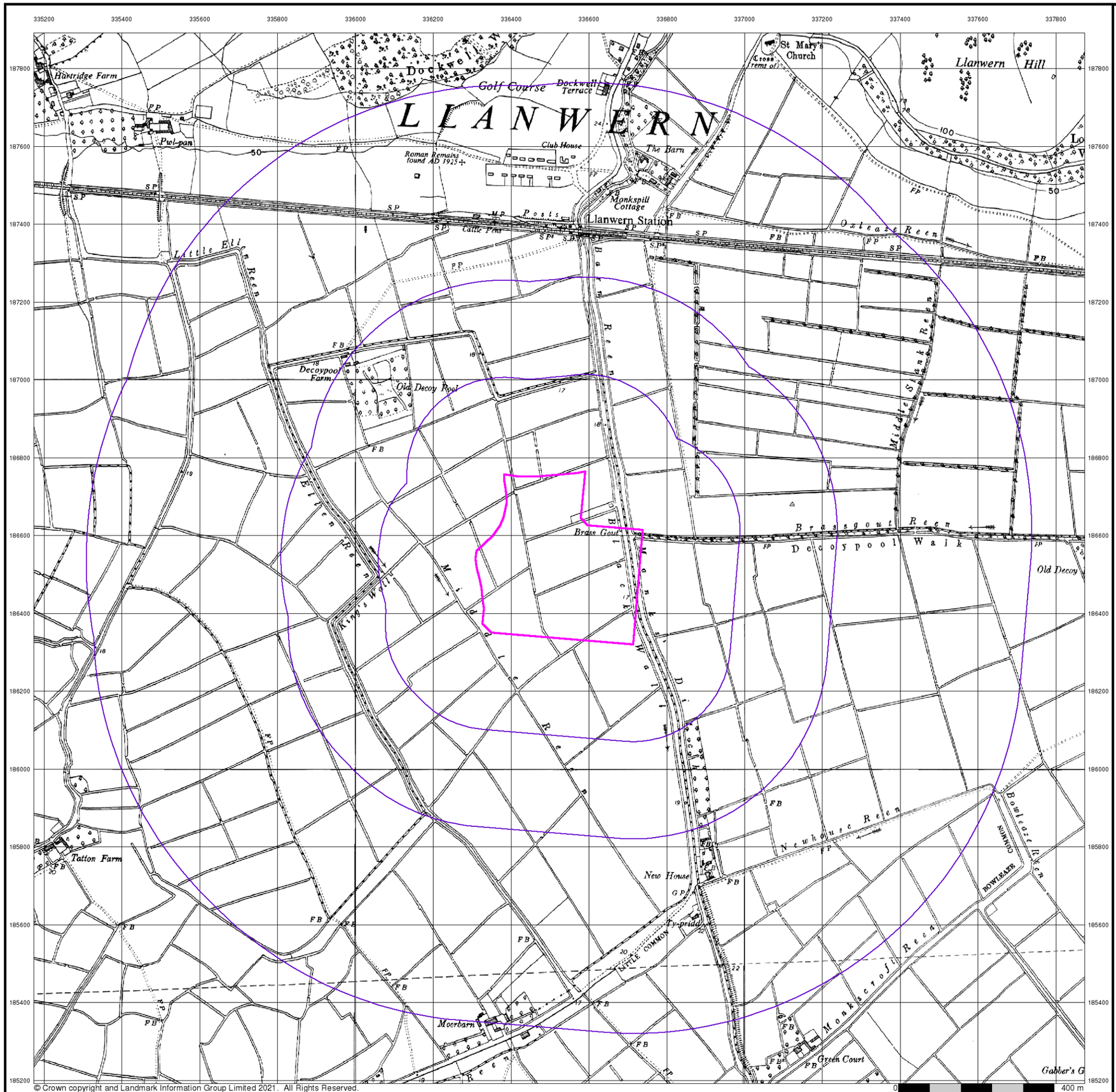
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National Grid Reference:	336530, 186530
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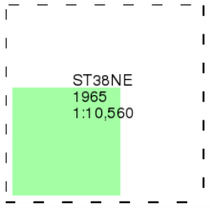
Ordnance Survey Plan

Published 1965

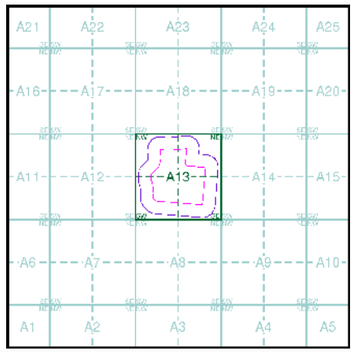
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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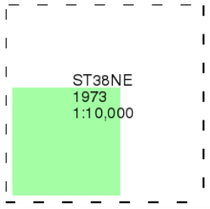
Ordnance Survey Plan

Published 1973

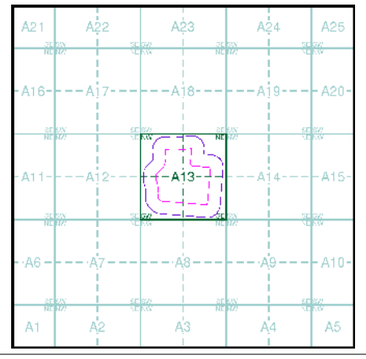
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



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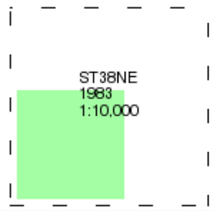
Newport

Published 1983

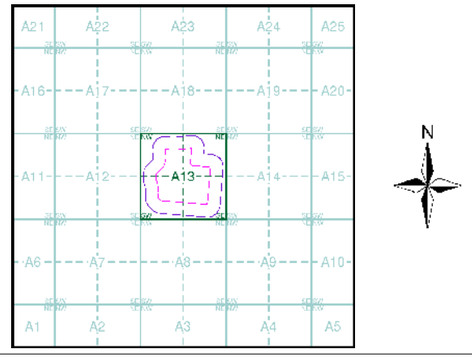
Source map scale - 1:10,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use.
They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A



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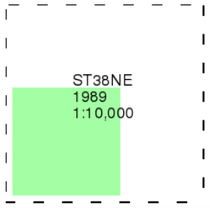
Ordnance Survey Plan

Published 1989

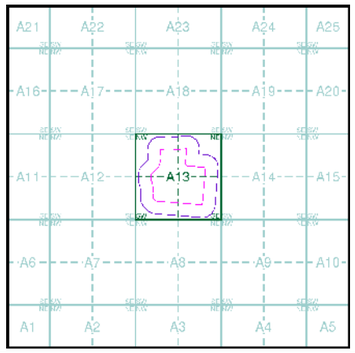
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

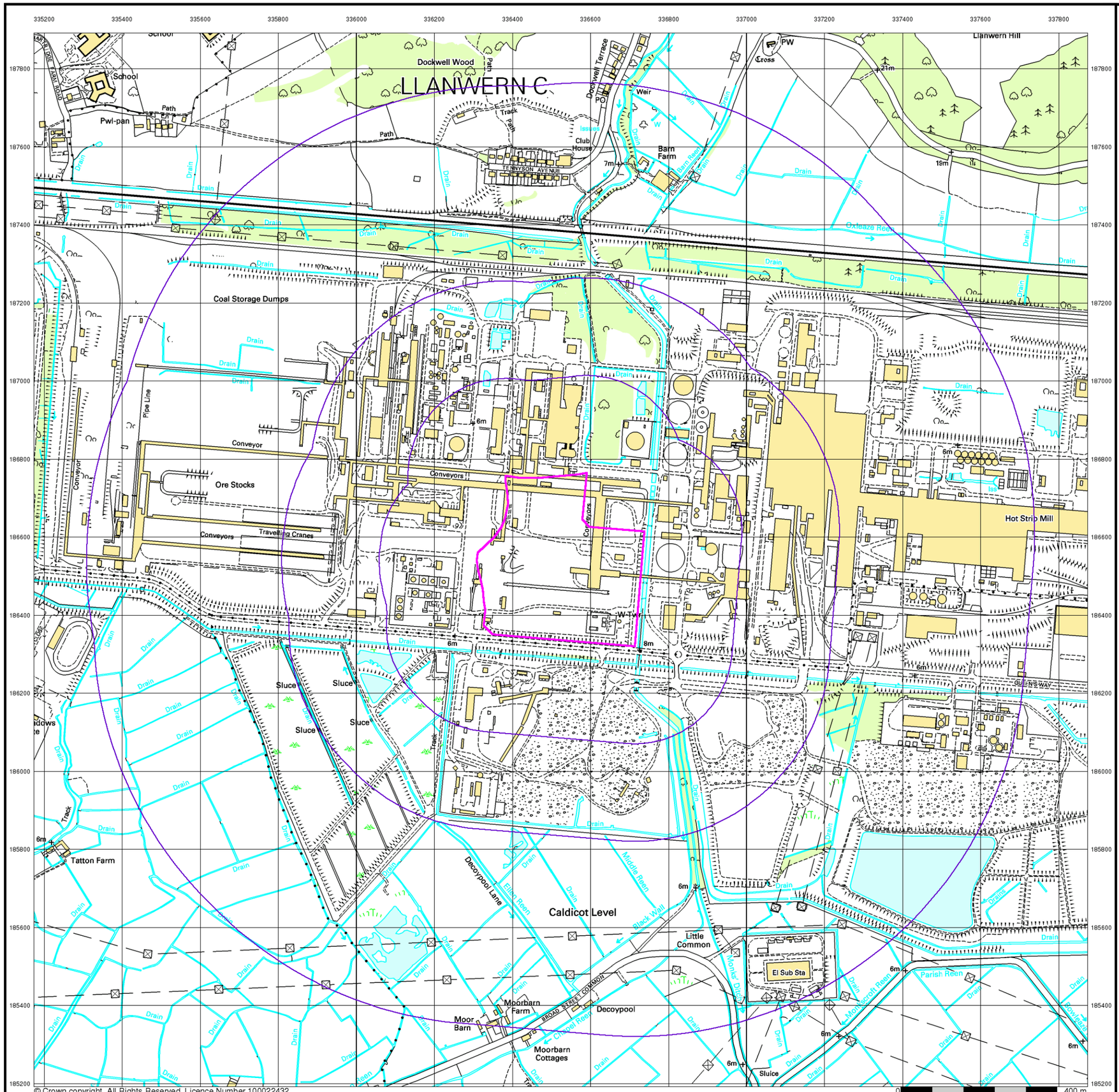
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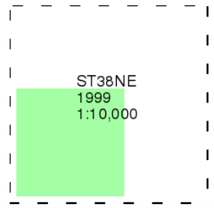
10k Raster Mapping

Published 1999

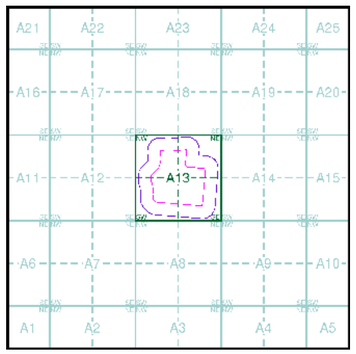
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



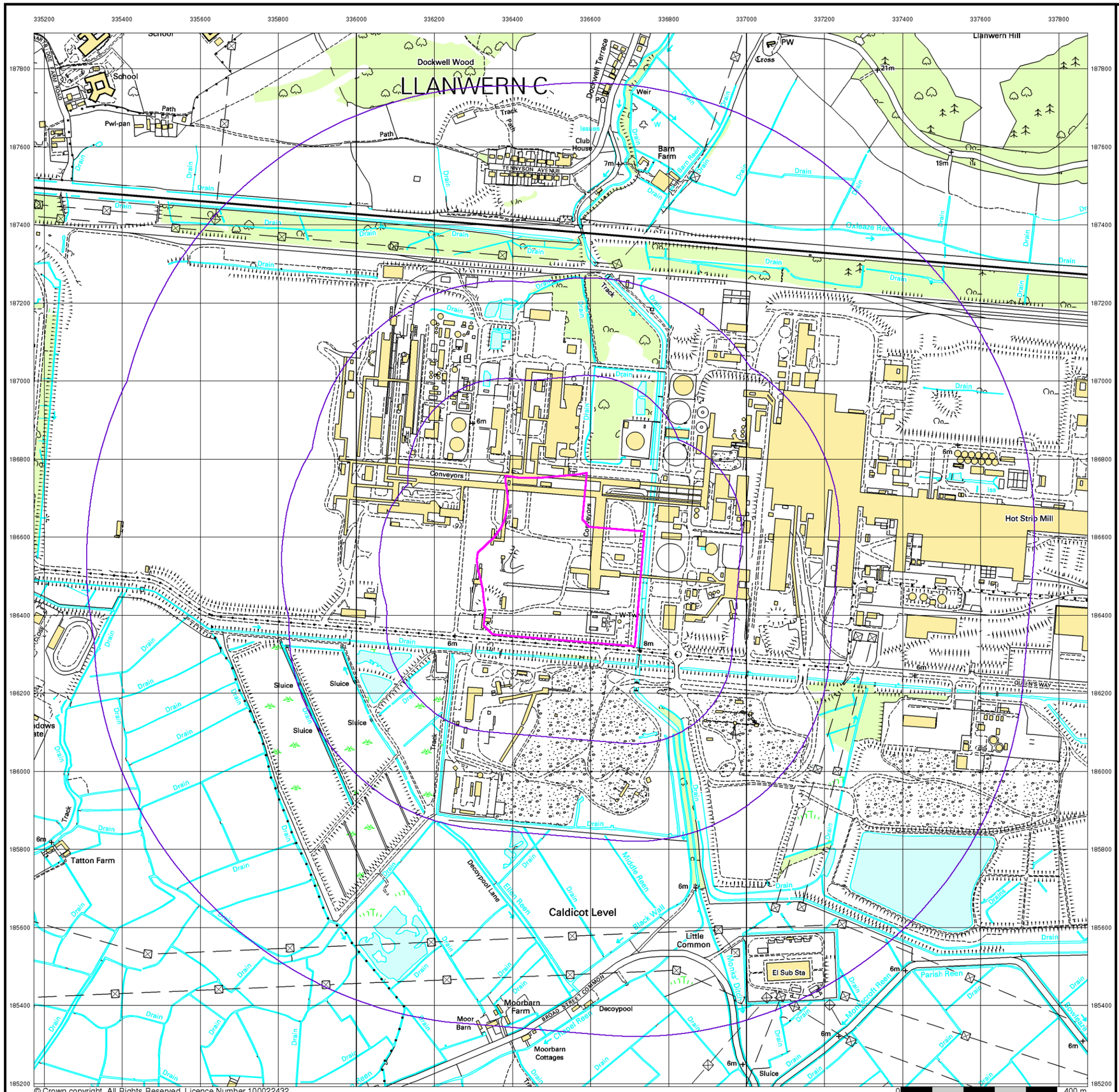
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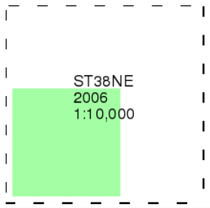
10k Raster Mapping

Published 2006

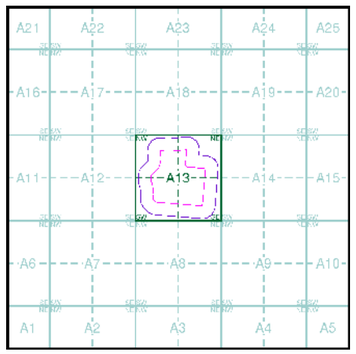
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

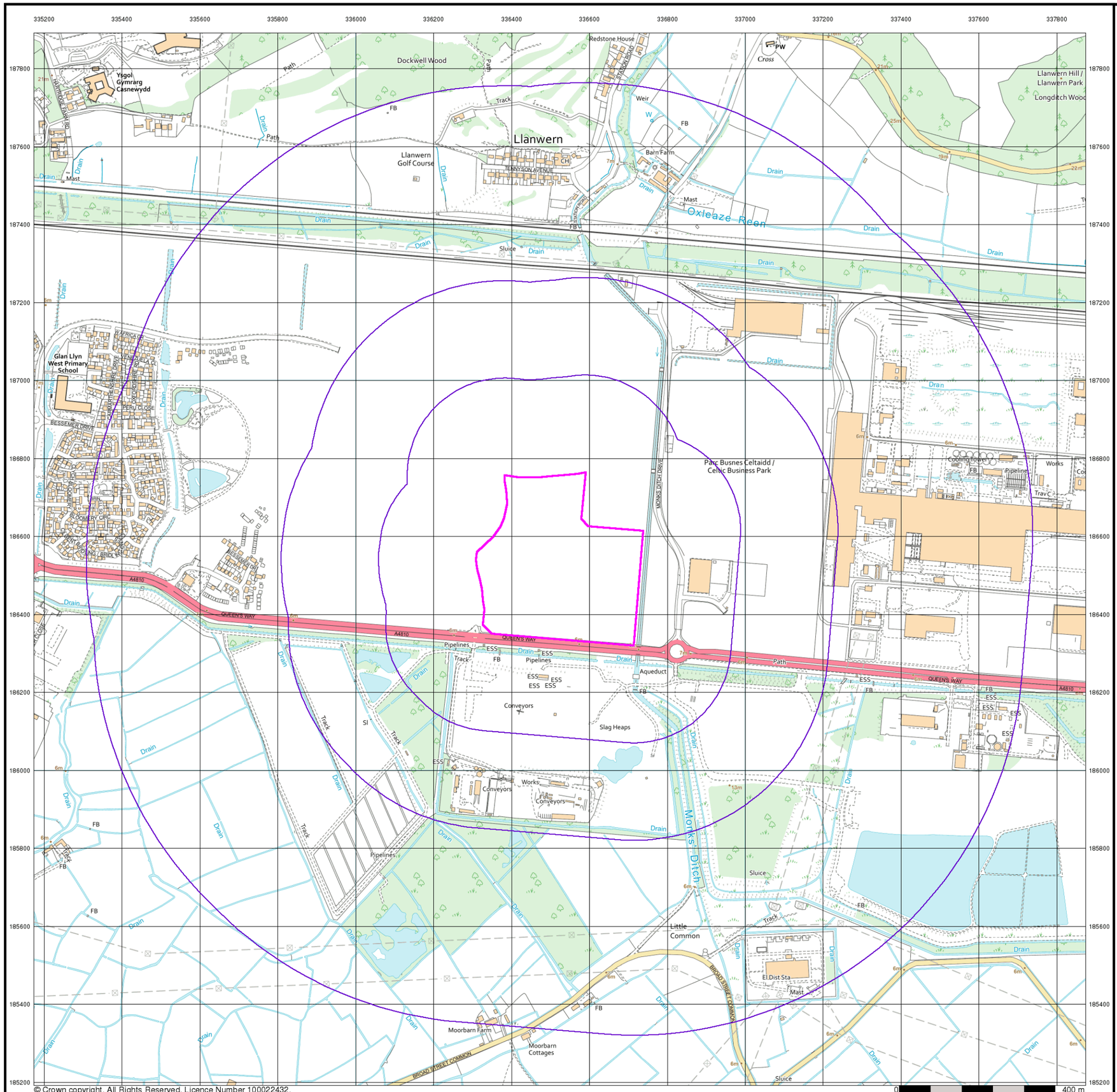
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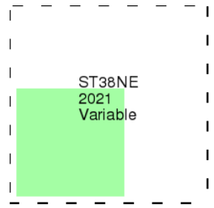
VectorMap Local

Published 2021

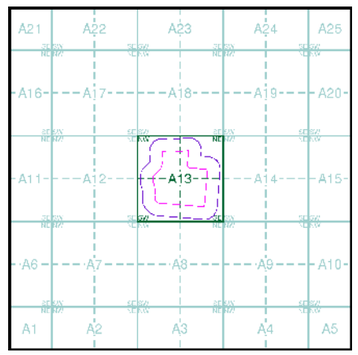
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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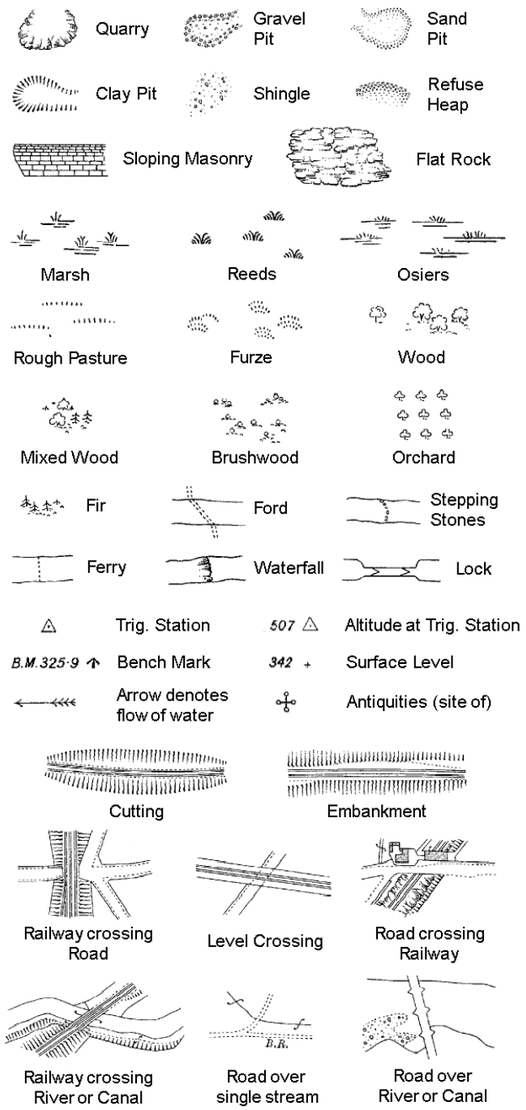
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Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



County Boundary (Geographical)

County & Civil Parish Boundary

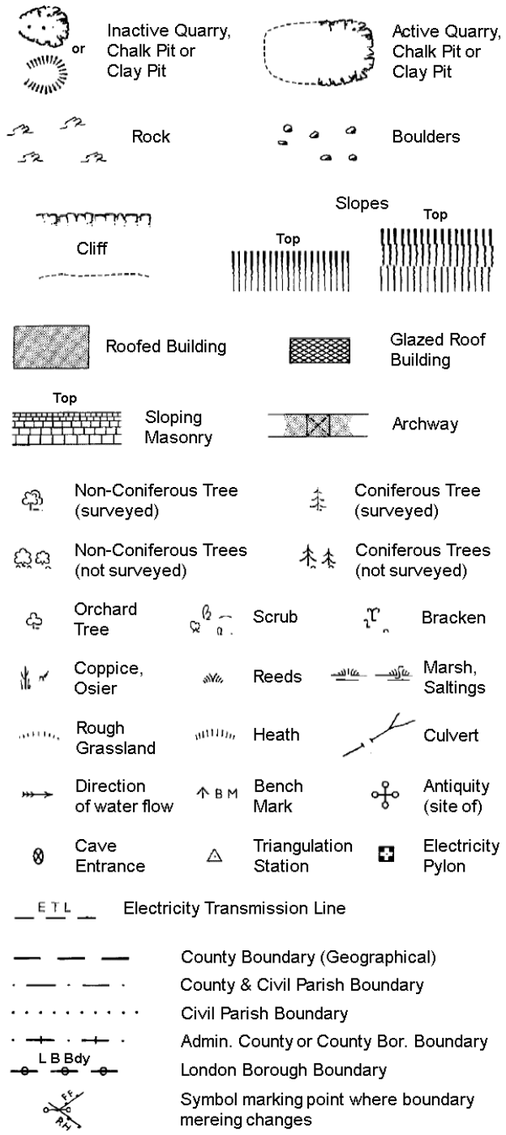
Administrative County & Civil Parish Boundary

Co. Boro. Bdy. County Borough Boundary (England)

Co. Burgh Bdy. County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

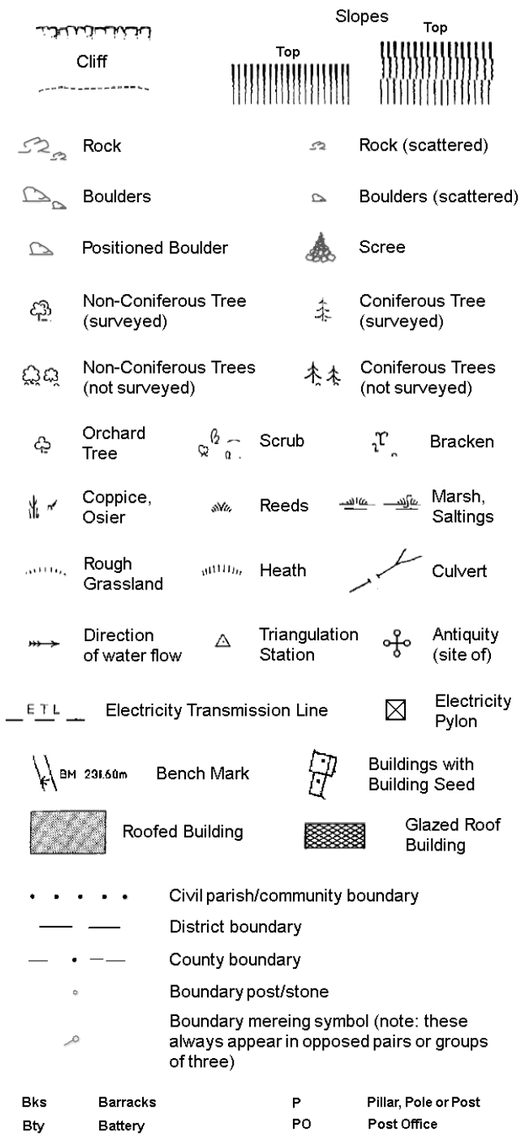
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

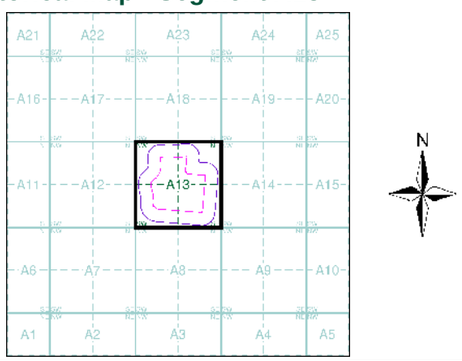
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Monmouthshire	1:2,500	1883	2
Monmouthshire	1:2,500	1901	3
Monmouthshire	1:2,500	1921	4
Ordnance Survey Plan	1:1,250	1967	5
Ordnance Survey Plan	1:2,500	1968	6
Supply of Unpublished Survey Information	1:1,250	1974	7
Additional SIMs	1:1,250	1986	8
Additional SIMs	1:1,250	1991	9
Large-Scale National Grid Data	1:1,250	1992	10
Large-Scale National Grid Data	1:1,250	1995	11
Historical Aerial Photography	1:2,500	2001	12

Historical Map - Segment A13



Order Details

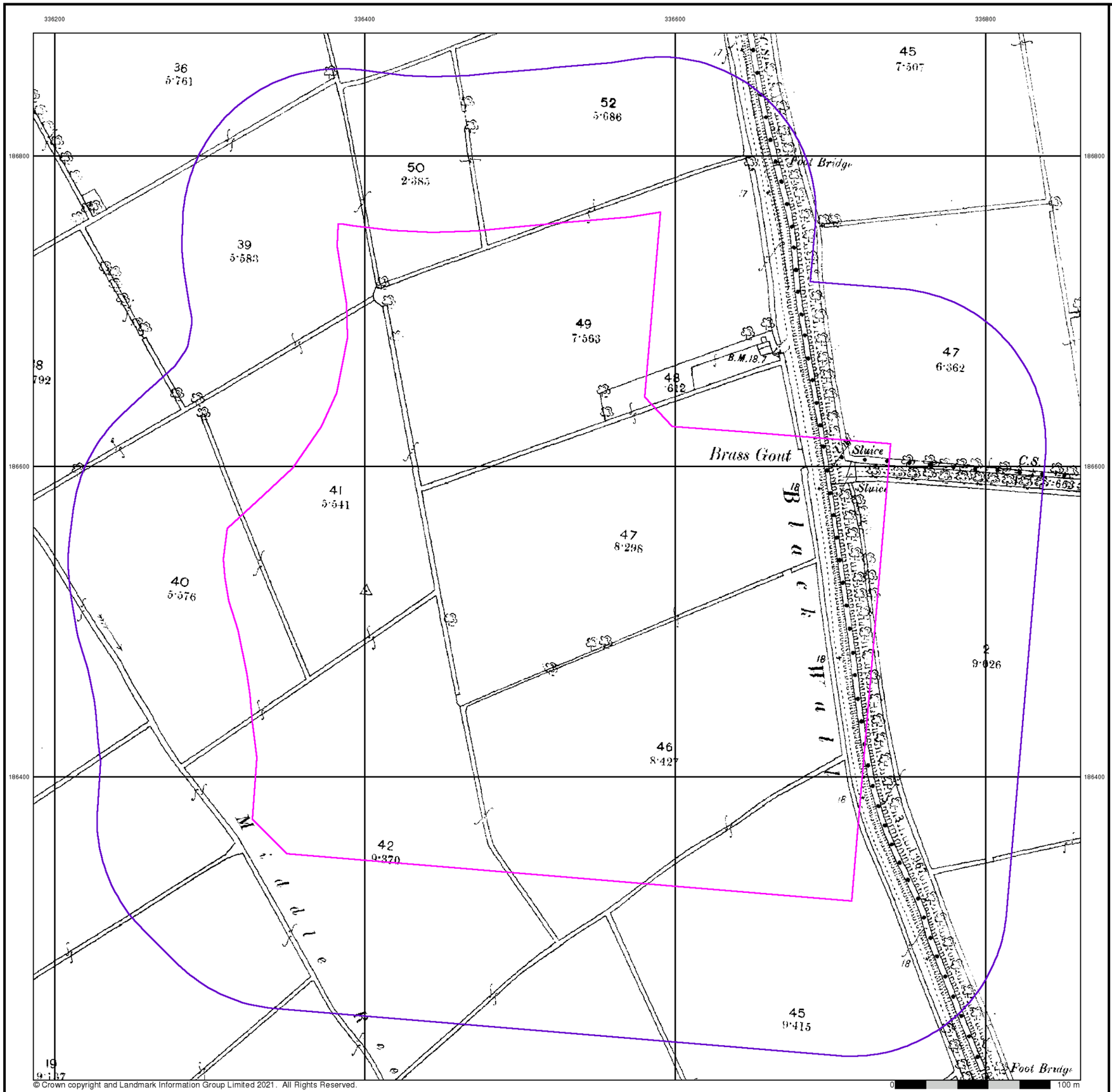
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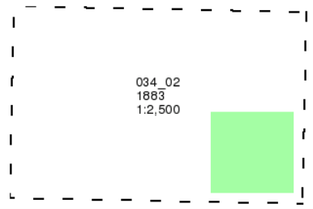
Monmouthshire

Published 1883

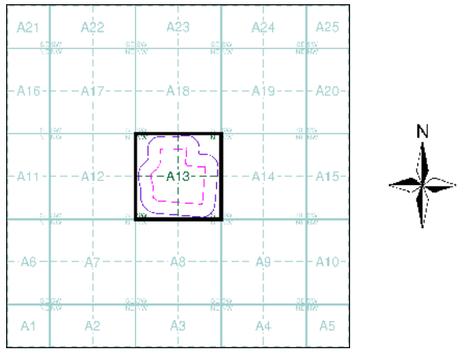
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

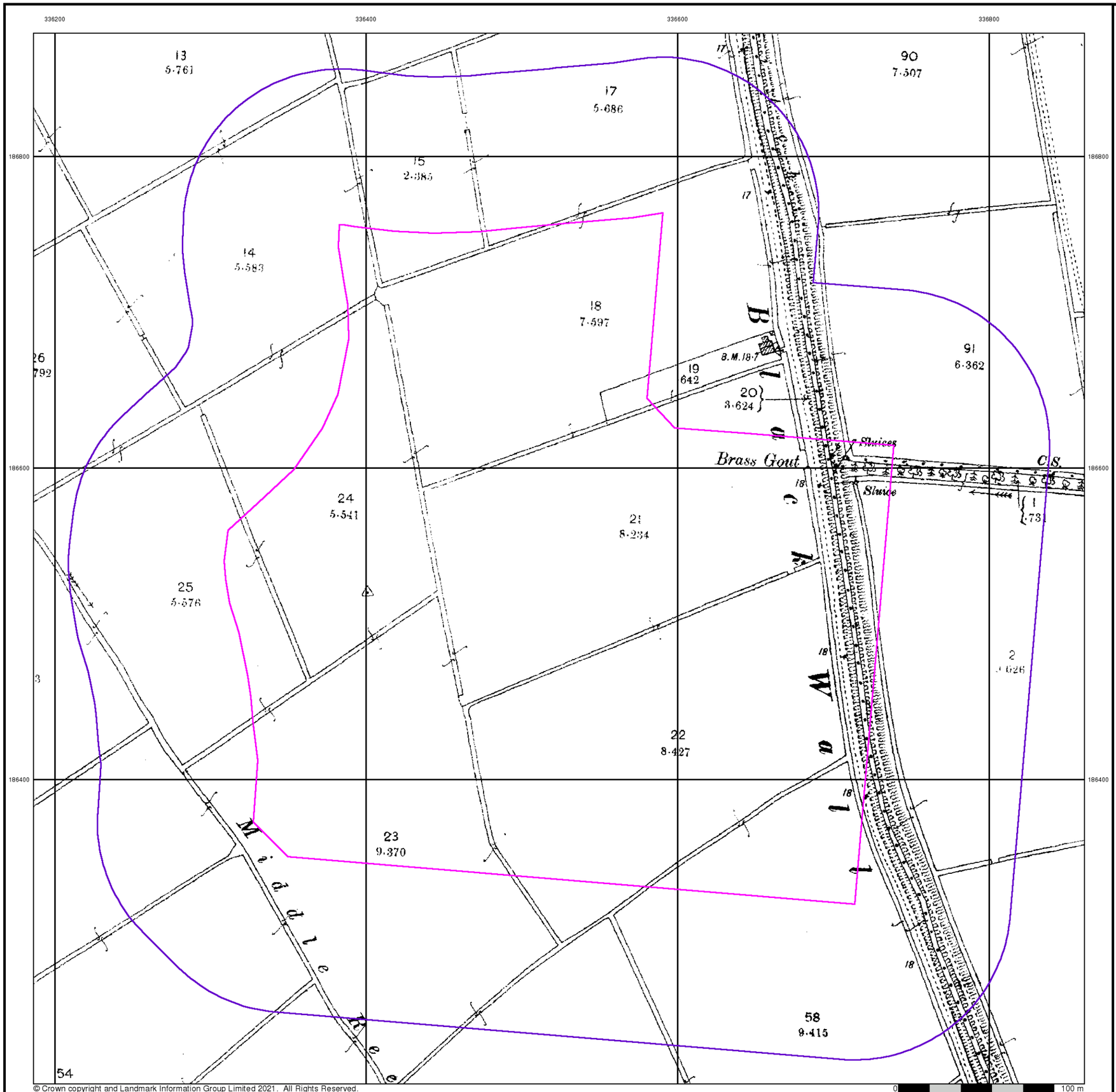
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Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	100

Site Details

Site at 336524,186542

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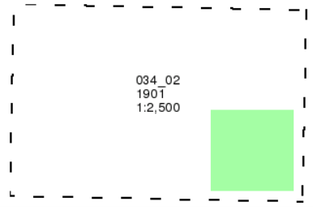
Monmouthshire

Published 1901

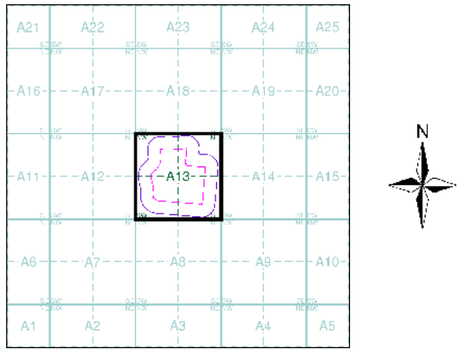
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

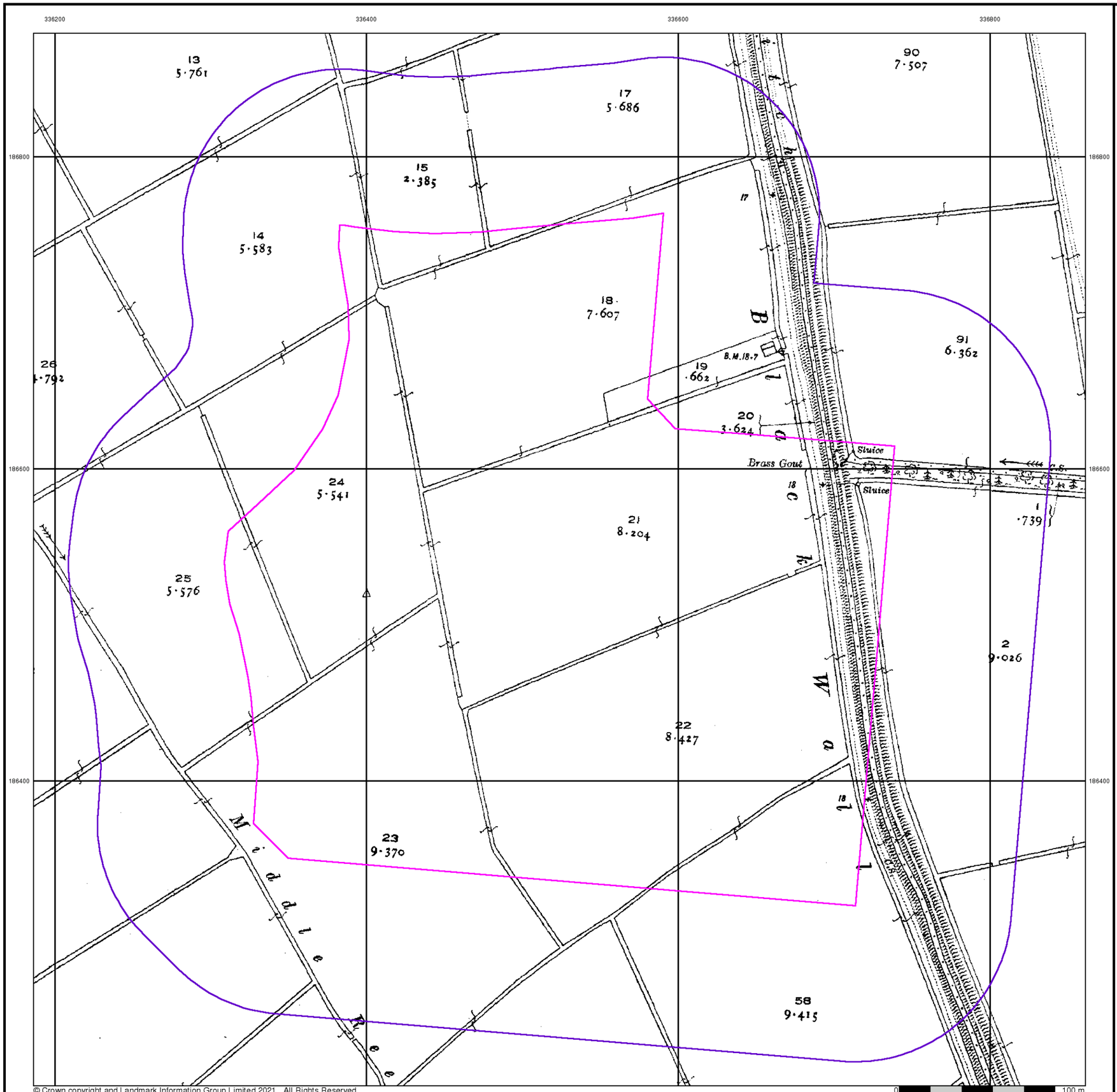
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National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
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Site Details

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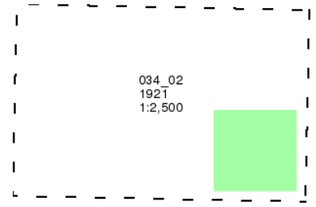
Monmouthshire

Published 1921

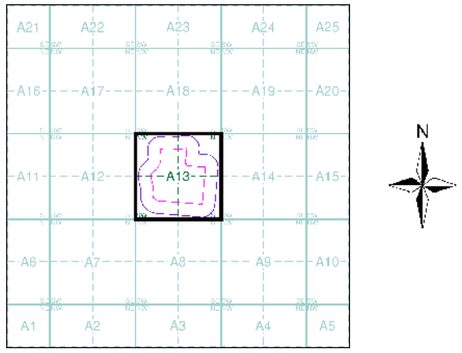
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
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Site Details

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Ordnance Survey Plan

Published 1967

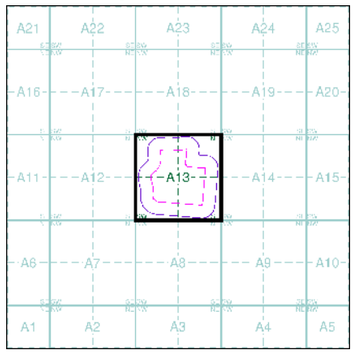
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

ST3686NW 1967 1:1,250	ST3686NE 1967 1:1,250
ST3686SW 1967 1:1,250	ST3686SE 1967 1:1,250

Historical Map - Segment A13



Order Details

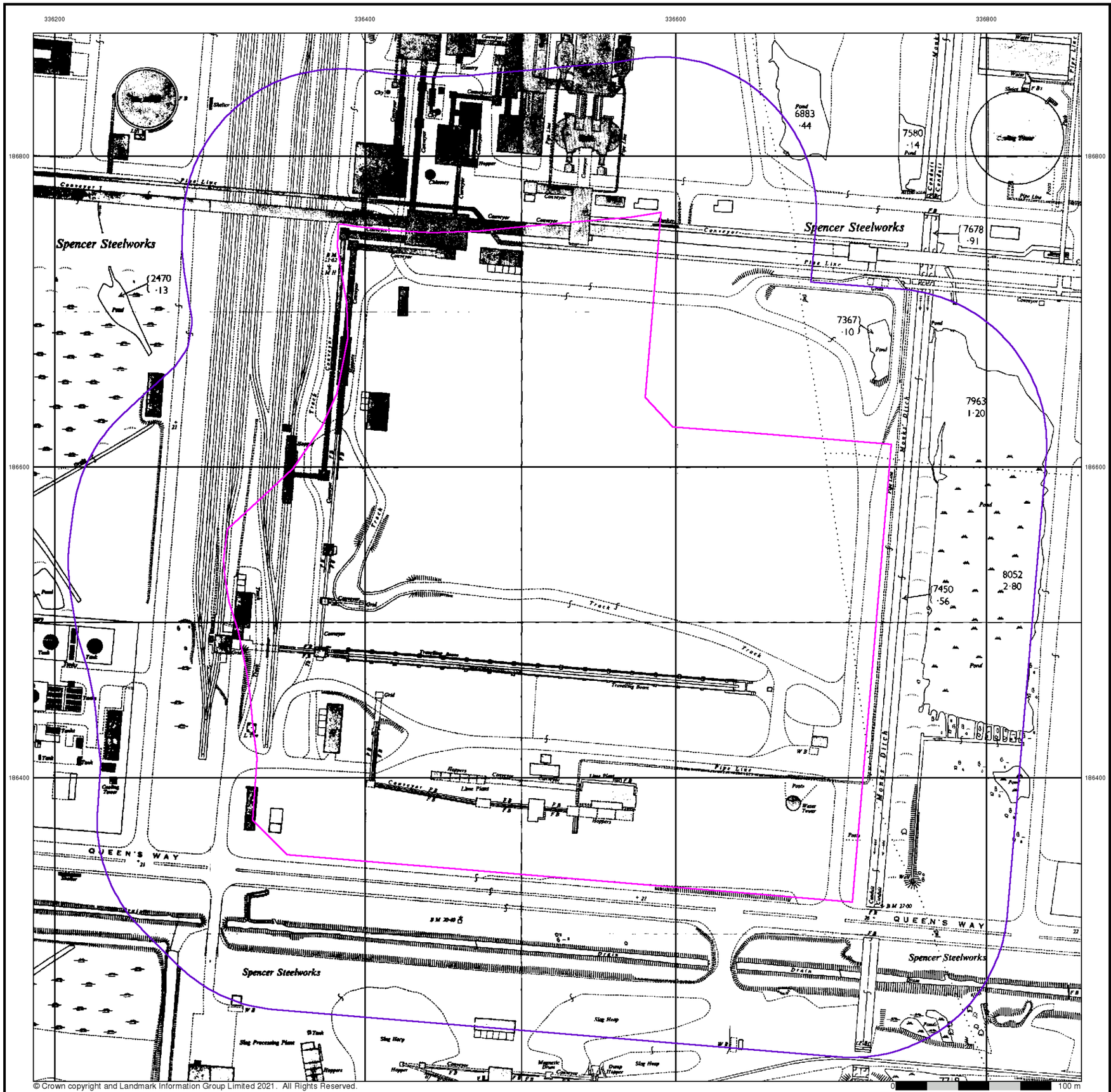
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National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	100

Site Details

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Ordnance Survey Plan

Published 1968

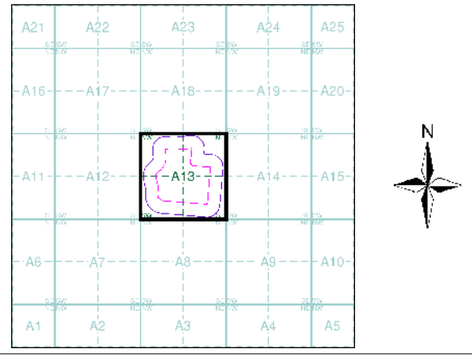
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

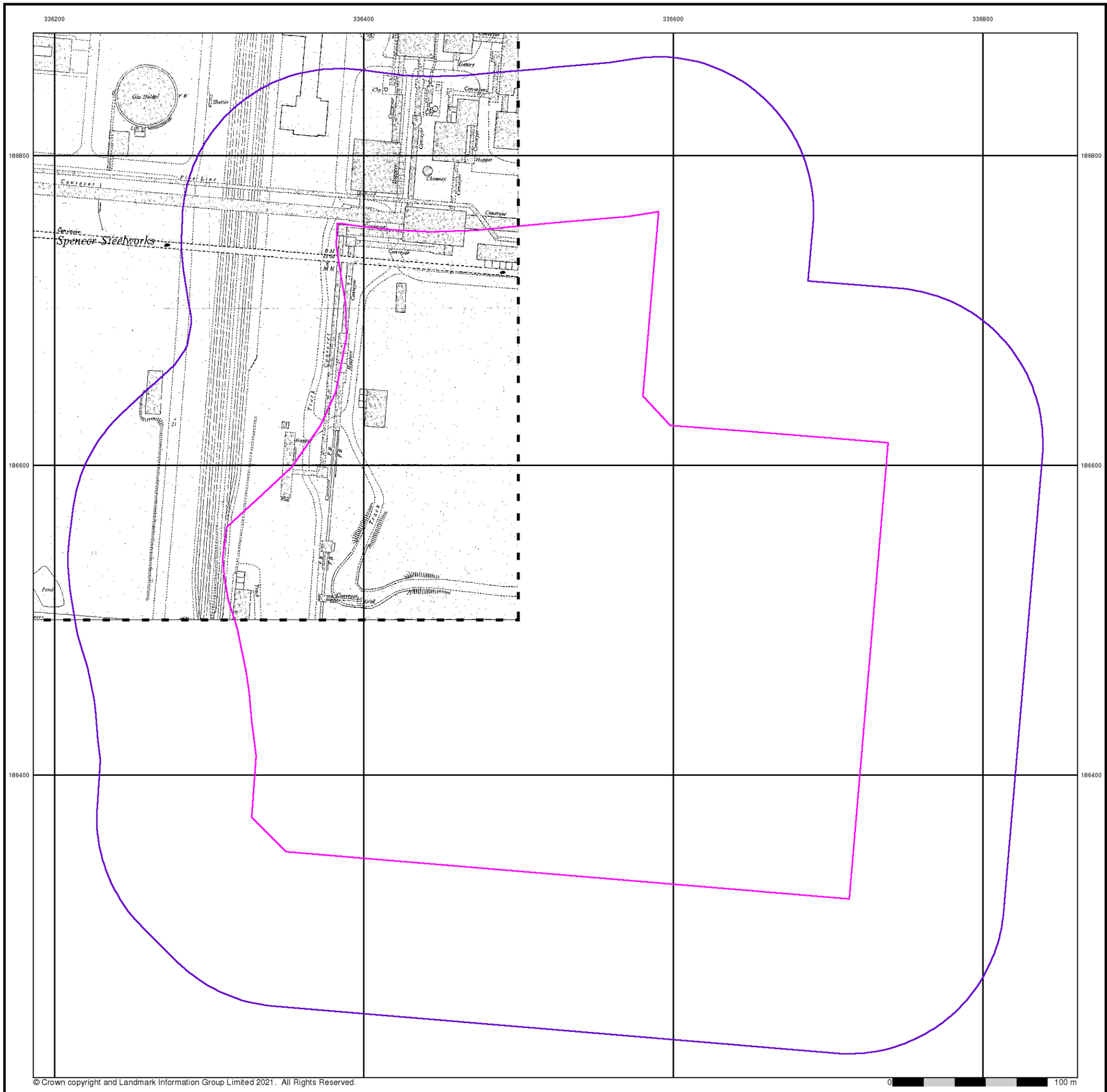
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Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
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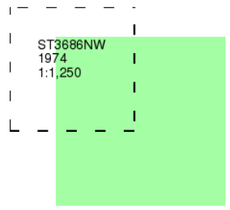
Supply of Unpublished Survey Information

Published 1974

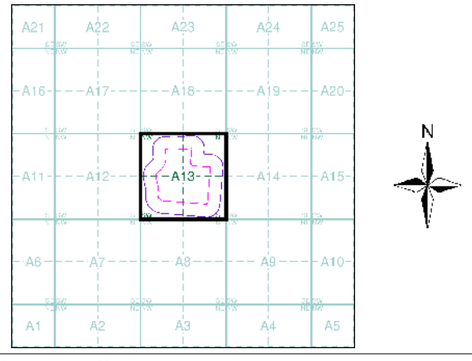
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a `work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

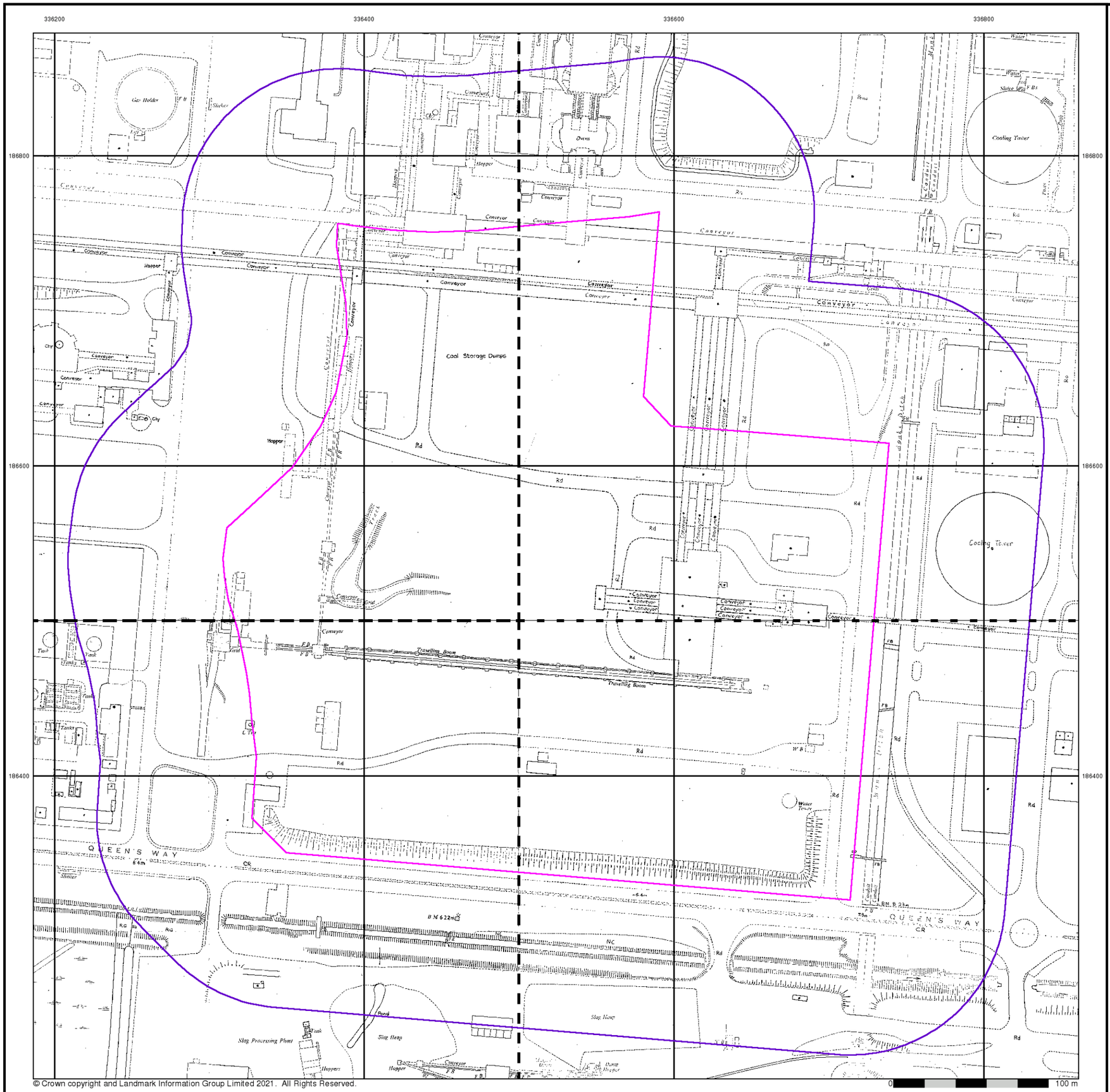
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Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	100

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Additional SIMs

Published 1986

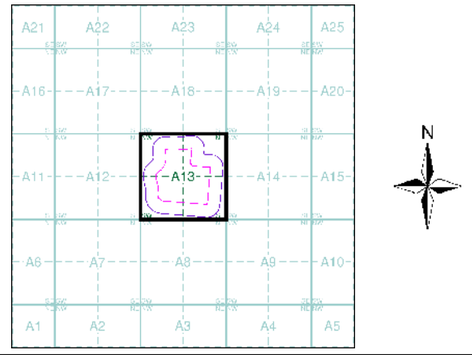
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

ST3686NW 1986 1:1,250	ST3686NE 1986 1:1,250
ST3686SW 1986 1:1,250	ST3686SE 1986 1:1,250

Historical Map - Segment A13



Order Details

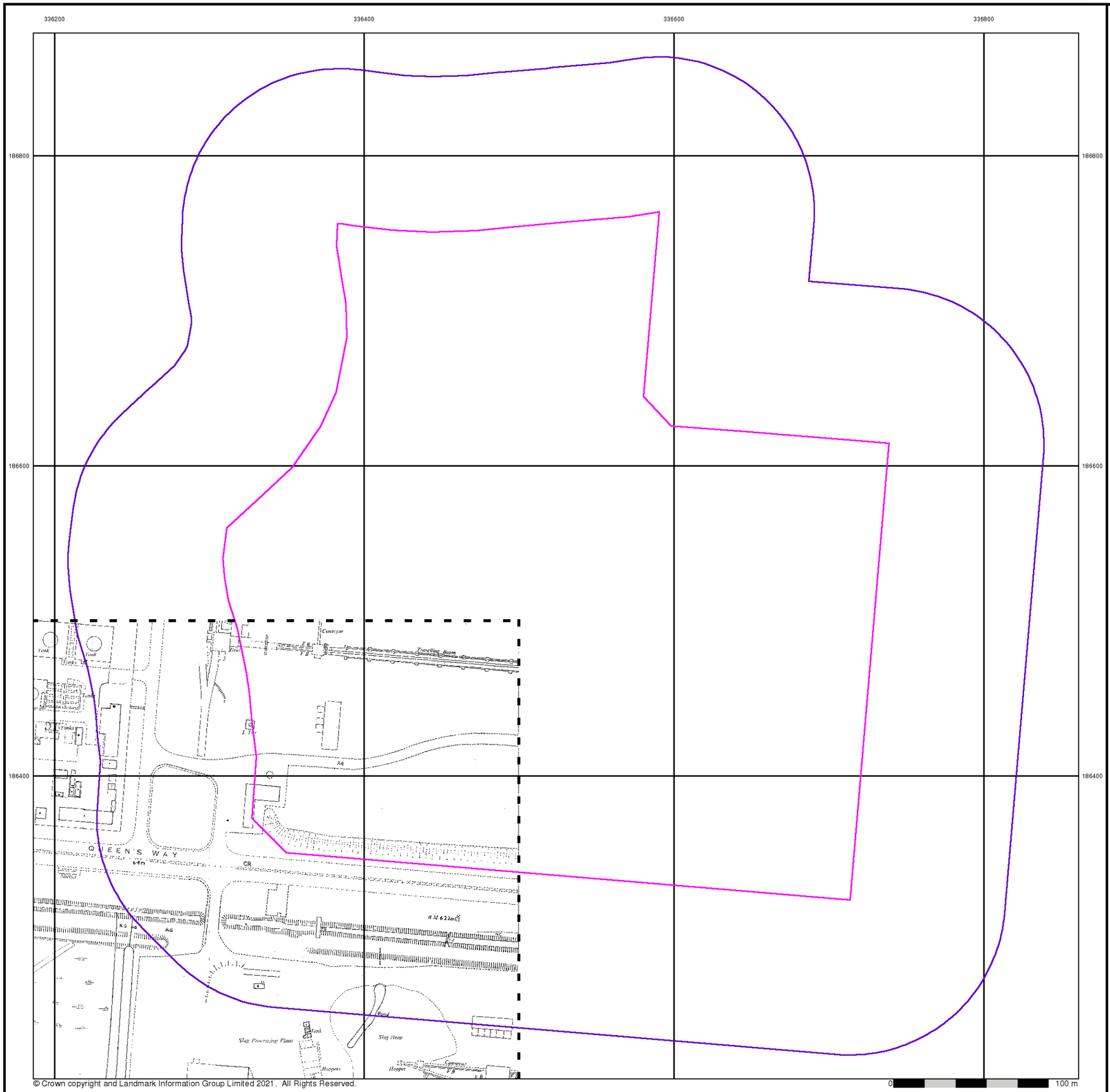
Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
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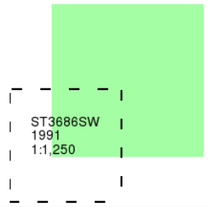
Additional SIMs

Published 1991

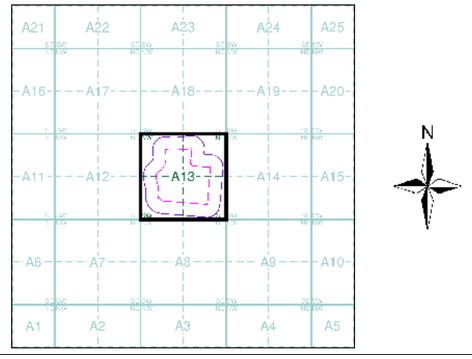
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

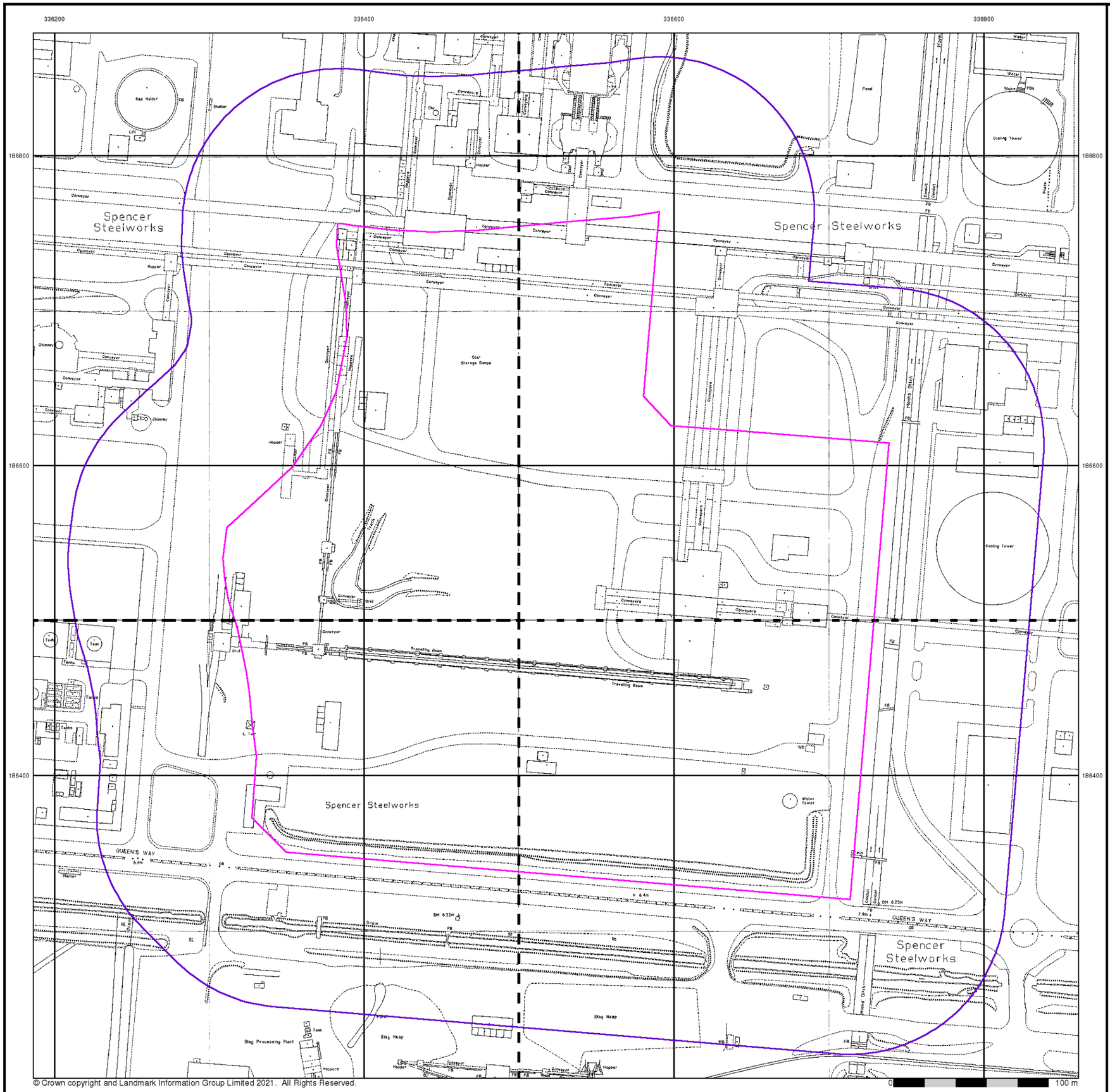
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National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	100

Site Details

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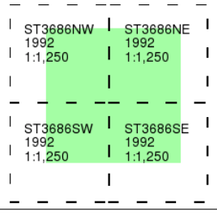
Large-Scale National Grid Data

Published 1992

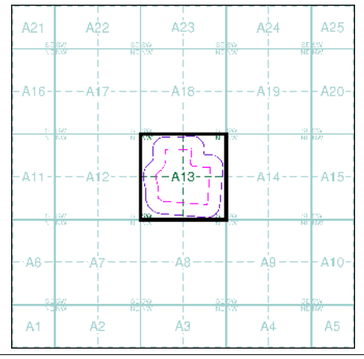
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	287158115_1_1
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Site at 336524,186542

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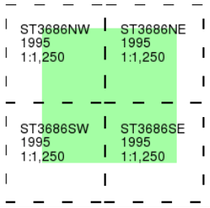
Large-Scale National Grid Data

Published 1995

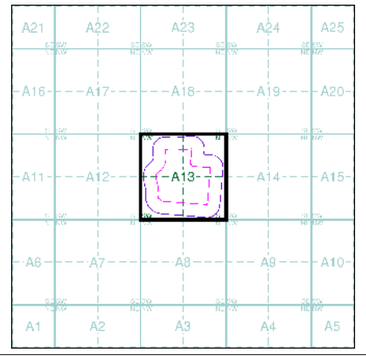
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

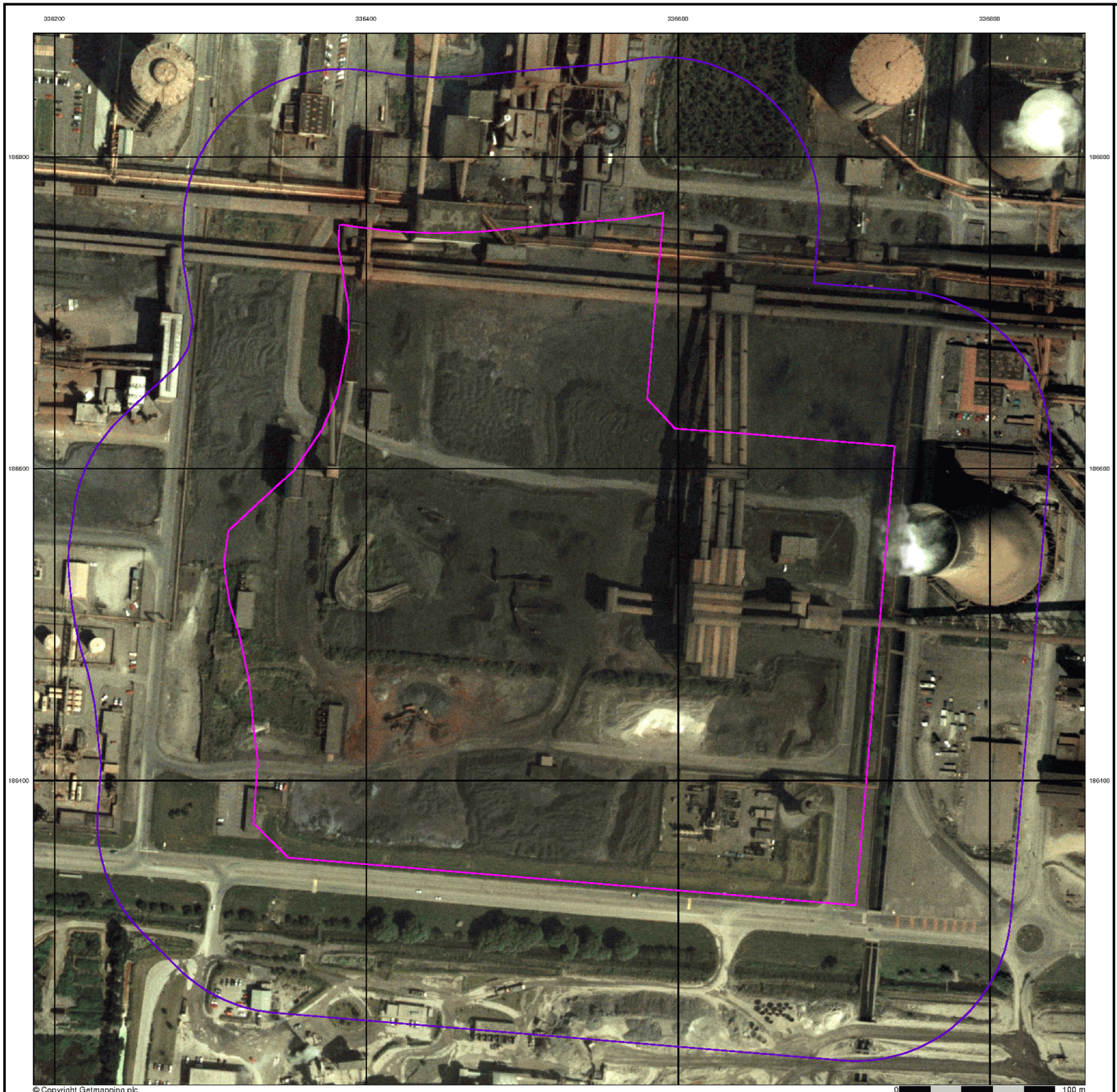
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Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
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Site Details

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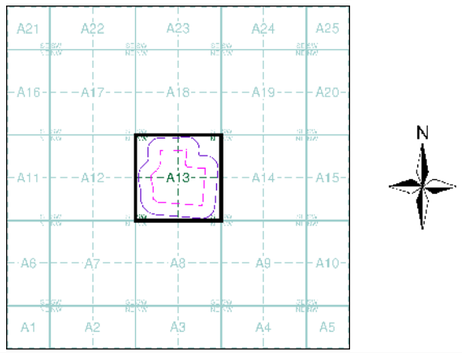
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Historical Aerial Photography

Published 2001

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

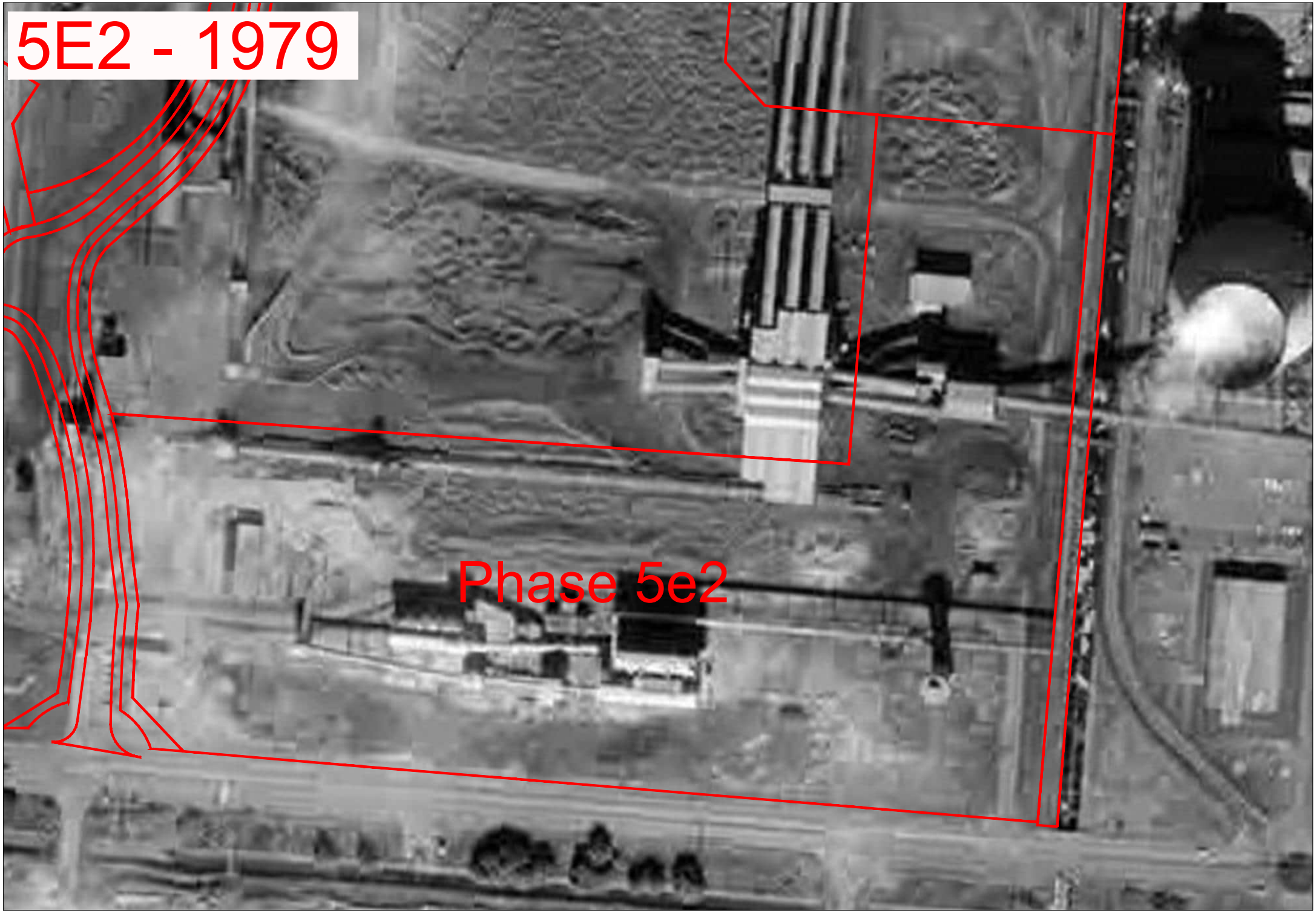
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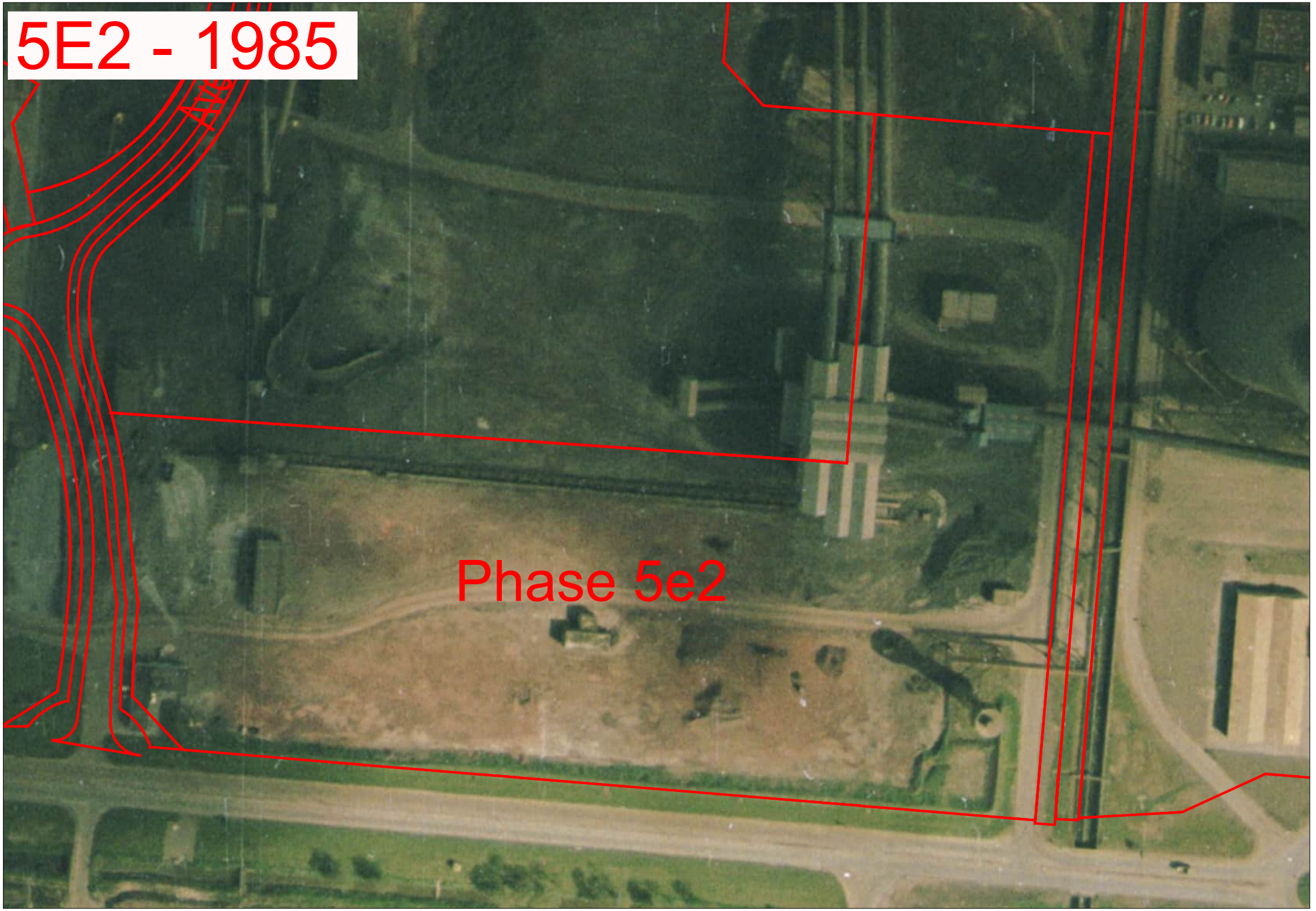
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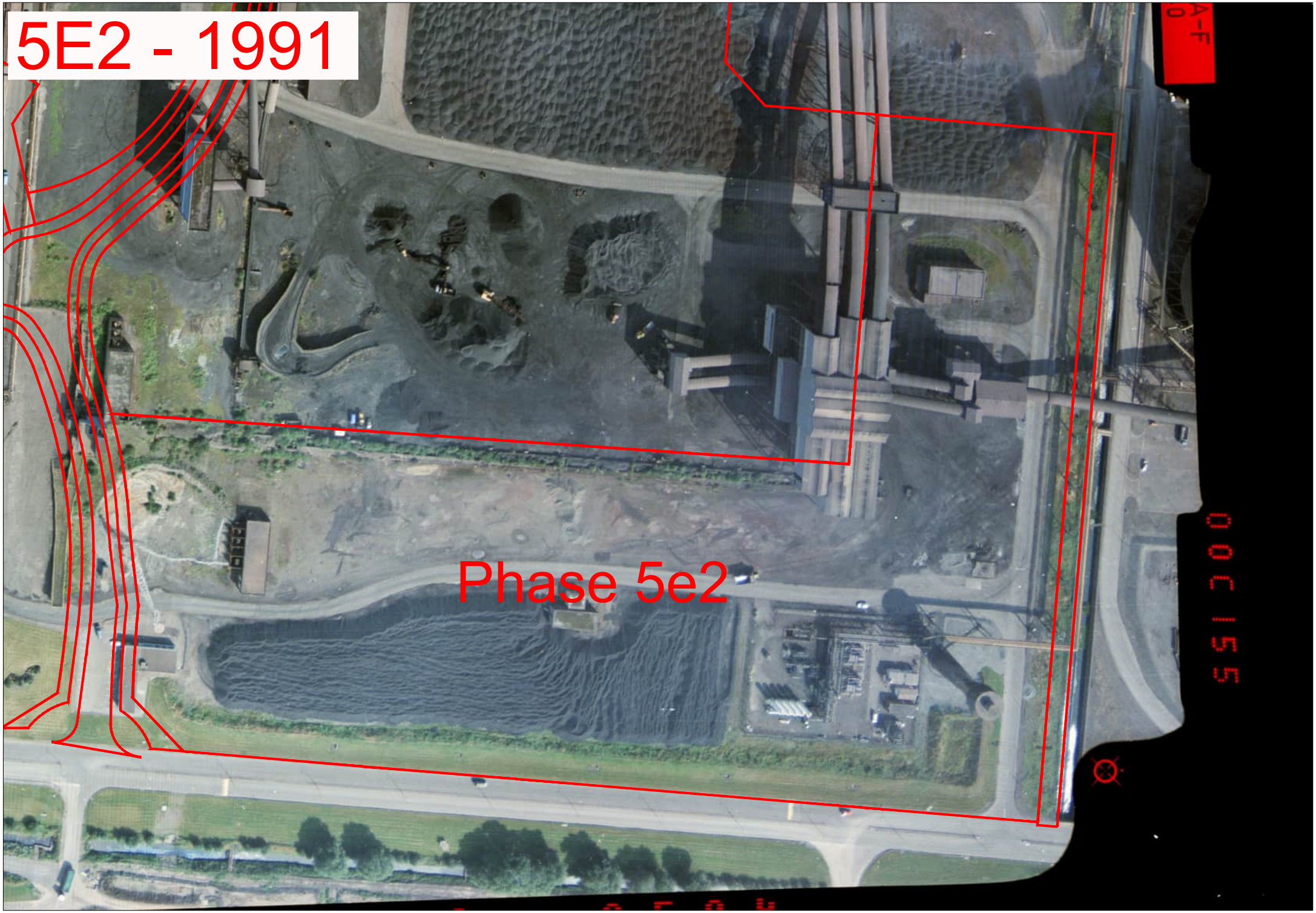
Site at 336524,186542

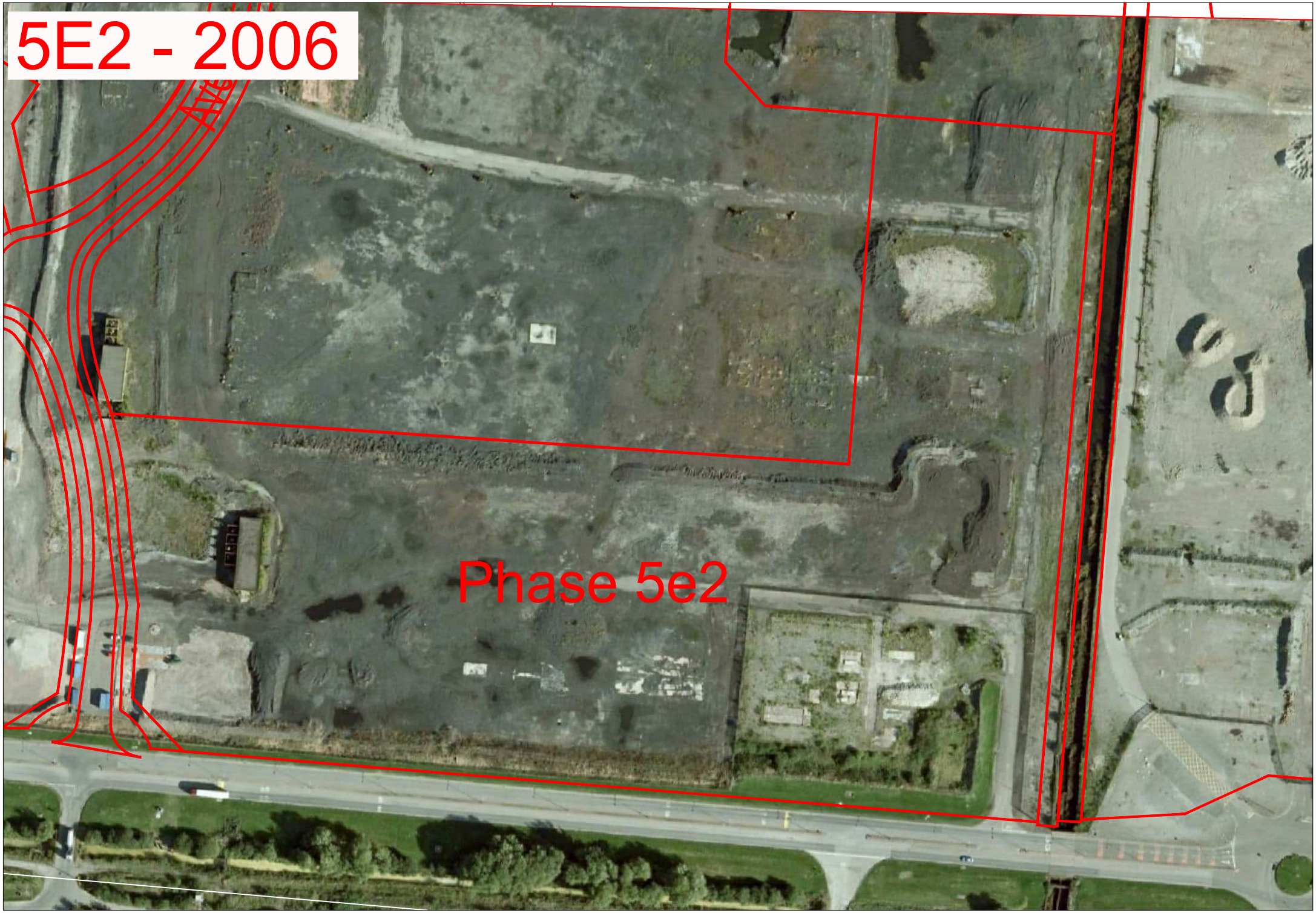
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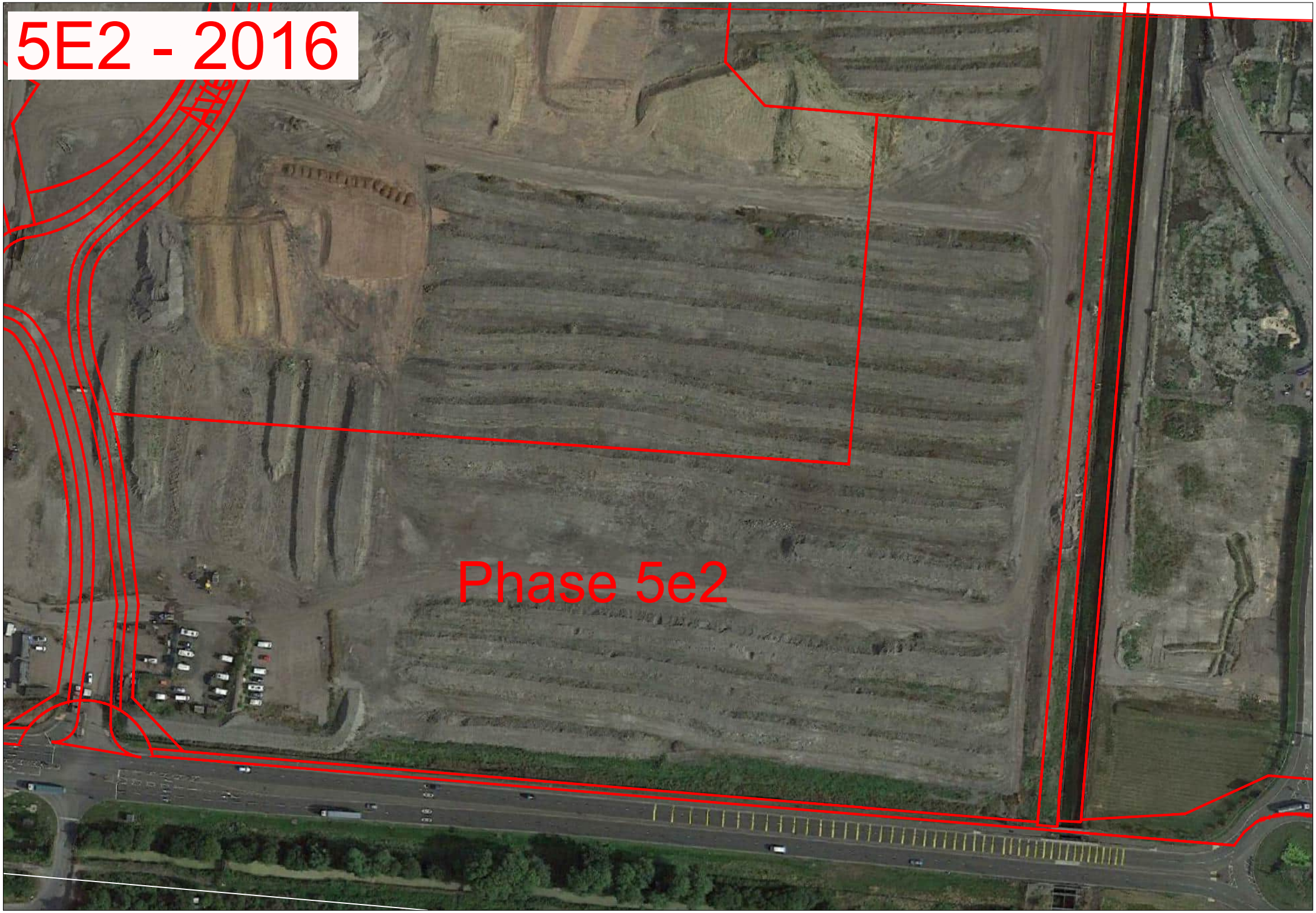
Tel: 0844 844 9952
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Web: www.envirocheck.co.uk


5E2 - 1979
Phase 5e2


5E2 - 1985
Phase 5e2


5E2 - 1991
Phase 5e2

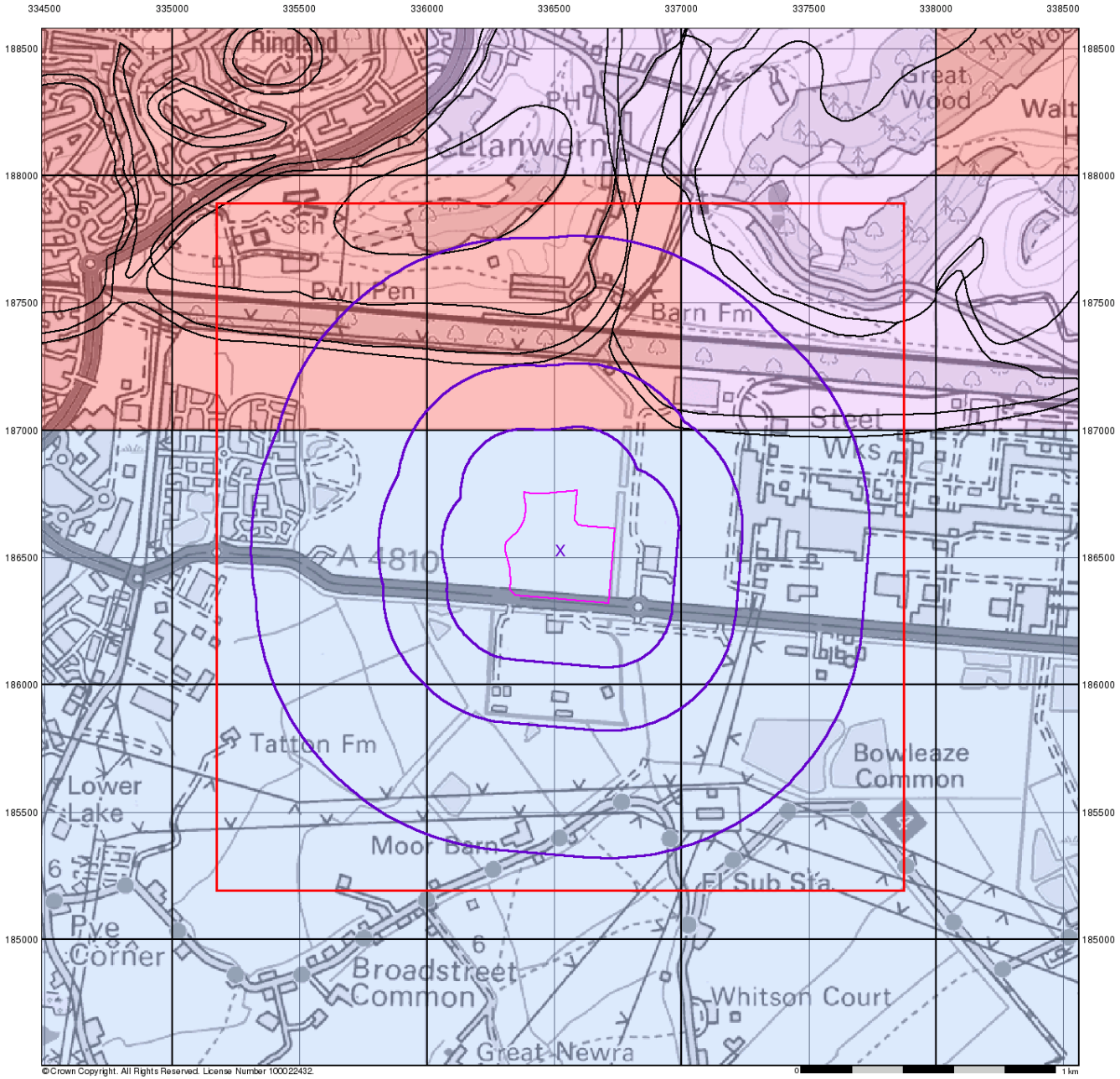

5E2 - 2006
Phase 5e2


5E2 - 2016
Phase 5e2


5E2 - 2018
Phase 5e2


5E2 - 2021
Phase 5e2

Appendix D
Envirocheck Report



Envirocheck

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Groundwater Vulnerability

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

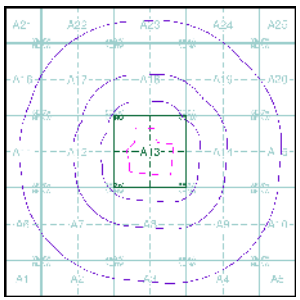
Agency and Hydrological

Bedrock Aquifers	Superficial Aquifers
High Vulnerability, Principal Aquifer	High Vulnerability, Principal Aquifer
High Vulnerability, Secondary Aquifer	High Vulnerability, Secondary Aquifer
Medium Vulnerability, Principal Aquifer	Medium Vulnerability, Principal Aquifer
Medium Vulnerability, Secondary Aquifer	Medium Vulnerability, Secondary Aquifer
Low Vulnerability, Principal Aquifer	Low Vulnerability, Principal Aquifer
Low Vulnerability, Secondary Aquifer	Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



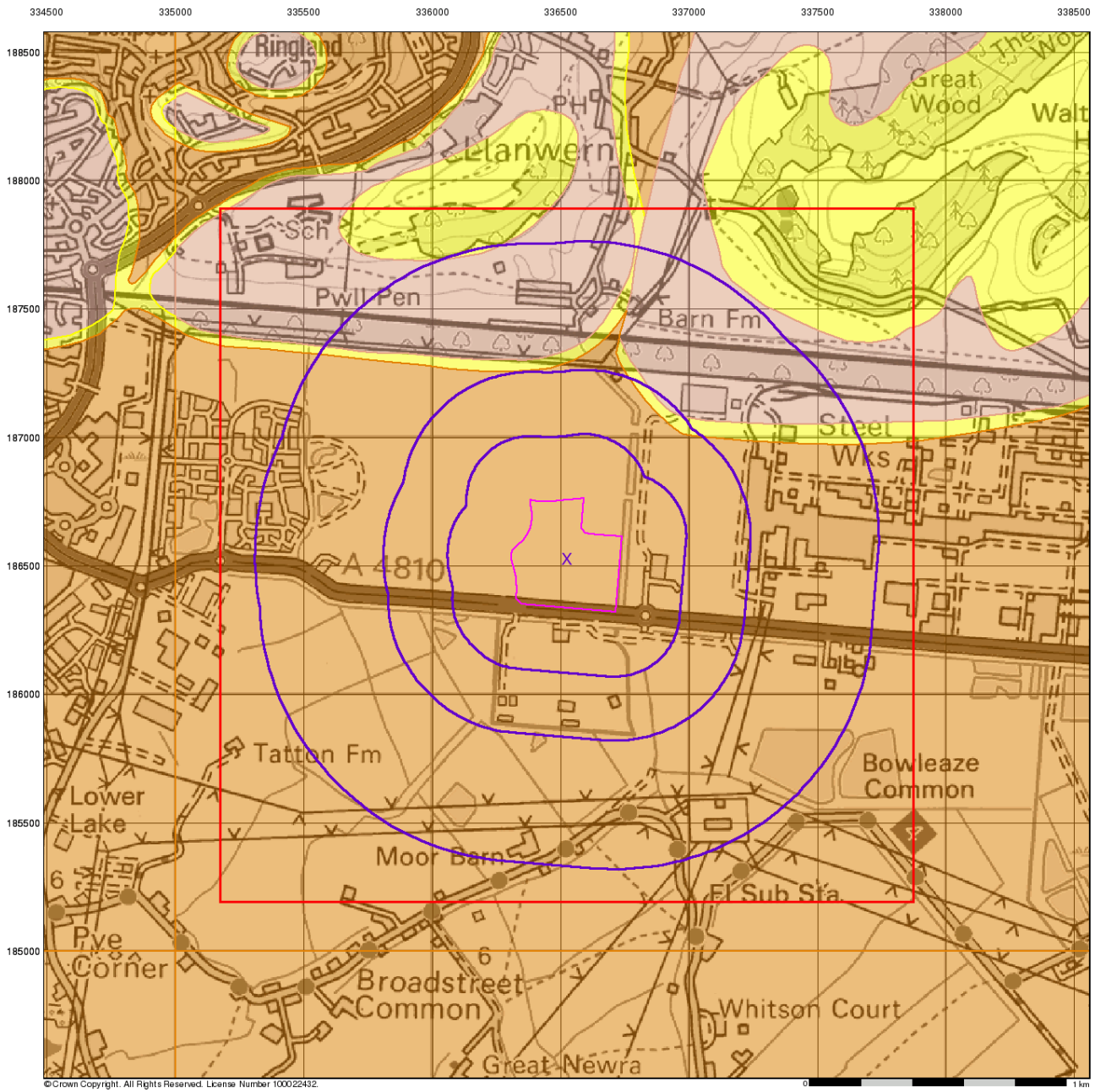
Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Bedrock Aquifer Designation

General

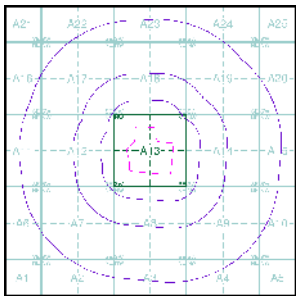
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



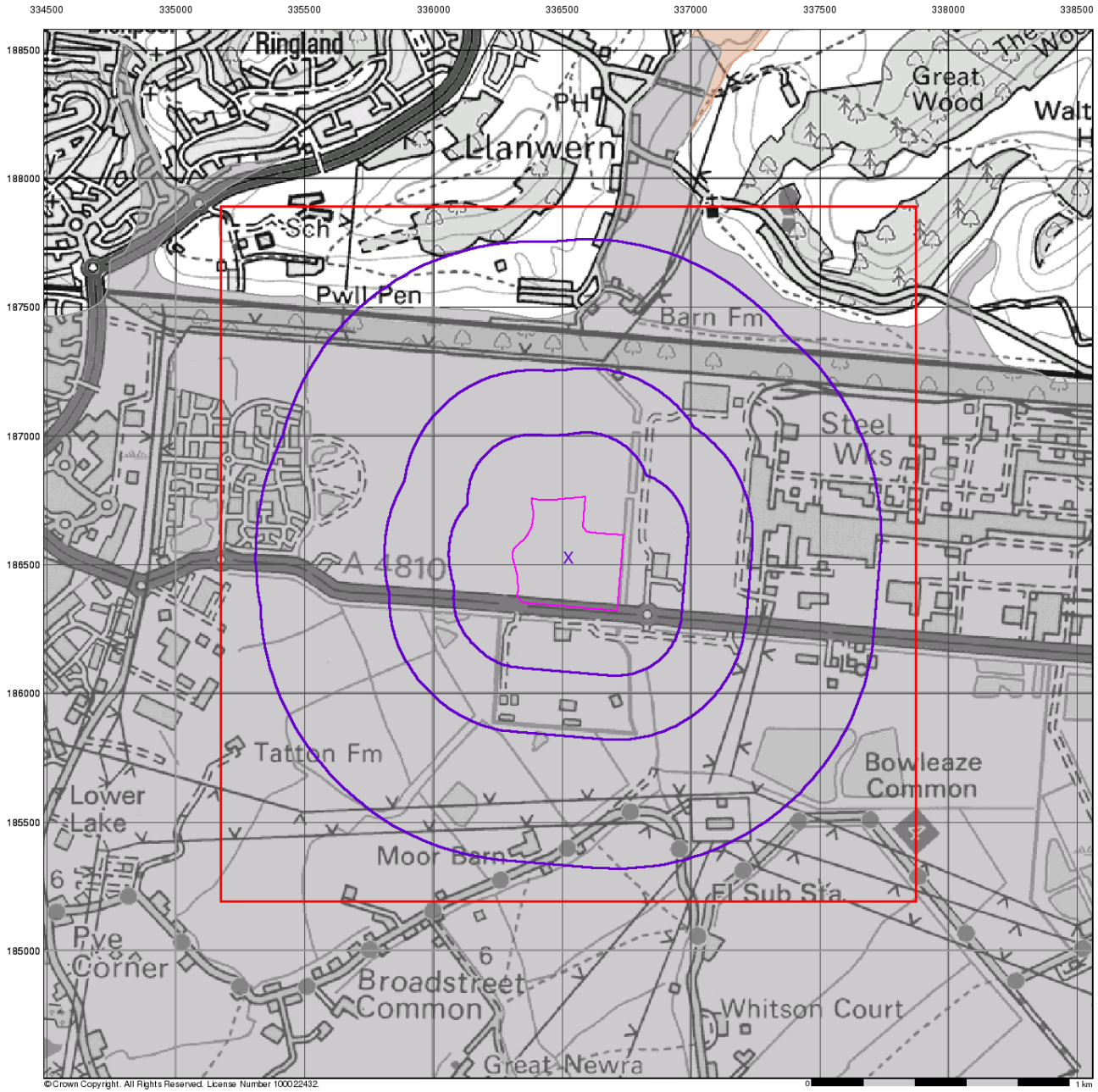
Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Superficial Aquifer Designation

General

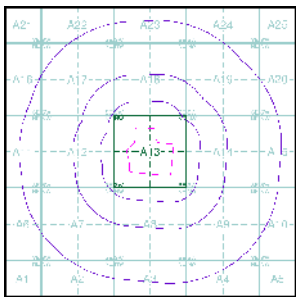
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



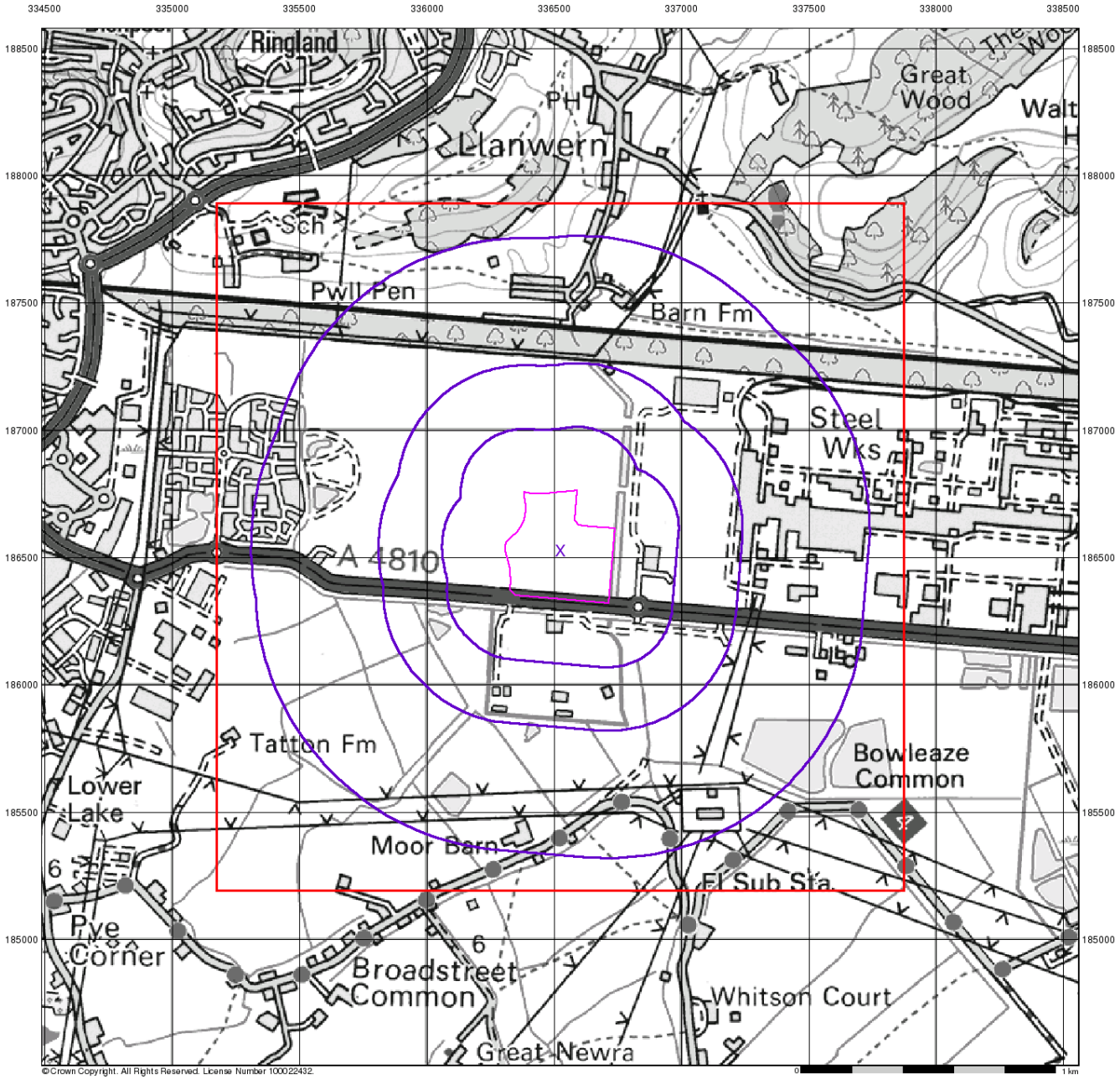
Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Source Protection Zones

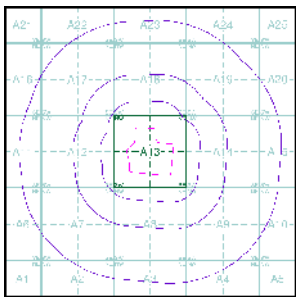
General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



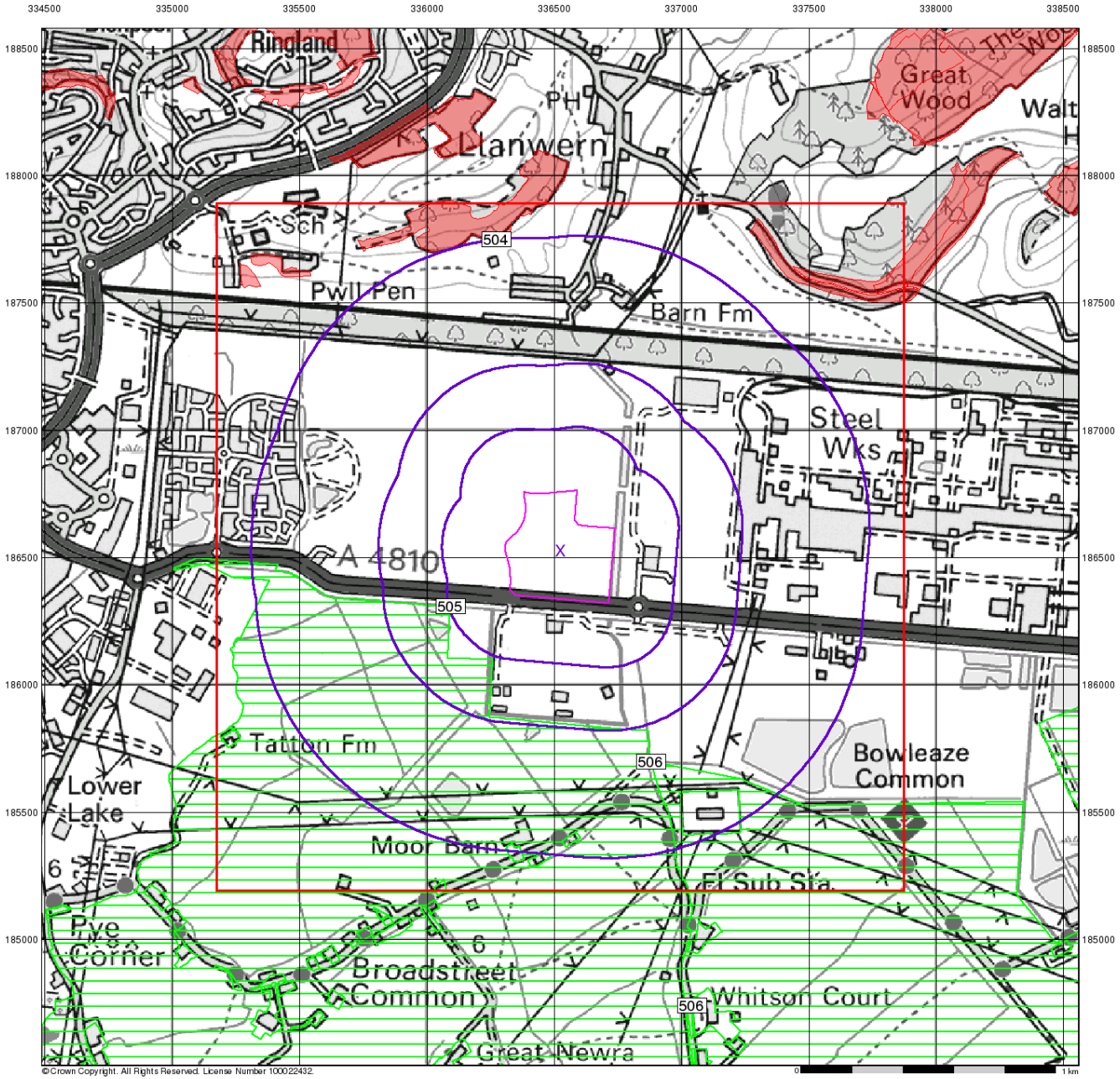
Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Sensitive Land Uses

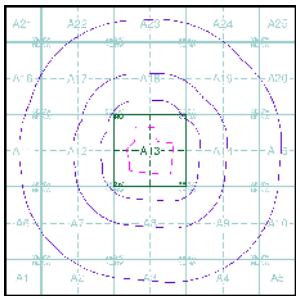
General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



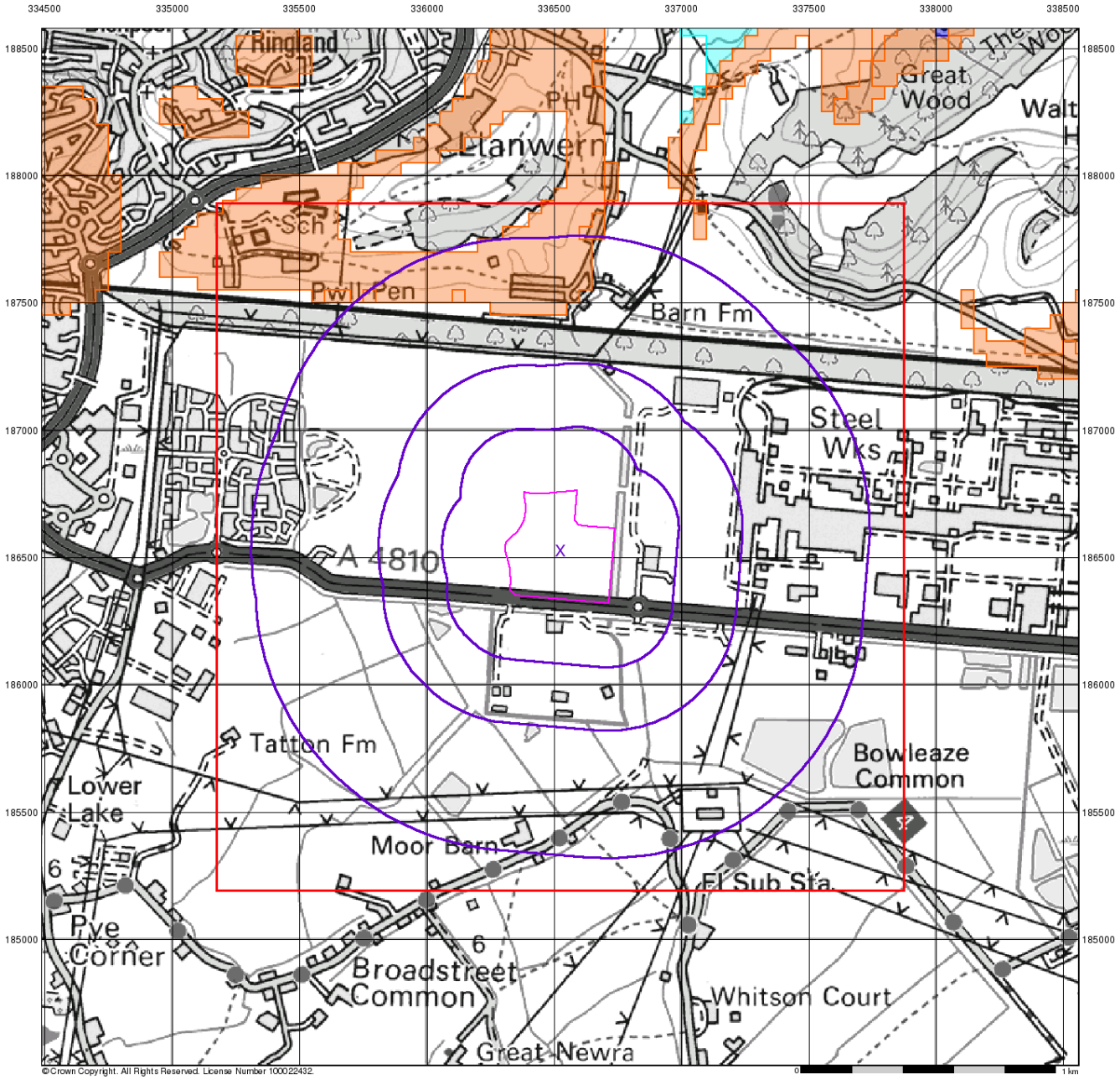
Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

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BGS Flood GFS Data

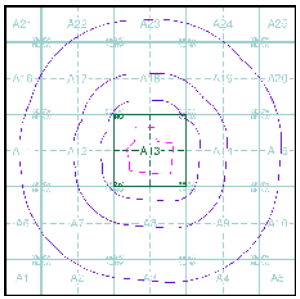
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Envirocheck® Report:

Datasheet

Order Details:

Order Number:
287158115_1_1

Customer Reference:
P18-669 5e1/5e2

National Grid Reference:
336530, 186530

Slice:
A

Site Area (Ha):
14.1

Search Buffer (m):
1000

Site Details:

Site at 336524,186542

Client Details:

Mr R Taylor
Rodgers Leask Ltd
Rodgers Leask Ltd
Seven House
18 High Street
Longbridge
Birmingham
B31 2UQ

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Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	64
Hazardous Substances	67
Geological	68
Industrial Land Use	70
Sensitive Land Use	92
Data Currency	93
Data Suppliers	98
Useful Contacts	99

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.
For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.
In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility					n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			11	9
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices	pg 6				4
Integrated Pollution Controls	pg 6		4		21
Integrated Pollution Prevention And Control	pg 10				3
Local Authority Integrated Pollution Prevention And Control	pg 10			3	
Local Authority Pollution Prevention and Controls	pg 11			6	
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 11		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes	pg 12				1
Registered Radioactive Substances	pg 12				3
River Quality	pg 12	1			2
River Quality Biology Sampling Points	pg 13				2
River Quality Chemistry Sampling Points	pg 14		1		
Substantiated Pollution Incident Register					
Water Abstractions					
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 14	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 15	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 18	Yes	Yes	n/a	n/a
Areas Benefiting from Flood Defences	pg 22	Yes	Yes	n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 24		18	33	305

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 64		1		
Licensed Waste Management Facilities (Locations)	pg 64				4
Local Authority Landfill Coverage	pg 65	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 65				1
Potentially Infilled Land (Water)	pg 65	1	1	2	7
Registered Landfill Sites	pg 65				1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 66		1		
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 67	1			3
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 67		1		
Planning Hazardous Substance Consents	pg 67		1		2
Planning Hazardous Substance Enforcements					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 68	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 68	Yes		Yes	Yes
BGS Recorded Mineral Sites	pg 69		1	1	
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards				n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 69	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 69	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 69	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 69	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 70		2	2	5
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 70	2	36	42	125
Points of Interest - Public Infrastructure	pg 87		3	9	12
Points of Interest - Recreational and Environmental	pg 89				5
Gas Pipelines					
Underground Electrical Cables	pg 90				13

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 92				1
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest	pg 92		1		1
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks - Power Pl Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ac0098801 Permit Version: 1 Effective Date: 11th July 1975 Issued Date: 11th July 1975 Revocation Date: 7th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (E)	333	2	337060 186700
2	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Filter Uni Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034302 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	383	2	337040 186850
2	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Filter Uni Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034303 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	383	2	337040 186850
2	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Filter Uni Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034304 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	383	2	337040 186850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Filter Uni Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034305 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	383	2	337040 186850
2	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Filter Uni Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034306 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	383	2	337040 186850
2	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Filter Uni Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034307 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Numbwer 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	383	2	337040 186850
3	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern - Steelworks Blast Furnace, Blast Furnaces Lagoon Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ac0099001 Permit Version: 1 Effective Date: 20th August 1975 Issued Date: 20th August 1975 Revocation Date: 7th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 4 **Status: Consent expired** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	452	2	336300 187200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Hood & Lan Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034301 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	472	2	337060 186960
4	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Hood & Lan Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034308 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	472	2	337060 186960
4	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Hood & Lan Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034310 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 5 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	472	2	337060 186960
5	**Discharge Consents** Operator: Llanwern Community Council Property Type: Undefined Or Other Location: Tennyson Avenue, Llanwern, Newport Authority: Natural Resources Wales Catchment Area: Monks Ditch Reference: An0218901 Permit Version: 2 Effective Date: 10th September 1990 Issued Date: 10th September 1990 Revocation Date: 20th November 1992 Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Monksditch **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A18NE (N)	668	2	336550 187430

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Oxygen Pla Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034322 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: East-West Ditch **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A9NE (E)	730	2	337430 186180
7	**Discharge Consents** Operator: Llanwern Community Council Property Type: Undefined Or Other Location: Tennyson Avenue, Llanwern, Newport Authority: Natural Resources Wales Catchment Area: Monks Ditch Reference: An0218901 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 9th September 1990 Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Monksditch **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 100m	A18NW (N)	742	2	336500 187500
8	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Hot Mill C Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034311 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 6 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NE (E)	744	2	337470 186750
8	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Hot Mill C Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034312 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 6 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NE (E)	744	2	337470 186750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	**Discharge Consents** Operator: British Steel Corporation Property Type: Undefined Or Other Location: Llanwern Steelworks-Hot Mill C Authority: Natural Resources Wales Catchment Area: Llanwern Outfall Reference: Ab0034313 Permit Version: 1 Effective Date: 15th February 1963 Issued Date: 15th February 1963 Revocation Date: 6th March 1986 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream Number 6 **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NE (E)	744	2	337470 186750
9	**Discharge Consents** Operator: National Grid Plc Property Type: Production & Distribution Of Electricity Location: Whitson 400/275kv Substation Nash, Broadc Street Common, Newport Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0335901 Permit Version: 1 Effective Date: 3rd July 2003 Issued Date: 3rd July 2003 Revocation Date: 8th November 2010 Discharge Type: Trade Discharges - Site Drainage Discharge Environment: Freshwater Stream/River Receiving Water: The Caldicot Level Reen System **Status: Revoked under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	832	2	336997 185538
10	**Discharge Consents** Operator: Alan R Jones & Sons Ltd Property Type: Miscellaneous Transport Not Specified Location: 'Decoypool' Nash Newport Authority: Natural Resources Wales Catchment Area: Not Given Reference: AN0228101 Permit Version: 1 Effective Date: 23rd March 1992 Issued Date: 23rd March 1992 Revocation Date: 28th June 2002 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Chapel Reen **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A3NE (S)	918	2	336580 185410
11	**Discharge Consents** Operator: National Grid Plc Property Type: Production & Distribution Of Electricity Location: Whitson 400/275kv Substation Nash, Broad Street Common, Newport Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0335902 Permit Version: 1 Effective Date: 3rd July 2003 Issued Date: 3rd July 2003 Revocation Date: 8th November 2010 Discharge Type: Trade Discharges - Site Drainage Discharge Environment: Freshwater Stream/River Receiving Water: The Caldicot Level Reen System **Status: Revoked under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	945	2	337232 185530
12	**Prosecutions Relating to Controlled Waters** Location: Kress Garage, Spencer Works, NEWPORT, Gwent, NP9 Prosecution Text: EA Welsh Data 02/09/1999, Polluting Spytty Reen with waste oil. Offence committed 05/12/1994. Prosecution Act: WRA91 s85(1)(3) & s202 Hearing Date: 2nd August 1995 Verdict: Guilty Fine: 1000 Cost: 500 Positional Accuracy: Manually positioned within the geographical locality	A15NW (E)	882	3	337600 186800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Enforcement and Prohibition Notices** Location: Llanwern, NEWPORT, . Permit Reference: Not Given Enforcement Date: 5th October 2001 Details: Enforcement Notice - After Breaching Four Conditions Of Their Ipc Authorisation. This Included Releasing Around 1500 Cu/M Of Water Containing Hydrochloric Acid To The Severn Estuary On 18-09-01. Work To Be Carried Out On Systems, Maintenance And Training. Positional Accuracy: Manually positioned to the address or location	A14SE (E)	750	3	337484 186535
14	**Enforcement and Prohibition Notices** Location: Barn Farm, Station Road, Llanwern, NEWPORT, Gwent, NP6 2DW Permit Reference: SM85/99KC Enforcement Date: 19th March 1999 Details: EA News Release 19/03/1999, Consistent unauthorised waste activities following repeated warnings. Positional Accuracy: Manually positioned to the address or location	A18NE (N)	802	3	336736 187552
14	**Enforcement and Prohibition Notices** Location: Barn Farm, Station Road, Llanwern, NEWPORT, Gwent, NP6 2DW Permit Reference: SM85/99KC Enforcement Date: 19th March 1999 Details: EA Data 23/03/1999, Illegal tipping of controlled waste at farm premises, following long-standing complaints of unauthorised waste activities & flouting of repeated warnings from EA. First time Env. Act 1995 s37(1a) implemented for this purpose. Positional Accuracy: Manually positioned to the address or location	A23SE (N)	819	3	336733 187570
15	**Enforcement and Prohibition Notices** Location: Llanwern Works, NEWPORT, Gwent, NP9 0QX Permit Reference: Not Given Enforcement Date: 18th December 1995 Details: Press Release HM345, Failure to make required progress in providing a plant to treat liquid effluent for benzene and ammonia. Positional Accuracy: Unknown	A15NW (E)	880	3	337600 186790
16	**Integrated Pollution Controls** Name: Cambrian Stone Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Authority: Environment Agency, Welsh Region Permit Reference: BG4437 Dated: 12th October 1999 Process Type: IPC major (substantial) variation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry **Status: Authorisation revoked** Positional Accuracy: Automatically positioned to the address	A13SW (S)	93	3	336430 186251
16	**Integrated Pollution Controls** Name: Cambrian Stone Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Authority: Environment Agency, Welsh Region Permit Reference: BD7006 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Automatically positioned to the address	A13SW (S)	93	3	336430 186251
16	**Integrated Pollution Controls** Name: Cambrian Stone Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Authority: Environment Agency, Welsh Region Permit Reference: AW7487 Dated: 23rd October 1996 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Automatically positioned to the address	A13SW (S)	93	3	336430 186251
16	**Integrated Pollution Controls** Name: Cambrian Stone Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Authority: Environment Agency, Welsh Region Permit Reference: AD1925 Dated: 25th June 1992 Process Type: IPC new application Description: 2.1 A (L) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Automatically positioned to the address	A13SW (S)	93	3	336430 186251

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	**Integrated Pollution Controls** Name: Bitmac Ltd Location: Llanwern Works, Queensway, NEWPORT, Gwent, NP9 0QX Authority: Environment Agency, Welsh Region Permit Reference: BC3854 Dated: 5th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry **Status: Application has met the requirements for authorisation (but not yet authorised)** Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	576	3	335752 186384
17	**Integrated Pollution Controls** Name: Bitmac Ltd Location: Llanwern Works, Queensway, NEWPORT, Gwent, NP19 4QX Authority: Environment Agency, Welsh Region Permit Reference: BG7746 Dated: 4th August 1999 Process Type: IPC minor (non-substantial) variation to previous variation Description: 1.2 A (B) Carbonisation and associated processes within the Fuel & Power Industry **Status: Application has met the requirements for authorisation (but not yet authorised)** Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	579	3	335747 186389
18	**Integrated Pollution Controls** Name: Multiserv (Asr) Ltd Location: British Steel Plc, Llanwern Works, NEWPORT, Gwent, NP9 0XN Authority: Environment Agency, Welsh Region Permit Reference: AY8255 Dated: 22nd October 1997 Process Type: IPC new application Description: 2.1 A (L) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	651	3	337364 186795
18	**Integrated Pollution Controls** Name: Multiserv (Asr) Ltd Location: Integrated Works, - Llanwern, NEWPORT, Gwent, NP9 0XN Authority: Environment Agency, Welsh Region Permit Reference: BD9700 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry **Status: Authorisation revoked** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	653	3	337364 186800
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: Bm1873 Dated: 25th October 2002 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Revoked - Now IPPC** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: Bj0323 Dated: 5th December 2000 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: Bj3802 Dated: 13th September 2000 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: Bi3580 Dated: 18th May 2000 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status:** **Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: BH2677 Dated: 28th January 2000 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status:** **Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: BF3184 Dated: 8th March 1999 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status:** **Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: BF1904 Dated: 29th January 1999 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status:** **Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: BB6939 Dated: 2nd December 1998 Process Type: IPC major (substantial) variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status:** **Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: BE6803 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status:** **Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: AZ4719 Dated: 19th September 1997 Process Type: IPC major (substantial) variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status:** **Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: AY2591 Dated: 4th April 1997 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: AV8771 Dated: 10th February 1997 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: AU8733 Dated: 29th March 1996 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
19	**Integrated Pollution Controls** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QZ Authority: Environment Agency, Welsh Region Permit Reference: AR0349 Dated: 31st July 1995 Process Type: IPC application for process that was regulated by HMIP for air releases under previous legislation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	767	3	337500 186700
20	**Integrated Pollution Controls** Name: British Steel Plc Location: Llanwern Works, NEWPORT, Gwent, NP9 0XN Authority: Environment Agency, Welsh Region Permit Reference: BF5756 Dated: 26th February 1999 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry **Status: Application has met the requirements for authorisation (but not yet authorised)** Positional Accuracy: Manually positioned to the address or location	A15NW (E)	884	3	337607 186779
21	**Integrated Pollution Controls** Name: Air Products (gb) Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Authority: Environment Agency, Welsh Region Permit Reference: BC5288 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 1.2 A (B) Carbonisation and associated processes within the Fuel & Power Industry **Status: Authorisation revoked** Positional Accuracy: Automatically positioned to the address	A10NW (E)	913	3	337602 186111
21	**Integrated Pollution Controls** Name: Air Products (gb) Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Authority: Environment Agency, Welsh Region Permit Reference: AF7002 Dated: 16th December 1992 Process Type: IPC new application Description: 1.2 A (B) Carbonisation and associated processes within the Fuel & Power Industry **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Automatically positioned to the address	A10NW (E)	913	3	337602 186111

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	**Integrated Pollution Prevention And Control** Name: Llanwern Steelworks Epr/Bs3905ip Location: Corus Strip Products, Llanwern Steelworks, Newport, Gwent, NP19 4QZ Authority: Natural Resources Wales Permit Reference: Bs3905ip Original Permit Ref: Tp3931zp Effective Date: 13th May 2013 **Status:** **Effective** Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Manually positioned to the address or location Activity Code: 2.1 PART A (1) C) Activity Description: Not Supplied Primary Activity: Y Activity Code: 2.1 PART A (2) C) Activity Description: Not Supplied Primary Activity: N Activity Code: 1.1 A(1) (A) Activity Description: Not Supplied Primary Activity: N	A19SE (NE)	626	2	337291 186908
23	**Integrated Pollution Prevention And Control** Name: Air Products (Br) Limited Location: Llanwern Hydrogen Plant Ea/Epr/Bl2459ic/V002, Queensway, Spencer Works,,, Newport, NP19 4QX Authority: Natural Resources Wales Permit Reference: QP3236ZW Original Permit Ref: Bl2459ic Effective Date: 4th March 2013 **Status:** **Effective** Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (A) (I) Activity Description: Inorganic Chemicals; Gases Eg Ammonia, Primary Activity: Y	A10NW (E)	913	2	337602 186111
23	**Integrated Pollution Prevention And Control** Name: Llanwern Hydrogen Plant Epr/Bl2459ic Location: Llanwern Hydrogen Plant, Queens Way, Spencer Works, Llanwern, Newport, Gwent, NP19 4QX Authority: Natural Resources Wales Permit Reference: Bl2459ic Original Permit Ref: Qp3236zw Effective Date: 4th March 2013 **Status:** **Effective** Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 PART A (1) A) (I) Activity Description: Not Supplied Primary Activity: Y	A10NW (E)	913	2	337602 186111
24	**Local Authority Integrated Pollution Prevention And Control** Name: Cambrian Stone Ltd Location: Llanwern Works, Newport Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: APA/011 Dated: Not Supplied Process Type: Mineral Industries Description: 3/15 **Status:** **Permit Issued** Positional Accuracy: Manually positioned to the address or location	A12SE (W)	375	4	335948 186426
25	**Local Authority Integrated Pollution Prevention And Control** Name: Civil & Marine Ltd Location: Llanwern Works, Newport, NP19 4QX Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LA-IPPC/001/05/v2 Dated: Not Supplied Process Type: Production and Processing of Metals Description: Drying & Grinding of blast furnace slag **Status:** **Permit Revoked** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	407	4	336313 187157

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	**Local Authority Integrated Pollution Prevention And Control** Name: Newport Galvanisers Ltd Location: Llanwern Works, Newport, NP19 4QX Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LA-IPPC002/06 Dated: Not Supplied Process Type: Production and Processing of Metals Description: Hot dip galvanising **Status: Permit Issued** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	407	4	336313 187157
26	**Local Authority Pollution Prevention and Controls** Name: Cambrian Stone Ltd Location: Llanwern Works, NEWPORT, NP9 0QX Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: APA/011 Dated: 16th August 1993 Process Type: Local Authority Air Pollution Control Description: PG3/15 Mineral drying and roadstone coating processes **Status: Authorised** Positional Accuracy: Manually positioned to the address or location	A12SE (W)	375	4	335948 186426
26	**Local Authority Pollution Prevention and Controls** Name: Corus Group Plc Location: Llanwern Works, Zodiac Line, NEWPORT, Gwent, NP9 0XD Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: Apa/013/92 Dated: 28th October 1992 Process Type: Local Authority Air Pollution Control Description: PG2/2 Hot dip galvanising processes **Status: Authorised** Positional Accuracy: Manually positioned to the address or location	A12SE (W)	375	4	335948 186427
27	**Local Authority Pollution Prevention and Controls** Name: Tarmac Limited Location: Llanwen Works, Queensway, Newport, Np19 0dx Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LAPPC/039/07/v1 Dated: 6th June 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG3/1Blending, packing, loading and use of bulk cement **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	407	4	336313 187157
27	**Local Authority Pollution Prevention and Controls** Name: Civil & Marine Ltd (Heidelberg Cement Group) Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LA-IPPC001/05/v2 Dated: 8th June 1993 Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement **Status: Transferred to LAIPPC** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	407	4	336313 187157
27	**Local Authority Pollution Prevention and Controls** Name: Newport Galvanisers Ltd Location: Llanwern Works, Newport, Np19 4qx Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LA-IPPC002/06/v1 Dated: 26th August 1992 Process Type: Local Authority Air Pollution Control Description: PG6/23 Coating of metal and plastic **Status: Transferred to LAIPPC** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	407	4	336313 187157
27	**Local Authority Pollution Prevention and Controls** Name: Tarmac Topmix Location: Llanwern Works, Queensway, Llanwern, Newport, NP19 0QX Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LAPPC/031/05/v2 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/1Blending, packing, loading and use of bulk cement **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	407	4	336313 187157
	Nearest Surface Water Feature	A13SE (SE)	9	-	336722 186317

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	**Prosecutions Relating to Authorised Processes** Location: B O S Plant, Llanwern Site, NEWPORT, Gwent, NP9 0XN Prosecution Text: Failure to use best practicable means to prevent emission of noxious or offensive substances. Prosecution Act: HSWA74 Hearing Date: 18th September 1992 Verdict: Guilty Fine: 2000 Costs: 19000 Positional Accuracy: Manually positioned to the address or location	A15SW (E)	874	3	337605 186490
29	**Registered Radioactive Substances** Name: Corus Uk Ltd Location: Corus Strip Products,Llanwern Works, Newport, Gwent, Np9 0xn Authority: Natural Resources Wales Permit Reference: Bj2920 Dated: 7th September 2000 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A15NW (E)	806	2	337543 186661
29	**Registered Radioactive Substances** Name: Corus Uk Ltd Location: Llanwern Works, NEWPORT, Gwent, NP9 0XN Authority: Natural Resources Wales Permit Reference: BH0119 Dated: 14th October 1999 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A15NW (E)	806	2	337543 186661
29	**Registered Radioactive Substances** Name: Corus Uk Ltd Location: PO Box 10, NEWPORT, Gwent, NP9 0XN Authority: Natural Resources Wales Permit Reference: BA6283 Dated: 30th June 1998 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA **Status: Authorisation superseded by a substantial or non substantial variation** Positional Accuracy: Manually positioned to the address or location	A15NW (E)	806	2	337543 186661
	River Quality Name: Monks D GQA Grade: River Quality C Reach: Bsc Transformer Stn. - Barn Fm. Estimated Distance (km): 2.5 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A13SE (E)	0	3	336581 186528
	River Quality Name: Monks D GQA Grade: River Quality B Reach: Barn Fm. - M4 Estimated Distance (km): 3.1 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A18NW (N)	649	3	336500 187406
	River Quality Name: Monks D GQA Grade: River Quality E Reach: Goldcliff - Bsc Transformer Stn. Estimated Distance (km): 3.7 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A8SE (S)	746	3	336581 185583

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	**River Quality Biology Sampling Points** Name: Monks Ditch Reach: Bsc Transformer Station To Barn Farm Estimated Distance: 2.50 Positional Accuracy: Located by supplier to within 100m Year: 1990 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 1995 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2000 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2002 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2003 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2004 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2005 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2006 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2007 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2008 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2009 GQA Grade: River Quality Biology GQA Grade C - Fairly Good	A18NW (N)	643	3	336500 187400
31	**River Quality Biology Sampling Points** Name: Monks Ditch Reach: Goldcliff To Bsc Transformer Station Estimated Distance: 3.70 Positional Accuracy: Located by supplier to within 100m Year: 1990 GQA Grade: River Quality Biology GQA Grade B - Good Year: 1995 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2000 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2002 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2003 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2004 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2005 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2006 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2007 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2008 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2009 GQA Grade: River Quality Biology GQA Grade B - Good	A4NW (S)	841	3	336900 185500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	**River Quality Chemistry Sampling Points** Name: Monks Ditch Reach: Bsc Transformer Stn. To Barn Farm Estimated Distance: 2.50 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied	A13SE (SE)	22	3	336723 186301
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Low Vulnerability Combined Vulnerability: Low Combined Aquifer: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: 3-10m Superficial Recharge: Low	A13SE (SW)	0	2	336526 186528
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - B	A13SE (SW)	0	2	336526 186528
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A13SE (SW)	0	2	336526 186528

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (S)	0	2	336540 186480
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (S)	0	2	336526 186480
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	336605 186400
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (S)	0	2	336515 186420
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (N)	0	2	336500 186710
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SW)	0	2	336526 186528
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (W)	0	2	336360 186570
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	0	2	336720 186525
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (W)	12	2	336300 186560
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	13	2	336345 186720
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	20	2	336420 186775
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	24	2	336305 186400
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (N)	33	2	336600 186795
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (W)	45	2	336300 186610
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (W)	49	2	336260 186535
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	49	2	336380 186805

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (N)	51	2	336545 186810
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	56	2	336635 186270
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (S)	57	2	336526 186275
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	57	2	336676 186260
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	59	2	336656 186265
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	60	2	336655 186265
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	336641 186265
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	336640 186265
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	336696 186260
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	336701 186260
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (S)	62	2	336631 186265
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	65	2	336650 186260
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (E)	91	2	336825 186550
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	93	2	336826 186545
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	97	2	336830 186528
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	103	2	336275 186725

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	105	2	336280 186790
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (W)	105	2	336220 186455
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	109	2	336841 186530
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	111	2	336845 186560
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (E)	112	2	336846 186550
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (E)	114	2	336845 186528
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	116	2	336695 186820
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	117	2	336850 186545
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	118	2	336670 186850
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	120	2	336835 186340
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	122	2	336671 186855
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (W)	123	2	336205 186425
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	125	2	336675 186855
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14NW (E)	138	2	336875 186585
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	154	2	336280 186870
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	184	2	336791 186790

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	188	2	336200 186800
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A18SE (N)	203	2	336560 186965
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	218	2	336195 186875
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A12SE (SW)	227	2	336110 186310
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14SW (SE)	234	2	336950 186340
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14NW (E)	236	2	336965 186680
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14NW (NE)	236	2	336865 186815
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (S)	0	2	336526 186480
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	0	2	336720 186525
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (S)	0	2	336540 186480
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (N)	0	2	336500 186710
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (W)	0	2	336360 186570
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	336605 186400
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (S)	0	2	336515 186420
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SW)	0	2	336526 186528
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (W)	12	2	336300 186560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	13	2	336345 186720
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	20	2	336420 186775
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	24	2	336305 186400
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (N)	33	2	336600 186795
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (W)	45	2	336300 186610
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (W)	49	2	336260 186535
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	49	2	336380 186805
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (N)	51	2	336545 186810
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	56	2	336635 186270
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (S)	57	2	336526 186275
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	57	2	336656 186265
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	60	2	336655 186265
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	60	2	336701 186260
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	336641 186265
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	336696 186260
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	336640 186265

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (S)	62	2	336631 186265
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (E)	62	2	336791 186500
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	65	2	336650 186260
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	66	2	336725 186255
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	73	2	336735 186250
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	76	2	336741 186250
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	76	2	336726 186245
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	86	2	336755 186245
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (E)	91	2	336825 186550
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	93	2	336826 186545
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	96	2	336831 186570
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	97	2	336830 186528
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	103	2	336275 186725
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	104	2	336670 186830
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (W)	105	2	336220 186455
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	105	2	336280 186790

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (E)	107	2	336841 186560
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	109	2	336841 186530
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	111	2	336845 186560
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (E)	112	2	336846 186550
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	112	2	336666 186845
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (E)	114	2	336845 186528
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	116	2	336695 186820
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	117	2	336850 186545
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	118	2	336670 186850
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	120	2	336835 186340
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	122	2	336671 186855
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (W)	123	2	336205 186425
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	125	2	336675 186855
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14NW (E)	138	2	336875 186585
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	154	2	336280 186870
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	184	2	336791 186790

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	188	2	336200 186800
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A18SE (N)	203	2	336560 186965
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	218	2	336195 186875
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A12SE (SW)	227	2	336110 186310
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14SW (SE)	234	2	336950 186340
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14NW (E)	236	2	336965 186680
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14NW (NE)	236	2	336865 186815
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (S)	0	2	336515 186420
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (N)	0	2	336500 186710
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (SE)	0	2	336605 186400
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (S)	0	2	336526 186480
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (S)	0	2	336540 186480
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (W)	0	2	336360 186570
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (E)	0	2	336720 186525
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (W)	12	2	336300 186560
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	13	2	336345 186720
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	20	2	336420 186775
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (SW)	24	2	336305 186400
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (N)	33	2	336600 186795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (W)	45	2	336300 186610
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	49	2	336380 186805
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (W)	49	2	336260 186535
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (N)	51	2	336545 186810
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (S)	57	2	336526 186275
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (E)	97	2	336830 186528
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	103	2	336275 186725
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	105	2	336280 186790
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (W)	105	2	336220 186455
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	116	2	336695 186820
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (SE)	120	2	336835 186340
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (W)	123	2	336205 186425
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A14NW (E)	138	2	336875 186585
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	154	2	336280 186870
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	188	2	336200 186800
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A18SE (N)	203	2	336560 186965
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NW (NW)	218	2	336195 186875
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A12SE (SW)	227	2	336110 186310
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A14SW (SE)	234	2	336950 186340
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A14NW (NE)	236	2	336865 186815
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A14NW (E)	236	2	336965 186680

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flood Water Storage Areas None				
	Flood Defences None				
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1057.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A13SE (E)	12	5	336743 186510
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 85.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SE (SE)	47	5	336638 186280
35	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 17.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SE (S)	47	5	336621 186281
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 311.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SW (S)	47	5	336507 186291
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A13SE (SE)	48	5	336723 186274
38	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 40.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A13SE (SE)	50	5	336723 186271
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SE (SE)	50	5	336723 186271
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 83.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SE (SE)	51	5	336728 186272

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 17.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SW (SW)	59	5	336311 186307
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 331.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SW (SW)	69	5	336294 186309
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 25.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A13SE (SE)	89	5	336720 186232
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1296.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SW (SW)	108	5	336248 186301
45	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 553.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A13SE (SE)	115	5	336718 186206
46	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 172.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SE (SE)	131	5	336831 186264
47	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 324.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NE (SE)	165	5	336780 186169
48	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 159.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A13SW (SW)	167	5	336188 186282
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 38.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	239	5	336220 186150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 452.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Wall Catchment Name: Usk and Llwyd Primacy: 2	A8NE (SE)	247	5	336813 186094
51	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 90.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	276	5	336192 186124
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 32.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	276	5	336195 186122
53	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14SW (SE)	303	5	337009 186250
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14SW (SE)	303	5	337009 186254
55	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 117.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14SW (SE)	304	5	337009 186250
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 36.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	315	5	336088 186169
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 126.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18SE (NE)	359	5	336822 187038
58	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 175.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (W)	361	5	335966 186306

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
59	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (W)	366	5	335963 186336
60	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 818.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (W)	366	5	335963 186336
61	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (W)	368	5	335963 186324
62	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (W)	369	5	335964 186310
63	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 152.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (W)	370	5	335963 186309
64	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	372	5	336032 186147
65	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	373	5	336035 186142
66	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 104.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	376	5	336041 186129
67	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	398	5	336099 186042

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 67.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	401	5	336104 186034
69	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 194.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NW (SE)	414	5	336885 185944
70	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 88.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	437	5	336132 185972
71	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 20.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19SW (NE)	450	5	336934 187053
72	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 157.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A14SW (SE)	451	5	337156 186238
73	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 800.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19SW (NE)	465	5	336955 187051
74	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 395.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NW (SE)	478	5	336877 185871
75	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	488	5	336431 185854
76	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 21.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	489	5	336496 185848

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
77	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 248.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Middle Reen Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	492	5	336638 185833
78	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 128.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (SW)	494	5	335854 186223
79	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	497	5	336205 185875
80	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 104.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SE (SW)	497	5	335850 186232
81	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 172.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	499	5	336203 185874
82	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	499	5	336203 185874
83	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 209.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NE (SW)	500	5	335905 186105
84	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	501	5	336212 185869
85	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	501	5	336212 185869

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 212.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8NW (SW)	501	5	336217 185868
87	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 281.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (SW)	503	5	336214 185867
88	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 93.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NW (SE)	506	5	337187 186144
89	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 39.4 Watercourse Level: Underground Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	508	5	336642 187269
90	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 24.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	512	5	336477 185826
91	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 13.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	519	5	335812 186319
92	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	522	5	335807 186332
93	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	522	5	335807 186336
94	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	531	5	336460 185809

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 135.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	533	5	336459 185807
96	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	533	5	336459 185807
97	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 328.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	533	5	336460 185806
98	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1126.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	535	5	336615 187297
99	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NE (SE)	545	5	337210 186097
100	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 46.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NE (SE)	547	5	337212 186095
101	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 73.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NE (SE)	547	5	337212 186095
102	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 31.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	548	5	336751 187287
103	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 44.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	558	5	336402 187314

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
104	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NE (SE)	571	5	337271 186201
105	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 104.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	574	5	336552 187336
106	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 35.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	577	5	336746 187319
107	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 45.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	577	5	336746 187319
108	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 81.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	582	5	336317 187338
109	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NE (SE)	582	5	337276 186173
110	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 66.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	586	5	336795 187313
111	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 91.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	587	5	336483 187342
112	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	587	5	336483 187342

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
113	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 31.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	587	5	336791 187314
114	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 24.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	587	5	336877 187275
115	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 140.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	592	5	336350 187347
116	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 38.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	592	5	336350 187347
117	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 64.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	594	5	335735 186332
118	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 43.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	598	5	336211 187328
119	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 125.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	599	5	336536 187361
120	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	600	5	336388 187356
121	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 237.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (NE)	602	5	336857 187303

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
122	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 249.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	602	5	336909 185751
123	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (NE)	602	5	336857 187303
124	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	603	5	336396 187358
125	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 111.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14SE (E)	603	5	337313 186225
126	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 31.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	604	5	336401 187360
127	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 172.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NE (SE)	604	5	337282 186117
128	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 78.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A14SE (E)	607	5	337313 186225
129	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 181.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	607	5	336876 187299
130	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 28.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	610	5	336742 187354

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
131	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 369.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	618	5	336428 187372
132	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 74.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	633	5	336131 187336
133	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	637	5	336743 187382
134	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 315.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ellen Reen Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	638	5	336365 185710
135	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 126.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	638	5	335726 186158
136	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 179.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A9SW (SE)	639	5	336878 185703
137	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 18.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	641	5	336213 187375
138	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 71.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	641	5	335722 186165
139	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 329.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	641	5	335721 186164

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
140	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	642	5	336213 187375
141	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 166.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17SE (NW)	643	5	335860 187130
142	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (S)	645	5	336869 185694
143	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 137.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	646	5	336556 187408
144	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	648	5	336201 187378
145	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 133.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9NE (SE)	648	5	337245 185949
146	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 244.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	650	5	335766 186046
147	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 180.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	650	5	335766 186046
148	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 129.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	652	5	336192 187379

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
149	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	652	5	336752 187395
150	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 86.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	652	5	335683 186261
151	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 311.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	653	5	335691 186228
152	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 190.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	662	5	336092 185742
153	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 394.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	662	5	336094 185741
154	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 129.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	666	5	337098 185777
155	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: Underground Permanent: True Watercourse Name: Black Wall Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	673	5	336825 185656
156	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 48.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Wall Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	674	5	336822 185655
157	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 282.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	676	5	335655 186305

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
158	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 54.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	676	5	335654 186311
159	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 626.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A14SE (E)	684	5	337390 186218
160	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14SE (E)	684	5	337390 186222
161	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 195.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	686	5	336390 185659
162	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 123.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	686	5	336390 185659
163	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A9SW (SE)	694	5	337054 185716
164	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Wall Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	694	5	336780 185630
165	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 157.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	695	5	336782 185629
166	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 135.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (S)	698	5	336880 185642

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
167	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (S)	698	5	336880 185642
168	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	703	5	336780 187440
169	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	706	5	336781 187443
170	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Oxleaze Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	709	5	336786 187445
171	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Oxleaze Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	710	5	336795 187443
172	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 420.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Oxleaze Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	710	5	336799 187442
173	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 30.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	710	5	336799 187442
174	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 32.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	710	5	336785 187446
175	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: Underground Permanent: True Watercourse Name: Oxleaze Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	710	5	336791 187444

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
176	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 17.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	710	5	337091 187266
177	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	712	5	336062 187391
178	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SE (SE)	714	5	337221 185818
179	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	714	5	336064 187395
180	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 184.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	716	5	336052 187390
181	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 13.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	719	5	336233 187459
182	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 25.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14NE (E)	720	5	337444 186754
183	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	723	5	337092 187284
184	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 79.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SE (SE)	725	5	337218 185801

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
185	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 20.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	726	5	337093 187288
186	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 207.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	729	5	336061 187409
187	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 403.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	731	5	337119 187268
188	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: Underground Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	731	5	337114 187274
189	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 76.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	733	5	336231 187472
190	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 103.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SW (SW)	735	5	335845 185816
191	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SW (SW)	735	5	335845 185816
192	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SW (SW)	738	5	335843 185815
193	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 65.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	739	5	336817 187467

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
194	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	741	5	336798 187475
195	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 83.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	741	5	336798 187475
196	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 149.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SW (SW)	741	5	335839 185814
197	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 80.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	742	5	337052 185660
198	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14NE (E)	745	5	337470 186751
199	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 81.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	746	5	337119 185695
200	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.8 Watercourse Level: Underground Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	749	5	336803 187481
201	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 20.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A14NE (E)	750	5	337476 186751
202	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 136.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	752	5	336632 187514

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
203	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	756	5	336807 187488
204	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	760	5	335562 186392
205	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1248.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	763	5	337114 185670
206	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 142.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	764	5	337193 185725
207	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: Underground Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	767	5	336813 187498
208	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 208.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12SW (W)	770	5	335554 186384
209	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	771	5	336816 187501
210	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 170.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	778	5	336463 185560
211	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	778	5	336463 185560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
212	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 37.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	778	5	336465 185560
213	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 194.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12NW (W)	779	5	335540 186672
214	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 24.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12NW (W)	779	5	335540 186672
215	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 116.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	780	5	335888 185722
216	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	780	5	335888 185722
217	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.0 Watercourse Level: Underground Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	781	5	336822 187509
218	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 137.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12NW (W)	782	5	335534 186648
219	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 30.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	783	5	337020 185600
220	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	783	5	335885 185721

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
221	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	786	5	336815 185541
222	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 270.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	787	5	335883 185718
223	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	788	5	336655 185535
224	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 63.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	788	5	336746 187536
225	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 26.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	789	5	335876 187360
226	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 129.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SE (S)	789	5	336653 185533
227	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	790	5	336995 185583
228	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 125.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	790	5	336995 185583
229	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	792	5	336723 187544

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
230	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	794	5	336831 187520
231	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 28.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	796	5	336832 187522
232	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 96.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 1	A18NE (N)	796	5	336832 187522
233	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	796	5	335986 187446
234	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 193.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (N)	797	5	336889 187503
235	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 43.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	797	5	336721 187549
236	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 38.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	798	5	337098 185621
237	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 74.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	801	5	336799 185524
238	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 395.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	801	5	335975 187445

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
239	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 17.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	801	5	336855 187520
240	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 378.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19SE (NE)	805	5	337454 186982
241	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 176.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	806	5	336993 185565
242	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	806	5	336809 187539
243	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 150.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	808	5	336486 185529
244	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 228.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	808	5	336486 185529
245	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 31.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NE (N)	808	5	336807 187542
246	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 54.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A18NW (N)	809	5	336215 187547
247	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 168.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A8SW (S)	812	5	336217 185550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
248	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	814	5	335868 187386
249	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 177.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	816	5	335866 187387
250	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 41.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	816	5	335866 187387
251	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 373.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monks' Ditch Catchment Name: Usk and Llwyd Primacy: 1	A9SW (S)	818	5	336933 185532
252	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (N)	818	5	336865 187534
253	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A23SE (N)	818	5	336780 187559
254	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A23SE (N)	819	5	336776 187561
255	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 13.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A23SE (N)	821	5	336768 187565
256	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 167.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (N)	822	5	336867 187537

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
257	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 20.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A23SE (N)	825	5	336756 187571
258	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 99.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A15NW (E)	828	5	337555 186745
259	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 218.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	830	5	335602 185970
260	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 110.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	830	5	335603 185969
261	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 25.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A23SE (N)	831	5	336737 187581
262	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	833	5	335476 186522
263	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 20.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	836	5	335473 186527
264	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	837	5	337120 185589
265	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 207.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SW (SE)	838	5	337120 185587

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
266	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 146.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A23SE (N)	838	5	336715 187592
267	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	843	5	335963 185602
268	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 49.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	843	5	336740 185478
269	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	843	5	336740 185478
270	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 33.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	843	5	335963 185602
271	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 111.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	843	5	335653 185867
272	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7NW (SW)	843	5	335651 185871
273	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 99.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	846	5	335932 185615
274	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 80.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	847	5	335960 185599

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
275	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 121.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	847	5	335960 185599
276	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 13.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12NW (W)	849	5	335519 186864
277	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 111.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	849	5	336745 185472
278	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 206.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NE (NW)	854	5	335854 187426
279	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 148.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A12NW (W)	857	5	335515 186877
280	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	865	5	336696 185456
281	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 94.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	867	5	336694 185454
282	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A23SE (N)	871	5	336643 187633
283	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A23SE (N)	873	5	336646 187634

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
284	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	874	5	337005 187533
285	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 274.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NW (NE)	874	5	337005 187533
286	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 161.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SW (SW)	875	5	335697 185766
287	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ellen Reen Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	876	5	336550 185455
288	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 293.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Oxleaze Reen Catchment Name: Usk and Llwyd Primacy: 1	A19NE (NE)	883	5	337215 187387
289	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	883	5	337215 187387
290	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 124.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	883	5	336010 185536
291	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 153.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	883	5	336010 185536
292	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	886	5	336560 185444

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
293	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 20.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ellen Reen Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	886	5	336560 185444
294	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 137.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	887	5	337217 187391
295	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 143.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A24SW (N)	887	5	336891 187597
296	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A24SW (N)	887	5	336893 187597
297	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A24SW (N)	895	5	336899 187603
298	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1370.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SE (SE)	896	5	337294 185638
299	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: Underground Permanent: True Watercourse Name: Ellen Reen Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	900	5	336574 185429
300	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A24SW (NE)	902	5	337016 187558
301	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A24SW (N)	903	5	336904 187610

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
302	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ellen Reen Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	904	5	336579 185424
303	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 55.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	905	5	335408 186457
304	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 234.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A24SW (NE)	907	5	337019 187562
305	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 26.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ellen Reen Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	909	5	336584 185419
306	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 17.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A16SE (NW)	913	5	335510 187025
307	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	913	5	336348 185435
308	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 204.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Monkscroft Reen Catchment Name: Usk and Llwyd Primacy: 1	A4NW (S)	913	5	336946 185437
309	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 37.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	916	5	336345 185432
310	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 58.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A16SE (NW)	919	5	335510 187042

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
311	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	920	5	336377 185425
312	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 30.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A23SE (N)	920	5	336761 187667
313	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 38.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	920	5	335393 186447
314	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	922	5	336614 185404
315	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	923	5	336612 185403
316	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	924	5	336374 185422
317	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ellen Reen Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	926	5	336602 185400
318	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 138.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Chapel Reen Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	929	5	336605 185397
319	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	934	5	336365 185412

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
320	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	936	5	336311 185415
321	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 47.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	936	5	336363 185410
322	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 257.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Julian's Reen Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	936	5	335382 186408
323	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Longditch Reen Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	936	5	335382 186408
324	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Longditch Reen Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	936	5	335382 186409
325	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 57.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	938	5	336818 185388
326	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 216.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	938	5	336818 185388
327	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 26.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A16SE (NW)	939	5	335510 187101
328	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	939	5	336313 185411

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
329	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 34.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	940	5	335395 186251
330	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 77.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	940	5	335395 186251
331	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	941	5	335864 185544
332	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 71.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Longditch Reen Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	942	5	335376 186413
333	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 92.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SE (SW)	944	5	335862 185543
334	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 28.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	944	5	336318 185406
335	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 90.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A23SE (N)	945	5	336782 187689
336	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 58.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A2NE (S)	947	5	336090 185440
337	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17SW (NW)	948	5	335511 187127

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
338	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 152.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NW (NW)	949	5	335683 187396
339	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 50.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	953	5	335367 186396
340	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 26.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	954	5	337471 187225
341	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 241.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A24SW (N)	954	5	336932 187654
342	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 112.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A24SW (N)	954	5	336932 187654
343	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 203.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A6NE (W)	955	5	335391 186184
344	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 110.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A2NE (SW)	957	5	335874 185521
345	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A2NE (SW)	957	5	335874 185521
346	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 104.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	959	5	336463 185379

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
347	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A6NE (W)	959	5	335406 186105
348	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 63.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A6NE (W)	959	5	335409 186098
349	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A16SE (NW)	960	5	335506 187145
350	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 190.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A16SE (NW)	960	5	335506 187145
351	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A2NE (SW)	960	5	335869 185520
352	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 105.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A2NE (SW)	964	5	335863 185519
353	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 41.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NW (S)	966	5	336979 185390
354	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 65.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NW (SE)	966	5	337017 185403
355	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	970	5	336774 185352

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
356	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	971	5	337471 187251
357	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NW (NW)	971	5	335662 187405
358	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	973	5	337474 187251
359	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	973	5	336471 185365
360	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	975	5	337471 187257
361	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 91.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	975	5	336470 185362
362	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 84.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NE (S)	975	5	336768 185347
363	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 22.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NE (SE)	977	5	337236 185495
364	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NE (SE)	977	5	337236 185495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
365	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 118.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NE (SE)	977	5	337237 185495
366	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	978	5	337477 187255
367	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 78.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A6NE (SW)	978	5	335413 186026
368	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A6NE (SW)	979	5	335444 185951
369	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 152.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A6NE (SW)	979	5	335443 185953
370	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 115.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 1	A23SE (N)	980	5	336706 187736
371	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 103.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A2NE (S)	982	5	336127 185395
372	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 141.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A2NE (S)	982	5	336127 185395
373	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 85.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NW (SE)	985	5	337083 185407

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
374	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NW (SE)	985	5	337083 185407
375	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	987	5	335341 186344
376	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 43.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A11SE (W)	987	5	335326 186455
377	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 29.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A3NW (S)	990	5	336471 185347
378	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NW (SE)	990	5	337085 185402
379	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A17NW (NW)	990	5	335654 187425
380	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 54.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NW (SE)	993	5	337085 185399
381	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 84.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A9SE (SE)	994	5	337359 185564
382	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 22.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SW (SW)	995	5	335776 185538

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
383	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 180.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A7SW (SW)	995	5	335776 185538
384	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	996	5	337504 187251
385	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 44.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	996	5	337504 187251
386	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 127.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NE (SE)	996	5	337237 185472
387	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Usk and Llwyd Primacy: 2	A4NE (SE)	996	5	337237 185472
388	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: Underground Permanent: True Watercourse Name: Barn Reen Catchment Name: Usk and Llwyd Primacy: 2	A19NE (NE)	999	5	337509 187249

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
389	**Licensed Waste Management Facilities (Landfill Boundaries)** Name: Llanwern Landfill : South Side Of Queensway Licence Number: 30009 Location: Llanwern Landfill South Side Of Queensway, Corus, Llanwern Works, Newport, Gwent, NP19 4QX Licence Holder: Corus Strip Products P P C (Gp3331sv) Authority: Natural Resources Wales Site Category: Industrial Waste Landfills Max Input Rate: Not Supplied **Licence Status:** **Modified** Issued: 31st May 1979 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A13SE (SE)	127	2	336788 186218
390	**Licensed Waste Management Facilities (Locations)** Licence Number: HP3899FC Location: Llanwern Landfill : South Side Of Queensway, Llanwern Works, Newport, Gwent, Newport, NP19 4QX Operator Name: Corus Strip Products P P C (gp3331sv) Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Industrial Waste Landfills **Licence Status:** **Effective** Issued: 31st May 1979 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	854	2	337559 186205
390	**Licensed Waste Management Facilities (Locations)** Licence Number: 30009 Location: Llanwern Landfill South Side Of Queensway, Corus, Llanwern Works, Newport, NP19 4QX Operator Name: Corus Strip Products P P C (gp3331sv) Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Industrial Waste Landfills **Licence Status:** **Modified** Issued: 31st May 1979 Last Modified: 25th August 2009 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	854	2	337559 186205
391	**Licensed Waste Management Facilities (Locations)** Licence Number: HB3497TH Location: Llanwern Works Inert Waste Recycling Facility, Queens Way, Llanwern, Newport, Newport, NP19 4QX Operator Name: Tarmac Trading Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Physical Treatment Facilities **Licence Status:** **Effective** Issued: 17th November 2015 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (SE)	971	2	337596 185917
391	**Licensed Waste Management Facilities (Locations)** Licence Number: 900015 Location: Queens Way, Llanwern, Newport, NP19 4QX Operator Name: Lafarge Trading Tarmac Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Physical Treatment Facilities **Licence Status:** **Issued** Issued: 18th October 2013 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (SE)	971	2	337596 185917

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Newport County Borough Council - Has no landfill data to supply		0	6	336526 186528
392	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A23SE (N)	800	10	336557 187563
393	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (E)	0	10	336709 186545
394	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14NW (E)	208	10	336945 186592
395	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1989	A17SE (NW)	373	10	336081 186975
396	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1989	A17SE (NW)	376	10	336078 186975
397	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9SW (SE)	647	10	336911 185704
398	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14NE (E)	657	10	337397 186610
399	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	857	10	335453 186569
400	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	887	10	335423 186580
401	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	919	10	335390 186570
402	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	920	10	335419 186779
403	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	980	10	335331 186597
404	**Registered Landfill Sites** Licence Holder: British Steel Licence Reference: 024/79 Site Location: South Side of Queensway, Llanwern Works, NEWPORT, Gwent, NP9 0XN Licence Easting: 337500 Licence Northing: 185900 Operator Location: Llanwern Works, NEWPORT, Gwent, NP9 0XN Authority: Environment Agency Wales, South East Area Site Category: Landfill - with lagoon Max Input Rate: Undefined Waste Source Restrictions: Only waste produced on site Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 31st May 1979 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Ferruginous Sludge Wastes Ferruginous Slurry Wastes Prohibited Waste: Waste N.O.S.	A9NE (SE)	892	3	337500 185900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Waste Treatment or Disposal Sites				
405	Licence Holder: Bitmac Ltd Licence Reference: 026/80 Site Location: Llanwern Works, NEWPORT, Gwent, NP9 0XN Operator Location: Queensway, Llanwern Works, Newport, Gwent Authority: Environment Agency Wales, South East Area Site Category: Incineration Max Input Rate: Undefined Waste Source Restrictions: Only waste produced on site Licence Status: Site now IPC authorisedAuthorised Dated: 1st March 1980 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Sulphuric Acid (Acid Tars)	A13SW (W)	113	3	336200 186500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
406	**Control of Major Accident Hazards Sites (COMAH)** Name: British Oxygen Co Limited Location: NEWPORT, Gwent, NP18 2DS Reference: Not Supplied Type: Lower Tier **Status: Record Ceased To Be Supplied Under COMAH Regulations** Positional Accuracy: Manually positioned to the address or location	A13NE (N)	0	7	336546 186739
407	**Control of Major Accident Hazards Sites (COMAH)** Name: Koppers Uk Limited Location: Queensway, NEWPORT, Gwent, NP19 4QX Reference: Not Supplied Type: Lower Tier **Status: Record Ceased To Be Supplied Under COMAH Regulations** Positional Accuracy: Manually positioned to the address or location	A15NW (E)	886	7	337605 186800
408	**Control of Major Accident Hazards Sites (COMAH)** Name: Air Products (Br) Limited Location: Llanwern, Spencer Works, Queensway, Newport, Gwent, Monmouthshire, Np19 4qx Reference: Not Supplied Type: Lower Tier **Status: Active** Positional Accuracy: Manually positioned to the address or location	A10NW (E)	913	7	337602 186111
408	**Control of Major Accident Hazards Sites (COMAH)** Name: Air Products Plc Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Reference: Not Supplied Type: Lower Tier **Status: Active** Positional Accuracy: Automatically positioned to the address	A10NW (E)	913	7	337602 186111
409	**Notification of Installations Handling Hazardous Substances (NIHHS)** Name: B.S.C. Location: Llanwern Works, NEWPORT, Gwent, NPT 0XN **Status: Not Active** Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	155	7	336722 186844
410	**Planning Hazardous Substance Consents** Name: British Steel Location: Llanwern Steelworks, Llanwern, Newport , Gwent, NP9 0XN Authority: Newport City Council, Planning Department Application Ref: 93/0089/Hsc Hazardous Substance: Liquefied extremely flammable gas (including LPG) and natural gas (whether liquefied or not) Maximum Quantity: 320 Application date: 9th February 1993 **Decision: Deemed Consent GrantedGranted** Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	191	8	336229 186868
411	**Planning Hazardous Substance Consents** Name: Air Products (Gb) Ltd Location: Queens Way, Llanwern, Hersham, NEWPORT, Gwent, NP1 Authority: Newport City Council, Planning Department Application Ref: 92/1068/Hdc Hazardous Substance: Part B, Highly Reactive and Explosive Substance, Hydrogen, where amount held is greater than or equal to 2 tonnes Maximum Quantity: 7 Application date: 9th November 1992 **Decision: Unknown at time of reportUnknown** Positional Accuracy: Manually positioned to the address or location	A15NW (E)	863	8	337588 186767
412	**Planning Hazardous Substance Consents** Name: British Steel Plc Location: Llanwern Works, Llanwern, NEWPORT, Gwent, NP1 Authority: Newport City Council, Planning Department Application Ref: 92/1124/Hdc Hazardous Substance: Part C, Flammable Substance (Not in Parts A&B), Gas or gases flammable in air, when held as a gas, where amount held is >= 15tonnes Maximum Quantity: 640 Application date: 30th November 1992 **Decision: Unknown at time of reportUnknown** Positional Accuracy: Manually positioned to the address or location	A15SW (E)	865	8	337595 186485

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Triassic Rocks (Undifferentiated)	A13SE (SW)	0	1	336526 186528
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SW)	0	1	336526 186528
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 120 - 180 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SW (NE)	437	1	336926 187048
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SW (NE)	476	1	336925 187103
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 120 - 180 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A18NW (N)	504	1	336450 187268
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A18NW (N)	546	1	336428 187308
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A18NW (N)	700	1	336449 187456

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
413	**BGS Recorded Mineral Sites** Site Name: Llanwern Steelworks Slag Location: Llanwern, Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 13203 Type: Tip **Status: Ceased** Operator: Tarmac (A Crh Company) Operator Location: Not Supplied Periodic Type: Not Available Geology: Blast Furnace Slag Commodity: Blast Furnace Slag Positional Accuracy: Located by supplier to within 100m	A8NW (S)	237	1	336500 186100
414	**BGS Recorded Mineral Sites** Site Name: Llanwern Works Location: Llanwern, Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 13204 Type: Tip **Status: Ceased** Operator: Hanson Cement Operator Location: Not Supplied Periodic Type: Not Available Geology: Ground Granulated Blast Furnace Slag - Addition, Cementitious Commodity: Blast Furnace Slag Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	362	1	337000 186100
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
415	**Contemporary Trade Directory Entries** Name: Tarmac Westen Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Classification: Stone Products - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (S)	93	-	336430 186251
416	**Contemporary Trade Directory Entries** Name: Civil & Marine Ltd Location: Llanwern Works, NEWPORT, Gwent, NP19 4QX Classification: Concrete Products **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (SW)	176	-	336294 186184
417	**Contemporary Trade Directory Entries** Name: Tarmac Trading Ltd Location: LLANWERN WORKS, LLANWERN, NEWPORT, NP19 4QX Classification: Concrete & Mortar Ready Mixed **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NW (S)	420	-	336460 185920
417	**Contemporary Trade Directory Entries** Name: Tarmac Western Ltd Location: Llanwern Works, Newport, NP19 4QX Classification: Quarries **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NW (S)	420	-	336462 185920
418	**Contemporary Trade Directory Entries** Name: Environmental Site Services Location: Llanwern Works, Newport, Gwent, NP19 4QX Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9NE (SE)	755	-	337446 186138
418	**Contemporary Trade Directory Entries** Name: Newport Galvanizers Ltd Location: Llanwern Works, Newport, Gwent, NP19 4QX Classification: Metal Finishing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NE (SE)	755	-	337446 186138
419	**Contemporary Trade Directory Entries** Name: Grant Rail Location: British Steel Site,Llanwern Wks, Newport, Gwent, NP6 1XX Classification: Mechanical Engineers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A19NW (NE)	766	-	337154 187282
420	**Contemporary Trade Directory Entries** Name: Heckett Ltd Location: Llanwern Works, Newport, Gwent, NP9 0XQ Classification: Scrap Metal Merchants **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A14NE (E)	814	-	337528 186811
421	**Contemporary Trade Directory Entries** Name: Cyrus Engineering Ltd Location: Care Of B S C,Llanwern Works, Newport, Gwent, NP19 4XN Classification: Engineers - General **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A15NW (E)	899	-	337622 186778
422	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	0	9	336614 186392
423	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	0	9	336405 186381
424	**Points of Interest - Manufacturing and Production** Name: Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	61	9	336759 186280

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
425	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	92	9	336226 186484
425	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	144	9	336165 186536
426	**Points of Interest - Manufacturing and Production** Name: Tarmac (Western) Ltd Location: Llanwern Works, Newport, NP19 4QX Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A13SW (S)	93	9	336430 186251
426	**Points of Interest - Manufacturing and Production** Name: Tarmac Westen Ltd Location: Llanwern Works, Newport, NP19 4QX Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A13SW (S)	93	9	336430 186251
426	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	112	9	336370 186237
427	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	98	9	336225 186462
427	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	110	9	336210 186473
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	119	9	336197 186487
427	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	120	9	336207 186438
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	141	9	336174 186489
427	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	154	9	336176 186406
427	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	158	9	336166 186454

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	170	9	336142 186505
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	170	9	336152 186457
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	177	9	336151 186424
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	212	9	336114 186438
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	216	9	336112 186420
427	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	218	9	336111 186397
428	**Points of Interest - Manufacturing and Production** Name: Celtic Business Park Location: NP19 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	131	9	336850 186389
428	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	168	9	336893 186448
428	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	181	9	336907 186461
428	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	192	9	336918 186464
428	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	202	9	336928 186466
429	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	140	9	336872 186654

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
429	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	145	9	336873 186668
429	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	224	9	336949 186689
430	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	149	9	336342 186202
431	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	176	9	336911 186569
431	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	189	9	336921 186534
432	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	199	9	336350 186151
432	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	253	9	336290 186105
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	202	9	336275 186927
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	222	9	336285 186955
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	242	9	336305 186985
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	267	9	336257 186991
433	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	269	9	336274 187002

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	286	9	336284 187024
433	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	297	9	336294 187039
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	298	9	336245 187020
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	309	9	336204 187008
433	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	315	9	336255 187043
433	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	318	9	336261 187049
433	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	339	9	336186 187032
433	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	342	9	336199 187044
434	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	220	9	336347 186973
434	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	261	9	336359 187016
435	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	226	9	336914 186757
436	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12NE (NW)	265	9	336136 186851

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
437	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	266	9	336523 186069
438	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	276	9	337011 186658
438	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	355	9	337088 186674
439	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	310	9	336886 186887
439	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	340	9	336889 186925
440	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	337	9	336541 187097
441	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	340	9	336274 187078
441	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	359	9	336227 187079
441	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	369	9	336252 187101
441	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	383	9	336276 187123
441	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	384	9	336295 187129
441	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	400	9	336266 187138

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
441	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	429	9	336213 187150
441	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	452	9	336247 187187
442	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	343	9	336322 186009
442	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8NW (S)	349	9	336321 186003
442	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8NW (S)	351	9	336330 186000
443	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	364	9	336195 187067
443	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	433	9	336149 187120
444	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	371	9	336988 186888
444	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	377	9	336987 186897
445	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	385	9	336508 185951
445	**Points of Interest - Manufacturing and Production** Name: Tarmac Location: Llanwern Works, Newport, NP19 4QX Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A8NW (S)	420	9	336460 185920
446	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	454	9	337106 186093

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
447	**Points of Interest - Manufacturing and Production** Name: Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	479	9	336776 187205
447	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	483	9	336775 187210
448	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	488	9	337089 186954
448	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	526	9	337091 187004
448	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	580	9	337095 187071
449	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	492	9	336961 187087
450	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A18NE (N)	498	9	336695 187250
450	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A18NE (N)	502	9	336682 187257
450	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	506	9	336691 187259
450	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A18NE (N)	507	9	336683 187262
451	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	506	9	337226 186748
452	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	520	9	336083 187180

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
453	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	523	9	337247 186425
453	**Points of Interest - Manufacturing and Production** Name: Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	523	9	337247 186424
454	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	594	9	337323 186718
454	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	619	9	337348 186720
454	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	638	9	337368 186716
455	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	595	9	335749 186753
456	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	597	9	337329 186522
456	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SE (E)	604	9	337335 186503
456	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SE (E)	605	9	337338 186523
456	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SE (E)	611	9	337342 186506
456	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	623	9	337353 186496
457	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	621	9	337096 187123

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
458	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	623	9	337277 186928
459	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	691	9	337239 187090
459	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	716	9	337271 187092
460	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	699	9	337425 186447
460	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	728	9	337454 186445
460	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	779	9	337505 186441
461	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	728	9	335973 185728
461	**Points of Interest - Manufacturing and Production** Name: Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	733	9	335973 185722
462	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	763	9	337495 186713
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	765	9	337497 186712
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	776	9	337510 186699
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	778	9	337511 186706

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	778	9	337511 186702
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	784	9	337518 186699
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	785	9	337518 186705
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	785	9	337518 186702
462	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	787	9	337519 186711
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	795	9	337528 186701
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	814	9	337535 186783
462	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	818	9	337540 186776
462	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	818	9	337550 186714
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	819	9	337540 186783
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	821	9	337554 186707
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	823	9	337544 186783

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	828	9	337542 186811
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	828	9	337549 186782
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	830	9	337548 186796
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	833	9	337554 186782
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	845	9	337560 186811
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	845	9	337570 186763
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	849	9	337567 186796
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	861	9	337577 186810
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	865	9	337584 186795
462	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	875	9	337589 186819
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	882	9	337602 186793
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	896	9	337613 186807

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
462	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	899	9	337620 186791
463	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	813	9	337491 186083
463	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	845	9	337517 186058
464	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15SW (E)	864	9	337596 186510
464	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15SW (E)	873	9	337603 186483
464	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15SW (E)	877	9	337608 186498
464	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15SW (E)	901	9	337632 186497
464	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15SW (E)	914	9	337646 186507
465	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	890	9	337625 186690
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	915	9	337650 186690
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	941	9	337672 186731
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	943	9	337669 186765

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	943	9	337673 186741
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	946	9	337677 186731
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	947	9	337674 186757
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	948	9	337678 186739
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	950	9	337681 186731
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	951	9	337679 186756
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	952	9	337682 186739
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	955	9	337686 186730
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	957	9	337687 186739
465	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	957	9	337688 186735
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	959	9	337691 186725
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	959	9	337691 186722

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	960	9	337691 186729
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	962	9	337692 186738
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	965	9	337696 186729
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	966	9	337696 186738
465	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	970	9	337701 186728
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (E)	903	9	337597 186134
466	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (E)	926	9	337612 186098
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A10NW (E)	934	9	337621 186099
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A10NW (E)	934	9	337619 186093
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A10NW (E)	935	9	337624 186109
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A10NW (E)	939	9	337624 186093
466	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (E)	940	9	337628 186105

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (E)	941	9	337632 186119
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A10NW (E)	949	9	337638 186106
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (SE)	950	9	337627 186059
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (E)	952	9	337634 186079
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (SE)	970	9	337648 186061
466	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NW (E)	980	9	337663 186078
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	911	9	337629 186805
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	917	9	337638 186789
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	950	9	337675 186770
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	956	9	337684 186756
467	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	961	9	337689 186755
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	965	9	337693 186755

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	970	9	337696 186768
467	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	970	9	337696 186768
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	971	9	337701 186737
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	971	9	337699 186755
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	974	9	337705 186728
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	975	9	337706 186736
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	975	9	337703 186754
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	980	9	337712 186728
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	980	9	337708 186754
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	981	9	337712 186736
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	982	9	337714 186723
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	985	9	337717 186727

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	986	9	337714 186755
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	986	9	337717 186736
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	990	9	337722 186721
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	990	9	337718 186755
467	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A15NW (E)	991	9	337717 186766
468	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	911	9	337510 185878
468	**Points of Interest - Manufacturing and Production** Name: Spencer Steelworks Location: NP19 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	911	9	337510 185879
469	**Points of Interest - Manufacturing and Production** Name: Tanks Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A11NE (W)	948	9	335362 186583
469	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A11NE (W)	963	9	335346 186563
470	**Points of Interest - Manufacturing and Production** Name: Tank Location: NP18 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A4NW (SE)	986	9	337109 185417
471	**Points of Interest - Public Infrastructure** Name: Slag Heap Location: NP19 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	144	9	336797 186203
472	**Points of Interest - Public Infrastructure** Name: Slag Heap Location: NP19 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	230	9	336526 186105

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
472	**Points of Interest - Public Infrastructure** Name: Slag Heap Location: NP19 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	278	9	336469 186062
473	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	239	9	336816 186842
473	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	261	9	336819 186889
474	**Points of Interest - Public Infrastructure** Name: Slag Heap Location: NP19 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	362	9	336618 185965
475	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	368	9	335990 186226
475	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	373	9	335985 186225
475	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	377	9	335955 186319
476	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	382	9	336034 186129
477	**Points of Interest - Public Infrastructure** Name: Slag Heap Location: NP19 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	409	9	337055 186096
478	**Points of Interest - Public Infrastructure** Name: Slag Heap Location: NP19 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	480	9	337065 185994
479	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	504	9	335826 186328
479	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	512	9	335817 186333

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
479	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	517	9	335812 186332
480	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (SW)	507	9	335844 186222
481	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	508	9	335896 186105
481	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	512	9	335892 186104
482	**Points of Interest - Public Infrastructure** Name: Sluice Location: NP19 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	587	9	336431 187341
483	**Points of Interest - Public Infrastructure** Name: Sluice (Disused) Location: NP18 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	678	9	337034 185723
483	**Points of Interest - Public Infrastructure** Name: Sluice (Disused) Location: NP18 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	688	9	337057 185724
484	**Points of Interest - Public Infrastructure** Name: Slag Heap Location: NP19 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	847	9	337473 185945
485	**Points of Interest - Public Infrastructure** Name: Weir Location: NP18 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A23SE (N)	982	9	336711 187738
485	**Points of Interest - Public Infrastructure** Name: Weir Location: NP18 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A23SE (N)	982	9	336714 187738
486	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NP19 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17SW (W)	801	9	335583 186891
487	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NP18 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A23SE (N)	835	9	336635 187597

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
488	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NP19 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11NE (W)	886	9	335446 186749
489	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NP19 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11NE (W)	915	9	335396 186598
490	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NP19 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11NE (W)	980	9	335346 186723
491	**Underground Electrical Cables** Unique Feature Identifier: 10005592 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A14SE (E)	562	10	337283 186389
492	**Underground Electrical Cables** Unique Feature Identifier: 10005510 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A14SE (E)	562	10	337283 186384
493	**Underground Electrical Cables** Unique Feature Identifier: 10007516 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A14SE (E)	568	10	337288 186374
494	**Underground Electrical Cables** Unique Feature Identifier: 10005509 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A14SE (E)	570	10	337289 186374
495	**Underground Electrical Cables** Unique Feature Identifier: 10005585 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	757	10	337064 185650
496	**Underground Electrical Cables** Unique Feature Identifier: 10005664 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	758	10	337066 185650
497	**Underground Electrical Cables** Unique Feature Identifier: 10007513 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	766	10	337079 185647

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
498	**Underground Electrical Cables** Unique Feature Identifier: 10005507 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	766	10	337080 185647
499	**Underground Electrical Cables** Unique Feature Identifier: 10007514 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	791	10	337134 185650
500	**Underground Electrical Cables** Unique Feature Identifier: 10005665 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	791	10	337134 185651
501	**Underground Electrical Cables** Unique Feature Identifier: 10007515 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	800	10	337146 185648
502	**Underground Electrical Cables** Unique Feature Identifier: 10005508 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A9SW (SE)	801	10	337147 185647
503	**Underground Electrical Cables** Unique Feature Identifier: 10007521 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 25th May 2017	A4NW (SE)	879	10	337052 185510

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
504	**Ancient Woodland** Name: Not Supplied Reference: 8382 Area(m²): 94558.08 Type: Ancient and Semi-Natural Woodland	A23SW (N)	1000	2	336274 187749
505	**Sites of Special Scientific Interest** Name: Gwent Levels - Nash And Goldcliff Multiple Areas: Y Total Area (m2): 7606485.93 Source: Natural Resources Wales Reference: 64933wdb Designation Details: Biological Designation Date: 20th August 1987 Date Type: Notified	A12SE (SW)	244	2	336093 186307
506	**Sites of Special Scientific Interest** Name: Gwent Levels - Whitson Multiple Areas: Y Total Area (m2): 8913008.45 Source: Natural Resources Wales Reference: 14833wav Designation Details: Biological Designation Date: 6th July 1988 Date Type: Notified	A9SW (SE)	646	2	336881 185696

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Newport City Council - Public Protection and Environmental Services	January 2015	Annual Rolling Update
Natural Resources Wales	June 2020	Annually
Monmouthshire Council - Environment Department	September 2017	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	July 2021	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls		
Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control		
Environment Agency - Welsh Region	January 2021	Quarterly
Natural Resources Wales	July 2021	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Monmouthshire Council - Environmental Health Department	June 2014	Variable
Newport City Council - Public Protection and Environmental Services	June 2014	Variable
Local Authority Pollution Prevention and Controls		
Monmouthshire Council - Environmental Health Department	June 2014	Annual Rolling Update
Newport City Council - Public Protection and Environmental Services	June 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Monmouthshire Council - Environmental Health Department	June 2014	Variable
Newport City Council - Public Protection and Environmental Services	June 2014	Variable
Nearest Surface Water Feature		
Ordnance Survey	August 2021	
Pollution Incidents to Controlled Waters		
Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes		
Environment Agency - Welsh Region	July 2015	
Natural Resources Wales	July 2015	
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	
Natural Resources Wales	March 2013	
Registered Radioactive Substances		
Natural Resources Wales	January 2015	Annually
Environment Agency - Welsh Region	June 2016	Annually
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	April 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	April 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency Wales - South East Area	January 2021	Quarterly
Natural Resources Wales	July 2021	Quarterly
Water Abstractions		
Environment Agency - Welsh Region	July 2021	Quarterly
Natural Resources Wales	July 2021	Quarterly
Water Industry Act Referrals		
Natural Resources Wales	July 2021	Quarterly
Environment Agency - Welsh Region	October 2017	Quarterly

Data Currency

Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales	July 2017	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	July 2021	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	November 2002	Not Applicable
Historical Landfill Sites		
Natural Resources Wales	July 2019	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency Wales - South East Area	July 2021	Quarterly
Natural Resources Wales	July 2021	Quarterly
Licensed Waste Management Facilities (Locations)		
Natural Resources Wales	April 2021	Quarterly
Environment Agency Wales - South East Area	July 2021	Quarterly
Local Authority Landfill Coverage		
Monmouthshire Council - Environment	February 2003	Not Applicable
Newport City Council	February 2003	Not Applicable
Local Authority Recorded Landfill Sites		
Monmouthshire Council - Environment	October 2018	
Newport City Council	October 2018	
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	
Registered Landfill Sites		
Environment Agency Wales - South East Area	March 2006	Not Applicable
Registered Waste Transfer Sites		
Environment Agency Wales - South East Area	April 2018	
Registered Waste Treatment or Disposal Sites		
Environment Agency Wales - South East Area	June 2015	
Hazardous Substances	**Version**	**Update Cycle**
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements		
Monmouthshire Council - Environment	February 2016	Variable
Newport City Council - Planning Department	October 2015	Variable
Planning Hazardous Substance Consents		
Monmouthshire Council - Environment	February 2016	Variable
Newport City Council - Planning Department	October 2015	Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2021	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually
Industrial Land Use	**Version**	**Update Cycle**
Contemporary Trade Directory Entries Thomson Directories	July 2021	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2021	Quarterly
Gas Pipelines National Grid	October 2021	Annually
Points of Interest - Commercial Services PointX	September 2021	Quarterly
Points of Interest - Education and Health PointX	September 2021	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2021	Quarterly
Points of Interest - Public Infrastructure PointX	September 2021	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2021	Quarterly
Underground Electrical Cables National Grid	May 2021	Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural Resources Wales	September 2018	Bi-Annually
Areas of Adopted Green Belt		
Monmouthshire Council	October 2020	Quarterly
Newport City Council	October 2020	Quarterly
Areas of Unadopted Green Belt		
Monmouthshire Council	October 2020	Quarterly
Newport City Council	October 2020	Quarterly
Areas of Outstanding Natural Beauty		
Natural Resources Wales	June 2019	Bi-Annually
Environmentally Sensitive Areas		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Monmouthshire Council	August 2018	Bi-Annually
Newport City Council	August 2018	Bi-Annually
Marine Nature Reserves		
Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves		
Natural Resources Wales	July 2019	Bi-Annually
National Parks		
Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	April 2016	
Natural Resources Wales	July 2019	Bi-Annually
Ramsar Sites		
Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales	March 2020	Bi-Annually
Special Areas of Conservation		
Natural Resources Wales	August 2020	Bi-Annually
Special Protection Areas		
Natural Resources Wales	August 2018	Bi-Annually

Data Suppliers

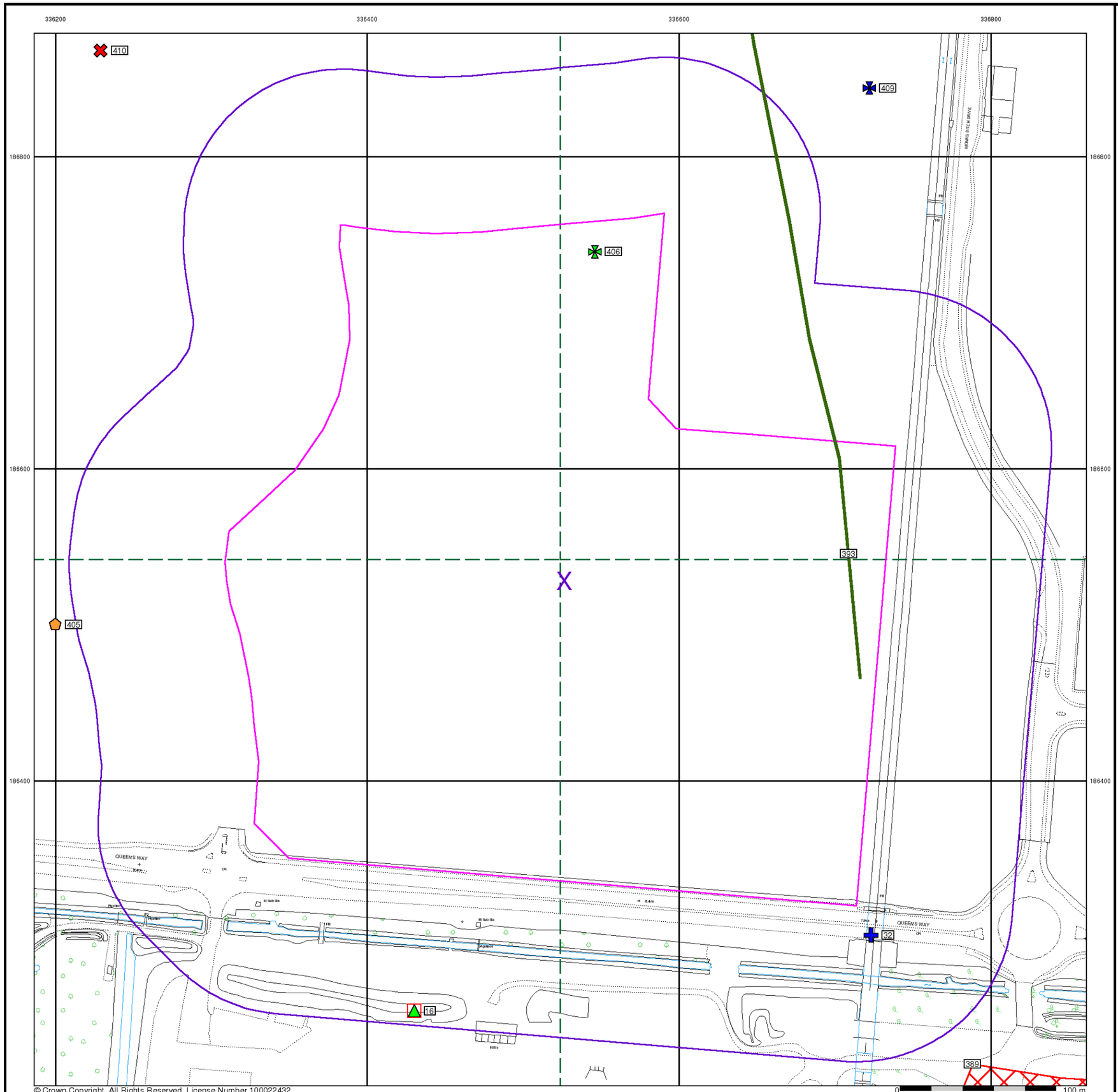
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Natural Resources Wales** Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	**Newport City Council - Public Protection and Environmental Services** Civic Centre, Newport, Gwent, NP20 4UR	Telephone: 01633 656656 Fax: 01633 232429 Website: www.newport.gov.uk
5	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	**Newport City Council** Civic Centre, Newport, South Wales, NP9 4UR	Telephone: 01633 656656 Fax: 01633 244721 Website: www.newport.gov.uk
7	**Health and Safety Executive** 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
8	**Newport City Council - Planning Department** Civic Centre, Newport, South Wales, NP9 4UR	Telephone: 01633 656656 Fax: 01633 244721 Website: www.newport.gov.uk
9	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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- Bearing Reference Point
- Map ID
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

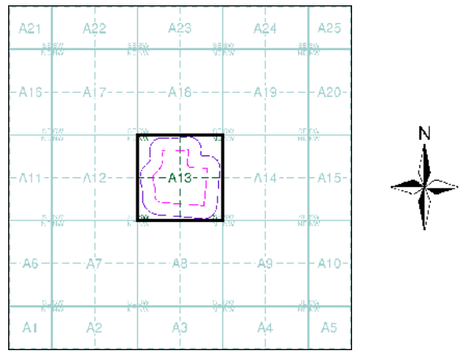
Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13



Order Details

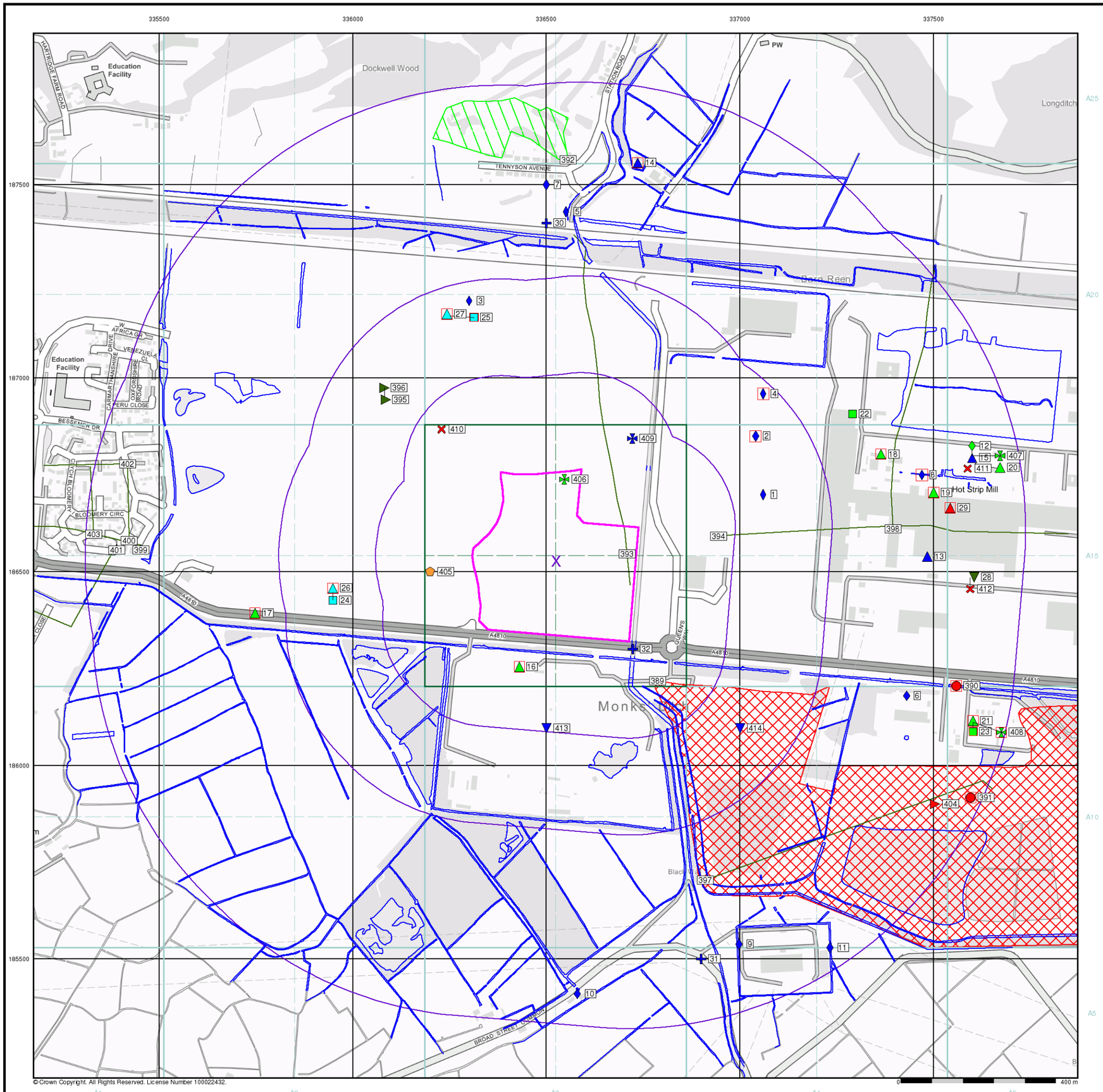
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Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Plot Buffer (m):	100

Site Details

Site at 336524,186542

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Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
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- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
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- Pollution Incident to Controlled Waters
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- Registered Radioactive Substance
- River Network or Water Feature
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- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

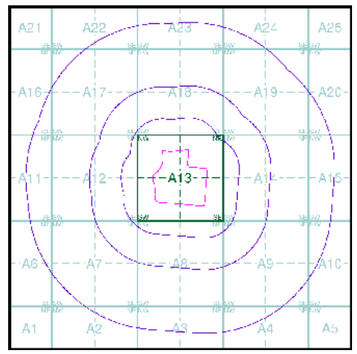
Geological

- BGS Recorded Mineral Site

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
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- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



Order Details

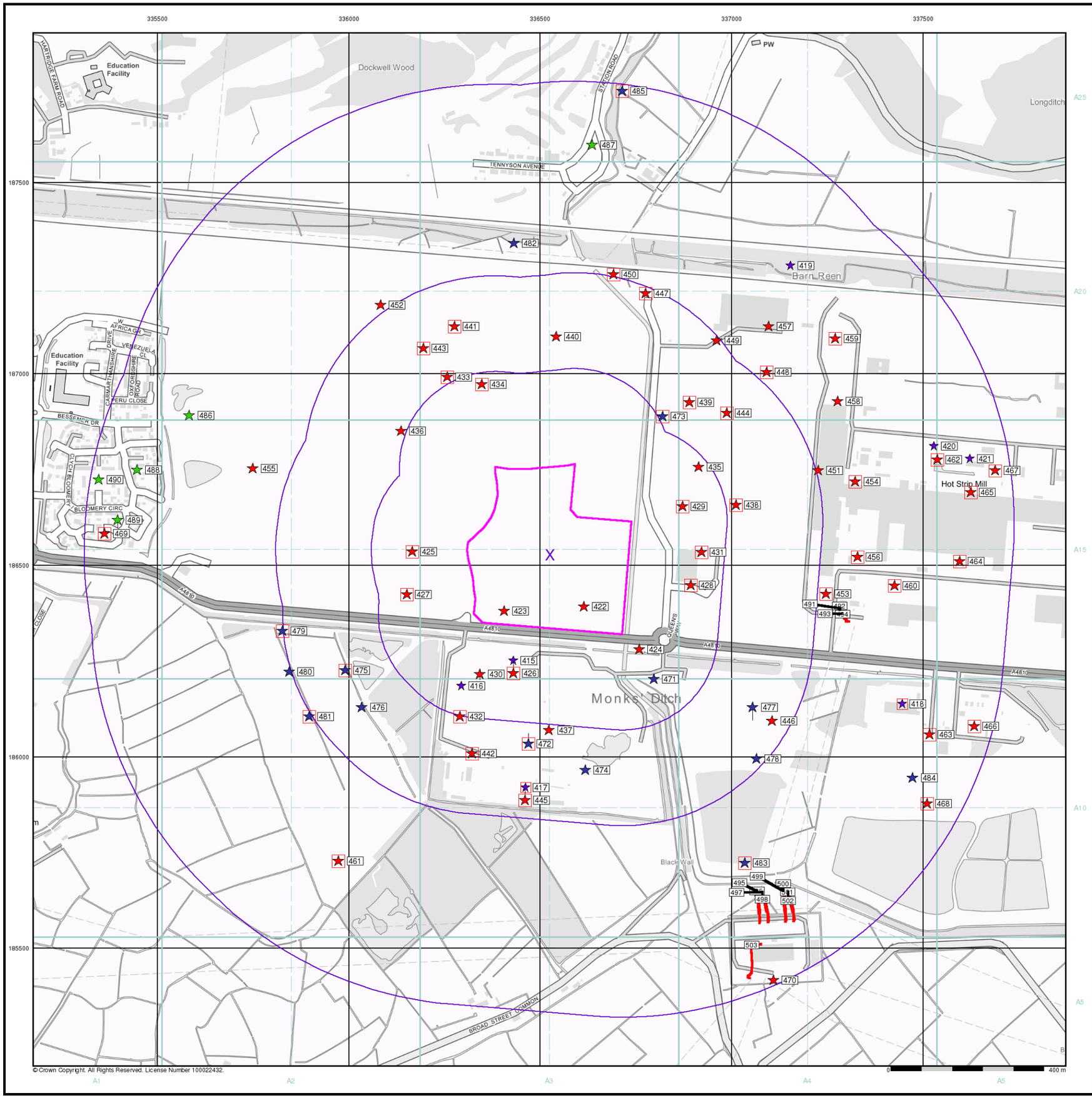
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Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Industrial Land Use Map

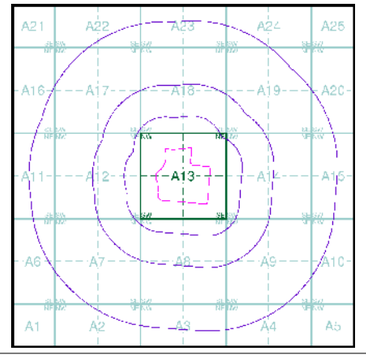
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



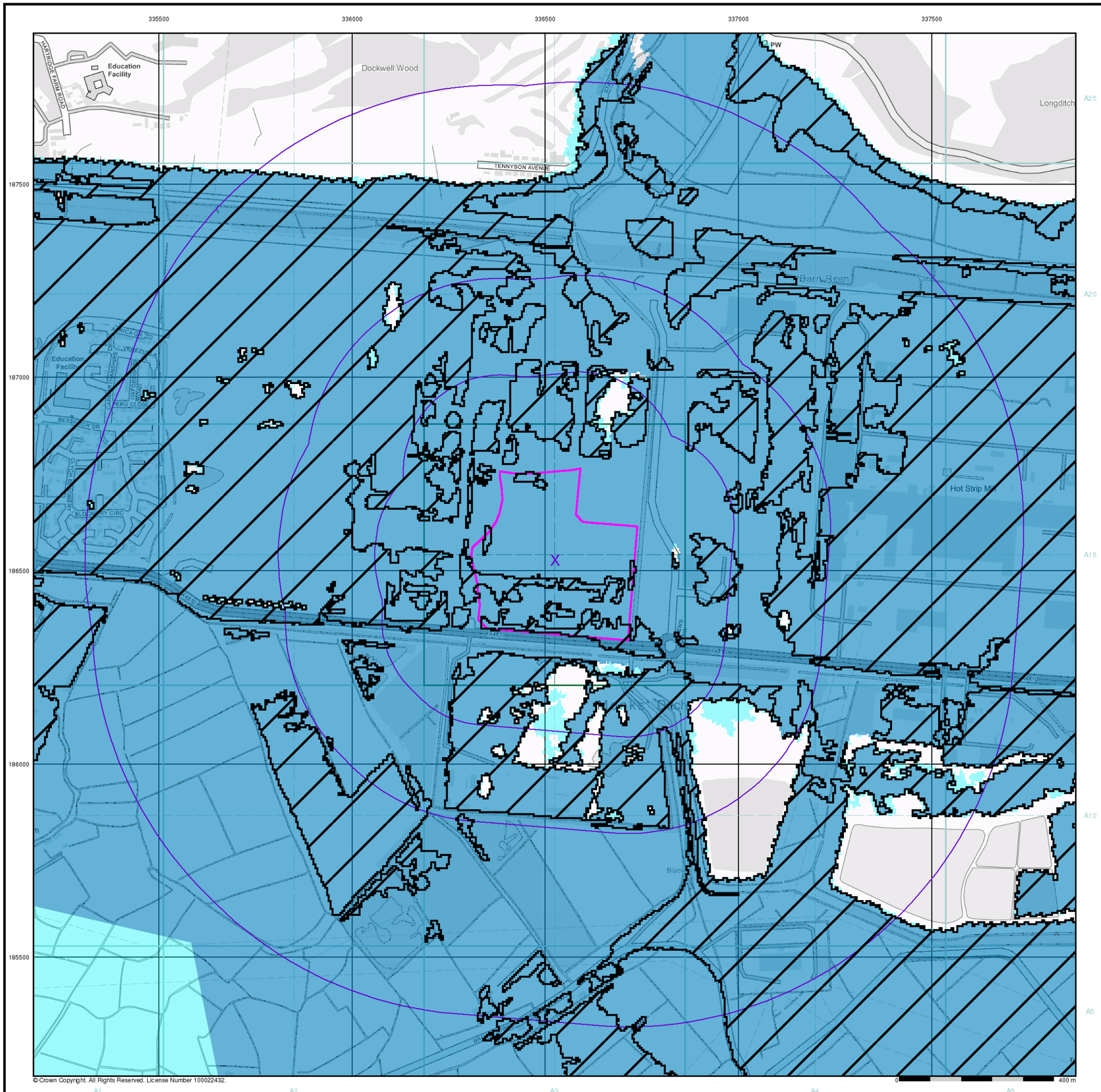
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Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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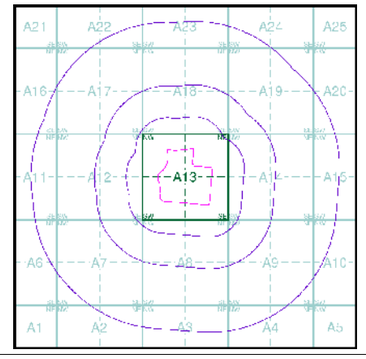
General

- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

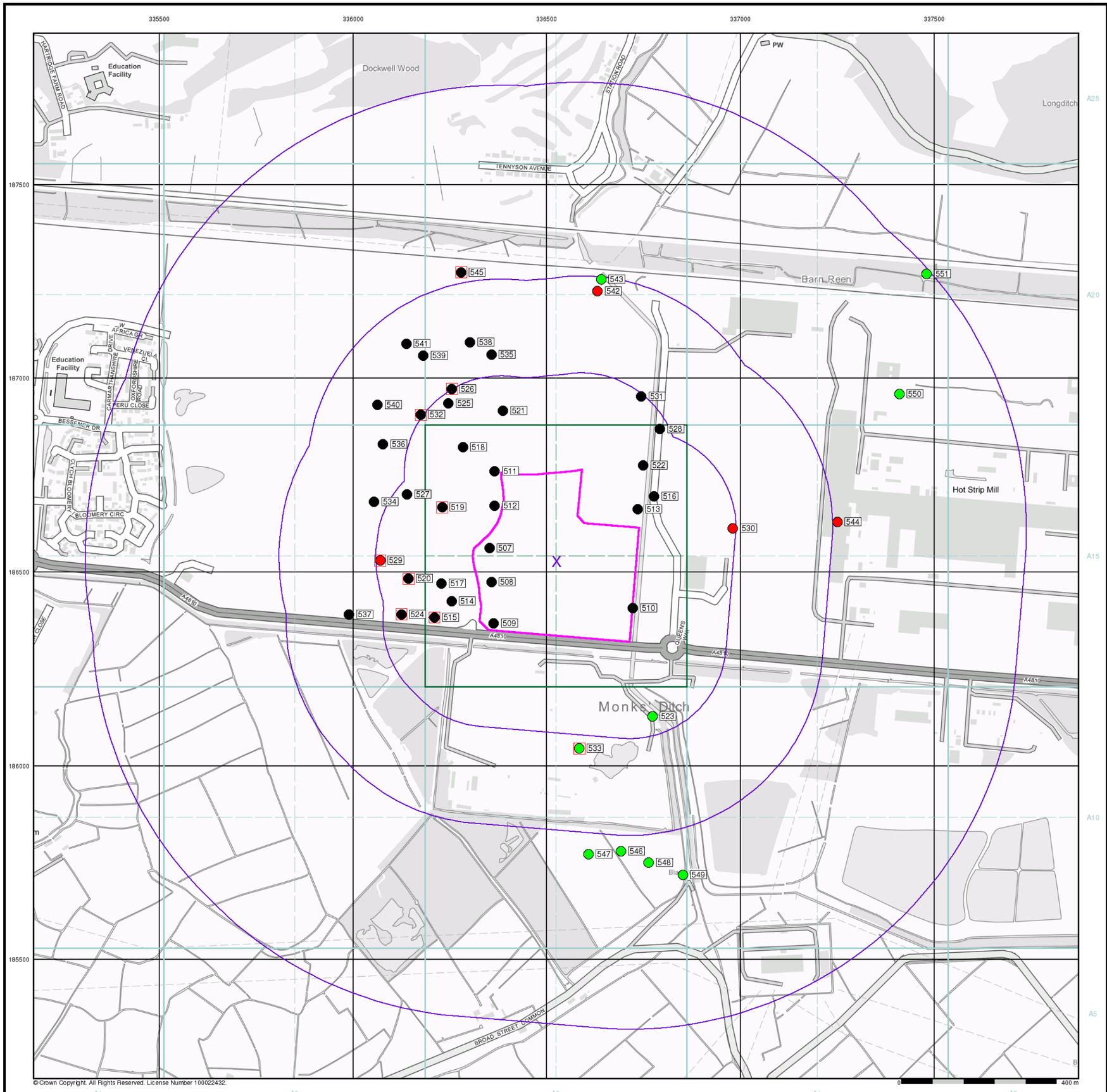
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Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

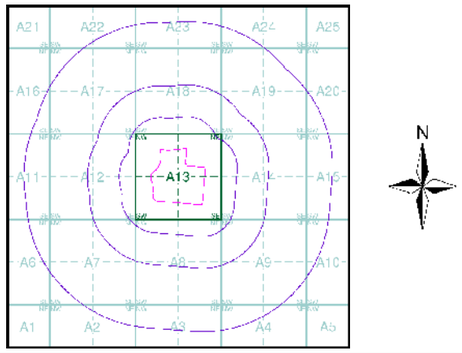
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



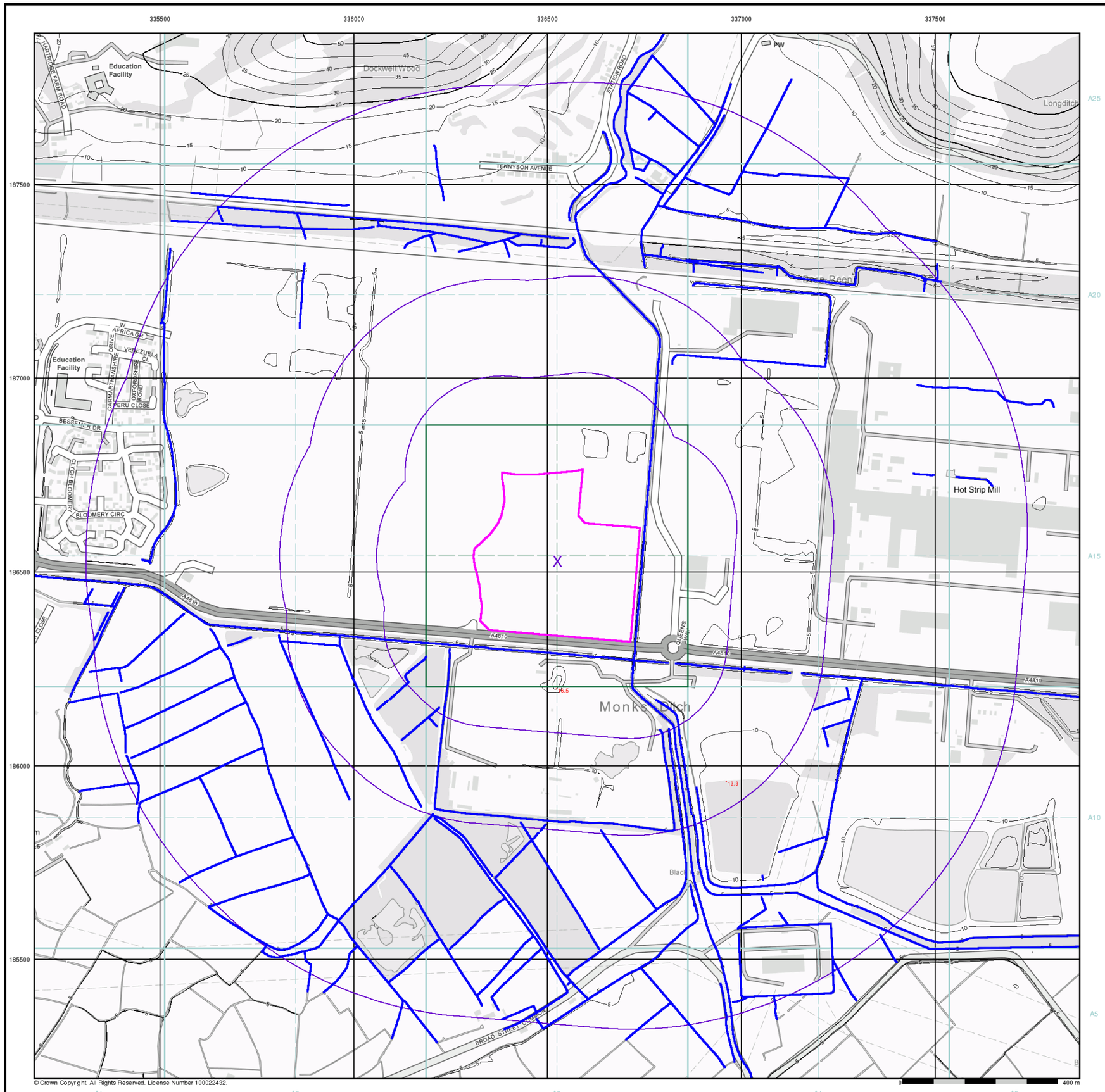
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Slice:	A
Site Area (Ha):	14.1
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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

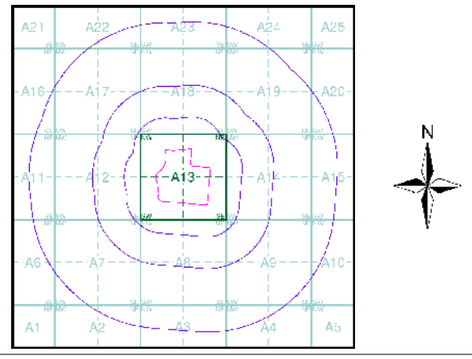
Standard Contour 105 100 95

Master Contour

Spot Height 167.3

- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

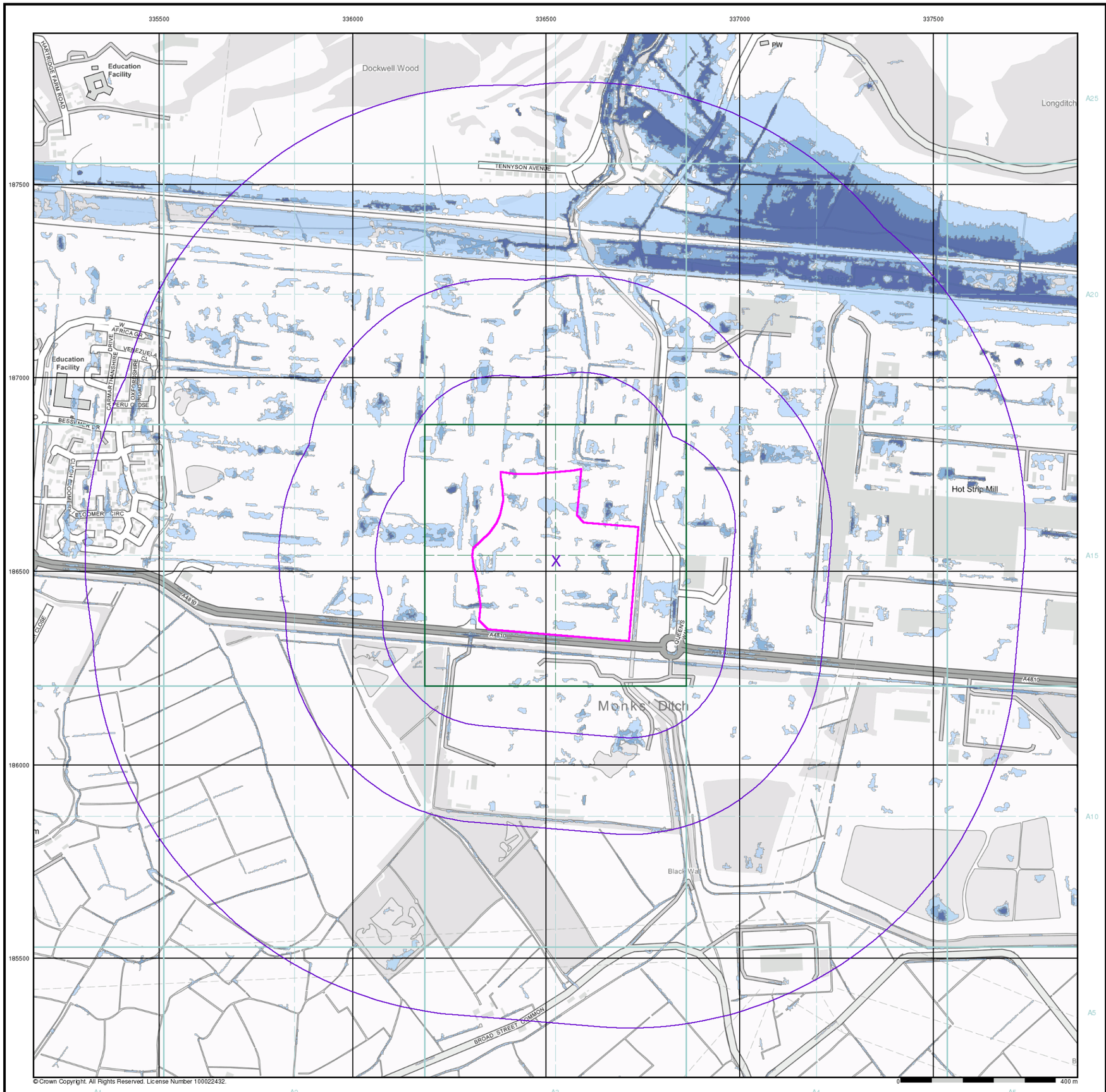
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National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
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General

- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

Risk of Flooding from Surface Water

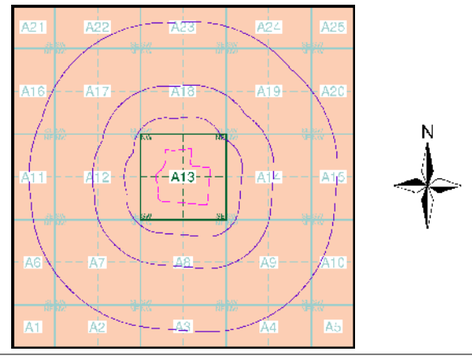
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

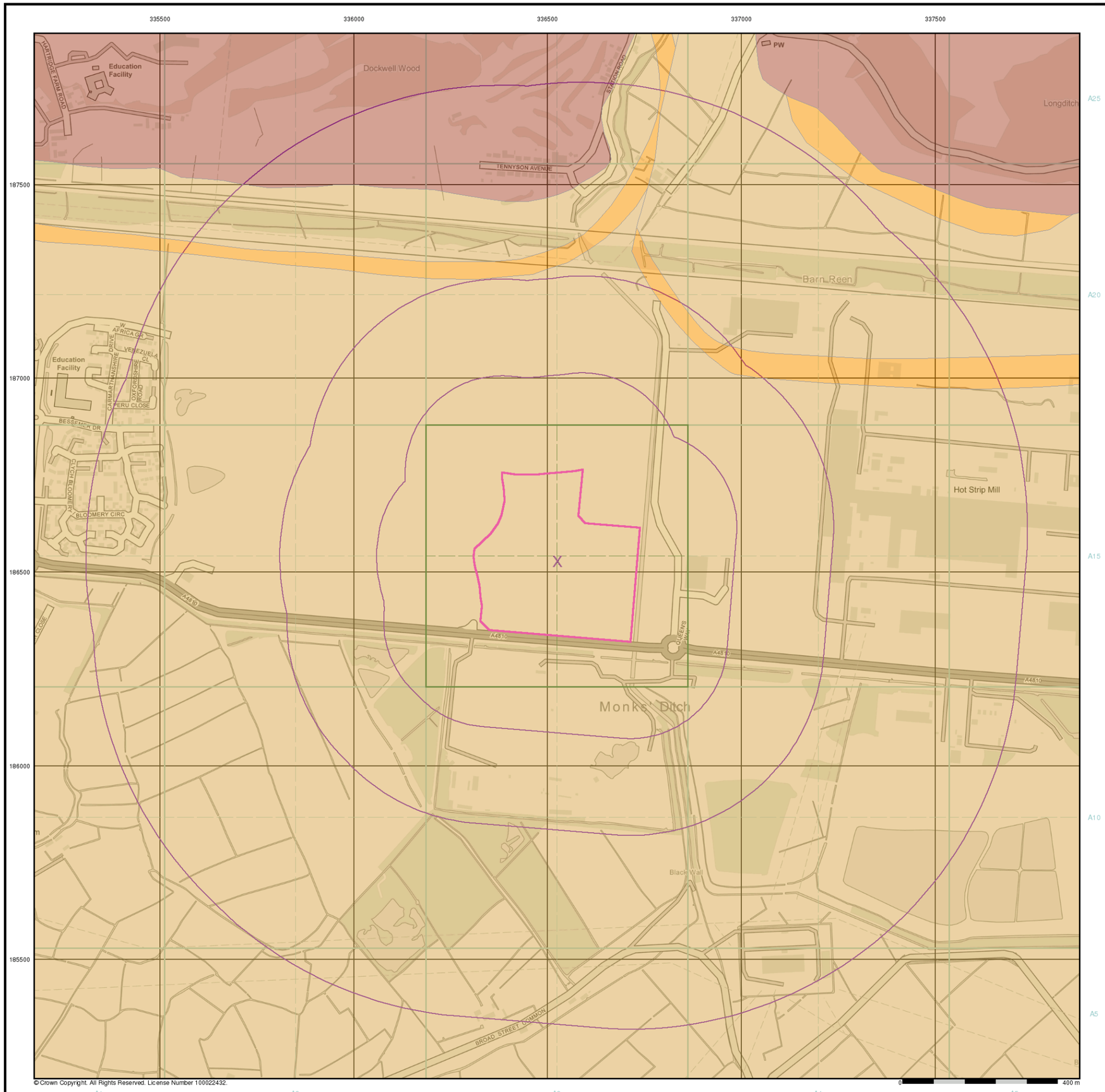
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National Grid Reference:	336530, 186530
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Site Area (Ha):	14.1
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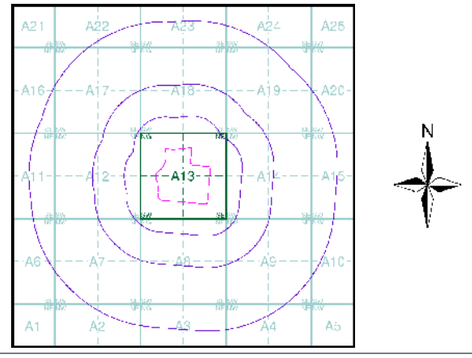
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



Order Details

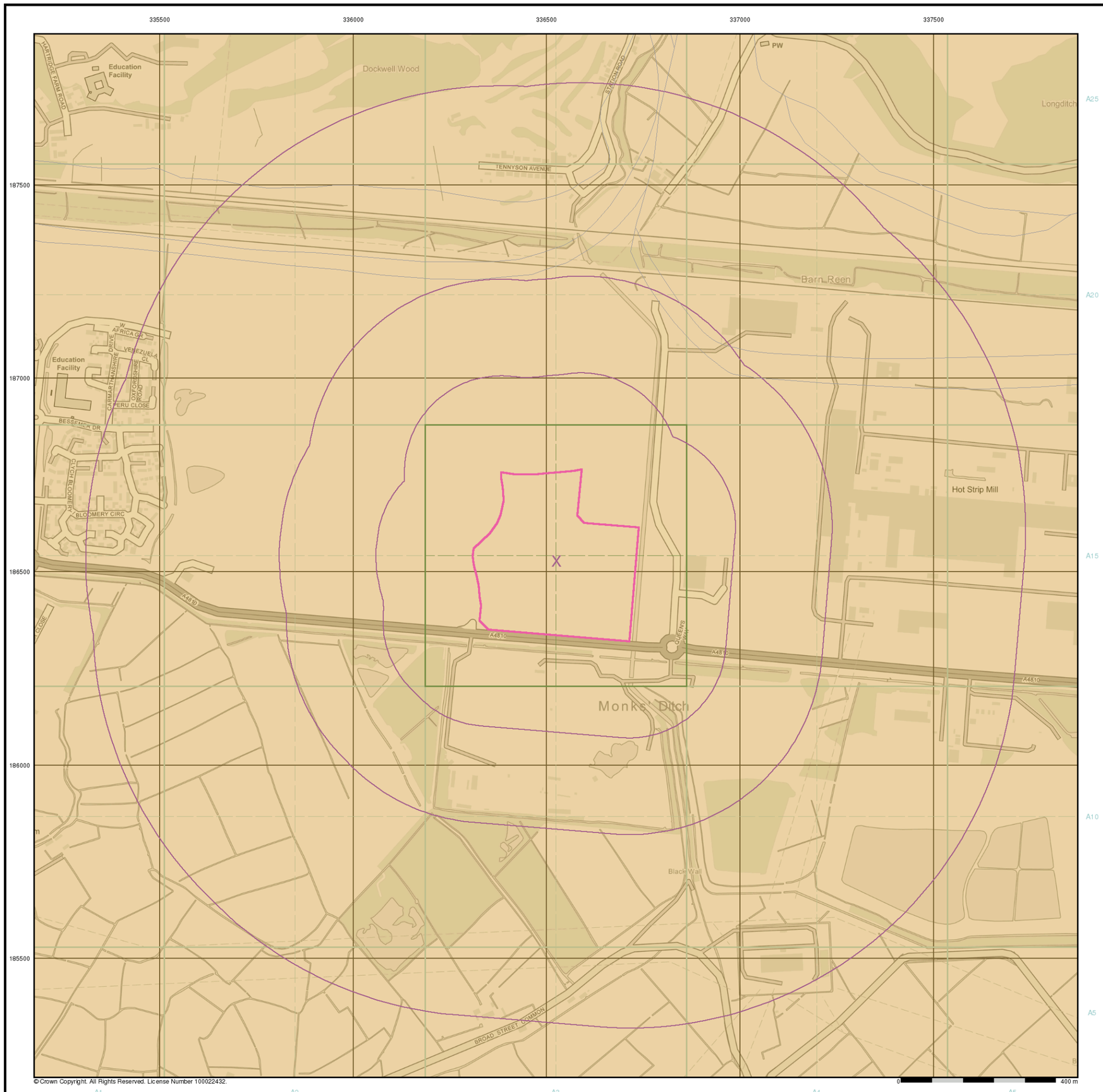
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Slice:	A
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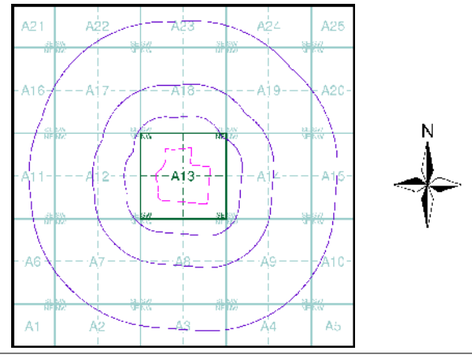
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

- < 1.8
- 1.8 - 2.2
- 2.2 - 3.0
- > 3.0

Estimated Soil Chemistry Cadmium - Slice A



Order Details

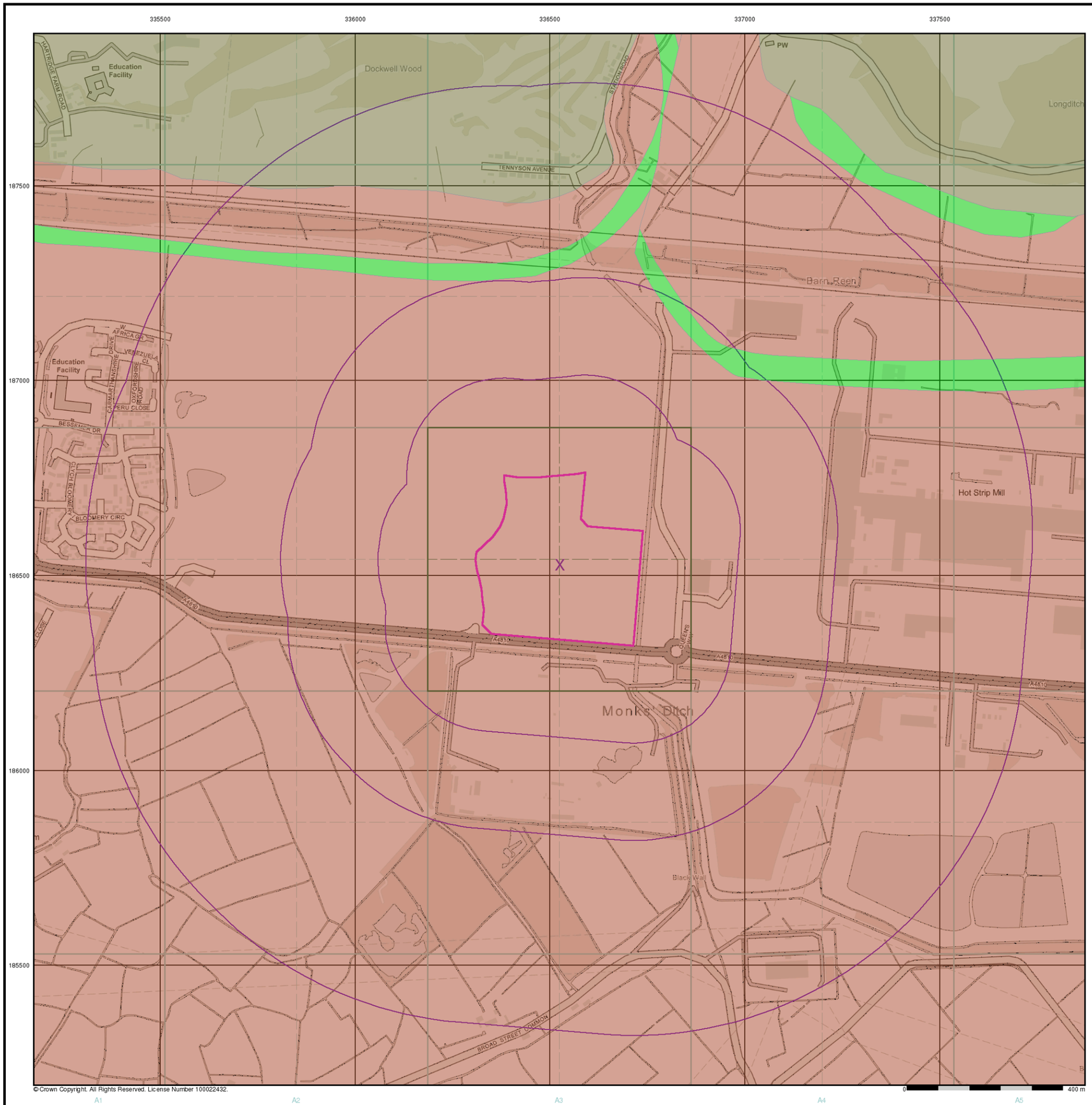
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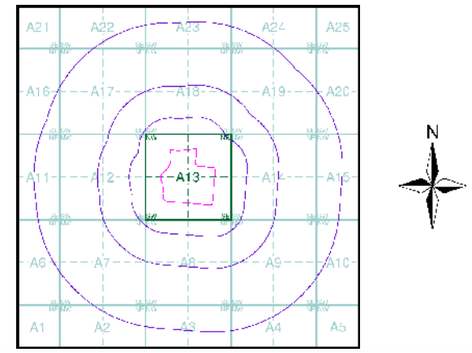
Specified Site Specified Buffer(s) X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



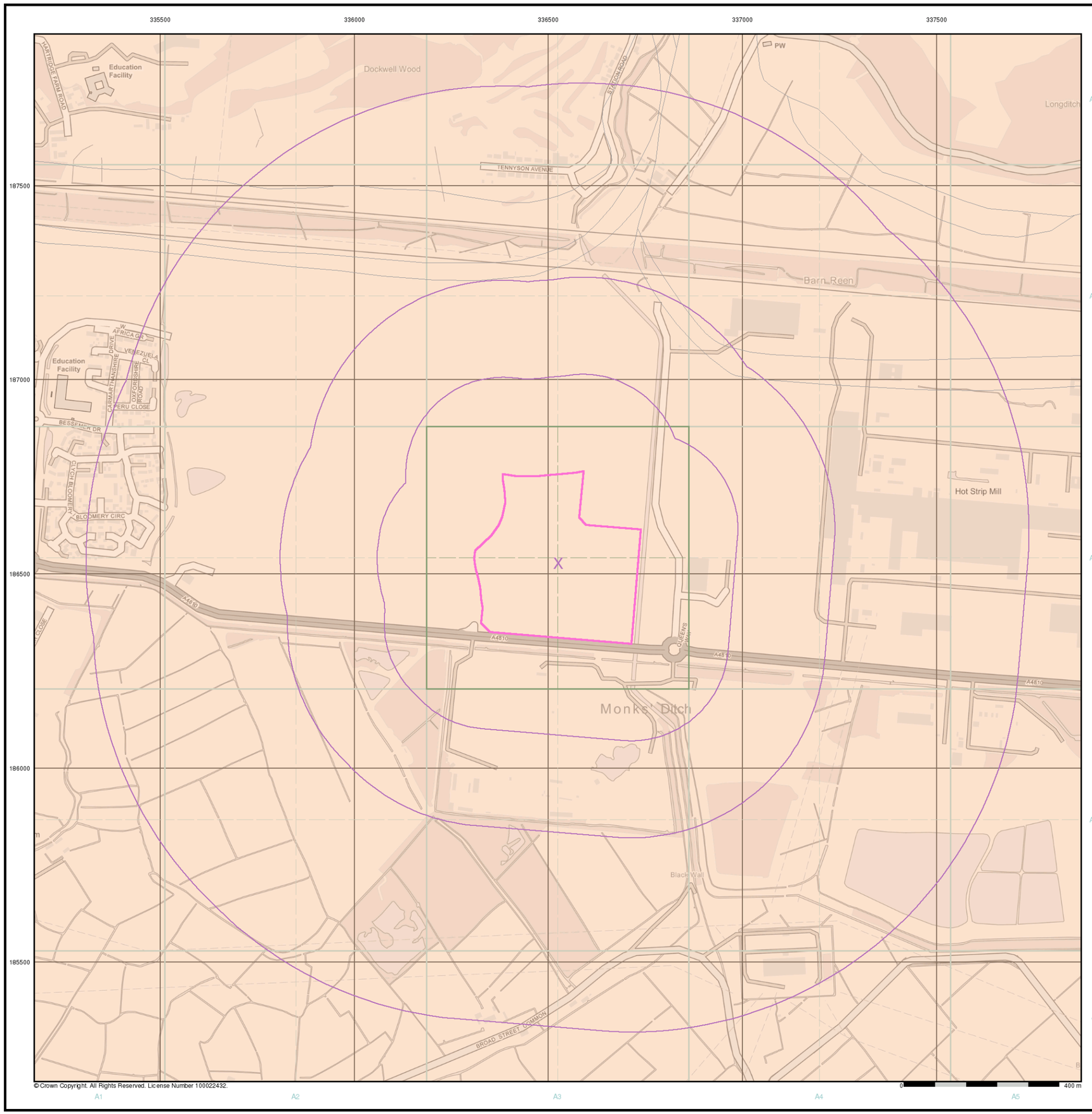
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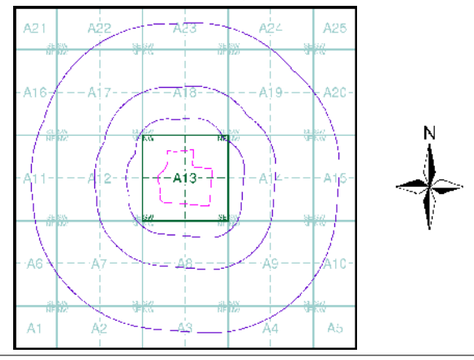
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- <100 mg/kg
- 100 - 200
- 200 - 300
- 300 - 600
- 600 - 1200
- >1200

Estimated Soil Chemistry Lead - Slice A



Order Details

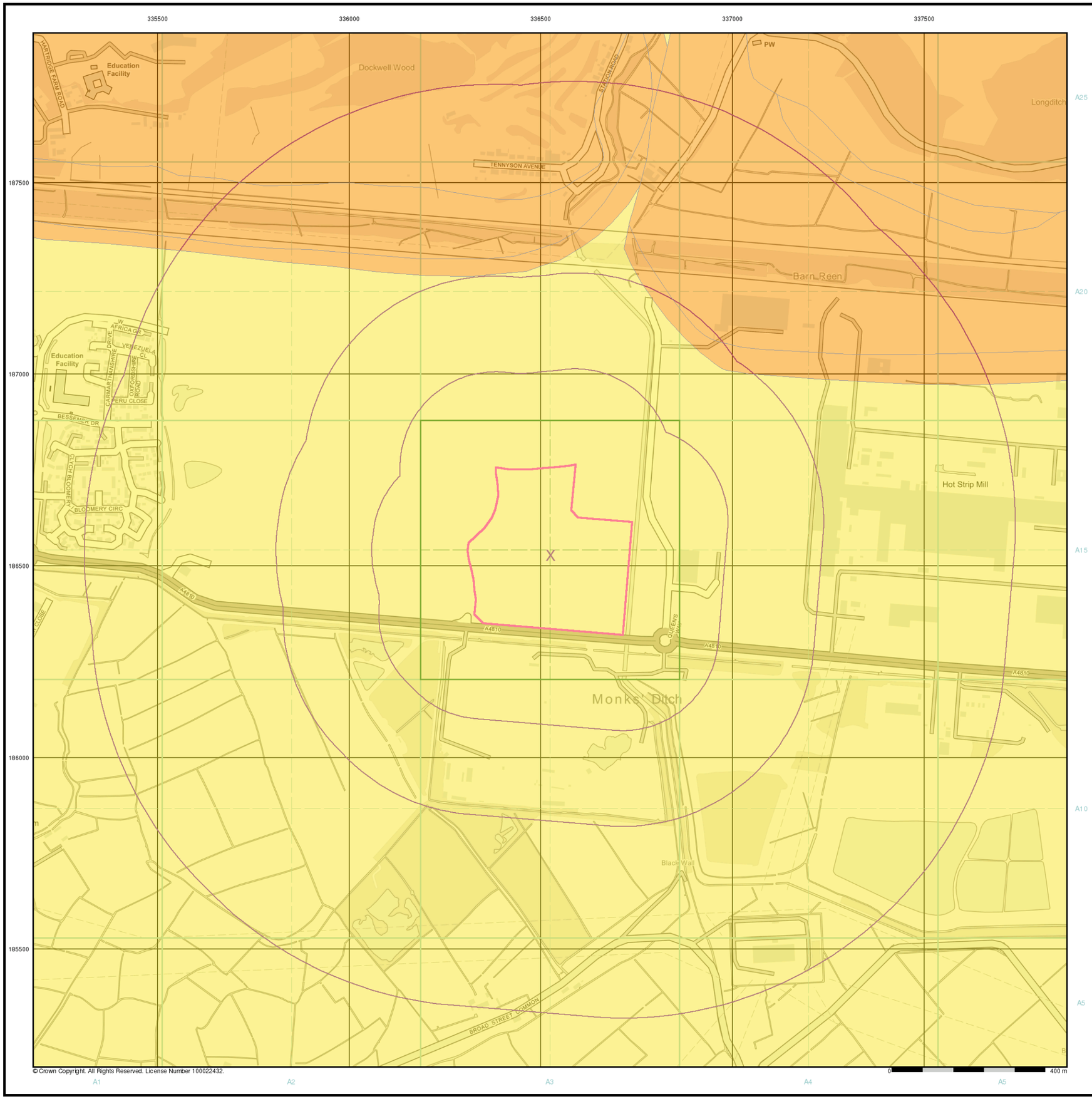
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National Grid Reference:	336530, 186530
Slice:	A
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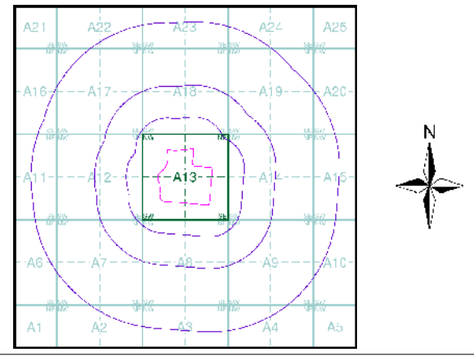
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Estimated Soil Chemistry Nickel - Slice A



Order Details

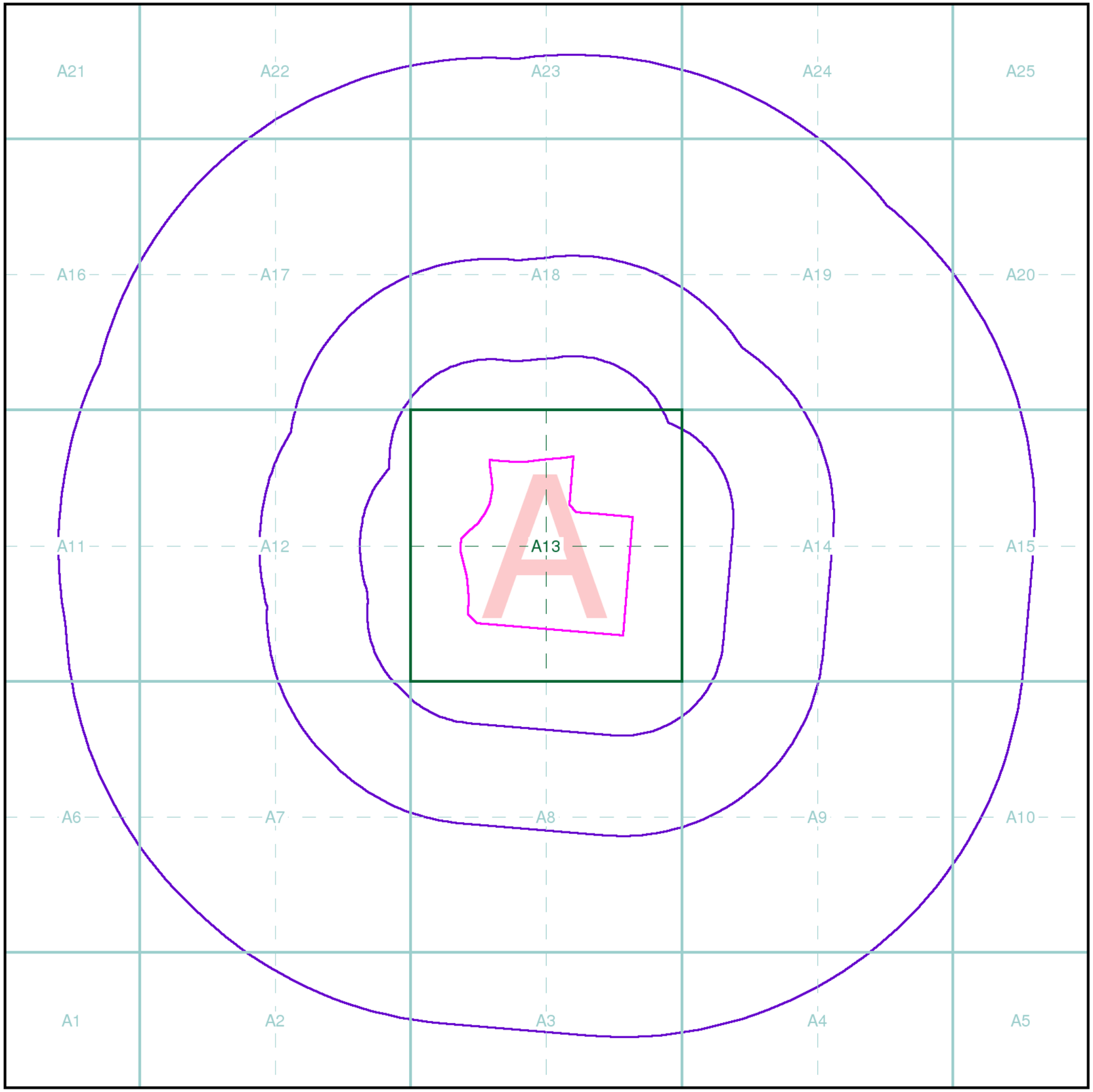
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Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice
Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment
A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant
A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:

Map data

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Cyfoeth Naturiol Cymru
Natural Resources Wales

Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr R Taylor, Rodgers Leask Ltd, Rodgers Leask Ltd,
Seven House, 18 High Street, Longbridge, Birmingham,
B31 2UQ

Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336520, 186520
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Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	TFD	Tidal Flat Deposits	Clay and Silt	Not Supplied - Holocene
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LVN	Lavernock Shales Member	Mudstone	Not Supplied - Hettangian
	PNG	Penarth Group	Mudstone	Not Supplied - Rhaetian
	STM	St Mary's Well Bay Member	Limestone and Mudstone, Interbedded	Not Supplied - Rhaetian
	BAN	Blue Anchor Formation	Mudstone and Siltstone	Not Supplied - Norian
	BAN	Blue Anchor Formation	Mudstone	Not Supplied - Norian
	MMG	Mercia Mudstone Group	Mudstone	Not Supplied - Early Triassic
		Faults		

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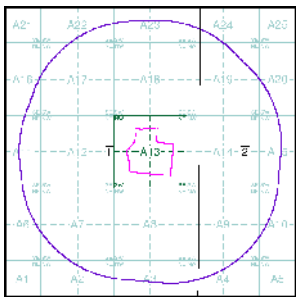
Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	**2**	**Map ID:**	**1**
Map Sheet No:	**250**	**Map Sheet No:**	**249**
Map Name:	**Chepstow**	**Map Name:**	**Newport**
Map Date:	**1981**	**Map Date:**	**1969**
Bedrock Geology:	**Available**	**Bedrock Geology:**	**Available**
Superficial Geology:	**Available**	**Superficial Geology:**	**Available**
Artificial Geology:	**Not Available**	**Artificial Geology:**	**Available**
Faults:	**Not Supplied**	**Faults:**	**Not Supplied**
Landslip:	**Available**	**Landslip:**	**Available**
Rock Segments:	**Not Supplied**	**Rock Segments:**	**Not Supplied**

Geology 1:50,000 Maps - Slice A

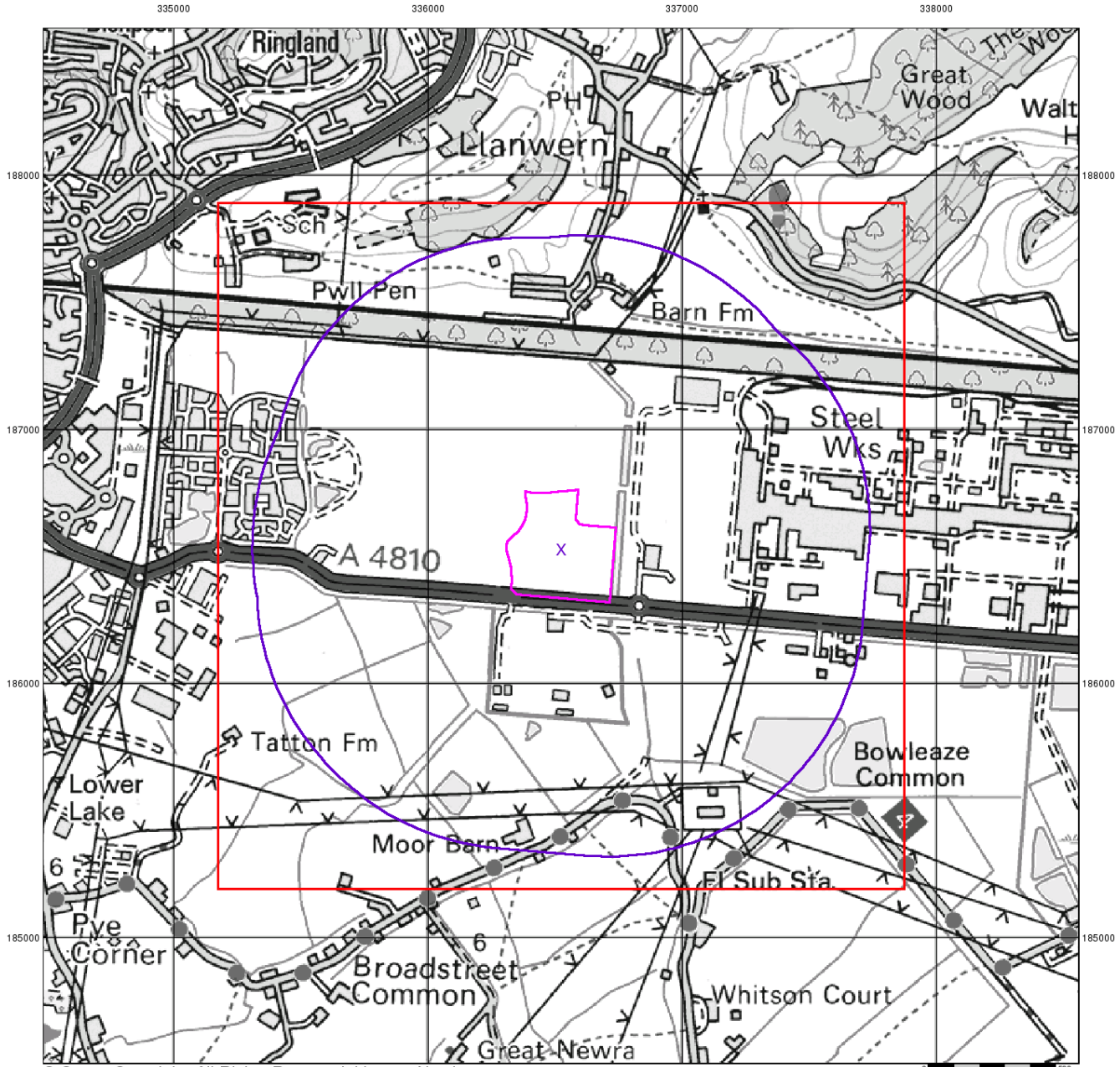


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Artificial Ground and Landslip

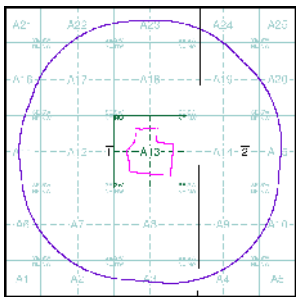
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



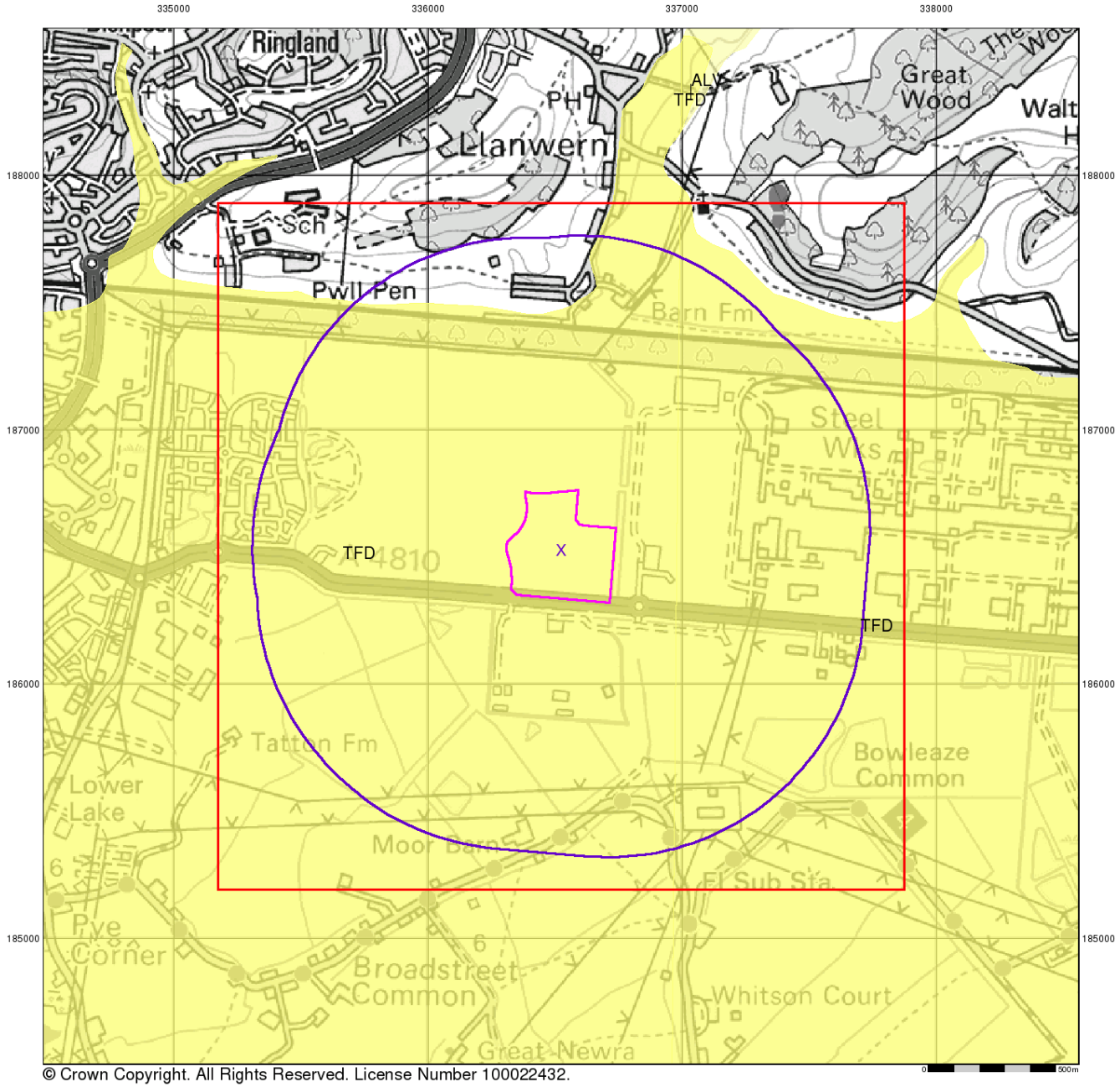
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Customer Reference:	P18-669 5e1/5e2
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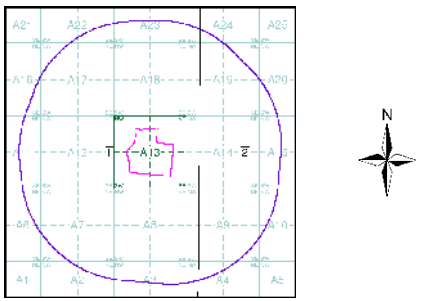
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



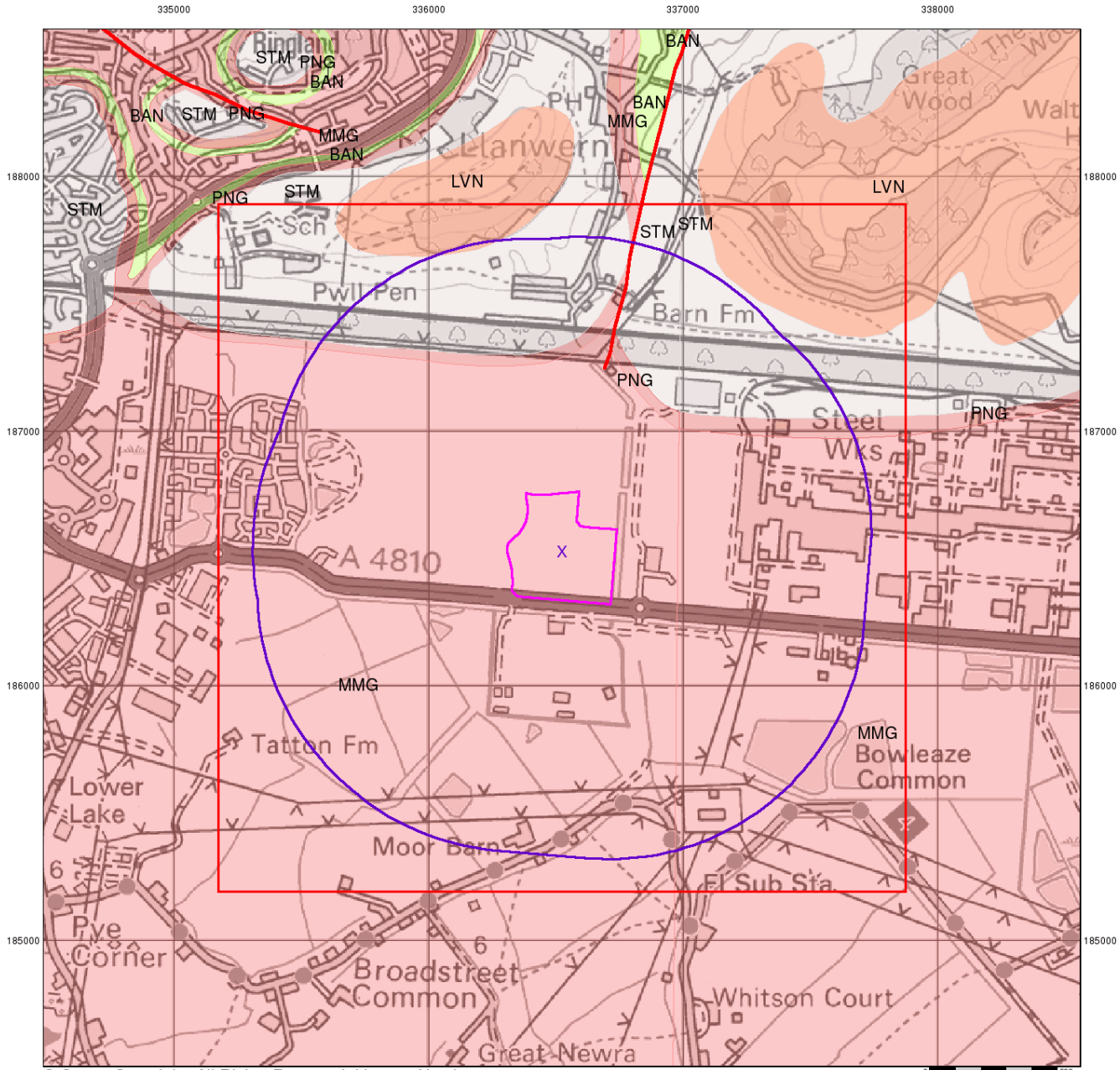
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Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details:

Site at 336524,186542

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Bedrock and Faults

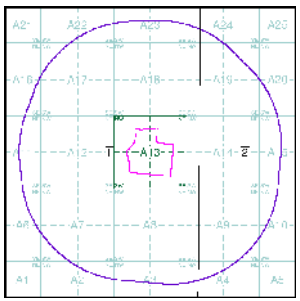
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



N

Order Details:

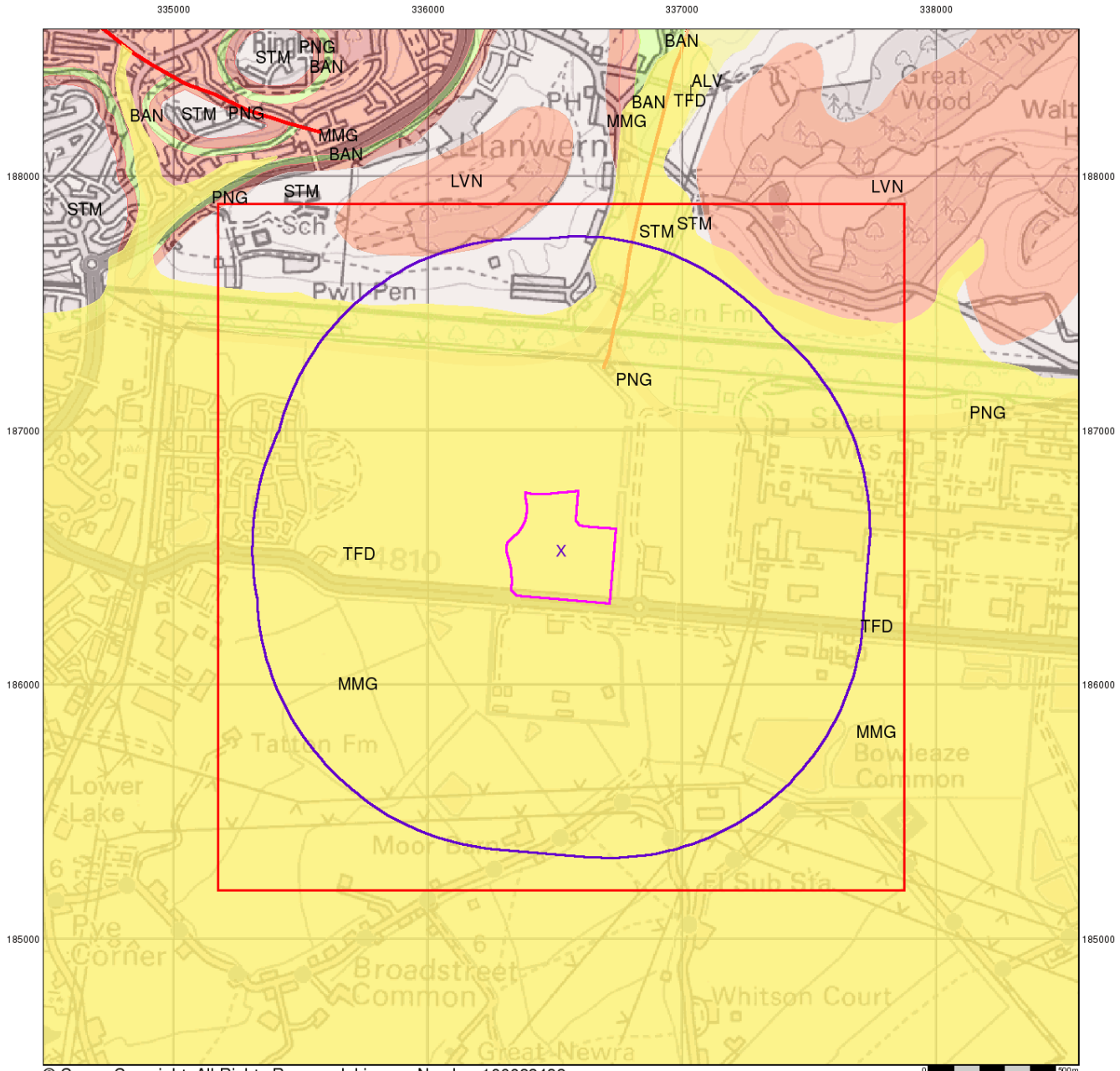
Order Number:	287158115_1_1
Customer Reference:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details:

Site at 336524,186542

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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

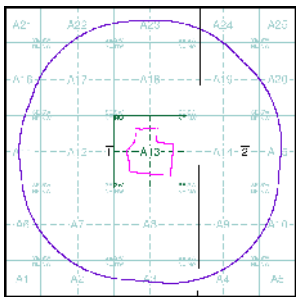
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A

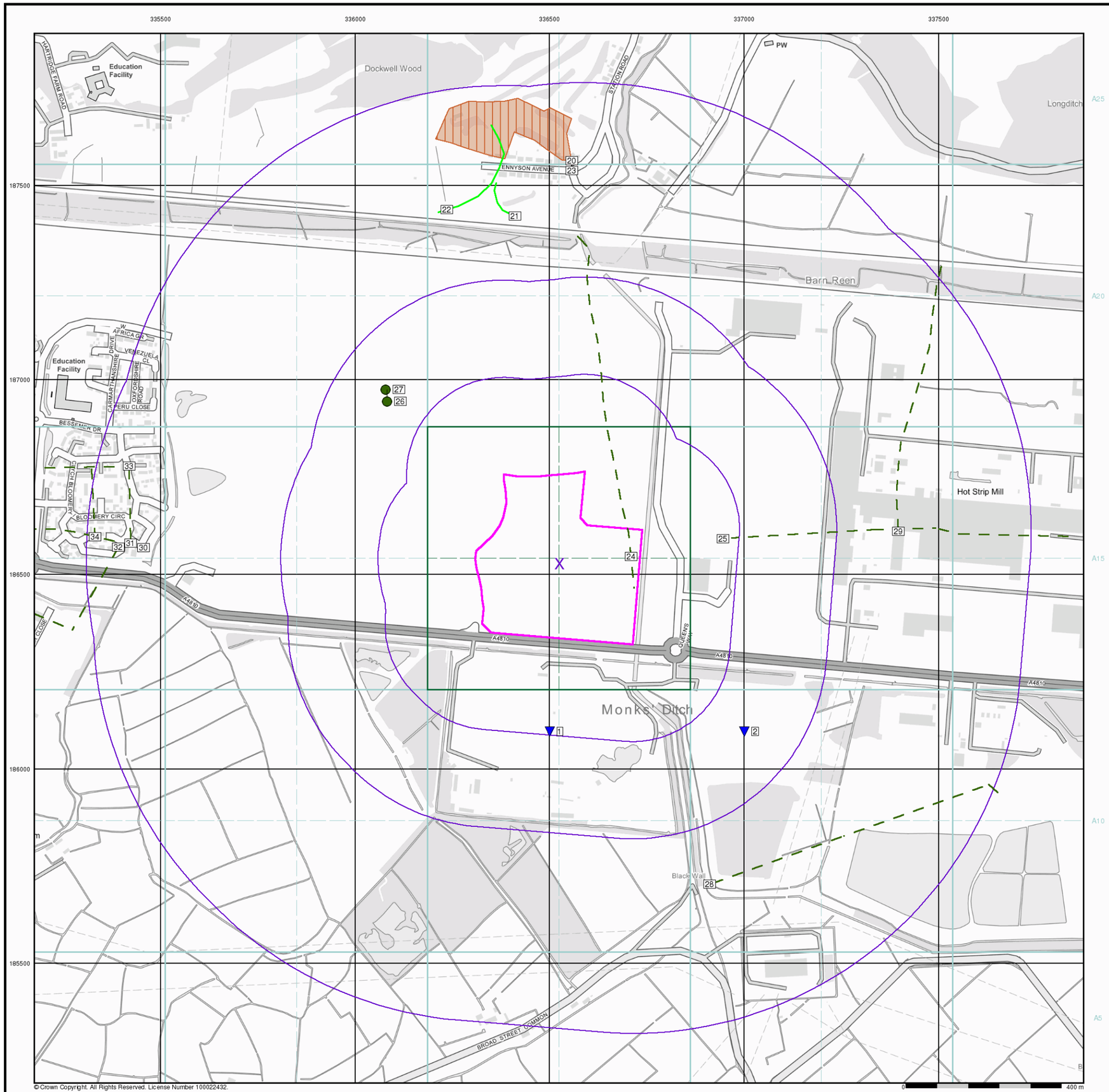


Order Details:

Order Number:	287158115_1_1
Customer Reference:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details:

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Historical Land Use Information (1:10,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID

Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts	◆		
Disturbed Ground	◆		
General Quarrying	◆		
Heap, unknown constituents	◆		
Mineral Railway	◆		
Mining and Quarrying General	◆		
Mining of Coal & Lignite	◆		
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits	◆		

Historical Land Use

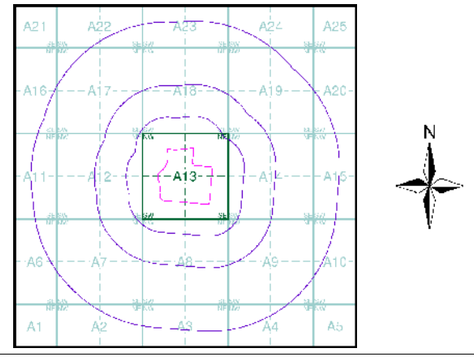
	Point	Line	Polygon
Potentially Infilled Land (Non-Water)	●		
Potentially Infilled Land (Water)	●		
Former Marsh	✠		

Mining Data

Potential Mining Area

BGS Recorded Mineral Site

Mining and Ground Stability - Slice A



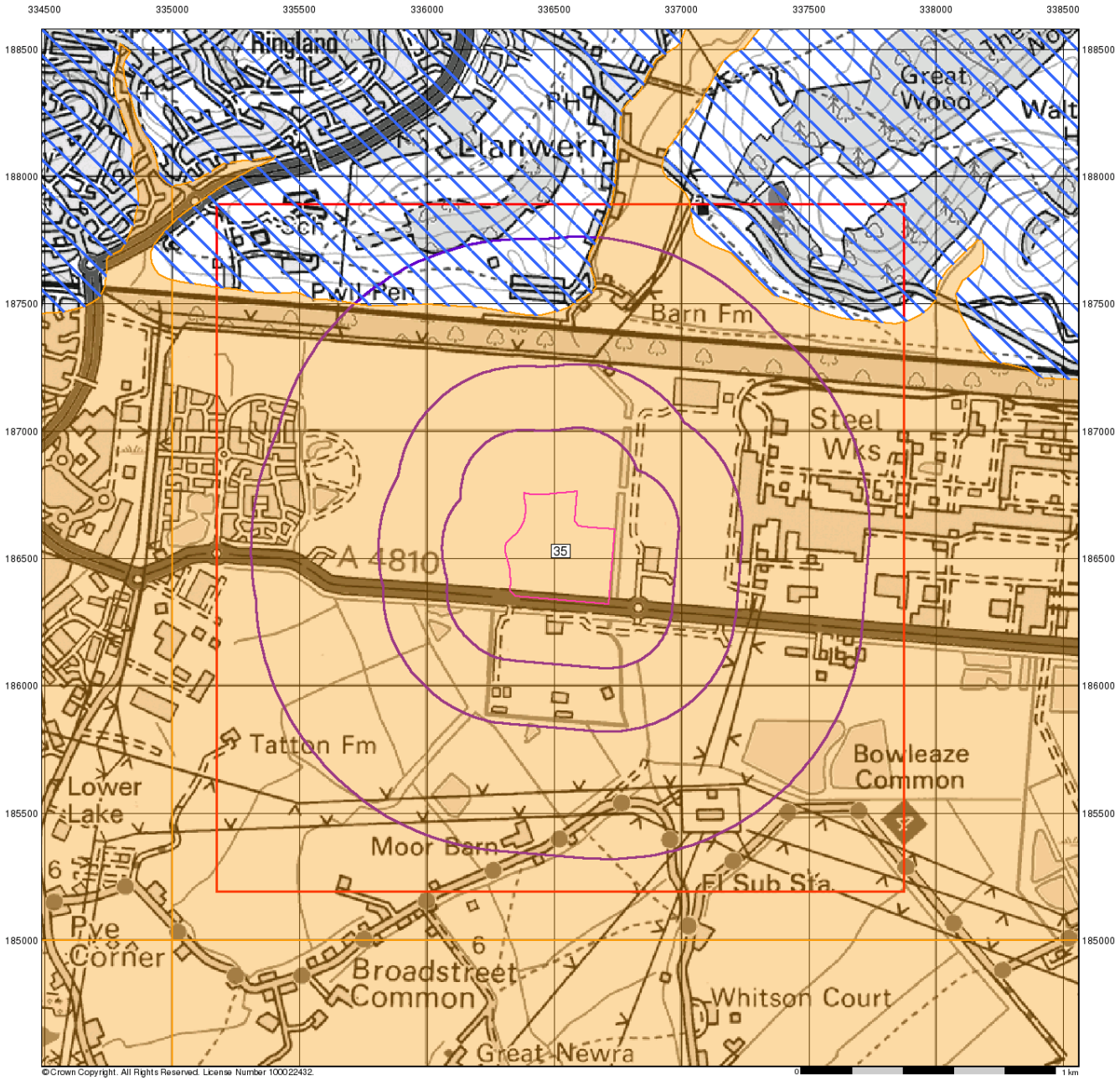
Order Details

Order Number: 287158115_1_1
Customer Ref: P18-669 5e1/5e2
National Grid Reference: 336530, 186530
Slice: A
Site Area (Ha): 14.1
Search Buffer (m): 1000

Site Details

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Ground Stability Data (1:50,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Potential for Compressible Ground Stability Hazards

High | Low | Moderate | Very Low

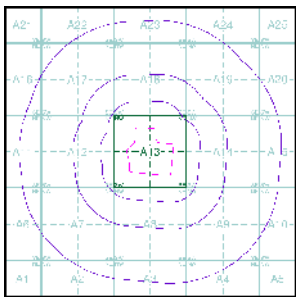
Potential for Collapsible Ground Stability Hazards

High | Low | Moderate | Very Low

Brine Pumping and Salt Mining

	Point	Polygon
Brine Pumping Related Feature	▲	▨
Salt Mining Related Feature	▲	▨

Mining and Ground Stability - Slice A



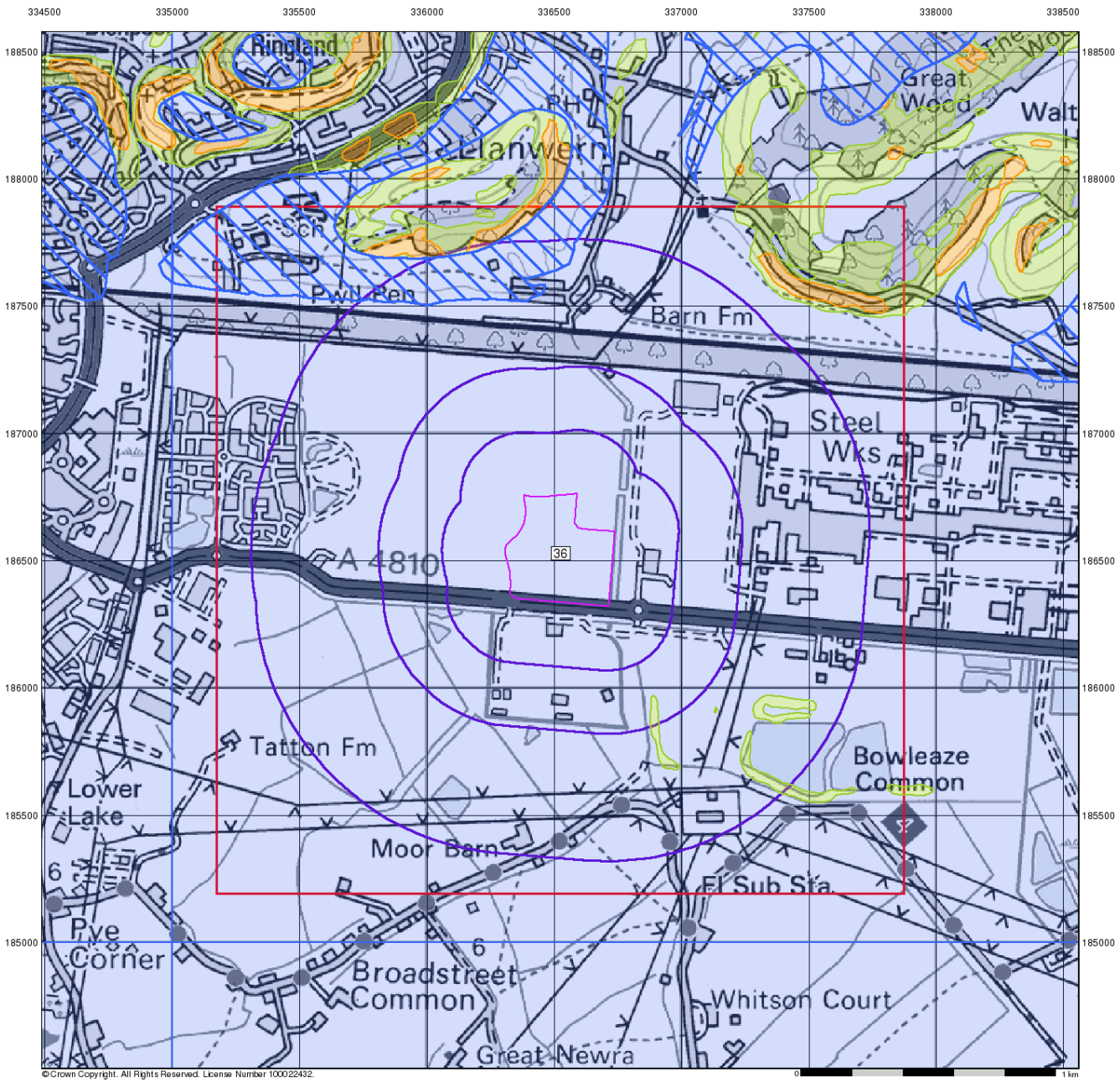
Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Ground Stability Data (1:50,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

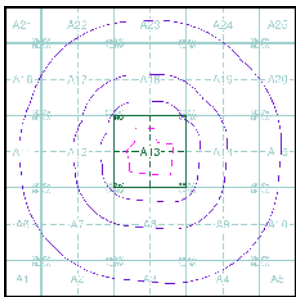
Potential for Landslide Ground Stability Hazards

High | Low | Moderate | Very Low

Potential for Ground Dissolution Stability Hazards

High | Low | Moderate | Very Low

Mining and Ground Stability - Slice A



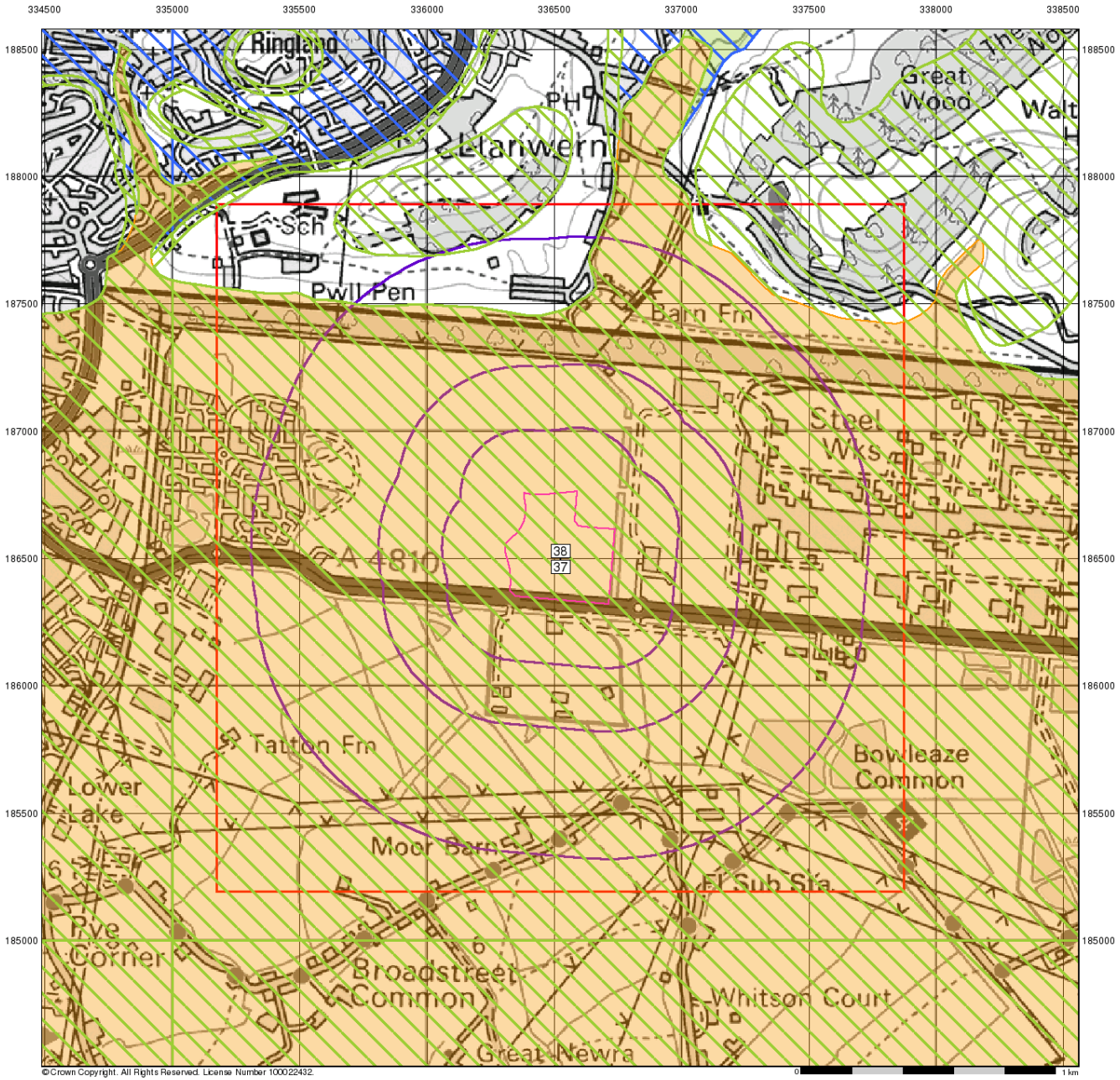
Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

Site at 336524,186542

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Ground Stability Data (1:50,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

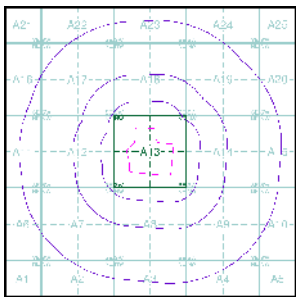
Potential for Running Sand Ground Stability Hazards

High | Low
Moderate | Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

High | Low
Moderate | Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Search Buffer (m):	1000

Site Details

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Envirocheck® Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:
287158115_1_1

Customer Reference:
P18-669 5e1/5e2

National Grid Reference:
336530, 186530

Slice:
A

Site Area (Ha):
14.1

Search Buffer (m):
1000

Site Details:

Site at 336524,186542

Client Details:

Mr R Taylor
Rodgers Leask Ltd
Rodgers Leask Ltd
Seven House
18 High Street
Longbridge
Birmingham
B31 2UQ

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Contents

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	2
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	4
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	5
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Historical Map List	6
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	7
Data Suppliers	8
Useful Contacts	9

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

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Report Version v53.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		1	1	
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 2	3	14	n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying	pg 4				1
Heap, unknown constituents					
Mineral Railway	pg 4				2
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits					
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 4				1
Potentially Infilled Land (Water)	pg 4	1	1	2	7
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 5	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 5	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 5	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 5	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 5	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 5	Yes		n/a	n/a
Salt Mining Related Features					

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Summary

Report Version v53.0

Mining and Natural Cavities Data

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**BGS Recorded Mineral Sites** Site Name: Llanwern Steelworks Slag Location: Llanwern, Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 13203 Type: Tip **Status: Ceased** Operator: Tarmac (A Crh Company) Operator Location: Not Supplied Periodic Type: Not Available Geology: Blast Furnace Slag Commodity: Blast Furnace Slag Positional Accuracy: Located by supplier to within 100m	A8NW (S)	237	1	336500 186100
2	**BGS Recorded Mineral Sites** Site Name: Llanwern Works Location: Llanwern, Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 13204 Type: Tip **Status: Ceased** Operator: Hanson Cement Operator Location: Not Supplied Periodic Type: Not Available Geology: Ground Granulated Blast Furnace Slag - Addition, Cementitious Commodity: Blast Furnace Slag Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	362	1	337000 186100
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pipe Line First Map Published Date: 1967 Last Map Published Date: 1967	A13NE (N)	0	-	336542 186739
4	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pipe Line First Map Published Date: 1967 Last Map Published Date: 1967	A13SE (S)	0	-	336538 186411
5	**Extractive Industries or Potential Excavations from 1950-1980** Use: Lime Plant First Map Published Date: 1967 Last Map Published Date: 1967	A13SW (S)	0	-	336521 186417
6	**Extractive Industries or Potential Excavations from 1950-1980** Use: Bunkers First Map Published Date: 1967 Last Map Published Date: N/A	A13NE (N)	4	-	336593 186755
7	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pipe Line First Map Published Date: 1967 Last Map Published Date: N/A	A13NE (N)	17	-	336545 186777
8	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pipe Line First Map Published Date: 1967 Last Map Published Date: N/A	A13NE (N)	22	-	336532 186779
9	**Extractive Industries or Potential Excavations from 1950-1980** Use: Ponds First Map Published Date: 1967 Last Map Published Date: 1967	A13SE (E)	24	-	336762 186513
10	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pond First Map Published Date: 1967 Last Map Published Date: N/A	A13NE (NE)	40	-	336726 186656
11	**Extractive Industries or Potential Excavations from 1950-1980** Use: Slag Heaps First Map Published Date: 1967 Last Map Published Date: N/A	A13SE (S)	71	-	336541 186260
12	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pond First Map Published Date: 1967 Last Map Published Date: N/A	A13NE (NE)	77	-	336763 186687
13	**Extractive Industries or Potential Excavations from 1950-1980** Use: Slag Heap First Map Published Date: 1967 Last Map Published Date: N/A	A13SW (S)	79	-	336437 186260

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	**Extractive Industries or Potential Excavations from 1950-1980** Use: Ponds First Map Published Date: 1967 Last Map Published Date: N/A	A13SE (SE)	83	-	336746 186244
15	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pond First Map Published Date: 1967 Last Map Published Date: N/A	A13SE (SE)	83	-	336804 186403
16	**Extractive Industries or Potential Excavations from 1950-1980** Use: Ponds First Map Published Date: 1967 Last Map Published Date: N/A	A13SE (SE)	85	-	336761 186250
17	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pond First Map Published Date: 1967 Last Map Published Date: N/A	A13NE (NE)	87	-	336674 186798
18	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pipe Line First Map Published Date: 1967 Last Map Published Date: N/A	A13NW (N)	92	-	336443 186842
19	**Extractive Industries or Potential Excavations from 1950-1980** Use: Pipe Line First Map Published Date: 1967 Last Map Published Date: N/A	A13NW (N)	95	-	336419 186847

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	**General Quarrying** Use: Not Supplied Date of Mapping: 1887 - 1922	A23SE (N)	800	-	336557 187563
21	**Mineral Railway** Use: Not Supplied Date of Mapping: 1922	A18NW (N)	665	-	336410 187421
22	**Mineral Railway** Use: Not Supplied Date of Mapping: 1922	A18NW (N)	696	-	336235 187437
23	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A23SE (N)	800	-	336557 187563
24	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (E)	0	-	336709 186545
25	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14NW (E)	208	-	336945 186592
26	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1989	A17SE (NW)	373	-	336081 186975
27	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1989	A17SE (NW)	376	-	336078 186975
28	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9SW (SE)	647	-	336911 185704
29	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14NE (E)	657	-	337397 186610
30	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	857	-	335453 186569
31	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	887	-	335423 186580
32	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	919	-	335390 186570
33	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	920	-	335419 186779
34	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NE (W)	980	-	335331 186597

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
35	**Potential for Compressible Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
36	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
37	**Potential for Running Sand Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528
38	**Potential for Shrinking or Swelling Clay Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	336526 186528

Historical Map List

The following mapping has been analysed for Historical Land Use Information (1:2,500):

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Monmouthshire	029_00	1886
Monmouthshire	034_00	1887
Monmouthshire	029_SE	1902
Monmouthshire	029_SW	1902
Monmouthshire	034_NE	1902
Monmouthshire	034_NW	1902
Monmouthshire	029_SE	1922
Monmouthshire	029_SW	1922
Monmouthshire	034_NE	1922
Monmouthshire	034_NW	1922
Monmouthshire	034_NW	1938
Monmouthshire	029_SE	1954
Monmouthshire	029_SW	1954
Monmouthshire	034_NE	1954
Ordnance Survey Plan	ST38NE	1965
1:10,000	**Mapsheet**	**Published Date**
Ordnance Survey Plan	ST38NE	1989

Data Currency

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2021	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	May 2021	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	May 2021	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	**Version**	**Update Cycle**
Subterranean Features Landmark Information Group Limited	February 2020	Bi-Annually
Ground Stability Data (1:50,000)	**Version**	**Update Cycle**
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	Annual Rolling Update

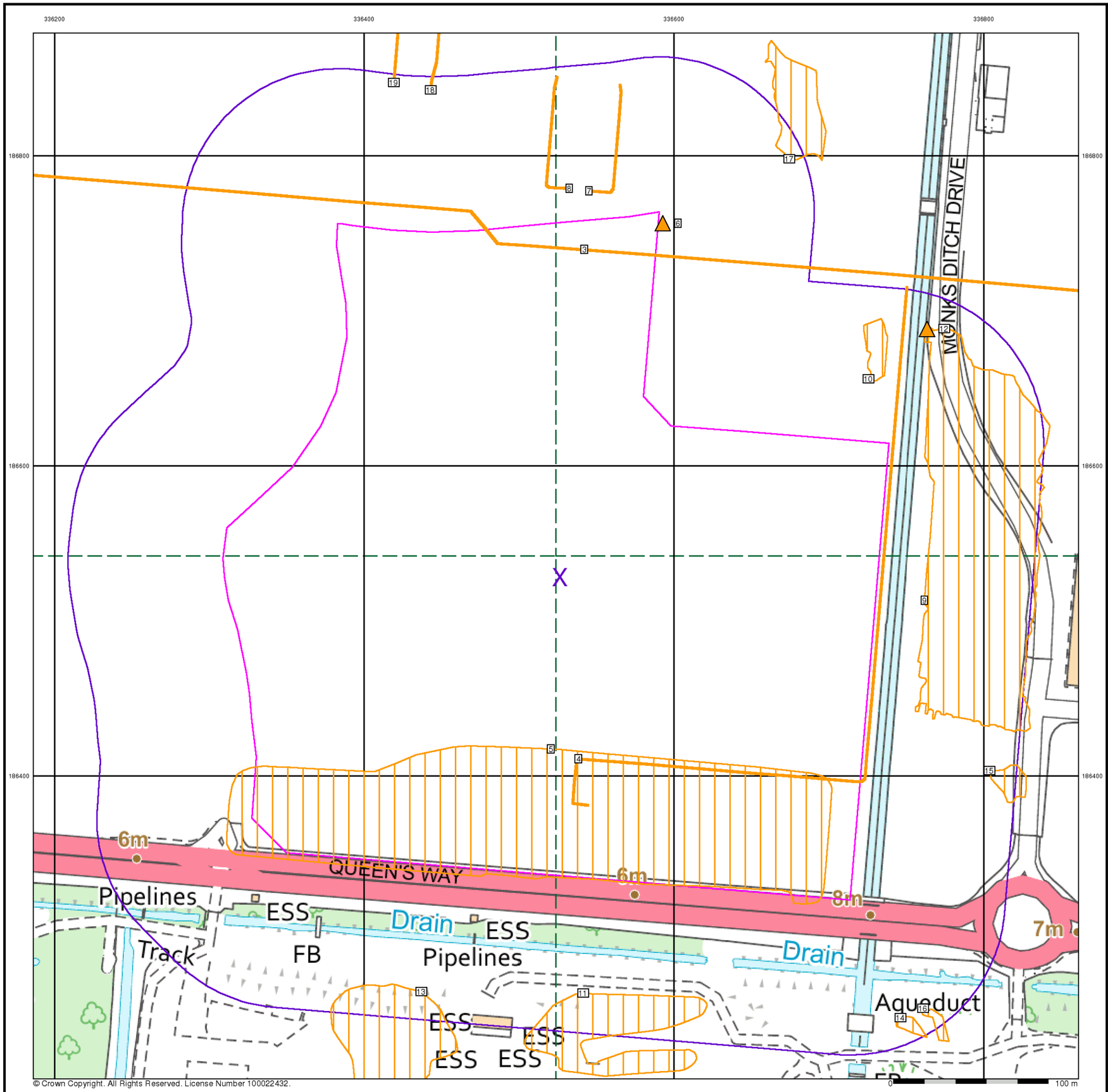
Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	The Coal Authority
Ove Arup	ARUP
Stantec UK Ltd	Stantec
Wardell Armstrong	wardell armstrong your earth our world
Johnson Poole & Bloomer	JPB

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk



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Historical Land Use Information (1:2,500)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID

Several of Type at Location

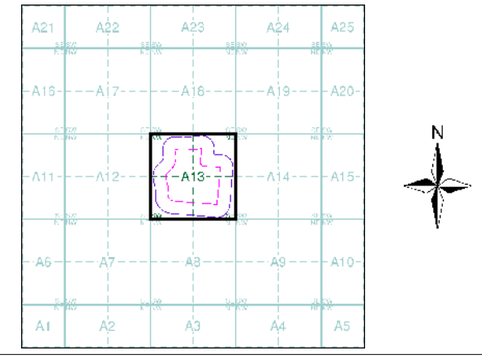
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	▭
Extractive Industries Activity from 1893 - 1915	▲	—	▨
Extractive Industries Activity from 1906 - 1937	▲	—	▤
Extractive Industries Activity from 1924 - 1949	▲	—	▨
Extractive Industries Activity from 1950 - 1980	▲	—	▥

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	- - -	▭

Mining and Ground Stability - Segment A13



Order Details

Order Number:	287158115_1_1
Customer Ref:	P18-669 5e1/5e2
National Grid Reference:	336530, 186530
Slice:	A
Site Area (Ha):	14.1
Plot Buffer (m):	100

Site Details

Site at 336524,186542

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Appendix E
UXO Risk Map

UNEXPLODED BOMB RISK MAP

SITE LOCATION

Map Centre: 336514,186462



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

- **High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- **Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- **Low:** Areas indicated as having 15 bombs per 1000acre or less.

Miltary | **Industry** | **UXO find** | **Other**
Transport | **Docks** | **Luftwaffe targets**
Utilities | **Bombing decoy** | **Airfields**

How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density.
Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then additional detailed research is recommended.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our pre-desk study assessments (PDSA) by emailing a site boundary and location to pdsa@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682 **email:** uxo@zetica.com **web:** www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the accompanying notes on our website.

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgement. The copyright remains with Zetica Ltd.

Appendix F
Exploratory Hole Logs

IAN FARMER ASSOCIATES
Geotechnical & Environmental Specialists

Contract Name:		Client:			Borehole ID:
Llanwern Site Wide CWRA & Phase 2D		St Modwen Developments Limited			CWWS17
Contract Number:	Date Started:	Logged By:	Checked By:	Status:	Sheet 1 of 1
21561	05/04/2016	CL			
Dynamic Sample Borehole Log	Easting:	Northing:	Ground Level:	Plant Used:	Print Date: / Scale:
			2.00mOD		02/06/2016 / 1:40
Weather:		Termination:			

Samples & In Situ Testing			Strata Details				Groundwater	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water Strike	Backfill/ Installation
				(1.50)		MADE GROUND: Dark brown, sandy, gravelly clay. Gravel is fine to coarse, angular to subrounded red brick, concrete, clinker		
				1.50		Firm, bluish grey, silty CLAY (Tidal Flat Deposits)		
				(0.50)				
				2.00		End of Borehole at 2.00m		

1 2 3 4 5 6 7 8

Borehole Diameter

Depth (m)	Dia (m)

Installation

Depth Top	Base (m)	Diameter	Pipe Type
0.00	0.50		PLAIN
0.50	1.50		SLOTTED

Water Strikes

Depth Strike	Depth Casing	Depth Sealed	Time (mins)	Rose to (m)	Remarks

Remarks:

IAN FARMER ASSOCIATES
Geotechnical & Environmental Specialists

Contract Name:		Client:			Borehole ID:
Llanwern Site Wide CWRA & Phase 2D		St Modwen Developments Limited			CWWS18
Contract Number:	Date Started:	Logged By:	Checked By:	Status:	Sheet 1 of 1
21561	05/04/2016	HB			
Dynamic Sample Borehole Log	Easting:	Northing:	Ground Level:	Plant Used:	Print Date: / Scale:
			1.30mOD		02/06/2016 / 1:40
Weather:		Termination:			

Samples & In Situ Testing			Strata Details				Groundwater	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water Strike	Backfill/ Installation
				(1.30)		MADE GROUND: Moss over soft to firm, dark brown, gravelly clay. Gravel is medium to coarse, angular to subangular concrete, red brick, clinker, coal, limestone and fragments of plastic and rootlets *At 0.80m: Rare rootlets*		
				1.30		End of Borehole at 1.30m		

Borehole Diameter		Installation			
Depth (m)	Dia (m)	Depth Top	Base (m)	Diameter	Pipe Type

Water Strikes					
Depth Strike	Depth Casing	Depth Sealed	Time (mins)	Rose to (m)	Remarks

Remarks:
Refusal at 1.30m

IAN FARMER ASSOCIATES
Geotechnical & Environmental Specialists

Contract Name:		Client:			Borehole ID:
Llanwern Site Wide CWRA & Phase 2D		St Modwen Developments Limited			CWCP18
Contract Number:	Date Started:	Logged By:	Checked By:	Status:	Sheet 1 of 2
21561	19/04/2016	HP		DRAFT	
Cable Percussion Borehole Log	Easting:	Northing:	Ground Level: 12.35mOD	Plant Used:	Print Date: 02/06/2016 — Scale: 1:50

Weather: | Termination: | SPT Hammer: N/R, Energy Ratio: N/R

Samples & In Situ Testing			Strata Details				Groundwater	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water Strike	Backfill/ Installation
0.50	D1			(2.00)		MADE GROUND: Dark brown, sandy gravel. Gravel is fine to medium, angular to subangular slag and brick		
1.20 - 1.65	D2	SPT(C) 1.20m, N=37 (7,8/9,10,9,9)						
2.00 - 2.45	D3	SPT(C) 2.00m, N=8 (1,2/2,2,2,2)		2.00				
				(0.40)		MADE GROUND: Soft, dark grey, slightly sandy, slightly gravelly, silty clay. Gravel is fine to coarse, angular to subangular slag		
2.50	D4			2.40		Soft, brownish grey, silty CLAY (Tidal Flat Deposits)		
3.00 - 3.45	TW1	15 blows 100% recovery		(1.50)				
3.50	D5			3.90				
4.00 - 4.45	B1	SPT(S) 4.00m, N=5				Very soft, dark grey, fibrous PEAT (Tidal Flat Deposits)		
4.00 - 4.45	D6	(1,1/1,1,1,2)						
5.00 - 5.45	D7	SPT(S) 5.00m, N=2 (1,0/1,0,1,0)		(2.10)				
6.00 - 6.45	D8	SPT(S) 6.00m, N=1 (1,0/0,1,0,0)		6.00		Very soft, grey, clayey SILT (Tidal Flat Deposits)		
7.50 - 7.95	D9	SPT(S) 7.50m, N=4 (1,1/1,1,1,1)		(4.60)				
9.00 - 9.45	D10	SPT(S) 9.00m, N=2 (1,0/1,0,1,0)						
						Continued next sheet		

Start & End of Shift Observations

Date	Time	Depth (m)	Casing (m)	Water (m)

Borehole Diameter

Depth (m)	Dia (mm)
12.35	150

Casing Diameter

Depth (m)	Dia (mm)
12.00	150

Chiselling

From (m)	To (m)	Duration	Remarks
11.80	12.00	00:30	

Installation

Top (m)	Base (m)	Type	Dia (mm)
0.00	10.50	PLAIN	50
10.50	12.00	SLOTTED	50

Remarks:

Water Strikes

Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
6.00	6.00	7.20	20	5.00	
12.10	12.00		20	11.00	

IAN FARMER ASSOCIATES
Geotechnical & Environmental Specialists

Contract Name:		Client:			Borehole ID:
Llanwern Site Wide CWRA & Phase 2D		St Modwen Developments Limited			CWCP18
Contract Number:	Date Started:	Logged By:	Checked By:	Status:	Sheet 2 of 2
21561	19/04/2016	HP		DRAFT	
Cable Percussion Borehole Log	Easting:	Northing:	Ground Level: 12.35mOD	Plant Used:	Print Date: 02/06/2016	Scale: 1:50

Weather: | Termination: | SPT Hammer: N/R, Energy Ratio: N/R

Samples & In Situ Testing			Strata Details				Groundwater	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water Strike	Backfill/ Installation
10.50 - 10.95	B2	SPT(S) 10.50m, N=37 (7,8/8,9,10,10)		10.60		Very stiff, reddish brown, silty CLAY (Mercia Mudstone Group Grade IVb)		
				(1.75)				
12.00 - 12.35	D11	SPT(S) 12.00m, 50 (25 for 145mm/50 for 235mm)		12.35		End of Borehole at 12.35m		

11 12 13 14 15 16 17 18 19 20

Start & End of Shift Observations

Date	Time	Depth (m)	Casing (m)	Water (m)

Borehole Diameter

Depth (m)	Dia (mm)
12.35	150

Casing Diameter

Depth (m)	Dia (mm)
12.00	150

Remarks:

Chiselling

From (m)	To (m)	Duration	Remarks
11.80	12.00	00:30	

Installation

Top (m)	Base (m)	Type	Dia (mm)
0.00	10.50	PLAIN	50
10.50	12.00	SLOTTED	50

Water Strikes

Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
6.00	6.00	7.20	20	5.00	
12.10	12.00		20	11.00	

Trial Pit No.MSY011

Sheet 1 of 1

Start Date:	15/01/2014	**Ground Level:**	-
End Date:	15/01/2014	**Easting:**	36654
Logged By:	AEM	**Northing:**	86492

Site: Misc Stockyard Logs
Client: St Modwen Developments
Project No: LLAMSY

Excavation Method:
Plant: Komatsu 210
Shoring / Support: None

Samples & In-Situ Tests			Strata Details			
Depth (m)	Type	HSV (kPa)	Water	Legend	Depth	Description
					0.30	MADE GROUND. Brown sandy gravelly CLAY. Coarse gravel of slag
					0.70	MADE GROUND. Black / grey gravelly SAND. Coarse gravel of mudstone, quartz and concrete
					(0.60)	
					1.30	MADE GROUND. Orange brown gravelly clayey SAND. Coarse gravel of shale and mudstone
					1.60	MADE GROUND. Black / brown clayey gravelly SAND. Coarse gravel of mudstone. Occasional rebar
					(0.60)	
					2.20	MADE GROUND. Brown sandy gravelly CLAY. Coarse gravel of shale and quartz
					2.50	Blue CLAY End of Trial Pit at 2.50 m

Groundwater Observations:
Water ingress at 1.3m.

Stability:
Pit stable

Pit Dimensions:

Pit Depth (mbgl)	Pit Width (m)	Pit Length (m)
2.50	-	-

General Remarks:
Pit terminated in natural soils.

Logger:	AEM
Date of Logging:	-
Checker:	
Date of Checking:	-

Trial Pit No.MSY012

Sheet 1 of 1

Start Date:	15/01/2014	**Ground Level:**	-
End Date:	15/01/2014	**Easting:**	36698
Logged By:	AEM	**Northing:**	86403

Site: Misc Stockyard Logs
Client: St Modwen Developments
Project No: LLAMSY

Excavation Method:
Plant: Komatsu 210
Shoring / Support: None

Samples & In-Situ Tests			Strata Details			
Depth (m)	Type	HSV (kPa)	Water	Legend	Depth	Description
					0.10	MADE GROUND. Brown clayey sandy GRAVEL. Coarse gravel of concrete, shale, mudstone and slag
					0.20	
					0.30	
					0.40	MADE GROUND. Grey / red GRAVEL of slag
					(0.70)	
					1.10	MADE GROUND. Grey Coarse gravelly SAND. Fine Gravel of slag
					1.30	MADE GROUND. Red brown sandy GRAVEL of shale
						MADE GROUND. Loose red GRAVEL of brick, mudstone, shale, slag and sandstone
						Blue CLAY
						End of Trial Pit at 1.30 m

Groundwater Observations:
Rapid water ingress at 0.6m.

Stability:
Pit stable

Pit Dimensions:

Pit Depth (mbgl)	Pit Width (m)	Pit Length (m)
1.30	-	-

General Remarks:
Pit terminated in natural soils.

Logger:	AEM
Date of Logging:	-
Checker:	
Date of Checking:	-

Trial Pit No.MSY013

Sheet 1 of 1

Start Date:	15/01/2014	**Ground Level:**	-
End Date:	15/01/2014	**Easting:**	36612
Logged By:	AEM	**Northing:**	86393

Site: Misc Stockyard Logs
Client: St Modwen Developments
Project No: LLAMSY

Excavation Method:
Plant: Komatsu 210
Shoring / Support: None

Samples & In-Situ Tests | Strata Details

Depth (m)	Type	HSV (kPa)	Water	Legend	Depth	Description
					0.10	MADE GROUND. Brown sandy GRAVEL of mudstone, concrete and slag
					0.20	
					0.50	MADE GROUND. Crimson red sandy GRAVEL of slag
					0.60	
					0.80	MADE GROUND. Brown clayey gravelly SAND. Coarse gravel of mudstone and slag
					1.00	
					1.20	MADE GROUND. White Clay (Lime)
					(0.90)	
					2.10	MADE GROUND. Brown clayey gravelly SAND. Coarse gravel of mudstone and slag
					2.20	MADE GROUND. White Clay (Lime)
						MADE GROUND. Grey sandy GRAVEL of cement, chalk, limestone and flint
						MADE GROUND. Brown / yellow / red GRAVEL of mudstone, shale, brick and occasional slag
						Blue CLAY
						End of Trial Pit at 2.20 m

Groundwater Observations:
Water ingress at 0.5m.

Stability:
Pit stable

Pit Dimensions:

Pit Depth (mbgl)	Pit Width (m)	Pit Length (m)
2.20	-	-

General Remarks:
Pit terminated in natural soils.

Logger:	AEM
Date of Logging:	-
Checker:	
Date of Checking:	-

Trial Pit No.MSY014

Sheet 1 of 1

Start Date:	15/01/2014	**Ground Level:**	-
End Date:	15/01/2014	**Easting:**	36527
Logged By:	AEM	**Northing:**	86404

Site: Misc Stockyard Logs
Client: St Modwen Developments
Project No: LLAMSY

Excavation Method:
Plant: Komatsu 210
Shoring / Support: None

Samples & In-Situ Tests			Strata Details			
Depth (m)	Type	HSV (kPa)	Water	Legend	Depth	Description
					(1.20)	MADE GROUND. Grey sandy gravelly CLAY. Coarse gravel of sinter, mudstone and occasional slag, brick and concrete
					1.20	
						MADE GROUND. Red brown sandy GRAVEL of shale
					1.70	
						Blue CLAY
					1.90	End of Trial Pit at 1.90 m

Groundwater Observations:
Water ingress at 1.5m.

Stability:
Pit stable

Pit Dimensions:

Pit Depth (mbgl): 1.90
Pit Length (m): -
Pit Width (m): -

General Remarks:
Pit terminated in natural soils.

Logger:	AEM
Date of Logging:	-
Checker:	
Date of Checking:	-

Trial Pit No.MSY015

Sheet 1 of 1

Start Date:	15/01/2014	**Ground Level:**	-
End Date:	15/01/2014	**Easting:**	36428
Logged By:	AEM	**Northing:**	86389

Site: Misc Stockyard Logs
Client: St Modwen Developments
Project No: LLAMSY

Excavation Method:
Plant: Komatsu 210
Shoring / Support: None

Samples & In-Situ Tests | Strata Details

Depth (m)	Type	HSV (kPa)	Water	Legend	Depth	Description
					0.20	MADE GROUND. Brown gravelly SAND. Coarse gravel of mudstone, concrete and shale
					0.30	
					0.40	MADE GROUND. Crimson red sandy GRAVEL of slag
					(0.60)	
					1.00	MADE GROUND. White Clay (Lime)
					1.20	MADE GROUND. White grey sandy clayey GRAVEL. Coarse gravel of flint, chalk and limestone
					1.60	MADE GROUND. Red brown sandy GRAVEL of shale
					1.80	MADE GROUND. Black sandy gravelly CLAY. Gravel of quartz (former topsoil)
						Blue CLAY
						End of Trial Pit at 1.80 m

Groundwater Observations:
Water ingress at 1.2m.

Stability:
Pit stable

Pit Dimensions:

Pit Depth (mbgl)	Pit Width (m)	Pit Length (m)
1.80	-	-

General Remarks:
Pit terminated in natural soils.

Logger:	AEM
Date of Logging:	-
Checker:	
Date of Checking:	-

Trial Pit Log

TrialPit No: **AL33**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336411E - 186483N Level: 6.20	Date 29/01/2021
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.90	Logged DM

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.90	0.30	MADE GROUND: Black sandy clayey GRAVEL. Gravel is fine to medium angular comprising of slag, shale and mudstone.		
				5.50	0.70	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subrounded to rounded of slag, sandstone, shale and mudstone.		
0.80	AL33 -1	ES		5.30	0.90	MADE GROUND: Dark brown clayey GRAVEL. Gravel is fine to coarse subrounded to rounded of mudstone and occasional various slags. *Refusal due to hard ground and low recovery.* End of Pit at 0.900m		

Remarks:

Stability:

Trial Pit Log

TrialPit No **AL36**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336393E - 186389N Level: 6.42	Date 01/12/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.10	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Grey sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded comprising slag with occassional mudstone and shale.		
				5.52	1	0.90	MADE GROUND: Black sandy clayey GRAVEL. Gravel is fine to medium angular comprising of slag, shale and mudstone.		
				4.42	2	2.00	TIDAL FLAT DEPOSITS - Soft grey CLAY.		
				4.32		2.10	End of Pit at 2.100m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AM32**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336430E - 186474N Level: 6.52	Date 29/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.02	0.50	MADE GROUND: Black sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag.		
						MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of fused slag with occasional cobbles of slag and metal fragments.		
				5.02	1.50	*Refusal due to hard ground (fused slag) and low recovery.* End of Pit at 1.500m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No: **AM34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336431E - 186427N Level: 6.43	Date 01/12/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.60	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.23	0.20	MADE GROUND: Brown slightly sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag.		
						MADE GROUND: Black sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag.		
						Refusal due to hard ground (fused slag) and low recovery.		
				5.83	0.60	End of Pit at 0.600m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AM35**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336429E - 186404N Level: 6.34	Date 01/12/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.80	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag.		
				5.64		0.70	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subrounded of slag with occassional rebar and rare mudstone.		
					1				
				4.64		1.70	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.54		1.80	End of Pit at 1.800m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AM36**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336427E - 186376N Level: 6.40	Date 01/12/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.20	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag.		
				5.60		0.80			
					1		MADE GROUND: Bluish grey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag.		
				5.20		1.20			
							MADE GROUND: Grey slighlty cobbly GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag.		
					2				
				4.30		2.10	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.20		2.20	End of Pit at 2.200m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AM37**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336428E - 186363N Level: 6.48	Date 01/12/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.10	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Brown silty GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, abundant rootlets and occassional wood.		
				5.68		0.80			
					1		MADE GROUND: Dark brown clayey GRAVEL. Gravel is fine to coarse subangular to subrounded slag with occasional cobbles of slag and metal fragments.		
				4.98		1.50			
							MADE GROUND: Black slightly sandy cobbly GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, ash and coal dust.		
				4.58		1.90			
				4.48	2	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
							End of Pit at 2.100m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No
AN32
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336455E - 186472N Level: 6.40	Date 29/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.90		0.50	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
				5.40	1	1.00	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag. *Refusal due to hard ground (fused slag) and low recovery.* End of Pit at 1.000m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AN33**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336453E - 186447N Level: 6.40	Date 29/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.40	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.70	0.70	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional rootlets.		
				5.10	1.30	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
				5.05	1.35	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to medium angular to subangular of fused slag.		
						End of Pit at 1.400m		

1
2
3
4
5

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AN34**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336454E - 186419N Level: 6.37	Date 20/09/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.97		0.40	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
							MADE GROUND: Grey sandy GRAVEL. Gravel is fine to medium angular to subangular of fused slag.		
				5.37	1	1.00	*Refusal due to hard ground (fused slag) and low recovery.* End of Pit at 1.000m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AN35
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336449E - 186398N Level: 6.73	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.03		0.70	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
				5.73	1	1.00	MADE GROUND: Grey very sandy GRAVEL. Gravel is fine to medium angular to subangular of fused slag.		
							End of Pit at 1.500m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AN36**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336447E - 186373N Level: 6.40	Date 01/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.10	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.70		0.70	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
					1		MADE GROUND: Grey very sandy GRAVEL. Gravel is fine to medium angular to subangular of slag with occassional mudstone.		
				5.30		1.10	MADE GROUND: Brown very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
							End of Pit at 1.100m		
				4.40	2	2.00			
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AN37**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336446E - 186359N Level: 6.38	Date 01/12/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.10	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Brown sandy very gravelly CLAY. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
				5.48	1	0.90	MADE GROUND: Grey clayey GRAVEL. Gravel is medium to coarse angular to subangular of slag, mudstone, sandstone and occassional wood fragments.		
				4.78		1.60	MADE GROUND: Bluish grey clayey GRAVEL. Gravel is fine to medium angular to subrounded of slag.		
				4.58		1.80	MADE GROUND: Brown clayey GRAVEL. Gravel is fine to coarse angular to subangular of slag.		
				4.38	2	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.28		2.10	End of Pit at 2.100m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AO32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336480E - 186470N Level: 6.38	Date 13/07/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.90	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.88	0.50	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, mudstone occasional bricks and timber.		
				4.88	1.50	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of fused slag with occasional cobbles of slag and metal fragments.		
				3.88	2.50	MADE GROUND: Grey sandy GRAVEL. Gravel is medium to coarse angular to subangular of slag, mudstone, sandstone and occassional wood fragments.		
				3.48	2.90	MADE GROUND: Greyish brown clayey GRAVEL. Gravel is fine to medium angular comprising of slag, shale and mudstone.		
				3.38	3.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY. End of Pit at 2.900m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AO33**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336478E - 186445N Level: 6.37	Date 13/07/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.70	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.67	0.70	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional rootlets and rare wood.		
				5.07	1.30	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag.		
				4.67	1.70	MADE GROUND: Dark grey sandy GRAVEL. Gravel is fine to medium angular to subangular of fused slag.		
						End of Pit at 1.700m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AO34
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336470E - 186417N Level: 6.37	Date 24/08/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.77		0.60	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to medium subangular to subrounded comprising slag, occassional mudstone and sandstone.		
					1		MADE GROUND: Grey cobbly GRAVEL. Gravel is fine to medium angular to subangular of fused slag.		
				4.87		1.50	End of Pit at 1.500m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AO36
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336472E - 186371N Level: 6.26	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.76		0.50	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional rootlets and rare wood.		
							End of Pit at 0.500m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No: **AO37**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336470E - 186346N Level: 6.53	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.25	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.78	1	0.75	MADE GROUND: Grey sandy gravelly CLAY. Gravel is fine to medium subangular to subrounded comprising slag, occassional mudstone and sandstone.		
					2				
					3		End of Pit at 2.250m		
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AP34**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336501E - 186418N Level: 6.40	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.90	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.00		0.40	MADE GROUND: Brown silty sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
				5.40	1	1.00	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to medium angular to subangular of slag mudstone and occassional pig iron fragments.		
				4.50	2	1.90	MADE GROUND: Brown cobbly GRAVEL. Gravel is fine to medium angular to subangular of fused slag.		
							End of Pit at 1.900m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AP35**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336499E - 186394N Level: 7.44	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.94	0.50	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
				6.24	1.20	MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to medium subangular of fused slag.		
				6.14	1.30	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag and ash.		
						End of Pit at 1.300m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AP36**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336497E - 186369N Level: 6.35	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.95	0.40	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
				5.15	1.20	MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to medium subangular of fused slag.		
				4.85	1.50	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag and ash.		
						End of Pit at 1.500m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AP37**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336495E - 186344N Level: 6.57	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.80	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.17		0.40	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
					1		MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to medium subangular of fused slag.		
				5.37		1.20	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
				4.87		1.70	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.77		1.80	End of Pit at 1.800m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AQ32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336531E - 186467N Level: 6.70	Date 16/08/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.50	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.20	0.50	MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
						End of Pit at 0.500m		

1 2 3 4 5

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AQ33**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336528E - 186441N Level: 6.39	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.70	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.59	0.80	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
				5.29	1.10	MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to medium subangular of fused slag.		
				4.69	1.70	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
						End of Pit at 1.700m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AQ34**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336526E - 186416N Level: 6.42	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.92		0.50	MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to medium subangular of fused slag.		
					1		MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
				4.92		1.50	End of Pit at 1.500m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AQ35**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336524E - 186391N Level: 6.60	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.20	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.10		0.50	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone.		
					1		MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to medium subangular of fused slag.		
				5.40		1.20	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
				4.60	2	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.40		2.20	End of Pit at 2.200m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AQ36**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336522E - 186367N Level: 6.03	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.10	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.53		0.50	MADE GROUND: Grey sandy GRAVEL.Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone with rare bitumen pipe and rebar.		
					1		MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
				4.03	2	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				3.93		2.10	End of Pit at 2.100m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AQ37**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336520E - 186342N Level: 6.03	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.80	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.23	1	0.80	MADE GROUND: Grey sandy GRAVEL.Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone with rare bitumen pipe and rebar.		
							End of Pit at 0.800m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No: **AR32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336560E - 186466N Level: 9.09	Date 04/08/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.60	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				8.59	0.50	MADE GROUND: Black sandy GRAVEL.Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone and shale.		
				8.49	0.60	MADE GROUND: Black sandy cobbly GRAVEL.Gravel is coarse angular to subangular of fused slag.		
						End of Pit at 0.600m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AR33
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336553E - 186439N Level: 6.37	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.60	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.47	1	0.90	MADE GROUND: Brown and white sandy GRAVEL.Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone, possible lime and rebar.		
				4.87		1.50	MADE GROUND: Black sandy GRAVEL.Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone and shale.		
				4.77	2	1.60	MADE GROUND: Greyish white sandy GRAVEL.Gravel is coarse angular to subangular of fused slag.		
					3		End of Pit at 1.600m		
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AR34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336551E - 186414N Level: 6.40	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.20	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.90		0.50	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with rare bitumen pipe.		
					1		MADE GROUND: Black sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
				4.65		1.75	MADE GROUND: Brown cobbly GRAVEL. Gravel is medium to coarse subangular to subrounded of slag, sandstone, shale and mudstone with occasional cobbles of slag and occasional metal. fragments.		
				4.40	2	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.20		2.20	End of Pit at 2.200m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AR35**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336549E - 186389N Level: 6.31	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.15	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.71		0.60	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with rare bitumen pipe.		
					1		MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
				5.01		1.30	MADE GROUND: Brown cobbly GRAVEL. Gravel is medium to coarse subangular to subrounded of slag, sandstone, shale and mudstone with occasional cobbles of slag and occasional metal fragments.		
				4.31	2	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.16		2.15	End of Pit at 2.150m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AR36**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336547E - 186365N Level: 6.15	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.05	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
						MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with rare wood.		
				5.55	0.60	MADE GROUND: Black and white sandy GRAVEL. Gravel is medium to coarse angular to subrounded of slag, sandstone, shale and mudstone and possible lime.		
				4.85	1.30	MADE GROUND: Brown silty clayey GRAVEL. Gravel is medium to coarse subangular to subrounded of slag, and mudstone with occasional cobbles of slag and occasional metal fragments.		
				4.15	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.10	2.05	End of Pit at 2.050m		

1 2 3 4 5

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AR37**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336545E - 186340N Level: 5.93	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.80	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.48	0.45	MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with rare wood.		
				4.73	1.20	MADE GROUND: Brown sandy GRAVEL. Gravel is medium to coarse angular to subrounded of slag, sandstone, shale and mudstone.		
				4.23	1.70	MADE GROUND: Brown silty clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, and mudstone with occasional possible lime.		
				4.13	1.80	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
						End of Pit at 1.800m		

Remarks:

Stability: Collapsing sides

Trial Pit Log

TrialPit No **AS32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336580E - 186462N Level: 9.31	Date 04/08/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				8.81	0.50	MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with rare wood.		
				8.01	1.30	MADE GROUND: Brown sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag.		
						End of Pit at 1.500m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AS33**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336578E - 186437N Level: 6.35	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.60		0.75	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded comprising slag with occassional rootlets		
					1		MADE GROUND: Brown GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, with occassional mudstone, shale and rare concrete.		
				4.85		1.50	MADE GROUND: Black sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag, and occassional sandstone, shale and mudstone.		
				4.35	2	2.00	End of Pit at 2.000m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AS34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336576E - 186412N Level: 6.31	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.40	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.91		0.40	MADE GROUND: Brown sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag.		
							End of Pit at 0.400m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AS35**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336574E - 186387N Level: 6.98	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.68		0.30	MADE GROUND: Brown cobbly GRAVEL. Gravel is fine to medium angular comprising slag, mudstone, sandstone, shale and occasional concrete.		
				6.08	1	0.90	MADE GROUND: Grey very sandy GRAVEL. Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone.		
				4.98	2	2.00	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag and coal dust.		
							End of Pit at 2.000m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AS36**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336572E - 186362N Level: 7.06	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.80	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.56		0.50	MADE GROUND: Brown cobbly GRAVEL. Gravel is fine to medium angular comprising slag, mudstone, sandstone, shale and occasional concrete.		
					1		MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone.		
				5.86		1.20	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
				5.26		1.80	End of Pit at 1.800m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AS37**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336570E - 186338N Level: 6.65	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.95		0.70	MADE GROUND: Brown cobbly GRAVEL. Gravel is fine to medium angular comprising slag, mudstone, sandstone, shale and occasional concrete.		
					1		MADE GROUND: Grey sandy GRAVEL. Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone.		
				5.45		1.20	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
				4.65	2	2.00	End of Pit at 2.000m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No: **AT32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336602E - 186461N Level: 10.43	Date 04/08/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				9.63	0.80	MADE GROUND: Light brown and white sandy very gravelly CLAY. Gravel is fine to medium angular comprising of slag and rare shale and mudstone and lime.		
				9.13	1.30	MADE GROUND: Black very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
						End of Pit at 1.300m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AT33**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336603E - 186435N Level: 6.43	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.20	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.83	1	0.60	MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with rare wood.		
				5.23		1.20	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
				4.43	2	2.00	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded fused slag.		
					3		End of Pit at 2.200m		
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AT34**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336601E - 186410N Level: 6.59	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.20	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.19	0.40	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
				5.49	1.10	MADE GROUND: Dark brown sandy GRAVEL. Gravel is fine to medium subangular of slag, occasional ash and rare concrete fragments.		
				4.59	2.00	MADE GROUND: Brown very sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
				4.39	2.20	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
						End of Pit at 2.200m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AT35** Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336599E - 186385N Level: 6.85	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.40	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.45	0.40	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded comprising slag with occassional rootlets.		
				5.95	0.90	MADE GROUND: Brown GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, with occassional mudstone, shale and rare concrete.		
				5.45	1.40	MADE GROUND: Black sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag, and occassional sandstone, shale and mudstone.		
						End of Pit at 1.400m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AT36**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336597E - 186360N Level: 6.15	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.55		0.60	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded comprising slag with occassional rootlets		
				5.05	1	1.10	MADE GROUND: Brown GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, with occassional mudstone, shale and rare concrete.		
				4.15	2	2.00	MADE GROUND: Black sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag, and occassional sandstone, shale and mudstone and lime.		
					3		End of Pit at 2.000m		
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AT37**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336595E - 186336N Level: 6.72	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.90	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.12		0.60	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded comprising slag with occassional rootlets		
					1		MADE GROUND: Brown GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, with occassional mudstone, shale and rare concrete.		
				5.62		1.10	MADE GROUND: Black sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag, and occassional sandstone, shale and mudstone.		
				4.72	2	2.00	End of Pit at 1.900m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AU30**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336639E - 186512N Level: 6.58	Date 19/11/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.10	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.08	0.50	MADE GROUND: Black clayey very sandy GRAVEL. Gravel is medium to coarse angular to subrounded of slag, and occassional sandstone, shale and mudstone.		
						MADE GROUND: Black sandy GRAVEL.Gravel is medium to coarse angular to subrounded of fused slag, and occassional sandstone, shale and mudstone.		
				5.48	1.10	End of Pit at 1.100m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AU31
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336635E - 186486N Level: 6.58	Date 19/11/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.40	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.18		0.40	MADE GROUND: Black sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag.		
							End of Pit at 0.400m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No: **AU32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336630E - 186458N Level: 6.60	Date 16/08/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.30	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.30		0.30	MADE GROUND: Grey very sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag.		
							End of Pit at 0.300m		

1
2
3
4
5

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AU33**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336628E - 186433N Level: 6.60	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.90	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.70	1 2 3 4 5	0.90	MADE GROUND: Brown very sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone. End of Pit at 0.900m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AU34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336626E - 186408N Level: 7.07	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.30	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.57	0.50	MADE GROUND: Brown very sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded comprising slag with occassional shale and mudstone.		
						MADE GROUND: Brown very sandy gravelly CLAY. Gravel is fine to medium subangular of slag, occasional ash and rare concrete fragments.		
				4.77	2.30	End of Pit at 2.300m		

1 2 3 4 5

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No: **AU35**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336624E - 186383N Level: 7.48	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.98		0.50	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag.		
					1		MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded of fused slag, and occassional sandstone, shale and mudstone.		
				5.98		1.50	End of Pit at 1.500m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AU36**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336622E - 186358N Level: 6.17	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.47		0.70	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded comprising slag with occassional mudstone, shale and rare concrete.		
					1		MADE GROUND: Brown sandy clayey GRAVEL. Gravel is medium to coarse subangular to subrounded comprising slag with occassional mudstone, shale and rare concrete with pockets of lime.		
				4.87		1.30	End of Pit at 1.300m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AU37**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336620E - 186333N Level: 6.86	Date 31/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.70	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
						MADE GROUND: Black sandy GRAVEL. Gravel is fine to coarse subangular to subrounded comprising slag with occassional mudstone, shale and rare concrete.		
				6.26	0.60			
						MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded of fused slag, and occassional sandstone, shale and mudstone.		
				6.06	0.80			
						MADE GROUND: Brown sandy GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag.		
				5.16	1.70			
						End of Pit at 1.700m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AV30
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336659E - 186510N Level: 6.58	Date 04/08/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.58	1	1.00	MADE GROUND: Brown very sandy GRAVEL.Gravel is fine to coarse angular to subrounded comprising slag.		
							End of Pit at 1.000m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AV31**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336657E - 186481N Level: 6.58	Date 13/07/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.80	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
						MADE GROUND: Black very sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
				5.88	0.70			
				5.78	0.80	MADE GROUND: Brown very sandy clayey GRAVEL. Gravel is fine to coarse subangular to angular of slag, sandstone, shale and mudstone.		
						End of Pit at 0.800m		

1 2 3 4 5

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AV32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336655E - 186456N Level: 6.36	Date 13/07/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Brown very sandy GRAVEL. Gravel is fine to coarse subangular to subrounded comprising slag with occassional rootlets.		
				5.56		0.80			
							MADE GROUND: Brown very sandy GRAVEL. Gravel is fine to medium angular comprising slag, mudstone, sandstone, shale and occasional concrete.		
				5.36	1	1.00	End of Pit at 1.000m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AV33**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336653E - 186431N Level: 6.39	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 3.10	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.29		0.10	MADE GROUND: Brown sandy clayey GRAVEL.Gravel is fine to coarse subangular to subrounded comprising slag with occassional mudstone, shale and rare concrete and occassional roots.		
							MADE GROUND: Brown sandy clayey GRAVEL. Gravel is medium to coarse angular to subangular of slag, mudstone, sandstone and occassional wood fragments.		
				5.79		0.60	MADE GROUND: Brown sandy GRAVEL.Gravel is fine to medium angular to subangular of slag mudstone and occassional pig iron fragments.		
					1				
					2				
				4.19		2.20	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is medium to coarse angular to subrounded of fused slag.		
				3.39	3	3.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				3.29		3.10	End of Pit at 3.100m		
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AV34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336651E - 186406N Level: 6.30	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.10	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.90	0.40	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
						MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse angular to subangular of slag, occassional sandstone and mudstone.		
				4.50	1.80	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.20	2.10	End of Pit at 2.100m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AV35
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336649E - 186381N Level: 6.50	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.50	1	1.00	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone and lime.		
							MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, shale and lime.		
				4.50	2	2.00	End of Pit at 2.000m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AV36**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336647E - 186356N Level: 6.50	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.20		0.30	MADE GROUND: Brown very sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, sandstone with occassional shale and rare chert.		
							MADE GROUND: Brown very sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag and sandstone and lime.		
					1				
				5.20		1.30	End of Pit at 1.300m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AV37**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336644E - 186331N Level: 6.92	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.60	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.42		0.50	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
					1		MADE GROUND: Brown sandy GRAVEL. Gravel is fine to medium subangular to subrounded comprising slag with occassional sandstone, shale and mudstone.		
				5.32		1.60	End of Pit at 1.600m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AW31**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336682E - 186479N Level: 6.52	Date 05/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.20	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.32	1 2 3 4 5	0.20	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is coarse angular to subangular comprising slag and rare mudstone. End of Pit at 0.200m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AW32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336680E - 186454N Level: 6.58	Date 13/07/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.28		0.30	MADE GROUND: Brown sandy GRAVEL.Gravel is fine to medium subangular to subrounded comprising slag with occassional sandstone, shale and mudstone.		
							MADE GROUND: Brown sandy GRAVEL. Gravel is medium to coarse angular to subangular comprising slag, mudstone, sandstone, shale and occasional concrete and rootets.		
				5.58	1	1.00	End of Pit at 1.000m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AW33**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336678E - 186429N Level: 6.36	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.80	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.46	1	0.90	MADE GROUND: Brown sandy GRAVEL.Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
							MADE GROUND: Brown sandy GRAVEL.Gravel is fine to coarse angular to subrounded comprising slag, frequent shale and occassional		
				4.56	2	1.80	End of Pit at 1.800m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AW34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336676E - 186404N Level: 6.54	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.00	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Brown sandy GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
				5.54	1	1.00	MADE GROUND: Brown sandy GRAVEL.Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
				4.54	2	2.00	End of Pit at 2.000m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AW35**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336674E - 186379N Level: 6.93	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 0.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.43		0.50	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising various slags, mudstone and shale.		
							End of Pit at 0.500m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AW36**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336671E - 186354N Level: 6.58	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.60	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.28		0.30	MADE GROUND: Brown and white very sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and lime		
					1		MADE GROUND: Brown and white very sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and lime.		
				4.98		1.60	End of Pit at 1.600m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AW37
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336669E - 186329N Level: 6.94	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				6.64		0.30	MADE GROUND: Brown very sandy CLAY. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
					1		MADE GROUND: Brown very sandy CLAY. Gravel is fine to coarse angular to subrounded comprising various slags, mudstone and shale.		
				5.44		1.50	End of Pit at 1.500m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AX31**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336707E - 186477N Level: 6.37	Date 29/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.80	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.87	0.50	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with rare wood.		
				5.67	0.70	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional mudstone and shale.		
						MADE GROUND: Black sandy GRAVEL.Gravel is medium to coarse subangular to subrounded comprising slag with occassional mudstone, shale and rare concrete.		
				4.57	1.80	End of Pit at 1.800m		

1 2 3 4 5

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AX32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336705E - 186452N Level: 6.28	Date 29/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.40	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.98	0.30	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
				4.98	1.30	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
				3.98	2.30	MADE GROUND: Brown sandy CLAY.Gravel is medium to coarse subangular to subrounded comprising slag with occassional mudstone, shale and rare chert.		
				3.88	2.40	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
						End of Pit at 2.400m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AX33**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336703E - 186427N Level: 6.20	Date 07/06/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.60	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.40	0.80	MADE GROUND: Brown very sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising various slags, mudstone and shale.		
				4.60	1.60	MADE GROUND: Brown very sandy clayey GRAVEL.Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
						End of Pit at 1.600m		

1 2 3 4 5

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AX34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336700E - 186402N Level: 6.14	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.44	0.70	MADE GROUND: Brown slightly sandy GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
				4.84	1.30	MADE GROUND: Light brown slightly sandy GRAVEL. Gravel is medium angular to subangular comprising slag with occassional sandstone, shale and mudstone.		
						End of Pit at 1.300m		

1 2 3 4 5

Remarks:

Stability: Stable sides

AGS

Trial Pit Log

TrialPit No **AX35**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336698E - 186377N Level: 5.98	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.20	Logged

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				5.48	0.50	MADE GROUND: Brown sandy clayey GRAVEL.Gravel is fine to medium subangular to subrounded comprising slag with occassional sandstone, shale and mudstone.		
						MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional mudstone and shale.		
				4.78	1.20	End of Pit at 1.200m		

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No
AX36
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336696E - 186352N Level: 6.42	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.50	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
				5.82		0.60	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to medium angular comprising of slag and rare shale and mudstone.		
					1		MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subangular of fused slag.		
				4.92		1.50	End of Pit at 1.500m		
					2				
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AX37**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336694E - 186327N Level: 6.94	Date 30/05/2022
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.10	Logged

Samples & In Situ Testing				Level (m)		Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results						
							MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
				5.94	1	1.00	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag with occassional mudstone and shale.		
				4.94	2	2.00	TIDAL FLAT DEPOSITS - Soft bluish grey CLAY.		
				4.84		2.10	End of Pit at 2.100m		
					3				
					4				
					5				

Remarks:

Stability: Stable sides

Trial Pit Log

TrialPit No **AL32**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336406E - 186494N Level: 6.43	Date 28/01/2021
Location: Llanwern		Dimensions (m): 2.50 × 1.50 Depth 1.30	Scale 1:25
Client: St Modwen Developments			Logged ET

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.23	0.20	MADE GROUND - Brown sandy gravelly CLAY.		
				6.03	0.40	MADE GROUND - Black clayey sandy GRAVEL. Gravel is fine to coarse, subangular to subrounded of various lithologies including slags, concrete, sandstone, mudstone and brick.		
0.50 0.50		B ES				MADE GROUND - Brown sandy GRAVEL of slag. Slag is fused.		▼
				5.33	1.10	TIDAL FLAT DEPOSITS- Soft grey CLAY.		
				5.13	1.30	End of Pit at 1.300m		

Remarks:

Stability:

Trial Pit Log

TrialPit No **AW26**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336676E - 186612N Level: 6.41	Date 12/01/2021
Location: Llanwern		Dimensions (m): 2.50 × 1.50 Depth 1.30	Scale 1:25
Client: St Modwen Developments			Logged ET

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
0.50 0.50		B ES		5.81	0.60	MADE GROUND - Brown sandy gravelly CLAY.		
						MADE GROUND - Greyish black sandy GRAVEL. Gravel is fine to coarse, subangular to subrounded of various lithologies including slags, bricks, mudstone and concrete. Inclusions of timber.		
				5.11	1.30	End of Pit at 1.300m		

1 2 3 4 5

Remarks: 1. Hand Pit for Leachable Lead Sampling. 2. Excavation backfilled with arisings on completion.

Stability:

Trial Pit Log

TrialPit No **AV28**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336670E - 186561N Level: 6.54	Date 13/01/2021
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.60	Logged DM

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
0.30	AV28 -1	ES		5.74	0.80	MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
1.20	AV28 -1	B				MADE GROUND: Black sandy GRAVEL. Gravel is fine to coarse angular to subangular comprising of various slags with occasional concrete, brick and sandstone.		
1.20	AV28 -2	ES				*Concrete Pile.*		
2.20	AV28 -3	ES		4.94	1.60	MADE GROUND: Grey black sandy GRAVEL. Gravel is fine to coarse angular to subangular comprising various slags, mudstone and occasional concrete.		
				3.94	2.60	End of Pit at 2.600m		

Remarks:

Stability:

Trial Pit Log

TrialPit No **AV29**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336671E - 186548N Level: 6.56	Date 13/01/2021
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 2.20	Logged DM

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
						MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone, shale and occasional concrete.		
				5.96	0.60			
0.80	AV29 -1	ES				MADE GROUND: Black clayey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising various slags, mudstone and shale.		
						Concrete Pile.		
				4.96	1.60			
1.70	AV29 -1	B		4.96	1.60	MADE GROUND: Black clayey sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising various slags, mudstone and shale.		
1.70	AV29 -2	ES				MADE GROUND: Grey black cobbly GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag, mudstone, sandstone and brick fragments.		
				4.46	2.10	TIDAL FLAT DEPOSITS: Soft to firm bluish grey and black CLAY.		
				4.36	2.20	End of Pit at 2.200m		

1 2 3 4 5

Remarks:

Stability:

AGS

Trial Pit Log

TrialPit No **AW29**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336698E - 186546N Level: 6.58	Date 13/01/2021
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged DM

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
				6.48	0.10	MADE GROUND: Light brown sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded comprising various slags, mudstone and sandstone.		
						MADE GROUND: Black and brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded comprising slag and mudstone.		
0.60	AW2 9-1	ES		5.88	0.70	MADE GROUND: Brown sandy GRAVEL. Gravel is fine to coarse angular to subrounded comprising slag and mudstone.		
1.30	AW2 9-1	B		5.28	1.30	End of Pit at 1.300m		
1.30	AW2 9-2	ES						

1 2 3 4 5

Remarks:

Stability:

Trial Pit Log

TrialPit No: **AK33**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336389E - 186468N Level: 6.20	Date 29/01/2021
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged DM

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
0.20	AK33 -1	ES		6.00	0.20	MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
				5.90	0.30	MADE GROUND: Black to dark brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
						MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with cobbles at depth.		
1.00	AK33 -1	B						
				4.90	1.30	*Refusal due to hard ground and low recovery on large cobbles / boulders.*		
						End of Pit at 1.300m		

Remarks:

Stability:

Trial Pit Log

TrialPit No: **AM33**
Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336432E - 186453N Level: 6.47	Date 13/01/2021
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.30	Logged DM

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
0.30	AM3 3-1	ES		6.27	0.20	MADE GROUND: Brown gravelly sandy CLAY. Gravel is fine to coarse angular to subangular comprising of various slags.		
				5.87	0.60	MADE GROUND: Black sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded comprising various slags.		
1.30	AM3 3-1	B		5.17	1.30	MADE GROUND: Brown and black sandy GRAVEL. Gravel is fine to coarse angular to subangular of slag.		
1.30	AM3 3-2	ES				End of Pit at 1.300m		

1
2
3
4
5

Remarks: 1. Hand Pit for Leachable Lead Sampling. 2. Excavation backfilled with arisings on completion.

Stability:

Trial Pit Log

TrialPit No: **AK34**

Sheet 1 of 1

Project Name: LLanwern Reclamation	Project No. P18-669	Co-ords: 336388E - 186443N Level: 6.33	Date 29/01/2021
Location: Llanwern		Dimensions (m):	Scale 1:25
Client: St Modwen Developments		Depth 1.80	Logged DM

Samples & In Situ Testing				Level (m)	Depth (m)	Stratum Description	Legend	Water Strike
Depth	Ref.	Type	Results					
0.00	AK34 -1	ES		6.03	0.30	MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
				5.53	0.80	MADE GROUND: Black sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone.		
1.60	AK34 -1	B				MADE GROUND: Brown sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded of slag, sandstone, shale and mudstone with occasional cobbles of slag and occasional metal fragments.		
1.60	AK34 -2	ES		4.53	1.80	*Concrete Pile with rebar (W of pit).*		
						Pit terminated die to water ingress and collapsing sides.		
						End of Pit at 1.800m		

Remarks:

Stability:

Appendix G
Chemical Testing and Laboratory Certificates

Appendix H

Geotechnical Testing and Laboratory Certificates

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					Job No.:		22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750
					Sample ID.:		1440202	1440203	1440204	1440205	1440206	1440207	1440208	1440209	1440210	1440211	1441643	1441644	1441645	1441646	1441647	1441648	1441649	1441650	1441651	1441657	1441658	1441659	1441660	1441661	1441662	1441663
					Client Sample Ref.:		AW34-1	AW34-2	AV34-1	AV34-2	AV35-1	AV35-2	AV36-1	AV36-2	AV37-1	AV37-2	AR37-2	AR36-2	AR37-1	AS37-2	AR36-1	AS34-1	AS37-1	AS35-1	AS35-2	AR35-2	AR35-1	AQ37-2	AR34-2	AR34-1	AQ35-1	AQ37-1
					Sample Type:	S4UL residential with plant uptake (1% SOM)	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):																											
					Bottom Depth (m):		1.00	2.00	0.40	1.80	1.00	2.00	0.30	1.30	0.50	1.60	1.70	1.50	0.40	2.00	0.50	0.40	0.50	0.30	2.00	1.30	0.60	1.50	2.00	0.50	0.50	0.80
					Date Sampled:		30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
					Asbestos Lab:		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM		COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																												
ACM Type	U	2192		N/A																												
Asbestos Identification	U	2192		N/A			No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001																												
Total Asbestos	U	2192	%	0.001																												
Moisture	N	2030	%	0.020			13	10	6.3	13	8.8	9.6	12	7.2	11	6.8	13	24	1.4	14	22	5.8	18	6.2	19	9.2	7.1	8.7	13	8.0	12	13
Soil Colour	N	2040		N/A			Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Black	Beige	Brown	Brown	Brown	Brown	Brown	Black	Brown	Brown	Brown	Brown	Brown	Black	Brown
Other Material	N	2040		N/A			Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A			Sand	Gravel	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0			9.8	10.8	10.5	10.1	10.7	10.6	10.0	10.3	10.9	11.0	9.9	9.4	> 12.0	9.6	10.2	10.5	11.5	11.3	10.5	10.6	9.4	9.2	11.1	11.6	11.0	10.8
Cyanide (Total)	M	2300	mg/kg	0.5			< 0.50	0.50	1.5	4.0	5.2	3.1	8.0	< 0.50	10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	68	14	4.4	1.3	2.1	3.5	3.7	< 0.50	2.7	11	6.9	2.1
Ammoniacal Nitrogen	M	2425	mg/kg	0.5			1.5	0.78	1.1	2.3	0.78	0.64	0.58	4.4	1.0	< 0.50	6.6	16	0.93	68	2.4	1.4	2.2	1.3	1.6	2.7	1.6	16	2.3	0.86	0.74	6.8
Iron (Total)	N	2430	mg/kg	100			5400	5500	7800	6200	4900	8700	9000	6100	7800	12000	21000	19000	4300	17000	26000	26000	24000	24000	23000	22000	23000	19000	15000	22000	20000	15000
Arsenic	M	2450	mg/kg	1	37		2.6	1.9	3.1	2.0	1.9	2.0	2.1	1.3	2.3	1.2	12	29	3.1	12	18	13	6.0	7.9	19	15	7.1	12	24	7.0	10	9.3
Cadmium	M	2450	mg/kg	0.1	26		0.3	0.1	0.1	0.3	0.4	0.2	0.4	0.3	< 0.10	0.3	0	0	0.3	0	5	1	0.8	0.6	1	0	0.6	0	1	0.8	1	0.4
Chromium	M	2450	mg/kg	1	910		15.0	13.0	23.0	13.0	12.0	22.0	22.0	12.0	35.0	55.0	26	15	15.0	13	60	36	68.0	82.0	150	41	54.0	46	34	100.0	49	22.0
Manganese	M	2450	mg/kg	5			2100	2200	3000	1900	2000	3300	2800	3000	2600	3900	1300	270	430	480	2900	19000	4900	4200	5700	2100	3200	2500	2700	4100	1900	1100
Copper	M	2450	mg/kg	0.5	2400		12.0	7.1	7.7	9.9	6.4	6.1	11.0	6.0	5.4	5.3	30	50	10.0	16	110	16	17.0	20.0	83	35	23.0	47	20	25.0	43	23.0
Mercury	M	2450	mg/kg	0.1	40		< 0.05	< 0.05	< 0.05	0.1	< 0.05	0.1	< 0.05	< 0.05	< 0.05	< 0.05	0	0	< 0.05	0	2	0	0.1	0.3	0	0	0.3	0	0	0.8	1	0.2
Nickel	M	2450	mg/kg	0.5	130		5.8	3.3	4.7	5.6	3.6	3.6	5.9	3.7	3.9	3.7	18	28	5.2	20	44	24	16.0	17.0	33	20	18.0	25	10	16.0	21	15.0
Lead	M	2450	mg/kg	0.5	200		45.0	16.0	24.0	40.0	33.0	29.0	38.0	34.0	12.0	25.0	97	44	17.0	31	970	41	82.0	63.0	160	120	150.0	52	59	140.0	180	77.0
Selenium	M	2450	mg/kg	0.2	250		0.7	1.3	1.5	0.7	0.5	0.3	0.6	0.3	0.8	0.3	2	3	0.5	1	2	2	0.6	1.0	2	1	1.2	1	3	0.9	1	1.3
Vanadium	U	2450	mg/kg	5	410		26.0	20.0	36.0	23.0	17.0	27.0	26.0	15.0	35.0	55.0	45	26	12.0	21	49	78	88.0	81.0	110	46	46.0	88	42	83.0	50	25.0
Zinc	M	2450	mg/kg	0.5	3700		90.0	41.0	54.0	180.0	76.0	110.0	130.0	140.0	25.0	46.0	160	73	39.0	33	5700	170	220.0	140.0	240	220	280.0	97	150	290.0	320	110.0
Organic Matter	M	2625	%	0.4			15	3.3	3.3	7.9	5.0	5.3	11	6.6	4.7	2.1	12	22	13	6.2	14	3.8	9.7	4.7	28	15	13	9.1	2.4	6.6	10	8.3
Aliphatic TPH >C5-C6	N	2680	mg/kg	1	42		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1	100		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1	27		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1	130		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.3	< 1.0	< 1.0	19.0	< 1.0	< 1.0	< 1.0	< 1.0	5	< 1.0	< 1.0	< 1.0	< 1.0	4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1	1100		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	14.0	< 1.0	< 1.0	18.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.7
Aliphatic TPH >C16-C21	M	2680	mg/kg	1	65000		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	16.0	< 1.0	< 1.0	64.0	< 1.0	< 1.0	< 1.0	< 1.0	23	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1	65000		< 1.0	< 1.0	< 1.0	< 1.0	72.0	< 1.0	140.0	< 1.0	< 1.0	140.0	< 1.0	< 1.0	< 1.0	< 1.0	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1	65000		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5			< 5.0	< 5.0	< 5.0	< 5.0	72	< 5.0	170	< 5.0	< 5.0	240	< 5.0	< 5.0	< 5.0	< 5.0	110	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.7
Aromatic TPH >C5-C7	N	2680	mg/kg	1	70		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1	130		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1	34		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1	74		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1	140		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1	260		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.7	< 1.0	< 1.0	11.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	12.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1	1100		< 1.0	< 1.0	< 1.0	< 1.0	57.0	< 1.0	84.0	< 1.0	< 1.0	120.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	12	120.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1	1100		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5			< 5.0	< 5.0	< 5.0	< 5.0	57	< 5.0	86	< 5.0	< 5.0	130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	12	130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10			< 10	< 10	< 10	< 10	130	< 10	260	< 10	< 10	370	< 10	< 10	< 10	< 10	110	< 10	< 10	< 10	< 10	16	130	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1	87		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1	130000		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1	47000		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1	56000		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1	60000		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.1	15		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.4	0.6	< 0.10	0.6	< 0.10	< 0.10	< 0.10	< 0.10	1	< 0.10	< 0.10	0.4	1	1	1.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.1	170		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.2	0.6	< 0.10	2.7	< 0.10	< 0.10	< 0.10	< 0.10	0	< 0.10	< 0.10	0.4	0	2	4.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.1	210		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.2	0.2	< 0.10	0.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	0	0.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.1	170		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.2	0.2	< 0.10	0.4	< 0.10	< 0.10	< 0.10	< 0.10	0	< 0.10	< 0.10	0.2	< 0.10	0	0.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.1	95		0.6	0.6	< 0.10	0.7	1.4	1.1	0.9	1.2	0.2	2.9	1	0	< 0.10	0	1	1	1.0	2.3	1	4	2.6	1	< 0.10	1.0	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.1	2400		0.1	0.1	< 0.10	0.4	0.5	1.5	0.4	0.6	< 0.10	4.3	0	< 0.10	< 0.10	< 0.10	1	0	0.6	0.6	0	2	1.6	0	< 0.10	0.2	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.1	280		0.9	0.6	< 0.10	0.7	3.5	6.8	2.9	3.5	0.2	23.0	1	0	< 0.10	1	3	2	4.1	5.7	1	14	15.0	1	< 0.10	1.0	0	0.5
Pyrene	M	2800	mg/kg	0.1	620		0.8	0.6	< 0.10	0.7	2.9	6.7	2.4	3.3	0.2	24.0	0	0	< 0.10	0	4	2	4.3	4.3	1	11	14.0	1	< 0.10	0.9	0	0.5
Benzo[a]anthracene	M	2800	mg/kg	0.1	7.2		0.4	0.3	< 0.10	0.6	2.0	4.7	1.8	2.9	0.1	15.0	0	< 0.10	< 0.10	0	3	1	3.1	2.4	0	7	11.0	1	< 0.10	0.6	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.1	15		0.3	0.4	< 0.10	0.5	1.8	6.4	2.0	3.9	0.2	21.0	0	< 0.10	< 0.10	0	3	1	4.8	2.6	0	7	11.0	1	< 0.10	0.5	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.1	2.6		0.7	0.3	< 0.10	0.5	3.3	9.2	2.3	5.8	0.2	33.0	1	< 0.10	< 0.10	0	7	2	7.3	3.1	1	14	28.0	< 0.10	< 0.10	0.8	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.1	77		0.3	0.2	< 0.10	0.2	1.2	2.8	0.8	1.8	0.1	11.0	0	< 0.10	< 0.10	< 0.10	2	1	2.4	1.1	0	4	9.2	< 0.10	< 0.10	0.3	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.1	2.2		0.3	0.4	< 0.10	0.5	2.5	7.1	1.9	4.5	0.2	26.0	1	< 0.10	< 0.10	0	5	1	5.7	2.1	0	11	22.0	< 0.10	< 0.10	0.7	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.1	27		< 0.10	< 0.10	< 0.10	0.5	2.4	6.5	1.4	4.2	< 0.10	23.0	0	< 0.10	< 0.10	< 0.10	4	1	5.4	1.7	0	10	22.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.1	0.24		< 0.10	< 0.10	< 0.10	0.3	0.5	1.0	0.4	0.7	< 0.10	3.9	0	< 0.10	< 0.10	< 0.10	1	0	0.9	0.4	0	2	3.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.1	320		< 0.10	< 0.10	< 0.10	0.6	2.1	5.8	1.4	4.0	< 0.10	22.0	0	< 0.10	< 0.10	< 0.10	5	1	5.0	1.6	0	9	18.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2			4.5	3.4	< 2.0	6.0	24	60	19	38	< 2.0	210	5.0	< 2.0	< 2.0	2.1	42	12	45	29	6.4	98	160	3.5	< 2.0	5.9	< 2.0	< 2.0
Resorcinol	M	2920	mg/kg	0.02			< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.02	280		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.02			< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	1.1	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.02			< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.02			< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.02			< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.1			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				Job No.:	22-20750	22-20750	22-20752	22-20752	22-20752	22-20752	22-20752	22-20752	22-20752	22-20752	22-20758	22-20758	22-20758	22-20758	22-20758	22-20758	22-20758	22-20758	22-20772	22-20772	22-20772	22-20772	22-20772	22-20772	22-20755	22-20755	22-20755
				Sample ID.:	1441664	1441665	1441669	1441670	1441671	1441672	1441673	1441674	1441675	1441676	1441700	1441701	1441702	1441703	1441704	1441705	1441706	1441707	1441789	1441790	1441791	1441792	1441793	1441794	1441683	1441684	1441685
				Client Sample Ref.:	AT37-1	AQ35-2	AT35-1	AT35-2	AU34-2	AU34-1	AT34-2	AS36-1	AU36-1	AU35-1	AQ36-2	AQ34-1	AO37-1	AO37-2	AN36-2	AN36-1	AQ34-2	AQ36-1	AT36-2	AU37-1	AT37-2	AT36-1	AU37-2	AN35-2	AP37-1	AP35-2	AP35-1
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):																											
				Bottom Depth (m):	0.80	2.00	0.5	1.4	2.3	0.5	1.5	1	0.7	0.5	2	0.5	0.3	1.8	2	0.5	1.5	0.5	1.8	0.6	1.8	0.4	1.7	1	0.20	1.20	0.50
				Date Sampled:	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
				Asbestos Lab:		COVENTRY	NEW-ASB		NEW-ASB		NEW-ASB		NEW-ASB		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM	DURHAM	COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																											
ACM Type	U	2192		N/A																			Chrysotile (Fibres/ Clumps)								
Asbestos Identification	U	2192		N/A		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001																			0.005								
Total Asbestos	U	2192	%	0.001																			0.005								
Moisture	N	2030	%	0.020	8.6	21	10	13	14	6.5	9.5	7.6	6.4	15	17	1.7	2.8	7.8	9.1	5.0	7.7	4.8	12	9.8	13	6.6	11	13	3.2	32	11
Soil Colour	N	2040		N/A	Brown	Black	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Grey	Brown	Brown	Grey	Brown	Grey	Black	Black	Black	Brown	Brown	Black	Brown	Black	Grey
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones and Roots	Stones	Stones	Stones	None	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Gravel	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	> 12.0	9.2	> 12.0	> 12.0	10.2	10.3	11.2	11.7	11.8	> 12.0	8.9	11.4	9.7	10.9	9.0	10.7	> 12.0	11.4	> 12.0	11.2	11.3	12.0	> 12.0	11.2	9.7	8.6	11.3
Cyanide (Total)	M	2300	mg/kg	0.5	5.9	8.5	14	5.4	0.70	1.5	2.7	1.8	18	12	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.2	0.60	2.5	0.70	8.7	3.3	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.5	0.78	40	1.0	0.65	12	2.2	0.76	0.58	1.1	2.1	15	0.86	1.0	3.3	18	1.1	0.93	< 0.50	0.86	1.7	1.6	1.5	1.3	1.6	2.3	1.6	5.2
Iron (Total)	N	2430	mg/kg	100	21000	22000	23000	22000	19000	20000	12000	24000	25000	22000	19000	8100	14000	13000	25000	12000	13000	14000	11000	22000	14000	22000	13000	21000	19000	16000	13000
Arsenic	M	2450	mg/kg	1	3.9	17	12	8.8	17	8.0	6.9	6.0	5.2	12	18	2.4	5.3	5.7	19	5.3	26	4.2	6.2	6.5	5.4	6.8	8.1	12	6.4	34	8.3
Cadmium	M	2450	mg/kg	0.1	0.7	0	1	0.8	0	0.4	0.2	0.1	0.3	0	0	0.2	0.3	0.1	0	0.2	2	0.5	0.2	0.7	0.2	0.5	0.3	0	0.6	1	0.6
Chromium	M	2450	mg/kg	1	230.0	19	270	110.0	15	39.0	34.0	540.0	89.0	29	15	6.1	12.0	27.0	13	23.0	17	66.0	28.0	110.0	19.0	230.0	40.0	48	22.0	19	34.0
Manganese	M	2450	mg/kg	5	9200	620	9900	5000	480	2400	2500	14000	4900	2100	350	250	3900	1400	990	910	2400	3000	2100	5500	660	9500	1100	2000	1600	430	1600
Copper	M	2450	mg/kg	0.5	51.0	37	46	37.0	27	13.0	16.0	13.0	14.0	22	42	4.8	6.9	15.0	33	5.4	13	11.0	18.0	21.0	17.0	23.0	29.0	32	14.0	62	47.0
Mercury	M	2450	mg/kg	0.1	0.2	0	0	0.2	0	0.1	0.1	< 0.05	0.2	0	0	0.1	0.1	< 0.05	0	< 0.05	0	0.1	0.1	0.1	< 0.05	0.1	0.1	0	0.1	0	0.1
Nickel	M	2450	mg/kg	0.5	16.0	36	29	38.0	18	13.0	16.0	10.0	11.0	22	19	3.2	7.8	14.0	37	7.7	10	33.0	11.0	16.0	16.0	13.0	24.0	21	12.0	31	15.0
Lead	M	2450	mg/kg	0.5	61.0	30	170	80.0	35	41.0	22.0	12.0	32.0	34	80	29.0	26.0	24.0	27	17.0	62	50.0	27.0	60.0	14.0	60.0	29.0	51	51.0	58	77.0
Selenium	M	2450	mg/kg	0.2	0.5	2	1	0.5	1	0.7	2.7	< 0.25	0.4	1	1	< 0.25	< 0.25	1.4	1	< 0.25	0	0.3	2.6	1.0	0.8	0.5	0.8	1	0.4	3	0.8
Vanadium	U	2450	mg/kg	5	330.0	34	170	76.0	21	41.0	36.0	320.0	87.0	33	22	6.8	12.0	52.0	25	24.0	24	58.0	43.0	100.0	27.0	200.0	37.0	46	27.0	40	66.0
Zinc	M	2450	mg/kg	0.5	290.0	62	560	210.0	59	110.0	48.0	40.0	130.0	120	70	61.0	42.0	42.0	61	33.0	140	85.0	75.0	150.0	30.0	190.0	45.0	79	140.0	130	270.0
Organic Matter	M	2625	%	0.4	8.3	14	8.3	7.8	17	6.0	3.3	6.0	2.9	5.2	31	4.7	1.0	2.4	5.5	6.0	7.4	10	5.9	7.8	9.3	2.1	2.6	12	8.3	31	9.5
Aliphatic TPH >C5-C6	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	9.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	12	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	32.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	30	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	84.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	200	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3000.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	830	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	630.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	3800	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	1100	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	500.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	180	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	33.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	530	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	180	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	4300	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	1300	< 10
Benzene	M	2760	µg/kg	1	< 1.0	< 1.0	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	22	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.9	6.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1	< 1.0	< 1.0	1	< 1.0	< 1.0	< 1.0	< 1.0	6.8	< 1.0	6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	8.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.1	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.1	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.1	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.1	0.9	< 0.10	3	1.2	< 0.10	0.8	0.4	< 0.10	0.5	0	1	0.1	0.2	0.5	< 0.10	0.3	1	0.5	< 0.10	1.7	< 0.10	< 0.10	0.6	< 0.10	0.3	0	0.6
Anthracene	M	2800	mg/kg	0.1	0.4	< 0.10	1	0.4	< 0.10	0.2	0.2	< 0.10	0.6	0	0	< 0.10	< 0.10	0.1	< 0.10	< 0.10	0	< 0.10	< 0.10	1.5	< 0.10	< 0.10	0.9	< 0.10	0.2	< 0.10	0.1
Fluoranthene	M	2800	mg/kg	0.1	2.0	< 0.10	7	3.2	1	1.3	0.7	0.6	1.9	1	2	0.1	0.3	0.5	< 0.10	0.4	1	0.7	< 0.10	9.1	< 0.10	1.0	4.4	1	0.7	0	0.9
Pyrene	M	2800	mg/kg	0.1	1.9	< 0.10	7	3.2	1	0.9	0.6	0.6	2.3	1	1	0.1	0.2	0.3	< 0.10	0.3	1	0.6	< 0.10	9.3	< 0.10	1.1	3.5	1	0.7	0	0.8
Benzo[a]anthracene	M	2800	mg/kg	0.1	1.5	< 0.10	4	2.1	1	0.9	< 0.10	< 0.10	1.8	0	1	< 0.10	0.1	0.2	< 0.10	0.1	0	0.3	< 0.10	7.6	< 0.10	1.0	3.0	< 0.10	0.5	< 0.10	0.4
Chrysene	M	2800	mg/kg	0.1	1.3	< 0.10	4	2.0	1	0.6	< 0.10	< 0.10	2.0	1	1	< 0.10	0.2	0.2	< 0.10	0.2	0	0.4	< 0.10	9.6	< 0.10	1.0	4.4	< 0.10	0.6	< 0.10	0.4
Benzo[b]fluoranthene	M	2800	mg/kg	0.1	1.8	< 0.10	8	3.6	< 0.10	1.1	< 0.10	< 0.10	4.4	1	1	< 0.10	< 0.10	0.3	< 0.10	0.2	1	0.6	< 0.10	17.0	< 0.10	1.8	5.7	< 0.10	1.1	< 0.10	0.4
Benzo[k]fluoranthene	M	2800	mg/kg	0.1	0.6	< 0.10	3	1.3	< 0.10	0.4	< 0.10	< 0.10	1.5	0	0	< 0.10	< 0.10	0.1	< 0.10	0.1	0	0.2	< 0.10	5.9	< 0.10	0.5	1.8	< 0.10	0.4	< 0.10	0.1
Benzo[a]pyrene	M	2800	mg/kg	0.1	2.3	< 0.10	6	2.5	< 0.10	1.1	< 0.10	< 0.10	3.6	1	1	< 0.10	< 0.10	0.2	< 0.10	0.1	0	0.4	< 0.10	14.0	< 0.10	1.5	4.0	< 0.10	0.7	< 0.10	0.4
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.1	< 0.10	< 0.10	5	2.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1	0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	0.4	< 0.10	12.0	< 0.10	< 0.10	< 0.10	< 0.10	0.8	< 0.10	0.3
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.1	< 0.10	< 0.10	1	0.6	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	0.1	< 0.10	1.4	< 0.10	< 0.10	< 0.10	< 0.10	0.2	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.1	< 0.10	< 0.10	4	2.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1	0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	0.4	< 0.10	12.0	< 0.10	< 0.10	< 0.10	< 0.10	0.7	< 0.10	0.3
Total Of 16 PAH's	N	2800	mg/kg	2	13	< 2.0	56	24	2.2	7.3	< 2.0	< 2.0	19	6.5	8.6	< 2.0	< 2.0	2.6	< 2.0	< 2.0	4.0	4.4	< 2.0	100	< 2.0	7.9	28	< 2.0	7.0	< 2.0	4.7
Resorcinol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					Job No.:	22-20755	22-20755	22-20755	22-20755	22-20755	22-20755	22-20761	22-20761	22-20761	22-20761	22-20761	22-20761	22-20761	22-21381	22-21381	22-21381	22-21381	22-21381	22-21381	22-21381	22-21381	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373
					Sample ID.:	1441686	1441687	1441688	1441689	1441690	1441691	1441718	1441719	1441720	1441721	1441722	1441723	1444570	1444571	1444572	1444573	1444574	1444575	1444576	1444577	1444540	1444541	1444542	1444543	1444544	1444545	1444546
					Client Sample Ref.:	AP37-2	AP36-2	AP36-1	AS36-2	AU36-2	AU35-2	AT34-1	AO36-1	AN35-1	AP34-1	AO36-2	AP34-5	AX33-1	AX33-2	AW33-1	AW33-2	AV33-1	AV33-2	AV33-3	AV33-4	AU33-1	AT33-1	AT33-2	AS33-1	AS33-2	AR33-1	AR33-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):							0.70	0.50	0.30	0.60	1.80	1.90	0.80	1.60	0.90	1.80	0.60	3.00	2.20	0.10	0.90	1.20	2.00	1.20	2.00	0.90	1.60
					Bottom Depth (m):	1.80	1.50	0.70	1.80	1.30	1.50																					
					Date Sampled:	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022
					Asbestos Lab:		COVENTRY		COVENTRY		COVENTRY	COVENTRY		COVENTRY		COVENTRY	COVENTRY	DURHAM		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																												
ACM Type	U	2192		N/A												Chrysotile (bitumen)																
Asbestos Identification	U	2192		N/A			No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001												0.063																
Total Asbestos	U	2192	%	0.001												0.063																
Moisture	N	2030	%	0.020	11	27	6.9	9.1	15	14	8.9	7.3	11	7.7	8.4	12	12	10	12	8.1	5.2	7.5	8.7	5.4	6.5	7.4	11	13	13	5.9	31
Soil Colour	N	2040		N/A	Brown	Black	Brown	Grey	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	White
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones and Roots	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Chalk
pH	M	2010		4.0	10.9	8.3	9.0	> 12.0	11.6	12.0	10.8	> 12.0	11.6	11.4	10.2	10.5	9.6	9.8	9.1	9.5	9.3	10.3	9.7	8.9	11.0	10.5	10.8	12.0	9.7	9.7	12.0
Cyanide (Total)	M	2300	mg/kg	0.5	< 0.50	< 0.50	< 0.50	4.5	14	45	1.6	< 0.50	< 0.50	0.70	< 0.50	< 0.50	1.9	0.70	< 0.50	< 0.50	< 0.50	< 0.50	1.9	2.0	4.5	2.6	3.5	1.8	1.5	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.5	0.70	6.9	12	1.4	2.0	1.2	0.93	0.58	0.86	2.6	2.0	1.3	40	4.4	2.0	1.0	10	0.86	0.75	2.9	1.2	4.7	0.86	71	1.3	0.93	1.7
Iron (Total)	N	2430	mg/kg	100	14000	15000	17000	15000	21000	20000	8700	10000	18000	9600	21000	11000	18000	16000	26000	17000	28000	15000	30000	24000	25000	18000	19000	19000	21000	27000	2100
Arsenic	M	2450	mg/kg	1	8.9	28	8.1	4.4	12	5.7	3.8	14	7.3	5.7	12	5.6	3.6	4.0	36	12	6.8	5.4	13	130	72	4.0	14	5.5	22	2.6	1.8
Cadmium	M	2450	mg/kg	0.1	0.2	1	0.8	0.6	0	0.6	< 0.10	0	0.4	0.1	0	< 0.10	0.5	1.7	0	0	0.3	0.3	0	1	1	0.4	0	0.1	0	0.2	< 0.10
Chromium	M	2450	mg/kg	1	23.0	17	22.0	55.0	57	74.0	24.0	8	76.0	25.0	17	27.0	28.0	38.0	46	16	14.0	33.0	21	47	66	11.0	11	22.0	12	220.0	19.0
Manganese	M	2450	mg/kg	5	2200	400	1300	2900	3700	3500	2000	330	2800	2100	660	3500	1300	1100	7400	4200	2000	3100	2500	22000	17000	2000	1300	2600	510	1600	240
Copper	M	2450	mg/kg	0.5	38.0	48	21.0	27.0	29	21.0	10.0	7	17.0	12.0	18	16.0	7.5	7.8	21	11	7.8	19.0	10	62	30	7.0	27	8.9	38	6.7	2.7
Mercury	M	2450	mg/kg	0.1	0.1	0	0.1	0.1	0	1.4	< 0.05	< 0.05	0.1	< 0.05	0	< 0.05	0.1	< 0.05	0	< 0.05	< 0.05	0.1	0	0	0	< 0.05	0	< 0.05	1	< 0.05	< 0.05
Nickel	M	2450	mg/kg	0.5	12.0	29	14.0	10.0	23	12.0	7.9	5	12.0	5.2	14	4.7	9.3	12.0	42	14	8.4	10.0	14	60	32	7.0	16	6.8	23	31.0	3.6
Lead	M	2450	mg/kg	0.5	190.0	47	99.0	51.0	56	33.0	19.0	19	27.0	20.0	25	16.0	61.0	98.0	25	15	75.0	33.0	36	40	25	26.0	50	20.0	41	16.0	7.1
Selenium	M	2450	mg/kg	0.2	3.4	3	0.9	0.5	1	0.7	1.4	< 0.25	1.7	3.6	1	3.7	1.0	1.0	1	1	0.6	1.4	1	1	2	2.2	2	2.3	5	0.3	0.3
Vanadium	U	2450	mg/kg	5	46.0	36	26.0	61.0	55	64.0	38.0	10	67.0	49.0	21	74.0	18.0	23.0	35	28	20.0	33.0	45	90	79	29.0	26	48.0	22	54.0	7.9
Zinc	M	2450	mg/kg	0.5	87.0	70	180.0	170.0	150	290.0	26.0	30	39.0	42.0	43	33.0	97.0	77.0	130	40	130.0	63.0	75	120	85	41.0	41	42.0	76	29.0	9.4
Organic Matter	M	2625	%	0.4	8.8	22	9.0	8.8	7.4	4.7	4.8	12	12	2.9	13	3.5	10	2.1	31	9.5	19	6.0	19	12	13	4.8	15	5.0	24	0.72	3.8
Aliphatic TPH >C5-C6	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	55.0	< 1.0	30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	24	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	11	< 1.0	560.0	< 1.0	300	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	45.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	18	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	85	< 1.0	670.0	< 1.0	370	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	140.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	24.0	< 1.0	250	< 1.0	1800.0	120.0	1200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	730.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5	< 5.0	< 5.0	< 5.0	< 5.0	51	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	24	< 5.0	340	< 5.0	3100	120	1900	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	910	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	71.0	< 1.0	41	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.3	< 1.0	< 1.0	< 1.0	91.0	< 1.0	33	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	190.0	< 1.0	780	< 1.0	120.0	< 1.0	73	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	20.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	200	< 5.0	780	< 5.0	280	< 5.0	150	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	20	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10	< 10	< 10	< 10	< 10	51	< 10	< 10	< 10	< 10	< 10	< 10	< 10	230	< 10	1100	< 10	3400	120	2000	< 10	< 10	< 10	< 10	< 10	< 10	930	< 10
Benzene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.4	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.3	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	< 0.10	< 0.10	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	< 0.10	< 0.10	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.1	0.6	0	1.5	0.3	0	0.4	0.2	2	0.6	0.2	1	0.3	1.6	0.3	2	0	0.2	< 0.10	1	3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.1	0.2	0	0.8	< 0.10	< 0.10	0.2	< 0.10	1	0.1	< 0.10	0	< 0.10	2.1	0.1	1	< 0.10	0.2	< 0.10	0	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.1	0.9	0	4.6	0.8	0	1.1	0.4	4	0.8	0.3	1	0.4	12.0	0.5	3	0	1.0	0.2	1	5	0	< 0.10	0	0.3	< 0.10	0.2	< 0.10
Pyrene	M	2800	mg/kg	0.1	0.7	0	3.9	0.7	1	1.2	0.4	3	0.7	0.3	1	0.3	11.0	0.6	2	0	0.8	0.2	1	4	0	< 0.10	0	0.2	< 0.10	0.2	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.1	0.3	< 0.10	2.3	0.5	0	1.1	0.2	2	0.4	0.1	0	0.2	8.1	0.4	1	0	< 0.10	< 0.10	0	3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.1	0.4	< 0.10	2.1	0.5	0	1.4	0.3	2	0.5	0.1	0	0.2	8.8	0.4	2	0	< 0.10	< 0.10	0	2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.1	0.5	< 0.10	3.1	0.7	1	2.1	0.5	2	0.7	< 0.10	0	0.2	18.0	0.8	3	< 0.10	< 0.10	< 0.10	0	4	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.1	0.2	< 0.10	1.2	0.3	0	0.7	0.2	1	0.2	< 0.10	0	0.1	6.5	0.2	1	< 0.10	< 0.10	< 0.10	0	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.1	0.4	< 0.10	2.7	0.4	0	1.4	0.2	2	0.5	< 0.10	0	0.2	15.0	0.5	1	< 0.10	< 0.10	< 0.10	0	3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.1	0.4	< 0.10	1.9	0.4	1	1.3	0.2	1	0.3	< 0.10	0	< 0.10	16.0	0.7	1	< 0.10	< 0.10	< 0.10	0	3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.1	< 0.10	< 0.10	0.2	0.2	0.34	0.5	0.1	0	0.1	< 0.10	0	< 0.10	2.2	0.1	0	< 0.10	< 0.10	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.1	0.2	< 0.10	1.6	0.4	0.27	1.2	0.3	1	0.4	< 0.10	0	< 0.10	13.0	0.6	1	< 0.10	< 0.10	< 0.10	0	2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2	4.7	< 2.0	26	5.1	4.2	13	3.0	20	5.3	< 2.0	4.6	< 2.0	110	5.2	21	< 2.0	2.3	< 2.0	4.4	36	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Resorcinol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					Job No.:	22-21373	22-21373	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-25621	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760	22-29945	22-29945	22-29945	22-29945	22-31543	22-31543	22-31543
					Sample ID.:	1444547	1444548	1459497	1459498	1459499	1459500	1459501	1459502	1459503	1459504	1459505	1459506	1459507	1463371	1468354	1468355	1468356	1468357	1468358	1468359	1482829	1482830	1482831	1482833	1490065	1490066	1490069
					Client Sample Ref.:	AQ33-1	AQ33-2	AX32-1	AX32-2	AX32-3	AM32-1	AM32-2	AN33-1	AN33-2	AN32-1	AN32-2	AX31-1	AX31-2	AW31-1	AV31-1	AV32-1	AW32-1	AO33-1	AO32-1	AO32-2	AR32-1	AS32-1	AT32-1	AV30-1	AQ32-1	AQ23-2	AU32-1
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.60	1.70	0.3	1.3	2.3	0.5	1.5	0.3	1.3	0.3	1.0	0.5	1.8	0.2	0.70	1.00	1.00	1.70	2.00	2.90	0.5	1.3	1.3	1.0	0.50	1.00	0.30
					Bottom Depth (m):	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.70	1.00	1.00	1.70	2.00	2.90	-	-	-	-	-	-	-
					Date Sampled:	07-Jun-2022	07-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	05-Jun-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022
					Asbestos Lab:		DURHAM	DURHAM		DURHAM		DURHAM		DURHAM		DURHAM								DURHAM		COVENTRY		COVENTRY	COVENTRY	DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																												
ACM Type	U	2192		N/A																			Amosite (Fibres/Clumps)								
Asbestos Identification	U	2192		N/A			No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001																			0.005								
Total Asbestos	U	2192	%	0.001																			0.005								
Moisture	N	2030	%	0.020	14	16	3.2	12	11	5.8	5.1	9.4	2.6	1.4	10	5.1	8.8	7.2	2.9	4.1	0.82	1.3	26	8.7	7.6	15	11	9.2	0.55	2.3	1.9
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Black	Brown	Brown	Brown	Brown	Brown	Brown	Black	Brown	Black	Brown	Brown	Grey	Grey	Brown	Black	Black	Black	Brown	Grey	Brown	Grey
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones and Roots	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Roots and Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Clay	Sand	Sand	Sand	Sand	Sand	Clay	Sand	Sand	Sand	Sand	Sand	Sand	Gravel	Sand	Gravel	Gravel	Clay	Clay	Gravel	Gravel	Gravel	Gravel
pH	M	2010		4.0	11.1	11.5	9.2	11.8	8.8	11.0	9.5	11.1	10.3	8.9	10.0	11.4	10.5	10	9.6	10.1	9.0	10.3	8.9	10.0	10.1	9.8	9.1	9.6	7.8	7.8	7.6
Cyanide (Total)	M	2300	mg/kg	0.5	< 0.50	< 0.50	0.50	< 0.50	< 0.50	0.50	0.90	0.90	1.1	1.6	1.7	< 0.50	1.3	0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	0.80	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.5	1.3	13	59	< 0.50	< 0.50	1.5	0.93	3.9	0.68	0.86	1.6	0.86	1.2	30.00	< 0.50	< 0.50	1.7	3.4	11	5.1	1.5	8.6	27	12	1.0	6.7	34
Iron (Total)	N	2430	mg/kg	100	23000	17000	22000	18000	17000	29000	28000	30000	11000	32000	28000	28000	30000	22000.00	110000	83000	91000	31000	35000	85000	39000	42000	88000	92000	80000	58000	53000
Arsenic	M	2450	mg/kg	1	8.4	5.2	110	3.6	13	8.9	1.8	6.3	1.5	7.3	6.4	5.3	7.9	13.00	8.2	17	280	9.1	19	9.6	7.7	10	11	28	4.3	5.7	24
Cadmium	M	2450	mg/kg	0.1	0.2	0.1	1	0.1	0	0.2	0.2	0.3	0.2	0.4	0.2	0.5	0.7	0.23	0.1	1	2	0.2	0	0.8	< 0.10	0	2	2	< 0.10	< 0.10	5
Chromium	M	2450	mg/kg	1	28.0	30.0	80	11.0	23	120.0	230.0	48.0	10.0	700.0	63.0	18.0	83.0	47.00	28.0	43	57	31.0	24	67.0	26.0	25	32	79	21.0	28.0	190
Manganese	M	2450	mg/kg	5	2300	1200	54000	2200	8600	120000	12000	3300	790	48000	4600	2900	4000	4100	2200	15000	76000	3300	2800	4200	1600	1700	2800	9500	2400	1100	6400
Copper	M	2450	mg/kg	0.5	17.0	11.0	55	8.4	39	22.0	12.0	14.0	2.8	23.0	15.0	11.0	21.0	16.00	13.0	26	200	24.0	23	21.0	21.0	15	29	27	9.4	9.1	130
Mercury	M	2450	mg/kg	0.1	0.1	< 0.05	0	< 0.05	0	0.1	0.1	0.1	< 0.05	0.2	0.1	0.1	0.1	0.05	< 0.05	0	0	0.1	0	0.2	< 0.05	0	0	0	< 0.05	< 0.05	9
Nickel	M	2450	mg/kg	0.5	16.0	9.9	56	7.4	9	36.0	4.5	21.0	5.3	16.0	16.0	9.0	10.0	17.00	11.0	24	270	13.0	20	19.0	11.0	15	22	41	14.0	18.0	41
Lead	M	2450	mg/kg	0.5	25.0	16.0	64	21.0	24	25.0	34.0	34.0	9.4	41.0	28.0	62.0	110.0	31.00	44.0	55	100	24.0	35	150.0	13.0	17	200	120	12.0	28.0	72
Selenium	M	2450	mg/kg	0.2	1.0	1.1	2	1.7	2	0.6	1.9	0.9	0.3	0.5	0.5	1.0	1.9	0.64	1.2	1	1	0.9	1	1.3	1.0	1	2	1	< 0.25	< 0.25	0
Vanadium	U	2450	mg/kg	5	39.0	29.0	100	26.0	47	98.0	220.0	49.0	11.0	660.0	67.0	29.0	190.0	45.00	40.0	80	160	55.0	46	98.0	37.0	43	48	78	58.0	36.0	200
Zinc	M	2450	mg/kg	0.5	51.0	48.0	320	45.0	49	99.0	60.0	90.0	20.0	70.0	66.0	190.0	230.0	90.00	74.0	130	270	55.0	72	330.0	30.0	39	380	390	35.0	100.0	820
Organic Matter	M	2625	%	0.4	24	6.7	3.8	21	11	64	11	11	5.7	1.9	2.6	28	14	50	67	47	41	9.1	34	24	16	17	24	26	5.6	1.8	12
Aliphatic TPH >C5-C6	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	9.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	330.0	84	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	1300.0	400	< 1.0	12.0	< 1.0	< 1.0	< 1.0	< 1.0	68.0	6.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	97	4900.0	1600	18.0	20.0	< 1.0	< 1.0	< 1.0	< 1.0	430.0	78.0	< 1.0	8.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1	< 1.0	< 1.0	99	5200.0	1600	8.9	17.0	< 1.0	< 1.0	< 1.0	< 1.0	640.0	99.0	< 1.0	19.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1	110.0	110.0	480	6800.0	2000	58.0	250.0	< 1.0	150.0	< 1.0	< 1.0	3400.0	270.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	210.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5	110	110	670	19000	5700	85	300	< 5.0	150	< 5.0	< 5.0	4600	450	< 5.0	28	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	240.0	30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	710.0	150	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	3200.0	840	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	110.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	3100.0	780	5.6	< 1.0	5.7	< 1.0	< 1.0	< 1.0	75.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1	85.0	87.0	27	2600.0	680	200.0	90.0	71.0	33.0	36.0	41.0	4400.0	76.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	120	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	55.0	< 1.0	5.6	6.7	< 1.0	< 1.0	< 1.0	< 1.0	2000.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5	85	87	27	9800	2500	210	97	77	33	36	41	6500	76	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	130	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10	190	200	700	29000	8100	290	400	77	190	36	41	11000	530	< 10	28	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	130	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.6	1.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4	< 1.0	< 1.0	< 1.0	< 1.0	5.4	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.3	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	3.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	18.0	6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	27.0	10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	5.0	< 0.10	2.9	0.4	0.8	< 0.10	< 0.10	0.3	< 0.10	0.6	< 0.10	< 0.10	< 0.10	4	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	7.8	< 0.10	1.4	0.1	0.3	< 0.10	< 0.10	0.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	25.0	< 0.10	0.3	0.2	0.1	< 0.10	< 0.10	0.1	< 0.10	0.2	< 0.10	< 0.10	< 0.10	0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	13.0	< 0.10	0.9	0.1	0.2	< 0.10	< 0.10	0.2	< 0.10	0.4	< 0.10	< 0.10	< 0.10	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.1	< 0.10	< 0.10	1	110.0	30	8.1	1.1	1.1	< 0.10	0.8	0.9	2.0	1.4	1.20	0.9	1	3	0.8	1	1.5	< 0.10	< 0.10	1	< 0.10	1.8	< 0.10	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.1	< 0.10	< 0.10	0	21.0	4	2.5	0.2	0.3	< 0.10	0.2	0.3	0.3	0.3	0.24	0.2	0	1	0.2	0	0.4	< 0.10	< 0.10	0	< 0.10	0.7	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.1	0.3	0.3	1	68.0	20	20.0	1.6	2.0	< 0.10	1.0	1.5	2.1	1.7	1.60	0.6	1	5	1.0	0	1.8	0.4	< 0.10	1	4	5.6	< 0.10	< 0.10	< 0.10
Pyrene	M	2800	mg/kg	0.1	0.2	0.2	1	51.0	14	14.0	1.3	1.6	< 0.10	0.9	1.6	1.7	1.1	1.30	0.6	1	4	0.8	0	1.5	0.4	< 0.10	0	3	3.8	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	20.0	5	9.3	0.9	1.1	< 0.10	0.6	1.0	0.7	0.5	0.86	0.4	1	3	0.5	< 0.10	0.7	< 0.10	< 0.10	< 0.10	3	2.2	< 0.10	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	18.0	5	9.2	0.9	1.0	< 0.10	0.7	0.9	0.9	0.4	0.96	0.3	1	3	0.4	< 0.10	0.9	< 0.10	< 0.10	< 0.10	2	2.0	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	17.0	5	12.0	1.4	1.8	< 0.10	< 0.10	1.5	1.2	0.7	1.60	0.5	1	4	0.8	< 0.10	1.1	< 0.10	< 0.10	< 0.10	6	3.0	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	6.1	2	4.1	0.4	0.7	< 0.10	< 0.10	0.5	0.4	0.3	0.60	0.2	0	1	0.3	< 0.10	0.5	< 0.10	< 0.10	< 0.10	2	1.0	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	13.0	3	8.2	0.9	1.2	< 0.10	< 0.10	0.9	0.7	0.4	0.98	0.4	0	3	0.5	< 0.10	0.7	< 0.10	< 0.10	< 0.10	4	1.6	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	6.5	2	7.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	1.5	0	1.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	0.49	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	6.0	2	6.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0	2.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2	< 2.0	< 2.0	2.7	390	92	110	9.4	12	< 2.0	4.1	10	9.9	7.9	9.3	4.0	7.1	38	5.3	< 2.0	9.1	< 2.0	< 2.0	< 2.0	24	22	< 2.0	< 2.0	< 2.0
Resorcinol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	1	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	0.75	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.1	< 0.10	< 0.10	< 0.10	0.75	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.88	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				Job No.:	22-32672	22-32672	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	21-41336	22-20454	22-20454	22-20454	22-20454	22-20454	21-41336	21-41336	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
				Sample ID.:	1494904	1494905	1557446	1557447	1557448	1557449	1557450	1557451	1557452	1557453	1557454	1326695	1440201	1440202	1440203	1440197	1440198	1326696	1326697	1440195	1440196	1440189	1440190	1440191	1440192	1440193	1440194
				Client Sample Ref.:	A034-1	AN34-1	AN37-1	AN37-2	AM37-1	AM37-2	AM36-1	AL36-1	AL36-2	AM35-1	AM34-1	AU31-1	AW35-1	AW34-1	AW34-2	AW37-1	AW37-2	AU30-1	AU30-2	AX34-1	AX34-2	AX37-1	AX37-2	AX36-1	AX36-2	AX35-1	AX35-2
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.50	1.00	1.00	2.00	0.80	2.00	0.80	0.90	2.00	1.70	0.20	0.4	0.50	1.00	2.00	0.30	1.50	0.5	1.1	0.70	1.30	1.00	2.00	0.60	1.50	0.50	1.20
				Bottom Depth (m):																											
				Date Sampled:	24-Aug-2022	24-Aug-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	19-Nov-2021	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	19-Nov-2021	19-Nov-2021	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
				Asbestos Lab:	DURHAM			COVENTRY		COVENTRY		COVENTRY		COVENTRY	COVENTRY		DURHAM	DURHAM		DURHAM			COVENTRY	DURHAM			DURHAM		DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																											
ACM Type	U	2192		N/A																											
Asbestos Identification	U	2192		N/A	No Asbestos Detected			No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected			No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001																											
Total Asbestos	U	2192	%	0.001																											
Moisture	N	2030	%	0.020	8.1	5.1	17	13	23	3.9	10	6.0	25	30	8.5	9.4	5.8	13	10	5.1	11	13	17	4.2	6.6	8.5	9.7	4	7.4	7.3	9.1
Soil Colour	N	2040		N/A	Grey	Grey	Grey	Brown	Brown	Brown	Brown	Grey	Black	Grey	Brown	Black	Brown	Brown	Brown	Brown	Brown	Black	Black	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones, Roots and Wood	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Clay	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Gravel	Sand	Sand	Sand	Sand	Gravel	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.1	10.3	12.0	11.8	9.4	9.4	8.6	9.4	8.3	8.5	10.8	10.4	10.8	9.8	10.8	11.6	11.1	10.3	10.7	10.5	9.7	9.7	8.8	9.4	10.4	9.3	10
Cyanide (Total)	M	2300	mg/kg	0.5	1.2	3.6	< 0.50	< 0.50	< 0.50	< 0.50	0.5	< 0.50	< 0.50	< 0.50	1.2	2.7	< 0.50	< 0.50	0.5	< 0.50	< 0.50	1.6	20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.5	< 0.50	1.3	< 0.50	0.51	3.4	< 0.50	65	1.7	59	15	1.9	11	0.61	1.5	0.78	0.67	0.86	7.8	6	0.56	20	1.3	23	1.9	4.4	2	29
Iron (Total)	N	2430	mg/kg	100	5700	5400	5600	11000	58000	30000	26000	13000	26000	20000	70000	24000	6500	5400	5500	17000	9800	26000	26000	< 100	8800	3500	8200	2200	4800	3900	6000
Arsenic	M	2450	mg/kg	1	2.4	3.2	4.2	6.1	16	4.9	18	6.3	49	41	13	43	2.4	2.6	1.9	1.4	18	35	19	< 0.5	1.3	2.7	1.2	2	< 0.5	2.3	1.5
Cadmium	M	2450	mg/kg	0.1	< 0.10	0.1	0.28	0.19	0.91	0.57	0.37	0.28	0.31	0.16	0.84	0.69	0.31	0.34	0.14	0.59	0.26	0.4	0.36	< 0.10	0.38	0.25	0.24	< 0.10	< 0.10	0.16	0.55
Chromium	M	2450	mg/kg	1	8.6	8.9	13	13	72	22	23	11	21	17	160	110	24	15	13	160	32	110	130	0.5	8.7	8.7	7.8	4.3	2.8	5.2	7.5
Manganese	M	2450	mg/kg	5	3400	1000	410	1400	2400	840	690	810	490	360	9700	12000	2400	2100	2200	6700	2200	11000	6400	1700	680	1300	840	450	530	750	1100
Copper	M	2450	mg/kg	0.5	4.6	8.6	7	14	27	12	60	11	94	37	35	95	7.1	12	7.1	9.3	12	95	67	0.93	4.8	10	6.3	6.7	1.6	6.9	5.4
Mercury	M	2450	mg/kg	0.1	< 0.05	< 0.05	< 0.05	< 0.05	0.08	< 0.05	0.59	0.05	0.42	0.17	0.25	0.66	< 0.05	< 0.05	< 0.05	< 0.05	0.07	0.85	0.89	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	M	2450	mg/kg	0.5	2.6	4.8	5.4	13	39	13	37	9.2	43	25	28	46	3.1	5.8	3.3	3.2	7.3	47	34	1.2	6.9	4.7	7.2	4.1	0.88	4.4	3.6
Lead	M	2450	mg/kg	0.5	5.6	19.0	21	27	64	19	85	160	100	33	170	140	43	45	16	25	30	140	310	2.5	18	19	24	8.8	2.2	6.3	37
Selenium	M	2450	mg/kg	0.2	3.2	1.5	0.61	1.8	2.4	0.81	2.7	0.88	6.3	3.1	2.6	< 0.20	1	0.66	1.3	0.31	1.2	0.28	0.33	0.76	< 0.25	0.72	0.26	< 0.25	< 0.25	0.41	0.56
Vanadium	U	2450	mg/kg	5	30.0	17.0	13	19	88	19	38	17	47	43	160	140	29	26	20	110	80	120	100	< 0.5	27	18	9.5	8.1	6	11	14
Zinc	M	2450	mg/kg	0.5	16.0	37.0	24	25	170	39	130	48	140	55	370	200	110	90	41	91	59	160	160	4.9	24	26	23	18	3.9	13	38
Organic Matter	M	2625	%	0.4	3.0	9.8	15	8.5	5	10	14	6.2	36	7.4	7.6	24	3.8	15	3.3	1.7	8.1	59	64	6.7	2.1	8.1	4.1	3.6	5	9	3.3
Aliphatic TPH >C5-C6	N	2680	mg/kg	1	< 1.0	< 1.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	3.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.4	2.3	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	20	11	3.1	2.8	3.3	4.3	6.4	5.7	5.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1	< 1.0	< 1.0	26	9.3	< 2.0	2.6	< 2.0	48	4.8	4.8	9.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1	< 1.0	< 1.0	43	5.5	< 3.0	38	< 3.0	180	7.9	4.4	66	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	18	< 1.0	7.8	< 1.0	< 1.0	5.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5	< 5.0	< 5.0	92	28	7.9	45	6.9	240	21	17	83	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1	< 1.0	< 1.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1	< 1.0	< 1.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1	< 1.0	< 1.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	21	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1	< 1.0	< 1.0	2.3	< 2.0	< 2.0	< 2.0	< 2.0	5.8	2.1	2.1	8.1	< 1.0	< 1.0	< 1.0	< 1.0	5.1	< 1.0	36	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1	< 1.0	< 1.0	< 2.0	< 2.0	2.4	< 2.0	< 2.0	7.5	7.7	< 2.0	7.4	< 1.0	< 1.0	< 1.0	< 1.0	44	< 1.0	88	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.8	< 1.0	< 1.0	1.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	14	10	< 5.0	17	< 5.0	< 5.0	< 5.0	< 5.0	49	< 5.0	150	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10	< 10	< 10	96	30	12	48	< 10	250	32	20	100	< 10	< 10	< 10	< 10	49	< 10	150	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.19	< 0.10	0.31	< 0.10	1.7	< 0.10	< 0.10	< 0.10	< 0.10	0.41	< 0.10	< 0.10	1.8	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.41	< 0.10	< 0.10	< 0.10	< 0.10	0.47	< 0.10	< 0.10	0.66	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.45	< 0.10	< 0.10	0.24	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.44	< 0.10	< 0.10	< 0.10	< 0.10	0.34	< 0.10	< 0.10	0.32	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.31	< 0.10	0.45	< 0.10	3.4	0.71	0.41	0.62	0.6	3	0.47	2.5	4.1	0.29	< 0.10	0.52	0.61	< 0.10	0.51	0.32	0.42
Anthracene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.69	0.22	0.12	0.13	0.13	1.1	< 0.10	1	0.91	< 0.10	< 0.10	0.33	0.24	< 0.10	0.15	0.12	< 0.10
Fluoranthene	M	2800	mg/kg	0.1	0.3	0.2	< 0.10	< 0.10	< 0.10	< 0.10	0.25	< 0.10	0.47	< 0.10	5.6	1.1	0.32	0.87	0.6	8	0.58	4.1	6.4	0.74	< 0.10	0.94	0.53	< 0.10	0.81	0.32	0.29
Pyrene	M	2800	mg/kg	0.1	0.2	0.2	< 0.10	< 0.10	< 0.10	< 0.10	0.2	< 0.10	0.43	< 0.10	4.2	1	0.31	0.8	0.59	7.3	0.6	3.2	4.5	0.67	< 0.10	0.77	0.48	< 0.10	0.63	0.28	0.25
Benzo[a]anthracene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.31	< 0.10	2.2	0.74	< 0.10	0.41	0.26	5.4	0.37	2.2	3.2	0.44	< 0.10	0.61	0.45	< 0.10	0.32	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.21	< 0.10	1.9	0.7	< 0.10	0.3	0.35	6.3	0.49	2.5	3.4	0.35	< 0.10	0.46	0.4	< 0.10	0.45	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	4.1	1.7	< 0.10	0.73	0.3	9	0.42	4.1	5.2	0.28	< 0.10	0.87	0.5	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.2	0.49	< 0.10	0.34	0.17	4	0.25	1.1	1.4	0.36	< 0.10	0.33	0.38	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	3.2	0.85	< 0.10	0.28	0.35	8.2	0.42	2.8	2.8	0.2	< 0.10	0.43	0.31	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.9	0.72	< 0.10	< 0.10	< 0.10	5.3	< 0.10	2.9	2.8	< 0.10	< 0.10	0.43	0.48	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.22	< 0.10	< 0.10	< 0.10	0.74	< 0.10	0.43	1.1	< 0.10	< 0.10	0.32	0.31	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	2.1	0.91	< 0.10	< 0.10	< 0.10	5.2	< 0.10	1.9	2.5	< 0.10	< 0.10	0.68	0.41	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.2	< 2.0	33	9.4	< 2.0	4.5	3.4	65	3.6	29	41	3.3	< 2.0	6.7	5.1	< 2.0	2.9	< 2.0	< 2.0
Resorcinol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.02	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					Job No.:	210130-32	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156	210130-32	210115-27	210115-27	210130-32	210130-32	Number of Samples	Number of Exceedances	Minimum Value	Minimum Exceedance	Maximum Value	Average Value
					Sample ID.:																			
					Client Sample Ref.:	AL32-1	AW26-1	AV28-1	AV28-2	AV28-3	AV29-1	AV29-2	AW29-1	AW29-2	AK33-1	AM33-1	AM33-2	AK34-1	AK34-2						
					Sample Type:	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID						
					Top Depth (m):	0.50-0.50	0.50-0.50	0.30-0.30	1.20-1.20	2.20-2.20	0.80-0.80	1.70-1.70	0.60-0.60	1.30-1.30	0.20-0.20	0.30-0.30	1.30-1.30	0.80-0.80	1.60-1.60						
					Bottom Depth (m):																			
					Date Sampled:	1/28/2021	12/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	1/29/2021	13/01/2021	13/01/2021	1/29/2021	1/29/2021						
					Asbestos Lab:																			
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																				
ACM Type	U	2192		N/A									Chrysotile											
Asbestos Identification	U	2192		N/A	Not Detected		Not Detected		Not Detected	Not Detected		Detected		Not Detected	Not Detected			Not Detected	83	4	0.001	0.063	0.063	0.021
Asbestos by Gravimetry	U	2192	%	0.001								<0.001												
Total Asbestos	U	2192	%	0.001																				
Moisture	N	2030	%	0.020	9.4	13	9.8	19	21	15	12	12	18	12	8.3	8.6	11	13						
Soil Colour	N	2040		N/A	Black	Dark Brown	Dark Brown	Black	Black	Dark Brown	Black	Black	Black	Dark Brown	Dark Brown	Dark Brown	Dark Brown	Dark Brown						
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	None	Stones	Stones	Vegetation	Stones	Stones	None	Vegetation						
Soil Texture	N	2040		N/A																				
pH	M	2010		4.0	11.3	9.52	9.4	11.5	11.3	11.3	8.31	9.1	11.2	10.2	12.6	11.8	9.51	10.2						
Cyanide (Total)	M	2300	mg/kg	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1						
Ammoniacal Nitrogen	M	2425	mg/kg	0.5	<12	<12	<12	<12	<12	<12	127	<12	<12	<12	<12	<12	<12	<12						
Iron (Total)	N	2430	mg/kg	100	138000	64300	208000	143000	146000	321000	14800	222000	291000	134000	180000	65800	-	101000						
Arsenic	M	2450	mg/kg	1	8.28	11	7.62	9.8	11.7	17.2	4.66	15.6	17.3	9.69	7.22	9.12	13.6	15.9	148	7	0.50	41.00	280.00	13.78
Cadmium	M	2450	mg/kg	0.1	1.87	<0.2	0.802	<0.2	<0.2	4.82	0.297	1.18	3.89	1.6	<0.2	0.258	1.49	1.34	148	0	0.10	0.00	5.40	0.57
Chromium	M	2450	mg/kg	1	160	399	219	<9	<9	<9	<9	<9	65.1	75	628	121	119	33.8	148	0	0.50	0.00	700.00	62.04
Manganese	M	2450	mg/kg	5	12900	18900	8970	4270	4290	10900	2880	6090	12000	8420	209000	5090	8330	6690						
Copper	M	2450	mg/kg	0.5	20.4	40.3	19.1	19.6	17.8	43.9	14.3	25.7	34.1	22.4	14.5	23.8	23.3	20.2	148	0	0.93	0.00	200.00	24.70
Mercury	M	2450	mg/kg	0.1	<1	<1.4	<1.4	<1.4	<1.4	<1.4	<0.14	<1.4	<1.4	<1	<1.4	<1.4	<1	<1	148	0	0.05	0.00	8.70	0.31
Nickel	M	2450	mg/kg	0.5	34.6	26.4	29.5	20.7	21.3	41.6	7.14	29.7	32.9	45.9	24.6	45.1	26.5	27.2	148	1	0.88	270.00	270.00	19.45
Lead	M	2450	mg/kg	0.5	37.6	49.9	29.1	51.4	74	1400	31.7	242	1100	72	22.5	23.5	67.5	44.3	148	5	2.20	242.00	1400.00	75.80
Selenium	M	2450	mg/kg	0.2	<10	16.7	<10	<10	<10	<10	6.48	<10	<10	<10	22.7	<10	<10	<10	148	0	0.20	0.00	22.70	2.16
Vanadium	U	2450	mg/kg	5	157	622	146	64.6	69	156	22.1	78.6	168	139	571	96	134	53.6	148	3	0.50	571.00	660.00	71.00
Zinc	M	2450	mg/kg	0.5	98.7	205	180	128	170	2780	83	718	2990	212	63.9	86.6	196	120	148	1	3.90	5700.00	5700.00	195.41
Organic Matter	M	2625	%	0.4	18.1	4.34	26	49.1	44	11.5	1.45	24.7	19.7	9.43	1.19	10.3	10.1	4.14						
Aliphatic TPH >C5-C6	N	2680	mg/kg	1	<0.01	<0.01	<0.01	0.0136	<0.01	<0.01	0.0182	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	148	0	0.01	0.00	1.00	0.85
Aliphatic TPH >C6-C8	N	2680	mg/kg	1	<0.01	<0.01	<0.01	0.036	<0.01	<0.01	0.041	<0.01	<0.01	<0.01	<0.01	0.0164	<0.01	<0.01	148	0	0.01	0.00	9.90	0.91
Aliphatic TPH >C8-C10	M	2680	mg/kg	1	<0.01	<0.01	<0.01	0.0372	<0.01	<0.01	0.0855	<0.01	<0.01	<0.01	<0.01	0.0164	<0.01	<0.01	148	2	0.01	84.00	330.00	3.63
Aliphatic TPH >C10-C12	M	2680	mg/kg	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	148	2	1.00	400.00	1300.00	14.07
Aliphatic TPH >C12-C16	M	2680	mg/kg	1	<1	<1	<1	2.05	1.17	<1	4.07	<1	<1	<1	1.26	<1	<1	<1	148	2	1.00	1600.00	4900.00	56.61
Aliphatic TPH >C16-C21	M	2680	mg/kg	1	4.38	5.28	1.79	6.72	6.34	20.5	6.36	6.38	10	<1	9.88	3.97	1.1	<1	148	0	1.00	0.00	5200.00	65.23
Aliphatic TPH >C21-C35	M	2680	mg/kg	1	18.7	18.9	8.62	12.4	10.8	38	17	10.8	33	8.24	62.7	8.72	8.1	6.57	148	0	1.00	0.00	6800.00	153.58
Aliphatic TPH >C35-C44	N	2680	mg/kg	1	<1	4.98	<1	2.22	1.3	1.09	6.1	<1	1.51	<1	16.4	1.08	<1	<1	148	0	1.00	0.00	630.00	7.03
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5	24.3	30.1	11.3	23.4	19.6	60.4	33.5	18.5	44.8	9.5	90.2	14	9.88	8						
Aromatic TPH >C5-C7	N	2680	mg/kg	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	148	0	0.01	0.00	1.00	0.85
Aromatic TPH >C7-C8	N	2680	mg/kg	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	148	0	0.01	0.00	1.00	0.85
Aromatic TPH >C8-C10	M	2680	mg/kg	1	<0.01	<0.01	<0.01	0.0248	<0.01	<0.01	0.057	<0.01	<0.01	<0.01	<0.01	<0.01	0.0109	<0.01	148	1	0.01	240.00	240.00	2.66
Aromatic TPH >C10-C12	M	2680	mg/kg	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	148	2	1.00	150.00	710.00	6.93
Aromatic TPH >C12-C16	M	2680	mg/kg	1	<1	<1	<1	1.64	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	148	2	1.00	840.00	3200.00	29.78
Aromatic TPH >C16-C21	U	2680	mg/kg	1	<1	<1	1.89	3.73	2.72	2.14	<1	<1	1.72	1.35	<1	7.12	<1	<1	148	2	1.00	780.00	3100.00	29.30
Aromatic TPH >C21-C35	M	2680	mg/kg	1	43.5	22.6	15.2	12.3	10.5	5.16	4.64	25.9	8.78	9.84	13.6	25.8	10.3	7.01	148	2	1.00	2600.00	4400.00	76.22
Aromatic TPH >C35-C44	M	2680	mg/kg	1	1	2.6	2.63	<1	<1	<1	<1	2.71	<1	<1	<1	5.02	1.07	<1	148	1	1.00	2000.00	2000.00	15.24
Total Aromatic Hydrocarbons	N	2680	mg/kg	5	45.2	25.7	19.8	18.7	15.1	8.8	6.04	29	11.6	12.3	15.5	38.3	11.8	8.07						
Total Petroleum Hydrocarbons	N	2680	mg/kg	10	69.5	55.8	31.1	42.2	34.7	69.2	39.7	47.5	56.3	21.8	106	52.3	21.6	16.1						
Benzene	M	2760	µg/kg	1	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	148	14	1.00	180.00	180.00	18.19
Toluene	M	2760	µg/kg	1	<140	<140	<140	<140	<140	<140	<140	<140	<140	<140	<140	<140	<140	<140	148	0	1.00	0.00	140.00	14.27
Ethylbenzene	M	2760	µg/kg	1	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	148	0	1.00	0.00	80.00	8.50
m & p-Xylene	M	2760	µg/kg	1	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	148	0	1.00	0.00	200.00	20.04
o-Xylene	M	2760	µg/kg	1	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	148	0	1.00	0.00	200.00	20.09
Methyl Tert-Butyl Ether	M	2760	µg/kg	1	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200						
Naphthalene	M	2800	mg/kg	0.1	0.0447	0.0251	0.0488	0.102	0.0549	0.0383	0.0112	0.0135	0.0477	0.0421	0.0185	0.123	0.0599	0.023	148	0	0.01	0.00	5.00	0.28
Acenaphthylene	N	2800	mg/kg	0.1	0.0383	<0.012	0.0258	0.0172	<0.012	<0.012	<0.012	<0.012	<0.012	0.0315	<0.012	0.224	0.0461	<0.012	148	0	0.01	0.00	7.80	0.25
Acenaphthene	M	2800	mg/kg	0.1	<0.008	<0.008	0.00957	0.0564	0.0112	<0.008	<0.008	<0.008	0.0179	<0.008	0.015	0.0133	<0.008	<0.008	148	0	0.01	0.00	25.00	0.27
Fluorene	M	2800	mg/kg	0.1	0.0116	<0.01	0.0208	0.211	0.0274	0.012	<0.01	<0.01	0.0292	<0.01	<0.01	0.125	<0.01	<0.01	148	0	0.01	0.00	13.00	0.21
Phenanthrene	M	2800	mg/kg	0.1	0.137	0.0722	0.293	0.442	0.183	0.113	0.0287	0.046	0.182	0.0923	0.133	0.972	0.12	0.0428	148	1	0.03	110.00	110.00	1.68
Anthracene	M	2800	mg/kg	0.1	0.0436	<0.016	0.0733	0.0792	0.0379	<0.016	<0.016	<0.016	0.049	0.0276	0.0233	0.54	0.0336	<0.016	148	0	0.02	0.00	21.00	0.48
Fluoranthene	M	2800	mg/kg	0.1	0.354	0.122	0.417	0.347	0.268	0.0829	0.0285	0.0414	0.294	0.193	0.273	2.53	0.301	0.0891	148	0	0.03	0.00	68.00	2.37
Pyrene	M	2800	mg/kg	0.1	0.276	0.117	0.324	0.312	0.232	0.0728	0.0246	0.0371	0.293	0.143	0.204	1.75	0.259	0.0737	148	0	0.02	0.00	51.00	1.98
Benzo[a]anthracene	M	2800	mg/kg	0.1	0.243	0.0723	0.228	0.26	0.2	0.0221	0.0165	0.026	0.125	0.104	0.131	1.27	0.184	0.055	148	7	0.02	7.30	20.00	1.21
Chrysene	M	2800	mg/kg	0.1	0.21	0.0778	0.245	0.258	0.219	0.0251	0.016	0.0346	0.136	0.101	0.179	1.37	0.157	0.0606	148	2	0.02	18.00	21.00	1.29
Benzo[b]fluoranthene	M	2800	mg/kg	0.1	0.426	0.119	0.226	0.383	0.316	0.0191	0.028	0.0582	0.196	0.186	0.319	1.62	0.388	0.104	148	27	0.02	3.00	33.00	2.03
Benzo[k]fluoranthene	M	2800	mg/kg	0.1	0.13	0.0357	0.0922	0.14	0.102	<0.014	<0.014	0.0171	0.0509	0.0615	0.0979	0.537	0.104	0.0295	148	0	0.01	0.00	11.00	0.71
Benzo[a]pyrene	M	2800	mg/kg	0.1	0.271	0.0639	0.182	0.311	0.215	<0.015	<0.015	0.0259	0.106	0.111	0.128	0.986	0.195	0.0567	148	26	0.02	2.30	26.00	1.54
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.1	0.269	0.0549	0.134	0.203	0.137	<0.018	<0.018	0.022	0.0935	0.128	0.167	0.813	0.221	0.0622	148	0	0.02	0.00	23.00	1.19
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.1	0.0476	<0.023	0.0385	0.0575	0.0426	<0.023	<0.023	<0.023	<0.023	<0.023	0.0337	0.172	0.0344	<0.023	148	27	0.02	0.25	3.90	0.26
Benzo[g,h,i]perylene	M	2800	mg/kg	0.1	0.231	0.0575	0.139	0.209	0.145	<0.024	<0.024	<0.024	0.0793	0.113	0.147	0.723	0.169	0.0502	148	0	0.02	0.00	22.00	1.08
Total Of 16 PAH's	N	2800	mg/kg	2	2.73	0.818	2.5	3.39	2.19	0.385	0.153	0.322	1.7	1.33	1.87	13.8	2.27	0.647						
Resorcinol	M	2920	mg/kg	0.02																				
Phenol	M	2920	mg/kg	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	148	0	0.01	0.00	0.88	0.02
Cresols	M	2920	mg/kg	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01						
Xylenols	M	2920	mg/kg	0.02	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015						
1-Naphthol	N	2920	mg/kg	0.02																				
Trimethylphenols	M	2920	mg/kg	0.02																				
Total Phenols	M	2920	mg/kg	0.1	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035						

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Final Report

Report No.:	22-20752-1
Initial Date of Issue:	10-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	8
Turnaround (Wkdays):	5
Date Approved:	10-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	06-Jun-2022
Date Instructed:	06-Jun-2022
Results Due:	10-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20752	22-20752	22-20752	22-20752	22-20752	22-20752	22-20752	22-20752
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441669	1441670	1441671	1441672	1441673	1441674	1441675	1441676
		Client Sample ID.:			AT35-1	AT35-2	AU34-2	AU34-1	AT34-2	AS36-1	AU36-1	AU35-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.5	1.4	2.3	0.5	1.5	1	0.7	0.5
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			NEW-ASB		NEW-ASB		NEW-ASB		NEW-ASB	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	10	13	14	6.5	9.5	7.6	6.4	15
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	> 12.0	> 12.0	10.2	10.3	11.2	11.7	11.8	> 12.0
Cyanide (Total)	M	2300	mg/kg	0.50	14	5.4	0.70	1.5	2.7	1.8	18	12
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	1.0	0.65	12	2.2	0.76	0.58	1.1	2.1
Iron (Total)	N	2430	mg/kg	100	23000	22000	19000	20000	12000	24000	25000	22000
Arsenic	M	2455	mg/kg	0.5	12	8.8	17	8.0	6.9	6.0	5.2	12
Cadmium	M	2455	mg/kg	0.10	1.2	0.77	0.24	0.35	0.22	0.10	0.25	0.33
Chromium	M	2455	mg/kg	0.5	270	110	15	39	34	540	89	29
Manganese	M	2455	mg/kg	1.0	9900	5000	480	2400	2500	14000	4900	2100
Copper	M	2455	mg/kg	0.50	46	37	27	13	16	13	14	22
Mercury	M	2455	mg/kg	0.05	0.29	0.17	0.12	0.11	0.05	< 0.05	0.17	0.43
Nickel	M	2455	mg/kg	0.50	29	38	18	13	16	10	11	22
Lead	M	2455	mg/kg	0.50	170	80	35	41	22	12	32	34
Selenium	M	2455	mg/kg	0.25	0.60	0.51	1.3	0.73	2.7	< 0.25	0.44	0.79
Vanadium	U	2455	mg/kg	0.5	170	76	21	41	36	320	87	33
Zinc	M	2455	mg/kg	0.50	560	210	59	110	48	40	130	120
Organic Matter	M	2625	%	0.40	8.3	7.8	17	6.0	3.3	6.0	2.9	5.2
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	9.8	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	32	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	84	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3000	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	630	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	3800	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20752	22-20752	22-20752	22-20752	22-20752	22-20752	22-20752	22-20752
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441669	1441670	1441671	1441672	1441673	1441674	1441675	1441676
		Client Sample ID.:			AT35-1	AT35-2	AU34-2	AU34-1	AT34-2	AS36-1	AU36-1	AU35-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.5	1.4	2.3	0.5	1.5	1	0.7	0.5
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			NEW-ASB		NEW-ASB		NEW-ASB		NEW-ASB	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	500	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	33	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	530	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	4300	< 10
Benzene	M	2760	µg/kg	1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	22
Toluene	M	2760	µg/kg	1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	6.8	< 1.0	5.8
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	8.9	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.3	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	1.4	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	0.59	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	0.35	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	0.56	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	3.1	1.2	< 0.10	0.84	0.37	< 0.10	0.48	0.26
Anthracene	M	2800	mg/kg	0.10	0.82	0.44	< 0.10	0.20	0.21	< 0.10	0.55	0.13
Fluoranthene	M	2800	mg/kg	0.10	7.0	3.2	0.50	1.3	0.69	0.62	1.9	0.84
Pyrene	M	2800	mg/kg	0.10	7.1	3.2	0.62	0.94	0.62	0.57	2.3	0.78
Benzo[a]anthracene	M	2800	mg/kg	0.10	4.0	2.1	0.51	0.86	< 0.10	< 0.10	1.8	0.39
Chrysene	M	2800	mg/kg	0.10	4.2	2.0	0.57	0.59	< 0.10	< 0.10	2.0	0.56
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	7.7	3.6	< 0.10	1.1	< 0.10	< 0.10	4.4	1.0
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	2.7	1.3	< 0.10	0.39	< 0.10	< 0.10	1.5	0.32
Benzo[a]pyrene	M	2800	mg/kg	0.10	6.1	2.5	< 0.10	1.1	< 0.10	< 0.10	3.6	0.69
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	4.9	2.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.72
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.91	0.63	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	4.4	2.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.68
Total Of 16 PAH's	N	2800	mg/kg	2.0	56	24	2.2	7.3	< 2.0	< 2.0	19	6.5
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20755-1
Initial Date of Issue:	10-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Chris Wilson David McCarroll Caitlin Davies
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	9
Turnaround (Wkdays):	5
Date Approved:	10-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	06-Jun-2022
Date Instructed:	06-Jun-2022
Results Due:	10-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20755	22-20755	22-20755	22-20755	22-20755	22-20755	22-20755	22-20755	22-20755
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441683	1441684	1441685	1441686	1441687	1441688	1441689	1441690	1441691
		Client Sample ID.:			AP37-1	AP35-2	AP35-1	AP37-2	AP36-2	AP36-1	AS36-2	AU36-2	AU35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.20	1.20	0.50	1.80	1.50	0.70	1.80	1.30	1.50
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	3.2	32	11	11	27	6.9	9.1	15	14
Soil Colour	N	2040		N/A	Brown	Black	Grey	Brown	Black	Brown	Grey	Brown	Brown
Other Material	N	2040		N/A	Stones	None	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	9.7	8.6	11.3	10.9	8.3	9.0	> 12.0	11.6	12.0
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.5	14	45
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	2.3	1.6	5.2	0.70	6.9	12	1.4	2.0	1.2
Iron (Total)	N	2430	mg/kg	100	19000	16000	13000	14000	15000	17000	15000	21000	20000
Arsenic	M	2455	mg/kg	0.5	6.4	34	8.3	8.9	28	8.1	4.4	12	5.7
Cadmium	M	2455	mg/kg	0.10	0.56	1.2	0.60	0.23	0.97	0.75	0.61	0.36	0.61
Chromium	M	2455	mg/kg	0.5	22	19	34	23	17	22	55	57	74
Manganese	M	2455	mg/kg	1.0	1600	430	1600	2200	400	1300	2900	3700	3500
Copper	M	2455	mg/kg	0.50	14	62	47	38	48	21	27	29	21
Mercury	M	2455	mg/kg	0.05	0.09	0.22	0.12	0.09	0.27	0.09	0.12	0.06	1.4
Nickel	M	2455	mg/kg	0.50	12	31	15	12	29	14	10	23	12
Lead	M	2455	mg/kg	0.50	51	58	77	190	47	99	51	56	33
Selenium	M	2455	mg/kg	0.25	0.36	2.9	0.76	3.4	2.7	0.88	0.49	1.1	0.72
Vanadium	U	2455	mg/kg	0.5	27	40	66	46	36	26	61	55	64
Zinc	M	2455	mg/kg	0.50	140	130	270	87	70	180	170	150	290
Organic Matter	M	2625	%	0.40	8.3	31	9.5	8.8	22	9.0	8.8	7.4	4.7
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	8.4	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	24	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	18	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	830	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	1100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	51	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20755	22-20755	22-20755	22-20755	22-20755	22-20755	22-20755	22-20755	22-20755
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441683	1441684	1441685	1441686	1441687	1441688	1441689	1441690	1441691
		Client Sample ID.:			AP37-1	AP35-2	AP35-1	AP37-2	AP36-2	AP36-1	AS36-2	AU36-2	AU35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.20	1.20	0.50	1.80	1.50	0.70	1.80	1.30	1.50
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	180	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	180	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	1300	< 10	< 10	< 10	< 10	< 10	51	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	0.34	0.23	0.60	0.63	0.19	1.5	0.28	0.24	0.44
Anthracene	M	2800	mg/kg	0.10	0.24	< 0.10	0.14	0.16	0.10	0.81	< 0.10	< 0.10	0.17
Fluoranthene	M	2800	mg/kg	0.10	0.73	0.11	0.87	0.88	0.12	4.6	0.84	0.42	1.1
Pyrene	M	2800	mg/kg	0.10	0.70	0.14	0.82	0.67	0.12	3.9	0.70	0.53	1.2
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.48	< 0.10	0.40	0.28	< 0.10	2.3	0.46	0.29	1.1
Chrysene	M	2800	mg/kg	0.10	0.59	< 0.10	0.40	0.37	< 0.10	2.1	0.46	0.35	1.4
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	1.1	< 0.10	0.35	0.49	< 0.10	3.1	0.69	0.58	2.1
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.36	< 0.10	0.13	0.22	< 0.10	1.2	0.29	0.21	0.68
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.71	< 0.10	0.40	0.42	< 0.10	2.7	0.44	0.36	1.4
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	0.80	< 0.10	0.28	0.42	< 0.10	1.9	0.44	0.64	1.3
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.21	< 0.10	< 0.10	< 0.10	< 0.10	0.18	0.15	0.34	0.45
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.72	< 0.10	0.26	0.15	< 0.10	1.6	0.35	0.27	1.2
Total Of 16 PAH's	N	2800	mg/kg	2.0	7.0	< 2.0	4.7	4.7	< 2.0	26	5.1	4.2	13
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20758-1
Initial Date of Issue:	10-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	8
Turnaround (Wkdays):	5
Date Approved:	10-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	06-Jun-2022
Date Instructed:	06-Jun-2022
Results Due:	10-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20758	22-20758	22-20758	22-20758	22-20758	22-20758	22-20758	22-20758
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441700	1441701	1441702	1441703	1441704	1441705	1441706	1441707
		Client Sample ID.:			AQ36-2	AQ34-1	AO37-1	AO37-2	AN36-2	AN36-1	AQ34-2	AQ36-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			2	0.5	0.3	1.8	2	0.5	1.5	0.5
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	17	1.7	2.8	7.8	9.1	5.0	7.7	4.8
Soil Colour	N	2040		N/A	Brown	Brown	Grey	Brown	Brown	Grey	Brown	Grey
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Gravel	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	8.9	11.4	9.7	10.9	9.0	10.7	> 12.0	11.4
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.2
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	15	0.86	1.0	3.3	18	1.1	0.93	< 0.50
Iron (Total)	N	2430	mg/kg	100	19000	8100	14000	13000	25000	12000	13000	14000
Arsenic	M	2455	mg/kg	0.5	18	2.4	5.3	5.7	19	5.3	26	4.2
Cadmium	M	2455	mg/kg	0.10	0.18	0.16	0.25	0.12	0.13	0.17	1.5	0.48
Chromium	M	2455	mg/kg	0.5	15	6.1	12	27	13	23	17	66
Manganese	M	2455	mg/kg	1.0	350	250	3900	1400	990	910	2400	3000
Copper	M	2455	mg/kg	0.50	42	4.8	6.9	15	33	5.4	13	11
Mercury	M	2455	mg/kg	0.05	0.49	0.07	0.05	< 0.05	0.05	< 0.05	0.09	0.06
Nickel	M	2455	mg/kg	0.50	19	3.2	7.8	14	37	7.7	9.6	33
Lead	M	2455	mg/kg	0.50	80	29	26	24	27	17	62	50
Selenium	M	2455	mg/kg	0.25	1.3	< 0.25	< 0.25	1.4	1.2	< 0.25	0.39	0.25
Vanadium	U	2455	mg/kg	0.5	22	6.8	12	52	25	24	24	58
Zinc	M	2455	mg/kg	0.50	70	61	42	42	61	33	140	85
Organic Matter	M	2625	%	0.40	31	4.7	1.0	2.4	5.5	6.0	7.4	10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20758	22-20758	22-20758	22-20758	22-20758	22-20758	22-20758	22-20758
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1441700	1441701	1441702	1441703	1441704	1441705	1441706	1441707
			Client Sample ID.:		AQ36-2	AQ34-1	AO37-1	AO37-2	AN36-2	AN36-1	AQ34-2	AQ36-1
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		2	0.5	0.3	1.8	2	0.5	1.5	0.5
			Date Sampled:		31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
			Asbestos Lab:		DURHAM		DURHAM		DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	1.2	0.14	0.18	0.48	< 0.10	0.27	0.54	0.46
Anthracene	M	2800	mg/kg	0.10	0.25	< 0.10	< 0.10	0.12	< 0.10	< 0.10	0.12	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	1.6	0.10	0.25	0.53	< 0.10	0.40	0.63	0.65
Pyrene	M	2800	mg/kg	0.10	1.2	0.10	0.23	0.33	< 0.10	0.31	0.51	0.57
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.63	< 0.10	0.13	0.23	< 0.10	0.11	0.29	0.31
Chrysene	M	2800	mg/kg	0.10	0.69	< 0.10	0.17	0.23	< 0.10	0.15	0.29	0.38
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.99	< 0.10	< 0.10	0.34	< 0.10	0.20	0.55	0.64
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.36	< 0.10	< 0.10	0.13	< 0.10	0.10	0.16	0.20
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.65	< 0.10	< 0.10	0.24	< 0.10	0.13	0.31	0.38
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.25	0.35
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.15	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.10	0.11
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.42	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.26	0.38
Total Of 16 PAH's	N	2800	mg/kg	2.0	8.6	< 2.0	< 2.0	2.6	< 2.0	< 2.0	4.0	4.4
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

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All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

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customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
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CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	22-20761-3		
Initial Date of Issue:	15-Jun-2022	**Date of Re-Issue:**	27-Jun-2022
Client	Rodgers Leask Environmental		
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ		
Contact(s):	Caitlin Davies Chris Wilson David McCarroll		
Project	P18-669		
Quotation No.:		**Date Received:**	06-Jun-2022
Order No.:	PO115623	**Date Instructed:**	06-Jun-2022
No. of Samples:	8		
Turnaround (Wkdays):	17	**Results Due:**	28-Jun-2022
Date Approved:	27-Jun-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20761	22-20761	22-20761	22-20761	22-20761	22-20761	22-20761
Quotation No.:		**Chemtest Sample ID.:**			1441718	1441719	1441720	1441721	1441722	1441723	1441725
		Client Sample ID.:			AT34-1	AO36-1	AN35-1	AP34-1	AO36-2	AP34-5	AT35-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.70	0.50	0.30	0.60	1.80	1.90	0.5
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY	COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
ACM Type	U	2192		N/A	-		-		bitumen	-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		Chrysotile	No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001					0.063		
Total Asbestos	U	2192	%	0.001					0.063		
Moisture	N	2030	%	0.020	8.9	7.3	11	7.7	8.4	12	16
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.8	> 12.0	11.6	11.4	10.2	10.5	11.2
Cyanide (Total)	M	2300	mg/kg	0.50	1.6	< 0.50	< 0.50	0.70	< 0.50	< 0.50	0.80
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.93	0.58	0.86	2.6	2.0	1.3	0.58
Iron (Total)	N	2430	mg/kg	100	8700	10000	18000	9600	21000	11000	30000
Arsenic	M	2455	mg/kg	0.5	3.8	14	7.3	5.7	12	5.6	3.0
Cadmium	M	2455	mg/kg	0.10	< 0.10	0.19	0.41	0.14	0.17	< 0.10	0.82
Chromium	M	2455	mg/kg	0.5	24	8.4	76	25	17	27	76
Manganese	M	2455	mg/kg	1.0	2000	330	2800	2100	660	3500	3400
Copper	M	2455	mg/kg	0.50	10	6.5	17	12	18	16	17
Mercury	M	2455	mg/kg	0.05	< 0.05	< 0.05	0.07	< 0.05	0.06	< 0.05	0.13
Nickel	M	2455	mg/kg	0.50	7.9	4.8	12	5.2	14	4.7	8.6
Lead	M	2455	mg/kg	0.50	19	19	27	20	25	16	51
Selenium	M	2455	mg/kg	0.25	1.4	< 0.25	1.7	3.6	0.70	3.7	0.67
Vanadium	U	2455	mg/kg	0.5	38	10	67	49	21	74	64
Zinc	M	2455	mg/kg	0.50	26	30	39	42	43	33	150
Organic Matter	M	2625	%	0.40	4.8	12	12	2.9	13	3.5	7.1
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20761	22-20761	22-20761	22-20761	22-20761	22-20761	22-20761
Quotation No.:		**Chemtest Sample ID.:**			1441718	1441719	1441720	1441721	1441722	1441723	1441725
		Client Sample ID.:			AT34-1	AO36-1	AN35-1	AP34-1	AO36-2	AP34-5	AT35-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.70	0.50	0.30	0.60	1.80	1.90	0.5
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY	COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	2.4	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	2.3	1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	4.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	0.22	1.5	0.56	0.21	0.74	0.27	1.2
Anthracene	M	2800	mg/kg	0.10	< 0.10	0.69	0.13	< 0.10	0.21	< 0.10	0.21
Fluoranthene	M	2800	mg/kg	0.10	0.38	3.9	0.77	0.27	0.86	0.39	3.2
Pyrene	M	2800	mg/kg	0.10	0.35	2.7	0.66	0.30	0.69	0.31	3.1
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.24	1.7	0.39	0.13	0.36	0.16	2.1
Chrysene	M	2800	mg/kg	0.10	0.26	1.8	0.53	0.13	0.40	0.15	2.2
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.48	2.3	0.68	< 0.10	0.45	0.23	3.8
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.19	0.77	0.23	< 0.10	0.17	0.11	1.4
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.23	1.6	0.46	< 0.10	0.28	0.20	2.8
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	0.23	1.2	0.32	< 0.10	0.15	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.13	0.19	0.13	< 0.10	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.30	1.2	0.40	< 0.10	0.21	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	3.0	20	5.3	< 2.0	4.6	< 2.0	20
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20761
Quotation No.:			**Chemtest Sample ID.:**		1441724
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		31-May-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	7.7
Electrical Conductivity	U	1020	µS/cm	1.0	700
Suspended Solids At 105C	U	1030	mg/l	5.0	27
Total Dissolved Solids	N	1020	mg/l	1.0	460
Turbidity	N	1060	NTU	1.0	10
Biochemical Oxygen Demand	N	1090	mg O2/l	4.0	[B] < 4.0
Chemical Oxygen Demand	U	1100	mg O2/l	10	[B] 22
Dissolved Oxygen	N	1150	mg O2/l	0.50	6.7
Redox Potential	N	1170	mV	N/A	83
Chloride	U	1220	mg/l	1.0	67
Fluoride	U	1220	mg/l	0.050	0.48
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.11
Phosphorus (Total)	N	1220	mg/l	0.020	< 0.020
Phosphate	U	1220	mg/l	0.200	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	< 0.020
Sulphur	N	1220	mg/l	1.0	43
Sulphate	U	1220	mg/l	1.0	130
Cyanide (Total)	U	1300	mg/l	0.050	1.1
Cyanide (Free)	U	1300	mg/l	0.050	0.14
Thiocyanate	U	1300	mg/l	0.50	< 0.50
Cyanide (Complex)	U	1300	mg/l	0.050	0.98
Sulphide	U	1325	mg/l	0.050	[B] < 0.050
Calcium	U	1455	mg/l	2.00	51
Magnesium	U	1455	mg/l	0.20	10
Total Calcium	N	1455	mg/l	5.0	54
Total Magnesium	N	1455	mg/l	0.50	10
Total Hardness as CaCO3	U	1270	mg/l	15	170
Arsenic (Dissolved)	U	1455	µg/l	0.20	2.7
Boron (Dissolved)	U	1455	µg/l	10.0	140
Barium (Dissolved)	U	1455	µg/l	5.00	54
Beryllium (Dissolved)	U	1455	µg/l	1.00	< 1.0
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	2.6
Copper (Dissolved)	U	1455	µg/l	0.50	2.5
Iron (Dissolved)	N	1455	µg/l	5.0	< 5.0
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05
Manganese (Dissolved)	U	1455	µg/l	0.50	1.5
Nickel (Dissolved)	U	1455	µg/l	0.50	1.8
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50
Antimony (Dissolved)	U	1455	µg/l	0.50	0.50

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20761
Quotation No.:			**Chemtest Sample ID.:**		1441724
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		31-May-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Selenium (Dissolved)	U	1455	µg/l	0.50	0.86
Vanadium (Dissolved)	U	1455	µg/l	0.50	8.1
Zinc (Dissolved)	U	1455	µg/l	2.5	< 2.5
Arsenic (Total)	N	1455	µg/l	0.20	2.9
Boron (Total)	N	1455	µg/l	10.0	140
Barium (Total)	N	1455	µg/l	5.00	52
Beryllium (Total)	N	1455	µg/l	1.00	< 1.0
Cadmium (Total)	N	1455	µg/l	0.11	< 0.11
Chromium (Total)	N	1455	µg/l	0.50	7.7
Copper (Total)	N	1455	µg/l	0.50	3.1
Iron (Total)	N	1455	µg/l	5.0	< 5.0
Mercury (Total)	N	1455	µg/l	0.05	< 0.05
Manganese (Total)	N	1455	µg/l	0.50	1.5
Nickel (Total)	N	1455	µg/l	0.50	1.8
Lead (Total)	N	1455	µg/l	0.50	< 0.50
Antimony (Total)	N	1455	µg/l	0.50	< 0.50
Selenium (Total)	N	1455	µg/l	0.50	1.5
Vanadium (Total)	N	1455	µg/l	0.50	7.8
Zinc (Total)	N	1455	µg/l	2.5	< 2.5
Chromium (Hexavalent)	U	1490	µg/l	20	[B] < 20
Dissolved Organic Carbon	U	1610	mg/l	2.0	6.8
Total Inorganic Carbon	N	1220	mg/l	2.5	24
Total Organic Carbon	U	1610	mg/l	2.0	6.9
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20761
Quotation No.:			**Chemtest Sample ID.:**		1441724
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		31-May-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0
Bromomethane	U	1760	µg/l	5	< 5
Chloroethane	U	1760	µg/l	2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5	< 5
Trichloromethane	U	1760	µg/l	1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10
Bromodichloromethane	U	1760	µg/l	5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10
1,2-Dibromoethane	U	1760	µg/l	5	< 5
Chlorobenzene	N	1760	µg/l	1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20761
Quotation No.:			**Chemtest Sample ID.:**		1441724
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		31-May-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20761
Quotation No.:			**Chemtest Sample ID.:**		1441724
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		31-May-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20761
Quotation No.:			**Chemtest Sample ID.:**		1441724
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		31-May-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50
Naphthalene	U	1800	µg/l	0.10	< 0.10
Acenaphthylene	U	1800	µg/l	0.10	< 0.10
Acenaphthene	U	1800	µg/l	0.10	< 0.10
Fluorene	U	1800	µg/l	0.10	< 0.10
Phenanthrene	U	1800	µg/l	0.10	< 0.10
Anthracene	U	1800	µg/l	0.10	< 0.10
Fluoranthene	U	1800	µg/l	0.10	< 0.10
Pyrene	U	1800	µg/l	0.10	< 0.10
Benzo[a]anthracene	U	1800	µg/l	0.10	< 0.10
Chrysene	U	1800	µg/l	0.10	< 0.10
Benzo[b]fluoranthene	U	1800	µg/l	0.10	< 0.10
Benzo[k]fluoranthene	U	1800	µg/l	0.10	< 0.10
Benzo[a]pyrene	U	1800	µg/l	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1800	µg/l	0.10	< 0.10
Dibenz(a,h)Anthracene	U	1800	µg/l	0.10	< 0.10
Benzo[g,h,i]perylene	U	1800	µg/l	0.10	< 0.10
Total Of 16 PAH's	U	1800	µg/l	2.0	< 2.0
Total Phenols	U	1920	mg/l	0.030	< 0.030

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1441724		D2-S		31-May-2022	B	Coloured Winchester 1000ml
1441724		D2-S		31-May-2022	B	EPA Vial 40ml
1441724		D2-S		31-May-2022	B	Plastic Bottle 1000ml

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1060	Turbidity	Turbidity	Spetctrophotometry
1090	Biochemical Oxygen Demand	Biochemical Oxygen demand (BOD)	Colorimetric determination of dissolved oxygen in seeded sample after 5 days incubation at 20°C.
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1150	Dissolved Oxygen	Dissolved Oxygen (DO)	Electrometric determination (on site preferred), using oxygen sensitive membrane electrode.
1170	Redox Potential	Redox Potential	Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

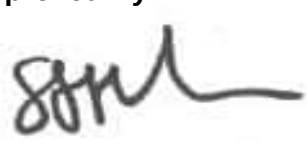
If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	22-20772-2		
Initial Date of Issue:	10-Jun-2022	**Date of Re-Issue:**	14-Jun-2022
Client	Rodgers Leask Environmental		
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ		
Contact(s):	Caitlin Davies Chris Wilson David McCarroll		
Project	P18-669		
Quotation No.:	Q21-24056	**Date Received:**	06-Jun-2022
Order No.:	PO115623	**Date Instructed:**	06-Jun-2022
No. of Samples:	6		
Turnaround (Wkdays):	11	**Results Due:**	20-Jun-2022
Date Approved:	14-Jun-2022		

Approved By:



Details: Stuart Henderson, Technical Manager

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20772	22-20772	22-20772	22-20772	22-20772	22-20772
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441789	1441790	1441791	1441792	1441793	1441794
		Client Sample ID.:			AT36-2	AU37-1	AT37-2	AT36-1	AU37-2	AN35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.8	0.6	1.8	0.4	1.7	1
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
ACM Type	U	2192		N/A	Fibres/Clumps		-		-	-
Asbestos Identification	U	2192		N/A	Chrysotile		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001	0.005					
Total Asbestos	U	2192	%	0.001	0.005					
Moisture	N	2030	%	0.020	12	9.8	13	6.6	11	13
Soil Colour	N	2040		N/A	Black	Black	Black	Brown	Brown	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones and Roots	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	> 12.0	11.2	11.3	12.0	> 12.0	11.2
Cyanide (Total)	M	2300	mg/kg	0.50	0.60	2.5	0.70	8.7	3.3	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.86	1.7	1.6	1.5	1.3	1.6
Iron (Total)	N	2430	mg/kg	100	11000	22000	14000	22000	13000	21000
Arsenic	M	2455	mg/kg	0.5	6.2	6.5	5.4	6.8	8.1	12
Cadmium	M	2455	mg/kg	0.10	0.18	0.65	0.15	0.53	0.26	0.22
Chromium	M	2455	mg/kg	0.5	28	110	19	230	40	48
Manganese	M	2455	mg/kg	1.0	2100	5500	660	9500	1100	2000
Copper	M	2455	mg/kg	0.50	18	21	17	23	29	32
Mercury	M	2455	mg/kg	0.05	0.11	0.12	< 0.05	0.13	0.05	0.09
Nickel	M	2455	mg/kg	0.50	11	16	16	13	24	21
Lead	M	2455	mg/kg	0.50	27	60	14	60	29	51
Selenium	M	2455	mg/kg	0.25	2.6	1.0	0.82	0.47	0.84	1.2
Vanadium	U	2455	mg/kg	0.5	43	100	27	200	37	46
Zinc	M	2455	mg/kg	0.50	75	150	30	190	45	79
Organic Matter	M	2625	%	0.40	5.9	7.8	9.3	2.1	2.6	12
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20772	22-20772	22-20772	22-20772	22-20772	22-20772
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441789	1441790	1441791	1441792	1441793	1441794
		Client Sample ID.:			AT36-2	AU37-1	AT37-2	AT36-1	AU37-2	AN35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.8	0.6	1.8	0.4	1.7	1
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	1.9	6.3	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	1.7	< 0.10	< 0.10	0.58	< 0.10
Anthracene	M	2800	mg/kg	0.10	< 0.10	1.5	< 0.10	< 0.10	0.90	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	< 0.10	9.1	< 0.10	0.99	4.4	0.65
Pyrene	M	2800	mg/kg	0.10	< 0.10	9.3	< 0.10	1.1	3.5	0.78
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	7.6	< 0.10	1.0	3.0	< 0.10
Chrysene	M	2800	mg/kg	0.10	< 0.10	9.6	< 0.10	1.0	4.4	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	17	< 0.10	1.8	5.7	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	5.9	< 0.10	0.49	1.8	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	14	< 0.10	1.5	4.0	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	12	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	1.4	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	12	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	100	< 2.0	7.9	28	< 2.0
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

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U	UKAS accredited
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I/S	Insufficient Sample
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LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
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All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
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Sample Deviation Codes

A - Date of sampling not supplied
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All soil samples will be retained for a period of 30 days from the date of receipt
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customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-21373-1
Initial Date of Issue:	15-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	9
Turnaround (Wkdays):	5
Date Approved:	15-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	09-Jun-2022
Date Instructed:	09-Jun-2022
Results Due:	15-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-21373	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1444540	1444541	1444542	1444543	1444544	1444545	1444546	1444547	1444548
		Client Sample ID.:			AU33-1	AT33-1	AT33-2	AS33-1	AS33-2	AR33-1	AR33-2	AQ33-1	AQ33-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.90	1.20	2.00	1.20	2.00	0.90	1.60	0.60	1.70
		Date Sampled:			07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	6.5	7.4	11	13	13	5.9	31	14	16
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	White	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Chalk	Sand	Sand
pH	M	2010		4.0	11.0	10.5	10.8	12.0	9.7	9.7	12.0	11.1	11.5
Cyanide (Total)	M	2300	mg/kg	0.50	4.5	2.6	3.5	1.8	1.5	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	1.2	4.7	0.86	71	1.3	0.93	1.7	1.3	13
Iron (Total)	N	2430	mg/kg	100	25000	18000	19000	19000	21000	27000	2100	23000	17000
Arsenic	M	2455	mg/kg	0.5	72	4.0	14	5.5	22	2.6	1.8	8.4	5.2
Cadmium	M	2455	mg/kg	0.10	0.68	0.42	0.22	0.14	0.45	0.15	< 0.10	0.20	0.13
Chromium	M	2455	mg/kg	0.5	66	11	11	22	12	220	19	28	30
Manganese	M	2455	mg/kg	1.0	17000	2000	1300	2600	510	1600	240	2300	1200
Copper	M	2455	mg/kg	0.50	30	7.0	27	8.9	38	6.7	2.7	17	11
Mercury	M	2455	mg/kg	0.05	0.34	< 0.05	0.06	< 0.05	0.81	< 0.05	< 0.05	0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	32	7.0	16	6.8	23	31	3.6	16	9.9
Lead	M	2455	mg/kg	0.50	25	26	50	20	41	16	7.1	25	16
Selenium	M	2455	mg/kg	0.25	2.1	2.2	2.3	2.3	5.4	0.31	0.29	0.95	1.1
Vanadium	U	2455	mg/kg	0.5	79	29	26	48	22	54	7.9	39	29
Zinc	M	2455	mg/kg	0.50	85	41	41	42	76	29	9.4	51	48
Organic Matter	M	2625	%	0.40	13	4.8	15	5.0	24	0.72	3.8	24	6.7
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	45	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	140	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	730	< 1.0	110	110
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	910	< 5.0	110	110
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-21373	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373	22-21373
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1444540	1444541	1444542	1444543	1444544	1444545	1444546	1444547	1444548
			Client Sample ID.:		AU33-1	AT33-1	AT33-2	AS33-1	AS33-2	AR33-1	AR33-2	AQ33-1	AQ33-2
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.90	1.20	2.00	1.20	2.00	0.90	1.60	0.60	1.70
			Date Sampled:		07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022
			Asbestos Lab:		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	20	< 1.0	85	87
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	20	< 5.0	85	87
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	930	< 10	190	200
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	3.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	2.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	0.34	< 0.10	0.24	0.26	< 0.10	0.19	< 0.10	0.25	0.26
Pyrene	M	2800	mg/kg	0.10	0.40	< 0.10	0.21	0.24	< 0.10	0.17	< 0.10	0.17	0.24
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-21381-1		
Initial Date of Issue:	15-Jun-2022		
Client	Rodgers Leask Environmental		
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ		
Contact(s):	Caitlin Davies Chris Wilson David McCarroll		
Project	P18-669		
Quotation No.:	Q21-24056	**Date Received:**	09-Jun-2022
Order No.:	PO115623	**Date Instructed:**	09-Jun-2022
No. of Samples:	8		
Turnaround (Wkdays):	5	**Results Due:**	15-Jun-2022
Date Approved:	15-Jun-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-21381	22-21381	22-21381	22-21381	22-21381	22-21381	22-21381	22-21381
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1444570	1444571	1444572	1444573	1444574	1444575	1444576	1444577
		Client Sample ID.:			AX33-1	AX33-2	AW33-1	AW33-2	AV33-1	AV33-2	AV33-3	AV33-4
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.80	1.60	0.90	1.80	0.60	3.00	2.20	0.10
		Date Sampled:			07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	12	10	12	8.1	5.2	7.5	8.7	5.4
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones and Roots
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	9.6	9.8	9.1	9.5	9.3	10.3	9.7	8.9
Cyanide (Total)	M	2300	mg/kg	0.50	1.9	0.70	< 0.50	< 0.50	< 0.50	< 0.50	1.9	2.0
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	40	4.4	2.0	1.0	10	0.86	0.75	2.9
Iron (Total)	N	2430	mg/kg	100	18000	16000	26000	17000	28000	15000	30000	24000
Arsenic	M	2455	mg/kg	0.5	3.6	4.0	36	12	6.8	5.4	13	130
Cadmium	M	2455	mg/kg	0.10	0.51	1.7	0.36	0.23	0.30	0.26	0.43	1.1
Chromium	M	2455	mg/kg	0.5	28	38	46	16	14	33	21	47
Manganese	M	2455	mg/kg	1.0	1300	1100	7400	4200	2000	3100	2500	22000
Copper	M	2455	mg/kg	0.50	7.5	7.8	21	11	7.8	19	10	62
Mercury	M	2455	mg/kg	0.05	0.07	< 0.05	0.06	< 0.05	< 0.05	0.10	0.05	0.17
Nickel	M	2455	mg/kg	0.50	9.3	12	42	14	8.4	10	14	60
Lead	M	2455	mg/kg	0.50	61	98	25	15	75	33	36	40
Selenium	M	2455	mg/kg	0.25	0.95	1.0	0.75	1.1	0.64	1.4	0.69	1.1
Vanadium	U	2455	mg/kg	0.5	18	23	35	28	20	33	45	90
Zinc	M	2455	mg/kg	0.50	97	77	130	40	130	63	75	120
Organic Matter	M	2625	%	0.40	10	2.1	31	9.5	19	6.0	19	12
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	55	< 1.0	30	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	11	< 1.0	560	< 1.0	300	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	85	< 1.0	670	< 1.0	370	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	24	< 1.0	250	< 1.0	1800	120	1200	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	24	< 5.0	340	< 5.0	3100	120	1900	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	71	< 1.0	41	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-21381	22-21381	22-21381	22-21381	22-21381	22-21381	22-21381	22-21381
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1444570	1444571	1444572	1444573	1444574	1444575	1444576	1444577
			Client Sample ID.:		AX33-1	AX33-2	AW33-1	AW33-2	AV33-1	AV33-2	AV33-3	AV33-4
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.80	1.60	0.90	1.80	0.60	3.00	2.20	0.10
			Date Sampled:		07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022	07-Jun-2022
			Asbestos Lab:		DURHAM		DURHAM		DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	7.3	< 1.0	< 1.0	< 1.0	91	< 1.0	33	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	190	< 1.0	780	< 1.0	120	< 1.0	73	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	200	< 5.0	780	< 5.0	280	< 5.0	150	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	230	< 10	1100	< 10	3400	120	2000	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	1.3	< 0.10	< 0.10	< 0.10	< 0.10	2.7
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	0.35	< 0.10	< 0.10	< 0.10	< 0.10	0.72
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.23
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.30	< 0.10	< 0.10	< 0.10	< 0.10	0.55
Phenanthrene	M	2800	mg/kg	0.10	1.6	0.25	2.2	0.45	0.23	< 0.10	0.86	2.8
Anthracene	M	2800	mg/kg	0.10	2.1	0.11	0.87	< 0.10	0.23	< 0.10	0.15	0.80
Fluoranthene	M	2800	mg/kg	0.10	12	0.50	3.0	0.47	1.0	0.23	0.68	5.0
Pyrene	M	2800	mg/kg	0.10	11	0.62	2.2	0.36	0.78	0.19	0.64	3.7
Benzo[a]anthracene	M	2800	mg/kg	0.10	8.1	0.36	1.4	0.20	< 0.10	< 0.10	0.30	2.9
Chrysene	M	2800	mg/kg	0.10	8.8	0.42	1.7	0.19	< 0.10	< 0.10	0.40	2.2
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	18	0.79	2.5	< 0.10	< 0.10	< 0.10	0.44	4.0
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	6.5	0.22	0.80	< 0.10	< 0.10	< 0.10	0.13	1.4
Benzo[a]pyrene	M	2800	mg/kg	0.10	15	0.53	1.4	< 0.10	< 0.10	< 0.10	0.35	3.1
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	16	0.71	1.2	< 0.10	< 0.10	< 0.10	0.21	2.7
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	2.2	0.11	0.18	< 0.10	< 0.10	< 0.10	< 0.10	0.65
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	13	0.57	1.2	< 0.10	< 0.10	< 0.10	0.22	2.4
Total Of 16 PAH's	N	2800	mg/kg	2.0	110	5.2	21	< 2.0	2.3	< 2.0	4.4	36
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-24801-1
Initial Date of Issue:	07-Jul-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	11
Turnaround (Wkdays):	5
Date Approved:	07-Jul-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	01-Jul-2022
Date Instructed:	01-Jul-2022
Results Due:	07-Jul-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1459497	1459498	1459499	1459500	1459501	1459502	1459503	1459504	1459505
		Client Sample ID.:			AX32-1	AX32-2	AX32-3	AM32-1	AM32-2	AN33-1	AN33-2	AN32-1	AN32-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.3	1.3	2.3	0.5	1.5	0.3	1.3	0.3	1.0
		Date Sampled:			29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	3.2	12	11	5.8	5.1	9.4	2.6	1.4	10
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Black	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones and Roots	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Clay	Sand	Sand	Sand	Sand	Sand	Clay
pH	M	2010		4.0	9.2	11.8	8.8	11.0	9.5	11.1	10.3	8.9	10.0
Cyanide (Total)	M	2300	mg/kg	0.50	0.50	< 0.50	< 0.50	0.50	0.90	0.90	1.1	1.6	1.7
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	59	< 0.50	< 0.50	1.5	0.93	3.9	0.68	0.86	1.6
Iron (Total)	N	2430	mg/kg	100	22000	18000	17000	29000	28000	30000	11000	32000	28000
Arsenic	M	2455	mg/kg	0.5	110	3.6	13	8.9	1.8	6.3	1.5	7.3	6.4
Cadmium	M	2455	mg/kg	0.10	0.94	0.11	0.31	0.19	0.20	0.27	0.23	0.39	0.24
Chromium	M	2455	mg/kg	0.5	80	11	23	120	230	48	10	700	63
Manganese	M	2455	mg/kg	1.0	54000	2200	8600	120000	12000	3300	790	48000	4600
Copper	M	2455	mg/kg	0.50	55	8.4	39	22	12	14	2.8	23	15
Mercury	M	2455	mg/kg	0.05	0.18	< 0.05	0.06	0.07	0.13	0.07	< 0.05	0.19	0.08
Nickel	M	2455	mg/kg	0.50	56	7.4	8.7	36	4.5	21	5.3	16	16
Lead	M	2455	mg/kg	0.50	64	21	24	25	34	34	9.4	41	28
Selenium	M	2455	mg/kg	0.25	1.7	1.7	2.0	0.64	1.9	0.90	0.33	0.50	0.53
Vanadium	U	2455	mg/kg	0.5	100	26	47	98	220	49	11	660	67
Zinc	M	2455	mg/kg	0.50	320	45	49	99	60	90	20	70	66
Organic Matter	M	2625	%	0.40	3.8	21	11	64	11	11	5.7	1.9	2.6
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	330	84	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	1300	400	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	97	4900	1600	18	20	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	99	5200	1600	8.9	17	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	480	6800	2000	58	250	< 1.0	150	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	210	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	670	19000	5700	85	300	< 5.0	150	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	240	30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	710	150	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	3200	840	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801	22-24801
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1459497	1459498	1459499	1459500	1459501	1459502	1459503	1459504	1459505
					Client Sample ID.:	AX32-1	AX32-2	AX32-3	AM32-1	AM32-2	AN33-1	AN33-2	AN32-1	AN32-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.3	1.3	2.3	0.5	1.5	0.3	1.3	0.3	1.0
					Date Sampled:	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022	29-Jun-2022
					Asbestos Lab:	DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	3100	780	5.6	< 1.0	5.7	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0		27	2600	680	200	90	71	33	36	41
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	55	< 1.0	5.6	6.7	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		27	9800	2500	210	97	77	33	36	41
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		700	29000	8100	290	400	77	190	36	41
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0		< 1.0	3.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0		< 1.0	18	5.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	27	10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		< 0.10	5.0	< 0.10	2.9	0.35	0.76	< 0.10	< 0.10	0.28
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10	7.8	< 0.10	1.4	0.11	0.26	< 0.10	< 0.10	0.24
Acenaphthene	M	2800	mg/kg	0.10		< 0.10	25	< 0.10	0.31	0.15	0.13	< 0.10	< 0.10	0.12
Fluorene	M	2800	mg/kg	0.10		< 0.10	13	< 0.10	0.89	0.12	0.18	< 0.10	< 0.10	0.19
Phenanthrene	M	2800	mg/kg	0.10		1.1	110	30	8.1	1.1	1.1	< 0.10	0.84	0.92
Anthracene	M	2800	mg/kg	0.10		0.20	21	4.2	2.5	0.23	0.26	< 0.10	0.21	0.32
Fluoranthene	M	2800	mg/kg	0.10		0.72	68	20	20	1.6	2.0	< 0.10	0.95	1.5
Pyrene	M	2800	mg/kg	0.10		0.69	51	14	14	1.3	1.6	< 0.10	0.88	1.6
Benzo[a]anthracene	M	2800	mg/kg	0.10		< 0.10	20	5.1	9.3	0.90	1.1	< 0.10	0.56	1.0
Chrysene	M	2800	mg/kg	0.10		< 0.10	18	4.8	9.2	0.86	1.0	< 0.10	0.65	0.92
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		< 0.10	17	4.6	12	1.4	1.8	< 0.10	< 0.10	1.5
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		< 0.10	6.1	1.8	4.1	0.39	0.66	< 0.10	< 0.10	0.50
Benzo[a]pyrene	M	2800	mg/kg	0.10		< 0.10	13	3.3	8.2	0.91	1.2	< 0.10	< 0.10	0.94
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		< 0.10	6.5	1.7	7.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		< 0.10	1.5	0.34	1.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		< 0.10	6.0	1.8	6.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0		2.7	390	92	110	9.4	12	< 2.0	4.1	10
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	0.75	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	0.75	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-24801	22-24801
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1459506	1459507
		Client Sample ID.:			AX31-1	AX31-2
		Sample Type:			SOIL	SOIL
		Top Depth (m):			0.5	1.8
		Date Sampled:			29-Jun-2022	29-Jun-2022
		Asbestos Lab:				DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type	U	2192		N/A		-
Asbestos Identification	U	2192		N/A		No Asbestos Detected
Moisture	N	2030	%	0.020	5.1	8.8
Soil Colour	N	2040		N/A	Brown	Black
Other Material	N	2040		N/A	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand
pH	M	2010		4.0	11.4	10.5
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	1.3
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.86	1.2
Iron (Total)	N	2430	mg/kg	100	28000	30000
Arsenic	M	2455	mg/kg	0.5	5.3	7.9
Cadmium	M	2455	mg/kg	0.10	0.50	0.66
Chromium	M	2455	mg/kg	0.5	18	83
Manganese	M	2455	mg/kg	1.0	2900	4000
Copper	M	2455	mg/kg	0.50	11	21
Mercury	M	2455	mg/kg	0.05	0.05	0.05
Nickel	M	2455	mg/kg	0.50	9.0	10
Lead	M	2455	mg/kg	0.50	62	110
Selenium	M	2455	mg/kg	0.25	0.98	1.9
Vanadium	U	2455	mg/kg	0.5	29	190
Zinc	M	2455	mg/kg	0.50	190	230
Organic Matter	M	2625	%	0.40	28	14
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	9.9	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	68	6.9
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	430	78
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	640	99
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	3400	270
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	4600	450
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	110	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-24801	22-24801
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1459506	1459507
			Client Sample ID.:		AX31-1	AX31-2
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.5	1.8
			Date Sampled:		29-Jun-2022	29-Jun-2022
			Asbestos Lab:			DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	75	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	4400	76
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	2000	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	6500	76
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	11000	530
Benzene	M	2760	µg/kg	1.0	1.6	1.9
Toluene	M	2760	µg/kg	1.0	1.2	1.8
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	0.55
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	0.17
Fluorene	M	2800	mg/kg	0.10	< 0.10	0.44
Phenanthrene	M	2800	mg/kg	0.10	2.0	1.4
Anthracene	M	2800	mg/kg	0.10	0.28	0.30
Fluoranthene	M	2800	mg/kg	0.10	2.1	1.7
Pyrene	M	2800	mg/kg	0.10	1.7	1.1
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.72	0.54
Chrysene	M	2800	mg/kg	0.10	0.89	0.35
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	1.2	0.65
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.37	0.25
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.68	0.41
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	9.9	7.9
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-25621-1
Initial Date of Issue:	12-Jul-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	1
Turnaround (Wkdays):	5
Date Approved:	12-Jul-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	07-Jul-2022
Date Instructed:	07-Jul-2022
Results Due:	13-Jul-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-25621
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1463371
			Client Sample ID.:		AW31-1
			Sample Type:		SOIL
			Top Depth (m):		0.2
			Bottom Depth (m):		0.2
			Date Sampled:		05-Jun-2022
			Asbestos Lab:		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
Moisture	N	2030	%	0.020	7.2
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Stones
Soil Texture	N	2040		N/A	Sand
pH	M	2010		4.0	[B] 10.0
Cyanide (Total)	M	2300	mg/kg	0.50	[B] 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	[B] 30
Iron (Total)	N	2430	mg/kg	100	[B] 22000
Arsenic	M	2455	mg/kg	0.5	13
Cadmium	M	2455	mg/kg	0.10	0.23
Chromium	M	2455	mg/kg	0.5	47
Manganese	M	2455	mg/kg	1.0	4100
Copper	M	2455	mg/kg	0.50	16
Mercury	M	2455	mg/kg	0.05	0.05
Nickel	M	2455	mg/kg	0.50	17
Lead	M	2455	mg/kg	0.50	31
Selenium	M	2455	mg/kg	0.25	0.64
Vanadium	U	2455	mg/kg	0.5	45
Zinc	M	2455	mg/kg	0.50	90
Organic Matter	M	2625	%	0.40	[B] 50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[B] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[B] < 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	[B] < 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	[B] < 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	[B] < 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	[B] < 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	[B] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[B] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[B] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[B] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[B] < 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	[B] < 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	[B] < 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	[B] < 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-25621
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1463371
			Client Sample ID.:		AW31-1
			Sample Type:		SOIL
			Top Depth (m):		0.2
			Bottom Depth (m):		0.2
			Date Sampled:		05-Jun-2022
			Asbestos Lab:		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[B] < 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	[B] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[B] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[B] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[B] < 10
Benzene	M	2760	µg/kg	1.0	[B] < 1.0
Toluene	M	2760	µg/kg	1.0	[B] < 1.0
Ethylbenzene	M	2760	µg/kg	1.0	[B] < 1.0
m & p-Xylene	M	2760	µg/kg	1.0	[B] < 1.0
o-Xylene	M	2760	µg/kg	1.0	[B] < 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	[B] < 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	1.2
Anthracene	M	2800	mg/kg	0.10	0.24
Fluoranthene	M	2800	mg/kg	0.10	1.6
Pyrene	M	2800	mg/kg	0.10	1.3
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.86
Chrysene	M	2800	mg/kg	0.10	0.96
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	1.6
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.60
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.98
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	9.3
Resorcinol	M	2920	mg/kg	0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1463371		AW31-1		05-Jun-2022	B	Amber Glass 250ml
1463371		AW31-1		05-Jun-2022	B	Amber Glass 60ml
1463371		AW31-1		05-Jun-2022	B	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	22-26760-2		
Initial Date of Issue:	22-Jul-2022	**Date of Re-Issue:**	25-Jul-2022
Client	Rodgers Leask Environmental		
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ		
Contact(s):	Caitlin Davies Chris Wilson David McCarroll		
Project	P18-669		
Quotation No.:		**Date Received:**	15-Jul-2022
Order No.:	PO115623	**Date Instructed:**	15-Jul-2022
No. of Samples:	8		
Turnaround (Wkdays):	10	**Results Due:**	28-Jul-2022
Date Approved:	25-Jul-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-26760	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760
Quotation No.:		**Chemtest Sample ID.:**			1468353	1468354	1468355	1468356	1468357	1468358	1468359	1468360
		Client Sample ID.:			3CP2-3	AV31-1	AV32-1	AW32-1	AO33-1	AO32-1	AO32-2	AO28-C
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.20	0.70	1.00	1.00	1.70	2.00	2.90	
		Bottom Depth (m):			0.20	0.70	1.00	1.00	1.70	2.00	2.90	
		Date Sampled:			13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022
		Asbestos Lab:			DURHAM	DURHAM	DURHAM			DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-	-	-			Fibres/Clumps		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected			Amosite		No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001						0.005		
Total Asbestos	U	2192	%	0.001						0.005		
Moisture	N	2030	%	0.020	9.2	2.9	4.1	0.82	1.3	26	8.7	26
Soil Colour	N	2040		N/A	Brown	Black	Brown	Brown	Grey	Grey	Brown	Grey
Other Material	N	2040		N/A	Stones	Stones	Stones	Roots and Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Gravel	Sand	Gravel	Clay
pH	M	2010		4.0	10.1	9.6	10.1	9.0	10.3	8.9	10.0	8.5
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	5.1	< 0.50	< 0.50	1.7	3.4	11	5.1	180
Iron (Total)	N	2430	mg/kg	100	57000	110000	83000	91000	31000	35000	85000	28000
Arsenic	M	2455	mg/kg	0.5	6.2	8.2	17	280	9.1	19	9.6	13
Cadmium	M	2455	mg/kg	0.10	0.25	0.14	0.56	1.5	0.20	0.16	0.77	< 0.10
Chromium	M	2455	mg/kg	0.5	200	28	43	57	31	24	67	29
Manganese	M	2455	mg/kg	1.0	11000	2200	15000	76000	3300	2800	4200	380
Copper	M	2455	mg/kg	0.50	17	13	26	200	24	23	21	9.6
Mercury	M	2455	mg/kg	0.05	0.14	< 0.05	0.05	0.24	0.05	0.13	0.16	< 0.05
Nickel	M	2455	mg/kg	0.50	14	11	24	270	13	20	19	28
Lead	M	2455	mg/kg	0.50	44	44	55	100	24	35	150	20
Selenium	M	2455	mg/kg	0.25	1.8	1.2	0.96	1.0	0.85	1.3	1.3	0.85
Vanadium	U	2455	mg/kg	0.5	410	40	80	160	55	46	98	36
Zinc	M	2455	mg/kg	0.50	110	74	130	270	55	72	330	72
Organic Matter	M	2625	%	0.40	5.3	67	47	41	9.1	34	24	4.1
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	8.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	19	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	28	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-26760	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760
Quotation No.:		**Chemtest Sample ID.:**			1468353	1468354	1468355	1468356	1468357	1468358	1468359	1468360
		Client Sample ID.:			3CP2-3	AV31-1	AV32-1	AW32-1	AO33-1	AO32-1	AO32-2	AO28-C
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.20	0.70	1.00	1.00	1.70	2.00	2.90	
		Bottom Depth (m):			0.20	0.70	1.00	1.00	1.70	2.00	2.90	
		Date Sampled:			13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022
		Asbestos Lab:			DURHAM	DURHAM	DURHAM			DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	28	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	4.4	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.87	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.15	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.50	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	2.1	0.86	1.4	3.2	0.75	0.55	1.5	< 0.10
Anthracene	M	2800	mg/kg	0.10	0.48	0.16	0.26	0.88	0.19	0.19	0.39	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	2.4	0.64	0.92	5.4	1.0	0.46	1.8	< 0.10
Pyrene	M	2800	mg/kg	0.10	1.7	0.56	0.75	3.7	0.75	0.40	1.5	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.10	1.1	0.42	0.60	2.9	0.54	< 0.10	0.69	< 0.10
Chrysene	M	2800	mg/kg	0.10	0.93	0.32	0.65	2.7	0.43	< 0.10	0.94	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	1.6	0.50	0.77	4.2	0.80	< 0.10	1.1	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.50	0.16	0.21	1.4	0.30	< 0.10	0.52	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	1.1	0.38	0.49	2.9	0.49	< 0.10	0.67	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.45	2.4	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	0.17	0.49	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.45	2.1	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	12	4.0	7.1	38	5.3	< 2.0	9.1	< 2.0
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	0.092	< 0.020	0.88	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760	22-26760
Quotation No.:					**Chemtest Sample ID.:**	1468353	1468354	1468355	1468356	1468357	1468358	1468359	1468360
					Client Sample ID.:	3CP2-3	AV31-1	AV32-1	AW32-1	AO33-1	AO32-1	AO32-2	AO28-C
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.20	0.70	1.00	1.00	1.70	2.00	2.90	
					Bottom Depth (m):	0.20	0.70	1.00	1.00	1.70	2.00	2.90	
					Date Sampled:	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022	13-Jul-2022
					Asbestos Lab:	DURHAM	DURHAM	DURHAM			DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	0.88	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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All results are expressed on a dry weight basis

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Eurofins Chemtest Ltd
Depot Road
Newmarket
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Final Report

Report No.:	22-29945-1
Initial Date of Issue:	16-Aug-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Chris Wilson Caitlin Davies David McCarroll
Project	P18-669
Quotation No.:	Q22-28243
Order No.:	PO115623
No. of Samples:	5
Turnaround (Wkdays):	5
Date Approved:	15-Aug-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	08-Aug-2022
Date Instructed:	08-Aug-2022
Results Due:	12-Aug-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-29945	22-29945	22-29945	22-29945	22-29945
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1482829	1482830	1482831	1482832	1482833
		Client Sample ID.:			AR32-1	AS32-1	AT32-1	AU29-1	AV30-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.5	1.3	1.3	0.6	1.0
		Date Sampled:			04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
ACM Type	U	2192		N/A	-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	7.6	15	11	6.9	9.2
Soil Colour	N	2040		N/A	Black	Black	Black	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Gravel	Clay	Clay	Loam	Gravel
pH	M	2010		4.0	10.1	9.8	9.1	9.5	9.6
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	1.4	0.80	0.80
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	1.5	8.6	27	33	12
Iron (Total)	N	2430	mg/kg	100	39000	42000	88000	81000	92000
Arsenic	M	2455	mg/kg	0.5	7.7	10	11	12	28
Cadmium	M	2455	mg/kg	0.10	< 0.10	0.12	2.1	12	2.4
Chromium	M	2455	mg/kg	0.5	26	25	32	43	79
Manganese	M	2455	mg/kg	1.0	1600	1700	2800	3300	9500
Copper	M	2455	mg/kg	0.50	21	15	29	29	27
Mercury	M	2455	mg/kg	0.05	< 0.05	0.07	0.13	0.13	0.15
Nickel	M	2455	mg/kg	0.50	11	15	22	22	41
Lead	M	2455	mg/kg	0.50	13	17	200	360	120
Selenium	M	2455	mg/kg	0.25	0.96	1.1	1.6	1.6	1.2
Vanadium	U	2455	mg/kg	0.5	37	43	48	52	78
Zinc	M	2455	mg/kg	0.50	30	39	380	690	390
Organic Matter	M	2625	%	0.40	16	17	24	28	26
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.6

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-29945	22-29945	22-29945	22-29945	22-29945
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1482829	1482830	1482831	1482832	1482833
		Client Sample ID.:			AR32-1	AS32-1	AT32-1	AU29-1	AV30-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.5	1.3	1.3	0.6	1.0
		Date Sampled:			04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	120
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	130
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	130
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.73	0.75	< 0.10
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.15	0.20	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	0.39	< 0.10	0.57	0.47	4.0
Pyrene	M	2800	mg/kg	0.10	0.39	< 0.10	0.44	0.54	3.2
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	2.6
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	2.0
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	6.1
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.7
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	4.2
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	24
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-31543-1
Initial Date of Issue:	23-Aug-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q22-28243
Order No.:	PO115623
No. of Samples:	17
Turnaround (Wkdays):	5
Date Approved:	23-Aug-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	18-Aug-2022
Date Instructed:	18-Aug-2022
Results Due:	24-Aug-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1490065	1490066	1490067	1490068	1490069	1490070	1490071	1490072	1490073
Order No.: PO115623		Client Sample Ref.:			AQ32-1	AQ23-2	R150-1	R150-2	AU32-1	3CP2-4	3CP2-5	3CP2-6	3CP2-7
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.50	1.00			0.30				
		Date Sampled:			16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM	DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-	-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	0.55	2.3	4.2	2.0	1.9	9.0	9.9	7.8	7.2
Soil Colour	N	2040		N/A	Grey	Brown	Grey	Grey	Grey	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones and Roots	Stones	Stones and Roots	Stones	Stones and Roots	Stones
Soil Texture	N	2040		N/A	Gravel	Gravel	Gravel	Gravel	Gravel	Clay	Loam	Clay	Clay
pH	M	2010		4.0	7.8	7.8	7.8	7.6	7.6	7.6	7.6	7.8	9.0
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	0.50	< 0.50	1.0	0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	1.0	6.7	3.0	7.6	34	2.2	0.62	4.7	1.3
Iron (Total)	N	2430	mg/kg	100	80000	58000	31000	65000	53000	110000	53000	25000	78000
Arsenic	M	2455	mg/kg	0.5	4.3	5.7	4.8	6.8	24	9.2	3.0	7.2	7.7
Cadmium	M	2455	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	5.4	< 0.10	< 0.10	< 0.10	< 0.10
Chromium	M	2455	mg/kg	0.5	21	28	200	33	190	55	22	110	130
Manganese	M	2455	mg/kg	1.0	2400	1100	13000	2100	6400	2600	1400	13000	7700
Copper	M	2455	mg/kg	0.50	9.4	9.1	14	15	130	22	8.3	17	16
Mercury	M	2455	mg/kg	0.05	< 0.05	< 0.05	< 0.05	0.05	8.7	0.13	< 0.05	0.06	0.08
Nickel	M	2455	mg/kg	0.50	14	18	12	16	41	17	9.9	15	16
Lead	M	2455	mg/kg	0.50	12	28	63	67	72	69	64	36	44
Selenium	M	2455	mg/kg	0.25	< 0.25	< 0.25	< 0.25	0.66	0.40	< 0.25	< 0.25	< 0.25	0.30
Vanadium	U	2455	mg/kg	0.5	58	36	340	55	200	79	44	320	240
Zinc	M	2455	mg/kg	0.50	35	100	210	88	820	400	51	98	210
Organic Matter	M	2625	%	0.40	5.6	1.8	10	11	12	12	6.9	8.5	3.3
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1490065	1490066	1490067	1490068	1490069	1490070	1490071	1490072	1490073
Order No.: PO115623		Client Sample Ref.:			AQ32-1	AQ23-2	R150-1	R150-2	AU32-1	3CP2-4	3CP2-5	3CP2-6	3CP2-7
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.50	1.00			0.30				
		Date Sampled:			16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM	DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	17	< 1.0	9.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	190	< 1.0	210
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	210	< 5.0	220
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	210	< 10	220
Benzene	M	2760	µg/kg	1.0	5.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	2.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	1.8	< 0.10	< 0.10	< 0.10	< 0.10	2.4	2.5	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.10	0.69	< 0.10	< 0.10	< 0.10	< 0.10	0.83	0.76	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	5.6	< 0.10	< 0.10	1.4	< 0.10	5.4	4.1	0.53	1.1
Pyrene	M	2800	mg/kg	0.10	3.8	< 0.10	< 0.10	1.1	< 0.10	4.4	3.2	0.45	1.1
Benzo[a]anthracene	M	2800	mg/kg	0.10	2.2	< 0.10	< 0.10	0.57	< 0.10	3.0	2.1	< 0.10	0.66
Chrysene	M	2800	mg/kg	0.10	2.0	< 0.10	< 0.10	0.58	< 0.10	3.6	2.0	< 0.10	0.58
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	3.0	< 0.10	< 0.10	< 0.10	< 0.10	5.0	3.4	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.98	< 0.10	< 0.10	< 0.10	< 0.10	1.8	1.4	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	1.6	< 0.10	< 0.10	< 0.10	< 0.10	3.3	2.6	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	22	< 2.0	< 2.0	3.7	< 2.0	30	22	< 2.0	3.4
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1490074	1490075	1490076	1490077	1490078	1490079	1490080	1490081
Order No.: PO115623		Client Sample Ref.:			R174-1	R174-2	R174-3	R181-1	R172-1	R172-2	AS27-C	AJ22-C
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):										
		Date Sampled:			16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022
		Asbestos Lab:			DURHAM		DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-		-	-	-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	0.40	0.92	2.2	0.75	0.84	0.90	15	10
Soil Colour	N	2040		N/A	Grey	Brown	Brown	Brown	Brown	Brown	Brown	Grey
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	None	None
Soil Texture	N	2040		N/A	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Clay	Clay
pH	M	2010		4.0	8.5	8.6	8.3	8.2	8.2	6.0	8.2	8.2
Cyanide (Total)	M	2300	mg/kg	0.50	0.60	1.3	1.3	1.6	< 0.50	0.80	< 0.50	1.4
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.51	12	4.3	1.4	1.2	3.8	38	36
Iron (Total)	N	2430	mg/kg	100	93000	70000	88000	65000	94000	69000	42000	25000
Arsenic	M	2455	mg/kg	0.5	6.3	5.5	5.1	18	6.9	10	3.3	3.4
Cadmium	M	2455	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chromium	M	2455	mg/kg	0.5	37	21	47	67	48	29	12	7.4
Manganese	M	2455	mg/kg	1.0	2100	1300	3400	3100	3500	1500	370	830
Copper	M	2455	mg/kg	0.50	12	13	12	11	17	8.0	4.3	11
Mercury	M	2455	mg/kg	0.05	0.10	0.07	0.05	0.14	0.37	< 0.05	< 0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	14	12	14	23	17	27	11	8.5
Lead	M	2455	mg/kg	0.50	33	35	37	64	52	22	11	49
Selenium	M	2455	mg/kg	0.25	0.26	0.37	< 0.25	0.37	0.80	< 0.25	< 0.25	< 0.25
Vanadium	U	2455	mg/kg	0.5	47	30	100	100	78	38	19	8.5
Zinc	M	2455	mg/kg	0.50	89	95	120	170	170	76	31	36
Organic Matter	M	2625	%	0.40	14	11	16	17	20	12	0.67	0.97
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543	22-31543
Quotation No.: Q22-28243			**Chemtest Sample ID.:**		1490074	1490075	1490076	1490077	1490078	1490079	1490080	1490081
Order No.: PO115623			Client Sample Ref.:		R174-1	R174-2	R174-3	R181-1	R172-1	R172-2	AS27-C	AJ22-C
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):									
			Date Sampled:		16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022	16-Aug-2022
			Asbestos Lab:		DURHAM		DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	4.3	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	32	51	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	32	55	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	32	55	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	11	9.1	7.8	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	3.7	< 0.10	6.7	< 0.10	2.3	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	0.70	< 0.10	1.3	< 0.10	0.37	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	0.11	< 0.10	0.11	< 0.10	0.11	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	0.35	< 0.10	0.67	< 0.10	0.39	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	1.2	1.7	1.1	3.7	1.8	2.0	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.10	0.27	0.90	0.36	1.5	0.47	0.52	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	1.3	4.9	5.4	8.8	2.9	3.1	< 0.10	< 0.10
Pyrene	M	2800	mg/kg	0.10	1.0	3.6	5.3	6.6	2.1	2.2	< 0.10	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.61	3.1	3.3	4.8	1.3	1.7	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.10	0.57	3.4	3.4	5.2	1.4	1.5	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.79	4.1	4.7	6.9	1.6	2.5	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.18	1.5	1.6	2.3	0.42	0.86	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.54	3.5	4.7	6.0	1.8	1.9	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	2.7	2.9	4.1	1.2	1.8	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	0.45	0.46	0.80	0.27	0.36	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	2.5	2.2	3.5	1.0	1.6	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	6.5	37	35	63	16	23	< 2.0	< 2.0
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

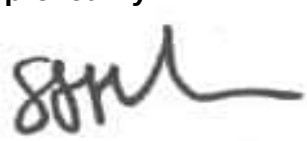
If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	22-32672-2		
Initial Date of Issue:	05-Sep-2022	**Date of Re-Issue:**	12-Sep-2022
Client	Rodgers Leask Environmental		
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ		
Contact(s):	Caitlin Davies Chris Wilson David McCarroll		
Project	P18-669		
Quotation No.:	Q22-28243	**Date Received:**	26-Aug-2022
Order No.:	PO115623	**Date Instructed:**	26-Aug-2022
No. of Samples:	17		
Turnaround (Wkdays):	11	**Results Due:**	12-Sep-2022
Date Approved:	12-Sep-2022		

Approved By:



Details: Stuart Henderson, Technical Manager

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1494904	1494905	1494906	1494907	1494908	1494909	1494910	1494911	1494912
Order No.: PO115623		Client Sample Ref.:			A034-1	AN34-1	R16-1	S16-1	S18-1	R17-1	R17-2	S17-1	S17-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.50	1.00	1.20	0.50	1.00	0.50	2.50	0.60	1.30
		Date Sampled:			24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022
		Asbestos Lab:			DURHAM		DURHAM	DURHAM	DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-	-	-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001									
Total Asbestos	U	2192	%	0.001									
Moisture	N	2030	%	0.020	8.1	5.1	6.6	9.7	7.7	15	46	6.9	9.0
Soil Colour	N	2040		N/A	Grey	Grey	Black	Brown	Brown	Brown	Grey	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones and unknown	Stones and Roots	Stones	Stones	Stones and Roots	Stones and Roots
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.1	10.3	11.4	10.5	9.3	10.4	10.4	9.5	9.7
Cyanide (Total)	M	2300	mg/kg	0.50	1.2	3.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	< 0.50	1.3	< 0.50	0.78	44	1.6	1.5	3.0	2.2
Iron (Total)	N	2430	mg/kg	100	5700	5400	43000	55000	16000	16000	11000	28000	32000
Arsenic	M	2455	mg/kg	0.5	2.4	3.2	2.4	14	6.4	6.3	4.8	8.4	4.6
Cadmium	M	2455	mg/kg	0.10	< 0.10	0.10	0.14	0.31	0.17	< 0.10	< 0.10	0.32	0.25
Chromium	M	2455	mg/kg	0.5	8.6	8.9	140	21	17	17	17	20	30
Manganese	M	2455	mg/kg	1.0	3400	1000	6100	1600	790	820	600	1200	2100
Copper	M	2455	mg/kg	0.50	4.6	8.6	11	43	16	16	9.0	23	13
Mercury	M	2455	mg/kg	0.05	< 0.05	< 0.05	0.08	0.07	0.05	0.11	< 0.05	0.11	0.09
Nickel	M	2455	mg/kg	0.50	2.6	4.8	6.4	39	9.9	9.4	8.2	15	10
Lead	M	2455	mg/kg	0.50	5.6	19	22	40	24	37	12	50	36
Selenium	M	2455	mg/kg	0.25	3.2	1.5	0.52	0.45	0.53	0.48	0.40	0.76	0.59
Vanadium	U	2455	mg/kg	0.5	30	17	120	19	21	23	17	30	42
Zinc	M	2455	mg/kg	0.50	16	37	65	68	62	38	24	120	91
Organic Matter	M	2625	%	0.40	3.0	9.8	11	58	15	13	20	25	28
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1494904	1494905	1494906	1494907	1494908	1494909	1494910	1494911	1494912
Order No.: PO115623		Client Sample Ref.:			A034-1	AN34-1	R16-1	S16-1	S18-1	R17-1	R17-2	S17-1	S17-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.50	1.00	1.20	0.50	1.00	0.50	2.50	0.60	1.30
		Date Sampled:			24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022
		Asbestos Lab:			DURHAM		DURHAM	DURHAM	DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	9.0	4.3	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	27	26	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	36	30	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	36	30	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	14	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	9.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	4.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	2.7	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	0.25	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.30	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.55	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	3.5	2.3	2.0	0.58	< 0.10	1.2	0.70
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.56	0.45	0.47	0.13	< 0.10	0.23	0.20
Fluoranthene	M	2800	mg/kg	0.10	0.30	0.20	3.4	2.6	2.3	0.54	0.27	1.4	0.84
Pyrene	M	2800	mg/kg	0.10	0.19	0.24	2.6	1.9	1.5	0.44	0.21	1.0	0.68
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	1.8	1.3	1.1	0.36	< 0.10	0.78	< 0.10
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10	2.1	1.3	0.88	0.33	< 0.10	0.70	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	2.5	1.8	1.4	< 0.10	< 0.10	1.0	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.79	0.45	0.43	< 0.10	< 0.10	0.26	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	1.9	1.4	1.2	< 0.10	< 0.10	0.75	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	1.1	< 0.10	0.87	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	0.34	< 0.10	0.17	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	1.1	< 0.10	0.78	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	26	14	13	2.4	< 2.0	7.3	2.4
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1494913	1494914	1494915	1494916	1494917	1494918	1494919	1494920
Order No.: PO115623		Client Sample Ref.:			T17-1	T17-2	S13-1	R13-1	R13-2	S12-1	R140-1	R140-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.20	2.00	1.10	0.70	2.20	1.00		
		Date Sampled:			24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022
		Asbestos Lab:				DURHAM	DURHAM	DURHAM		DURHAM	COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A		-	-	-		-	Fibres/Clumps	
Asbestos Identification	U	2192		N/A		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	Chrysotile	
Asbestos by Gravimetry	U	2192	%	0.001							0.002	
Total Asbestos	U	2192	%	0.001							0.002	
Moisture	N	2030	%	0.020	10	11	12	9.1	9.1	5.8	7.0	6.1
Soil Colour	N	2040		N/A	Black	Brown	Black	Brown	Brown	Black	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.6	10.3	9.2	11.4	11.4	11.2	8.3	8.7
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	0.50	0.60	2.6	0.80	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	< 0.50	1.3	4.7	< 0.50	< 0.50	1.6	< 0.50	1.5
Iron (Total)	N	2430	mg/kg	100	30000	16000	15000	72000	84000	25000	61000	41000
Arsenic	M	2455	mg/kg	0.5	2.0	3.0	2.6	2.9	4.3	4.7	9.0	11
Cadmium	M	2455	mg/kg	0.10	0.10	< 0.10	0.10	0.13	0.29	0.27	1.4	0.69
Chromium	M	2455	mg/kg	0.5	79	32	29	290	210	69	62	88
Manganese	M	2455	mg/kg	1.0	5100	2300	1700	17000	14000	4900	4900	4400
Copper	M	2455	mg/kg	0.50	11	11	9.8	14	17	13	34	37
Mercury	M	2455	mg/kg	0.05	0.05	0.05	< 0.05	< 0.05	0.06	0.07	0.51	0.27
Nickel	M	2455	mg/kg	0.50	5.1	7.8	6.5	6.8	11	7.9	16	28
Lead	M	2455	mg/kg	0.50	23	14	72	26	56	45	180	150
Selenium	M	2455	mg/kg	0.25	0.99	0.61	1.0	0.31	0.60	0.98	1.6	1.8
Vanadium	U	2455	mg/kg	0.5	78	38	32	280	220	120	100	95
Zinc	M	2455	mg/kg	0.50	56	38	160	67	150	110	390	260
Organic Matter	M	2625	%	0.40	42	4.6	100	31	12	24	19	11
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	23	< 1.0	< 1.0	< 1.0	29	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	320	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	89	< 1.0	69	4400	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	23	89	< 5.0	69	4800	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672	22-32672
Quotation No.: Q22-28243			**Chemtest Sample ID.:**		1494913	1494914	1494915	1494916	1494917	1494918	1494919	1494920
Order No.: PO115623			Client Sample Ref.:		T17-1	T17-2	S13-1	R13-1	R13-2	S12-1	R140-1	R140-2
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.20	2.00	1.10	0.70	2.20	1.00		
			Date Sampled:		24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022	24-Aug-2022
			Asbestos Lab:			DURHAM	DURHAM	DURHAM		DURHAM	COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	5.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	5.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	5.2	< 1.0	< 1.0	< 1.0	95	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	9.7	19	< 1.0	23	890	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	26	19	< 5.0	23	990	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	48	110	< 10	92	5700	< 10
Benzene	M	2760	µg/kg	1.0	11	< 1.0	< 1.0	4.4	< 1.0	8.2	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	13	< 1.0	< 1.0	4.5	< 1.0	8.3	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	13	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	2.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	4.3	8.2	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.70	1.3	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.23	0.32	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.48	0.77	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	2.8	0.89	5.8	3.9	8.2	8.0	1.1	3.6
Anthracene	M	2800	mg/kg	0.10	0.77	0.28	1.4	1.1	2.2	2.0	0.30	1.1
Fluoranthene	M	2800	mg/kg	0.10	3.4	1.2	5.7	5.3	12	9.9	2.2	4.1
Pyrene	M	2800	mg/kg	0.10	2.5	0.92	4.1	3.8	8.6	7.0	2.8	3.1
Benzo[a]anthracene	M	2800	mg/kg	0.10	1.8	0.53	2.4	2.4	5.3	4.0	1.5	2.6
Chrysene	M	2800	mg/kg	0.10	1.7	0.55	3.3	2.2	6.0	4.7	1.4	2.9
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	2.8	< 0.10	3.5	3.9	6.8	5.2	3.3	4.0
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.93	< 0.10	1.1	1.1	2.2	1.8	1.1	1.3
Benzo[a]pyrene	M	2800	mg/kg	0.10	1.9	< 0.10	2.1	2.6	4.6	3.6	1.8	2.5
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	1.4	< 0.10	1.6	2.0	3.2	2.5	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.63	< 0.10	0.70	0.64	0.57	0.52	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	1.4	< 0.10	1.5	2.0	3.0	2.7	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	22	4.4	33	37	73	52	16	25
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.054	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	0.23	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.10	< 0.020
Total Phenols	M	2920	mg/kg	0.10	0.23	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.16	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-46467-1
Initial Date of Issue:	05-Jan-2023
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Chris Wilson David McCarroll Rebecca Marsden
Project	P18-669
Quotation No.:	Q22-28243
Order No.:	115623
No. of Samples:	9
Turnaround (Wkdays):	10
Date Approved:	05-Jan-2023
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	05-Dec-2022
Date Instructed:	06-Dec-2022
Results Due:	19-Dec-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467
Quotation No.: Q22-28243		**Chemtest Sample ID.:**			1557446	1557447	1557448	1557449	1557450	1557451	1557452	1557453	1557454
		Client Sample ID.:			AN37-1	AN37-2	AM37-1	AM37-2	AM36-1	AL36-1	AL36-2	AM35-1	AM34-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.00	2.00	0.80	2.00	0.80	0.90	2.00	1.70	0.20
		Date Sampled:			01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022
		Asbestos Lab:				COVENTRY		COVENTRY		COVENTRY		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A		-		-		-		-	-
Asbestos Identification	U	2192		N/A		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	17	13	23	3.9	10	6.0	25	30	8.5
Soil Colour	N	2040		N/A	Grey	Brown	Brown	Brown	Brown	Grey	Black	Grey	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones, Roots and Wood	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Clay	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	12.0	11.8	9.4	9.4	8.6	9.4	8.3	8.5	10.8
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.50	< 0.50	< 0.50	< 0.50	1.2
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	< 0.50	0.51	3.4	< 0.50	65	1.7	59	15	1.9
Iron (Total)	N	2430	mg/kg	100	5600	11000	58000	30000	26000	13000	26000	20000	70000
Arsenic	M	2455	mg/kg	0.5	4.2	6.1	16	4.9	18	6.3	49	41	13
Cadmium	M	2455	mg/kg	0.10	0.28	0.19	0.91	0.57	0.37	0.28	0.31	0.16	0.84
Chromium	M	2455	mg/kg	0.5	13	13	72	22	23	11	21	17	160
Manganese	M	2455	mg/kg	1.0	410	1400	2400	840	690	810	490	360	9700
Copper	M	2455	mg/kg	0.50	7.0	14	27	12	60	11	94	37	35
Mercury	M	2455	mg/kg	0.05	< 0.05	< 0.05	0.08	< 0.05	0.59	0.05	0.42	0.17	0.25
Nickel	M	2455	mg/kg	0.50	5.4	13	39	13	37	9.2	43	25	28
Lead	M	2455	mg/kg	0.50	21	27	64	19	85	160	100	33	170
Selenium	M	2455	mg/kg	0.25	0.61	1.8	2.4	0.81	2.7	0.88	6.3	3.1	2.6
Vanadium	U	2455	mg/kg	0.5	13	19	88	19	38	17	47	43	160
Zinc	M	2455	mg/kg	0.50	24	25	170	39	130	48	140	55	370
Aliphatic EPH >C8-C10	M	2690	mg/kg	1.00	15	15	14	15	15	14	14	14	15
Aliphatic VPH >C5-C6	M	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	M	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	M	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C8-C10	M	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	M	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12	M	2690	mg/kg	2.00	3.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.4	2.3	< 2.0
Aliphatic EPH >C12-C16	M	2690	mg/kg	1.00	20	11	3.1	2.8	3.3	4.3	6.4	5.7	5.2
Aliphatic EPH >C16-C21	M	2690	mg/kg	2.00	26	9.3	< 2.0	2.6	< 2.0	48	4.8	4.8	9.9
Aliphatic EPH >C21-C35	M	2690	mg/kg	3.00	43	5.5	< 3.0	38	< 3.0	180	7.9	4.4	66
Aliphatic EPH >C35-C40	N	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	18	< 1.0	7.8	< 1.0	< 1.0	5.1
Total Aliphatic EPH >C10-C35	M	2690	mg/kg	5.00	92	28	7.9	45	6.9	240	21	17	83
Aromatic VPH >C5-C7	M	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	M	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	M	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		Chemtest Job No.:			22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467
Quotation No.: Q22-28243		Chemtest Sample ID.:			1557446	1557447	1557448	1557449	1557450	1557451	1557452	1557453	1557454
		Client Sample ID.:			AN37-1	AN37-2	AM37-1	AM37-2	AM36-1	AL36-1	AL36-2	AM35-1	AM34-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.00	2.00	0.80	2.00	0.80	0.90	2.00	1.70	0.20
		Date Sampled:			01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022
		Asbestos Lab:				COVENTRY		COVENTRY		COVENTRY		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Total Aromatic VPH >C5-C10	M	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12	M	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16	M	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21	N	2690	mg/kg	2.00	2.3	< 2.0	< 2.0	< 2.0	< 2.0	5.8	2.1	2.1	8.1
Aromatic EPH >C21-C35	M	2690	mg/kg	2.00	< 2.0	< 2.0	2.4	< 2.0	< 2.0	7.5	7.7	< 2.0	7.4
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	3.8	< 1.0	< 1.0	1.7	< 1.0	< 1.0
Total Aromatic EPH >C10-C35	M	2690	mg/kg	5.00	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	14	10	< 5.0	17
Total VPH >C5-C10	M	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35	M	2690	mg/kg	10.00	96	30	12	48	< 10	250	32	20	100
Organic Matter	M	2625	%	0.40	15	8.5	5.0	10	14	6.2	36	7.4	7.6
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.19	< 0.10	0.31	< 0.10	1.7
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.41
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.44
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.31	< 0.10	0.45	< 0.10	3.4
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.69
Fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.25	< 0.10	0.47	< 0.10	5.6
Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.20	< 0.10	0.43	< 0.10	4.2
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.31	< 0.10	2.2
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.21	< 0.10	1.9
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	4.1
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.2
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	3.2
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.9
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	2.1
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.2	< 2.0	33
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467	22-46467
Quotation No.: Q22-28243					**Chemtest Sample ID.:**	1557446	1557447	1557448	1557449	1557450	1557451	1557452	1557453	1557454
					Client Sample ID.:	AN37-1	AN37-2	AM37-1	AM37-2	AM36-1	AL36-1	AL36-2	AM35-1	AM34-1
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	2.00	0.80	2.00	0.80	0.90	2.00	1.70	0.20
					Date Sampled:	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022	01-Dec-2022
					Asbestos Lab:		COVENTRY		COVENTRY		COVENTRY		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Rodgers Leask
Office 225
2430/2440
Aztec West
Almondsbury
Bristol
BS32 4QA

Attention: Elliot Thomas

CERTIFICATE OF ANALYSIS

Date of report Generation:	19 January 2021
Customer:	Rodgers Leask
Sample Delivery Group (SDG):	201212-45
Your Reference:	P18-669
Location:	Llanwern
Report No:	583536

This report has been revised and directly supersedes 582539 in its entirety.

We received 32 samples on Saturday December 12, 2020 and 32 of these samples were scheduled for analysis which was completed on Tuesday January 19, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23419848	2BSE-1		0.00 - 0.00	10/12/2020
23419856	2BSE-2		0.00 - 0.00	10/12/2020
23419865	2BSE-3		0.00 - 0.00	10/12/2020
23419873	2BSE-4		0.00 - 0.00	10/12/2020
23419881	2BSE-5		0.00 - 0.00	10/12/2020
23419682	2BSE-6		0.00 - 0.00	11/12/2020
23419690	2BSE-7		0.00 - 0.00	11/12/2020
23419695	2BSE-8		0.00 - 0.00	11/12/2020
23419701	2BSE-9		0.00 - 0.00	11/12/2020
23419706	2BSE-10		0.00 - 0.00	11/12/2020
23419712	2BSE-11		0.00 - 0.00	11/12/2020
23419718	2BSE-12		0.00 - 0.00	11/12/2020
23419728	2BSE-13		0.00 - 0.00	11/12/2020
23419733	2BSE-14		0.00 - 0.00	11/12/2020
23419739	2BSE-22		0.00 - 0.00	11/12/2020
23419751	2BSE-23		0.00 - 0.00	11/12/2020
23419758	2BSE-24		0.00 - 0.00	11/12/2020
23419763	2BSE-25		0.00 - 0.00	11/12/2020
23419769	2BSE-26		0.00 - 0.00	11/12/2020
23419775	2BSE-27		0.00 - 0.00	11/12/2020
23419781	2BSE-28		0.00 - 0.00	11/12/2020
23419786	2BSE-29		0.00 - 0.00	11/12/2020
23419792	2BSE-30		0.00 - 0.00	11/12/2020
23419798	2BSE-31		0.00 - 0.00	11/12/2020
23419803	2BSE-32		0.00 - 0.00	11/12/2020
23419821	2BSE-33		0.00 - 0.00	11/12/2020
23419826	2BSE-34		0.00 - 0.00	11/12/2020
23419833	2BSE-35		0.00 - 0.00	11/12/2020
23419813	M33-1		0.50 - 0.50	10/12/2020
23419841	M33-2		1.40 - 1.40	10/12/2020
23419678	N33-1		0.30 - 0.30	10/12/2020
23419744	N33-2		1.60 - 1.60	10/12/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23419848		23419856		23419865		23419873		23419881		23419682		23419690		23419695			
Customer Sample Reference			2BSE-1		2BSE-2		2BSE-3		2BSE-4		2BSE-5		2BSE-6		2BSE-7		2BSE-8			
AGS Reference																				
Depth (m)			0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00			
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 32	X			X			X		X			X		X			X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 16	X					X					X					X			
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2											X								
Calorific Value (S)*	All	NDPs: 0 Tests: 13		X		X			X		X			X		X			X		X
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 32	X			X			X		X			X		X			X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 32		X		X			X		X			X		X			X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 32			X		X			X		X			X		X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 32		X		X			X		X			X		X			X		X
PAH by GCMS	All	NDPs: 0 Tests: 32	X			X			X		X			X		X			X		X
pH	All	NDPs: 0 Tests: 32	X			X			X		X			X		X			X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 32	X			X			X		X			X		X			X		X
Sample description	All	NDPs: 0 Tests: 32		X		X			X		X			X		X			X		X
Total Organic Carbon	All	NDPs: 0 Tests: 32		X		X			X		X			X		X			X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 32		X		X			X		X			X		X			X		X
VOC MS (S)	All	NDPs: 0 Tests: 32			X		X			X		X			X		X			X	

23419751	2BSE-23		0.00 - 0.00	250g Amber Jar (ALE210)	S		x					x	x		x	x	x	x	x	x	x	x		
23419739	2BSE-22		0.00 - 0.00	60g VOC (ALE215)	S									x										x	
				250g Amber Jar (ALE210)	S		x					x	x		x	x	x	x	x	x	x	x		
				1kg TUB with Handle (ALE260)	S			x																	
23419733	2BSE-14		0.00 - 0.00	60g VOC (ALE215)	S									x										x	
				250g Amber Jar (ALE210)	S		x					x	x		x	x	x	x	x	x	x	x		
23419728	2BSE-13		0.00 - 0.00	60g VOC (ALE215)	S									x										x	
				250g Amber Jar (ALE210)	S		x				x	x			x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S			x					x										x		
23419718	2BSE-12		0.00 - 0.00	60g VOC (ALE215)	S									x										x	
				250g Amber Jar (ALE210)	S		x				x	x			x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S							x										x		
23419712	2BSE-11		0.00 - 0.00	60g VOC (ALE215)	S									x										x	
				250g Amber Jar (ALE210)	S		x				x	x	x		x	x	x	x	x	x	x	x		
				1kg TUB with Handle (ALE260)	S			x																	
23419706	2BSE-10		0.00 - 0.00	60g VOC (ALE215)	S									x										x	
				250g Amber Jar (ALE210)	S		x				x	x	x		x	x	x	x	x	x	x	x		
23419701	2BSE-9		0.00 - 0.00	60g VOC (ALE215)	S									x										x	
				250g Amber Jar (ALE210)	S		x				x	x	x		x	x	x	x	x	x	x	x		
				1kg TUB with Handle (ALE260)	S			x																	
23419695	2BSE-8		0.00 - 0.00	60g VOC (ALE215)	S									x										x	

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)																	
			23419751	23419758		23419763		23419769		23419775		23419781		23419786		23419792				
			Customer Sample Reference																	
			2BSE-23	2BSE-24		2BSE-25		2BSE-26		2BSE-27		2BSE-28		2BSE-29		2BSE-30				
			AGS Reference																	
			Depth (m)																	
			0.00 - 0.00	0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00		0.00 - 0.00				
			Container																	
			60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
			Sample Type																	
			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 16		X					X					X					X		
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2																			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 32	X			X		X			X		X		X		X				X
Metals in solid samples by OES	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
PAH by GCMS	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
pH	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
Sample description	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
Total Organic Carbon	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 32			X		X			X		X		X		X				X	
VOC MS (S)	All	NDPs: 0 Tests: 32	X			X		X			X		X		X		X				X

23419744	N33-2		1.60 - 1.60	250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
23419678	N33-1		0.30 - 0.30	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
				1kg TUB with Handle (ALE260)	S		X	X											
23419841	M33-2		1.40 - 1.40	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
23419813	M33-1		0.50 - 0.50	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
				1kg TUB with Handle (ALE260)	S		X												
23419833	2BSE-35		0.00 - 0.00	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
23419826	2BSE-34		0.00 - 0.00	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
				1kg TUB with Handle (ALE260)	S		X												
23419821	2BSE-33		0.00 - 0.00	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
23419803	2BSE-32		0.00 - 0.00	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	
				1kg TUB with Handle (ALE260)	S		X												
23419798	2BSE-31		0.00 - 0.00	60g VOC (ALE215)	S						X								X
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			23419744	N33-2		1.60 - 1.60	60g VOC (ALE215)	S
GRO by GC-FID (S)	All	NDPs: 0 Tests: 32					X	
VOC MS (S)	All	NDPs: 0 Tests: 32					X	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23419848	2BSE-1	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	None
23419856	2BSE-2	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	Vegetation
23419865	2BSE-3	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	None
23419873	2BSE-4	0.00 - 0.00	Dark Brown	Stone/Soil	None	Stones
23419881	2BSE-5	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	None
23419682	2BSE-6	0.00 - 0.00	Black	Loamy Sand	Stones	None
23419690	2BSE-7	0.00 - 0.00	Dark Brown	Loamy Sand	Vegetation	Stones
23419695	2BSE-8	0.00 - 0.00	Dark Brown	Sandy Clay Loam	Stones	Vegetation
23419701	2BSE-9	0.00 - 0.00	Black	Loamy Sand	Stones	None
23419706	2BSE-10	0.00 - 0.00	Black	Sandy Loam	Stones	None
23419712	2BSE-11	0.00 - 0.00	Dark Brown	Sandy Clay Loam	Stones	Vegetation
23419718	2BSE-12	0.00 - 0.00	Dark Brown	Sandy Clay Loam	Stones	Vegetation
23419728	2BSE-13	0.00 - 0.00	Dark Brown	Sandy Clay Loam	Stones	Vegetation
23419733	2BSE-14	0.00 - 0.00	Black	Loamy Sand	Stones	Crushed Brick
23419739	2BSE-22	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	None
23419751	2BSE-23	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	Vegetation
23419758	2BSE-24	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	Vegetation
23419763	2BSE-25	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	None
23419769	2BSE-26	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	None
23419775	2BSE-27	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	Vegetation
23419781	2BSE-28	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	None
23419786	2BSE-29	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	Vegetation
23419792	2BSE-30	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	Vegetation
23419798	2BSE-31	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	None
23419803	2BSE-32	0.00 - 0.00	Dark Brown	Loamy Sand	Stones	None
23419821	2BSE-33	0.00 - 0.00	Dark Brown	Sandy Loam	Stones	None
23419826	2BSE-34	0.00 - 0.00	Black	Loamy Sand	Stones	Crushed Brick
23419833	2BSE-35	0.00 - 0.00	Black	Loamy Sand	Stones	None
23419813	M33-1	0.50 - 0.50	Dark Brown	Sand	Stones	None
23419841	M33-2	1.40 - 1.40	Dark Brown	Sand	Stones	Brick
23419678	N33-1	0.30 - 0.30	Dark Brown	Loamy Sand	Stones	Vegetation
23419744	N33-2	1.60 - 1.60	Dark Brown	Sand	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020	10/12/2020	10/12/2020	10/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419848	23419856	23419865	23419873	23419881	23419682
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		7.9	13	12	10	10	11
Gross Calorific Value in Dry Matter Q(V/gr/d)	<0.5 MJ/kg	SUB		5.04	5.93	4.17	3.13	1.06	9.48
Gross Calorific Value Original Q(V/gr/ar)	<0.5 MJ/kg	SUB		4.41	5.32	3.56	2.78	0.95	8.27
Net Calorific Value in Dry Matter Q(V/net/d)	<0.5 MJ/kg	SUB		4.68	5.62	3.81	2.88	0.78	9.1
Net Calorific Value in Original Q(V/net/ar)	<0.5 MJ/kg	SUB		3.8	4.81	2.91	2.3	<0.5	7.64
Water Analytical M (ad)	<0.5 %	SUB		1.58	0.95	0.92	1.18	1.38	1.38
Water Gross M(ex)	<0.5 %	SUB		11.1	9.39	13.9	10.1	8.35	11.5
Water Total M(ar)	<0.5 %	SUB		12.5	10.2	14.7	11.1	9.61	12.8
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 #	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.02 M	<0.01 M	<0.01 #	0.0111 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		0.0109 M	<0.02 M	<0.01 M	<0.01 #	<0.01 M	0.0112 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.03 M	<0.015 M	<0.015 #	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.07 M	<0.035 M	<0.035 #	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		13.6 #	18.1 #	22.8 #	16.8 #	23.3 #	30 #
pH	1 pH Units	TM133		11.9 M	10.9 M	11.3 M	11.4 #	11.6 M	11.7 M
Cyanide, Total	<1 mg/kg	TM153		2.44 M	<1 M	<1 M	<1 #	2.96 M	<1 M
Arsenic	<0.6 mg/kg	TM181		7.61 M	6.63 M	5.83 M	6.09 #	7.19 M	1.2 M
Cadmium	<0.02 mg/kg	TM181		1.42 M	0.534 M	0.495 M	0.341 #	1.07 M	<0.02 M
Chromium	<0.9 mg/kg	TM181		416 M	174 M	187 M	358 #	227 M	133 M
Copper	<1.4 mg/kg	TM181		25.7 M	19.6 M	14.6 M	20.1 #	<14 M	5.49 M
Iron	<1000 mg/kg	TM181		170000 #	116000 #	101000 #	130000 #	168000 #	102000 #
Lead	<0.7 mg/kg	TM181		179 M	83.8 M	65.1 M	54.2 #	273 M	<0.7 M
Manganese	<0.13 mg/kg	TM181		27700 M	16100 M	15400 M	23800 #	19100 M	20100 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<0.14 M	<0.14 M	<0.14 #	<1.4 M	0.512 M
Nickel	<0.2 mg/kg	TM181		21.6 M	12 M	10 M	9.43 #	18.1 M	<0.2 M
Selenium	<1 mg/kg	TM181		11.4 #	3.21 #	3.83 #	5.94 #	<10 #	<1 #
Vanadium	<0.2 mg/kg	TM181		872 #	330 #	281 #	699 #	701 #	144 #
Zinc	<1.9 mg/kg	TM181		491 M	352 M	235 M	199 #	631 M	<1.9 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304						<0.001 #	
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304						<0.001 #	
Additional Asbestos Components (Using TM048)		TM304						None #	
Analysts Comments		TM304						N/A	
Asbestos Quantification - Total - %	<0.001 %	TM304						<0.001 #	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-7	2BSE-8	2BSE-9	2BSE-10	2BSE-11	2BSE-12
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419690	23419695	23419701	23419706	23419712	23419718
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	7.3	13	11	10	5.7
Gross Calorific Value in Dry Matter Q(V/gr/d)	<0.5 MJ/kg	SUB		7.59	7.12	8.46	8.62	8.43	7.47
Gross Calorific Value Original Q(V/gr/ar)	<0.5 MJ/kg	SUB		6.6	6.19	7.31	7.43	7.21	6.62
Net Calorific Value in Dry Matter Q(V/net/d)	<0.5 MJ/kg	SUB		7.22	6.71	8.07	8.24	8.02	7.11
Net Calorific Value in Original Q(V/net/ar)	<0.5 MJ/kg	SUB		5.98	5.61	6.66	6.79	6.53	6.04
Water Analytical M (ad)	<0.5 %	SUB		0.94	0.98	1.12	1.07	1.26	1.11
Water Gross M(ex)	<0.5 %	SUB		12.2	12.3	12.6	12.8	13.4	10.4
Water Total M(ar)	<0.5 %	SUB		13	13.1	13.6	13.8	14.4	11.4
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12
Phenol	<0.01 mg/kg	TM062 (S)		0.0114 M	0.0108 M	0.0115 M	0.0113 M	0.0111 M	<0.01
Cresols	<0.01 mg/kg	TM062 (S)		0.0114 M	0.0108 M	<0.01 M	0.0113 M	<0.01 M	<0.01
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.0222 M	<0.015
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035
Soil Organic Matter (SOM)	<0.35 %	TM132		32.9 #	19.5 #	60.7 #	28.6 #	45 #	31.2
pH	1 pH Units	TM133		11.6 M	11.2 M	11.6 M	11.4 M	11.3 M	11.6
Cyanide, Total	<1 mg/kg	TM153		1.03 M	<1 M	<1 M	<1 M	<1 M	<1
Arsenic	<0.6 mg/kg	TM181		4.84 M	56.8 M	1.06 M	13.6 M	6.63 M	10.1
Cadmium	<0.02 mg/kg	TM181		0.725 M	0.217 M	<0.02 M	0.977 M	0.825 M	0.45
Chromium	<0.9 mg/kg	TM181		200 M	227 M	3.97 M	195 M	282 M	253
Copper	<1.4 mg/kg	TM181		13.1 M	75.6 M	<1.4 M	19.2 M	21.5 M	23.9
Iron	<1000 mg/kg	TM181		78100 #	106000 #	94500 #	78500 #	90100 #	92900
Lead	<0.7 mg/kg	TM181		83 M	156 M	<0.7 M	157 M	112 M	82.8
Manganese	<0.13 mg/kg	TM181		15700 M	16500 M	18600 M	13400 M	15900 M	15400
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 M	0.499 M	<1.4 M	<0.14 M	<0.14
Nickel	<0.2 mg/kg	TM181		8.15 M	16.9 M	<0.2 M	25.2 M	12.3 M	15.9
Selenium	<1 mg/kg	TM181		3.43 #	1.3 #	<1 #	<10 #	3.94 #	3.74
Vanadium	<0.2 mg/kg	TM181		494 #	301 #	9.96 #	304 #	329 #	373
Zinc	<1.9 mg/kg	TM181		293 M	471 M	<1.9 M	433 M	357 M	316

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419728	23419733	23419739	23419751	23419758	23419763
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		7.8	16	15	15	17	14
Gross Calorific Value in Dry Matter Q(V/gr/d)	<0.5 MJ/kg	SUB		6.93					
Gross Calorific Value Original Q(V/gr/ar)	<0.5 MJ/kg	SUB		5.99					
Net Calorific Value in Dry Matter Q(V/net/d)	<0.5 MJ/kg	SUB		6.58					
Net Calorific Value in Original Q(V/net/ar)	<0.5 MJ/kg	SUB		5.37					
Water Analytical M (ad)	<0.5 %	SUB		1					
Water Gross M(ex)	<0.5 %	SUB		12.7					
Water Total M(ar)	<0.5 %	SUB		13.6					
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		0.0109 M	0.0119 M	<0.01 M	0.0118 M	0.0121 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.0117 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		34.3 #	27.8 #	21 #	20.3 #	33.4 #	20.5 #
pH	1 pH Units	TM133		11.6 M	11.5 M	11.8 M	10.7 M	10.6 M	11.3 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	2.13 M	<1 M	<1 M	1.38 M
Arsenic	<0.6 mg/kg	TM181		5.12 M	10.3 M	6.88 M	8.11 M	8.88 M	7.36 M
Cadmium	<0.02 mg/kg	TM181		0.557 M	1.38 M	1.21 M	2.07 M	0.647 M	0.793 M
Chromium	<0.9 mg/kg	TM181		144 M	118 M	318 M	129 M	209 M	217 M
Copper	<1.4 mg/kg	TM181		15.1 M	24 M	16.2 M	20.3 M	23.4 M	20.2 M
Iron	<1000 mg/kg	TM181		82200 #	72200 #	173000 #	94500 #	93600 #	138000 #
Lead	<0.7 mg/kg	TM181		61 M	185 M	246 M	114 M	105 M	190 M
Manganese	<0.13 mg/kg	TM181		11100 M	8640 M	23700 M	9910 M	11500 M	18900 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 M	<1.4 M	<0.14 M	<1.4 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		9.87 M	19 M	24.1 M	16.3 M	25.7 M	13.3 M
Selenium	<1 mg/kg	TM181		2.52 #	<1 #	11.8 #	1.87 #	<10 #	3.1 #
Vanadium	<0.2 mg/kg	TM181		258 #	154 #	587 #	178 #	228 #	578 #
Zinc	<1.9 mg/kg	TM181		300 M	536 M	580 M	370 M	302 M	566 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-26	2BSE-27	2BSE-28	2BSE-29	2BSE-30	2BSE-31
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419769	23419775	23419781	23419786	23419792	23419798
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	16	15	17	15	14
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		0.0114 M	<0.01 M	<0.01 M	<0.01 M	0.0236 M	0.0117 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0119 M	<0.01 M	<0.01 M	0.0118 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		7.55 #	26.5 #	32.1 #	35 #	34.8 #	26.2 #
pH	1 pH Units	TM133		11.4 M	11.5 M	11.3 M	11.5 M	10.6 M	10.9 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	1.18 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		<6 M	1.52 M	9.27 M	1.33 M	7.87 M	8.96 M
Cadmium	<0.02 mg/kg	TM181		0.253 M	<0.02 M	1.18 M	<0.02 M	1.16 M	0.894 M
Chromium	<0.9 mg/kg	TM181		348 M	129 M	216 M	<0.9 M	208 M	209 M
Copper	<1.4 mg/kg	TM181		15.5 M	8.73 M	20.6 M	<1.4 M	22.4 M	18.1 M
Iron	<1000 mg/kg	TM181		113000 #	115000 #	96000 #	111000 #	99500 #	90100 #
Lead	<0.7 mg/kg	TM181		58.3 M	<0.7 M	186 M	<0.7 M	181 M	132 M
Manganese	<0.13 mg/kg	TM181		23500 M	19200 M	14000 M	15500 M	13300 M	13700 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	0.504 M	<1.4 M	0.624 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		14.6 M	<0.2 M	21.1 M	<0.2 M	22.1 M	18.9 M
Selenium	<1 mg/kg	TM181		13.7 #	<1 #	<10 #	<1 #	<10 #	<10 #
Vanadium	<0.2 mg/kg	TM181		698 #	146 #	305 #	3.89 #	272 #	329 #
Zinc	<1.9 mg/kg	TM181		171 M	<1.9 M	539 M	<1.9 M	512 M	372 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

#	ISO17025 accredited.
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diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	10/12/2020	10/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419803	23419821	23419826	23419833	23419813	23419841
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		13	16	12	14	3.6	5.3
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0119 M	0.0113 M	0.0232 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.0116 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		25.2 #	39.7 #	24.3 #	22.4 #	<0.35 #	0.359 #
pH	1 pH Units	TM133		11.6 M	11.5 M	11.6 M	11.4 M	9.26 M	12.8 M
Cyanide, Total	<1 mg/kg	TM153		1.28 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		6.41 M	1.39 M	9.12 M	1.63 M	2.71 M	2.96 M
Cadmium	<0.02 mg/kg	TM181		0.626 M	<0.02 M	<0.2 M	<0.02 M	0.245 M	0.606 M
Chromium	<0.9 mg/kg	TM181		376 M	53.2 M	230 M	109 M	4.13 M	958 M
Copper	<1.4 mg/kg	TM181		18.8 M	4.52 M	51.1 M	11.3 M	8.69 M	23.7 M
Iron	<1000 mg/kg	TM181		122000 #	110000 #	136000 #	129000 #	7440 #	144000 #
Lead	<0.7 mg/kg	TM181		99.4 M	<0.7 M	75.2 M	<0.7 M	12.1 M	6.65 M
Manganese	<0.13 mg/kg	TM181		25100 M	13500 M	18700 M	13600 M	171 M	40200 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	0.536 M	<1.4 M	0.661 M	<0.14 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		21 M	<0.2 M	41.8 M	<0.2 M	2.17 M	2.61 M
Selenium	<1 mg/kg	TM181		13.8 #	<1 #	<10 #	<1 #	<1 #	7.37 #
Vanadium	<0.2 mg/kg	TM181		597 #	87.9 #	413 #	150 #	4.53 #	685 #
Zinc	<1.9 mg/kg	TM181		282 M	<1.9 M	231 M	<1.9 M	13.2 M	66.7 M

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	N33-1	N33-2
			Depth (m)	0.30 - 0.30	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020
			Sample Time	.	.
			Date Received	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45
			Lab Sample No.(s)	23419678	23419744
			AGS Reference		
Moisture Content Ratio (% of as received sample)	%	PM024		9.9	9.8
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		0.0222 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		3.09 #	<0.35 #
pH	1 pH Units	TM133		11.4 M	8.54 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		9.86 M	44.9 M
Cadmium	<0.02 mg/kg	TM181		0.618 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		201 M	<9 M
Copper	<1.4 mg/kg	TM181		20.2 M	<14 M
Iron	<1000 mg/kg	TM181		133000 #	443000 #
Lead	<0.7 mg/kg	TM181		42 M	16.5 M
Manganese	<0.13 mg/kg	TM181		18200 M	16400 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	1.56 M
Nickel	<0.2 mg/kg	TM181		14.2 M	18.5 M
Selenium	<1 mg/kg	TM181		3.76 #	<10 #
Vanadium	<0.2 mg/kg	TM181		252 #	31.9 #
Zinc	<1.9 mg/kg	TM181		164 M	48 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		<0.001 #	
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #	
Additional Asbestos Components (Using TM048)		TM304		None #	
Analysts Comments		TM304		N/A	
Asbestos Quantification - Total - %	<0.001 %	TM304		<0.001 #	

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020	10/12/2020	10/12/2020	10/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419848	23419856	23419865	23419873	23419881	23419682
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		78.1	80.9	79.4	81	77.8	81.3
Acenaphthene-d10 % recovery**	%	TM218		85.5	86.4	83.6	79.4	88	83
Phenanthrene-d10 % recovery**	%	TM218		87	91.3	90.5	80.5	86.5	84.4
Chrysene-d12 % recovery**	%	TM218		84.3	86.8	84.9	80.8	84.7	85
Perylene-d12 % recovery**	%	TM218		72.2	72.9	71.6	79.5	72	82.8
Naphthalene	<9 µg/kg	TM218		3510 M	1090 M	1250 M	1070 #	6030 M	1840 M
Acenaphthylene	<12 µg/kg	TM218		1730 M	445 M	498 M	337 #	2700 M	550 M
Acenaphthene	<8 µg/kg	TM218		128 M	95.2 M	72.2 M	86.3 #	264 M	92.5 M
Fluorene	<10 µg/kg	TM218		692 M	196 M	291 M	231 #	1570 M	305 M
Phenanthrene	<15 µg/kg	TM218		10700 M	2170 M	3230 M	2730 #	11400 M	3590 M
Anthracene	<16 µg/kg	TM218		4050 M	633 M	1030 M	744 #	4340 M	819 M
Fluoranthene	<17 µg/kg	TM218		23000 M	3510 M	6010 M	4920 #	19000 M	6440 M
Pyrene	<15 µg/kg	TM218		15900 M	2730 M	4590 M	4580 #	14800 M	4630 M
Benz(a)anthracene	<14 µg/kg	TM218		8400 M	1560 M	2440 M	2530 #	8900 M	2920 M
Chrysene	<10 µg/kg	TM218		8480 M	1620 M	2450 M	2370 #	8880 M	2250 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		10200 M	2010 M	3100 M	3070 #	11100 M	3810 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		3940 M	755 M	1080 M	1200 #	3710 M	1320 M
Benzo(a)pyrene	<15 µg/kg	TM218		5920 M	1120 M	1750 M	1920 #	6270 M	2330 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		4950 M	944 M	1450 M	1440 #	5290 M	1940 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		896 M	177 M	265 M	268 #	1000 M	338 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		3660 M	752 M	1160 M	1260 #	4060 M	1600 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		106000	19800	30700	28700	109000	34800

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-7	2BSE-8	2BSE-9	2BSE-10	2BSE-11	2BSE-12
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419690	23419695	23419701	23419706	23419712	23419718
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		83	79.5	79.4	78.8	83.4	78.1
Acenaphthene-d10 % recovery**	%	TM218		83.3	82.9	81	83.6	83.4	82.5
Phenanthrene-d10 % recovery**	%	TM218		87.9	87.5	84	80.9	85.5	86.6
Chrysene-d12 % recovery**	%	TM218		81.3	85.1	81.8	91.6	84.2	84.6
Perylene-d12 % recovery**	%	TM218		70.6	71.8	79.6	87	81.4	71.4
Naphthalene	<9 µg/kg	TM218		2730 M	2040 M	1810 M	3160 M	1930 M	2960
Acenaphthylene	<12 µg/kg	TM218		1170 M	922 M	833 M	1350 M	498 M	1040
Acenaphthene	<8 µg/kg	TM218		495 M	107 M	109 M	153 M	80.3 M	153
Fluorene	<10 µg/kg	TM218		929 M	837 M	495 M	914 M	375 M	657
Phenanthrene	<15 µg/kg	TM218		8050 M	8180 M	4600 M	6900 M	2700 M	5740
Anthracene	<16 µg/kg	TM218		2510 M	2380 M	1350 M	2540 M	813 M	1710
Fluoranthene	<17 µg/kg	TM218		13100 M	11800 M	9200 M	13000 M	4040 M	10600
Pyrene	<15 µg/kg	TM218		9830 M	8810 M	6810 M	9720 M	3010 M	8050
Benz(a)anthracene	<14 µg/kg	TM218		4840 M	4270 M	4120 M	6290 M	1920 M	4250
Chrysene	<10 µg/kg	TM218		4590 M	4330 M	3690 M	5560 M	1710 M	4360
Benzo(b)fluoranthene	<15 µg/kg	TM218		5770 M	5410 M	5600 M	7290 M	2760 M	5660
Benzo(k)fluoranthene	<14 µg/kg	TM218		1870 M	1630 M	1920 M	2640 M	950 M	1640
Benzo(a)pyrene	<15 µg/kg	TM218		3430 M	3270 M	3300 M	4930 M	1630 M	3100
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2680 M	2700 M	2750 M	3360 M	1310 M	2550
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		485 M	455 M	504 M	781 M	211 M	487
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2170 M	2210 M	2180 M	3290 M	1060 M	1970
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		64600	59400	49300	71900	25000	54900

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419728	23419733	23419739	23419751	23419758	23419763
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		87.2	85.7	82.4	81.5	80.2	80
Acenaphthene-d10 % recovery**	%	TM218		88.4	85.1	83.9	84.8	85.2	80.9
Phenanthrene-d10 % recovery**	%	TM218		87.4	87.7	86	88.6	92.7	83.4
Chrysene-d12 % recovery**	%	TM218		85.6	88.7	84.2	88.5	85.8	85.8
Perylene-d12 % recovery**	%	TM218		78.6	86.8	83.8	91	72.3	83.6
Naphthalene	<9 µg/kg	TM218		2800 M	2180 M	4160 M	1590 M	1160 M	3260 M
Acenaphthylene	<12 µg/kg	TM218		10600 M	706 M	1570 M	592 M	444 M	1090 M
Acenaphthene	<8 µg/kg	TM218		859 M	109 M	147 M	89.7 M	60.7 M	124 M
Fluorene	<10 µg/kg	TM218		19100 M	625 M	677 M	272 M	285 M	850 M
Phenanthrene	<15 µg/kg	TM218		99500 M	4460 M	6880 M	2520 M	2470 M	5250 M
Anthracene	<16 µg/kg	TM218		27900 M	1510 M	2030 M	674 M	781 M	2130 M
Fluoranthene	<17 µg/kg	TM218		90900 M	7490 M	12700 M	3960 M	3980 M	8170 M
Pyrene	<15 µg/kg	TM218		61100 M	5320 M	9440 M	2920 M	2940 M	6090 M
Benz(a)anthracene	<14 µg/kg	TM218		29700 M	3290 M	5750 M	1810 M	1560 M	3890 M
Chrysene	<10 µg/kg	TM218		21000 M	2880 M	4790 M	1460 M	1570 M	3480 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		35000 M	4340 M	7110 M	2350 M	1980 M	4850 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		11500 M	1380 M	2670 M	710 M	717 M	1620 M
Benzo(a)pyrene	<15 µg/kg	TM218		20700 M	2610 M	4340 M	1410 M	1090 M	2710 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		17200 M	2060 M	3790 M	1200 M	892 M	2150 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		2740 M	354 M	625 M	197 M	167 M	419 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		13700 M	1710 M	2810 M	886 M	699 M	1650 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		464000	41000	69500	22600	20800	47700

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-26	2BSE-27	2BSE-28	2BSE-29	2BSE-30	2BSE-31
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419769	23419775	23419781	23419786	23419792	23419798
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		83.7	80.6	81.5	78.7	84.3	82.3
Acenaphthene-d10 % recovery**	%	TM218		85.3	83	87.1	85.4	86.6	80.1
Phenanthrene-d10 % recovery**	%	TM218		87.5	89.8	87.3	91	89.4	82.5
Chrysene-d12 % recovery**	%	TM218		89	86.6	82.7	80.1	90.7	82.1
Perylene-d12 % recovery**	%	TM218		89	73.4	70	70.2	90.7	83.6
Naphthalene	<9 µg/kg	TM218		1580 M	1710 M	2160 M	2070 M	1740 M	3390 M
Acenaphthylene	<12 µg/kg	TM218		735 M	434 M	1100 M	652 M	683 M	905 M
Acenaphthene	<8 µg/kg	TM218		109 M	88.3 M	108 M	98.7 M	146 M	135 M
Fluorene	<10 µg/kg	TM218		667 M	403 M	708 M	428 M	699 M	673 M
Phenanthrene	<15 µg/kg	TM218		8850 M	3510 M	7230 M	3730 M	6450 M	5050 M
Anthracene	<16 µg/kg	TM218		1870 M	779 M	1920 M	994 M	2010 M	1410 M
Fluoranthene	<17 µg/kg	TM218		12300 M	4250 M	11300 M	6260 M	10500 M	8270 M
Pyrene	<15 µg/kg	TM218		9340 M	3070 M	8180 M	4810 M	7860 M	6220 M
Benz(a)anthracene	<14 µg/kg	TM218		4870 M	1720 M	3920 M	2460 M	4720 M	3800 M
Chrysene	<10 µg/kg	TM218		4240 M	1830 M	3860 M	2490 M	3560 M	3630 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		6350 M	2200 M	4790 M	3230 M	4580 M	5310 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		2060 M	748 M	1830 M	1120 M	1490 M	1930 M
Benzo(a)pyrene	<15 µg/kg	TM218		4010 M	1190 M	2800 M	1850 M	2570 M	3440 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		3240 M	1000 M	2340 M	1400 M	2010 M	2650 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		484 M	197 M	414 M	259 M	373 M	557 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2660 M	806 M	1920 M	1120 M	1570 M	2270 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		63400	23900	54600	33000	51000	49600

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	10/12/2020	10/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419803	23419821	23419826	23419833	23419813	23419841
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.9	79	77.3	80.5	81.4	84.2
Acenaphthene-d10 % recovery**	%	TM218		85.7	84.8	83	80.7	86	84.4
Phenanthrene-d10 % recovery**	%	TM218		82.9	88.9	91	78.9	93.1	85.3
Chrysene-d12 % recovery**	%	TM218		92.2	85.5	86.1	77.7	83.2	86.1
Perylene-d12 % recovery**	%	TM218		82.3	72.5	73	76.2	74.4	90.6
Naphthalene	<9 µg/kg	TM218		3130 M	1880 M	1950 M	3280 M	10.4 M	<9 M
Acenaphthylene	<12 µg/kg	TM218		1250 M	531 M	711 M	9850 M	<12 M	<12 M
Acenaphthene	<8 µg/kg	TM218		160 M	90 M	104 M	649 M	<8 M	<8 M
Fluorene	<10 µg/kg	TM218		1030 M	398 M	441 M	13100 M	<10 M	<10 M
Phenanthrene	<15 µg/kg	TM218		8790 M	3310 M	4120 M	67700 M	24.7 M	22.8 M
Anthracene	<16 µg/kg	TM218		2010 M	858 M	1320 M	19900 M	<16 M	<16 M
Fluoranthene	<17 µg/kg	TM218		12400 M	5870 M	7470 M	76100 M	<17 M	39 M
Pyrene	<15 µg/kg	TM218		9260 M	4900 M	6200 M	50200 M	15.9 M	31.5 M
Benz(a)anthracene	<14 µg/kg	TM218		4960 M	3890 M	2990 M	25700 M	<14 M	20.4 M
Chrysene	<10 µg/kg	TM218		4590 M	4070 M	2890 M	22100 M	15.2 M	23.1 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		5310 M	6040 M	3700 M	29800 M	19.2 M	40.4 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		1660 M	1920 M	1170 M	10100 M	<14 M	<14 M
Benzo(a)pyrene	<15 µg/kg	TM218		3840 M	3290 M	2100 M	18900 M	<15 M	19.3 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2640 M	1660 M	1670 M	15600 M	<18 M	20.6 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		592 M	406 M	304 M	2600 M	<23 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2630 M	1260 M	1360 M	12000 M	<24 M	<24 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		64200	40400	38500	377000	<118	217

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	N33-1	N33-2				
			Depth (m)	0.30 - 0.30	1.60 - 1.60				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	.	.				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-45	201212-45				
			Lab Sample No.(s)	23419678	23419744				
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		82.4	79.6				
Acenaphthene-d10 % recovery**	%	TM218		82.1	83.5				
Phenanthrene-d10 % recovery**	%	TM218		83.4	90.5				
Chrysene-d12 % recovery**	%	TM218		84.7	84.5				
Perylene-d12 % recovery**	%	TM218		86.1	76.3				
Naphthalene	<9 µg/kg	TM218		414 M	<9 M				
Acenaphthylene	<12 µg/kg	TM218		177 M	<12 M				
Acenaphthene	<8 µg/kg	TM218		108 M	<8 M				
Fluorene	<10 µg/kg	TM218		120 M	<10 M				
Phenanthrene	<15 µg/kg	TM218		1210 M	<15 M				
Anthracene	<16 µg/kg	TM218		326 M	<16 M				
Fluoranthene	<17 µg/kg	TM218		2430 M	<17 M				
Pyrene	<15 µg/kg	TM218		1990 M	<15 M				
Benz(a)anthracene	<14 µg/kg	TM218		1150 M	<14 M				
Chrysene	<10 µg/kg	TM218		1050 M	<10 M				
Benzo(b)fluoranthene	<15 µg/kg	TM218		1750 M	<15 M				
Benzo(k)fluoranthene	<14 µg/kg	TM218		568 M	<14 M				
Benzo(a)pyrene	<15 µg/kg	TM218		1050 M	<15 M				
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		886 M	<18 M				
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		132 M	<23 M				
Benzo(g,h,i)perylene	<24 µg/kg	TM218		798 M	<24 M				
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		14200	<118				

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020	10/12/2020	10/12/2020	10/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419848	23419856	23419865	23419873	23419881	23419682
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		56.5 4 @	16.8 4 @	19.2 4 @	39.4 4 @	32.6 4 @	30.4 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4 @	10.4 4 @	10.2 4 @	<10 4 @	12.2 4 @	<10 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		25 4 @	38 4 @	38.4 4 @	15.5 4 @	53.3 4 @	28 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		34.8 4 @	35.7 4 @	40.7 4 @	18.9 4 @	113 4 @	31.4 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	1080	<1000	<1000	1780	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		13500	7750	3690	1440	8340	7520
Aliphatics >C16-C21	<1000 µg/kg	TM414		71200	34500	15100	9260	39800	64000
Aliphatics >C21-C35	<1000 µg/kg	TM414		91800	38800	32800	23600	67100	53300
Aliphatics >C35-C44	<1000 µg/kg	TM414		30600	8880	8690	5780	21700	10100
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		208000	91000	60800	40100	139000	136000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		475000	171000	139000	91100	406000	202000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @	10.1 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		23.9 4 @	24.2 4 @	27.1 4 @	12.2 4 @	75.5 4 @	20.2 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		8450	1810	2160	<1000	8960	2600
Aromatics > EC12-EC16	<1000 µg/kg	TM414		10800	6510	4610	1990	14600	4830
Aromatics > EC16-EC21	<1000 µg/kg	TM414		66100	23800	19300	11400	66500	18300
Aromatics > EC21-EC35	<1000 µg/kg	TM414		153000	44800	48800	33500	157000	37800
Aromatics >EC35-EC44	<1000 µg/kg	TM414		29000	2790	3730	3290	20700	2990
Aromatics > EC40-EC44	<1000 µg/kg	TM414		6240	<1000	<1000	<1000	4660	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		267000	79700	78600	51000	268000	66600
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		475000	171000	140000	91200	407000	202000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		59.7 4 @	84 4 @	89.3 4 @	<50 4 @	179 4 @	59.4 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	<50 4 @	<50 4 @	<50 4 @	75.5 4 @	<50 4 @
GRO >C5-C10	<20 µg/kg	TM089		59.7 4 @	84 4 @	89.3 4 @	<20 4 @	254 4 @	59.4 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-7	2BSE-8	2BSE-9	2BSE-10	2BSE-11	2BSE-12
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419690	23419695	23419701	23419706	23419712	23419718
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		21.2 4 @	24.4 4 @	27.2 4 @	27.3 4 @	23.3 4 @	20.1 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4 @	<10 4 @	17.3 4 @	<10 4 @	<10 4 @	<10 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		23.9 4 @	19.4 4 @	57.5 4 @	33.9 4 @	20 4 @	36.1 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		20.5 4 @	21.6 4 @	56.4 4 @	37.3 4 @	20 4 @	39.3 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		1040	<1000	1150	2310	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		5010	3680	6070	8350	2850	5340
Aliphatics >C16-C21	<1000 µg/kg	TM414		23500	15700	20800	35300	17700	46700
Aliphatics >C21-C35	<1000 µg/kg	TM414		42000	36300	42000	65900	38900	56400
Aliphatics >C35-C44	<1000 µg/kg	TM414		9500	10300	11800	17700	6050	13400
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		81000	67000	81800	130000	65800	122000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		238000	199000	240000	370000	175000	326000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	<10 4 @	11.5 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		13.7 4 @	14 4 @	38 4 @	24.9 4 @	13.3 4 @	26.5 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		3760	2600	2600	7320	2970	5250
Aromatics > EC12-EC16	<1000 µg/kg	TM414		8790	5860	6970	12700	5260	7630
Aromatics > EC16-EC21	<1000 µg/kg	TM414		39100	32300	38900	60600	25300	49900
Aromatics > EC21-EC35	<1000 µg/kg	TM414		94300	81500	99500	139000	68300	123000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		11100	9430	10600	21100	7230	17600
Aromatics > EC40-EC44	<1000 µg/kg	TM414		2000	1190	1360	4190	1190	2320
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		157000	132000	159000	241000	109000	203000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		238000	199000	241000	370000	175000	326000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 4 @	<50 4 @	131 4 @	71.2 4 @	<50 4 @	75.3 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	<50 4 @	<50 4 @	<50 4 @	<50 4 @	<50 4 @
GRO >C5-C10	<20 µg/kg	TM089		<20 4 @	<20 4 @	131 4 @	71.2 4 @	<20 4 @	75.3 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419728	23419733	23419739	23419751	23419758	23419763
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		35.4 4 @	19.2 4 @	45.7 4 @	20.5 4 @	23.1 4 @	42.7 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4 @	14.3 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		30.4 4 @	59.5 4 @	25.7 4 @	16.5 4 @	25.4 4 @	39.4 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		33.6 4 @	60.7 4 @	33.9 4 @	16.5 4 @	25.4 4 @	71.9 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		1250	<1000	<1000	<1000	1830	1610
Aliphatics >C12-C16	<1000 µg/kg	TM414		4800	1870	10900	2950	5380	7330
Aliphatics >C16-C21	<1000 µg/kg	TM414		36100	13100	54700	12900	13600	32200
Aliphatics >C21-C35	<1000 µg/kg	TM414		41000	20600	73800	21100	42700	51500
Aliphatics >C35-C44	<1000 µg/kg	TM414		10700	4210	30300	4020	15100	20300
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		93800	40100	170000	41600	78600	113000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		212000	183000	428000	115000	189000	403000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	10.7 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	13.1 4 @	<10 4 @	<10 4 @	<10 4 @	10.4 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		22.8 4 @	40.5 4 @	22.2 4 @	11.8 4 @	16.9 4 @	47.6 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		3250	3050	7510	3710	3270	9660
Aromatics > EC12-EC16	<1000 µg/kg	TM414		5640	4870	9290	5120	6540	15200
Aromatics > EC16-EC21	<1000 µg/kg	TM414		31000	34300	70200	21800	26500	76400
Aromatics > EC21-EC35	<1000 µg/kg	TM414		70100	89500	150000	39900	67300	163000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		8240	11000	21400	2470	6550	26700
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1090	1970	3880	<1000	<1000	3390
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		118000	143000	258000	73000	110000	290000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		212000	183000	428000	115000	189000	404000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		64 4 @	134 4 @	59.7 4 @	<50 4 @	50.8 4 @	111 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	64.3 4 @	<50 4 @	<50 4 @	<50 4 @	58 4 @
GRO >C5-C10	<20 µg/kg	TM089		64 4 @	199 4 @	59.7 4 @	<20 4 @	50.8 4 @	169 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-26	2BSE-27	2BSE-28	2BSE-29	2BSE-30	2BSE-31
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419769	23419775	23419781	23419786	23419792	23419798
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		34.8 4 @	29.2 4 @	31.4 4 @	23.2 4 @	34.6 4 @	41.2 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		14.8 4 @	10.7 4 @	21.1 4 @	<10 4 @	13 4 @	10.5 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		65 4 @	41.7 4 @	72.5 4 @	38.7 4 @	50.7 4 @	39.8 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		76.4 4 @	45.2 4 @	86.6 4 @	33.9 4 @	53.1 4 @	45.6 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		2070	5540	4770	3620	3790	4260
Aliphatics >C16-C21	<1000 µg/kg	TM414		14100	33700	31800	16800	18500	18600
Aliphatics >C21-C35	<1000 µg/kg	TM414		38800	41900	48400	33800	34200	44100
Aliphatics >C35-C44	<1000 µg/kg	TM414		8330	6550	13600	6310	7820	5610
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		63400	88300	99100	61000	65200	73400
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		227000	156000	303000	174000	256000	178000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	11.7 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	11.9 4 @	18.7 4 @	<10 4 @	14.2 4 @	<10 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		50.2 4 @	29.8 4 @	58.5 4 @	21.8 4 @	35.4 4 @	30.4 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		2580	2850	4940	2670	2810	2970
Aromatics > EC12-EC16	<1000 µg/kg	TM414		3330	6040	8870	5870	9380	5020
Aromatics > EC16-EC21	<1000 µg/kg	TM414		51600	18200	52800	28000	51800	25100
Aromatics > EC21-EC35	<1000 µg/kg	TM414		92100	37700	121000	69400	114000	65500
Aromatics >EC35-EC44	<1000 µg/kg	TM414		13900	2950	15500	7000	12900	6000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		2090	<1000	1670	<1000	2300	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		163000	67800	204000	113000	191000	105000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		227000	156000	303000	174000	256000	178000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		156 4 @	97.6 4 @	180 4 @	72.6 4 @	117 4 @	95.9 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		50.2 4 @	<50 4 @	88.9 4 @	<50 4 @	<50 4 @	<50 4 @
GRO >C5-C10	<20 µg/kg	TM089		206 4 @	97.6 4 @	269 4 @	72.6 4 @	117 4 @	95.9 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	10/12/2020	10/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419803	23419821	23419826	23419833	23419813	23419841
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		20.4 4 @	16.4 4 @	22.5 4 @	20 4 @	86.5 @	96.3 @
Aliphatics >C5-C6	<10 µg/kg	TM089		11.4 4 @	13 4 @	<10 4 @	11.6 4 @	<10 @	<10 @
Aliphatics >C6-C8	<10 µg/kg	TM089		41 4 @	53.3 4 @	31.6 4 @	51 4 @	<10 @	<10 @
Aliphatics >C8-C10	<10 µg/kg	TM089		43.3 4 @	58.1 4 @	33.9 4 @	58 4 @	<10 @	<10 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		2740	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		9510	3590	3480	3750	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		35700	20800	19900	25700	<1000	<1000
Aliphatics >C21-C35	<1000 µg/kg	TM414		47600	32800	31800	40400	19500	5250
Aliphatics >C35-C44	<1000 µg/kg	TM414		13400	6860	8540	8930	2530	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		109000	64700	64700	79200	22600	5580
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		302000	208000	169000	242000	32100	<10000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	10.4 4 @	<10 @	<10 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	12.8 4 @	<10 @	<10 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		28.5 4 @	39.1 4 @	22.6 4 @	38.3 4 @	<10 @	<10 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		6950	3220	2930	5320	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		12400	6410	4840	8680	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		49900	31000	23200	39900	<1000	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		109000	91100	64500	97600	8390	<1000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		14900	11200	8900	11600	<1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1520	1440	<1000	1950	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		193000	143000	104000	163000	9480	<5000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		302000	208000	169000	242000	32100	<10000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		95.8 4 @	124 4 @	65.5 4 @	121 4 @	<50 @	<50 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	<50 4 @	<50 4 @	61.5 4 @	<50 @	<50 @
GRO >C5-C10	<20 µg/kg	TM089		95.8 4 @	124 4 @	65.5 4 @	182 4 @	<20 @	<20 @

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	N33-1	N33-2				
			Depth (m)	0.30 - 0.30	1.60 - 1.60				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	.	.				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-45	201212-45				
			Lab Sample No.(s)	23419678	23419744				
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		74 @	94.9 @				
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 @	<10 @				
Aliphatics >C6-C8	<10 µg/kg	TM089		11.1 @	<10 @				
Aliphatics >C8-C10	<10 µg/kg	TM089		16.7 @	<10 @				
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C12-C16	<1000 µg/kg	TM414		3150	<1000				
Aliphatics >C16-C21	<1000 µg/kg	TM414		11500	<1000				
Aliphatics >C21-C35	<1000 µg/kg	TM414		67700	7910				
Aliphatics >C35-C44	<1000 µg/kg	TM414		37100	2030				
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		120000	9940				
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		160000	14500				
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 @	<10 @				
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 @	<10 @				
Aromatics >EC8-EC10	<10 µg/kg	TM089		11.1 @	<10 @				
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC12-EC16	<1000 µg/kg	TM414		1730	<1000				
Aromatics > EC16-EC21	<1000 µg/kg	TM414		6440	<1000				
Aromatics > EC21-EC35	<1000 µg/kg	TM414		28700	3440				
Aromatics >EC35-EC44	<1000 µg/kg	TM414		3740	<1000				
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000				
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		40900	<5000				
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		160000	<10000				
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 @	<50 @				
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 @	<50 @				
GRO >C5-C10	<20 µg/kg	TM089		<20 @	<20 @				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020	10/12/2020	10/12/2020	10/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419848	23419856	23419865	23419873	23419881	23419682
			AGS Reference						
Dibromofluoromethane**	%	TM116		102 @	93.2 @	102 @	103 @	106 @	98.9 @
Toluene-d8**	%	TM116		93.6 @	86.1 @	101 @	90.4 @	88.9 @	91.9 @
4-Bromofluorobenzene**	%	TM116		94.4 @	76.2 @	95.7 @	87.9 @	86.7 @	88.3 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ #	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<1800 @ M	<180 @ #	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<1400 @ M	<140 @ #	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<800 @ M	<80 @ #	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ #	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		468 M	<260 M	429 M	306 #	2730 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<8000 @	<800 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-7	2BSE-8	2BSE-9	2BSE-10	2BSE-11	2BSE-12
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419690	23419695	23419701	23419706	23419712	23419718
			AGS Reference						
Dibromofluoromethane**	%	TM116		94 @	92.8 @	97.4 @	95.7 @	95.5 @	93.1 @
Toluene-d8**	%	TM116		90.4 @	86.1 @	88 @	97.6 @	95.1 @	91.2 @
4-Bromofluorobenzene**	%	TM116		76.2 @	77.5 @	73.7 @	83.5 @	79.5 @	85.4 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		394 M	<260 M	342 M	499 M	<260 M	516 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<800 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419728	23419733	23419739	23419751	23419758	23419763
			AGS Reference						
Dibromofluoromethane**	%	TM116		98.2 @	94 @	105 @	94.8 @	96 @	109 @
Toluene-d8**	%	TM116		90.7 @	91.3 @	93.1 @	92.3 @	91.4 @	91.8 @
4-Bromofluorobenzene**	%	TM116		83 @	83.2 @	83.4 @	80.1 @	80.8 @	90.9 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		555 M	486 M	236 M	480 M	<260 M	1280 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<800 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-26	2BSE-27	2BSE-28	2BSE-29	2BSE-30	2BSE-31
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419769	23419775	23419781	23419786	23419792	23419798
			AGS Reference						
Dibromofluoromethane**	%	TM116		99.3 @	94.4 @	96.5 @	103 @	91.6 @	94.8 @
Toluene-d8**	%	TM116		88.4 @	89.5 @	87.9 @	101 @	95.7 @	92.3 @
4-Bromofluorobenzene**	%	TM116		81.8 @	82.2 @	78.1 @	94.3 @	78.4 @	83.4 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<1800 @ M	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<1400 @ M	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<800 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		594 M	577 M	783 M	511 M	422 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<8000 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	10/12/2020	10/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419803	23419821	23419826	23419833	23419813	23419841
			AGS Reference						
Dibromofluoromethane**	%	TM116		94.5 @	95.7 @	97.2 @	104 @	102 @	91.9 @
Toluene-d8**	%	TM116		88.3 @	88 @	88.6 @	94.5 @	93.6 @	95.8 @
4-Bromofluorobenzene**	%	TM116		78.4 @	80.6 @	78.9 @	90.9 @	88.8 @	100 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<10 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<9 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<7 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<80 @ M	<4 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<10 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<10 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		564 M	2330 M	533 M	389 M	<13 M	<13 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.02 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<800 @	<40 @	<800 @

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	N33-1	N33-2
			Depth (m)	0.30 - 0.30	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020
			Sample Time	.	.
			Date Received	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45
			Lab Sample No.(s)	23419678	23419744
			AGS Reference		
Dibromofluoromethane**	%	TM116		82 @	108 @
Toluene-d8**	%	TM116		84.5 @	96.2 @
4-Bromofluorobenzene**	%	TM116		74.3 @	104 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 @ M	<10 @ M
Benzene	<9 µg/kg	TM116		<9 @ M	<9 @ M
Toluene	<7 µg/kg	TM116		<7 @ M	<7 @ M
Ethylbenzene	<4 µg/kg	TM116		<4 @ M	<4 @ M
p/m-Xylene	<10 µg/kg	TM116		<10 @ #	<10 @ #
o-Xylene	<10 µg/kg	TM116		<10 @ M	<10 @ M
Naphthalene	<13 µg/kg	TM116		34 M	<13 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02 @	<0.02 @
Sum of BTEX	<40 µg/kg	TM116		<40 @	<40 @

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-1 0.00 - 0.00 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419848 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-3 0.00 - 0.00 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419865 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-5 0.00 - 0.00 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419881 TM048	21/12/2020	Agnieszka Chelmowska	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-7 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419690 TM048	21/12/2020	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-9 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419701 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-11 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419712 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-13 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419728 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-22 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419739 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-24 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419758 TM048	21/12/2020	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-26 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419769 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-28 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419781 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-30 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419792 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-32 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419803 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-34 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419826 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	M33-1 0.50 - 0.50 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419813 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	N33-1 0.30 - 0.30 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419678 TM048	21/12/2020	Marcin Magdziarek	Loose fibres in soil	Not Detected (#)	Not Detected (#)	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	2BSE-5	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	0.00 - 0.00					
Sample Type	SOLID					
Date Sampled	10/12/2020 00:00:00					
Date Received	12/12/2020 09:00:00					
SDG	201212-45					
Original Sample	23419881					
Method Number	TM304					
Cust. Sample Ref.	N33-1	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	0.30 - 0.30					
Sample Type	SOLID					
Date Sampled	10/12/2020 00:00:00					
Date Received	12/12/2020 09:00:00					
SDG	201212-45					
Original Sample	23419678					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
SUB		Subcontracted Test
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Test Completion Dates

Lab Sample No(s)	23419848	23419856	23419865	23419873	23419881	23419682	23419690	23419695	23419701	23419706
Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6	2BSE-7	2BSE-8	2BSE-9	2BSE-10
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020	
Asbestos Quantification - Full					30-Dec-2020					
Calorific Value (S)*	30-Dec-2020	30-Dec-2020	30-Dec-2020	29-Dec-2020	30-Dec-2020	29-Dec-2020	29-Dec-2020	29-Dec-2020	29-Dec-2020	29-Dec-2020
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
EPH CWG GC (S)	15-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	13-Jan-2021	08-Jan-2021	14-Jan-2021	08-Jan-2021	15-Jan-2021
GRO by GC-FID (S)	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	19-Jan-2021	11-Jan-2021	19-Jan-2021	11-Jan-2021
Metals in solid samples by OES	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
pH	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	17-Dec-2020	20-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	17-Dec-2020	18-Dec-2020
Sample description	14-Dec-2020	14-Dec-2020	14-Dec-2020	12-Dec-2020	14-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020
Total Organic Carbon	21-Dec-2020	22-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020
TPH CWG GC (S)	15-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	13-Jan-2021	19-Jan-2021	14-Jan-2021	19-Jan-2021	15-Jan-2021
VOC MS (S)	08-Jan-2021	08-Jan-2021	11-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	18-Jan-2021	08-Jan-2021	18-Jan-2021	11-Jan-2021

Lab Sample No(s)	23419712	23419718	23419728	23419733	23419739	23419751	23419758	23419763	23419769	23419775
Customer Sample Ref.	2BSE-11	2BSE-12	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25	2BSE-26	2BSE-27
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020	
Calorific Value (S)*	29-Dec-2020	30-Dec-2020	29-Dec-2020							
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	16-Dec-2020	16-Dec-2020	17-Dec-2020	16-Dec-2020
EPH CWG GC (S)	08-Jan-2021	13-Jan-2021	14-Jan-2021	08-Jan-2021	13-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	11-Jan-2021
GRO by GC-FID (S)	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021
Metals in solid samples by OES	21-Dec-2020	17-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	17-Dec-2020	21-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
pH	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	18-Dec-2020
Sample description	12-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020
Total Organic Carbon	22-Dec-2020	18-Dec-2020	21-Dec-2020	22-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020
TPH CWG GC (S)	11-Jan-2021	13-Jan-2021	14-Jan-2021	11-Jan-2021	13-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	11-Jan-2021
VOC MS (S)	11-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021

Lab Sample No(s)	23419781	23419786	23419792	23419798	23419803	23419821	23419826	23419833	23419813	23419841
Customer Sample Ref.	2BSE-28	2BSE-29	2BSE-30	2BSE-31	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020	
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
EPH CWG GC (S)	13-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	13-Jan-2021	08-Jan-2021	13-Jan-2021	14-Jan-2021	08-Jan-2021	08-Jan-2021
GRO by GC-FID (S)	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	07-Jan-2021	07-Jan-2021
Metals in solid samples by OES	18-Dec-2020	21-Dec-2020	18-Dec-2020	18-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020	17-Dec-2020	21-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
pH	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	18-Dec-2020	17-Dec-2020	18-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	18-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
Sample description	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	12-Dec-2020	12-Dec-2020	14-Dec-2020	14-Dec-2020
Total Organic Carbon	21-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	18-Dec-2020	22-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020
TPH CWG GC (S)	13-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	13-Jan-2021	11-Jan-2021	13-Jan-2021	14-Jan-2021	08-Jan-2021	08-Jan-2021
VOC MS (S)	08-Jan-2021	11-Jan-2021	11-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Lab Sample No(s)	23419678	23419744
Customer Sample Ref.	N33-1	N33-2
AGS Ref.		
Depth	0.30 - 0.30	1.60 - 1.60
Type	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	18-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020	
Asbestos Quantification - Full	30-Dec-2020	
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	16-Dec-2020
EPH CWG GC (S)	08-Jan-2021	13-Jan-2021
GRO by GC-FID (S)	07-Jan-2021	07-Jan-2021
Metals in solid samples by OES	21-Dec-2020	18-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020
pH	16-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	18-Dec-2020	17-Dec-2020
Sample description	14-Dec-2020	14-Dec-2020
Total Organic Carbon	21-Dec-2020	21-Dec-2020
TPH CWG GC (S)	08-Jan-2021	13-Jan-2021
VOC MS (S)	06-Jan-2021	06-Jan-2021

CERTIFICATE OF ANALYSIS

Work Order	: **PR20C4943**	Issue Date	: 30-Dec-2020
Customer	: **ALS Life Sciences Ltd**	Laboratory	: ALS Czech Republic, s.r.o.
Contact	: ALS Hawarden Reporting	Contact	: Client Service
Address	: Unit 7-8 Hawarden Business Park Manor Road, Hawarden CH5 3US Deeside United Kingdom	Address	: Na Harfe 336/9 Prague 9 - Vysocany 190 00 Czech Republic
E-mail	: euhdnsubconresults@ALSGlobal.com	E-mail	: customer.support@alsglobal.com
Telephone	: ----	Telephone	: +420 226 226 228
Project	: 201212-45	Page	: 1 of 3
Order number	: ----	Date Samples Received	: 15-Dec-2020
		Quote number	: PR2018ALSAL-GB0004 (CZ-256-18-0022)
Site	: ----	Date of test	: 16-Dec-2020 - 30-Dec-2020
Sampled by	: client	QC Level	: ALS CR Standard Quality Control Schedule

General Comments

This report shall not be reproduced except in full, without prior written approval from the laboratory.

The laboratory declares that the test results relate only to the listed samples. If the section "Sampled by" of the Certificate of analysis states: "Sampled by Customer" then the results relate to the sample as received.

Responsible for accuracy

Testing Laboratory No. 1163
Accredited by CAI according to
CSN EN ISO/IEC 17025:2018

Signatories		*Position*
Zdeněk Jirák		Environmental Business Unit Manager

The company is certified according to ČSN EN ISO 14001 (Environmental management systems) and ČSN ISO 45001 (Occupational health and safety management systems)

Analytical Results

Sub-Matrix: SOIL	Client sample ID	23426503 2BSE-1		23426518 2BSE-12		23426480 2BSE-2	
	Laboratory sample ID	PR20C4943-001		PR20C4943-002		PR20C4943-003	
	Client sampling date / time	14-Dec-2020 07:35		14-Dec-2020 07:37		14-Dec-2020 07:29	

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Physical Parameters									
Gross Calorific Value in Dry Matter Q(V/gr/d)	I-CV-CALS	0.50	MJ/kg DW	**5.04**	± 12.0%	**7.47**	± 11.0%	**5.93**	± 11.5%
Gross Calorific Value Original Q(V/gr/ar)	I-CV-CALS	0.50	MJ/kg	**4.41**	± 12.5%	**6.62**	± 11.2%	**5.32**	± 11.8%
Net Calorific Value in Dry Matter Q(V/net/d)	I-CV-CALS	0.50	MJ/kg DW	**4.68**	± 12.3%	**7.11**	± 11.0%	**5.62**	± 11.6%
Net Calorific Value Original Q(V/net/ar)	I-CV-CALS	0.50	MJ/kg	**3.80**	± 13.3%	**6.04**	± 11.4%	**4.81**	± 12.2%
Water Analytical M(ad)	I-WA-GR	0.50	%	**1.58**	± 29.1%	**1.11**	± 36.0%	**0.95**	± 40.4%
Water Gross M(ex)	I-WG-GR	0.50	%	**11.1**	± 20.2%	**10.4**	± 20.2%	**9.39**	± 20.3%
Water Total M(ar)	I-WT-CC	0.50	%	**12.5**	----	**11.4**	----	**10.2**	----

Sub-Matrix: SOIL	Client sample ID	23426494 2BSE-3		23426485 2BSE-5		----	
	Laboratory sample ID	PR20C4943-004		PR20C4943-005		----	
	Client sampling date / time	14-Dec-2020 07:33		14-Dec-2020 07:31		----	

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Physical Parameters									
Gross Calorific Value in Dry Matter Q(V/gr/d)	I-CV-CALS	0.50	MJ/kg DW	**4.17**	± 12.8%	**1.06**	± 33.0%	**----**	----
Gross Calorific Value Original Q(V/gr/ar)	I-CV-CALS	0.50	MJ/kg	**3.56**	± 13.7%	**0.95**	± 36.4%	**----**	----
Net Calorific Value in Dry Matter Q(V/net/d)	I-CV-CALS	0.50	MJ/kg DW	**3.81**	± 13.3%	**0.78**	± 43.8%	**----**	----
Net Calorific Value Original Q(V/net/ar)	I-CV-CALS	0.50	MJ/kg	**2.91**	± 15.2%	<0.50	----	**----**	----
Water Analytical M(ad)	I-WA-GR	0.50	%	**0.92**	± 41.3%	**1.38**	± 31.4%	**----**	----
Water Gross M(ex)	I-WG-GR	0.50	%	**13.9**	± 20.1%	**8.35**	± 20.4%	**----**	----
Water Total M(ar)	I-WT-CC	0.50	%	**14.7**	----	**9.61**	----	**----**	----

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Measurement uncertainty is expressed as expanded measurement uncertainty with coverage factor k = 2, representing 95% confidence level.
Key: LOR = Limit of reporting; MU = Measurement Uncertainty. The MU does not include sampling uncertainty.

The end of result part of the certificate of analysis

Brief Method Summaries

Analytical Methods	Method Descriptions
Location of test performance: Bendlova 1687/7 Ceska Lipa Czech Republic 470 01	
I-CV-CALS	CZ_SOP_D06_07_124.A (CSN ISO 1928, CSN EN ISO 18125, CSN EN 15400, CSN EN 15170, CSN DIN 51900-1, CSN DIN 51900-2, CSN DIN 51900-3, CSN P CEN/TS 16023) Determination of gross calorific value by calorimetric method and calculation of net calorific value and emission factor by calculation from measured values.
I-WA-GR	CZ_SOP_D06_07_041 (CSN 44 1377, CSN EN ISO 18134-1, CSN EN ISO 18134-2, CSN EN ISO 18134-3, CSN P CEN/TS 15414-1, CSN P CEN/TS 15414-2, CSN EN 15414-3, CSN EN12880, CSN EN14346, CSN EN 15002) Determination of analytical water and gross water by gravimetry and determination of total water by calculation from measured values.
I-WG-GR	CZ_SOP_D06_07_041 (CSN 44 1377, CSN EN ISO 18134-1, CSN EN ISO 18134-2, CSN EN ISO 18134-3, CSN P CEN/TS 15414-1, CSN P CEN/TS 15414-2, CSN EN 15414-3, CSN EN12880, CSN EN14346, CSN EN 15002) Determination of analytical water and gross water by gravimetry and determination of total water by calculation from measured values.
I-WT-CC	CZ_SOP_D06_07_041 (CSN 44 1377, CSN EN ISO 18134-1, CSN EN ISO 18134-2, CSN EN ISO 18134-3, CSN P CEN/TS 15414-1, CSN P CEN/TS 15414-2, CSN EN 15414-3, CSN EN12880, CSN EN14346, CSN EN 15002) Determination of analytical water and gross water by gravimetry and determination of total water by calculation from measured values.

Preparation Methods	Method Descriptions

Preparation Methods	*Method Descriptions*
Location of test performance: Bendlova 1687/7 Ceska Lipa Czech Republic 470 01	
I-PPBURN	Sample combustion in a calorimetric bomb for fuel tests
* S-PPHOM.07	CZ_SOP_D06_07_P01 Preparation of solid samples for analysis (crushing, milling and pulverizing).
* S-PPHOM0.3	CZ_SOP_D06_07_P01 Preparation of solid samples for analysis (crushing, milling and pulverizing).

A `*` symbol preceding any method indicates laboratory or subcontractor non-accredited test. In the case when a procedure belonging to an accredited method was used for non-accredited matrix, would apply that the reported results are non-accredited. Please refer to General Comment section on front page for information. If the report contains subcontracted analysis, those are made in a subcontracted laboratory outside the laboratories ALS Czech Republic, s.r.o.
The calculation methods of summation parameters are available on request in the client service.

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
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Tel: (01244) 528700
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email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Rodgers Leask
Office 225
2430/2440
Aztec West
Almondsbury
Bristol
BS32 4QA

Attention: Elliot Thomas

CERTIFICATE OF ANALYSIS

Date of report Generation:	27 January 2021
Customer:	Rodgers Leask
Sample Delivery Group (SDG):	210114-156
Your Reference:	P18-669
Location:	Llanwern
Report No:	584521

This report has been revised and directly supersedes 584114 in its entirety.

We received 26 samples on Thursday January 14, 2021 and 26 of these samples were scheduled for analysis which was completed on Wednesday January 27, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23544315	AR29-1		1.20 - 1.20	13/01/2021
23544309	AS29-1		1.00 - 1.00	13/01/2021
23544291	AT29-1		0.50 - 0.50	13/01/2021
23544302	AT29-2		1.10 - 1.10	13/01/2021
23544336	AU23-1		0.50 - 0.50	12/01/2021
23544341	AU23-2		1.40 - 1.40	12/01/2021
23544284	AU28-1		0.50 - 0.50	13/01/2021
23544150	AV22-1		0.50 - 0.50	12/01/2021
23544263	AV22-2		1.50 - 1.50	12/01/2021
23544346	AV23-1		0.50 - 0.50	12/01/2021
23544351	AV23-2		1.60 - 1.60	12/01/2021
23544251	AV28-1		0.30 - 0.30	13/01/2021
23544270	AV28-2		1.20 - 1.20	13/01/2021
23544277	AV28-3		2.20 - 2.20	13/01/2021
23544237	AV29-1		0.80 - 0.80	13/01/2021
23544246	AV29-2		1.70 - 1.70	13/01/2021
23544320	AW22-1		0.50 - 0.50	12/01/2021
23544325	AW22-2		1.30 - 1.30	12/01/2021
23544330	AW22-3		2.40 - 2.40	12/01/2021
23544170	AW23-1		0.60 - 0.60	12/01/2021
23544178	AW23-2		1.70 - 1.70	12/01/2021
23544190	AW26-1		0.50 - 0.50	12/01/2021
23544196	AW28-1		0.40 - 0.40	13/01/2021
23544202	AW28-2		1.40 - 1.40	13/01/2021
23544215	AW29-1		0.60 - 0.60	13/01/2021
23544221	AW29-2		1.30 - 1.30	13/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23544315		23544309		23544291		23544302		23544336		23544341		23544284		23544150		23544263		23544346
Customer Sample Reference			AR29-1		AS29-1		AT29-1		AT29-2		AU23-1		AU23-2		AU28-1		AV22-1		AV22-2		AV23-1
AGS Reference																					
Depth (m)			1.20 - 1.20		1.00 - 1.00		0.50 - 0.50		1.10 - 1.10		0.50 - 0.50		1.40 - 1.40		0.50 - 0.50		0.50 - 0.50		1.50 - 1.50		0.50 - 0.50
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 13			X		X						X				X				
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2											X								
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X		X		X		X		X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
PAH by GCMS	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
pH	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Sample description	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Total Organic Carbon	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
VOC MS (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X		X		X		X		X	

23544178	AW23-2		1.70 - 1.70	250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X				
23544170	AW23-1		0.60 - 0.60	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544330	AW22-3		2.40 - 2.40	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544325	AW22-2		1.30 - 1.30	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544320	AW22-1		0.50 - 0.50	250g Amber Jar (ALE210)	S	X	X		X	X	X	X	X	X	X	X	X	X	X	X				
23544246	AV29-2		1.70 - 1.70	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544237	AV29-1		0.80 - 0.80	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544277	AV28-3		2.20 - 2.20	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544270	AV28-2		1.20 - 1.20	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544251	AV28-1		0.30 - 0.30	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544351	AV23-2		1.60 - 1.60	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544346	AV23-1		0.50 - 0.50	60g VOC (ALE215)	S						X									X				

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23544178	23544190		23544196		23544202		23544215	23544221
Customer Sample Reference			AW23-2	AW26-1		AW28-1		AW28-2		AW29-1	AW29-2
AGS Reference											
Depth (m)			1.70 - 1.70	0.50 - 0.50		0.40 - 0.40		1.40 - 1.40		0.60 - 0.60	1.30 - 1.30
Container			60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 13				X				X			
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2								X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 26		X		X		X		X		X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X
Metals in solid samples by OES	All	NDPs: 0 Tests: 26		X		X		X		X		X	
PAH by GCMS	All	NDPs: 0 Tests: 26		X		X		X		X		X	
pH	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Sample description	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Total Organic Carbon	All	NDPs: 0 Tests: 26		X		X		X		X		X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X	
VOC MS (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23544315	AR29-1	1.20 - 1.20	Black	Sand	Stones	None
23544309	AS29-1	1.00 - 1.00	Black	Sand	Stones	None
23544291	AT29-1	0.50 - 0.50	Dark Brown	Loamy Sand	Stones	None
23544302	AT29-2	1.10 - 1.10	Black	Loamy Sand	Stones	None
23544336	AU23-1	0.50 - 0.50	Dark Brown	Sandy Clay Loam	Stones	None
23544341	AU23-2	1.40 - 1.40	Dark Brown	Sandy Loam	Stones	N/A
23544284	AU28-1	0.50 - 0.50	Dark Brown	Sandy Loam	Stones	Vegetation
23544150	AV22-1	0.50 - 0.50	Black	Loamy Sand	Stones	None
23544263	AV22-2	1.50 - 1.50	Dark Brown	Sandy Loam	Stones	Concrete/Aggregate
23544346	AV23-1	0.50 - 0.50	Dark Brown	Sand	Stones	None
23544351	AV23-2	1.60 - 1.60	Light Brown	Sand	Stones	None
23544251	AV28-1	0.30 - 0.30	Dark Brown	Silty Sand	Stones	None
23544270	AV28-2	1.20 - 1.20	Black	Loamy Sand	Stones	None
23544277	AV28-3	2.20 - 2.20	Black	Loamy Sand	Stones	None
23544237	AV29-1	0.80 - 0.80	Dark Brown	Loamy Sand	Stones	None
23544246	AV29-2	1.70 - 1.70	Black	Stone/Soil	None	None
23544320	AW22-1	0.50 - 0.50	Black	Sandy Loam	Stones	None
23544325	AW22-2	1.30 - 1.30	Black	Loamy Sand	Stones	None
23544330	AW22-3	2.40 - 2.40	Grey	Rubble/Soil	Stones	None
23544170	AW23-1	0.60 - 0.60	Dark Brown	Sand	Stones	None
23544178	AW23-2	1.70 - 1.70	Dark Brown	Sand	Stones	N/A
23544190	AW26-1	0.50 - 0.50	Dark Brown	Sand	Stones	None
23544196	AW28-1	0.40 - 0.40	Black	Loamy Sand	Stones	None
23544202	AW28-2	1.40 - 1.40	Black	Loamy Sand	Stones	None
23544215	AW29-1	0.60 - 0.60	Black	Loamy Sand	Stones	None
23544221	AW29-2	1.30 - 1.30	Black	Loamy Sand	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	11	12	24	20	14
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	28.7 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		61.9 #	12.8 #	22.1 #	98.8 #	4.98 #	4.47 #
pH	1 pH Units	TM133		11.7 M	11.5 M	10.8 M	10.4 M	9.06 M	10.8 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		5.37 M	6.29 M	4.22 M	5.02 M	13.6 M	6.17 M
Cadmium	<0.02 mg/kg	TM181		<0.02 M	1.22 M	0.147 M	<0.02 M	0.839 M	0.309 M
Chromium	<0.9 mg/kg	TM181		307 M	222 M	25.6 M	8.05 M	226 M	77.9 M
Copper	<1.4 mg/kg	TM181		19.3 M	<14 M	6.17 M	17.8 M	24.1 M	<14 M
Iron	<1000 mg/kg	TM181		64500 #	102000 #	32600 #	23900 #	87800 #	55000 #
Lead	<0.7 mg/kg	TM181		9.84 M	13.1 M	22.5 M	16.2 M	100 M	109 M
Manganese	<0.13 mg/kg	TM181		19000 M	19600 M	5800 M	1800 M	12600 M	6930 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<1.4 M	<0.14 M	<0.14 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		7.08 M	10.1 M	4.84 M	8.34 M	28.4 M	12.3 M
Selenium	<1 mg/kg	TM181		10.1 #	11.5 #	4.19 #	1.3 #	10.7 #	<10 #
Vanadium	<0.2 mg/kg	TM181		895 #	480 #	51.5 #	26.9 #	236 #	140 #
Zinc	<1.9 mg/kg	TM181		35.5 M	522 M	49.7 M	46.3 M	476 M	265 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304							<0.001 #
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304							<0.001 #
Additional Asbestos Components (Using TM048)		TM304							None #
Analysts Comments		TM304							0
Asbestos Quantification - Total - %	<0.001 %	TM304							<0.001 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		13	9	17	11	6.8	9.8
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	30.1 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.0121 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		3.28 #	17.4 #	7.52 #	1.01 #	0.441 #	26 #
pH	1 pH Units	TM133		9.07 M	10.4 M	11.8 M	9.67 M	10.9 M	9.4 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	1.54 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		7.86 M	9.2 M	12.4 M	6.51 M	2.8 M	7.62 M
Cadmium	<0.02 mg/kg	TM181		<0.02 M	<0.2 M	<0.2 M	0.873 M	0.24 M	0.802 M
Chromium	<0.9 mg/kg	TM181		26.5 M	<9 M	<9 M	23.7 M	57.2 M	219 M
Copper	<1.4 mg/kg	TM181		15.2 M	<14 M	15 M	10.2 M	3.15 M	19.1 M
Iron	<1000 mg/kg	TM181		53200 #	238000 #	118000 #	22000 #	6400 #	208000 #
Lead	<0.7 mg/kg	TM181		37.6 M	44.6 M	33.5 M	19.5 M	<0.7 M	29.1 M
Manganese	<0.13 mg/kg	TM181		4440 M	3470 M	3140 M	2090 M	6650 M	8970 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<1.4 M	<1.4 M	<0.14 M	<0.14 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		14.6 M	53.7 M	30.9 M	13 M	1.37 M	29.5 M
Selenium	<1 mg/kg	TM181		1.61 #	<10 #	<10 #	1.15 #	3.97 #	<10 #
Vanadium	<0.2 mg/kg	TM181		60.3 #	56.6 #	54.5 #	38 #	110 #	146 #
Zinc	<1.9 mg/kg	TM181		136 M	164 M	110 M	90.6 M	27.6 M	180 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		19	21	15	12	11	11
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	127 #	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 #	0.0113 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 #	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 #	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 #	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		49.1 #	44 #	11.5 #	1.45 #	23.4 #	10.9 #
pH	1 pH Units	TM133		11.5 M	11.3 M	11.3 M	8.31 #	10.2 M	10.4 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 #	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		9.8 M	11.7 M	17.2 M	4.66 #	8.42 M	19 M
Cadmium	<0.02 mg/kg	TM181		<0.2 M	<0.2 M	4.82 M	0.297 #	0.132 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		<9 M	<9 M	<9 M	<9 #	138 M	<9 M
Copper	<1.4 mg/kg	TM181		19.6 M	17.8 M	43.9 M	14.3 #	15.3 M	41.3 M
Iron	<1000 mg/kg	TM181		143000 #	146000 #	321000 #	14800 #	94200 #	264000 #
Lead	<0.7 mg/kg	TM181		51.4 M	74 M	1400 M	31.7 #	147 M	41.5 M
Manganese	<0.13 mg/kg	TM181		4270 M	4290 M	10900 M	2880 #	10400 M	4700 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M	<0.14 #	0.239 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		20.7 M	21.3 M	41.6 M	7.14 #	18.5 M	41.5 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #	<10 #	6.48 #	3.64 #	<10 #
Vanadium	<0.2 mg/kg	TM181		64.6 #	69 #	156 #	22.1 #	311 #	83.2 #
Zinc	<1.9 mg/kg	TM181		128 M	170 M	2780 M	83 #	449 M	116 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		5.8	10	8.2	13	9.9	11
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 #	<12 M	39.6 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		0.0424 #	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		0.0424 #	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		2.67 #	1.01 #	1.91 #	4.34 #	14.1 #	7.12 #
pH	1 pH Units	TM133		10.6 #	11.3 M	10.3 M	9.52 M	9.57 M	11.1 M
Cyanide, Total	<1 mg/kg	TM153		<1 #	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		<6 #	1.9 M	6.69 M	11 M	7.89 M	6.03 M
Cadmium	<0.02 mg/kg	TM181		<0.2 #	<0.02 M	0.742 M	<0.2 M	0.249 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		101 #	3.79 M	97.2 M	399 M	294 M	399 M
Copper	<1.4 mg/kg	TM181		<14 #	<1.4 M	17.6 M	40.3 M	<14 M	<14 M
Iron	<1000 mg/kg	TM181		42100 #	10800 #	36600 #	64300 #	175000 #	168000 #
Lead	<0.7 mg/kg	TM181		21.3 #	<0.7 M	16.1 M	49.9 M	166 M	56.1 M
Manganese	<0.13 mg/kg	TM181		4710 #	3970 M	2020 M	18900 M	19100 M	30700 M
Mercury	<0.14 mg/kg	TM181		<1.4 #	<1.4 M	0.297 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		13.5 #	1.21 M	16.7 M	26.4 M	14 M	11.2 M
Selenium	<1 mg/kg	TM181		<10 #	2.23 #	2.32 #	16.7 #	12.6 #	23.6 #
Vanadium	<0.2 mg/kg	TM181		202 #	14.8 #	102 #	622 #	227 #	506 #
Zinc	<1.9 mg/kg	TM181		43.6 #	21.1 M	95.1 M	205 M	427 M	182 M

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2
			Depth (m)	0.60 - 0.60	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021
			Sample Time	.	.
			Date Received	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156
			Lab Sample No.(s)	23544215	23544221
			AGS Reference		
Moisture Content Ratio (% of as received sample)	%	PM024		12	18
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		24.7 #	19.7 #
pH	1 pH Units	TM133		9.1 M	11.2 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		15.6 M	17.3 M
Cadmium	<0.02 mg/kg	TM181		1.18 M	3.89 M
Chromium	<0.9 mg/kg	TM181		<9 M	65.1 M
Copper	<1.4 mg/kg	TM181		25.7 M	34.1 M
Iron	<1000 mg/kg	TM181		222000 #	291000 #
Lead	<0.7 mg/kg	TM181		242 M	1100 M
Manganese	<0.13 mg/kg	TM181		6090 M	12000 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		29.7 M	32.9 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #
Vanadium	<0.2 mg/kg	TM181		78.6 #	168 #
Zinc	<1.9 mg/kg	TM181		718 M	2990 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		<0.001 #	
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #	
Additional Asbestos Components (Using TM048)		TM304		None #	
Analysts Comments		TM304		N/A	
Asbestos Quantification - Total - %	<0.001 %	TM304		<0.001 #	

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		89.7	86.7	82.6	88.9	80.1	89.5
Acenaphthene-d10 % recovery**	%	TM218		86.2	87.6	81.7	87.6	82	88.1
Phenanthrene-d10 % recovery**	%	TM218		78	88.1	79.4	86.1	87.3	87.6
Chrysene-d12 % recovery**	%	TM218		57	79.7	74	69.9	85.9	90.4
Perylene-d12 % recovery**	%	TM218		47.7	79.9	72.4	59.5	74.2	86.3
Naphthalene	<9 µg/kg	TM218		73.9 M	39 M	<45 M	76.7 M	84.1 M	205 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M	<60 M	<12 M	51.3 M	<12 M
Acenaphthene	<8 µg/kg	TM218		12.3 M	<8 M	<40 M	<8 M	13 M	17.3 M
Fluorene	<10 µg/kg	TM218		22.1 M	12.2 M	<50 M	32.2 M	36.4 M	21.8 M
Phenanthrene	<15 µg/kg	TM218		238 M	107 M	<75 M	256 M	270 M	117 M
Anthracene	<16 µg/kg	TM218		53.3 M	23.1 M	<80 M	39.1 M	83 M	19.6 M
Fluoranthene	<17 µg/kg	TM218		310 M	165 M	164 M	170 M	542 M	157 M
Pyrene	<15 µg/kg	TM218		261 M	149 M	258 M	322 M	424 M	126 M
Benz(a)anthracene	<14 µg/kg	TM218		299 M	119 M	106 M	128 M	262 M	106 M
Chrysene	<10 µg/kg	TM218		321 M	126 M	153 M	194 M	274 M	126 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		357 M	220 M	209 M	187 M	366 M	183 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		134 M	66.9 M	<70 M	47.6 M	110 M	66.1 M
Benzo(a)pyrene	<15 µg/kg	TM218		292 M	135 M	98.4 M	94.7 M	217 M	99.9 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		189 M	109 M	<90 M	71.6 M	175 M	94.7 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		73.4 M	<23 M	<115 M	<23 M	34.4 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		201 M	98.9 M	<120 M	91.8 M	146 M	85.9 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		2840	1370	989	1710	3090	1420

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		91.4	86.1	86.4	91.2	0	88.7
Acenaphthene-d10 % recovery**	%	TM218		87	87.1	86	88.3	86.4	87.1
Phenanthrene-d10 % recovery**	%	TM218		88.8	86.6	83.7	84.8	85.1	83.7
Chrysene-d12 % recovery**	%	TM218		79	85.4	78.9	79.1	79.2	72.9
Perylene-d12 % recovery**	%	TM218		77.3	78.5	73.3	77.1	77.1	63.8
Naphthalene	<9 µg/kg	TM218		<90 M	62.9 M	56.1 M	20.5 M	95 M	48.8 M
Acenaphthylene	<12 µg/kg	TM218		<120 M	20.3 M	<12 M	15.9 M	<12 M	25.8 M
Acenaphthene	<8 µg/kg	TM218		<80 M	<8 M	18.4 M	<8 M	<8 M	9.57 M
Fluorene	<10 µg/kg	TM218		<100 M	12.6 M	52.9 M	<10 M	21.2 M	20.8 M
Phenanthrene	<15 µg/kg	TM218		<150 M	129 M	147 M	89.4 M	129 M	293 M
Anthracene	<16 µg/kg	TM218		<160 M	30.9 M	<16 M	31 M	<16 M	73.3 M
Fluoranthene	<17 µg/kg	TM218		<170 M	170 M	92.7 M	206 M	257 M	417 M
Pyrene	<15 µg/kg	TM218		<150 M	147 M	85.8 M	162 M	215 M	324 M
Benz(a)anthracene	<14 µg/kg	TM218		<140 M	104 M	59.5 M	95.2 M	202 M	228 M
Chrysene	<10 µg/kg	TM218		<100 M	115 M	57.2 M	94.5 M	172 M	245 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		<150 M	201 M	98.2 M	92.1 M	242 M	226 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		<140 M	57.2 M	33.2 M	39.3 M	<14 M	92.2 M
Benzo(a)pyrene	<15 µg/kg	TM218		<150 M	108 M	53.9 M	76.7 M	143 M	182 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<180 M	102 M	52.8 M	56.3 M	105 M	134 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<230 M	<23 M	<23 M	<23 M	<23 M	38.5 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<240 M	92.7 M	50.9 M	53.1 M	93.2 M	139 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		<1180	1350	859	1030	1670	2500

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		87.2	89	86.1	92.2	87.9	91.3
Acenaphthene-d10 % recovery**	%	TM218		87.3	85.1	83.2	88.4	85.9	87.5
Phenanthrene-d10 % recovery**	%	TM218		85.1	83.7	74.9	85	86.7	84.1
Chrysene-d12 % recovery**	%	TM218		67.5	72.9	42.5	76.2	83.7	79.1
Perylene-d12 % recovery**	%	TM218		63.7	69	27.1	77	82	78.3
Naphthalene	<9 µg/kg	TM218		102 M	54.9 M	38.3 M	11.2 #	1440 M	67.6 M
Acenaphthylene	<12 µg/kg	TM218		17.2 M	<12 M	<12 M	<12 #	341 M	19.4 M
Acenaphthene	<8 µg/kg	TM218		56.4 M	11.2 M	<8 M	<8 #	65.1 M	<8 M
Fluorene	<10 µg/kg	TM218		211 M	27.4 M	12 M	<10 #	279 M	37.4 M
Phenanthrene	<15 µg/kg	TM218		442 M	183 M	113 M	28.7 #	1940 M	137 M
Anthracene	<16 µg/kg	TM218		79.2 M	37.9 M	<16 M	<16 #	530 M	28.3 M
Fluoranthene	<17 µg/kg	TM218		347 M	268 M	82.9 M	28.5 #	2930 M	99.1 M
Pyrene	<15 µg/kg	TM218		312 M	232 M	72.8 M	24.6 #	2190 M	77.6 M
Benz(a)anthracene	<14 µg/kg	TM218		260 M	200 M	22.1 M	16.5 #	1340 M	52 M
Chrysene	<10 µg/kg	TM218		258 M	219 M	25.1 M	16 #	1330 M	56.7 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		383 M	316 M	19.1 M	28 #	1930 M	90.5 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		140 M	102 M	<14 M	<14 #	613 M	27.1 M
Benzo(a)pyrene	<15 µg/kg	TM218		311 M	215 M	<15 M	<15 #	1210 M	41.3 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		203 M	137 M	<18 M	<18 #	946 M	35.3 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		57.5 M	42.6 M	<23 M	<23 #	197 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		209 M	145 M	<24 M	<24 #	806 M	35.4 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		3390	2190	385	153	18100	805

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		89.9	87.5	91.8	87.5	89	85.5
Acenaphthene-d10 % recovery**	%	TM218		87.8	92.5	88.3	90.4	86.7	87.6
Phenanthrene-d10 % recovery**	%	TM218		84.4	96	86.8	94.8	86.4	87.8
Chrysene-d12 % recovery**	%	TM218		80.4	91.5	88.7	90	79.8	76.5
Perylene-d12 % recovery**	%	TM218		79.9	86.5	89.6	80.1	76.6	70.5
Naphthalene	<9 µg/kg	TM218		71.6 #	<450 M	72.6 M	25.1 M	47.3 M	64 M
Acenaphthylene	<12 µg/kg	TM218		<12 #	<600 M	<60 M	<12 M	14.7 M	18 M
Acenaphthene	<8 µg/kg	TM218		<8 #	<400 M	<40 M	<8 M	<8 M	<8 M
Fluorene	<10 µg/kg	TM218		<10 #	<500 M	<50 M	<10 M	<10 M	14.2 M
Phenanthrene	<15 µg/kg	TM218		63 #	962 M	<75 M	72.2 M	106 M	115 M
Anthracene	<16 µg/kg	TM218		18.8 #	<800 M	<80 M	<16 M	22.7 M	32.8 M
Fluoranthene	<17 µg/kg	TM218		91.6 #	995 M	<85 M	122 M	149 M	158 M
Pyrene	<15 µg/kg	TM218		67.8 #	913 M	<75 M	117 M	122 M	120 M
Benz(a)anthracene	<14 µg/kg	TM218		36.2 #	<700 M	<70 M	72.3 M	69.7 M	82.2 M
Chrysene	<10 µg/kg	TM218		28.2 #	<500 M	60.8 M	77.8 M	72.3 M	89.4 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		41.1 #	<750 M	89.8 M	119 M	115 M	150 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		<14 #	<700 M	<70 M	35.7 M	32.6 M	47.1 M
Benzo(a)pyrene	<15 µg/kg	TM218		22.8 #	<750 M	<75 M	63.9 M	65.5 M	74.6 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<18 #	<900 M	<90 M	54.9 M	59.3 M	75.5 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 #	<1150 M	<115 M	<23 M	<23 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 #	<1200 M	<120 M	57.5 M	57.3 M	65.2 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		441	<5900	<590	818	933	1110

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2				
			Depth (m)	0.60 - 0.60	1.30 - 1.30				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	13/01/2021	13/01/2021				
			Sample Time	.	.				
			Date Received	14/01/2021	14/01/2021				
			SDG Ref	210114-156	210114-156				
			Lab Sample No.(s)	23544215	23544221				
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		90.4	87.8				
Acenaphthene-d10 % recovery**	%	TM218		87	86.1				
Phenanthrene-d10 % recovery**	%	TM218		79.7	83.5				
Chrysene-d12 % recovery**	%	TM218		61	79				
Perylene-d12 % recovery**	%	TM218		50.4	69.6				
Naphthalene	<9 µg/kg	TM218		13.5 M	47.7 M				
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M				
Acenaphthene	<8 µg/kg	TM218		<8 M	17.9 M				
Fluorene	<10 µg/kg	TM218		<10 M	29.2 M				
Phenanthrene	<15 µg/kg	TM218		46 M	182 M				
Anthracene	<16 µg/kg	TM218		<16 M	49 M				
Fluoranthene	<17 µg/kg	TM218		41.4 M	294 M				
Pyrene	<15 µg/kg	TM218		37.1 M	293 M				
Benz(a)anthracene	<14 µg/kg	TM218		26 M	125 M				
Chrysene	<10 µg/kg	TM218		34.6 M	136 M				
Benzo(b)fluoranthene	<15 µg/kg	TM218		58.2 M	196 M				
Benzo(k)fluoranthene	<14 µg/kg	TM218		17.1 M	50.9 M				
Benzo(a)pyrene	<15 µg/kg	TM218		25.9 M	106 M				
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		22 M	93.5 M				
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<23 M				
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 M	79.3 M				
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		322	1700				

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		80.1	79.3	79.7	35.1 4	86.2	117
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	10.5
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	21.1
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	24.6
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		2780	<1000	2450	7050	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		10100	3780	15000	23700	1920	3580
Aliphatics >C21-C35	<1000 µg/kg	TM414		29900	20700	98800	35500	17200	10700
Aliphatics >C35-C44	<1000 µg/kg	TM414		4240	12100	67500	7370	4160	1170
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		47200	37700	184000	73900	23400	16300
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		58800	49400	225000	116000	42400	20300
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	19.9
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	16.4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	4090	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		2020	<1000	1170	6640	2840	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		8050	9560	34400	27900	14600	2440
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	1270	4610	3050	1300	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	1190	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		11600	11600	40700	41800	19000	<5000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		58800	49400	225000	116000	42400	16400
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50	56.2
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	<20 4	<20	56.2

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		113	86.7	86.5	90.2	97.7	67 4
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10 4
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	47.2	<10	16.1	<10 4
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	388	<10	47.2	<10 4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	3000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	33100	<1000	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		1190	4470	50600	<1000	<1000	1790
Aliphatics >C21-C35	<1000 µg/kg	TM414		9020	19900	67000	<1000	5790	8620
Aliphatics >C35-C44	<1000 µg/kg	TM414		1370	6240	14300	<1000	1390	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		11700	31200	168000	<5000	7180	11300
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		32700	50400	198000	<10000	12500	31100
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10 4
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10 4
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	259	<10	31.1	<10 4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	9290	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		2340	<1000	9860	<1000	<1000	1890
Aromatics > EC21-EC35	<1000 µg/kg	TM414		17400	17500	9820	1180	3980	15200
Aromatics >EC35-EC44	<1000 µg/kg	TM414		1340	<1000	<1000	<1000	<1000	2530
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		21000	19300	30100	<5000	5320	19800
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		32700	50400	199000	<10000	12600	31100
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	436	<50	63.3	<50 4
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	259	<50	<50	<50 4
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	695	<20	63.3	<20 4

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		97.4	69.3 4	92.6	109	80.5 2	88.1
Aliphatics >C5-C6	<10 µg/kg	TM089		13.6	<10 4	<10	18.2	38.4 2	42.9
Aliphatics >C6-C8	<10 µg/kg	TM089		36	<10 4	<10	41	64.4 2	98.3
Aliphatics >C8-C10	<10 µg/kg	TM089		37.2	<10 4	<10	85.5	50.9 2	525
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	13700
Aliphatics >C12-C16	<1000 µg/kg	TM414		2050	1170	<1000	4070	4050	9440
Aliphatics >C16-C21	<1000 µg/kg	TM414		6720	6340	20500	6360	11600	4010
Aliphatics >C21-C35	<1000 µg/kg	TM414		12400	10800	38000	17000	32300	39700
Aliphatics >C35-C44	<1000 µg/kg	TM414		2220	1300	1090	6100	31300	18900
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		23400	19600	60400	33500	79800	85700
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		42100	34700	69200	39500	150000	99000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10 2	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10 2	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		24.8	<10 4	<10	57	33.9 2	350
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	1950	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		1640	<1000	<1000	<1000	2950	1170
Aromatics > EC16-EC21	<1000 µg/kg	TM414		3730	2720	2140	<1000	13500	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		12300	10500	5160	4640	48100	9210
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	3990	1350
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		18700	15100	8800	6040	70500	13300
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		42200	34700	69200	39700	150000	100000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		86.8	<50 4	<50	145	154 2	667
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50 4	<50	57	<50 2	350
GRO >C5-C10	<20 µg/kg	TM089		86.8	<20 4	<20	202	154 2	1020

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		90.1	72.6	104	122	70.4	124
Aliphatics >C5-C6	<10 µg/kg	TM089		18	27.8	20.7	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		30.8	43.3	33.8	<10	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		40.3	65.5	38.1	<10	<10	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<10000	2050	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<10000	7070	<1000	5000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		1100	25000	4650	5280	14800	1260
Aliphatics >C21-C35	<1000 µg/kg	TM414		2790	343000	34400	18900	34300	4850
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	375000	48300	4980	3520	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		<5000	747000	96400	30100	57600	6190
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		<10000	1160000	142000	55800	67400	<10000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		27.6	43.3	26.1	<10	<10	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<10000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<10000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		<1000	<10000	<1000	<1000	<1000	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		1400	381000	39300	22600	7590	2440
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	32500	4470	2600	<1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	15000	1230	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		<5000	415000	45300	25700	9730	<5000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		<10000	1160000	142000	55800	67400	<10000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		89.1	137	92.6	<50	<50	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		89.1	137	92.6	<20	<20	<20

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2				
			Depth (m)	0.60 - 0.60	1.30 - 1.30				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	13/01/2021	13/01/2021				
			Sample Time	.	.				
			Date Received	14/01/2021	14/01/2021				
			SDG Ref	210114-156	210114-156				
			Lab Sample No.(s)	23544215	23544221				
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		94.3	126				
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10				
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10				
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10				
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C16-C21	<1000 µg/kg	TM414		6380	10000				
Aliphatics >C21-C35	<1000 µg/kg	TM414		10800	33000				
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	1510				
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		18500	44800				
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		47500	56300				
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10				
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10				
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10				
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC16-EC21	<1000 µg/kg	TM414		<1000	1720				
Aromatics > EC21-EC35	<1000 µg/kg	TM414		25900	8780				
Aromatics >EC35-EC44	<1000 µg/kg	TM414		2710	<1000				
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000				
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		29000	11600				
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		47500	56300				
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50				
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50				
GRO >C5-C10	<20 µg/kg	TM089		<20	<20				

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
Dibromofluoromethane**	%	TM116		108	105	111	105	107	108
Toluene-d8**	%	TM116		94.5	98.2	95.8	96	96.7	96.7
4-Bromofluorobenzene**	%	TM116		87.2	97.1	89.8	90.4	93.6	95.3
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
Dibromofluoromethane**	%	TM116		108	105	104	109	106	103
Toluene-d8**	%	TM116		95.8	97.9	97.6	96.8	97.3	95.5
4-Bromofluorobenzene**	%	TM116		92.3	93.9	93.1	94.1	95.3	88.2
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
Dibromofluoromethane**	%	TM116		105	104	105	110	105 2	106
Toluene-d8**	%	TM116		94.6	97.8	98	98.2	94.3 2	96.9
4-Bromofluorobenzene**	%	TM116		88.1	95.9	96.9	92.2	87.8 2	92.1
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 #	<200 2 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 #	<180 2 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 #	<140 2 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 #	<80 2 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 2 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 #	<200 2 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 #	536 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4 2	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800 2	<800

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
Dibromofluoromethane**	%	TM116		106	112	107	112	104	107
Toluene-d8**	%	TM116		98.5	94.5	97.3	95.9	97.9	96.8
4-Bromofluorobenzene**	%	TM116		97.8	93.9	95.7	93.5	98.1	97.3
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 #	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 #	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 #	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 #	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 #	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 #	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2				
			Depth (m)	0.60 - 0.60	1.30 - 1.30				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	13/01/2021	13/01/2021				
			Sample Time	.	.				
			Date Received	14/01/2021	14/01/2021				
			SDG Ref	210114-156	210114-156				
			Lab Sample No.(s)	23544215	23544221				
			AGS Reference						
Dibromofluoromethane**	%	TM116		110	105				
Toluene-d8**	%	TM116		97.9	98.8				
4-Bromofluorobenzene**	%	TM116		98.5	97.3				
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M				
Benzene	<9 µg/kg	TM116		<180 M	<180 M				
Toluene	<7 µg/kg	TM116		<140 M	<140 M				
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M				
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #				
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M				
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M				
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4				
Sum of BTEX	<40 µg/kg	TM116		<800	<800				

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AS29-1 1.00 - 1.00 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544309 TM048	20/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AT29-1 0.50 - 0.50 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544291 TM048	20/01/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AU23-2 1.40 - 1.40 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544341 TM048	19/01/2021	Paul Poynton	Loose fibres in soil	Not Detected (#)	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV22-1 0.50 - 0.50 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544150 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV23-2 1.60 - 1.60 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544351 TM048	20/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV28-1 0.30 - 0.30 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544251 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV28-3 2.20 - 2.20 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544277 TM048	20/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV29-1 0.80 - 0.80 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544237 TM048	20/01/2021	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW22-1 0.50 - 0.50 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544320 TM048	21/01/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW22-3 2.40 - 2.40 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544330 TM048	20/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW23-2 1.70 - 1.70 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544178 TM048	19/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW28-1 0.40 - 0.40 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544196 TM048	20/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW29-1 0.60 - 0.60 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544215 TM048	20/01/2021	Paul Poynton	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	AU23-2	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	1.40 - 1.40					
Sample Type	SOLID					
Date Sampled	12/01/2021 00:00:00					
Date Received	14/01/2021 05:00:00					
SDG	210114-156					
Original Sample	23544341					
Method Number	TM304					
Cust. Sample Ref.	AW29-1	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	0.60 - 0.60					
Sample Type	SOLID					
Date Sampled	13/01/2021 00:00:00					
Date Received	14/01/2021 05:00:00					
SDG	210114-156					
Original Sample	23544215					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Test Completion Dates

Lab Sample No(s)	23544315	23544309	23544291	23544302	23544336	23544341	23544284	23544150	23544263	23544346
Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2	AU28-1	AV22-1	AV22-2	AV23-1
AGS Ref.										
Depth	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples		20-Jan-2021	20-Jan-2021			19-Jan-2021		21-Jan-2021		
Asbestos Quantification - Full						25-Jan-2021				
Cyanide Comp/Free/Total/Thiocyanate	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	19-Jan-2021
EPH CWG GC (S)	18-Jan-2021	18-Jan-2021	20-Jan-2021	19-Jan-2021	18-Jan-2021	18-Jan-2021	19-Jan-2021	19-Jan-2021	18-Jan-2021	18-Jan-2021
GRO by GC-FID (S)	21-Jan-2021	20-Jan-2021	19-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021
Metals in solid samples by OES	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
PAH by GCMS	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	18-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	19-Jan-2021	21-Jan-2021
pH	15-Jan-2021	18-Jan-2021	18-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	18-Jan-2021	15-Jan-2021	15-Jan-2021
Phenols by HPLC (S)	21-Jan-2021	21-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	20-Jan-2021
Sample description	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021
Total Organic Carbon	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021
TPH CWG GC (S)	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021
VOC MS (S)	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021

Lab Sample No(s)	23544351	23544251	23544270	23544277	23544237	23544246	23544320	23544325	23544330	23544170
Customer Sample Ref.	AV23-2	AV28-1	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2	AW22-3	AW23-1
AGS Ref.										
Depth	1.60 - 1.60	0.30 - 0.30	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30	2.40 - 2.40	0.60 - 0.60
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	20-Jan-2021	21-Jan-2021		20-Jan-2021	20-Jan-2021		21-Jan-2021		20-Jan-2021	
Cyanide Comp/Free/Total/Thiocyanate	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
EPH CWG GC (S)	18-Jan-2021	18-Jan-2021	18-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	19-Jan-2021	19-Jan-2021	18-Jan-2021
GRO by GC-FID (S)	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	19-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
PAH by GCMS	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021
pH	15-Jan-2021	15-Jan-2021	15-Jan-2021	18-Jan-2021	18-Jan-2021	15-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	15-Jan-2021
Phenols by HPLC (S)	20-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021
Sample description	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021
Total Organic Carbon	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
TPH CWG GC (S)	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021
VOC MS (S)	19-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Lab Sample No(s)	23544178	23544190	23544196	23544202	23544215	23544221
Customer Sample Ref.	AW23-2	AW26-1	AW28-1	AW28-2	AW29-1	AW29-2
AGS Ref.						
Depth	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40	0.60 - 0.60	1.30 - 1.30
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
Asbestos ID in Solid Samples	19-Jan-2021		20-Jan-2021		20-Jan-2021	
Asbestos Quantification - Full					27-Jan-2021	
Cyanide Comp/Free/Total/Thiocyanate	20-Jan-2021	19-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
EPH CWG GC (S)	20-Jan-2021	20-Jan-2021	20-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021
GRO by GC-FID (S)	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
Metals in solid samples by OES	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021
PAH by GCMS	20-Jan-2021	20-Jan-2021	19-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021
pH	15-Jan-2021	15-Jan-2021	18-Jan-2021	20-Jan-2021	18-Jan-2021	15-Jan-2021
Phenols by HPLC (S)	20-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021
Sample description	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021
Total Organic Carbon	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021
TPH CWG GC (S)	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
VOC MS (S)	21-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Rodgers Leask
Office 225
2430/2440
Aztec West
Almondsbury
Bristol
BS32 4QA

Attention: Elliot Thomas

CERTIFICATE OF ANALYSIS

Date of report Generation:	28 January 2021
Customer:	Rodgers Leask
Sample Delivery Group (SDG):	210115-27
Your Reference:	P18-669
Location:	Llanwern
Report No:	584712

This report has been revised and directly supersedes 584671 in its entirety.

We received 27 samples on Friday January 15, 2021 and 27 of these samples were scheduled for analysis which was completed on Thursday January 28, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23547855	AL24-1		0.70 - 0.70	13/01/2021
23547865	AL24-2		1.30 - 1.30	13/01/2021
23547873	AM33-1		0.30 - 0.30	13/01/2021
23547879	AM33-2		1.30 - 1.30	13/01/2021
23547829	AN23-1		0.20 - 0.20	13/01/2021
23547841	AN23-2		1.50 - 1.50	13/01/2021
23548024	AO27-1		0.60 - 0.60	13/01/2021
23548034	AO27-2		1.20 - 1.20	13/01/2021
23547788	AO29-1		0.50 - 0.50	13/01/2021
23547917	AO29-2		1.50 - 1.50	13/01/2021
23548085	AQ24-1		0.20 - 0.20	13/01/2021
23547819	AQ24-2		1.50 - 1.50	13/01/2021
23548065	AQ25-1		0.20 - 0.20	13/01/2021
23548075	AQ25-2		1.50 - 1.50	13/01/2021
23548044	AQ26-1		0.20 - 0.20	13/01/2021
23548052	AQ26-2		1.50 - 1.50	13/01/2021
23547887	W168-1		0.20 - 0.20	14/01/2021
23547896	W168-2		0.20 - 0.20	14/01/2021
23547907	W168-3		0.20 - 0.20	14/01/2021
23547927	W168-4		0.20 - 0.20	14/01/2021
23547935	W168-5		0.20 - 0.20	14/01/2021
23547942	W168-6		0.20 - 0.20	14/01/2021
23547958	W168-7		0.20 - 0.20	14/01/2021
23547970	W168-8		0.20 - 0.20	14/01/2021
23547983	W168-9		0.20 - 0.20	14/01/2021
23548001	W168-10		0.20 - 0.20	14/01/2021
23548010	W168-11		0.20 - 0.20	14/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23547855		23547865		23547873		23547879		23547929		23547841		23548024		23548034				
Customer Sample Reference			AL24-1		AL24-2		AM33-1		AM33-2		AN23-1		AN23-2		AO27-1		AO27-2				
AGS Reference																					
Depth (m)			0.70 - 0.70		1.30 - 1.30		0.30 - 0.30		1.30 - 1.30		0.20 - 0.20		1.50 - 1.50		0.60 - 0.60		1.20 - 1.20				
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 14	X					X					X					X			
Asbestos Quantification - Full	All	NDPs: 0 Tests: 1																			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
PAH by GCMS	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
pH	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
Sample description	All	NDPs: 0 Tests: 26		X		X			X		X			X		X			X		X
Total Organic Carbon	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
VOC MS (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X	

23548052	AQ26-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23548044	AQ26-1		0.20 - 0.20	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x																
23548075	AQ25-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23548065	AQ25-1		0.20 - 0.20	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x	x															
23547819	AQ24-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23548085	AQ24-1		0.20 - 0.20	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x																
23547917	AO29-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23547788	AO29-1		0.50 - 0.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x																
23548034	AO27-2		1.20 - 1.20	60g VOC (ALE215)	S							x											x

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)				23547887	23547896		23547907			23547927			23547935			23547942			23547958		23547970
Customer Sample Reference				W168-1	W168-2		W168-3			W168-4			W168-5			W168-6			W168-7		W168-8
AGS Reference																					
Depth (m)				0.20 - 0.20	0.20 - 0.20		0.20 - 0.20			0.20 - 0.20			0.20 - 0.20			0.20 - 0.20			0.20 - 0.20		0.20 - 0.20
Container				1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type				S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 14		X					X					X					X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 27				X		X			X		X			X		X			X		
Metals in solid samples by OES	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
PAH by GCMS	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
pH	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
Sample description	All	NDPs: 0 Tests: 26			X		X			X		X			X		X			X		X
Total Organic Carbon	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
VOC MS (S)	All	NDPs: 0 Tests: 27				X		X			X		X			X		X			X		

23548010	W168-11		0.20 - 0.20	60g VOC (ALE215)	S					X								X
				250g Amber Jar (ALE210)	S	X		X	X		X	X	X	X		X	X	
				1kg TUB with Handle (ALE260)	S		X											
23548001	W168-10		0.20 - 0.20	60g VOC (ALE215)	S					X								X
				250g Amber Jar (ALE210)	S	X		X	X		X	X	X	X	X	X	X	
23547983	W168-9		0.20 - 0.20	60g VOC (ALE215)	S					X								X
				250g Amber Jar (ALE210)	S	X		X	X		X	X	X	X	X	X	X	
				1kg TUB with Handle (ALE260)	S		X											
23547970	W168-8		0.20 - 0.20	60g VOC (ALE215)	S					X								X

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23547855	AL24-1	0.70 - 0.70	Black	Sand	Stones	None
23547865	AL24-2	1.30 - 1.30	Grey	Gravel	Stones	None
23547873	AM33-1	0.30 - 0.30	Dark Brown	Sand	Stones	None
23547879	AM33-2	1.30 - 1.30	Dark Brown	Sand	Stones	None
23547829	AN23-1	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547841	AN23-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23548024	AO27-1	0.60 - 0.60	Dark Brown	Sandy Loam	Stones	Vegetation
23548034	AO27-2	1.20 - 1.20	Grey	Sand	Stones	N/A
23547788	AO29-1	0.50 - 0.50	Dark Brown	Sandy Loam	Stones	Vegetation
23547917	AO29-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23548085	AQ24-1	0.20 - 0.20	Dark Brown	Sand	Stones	Vegetation
23547819	AQ24-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23548065	AQ25-1	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	None
23548075	AQ25-2	1.50 - 1.50	Dark Brown	Sand	None	Stones
23548044	AQ26-1	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	Vegetation
23548052	AQ26-2	1.50 - 1.50	Dark Brown	Sand	None	Stones
23547887	W168-1	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547896	W168-2	0.20 - 0.20	Dark Brown	Loamy Sand	Vegetation	Stones
23547907	W168-3	0.20 - 0.20	Dark Brown	Silt Loam	Stones	Vegetation
23547927	W168-4	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547935	W168-5	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547942	W168-6	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	Vegetation
23547958	W168-7	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	Vegetation
23547970	W168-8	0.20 - 0.20	Dark Brown	Silt Loam	Stones	Vegetation
23547983	W168-9	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23548001	W168-10	0.20 - 0.20	Dark Brown	Sand	Vegetation	Stones
23548010	W168-11	0.20 - 0.20	Dark Brown	Loamy Sand	Vegetation	Tar

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	13	8.3	8.6	5.8	8.2
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 #	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 #	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 #	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		>100 #	2.76 #	1.19 #	10.3 #	3.64 #	1.11 #
pH	1 pH Units	TM133		10.4 M	11 #	12.6 M	11.8 M	12 M	12.7 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 #	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		7.68 M	1.33 #	7.22 M	9.12 M	<6 M	<6 M
Cadmium	<0.02 mg/kg	TM181		<0.02 M	<0.02 #	<0.2 M	0.258 M	0.477 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		13.1 M	7.04 #	628 M	121 M	841 M	376 M
Copper	<1.4 mg/kg	TM181		12.2 M	<1.4 #	14.5 M	23.8 M	<14 M	26.1 M
Iron	<1000 mg/kg	TM181		31600 #	12000 #	180000 #	65800 #	159000 #	139000 #
Lead	<0.7 mg/kg	TM181		18.4 M	<0.7 #	22.5 M	23.5 M	7.35 M	14.9 M
Manganese	<0.13 mg/kg	TM181		2410 M	4760 #	209000 M	5090 M	33700 M	34500 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 #	<1.4 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		10.4 M	0.818 #	24.6 M	45.1 M	9.88 M	20.6 M
Selenium	<1 mg/kg	TM181		2.33 #	2.98 #	22.7 #	<10 #	18.6 #	24 #
Vanadium	<0.2 mg/kg	TM181		28.7 #	23.1 #	571 #	96 #	839 #	1800 #
Zinc	<1.9 mg/kg	TM181		83.8 M	10.8 #	63.9 M	86.6 M	75.2 M	51.4 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		9.3	7	7.4	6.5	16	5.5
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		13.6 #	2.5 #	5.14 #	20.5 #	5.65 #	1.14 #
pH	1 pH Units	TM133		11.4 M	11.9 M	8.92 M	12.6 M	10.7 M	11.8 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		8.95 M	7.22 M	9.67 M	<6 M	<60 M	11 M
Cadmium	<0.02 mg/kg	TM181		0.893 M	<0.2 M	1.81 M	0.401 M	<2 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		131 M	39.8 M	456 M	802 M	291 M	28.6 M
Copper	<1.4 mg/kg	TM181		79.3 M	<14 M	81.4 M	<14 M	<140 M	16.8 M
Iron	<1000 mg/kg	TM181		107000 #	430000 #	140000 #	140000 #	116000 #	356000 #
Lead	<0.7 mg/kg	TM181		135 M	26.3 M	165 M	7.04 M	84.8 M	17.6 M
Manganese	<0.13 mg/kg	TM181		11600 M	6230 M	23400 M	38000 M	16500 M	6350 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	1.84 M	<1.4 M	<1.4 M	<14 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		31.2 M	18.1 M	29.7 M	7.31 M	155 M	35.2 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #	10.1 #	21.7 #	<100 #	<10 #
Vanadium	<0.2 mg/kg	TM181		396 #	325 #	419 #	681 #	696 #	235 #
Zinc	<1.9 mg/kg	TM181		764 M	191 M	531 M	44.5 M	207 M	186 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		24	8.2	18	6.7	13	12
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0109 M	<0.01 M	<0.01 M	<0.01 M	0.0114 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	0.0115 M	0.0114 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		19.1 #	1.57 #	7.38 #	0.924 #	27.9 #	26.5 #
pH	1 pH Units	TM133		9.53 M	12.7 M	9.19 M	12.7 M	9.42 M	9.7 M
Cyanide, Total	<1 mg/kg	TM153		1.06 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		8.52 M	<6 M	8.64 M	6.23 M	8 M	8.65 M
Cadmium	<0.02 mg/kg	TM181		1.23 M	<0.2 M	0.337 M	0.794 M	0.896 M	1.26 M
Chromium	<0.9 mg/kg	TM181		257 M	565 M	255 M	302 M	182 M	323 M
Copper	<1.4 mg/kg	TM181		25.6 M	28.5 M	19.3 M	20.4 M	30.2 M	19.5 M
Iron	<1000 mg/kg	TM181		98900 #	210000 #	86000 #	253000 #	72100 #	94900 #
Lead	<0.7 mg/kg	TM181		132 M	24.2 M	121 M	18.9 M	142 M	204 M
Manganese	<0.13 mg/kg	TM181		13100 M	49500 M	13700 M	24100 M	21000 M	15500 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		21.8 M	23.7 M	20.8 M	39 M	17.9 M	19.8 M
Selenium	<1 mg/kg	TM181		<10 #	27.6 #	10.7 #	<10 #	12.9 #	13.8 #
Vanadium	<0.2 mg/kg	TM181		361 #	1960 #	318 #	1300 #	270 #	357 #
Zinc	<1.9 mg/kg	TM181		446 M	55.6 M	359 M	114 M	501 M	596 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		0.0083 #					
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #					
Additional Asbestos Components (Using TM048)		TM304		Chrysotile detected. #					
Analysts Comments		TM304		Fibre bundles in soil.					
Asbestos Quantification - Total - %	<0.001 %	TM304		0.0083 #					

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	14	12	20	11	15
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0116 M	<0.01 M	0.0126 M	<0.01 M	0.0234 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.0126 M	<0.01 M	0.0117 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		27.6 #	28.1 #	19.3 #	28.8 #	24.5 #	13.3 #
pH	1 pH Units	TM133		9.15 M	9.82 M	10.2 M	9.24 M	9.65 M	9.08 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		7.73 M	10.8 M	8.38 M	9.62 M	7.96 M	<6 M
Cadmium	<0.02 mg/kg	TM181		1.23 M	0.989 M	2.1 M	3.45 M	1.3 M	1.01 M
Chromium	<0.9 mg/kg	TM181		253 M	354 M	304 M	271 M	298 M	175 M
Copper	<1.4 mg/kg	TM181		19.8 M	28.4 M	23.9 M	28.1 M	24.1 M	17 M
Iron	<1000 mg/kg	TM181		87600 #	140000 #	124000 #	99000 #	85000 #	78100 #
Lead	<0.7 mg/kg	TM181		107 M	217 M	241 M	184 M	130 M	93.1 M
Manganese	<0.13 mg/kg	TM181		16000 M	16800 M	17100 M	12000 M	16000 M	12600 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		19.1 M	25.1 M	20 M	22.1 M	19.1 M	20 M
Selenium	<1 mg/kg	TM181		<10 #	13.6 #	<10 #	11.1 #	11.4 #	<10 #
Vanadium	<0.2 mg/kg	TM181		328 #	365 #	408 #	286 #	290 #	200 #
Zinc	<1.9 mg/kg	TM181		364 M	806 M	903 M	564 M	454 M	324 M

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	9.1	14			
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M			
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.011 M	0.0117 M			
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.011 M	<0.01 M			
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M			
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M			
Soil Organic Matter (SOM)	<0.35 %	TM132		23.3 #	30.9 #	30.2 #			
pH	1 pH Units	TM133		10.1 M	9.95 M	10.7 M			
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M			
Arsenic	<0.6 mg/kg	TM181		7.75 M	9.37 M	8.5 M			
Cadmium	<0.02 mg/kg	TM181		2.49 M	1.39 M	2.29 M			
Chromium	<0.9 mg/kg	TM181		248 M	283 M	290 M			
Copper	<1.4 mg/kg	TM181		20 M	28.2 M	21.2 M			
Iron	<1000 mg/kg	TM181		98300 #	109000 #	111000 #			
Lead	<0.7 mg/kg	TM181		314 M	200 M	255 M			
Manganese	<0.13 mg/kg	TM181		14000 M	14600 M	17400 M			
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M			
Nickel	<0.2 mg/kg	TM181		18.7 M	25.1 M	19.8 M			
Selenium	<1 mg/kg	TM181		<10 #	13.6 #	13.3 #			
Vanadium	<0.2 mg/kg	TM181		251 #	355 #	365 #			
Zinc	<1.9 mg/kg	TM181		987 M	645 M	940 M			

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		83.9	88.9	88.4	89.6	88.6	91.4
Acenaphthene-d10 % recovery**	%	TM218		85.2	87.3	88.9	91.8	91.7	89.5
Phenanthrene-d10 % recovery**	%	TM218		87.7	87.5	90.1	93.3	92.4	91.3
Chrysene-d12 % recovery**	%	TM218		79.2	83.1	87.1	88.7	82	92.1
Perylene-d12 % recovery**	%	TM218		64.5	85	91.3	92.2	85	95.9
Naphthalene	<9 µg/kg	TM218		426 M	66.3 #	18.5 M	123 M	254 M	253 M
Acenaphthylene	<12 µg/kg	TM218		169 M	18.2 #	<12 M	224 M	72.9 M	58 M
Acenaphthene	<8 µg/kg	TM218		40.7 M	16.9 #	15 M	13.3 M	27.4 M	69.8 M
Fluorene	<10 µg/kg	TM218		129 M	32.3 #	<10 M	125 M	81.2 M	64.9 M
Phenanthrene	<15 µg/kg	TM218		1510 M	262 #	133 M	972 M	782 M	2300 M
Anthracene	<16 µg/kg	TM218		392 M	67.3 #	23.3 M	540 M	206 M	263 M
Fluoranthene	<17 µg/kg	TM218		3040 M	419 #	273 M	2530 M	1100 M	2060 M
Pyrene	<15 µg/kg	TM218		2420 M	420 #	204 M	1750 M	788 M	1410 M
Benz(a)anthracene	<14 µg/kg	TM218		1800 M	191 #	131 M	1270 M	382 M	718 M
Chrysene	<10 µg/kg	TM218		2000 M	202 #	179 M	1370 M	354 M	856 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		2780 M	352 #	319 M	1620 M	557 M	1030 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		875 M	121 #	97.9 M	537 M	185 M	421 M
Benzo(a)pyrene	<15 µg/kg	TM218		1820 M	207 #	128 M	986 M	323 M	630 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		1440 M	190 #	167 M	813 M	301 M	515 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		345 M	38.5 #	33.7 M	172 M	42.8 M	92.3 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		1410 M	170 #	147 M	723 M	249 M	489 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		20600	2770	1870	13800	5710	11200

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		88.5	91.1	90.9	81.7	84.7	84.7
Acenaphthene-d10 % recovery**	%	TM218		91.7	90.9	92.2	88.4	86.6	86.8
Phenanthrene-d10 % recovery**	%	TM218		94.3	90.4	93	91.3	88.3	89.6
Chrysene-d12 % recovery**	%	TM218		87.8	85.7	89.6	81	80	82
Perylene-d12 % recovery**	%	TM218		88.6	87.5	92.9	78.7	81.8	85.3
Naphthalene	<9 µg/kg	TM218		1330 M	311 M	92.3 M	134 M	866 M	416 M
Acenaphthylene	<12 µg/kg	TM218		508 M	54.7 M	40.1 M	14.7 M	279 M	88.9 M
Acenaphthene	<8 µg/kg	TM218		112 M	17.8 M	43.5 M	11.6 M	54.3 M	13.6 M
Fluorene	<10 µg/kg	TM218		419 M	22 M	47.2 M	10.8 M	227 M	63.7 M
Phenanthrene	<15 µg/kg	TM218		3880 M	308 M	366 M	266 M	1930 M	476 M
Anthracene	<16 µg/kg	TM218		944 M	70.6 M	88.6 M	32.3 M	418 M	102 M
Fluoranthene	<17 µg/kg	TM218		6780 M	544 M	749 M	338 M	3040 M	732 M
Pyrene	<15 µg/kg	TM218		4880 M	434 M	661 M	277 M	2250 M	558 M
Benz(a)anthracene	<14 µg/kg	TM218		2890 M	256 M	505 M	181 M	1330 M	319 M
Chrysene	<10 µg/kg	TM218		2690 M	255 M	591 M	206 M	1150 M	292 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		4210 M	455 M	910 M	350 M	2100 M	495 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		1350 M	138 M	375 M	141 M	682 M	171 M
Benzo(a)pyrene	<15 µg/kg	TM218		2900 M	267 M	609 M	173 M	1360 M	300 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2450 M	232 M	562 M	143 M	1180 M	270 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		368 M	41 M	111 M	<23 M	220 M	53.2 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2070 M	209 M	580 M	155 M	1090 M	250 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		37800	3620	6330	2430	18200	4600

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		86	88.5	85.7	88.6	87.5	83.8
Acenaphthene-d10 % recovery**	%	TM218		85.8	90.5	84.9	90.5	89.8	88.1
Phenanthrene-d10 % recovery**	%	TM218		85.2	93	83.1	91.9	91.5	88.7
Chrysene-d12 % recovery**	%	TM218		80.4	89.1	78	89.8	81.6	78.9
Perylene-d12 % recovery**	%	TM218		76.7	92.8	74.9	94.2	78.8	75.5
Naphthalene	<9 µg/kg	TM218		7620 M	1230 M	3890 M	198 M	3280 M	3990 M
Acenaphthylene	<12 µg/kg	TM218		1880 M	830 M	833 M	139 M	977 M	1150 M
Acenaphthene	<8 µg/kg	TM218		264 M	195 M	209 M	135 M	200 M	191 M
Fluorene	<10 µg/kg	TM218		1690 M	1050 M	761 M	146 M	797 M	780 M
Phenanthrene	<15 µg/kg	TM218		13900 M	10400 M	6660 M	3290 M	5600 M	5030 M
Anthracene	<16 µg/kg	TM218		3190 M	1950 M	1420 M	462 M	1690 M	1850 M
Fluoranthene	<17 µg/kg	TM218		20800 M	11900 M	11100 M	3380 M	9570 M	9340 M
Pyrene	<15 µg/kg	TM218		14200 M	8110 M	8060 M	2390 M	6840 M	6890 M
Benz(a)anthracene	<14 µg/kg	TM218		7600 M	4790 M	4410 M	1650 M	4800 M	4770 M
Chrysene	<10 µg/kg	TM218		6160 M	4700 M	3820 M	1680 M	3810 M	3880 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		10600 M	5930 M	6830 M	2290 M	6570 M	6860 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		3740 M	2160 M	2300 M	774 M	2310 M	2390 M
Benzo(a)pyrene	<15 µg/kg	TM218		6210 M	4090 M	3970 M	1330 M	3990 M	4170 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		5250 M	3430 M	3700 M	1150 M	3370 M	3590 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		676 M	686 M	454 M	261 M	575 M	623 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		4230 M	2930 M	3040 M	1010 M	2610 M	2720 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		108000	64400	61400	20300	57000	58200

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		90	84.7	81.8	86.4	80.8	86.6
Acenaphthene-d10 % recovery**	%	TM218		88.9	86.3	81.7	82.3	87.6	82.5
Phenanthrene-d10 % recovery**	%	TM218		91.3	88	87	81.2	91.4	81.9
Chrysene-d12 % recovery**	%	TM218		89.1	79.3	75	75.1	79.5	79.8
Perylene-d12 % recovery**	%	TM218		89.1	77.1	74.4	74.3	73.9	78.1
Naphthalene	<9 µg/kg	TM218		3190 M	4790 M	4390 M	4170 M	4380 M	2180 M
Acenaphthylene	<12 µg/kg	TM218		1490 M	1260 M	1960 M	4800 M	1040 M	1180 M
Acenaphthene	<8 µg/kg	TM218		158 M	255 M	385 M	868 M	221 M	118 M
Fluorene	<10 µg/kg	TM218		903 M	1060 M	1940 M	10300 M	864 M	674 M
Phenanthrene	<15 µg/kg	TM218		6320 M	7170 M	16300 M	47400 M	5590 M	4750 M
Anthracene	<16 µg/kg	TM218		<16 M	3420 M	5230 M	8330 M	1810 M	1510 M
Fluoranthene	<17 µg/kg	TM218		15300 M	13100 M	26500 M	43400 M	9670 M	9990 M
Pyrene	<15 µg/kg	TM218		10900 M	9310 M	18000 M	26900 M	6960 M	7310 M
Benz(a)anthracene	<14 µg/kg	TM218		7830 M	6280 M	10800 M	15400 M	4450 M	4990 M
Chrysene	<10 µg/kg	TM218		7160 M	5610 M	9500 M	16400 M	3790 M	4850 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		10900 M	9250 M	14600 M	17800 M	6520 M	7170 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		3550 M	3030 M	4850 M	5620 M	2240 M	2270 M
Benzo(a)pyrene	<15 µg/kg	TM218		7170 M	5260 M	8700 M	11100 M	3760 M	4420 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		5310 M	4270 M	6950 M	8280 M	2850 M	3570 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		1180 M	694 M	1450 M	2030 M	489 M	735 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		4730 M	3500 M	5800 M	6960 M	2400 M	3150 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		86000	78300	137000	230000	57000	58900

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		78.6	88.6	82.1			
Acenaphthene-d10 % recovery**	%	TM218		85.6	90.8	80.3			
Phenanthrene-d10 % recovery**	%	TM218		85.9	92.5	83.5			
Chrysene-d12 % recovery**	%	TM218		77.1	88.1	72.6			
Perylene-d12 % recovery**	%	TM218		70.7	84.6	70.8			
Naphthalene	<9 µg/kg	TM218		4520 M	5430 M	4000 M			
Acenaphthylene	<12 µg/kg	TM218		1690 M	1570 M	1250 M			
Acenaphthene	<8 µg/kg	TM218		272 M	213 M	308 M			
Fluorene	<10 µg/kg	TM218		1230 M	1210 M	1300 M			
Phenanthrene	<15 µg/kg	TM218		8820 M	10800 M	9800 M			
Anthracene	<16 µg/kg	TM218		3780 M	3820 M	3220 M			
Fluoranthene	<17 µg/kg	TM218		18000 M	17500 M	15100 M			
Pyrene	<15 µg/kg	TM218		12800 M	12400 M	11000 M			
Benz(a)anthracene	<14 µg/kg	TM218		8290 M	7860 M	7860 M			
Chrysene	<10 µg/kg	TM218		7010 M	6820 M	6930 M			
Benzo(b)fluoranthene	<15 µg/kg	TM218		11300 M	10300 M	10700 M			
Benzo(k)fluoranthene	<14 µg/kg	TM218		4270 M	3230 M	3640 M			
Benzo(a)pyrene	<15 µg/kg	TM218		6560 M	6260 M	6690 M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		4730 M	4900 M	5090 M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		745 M	1160 M	1170 M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218		4330 M	4090 M	4270 M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		98300	97600	92300			

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		89.3	115	113	84.8	95.4	103
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		11.8	<10	<10	16.4	<10	22.9
Aliphatics >C8-C10	<10 µg/kg	TM089		10.6	<10	<10	16.4	<10	29.4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	1260	<1000	<1000	2920
Aliphatics >C16-C21	<1000 µg/kg	TM414		11400	<1000	9880	3970	3070	14000
Aliphatics >C21-C35	<1000 µg/kg	TM414		5320	4980	62700	8720	22800	108000
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	<1000	16400	1080	7170	52800
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		17000	5850	90200	14000	33600	178000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		109000	10200	106000	52200	51800	198000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	10.9	<10	19.6
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		14500	1030	<1000	7120	4670	4730
Aromatics > EC21-EC35	<1000 µg/kg	TM414		67000	2270	13600	25800	11700	12500
Aromatics >EC35-EC44	<1000 µg/kg	TM414		9070	<1000	<1000	5020	<1000	1590
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	1370	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		91800	<5000	15500	38300	18200	19700
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		109000	<10000	106000	52300	51800	198000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	52.3
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	<20	<20	52.3

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		72.6	105	80.4	103	110	95.8
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	18	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	35.3	82.8	21.2
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10	51.4	116	37
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	18800	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		1250	1230	<1000	5390	161000	13400
Aliphatics >C16-C21	<1000 µg/kg	TM414		6110	51200	5810	17300	179000	22500
Aliphatics >C21-C35	<1000 µg/kg	TM414		21100	9890	16500	53300	150000	20200
Aliphatics >C35-C44	<1000 µg/kg	TM414		7780	<1000	1940	22700	16400	2850
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		36200	63000	24500	98700	524000	58900
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		137000	73000	89300	115000	718000	73000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	34.2	78	24.3
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	1040	1740	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		1220	<1000	<1000	1950	32100	3550
Aromatics > EC16-EC21	<1000 µg/kg	TM414		18700	3820	4900	2360	44400	3220
Aromatics > EC21-EC35	<1000 µg/kg	TM414		70800	4990	50900	9400	104000	6030
Aromatics >EC35-EC44	<1000 µg/kg	TM414		9270	<1000	8570	1420	10900	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1720	<1000	1750	<1000	2170	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		101000	9990	64800	16200	194000	14100
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		137000	73000	89300	115000	718000	73100
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	86.7	217	58.2
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	78	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	86.7	295	58.2

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		66.9 4	95.3	85.7	101	36.2 4	30.2 4
Aliphatics >C5-C6	<10 µg/kg	TM089		43.2 4	<10	11	<10	<10 4	<10 4
Aliphatics >C6-C8	<10 µg/kg	TM089		83.8 4	<10	45.1	<10	28.8 4	14.8 4
Aliphatics >C8-C10	<10 µg/kg	TM089		148 4	<10	45.1	<10	46 4	11.4 4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		3270	1440	1960	<1000	1980	2630
Aliphatics >C16-C21	<1000 µg/kg	TM414		11000	9490	6420	7270	13800	12100
Aliphatics >C21-C35	<1000 µg/kg	TM414		46000	64500	20900	51100	25200	33300
Aliphatics >C35-C44	<1000 µg/kg	TM414		13300	32900	4250	18200	4530	9690
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		74500	108000	33600	77400	45600	58300
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		447000	158000	210000	106000	421000	256000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4	<10	<10	<10	<10 4	<10 4
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4	<10	<10	<10	<10 4	<10 4
Aromatics >EC8-EC10	<10 µg/kg	TM089		98.3 4	<10	30.5	<10	29.9 4	<10 4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		12200	<1000	2820	<1000	5060	5160
Aromatics > EC12-EC16	<1000 µg/kg	TM414		14300	1080	3480	<1000	16900	7030
Aromatics > EC16-EC21	<1000 µg/kg	TM414		104000	10000	30300	6190	128000	39600
Aromatics > EC21-EC35	<1000 µg/kg	TM414		218000	31300	125000	19600	195000	127000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		24100	6460	15200	2600	29900	18900
Aromatics > EC40-EC44	<1000 µg/kg	TM414		5410	1250	2070	<1000	3630	4130
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		372000	49200	177000	28800	375000	197000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		447000	158000	211000	106000	421000	256000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		275 4	<50	101	<50	74.8 4	<50 4
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		98.3 4	<50	<50	<50	<50 4	<50 4
GRO >C5-C10	<20 µg/kg	TM089		373 4	<20	101	<20	74.8 4	<20 4

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		49.2 4	49.1 4	36.4 4	39.5 4	31.1 4	50.9 4
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4	<10 4	<10 4	<10 4	<10 4	<10 4
Aliphatics >C6-C8	<10 µg/kg	TM089		<10 4	32.5 4	13.7 4	<10 4	14.6 4	<10 4
Aliphatics >C8-C10	<10 µg/kg	TM089		<10 4	34.8 4	12.5 4	<10 4	13.4 4	<10 4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	1050	<1000	1070	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	3750	4140	2460	3710	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		1290	14200	20900	14500	15600	3110
Aliphatics >C21-C35	<1000 µg/kg	TM414		4110	36200	45200	31100	43800	10600
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	13200	12200	6550	11000	1840
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		6350	68000	83500	55000	75200	16900
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		159000	391000	309000	303000	315000	164000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4	<10 4	<10 4	<10 4	<10 4	<10 4
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4	<10 4	<10 4	<10 4	<10 4	<10 4
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10 4	23.2 4	<10 4	<10 4	<10 4	<10 4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		2510	5560	5780	5200	8120	2670
Aromatics > EC12-EC16	<1000 µg/kg	TM414		3860	10400	8860	7720	9860	6080
Aromatics > EC16-EC21	<1000 µg/kg	TM414		32900	81300	49100	48500	49100	27000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		98800	201000	143000	163000	143000	92900
Aromatics >EC35-EC44	<1000 µg/kg	TM414		14500	24800	18300	23700	29200	18700
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1790	5510	3370	2940	5010	2350
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		153000	323000	225000	248000	240000	147000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		159000	392000	309000	303000	315000	164000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 4	67.3 4	<50 4	<50 4	<50 4	<50 4
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4	<50 4	<50 4	<50 4	<50 4	<50 4
GRO >C5-C10	<20 µg/kg	TM089		<20 4	67.3 4	<20 4	<20 4	<20 4	<20 4

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		36.1 4	47.9 4	45.2 4			
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4	14.3 4	<10 4			
Aliphatics >C6-C8	<10 µg/kg	TM089		21.7 4	29.7 4	32.8 4			
Aliphatics >C8-C10	<10 µg/kg	TM089		22.8 4	24.2 4	30.4 4			
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	1000	<1000			
Aliphatics >C12-C16	<1000 µg/kg	TM414		4480	4680	4010			
Aliphatics >C16-C21	<1000 µg/kg	TM414		18300	25800	26900			
Aliphatics >C21-C35	<1000 µg/kg	TM414		42100	50200	50800			
Aliphatics >C35-C44	<1000 µg/kg	TM414		12200	14900	10200			
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		78000	96700	92400			
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		329000	295000	363000			
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4	<10 4	<10 4			
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4	<10 4	<10 4			
Aromatics >EC8-EC10	<10 µg/kg	TM089		14.8 4	16.5 4	19.9 4			
Aromatics > EC10-EC12	<1000 µg/kg	TM414		6170	5970	7070			
Aromatics > EC12-EC16	<1000 µg/kg	TM414		8870	9030	10300			
Aromatics > EC16-EC21	<1000 µg/kg	TM414		52600	40600	60300			
Aromatics > EC21-EC35	<1000 µg/kg	TM414		163000	125000	169000			
Aromatics >EC35-EC44	<1000 µg/kg	TM414		20400	17900	24200			
Aromatics > EC40-EC44	<1000 µg/kg	TM414		2990	2720	3480			
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		251000	198000	271000			
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		329000	295000	363000			
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 4	68.2 4	63.2 4			
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4	<50 4	<50 4			
GRO >C5-C10	<20 µg/kg	TM089		<20 4	68.2 4	63.2 4			

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
Dibromofluoromethane**	%	TM116		113	110	104	106	108	103
Toluene-d8**	%	TM116		98.4	98.8	97.3	96.3	97.8	97.6
4-Bromofluorobenzene**	%	TM116		92.5	98.3	95.2	93.8	97.2	97.5
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 #	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 #	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 #	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 #	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 #	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 #	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
Dibromofluoromethane**	%	TM116		108	109	110	112	103	106
Toluene-d8**	%	TM116		99.2	98.6	99.1	99.2	96.3	103
4-Bromofluorobenzene**	%	TM116		93.3	99.5	95.4	96.7	87.9	95.7
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	1200 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
Dibromofluoromethane**	%	TM116		105	102	99.8	103	88.7	96.2
Toluene-d8**	%	TM116		95.4	96.1	96.4	96.9	90.4	96.5
4-Bromofluorobenzene**	%	TM116		89.9	96.8	85.3	96.7	74.3	84
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		1410 M	<260 M	1710 M	<260 M	1680 M	819 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
Dibromofluoromethane**	%	TM116		96.9	97.9	92.6	94.8	89.2	103
Toluene-d8**	%	TM116		96.9	95.1	93.2	95	95.2	96.2
4-Bromofluorobenzene**	%	TM116		82.9	82.6	78.8	82.9	80.1	89.5
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		948 M	651 M	1270 M	806 M	1310 M	368 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
Dibromofluoromethane**	%	TM116		101	94.8	97			
Toluene-d8**	%	TM116		97.2	94	95			
4-Bromofluorobenzene**	%	TM116		89.3	81.4	80.4			
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M			
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M			
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M			
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M			
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #			
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M			
Naphthalene	<13 µg/kg	TM116		491 M	839 M	1240 M			
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4			
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800			

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AL24-1 0.70 - 0.70 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547855 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AM33-1 0.30 - 0.30 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547873 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AN23-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547829 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AO27-1 0.60 - 0.60 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548024 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AO29-1 0.50 - 0.50 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547788 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AQ24-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548085 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AQ25-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548065 TM048	22/01/21	Andrzej Ferfecki	loose fibres in soil	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AQ26-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548044 TM048	21/01/2021	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-1 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547887 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-3 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547907 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-5 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547935 TM048	21/01/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-7 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547958 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-9 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547983 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-11 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548010 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	AQ25-1	Chrysotile detected. (#)	Fibre bundles in soil.	0.0083 (#)	<0.001 (#)	0.0083 (#)
Depth (m)	0.20 - 0.20					
Sample Type	SOLID					
Date Sampled	13/01/2021 00:00:00					
Date Received	15/01/2021 05:00:00					
SDG	210115-27					
Original Sample	23548065					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Test Completion Dates

Lab Sample No(s)	23547855	23547865	23547873	23547879	23547829	23547841	23548024	23548034	23547788	23547917
Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2	AO27-1	AO27-2	AO29-1	AO29-2
AGS Ref.										
Depth	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	22-Jan-2021		22-Jan-2021		21-Jan-2021		21-Jan-2021		22-Jan-2021	
Cyanide Comp/Free/Total/Thiocyanate	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021
EPH CWG GC (S)	22-Jan-2021	22-Jan-2021	19-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	20-Jan-2021	22-Jan-2021
GRO by GC-FID (S)	22-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
PAH by GCMS	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
pH	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Phenols by HPLC (S)	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	28-Jan-2021	25-Jan-2021	22-Jan-2021	22-Jan-2021
Sample description	18-Jan-2021	16-Jan-2021	16-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021
Total Organic Carbon	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021
TPH CWG GC (S)	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
VOC MS (S)	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Lab Sample No(s)	23548085	23547819	23548065	23548075	23548044	23548052	23547887	23547896	23547907	23547927
Customer Sample Ref.	AQ24-1	AQ24-2	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2	W168-3	W168-4
AGS Ref.										
Depth	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	21-Jan-2021		22-Jan-2021		21-Jan-2021		22-Jan-2021		22-Jan-2021	
Asbestos Quantification - Full			28-Jan-2021							
Cyanide Comp/Free/Total/Thiocyanate	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
EPH CWG GC (S)	22-Jan-2021	22-Jan-2021	20-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
GRO by GC-FID (S)	21-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021
PAH by GCMS	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
pH	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Phenols by HPLC (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	25-Jan-2021	25-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	25-Jan-2021
Sample description	18-Jan-2021	18-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Total Organic Carbon	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
TPH CWG GC (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
VOC MS (S)	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Lab Sample No(s)	23547935	23547942	23547958	23547970	23547983	23548001	23548010
Customer Sample Ref.	W168-5	W168-6	W168-7	W168-8	W168-9	W168-10	W168-11
AGS Ref.							
Depth	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	21-Jan-2021		21-Jan-2021		21-Jan-2021		21-Jan-2021
Cyanide Comp/Free/Total/Thiocyanate	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
EPH CWG GC (S)	22-Jan-2021	22-Jan-2021	19-Jan-2021	22-Jan-2021	22-Jan-2021	19-Jan-2021	22-Jan-2021
GRO by GC-FID (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
PAH by GCMS	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
pH	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Phenols by HPLC (S)	25-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	25-Jan-2021	22-Jan-2021
Sample description	18-Jan-2021	18-Jan-2021	16-Jan-2021	18-Jan-2021	18-Jan-2021	16-Jan-2021	18-Jan-2021
Total Organic Carbon	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021
TPH CWG GC (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
VOC MS (S)	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
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Website: www.alsenvironmental.co.uk

Rodgers Leask
Office 225
2430/2440
Aztec West
Almondsbury
Bristol
BS32 4QA

Attention: Elliot Thomas

CERTIFICATE OF ANALYSIS

Date of report Generation:	10 February 2021
Customer:	Rodgers Leask
Sample Delivery Group (SDG):	210130-32
Your Reference:	P18-669
Location:	Llanwern
Report No:	586352

We received 24 samples on Saturday January 30, 2021 and 24 of these samples were scheduled for analysis which was completed on Wednesday February 10, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23638988	AJ27-1		0.70 - 0.70	29/01/2021
23638943	AJ29-1		0.70 - 0.70	28/01/2021
23638959	AJ29-2		1.50 - 1.50	28/01/2021
23638993	AJ30-1		0.40 - 0.40	28/01/2021
23638999	AJ30-2		1.50 - 1.50	28/01/2021
23638980	AK27-1		0.80 - 0.80	29/01/2021
23638976	AK28-1		1.00 - 1.00	29/01/2021
23639025	AK30-1		0.20 - 0.20	28/01/2021
23639030	AK30-2		1.00 - 1.00	28/01/2021
23639015	AK31-1		0.10 - 0.10	28/01/2021
23639020	AK31-2		1.10 - 1.10	28/01/2021
23639060	AK32-1		1.00 - 1.00	28/01/2021
23639067	AK33-1		0.20 - 0.20	29/01/2021
23639071	AK34-1		0.80 - 0.80	29/01/2021
23639077	AK34-2		1.60 - 1.60	29/01/2021
23638964	AL28-1		0.50 - 0.50	29/01/2021
23638970	AL28-2		1.20 - 1.20	29/01/2021
23638954	AL29-1		0.80 - 0.80	29/01/2021
23639034	AL30-1		0.50 - 0.50	28/01/2021
23639007	AL30-2		2.00 - 2.00	28/01/2021
23639041	AL31-1		0.50 - 0.50	28/01/2021
23639045	AL31-2		1.50 - 1.50	28/01/2021
23639051	AL32-1		0.50 - 0.50	28/01/2021
23638948	AL33-1		0.80 - 0.80	29/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23638988		23638943		23638959		23638993		23638999		23638980		23638976		23639025			
Customer Sample Reference			AJ27-1		AJ29-1		AJ29-2		AJ30-1		AJ30-2		AK27-1		AK28-1		AK30-1			
AGS Reference																				
Depth (m)			0.70 - 0.70		0.70 - 0.70		1.50 - 1.50		0.40 - 0.40		1.50 - 1.50		0.80 - 0.80		1.00 - 1.00		0.20 - 0.20			
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 12			X					X					X				X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 24		X			X		X			X		X			X		X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
PAH by GCMS	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
pH	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
Sample description	All	NDPs: 0 Tests: 23	X			X					X		X			X		X		X
Total Organic Carbon	All	NDPs: 0 Tests: 23	X			X		X			X		X			X		X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
VOC MS (S)	All	NDPs: 0 Tests: 24		X			X		X			X		X			X		X	

23638970	AL28-2		1.20 - 1.20	1kg TUB with Handle (ALE260)	S			x											
23638964	AL28-1		0.50 - 0.50	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639077	AK34-2		1.60 - 1.60	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
				1kg TUB with Handle (ALE260)	S			x											
23639071	AK34-1		0.80 - 0.80	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639067	AK33-1		0.20 - 0.20	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
				1kg TUB with Handle (ALE260)	S			x											
23639060	AK32-1		1.00 - 1.00	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639020	AK31-2		1.10 - 1.10	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x		x	
23639015	AK31-1		0.10 - 0.10	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
				1kg TUB with Handle (ALE260)	S			x											
23639030	AK30-2		1.00 - 1.00	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639025	AK30-1		0.20 - 0.20	60g VOC (ALE215)	S						x								x

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	23638970	23638954	23639034	23639007	23639041	23639045	23639051	23638948
Customer Sample Reference	AL28-2	AL29-1	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
AGS Reference								
Depth (m)	1.20 - 1.20	0.80 - 0.80	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
Container	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S

Ammonium Soil by Titration	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 12			X			X					X					X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 24		X			X			X		X			X		X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
PAH by GCMS	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
pH	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
Sample description	All	NDPs: 0 Tests: 23	X			X			X		X			X		X			X		X
Total Organic Carbon	All	NDPs: 0 Tests: 23	X			X			X		X			X		X			X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
VOC MS (S)	All	NDPs: 0 Tests: 24		X			X			X		X			X		X			X	

23638948	AL33-1		0.80 - 0.80	60g VOC (ALE215)	S
					X
					X

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23638988	AJ27-1	0.70 - 0.70	Dark Brown	Sand	Stones	None
23638943	AJ29-1	0.70 - 0.70	Dark Brown	Sand	Stones	None
23638959	AJ29-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23638993	AJ30-1	0.40 - 0.40	Black	Sand	Stones	None
23638999	AJ30-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23638980	AK27-1	0.80 - 0.80	Dark Brown	Sand	Stones	None
23638976	AK28-1	1.00 - 1.00	Grey	Sand	Stones	Concrete/Aggregate
23639025	AK30-1	0.20 - 0.20	Dark Brown	Sand	Stones	None
23639030	AK30-2	1.00 - 1.00	Grey	Sand	Stones	Concrete/Aggregate
23639015	AK31-1	0.10 - 0.10	Dark Brown	Sandy Loam	Stones	Concrete/Aggregate
23639020	AK31-2	1.10 - 1.10	Black	Sand	None	None
23639060	AK32-1	1.00 - 1.00	Black	Sand	Stones	None
23639067	AK33-1	0.20 - 0.20	Dark Brown	Sand	Vegetation	Stones
23639071	AK34-1	0.80 - 0.80	Dark Brown	Sand	None	Stones
23639077	AK34-2	1.60 - 1.60	Dark Brown	Sand	Vegetation	Stones
23638964	AL28-1	0.50 - 0.50	Dark Brown	Sand	Stones	None
23638970	AL28-2	1.20 - 1.20	Dark Brown	Sand	Stones	None
23638954	AL29-1	0.80 - 0.80	Dark Brown	Sand	Brick	Stones
23639034	AL30-1	0.50 - 0.50	Grey	Sand	Stones	None
23639007	AL30-2	2.00 - 2.00	Grey	Sand	Stones	Concrete/Aggregate
23639041	AL31-1	0.50 - 0.50	Grey	Sand	Stones	None
23639045	AL31-2	1.50 - 1.50	Dark Brown	Sand	Stones	N/A
23639051	AL32-1	0.50 - 0.50	Black	Sand	Stones	Concrete/Aggregate
23638948	AL33-1	0.80 - 0.80	Dark Brown	Stone/Soil	None	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		14	1.4	10	13	20	17
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	18.6 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		1.31 #	3.95 #	4.22 #	>100 #	22.9 #	1.81 #
pH	1 pH Units	TM133		11.9 M	9.91 M	9.58 M	8.83 M	9.57 M	12.1 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		<6 M	14.2 M	9.37 M	7.95 M	11.5 M	<6 M
Cadmium	<0.02 mg/kg	TM181		1.92 M	2.29 M	1.51 M	0.923 M	0.632 M	0.469 M
Chromium	<0.9 mg/kg	TM181		374 M	<9 M	<9 M	17.8 M	30.6 M	205 M
Copper	<1.4 mg/kg	TM181		27.7 M	23.5 M	14.5 M	34.6 M	31.3 M	<14 M
Iron	<1000 mg/kg	TM181		133000 #	338000 #		49600 #		49900 #
Lead	<0.7 mg/kg	TM181		53.6 M	39.7 M	24.7 M	52.8 M	47.6 M	39.6 M
Manganese	<0.13 mg/kg	TM181		29500 M	4850 M	2970 M	1360 M	1360 M	14900 M
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Nickel	<0.2 mg/kg	TM181		15.3 M	36.9 M	21.7 M	17.5 M	33.3 M	4.61 M
Selenium	<1 mg/kg	TM181		14 #	<10 #	<10 #	<10 #	<10 #	13.4 #
Vanadium	<0.2 mg/kg	TM181		968 #	49.6 #	36.4 #	34.8 #	43 #	244 #
Zinc	<1.9 mg/kg	TM181		84.5 M	131 M	80.8 M	70.3 M	86.9 M	42.9 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		7.5	12	13	11	23	16
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		2.6 #	12.1 #	38.4 #	17.2 #		31.5 #
pH	1 pH Units	TM133		12 M	9.22 M	11.3 M	10.5 M	10.8 M	11.4 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		<6 M	7.22 M	11.2 M	10.3 M	6.83 M	6.44 M
Cadmium	<0.02 mg/kg	TM181		1.27 M	0.769 M	1.47 M	2.19 M	0.45 M	0.963 M
Chromium	<0.9 mg/kg	TM181		723 M	21.9 M	222 M	142 M	15.3 M	265 M
Copper	<1.4 mg/kg	TM181		37.9 M	<14 M	40.9 M	36.5 M	21.7 M	16.4 M
Iron	<1000 mg/kg	TM181		152000 #	58900 #	54800 #	230000 #		
Lead	<0.7 mg/kg	TM181		137 M	44.3 M	60.4 M	46.7 M	57.2 M	34.2 M
Manganese	<0.13 mg/kg	TM181		34000 M	1710 M	8170 M	5740 M	1150 M	3190 M
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Nickel	<0.2 mg/kg	TM181		13.1 M	24.3 M	26.3 M	37.2 M	11.3 M	14.4 M
Selenium	<1 mg/kg	TM181		23.3 #	<10 #	<10 #	<10 #	<10 #	<10 #
Vanadium	<0.2 mg/kg	TM181		543 #	32.7 #	285 #	97.3 #	26 #	233 #
Zinc	<1.9 mg/kg	TM181		94.1 M	77.6 M	265 M	109 M	75.3 M	68.4 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	11	13	6.9	6.9	9.3
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		9.43 #	10.1 #	4.14 #	<0.35 #	3.31 #	6.14 #
pH	1 pH Units	TM133		10.2 M	9.51 M	10.2 M	12.5 M	12.4 M	11.5 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	1.02 M
Arsenic	<0.6 mg/kg	TM181		9.69 M	13.6 M	15.9 M	<6 M	<6 M	<6 M
Cadmium	<0.02 mg/kg	TM181		1.6 M	1.49 M	1.34 M	1.09 M	1.19 M	1.42 M
Chromium	<0.9 mg/kg	TM181		75 M	119 M	33.8 M	1080 M	936 M	836 M
Copper	<1.4 mg/kg	TM181		22.4 M	23.3 M	20.2 M	14.3 M	<14 M	23.3 M
Iron	<1000 mg/kg	TM181		134000 #		101000 #		163000 #	166000 #
Lead	<0.7 mg/kg	TM181		72 M	67.5 M	44.3 M	22.4 M	23.5 M	100 M
Manganese	<0.13 mg/kg	TM181		8420 M	8330 M	6690 M	48700 M	48700 M	43500 M
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Nickel	<0.2 mg/kg	TM181		45.9 M	26.5 M	27.2 M	5.25 M	5.37 M	9.39 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #	<10 #	30.6 #	31.2 #	29.5 #
Vanadium	<0.2 mg/kg	TM181		139 #	134 #	53.6 #	840 #	709 #	684 #
Zinc	<1.9 mg/kg	TM181		212 M	196 M	120 M	40.6 M	57.3 M	123 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	9.3	21	12	9.4	11
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 #
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 #
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 #
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 #
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 #
Soil Organic Matter (SOM)	<0.35 %	TM132		20.5 #	21.2 #	54.5 #	3.33 #	18.1 #	1.62 #
pH	1 pH Units	TM133		10.6 M	11.9 M	10.6 M	9.1 M	11.3 M	11.9 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 #
Arsenic	<0.6 mg/kg	TM181		8.72 M	<6 M	<6 M	11.4 M	8.28 M	7.73 #
Cadmium	<0.02 mg/kg	TM181		1.22 M	1.45 M	1.11 M	0.662 M	1.87 M	1.01 #
Chromium	<0.9 mg/kg	TM181		235 M	653 M	68.5 M	25.3 M	160 M	1170 #
Copper	<1.4 mg/kg	TM181		19.2 M	15.3 M	<14 M	24 M	20.4 M	53.3 #
Iron	<1000 mg/kg	TM181		90000 #	144000 #	95800 #	32100 #	138000 #	
Lead	<0.7 mg/kg	TM181		90 M	<7 M	23.3 M	19.8 M	37.6 M	26.8 #
Manganese	<0.13 mg/kg	TM181		11800 M	35700 M	11400 M	1690 M	12900 M	16300 #
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 #
Nickel	<0.2 mg/kg	TM181		23.6 M	5.78 M	22.8 M	26.6 M	34.6 M	496 #
Selenium	<1 mg/kg	TM181		10.2 #	19.7 #	<10 #	<10 #	<10 #	10.4 #
Vanadium	<0.2 mg/kg	TM181		218 #	544 #	94.3 #	40.1 #	157 #	255 #
Zinc	<1.9 mg/kg	TM181		198 M	39.5 M	81.3 M	64.9 M	98.7 M	70.7 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		81.4	86.3	83	77.8	82.9	80.2
Acenaphthene-d10 % recovery**	%	TM218		82.2	82.5	83.4	78	80.7	81.8
Phenanthrene-d10 % recovery**	%	TM218		80.2	80.8	80.1	74.5	80.9	80.5
Chrysene-d12 % recovery**	%	TM218		78.5	77.8	72.1	66.8	76.7	78
Perylene-d12 % recovery**	%	TM218		75.5	74.9	70.2	70.4	73.4	74.6
Naphthalene	<9 µg/kg	TM218		21 M	<9 M	<9 M	112 M	117 M	140 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M	<12 M	173 M	191 M	62.7 M
Acenaphthene	<8 µg/kg	TM218		42.9 M	<8 M	<8 M	<8 M	<8 M	22.8 M
Fluorene	<10 µg/kg	TM218		19.1 M	<10 M	<10 M	34.4 M	58.1 M	33.1 M
Phenanthrene	<15 µg/kg	TM218		458 M	43.8 M	22.3 M	233 M	350 M	306 M
Anthracene	<16 µg/kg	TM218		112 M	<16 M	<16 M	71.2 M	99.1 M	78.5 M
Fluoranthene	<17 µg/kg	TM218		1250 M	64.2 M	31.2 M	956 M	874 M	597 M
Pyrene	<15 µg/kg	TM218		1190 M	46.4 M	27.1 M	892 M	727 M	462 M
Benz(a)anthracene	<14 µg/kg	TM218		715 M	29.7 M	30.7 M	732 M	484 M	330 M
Chrysene	<10 µg/kg	TM218		828 M	30.4 M	37.1 M	560 M	514 M	391 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		1190 M	40.9 M	64.1 M	1450 M	937 M	587 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		376 M	<14 M	19.2 M	430 M	280 M	181 M
Benzo(a)pyrene	<15 µg/kg	TM218		775 M	24.1 M	35.1 M	1060 M	570 M	332 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		618 M	23.6 M	38 M	972 M	566 M	318 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		103 M	<23 M	<23 M	164 M	108 M	68.9 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		652 M	<24 M	35.9 M	860 M	524 M	298 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		8350	303	341	8700	6400	4210

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.7	81.9	77.2	80.3	77.7	78.8
Acenaphthene-d10 % recovery**	%	TM218		82.4	81	79.1	83.5	78.7	82.5
Phenanthrene-d10 % recovery**	%	TM218		85.2	79.1	80.2	86.6	74.3	86.8
Chrysene-d12 % recovery**	%	TM218		88	75.2	81.2	75.5	63.8	75.9
Perylene-d12 % recovery**	%	TM218		102	72.2	75.3	72.2	62.3	70.5
Naphthalene	<9 µg/kg	TM218		19.5 M	31.9 M	27 M	568 M	134 M	547 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	101 M	26.6 M	665 M	58.5 M	932 M
Acenaphthene	<8 µg/kg	TM218		<8 M	<8 M	<8 M	<80 M	14.4 M	64 M
Fluorene	<10 µg/kg	TM218		<10 M	<10 M	18.7 M	1050 M	89.5 M	562 M
Phenanthrene	<15 µg/kg	TM218		101 M	128 M	151 M	6250 M	835 M	3770 M
Anthracene	<16 µg/kg	TM218		17.8 M	49.4 M	30.8 M	2260 M	268 M	1440 M
Fluoranthene	<17 µg/kg	TM218		339 M	511 M	225 M	7650 M	886 M	11200 M
Pyrene	<15 µg/kg	TM218		316 M	416 M	170 M	5150 M	659 M	9490 M
Benz(a)anthracene	<14 µg/kg	TM218		177 M	317 M	115 M	2720 M	564 M	4800 M
Chrysene	<10 µg/kg	TM218		195 M	316 M	115 M	2220 M	567 M	4920 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		295 M	675 M	184 M	3190 M	771 M	7250 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		114 M	232 M	54.8 M	980 M	238 M	1710 M
Benzo(a)pyrene	<15 µg/kg	TM218		190 M	429 M	106 M	2000 M	537 M	4080 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		204 M	471 M	89.4 M	1850 M	377 M	4210 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		32.5 M	85.4 M	<23 M	324 M	99.1 M	686 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		162 M	407 M	85.1 M	1320 M	361 M	3360 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		2160	4170	1400	38200	6460	59000

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		85.8	79.8	78.1	81	85.2	79.6
Acenaphthene-d10 % recovery**	%	TM218		81.2	83.1	82.3	81.9	80.9	85.4
Phenanthrene-d10 % recovery**	%	TM218		76.9	87	86.5	84.4	78	89.9
Chrysene-d12 % recovery**	%	TM218		76.8	75.7	79.4	79.7	76.7	78.6
Perylene-d12 % recovery**	%	TM218		77.9	70	75.9	83.9	73.5	72.1
Naphthalene	<9 µg/kg	TM218		42.1 M	59.9 M	23 M	<9 M	24.4 M	141 M
Acenaphthylene	<12 µg/kg	TM218		31.5 M	46.1 M	<12 M	<12 M	<12 M	47.2 M
Acenaphthene	<8 µg/kg	TM218		<8 M	<8 M	<8 M	<8 M	<8 M	24.7 M
Fluorene	<10 µg/kg	TM218		<10 M	<10 M	<10 M	<10 M	11.2 M	45.4 M
Phenanthrene	<15 µg/kg	TM218		92.3 M	120 M	42.8 M	17.3 M	107 M	409 M
Anthracene	<16 µg/kg	TM218		27.6 M	33.6 M	<16 M	<16 M	38.9 M	96.7 M
Fluoranthene	<17 µg/kg	TM218		193 M	301 M	89.1 M	48.4 M	184 M	776 M
Pyrene	<15 µg/kg	TM218		143 M	259 M	73.7 M	52.2 M	141 M	580 M
Benz(a)anthracene	<14 µg/kg	TM218		104 M	184 M	55 M	22.7 M	86 M	307 M
Chrysene	<10 µg/kg	TM218		101 M	157 M	60.6 M	32.9 M	97.2 M	309 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		186 M	388 M	104 M	50.2 M	130 M	473 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		61.5 M	104 M	29.5 M	18.5 M	47.9 M	140 M
Benzo(a)pyrene	<15 µg/kg	TM218		111 M	195 M	56.7 M	<15 M	77 M	259 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		128 M	221 M	62.2 M	23.1 M	71.1 M	268 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	34.4 M	<23 M	<23 M	<23 M	47.1 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		113 M	169 M	50.2 M	<24 M	67.2 M	208 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		1330	2270	647	265	1080	4130

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.9	81.1	78.5	81	82.1	83.7
Acenaphthene-d10 % recovery**	%	TM218		83.3	82.4	79.8	78	82.6	83.1
Phenanthrene-d10 % recovery**	%	TM218		83.7	79.6	77.5	78.6	83.1	81
Chrysene-d12 % recovery**	%	TM218		78	73.6	69	72.3	80.5	78.6
Perylene-d12 % recovery**	%	TM218		70.3	70	69.1	70.5	86.3	77
Naphthalene	<9 µg/kg	TM218		190 M	52.4 M	143 M	11.5 M	44.7 M	70.5 #
Acenaphthylene	<12 µg/kg	TM218		164 M	59.9 M	63.9 M	<12 M	38.3 M	30.5 #
Acenaphthene	<8 µg/kg	TM218		37 M	<8 M	11.9 M	<8 M	<8 M	<8 #
Fluorene	<10 µg/kg	TM218		136 M	28.1 M	37 M	<10 M	11.6 M	12.4 #
Phenanthrene	<15 µg/kg	TM218		943 M	406 M	390 M	28.8 M	137 M	113 #
Anthracene	<16 µg/kg	TM218		303 M	126 M	101 M	<16 M	43.6 M	30.8 #
Fluoranthene	<17 µg/kg	TM218		1820 M	666 M	704 M	38.5 M	354 M	208 #
Pyrene	<15 µg/kg	TM218		1330 M	496 M	526 M	30.4 M	276 M	163 #
Benz(a)anthracene	<14 µg/kg	TM218		857 M	255 M	409 M	23.2 M	243 M	126 #
Chrysene	<10 µg/kg	TM218		838 M	271 M	391 M	29.2 M	210 M	143 #
Benzo(b)fluoranthene	<15 µg/kg	TM218		1200 M	340 M	525 M	38.3 M	426 M	247 #
Benzo(k)fluoranthene	<14 µg/kg	TM218		380 M	101 M	181 M	<14 M	130 M	74.6 #
Benzo(a)pyrene	<15 µg/kg	TM218		692 M	201 M	382 M	20 M	271 M	149 #
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		589 M	175 M	286 M	<18 M	269 M	175 #
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		132 M	41.1 M	64.2 M	<23 M	47.6 M	31.1 #
Benzo(g,h,i)perylene	<24 µg/kg	TM218		546 M	175 M	261 M	<24 M	231 M	142 #
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		10200	3390	4480	220	2730	1720

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		130	96.3	122	77.2	122	102
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	15	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	18.4	20	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	20	42.6	22.5	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	<1000	10400	<1000	7390
Aliphatics >C16-C21	<1000 µg/kg	TM414		<1000	1100	<1000	20900	6190	26300
Aliphatics >C21-C35	<1000 µg/kg	TM414		7440	5090	1410	27100	18600	66600
Aliphatics >C35-C44	<1000 µg/kg	TM414		3070	<1000	<1000	4980	5250	11200
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		11500	6740	<5000	63900	31000	112000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		45000	<10000	<10000	101000	50800	123000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	13.3	28.8	15	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	1020	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		4410	<1000	<1000	4730	1870	1520
Aromatics > EC21-EC35	<1000 µg/kg	TM414		28000	<1000	<1000	28800	16400	8940
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	2340	1030	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		33500	<5000	<5000	36900	19800	11700
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		45000	<10000	<10000	101000	50900	123000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	61	57.5	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	61	57.5	<20

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		109	84.7	89.2	55 4	48 4	81.2
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10 4	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	<10 4	18.1 4	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	10.4	<10 4	28.4 4	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<5000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		2780	<1000	2160	<5000	4910	1960
Aliphatics >C16-C21	<1000 µg/kg	TM414		14800	<1000	4490	10400	15300	18800
Aliphatics >C21-C35	<1000 µg/kg	TM414		54900	2720	1940	16700	22700	12100
Aliphatics >C35-C44	<1000 µg/kg	TM414		13600	1090	<1000	<5000	1930	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		86200	<5000	8980	32000	45200	33900
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		94200	23800	40800	67600	67000	190000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10 4	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10 4	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	<10 4	19.4 4	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<5000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<5000	1030	2320
Aromatics > EC16-EC21	<1000 µg/kg	TM414		<1000	1420	1990	6630	6510	32200
Aromatics > EC21-EC35	<1000 µg/kg	TM414		6370	12300	18500	23400	13200	110000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	5140	10900	<5000	<1000	11100
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	1320	1820	<5000	<1000	1350
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		7990	18900	31800	35500	21800	156000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		94200	18900	40800	67600	67000	190000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50 4	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50 4	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	<20 4	<20 4	<20

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		123	132 4	95.1	121	101	102
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		<1000	1100	<1000	<1000	1390	12600
Aliphatics >C21-C35	<1000 µg/kg	TM414		8240	8100	6570	12300	11800	44500
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	<1000	<1000	1680	1510	12200
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		9500	9880	8000	14900	15000	70200
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		21800	21600	16100	16800	18100	84600
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		1350	<1000	<1000	<1000	<1000	1570
Aromatics > EC21-EC35	<1000 µg/kg	TM414		9840	10300	7010	<1000	1960	11400
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	1070	<1000	<1000	<1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		12300	11800	8070	<5000	<5000	14400
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		21800	21600	16100	14900	15000	84600
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50 4	<50	<50	<50	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50 4	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20 4	<20	<20	<20	<20

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		76.6	101	47 4	122	97.8	98.2
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10 4	11.4	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10 4	14.8	<10	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		3810	3080	2500	1150	4380	<1000
Aliphatics >C21-C35	<1000 µg/kg	TM414		19700	10500	22600	5000	18700	4260
Aliphatics >C35-C44	<1000 µg/kg	TM414		8160	1460	30700	<1000	<1000	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		32100	15300	56400	6500	24300	5540
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		70500	20100	112000	<10000	69500	10900
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		6390	<1000	4870	<1000	<1000	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		29000	3360	45400	1450	43500	3800
Aromatics >EC35-EC44	<1000 µg/kg	TM414		2250	<1000	4000	<1000	1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		38400	<5000	55200	<5000	45200	5320
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		70500	15300	112000	<10000	69500	10900
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50 4	<50	<50	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50 4	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20 4	<20	<20	<20

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
Dibromofluoromethane**	%	TM116		114	116	115	120	155	114
Toluene-d8**	%	TM116		102	100	100	97.4	99.4	101
4-Bromofluorobenzene**	%	TM116		101	98	97.5	81.3	96.2	101
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	626 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
Dibromofluoromethane**	%	TM116		116	115	121	112	110	113
Toluene-d8**	%	TM116		101	97.9	99.3	96.1	96.5	102
4-Bromofluorobenzene**	%	TM116		98.9	91.7	96.7	85	81	95.2
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	462 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
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**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
Dibromofluoromethane**	%	TM116		119	115	116	114	111	117
Toluene-d8**	%	TM116		101	102	102	102	99.4	101
4-Bromofluorobenzene**	%	TM116		95.3	98.9	101	100	95.8	99.4
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
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**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
Dibromofluoromethane**	%	TM116		118	112	166	130	119	114
Toluene-d8**	%	TM116		101	99.5	98.4	98.7	99.1	102
4-Bromofluorobenzene**	%	TM116		98	96.8	93.5	99.2	93	101
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 #
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 #
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 #
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 #
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 #
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 #
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AJ29-1 0.70 - 0.70 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638943 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AJ30-1 0.40 - 0.40 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638993 TM048	05/02/21	Eva Guerra	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK27-1 0.80 - 0.80 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638980 TM048	05/02/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK30-1 0.20 - 0.20 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639025 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK31-1 0.10 - 0.10 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639015 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK33-1 0.20 - 0.20 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639067 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK34-2 1.60 - 1.60 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639077 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AL28-2 1.20 - 1.20 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638970 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL29-1 0.80 - 0.80 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638954 TM048	08/02/21	Eva Guerra	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL30-1 0.50 - 0.50 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639034 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL31-1 0.50 - 0.50 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639041 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL32-1 0.50 - 0.50 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639051 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23638988	23638943	23638959	23638993	23638999	23638980	23638976	23639025	23639030	23639015
Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1	AK28-1	AK30-1	AK30-2	AK31-1
AGS Ref.										
Depth	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	05-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021
Asbestos ID in Solid Samples		05-Feb-2021		05-Feb-2021		05-Feb-2021		05-Feb-2021		05-Feb-2021
Cyanide Comp/Free/Total/Thiocyanate	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	03-Feb-2021
EPH CWG GC (S)	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
GRO by GC-FID (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
Metals in solid samples by OES	08-Feb-2021	05-Feb-2021	04-Feb-2021	05-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	08-Feb-2021	04-Feb-2021
PAH by GCMS	03-Feb-2021	08-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021
pH	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021
Phenols by HPLC (S)	09-Feb-2021	09-Feb-2021	10-Feb-2021	09-Feb-2021	09-Feb-2021	10-Feb-2021	05-Feb-2021	09-Feb-2021	05-Feb-2021	05-Feb-2021
Sample description	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021
Total Organic Carbon	03-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
TPH CWG GC (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
VOC MS (S)	05-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021

Lab Sample No(s)	23639020	23639060	23639067	23639071	23639077	23638964	23638970	23638954	23639034	23639007
Customer Sample Ref.	AK31-2	AK32-1	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1	AL30-1	AL30-2
AGS Ref.										
Depth	1.10 - 1.10	1.00 - 1.00	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80	0.50 - 0.50	2.00 - 2.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	05-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021
Asbestos ID in Solid Samples			05-Feb-2021		05-Feb-2021		05-Feb-2021	08-Feb-2021	05-Feb-2021	
Cyanide Comp/Free/Total/Thiocyanate	03-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
EPH CWG GC (S)	04-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
GRO by GC-FID (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021
Metals in solid samples by OES	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	08-Feb-2021
PAH by GCMS	05-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	04-Feb-2021	08-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021
pH	01-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021
Phenols by HPLC (S)	09-Feb-2021	08-Feb-2021	09-Feb-2021	10-Feb-2021	10-Feb-2021	09-Feb-2021	10-Feb-2021	10-Feb-2021	09-Feb-2021	09-Feb-2021
Sample description	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021
Total Organic Carbon		08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
TPH CWG GC (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021
VOC MS (S)	08-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021

Lab Sample No(s)	23639041	23639045	23639051	23638948
Customer Sample Ref.	AL31-1	AL31-2	AL32-1	AL33-1
AGS Ref.				
Depth	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	03-Feb-2021	05-Feb-2021	08-Feb-2021	05-Feb-2021
Asbestos ID in Solid Samples	05-Feb-2021		05-Feb-2021	
Cyanide Comp/Free/Total/Thiocyanate	03-Feb-2021	03-Feb-2021	04-Feb-2021	03-Feb-2021
EPH CWG GC (S)	04-Feb-2021	04-Feb-2021	04-Feb-2021	05-Feb-2021
GRO by GC-FID (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
Metals in solid samples by OES	04-Feb-2021	05-Feb-2021	08-Feb-2021	04-Feb-2021
PAH by GCMS	05-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021
pH	02-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021
Phenols by HPLC (S)	09-Feb-2021	09-Feb-2021	09-Feb-2021	05-Feb-2021
Sample description	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021
Total Organic Carbon	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
TPH CWG GC (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
VOC MS (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	05-Feb-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Final Report

Report No.:	21-41336-1
Initial Date of Issue:	01-Dec-2021
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Chris Wilson David McCarroll Elliot Thomas
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	31
Turnaround (Wkdays):	5
Date Approved:	01-Dec-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	24-Nov-2021
Date Instructed:	24-Nov-2021
Results Due:	30-Nov-2021

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056				**Chemtest Sample ID.:**	1326695	1326696	1326697	1326698	1326699	1326700	1326701	1326702	1326703	1326704
				Client Sample ID.:	AU31-1	AU30-1	AU30-2	AT30-1	AT30-2	AS30-1	AS30-2	AS30-3	AT31-1	AT31-2
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.4	0.5	1.1	0.2	1.5	0.7	1.5	2.5	0.5	1.8
				Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
				Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A	-		-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001										
Total Asbestos	U	2192	%	0.001										
Moisture	N	2030	%	0.020	9.4	13	17	10	8.4	7.7	24	16	9.6	8.2
Soil Colour	N	2040		N/A	Black	Black	Black	Brown	Brown	Brown	Black	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.4	10.3	10.7	10.3	10.5	11.8	11.5	10.2	10.3	10.2
Cyanide (Total)	M	2300	mg/kg	0.50	2.7	1.6	20	22	1.7	1.9	< 0.50	< 0.50	0.50	1.3
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	11	7.8	6.0	14	6.9	4.4	4.2	16	1.9	1.4
Iron (Total)	N	2430	mg/kg	100	24000	26000	26000	25000	26000	23000	20000	25000	26000	22000
Arsenic	M	2450	mg/kg	1.0	43	35	19	17	14	22	3.0	14	18	23
Cadmium	M	2450	mg/kg	0.10	0.69	0.40	0.36	1.3	0.25	0.84	< 0.10	0.79	0.33	0.24
Chromium	M	2450	mg/kg	1.0	110	110	130	79	74	590	44	63	49	82
Manganese	M	2450	mg/kg	5.0	12000	11000	6400	5400	5100	26000	1400	2500	4600	6100
Copper	M	2450	mg/kg	0.50	95	95	67	36	130	71	120	180	26	31
Mercury	M	2450	mg/kg	0.10	0.66	0.85	0.89	0.27	0.24	2.7	0.24	0.19	0.26	0.21
Nickel	M	2450	mg/kg	0.50	46	47	34	37	46	58	11	36	51	17
Lead	M	2450	mg/kg	0.50	140	140	310	150	61	52	20	72	87	140
Selenium	M	2450	mg/kg	0.20	< 0.20	0.28	0.33	0.39	< 0.20	< 0.20	0.63	0.54	0.23	< 0.20
Vanadium	U	2450	mg/kg	5.0	140	120	100	110	120	1400	94	100	46	82
Zinc	M	2450	mg/kg	0.50	200	160	160	300	150	91	27	140	150	180
Organic Matter	M	2625	%	0.40	24	59	64	17	98	2.8	100	47	40	21
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	21	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	36	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	88	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1326695	1326696	1326697	1326698	1326699	1326700	1326701	1326702	1326703	1326704
					Client Sample ID.:	AU31-1	AU30-1	AU30-2	AT30-1	AT30-2	AS30-1	AS30-2	AS30-3	AT31-1	AT31-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.4	0.5	1.1	0.2	1.5	0.7	1.5	2.5	0.5	1.8
					Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	150	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10	150	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		< 0.10	< 0.10	1.8	3.2	< 0.10	< 0.10	0.67	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10	< 0.10	0.66	0.67	< 0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10		< 0.10	< 0.10	0.24	0.28	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10		< 0.10	< 0.10	0.32	0.52	< 0.10	< 0.10	0.47	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10		0.71	2.5	4.1	3.8	1.1	< 0.10	5.7	1.4	0.84	0.48
Anthracene	M	2800	mg/kg	0.10		0.22	1.0	0.91	1.1	0.19	< 0.10	0.88	0.22	0.32	0.14
Fluoranthene	M	2800	mg/kg	0.10		1.1	4.1	6.4	6.6	2.0	0.98	3.1	1.2	1.9	0.68
Pyrene	M	2800	mg/kg	0.10		1.0	3.2	4.5	4.5	1.3	0.94	1.9	0.82	1.4	0.51
Benzo[a]anthracene	M	2800	mg/kg	0.10		0.74	2.2	3.2	3.2	1.3	0.85	1.7	0.77	1.4	0.48
Chrysene	M	2800	mg/kg	0.10		0.70	2.5	3.4	2.8	1.3	1.0	2.0	0.90	1.6	0.65
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		1.7	4.1	5.2	4.8	1.3	1.7	1.9	1.1	3.1	1.0
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		0.49	1.1	1.4	1.4	0.73	0.77	0.60	0.38	0.87	0.27
Benzo[a]pyrene	M	2800	mg/kg	0.10		0.85	2.8	2.8	3.1	1.2	1.4	1.0	0.72	2.1	0.81
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		0.72	2.9	2.8	2.4	1.0	1.0	< 0.10	< 0.10	2.1	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		0.22	0.43	1.1	0.83	0.24	< 0.10	< 0.10	< 0.10	0.48	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		0.91	1.9	2.5	2.3	0.84	0.78	< 0.10	< 0.10	1.6	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0		9.4	29	41	42	13	9.4	20	7.5	18	5.0
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056				**Chemtest Sample ID.:**	1326705	1326706	1326707	1326708	1326709	1326710	1326711	1326712	1326713	1326714
				Client Sample ID.:	AS31-1	AS31-2	AR31-1	AR30-1	AQ31-1	AP31-1	AQ30-1	AQ30-2	AQ30-3	AO30-1
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.6	1.7	0.3	0.5	1.0	0.3	0.5	1.7	2.8	0.6
				Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
				Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A	-		-		-		Fibres/Clumps		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		Chrysotile		No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001							<0.001			
Total Asbestos	U	2192	%	0.001							<0.001			
Moisture	N	2030	%	0.020	10	9.7	5.0	11	4.3	11	12	17	20	10
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Black	Black	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	11.8	11.2	10.9	10.7	> 12.0	10.2	11.6	11.2	11.2	12.0
Cyanide (Total)	M	2300	mg/kg	0.50	2.4	3.4	< 0.50	< 0.50	< 0.50	< 0.50	4.5	2.4	< 0.50	1.2
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	< 0.50	0.74	0.75	< 0.50	0.56	< 0.50	< 0.50	0.61	1.5	< 0.50
Iron (Total)	N	2430	mg/kg	100	22000	23000	8900	7500	21000	19000	23000	23000	14000	23000
Arsenic	M	2450	mg/kg	1.0	26	22	55	15	43	19	25	22	12	17
Cadmium	M	2450	mg/kg	0.10	0.15	0.38	0.82	< 0.10	< 0.10	< 0.10	0.59	1.1	2.5	0.15
Chromium	M	2450	mg/kg	1.0	670	120	10	19	1200	67	410	570	86	340
Manganese	M	2450	mg/kg	5.0	28000	7300	1800	3100	35000	4300	18000	11000	2300	13000
Copper	M	2450	mg/kg	0.50	130	51	76	23	290	60	51	73	34	50
Mercury	M	2450	mg/kg	0.10	4.3	0.53	< 0.10	< 0.10	1.9	0.14	1.4	0.85	0.24	0.89
Nickel	M	2450	mg/kg	0.50	35	25	10	8.3	26	9.9	32	150	15	16
Lead	M	2450	mg/kg	0.50	43	65	21	7.5	80	23	78	110	160	38
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vanadium	U	2450	mg/kg	5.0	1200	220	24	23	800	95	390	250	82	300
Zinc	M	2450	mg/kg	0.50	77	83	60	24	82	45	110	120	190	86
Organic Matter	M	2625	%	0.40	9.0	11	2.2	0.69	2.8	1.2	9.0	29	59	33
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	1200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	210	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	230	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	1400	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	230	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	19	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	210	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1326705	1326706	1326707	1326708	1326709	1326710	1326711	1326712	1326713	1326714
					Client Sample ID.:	AS31-1	AS31-2	AR31-1	AR30-1	AQ31-1	AP31-1	AQ30-1	AQ30-2	AQ30-3	AO30-1
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.6	1.7	0.3	0.5	1.0	0.3	0.5	1.7	2.8	0.6
					Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		19	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	210	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		1400	< 10	< 10	< 10	< 10	< 10	440	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10		< 0.10	3.1	< 0.10	1.6	0.24	0.34	< 0.10	1.6	1.4	1.9
Anthracene	M	2800	mg/kg	0.10		< 0.10	0.83	< 0.10	0.93	0.20	0.12	< 0.10	0.27	0.41	0.39
Fluoranthene	M	2800	mg/kg	0.10		0.77	6.1	< 0.10	3.2	0.47	0.90	1.3	2.2	1.8	2.2
Pyrene	M	2800	mg/kg	0.10		0.75	4.6	< 0.10	2.4	0.21	1.2	1.5	1.7	1.6	1.6
Benzo[a]anthracene	M	2800	mg/kg	0.10		0.70	2.5	< 0.10	1.1	0.23	0.91	0.97	1.1	1.1	0.84
Chrysene	M	2800	mg/kg	0.10		0.68	1.7	< 0.10	1.0	0.40	1.0	1.1	1.3	0.99	1.2
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		1.2	1.9	< 0.10	1.1	0.24	2.4	2.2	1.8	1.4	1.7
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		0.49	0.50	< 0.10	0.37	0.17	0.61	0.66	0.58	0.47	0.58
Benzo[a]pyrene	M	2800	mg/kg	0.10		1.0	1.3	< 0.10	0.97	0.27	1.3	1.3	1.2	0.82	0.98
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	0.37	1.4	< 0.10	1.1	0.43	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	0.42	0.34	< 0.10	0.30	0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	0.38	1.2	< 0.10	0.99	0.58	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0		5.6	23	< 2.0	13	3.6	12	9.0	14	11	11
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056				**Chemtest Sample ID.:**	1326715	1326716	1326717	1326718	1326719	1326720	1326721	1326722	1326723	1326724
				Client Sample ID.:	AN31-1	AN30-1	AM31-1	AM30-1	AM29-1	AL28-1	AT26-1	AT26-2	W208-3-1	W208-3-2
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.3	1.0	1.1	0.4	1.2	0.2	1.0	1.4	0.2	0.2
				Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
				Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A	-		-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001										
Total Asbestos	U	2192	%	0.001										
Moisture	N	2030	%	0.020	9.0	8.7	8.9	3.6	12	4.1	11	9.4	11	8.0
Soil Colour	N	2040		N/A	Black	Black	Brown	Brown	Black	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	> 12.0	11.1	11.9	> 12.0	> 12.0	> 12.0	> 12.0	11.0	11.0	10.7
Cyanide (Total)	M	2300	mg/kg	0.50	3.6	0.50	0.70	3.9	1.5	0.90	1.1	< 0.50	0.80	0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.70	< 0.50	< 0.50	1.0	< 0.50	< 0.50	< 0.50	1.2	1.1	27
Iron (Total)	N	2430	mg/kg	100	23000	22000	21000	21000	22000	21000	22000	22000	20000	21000
Arsenic	M	2450	mg/kg	1.0	27	11	17	41	23	35	33	30	38	30
Cadmium	M	2450	mg/kg	0.10	0.34	0.29	< 0.10	0.40	< 0.10	< 0.10	0.10	0.74	0.66	0.55
Chromium	M	2450	mg/kg	1.0	410	26	200	1000	450	530	400	140	130	100
Manganese	M	2450	mg/kg	5.0	17000	2700	11000	39000	18000	33000	28000	5200	4600	6600
Copper	M	2450	mg/kg	0.50	39	55	18	81	61	34	94	140	230	140
Mercury	M	2450	mg/kg	0.10	1.3	0.18	0.50	2.7	1.2	1.2	0.93	0.41	0.43	0.40
Nickel	M	2450	mg/kg	0.50	21	11	10	28	17	46	51	34	34	28
Lead	M	2450	mg/kg	0.50	67	61	24	180	43	24	31	120	120	97
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vanadium	U	2450	mg/kg	5.0	360	38	210	780	400	2200	2300	180	190	160
Zinc	M	2450	mg/kg	0.50	130	80	53	110	60	65	69	220	200	180
Organic Matter	M	2625	%	0.40	26	53	2.4	2.1	22	1.4	2.2	7.1	5.9	6.2
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	6.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	6.2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.4	< 1.0	12
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	56	< 1.0	300
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1326715	1326716	1326717	1326718	1326719	1326720	1326721	1326722	1326723	1326724
					Client Sample ID.:	AN31-1	AN30-1	AM31-1	AM30-1	AM29-1	AL28-1	AT26-1	AT26-2	W208-3-1	W208-3-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.3	1.0	1.1	0.4	1.2	0.2	1.0	1.4	0.2	0.2
					Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	63	< 5.0	310
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10	< 10	< 10	< 10	< 10	< 10	< 10	63	< 10	310
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.18	0.59	2.1	2.6
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.13	0.25	0.71	0.98
Acenaphthene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.33	0.14	0.13	0.17
Fluorene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.19	0.24	0.41	0.55
Phenanthrene	M	2800	mg/kg	0.10		0.59	1.2	< 0.10	0.38	< 0.10	2.0	3.7	1.2	3.3	4.1
Anthracene	M	2800	mg/kg	0.10		0.24	0.16	< 0.10	0.26	< 0.10	0.37	0.54	0.36	0.77	1.4
Fluoranthene	M	2800	mg/kg	0.10		1.5	0.76	0.84	0.74	0.83	2.7	5.7	2.3	5.4	6.9
Pyrene	M	2800	mg/kg	0.10		1.3	0.61	0.89	0.58	0.70	2.2	5.2	1.6	3.7	4.5
Benzo[a]anthracene	M	2800	mg/kg	0.10		0.71	0.47	0.69	0.42	0.38	1.9	4.0	1.5	2.6	3.0
Chrysene	M	2800	mg/kg	0.10		0.99	0.55	0.77	0.55	0.52	2.1	3.5	1.6	2.6	3.2
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		1.5	0.55	1.1	0.48	1.0	3.1	5.8	2.5	3.3	4.2
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		0.26	0.26	0.50	0.18	0.31	1.3	2.1	0.61	1.5	1.5
Benzo[a]pyrene	M	2800	mg/kg	0.10		0.95	0.44	0.93	0.13	0.70	2.3	4.6	1.4	2.0	3.0
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		0.75	< 0.10	< 0.10	< 0.10	< 0.10	2.2	4.1	1.3	2.4	2.9
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		0.28	< 0.10	< 0.10	< 0.10	< 0.10	0.42	0.64	0.43	0.41	0.59
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		0.73	< 0.10	< 0.10	< 0.10	< 0.10	2.0	3.7	1.3	1.6	1.9
Total Of 16 PAH's	N	2800	mg/kg	2.0		9.8	5.0	5.7	3.7	4.4	23	44	17	33	42
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	8.4
Electrical Conductivity	U	1020	µS/cm	1.0	970
Suspended Solids At 105C	U	1030	mg/l	5.0	< 5.0
Total Dissolved Solids	N	1020	mg/l	1.0	630
Turbidity	N	1060	NTU	1.0	4.4
Biochemical Oxygen Demand	N	1090	mg O2/l	4.0	[B] < 4.0
Chemical Oxygen Demand	U	1100	mg O2/l	10	[B] 30
Dissolved Oxygen	N	1150	mg O2/l	0.50	6.0
Redox Potential	N	1170	mV	N/A	130
Chloride	U	1220	mg/l	1.0	55
Fluoride	U	1220	mg/l	0.050	0.56
Ammoniacal Nitrogen	U	1220	mg/l	0.050	7.8
Phosphorus (Total)	N	1220	mg/l	0.020	0.037
Phosphate	U	1220	mg/l	0.200	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.036
Sulphur	N	1220	mg/l	1.0	83
Sulphate	U	1220	mg/l	1.0	250
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050
Cyanide (Free)	U	1300	mg/l	0.050	< 0.050
Thiocyanate	U	1300	mg/l	0.50	< 0.50
Cyanide (Complex)	U	1300	mg/l	0.050	< 0.050
Sulphide	U	1325	mg/l	0.050	[B] < 0.050
Calcium	U	1455	mg/l	2.00	71
Magnesium	U	1455	mg/l	0.20	16
Total Calcium	N	1455	mg/l	5.0	71
Total Magnesium	N	1455	mg/l	0.50	15
Total Hardness as CaCO3	U	1270	mg/l	15	240
Arsenic (Dissolved)	U	1455	µg/l	0.20	4.4
Boron (Dissolved)	U	1455	µg/l	10.0	390
Barium (Dissolved)	U	1455	µg/l	5.00	130
Beryllium (Dissolved)	U	1455	µg/l	1.00	< 1.0
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	0.67
Copper (Dissolved)	U	1455	µg/l	0.50	2.3
Iron (Dissolved)	N	1455	µg/l	5.0	28
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05
Manganese (Dissolved)	U	1455	µg/l	0.50	100
Nickel (Dissolved)	U	1455	µg/l	0.50	2.1
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50
Antimony (Dissolved)	U	1455	µg/l	0.50	0.55
Selenium (Dissolved)	U	1455	µg/l	0.50	1.7
Vanadium (Dissolved)	U	1455	µg/l	0.50	14
Zinc (Dissolved)	U	1455	µg/l	2.5	3.4
Arsenic (Total)	N	1455	µg/l	0.20	4.4

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			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Boron (Total)	N	1455	µg/l	10.0	390
Barium (Total)	N	1455	µg/l	5.00	130
Beryllium (Total)	N	1455	µg/l	1.00	< 1.0
Cadmium (Total)	N	1455	µg/l	0.11	< 0.11
Chromium (Total)	N	1455	µg/l	0.50	0.67
Copper (Total)	N	1455	µg/l	0.50	2.3
Iron (Total)	N	1455	µg/l	5.0	28
Mercury (Total)	N	1455	µg/l	0.05	< 0.05
Manganese (Total)	N	1455	µg/l	0.50	100
Nickel (Total)	N	1455	µg/l	0.50	2.1
Lead (Total)	N	1455	µg/l	0.50	< 0.50
Antimony (Total)	N	1455	µg/l	0.50	0.55
Selenium (Total)	N	1455	µg/l	0.50	1.7
Vanadium (Total)	N	1455	µg/l	0.50	14
Zinc (Total)	N	1455	µg/l	2.5	3.4
Chromium (Hexavalent)	U	1490	µg/l	20	[B] < 20
Dissolved Organic Carbon	U	1610	mg/l	2.0	8.0
Total Inorganic Carbon	N	1220	mg/l	2.5	46
Total Organic Carbon	U	1610	mg/l	2.0	8.5
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0
Bromomethane	U	1760	µg/l	5	< 5
Chloroethane	U	1760	µg/l	2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0

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Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5	< 5
Trichloromethane	U	1760	µg/l	1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10
Bromodichloromethane	U	1760	µg/l	5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10
1,2-Dibromoethane	U	1760	µg/l	5	< 5
Chlorobenzene	N	1760	µg/l	1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0

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Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50

Results - Water

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Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50
Naphthalene	U	1800	µg/l	0.10	< 0.10
Acenaphthylene	U	1800	µg/l	0.10	< 0.10
Acenaphthene	U	1800	µg/l	0.10	< 0.10
Fluorene	U	1800	µg/l	0.10	< 0.10
Phenanthrene	U	1800	µg/l	0.10	< 0.10
Anthracene	U	1800	µg/l	0.10	< 0.10
Fluoranthene	U	1800	µg/l	0.10	< 0.10
Pyrene	U	1800	µg/l	0.10	< 0.10
Benzo[a]anthracene	U	1800	µg/l	0.10	< 0.10
Chrysene	U	1800	µg/l	0.10	< 0.10
Benzo[b]fluoranthene	U	1800	µg/l	0.10	< 0.10
Benzo[k]fluoranthene	U	1800	µg/l	0.10	< 0.10
Benzo[a]pyrene	U	1800	µg/l	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1800	µg/l	0.10	< 0.10
Dibenz(a,h)Anthracene	U	1800	µg/l	0.10	< 0.10
Benzo[g,h,i]perylene	U	1800	µg/l	0.10	< 0.10
Total Of 16 PAH's	U	1800	µg/l	2.0	< 2.0
Total Phenols	U	1920	mg/l	0.030	< 0.030

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1326725		D2-S		19-Nov-2021	B	Coloured Winchester 1000ml
1326725		D2-S		19-Nov-2021	B	EPA Vial 40ml
1326725		D2-S		19-Nov-2021	B	Plastic Bottle 1000ml

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1060	Turbidity	Turbidity	Spetctrophotometry
1090	Biochemical Oxygen Demand	Biochemical Oxygen demand (BOD)	Colorimetric determination of dissolved oxygen in seeded sample after 5 days incubation at 20°C.
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1150	Dissolved Oxygen	Dissolved Oxygen (DO)	Electrometric determination (on site preferred), using oxygen sensitive membrane electrode.
1170	Redox Potential	Redox Potential	Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930

Test Methods

SOP	Title	Parameters included	Method summary
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20454-1
Initial Date of Issue:	09-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Chris Wilson Caitlin Davies David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	23
Turnaround (Wkdays):	5
Date Approved:	09-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	01-Jun-2022
Date Instructed:	01-Jun-2022
Results Due:	09-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440189	1440190	1440191	1440192	1440193	1440194	1440195	1440196	1440197
		Client Sample ID.:			AX37-1	AX37-2	AX36-1	AX36-2	AX35-1	AX35-2	AX34-1	AX34-2	AW37-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.00	2.00	0.60	1.50	0.50	1.20	0.70	1.30	0.30
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	8.5	9.7	4.0	7.4	7.3	9.1	4.2	6.6	5.1
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Gravel	Sand	Sand
pH	M	2010		4.0	9.7	8.8	9.4	10.4	9.3	10.0	10.5	9.7	11.6
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	1.3	23	1.9	4.4	2.0	29	0.56	20	0.67
Iron (Total)	N	2430	mg/kg	100	3500	8200	2200	4800	3900	6000	< 100	8800	17000
Arsenic	M	2455	mg/kg	0.5	2.7	1.2	2.0	< 0.5	2.3	1.5	< 0.5	1.3	1.4
Cadmium	M	2455	mg/kg	0.10	0.25	0.24	< 0.10	< 0.10	0.16	0.55	< 0.10	0.38	0.59
Chromium	M	2455	mg/kg	0.5	8.7	7.8	4.3	2.8	5.2	7.5	0.5	8.7	160
Manganese	M	2455	mg/kg	1.0	1300	840	450	530	750	1100	1700	680	6700
Copper	M	2455	mg/kg	0.50	10	6.3	6.7	1.6	6.9	5.4	0.93	4.8	9.3
Mercury	M	2455	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	4.7	7.2	4.1	0.88	4.4	3.6	1.2	6.9	3.2
Lead	M	2455	mg/kg	0.50	19	24	8.8	2.2	6.3	37	2.5	18	25
Selenium	M	2455	mg/kg	0.25	0.72	0.26	< 0.25	< 0.25	0.41	0.56	0.76	< 0.25	0.31
Vanadium	U	2455	mg/kg	0.5	18	9.5	8.1	6.0	11	14	< 0.5	27	110
Zinc	M	2455	mg/kg	0.50	26	23	18	3.9	13	38	4.9	24	91
Organic Matter	M	2625	%	0.40	8.1	4.1	3.6	5.0	9.0	3.3	6.7	2.1	1.7
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.1

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1440189	1440190	1440191	1440192	1440193	1440194	1440195	1440196	1440197
			Client Sample ID.:		AX37-1	AX37-2	AX36-1	AX36-2	AX35-1	AX35-2	AX34-1	AX34-2	AW37-1
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.00	2.00	0.60	1.50	0.50	1.20	0.70	1.30	0.30
			Date Sampled:		30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
			Asbestos Lab:		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	44
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	49
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	49
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.41
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.47
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.45
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.34
Phenanthrene	M	2800	mg/kg	0.10	0.52	0.61	< 0.10	0.51	0.32	0.42	0.29	< 0.10	3.0
Anthracene	M	2800	mg/kg	0.10	0.33	0.24	< 0.10	0.15	0.12	< 0.10	< 0.10	< 0.10	1.1
Fluoranthene	M	2800	mg/kg	0.10	0.94	0.53	< 0.10	0.81	0.32	0.29	0.74	< 0.10	8.0
Pyrene	M	2800	mg/kg	0.10	0.77	0.48	< 0.10	0.63	0.28	0.25	0.67	< 0.10	7.3
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.61	0.45	< 0.10	0.32	< 0.10	< 0.10	0.44	< 0.10	5.4
Chrysene	M	2800	mg/kg	0.10	0.46	0.40	< 0.10	0.45	< 0.10	< 0.10	0.35	< 0.10	6.3
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.87	0.50	< 0.10	< 0.10	< 0.10	< 0.10	0.28	< 0.10	9.0
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.33	0.38	< 0.10	< 0.10	< 0.10	< 0.10	0.36	< 0.10	4.0
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.43	0.31	< 0.10	< 0.10	< 0.10	< 0.10	0.20	< 0.10	8.2
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	0.43	0.48	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	5.3
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.32	0.31	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.74
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.68	0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	5.2
Total Of 16 PAH's	N	2800	mg/kg	2.0	6.7	5.1	< 2.0	2.9	< 2.0	< 2.0	3.3	< 2.0	65
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440198	1440199	1440200	1440201	1440202	1440203	1440204	1440205	1440206
		Client Sample ID.:			AW37-2	AW36-1	AW36-2	AW35-1	AW34-1	AW34-2	AV34-1	AV34-2	AV35-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.50	0.30	1.60	0.50	1.00	2.00	0.40	1.80	1.00
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:				DURHAM		DURHAM	DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A		-		-	-		-		-
Asbestos Identification	U	2192		N/A		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	11	6.6	12	5.8	13	10	6.3	13	8.8
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Gravel	Sand	Sand	Sand
pH	M	2010		4.0	11.1	10.2	9.5	10.8	9.8	10.8	10.5	10.1	10.7
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.50	1.5	4.0	5.2
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.86	< 0.50	26	0.61	1.5	0.78	1.1	2.3	0.78
Iron (Total)	N	2430	mg/kg	100	9800	15000	13000	6500	5400	5500	7800	6200	4900
Arsenic	M	2455	mg/kg	0.5	18	2.4	6.1	2.4	2.6	1.9	3.1	2.0	1.9
Cadmium	M	2455	mg/kg	0.10	0.26	0.22	0.24	0.31	0.34	0.14	0.11	0.28	0.35
Chromium	M	2455	mg/kg	0.5	32	85	12	24	15	13	23	13	12
Manganese	M	2455	mg/kg	1.0	2200	3200	810	2400	2100	2200	3000	1900	2000
Copper	M	2455	mg/kg	0.50	12	9.9	13	7.1	12	7.1	7.7	9.9	6.4
Mercury	M	2455	mg/kg	0.05	0.07	0.07	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	7.3	2.7	8.2	3.1	5.8	3.3	4.7	5.6	3.6
Lead	M	2455	mg/kg	0.50	30	31	41	43	45	16	24	40	33
Selenium	M	2455	mg/kg	0.25	1.2	0.27	0.47	1.0	0.66	1.3	1.5	0.73	0.48
Vanadium	U	2455	mg/kg	0.5	80	67	19	29	26	20	36	23	17
Zinc	M	2455	mg/kg	0.50	59	99	62	110	90	41	54	180	76
Organic Matter	M	2625	%	0.40	8.1	5.7	7.8	3.8	15	3.3	3.3	7.9	5.0
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	72
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	72
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1440198	1440199	1440200	1440201	1440202	1440203	1440204	1440205	1440206
			Client Sample ID.:		AW37-2	AW36-1	AW36-2	AW35-1	AW34-1	AW34-2	AV34-1	AV34-2	AV35-1
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.50	0.30	1.60	0.50	1.00	2.00	0.40	1.80	1.00
			Date Sampled:		30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
			Asbestos Lab:			DURHAM		DURHAM	DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	57
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	57
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	130
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	0.47	< 0.10	< 0.10	0.41	0.62	0.60	< 0.10	0.73	1.4
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.12	0.13	0.13	< 0.10	0.37	0.48
Fluoranthene	M	2800	mg/kg	0.10	0.58	0.21	< 0.10	0.32	0.87	0.60	< 0.10	0.71	3.5
Pyrene	M	2800	mg/kg	0.10	0.60	0.29	< 0.10	0.31	0.80	0.59	< 0.10	0.66	2.9
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.37	< 0.10	< 0.10	< 0.10	0.41	0.26	< 0.10	0.61	2.0
Chrysene	M	2800	mg/kg	0.10	0.49	< 0.10	< 0.10	< 0.10	0.30	0.35	< 0.10	0.46	1.8
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.42	< 0.10	< 0.10	< 0.10	0.73	0.30	< 0.10	0.49	3.3
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.25	< 0.10	< 0.10	< 0.10	0.34	0.17	< 0.10	0.22	1.2
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.42	< 0.10	< 0.10	< 0.10	0.28	0.35	< 0.10	0.47	2.5
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.45	2.4
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.25	0.45
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.55	2.1
Total Of 16 PAH's	N	2800	mg/kg	2.0	3.6	< 2.0	< 2.0	< 2.0	4.5	3.4	< 2.0	6.0	24
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	1.2	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	1.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440207	1440208	1440209	1440210	1440211
		Client Sample ID.:			AV35-2	AV36-1	AV36-2	AV37-1	AV37-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			2.00	0.30	1.30	0.50	1.60
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:				DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
ACM Type	U	2192		N/A		-		-	
Asbestos Identification	U	2192		N/A		No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	9.6	12	7.2	11	6.8
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.6	10.0	10.3	10.9	11.0
Cyanide (Total)	M	2300	mg/kg	0.50	3.1	8.0	< 0.50	10	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.64	0.58	4.4	1.0	< 0.50
Iron (Total)	N	2430	mg/kg	100	8700	9000	6100	7800	12000
Arsenic	M	2455	mg/kg	0.5	2.0	2.1	1.3	2.3	1.2
Cadmium	M	2455	mg/kg	0.10	0.24	0.37	0.29	< 0.10	0.26
Chromium	M	2455	mg/kg	0.5	22	22	12	35	55
Manganese	M	2455	mg/kg	1.0	3300	2800	3000	2600	3900
Copper	M	2455	mg/kg	0.50	6.1	11	6.0	5.4	5.3
Mercury	M	2455	mg/kg	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	3.6	5.9	3.7	3.9	3.7
Lead	M	2455	mg/kg	0.50	29	38	34	12	25
Selenium	M	2455	mg/kg	0.25	0.29	0.57	0.29	0.81	0.27
Vanadium	U	2455	mg/kg	0.5	27	26	15	35	55
Zinc	M	2455	mg/kg	0.50	110	130	140	25	46
Organic Matter	M	2625	%	0.40	5.3	11	6.6	4.7	2.1
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	7.3	< 1.0	< 1.0	19
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	14	< 1.0	< 1.0	18
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	16	< 1.0	< 1.0	64
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	140	< 1.0	< 1.0	140
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	170	< 5.0	< 5.0	240
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	2.7	< 1.0	< 1.0	11

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440207	1440208	1440209	1440210	1440211
		Client Sample ID.:			AV35-2	AV36-1	AV36-2	AV37-1	AV37-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			2.00	0.30	1.30	0.50	1.60
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:				DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	84	< 1.0	< 1.0	120
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	86	< 5.0	< 5.0	130
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	260	< 10	< 10	370
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	0.43	0.62	< 0.10	0.59
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	0.15	0.63	< 0.10	2.7
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	0.15	0.15	< 0.10	0.34
Fluorene	M	2800	mg/kg	0.10	< 0.10	0.19	0.21	< 0.10	0.40
Phenanthrene	M	2800	mg/kg	0.10	1.1	0.86	1.2	0.24	2.9
Anthracene	M	2800	mg/kg	0.10	1.5	0.38	0.60	< 0.10	4.3
Fluoranthene	M	2800	mg/kg	0.10	6.8	2.9	3.5	0.20	23
Pyrene	M	2800	mg/kg	0.10	6.7	2.4	3.3	0.19	24
Benzo[a]anthracene	M	2800	mg/kg	0.10	4.7	1.8	2.9	0.14	15
Chrysene	M	2800	mg/kg	0.10	6.4	2.0	3.9	0.17	21
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	9.2	2.3	5.8	0.22	33
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	2.8	0.80	1.8	0.12	11
Benzo[a]pyrene	M	2800	mg/kg	0.10	7.1	1.9	4.5	0.16	26
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	6.5	1.4	4.2	< 0.10	23
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	1.0	0.35	0.67	< 0.10	3.9
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	5.8	1.4	4.0	< 0.10	22
Total Of 16 PAH's	N	2800	mg/kg	2.0	60	19	38	< 2.0	210
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	1.1	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	1.1	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20747-1
Initial Date of Issue:	10-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	9
Turnaround (Wkdays):	5
Date Approved:	10-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	06-Jun-2022
Date Instructed:	06-Jun-2022
Results Due:	10-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441643	1441644	1441645	1441646	1441647	1441648	1441649	1441650	1441651
Order No.: PO115623		Client Sample Ref.:			AR37-2	AR36-2	AR37-1	AS37-2	AR36-1	AS34-1	AS37-1	AS35-1	AS35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.70	1.50	0.40	2.00	0.50	0.40	0.50	0.30	2.00
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	13	24	1.4	14	22	5.8	18	6.2	19
Soil Colour	N	2040		N/A	Brown	Black	Beige	Brown	Brown	Brown	Brown	Brown	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	9.9	9.4	> 12.0	9.6	10.2	10.5	11.5	11.3	10.5
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	68	14	4.4	1.3	2.1
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	6.6	16	0.93	68	2.4	1.4	2.2	1.3	1.6
Iron (Total)	N	2430	mg/kg	100	21000	19000	4300	17000	26000	26000	24000	24000	23000
Arsenic	M	2455	mg/kg	0.5	12	29	3.1	12	18	13	6.0	7.9	19
Cadmium	M	2455	mg/kg	0.10	0.34	0.26	0.32	0.14	5.1	0.54	0.80	0.57	0.73
Chromium	M	2455	mg/kg	0.5	26	15	15	13	60	36	68	82	150
Manganese	M	2455	mg/kg	1.0	1300	270	430	480	2900	19000	4900	4200	5700
Copper	M	2455	mg/kg	0.50	30	50	10	16	110	16	17	20	83
Mercury	M	2455	mg/kg	0.05	0.13	0.23	< 0.05	0.05	1.7	0.13	0.13	0.26	0.38
Nickel	M	2455	mg/kg	0.50	18	28	5.2	20	44	24	16	17	33
Lead	M	2455	mg/kg	0.50	97	44	17	31	970	41	82	63	160
Selenium	M	2455	mg/kg	0.25	1.9	2.8	0.49	1.3	2.0	2.3	0.64	1.0	2.4
Vanadium	U	2455	mg/kg	0.5	45	26	12	21	49	78	88	81	110
Zinc	M	2455	mg/kg	0.50	160	73	39	33	5700	170	220	140	240
Organic Matter	M	2625	%	0.40	12	22	13	6.2	14	3.8	9.7	4.7	28
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.1	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	23	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	80	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	110	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441643	1441644	1441645	1441646	1441647	1441648	1441649	1441650	1441651
Order No.: PO115623		Client Sample Ref.:			AR37-2	AR36-2	AR37-1	AS37-2	AR36-1	AS34-1	AS37-1	AS35-1	AS35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.70	1.50	0.40	2.00	0.50	0.40	0.50	0.30	2.00
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	110	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	1.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.82	< 0.10	< 0.10	0.38	0.67
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.42	< 0.10	< 0.10	0.36	0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.17	< 0.10	< 0.10	0.16	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	0.60	0.21	< 0.10	0.13	1.1	1.4	0.98	2.3	0.67
Anthracene	M	2800	mg/kg	0.10	0.11	< 0.10	< 0.10	< 0.10	0.58	0.31	0.62	0.59	0.14
Fluoranthene	M	2800	mg/kg	0.10	0.55	0.12	< 0.10	0.50	3.4	2.1	4.1	5.7	1.1
Pyrene	M	2800	mg/kg	0.10	0.46	0.12	< 0.10	0.43	4.2	1.5	4.3	4.3	0.77
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.40	< 0.10	< 0.10	0.26	2.9	0.87	3.1	2.4	0.43
Chrysene	M	2800	mg/kg	0.10	0.49	< 0.10	< 0.10	0.29	3.3	0.88	4.8	2.6	0.49
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.70	< 0.10	< 0.10	0.29	7.3	1.5	7.3	3.1	0.73
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.24	< 0.10	< 0.10	< 0.10	2.3	0.53	2.4	1.1	0.24
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.50	< 0.10	< 0.10	0.20	5.4	0.89	5.7	2.1	0.41
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	0.40	< 0.10	< 0.10	< 0.10	4.3	0.68	5.4	1.7	0.20
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.13	< 0.10	< 0.10	< 0.10	0.82	0.18	0.85	0.35	0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.40	< 0.10	< 0.10	< 0.10	4.6	0.78	5.0	1.6	0.27
Total Of 16 PAH's	N	2800	mg/kg	2.0	5.0	< 2.0	< 2.0	2.1	42	12	45	29	6.4
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20750-1
Initial Date of Issue:	10-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	9
Turnaround (Wkdays):	5
Date Approved:	10-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	06-Jun-2022
Date Instructed:	06-Jun-2022
Results Due:	10-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441657	1441658	1441659	1441660	1441661	1441662	1441663	1441664	1441665
		Client Sample ID.:			AR35-2	AR35-1	AQ37-2	AR34-2	AR34-1	AQ35-1	AQ37-1	AT37-1	AQ35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.30	0.60	1.50	2.00	0.50	0.50	0.80	0.80	2.00
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	9.2	7.1	8.7	13	8.0	12	13	8.6	21
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Black	Brown	Brown	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.6	9.4	9.2	11.1	11.6	11.0	10.8	> 12.0	9.2
Cyanide (Total)	M	2300	mg/kg	0.50	3.5	3.7	< 0.50	2.7	11	6.9	2.1	5.9	8.5
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	2.7	1.6	16	2.3	0.86	0.74	6.8	0.78	40
Iron (Total)	N	2430	mg/kg	100	22000	23000	19000	15000	22000	20000	15000	21000	22000
Arsenic	M	2455	mg/kg	0.5	15	7.1	12	24	7.0	10	9.3	3.9	17
Cadmium	M	2455	mg/kg	0.10	0.42	0.60	0.45	0.67	0.81	1.1	0.42	0.65	0.19
Chromium	M	2455	mg/kg	0.5	41	54	46	34	100	49	22	230	19
Manganese	M	2455	mg/kg	1.0	2100	3200	2500	2700	4100	1900	1100	9200	620
Copper	M	2455	mg/kg	0.50	35	23	47	20	25	43	23	51	37
Mercury	M	2455	mg/kg	0.05	0.21	0.26	0.11	0.08	0.78	0.61	0.18	0.18	0.18
Nickel	M	2455	mg/kg	0.50	20	18	25	10	16	21	15	16	36
Lead	M	2455	mg/kg	0.50	120	150	52	59	140	180	77	61	30
Selenium	M	2455	mg/kg	0.25	1.2	1.2	1.3	3.1	0.90	1.3	1.3	0.51	2.4
Vanadium	U	2455	mg/kg	0.5	46	46	88	42	83	50	25	330	34
Zinc	M	2455	mg/kg	0.50	220	280	97	150	290	320	110	290	62
Organic Matter	M	2625	%	0.40	15	13	9.1	2.4	6.6	10	8.3	8.3	14
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	4.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.7	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.7	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	3.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1441657	1441658	1441659	1441660	1441661	1441662	1441663	1441664	1441665
					Client Sample ID.:	AR35-2	AR35-1	AQ37-2	AR34-2	AR34-1	AQ35-1	AQ37-1	AT37-1	AQ35-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.30	0.60	1.50	2.00	0.50	0.50	0.80	0.80	2.00
					Date Sampled:	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0		12	120	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		12	130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		16	130	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		0.85	1.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10		2.0	4.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10		0.16	0.18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10		0.36	0.34	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10		4.0	2.6	0.58	< 0.10	0.95	< 0.10	< 0.10	0.90	< 0.10
Anthracene	M	2800	mg/kg	0.10		1.6	1.6	0.21	< 0.10	0.21	< 0.10	< 0.10	0.35	< 0.10
Fluoranthene	M	2800	mg/kg	0.10		14	15	0.84	< 0.10	0.99	0.40	0.52	2.0	< 0.10
Pyrene	M	2800	mg/kg	0.10		11	14	0.67	< 0.10	0.85	0.45	0.54	1.9	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.10		7.3	11	0.65	< 0.10	0.55	< 0.10	< 0.10	1.5	< 0.10
Chrysene	M	2800	mg/kg	0.10		6.7	11	0.59	< 0.10	0.54	< 0.10	< 0.10	1.3	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		14	28	< 0.10	< 0.10	0.84	< 0.10	< 0.10	1.8	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		4.2	9.2	< 0.10	< 0.10	0.29	< 0.10	< 0.10	0.56	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10		11	22	< 0.10	< 0.10	0.68	< 0.10	< 0.10	2.3	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		10	22	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		2.0	3.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		8.6	18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0		98	160	3.5	< 2.0	5.9	< 2.0	< 2.0	13	< 2.0
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix G
CIRIA C552 Terminology

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- Highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution;
- Likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term;
- Low likelihood; circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely that in the short term; and
- Unlikely: circumstances are such that it is improbable the event would occur even in the long term

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- Severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part 11A. Short term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land' DETR 2000);
- Medium; chronic damage to human health ('significant harm' as defined in Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in Draft Circular on Contaminated Land', DETR 2000);
- Mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment; and
- Minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the likelihood of an event occurring and its severity have been classified, a risk category can be assigned from the table below:

		Consequences			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**Highly likely**	Very high	high	Moderate	Moderate / low
	Likely	High	Moderate	Moderate / low	Low
	Low likelihood	Moderate	Moderate / low	Low	Very low
	Unlikely	Moderate / low	Low	Very low	Very low

Definitions of these risk categories are as shown below with an assessment of the further work that might be required:

- Very high: there is a high probability that severe harm could occur or there is evidence harm is currently happening. This risk, if realised, could result in substantial liability and urgent investigation and remediation are likely to be required;

- High: harm is likely to occur. Realisation of the risk is likely to present a substantial liability and urgent investigation is required and remedial works may be necessary in the short term and are likely over the long term;

- Moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term;

- Low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild; and

- Very Low: there is a low possibility that harm could occur and if realised the harm is likely to be sever.

Appendix H

Geotechnical Results and Test Certificates

Soil ID	Compaction			General	Particle Distribution							BRE			
					Fines										
	Optimum Moisture Content (%)	Max Dry Density (Mg/m3)	Assumed/ Measured Particle Density (Mg/m3)	Water Content (%)	Clay % (<0.004mm)	Silt % (0.004 - 0.062mm)	% Fines (<0.062)	Sand % (0.062 - 2mm)	Gravel % (2-63mm)	Cobbles % (64-124mm)	Total	Density on a saturated and surface-dried basis (Mg/m3)	Partilcle density on an oven-dried basis (Mg/m3)	Apparent Particle Density	Total Expansion (%)
AK32-1 (1.0)	14	1.80	2.6	16.9			7.5	22.5	70	0	100	2.34	2.24	2.5	
AK33-1 (1.0)	10	2.14	2.95	8.5			1.5	13.5	85	0	100	2.68	2.63	2.78	
AK34-1 (1.6)	9.3	2.18	2.9	9.4			5.2	12.8	80	2	100	2.7	2.61	2.85	0.30
AL32-1 (0.5)	9.9	2.28	3.1	11.2			4.7	21.3	74	0	100	2.82	2.75	2.95	4.70
AL33-1 (0.8)	11	2.27	3.2	8.4			4.2	14.8	81	0	100	2.68	2.61	2.81	
AL33-1 (0.8)	11	2.27	3.2	8.4			4.2	14.8	81	0	100	2.68	2.61	2.81	
AL36-1 (0.9)	11	1.74	2.2	8			10.6	14.4	75	0	100	2.59	2.55	2.66	
AM32-1	18	1.72	2.65	14.7			17.2	27.8	55	0	100	2.39	2.29	2.54	0.20
AM33-1	12	2.11	3	15.3			4	26	60	10	100	2.56	2.44	2.78	
AM34-1 (0.2)	14	1.75	2.49	10.3			24	16	60	0	100	2.63	2.52	2.83	-1.11
AN32-1 (1)	13	1.47	N/A	14.2			4.8	16.2	79	0	100	2.62	2.53	2.79	
AN33-1 (0.30	11	1.94	2.65	8.7			7.5	17.5	42	33	100	2.87	2.8	3	-0.36
AN34-1 (1)	16	1.87	2.65	10.8			2.8	16.2	79	2	100	2.55	2.49	2.66	-0.30
AN35-2 (1)	12	2.11	N/A	21.5			15.3	21.7	63	0	100	2.28	2.16	2.45	-2.43
AN36-1 (0.5)	12	2.13	2.65	8.8			8.2	23.8	62	6	100	2.72	2.66	2.83	
AN37-1 (1)	15	1.90	2.7	13.4			6.2	14.8	79	0	100	2.7	2.67	2.74	
AN37-1 (2)				19.2			12.9	14.1	64	0	91	2.44	2.31	2.66	0.9
AO32-1 (2)	18	1.75	2.65	14.5			7	22	67	4	100	2.23	2.13	2.35	
AO33-1 (1.2)	7.7	2.21	N/A	1.5			3.7	12.3	84	0	100	2.35	2.22	2.56	0.20
AO34-1 (1.5)	18	1.79	2.65	8.6			3.1	9.9	74	13	100	2.37	2.27	2.52	
AO36-1 (0.5)	15	1.91	2.65	10.2			16.4	22.6	61	0	100	2.81	2.77	2.89	0.00
AO37-1 (0.3)	9.2	2.11	2.65	7			7.9	21.1	66	5	100	2.66	2.62	2.72	
AP34-1 (0.4)	16	1.85	2.65	7.1			4.1	9.9	36	50	100	2.41	2.31	2.56	-0.15
AP35-1 (0.5)	27	1.54	2.65	16.1			14.4	23.6	62	0	100	2.18	2.03	2.38	
AP36-2 (1.5)	11	1.68	N/A	24.7			23	29	48	0	100	2.29	2.36	2.46	0.20
AP37-1 (0.2)	9	2.30	N/A	4.8			12.1	16.9	71	0	100	2.67	2.65	2.69	
AQ32-1	13	2.11	N/A	5.6			3	13	66	18	100	2.95	2.85	3.16	0.90
AQ33-1 (0.6)	16	1.79	2.65	14.5			13.1	15.9	39	32	100	2.71	2.59	2.92	0.10
AQ34-1 (0.5)	8.4	2.15	2.65	7.3			2.4	10.6	87	0	100	2.62	2.58	2.7	0.00
AQ35-1 (0.5)	18	1.79	N/A	11			11.6	19.4	41	28	100	2.49	2.41	2.63	
AQ36-1 (0.5)	20	1.77	N/A	7.6			4.6	12.4	83	0	100	2.58	2.51	2.69	0.00
AQ37-1 (0.8)	12	1.97	2.65	9.7			11.3	19.7	69	0	100	2.61	2.54	2.72	
AR32-1	13	2.04	N/A	11.5			7.4	21.6	71	0	100	2.71	2.61	2.92	
AR33-2 (1.6)	31	1.21	2.65	34.1			7.3	16.7	76	0	100	2.4	2.25	2.65	
AR34-2 (2)	15	2.00	N/A	10.7			4.7	7.3	40	48	100	2.41	2.29	2.61	0.10
AR35-1 (0.6)	14	1.86	2.65	9.4			10.9	24.1	65	0	100	2.59	2.51	2.73	
AR36-2 (1.5)	34	1.32	2.65	30.8			27.7	26.3	46	0	100	2.6	2.55	2.71	0.10
AR37-2 (0.4)	11	2.00	2.65	5.8			6.3	15.7	73	5	100	2.62	2.58	2.7	
AS32-1	17	1.68	2.65	30.3			25	30	45	0	100	2.54	2.41	2.76	0.00
AS32-2	10	2.30	N/A	4.3			2.8	12.2	63	22	100	2.54	2.41	2.76	
AS33-1 (1.2)	17	1.66	2.65	14			1.8	18.2	77	3	100	2.56	2.43	2.77	-0.45
AS34-1 (0.4)	14	2.06	N/A	8.4			5.9	15.1	79	0	100	4.17	4.12	4.35	0.00
AS35-1 (0.3)	17	1.89	N/A												
AS36-1 (1)	13	2.41	N/A	5.3			6	18	76	0	100	2.43	2.35	2.55	4.30
AS37-2 (2)	8.6	2.00	2.65	9.6			6.4	16.6	67	10	100	2.55	2.5	2.63	
AT32-1	19	1.75	2.65	13.3			9.4	24.6	63	3	100	2.49	2.4	2.62	0.90
AT33-2 (2.2)	12	1.79	2.65	13.4			9.9	20.1	60	10	100	2.5	2.38	2.69	
AT34-2 (1.5)				5.7			5.7	14.3	60	20	100	2.48	2.36	2.67	0.10
AT35-1 (0.5)	24	1.67	N/A	11.7			9.8	20.2	70	0	100	2.6	2.46	2.84	
AT36-2 (1.8)	23	1.66	N/A	9			3.5	6.5	36	54	100	2.31	2.2	2.48	-0.44
AT37-1 (0.8)	36	1.45	N/A	12.9			11.9	20.1	68	0	100	2.53	2.41	2.76	
AU29-1 (0.5)	9.9	1.97	2.6	13.4			6.2	37.8	53	3	100	2.14	2.06	2.25	0.15
AU29-1	13	2.05	N/A	6.7			6	20	59	15	100	2.51	2.42	2.65	
AU30-1	19	1.49	2.15	19			10.2	27.8	62	0	100	1.82	1.72	1.91	0.30
AU31-1	11	1.89	2.45	11			7.3	19.7	73	0	100	2.25	2.16	2.36	
AU32-1	12	2.16	N/A	4.8			7.9	20.1	69	3	100	2.75	2.62	3.01	0.60
AU33-1 (0.9)	18	1.80	2.65	10.7			2.1	20.9	67	10	100	2.59	2.47	2.8	-0.58
AU34-1 (0.5)	13	2.03	N/A	7.9			17.1	27.9	55	0	100	2.56	2.4	2.86	0.00
AU35-2 (1.5)	18	1.87	N/A	12.5			8	19	69	4	100	2.75	2.65	2.94	
AU36-2 (1.3)	17	1.80	N/A	9.9			10.2	15.8	70	4	100	2.59	2.45	2.84	1.40
AU37-1 (0.8)	21	1.90	N/A	7.9			4.2	9.8	70	16	100	2.86	2.74	3.11	
AV28-1(1.2M)	15	1.87	2.7	19.7			4.9	26.1	66	3	100	2.1	1.99	2.23	
AV29-01 (1.0m)	14	1.86	2.65	15.3			5.9	16.1	78	0	100	2.38	2.26	2.58	-0.10
AV30-1	14	2.09	N/A	9.8			7.9	35.1	49	8	100	2.71	2.61	2.9	
AV31-1 (0.8)				8			9.6	29.4	61	0	100	1.98	1.87	2.1	
AV32-1 (0.8)	15	1.49	N/A	7.7			5	27	68	0	100	2.66	2.52	2.91	0.20
AV33-1 (0.6)	10	2.63	2.65	7.9			6.1	17.9	76	0	100	3.05	2.91	3.39	
AV33-3 (2.2)	9.3	2.51	2.65	8.3			8.8	19.2	69	3	100	2.92	2.83	3.12	0.50
AV34-2 (1.8)	14	1.93	2.65	14.8			10	19	68	3	100	2.48	2.4	2.6	3.80
AV35-2 (2)	24	1.73	N/A	12.4			6.6	12.4	63	18	100	2.37	2.23	2.58	
AV36-2 (1.3)				12			13.1	21.9	65	0	100	2.84	2.77	2.98	0.20
AV37-1 (0.5)	15	1.85	2.66	9.6			4.6	9.4	65	21	100	2.61	2.5	2.8	
AW26-1 (0.5)	11	2.02	2.75	12.6			8.7	18.3	58	15	100	2.45	2.35	2.6	
AW28-1 (0.4)	15	2.12	3.3	16.7			6	27	67	0	100	2.62	2.51	2.82	
AW29-1 (1.5)	10	2.12	2.85	17.4			7.6	26.4	64	2	100	2.76	2.65	2.97	0.60
AW31-1 (0.2)	13	2.01	N/A	8.7			8.3	19.7	55	17	100	2.13	2.04	2.25	
AW32-1 (0.3)	12	1.60	N/A	5.7			3.2	18.8	78	0	100	2.89	2.75	3.19	1.30
AW33-2 (1.8)	15	1.86	2.65	11.1			6.9	13.1	74	6	100	2.32	2.24	2.45	
AW34-1 (1)	15	1.86	2.65	8.9			4	9	61	26	100	2.29	2.16	2.48	0.10
AW35-1 (0.5)	15	2.07	N/A	7.7			13.8	19.2	62	5	100	2.62	2.55	2.75	
AW36-2 (1.6)	19	1.98	N/A	12.2			10.8	20.2	54	15	100	2.56	2.45	2.77	0.20
AW37-2 (1.5)				40.9			66.8	21.2	12	0	100	2.02	1.7	2.5	
AX31-1 (0.7)				10.9			4.8	18.2	48	29	100	2.27	2.17	2.42	
AX32-1 (0.3)	15	1.53	N/A	8.5			4.2	12.8	83	0	100	2.84	2.69	3.15	0.60
AX32-2 (2.3)				10.4			3.6	8.4	74	14	100	2.54	2.48	2.64	
AX33-1 (0.8)	13	1.89	2.65	15			15.7	23.3	61	0	100	2.47	2.39	2.61	0.20
AX34-1 (0.7)	9.7	2.19	N/A	3.2			3.8	4.2	67	25	100	2.72	2.69	2.78	0.20
AX35-2 (1.2)				8.3			9.3	11.7	53	26	100	1.11	1.08	1.12	
AX36-2 (1.5)	19	1.86	N/A	11.2			6.3	15.7	64	14	100	1.11	1.07	1.12	0.20
AX37-1 (1)	15	1.89	N/A	11			12.4	17.6	65	5	100	2.37	2.26	2.54	
AX37-2 (2)	14	1.98	2.75	8.2			4.9	10.1	85	0	100	2.4	2.29	2.58	0.20

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782353

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

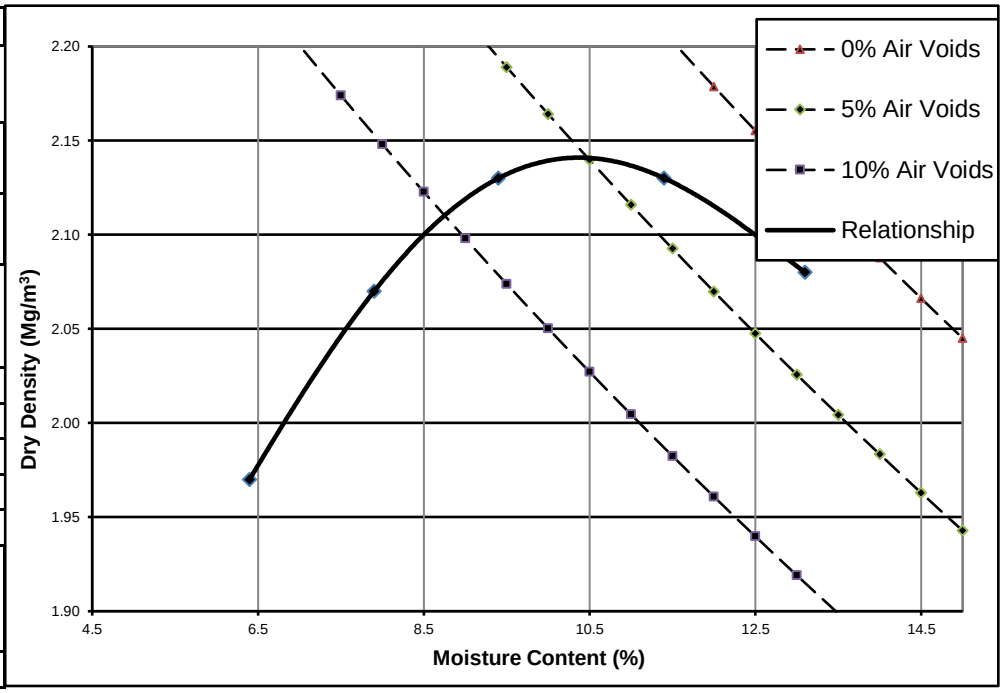
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AK33-1 - 1.0**	Sampled By:	**Client**
Date and Time of Sampling:	**29/01/2021**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**19/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.95Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	21 %
Retained on 20mm Sieve:	37 %

Moisture Content (%)	Dry Density Mg/m^3
6.4	1.97
7.9	2.07
9.4	2.13
11.4	2.13
13.1	2.08
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
10.0	**2.14**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

celtest
INDEPENDENT MATERIALS TESTING I DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 30 March 2021
Test Report Ref: TR 782357

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

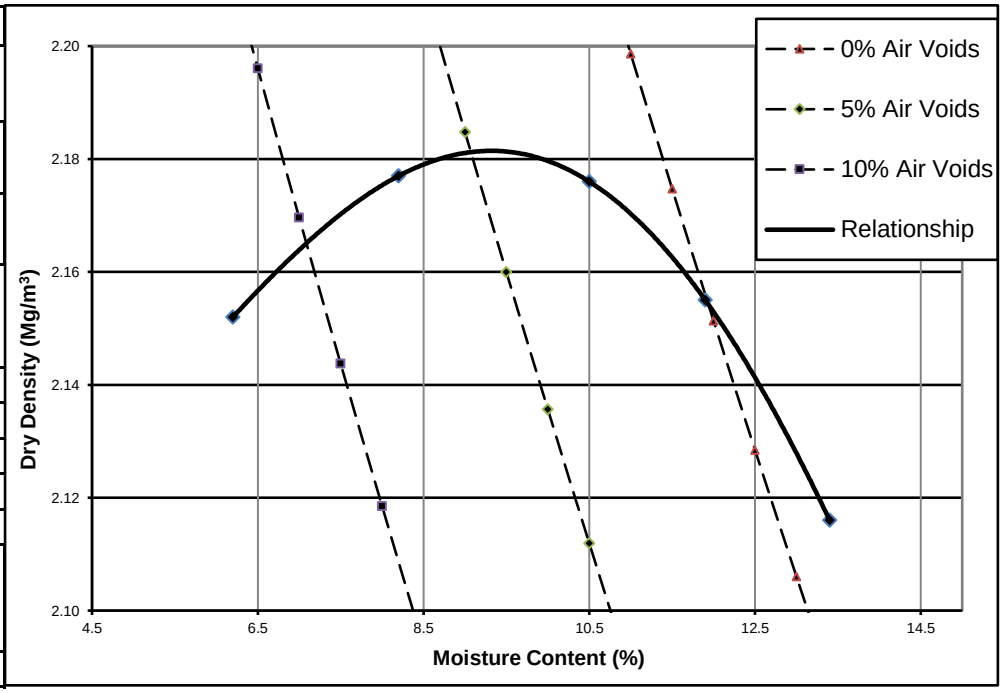
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AK34-1 - 1.6**	Sampled By:	**Client**
Date and Time of Sampling:	**29/01/2021**	Tested By:	**AO**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**29/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.9Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	18 %
Retained on 20mm Sieve:	34 %

Moisture Content (%)	Dry Density Mg/m^3
6.2	2.15
8.2	2.18
10.5	2.18
11.9	2.16
13.4	2.12
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
9.3	**2.18**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782498

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

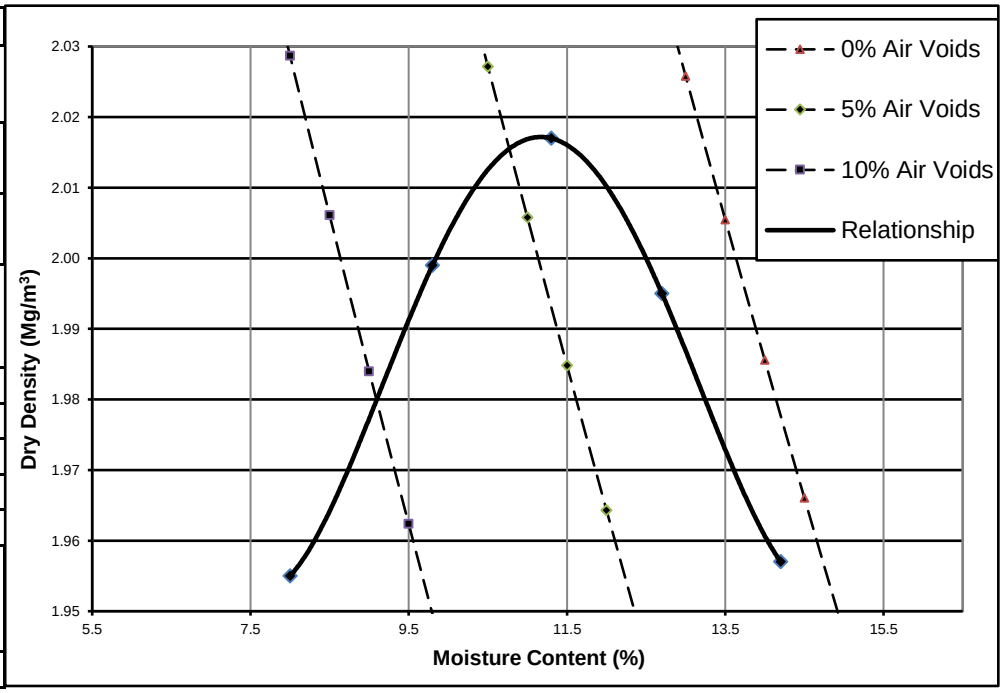
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AW26-1 - 0.5**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**AO**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**25/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.75Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	32 %
Retained on 20mm Sieve:	47 %

Moisture Content (%)	Dry Density Mg/m^3
8.0	1.96
9.8	2.00
11.3	2.02
12.7	2.00
14.2	1.96
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
11.0	**2.02**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:
S Parry
Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 19 March 2021
Test Report Ref: TR 782507

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

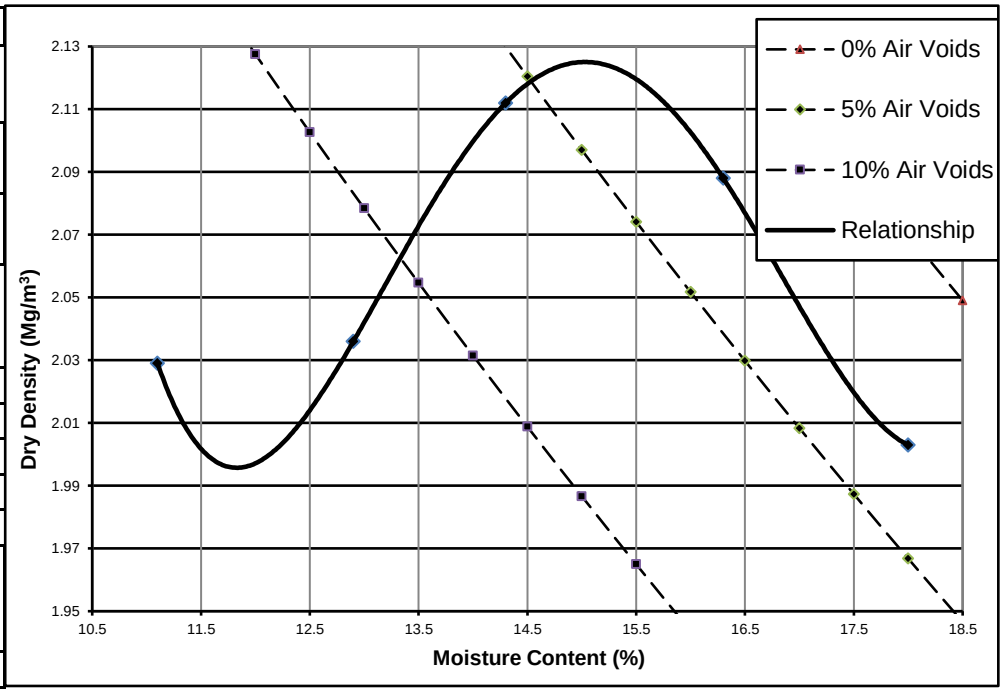
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AW28-1 - 0.4**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**15/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 3.3Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	14 %
Retained on 20mm Sieve:	28 %

Moisture Content (%)	Dry Density Mg/m^3
11.1	2.03
12.9	2.04
14.3	2.11
16.3	2.09
18.0	2.00
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
15.0	**2.12**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782511

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

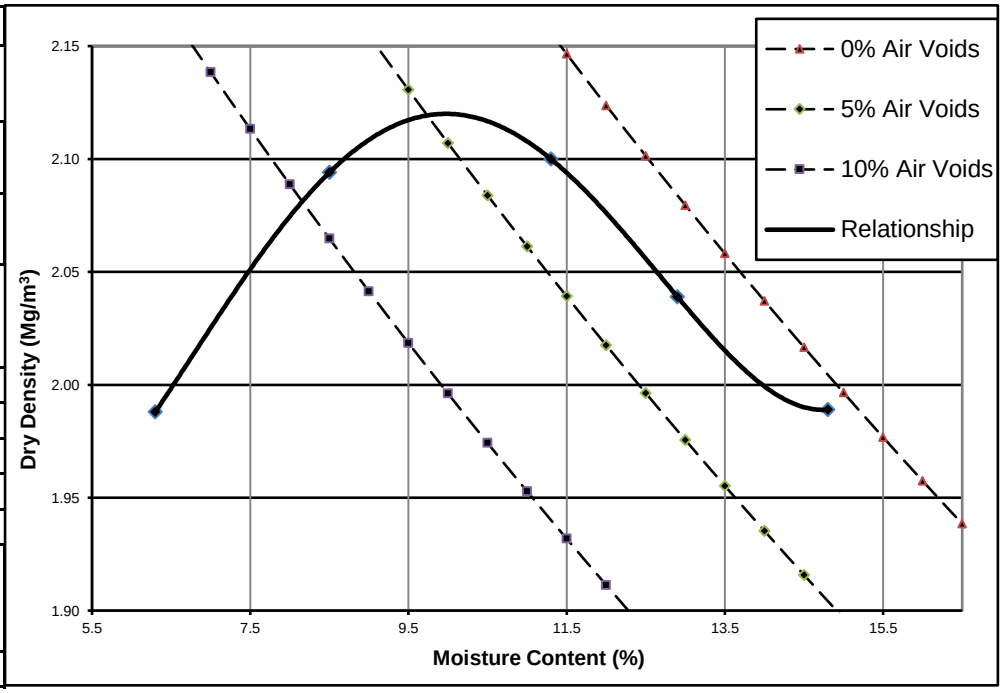
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AW29-1 - 1.5**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**24/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.85Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	17 %
Retained on 20mm Sieve:	22 %

Moisture Content (%)	Dry Density Mg/m^3
6.3	1.99
8.5	2.09
11.3	2.10
12.9	2.04
14.8	1.99
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
10.0	**2.12**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782315

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

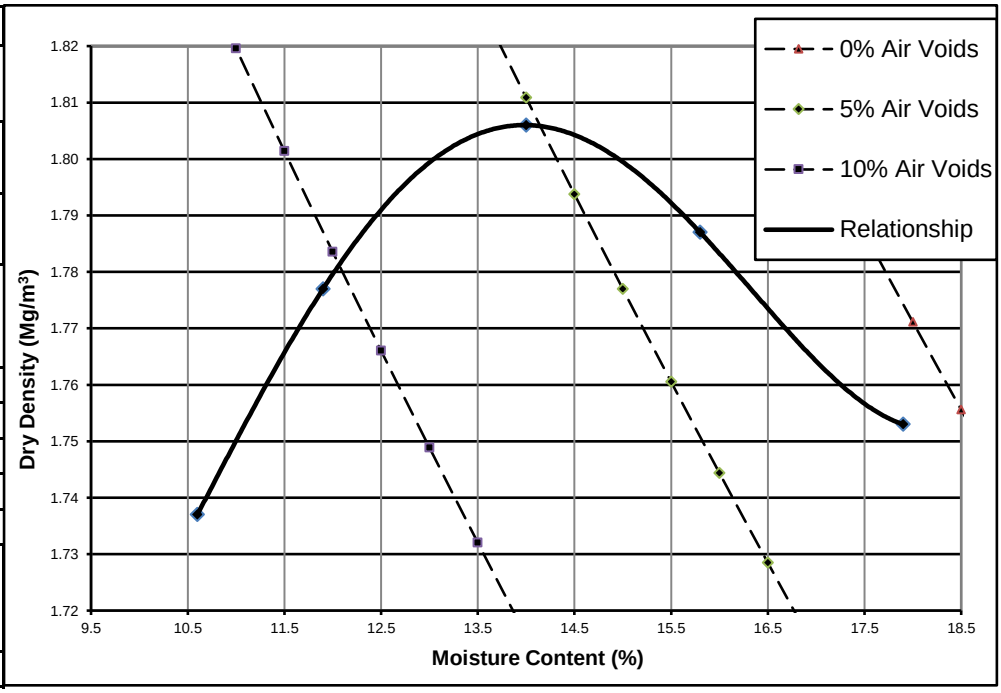
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AK32-1 - 1.0**	Sampled By:	**Client**
Date and Time of Sampling:	**28/01/2021**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**24/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.6Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	14 %
Retained on 20mm Sieve:	30 %

Moisture Content (%)	Dry Density Mg/m^3
10.6	1.74
11.9	1.78
14.0	1.81
15.8	1.79
17.9	1.75
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.80**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
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Birmingham
B31 2TS

Date: 15 February 2023
Test Report Ref: TR 927632

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

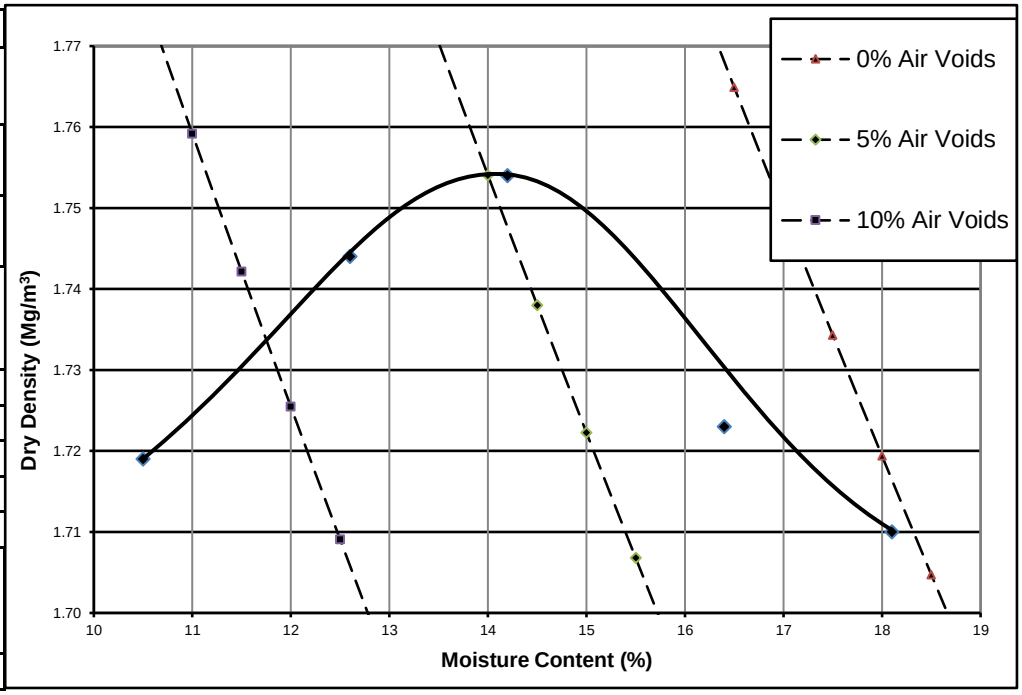
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AM34-1 - 0.2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**09/02/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AM34-1 - 0.2**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.49Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	11
Retained on 20mm Sieve:	44

Moisture Content (%)	Dry Density Mg/m^3
10.5	1.72
12.6	1.74
14.2	1.75
16.4	1.72
18.1	1.71
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.75**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 15 February 2023
Test Report Ref: TR 927637

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

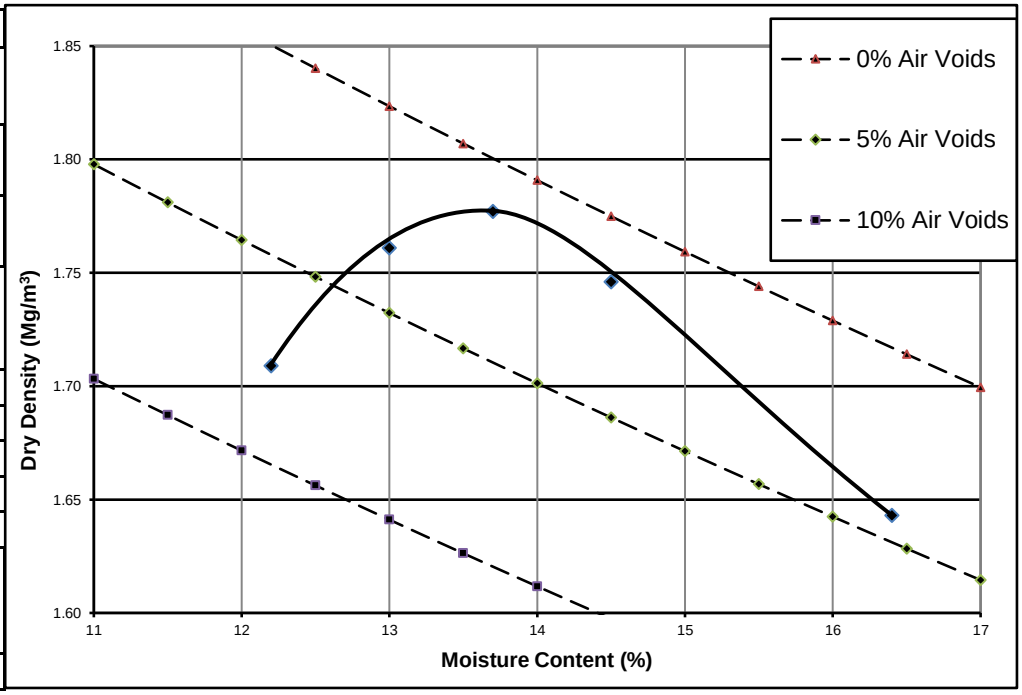
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AM35-1 - 1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**08/02/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AM35-1 - 1**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.39Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	23
Retained on 20mm Sieve:	45

Moisture Content (%)	Dry Density Mg/m^3
12.2	1.71
13.0	1.76
13.7	1.78
14.5	1.75
16.4	1.64
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.78**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:
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Job Coordinator

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Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 15 February 2023
Test Report Ref: TR 927641

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

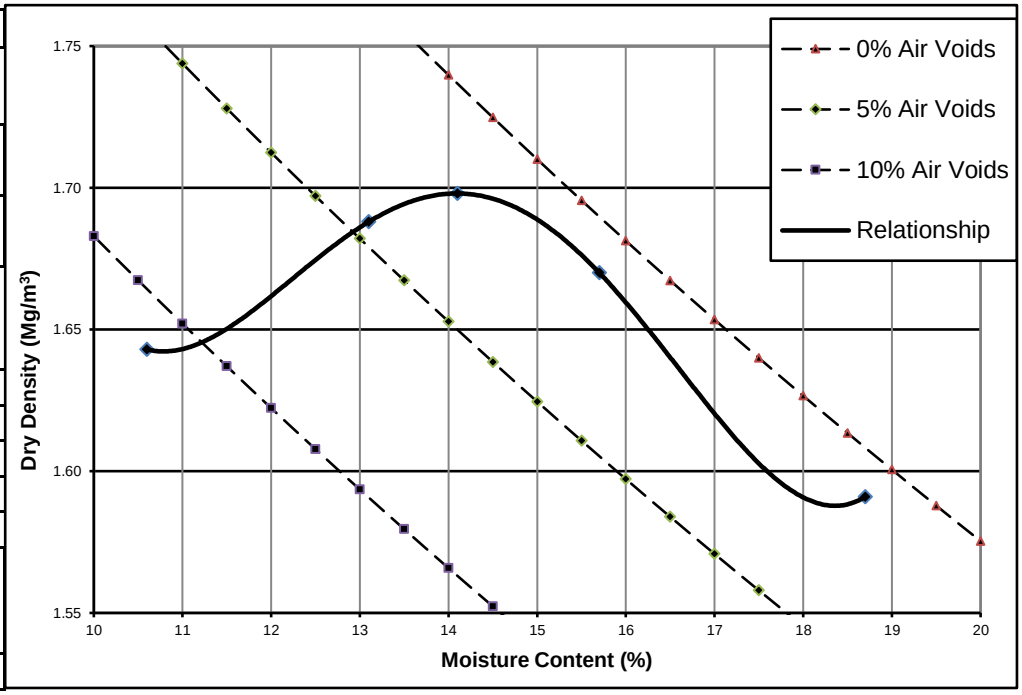
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AM36-1 - 1.5**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**08/02/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AM36-1 - 1.5**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.3Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	16
Retained on 20mm Sieve:	43

Moisture Content (%)	Dry Density Mg/m^3
10.6	1.64
13.1	1.69
14.1	1.70
15.7	1.67
18.7	1.59
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.70**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 16 March 2023
Test Report Ref: TR 927646

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

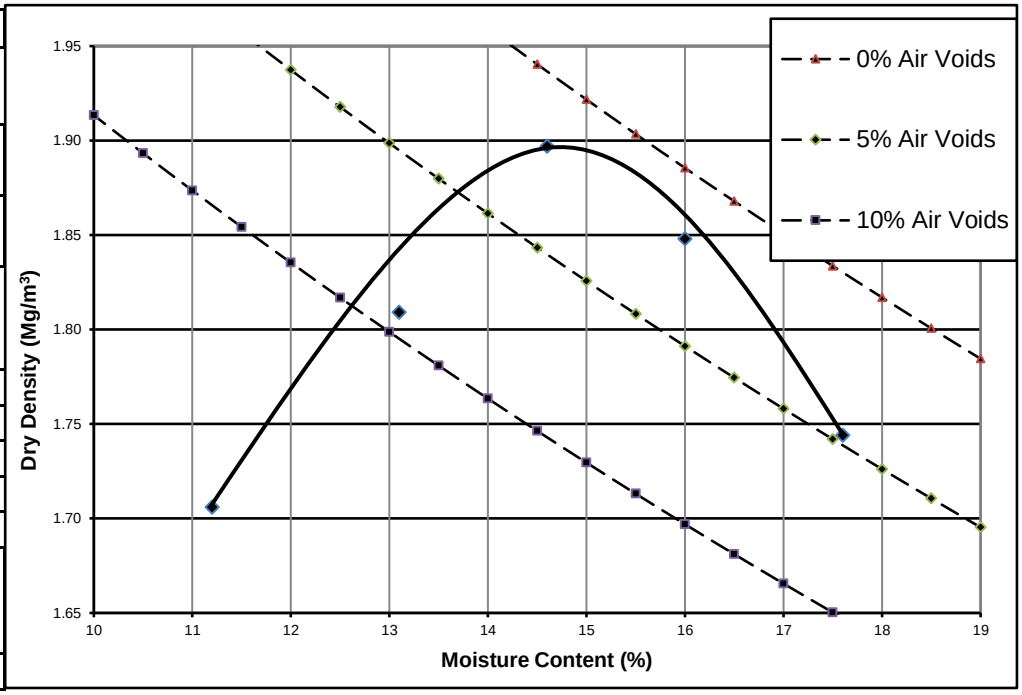
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AN37-1 - 1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**14/03/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AN37-1 - 1**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.7Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	12
Retained on 20mm Sieve:	31

Moisture Content (%)	Dry Density Mg/m^3
17.6	1.74
16.0	1.85
14.6	1.90
13.1	1.81
11.2	1.71
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
15.0	**1.90**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 17 February 2022
Test Report Ref: TR 849450

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

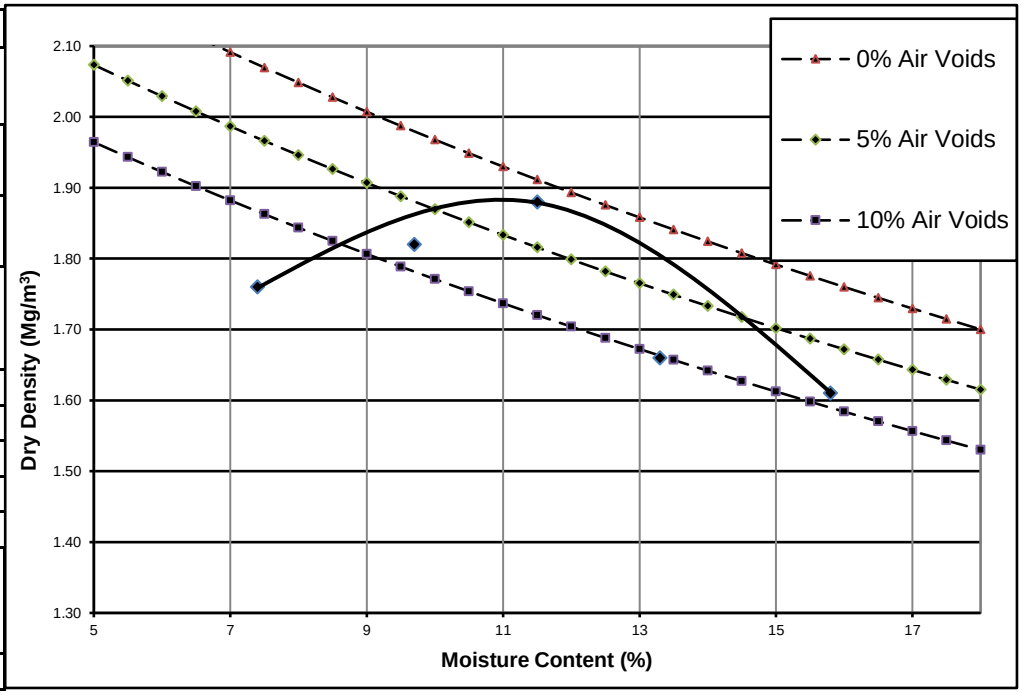
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. :	**AU31-1 - 1.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**MG**
Date of Receipt at Lab:	**26/11/2021**	Sample Preparation Procedure:	**3.2.5.2**
Date of Start of Test:	**08/02/2022**	Sample Preparation Method:	**Separate**
Sampling Location:	**AU31-1 - 1.6M**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.45Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	5 %
Retained on 20mm Sieve:	25 %

Moisture Content (%)	Dry Density Mg/m^3
7.4	1.76
9.7	1.82
11.5	1.88
13.3	1.66
15.8	1.61
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
11.0	**1.89**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 17 February 2022
Test Report Ref: TR 849463

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

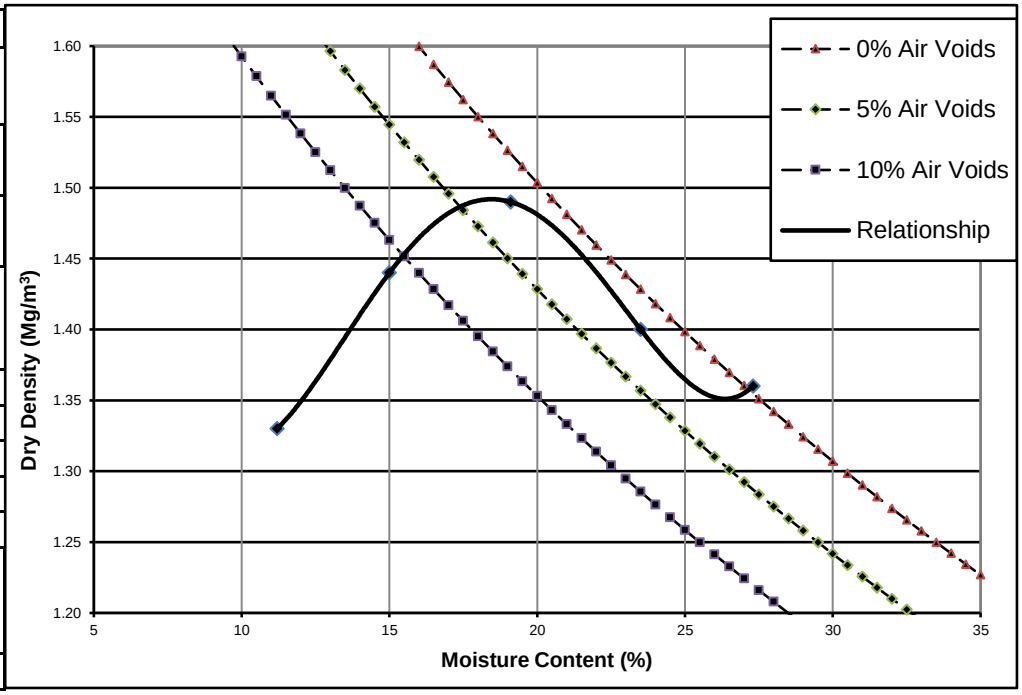
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. :	**AU30-1 - 1.1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**MG**
Date of Receipt at Lab:	**26/11/2021**	Sample Preparation Procedure:	**3.2.5.3**
Date of Start of Test:	**09/02/2022**	Sample Preparation Method:	**Separate**
Sampling Location:	**AU30-1 - 1.1M**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.15Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	7 %
Retained on 20mm Sieve:	18 %

Moisture Content (%)	Dry Density Mg/m^3
11.2	1.33
15.0	1.44
19.1	1.49
23.5	1.40
27.3	1.36
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
19.0	**1.49**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

UKAS TESTING
1740

LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

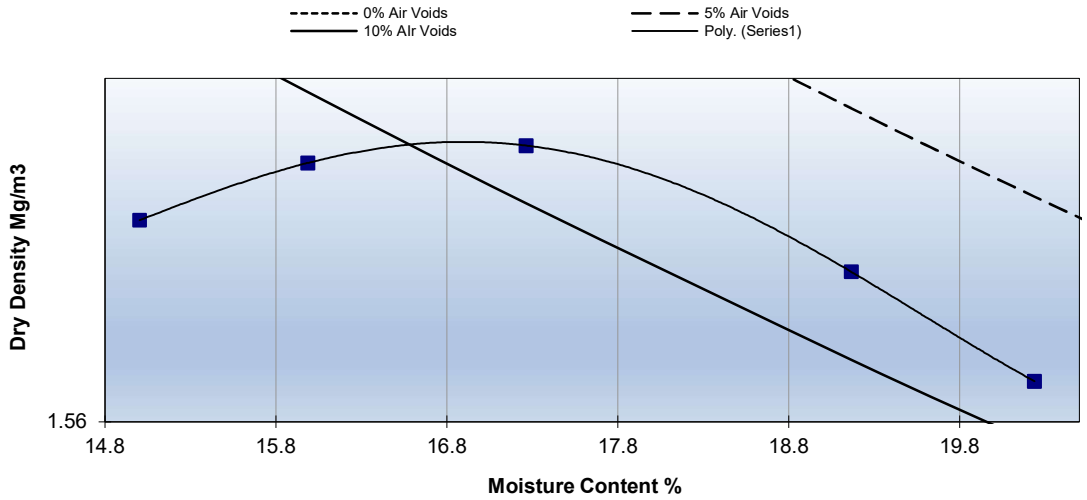
Project:	103682	**Lab Ref No.:**	CL-2446
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	02/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AS33-1 1.2M	**Supplier:**	Celtest
Sample Location:	AS33-1 1.2M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE with fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	3.7
Mould Size:	CBR	**% retained on 20mm sieve**	12.7

Bulk Density: Mg/m³	1.87	1.91	1.94	1.92	1.89
Moisture Content: %	15	16	17	19	20
Dry Density: Mg/m³	1.63	1.65	1.66	1.61	1.57



Maximum Dry Density (Mg/m³)	**1.66**
Optimum Moisture Content (%)	**17**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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1740

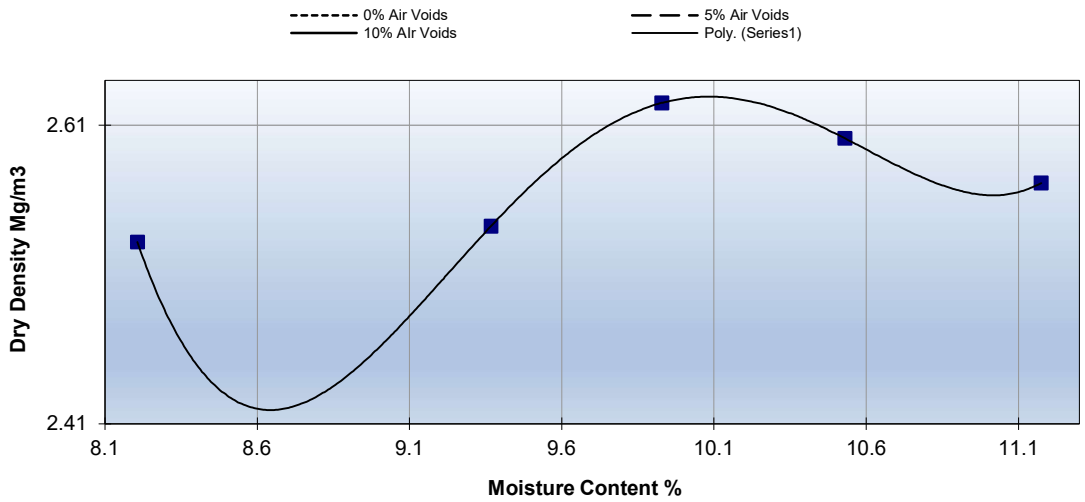
LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	103682	**Lab Ref No.:**	CL-2443
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	01/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AV33-1 0.60M	**Supplier:**	Celtest
Sample Location:	AV33-1 0.60M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown Crushed ROCK. With Fines	**Preparation Method:**	BS 1377-1: 2016
Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	7.0
Mould Size:	CBR	**% retained on 20mm sieve**	9.2

Bulk Density: Mg/m³	2.74	2.78	2.89	2.88	2.86
Moisture Content: %	8.2	9.4	9.9	11	11
Dry Density: Mg/m³	2.53	2.54	2.62	2.60	2.57



Maximum Dry Density (Mg/m³)	**2.63**
Optimum Moisture Content (%)	**10**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition
Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

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Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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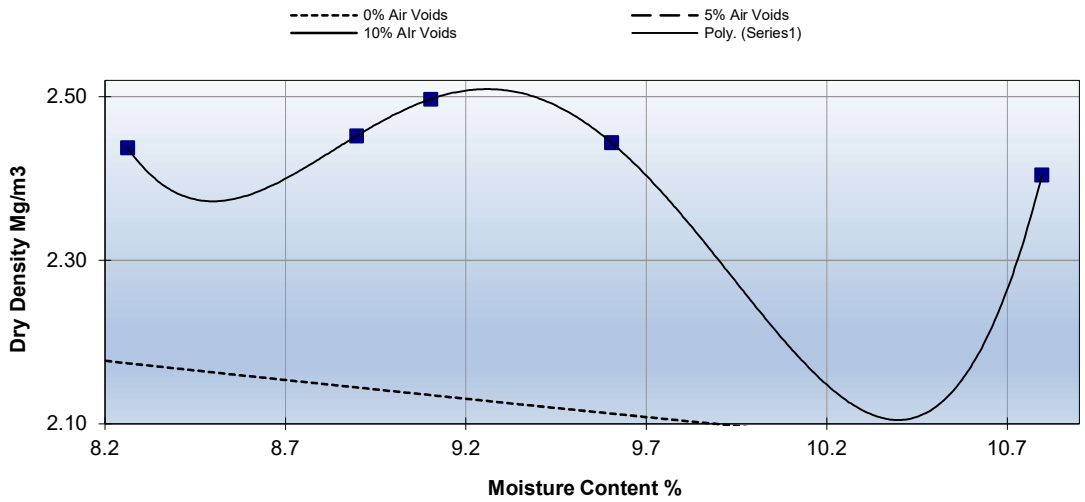
LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	103682	**Lab Ref No.:**	CL-2442
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	01/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AV33-3 2.20M	**Supplier:**	Celtest
Sample Location:	AV33-3 2.20M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown Crushed ROCK, With Fines.	**Preparation Method:**	BS 1377-1: 2016
Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	5.8
Mould Size:	CBR	**% retained on 20mm sieve**	9.8

Bulk Density: Mg/m³	2.64	2.67	2.72	2.68	2.66
Moisture Content: %	8.3	8.9	9.1	9.6	11
Dry Density: Mg/m³	2.44	2.45	2.50	2.44	2.40



Maximum Dry Density (Mg/m³)	**2.51**
Optimum Moisture Content (%)	**9.3**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

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Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
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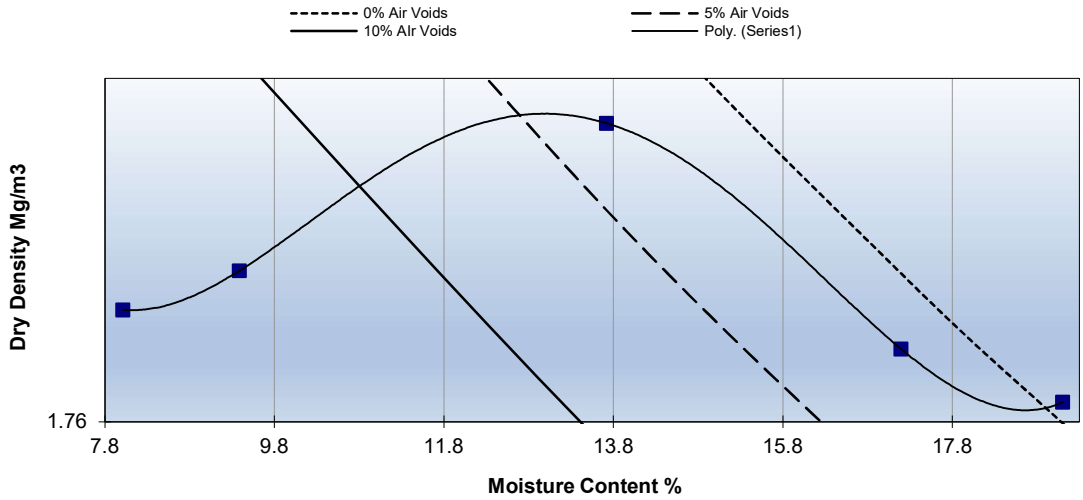
LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	103682	**Lab Ref No.:**	CL-2440
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	01/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AX33-1 0.8M	**Supplier:**	Celtest
Sample Location:	AX33-1 0.8M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown CLAY, With Crushed Rock	**Preparation Method:**	BS 1377-1: 2016
Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	8.7
Mould Size:	CBR	**% retained on 20mm sieve**	12.6

Bulk Density: Mg/m³	1.95	1.99	2.14	2.10	2.11
Moisture Content: %	8.	9.4	14	17	19
Dry Density: Mg/m³	1.81	1.82	1.88	1.79	1.77



Maximum Dry Density (Mg/m³)	**1.89**
Optimum Moisture Content (%)	**13**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
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LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

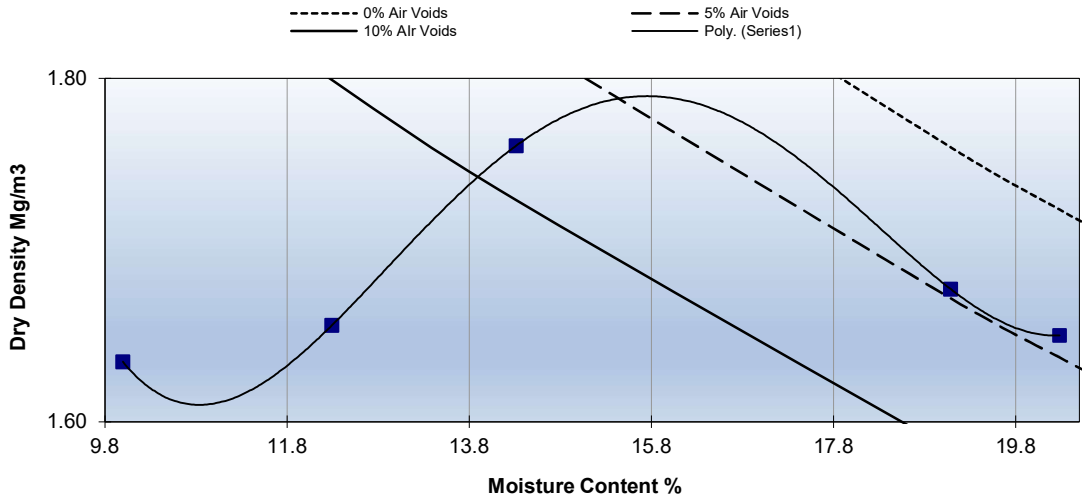
Project:	103682	**Lab Ref No.:**	CL-2448
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	02/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AQ33-1 0.6M	**Supplier:**	Celtest
Sample Location:	AQ33-1 0.6M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown, Crushed ROCK. With Fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	9.7
Mould Size:	CBR	**% retained on 20mm sieve**	4.2

Bulk Density: Mg/m³	1.80	1.86	2.01	2.00	1.99
Moisture Content: %	10.	12	14	19	20
Dry Density: Mg/m³	1.63	1.66	1.76	1.68	1.65



Maximum Dry Density (Mg/m³)	**1.79**
Optimum Moisture Content (%)	**16**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.

Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5

Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

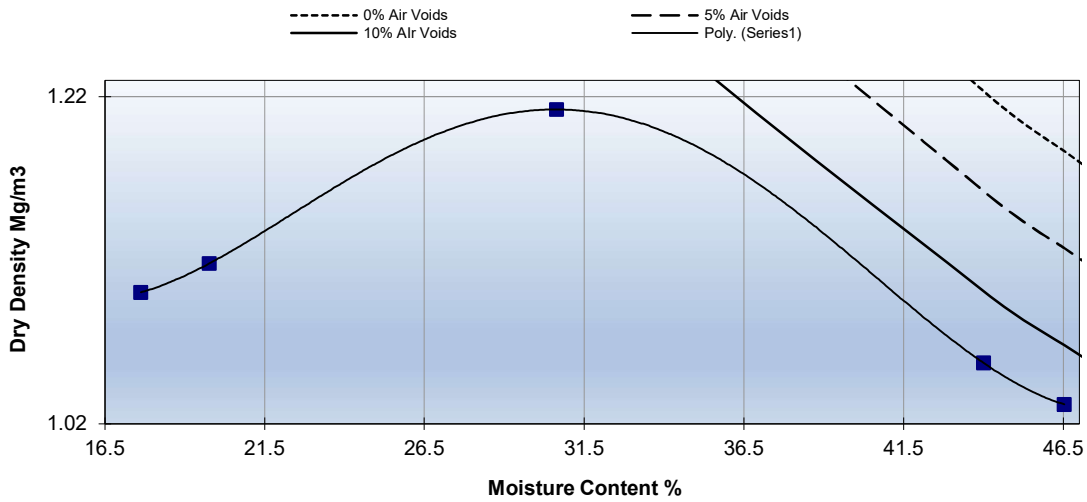
Project:	103682	**Lab Ref No.:**	CL-2447
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	12/12/2022
	LL57 4LH	**Date Reported:**	13/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AR33-2 1.6M	**Supplier:**	Celtest
Sample Location:	AR33-2 1.6M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	White CHALK With Lime	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	4.2
Mould Size:	CBR	**% retained on 20mm sieve**	20.5

Bulk Density: Mg/m³	1.29	1.34	1.58	1.52	1.51
Moisture Content: %	18	20	31	44	47
Dry Density: Mg/m³	1.10	1.12	1.21	1.06	1.03



Maximum Dry Density (Mg/m³)	**1.21**
Optimum Moisture Content (%)	**31**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.

Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5

Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 March 2021
Test Report Ref: TR 779156

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

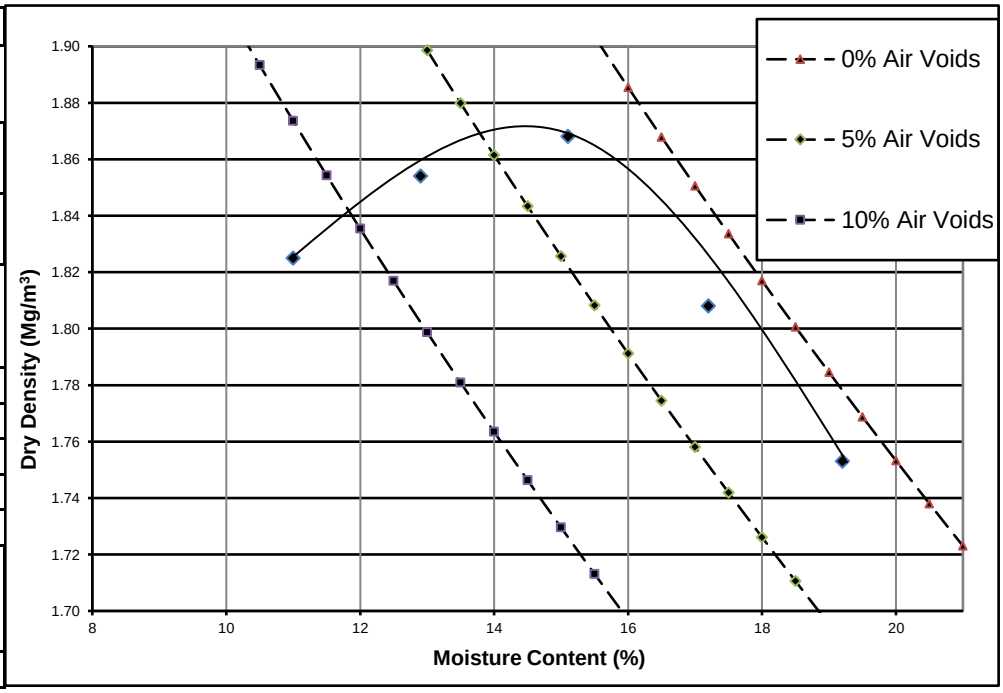
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AV28-1 @ 1.2M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**AO**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**3.2.5.3**
Date of Start of Test:	**24/02/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 2.7Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	9 %
Retained on 20mm Sieve:	20 %

Moisture Content (%)	Dry Density Mg/m^3
11.0	1.83
12.9	1.85
15.1	1.87
17.2	1.81
19.2	1.75
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
15.0	**1.87**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 March 2021
Test Report Ref: TR 779157

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

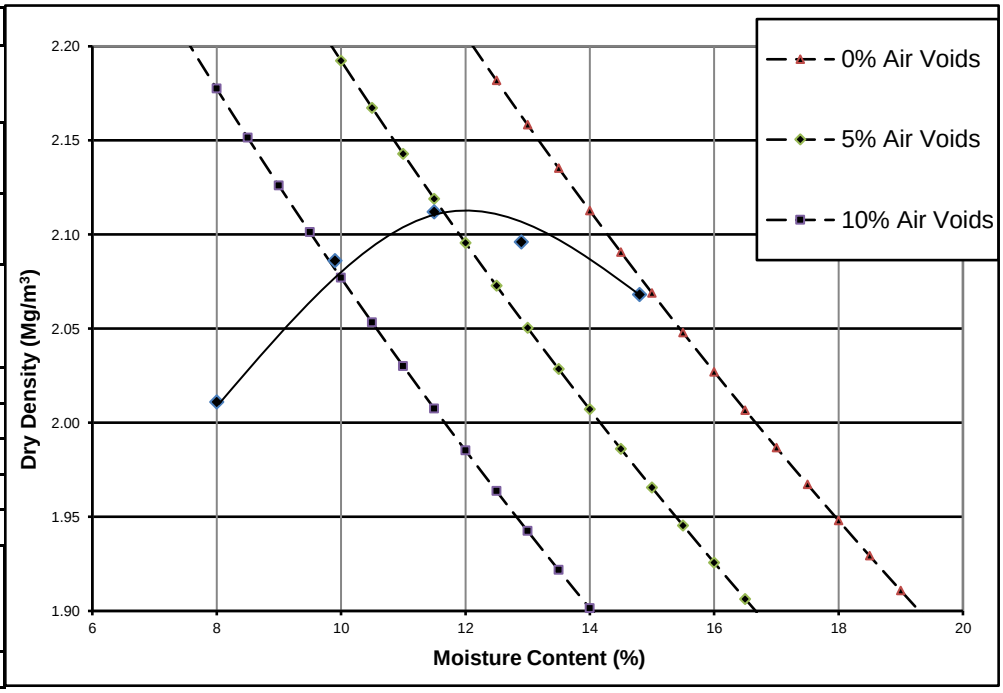
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AM33-1 @ 1.3M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**AO**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**26/02/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 3Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	12 %
Retained on 20mm Sieve:	30 %

Moisture Content (%)	Dry Density Mg/m^3
8.0	2.01
9.9	2.09
11.5	2.11
12.9	2.10
14.8	2.07
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
12.0	**2.11**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 08 March 2021
Test Report Ref: TR 779158

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

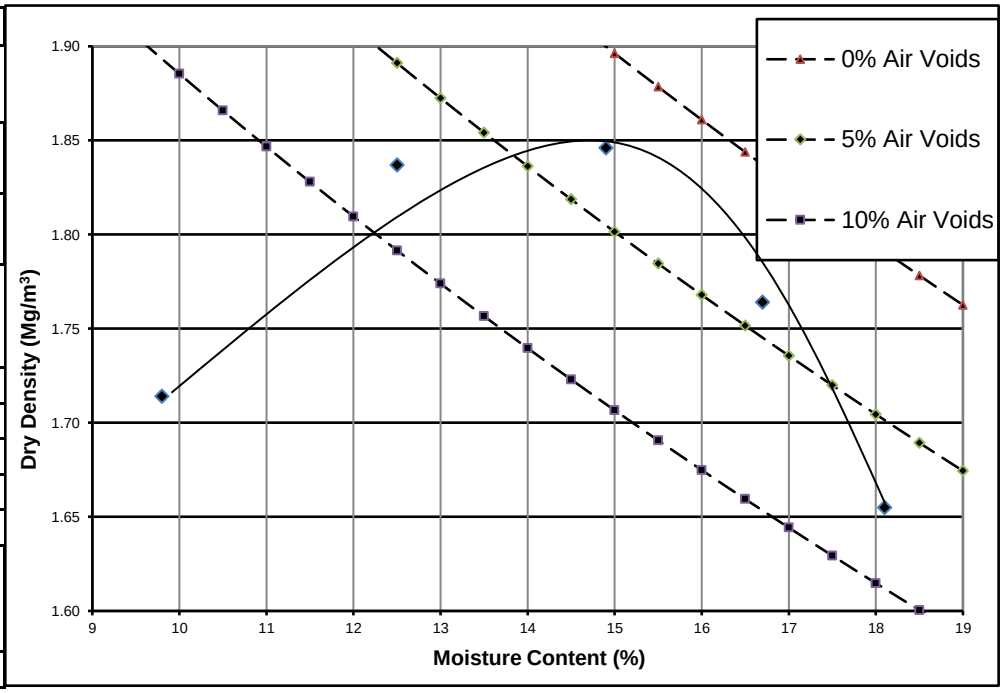
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AV29-1 @ 1.0M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**IJ**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**01/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 2.65Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	52 %
Retained on 20mm Sieve:	70 %

Moisture Content (%)	Dry Density Mg/m^3
9.8	1.71
12.5	1.84
14.9	1.85
16.7	1.76
18.1	1.66
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.86**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 09 March 2021
Test Report Ref: TR 779207

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

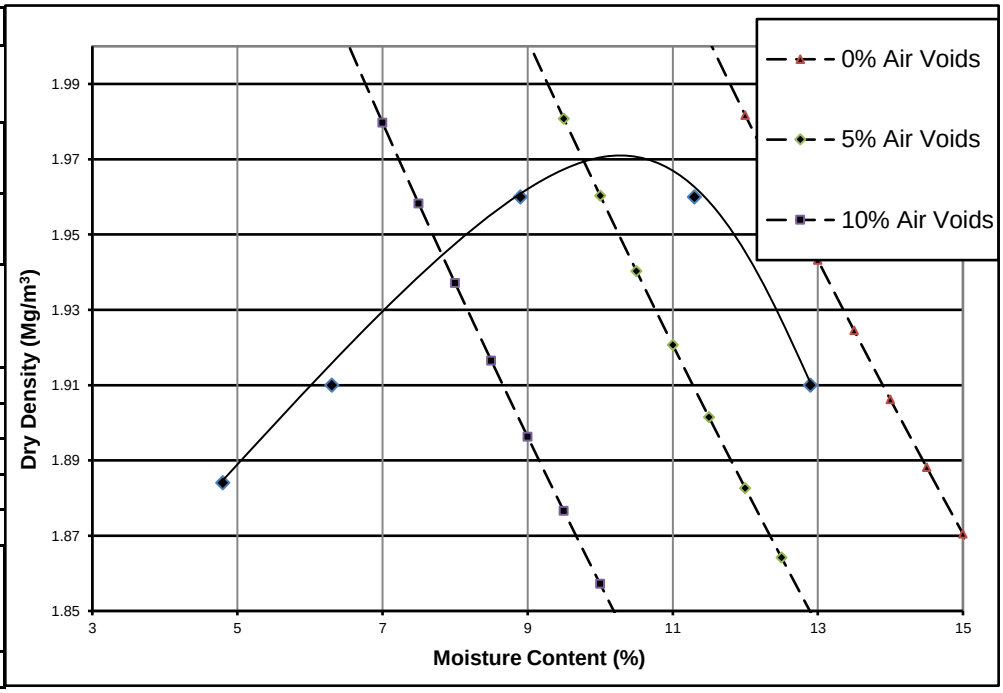
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AU29-1 @ 0.5M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**LW**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**3.2.5.3**
Date of Start of Test:	**08/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 2.6Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	6 %
Retained on 20mm Sieve:	27 %

Moisture Content (%)	Dry Density Mg/m^3
4.8	1.88
6.3	1.91
8.9	1.96
11.3	1.96
12.9	1.91
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
9.9	**1.97**



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Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

1740

Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2121/1377-2-3.2/
Client Reference No: AM32-1
Date of Issue: 30/09/2022

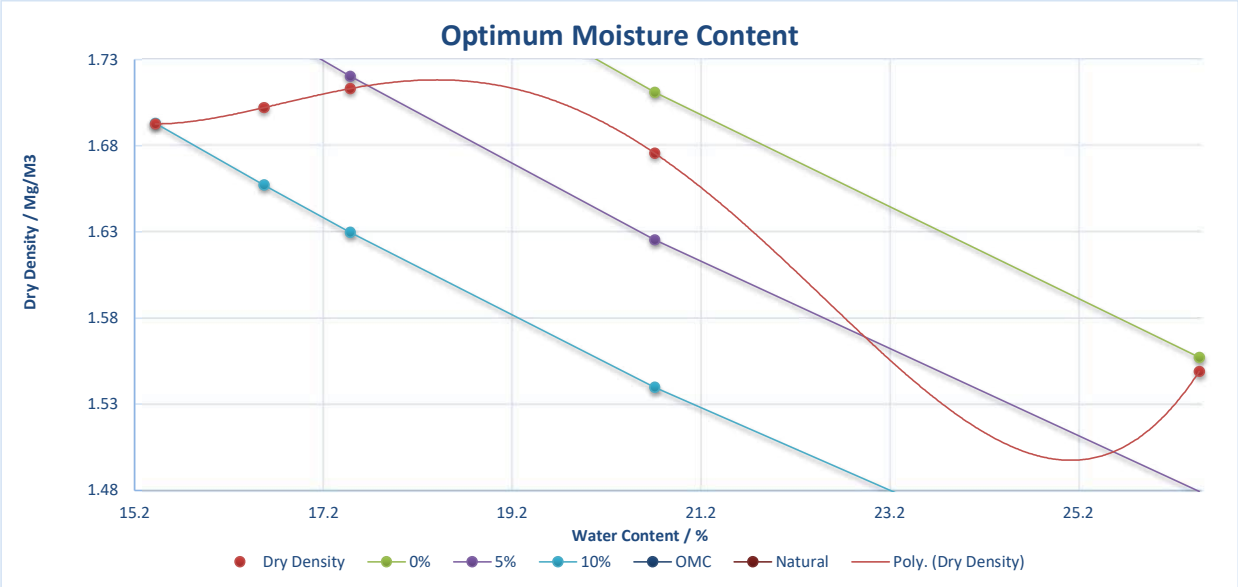
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2121
Client Reference	AM32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	28/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark Brown CLAY
Location	AM32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.72	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	2	%
Proportion of Sample Retained on 20mm Sieve	1	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

1740

Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S105000/CL-2129/1377-2-3.2/
Client Reference No: AU32-1
Date of Issue: 06/10/2022

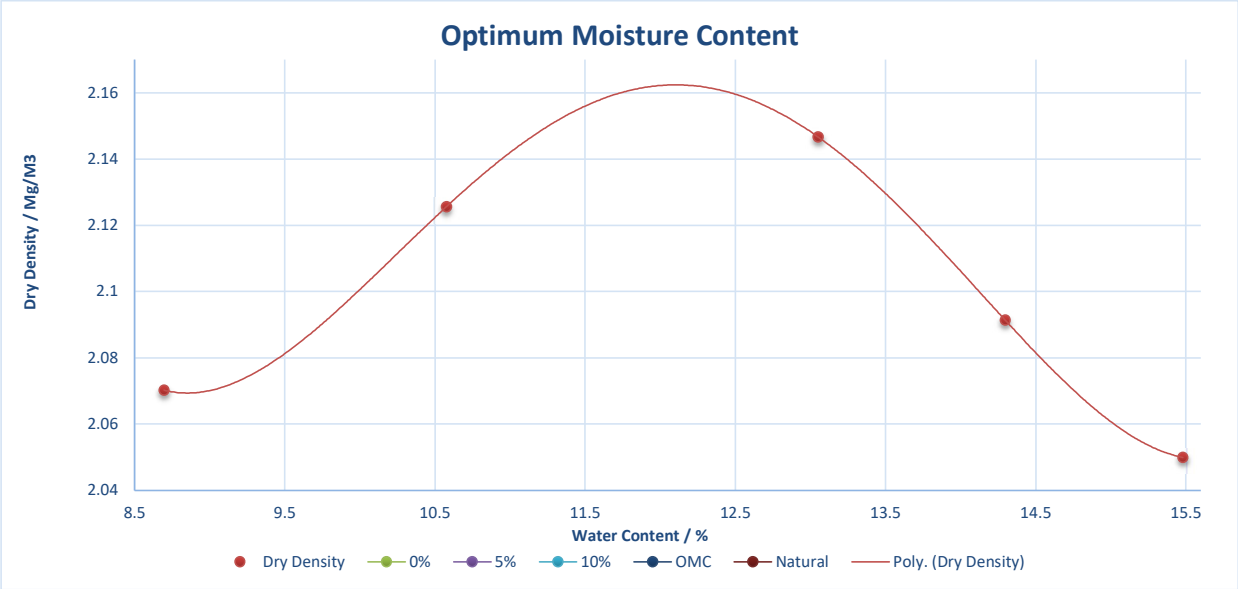
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2129
Client Reference	AU32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	05/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR material
Location	AU32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	2.16	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	10	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Coventry Laboratory
Unit 8 Hotchkiss Way
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Estate Coventry
CV3 2RL

Report/ Revision No: S105000/CL-2130/1377-2-3.2/
Client Reference No: AU29-1
Date of Issue: 28/09/2022

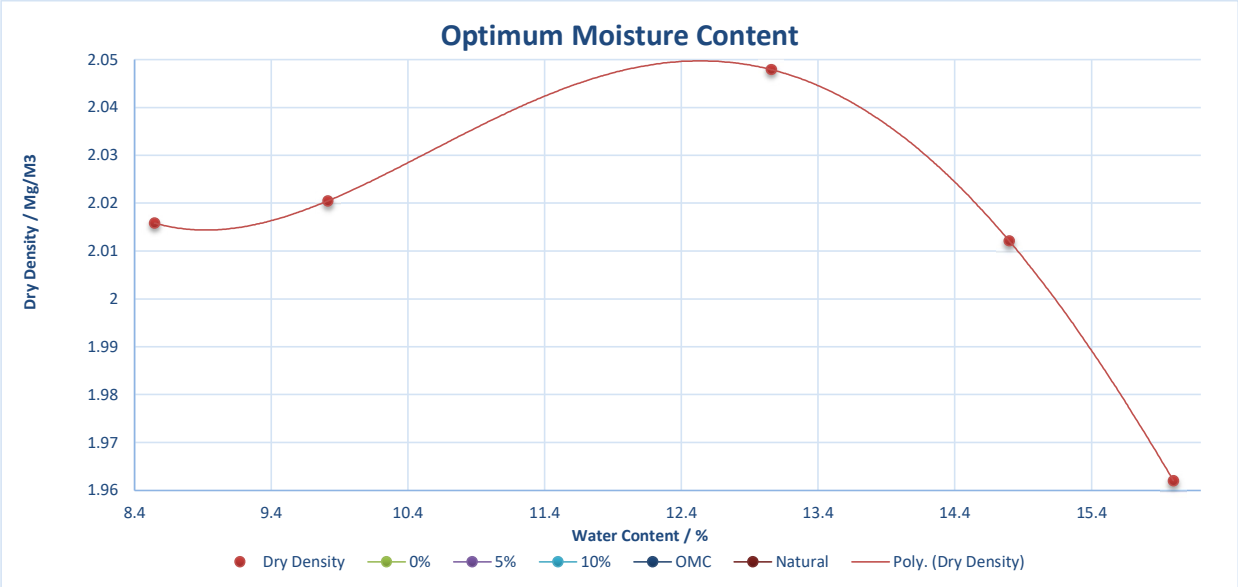
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2130
Client Reference	AU29-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	23/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR material
Location	AU29-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.05	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	12	%
Proportion of Sample Retained on 20mm Sieve	19	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
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Report/ Revision No: S105000/CL-2131/1377-2-3.2/
Client Reference No: AT32-1
Date of Issue: 04/10/2022

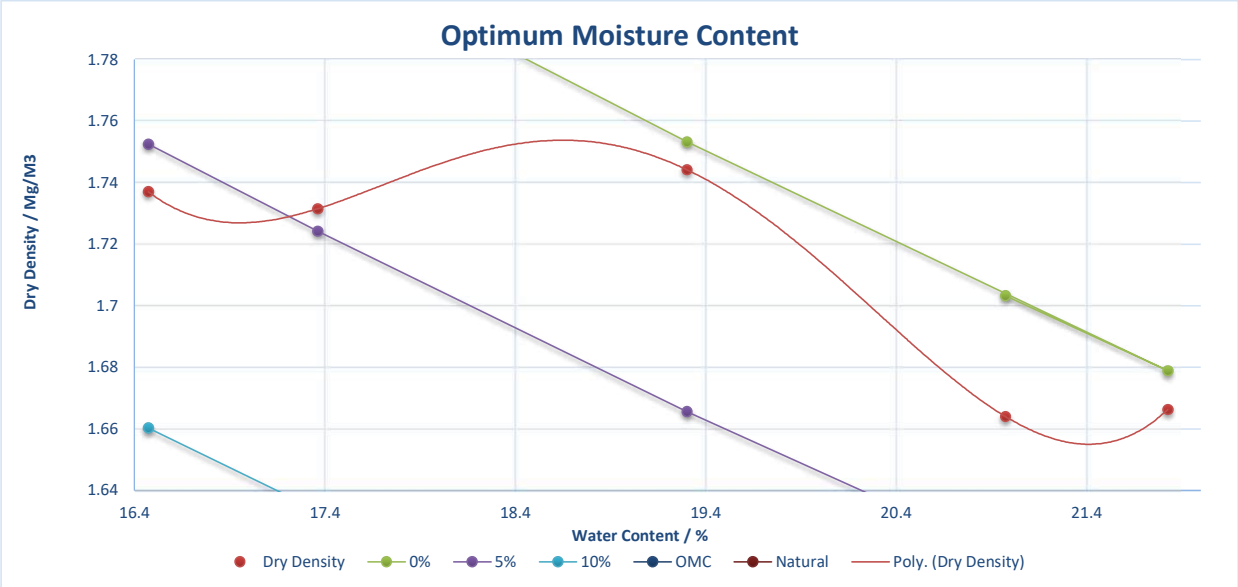
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2131
Client Reference	AT32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	29/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR Material
Location	AT32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	19	%
Maximum Dry Density	1.75	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	33	%
Proportion of Sample Retained on 20mm Sieve	19	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
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LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

Report/ Revision No: S105000/CL-2132/1377-2-3.2/
Client Reference No: AS32-2
Date of Issue: 30/09/2022

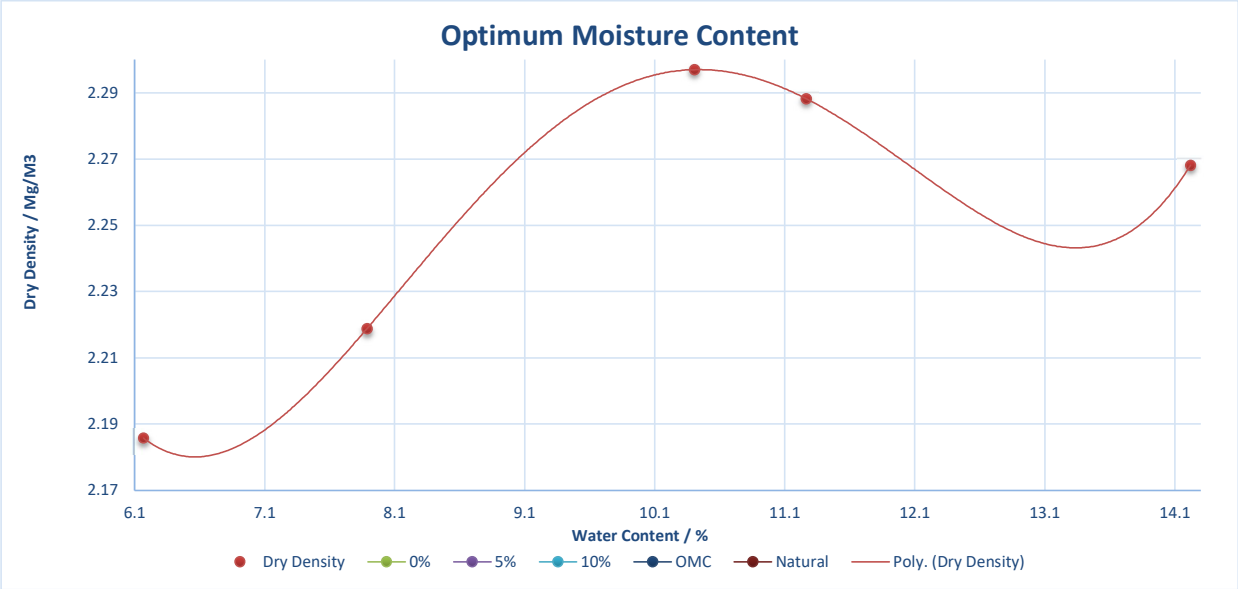
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2132
Client Reference	AS32-2
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	28/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AS32-2

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	10	%
Maximum Dry Density	2.30	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	25	%
Proportion of Sample Retained on 20mm Sieve	21	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Report/ Revision No: S105000/CL-2133/1377-2-3.2/
Client Reference No: AS32-1
Date of Issue: 06/10/2022

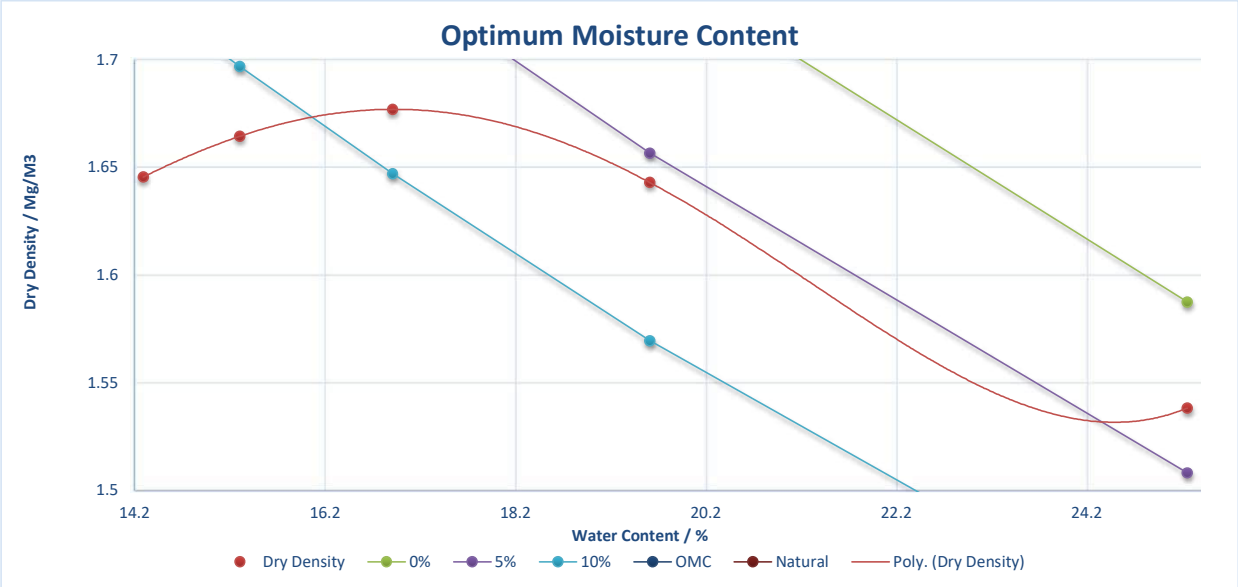
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with some coarse gravel-size particles

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2133
Client Reference	AS32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	05/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Grey GRANULAR Material
Location	AS32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	17	%
Maximum Dry Density	1.68	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	9	%
Proportion of Sample Retained on 20mm Sieve	10	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.6 4.5kg Rammer, Five Layers, 62 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S105000/CL-2134/1377-2-3.2/
Client Reference No: AR32-1
Date of Issue: 27/09/2022

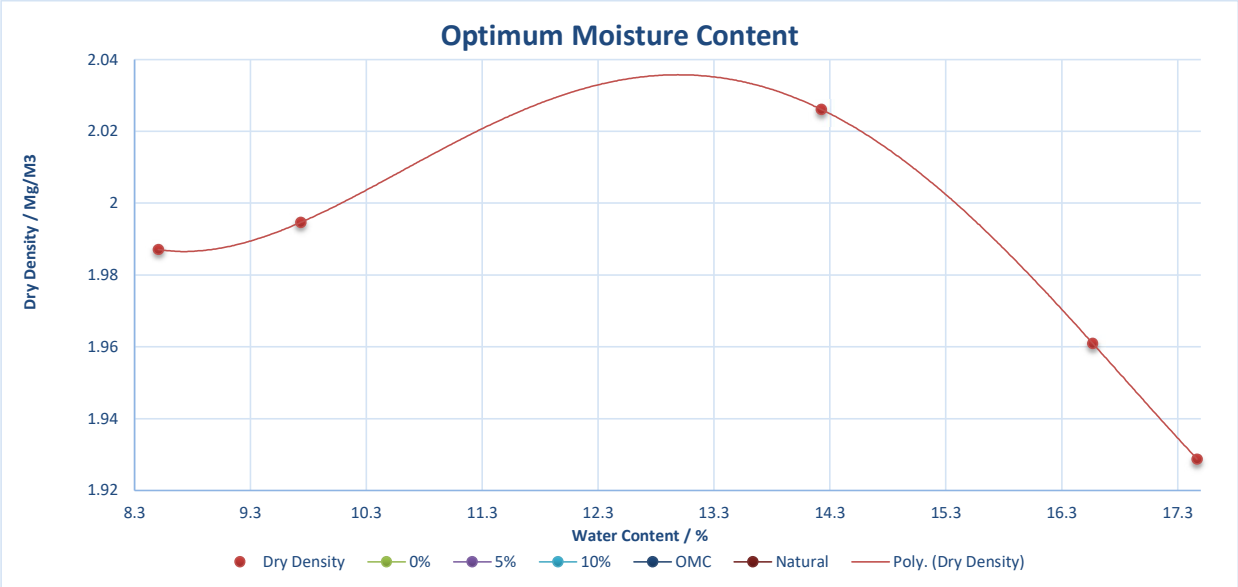
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with some coarse gravel-size particles

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2134
Client Reference	AR32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	23/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark Brown GRANULAR Material
Location	AR32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.04	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	22	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.6 4.5kg Rammer, Five Layers, 62 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
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Report/ Revision No: S105000/CL-2135/1377-2-3.2/
Client Reference No: AQ32-1
Date of Issue: 14/10/2022

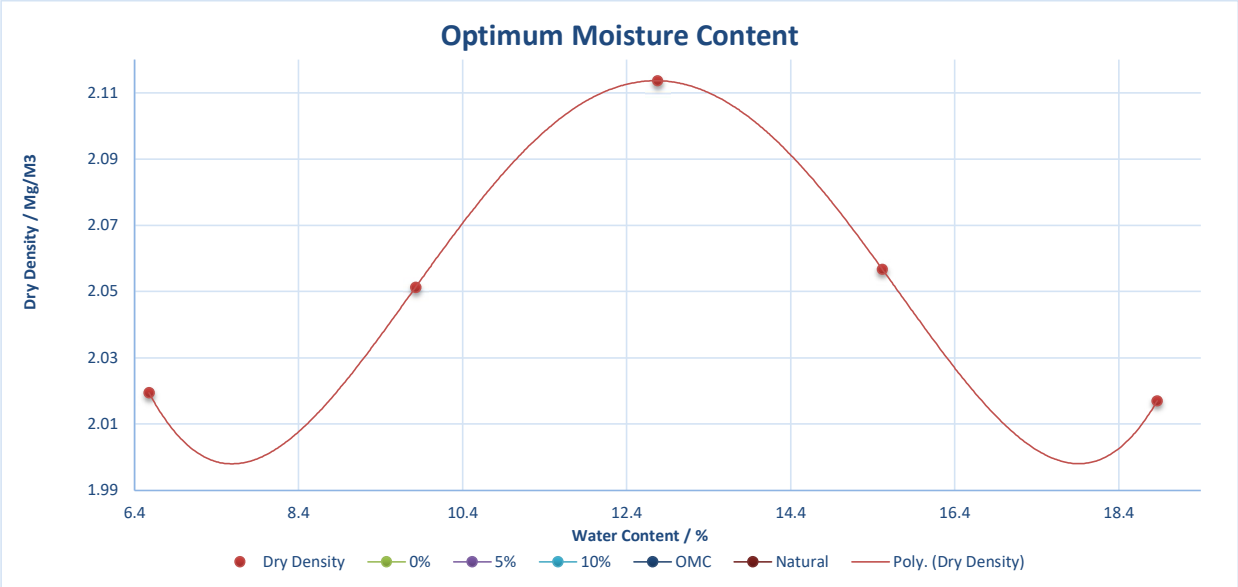
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2135
Client Reference	AQ32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR material
Location	AQ32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.11	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	27	%
Proportion of Sample Retained on 20mm Sieve	17	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

Report/ Revision No: S105136/CL-2153/1377-2-3.2/
Client Reference No: AN34-1 - 1m
Date of Issue: 28/09/2022

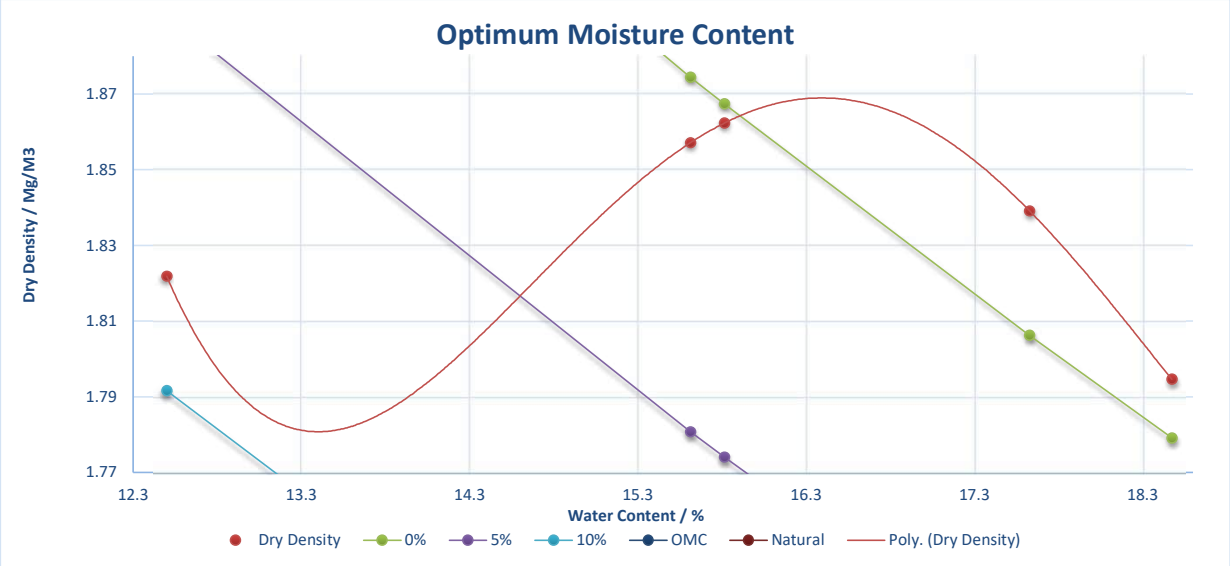
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105136
Lab Test No	N/A
Lab Sample No	CL-2153
Client Reference	AN34-1 - 1m
Date Sampled	n/s
Date Received	20/09/2022
Date Tested	22.09.22
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105136
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark grey GRANULAR material
Location	AN34-1 - 1m

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	16	%
Maximum Dry Density	1.87	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	11	%



Observations

None

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5. Test Procedure: BS 1377:4:199C Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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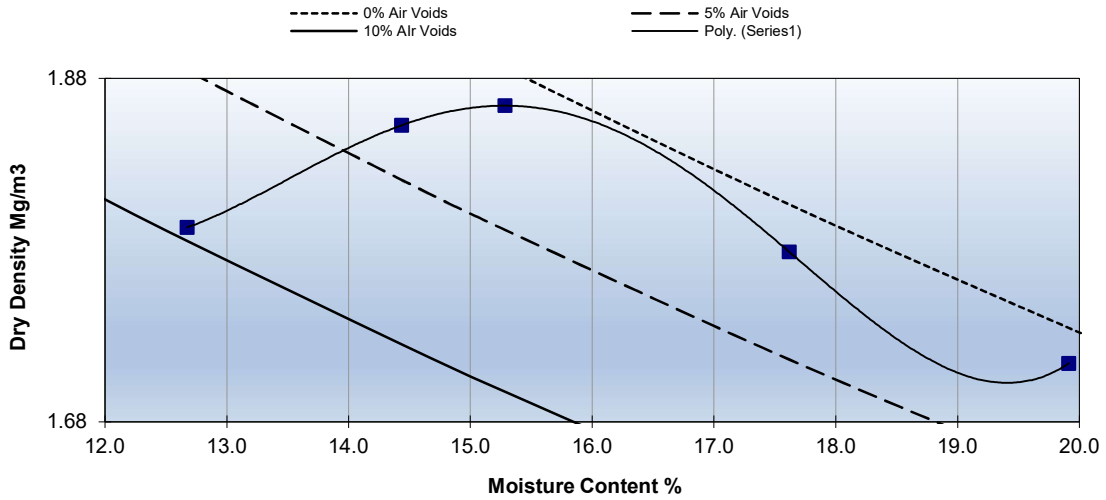
LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	103682	**Lab Ref No.:**	CL-2441
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	24/11/2022
	LL57 4LH	**Date Reported:**	06/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AW33-2 1.80M	**Supplier:**	Celtest
Sample Location:	AW33-2 1.80M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE, With Some Brick And Fines	**Preparation Method:**	BS 1377-1: 2016
Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	29.1
Mould Size:	N/A	**% retained on 20mm sieve**	20.9

Bulk Density: Mg/m³	2.02	2.12	2.15	2.09	2.06
Moisture Content: %	13	14	15	18	20
Dry Density: Mg/m³	1.79	1.85	1.86	1.78	1.71



Maximum Dry Density (Mg/m³)	**1.86**
Optimum Moisture Content (%)	**15**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

UKAS TESTING
1740

LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

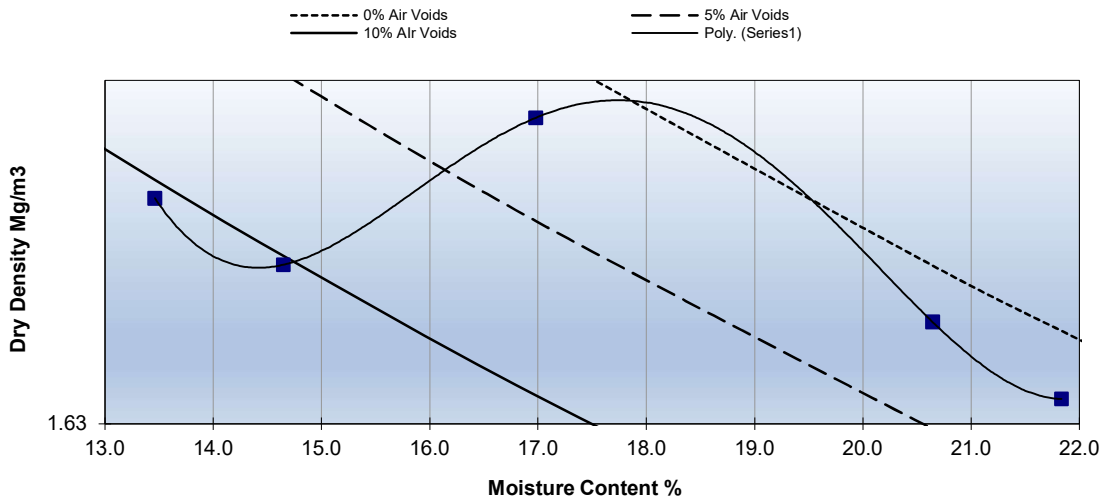
Project:	103682	**Lab Ref No.:**	CL-2444
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	02/12/2022
	LL57 4LH	**Date Reported:**	06/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AU33-1 0.90M	**Supplier:**	Celtest
Sample Location:	AU33-1 0.90M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE With Fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	6.3
Mould Size:	CBR	**% retained on 20mm sieve**	13.1

Bulk Density: Mg/m³	1.98	1.96	2.09	2.03	2.00
Moisture Content: %	13	15	17	21	22
Dry Density: Mg/m³	1.75	1.71	1.79	1.68	1.64



Maximum Dry Density (Mg/m³)	**1.80**
Optimum Moisture Content (%)	**18**

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Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

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CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

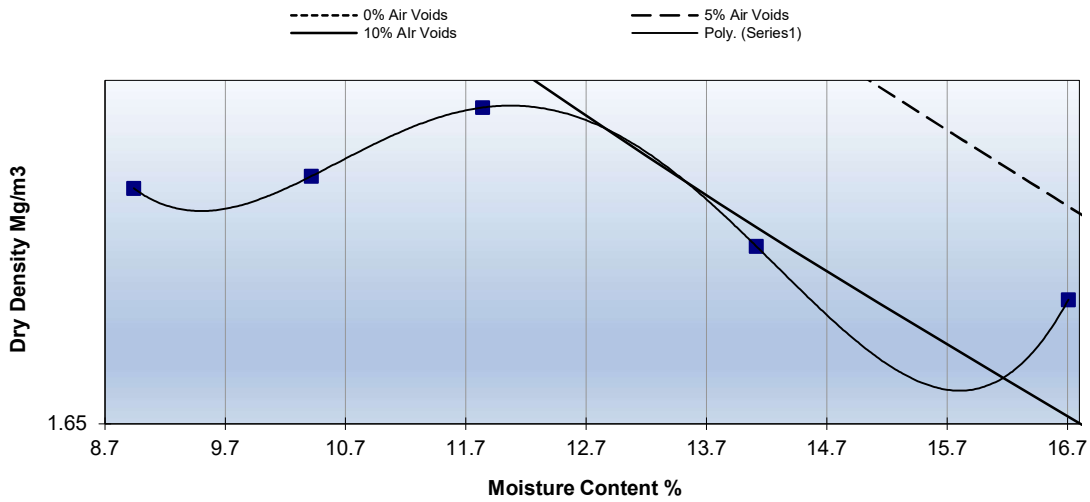
Project:	103682	**Lab Ref No.:**	CL-2445
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	24/11/2022
	LL57 4LH	**Date Reported:**	06/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AT33-2 2.20M	**Supplier:**	Celtest
Sample Location:	AT33-2 2.20M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE With Fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	14.5
Mould Size:	N/A	**% retained on 20mm sieve**	8.4

Bulk Density: Mg/m³	1.91	1.94	2.00	1.97	1.99
Moisture Content: %	8.9	10	12	14	17
Dry Density: Mg/m³	1.75	1.76	1.79	1.73	1.70



Maximum Dry Density (Mg/m³)	**1.79**
Optimum Moisture Content (%)	**12**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition
Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1964/1377-2-3.2/
Client Reference No: AN35-2 - 1M
Date of Issue: 20/09/2022

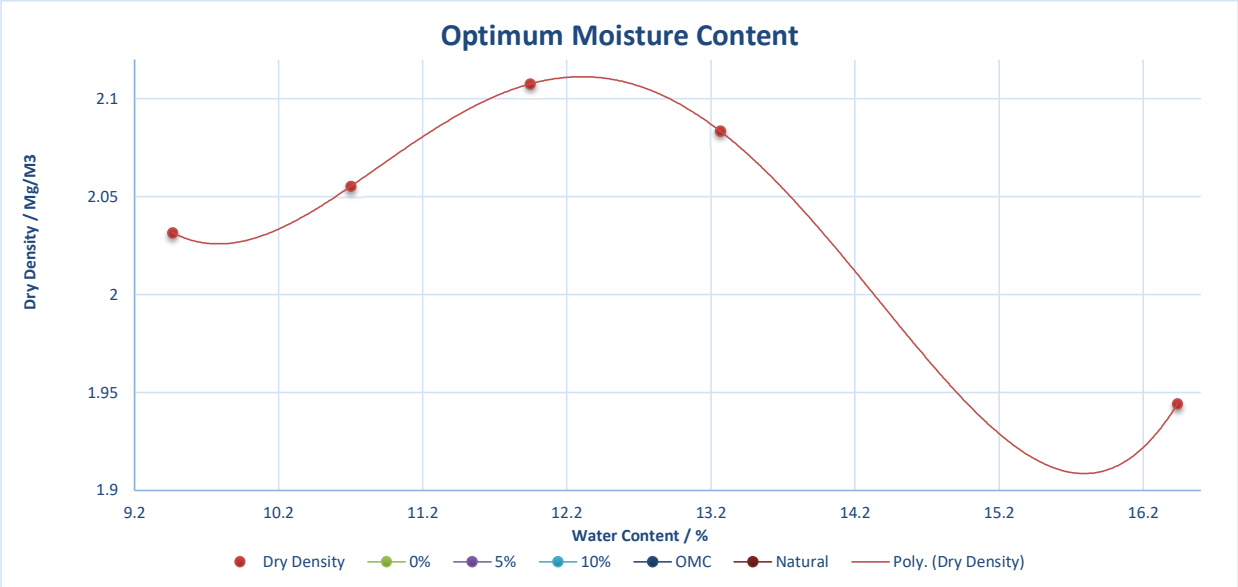
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1964
Client Reference	AN35-2 - 1M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AN35-2 - 1M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	2.11	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
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LL57 4LH
Contact: Chantelle Kopec

Authorised:

James Caiger - Business Unit Manager South East

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Coventry Laboratory
Unit 8 Hotchkiss Way
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Estate Coventry
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Report/ Revision No: 103340/CL-1965/1377-2-3.2/
Client Reference No: AN36-1-0.5M
Date of Issue: 24/08/2022

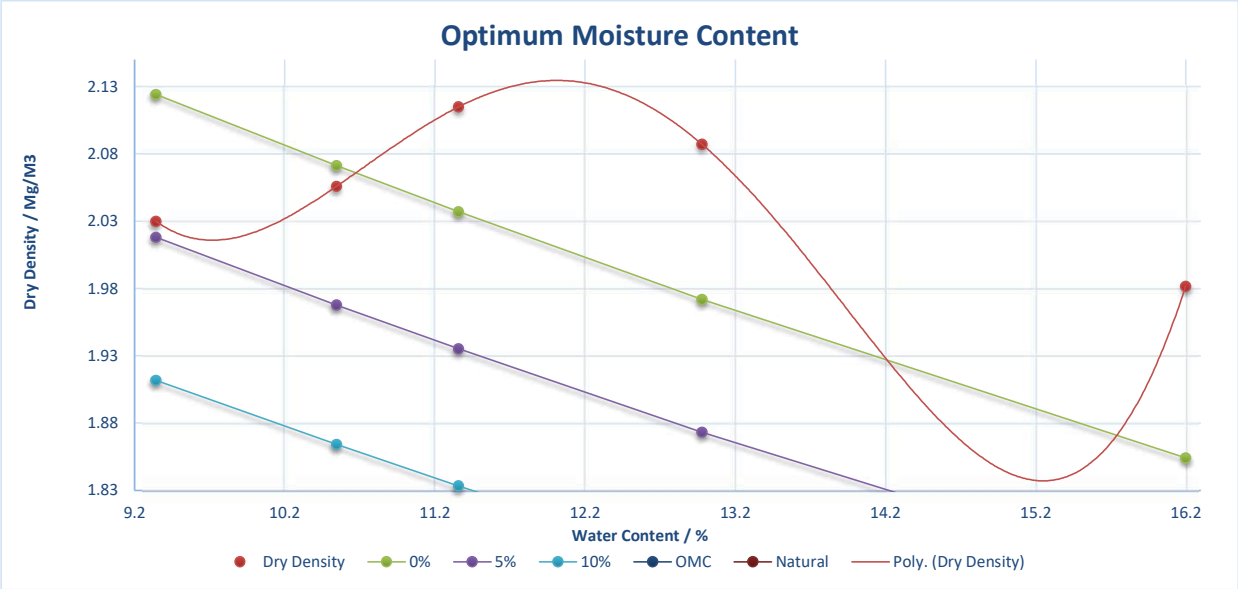
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1965
Client Reference	AN36-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Crushed ROCK With Fines
Location	AN36-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	2.13	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technican

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Report/ Revision No: 103340/CL-1966/1377-2-3.2/
Client Reference No: AO36-1-0.5M
Date of Issue: 24/08/2022

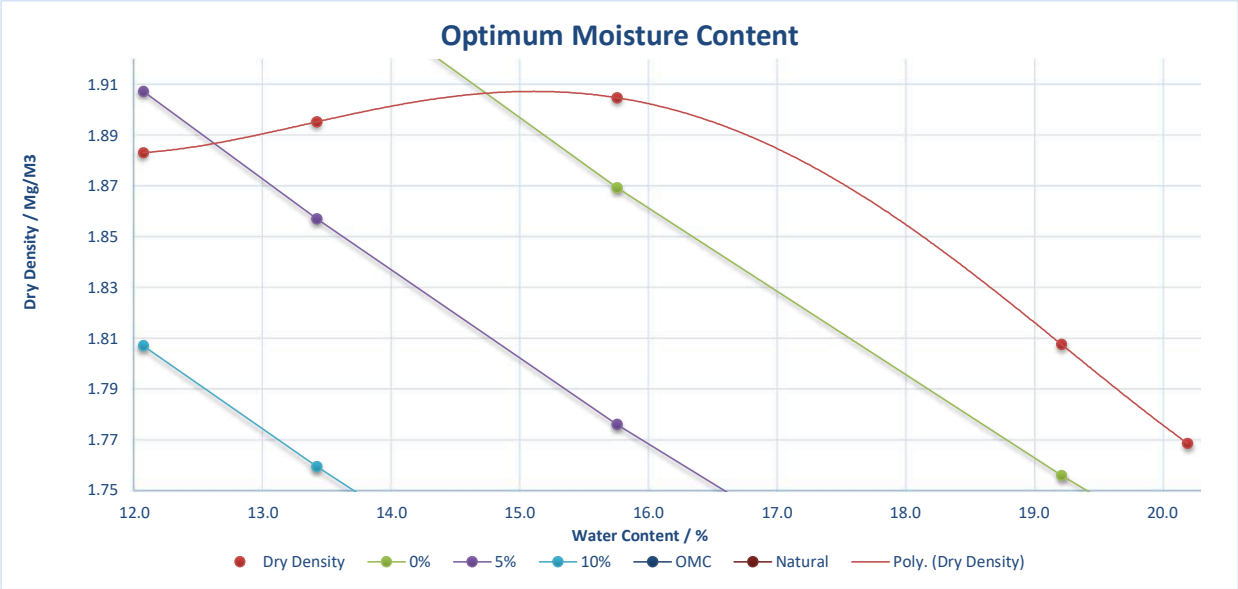
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1966
Client Reference	AO36-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed ROCK With Clay And Fines
Location	AO36-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.91	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	3	%
Proportion of Sample Retained on 20mm Sieve	12	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Contact: Chantelle Kopec

Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1967/1377-2-3.2/
Client Reference No: AO37-1-0.3M
Date of Issue: 24/08/2022

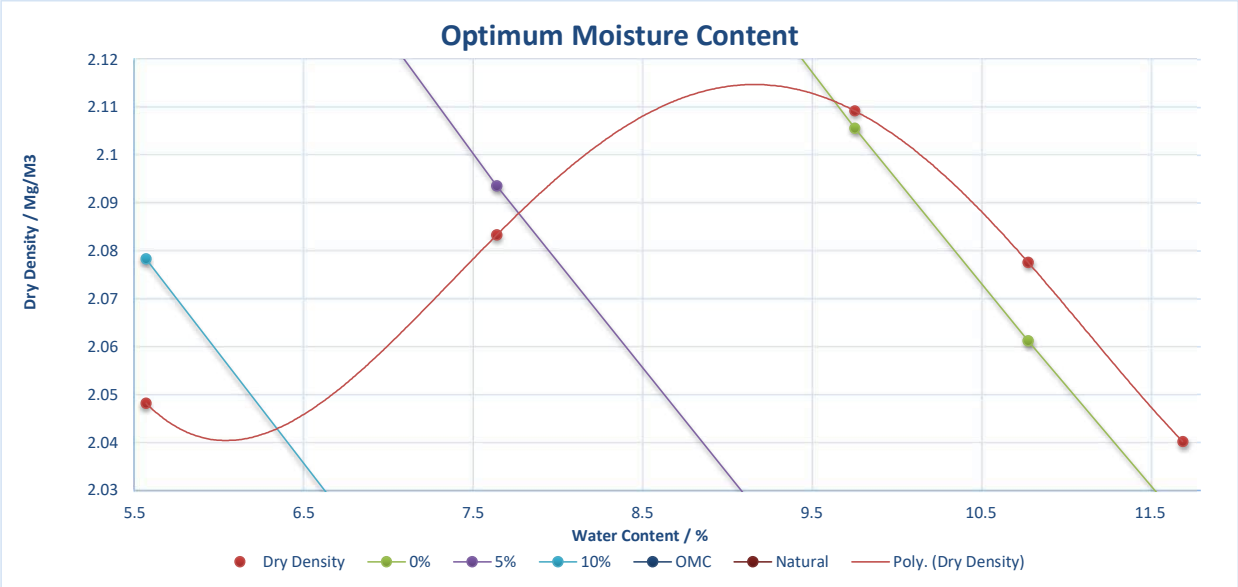
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1967
Client Reference	AO37-1-0.3M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Crushed ROCK With Fines
Location	AO37-1-0.3M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	9.2	%
Maximum Dry Density	2.11	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	8	%
Proportion of Sample Retained on 20mm Sieve	5	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Contact: Chantelle Kopec

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Coventry Laboratory
Unit 8 Hotchkiss Way
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Report/ Revision No: 103340/CL-1968/1377-2-3.2/
Client Reference No: AP34-1-0.4M
Date of Issue: 24/08/2022

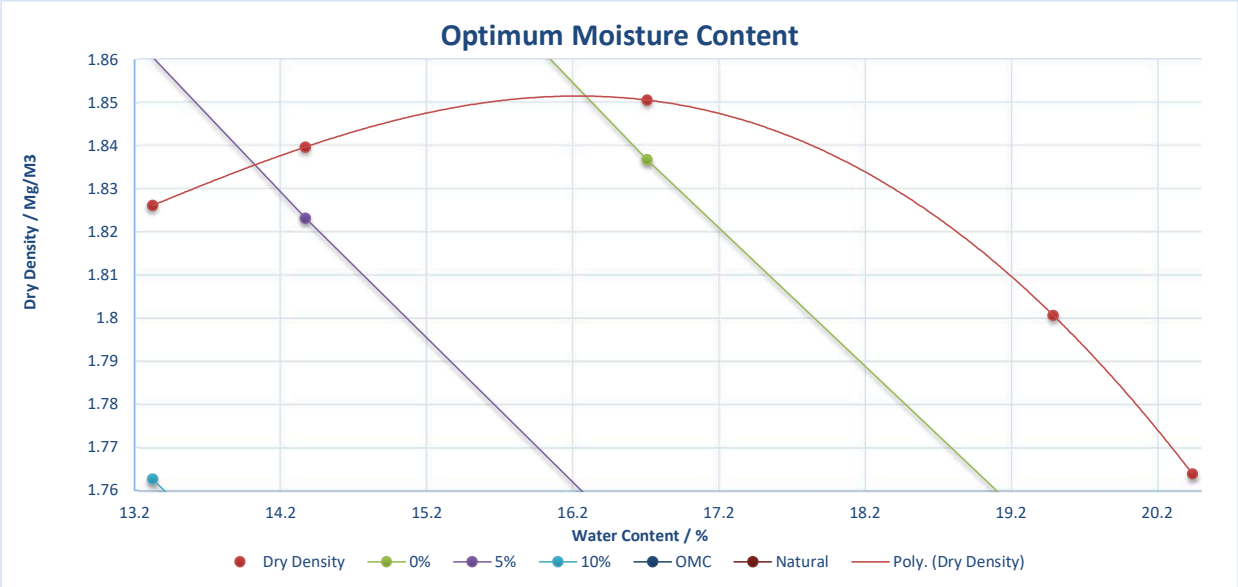
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1968
Client Reference	AP34-1-0.4M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed ROCK With CLAY. With Some Fines
Location	AP34-1-0.4M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	16	%
Maximum Dry Density	1.85	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	27	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Contact: Chantelle Kopec

Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1969/1377-2-3.2/
Client Reference No: AP35-1-0.5M
Date of Issue: 24/08/2022

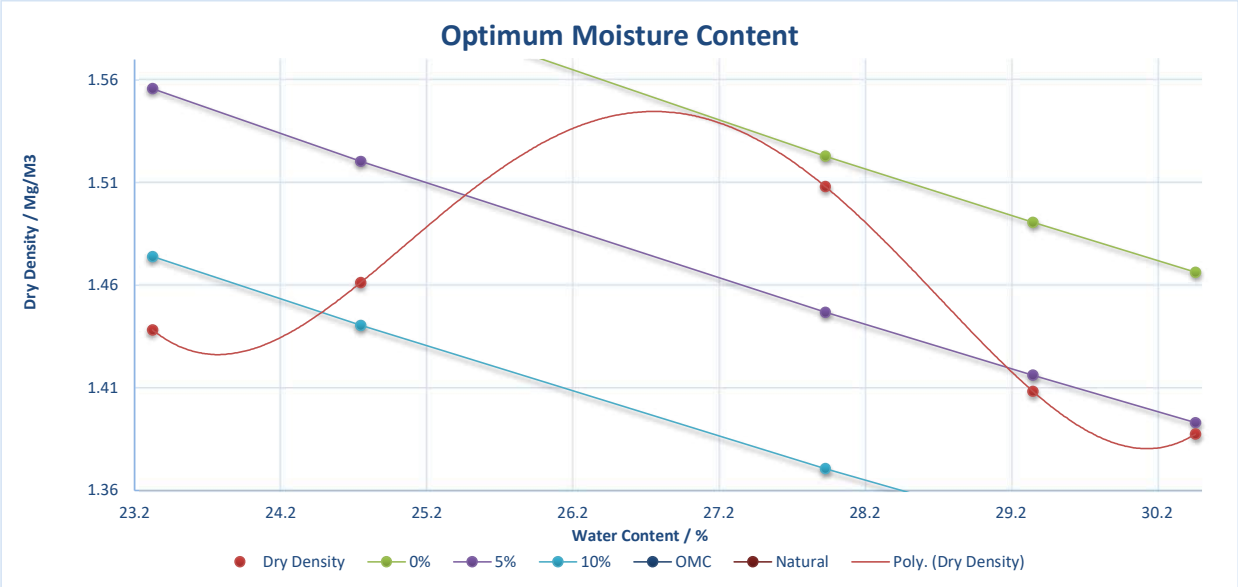
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1969
Client Reference	AP35-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Black Crushed Slate & GRAVEL. With Clay And Fines
Location	AP35-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	27	%
Maximum Dry Density	1.54	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	8	%
Proportion of Sample Retained on 20mm Sieve	10	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1970/1377-2-3.2/
Client Reference No: AP36-2-1.5M
Date of Issue: 02/09/2022

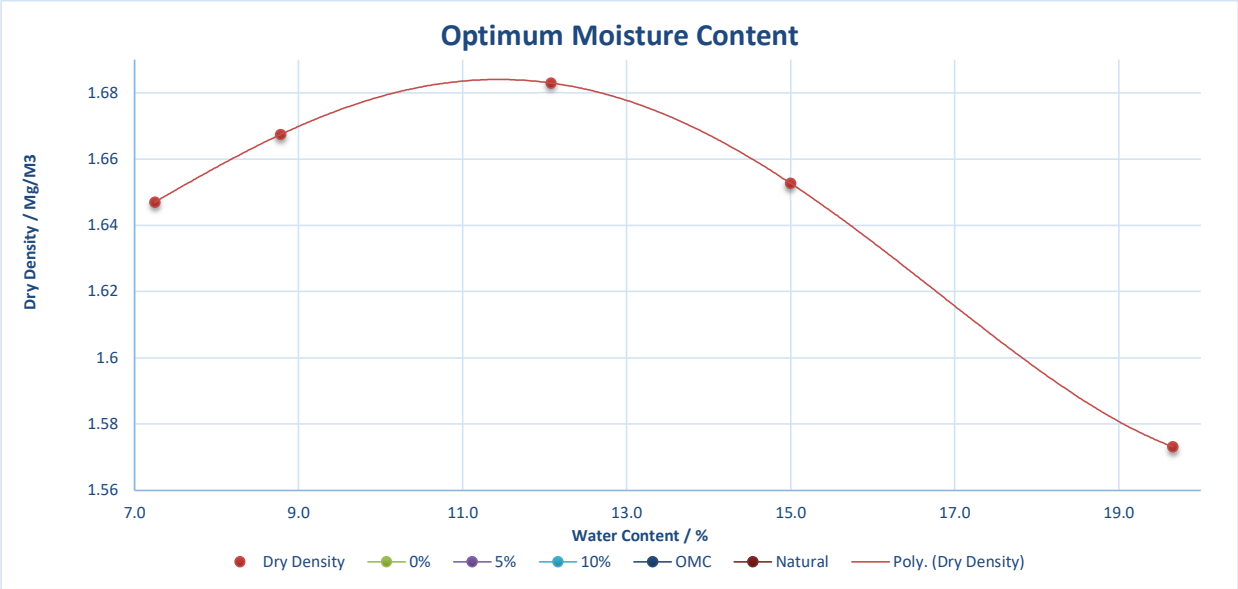
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1970
Client Reference	AP36-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	30/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black Sandy Organic PEAT. With Crushed Brick / Gravel.
Location	AP36-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	11	%
Maximum Dry Density	1.68	Mg/m³
Particle Density	Not Applicable.	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	3	%
Proportion of Sample Retained on 20mm Sieve	6	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Contact: Chantelle Kopec

Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1971/1377-2-3.2/
Client Reference No: AP37-1-0.2M
Date of Issue: 01/09/2022

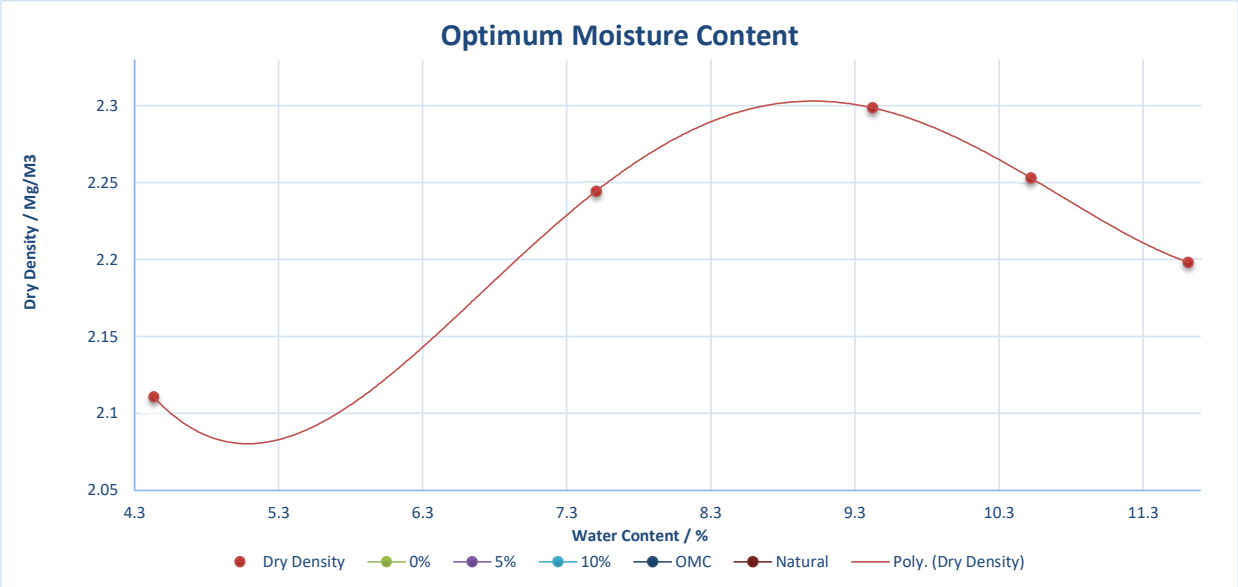
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1971
Client Reference	AP37-1-0.2M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	29/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Light Brown Crushed ROCK. With Fines
Location	AP37-1-0.2M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	9.0	%
Maximum Dry Density	2.30	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	1	%
Proportion of Sample Retained on 20mm Sieve	6	%



Observations

None

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3. The results apply to the sample as received and relate only to the items tested or sampled.
4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
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Report/ Revision No: 103340/CL-1972/1377-2-3.2/
Client Reference No: AQ34-1-0.5M
Date of Issue: 09/09/2022

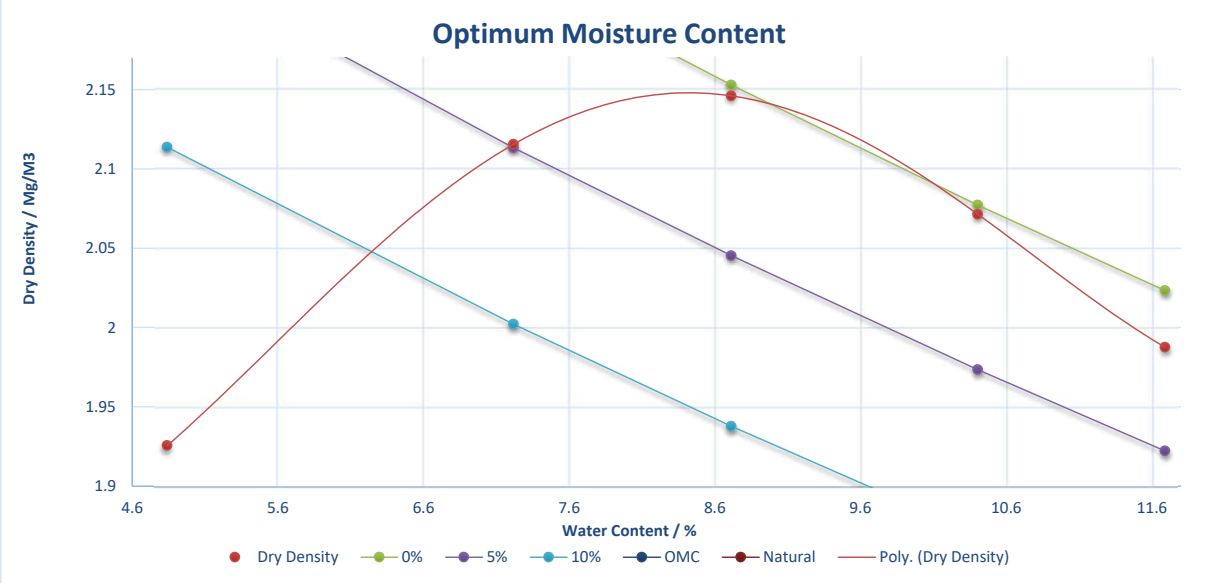
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1972
Client Reference	AQ34-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	31/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specifiefd
Visual Description of Soil (BS 5930)	Granular Material
Location	AQ34-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	8.4	%
Maximum Dry Density	2.15	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	2	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Report/ Revision No: 103340/CL-1973/1377-2-3.2/
Client Reference No: AQ35-1-0.5M
Date of Issue: 23/09/2022

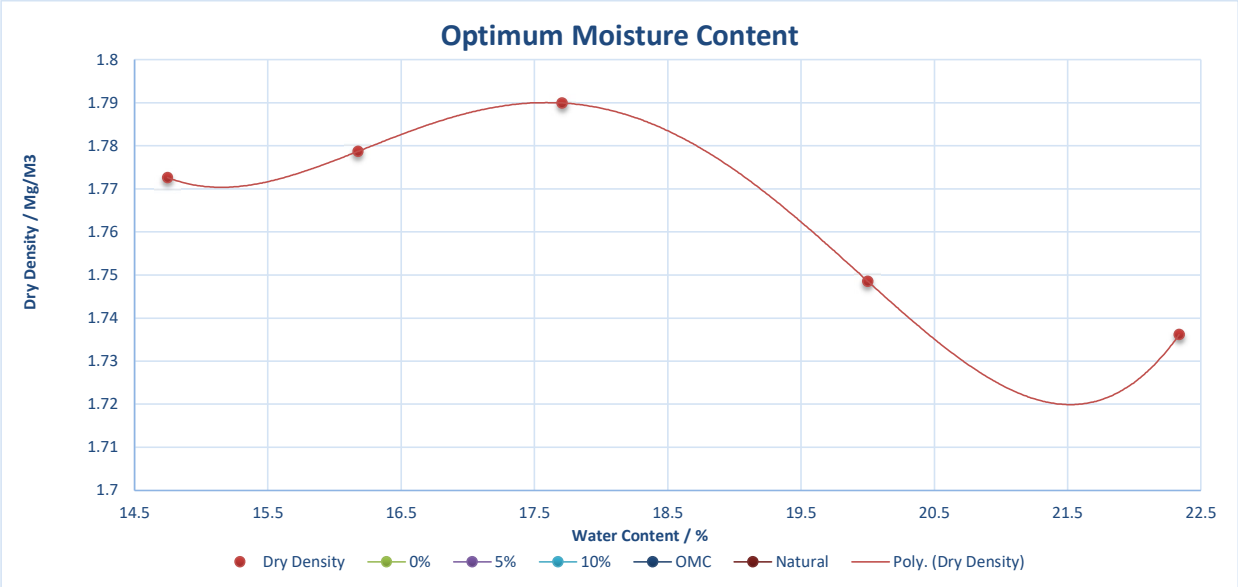
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1973
Client Reference	AQ35-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Grey Granular Material
Location	AQ35-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.79	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	17	%
Proportion of Sample Retained on 20mm Sieve	31	%



Observations

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL1974/1377-2-3.2/
Client Reference No: AQ36-1-0.5M
Date of Issue: 23/09/2022

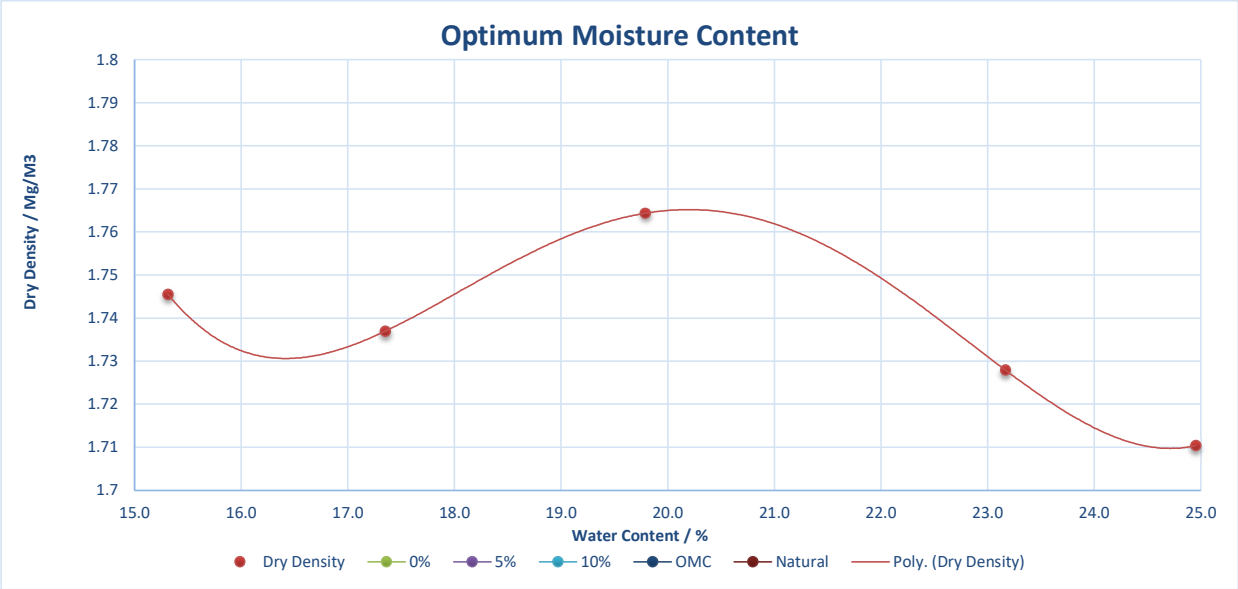
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL1974
Client Reference	AQ36-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	02/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Grey Granular Material
Location	AQ36-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	20	%
Maximum Dry Density	1.77	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	17	%
Proportion of Sample Retained on 20mm Sieve	31	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1975/1377-2-3.2/
Client Reference No: AQ37-1-0.8M
Date of Issue: 25/08/2022

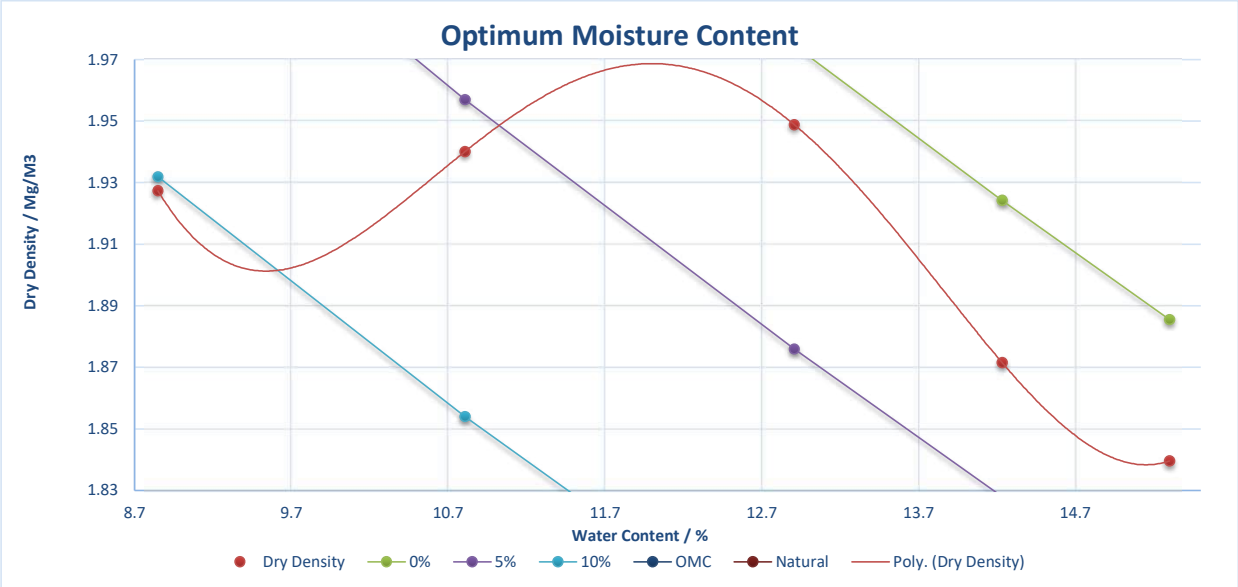
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1975
Client Reference	AQ37-1-0.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Crushed ROCK. With Fines
Location	AQ37-1-0.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	1.97	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1976/1377-2-3.2/
Client Reference No: AR34-2-2M
Date of Issue: 20/09/2022

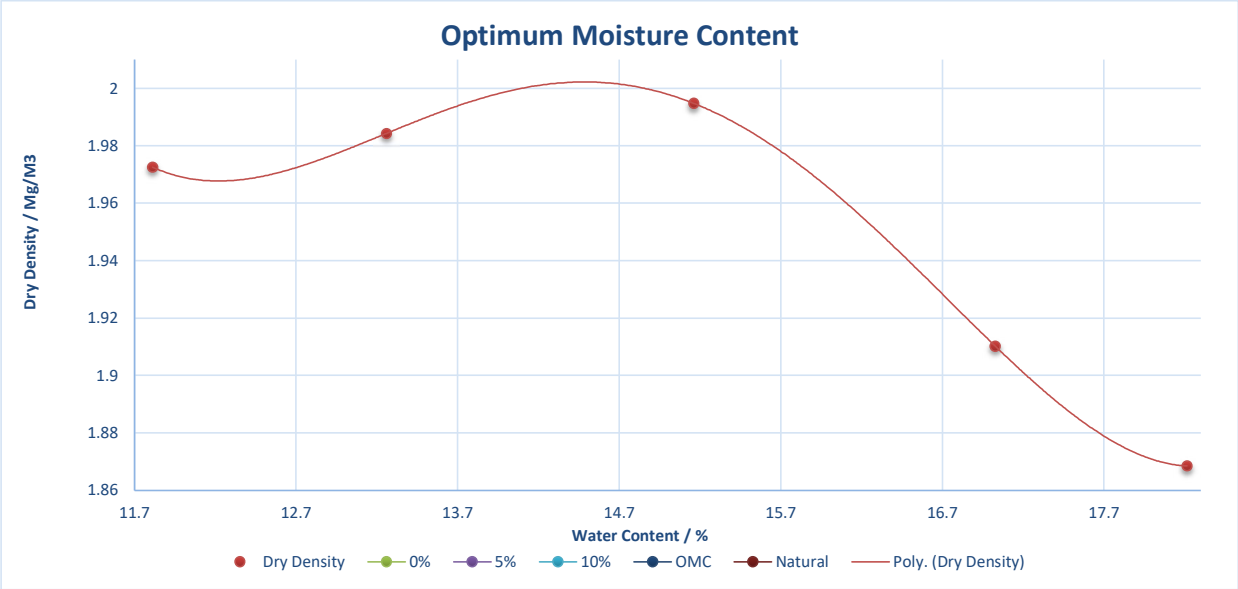
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1976
Client Reference	AR34-2-2M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark Brown GRANULAR Material
Location	AR34-2-2M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	2.00	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	52	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1977/1377-2-3.2/
Client Reference No: AR35-1-0.6M
Date of Issue: 25/08/2022

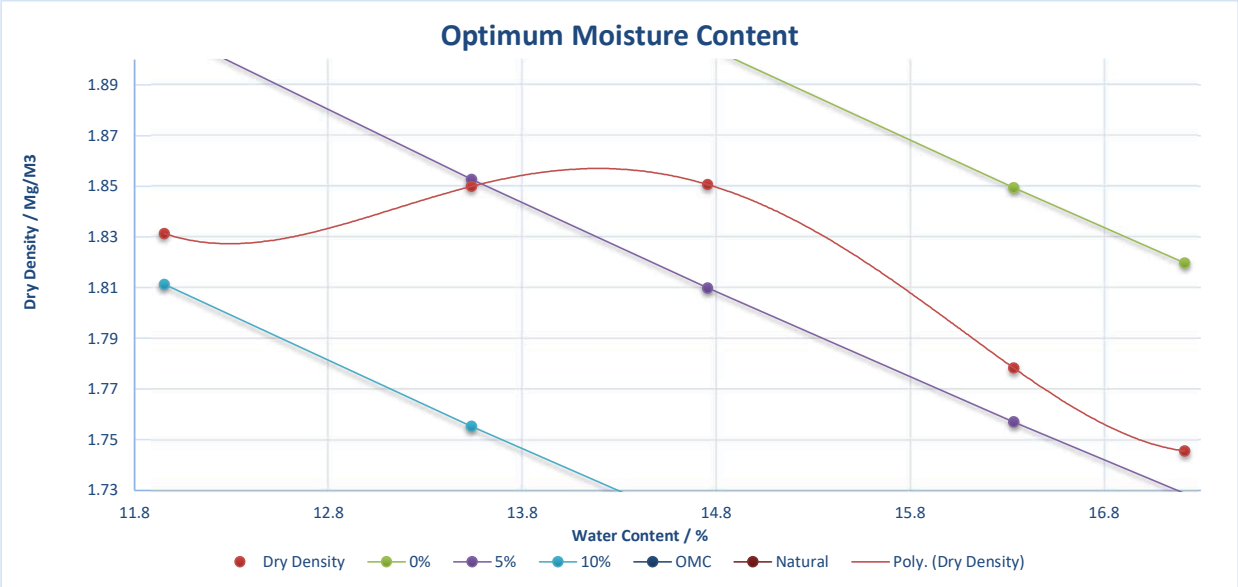
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1977
Client Reference	AR35-1-0.6M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Black ROCK With Fines
Location	AR35-1-0.6M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	1.86	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1978/1377-2-3.2/
Client Reference No: AR36-2-1.5M
Date of Issue: 26/08/2022

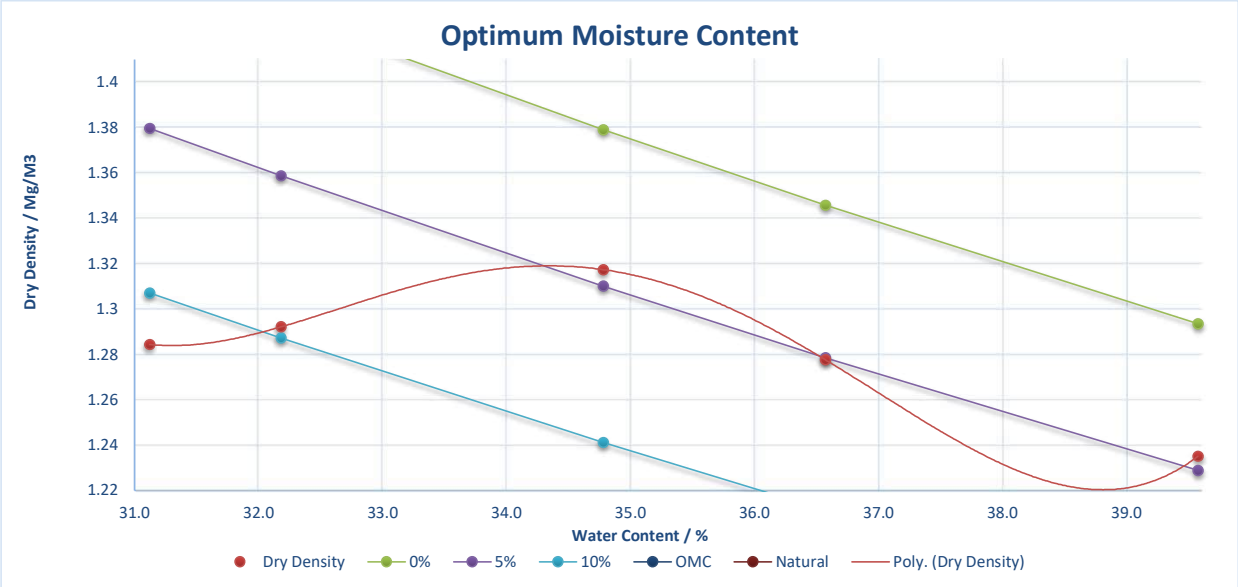
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1978
Client Reference	AR36-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Peaty Organic ROCK With Sandy Fines.
Location	AR36-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	34	%
Maximum Dry Density	1.32	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	3	%
Proportion of Sample Retained on 20mm Sieve	4	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1979/1377-2-3.2/
Client Reference No: AR37-2-0.4M
Date of Issue: 09/09/2022

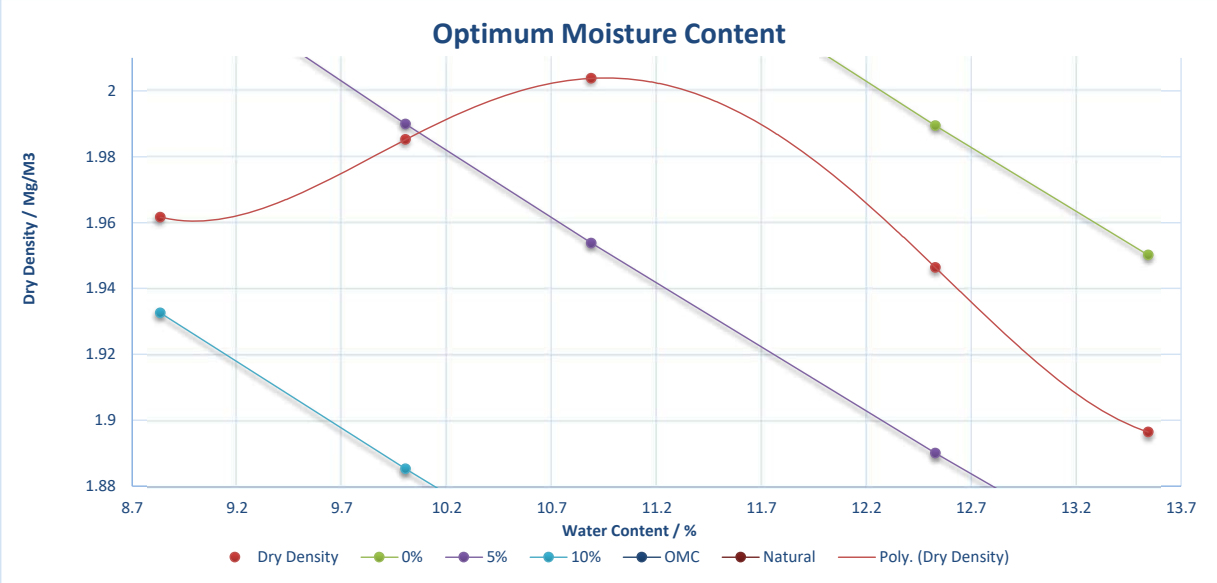
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1979
Client Reference	AR37-2-0.4M
Date Sampled	31/05/2022
Date Received	19/08/2022
Date Tested	31/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Granular material
Location	AR37-2-0.4M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	11	%
Maximum Dry Density	2.00	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	14	%
Proportion of Sample Retained on 20mm Sieve	21	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1980/1377-2-3.2/
Client Reference No: AS34-1-0.4M
Date of Issue: 25/08/2022

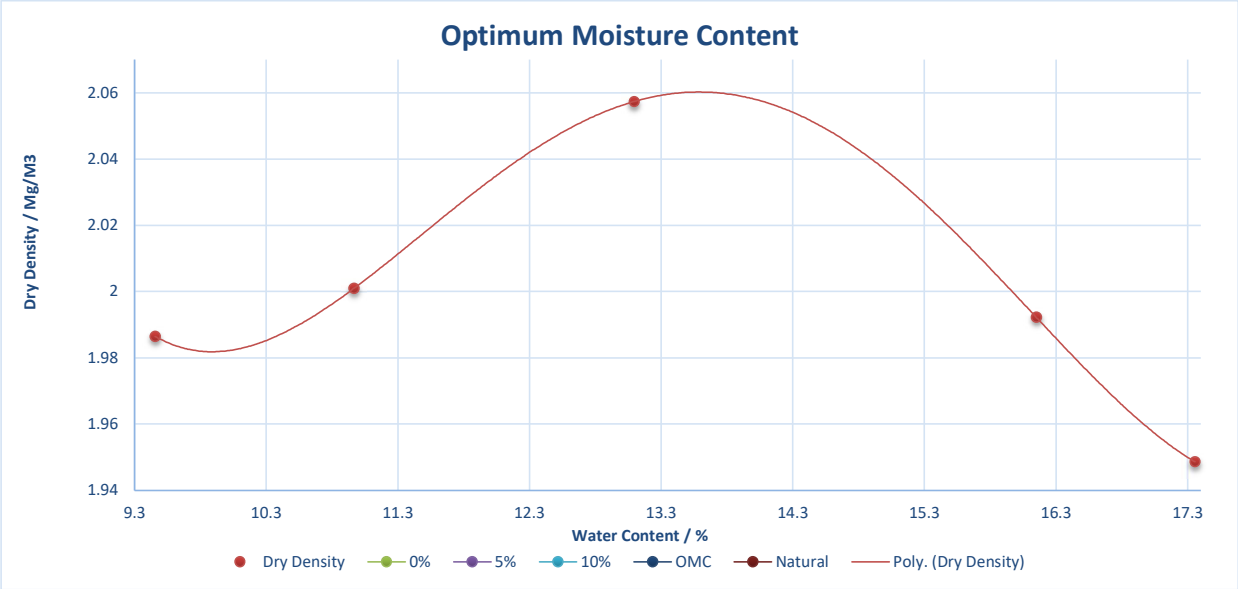
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1980
Client Reference	AS34-1-0.4M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black Crushed Rock With Fines.
Location	AS34-1-0.4M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	2.06	Mg/m³
Particle Density	N/A	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	11	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1981/1377-2-3.2/
Client Reference No: AS35-1-0.3M
Date of Issue: 25/08/2022

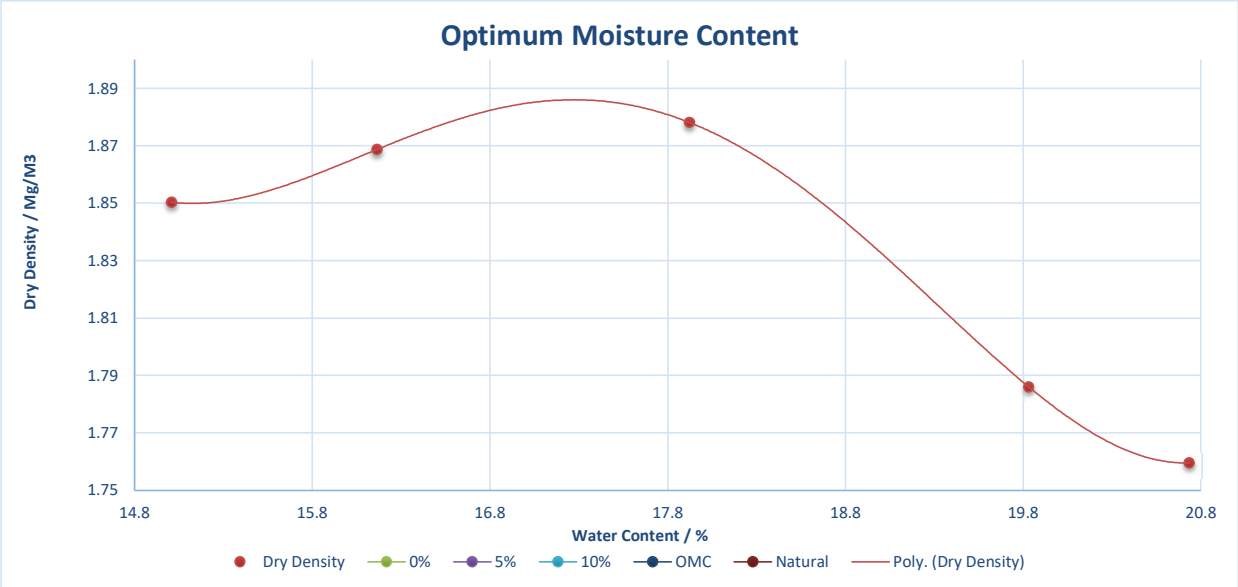
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1981
Client Reference	AS35-1-0.3M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Crushed ROCK With Fines.
Location	AS35-1-0.3M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	17	%
Maximum Dry Density	1.89	Mg/m³
Particle Density	N/A	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	30	%
Proportion of Sample Retained on 20mm Sieve	13	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1982/1377-2-3.2/
Client Reference No: AS36-1-1M
Date of Issue: 31/08/2022

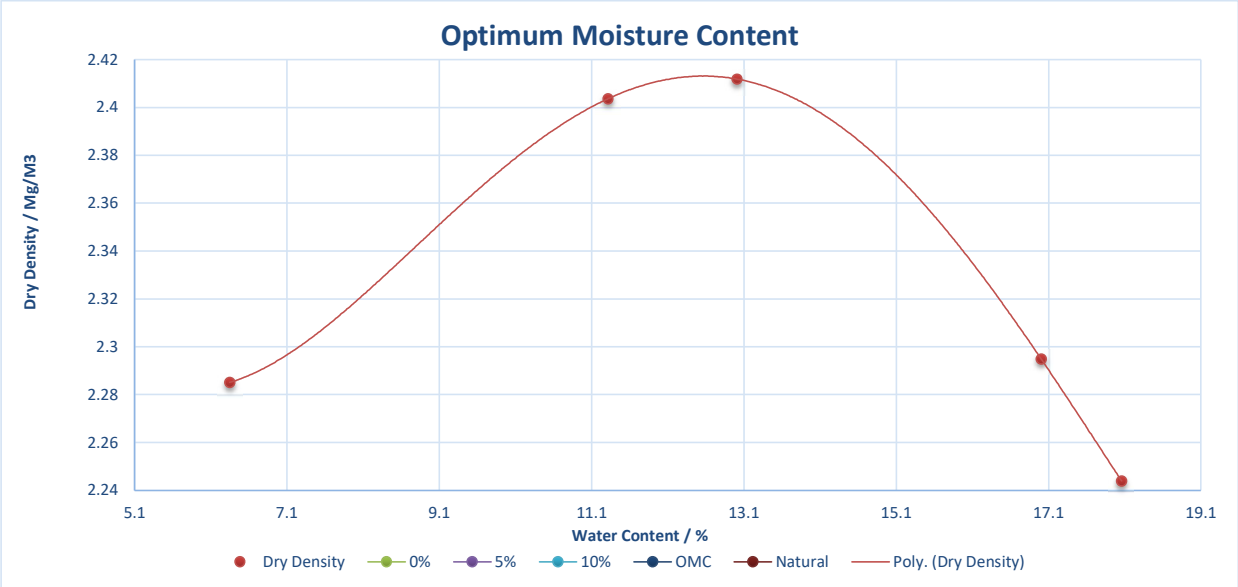
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1982
Client Reference	AS36-1-1M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped Down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Red Crushed GRAVEL. With Concrete And Fines.
Location	AS36-1-1M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.41	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	6	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1983/1377-2-3.2/
Client Reference No: AS37-2-2M
Date of Issue: 31/08/2022

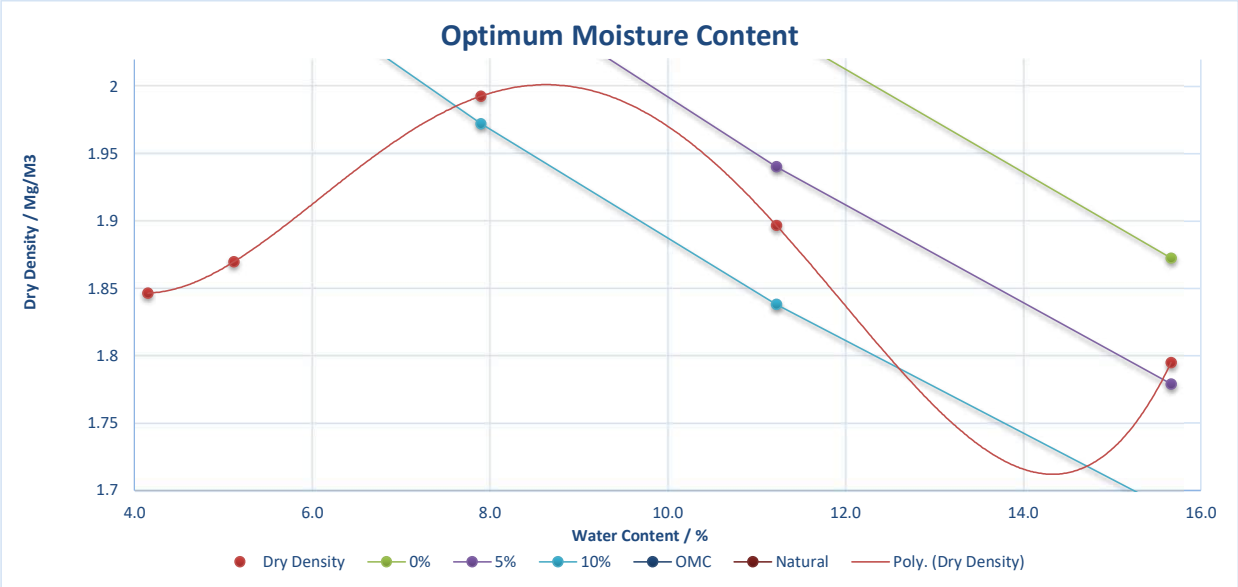
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1983
Client Reference	AS37-2-2M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed Gravel With some Fines.
Location	AS37-2-2M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	8.6	%
Maximum Dry Density	2.00	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	5	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

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Coventry Laboratory
Unit 8 Hotchkiss Way
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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1985/1377-2-3.2/
Client Reference No: AT35-1-0.5M
Date of Issue: 31/08/2022

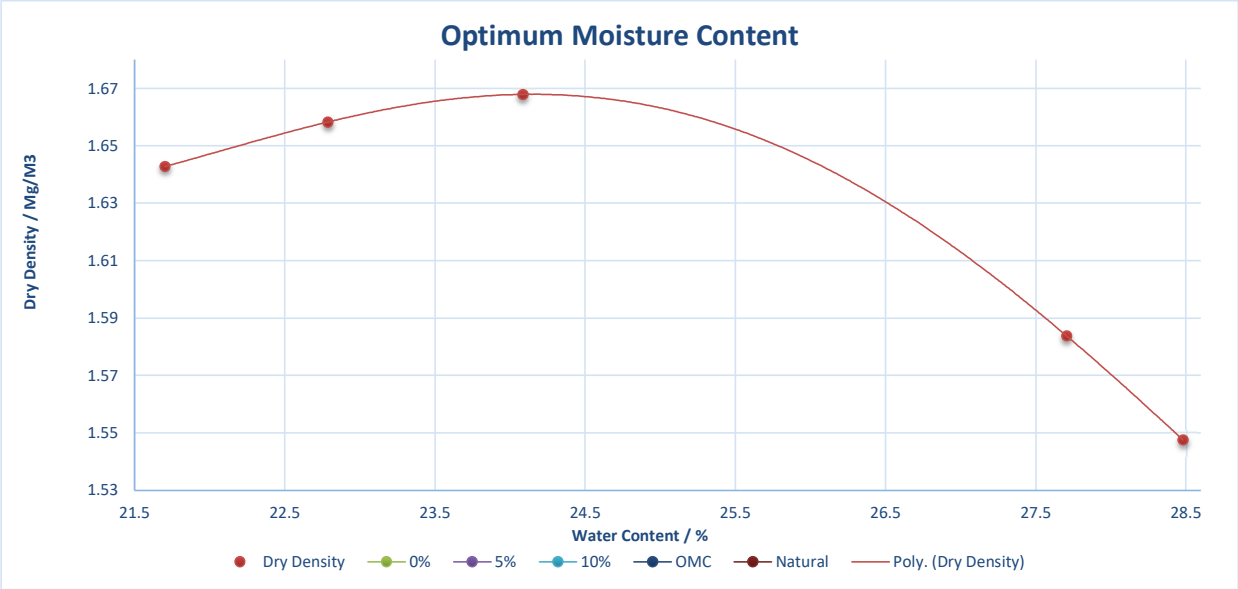
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1985
Client Reference	AT35-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown, Crushed GRAVEL. With Fines.
Location	AT35-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	24	%
Maximum Dry Density	1.67	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	5	%
Proportion of Sample Retained on 20mm Sieve	19	%



Observations

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1986/1377-2-3.2/
Client Reference No: AT36-2-1.8M
Date of Issue: 23/09/2022

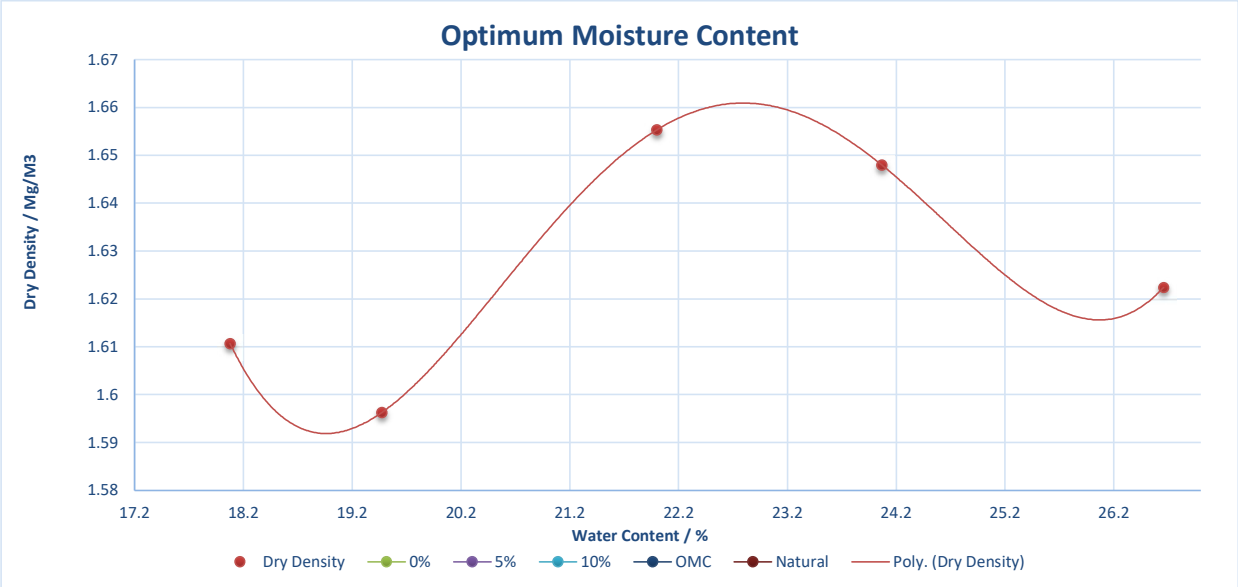
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1986
Client Reference	AT36-2-1.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Secififed
Visual Description of Soil (BS 5930)	Reddy Brown Granular Material
Location	AT36-2-1.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	23	%
Maximum Dry Density	1.66	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	46	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1987/1377-2-3.2/
Client Reference No: AT37-1-0.8M
Date of Issue: 02/09/2022

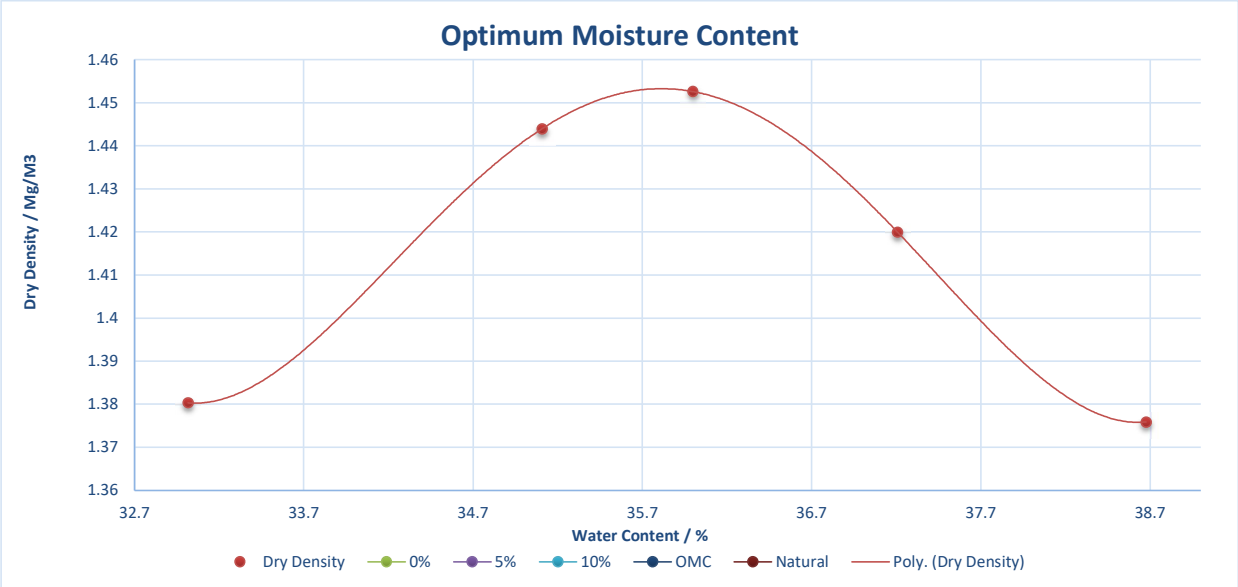
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1987
Client Reference	AT37-1-0.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	30/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped Down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed Fine GRAVEL. With Fines.
Location	AT37-1-0.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	36	%
Maximum Dry Density	1.45	Mg/m³
Particle Density	Not Applicable.	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	7	%
Proportion of Sample Retained on 20mm Sieve	30	%



Observations

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1989/1377-2-3.2/
Client Reference No: AU35-2-1.5M
Date of Issue: 31/08/2022

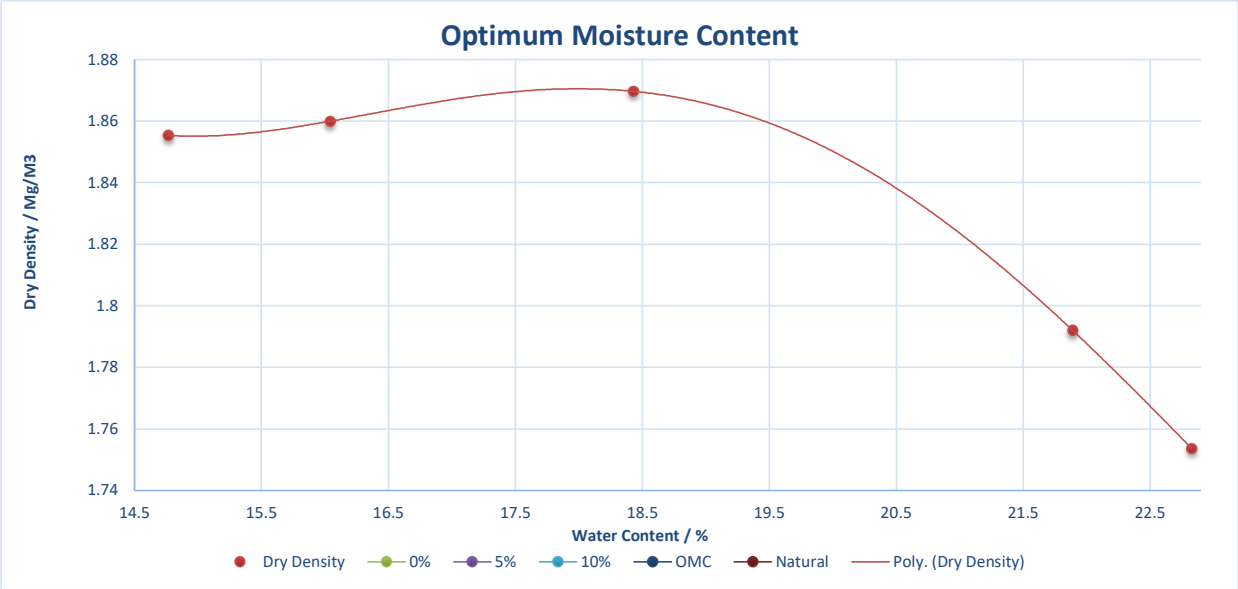
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1989
Client Reference	AU35-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Brown / Red Crushed GRAVEL. With Fines
Location	AU35-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.87	Mg/m³
Particle Density	0.00	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	21	%
Proportion of Sample Retained on 20mm Sieve	12	%



Observations

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Report/ Revision No: 103340/CL-1990/1377-2-3.2/
Client Reference No: AU36-2-1.3M
Date of Issue: 20/09/2022

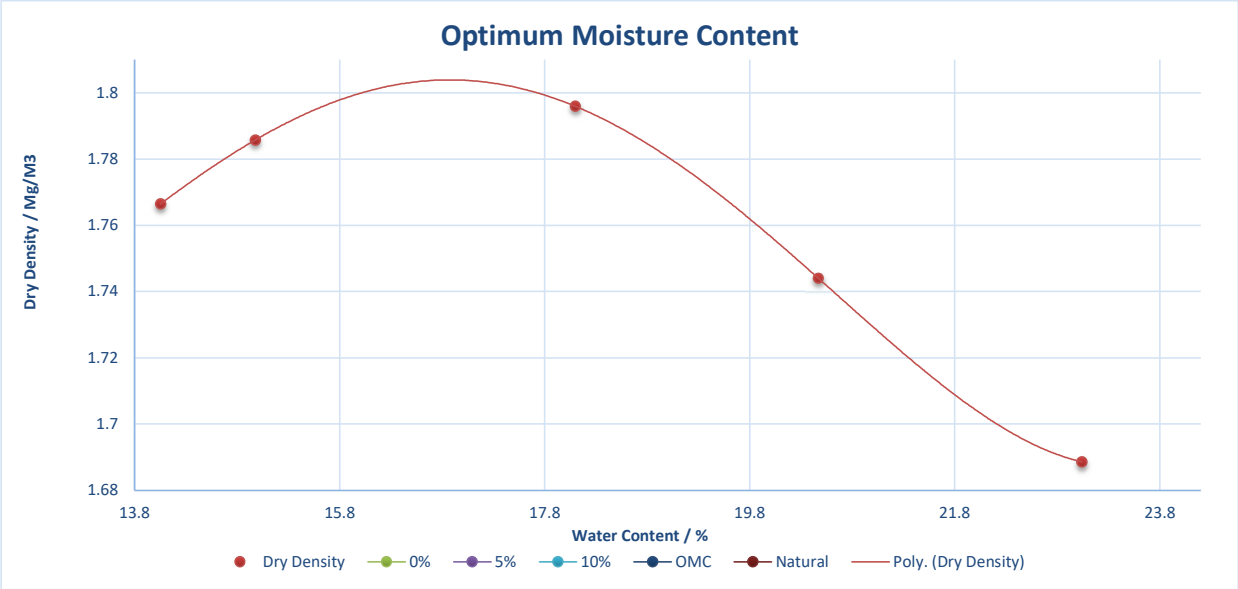
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1990
Client Reference	AU36-2-1.3M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	13/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material. With Fines
Location	AU36-2-1.3M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	17	%
Maximum Dry Density	1.80	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	21	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1991/1377-2-3.2/
Client Reference No: AU37-1-0.8M
Date of Issue: 20/09/2022

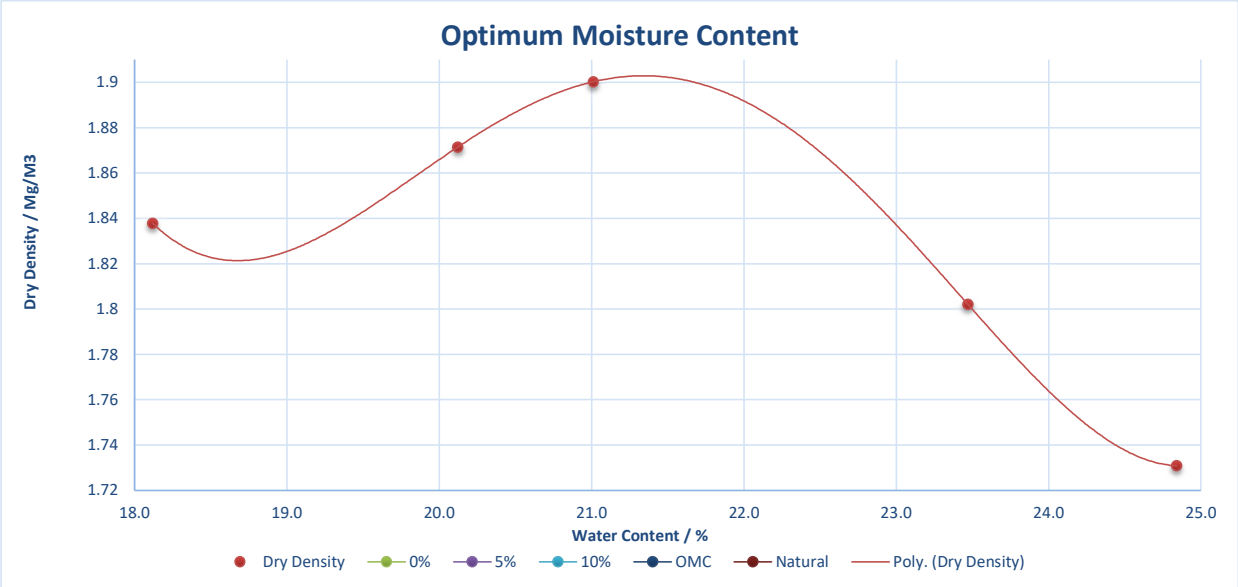
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1991
Client Reference	AU37-1-0.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	13/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Grey GRANULAR Material
Location	AU37-1-0.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	21	%
Maximum Dry Density	1.90	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	44	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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Report/ Revision No: 103340/CL-1992/1377-2-3.2/
Client Reference No: AV34-2-1.8M
Date of Issue: 09/09/2022

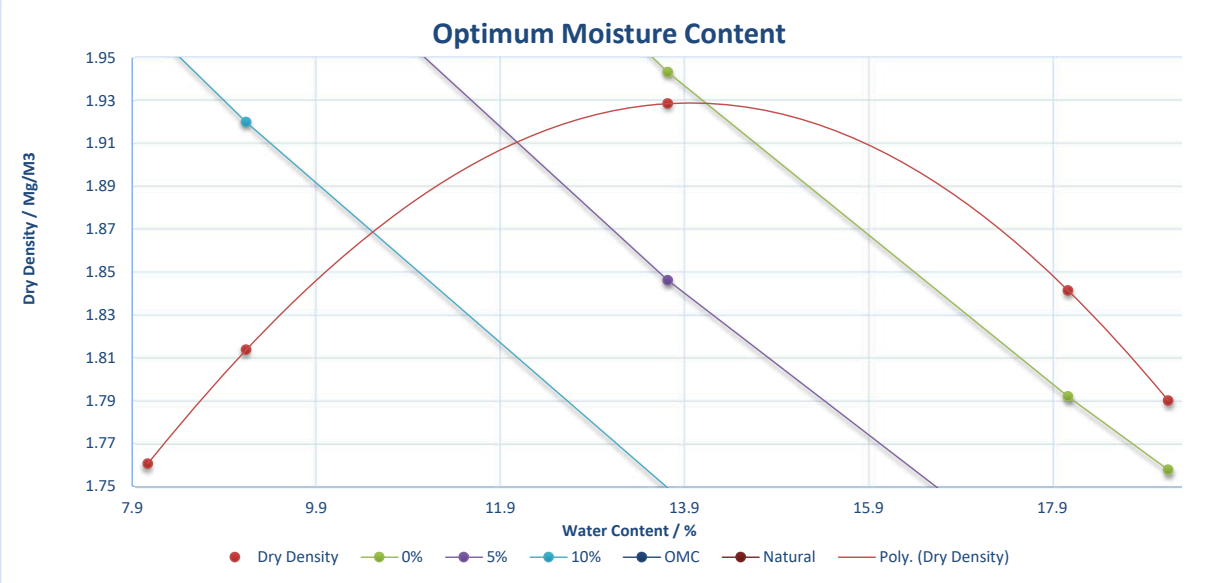
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1992
Client Reference	AV34-2-1.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Granular Material
Location	AV34-2-1.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	1.93	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	23	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL1995/1377-2-3.2/
Client Reference No: AV37-1-0.50M
Date of Issue: 23/09/2022

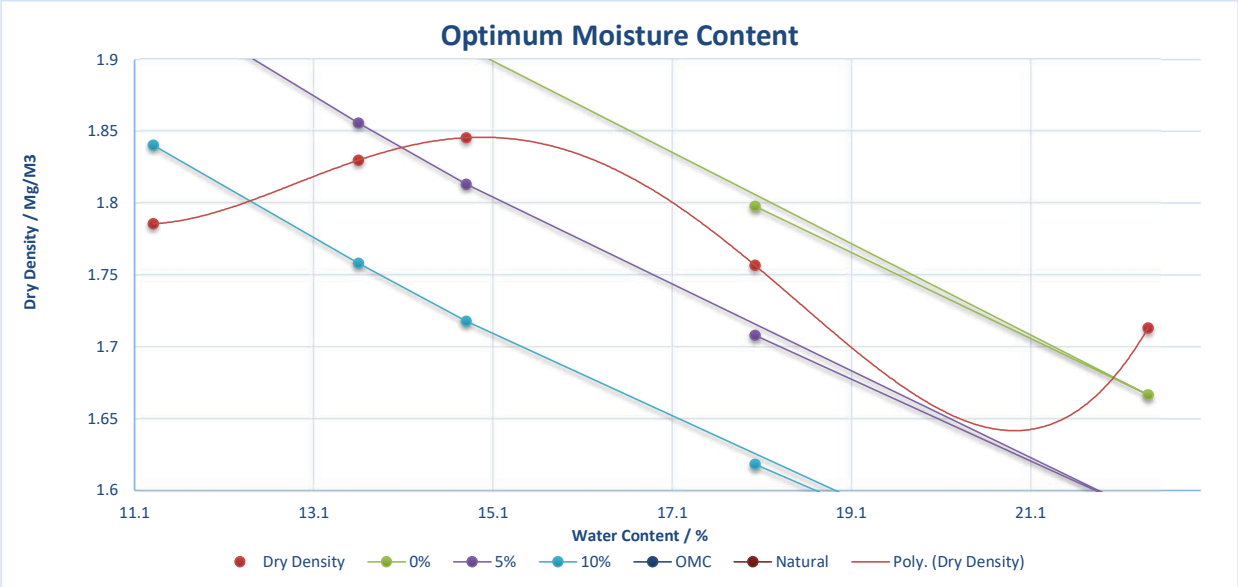
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL1995
Client Reference	AV37-1-0.50M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Granular Material.
Location	AV37-1-0.50M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.85	Mg/m³
Particle Density	2.66	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	40	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1996/1377-2-3.2/
Client Reference No: AW34-1-1.00M
Date of Issue: 23/09/2022

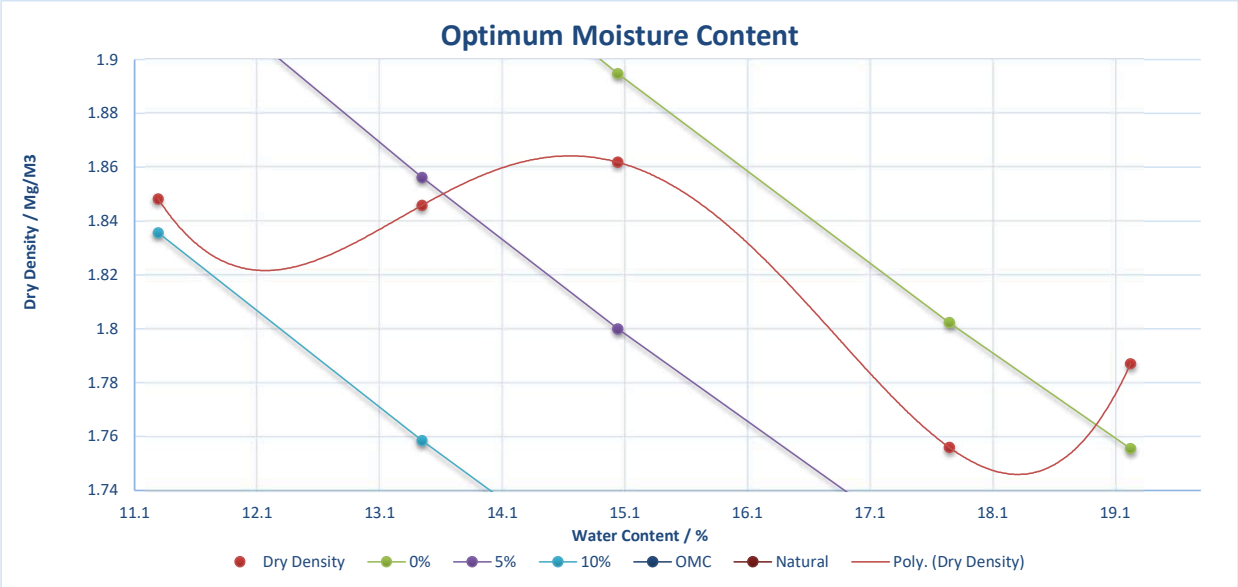
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1996
Client Reference	AW34-1-1.00M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Granular Material.
Location	AW34-1-1.00M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.86	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	32	%
Proportion of Sample Retained on 20mm Sieve	21	%



Observations

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Report/ Revision No: 103340/CL-1998/1377-2-3.2/
Client Reference No: AW36-2-1.60M
Date of Issue: 09/09/2022

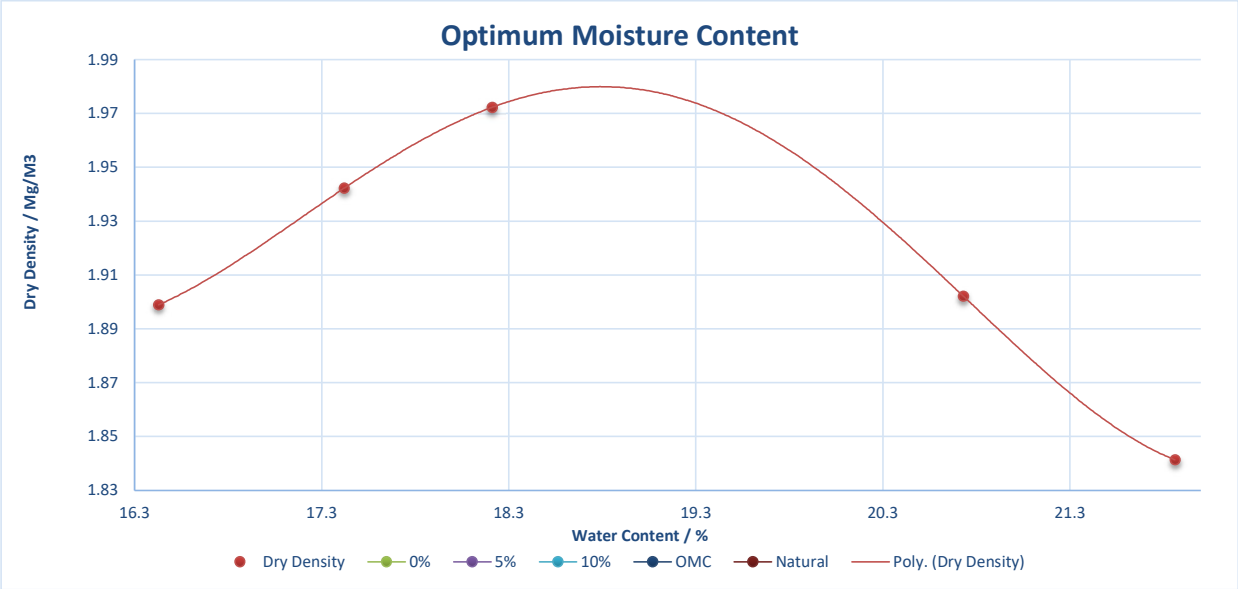
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1998
Client Reference	AW36-2-1.60M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Brown GRANULAR material
Location	AW36-2-1.60M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	19	%
Maximum Dry Density	1.98	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	27	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

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Report/ Revision No: 103340/CL-2000/1377-2-3.2/
Client Reference No: AX34-1-0.7M
Date of Issue: 23/09/2022

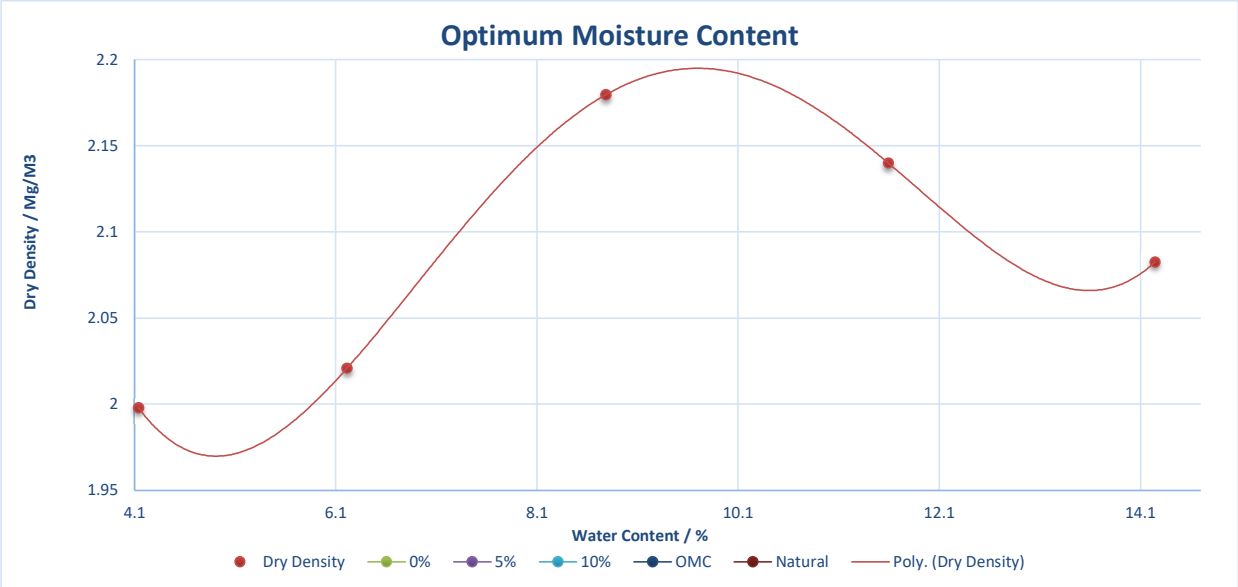
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2000
Client Reference	AX34-1-0.7M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	25/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Red Granular Material
Location	AX34-1-0.7M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	9.7	%
Maximum Dry Density	2.19	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	54	%
Proportion of Sample Retained on 20mm Sieve	24	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

1740

Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

Report/ Revision No: 103340/CL-2002/1377-2-3.2/
Client Reference No: AX36-2-1.5M
Date of Issue: 20/09/2022

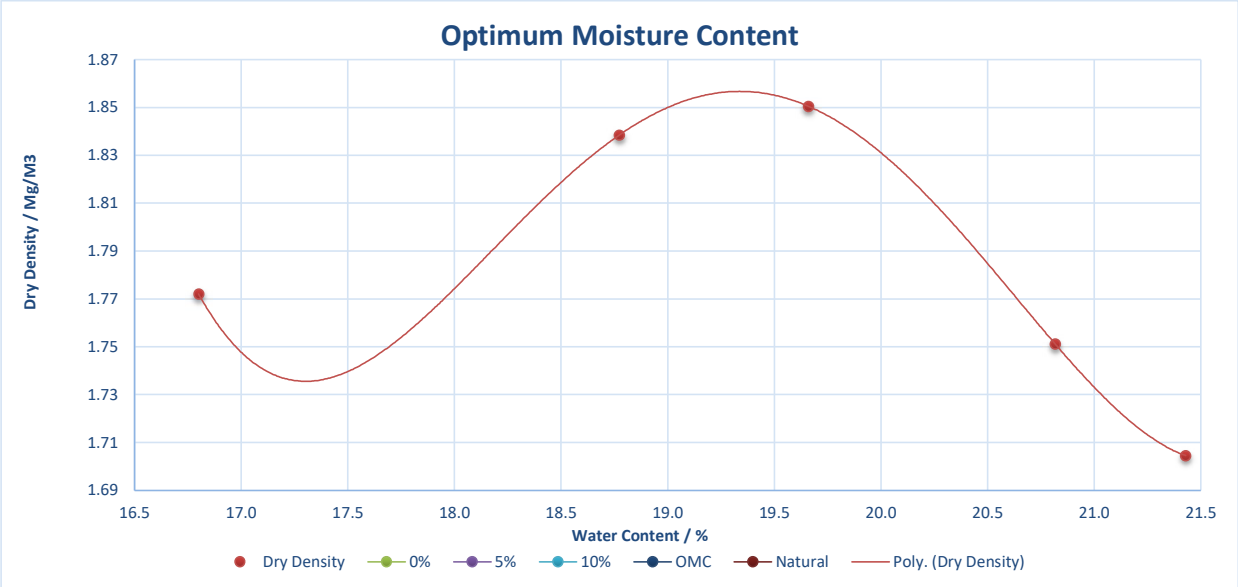
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2002
Client Reference	AX36-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AX36-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	19	%
Maximum Dry Density	1.86	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

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Report/ Revision No: 103340/CL-2003/1377-2-3.2/
Client Reference No: AX37-1.00M
Date of Issue: 20/09/2022

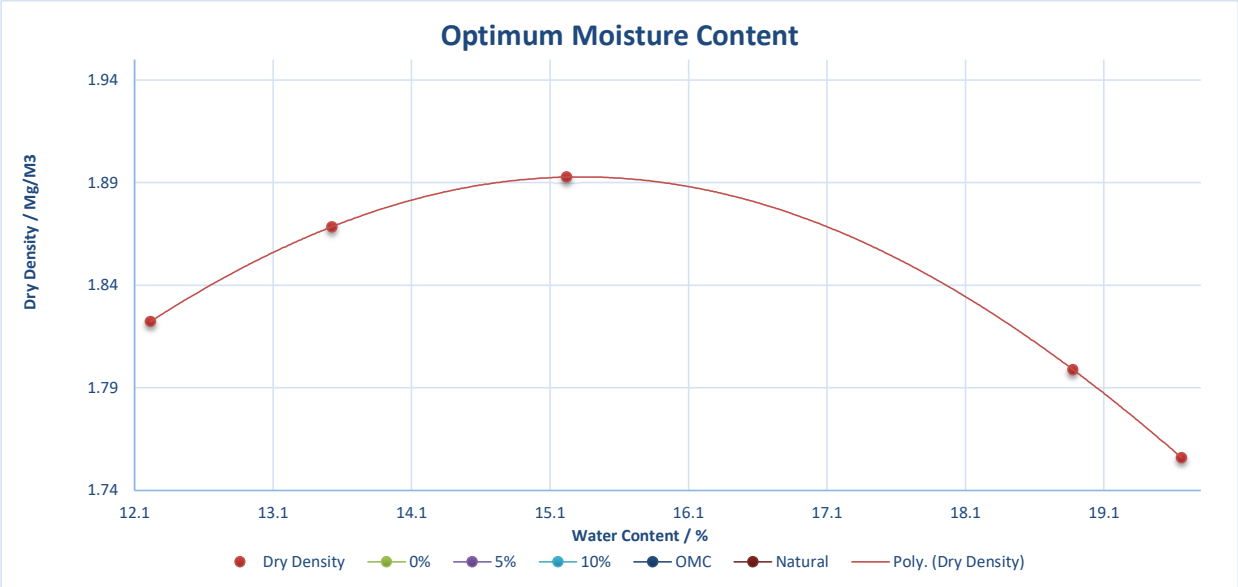
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2003
Client Reference	AX37-1.00M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	13/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AX37-1.00M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.89	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	47	%
Proportion of Sample Retained on 20mm Sieve	11	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Contact: Chantelle Kopec

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-2004/1377-2-3.2/
Client Reference No: AX37-2-2.00M
Date of Issue: 09/09/2022

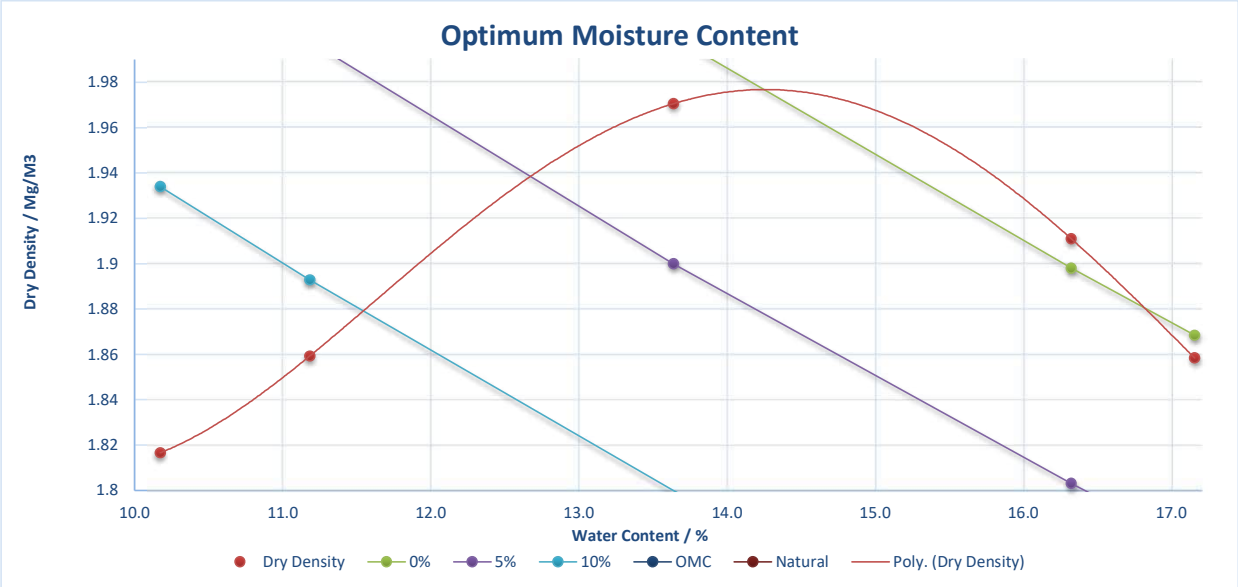
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2004
Client Reference	AX37-2-2.00M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	05/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Granular Material
Location	AX37-2-2.00M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	1.98	Mg/m³
Particle Density	2.75	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	18	%



Observations

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Client: Celtest
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Contact: Chantelle Kopec

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2111/1377-2-3.2/
Client Reference No: AX32-1
Date of Issue: 14/10/2022

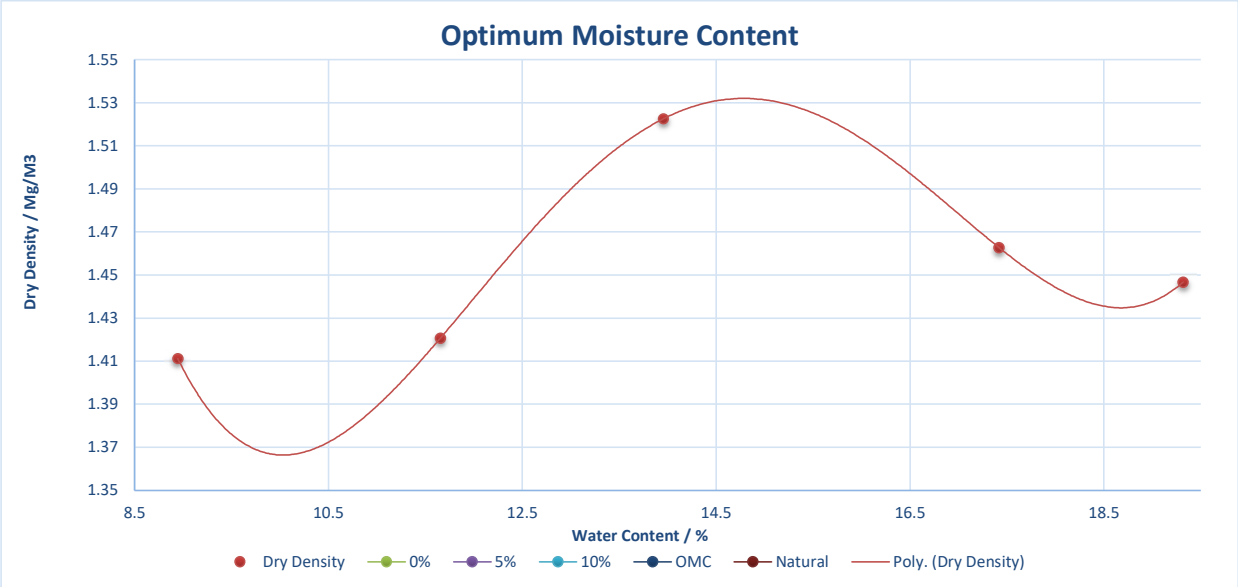
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
#N/A

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2111
Client Reference	AX32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	12/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AX32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.53	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	23	%
Proportion of Sample Retained on 20mm Sieve	22	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: #N/A #N/A Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2114/1377-2-3.2/
Client Reference No: AW31-1
Date of Issue: 14/10/2022

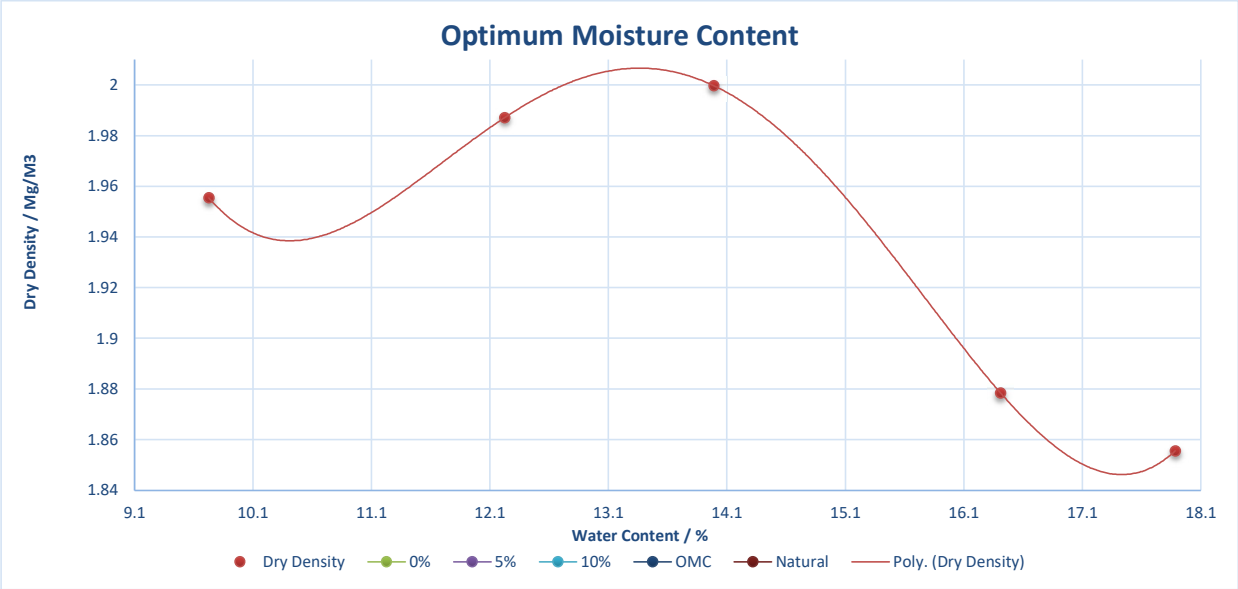
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2114
Client Reference	AW31-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR Material With Some Clay
Location	AW31-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.01	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	19	%
Proportion of Sample Retained on 20mm Sieve	9	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Contact: Chantelle Kopec

Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2115/1377-2-3.2/
Client Reference No: AV32-1
Date of Issue: 14/10/2022

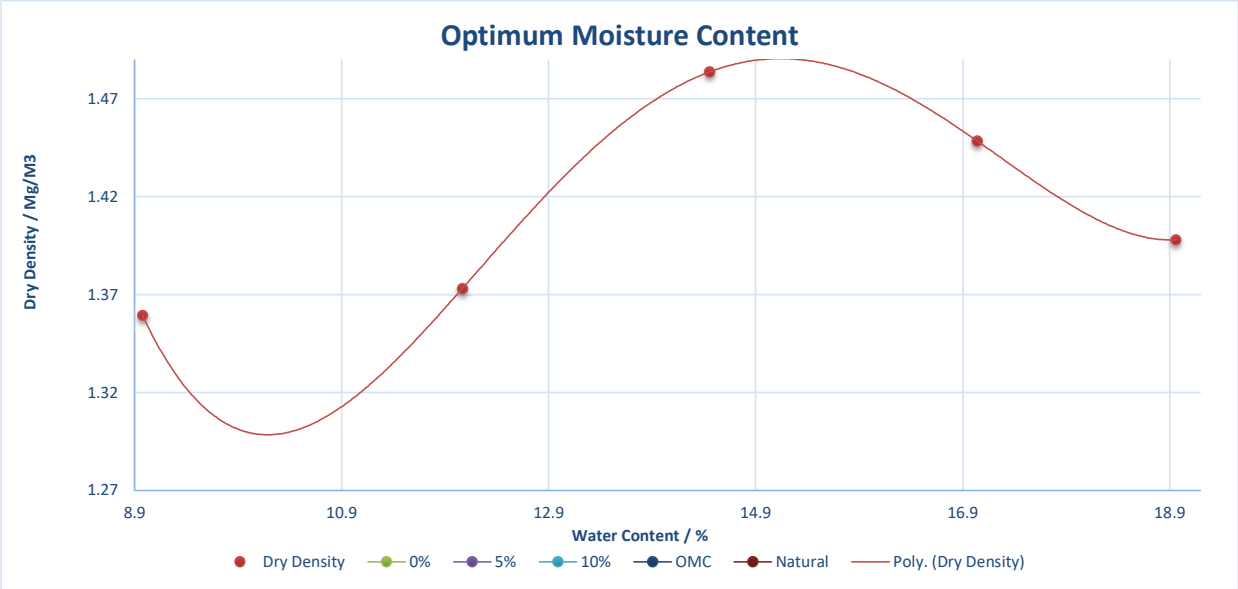
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2115
Client Reference	AV32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	12/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR material
Location	AV32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.49	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	14	%
Proportion of Sample Retained on 20mm Sieve	18	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Coventry Laboratory
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Binley Industrial
Estate Coventry
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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2117/1377-2-3.2/
Client Reference No: AO33-1
Date of Issue: 14/10/2022

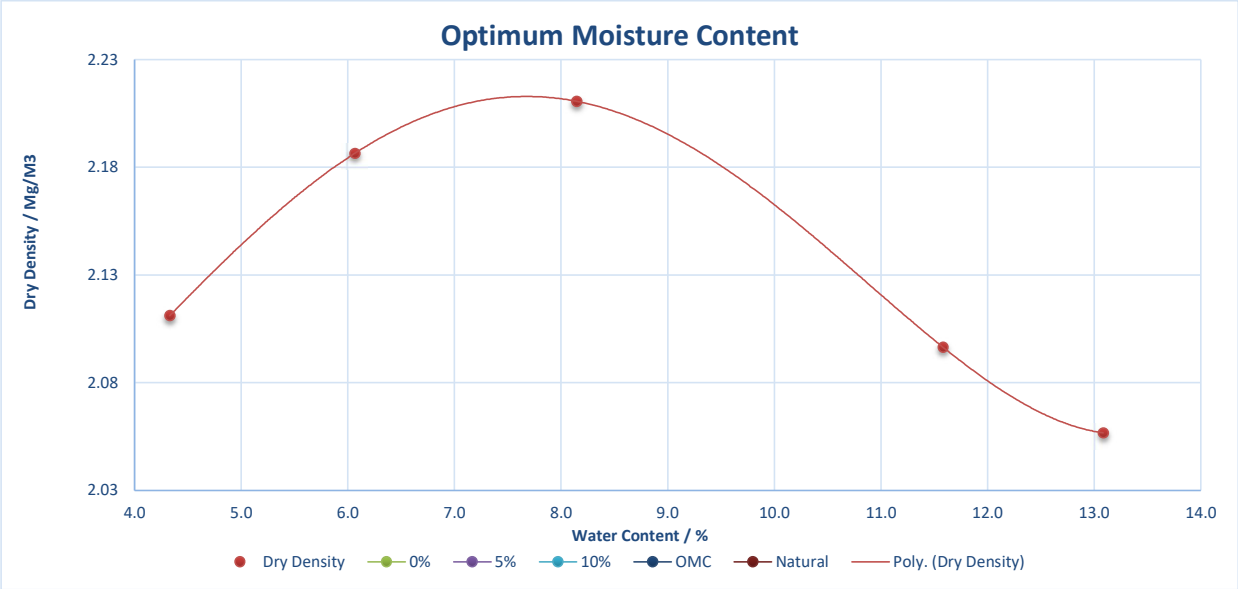
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2117
Client Reference	AO33-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown / Grey GRANULAR Material
Location	AO33-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	7.7	%
Maximum Dry Density	2.21	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	14	%
Proportion of Sample Retained on 20mm Sieve	31	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Report/ Revision No: S104193/CL-2118/1377-2-3.2/
Client Reference No: AO32-1
Date of Issue: 14/10/2022

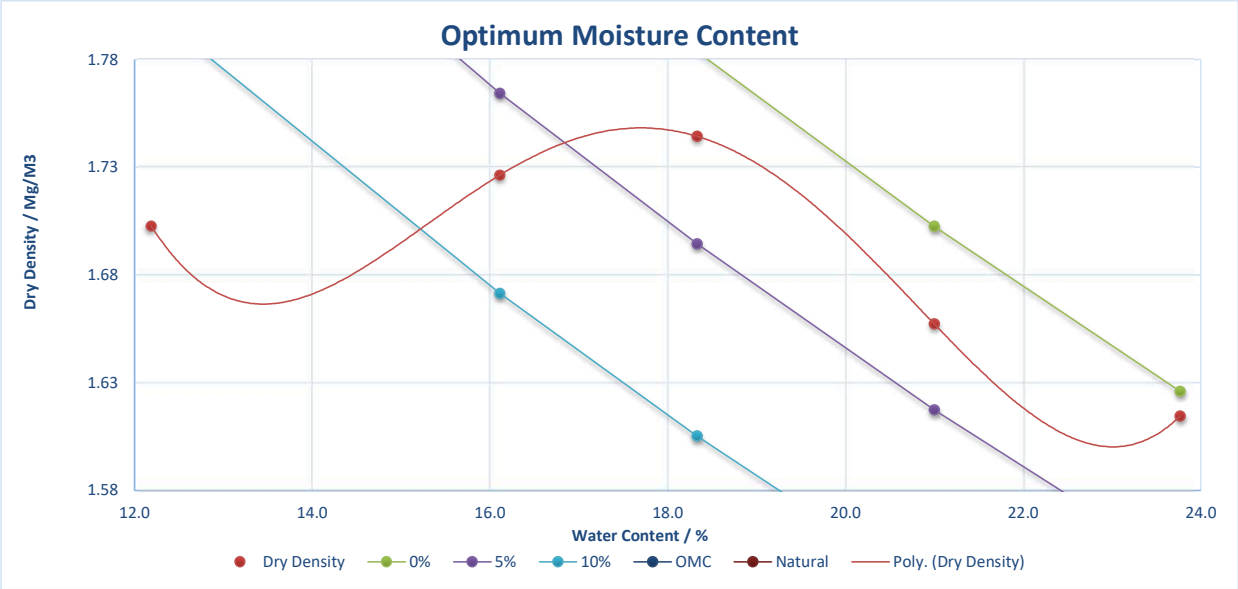
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
#N/A

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2118
Client Reference	AO32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR material
Location	AO32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.75	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	22	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: #N/A #N/A Chopped down to 20mm

Client: Celtest
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Gwynedd
Contact: LL57 4LH

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2119/1377-2-3.2/
Client Reference No: AN33-1
Date of Issue: 18/10/2022

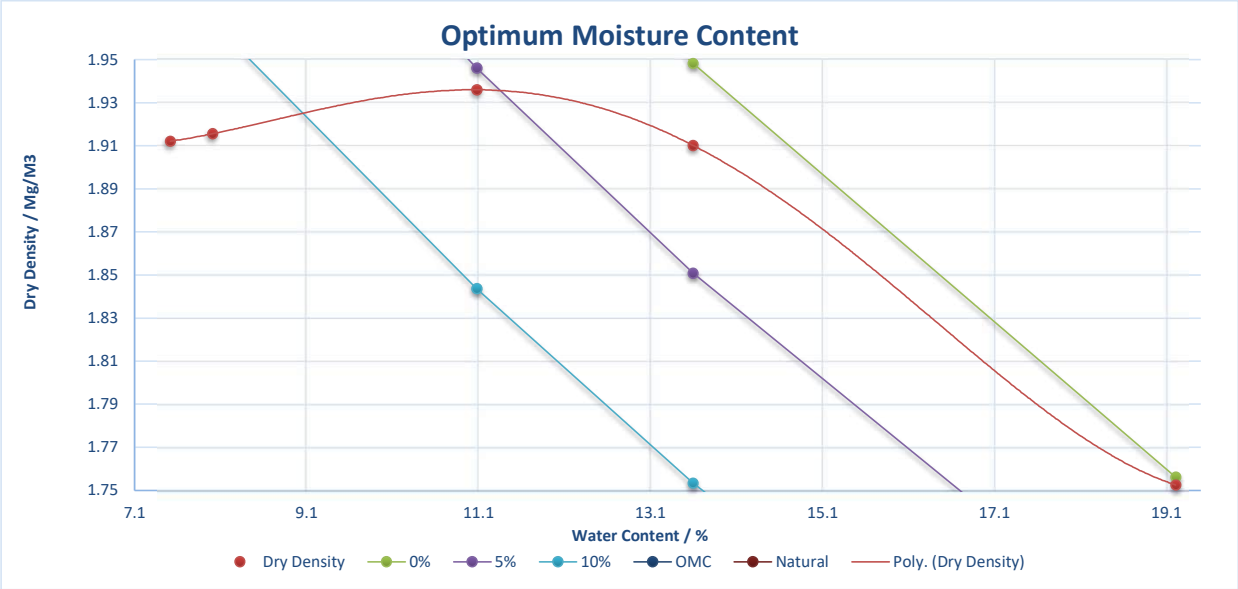
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2119
Client Reference	AN33-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	13/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	BLACK GRANULAR MATERIAL
Location	AN33-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	11	%
Maximum Dry Density	1.94	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	22	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

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Client: Celtest
Address: Trefelin
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LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Unit 8 Hotchkiss Way
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Estate Coventry
CV3 2RL

Report/ Revision No: S104193/CL-2120/1377-2-3.2/
Client Reference No: AN32-1
Date of Issue: 14/10/2022

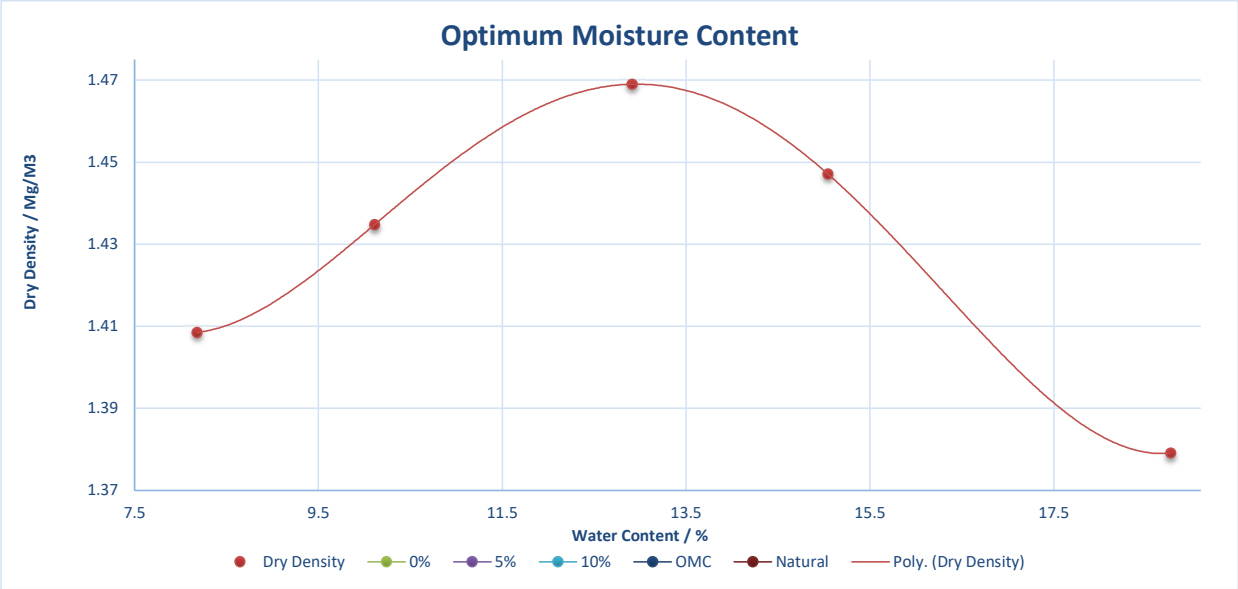
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2120
Client Reference	AN32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	12/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AN32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	1.47	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	17	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

None

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Client: Celtest
Address: Trefelin
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Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778980

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV28-1 @ 1.2M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**19.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778981

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AM33-1 @ 1.3M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**15.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 17 February 2021
Test Report Ref: TR 778982

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV29-1 @ 1.0M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 15.3

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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Date: 23 February 2021
Test Report Ref: TR 779031

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AU29-1 @ 0.5M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 13.4

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 779056

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV28-1 @ 1.2M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**02/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.99 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.10 Mg/m³**
Apparent Particle density =	**2.23 Mg/m³**
Water absorption (of dry mass) =	**5.5 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 03 March 2021
Test Report Ref: TR 779058

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AM33-1 @ 1.3M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**01/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.44 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.56 Mg/m³**
Apparent Particle density =	**2.78 Mg/m³**
Water absorption (of dry mass) =	**5.0 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 779061

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV29-1 @ 1.0M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**02/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.26 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.38 Mg/m³**
Apparent Particle density =	**2.58 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
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17 High Street
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B31 2UQ

Date: 09 February 2022
Test Report Ref: TR 849449

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Moisture Content of a soil sample (definitive oven-drying method) in accordance with **BS 1377 : Part 2 : 1990 : clause 3.2**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU31-1 - 1.6M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**21/01/2022**
Sampling Location:	**AU31-1 - 1.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Moisture Content (%) = **11**

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These results relate only to the items tested.

Comments	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 02 March 2022
Test Report Ref: TR 849451

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU31-1 - 1.6M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**25/02/2022**
Sampling Location:	**AU31-1 - 1.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.16 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.25 Mg/m³**
Apparent Particle density =	**2.36 Mg/m³**
Water absorption (of dry mass) =	**3.9 %**

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 09 February 2022
Test Report Ref: TR 849462

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Moisture Content of a soil sample (definitive oven-drying method) in accordance with **BS 1377 : Part 2 : 1990 : clause 3.2**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU30-1 - 1.1M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**21/01/2022**
Sampling Location:	**AU30-1 - 1.1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Moisture Content (%) = **19**

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None	Chantelle Kopec-Williams Job Coordinator

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Birmingham
B31 2UQ

Date: 02 March 2022
Test Report Ref: TR 849464

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU30-1 - 1.1M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**26/02/2022**
Sampling Location:	**AU30-1 - 1.1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.72 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.82 Mg/m³**
Apparent Particle density =	**1.91 Mg/m³**
Water absorption (of dry mass) =	**5.8 %**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887372

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN35-2 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AN35-2 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**SR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**21.5**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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17 High Street
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Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887373

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AN36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887374

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AO36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**10.2**

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None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887375

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO37-1 - 0.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AO37-1 - 0.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**SR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.0**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887376

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.1**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887377

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 16.1

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887378

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **24.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887379

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP37-1 - 0.2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP37-1 - 0.2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **4.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887380

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AQ34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887381

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AQ35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **11.0**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887382

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AQ36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.6**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887383

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AQ37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.7**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887384

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR34-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR34-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 10.7

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887385

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR35-1 - 0.6M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR35-1 - 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.4**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887386

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **30.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887387

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR37-2 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR37-2 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **5.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887388

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AS34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**SR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887390

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS36-1 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AS36-1 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **5.3**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887391

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS37-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AS37-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.6**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887392

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT34-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT34-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 5.7

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None	Chantelle Kopec-Williams Job Coordinator

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Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887393

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 11.7

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887394

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT36-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT36-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.0**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887395

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 12.9

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887396

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**7.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887397

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU35-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU35-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **12.5**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887398

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU36-2 - 1.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU36-2 - 1.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**9.9**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887399

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 7.9

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887402

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV36-2 - 1.30M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AV36-2 - 1.30M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 12.0

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
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Date: 26 August 2022
Test Report Ref: TR 887404

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW34-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AW34-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887408

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX34-1 - 0.7M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX34-1 - 0.7M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **3.2**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887409

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX35-2 - 1.20M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX35-2 - 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887410

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**11.2**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887411

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX37-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 11.0

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887412

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-2 - 2.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX37-2 - 2.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.2**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887486

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN35-2 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AN35-2 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.16 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.28 Mg/m³**
Apparent Particle density =	**2.45 Mg/m³**
Water absorption (of dry mass) =	**5.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887487

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AN36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.66 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.72 Mg/m³**
Apparent Particle density =	**2.83 Mg/m³**
Water absorption (of dry mass) =	**2.2 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887488

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AO36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.77 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.81 Mg/m³**
Apparent Particle density =	**2.89 Mg/m³**
Water absorption (of dry mass) =	**1.5 %**

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None	Chantelle Kopec-Williams Job Coordinator

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Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887489

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO37-1 - 0.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AO37-1 - 0.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.62 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.66 Mg/m³**
Apparent Particle density =	**2.72 Mg/m³**
Water absorption (of dry mass) =	**1.3 %**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887490

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.31 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.41 Mg/m³**
Apparent Particle density =	**2.56 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887491

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.03 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.18 Mg/m³**
Apparent Particle density =	**2.38 Mg/m³**
Water absorption (of dry mass) =	**7.0 %**

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St Modwen Developments Limited
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17 High Street
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B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887492

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.36 Mg/m³**
Apparent Particle density =	**2.46 Mg/m³**
Water absorption (of dry mass) =	**3.1 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887493

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP37-1 - 0.2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP37-1 - 0.2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.65 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.67 Mg/m³**
Apparent Particle density =	**2.69 Mg/m³**
Water absorption (of dry mass) =	**0.5 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887494

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.58 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.70 Mg/m³**
Water absorption (of dry mass) =	**1.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887495

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.41 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.49 Mg/m³**
Apparent Particle density =	**2.63 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887496

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.51 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.58 Mg/m³**
Apparent Particle density =	**2.69 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887497

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.54 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.61 Mg/m³**
Apparent Particle density =	**2.72 Mg/m³**
Water absorption (of dry mass) =	**2.5 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887498

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR34-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AR34-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.41 Mg/m³**
Apparent Particle density =	**2.61 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Date: 02 September 2022
Test Report Ref: TR 887499

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR35-1 - 0.6M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AR35-1 - 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.51 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.59 Mg/m³**
Apparent Particle density =	**2.73 Mg/m³**
Water absorption (of dry mass) =	**3.2 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 30 September 2022
Test Report Ref: TR 887500

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/09/2022**
Sampling Location:	**AR36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.55 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.60 Mg/m³**
Apparent Particle density =	**2.71 Mg/m³**
Water absorption (of dry mass) =	**1.9 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887501

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR37-2 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AR37-2 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.58 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.70 Mg/m³**
Water absorption (of dry mass) =	**1.8 %**

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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Park Point
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Date: 12 September 2022
Test Report Ref: TR 887502

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AS34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**4.12 Mg/m³**
Particle density on a saturated and surface-dried basis =	**4.17 Mg/m³**
Apparent Particle density =	**4.35 Mg/m³**
Water absorption (of dry mass) =	**1.3 %**

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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

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Date: 12 September 2022
Test Report Ref: TR 887504

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS36-1 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AS36-1 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.35 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.43 Mg/m³**
Apparent Particle density =	**2.55 Mg/m³**
Water absorption (of dry mass) =	**3.3 %**

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Date: 12 September 2022
Test Report Ref: TR 887505

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS37-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AS37-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.50 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.55 Mg/m³**
Apparent Particle density =	**2.63 Mg/m³**
Water absorption (of dry mass) =	**2.0 %**

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Date: 12 September 2022
Test Report Ref: TR 887506

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT34-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT34-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.36 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.48 Mg/m³**
Apparent Particle density =	**2.67 Mg/m³**
Water absorption (of dry mass) =	**4.9 %**

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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

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Date: 12 September 2022
Test Report Ref: TR 887507

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.46 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.60 Mg/m³**
Apparent Particle density =	**2.84 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

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Date: 12 September 2022
Test Report Ref: TR 887508

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT36-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT36-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.20 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.31 Mg/m³**
Apparent Particle density =	**2.48 Mg/m³**
Water absorption (of dry mass) =	**5.1 %**

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Date: 12 September 2022
Test Report Ref: TR 887509

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.41 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.53 Mg/m³**
Apparent Particle density =	**2.76 Mg/m³**
Water absorption (of dry mass) =	**5.2 %**

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Date: 12 September 2022
Test Report Ref: TR 887511

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU35-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AU35-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.65 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.75 Mg/m³**
Apparent Particle density =	**2.94 Mg/m³**
Water absorption (of dry mass) =	**3.8 %**

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Date: 12 September 2022
Test Report Ref: TR 887512

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU36-2 - 1.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AU36-2 - 1.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.45 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.59 Mg/m³**
Apparent Particle density =	**2.84 Mg/m³**
Water absorption (of dry mass) =	**5.6 %**

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Date: 12 September 2022
Test Report Ref: TR 887513

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AU37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.74 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.86 Mg/m³**
Apparent Particle density =	**3.11 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
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Date: 12 September 2022
Test Report Ref: TR 887514

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV34-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AV34-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.40 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.48 Mg/m³**
Apparent Particle density =	**2.60 Mg/m³**
Water absorption (of dry mass) =	**3.3 %**

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Date: 12 September 2022
Test Report Ref: TR 887516

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV36-2 - 1.30M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AV36-2 - 1.30M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.77 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.84 Mg/m³**
Apparent Particle density =	**2.98 Mg/m³**
Water absorption (of dry mass) =	**2.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
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Date: 12 September 2022
Test Report Ref: TR 887517

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV37-1 - 0.50M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AV37-1 - 0.50M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.50 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.61 Mg/m³**
Apparent Particle density =	**2.80 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
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Date: 13 September 2022
Test Report Ref: TR 887518

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW34-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AW34-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.16 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.29 Mg/m³**
Apparent Particle density =	**2.48 Mg/m³**
Water absorption (of dry mass) =	**6.0 %**

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Comments:	Report checked and approved by:
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Date: 13 September 2022
Test Report Ref: TR 887520

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW36-2 - 1.60M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AW36-2 - 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.45 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.56 Mg/m³**
Apparent Particle density =	**2.77 Mg/m³**
Water absorption (of dry mass) =	**4.7 %**

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Date: 13 September 2022
Test Report Ref: TR 887522

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX34-1 - 0.7M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX34-1 - 0.7M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.69 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.72 Mg/m³**
Apparent Particle density =	**2.78 Mg/m³**
Water absorption (of dry mass) =	**1.2 %**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 13 September 2022
Test Report Ref: TR 887523

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX35-2 - 1.20M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX35-2 - 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.08 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.11 Mg/m³**
Apparent Particle density =	**1.12 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 13 September 2022
Test Report Ref: TR 887524

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.06 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.11 Mg/m³**
Apparent Particle density =	**1.12 Mg/m³**
Water absorption (of dry mass) =	**4.9 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 13 September 2022
Test Report Ref: TR 887525

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX37-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.26 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.37 Mg/m³**
Apparent Particle density =	**2.54 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 13 September 2022
Test Report Ref: TR 887526

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-2 - 2.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX37-2 - 2.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.40 Mg/m³**
Apparent Particle density =	**2.58 Mg/m³**
Water absorption (of dry mass) =	**4.9 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890901

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AQ33-1 0.6M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AQ33-1 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 14.5

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890903

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AQ33-1 0.6M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AQ33-1 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.59 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.71 Mg/m³**
Apparent Particle density =	**2.92 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890906

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AR33-2 1.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AR33-2 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 34.1

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890908

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AR33-2 1.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AR33-2 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.25 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.40 Mg/m³**
Apparent Particle density =	**2.65 Mg/m³**
Water absorption (of dry mass) =	**6.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890910

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AS33-1 1.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AS33-1 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **14.0**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890912

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AS33-1 1.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AS33-1 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.43 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.56 Mg/m³**
Apparent Particle density =	**2.77 Mg/m³**
Water absorption (of dry mass) =	**5.1 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890915

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AT33-2 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AT33-2 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 13.4

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890917

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AT33-2 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AT33-2 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.38 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.50 Mg/m³**
Apparent Particle density =	**2.69 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890919

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AU33-1 0.90M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AU33-1 0.90M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **10.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890921

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AU33-1 0.90M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AU33-1 0.90M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.47 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.59 Mg/m³**
Apparent Particle density =	**2.80 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890924

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-1 0.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV33-1 0.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890926

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-1 0.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AV33-1 0.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.91 Mg/m³**
Particle density on a saturated and surface-dried basis =	**3.05 Mg/m³**
Apparent Particle density =	**3.39 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 07 October 2023
Test Report Ref: TR 890928

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-3 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV33-3 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890930

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-3 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AV33-3 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.83 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.92 Mg/m³**
Apparent Particle density =	**3.12 Mg/m³**
Water absorption (of dry mass) =	**3.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890933

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AW33-2 1.80M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AW33-2 1.80M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**11.1**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890935

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AW33-2 1.80M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AW33-2 1.80M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.24 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.32 Mg/m³**
Apparent Particle density =	**2.45 Mg/m³**
Water absorption (of dry mass) =	**3.9 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890937

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AX33-1 0.8M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX33-1 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**15.0**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890939

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AX33-1 0.8M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AX33-1 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.39 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.47 Mg/m³**
Apparent Particle density =	**2.61 Mg/m³**
Water absorption (of dry mass) =	**3.5 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927651

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AN37-1 - 2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.31 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.44 Mg/m³**
Apparent Particle density =	**2.66 Mg/m³**
Water absorption (of dry mass) =	**5.7 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 779119

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AU29-1 @ 0.5M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**02/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.06 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.14 Mg/m³**
Apparent Particle density =	**2.25 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896092

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AM32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AM32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 14.7

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896094

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AM32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AM32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.39 Mg/m³**
Apparent Particle density =	**2.54 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896097

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AN32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 14.2

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896099

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AN32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.53 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.79 Mg/m³**
Water absorption (of dry mass) =	**3.7 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896101

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AN33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896103

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AN33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.80 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.87 Mg/m³**
Apparent Particle density =	**3.00 Mg/m³**
Water absorption (of dry mass) =	**2.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896106

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AO32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 14.5

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896108

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AO32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.13 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.23 Mg/m³**
Apparent Particle density =	**2.35 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896110

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AO33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**1.5**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896112

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AO33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.22 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.35 Mg/m³**
Apparent Particle density =	**2.56 Mg/m³**
Water absorption (of dry mass) =	**6.0 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896115

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**8.0**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896117

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AV31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.87 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.98 Mg/m³**
Apparent Particle density =	**2.10 Mg/m³**
Water absorption (of dry mass) =	**6.0 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896119

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896121

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AV32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.52 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.66 Mg/m³**
Apparent Particle density =	**2.91 Mg/m³**
Water absorption (of dry mass) =	**5.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896124

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AW31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AW31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896126

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AW31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AW31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.04 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.13 Mg/m³**
Apparent Particle density =	**2.25 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896133

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 10.9

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896135

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AX31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.17 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.27 Mg/m³**
Apparent Particle density =	**2.42 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896137

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**8.5**

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896139

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AX32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.69 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.84 Mg/m³**
Apparent Particle density =	**3.15 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896142

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-2**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **10.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896144

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-2**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AX32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.48 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.54 Mg/m³**
Apparent Particle density =	**2.64 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903959

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AQ32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **5.6**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903962

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AQ32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.85 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.95 Mg/m³**
Apparent Particle density =	**3.16 Mg/m³**
Water absorption (of dry mass) =	**3.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
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Date: 19 October 2022
Test Report Ref: TR 903967

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AR32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**11.5**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
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Date: 19 October 2022
Test Report Ref: TR 903969

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AR32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.61 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.71 Mg/m³**
Apparent Particle density =	**2.92 Mg/m³**
Water absorption (of dry mass) =	**4.1 %**

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903971

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**30.3**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903973

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.41 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.54 Mg/m³**
Apparent Particle density =	**2.76 Mg/m³**
Water absorption (of dry mass) =	**5.2 %**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903976

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-2**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 4.3

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903978

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-2**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**3.10 Mg/m³**
Particle density on a saturated and surface-dried basis =	**3.21 Mg/m³**
Apparent Particle density =	**3.50 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903980

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AT32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**13.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	 Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903982

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AT32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.40 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.49 Mg/m³**
Apparent Particle density =	**2.62 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903985

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU29-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**6.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	 Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903987

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU29-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.42 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.51 Mg/m³**
Apparent Particle density =	**2.65 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903989

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**4.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903991

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.62 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.75 Mg/m³**
Apparent Particle density =	**3.01 Mg/m³**
Water absorption (of dry mass) =	**5.0 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903994

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AV30-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903996

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AV30-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.61 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.71 Mg/m³**
Apparent Particle density =	**2.90 Mg/m³**
Water absorption (of dry mass) =	**3.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 24 October 2022
Test Report Ref: TR 904884

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105136**
Client Ref. No:	**AN34-1 - 1m**
Date and Time of Sampling:	**24/08/2022**
Date of Receipt at Lab:	**30/08/2022**
Date of Start of Test:	**13/10/2022**
Sampling Location:	**AN34-1 - 1m**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**10.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 October 2022
Test Report Ref: TR 904886

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105136**
Client Ref. No:	**AN34-1 - 1m**
Date and Time of Sampling:	**24/08/2022**
Date of Receipt at Lab:	**30/08/2022**
Date of Start of Test:	**27/10/2022**
Sampling Location:	**AN34-1 - 1m**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.49 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.55 Mg/m³**
Apparent Particle density =	**2.66 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927633

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM34-1 - 0.2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM34-1 - 0.2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.52 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.63 Mg/m³**
Apparent Particle density =	**2.83 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927638

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM35-1 - 1**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM35-1 - 1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.24 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.35 Mg/m³**
Apparent Particle density =	**2.51 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927640

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM36-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**12/01/2023**
Sampling Location:	**AM36-1 - 1.5**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**BR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**11.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927642

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM36-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM36-1 - 1.5**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.40 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.47 Mg/m³**
Apparent Particle density =	**2.58 Mg/m³**
Water absorption (of dry mass) =	**2.9 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927645

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 1**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**12/01/2023**
Sampling Location:	**AN37-1 - 1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**BR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**13.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927647

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 1**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AN37-1 - 1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.67 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.70 Mg/m³**
Apparent Particle density =	**2.74 Mg/m³**
Water absorption (of dry mass) =	**0.9 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927649

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**12/01/2023**
Sampling Location:	**AN37-1 - 2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**BR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**19.2**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782358

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK34-1 - 1.6**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**08/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.61 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.70 Mg/m³**
Apparent Particle density =	**2.85 Mg/m³**
Water absorption (of dry mass) =	**3.1 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782497

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW26-1 - 0.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**18/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**12.6**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 29 March 2021
Test Report Ref: TR 782499

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW26-1 - 0.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**23/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DD**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.35 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.45 Mg/m³**
Apparent Particle density =	**2.60 Mg/m³**
Water absorption (of dry mass) =	**4.1 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 782506

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW28-1 - 0.4**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**18/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**16.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 16 March 2021
Test Report Ref: TR 782508

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW28-1 - 0.4**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.51 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.82 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782510

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW29-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**18/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **17.4**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 16 March 2021
Test Report Ref: TR 782512

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW29-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.65 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.76 Mg/m³**
Apparent Particle density =	**2.97 Mg/m³**
Water absorption (of dry mass) =	**4.2 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782314

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK32-1 - 1.0**
Date and Time of Sampling:	**28/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**19/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**16.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782317

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK32-1 - 1.0**
Date and Time of Sampling:	**28/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**08/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.24 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.34 Mg/m³**
Apparent Particle density =	**2.50 Mg/m³**
Water absorption (of dry mass) =	**4.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782352

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK33-1 - 1.0**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**19/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 8.5

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Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782354

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK33-1 - 1.0**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**08/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.63 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.68 Mg/m³**
Apparent Particle density =	**2.78 Mg/m³**
Water absorption (of dry mass) =	**2.0 %**

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Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782356

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK34-1 - 1.6**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**19/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.4**

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Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890936

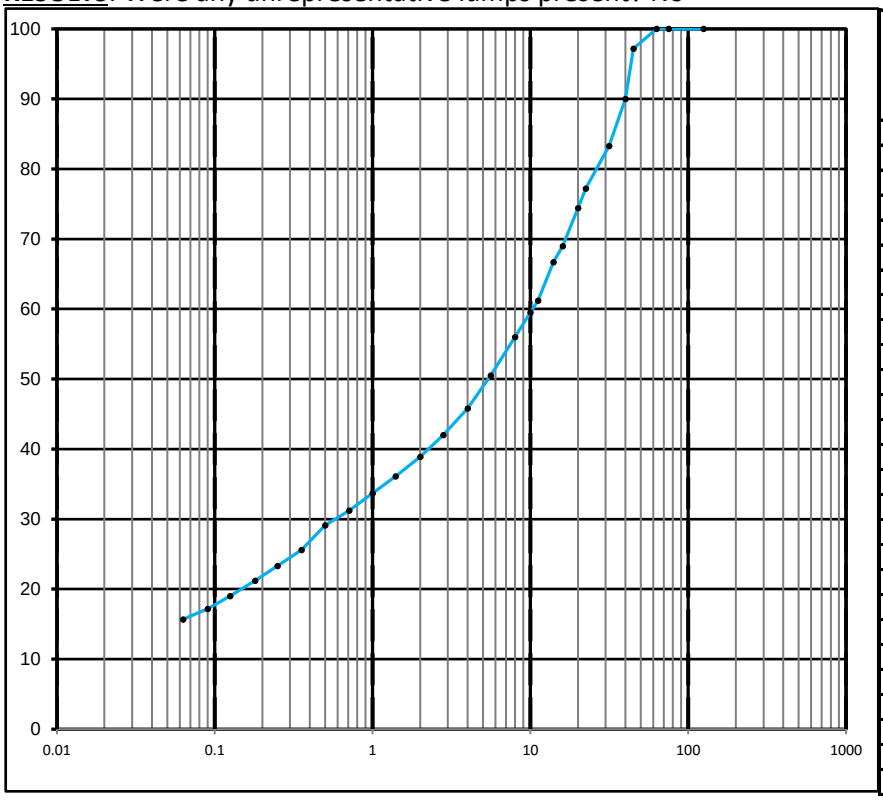
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX33-1 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX33-1 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	90	
31.5 mm	83	
22.4 mm	77	
20.0 mm	74	
16.0 mm	69	
14.0 mm	67	
11.2 mm	61	
10.0 mm	60	
8.0 mm	56	
5.6 mm	51	
4.0 mm	46	
2.8 mm	42	
2.0 mm	39	
1.4 mm	36	
1.0 mm	34	
0.710 mm	31	
0.500 mm	29	
0.355 mm	26	
0.250 mm	23	
0.180 mm	21	
0.125 mm	19	
0.090 mm	17	
0.063 mm	15.7	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890936

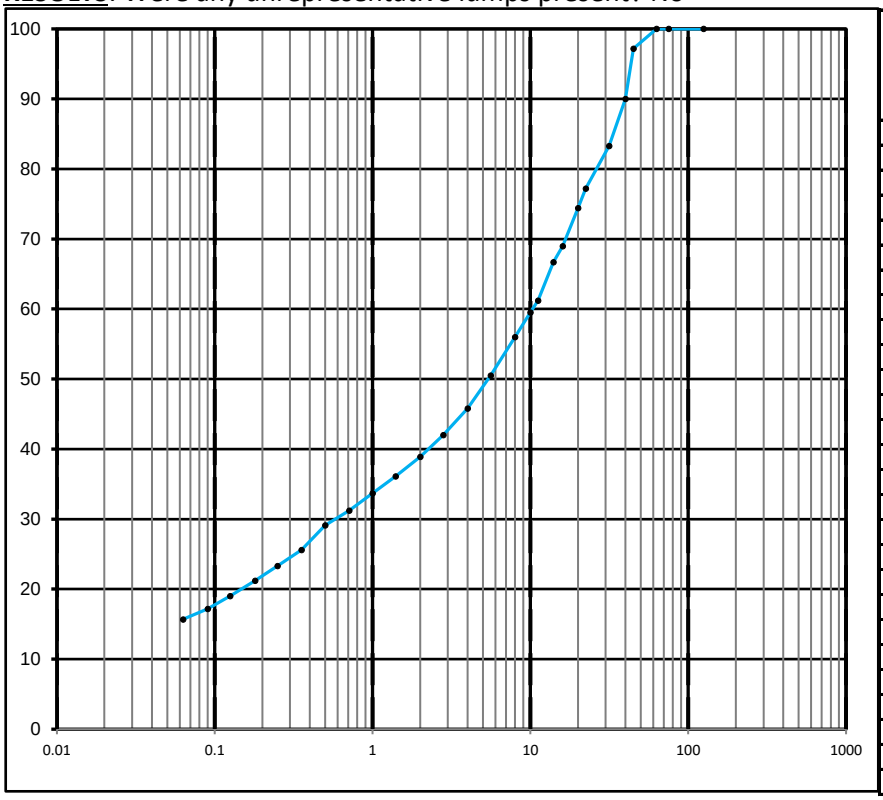
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX33-1 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX33-1 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	90	
31.5 mm	83	
22.4 mm	77	
20.0 mm	74	
16.0 mm	69	
14.0 mm	67	
11.2 mm	61	
10.0 mm	60	
8.0 mm	56	
5.6 mm	51	
4.0 mm	46	
2.8 mm	42	
2.0 mm	39	
1.4 mm	36	
1.0 mm	34	
0.710 mm	31	
0.500 mm	29	
0.355 mm	26	
0.250 mm	23	
0.180 mm	21	
0.125 mm	19	
0.090 mm	17	
0.063 mm	15.7	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778908

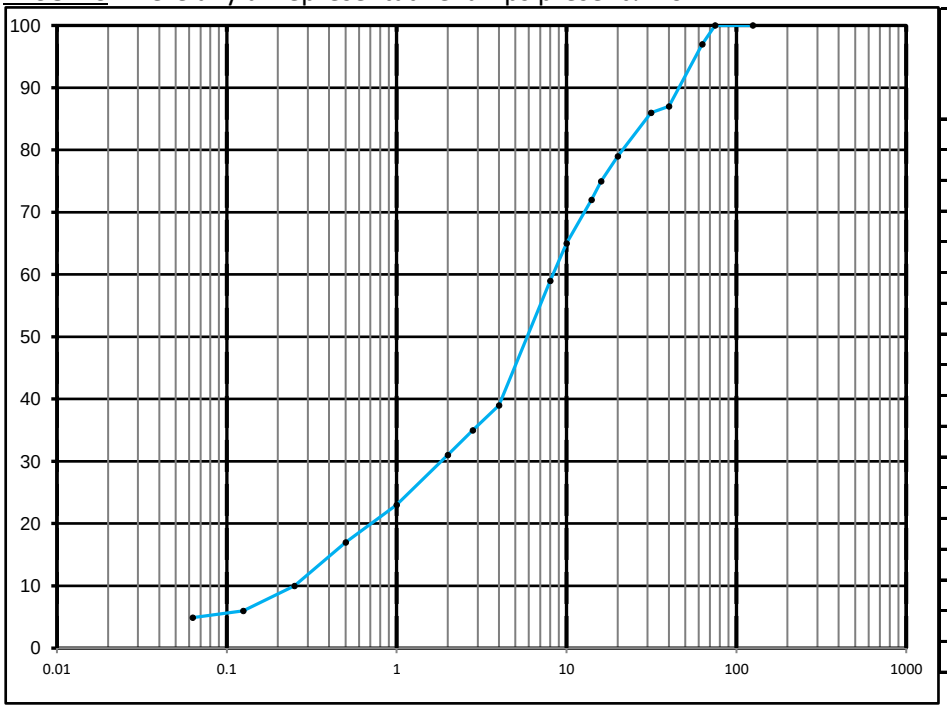
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV28-1 @ 1.2M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
40.0 mm	87	
31.5 mm	86	
20.0 mm	79	
16.0 mm	75	
14.0 mm	72	
10.0 mm	65	
8.0 mm	59	
4.0 mm	39	
2.8 mm	35	
2.0 mm	31	
1.0 mm	23	
0.500 mm	17	
0.250 mm	10	
0.125 mm	6	
0.063 mm	4.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778909

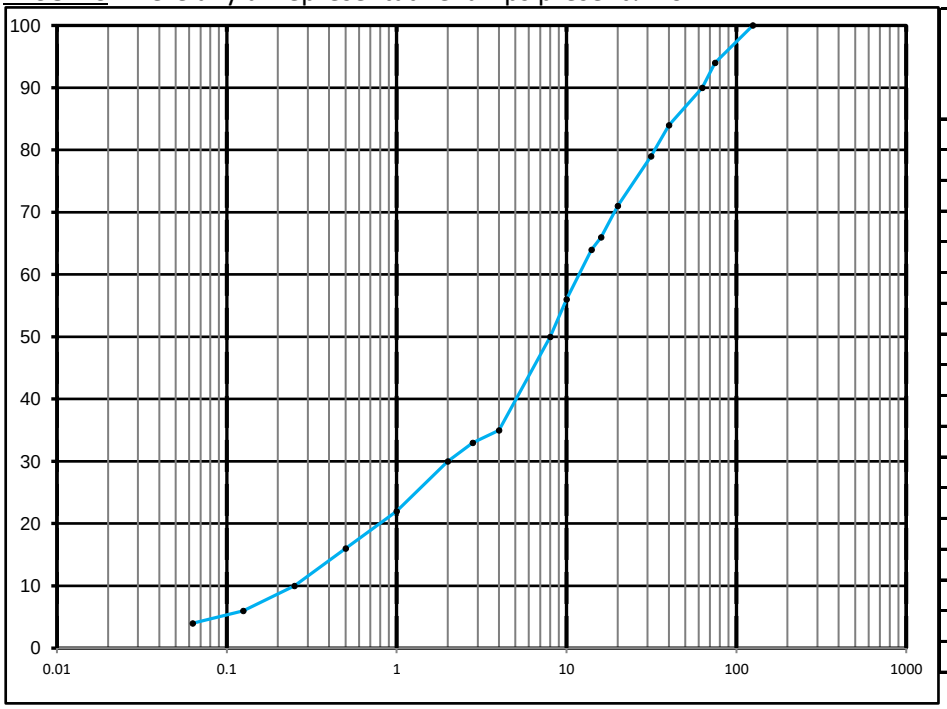
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AM33-1 @ 1.3M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	90	
40.0 mm	84	
31.5 mm	79	
20.0 mm	71	
16.0 mm	66	
14.0 mm	64	
10.0 mm	56	
8.0 mm	50	
4.0 mm	35	
2.8 mm	33	
2.0 mm	30	
1.0 mm	22	
0.500 mm	16	
0.250 mm	10	
0.125 mm	6	
0.063 mm	4.0	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 17 February 2021
Test Report Ref: TR 778910

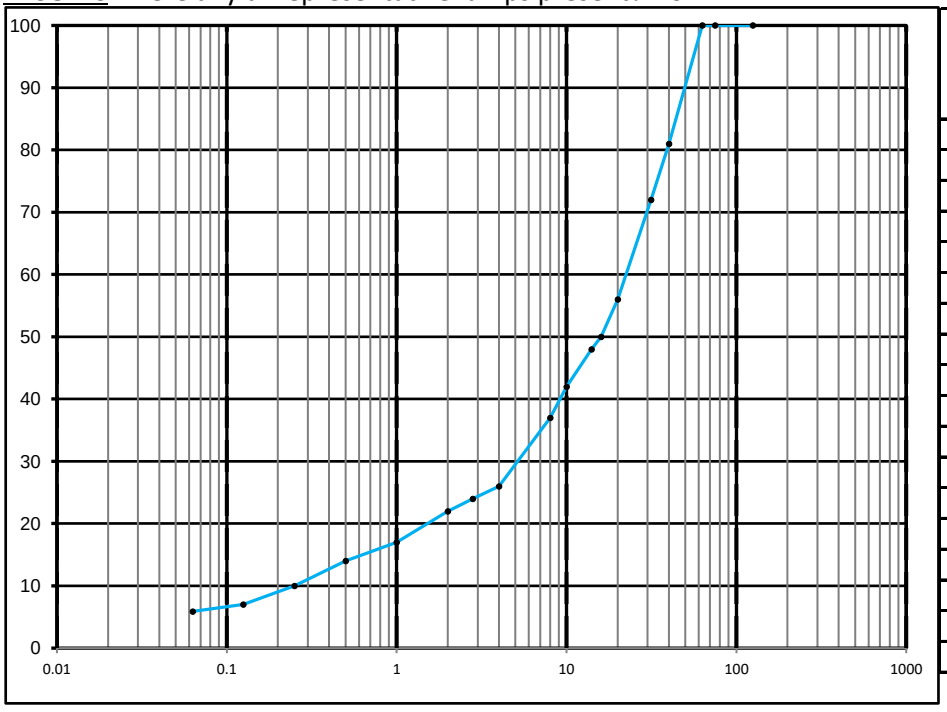
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV29-1 @ 1.0M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
40.0 mm	81	
31.5 mm	72	
20.0 mm	56	
16.0 mm	50	
14.0 mm	48	
10.0 mm	42	
8.0 mm	37	
4.0 mm	26	
2.8 mm	24	
2.0 mm	22	
1.0 mm	17	
0.500 mm	14	
0.250 mm	10	
0.125 mm	7	
0.063 mm	5.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778959

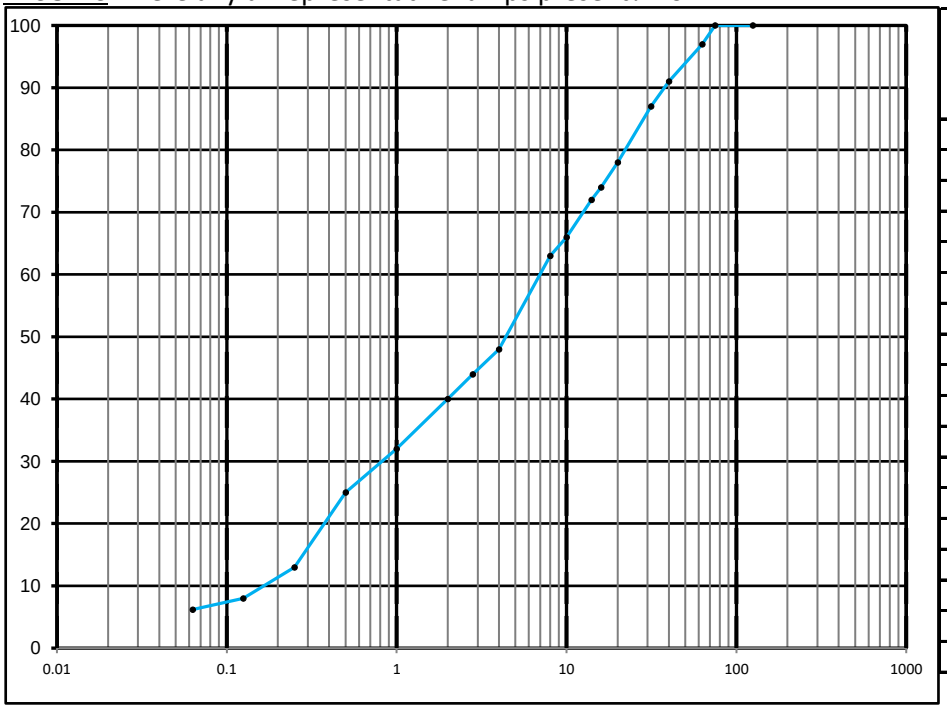
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU29-1 @ 0.5M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
40.0 mm	91	
31.5 mm	87	
20.0 mm	78	
16.0 mm	74	
14.0 mm	72	
10.0 mm	66	
8.0 mm	63	
4.0 mm	48	
2.8 mm	44	
2.0 mm	40	
1.0 mm	32	
0.500 mm	25	
0.250 mm	13	
0.125 mm	8	
0.063 mm	6.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 03 February 2022
Test Report Ref: TR 849448

Contract: Former Llanwern Steelworks

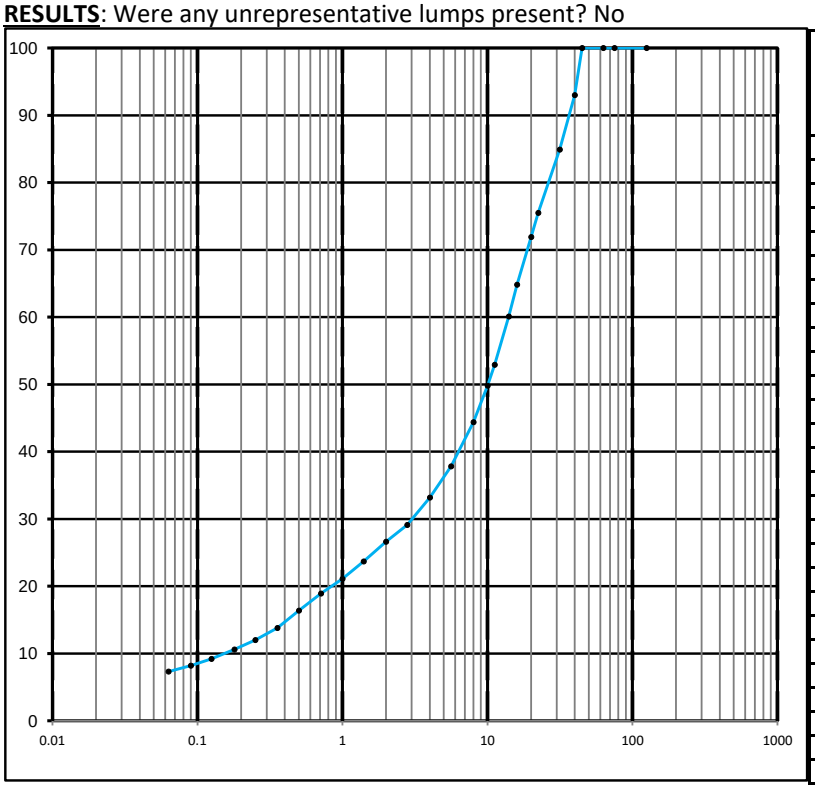
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU31-1 - 1.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**KH**
Date of Receipt at Lab:	**26/11/2021**		
Date of Start of Test:	**21/01/2022**		
Sampling Location:	**AU31-1 - 1.6M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	93	
31.5 mm	85	
22.4 mm	76	
20.0 mm	72	
16.0 mm	65	
14.0 mm	60	
11.2 mm	53	
10.0 mm	50	
8.0 mm	44	
5.6 mm	38	
4.0 mm	33	
2.8 mm	29	
2.0 mm	27	
1.4 mm	24	
1.0 mm	21	
0.710 mm	19	
0.500 mm	16	
0.355 mm	14	
0.250 mm	12	
0.180 mm	11	
0.125 mm	9	
0.090 mm	8	
0.063 mm	7.3	

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Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams

Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 03 February 2022
Test Report Ref: TR 849461

Contract: Former Llanwern Steelworks

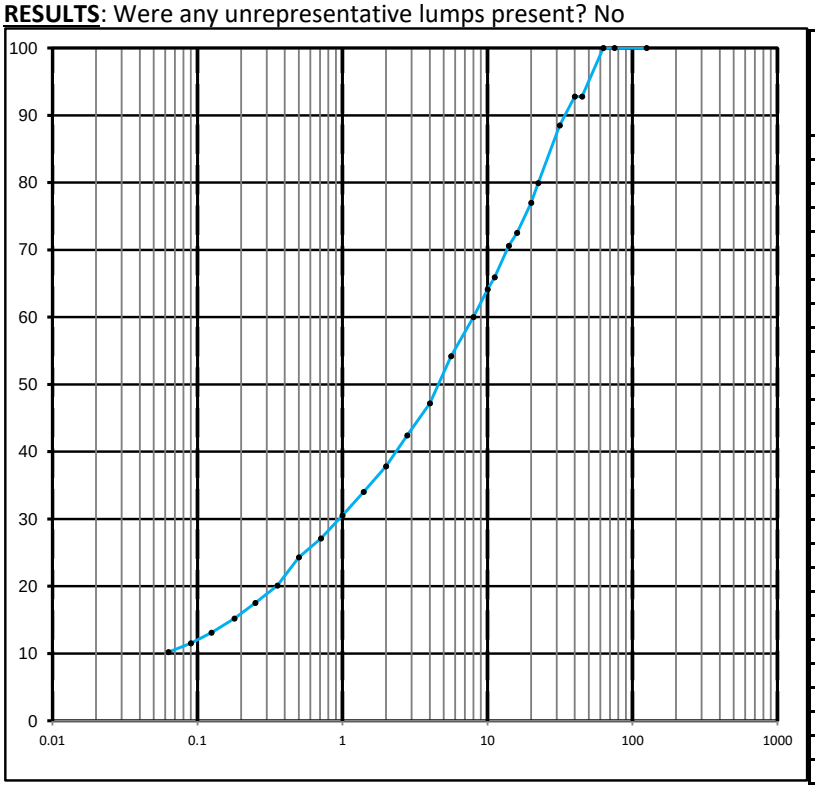
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU30-1 - 1.1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**DJ**
Date of Receipt at Lab:	**26/11/2021**		
Date of Start of Test:	**21/01/2022**		
Sampling Location:	**AU30-1 - 1.1M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	93	
40.0 mm	93	
31.5 mm	89	
22.4 mm	80	
20.0 mm	77	
16.0 mm	73	
14.0 mm	71	
11.2 mm	66	
10.0 mm	64	
8.0 mm	60	
5.6 mm	54	
4.0 mm	47	
2.8 mm	42	
2.0 mm	38	
1.4 mm	34	
1.0 mm	31	
0.710 mm	27	
0.500 mm	24	
0.355 mm	20	
0.250 mm	18	
0.180 mm	15	
0.125 mm	13	
0.090 mm	12	
0.063 mm	10.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams

Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887315

Contract: Llanwern

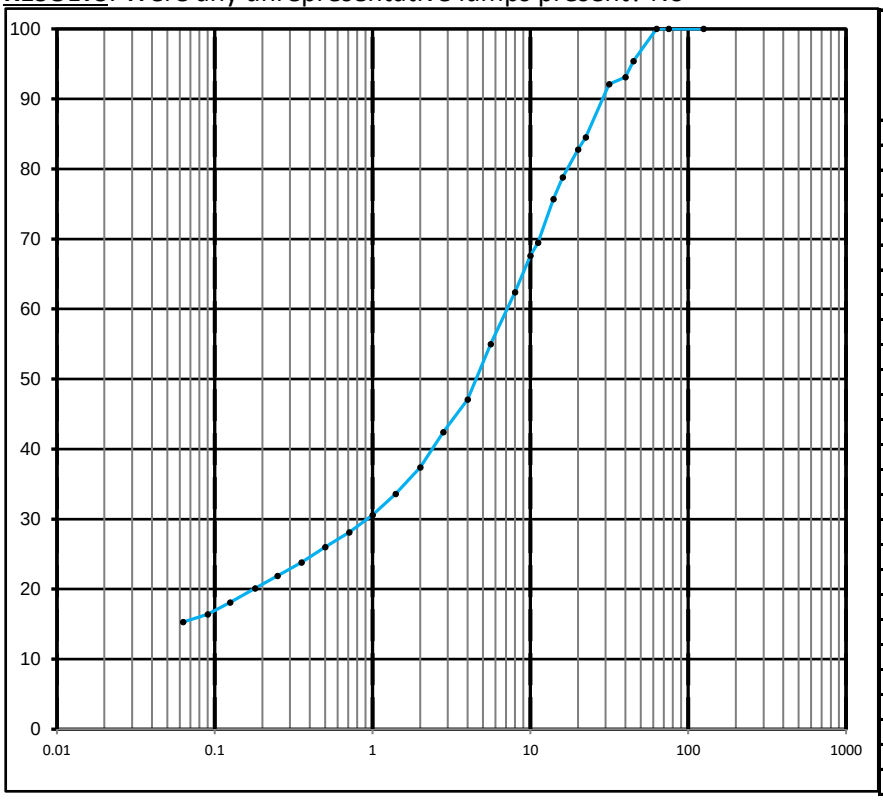
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN35-2 - 1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**SR**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AN35-2 - 1M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	93	
31.5 mm	92	
22.4 mm	85	
20.0 mm	83	
16.0 mm	79	
14.0 mm	76	
11.2 mm	70	
10.0 mm	68	
8.0 mm	62	
5.6 mm	55	
4.0 mm	47	
2.8 mm	42	
2.0 mm	37	
1.4 mm	34	
1.0 mm	31	
0.710 mm	28	
0.500 mm	26	
0.355 mm	24	
0.250 mm	22	
0.180 mm	20	
0.125 mm	18	
0.090 mm	16	
0.063 mm	15.3	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887316

Contract: Llanwern

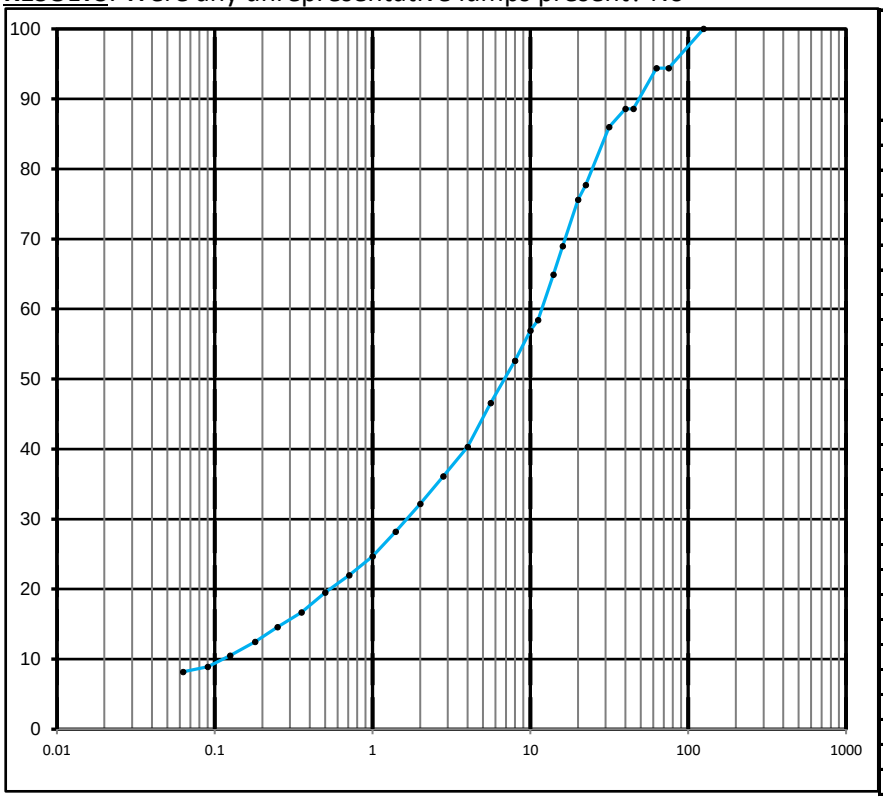
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN36-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AN36-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	94	
45.0 mm	89	
40.0 mm	89	
31.5 mm	86	
22.4 mm	78	
20.0 mm	76	
16.0 mm	69	
14.0 mm	65	
11.2 mm	58	
10.0 mm	57	
8.0 mm	53	
5.6 mm	47	
4.0 mm	40	
2.8 mm	36	
2.0 mm	32	
1.4 mm	28	
1.0 mm	25	
0.710 mm	22	
0.500 mm	20	
0.355 mm	17	
0.250 mm	15	
0.180 mm	13	
0.125 mm	11	
0.090 mm	9	
0.063 mm	8.2	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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17 High Street
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B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887317

Contract: Llanwern

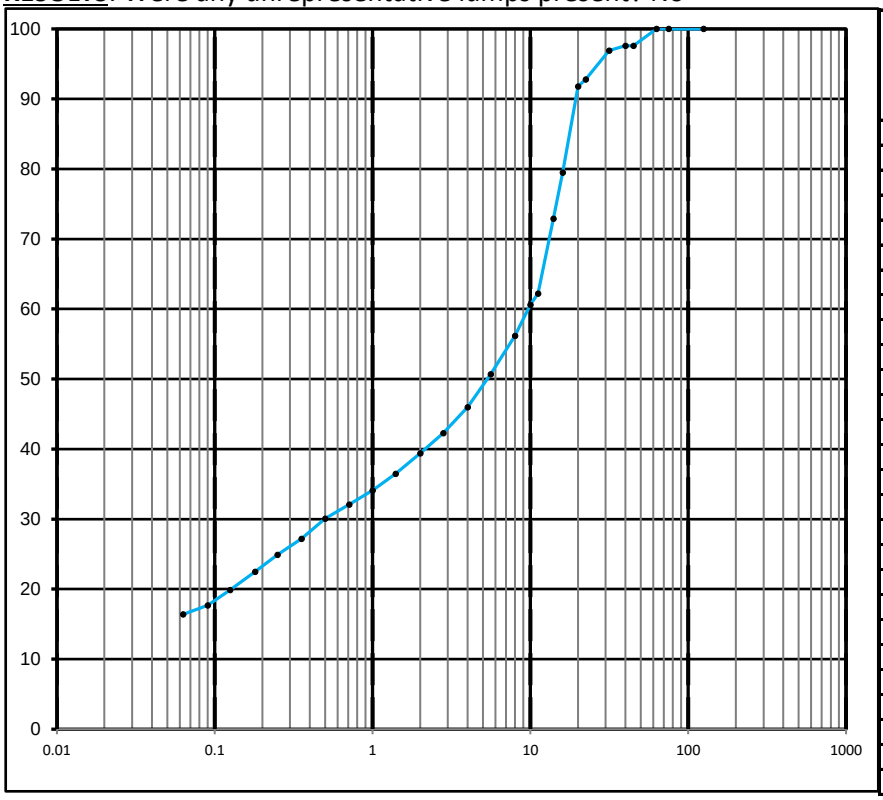
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO36-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AO36-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	98	
31.5 mm	97	
22.4 mm	93	
20.0 mm	92	
16.0 mm	80	
14.0 mm	73	
11.2 mm	62	
10.0 mm	61	
8.0 mm	56	
5.6 mm	51	
4.0 mm	46	
2.8 mm	42	
2.0 mm	39	
1.4 mm	37	
1.0 mm	34	
0.710 mm	32	
0.500 mm	30	
0.355 mm	27	
0.250 mm	25	
0.180 mm	23	
0.125 mm	20	
0.090 mm	18	
0.063 mm	16.4	

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Comments:

None

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887318

Contract: Llanwern

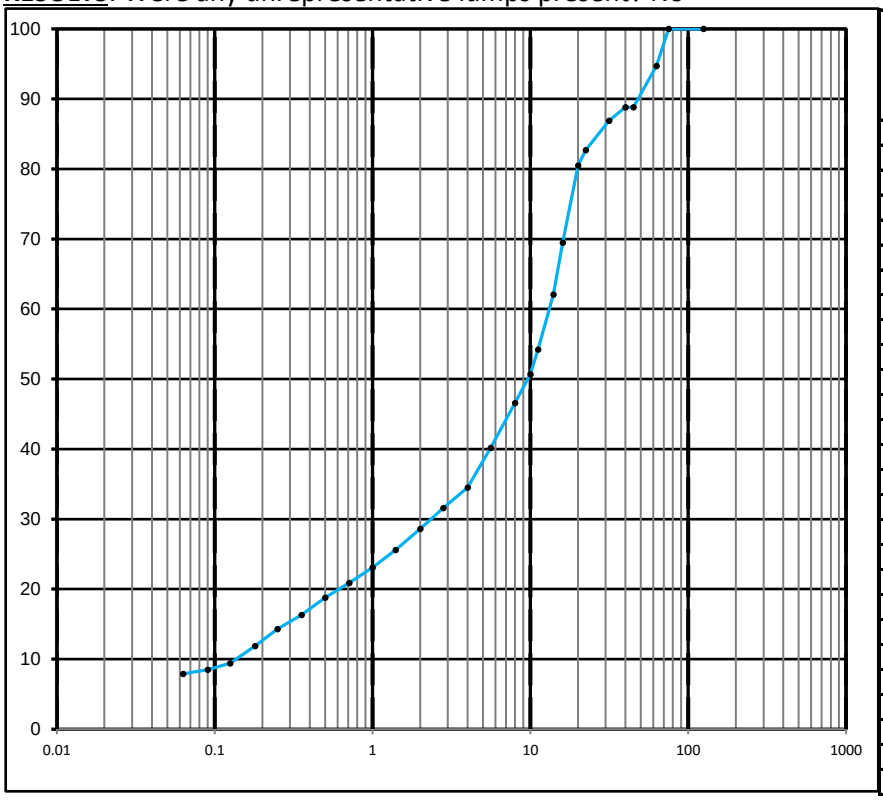
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO37-1 - 0.3M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**SR**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AO37-1 - 0.3M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	95	
45.0 mm	89	
40.0 mm	89	
31.5 mm	87	
22.4 mm	83	
20.0 mm	81	
16.0 mm	70	
14.0 mm	62	
11.2 mm	54	
10.0 mm	51	
8.0 mm	47	
5.6 mm	40	
4.0 mm	35	
2.8 mm	32	
2.0 mm	29	
1.4 mm	26	
1.0 mm	23	
0.710 mm	21	
0.500 mm	19	
0.355 mm	16	
0.250 mm	14	
0.180 mm	12	
0.125 mm	9	
0.090 mm	9	
0.063 mm	7.9	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887319

Contract: Llanwern

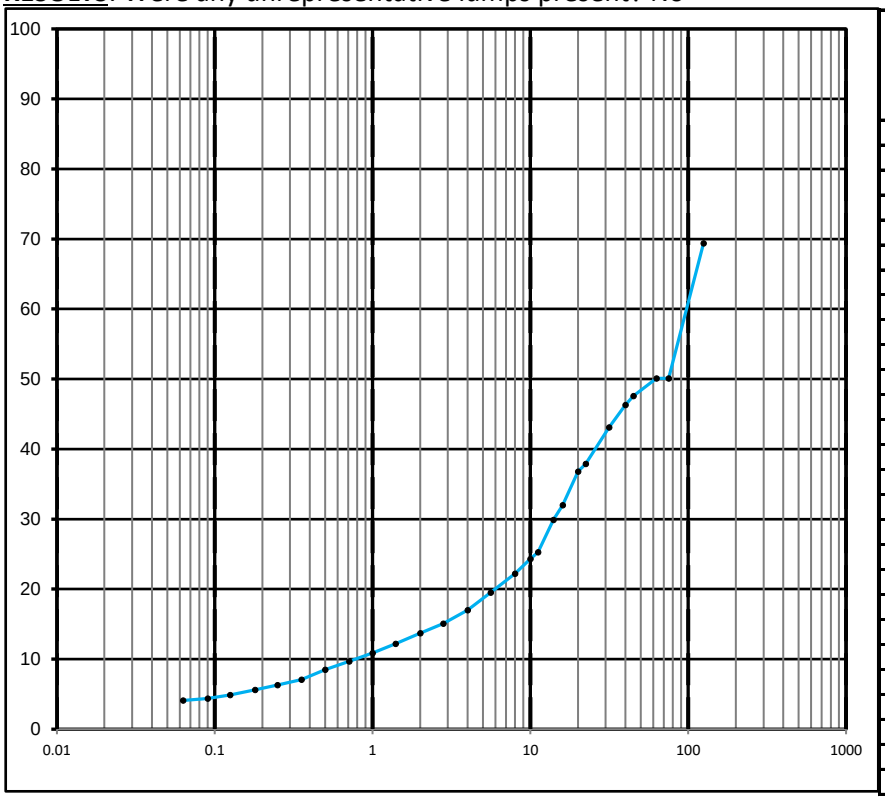
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP34-1 - 0.4M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP34-1 - 0.4M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	69	
75.0 mm	50	
63.0 mm	50	
45.0 mm	48	
40.0 mm	46	
31.5 mm	43	
22.4 mm	38	
20.0 mm	37	
16.0 mm	32	
14.0 mm	30	
11.2 mm	25	
10.0 mm	24	
8.0 mm	22	
5.6 mm	20	
4.0 mm	17	
2.8 mm	15	
2.0 mm	14	
1.4 mm	12	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	7	
0.250 mm	6	
0.180 mm	6	
0.125 mm	5	
0.090 mm	4	
0.063 mm	4.1	

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Comments:

None

Report checked and approved by:

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Park Point
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Date: 24 August 2022
Test Report Ref: TR 887320

Contract: Llanwern

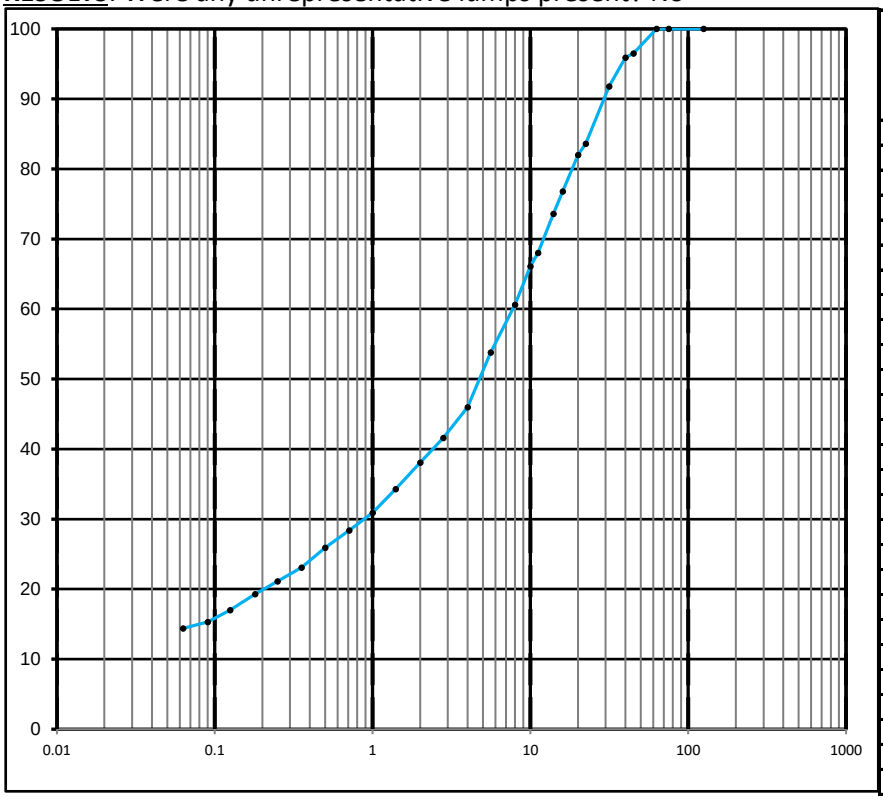
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP35-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP35-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	96	
31.5 mm	92	
22.4 mm	84	
20.0 mm	82	
16.0 mm	77	
14.0 mm	74	
11.2 mm	68	
10.0 mm	66	
8.0 mm	61	
5.6 mm	54	
4.0 mm	46	
2.8 mm	42	
2.0 mm	38	
1.4 mm	34	
1.0 mm	31	
0.710 mm	28	
0.500 mm	26	
0.355 mm	23	
0.250 mm	21	
0.180 mm	19	
0.125 mm	17	
0.090 mm	15	
0.063 mm	14.4	

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Comments:

None

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Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887321

Contract: Llanwern

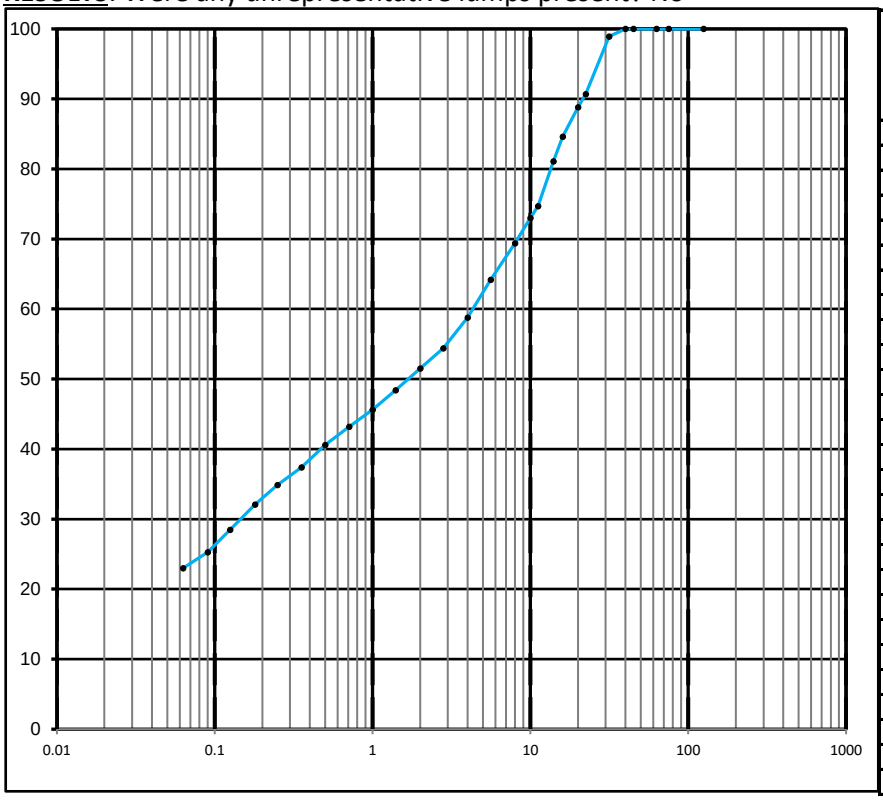
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP36-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP36-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	100	
31.5 mm	99	
22.4 mm	91	
20.0 mm	89	
16.0 mm	85	
14.0 mm	81	
11.2 mm	75	
10.0 mm	73	
8.0 mm	69	
5.6 mm	64	
4.0 mm	59	
2.8 mm	54	
2.0 mm	52	
1.4 mm	48	
1.0 mm	46	
0.710 mm	43	
0.500 mm	41	
0.355 mm	37	
0.250 mm	35	
0.180 mm	32	
0.125 mm	29	
0.090 mm	25	
0.063 mm	23.0	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887322

Contract: Llanwern

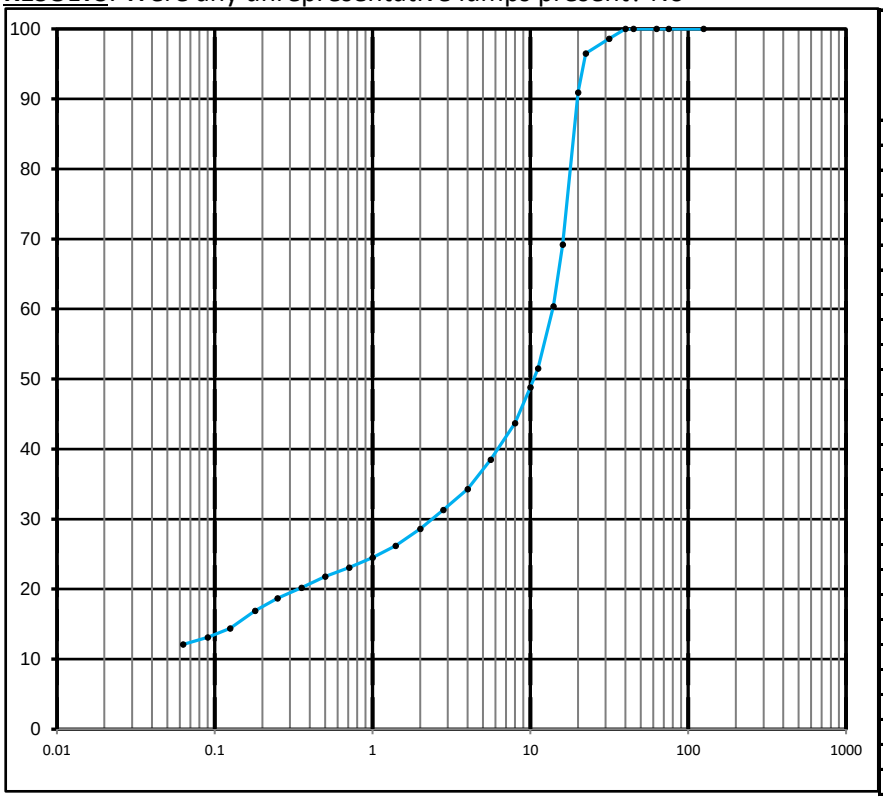
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP37-1 - 0.2M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP37-1 - 0.2M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	100	
31.5 mm	99	
22.4 mm	97	
20.0 mm	91	
16.0 mm	69	
14.0 mm	60	
11.2 mm	52	
10.0 mm	49	
8.0 mm	44	
5.6 mm	39	
4.0 mm	34	
2.8 mm	31	
2.0 mm	29	
1.4 mm	26	
1.0 mm	25	
0.710 mm	23	
0.500 mm	22	
0.355 mm	20	
0.250 mm	19	
0.180 mm	17	
0.125 mm	14	
0.090 mm	13	
0.063 mm	12.1	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887323

Contract: Llanwern

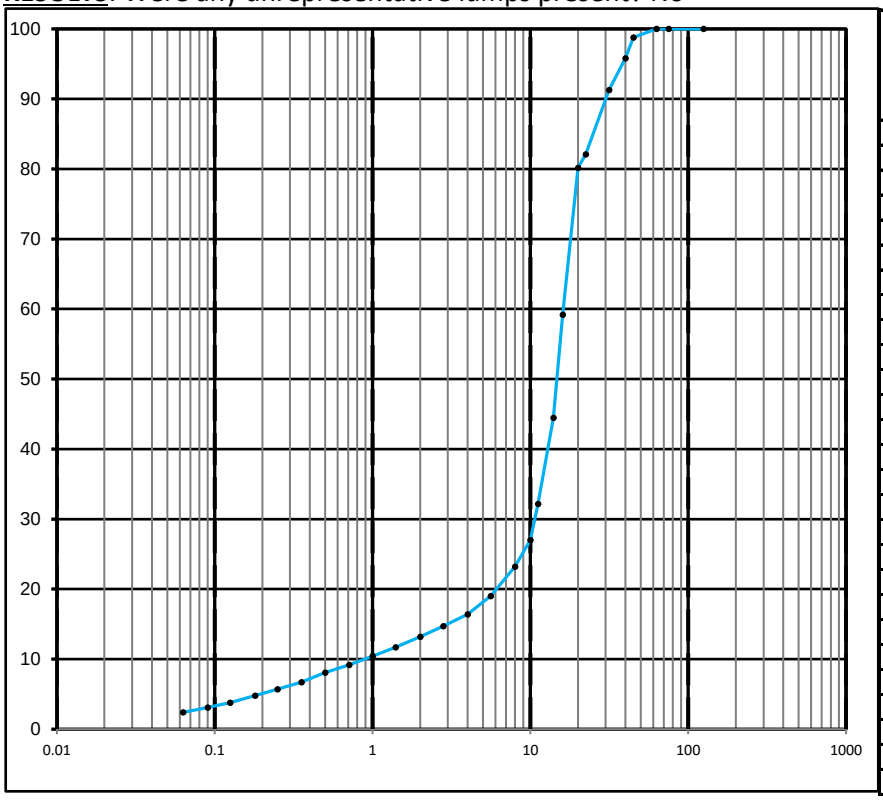
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ34-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AQ34-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	99	
40.0 mm	96	
31.5 mm	91	
22.4 mm	82	
20.0 mm	80	
16.0 mm	59	
14.0 mm	45	
11.2 mm	32	
10.0 mm	27	
8.0 mm	23	
5.6 mm	19	
4.0 mm	16	
2.8 mm	15	
2.0 mm	13	
1.4 mm	12	
1.0 mm	10	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	2.4	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
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B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887324

Contract: Llanwern

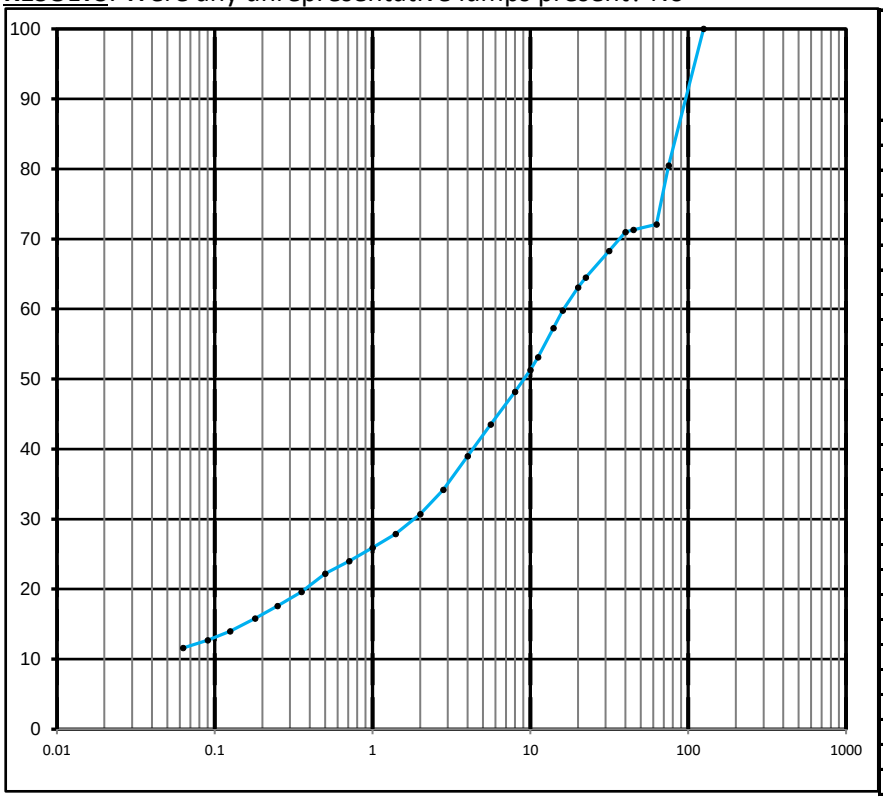
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ35-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AQ35-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	81	
63.0 mm	72	
45.0 mm	71	
40.0 mm	71	
31.5 mm	68	
22.4 mm	65	
20.0 mm	63	
16.0 mm	60	
14.0 mm	57	
11.2 mm	53	
10.0 mm	51	
8.0 mm	48	
5.6 mm	44	
4.0 mm	39	
2.8 mm	34	
2.0 mm	31	
1.4 mm	28	
1.0 mm	26	
0.710 mm	24	
0.500 mm	22	
0.355 mm	20	
0.250 mm	18	
0.180 mm	16	
0.125 mm	14	
0.090 mm	13	
0.063 mm	11.6	

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Comments:

None

Report checked and approved by:

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Date: 24 August 2022
Test Report Ref: TR 887325

Contract: Llanwern

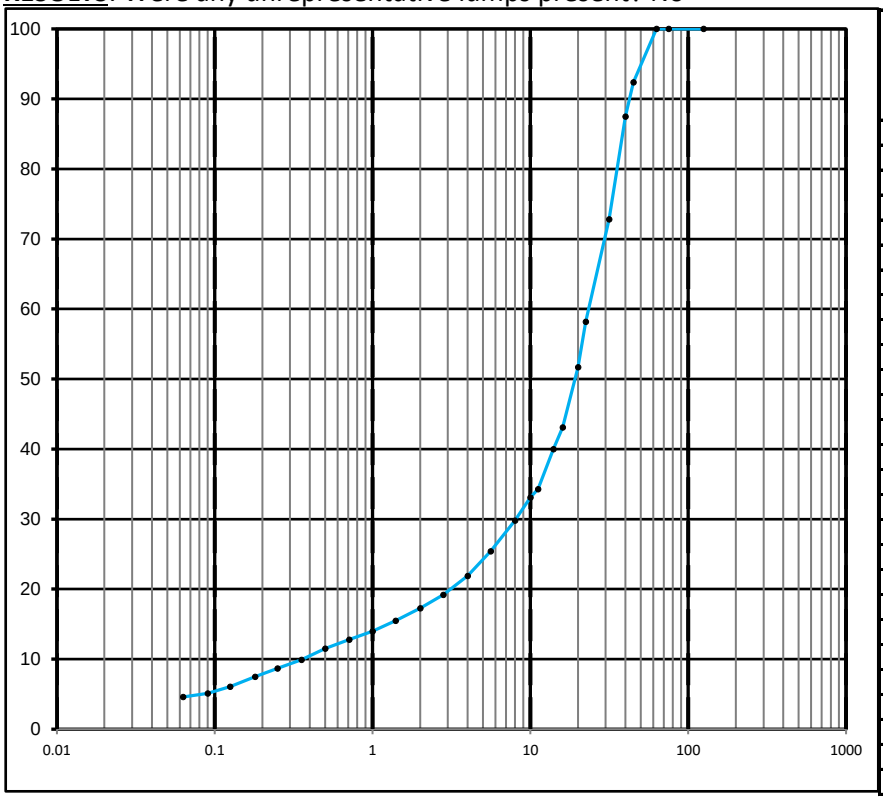
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ36-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AQ36-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	92	
40.0 mm	88	
31.5 mm	73	
22.4 mm	58	
20.0 mm	52	
16.0 mm	43	
14.0 mm	40	
11.2 mm	34	
10.0 mm	33	
8.0 mm	30	
5.6 mm	25	
4.0 mm	22	
2.8 mm	19	
2.0 mm	17	
1.4 mm	16	
1.0 mm	14	
0.710 mm	13	
0.500 mm	12	
0.355 mm	10	
0.250 mm	9	
0.180 mm	8	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.6	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887326

Contract: Llanwern

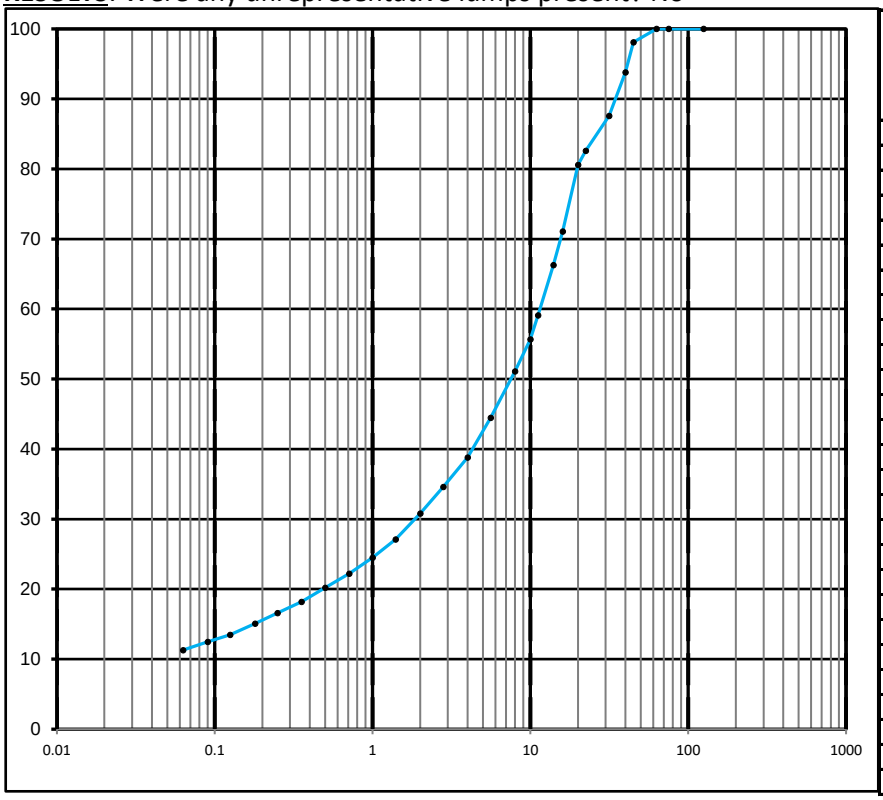
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ37-1 - 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AQ37-1 - 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	94	
31.5 mm	88	
22.4 mm	83	
20.0 mm	81	
16.0 mm	71	
14.0 mm	66	
11.2 mm	59	
10.0 mm	56	
8.0 mm	51	
5.6 mm	45	
4.0 mm	39	
2.8 mm	35	
2.0 mm	31	
1.4 mm	27	
1.0 mm	25	
0.710 mm	22	
0.500 mm	20	
0.355 mm	18	
0.250 mm	17	
0.180 mm	15	
0.125 mm	14	
0.090 mm	13	
0.063 mm	11.3	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887327

Contract: Llanwern

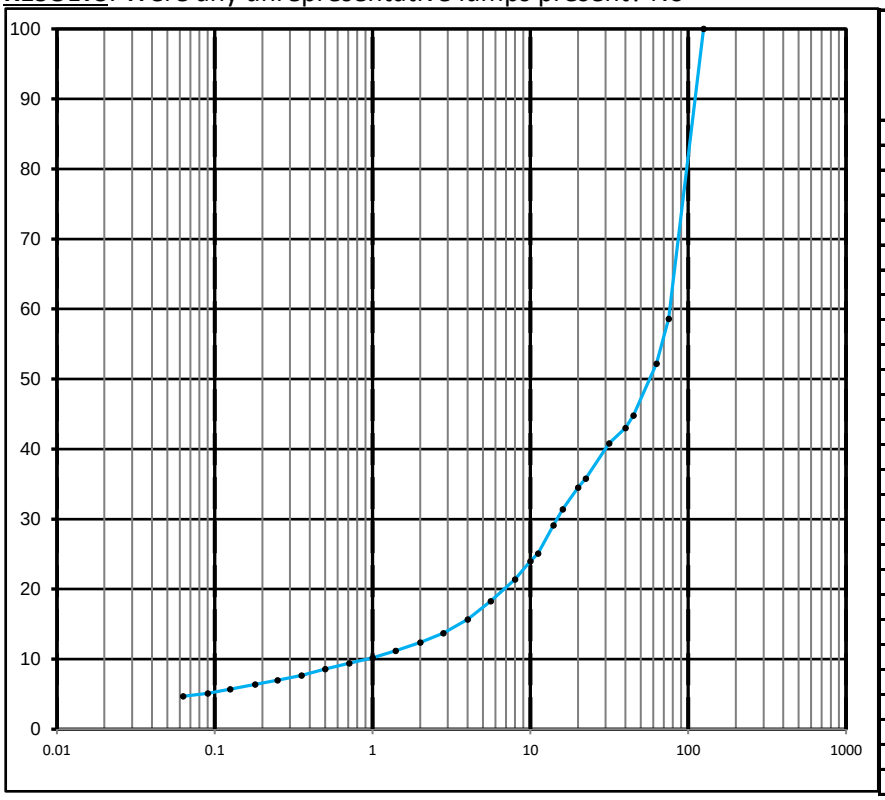
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR34-2 - 2M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR34-2 - 2M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	59	
63.0 mm	52	
45.0 mm	45	
40.0 mm	43	
31.5 mm	41	
22.4 mm	36	
20.0 mm	35	
16.0 mm	31	
14.0 mm	29	
11.2 mm	25	
10.0 mm	24	
8.0 mm	21	
5.6 mm	18	
4.0 mm	16	
2.8 mm	14	
2.0 mm	12	
1.4 mm	11	
1.0 mm	10	
0.710 mm	9	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.7	

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Comments:

None

Report checked and approved by:

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Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887328

Contract: Llanwern

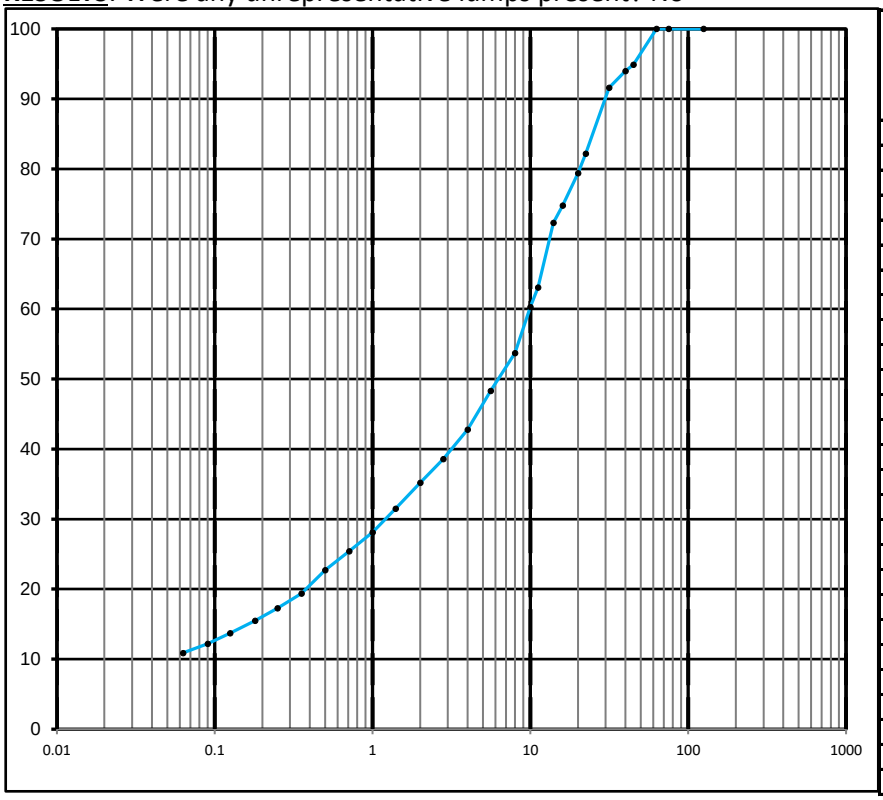
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR35-1 - 0.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR35-1 - 0.6M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	94	
31.5 mm	92	
22.4 mm	82	
20.0 mm	79	
16.0 mm	75	
14.0 mm	72	
11.2 mm	63	
10.0 mm	60	
8.0 mm	54	
5.6 mm	48	
4.0 mm	43	
2.8 mm	39	
2.0 mm	35	
1.4 mm	32	
1.0 mm	28	
0.710 mm	25	
0.500 mm	23	
0.355 mm	19	
0.250 mm	17	
0.180 mm	16	
0.125 mm	14	
0.090 mm	12	
0.063 mm	10.9	

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Comments:

None

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Date: 23 August 2022
Test Report Ref: TR 887329

Contract: Llanwern

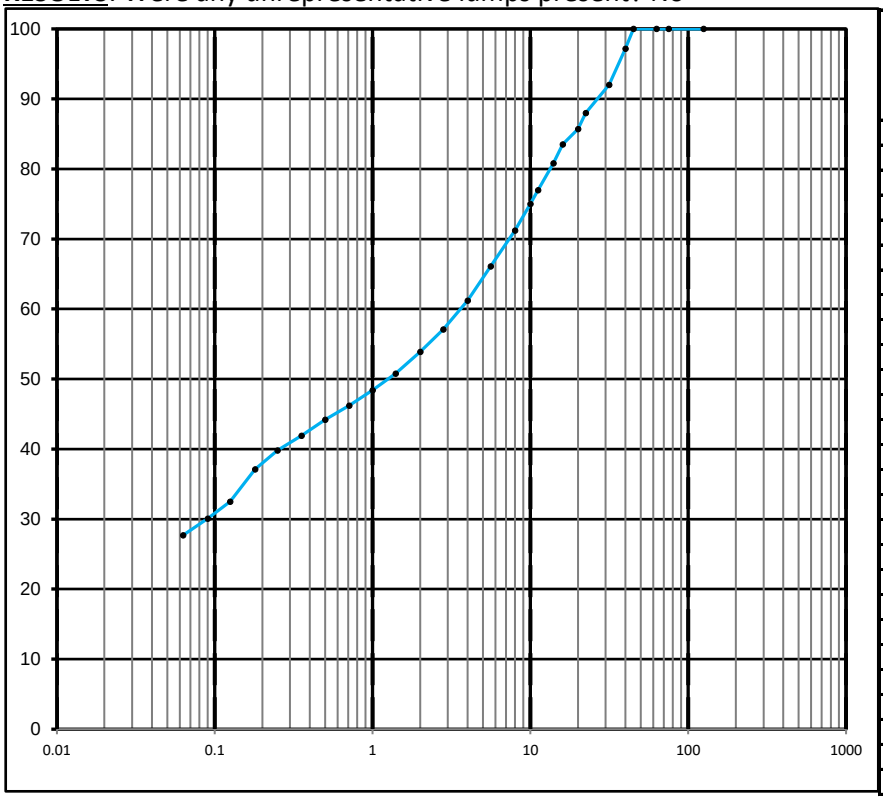
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR36-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR36-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	97	
31.5 mm	92	
22.4 mm	88	
20.0 mm	86	
16.0 mm	84	
14.0 mm	81	
11.2 mm	77	
10.0 mm	75	
8.0 mm	71	
5.6 mm	66	
4.0 mm	61	
2.8 mm	57	
2.0 mm	54	
1.4 mm	51	
1.0 mm	48	
0.710 mm	46	
0.500 mm	44	
0.355 mm	42	
0.250 mm	40	
0.180 mm	37	
0.125 mm	33	
0.090 mm	30	
0.063 mm	27.7	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887330

Contract: Llanwern

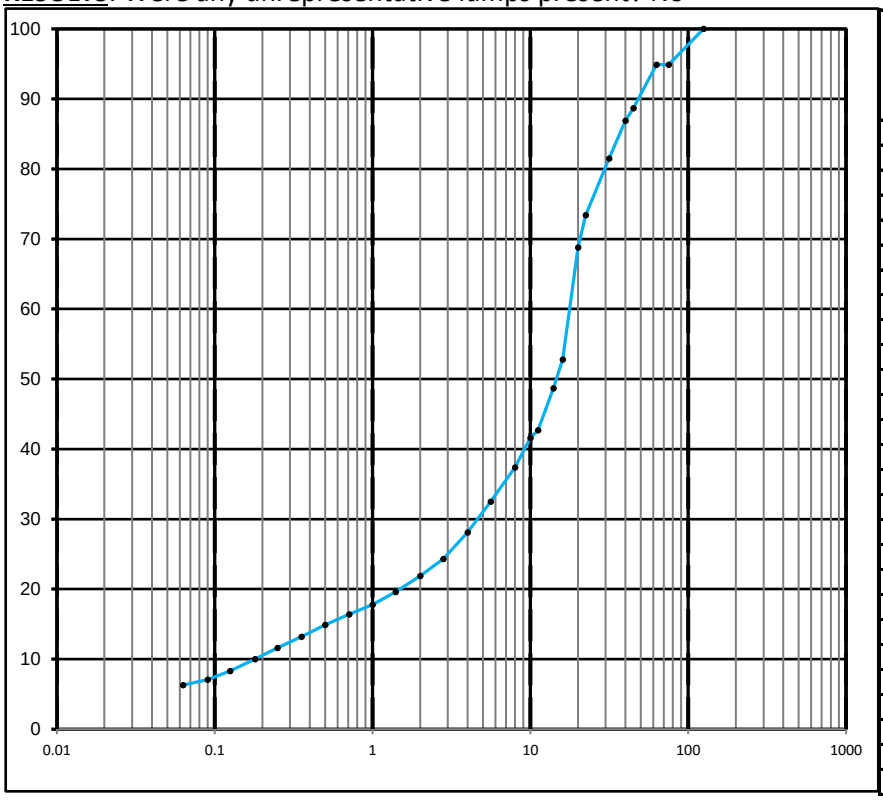
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR37-2 - 0.4M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR37-2 - 0.4M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	95	
63.0 mm	95	
45.0 mm	89	
40.0 mm	87	
31.5 mm	82	
22.4 mm	73	
20.0 mm	69	
16.0 mm	53	
14.0 mm	49	
11.2 mm	43	
10.0 mm	42	
8.0 mm	37	
5.6 mm	33	
4.0 mm	28	
2.8 mm	24	
2.0 mm	22	
1.4 mm	20	
1.0 mm	18	
0.710 mm	16	
0.500 mm	15	
0.355 mm	13	
0.250 mm	12	
0.180 mm	10	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.3	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887331

Contract: Llanwern

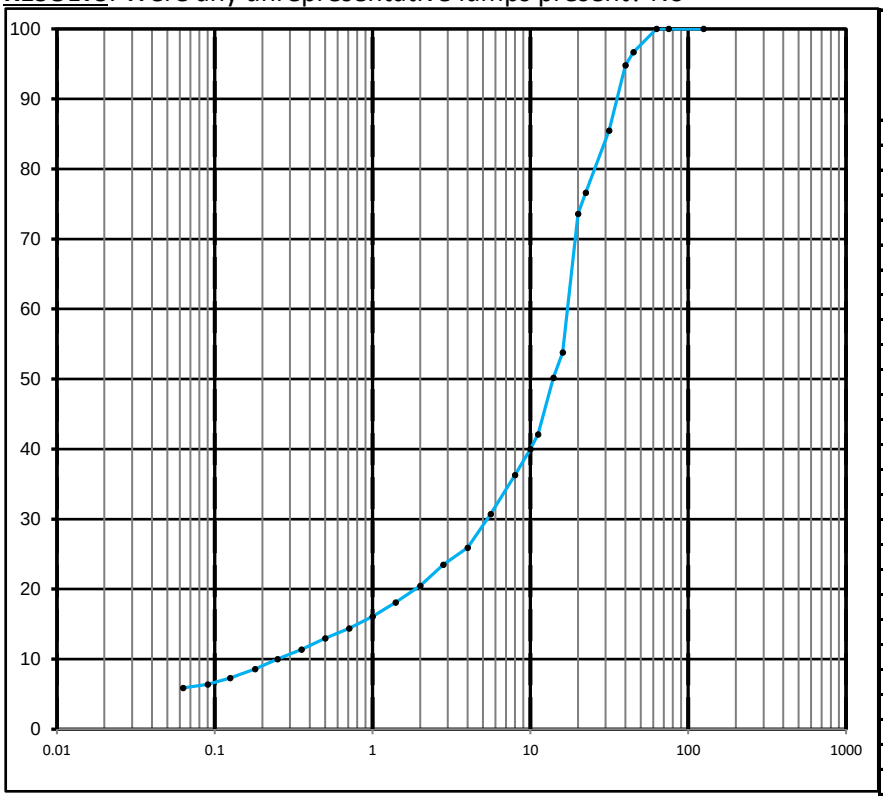
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS34-1 - 0.4M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**SR**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AS34-1 - 0.4M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	95	
31.5 mm	86	
22.4 mm	77	
20.0 mm	74	
16.0 mm	54	
14.0 mm	50	
11.2 mm	42	
10.0 mm	40	
8.0 mm	36	
5.6 mm	31	
4.0 mm	26	
2.8 mm	24	
2.0 mm	21	
1.4 mm	18	
1.0 mm	16	
0.710 mm	14	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	7	
0.090 mm	6	
0.063 mm	5.9	

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Comments:

None

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Date: 25 August 2022
Test Report Ref: TR 887333

Contract: Llanwern

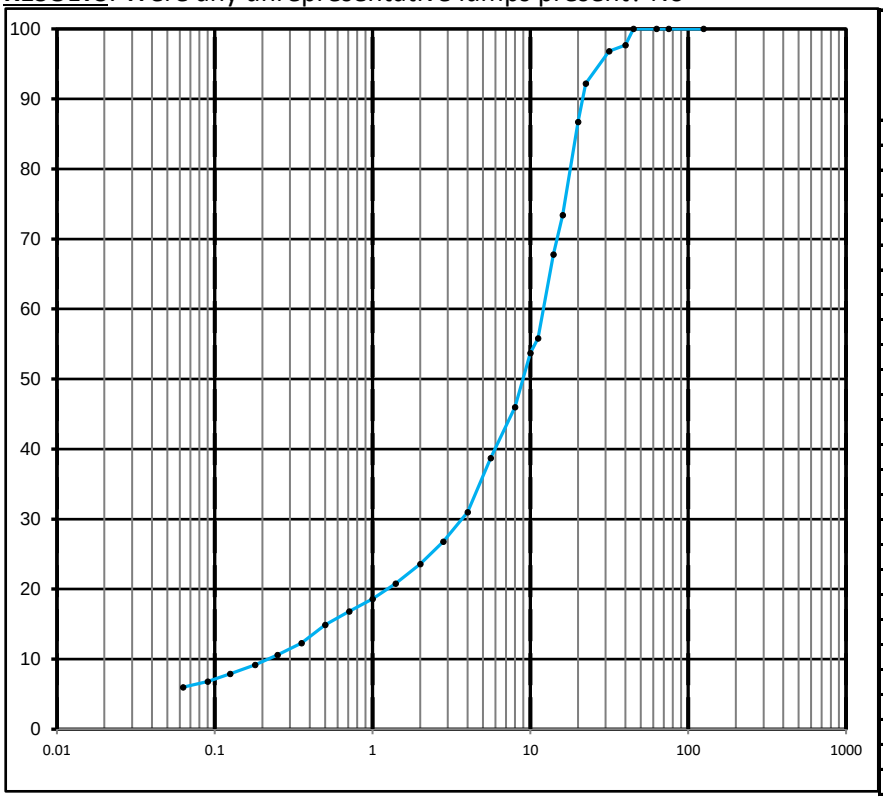
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS36-1 - 1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AS36-1 - 1M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	98	
31.5 mm	97	
22.4 mm	92	
20.0 mm	87	
16.0 mm	73	
14.0 mm	68	
11.2 mm	56	
10.0 mm	54	
8.0 mm	46	
5.6 mm	39	
4.0 mm	31	
2.8 mm	27	
2.0 mm	24	
1.4 mm	21	
1.0 mm	19	
0.710 mm	17	
0.500 mm	15	
0.355 mm	12	
0.250 mm	11	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.0	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887334

Contract: Llanwern

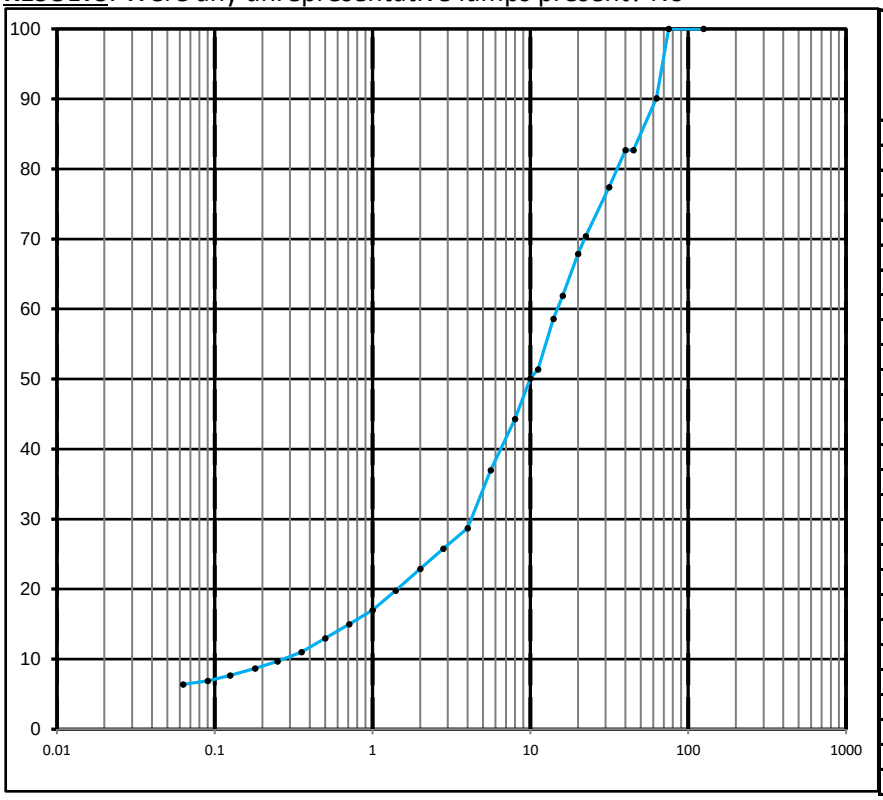
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS37-2 - 2M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AS37-2 - 2M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	90	
45.0 mm	83	
40.0 mm	83	
31.5 mm	77	
22.4 mm	70	
20.0 mm	68	
16.0 mm	62	
14.0 mm	59	
11.2 mm	51	
10.0 mm	50	
8.0 mm	44	
5.6 mm	37	
4.0 mm	29	
2.8 mm	26	
2.0 mm	23	
1.4 mm	20	
1.0 mm	17	
0.710 mm	15	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.4	

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Comments:

None

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Date: 23 August 2022
Test Report Ref: TR 887335

Contract: Llanwern

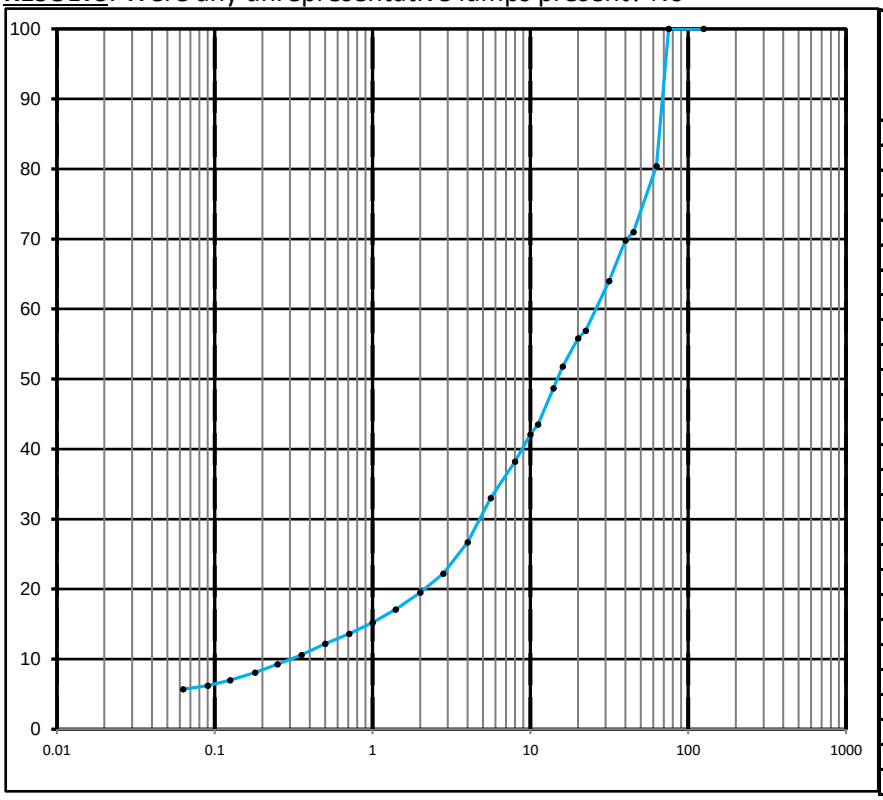
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT34-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT34-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	80	
45.0 mm	71	
40.0 mm	70	
31.5 mm	64	
22.4 mm	57	
20.0 mm	56	
16.0 mm	52	
14.0 mm	49	
11.2 mm	44	
10.0 mm	42	
8.0 mm	38	
5.6 mm	33	
4.0 mm	27	
2.8 mm	22	
2.0 mm	20	
1.4 mm	17	
1.0 mm	15	
0.710 mm	14	
0.500 mm	12	
0.355 mm	11	
0.250 mm	9	
0.180 mm	8	
0.125 mm	7	
0.090 mm	6	
0.063 mm	5.7	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Date: 23 August 2022
Test Report Ref: TR 887336

Contract: Llanwern

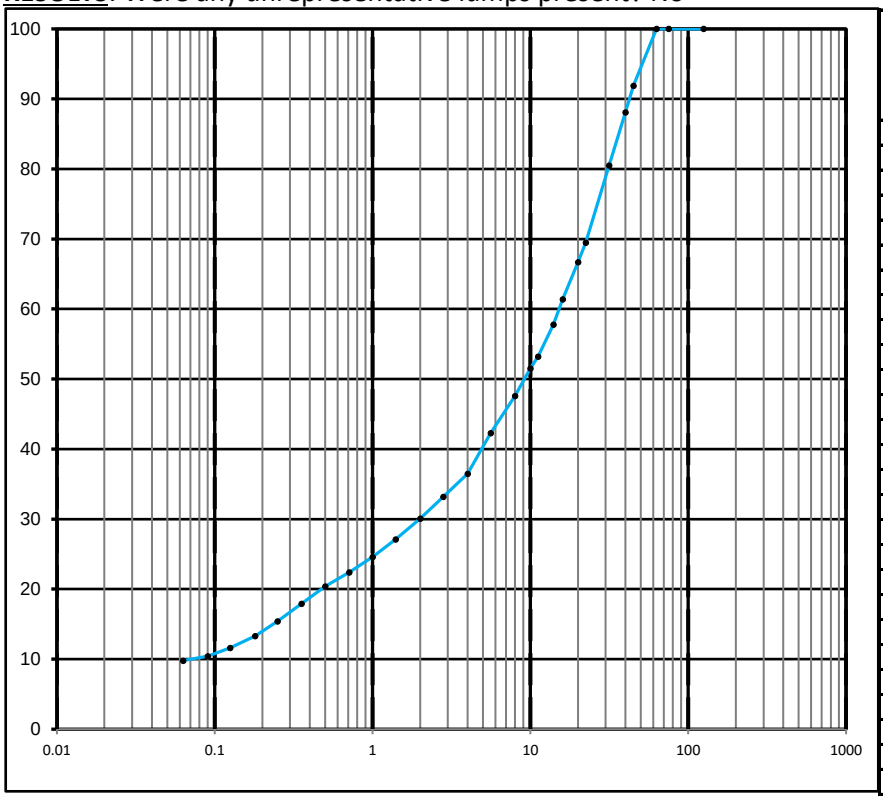
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT35-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT35-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	92	
40.0 mm	88	
31.5 mm	81	
22.4 mm	70	
20.0 mm	67	
16.0 mm	61	
14.0 mm	58	
11.2 mm	53	
10.0 mm	52	
8.0 mm	48	
5.6 mm	42	
4.0 mm	37	
2.8 mm	33	
2.0 mm	30	
1.4 mm	27	
1.0 mm	25	
0.710 mm	22	
0.500 mm	20	
0.355 mm	18	
0.250 mm	15	
0.180 mm	13	
0.125 mm	12	
0.090 mm	10	
0.063 mm	9.8	

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Comments:

None

Report checked and approved by:

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B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887337

Contract: Llanwern

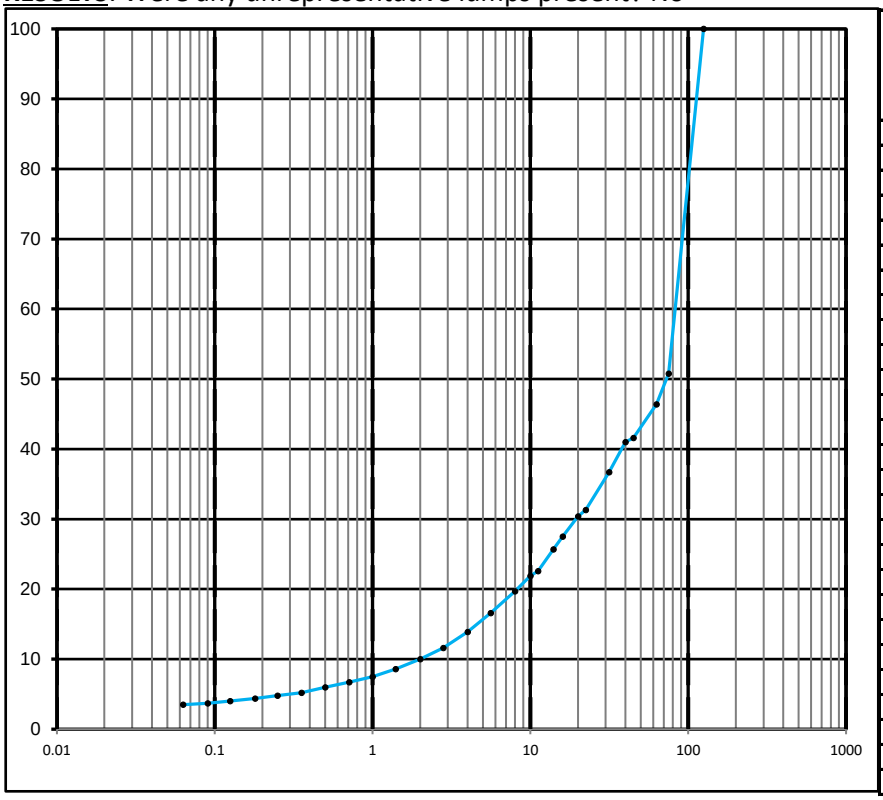
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT36-2 - 1.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT36-2 - 1.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	51	
63.0 mm	46	
45.0 mm	42	
40.0 mm	41	
31.5 mm	37	
22.4 mm	31	
20.0 mm	30	
16.0 mm	28	
14.0 mm	26	
11.2 mm	23	
10.0 mm	22	
8.0 mm	20	
5.6 mm	17	
4.0 mm	14	
2.8 mm	12	
2.0 mm	10	
1.4 mm	9	
1.0 mm	8	
0.710 mm	7	
0.500 mm	6	
0.355 mm	5	
0.250 mm	5	
0.180 mm	4	
0.125 mm	4	
0.090 mm	4	
0.063 mm	3.5	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887338

Contract: Llanwern

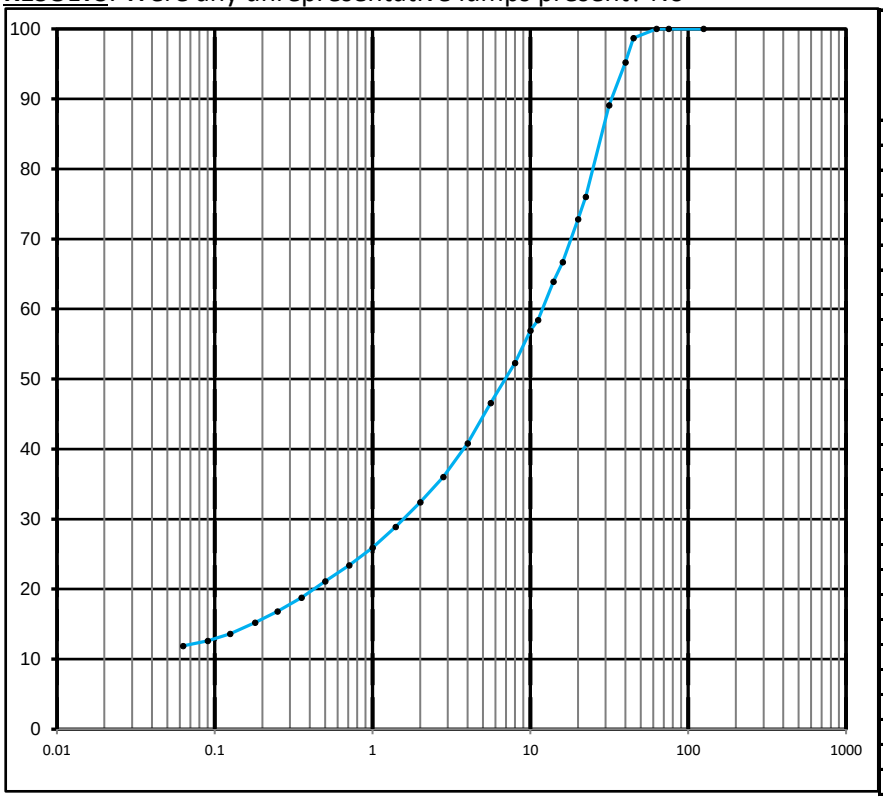
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT37-1 - 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT37-1 - 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	99	
40.0 mm	95	
31.5 mm	89	
22.4 mm	76	
20.0 mm	73	
16.0 mm	67	
14.0 mm	64	
11.2 mm	58	
10.0 mm	57	
8.0 mm	52	
5.6 mm	47	
4.0 mm	41	
2.8 mm	36	
2.0 mm	32	
1.4 mm	29	
1.0 mm	26	
0.710 mm	23	
0.500 mm	21	
0.355 mm	19	
0.250 mm	17	
0.180 mm	15	
0.125 mm	14	
0.090 mm	13	
0.063 mm	11.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887340

Contract: Llanwern

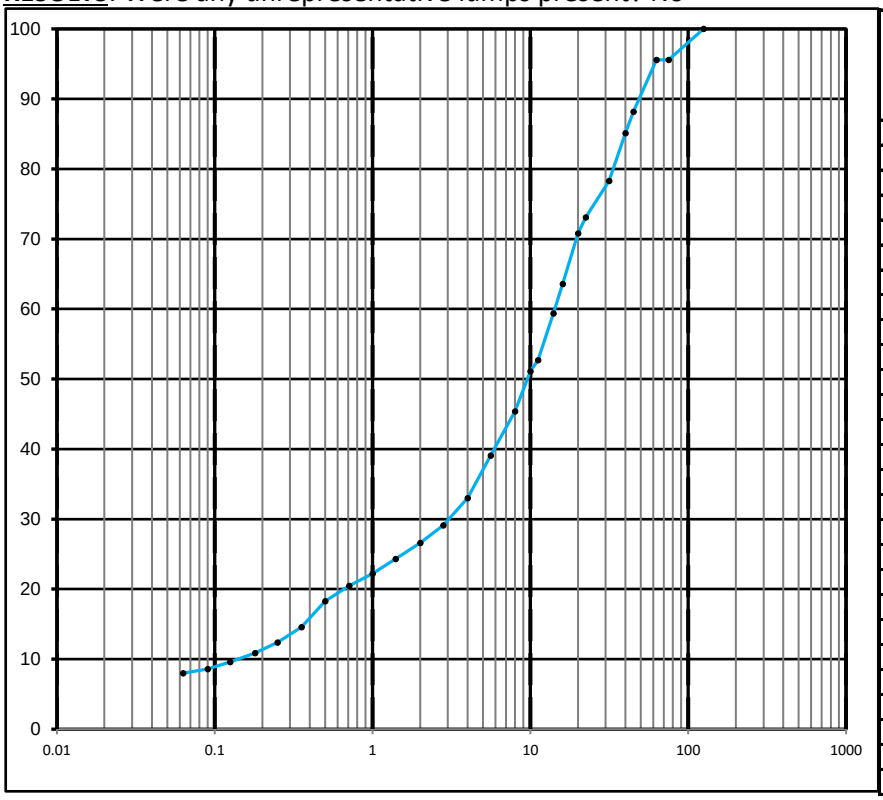
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU35-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AU35-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	96	
63.0 mm	96	
45.0 mm	88	
40.0 mm	85	
31.5 mm	78	
22.4 mm	73	
20.0 mm	71	
16.0 mm	64	
14.0 mm	59	
11.2 mm	53	
10.0 mm	51	
8.0 mm	45	
5.6 mm	39	
4.0 mm	33	
2.8 mm	29	
2.0 mm	27	
1.4 mm	24	
1.0 mm	22	
0.710 mm	21	
0.500 mm	18	
0.355 mm	15	
0.250 mm	12	
0.180 mm	11	
0.125 mm	10	
0.090 mm	9	
0.063 mm	8.0	

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Comments:

None

Report checked and approved by:

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887341

Contract: Llanwern

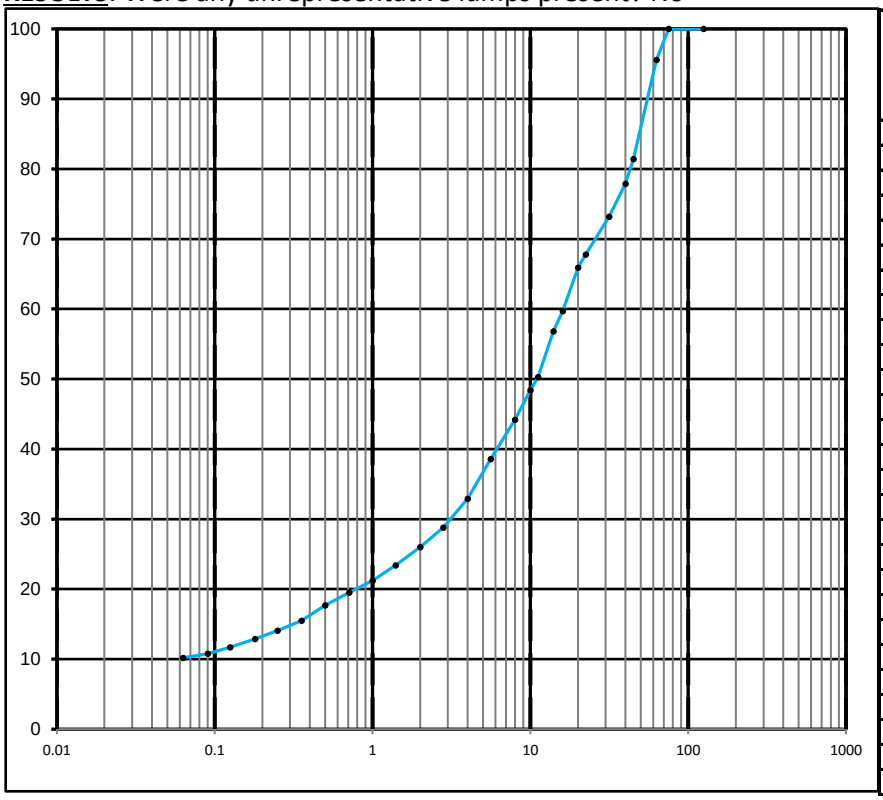
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU36-2 - 1.3M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AU36-2 - 1.3M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	96	
45.0 mm	81	
40.0 mm	78	
31.5 mm	73	
22.4 mm	68	
20.0 mm	66	
16.0 mm	60	
14.0 mm	57	
11.2 mm	50	
10.0 mm	48	
8.0 mm	44	
5.6 mm	39	
4.0 mm	33	
2.8 mm	29	
2.0 mm	26	
1.4 mm	23	
1.0 mm	21	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	14	
0.180 mm	13	
0.125 mm	12	
0.090 mm	11	
0.063 mm	10.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887342

Contract: Llanwern

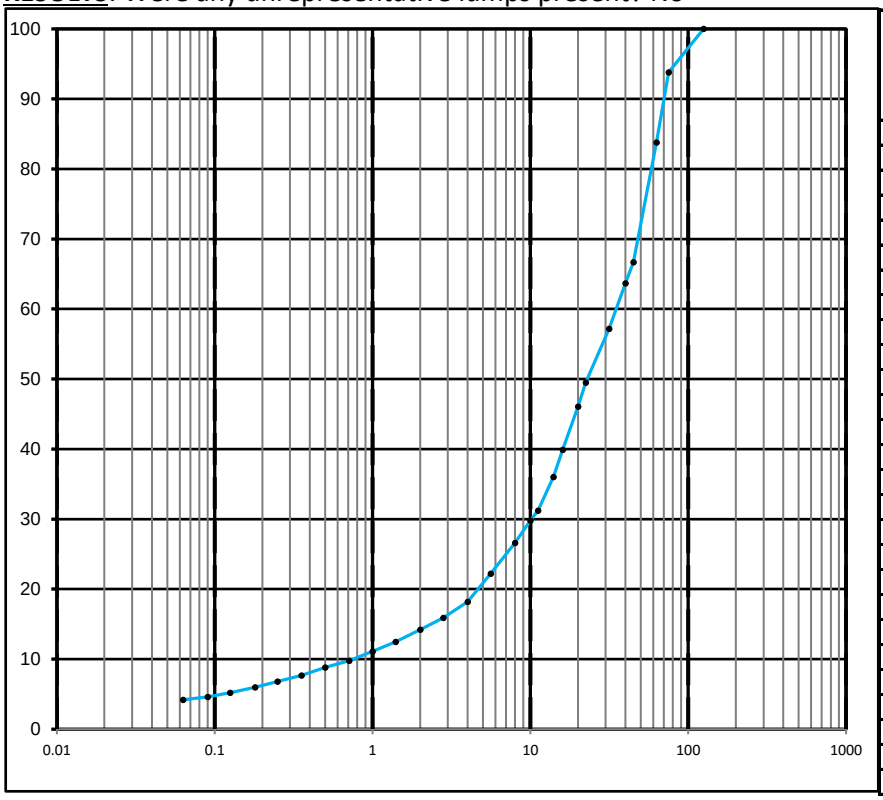
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU37-1 - 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AU37-1 - 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	84	
45.0 mm	67	
40.0 mm	64	
31.5 mm	57	
22.4 mm	50	
20.0 mm	46	
16.0 mm	40	
14.0 mm	36	
11.2 mm	31	
10.0 mm	30	
8.0 mm	27	
5.6 mm	22	
4.0 mm	18	
2.8 mm	16	
2.0 mm	14	
1.4 mm	13	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	5	
0.090 mm	5	
0.063 mm	4.2	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887343

Contract: Llanwern

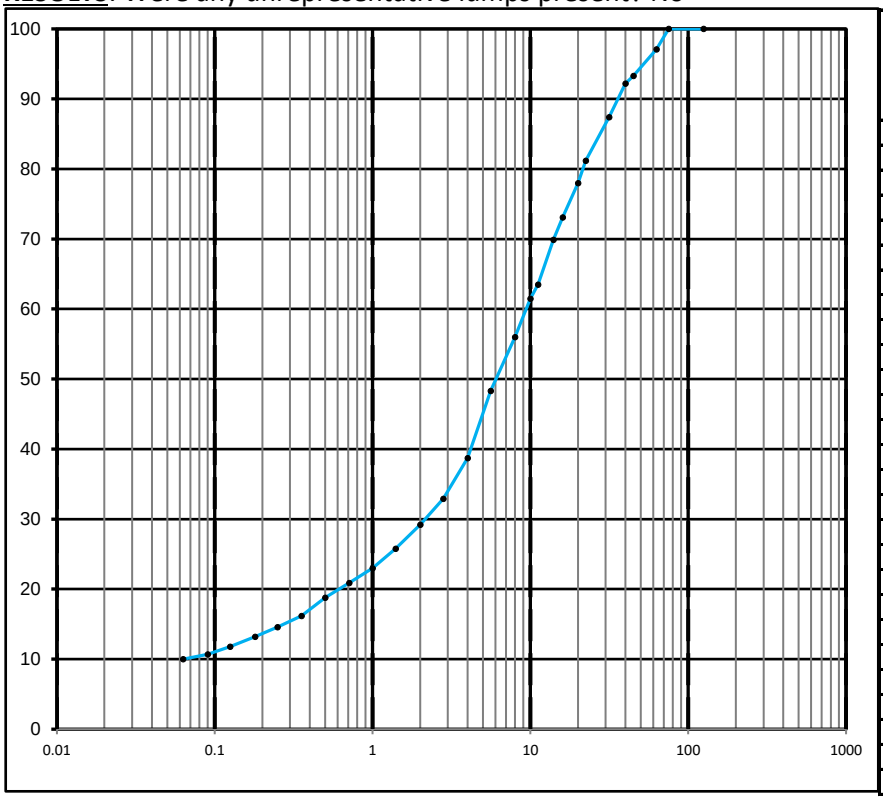
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV34-2 - 1.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AV34-2 - 1.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	93	
40.0 mm	92	
31.5 mm	87	
22.4 mm	81	
20.0 mm	78	
16.0 mm	73	
14.0 mm	70	
11.2 mm	64	
10.0 mm	62	
8.0 mm	56	
5.6 mm	48	
4.0 mm	39	
2.8 mm	33	
2.0 mm	29	
1.4 mm	26	
1.0 mm	23	
0.710 mm	21	
0.500 mm	19	
0.355 mm	16	
0.250 mm	15	
0.180 mm	13	
0.125 mm	12	
0.090 mm	11	
0.063 mm	10.0	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887345

Contract: Llanwern

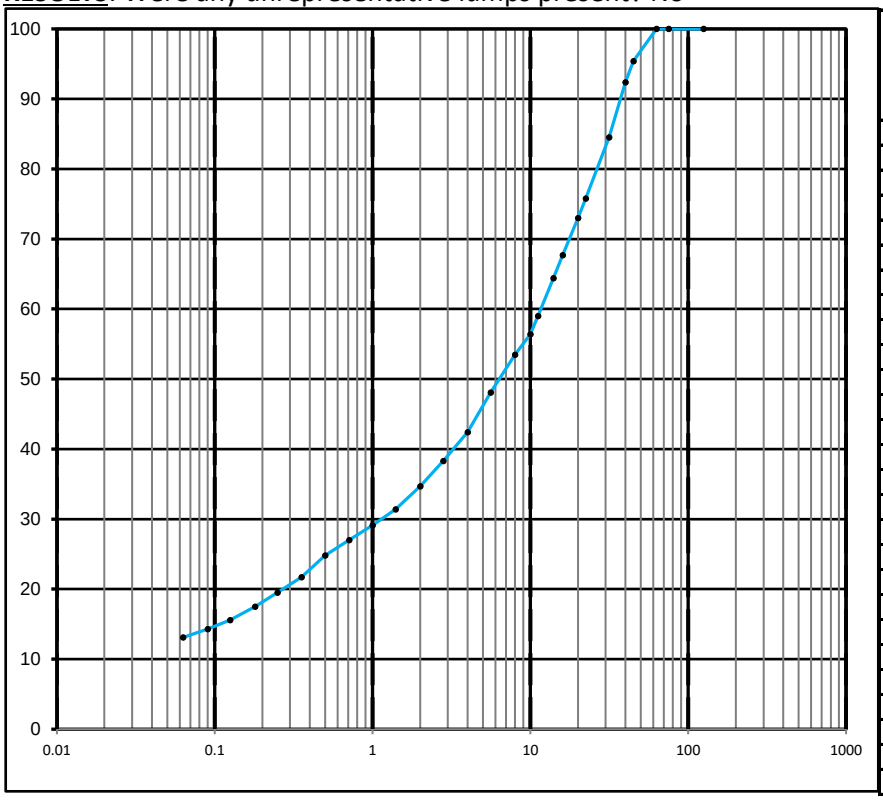
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV36-2 - 1.30M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AV36-2 - 1.30M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	92	
31.5 mm	85	
22.4 mm	76	
20.0 mm	73	
16.0 mm	68	
14.0 mm	64	
11.2 mm	59	
10.0 mm	56	
8.0 mm	54	
5.6 mm	48	
4.0 mm	42	
2.8 mm	38	
2.0 mm	35	
1.4 mm	31	
1.0 mm	29	
0.710 mm	27	
0.500 mm	25	
0.355 mm	22	
0.250 mm	20	
0.180 mm	18	
0.125 mm	16	
0.090 mm	14	
0.063 mm	13.1	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887346

Contract: Llanwern

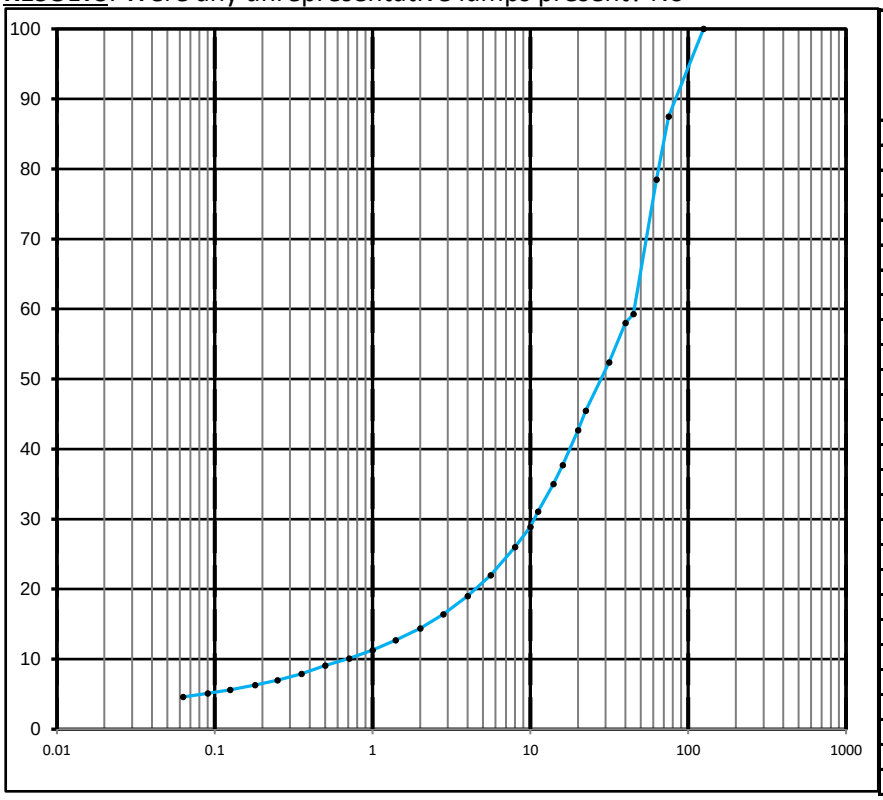
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV37-1 - 0.50M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AV37-1 - 0.50M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	88	
63.0 mm	79	
45.0 mm	59	
40.0 mm	58	
31.5 mm	52	
22.4 mm	46	
20.0 mm	43	
16.0 mm	38	
14.0 mm	35	
11.2 mm	31	
10.0 mm	29	
8.0 mm	26	
5.6 mm	22	
4.0 mm	19	
2.8 mm	16	
2.0 mm	14	
1.4 mm	13	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.6	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
17 High Street
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B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887347

Contract: Llanwern

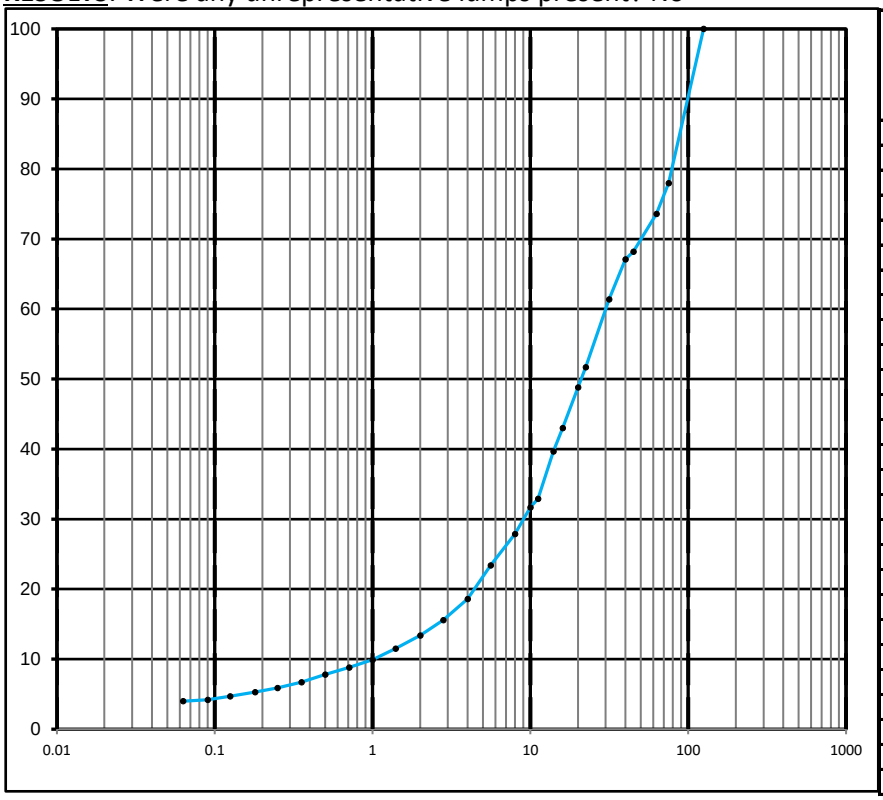
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW34-1 - 1.00M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AW34-1 - 1.00M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	78	
63.0 mm	74	
45.0 mm	68	
40.0 mm	67	
31.5 mm	61	
22.4 mm	52	
20.0 mm	49	
16.0 mm	43	
14.0 mm	40	
11.2 mm	33	
10.0 mm	32	
8.0 mm	28	
5.6 mm	23	
4.0 mm	19	
2.8 mm	16	
2.0 mm	13	
1.4 mm	12	
1.0 mm	10	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	5	
0.090 mm	4	
0.063 mm	4.0	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887349

Contract: Llanwern

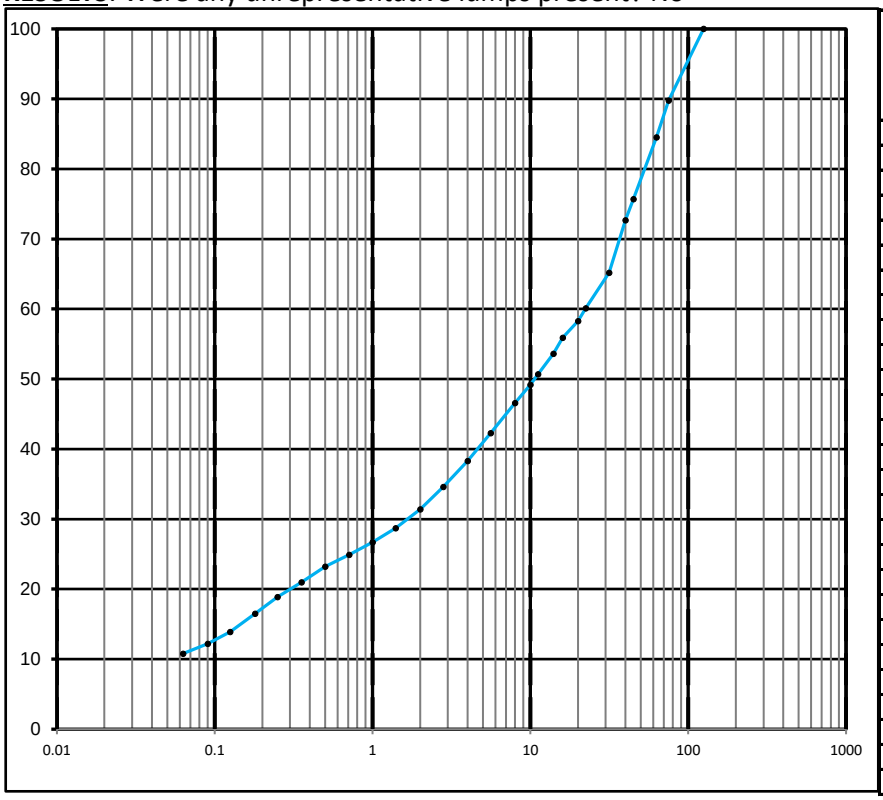
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW36-2 - 1.60M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AW36-2 - 1.60M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	90	
63.0 mm	85	
45.0 mm	76	
40.0 mm	73	
31.5 mm	65	
22.4 mm	60	
20.0 mm	58	
16.0 mm	56	
14.0 mm	54	
11.2 mm	51	
10.0 mm	49	
8.0 mm	47	
5.6 mm	42	
4.0 mm	38	
2.8 mm	35	
2.0 mm	31	
1.4 mm	29	
1.0 mm	27	
0.710 mm	25	
0.500 mm	23	
0.355 mm	21	
0.250 mm	19	
0.180 mm	17	
0.125 mm	14	
0.090 mm	12	
0.063 mm	10.8	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887351

Contract: Llanwern

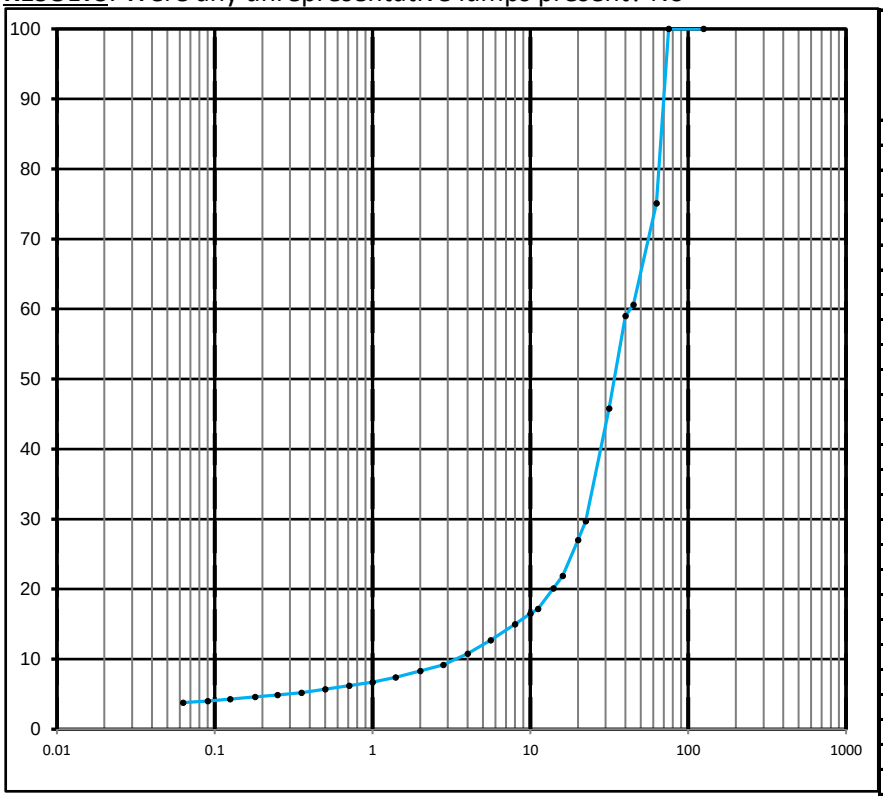
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX34-1 - 0.7M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX34-1 - 0.7M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	75	
45.0 mm	61	
40.0 mm	59	
31.5 mm	46	
22.4 mm	30	
20.0 mm	27	
16.0 mm	22	
14.0 mm	20	
11.2 mm	17	
10.0 mm	17	
8.0 mm	15	
5.6 mm	13	
4.0 mm	11	
2.8 mm	9	
2.0 mm	8	
1.4 mm	7	
1.0 mm	7	
0.710 mm	6	
0.500 mm	6	
0.355 mm	5	
0.250 mm	5	
0.180 mm	5	
0.125 mm	4	
0.090 mm	4	
0.063 mm	3.8	

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Comments:

None

Report checked and approved by:

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887352

Contract: Llanwern

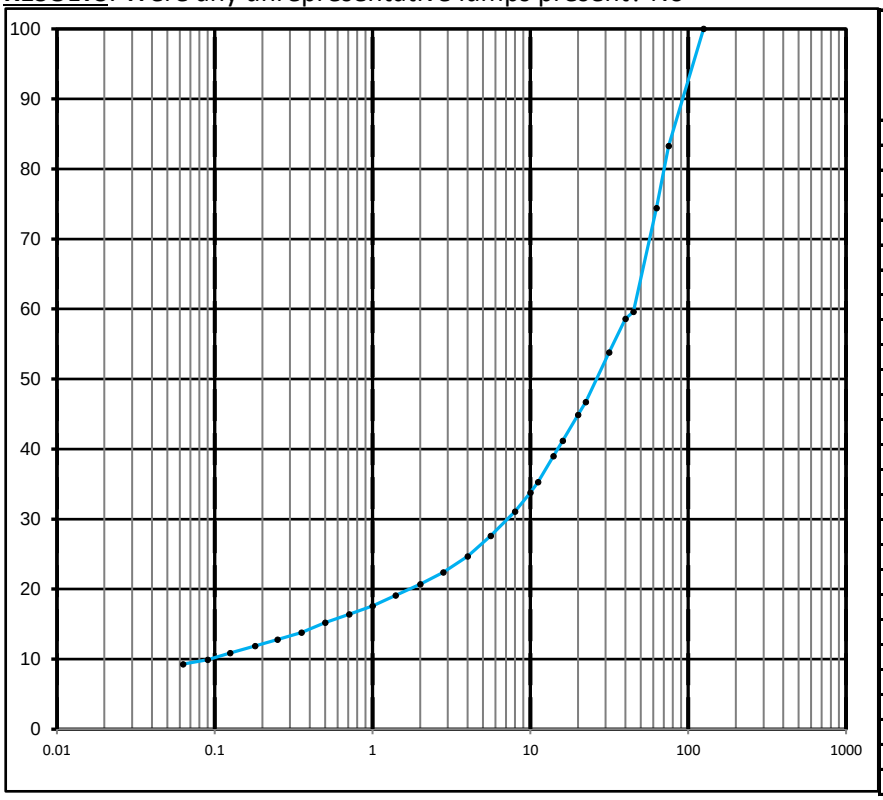
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX35-2 - 1.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX35-2 - 1.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	83	
63.0 mm	74	
45.0 mm	60	
40.0 mm	59	
31.5 mm	54	
22.4 mm	47	
20.0 mm	45	
16.0 mm	41	
14.0 mm	39	
11.2 mm	35	
10.0 mm	34	
8.0 mm	31	
5.6 mm	28	
4.0 mm	25	
2.8 mm	22	
2.0 mm	21	
1.4 mm	19	
1.0 mm	18	
0.710 mm	16	
0.500 mm	15	
0.355 mm	14	
0.250 mm	13	
0.180 mm	12	
0.125 mm	11	
0.090 mm	10	
0.063 mm	9.3	

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Comments:

None

Report checked and approved by:

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887353

Contract: Llanwern

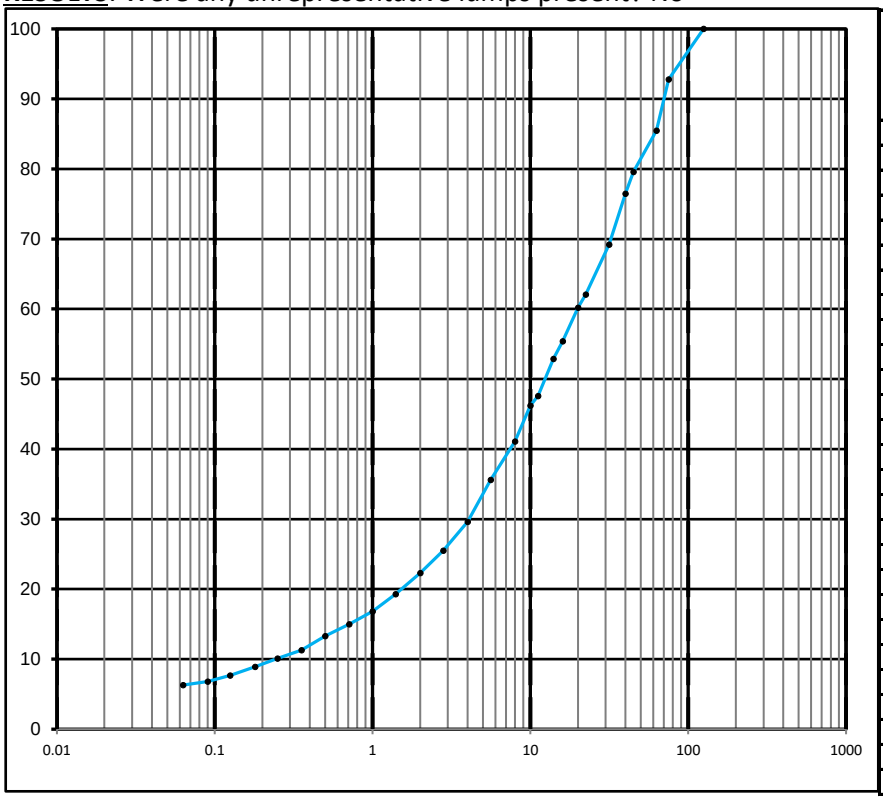
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX36-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX36-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	93	
63.0 mm	86	
45.0 mm	80	
40.0 mm	77	
31.5 mm	69	
22.4 mm	62	
20.0 mm	60	
16.0 mm	55	
14.0 mm	53	
11.2 mm	48	
10.0 mm	46	
8.0 mm	41	
5.6 mm	36	
4.0 mm	30	
2.8 mm	26	
2.0 mm	22	
1.4 mm	19	
1.0 mm	17	
0.710 mm	15	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.3	

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Comments:

None

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Park Point
17 High Street
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Birmingham
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Date: 24 August 2022
Test Report Ref: TR 887354

Contract: Llanwern

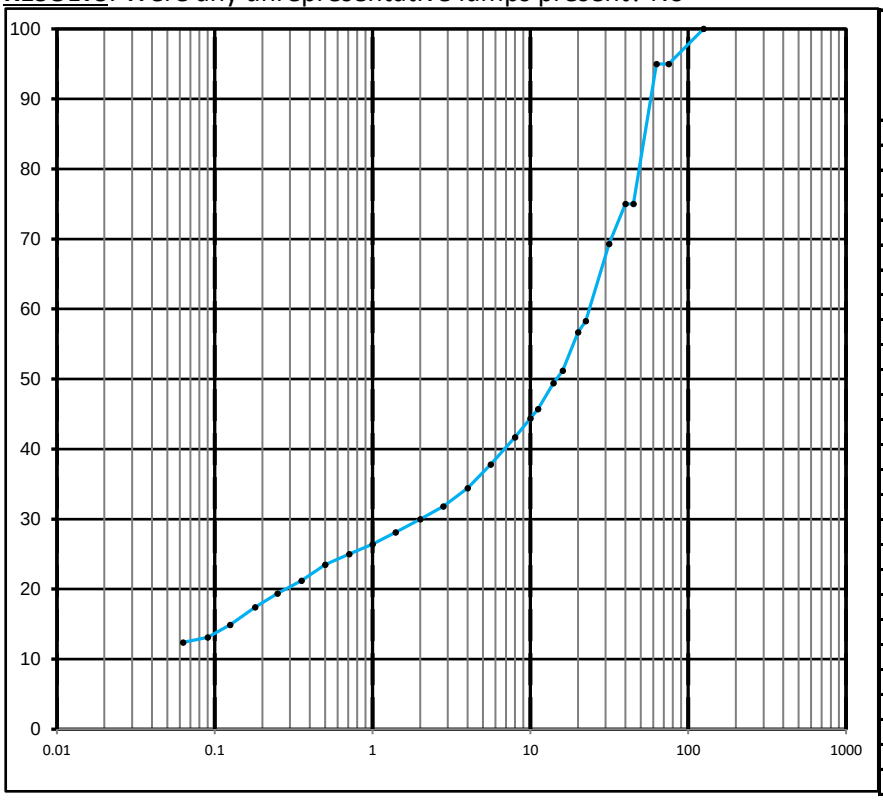
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX37-1 - 1.00M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX37-1 - 1.00M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	95	
63.0 mm	95	
45.0 mm	75	
40.0 mm	75	
31.5 mm	69	
22.4 mm	58	
20.0 mm	57	
16.0 mm	51	
14.0 mm	49	
11.2 mm	46	
10.0 mm	44	
8.0 mm	42	
5.6 mm	38	
4.0 mm	34	
2.8 mm	32	
2.0 mm	30	
1.4 mm	28	
1.0 mm	26	
0.710 mm	25	
0.500 mm	24	
0.355 mm	21	
0.250 mm	19	
0.180 mm	17	
0.125 mm	15	
0.090 mm	13	
0.063 mm	12.4	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887355

Contract: Llanwern

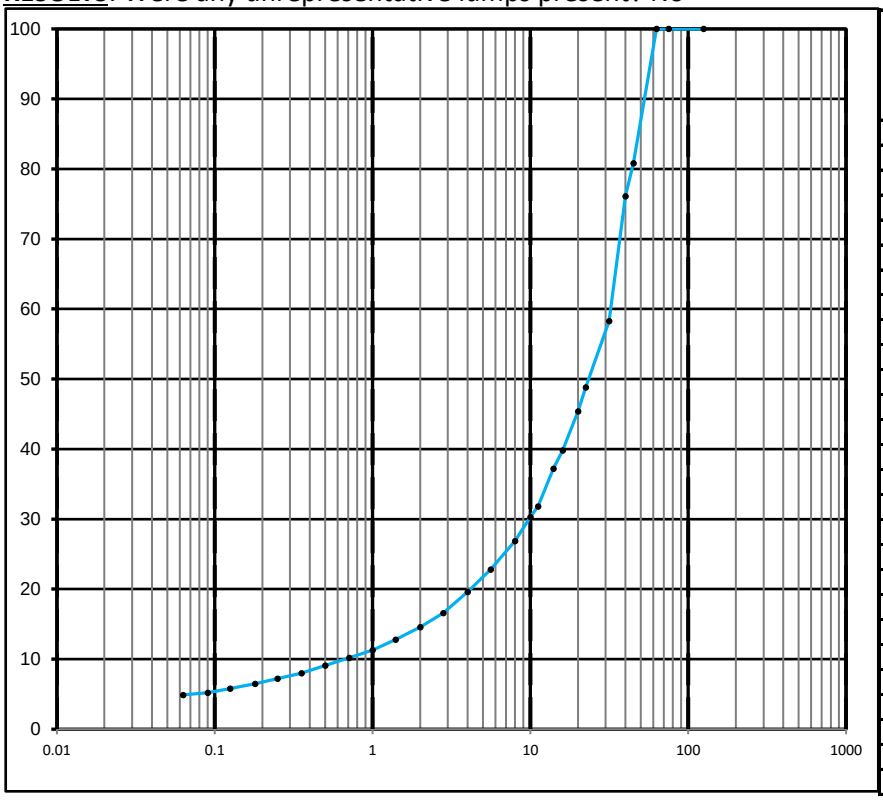
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX37-2 - 2.00M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX37-2 - 2.00M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	81	
40.0 mm	76	
31.5 mm	58	
22.4 mm	49	
20.0 mm	45	
16.0 mm	40	
14.0 mm	37	
11.2 mm	32	
10.0 mm	30	
8.0 mm	27	
5.6 mm	23	
4.0 mm	20	
2.8 mm	17	
2.0 mm	15	
1.4 mm	13	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.9	

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Comments:

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Park Point
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Date: 20 September 2022
Test Report Ref: TR 890900

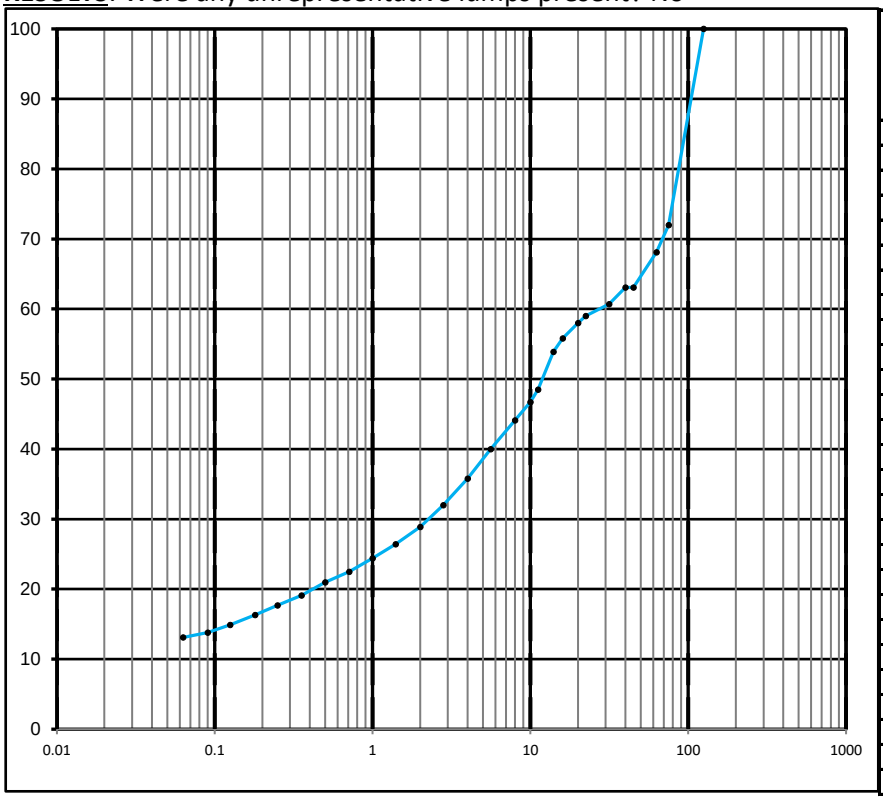
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ33-1 0.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AQ33-1 0.6M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	72	
63.0 mm	68	
45.0 mm	63	
40.0 mm	63	
31.5 mm	61	
22.4 mm	59	
20.0 mm	58	
16.0 mm	56	
14.0 mm	54	
11.2 mm	49	
10.0 mm	47	
8.0 mm	44	
5.6 mm	40	
4.0 mm	36	
2.8 mm	32	
2.0 mm	29	
1.4 mm	26	
1.0 mm	24	
0.710 mm	23	
0.500 mm	21	
0.355 mm	19	
0.250 mm	18	
0.180 mm	16	
0.125 mm	15	
0.090 mm	14	
0.063 mm	13.1	

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Comments:

None

Report checked and approved by:

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Date: 20 September 2022
Test Report Ref: TR 890905

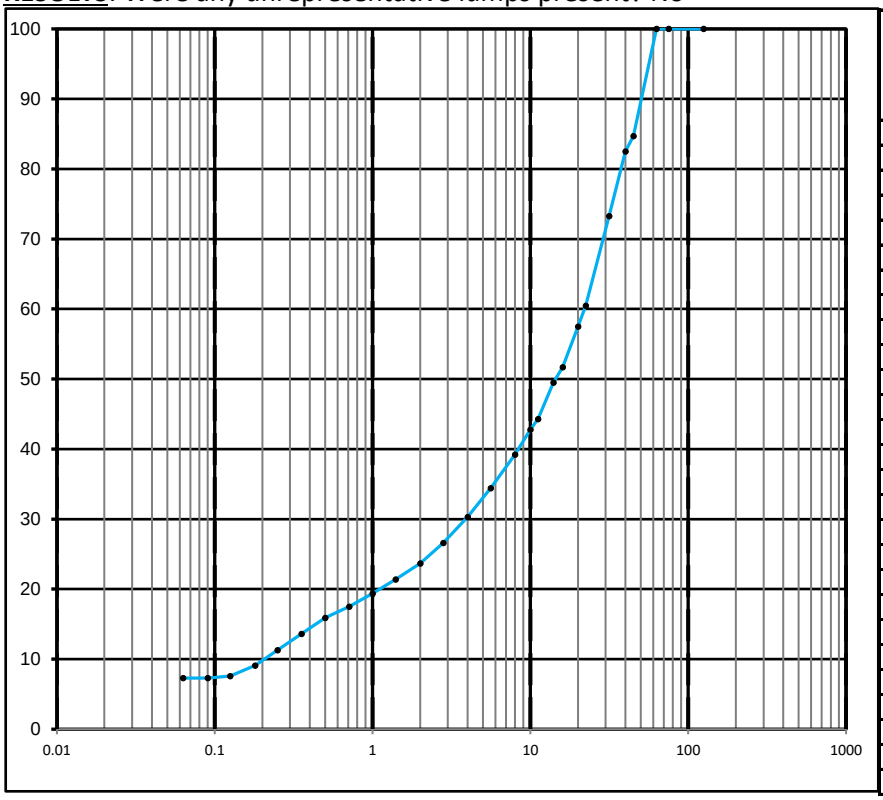
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR33-2 1.60M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AR33-2 1.60M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	85	
40.0 mm	83	
31.5 mm	73	
22.4 mm	61	
20.0 mm	58	
16.0 mm	52	
14.0 mm	50	
11.2 mm	44	
10.0 mm	43	
8.0 mm	39	
5.6 mm	34	
4.0 mm	30	
2.8 mm	27	
2.0 mm	24	
1.4 mm	21	
1.0 mm	19	
0.710 mm	18	
0.500 mm	16	
0.355 mm	14	
0.250 mm	11	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	7.3	

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Comments:

None

Report checked and approved by:

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St Modwen Developments Limited
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Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890909

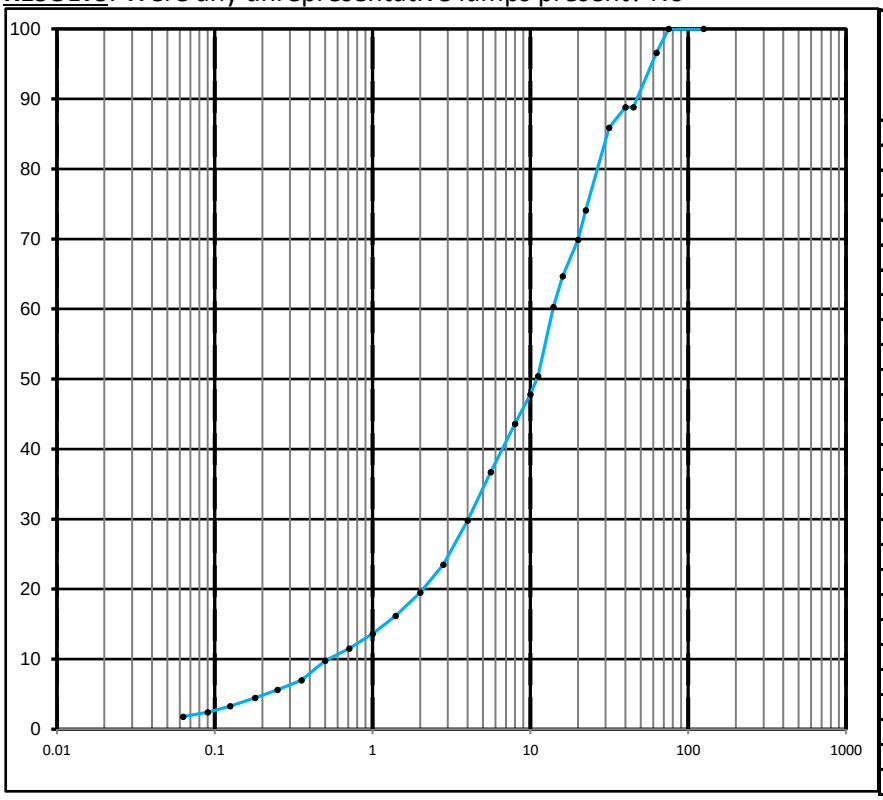
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS33-1 1.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AS33-1 1.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	89	
40.0 mm	89	
31.5 mm	86	
22.4 mm	74	
20.0 mm	70	
16.0 mm	65	
14.0 mm	60	
11.2 mm	50	
10.0 mm	48	
8.0 mm	44	
5.6 mm	37	
4.0 mm	30	
2.8 mm	24	
2.0 mm	20	
1.4 mm	16	
1.0 mm	14	
0.710 mm	12	
0.500 mm	10	
0.355 mm	7	
0.250 mm	6	
0.180 mm	4	
0.125 mm	3	
0.090 mm	2	
0.063 mm	1.8	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Date: 20 September 2022
Test Report Ref: TR 890914

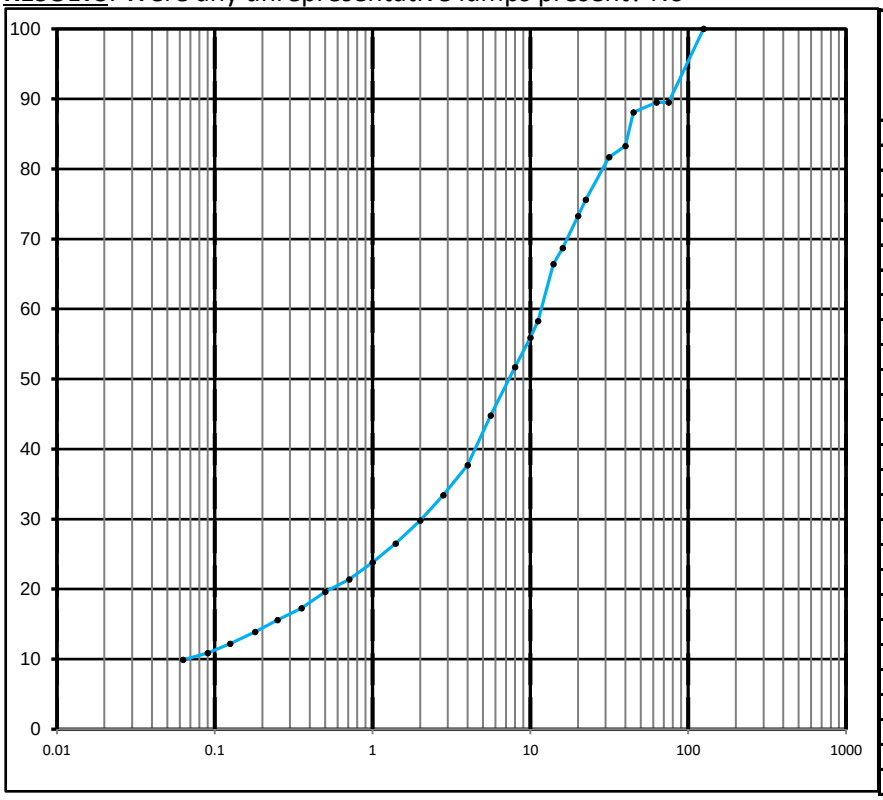
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT33-2 2.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AT33-2 2.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	90	
63.0 mm	90	
45.0 mm	88	
40.0 mm	83	
31.5 mm	82	
22.4 mm	76	
20.0 mm	73	
16.0 mm	69	
14.0 mm	66	
11.2 mm	58	
10.0 mm	56	
8.0 mm	52	
5.6 mm	45	
4.0 mm	38	
2.8 mm	33	
2.0 mm	30	
1.4 mm	27	
1.0 mm	24	
0.710 mm	21	
0.500 mm	20	
0.355 mm	17	
0.250 mm	16	
0.180 mm	14	
0.125 mm	12	
0.090 mm	11	
0.063 mm	9.9	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 890918

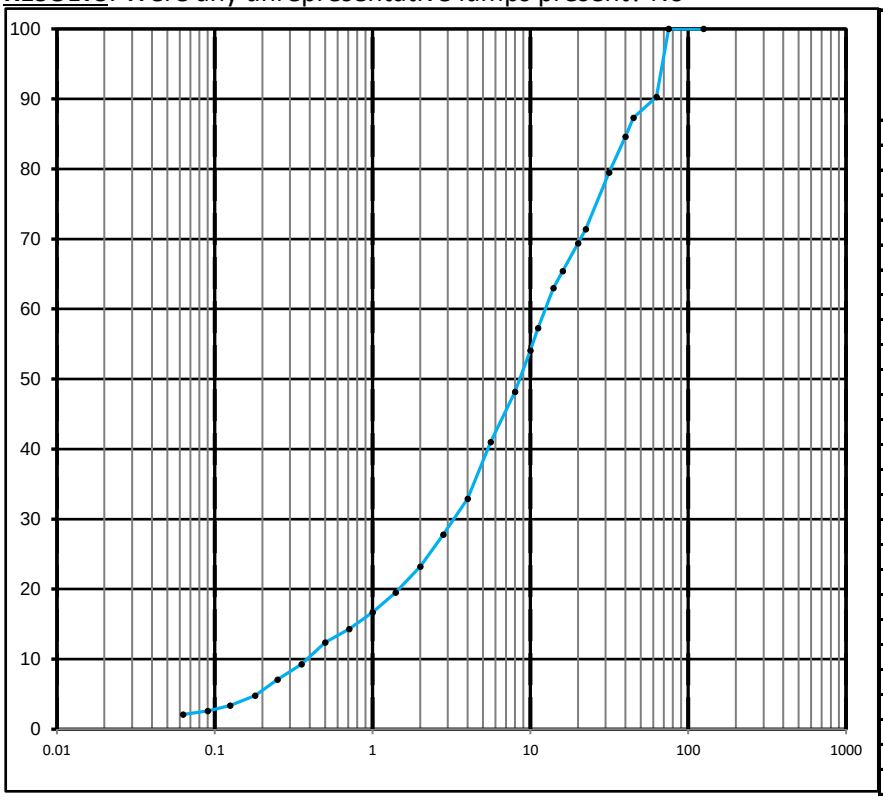
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU33-1 0.90M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AU33-1 0.90M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	90	
45.0 mm	87	
40.0 mm	85	
31.5 mm	80	
22.4 mm	71	
20.0 mm	69	
16.0 mm	65	
14.0 mm	63	
11.2 mm	57	
10.0 mm	54	
8.0 mm	48	
5.6 mm	41	
4.0 mm	33	
2.8 mm	28	
2.0 mm	23	
1.4 mm	20	
1.0 mm	17	
0.710 mm	14	
0.500 mm	12	
0.355 mm	9	
0.250 mm	7	
0.180 mm	5	
0.125 mm	3	
0.090 mm	3	
0.063 mm	2.1	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 890923

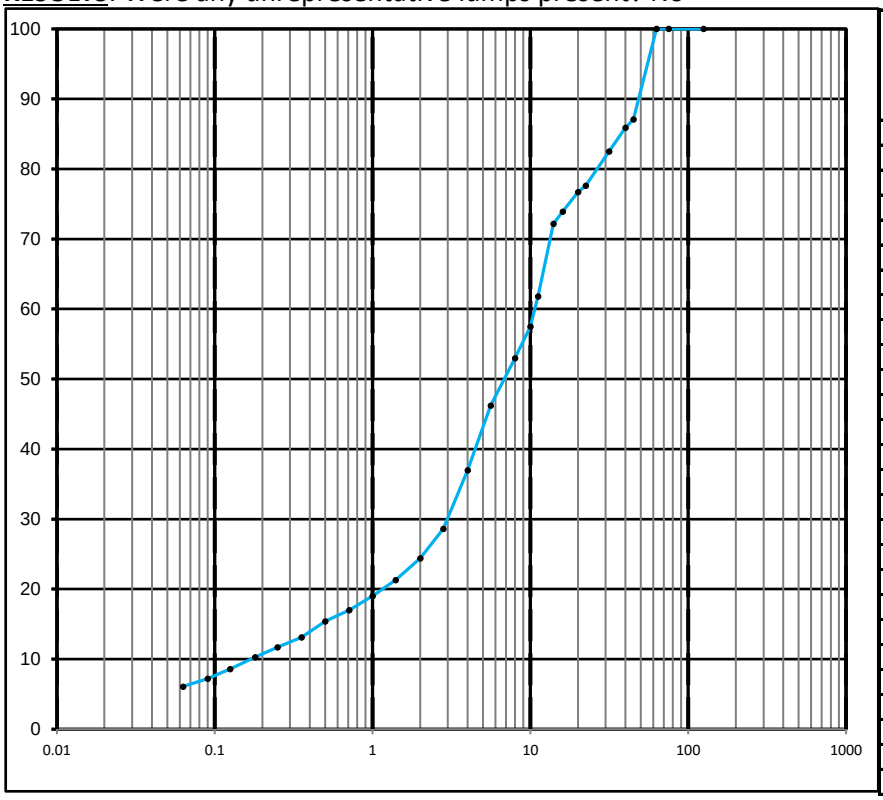
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV33-1 0.60M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV33-1 0.60M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	87	
40.0 mm	86	
31.5 mm	83	
22.4 mm	78	
20.0 mm	77	
16.0 mm	74	
14.0 mm	72	
11.2 mm	62	
10.0 mm	58	
8.0 mm	53	
5.6 mm	46	
4.0 mm	37	
2.8 mm	29	
2.0 mm	24	
1.4 mm	21	
1.0 mm	19	
0.710 mm	17	
0.500 mm	15	
0.355 mm	13	
0.250 mm	12	
0.180 mm	10	
0.125 mm	9	
0.090 mm	7	
0.063 mm	6.1	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 890927

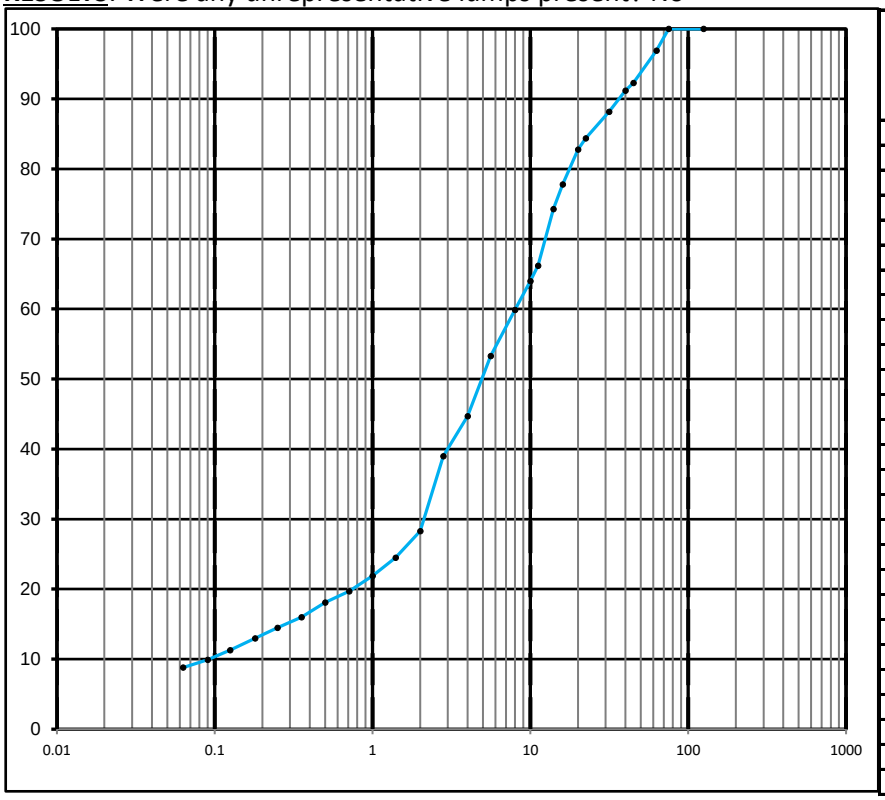
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV33-3 2.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV33-3 2.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	92	
40.0 mm	91	
31.5 mm	88	
22.4 mm	84	
20.0 mm	83	
16.0 mm	78	
14.0 mm	74	
11.2 mm	66	
10.0 mm	64	
8.0 mm	60	
5.6 mm	53	
4.0 mm	45	
2.8 mm	39	
2.0 mm	28	
1.4 mm	25	
1.0 mm	22	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	15	
0.180 mm	13	
0.125 mm	11	
0.090 mm	10	
0.063 mm	8.8	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890932

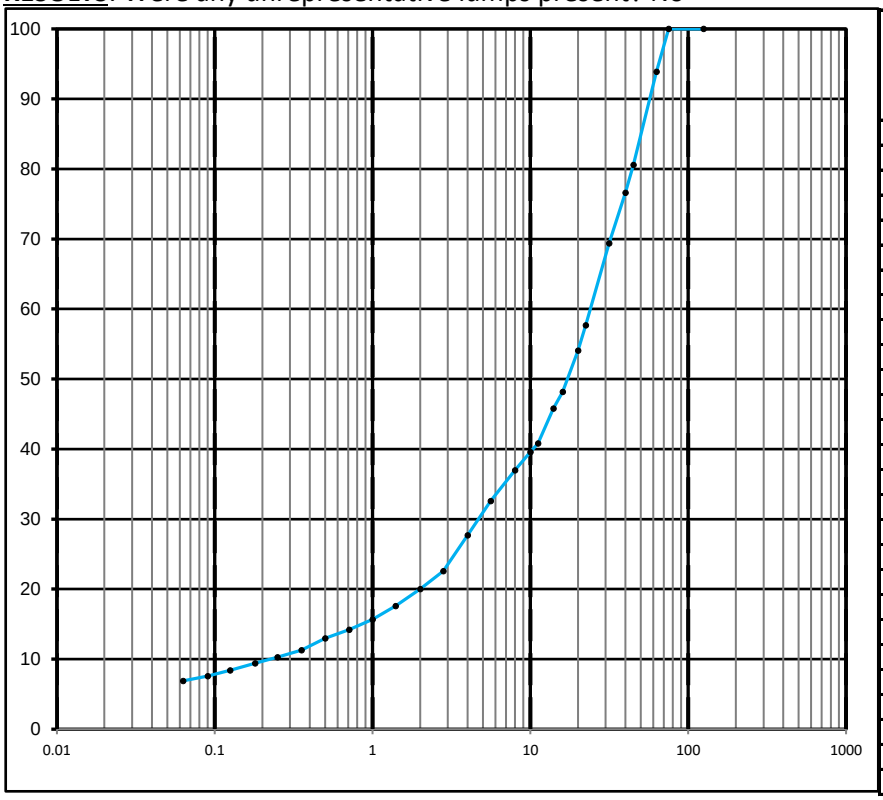
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW33-2 1.80M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AW33-2 1.80M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	94	
45.0 mm	81	
40.0 mm	77	
31.5 mm	69	
22.4 mm	58	
20.0 mm	54	
16.0 mm	48	
14.0 mm	46	
11.2 mm	41	
10.0 mm	40	
8.0 mm	37	
5.6 mm	33	
4.0 mm	28	
2.8 mm	23	
2.0 mm	20	
1.4 mm	18	
1.0 mm	16	
0.710 mm	14	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	8	
0.063 mm	6.9	

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Comments:

None

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Birmingham
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Date: 20 September 2022
Test Report Ref: TR 896091

Contract: Llanwern

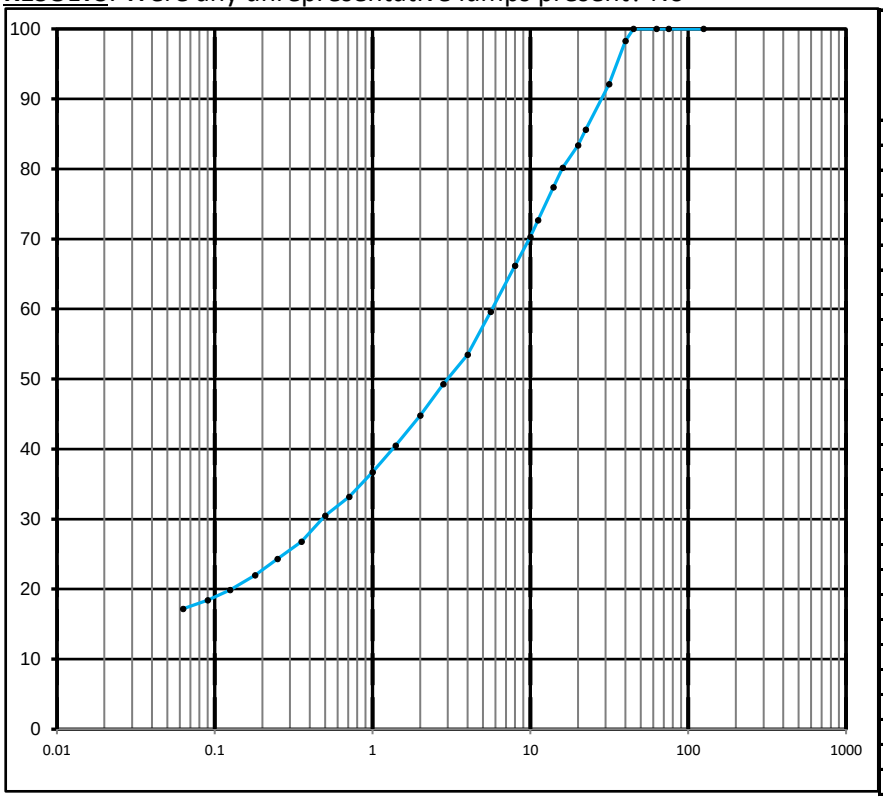
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AM32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AM32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	98	
31.5 mm	92	
22.4 mm	86	
20.0 mm	83	
16.0 mm	80	
14.0 mm	77	
11.2 mm	73	
10.0 mm	70	
8.0 mm	66	
5.6 mm	60	
4.0 mm	54	
2.8 mm	49	
2.0 mm	45	
1.4 mm	41	
1.0 mm	37	
0.710 mm	33	
0.500 mm	31	
0.355 mm	27	
0.250 mm	24	
0.180 mm	22	
0.125 mm	20	
0.090 mm	18	
0.063 mm	17.2	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896096

Contract: Llanwern

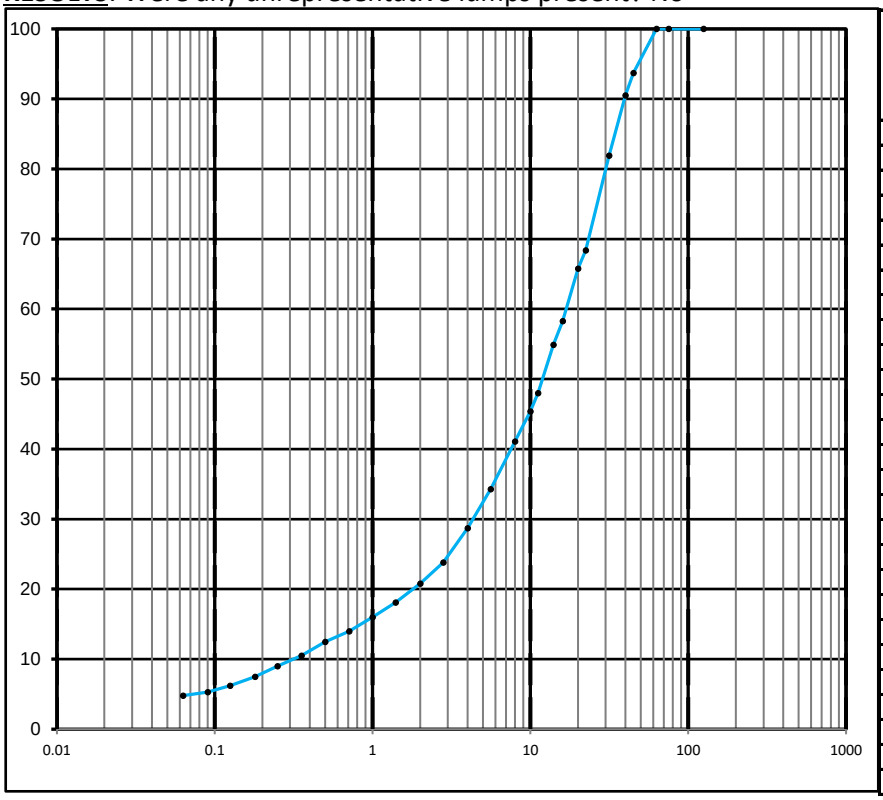
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AN32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	94	
40.0 mm	91	
31.5 mm	82	
22.4 mm	68	
20.0 mm	66	
16.0 mm	58	
14.0 mm	55	
11.2 mm	48	
10.0 mm	45	
8.0 mm	41	
5.6 mm	34	
4.0 mm	29	
2.8 mm	24	
2.0 mm	21	
1.4 mm	18	
1.0 mm	16	
0.710 mm	14	
0.500 mm	13	
0.355 mm	11	
0.250 mm	9	
0.180 mm	8	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.8	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896100

Contract: Llanwern

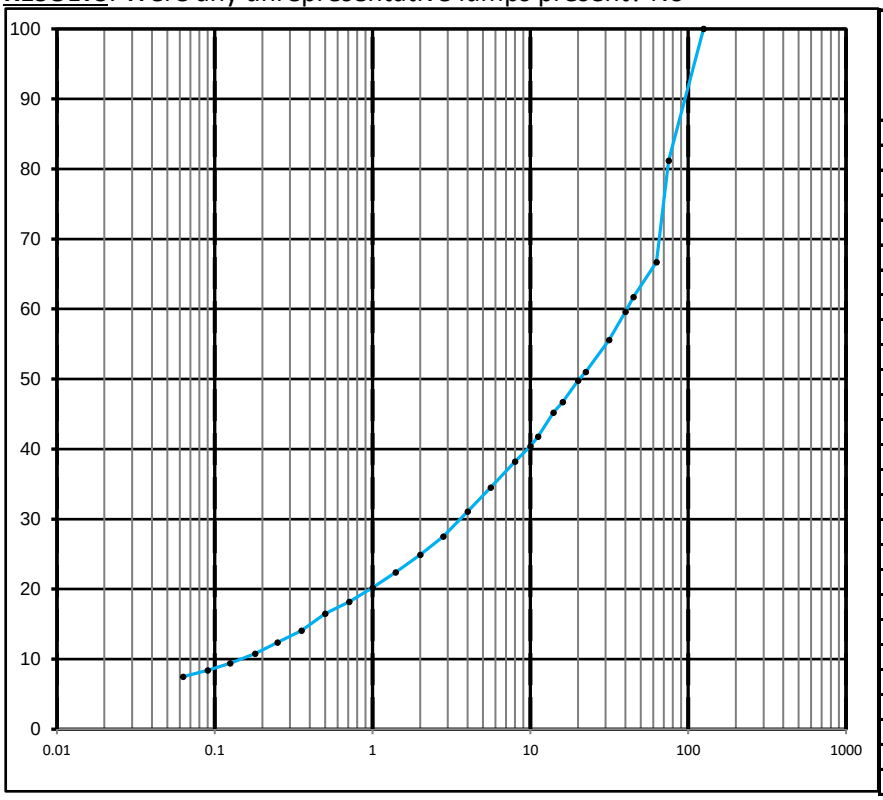
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN33-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AN33-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	81	
63.0 mm	67	
45.0 mm	62	
40.0 mm	60	
31.5 mm	56	
22.4 mm	51	
20.0 mm	50	
16.0 mm	47	
14.0 mm	45	
11.2 mm	42	
10.0 mm	40	
8.0 mm	38	
5.6 mm	35	
4.0 mm	31	
2.8 mm	28	
2.0 mm	25	
1.4 mm	22	
1.0 mm	20	
0.710 mm	18	
0.500 mm	17	
0.355 mm	14	
0.250 mm	12	
0.180 mm	11	
0.125 mm	9	
0.090 mm	8	
0.063 mm	7.5	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896105

Contract: Llanwern

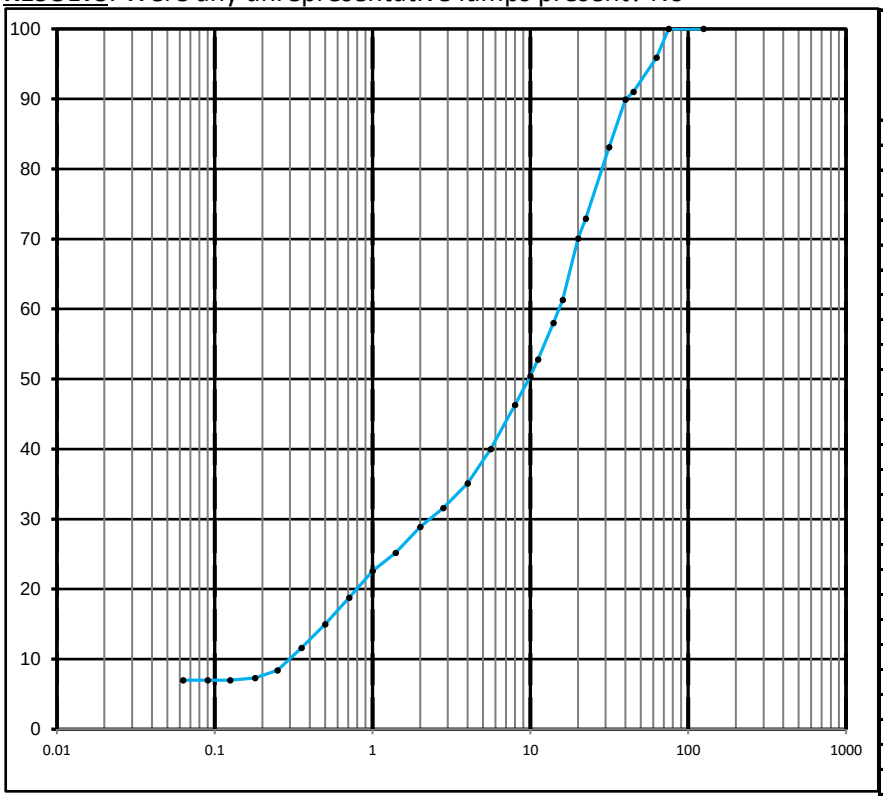
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AO32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	96	
45.0 mm	91	
40.0 mm	90	
31.5 mm	83	
22.4 mm	73	
20.0 mm	70	
16.0 mm	61	
14.0 mm	58	
11.2 mm	53	
10.0 mm	50	
8.0 mm	46	
5.6 mm	40	
4.0 mm	35	
2.8 mm	32	
2.0 mm	29	
1.4 mm	25	
1.0 mm	23	
0.710 mm	19	
0.500 mm	15	
0.355 mm	12	
0.250 mm	8	
0.180 mm	7	
0.125 mm	7	
0.090 mm	7	
0.063 mm	7.0	

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Comments:

None

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Date: 16 September 2022
Test Report Ref: TR 896109

Contract: Llanwern

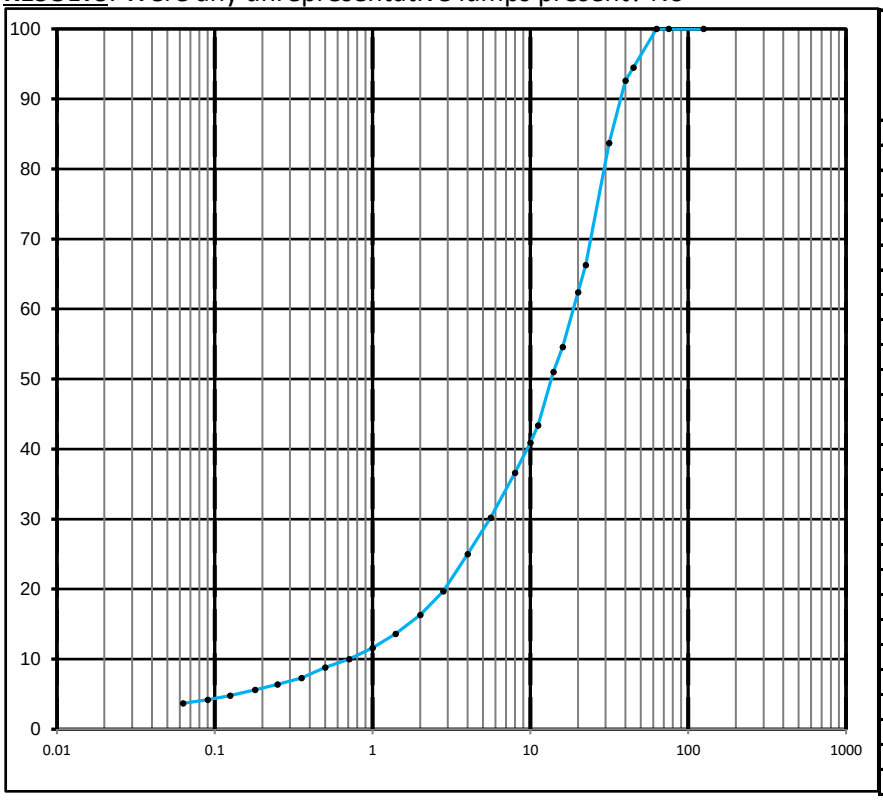
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO33-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AO33-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	93	
31.5 mm	84	
22.4 mm	66	
20.0 mm	62	
16.0 mm	55	
14.0 mm	51	
11.2 mm	43	
10.0 mm	41	
8.0 mm	37	
5.6 mm	30	
4.0 mm	25	
2.8 mm	20	
2.0 mm	16	
1.4 mm	14	
1.0 mm	12	
0.710 mm	10	
0.500 mm	9	
0.355 mm	7	
0.250 mm	6	
0.180 mm	6	
0.125 mm	5	
0.090 mm	4	
0.063 mm	3.7	

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Comments:

None

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Birmingham
B31 2UQ

Date: 16 September 2022
Test Report Ref: TR 896114

Contract: Llanwern

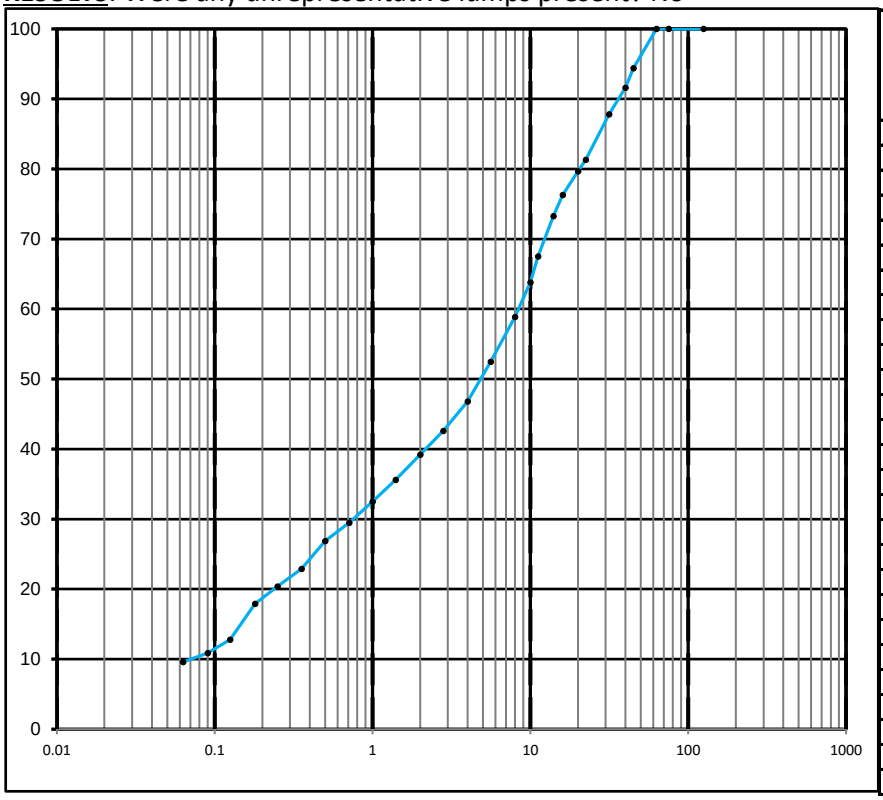
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV31-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV31-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	94	
40.0 mm	92	
31.5 mm	88	
22.4 mm	81	
20.0 mm	80	
16.0 mm	76	
14.0 mm	73	
11.2 mm	68	
10.0 mm	64	
8.0 mm	59	
5.6 mm	53	
4.0 mm	47	
2.8 mm	43	
2.0 mm	39	
1.4 mm	36	
1.0 mm	33	
0.710 mm	30	
0.500 mm	27	
0.355 mm	23	
0.250 mm	20	
0.180 mm	18	
0.125 mm	13	
0.090 mm	11	
0.063 mm	9.6	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896118

Contract: Llanwern

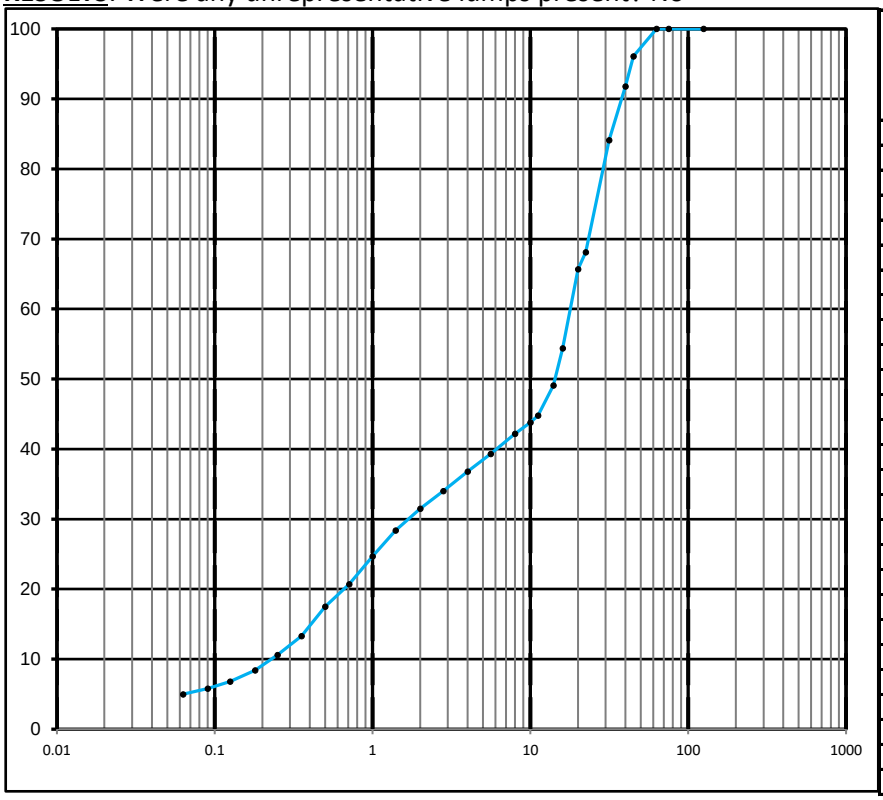
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV32-2**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	96	
40.0 mm	92	
31.5 mm	84	
22.4 mm	68	
20.0 mm	66	
16.0 mm	54	
14.0 mm	49	
11.2 mm	45	
10.0 mm	44	
8.0 mm	42	
5.6 mm	39	
4.0 mm	37	
2.8 mm	34	
2.0 mm	32	
1.4 mm	28	
1.0 mm	25	
0.710 mm	21	
0.500 mm	18	
0.355 mm	13	
0.250 mm	11	
0.180 mm	8	
0.125 mm	7	
0.090 mm	6	
0.063 mm	5.0	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896123

Contract: Llanwern

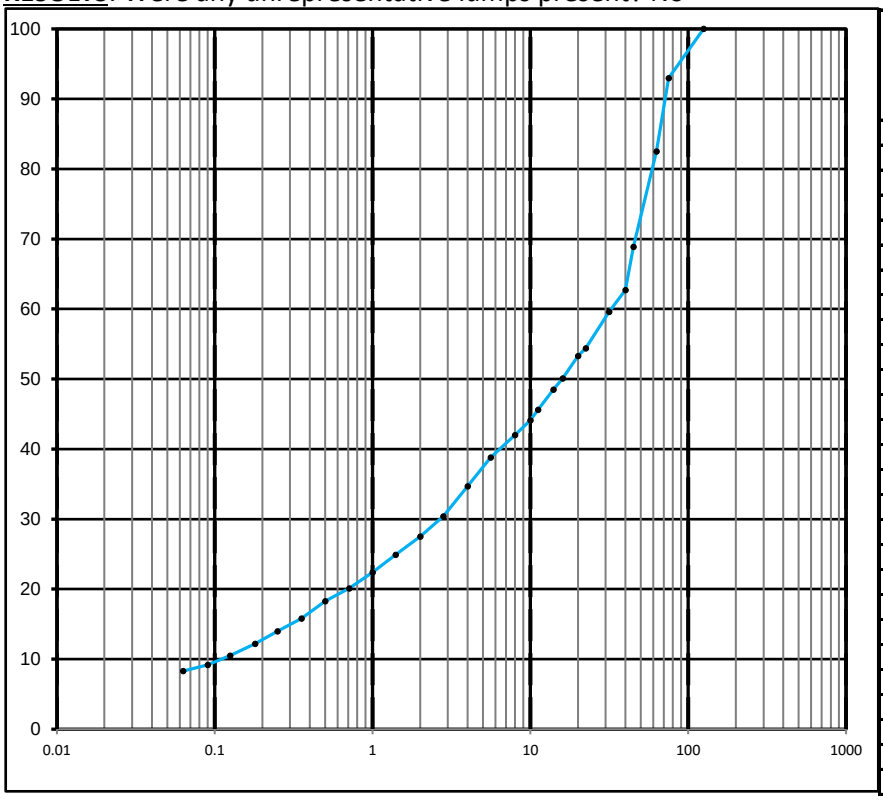
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW31-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AW31-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	93	
63.0 mm	83	
45.0 mm	69	
40.0 mm	63	
31.5 mm	60	
22.4 mm	54	
20.0 mm	53	
16.0 mm	50	
14.0 mm	49	
11.2 mm	46	
10.0 mm	44	
8.0 mm	42	
5.6 mm	39	
4.0 mm	35	
2.8 mm	30	
2.0 mm	28	
1.4 mm	25	
1.0 mm	22	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	14	
0.180 mm	12	
0.125 mm	11	
0.090 mm	9	
0.063 mm	8.3	

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Comments:

None

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Date: 16 September 2022
Test Report Ref: TR 896132

Contract: Llanwern

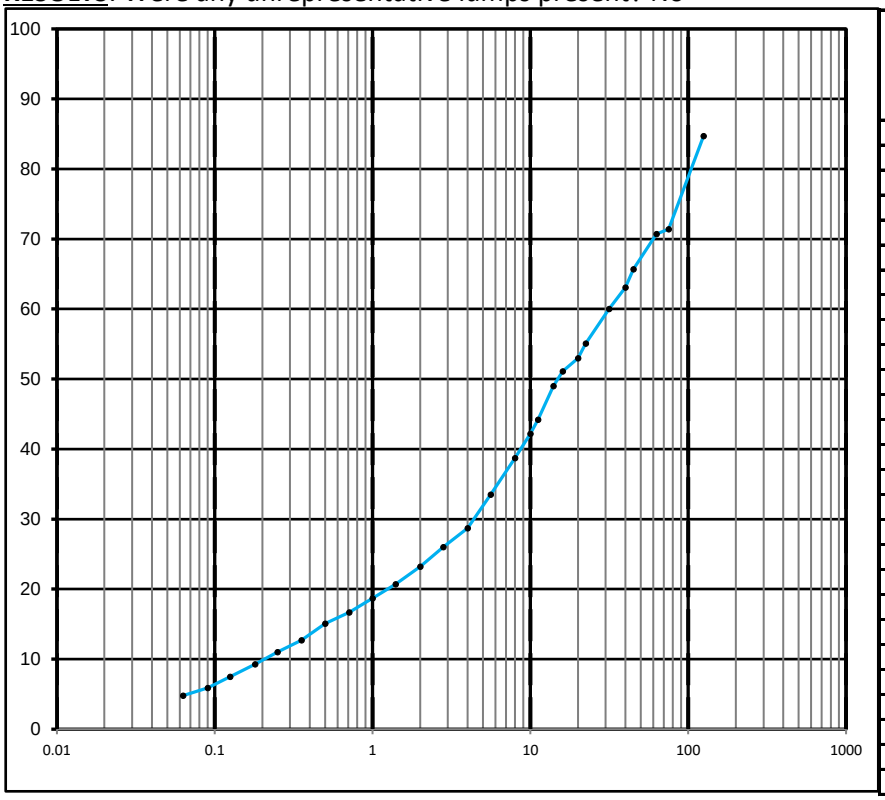
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX31-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX31-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	85	
75.0 mm	71	
63.0 mm	71	
45.0 mm	66	
40.0 mm	63	
31.5 mm	60	
22.4 mm	55	
20.0 mm	53	
16.0 mm	51	
14.0 mm	49	
11.2 mm	44	
10.0 mm	42	
8.0 mm	39	
5.6 mm	34	
4.0 mm	29	
2.8 mm	26	
2.0 mm	23	
1.4 mm	21	
1.0 mm	19	
0.710 mm	17	
0.500 mm	15	
0.355 mm	13	
0.250 mm	11	
0.180 mm	9	
0.125 mm	7	
0.090 mm	6	
0.063 mm	4.8	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 896136

Contract: Llanwern

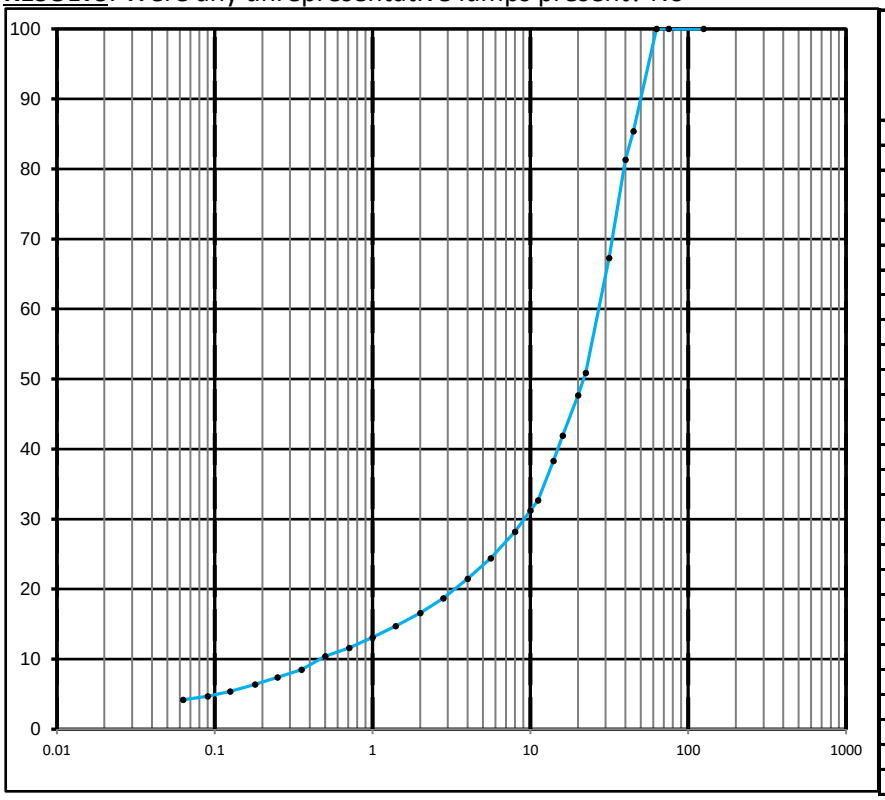
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	85	
40.0 mm	81	
31.5 mm	67	
22.4 mm	51	
20.0 mm	48	
16.0 mm	42	
14.0 mm	38	
11.2 mm	33	
10.0 mm	31	
8.0 mm	28	
5.6 mm	24	
4.0 mm	22	
2.8 mm	19	
2.0 mm	17	
1.4 mm	15	
1.0 mm	13	
0.710 mm	12	
0.500 mm	10	
0.355 mm	9	
0.250 mm	7	
0.180 mm	6	
0.125 mm	5	
0.090 mm	5	
0.063 mm	4.2	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 16 September 2022
Test Report Ref: TR 896141

Contract: Llanwern

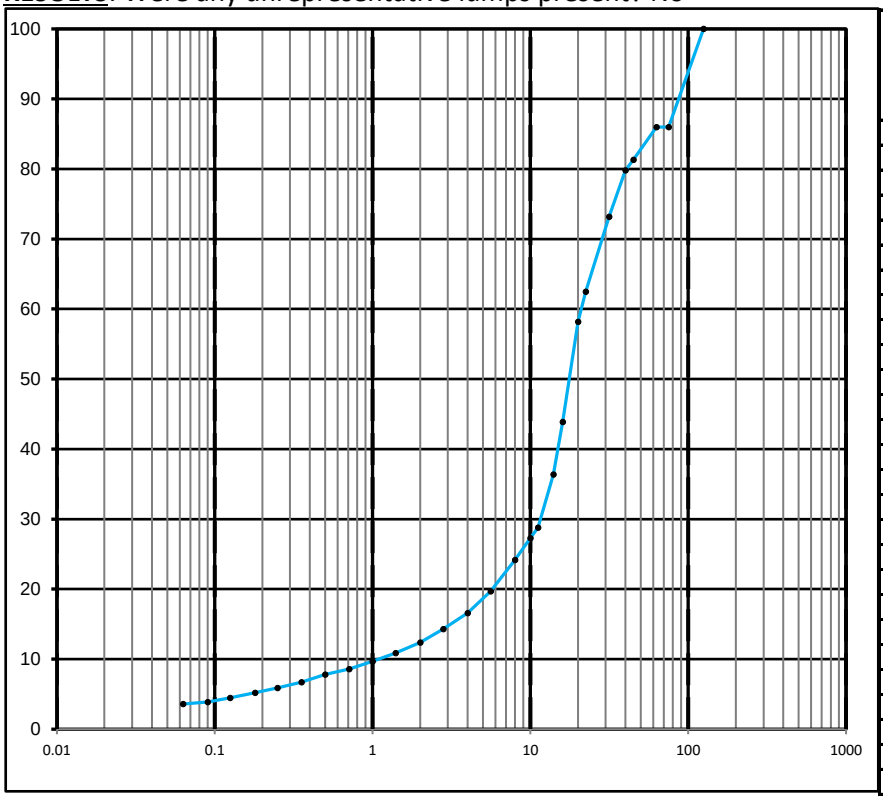
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX32-2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX32-2**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	86	
63.0 mm	86	
45.0 mm	81	
40.0 mm	80	
31.5 mm	73	
22.4 mm	63	
20.0 mm	58	
16.0 mm	44	
14.0 mm	36	
11.2 mm	29	
10.0 mm	27	
8.0 mm	24	
5.6 mm	20	
4.0 mm	17	
2.8 mm	14	
2.0 mm	12	
1.4 mm	11	
1.0 mm	10	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	5	
0.090 mm	4	
0.063 mm	3.6	

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Comments:

None

Report checked and approved by:

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903958

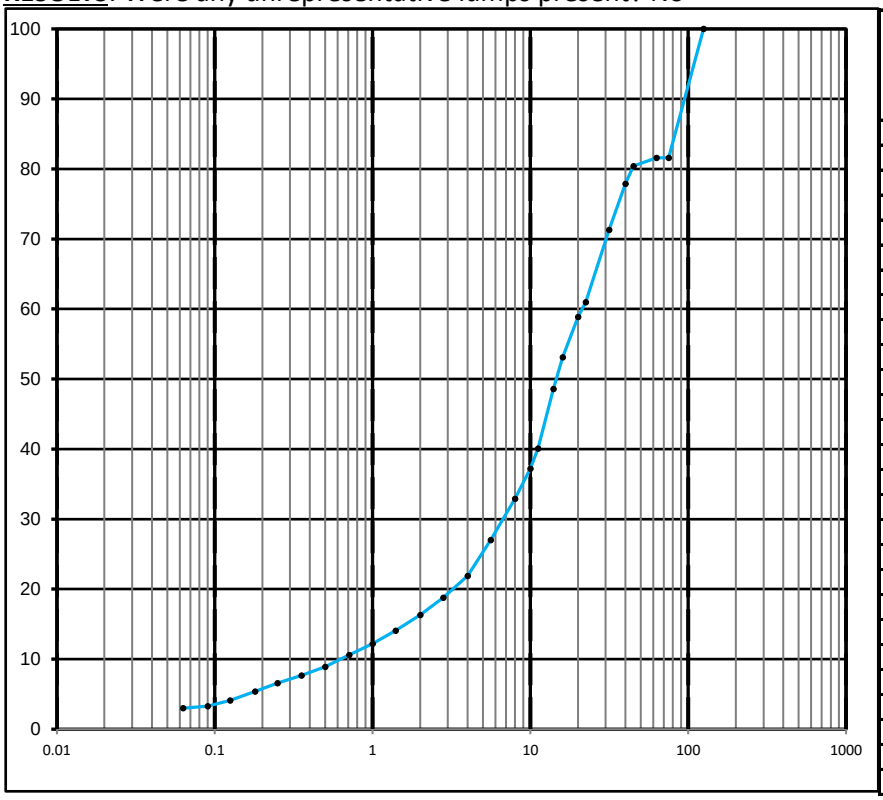
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	82	
63.0 mm	82	
45.0 mm	80	
40.0 mm	78	
31.5 mm	71	
22.4 mm	61	
20.0 mm	59	
16.0 mm	53	
14.0 mm	49	
11.2 mm	40	
10.0 mm	37	
8.0 mm	33	
5.6 mm	27	
4.0 mm	22	
2.8 mm	19	
2.0 mm	16	
1.4 mm	14	
1.0 mm	12	
0.710 mm	11	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	3.0	

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Comments:

None

Report checked and approved by:

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Two Devon Way
Longbridge
Birmingham
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Date: 14 October 2022
Test Report Ref: TR 903966

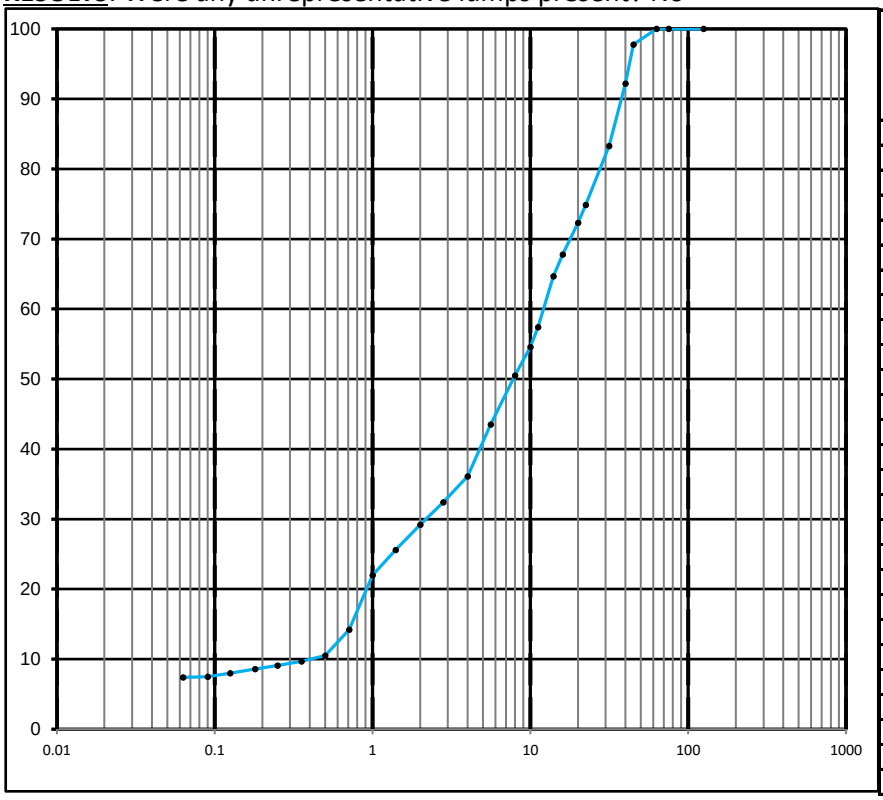
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	92	
31.5 mm	83	
22.4 mm	75	
20.0 mm	72	
16.0 mm	68	
14.0 mm	65	
11.2 mm	57	
10.0 mm	55	
8.0 mm	51	
5.6 mm	44	
4.0 mm	36	
2.8 mm	32	
2.0 mm	29	
1.4 mm	26	
1.0 mm	22	
0.710 mm	14	
0.500 mm	11	
0.355 mm	10	
0.250 mm	9	
0.180 mm	9	
0.125 mm	8	
0.090 mm	8	
0.063 mm	7.4	

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Comments:

None

Report checked and approved by:

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Two Devon Way
Longbridge
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Date: 13 October 2022
Test Report Ref: TR 903970

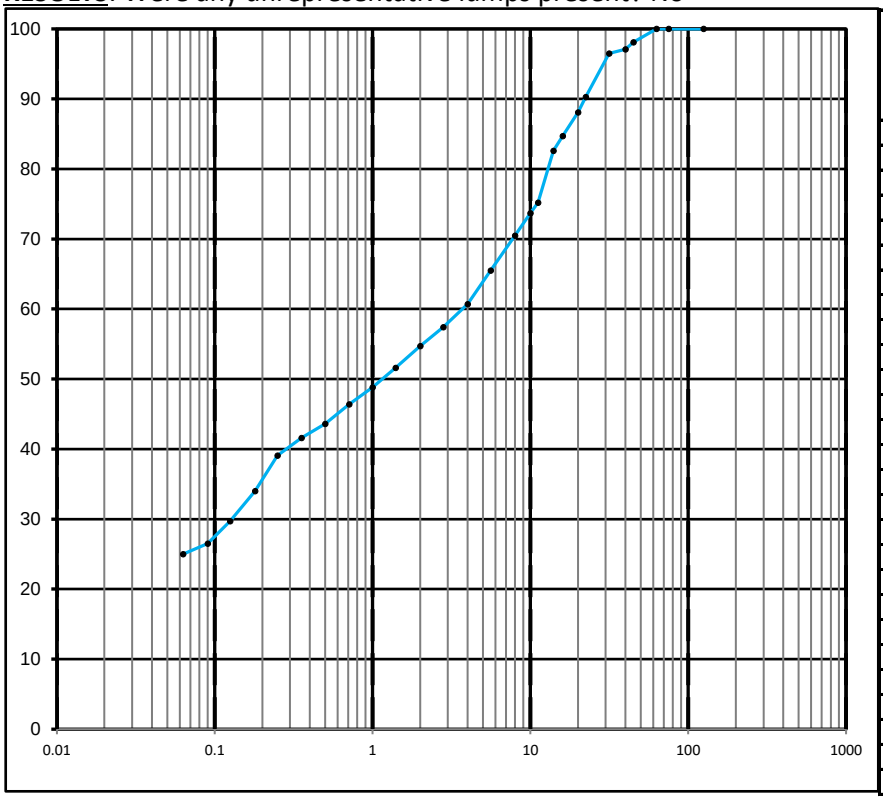
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	97	
31.5 mm	97	
22.4 mm	90	
20.0 mm	88	
16.0 mm	85	
14.0 mm	83	
11.2 mm	75	
10.0 mm	74	
8.0 mm	71	
5.6 mm	66	
4.0 mm	61	
2.8 mm	57	
2.0 mm	55	
1.4 mm	52	
1.0 mm	49	
0.710 mm	46	
0.500 mm	44	
0.355 mm	42	
0.250 mm	39	
0.180 mm	34	
0.125 mm	30	
0.090 mm	27	
0.063 mm	25.0	

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Comments:

None

Report checked and approved by:

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Date: 13 October 2022
Test Report Ref: TR 903975

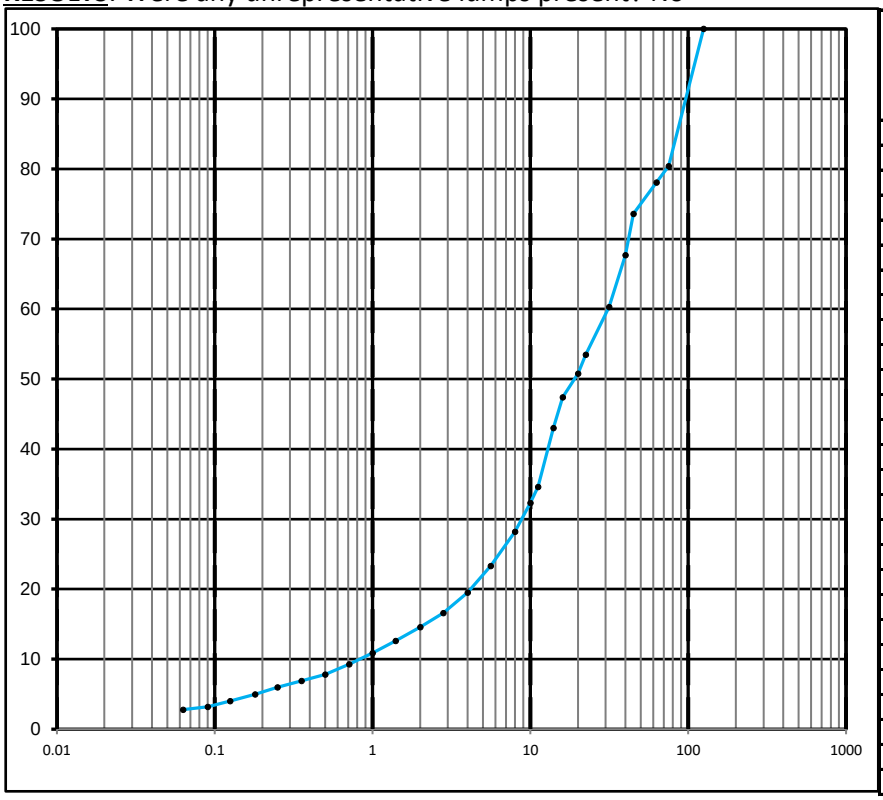
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS32-2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	80	
63.0 mm	78	
45.0 mm	74	
40.0 mm	68	
31.5 mm	60	
22.4 mm	54	
20.0 mm	51	
16.0 mm	47	
14.0 mm	43	
11.2 mm	35	
10.0 mm	32	
8.0 mm	28	
5.6 mm	23	
4.0 mm	20	
2.8 mm	17	
2.0 mm	15	
1.4 mm	13	
1.0 mm	11	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	2.8	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
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Date: 13 October 2022
Test Report Ref: TR 903979

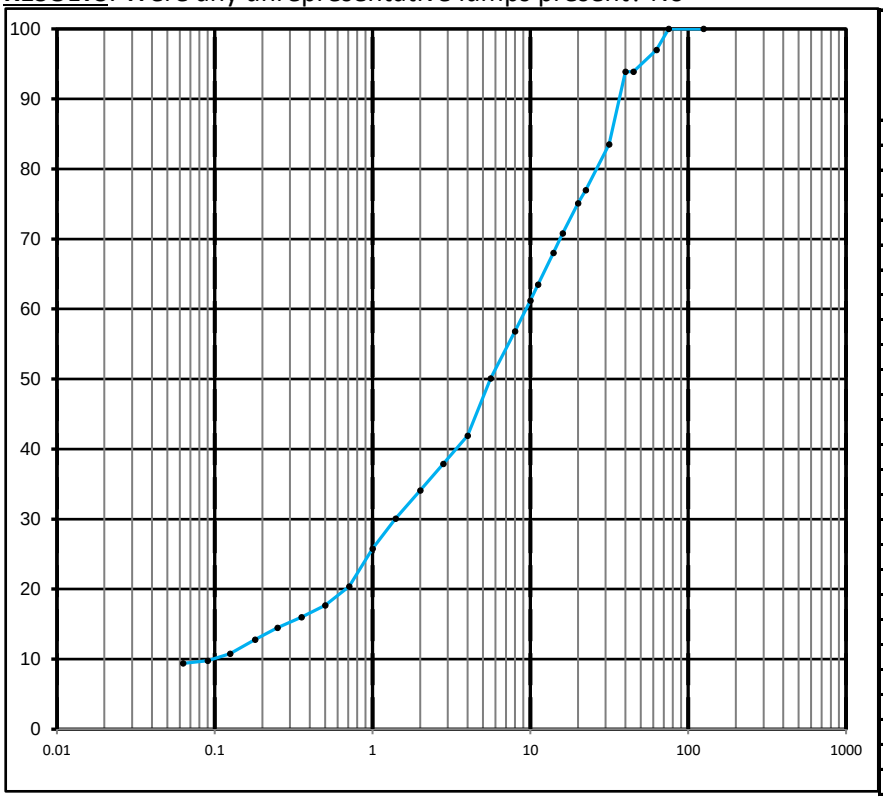
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	94	
40.0 mm	94	
31.5 mm	84	
22.4 mm	77	
20.0 mm	75	
16.0 mm	71	
14.0 mm	68	
11.2 mm	64	
10.0 mm	61	
8.0 mm	57	
5.6 mm	50	
4.0 mm	42	
2.8 mm	38	
2.0 mm	34	
1.4 mm	30	
1.0 mm	26	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	15	
0.180 mm	13	
0.125 mm	11	
0.090 mm	10	
0.063 mm	9.4	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903984

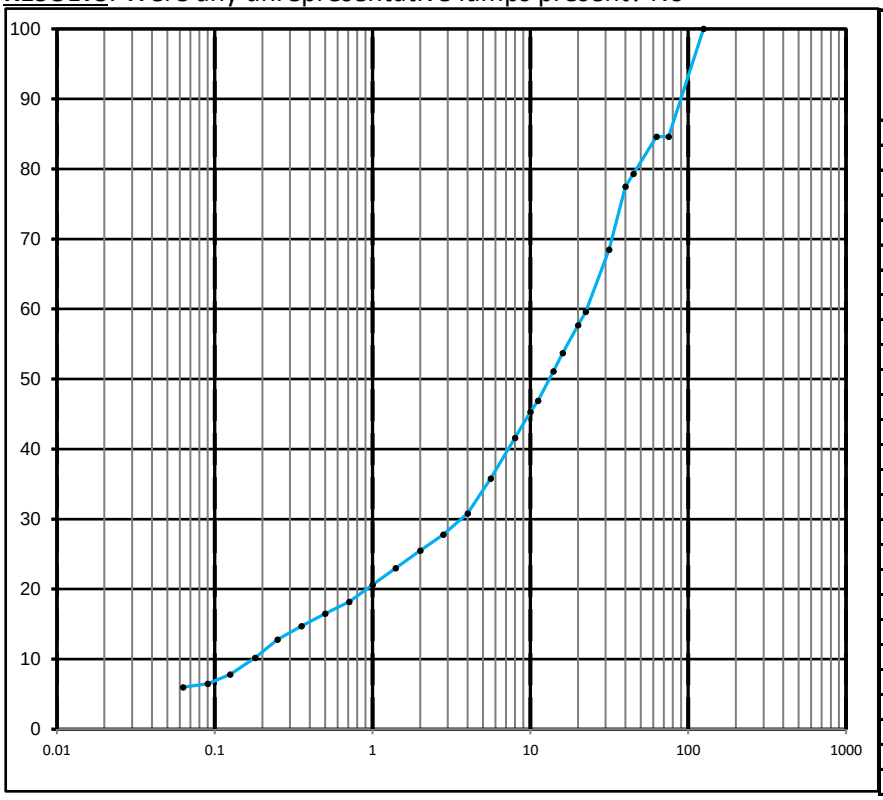
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU29-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	85	
63.0 mm	85	
45.0 mm	79	
40.0 mm	78	
31.5 mm	69	
22.4 mm	60	
20.0 mm	58	
16.0 mm	54	
14.0 mm	51	
11.2 mm	47	
10.0 mm	45	
8.0 mm	42	
5.6 mm	36	
4.0 mm	31	
2.8 mm	28	
2.0 mm	26	
1.4 mm	23	
1.0 mm	21	
0.710 mm	18	
0.500 mm	17	
0.355 mm	15	
0.250 mm	13	
0.180 mm	10	
0.125 mm	8	
0.090 mm	6	
0.063 mm	6.0	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
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Date: 13 October 2022
Test Report Ref: TR 903988

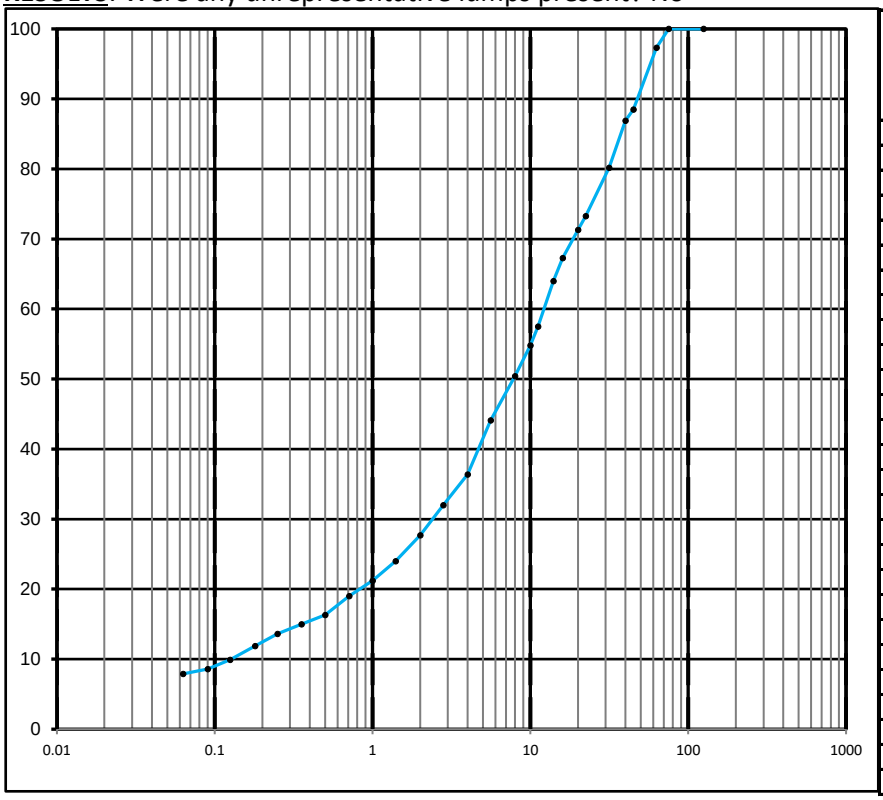
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	89	
40.0 mm	87	
31.5 mm	80	
22.4 mm	73	
20.0 mm	71	
16.0 mm	67	
14.0 mm	64	
11.2 mm	58	
10.0 mm	55	
8.0 mm	50	
5.6 mm	44	
4.0 mm	36	
2.8 mm	32	
2.0 mm	28	
1.4 mm	24	
1.0 mm	21	
0.710 mm	19	
0.500 mm	16	
0.355 mm	15	
0.250 mm	14	
0.180 mm	12	
0.125 mm	10	
0.090 mm	9	
0.063 mm	7.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Two Devon Way
Longbridge
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Date: 13 October 2022
Test Report Ref: TR 903993

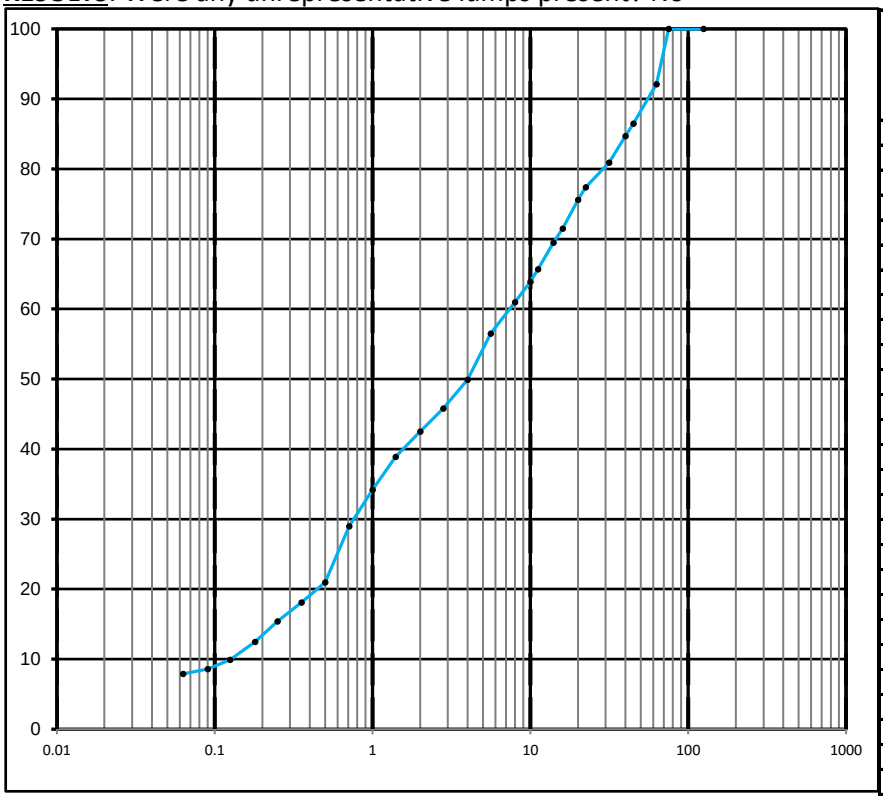
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV30-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	92	
45.0 mm	87	
40.0 mm	85	
31.5 mm	81	
22.4 mm	77	
20.0 mm	76	
16.0 mm	72	
14.0 mm	70	
11.2 mm	66	
10.0 mm	64	
8.0 mm	61	
5.6 mm	57	
4.0 mm	50	
2.8 mm	46	
2.0 mm	43	
1.4 mm	39	
1.0 mm	34	
0.710 mm	29	
0.500 mm	21	
0.355 mm	18	
0.250 mm	15	
0.180 mm	13	
0.125 mm	10	
0.090 mm	9	
0.063 mm	7.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 24 October 2022
Test Report Ref: TR 904883

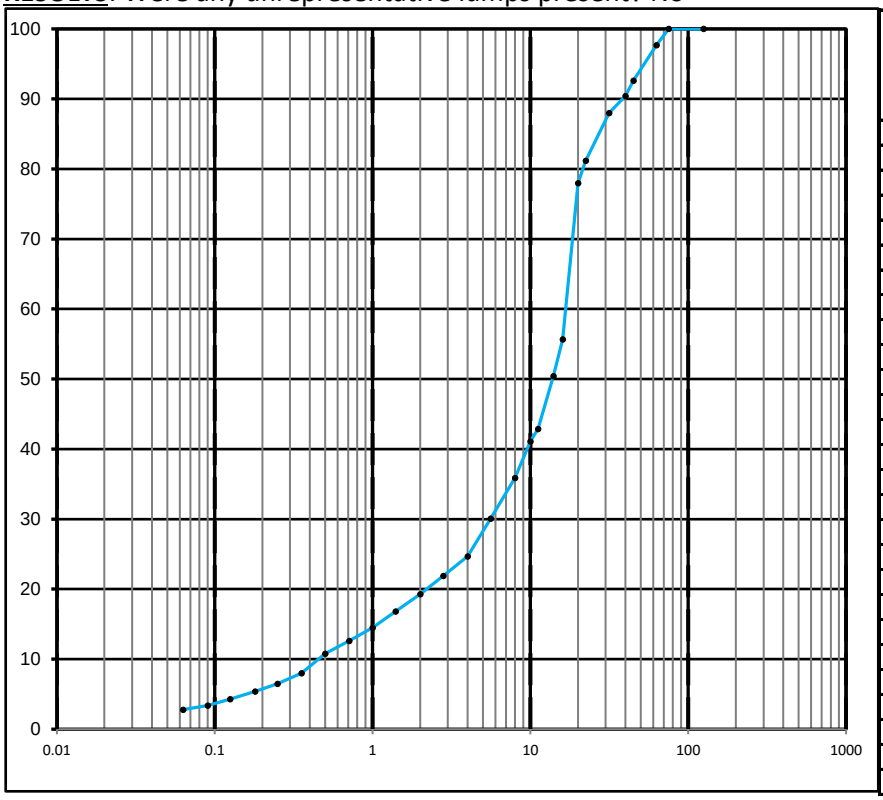
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105136**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN34-1 - 1m**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**24/08/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**30/08/2022**		
Date of Start of Test:	**13/10/2022**		
Sampling Location:	**AN34-1 - 1m**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	98	
45.0 mm	93	
40.0 mm	90	
31.5 mm	88	
22.4 mm	81	
20.0 mm	78	
16.0 mm	56	
14.0 mm	50	
11.2 mm	43	
10.0 mm	41	
8.0 mm	36	
5.6 mm	30	
4.0 mm	25	
2.8 mm	22	
2.0 mm	19	
1.4 mm	17	
1.0 mm	15	
0.710 mm	13	
0.500 mm	11	
0.355 mm	8	
0.250 mm	6	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	2.8	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927639

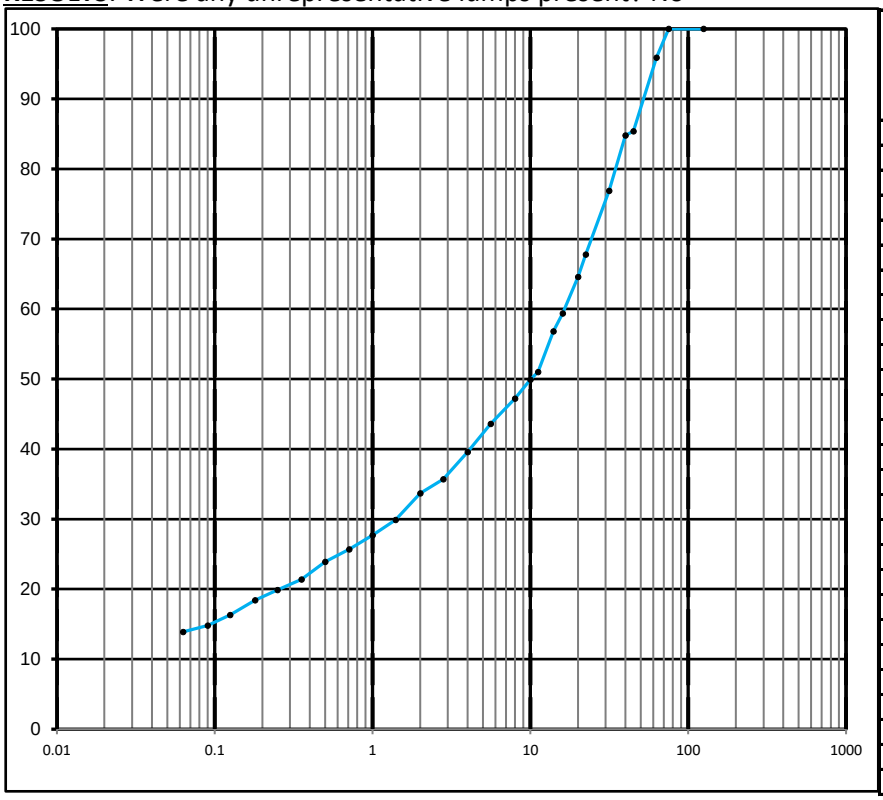
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. No:	**AM36-1 - 1.5**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**BR**
Date of Receipt at Lab:	**16/12/2022**		
Date of Start of Test:	**12/01/2023**		
Sampling Location:	**AM36-1 - 1.5**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	96	
45.0 mm	85	
40.0 mm	85	
31.5 mm	77	
22.4 mm	68	
20.0 mm	65	
16.0 mm	59	
14.0 mm	57	
11.2 mm	51	
10.0 mm	50	
8.0 mm	47	
5.6 mm	44	
4.0 mm	40	
2.8 mm	36	
2.0 mm	34	
1.4 mm	30	
1.0 mm	28	
0.710 mm	26	
0.500 mm	24	
0.355 mm	21	
0.250 mm	20	
0.180 mm	18	
0.125 mm	16	
0.090 mm	15	
0.063 mm	13.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927644

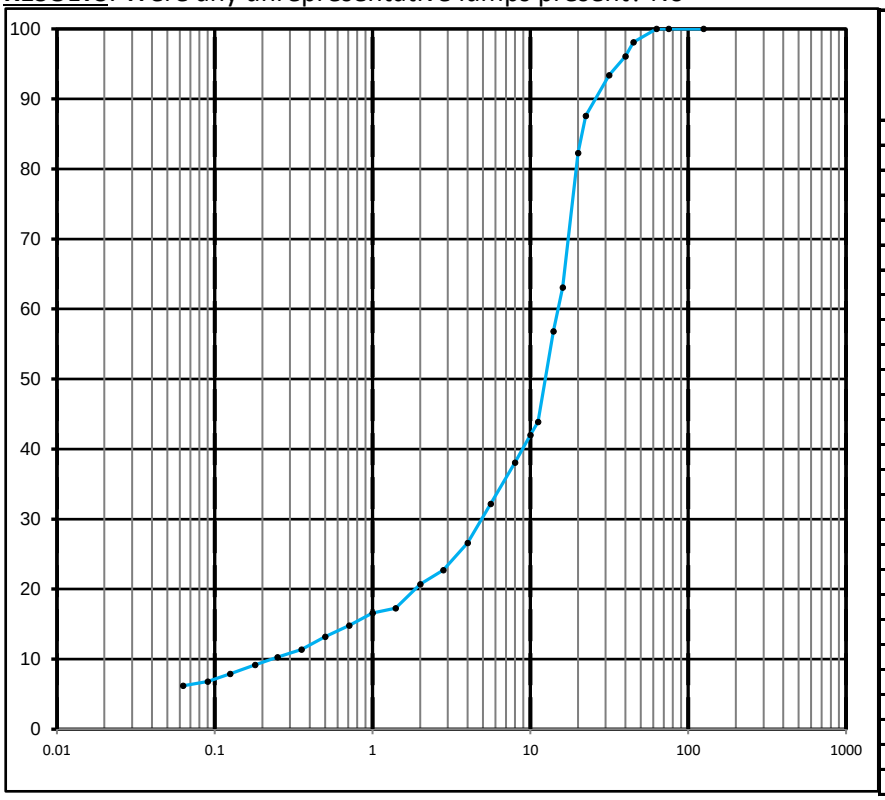
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN37-1 - 1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**BR**
Date of Receipt at Lab:	**16/12/2022**		
Date of Start of Test:	**12/01/2023**		
Sampling Location:	**AN37-1 - 1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	96	
31.5 mm	93	
22.4 mm	88	
20.0 mm	82	
16.0 mm	63	
14.0 mm	57	
11.2 mm	44	
10.0 mm	42	
8.0 mm	38	
5.6 mm	32	
4.0 mm	27	
2.8 mm	23	
2.0 mm	21	
1.4 mm	17	
1.0 mm	17	
0.710 mm	15	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927648

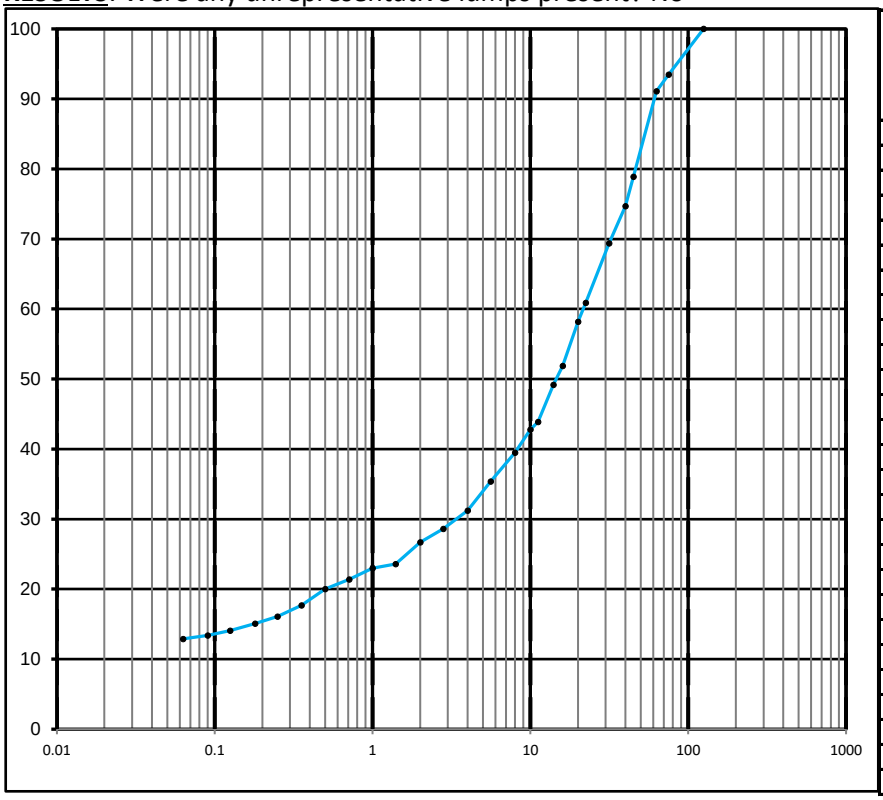
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN37-1 - 2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**BR**
Date of Receipt at Lab:	**16/12/2022**		
Date of Start of Test:	**12/01/2023**		
Sampling Location:	**AN37-1 - 2**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	91	
45.0 mm	79	
40.0 mm	75	
31.5 mm	69	
22.4 mm	61	
20.0 mm	58	
16.0 mm	52	
14.0 mm	49	
11.2 mm	44	
10.0 mm	43	
8.0 mm	40	
5.6 mm	35	
4.0 mm	31	
2.8 mm	29	
2.0 mm	27	
1.4 mm	24	
1.0 mm	23	
0.710 mm	21	
0.500 mm	20	
0.355 mm	18	
0.250 mm	16	
0.180 mm	15	
0.125 mm	14	
0.090 mm	13	
0.063 mm	12.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ
Contract: Former Llanwern Steelworks

Date: 17 February 2022
Test Report Ref: TR 849465

LABORATORY TEST REPORT

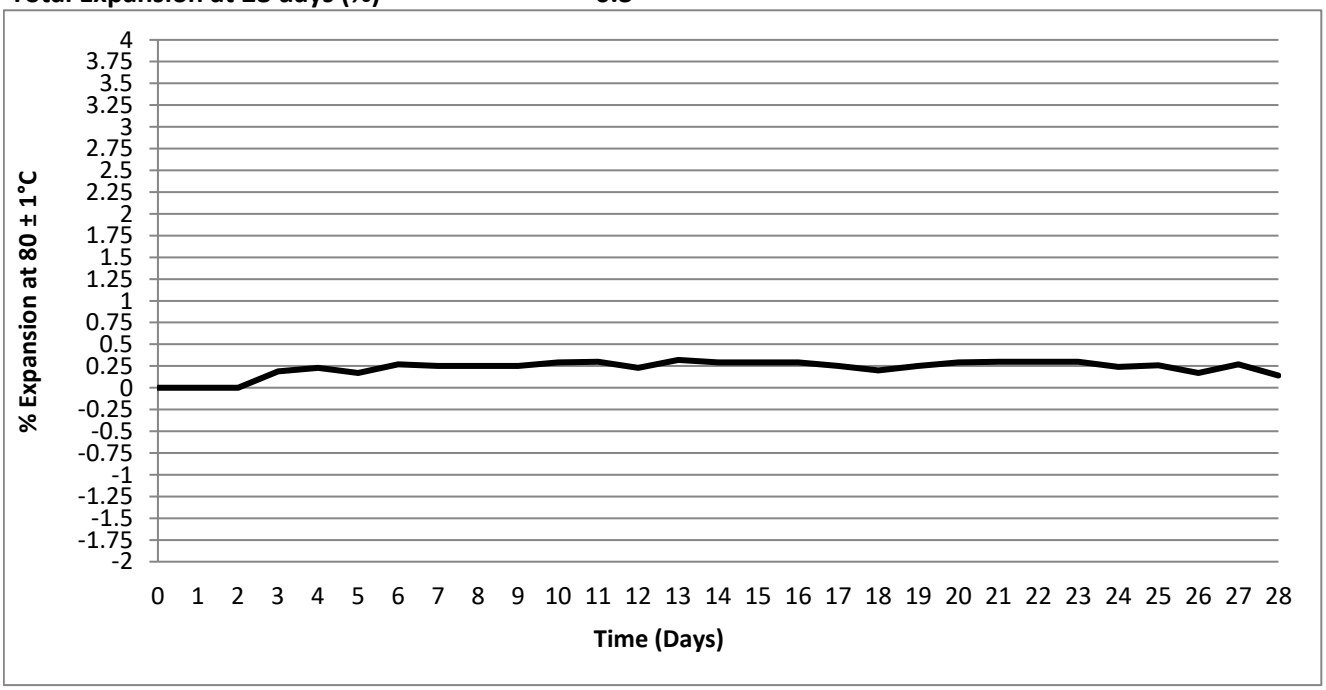
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU30-1 - 1.1M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**14/01/2022**
Sampling Location:	**AU30-1 - 1.1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.3



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 0

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887543

LABORATORY TEST REPORT

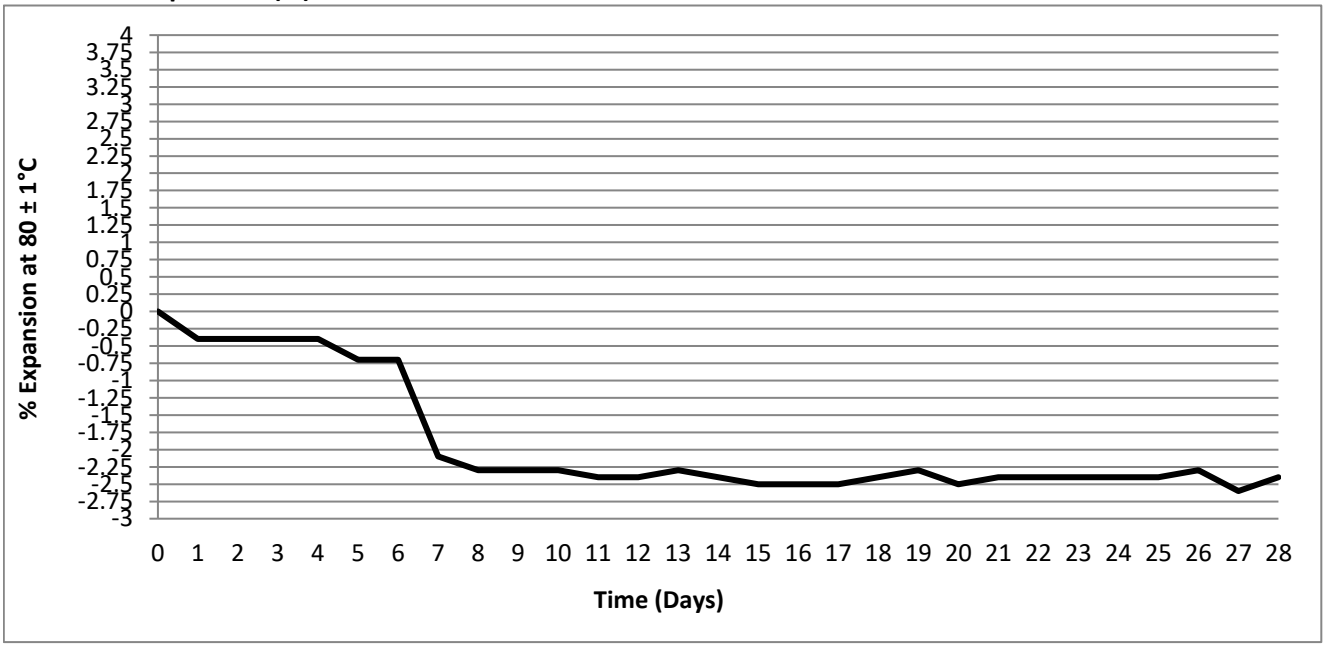
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN35-2 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AN35-2 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -2.43
Maximum Expansion (%) = -0.4



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Comments:

% of material retained on the 20mm sieve = 17

Report checked and approved by:

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Job Coordinator

St Modwen Developments Limited
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17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887544

LABORATORY TEST REPORT

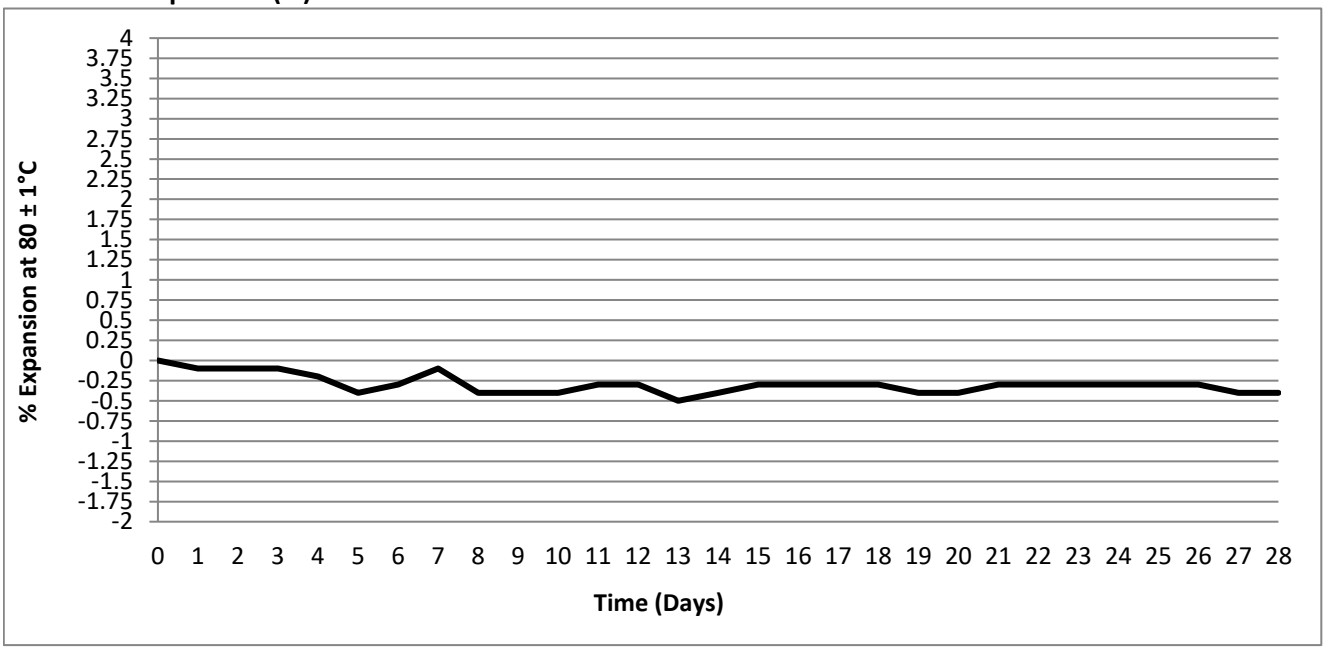
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AO36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.42
Maximum Expansion (%) = -0.1



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Comments:

% of material retained on the 20mm sieve = 8

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
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17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887545

LABORATORY TEST REPORT

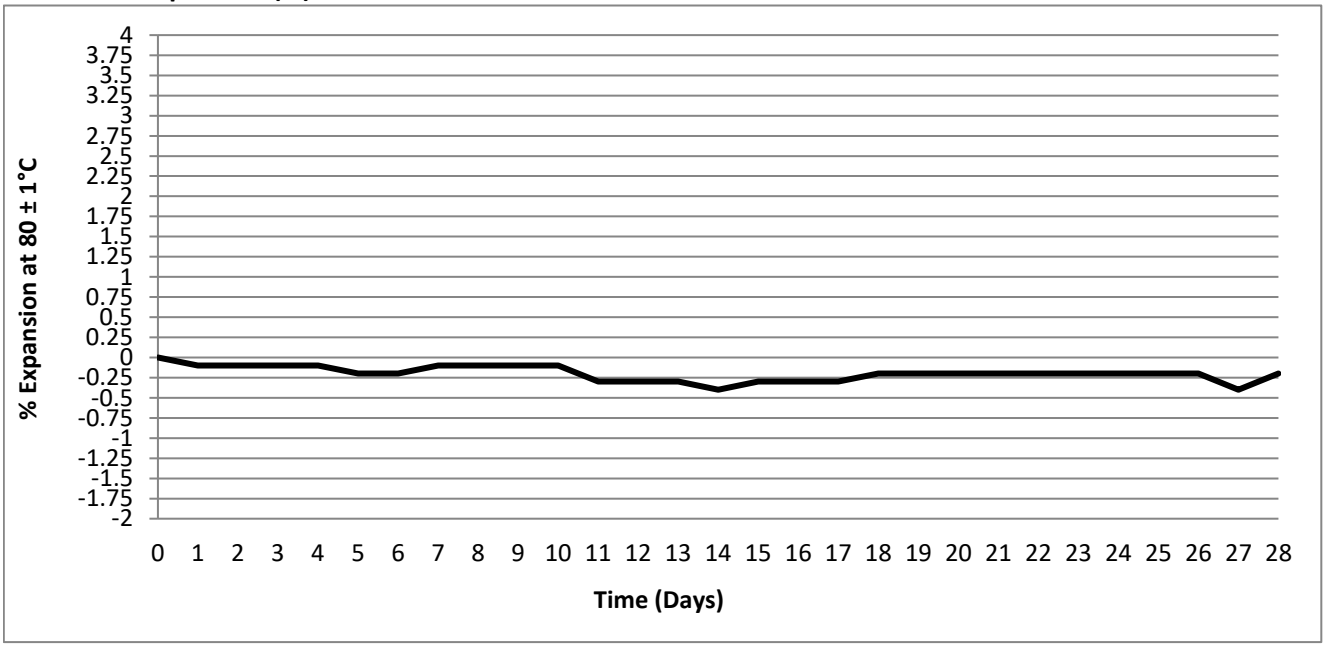
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AP34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.15
Maximum Expansion (%) = -0.1



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Comments:

% of material retained on the 20mm sieve = 63.2

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887546

LABORATORY TEST REPORT

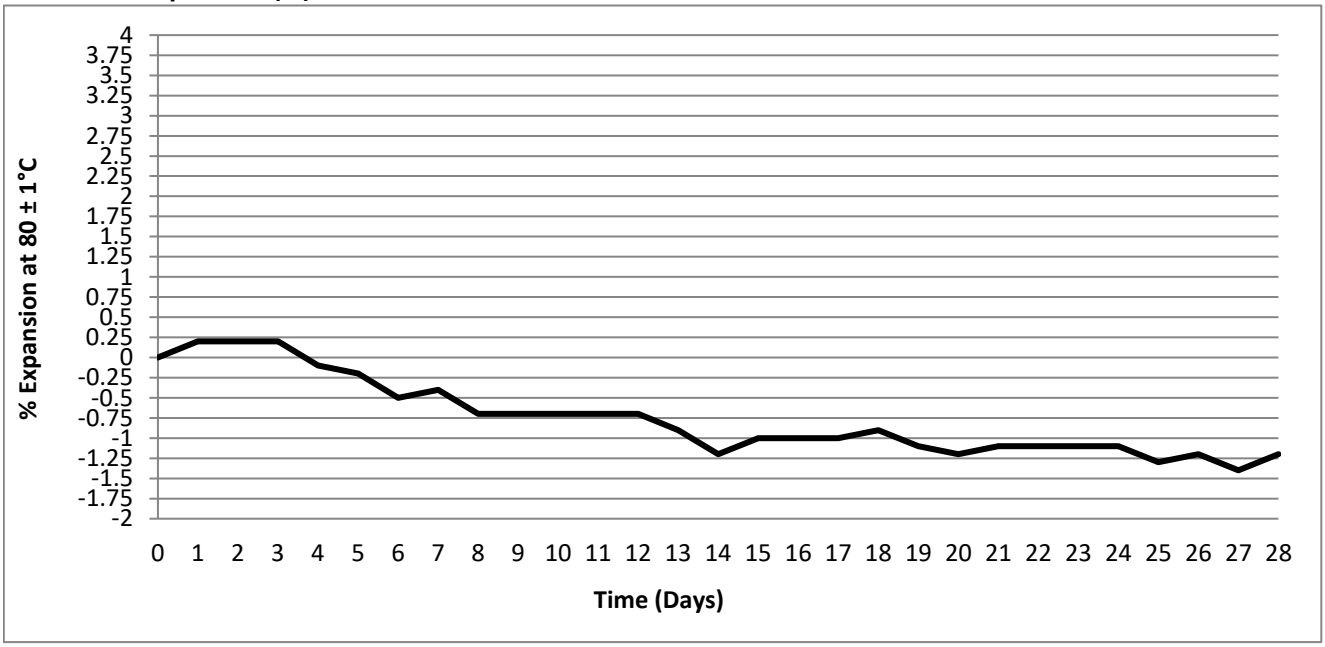
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AP36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -1.23
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 11

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Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887547

LABORATORY TEST REPORT

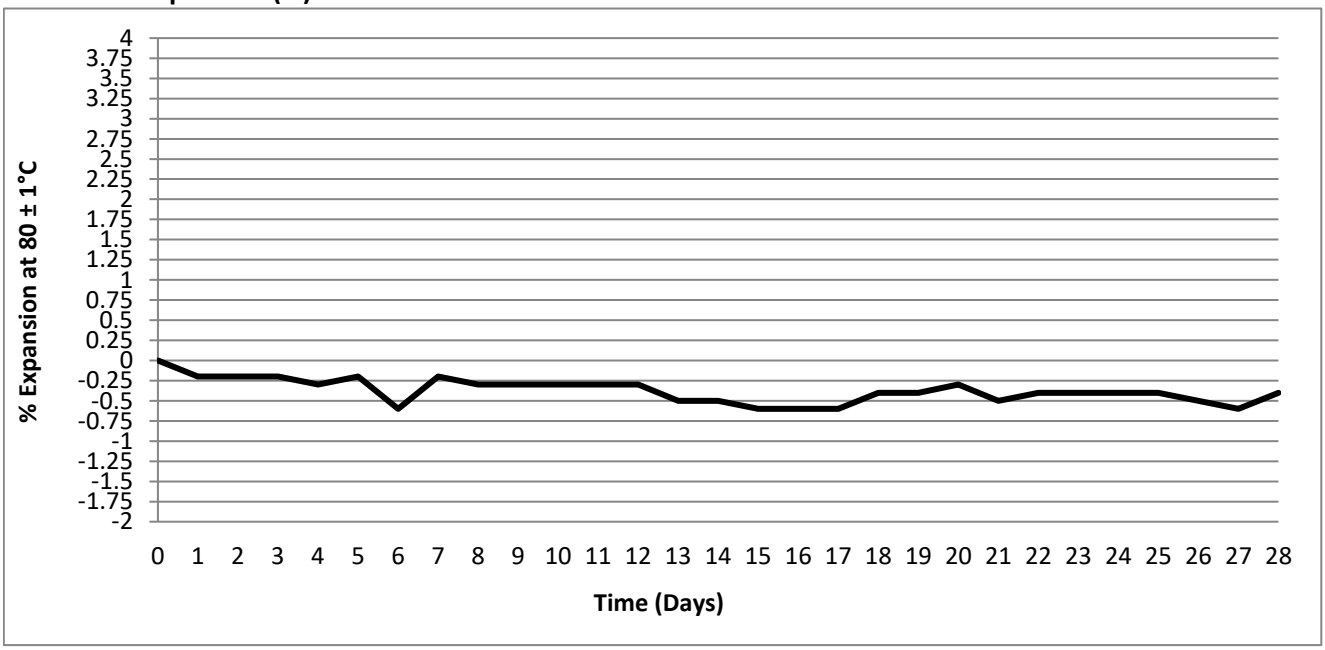
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AQ34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.42
Maximum Expansion (%) = -0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 20

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887548

LABORATORY TEST REPORT

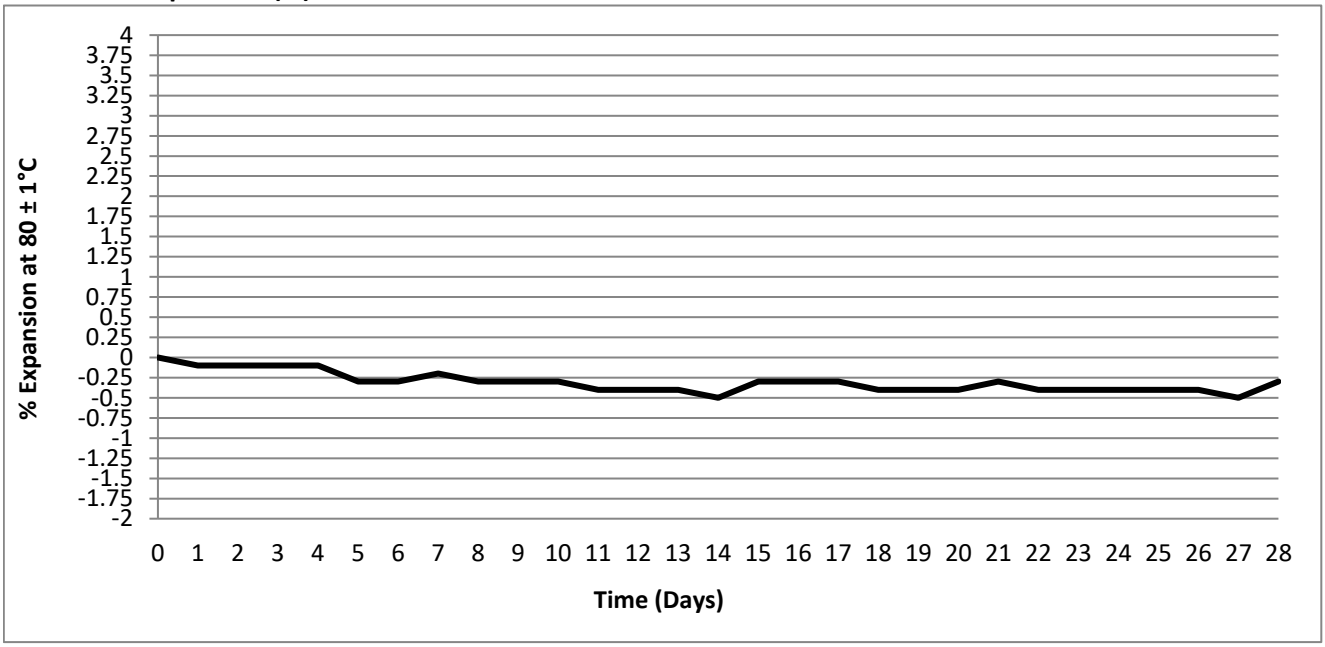
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AQ36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.34
Maximum Expansion (%) = -0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 48.3

Report checked and approved by:

Chantelle Kopec-Williams
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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887549

LABORATORY TEST REPORT

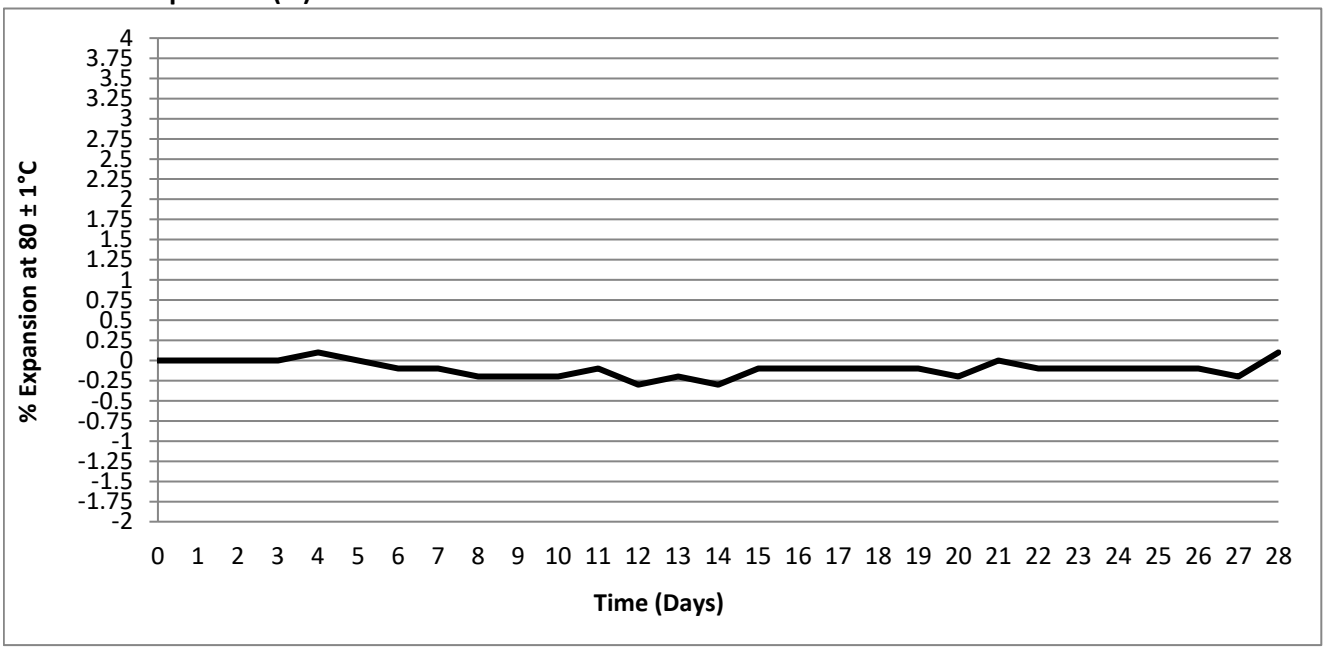
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR34-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AR34-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.05
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 66

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887550

LABORATORY TEST REPORT

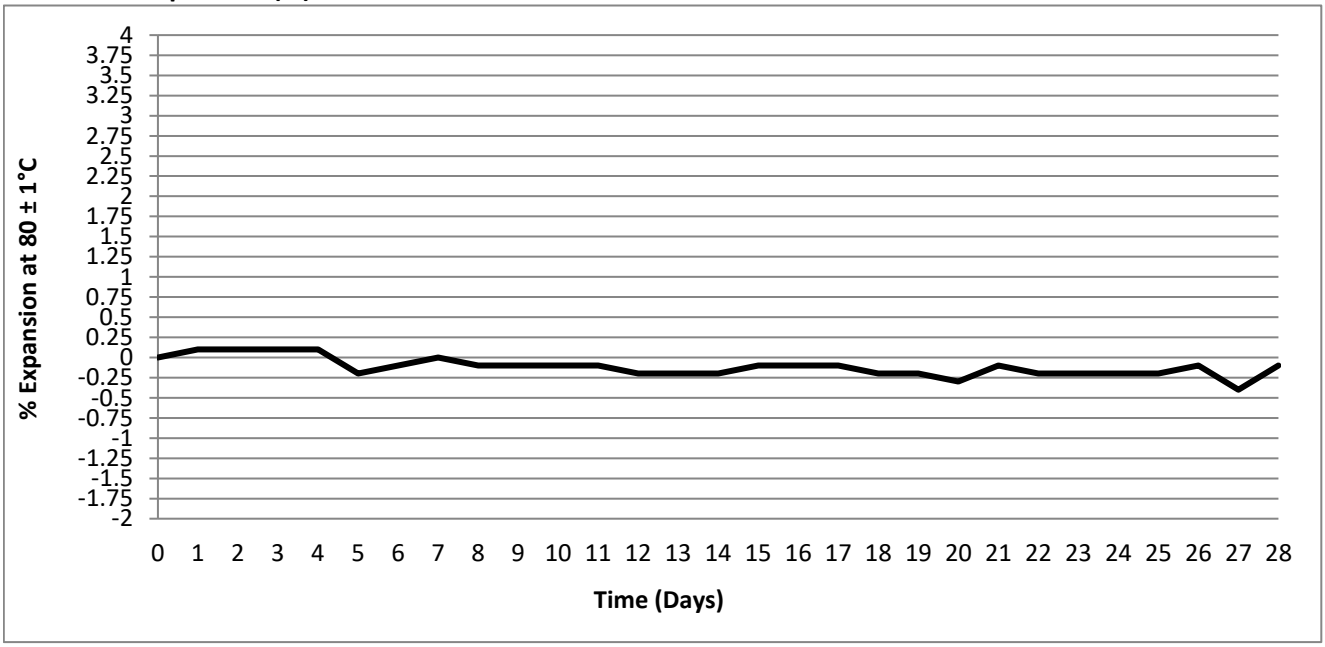
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AR36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.13
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 14

Report checked and approved by:

Chantelle Kopec-Williams
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Park Point
17 High Street
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Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887551

LABORATORY TEST REPORT

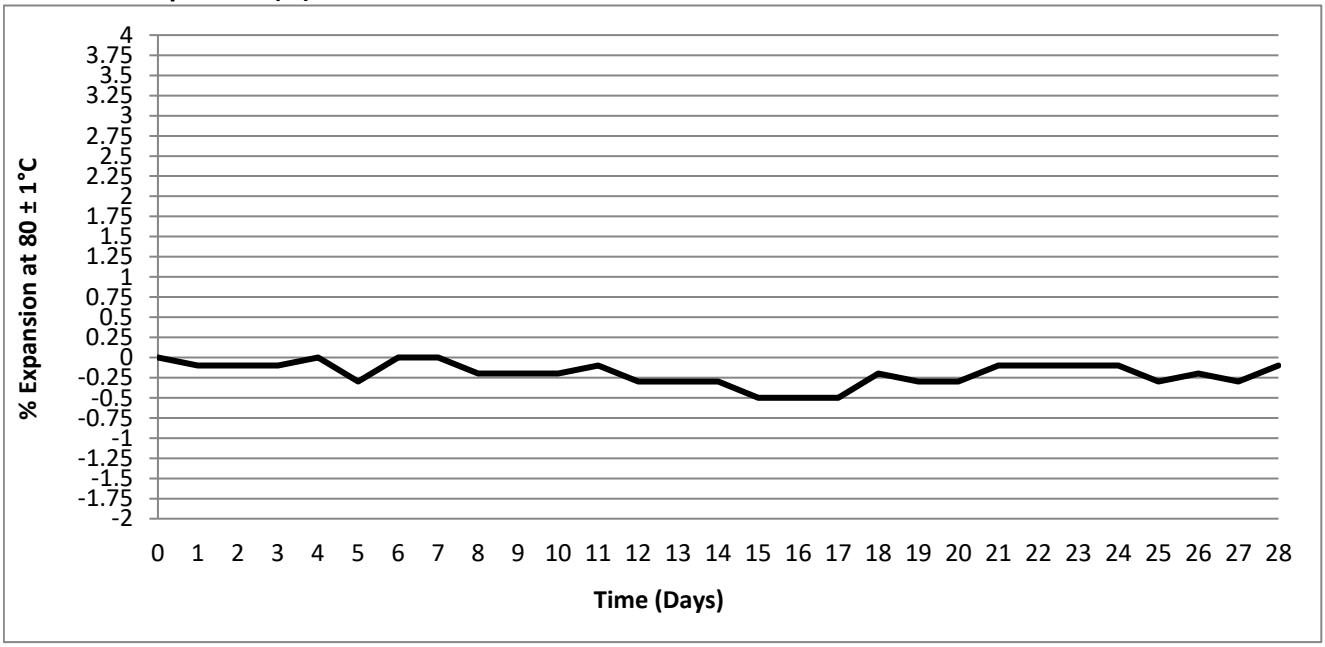
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AS34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.07
Maximum Expansion (%) = 0



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 26

Report checked and approved by:

Chantelle Kopec-Williams
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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887552

LABORATORY TEST REPORT

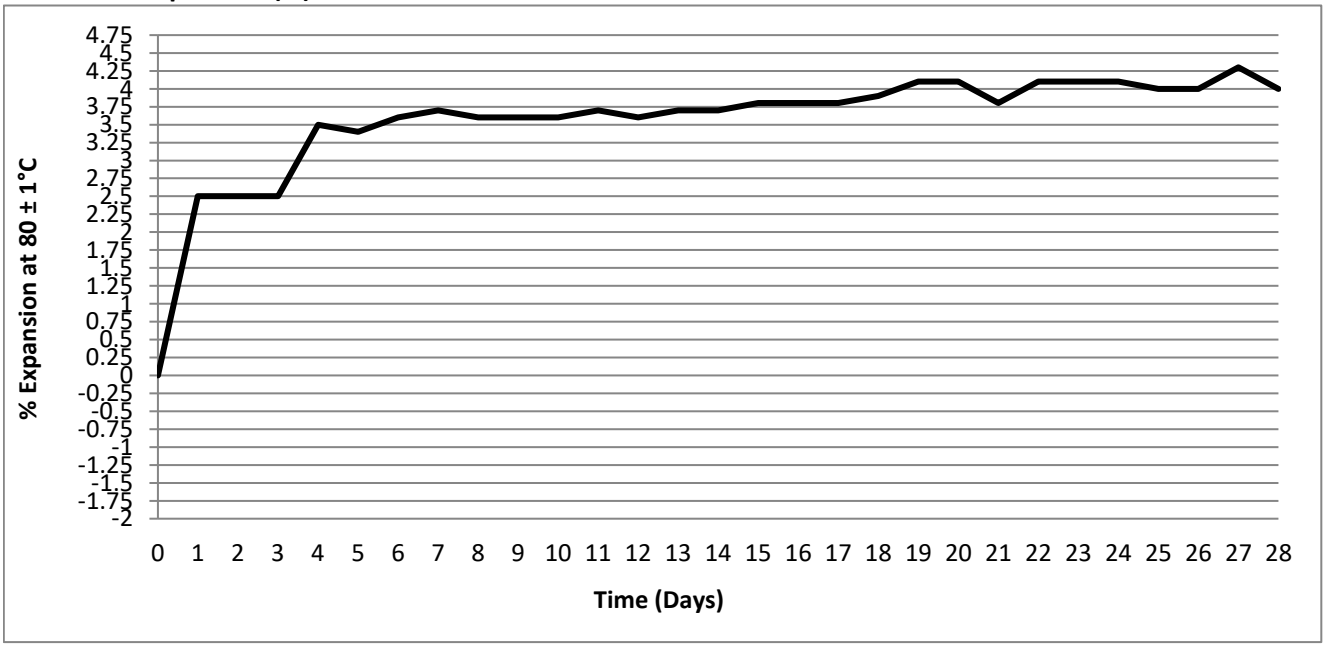
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS36-1 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AS36-1 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 3.97
Maximum Expansion (%) = 4.3



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 13

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887553

LABORATORY TEST REPORT

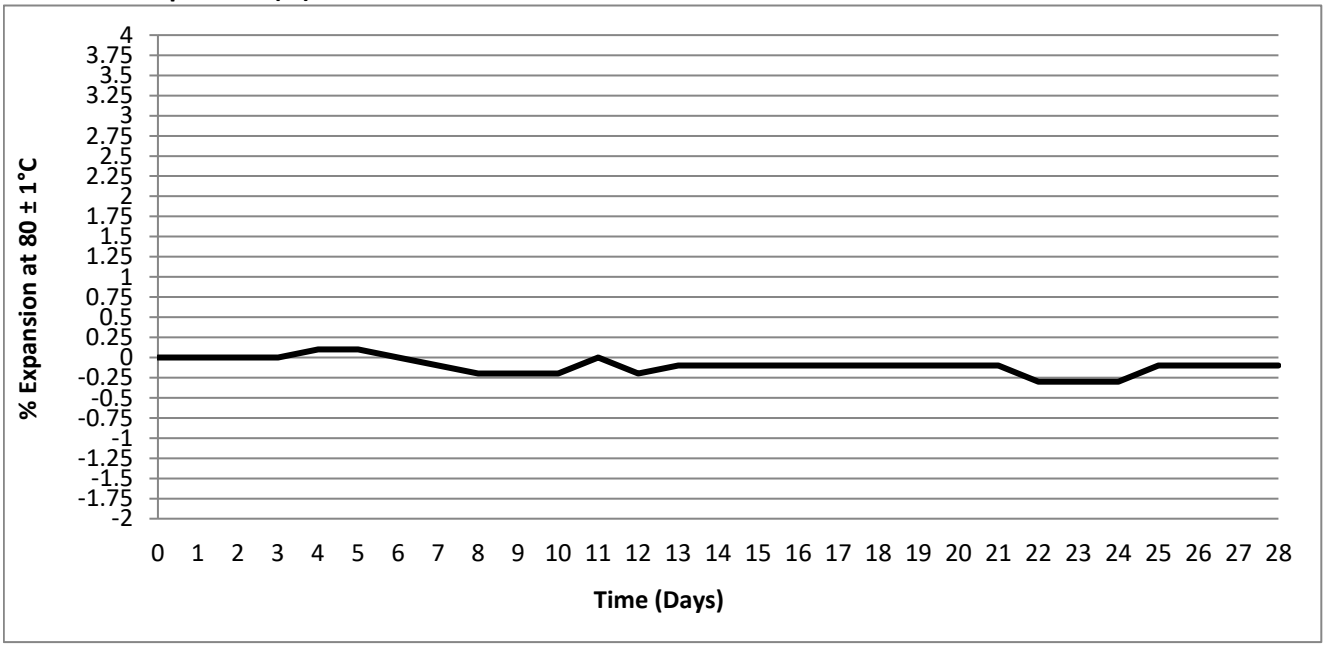
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT34-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AT34-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.12
Maximum Expansion (%) = 0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 44

Report checked and approved by:

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887554

LABORATORY TEST REPORT

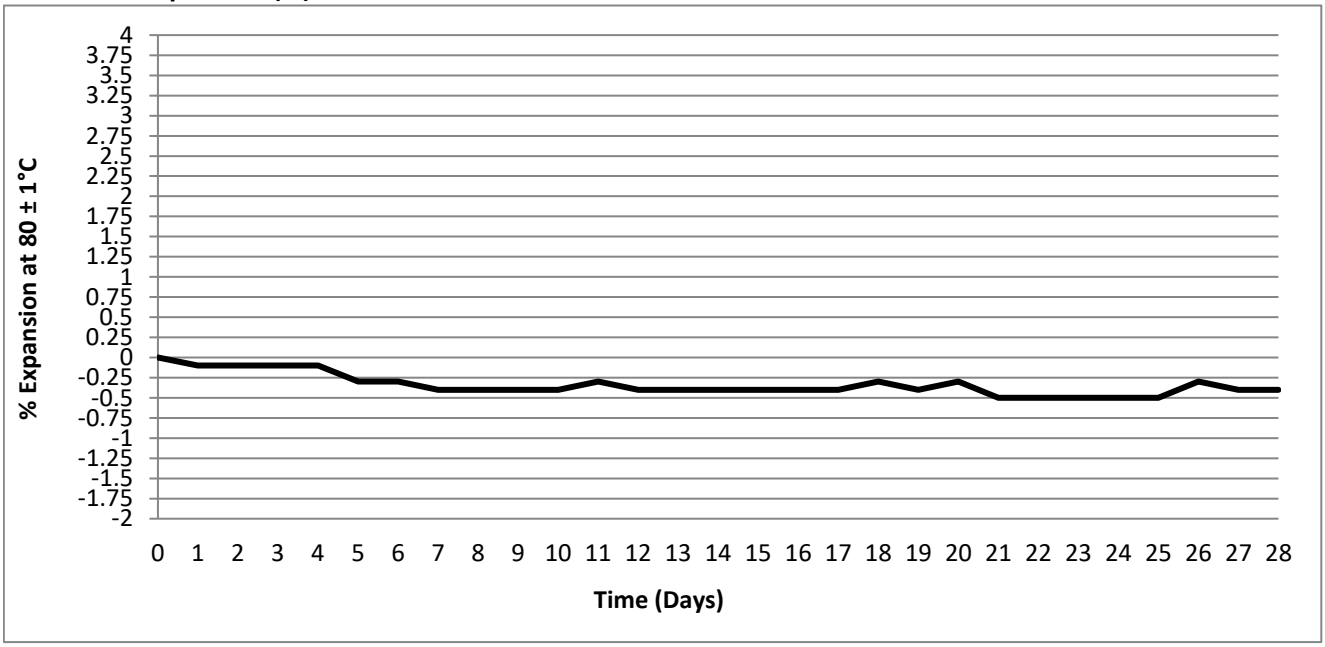
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT36-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AT36-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.44
Maximum Expansion (%) = -0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 70

Report checked and approved by:

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887556

LABORATORY TEST REPORT

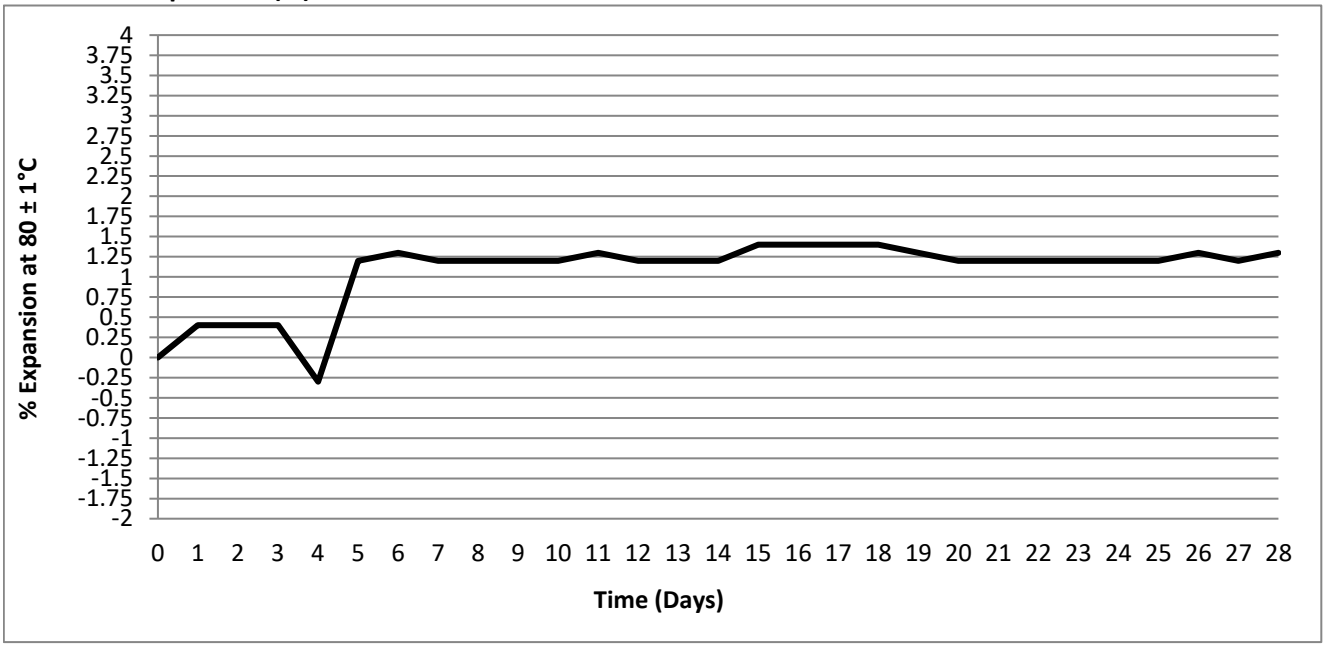
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU36-2 - 1.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AU36-2 - 1.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 1.25
Maximum Expansion (%) = 1.4



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 34

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887557

LABORATORY TEST REPORT

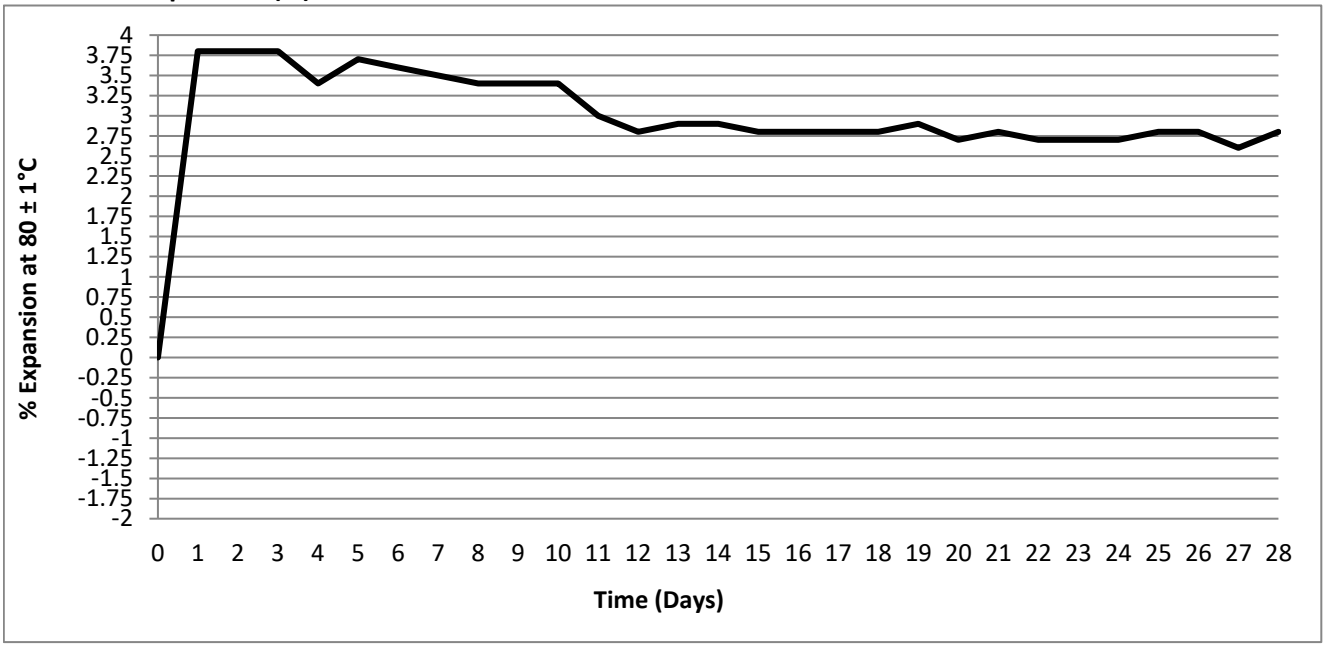
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV34-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**22/08/2022**
Sampling Location:	**AV34-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 2.76
Maximum Expansion (%) = 3.8



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 22

Report checked and approved by:

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Date: 23 August 2022
Test Report Ref: TR 887558

LABORATORY TEST REPORT

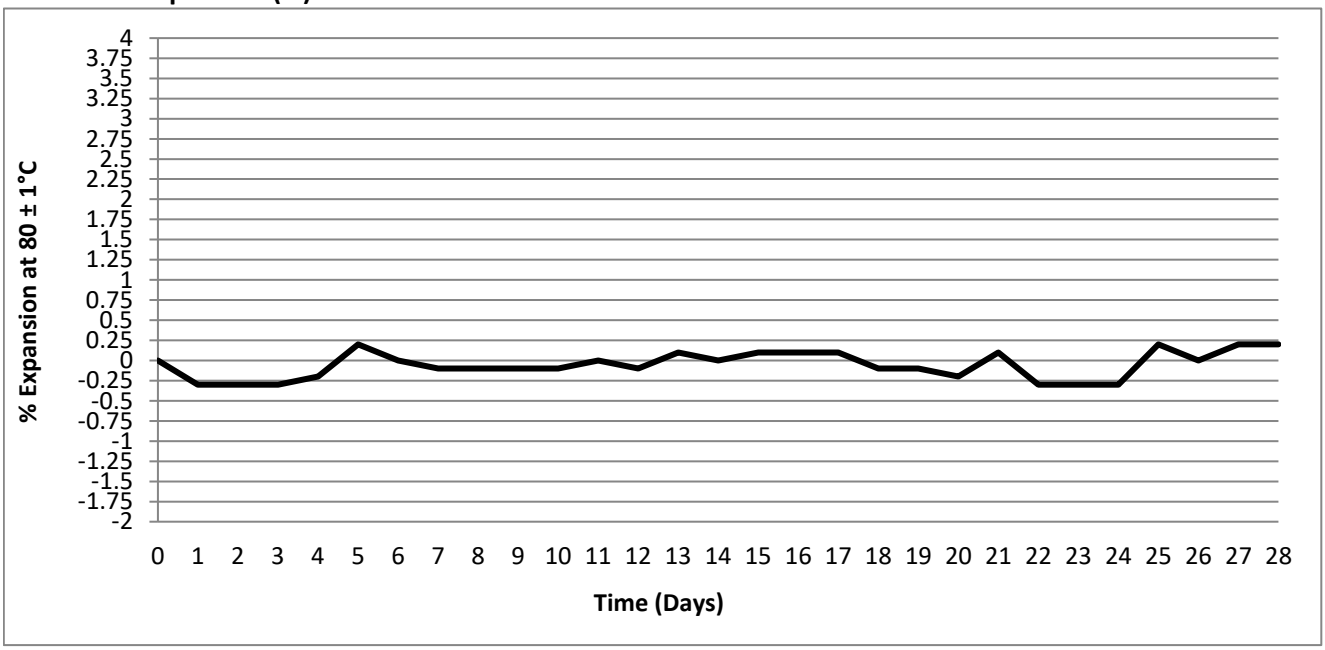
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV36-2 - 1.30M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**22/08/2022**
Sampling Location:	**AV36-2 - 1.30M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.15
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 27

Report checked and approved by:

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887559

LABORATORY TEST REPORT

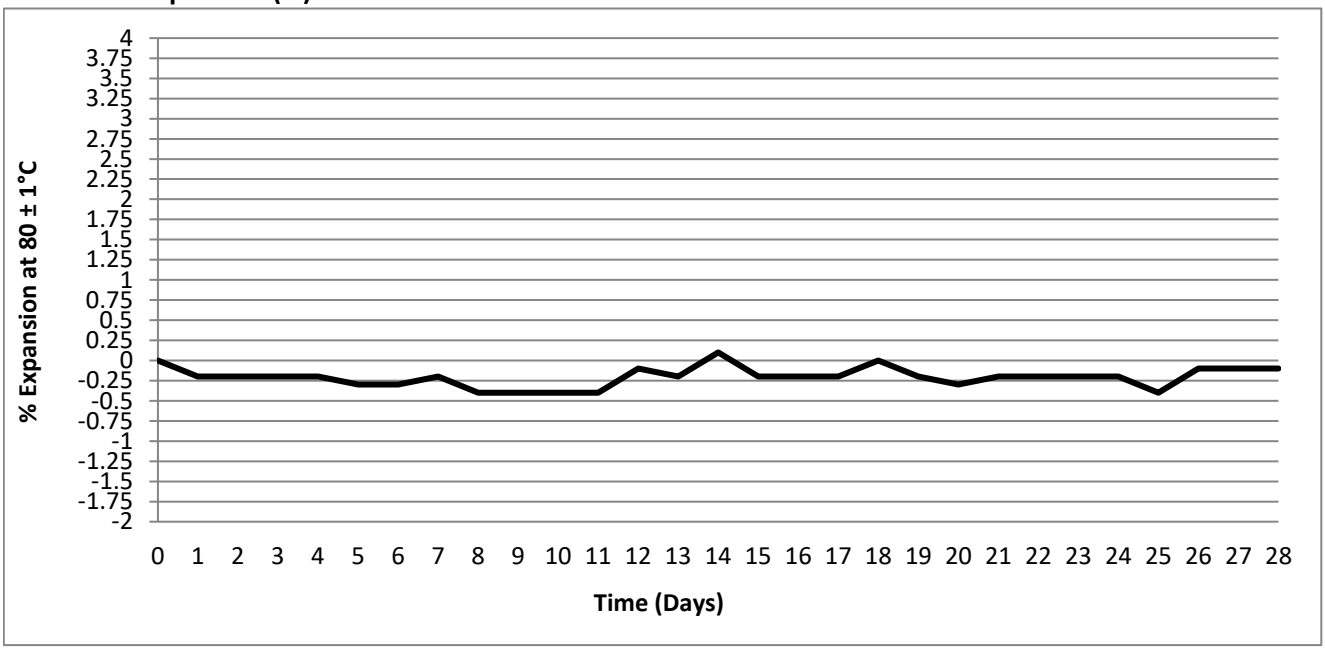
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW34-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AW34-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.13
Maximum Expansion (%) = 0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 49

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887560

LABORATORY TEST REPORT

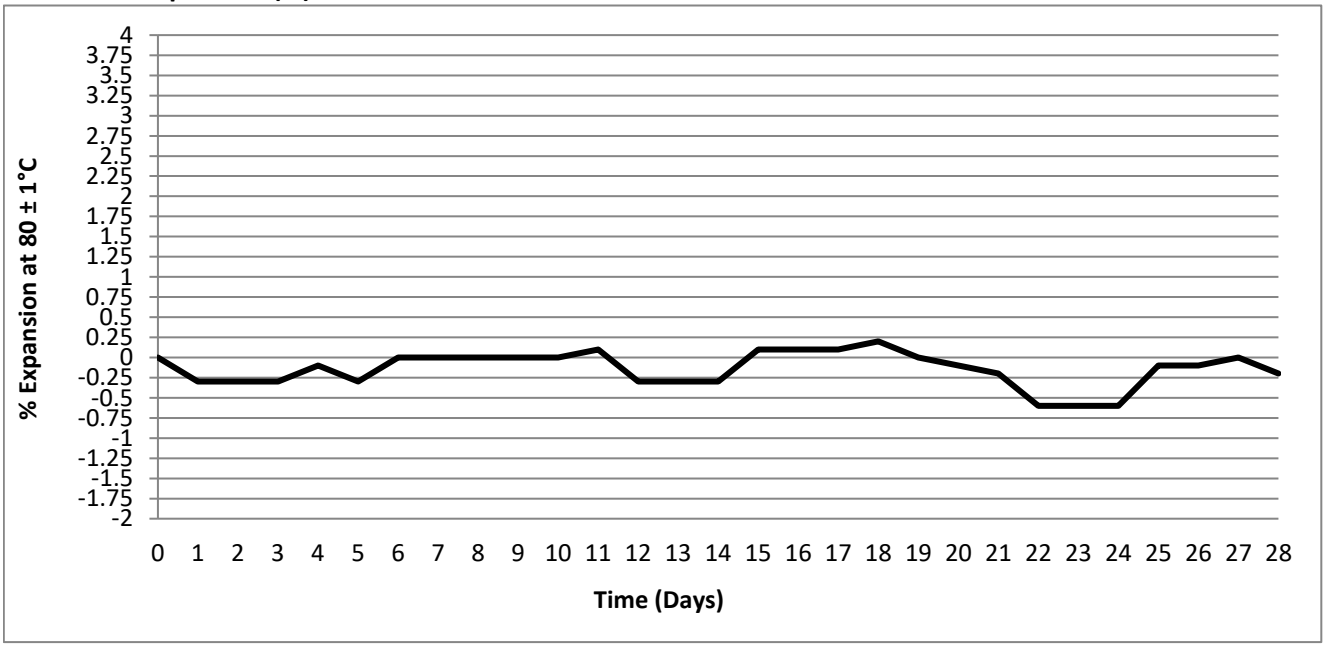
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW36-2 - 1.60M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AW36-2 - 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.2
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 42

Report checked and approved by:

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887561

LABORATORY TEST REPORT

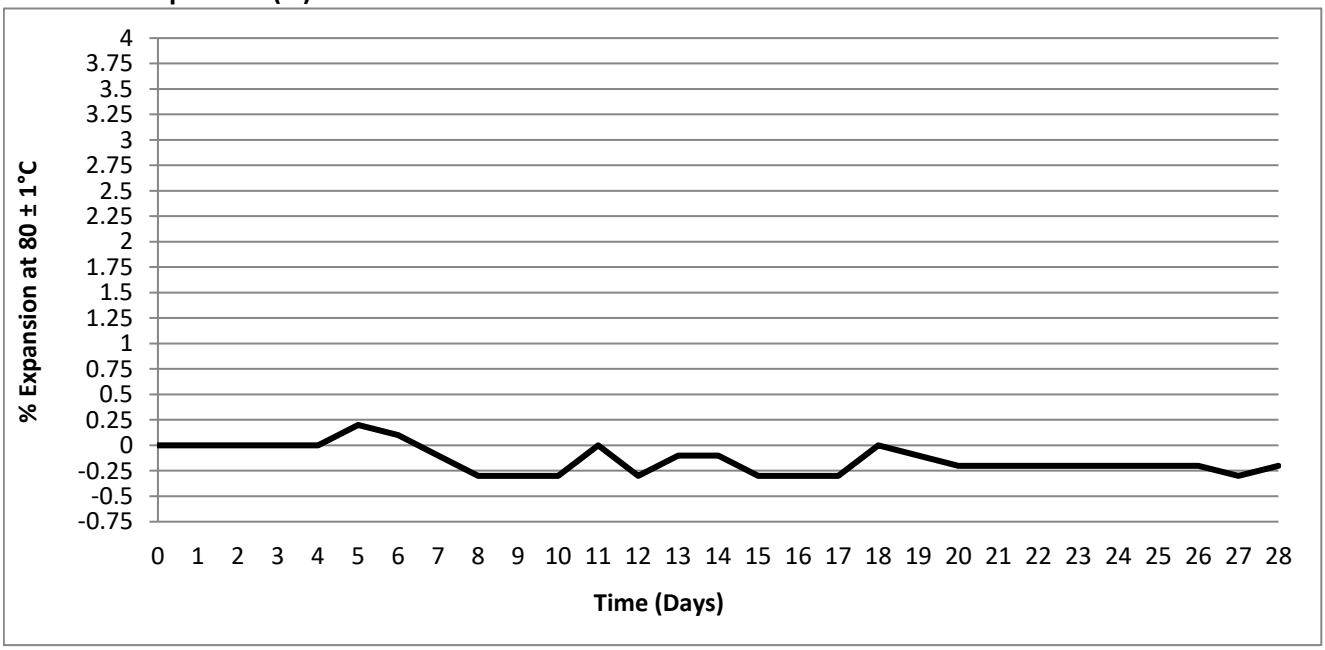
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX34-1 - 0.7M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AX34-1 - 0.7M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.21
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 73

Report checked and approved by:

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Job Coordinator

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887562

LABORATORY TEST REPORT

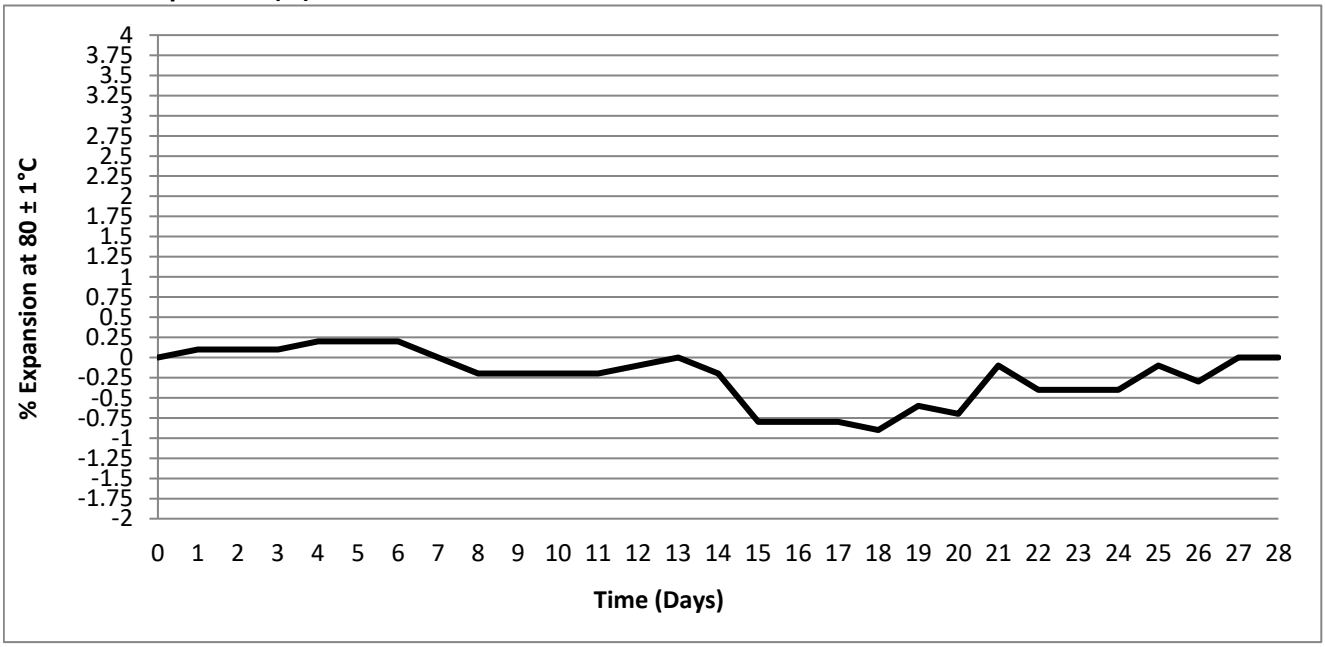
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AX36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.04
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 40

Report checked and approved by:

Chantelle Kopec-Williams
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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887563

LABORATORY TEST REPORT

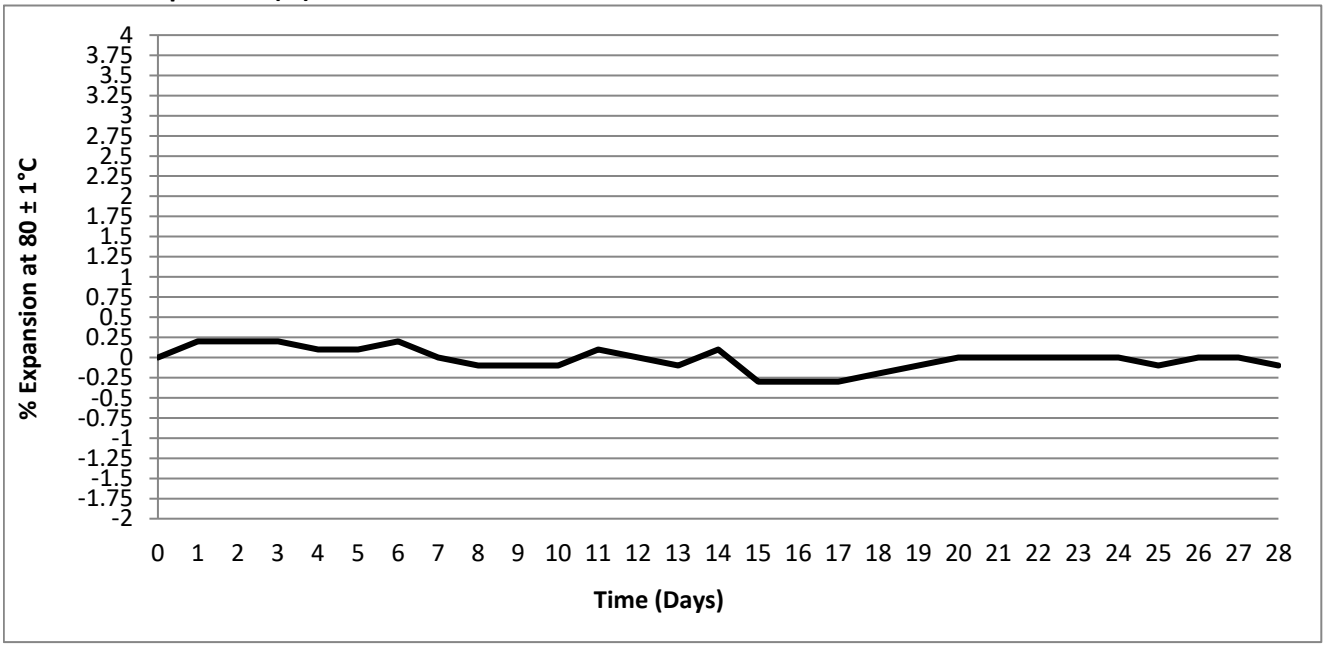
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-2 - 2.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AX37-2 - 2.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.08
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 55

Report checked and approved by:

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Job Coordinator

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Date: 01 September 2022
Test Report Ref: TR 890922

LABORATORY TEST REPORT

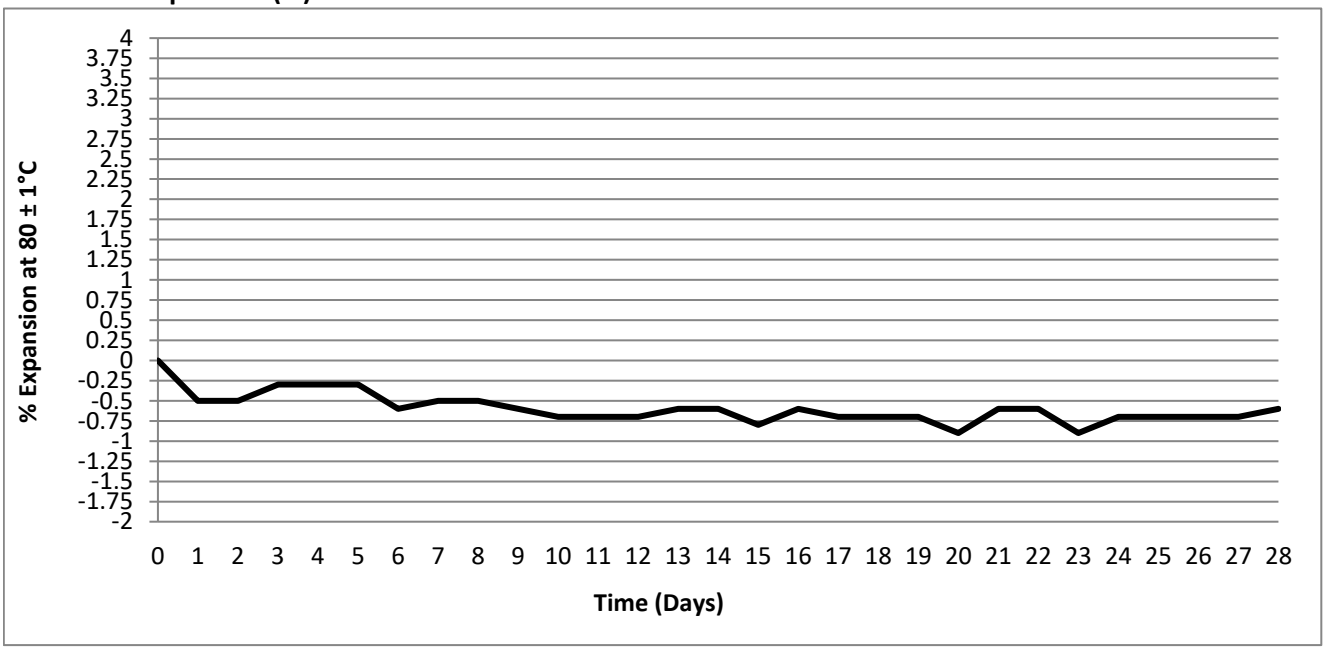
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AU33-1 0.90M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AU33-1 0.90M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.58
Maximum Expansion (%) = -0.3



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 31

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890931

LABORATORY TEST REPORT

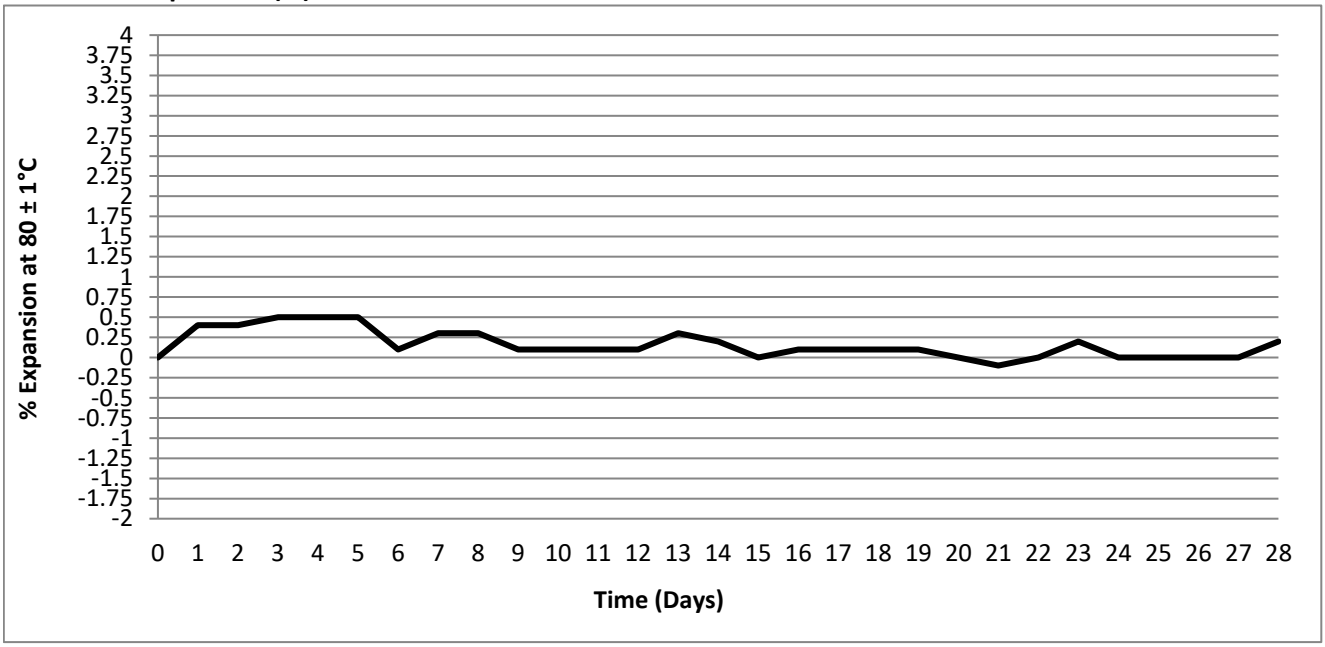
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-3 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AV33-3 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.16
Maximum Expansion (%) = 0.5



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 17

Report checked and approved by:

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Job Coordinator

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Date: 01 September 2022
Test Report Ref: TR 890940

LABORATORY TEST REPORT

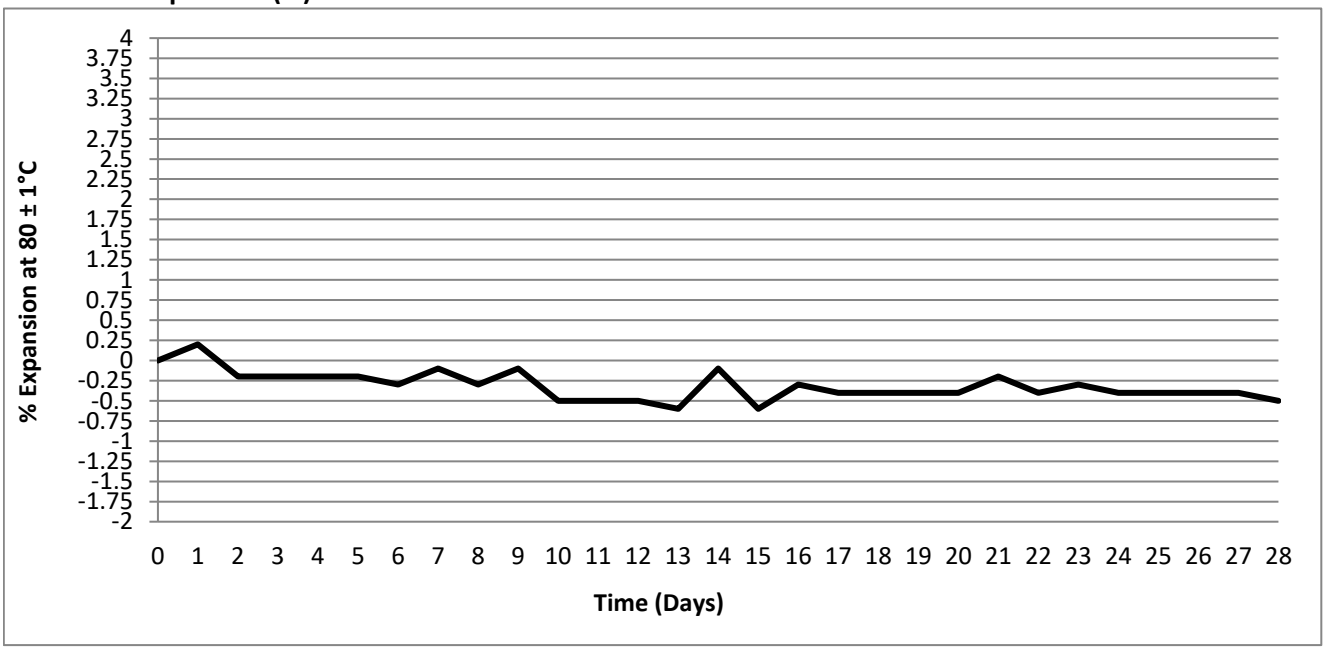
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AX33-1 0.8M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AX33-1 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.45
Maximum Expansion (%) = 0.2



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 26

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 21 February 2023
Test Report Ref: TR 927652

LABORATORY TEST REPORT

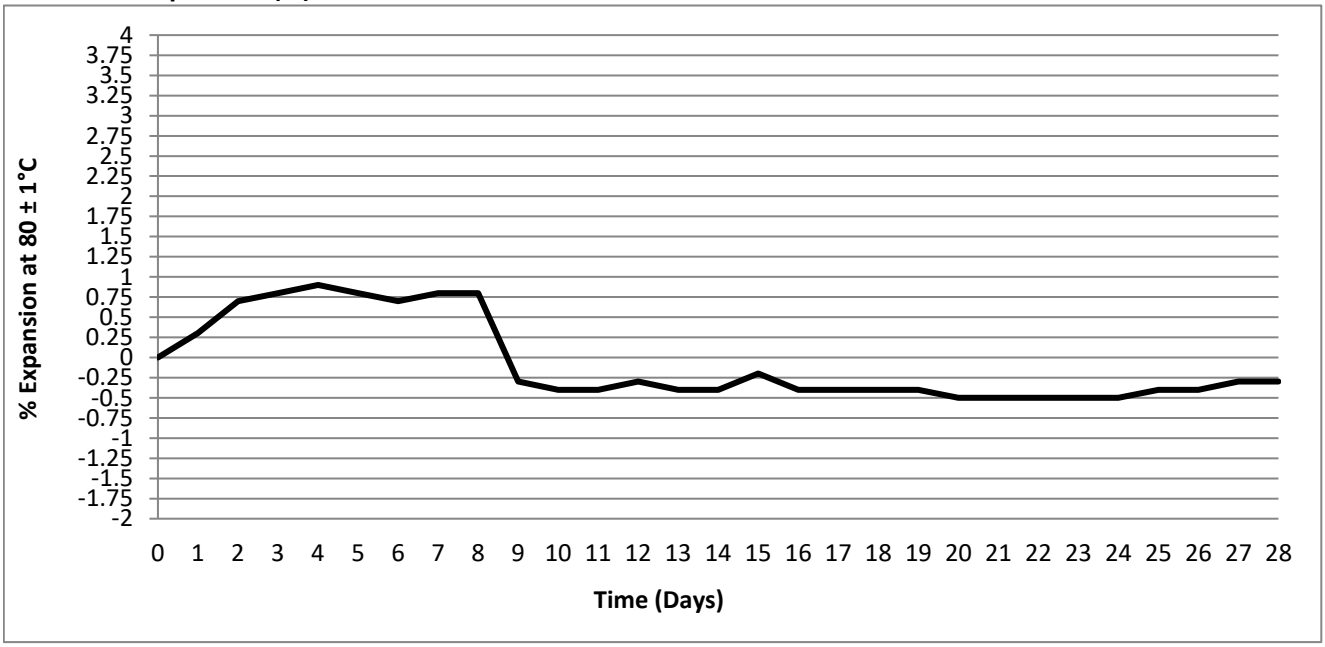
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AN37-1 - 2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**AW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.3
Maximum Expansion (%) = 0.9



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 37

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896095

LABORATORY TEST REPORT

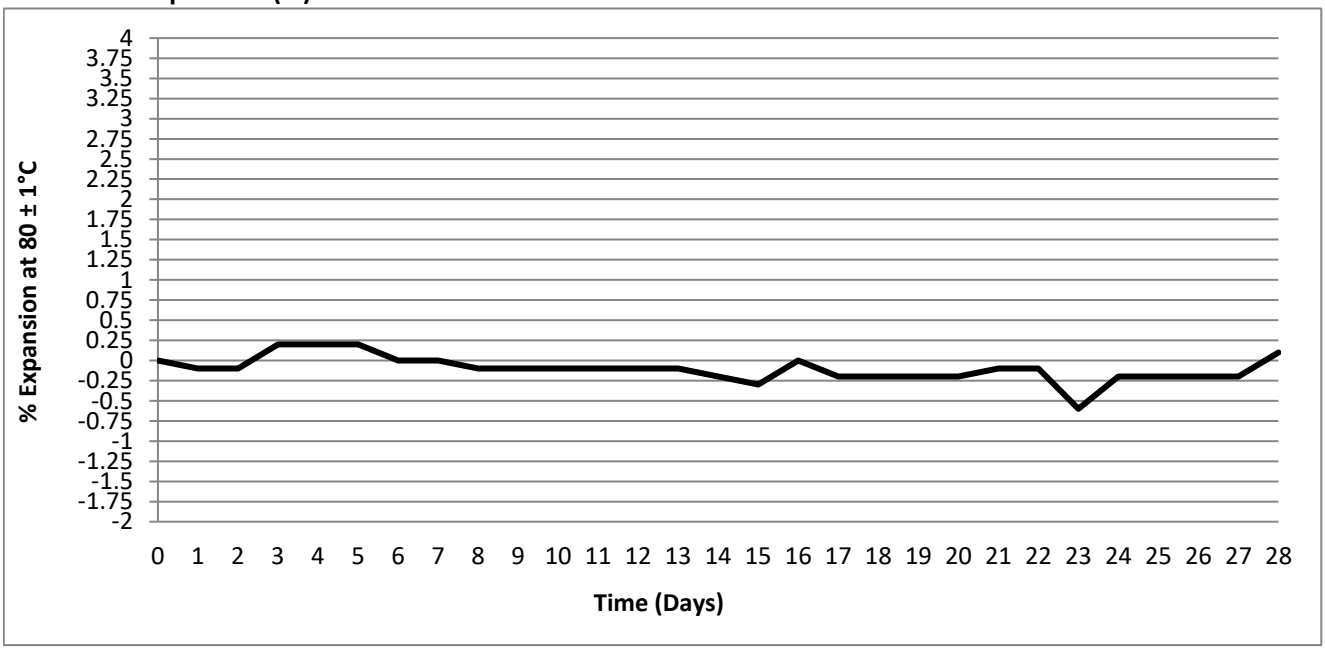
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AM32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AM32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.05
Maximum Expansion (%) = 0.2



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 17

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896104

LABORATORY TEST REPORT

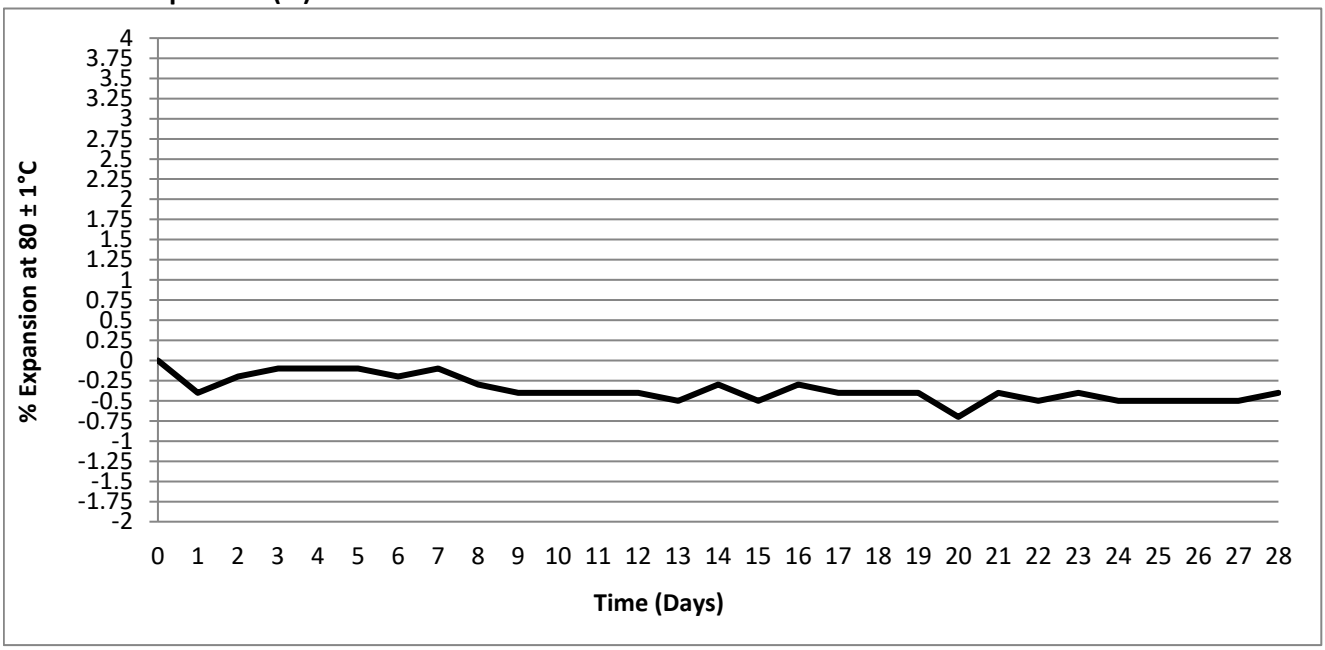
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AN33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.36
Maximum Expansion (%) = -0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 50

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896113

LABORATORY TEST REPORT

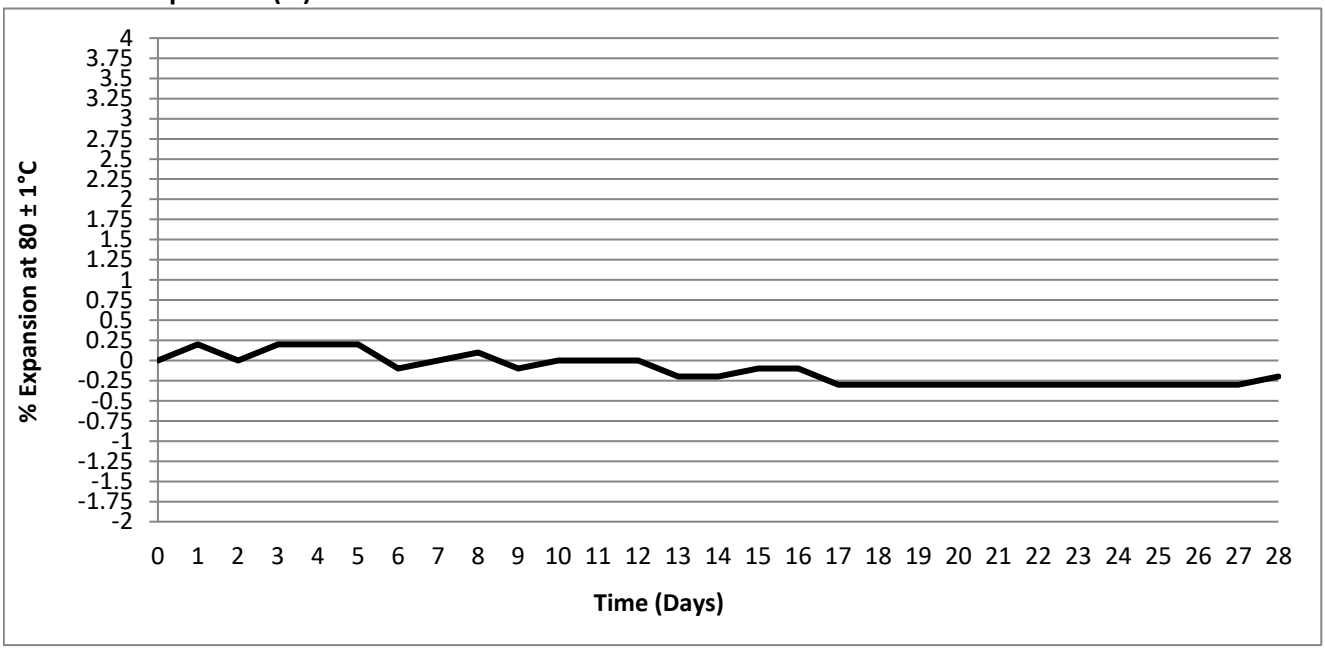
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AO33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.21
Maximum Expansion (%) = 0.2



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 38

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896122

LABORATORY TEST REPORT

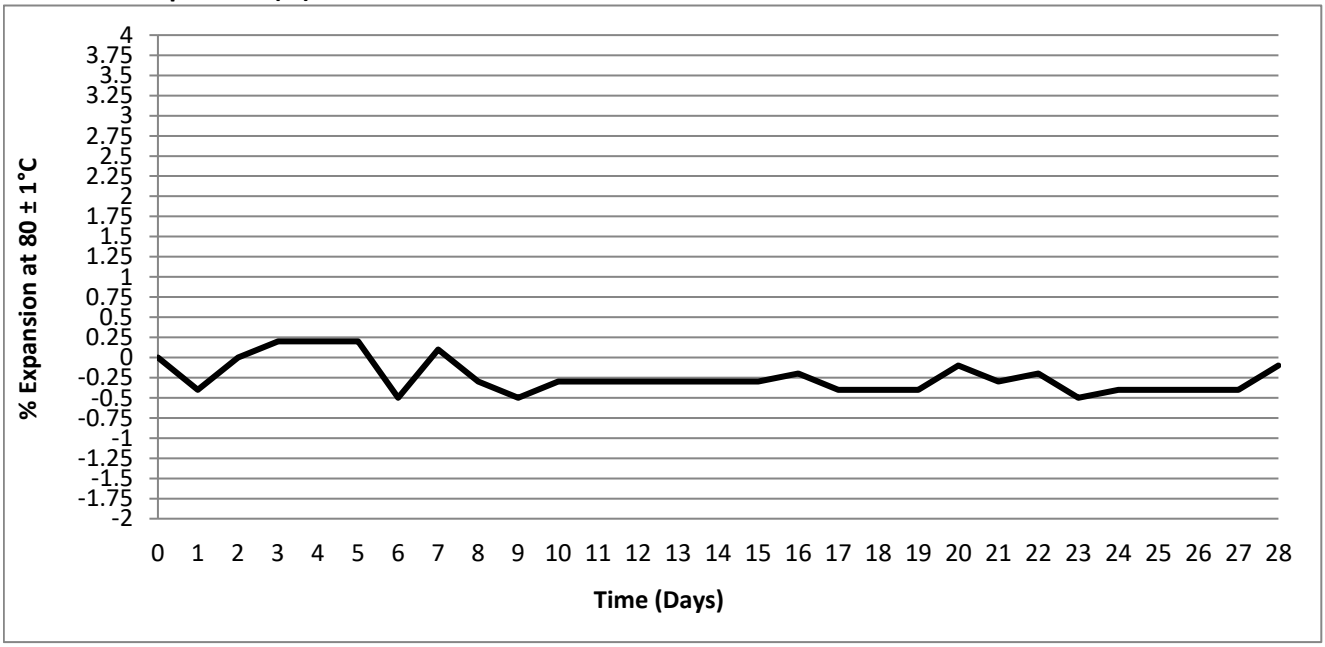
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AV32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.11
Maximum Expansion (%) = 0.2



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 34

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896140

LABORATORY TEST REPORT

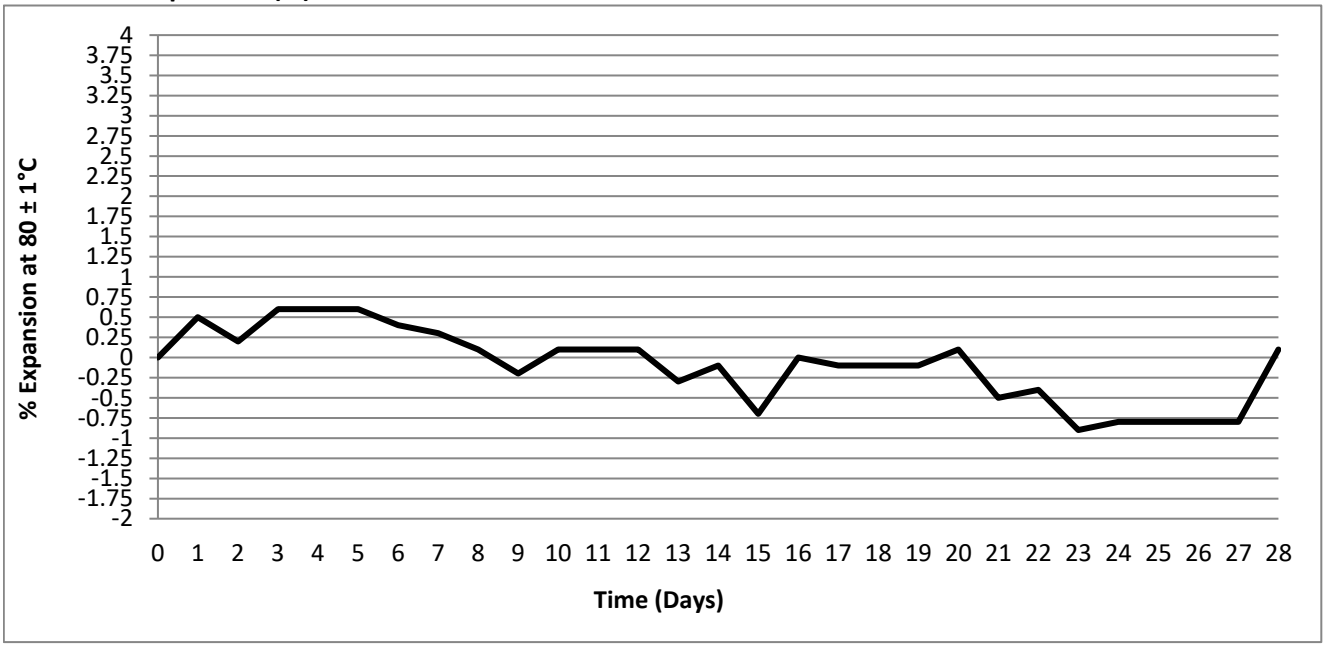
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AX32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.05
Maximum Expansion (%) = 0.6



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 52

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903963

LABORATORY TEST REPORT

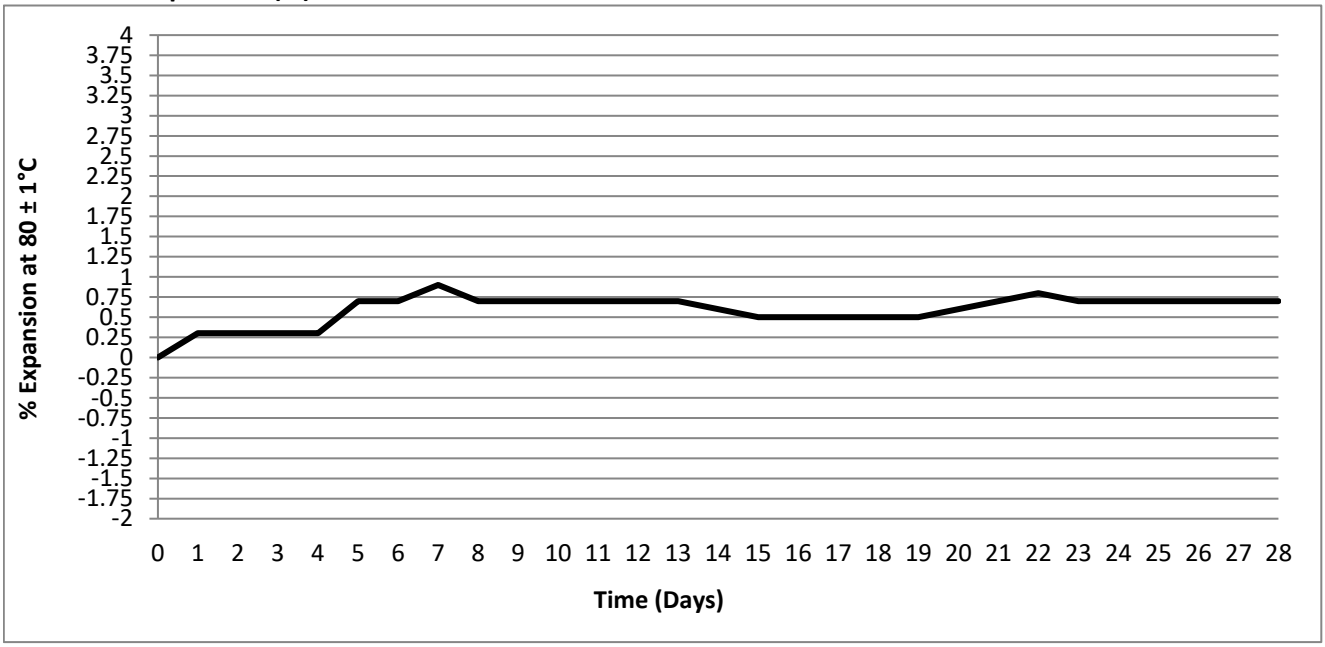
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AQ32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.73
Maximum Expansion (%) = 0.9



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 41

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903974

LABORATORY TEST REPORT

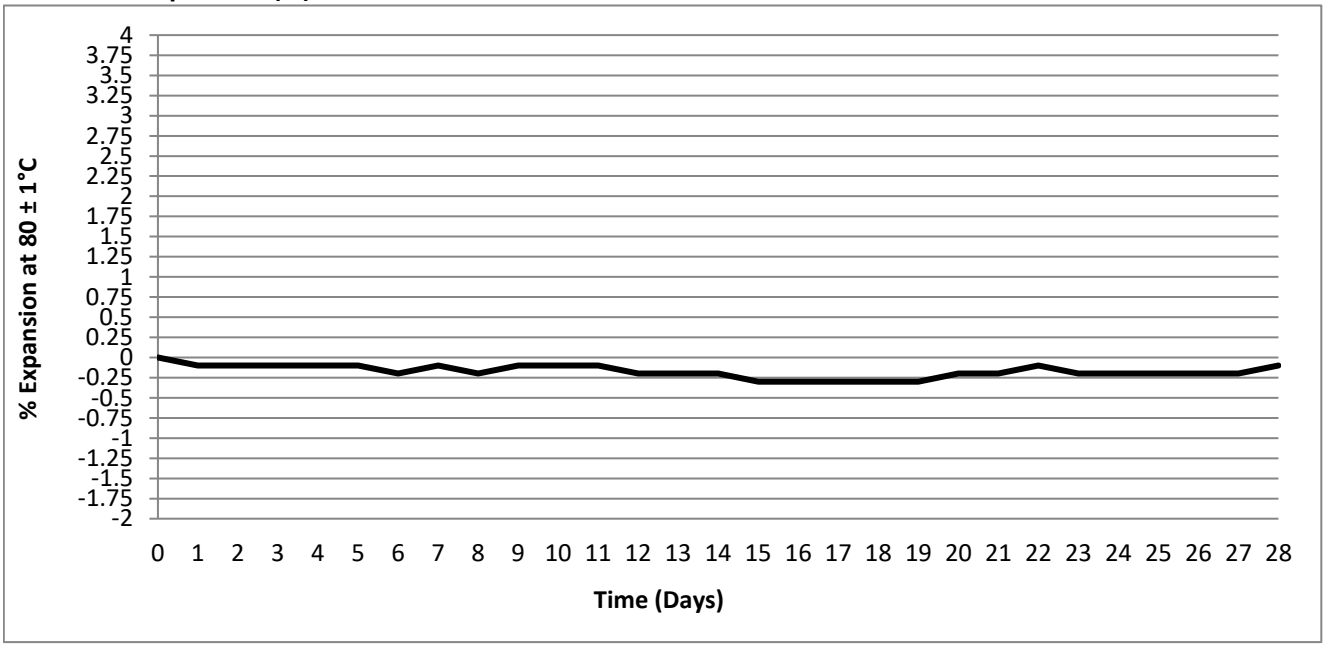
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.14
Maximum Expansion (%) = -0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 12

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903983

LABORATORY TEST REPORT

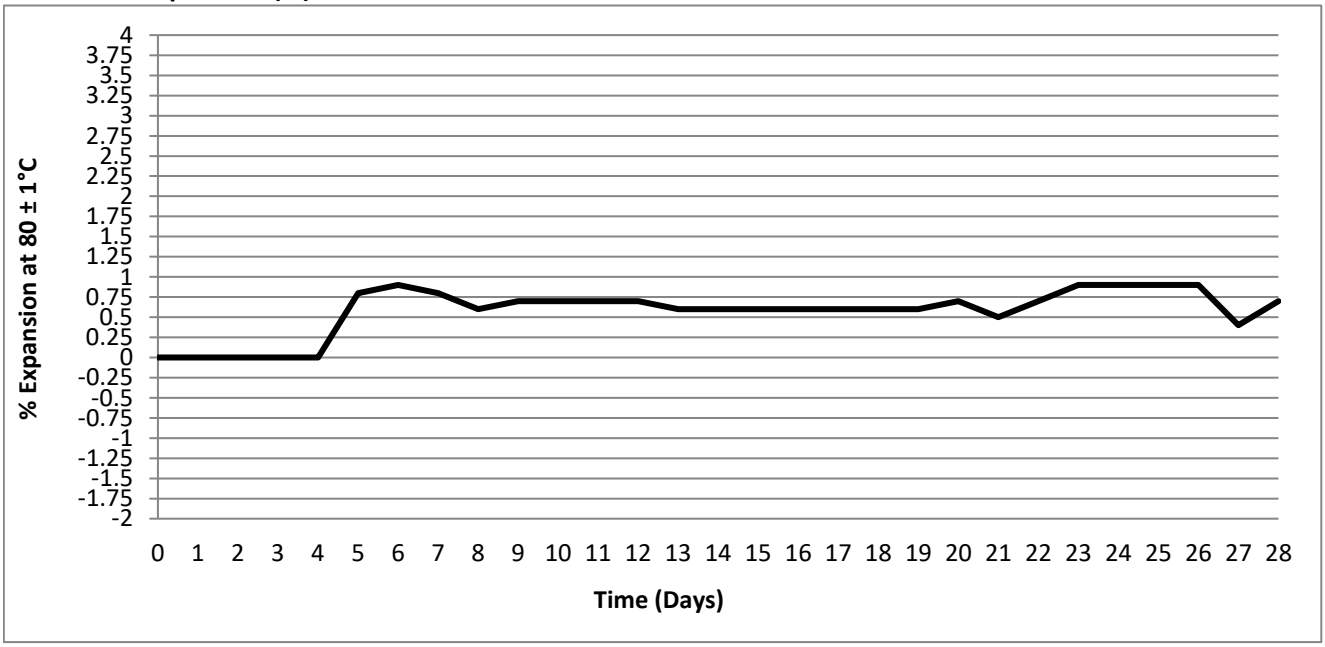
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AT32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.71
Maximum Expansion (%) = 0.9



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 25

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903992

LABORATORY TEST REPORT

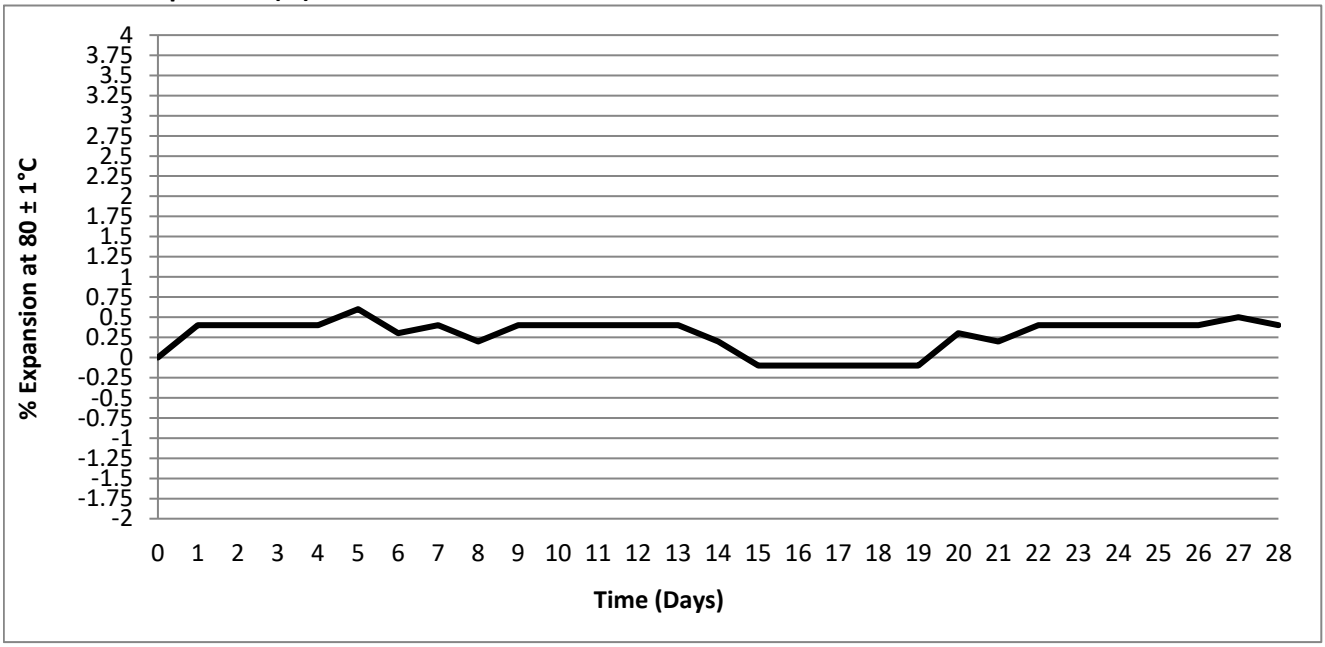
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.37
Maximum Expansion (%) = 0.6



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 29

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 904887

LABORATORY TEST REPORT

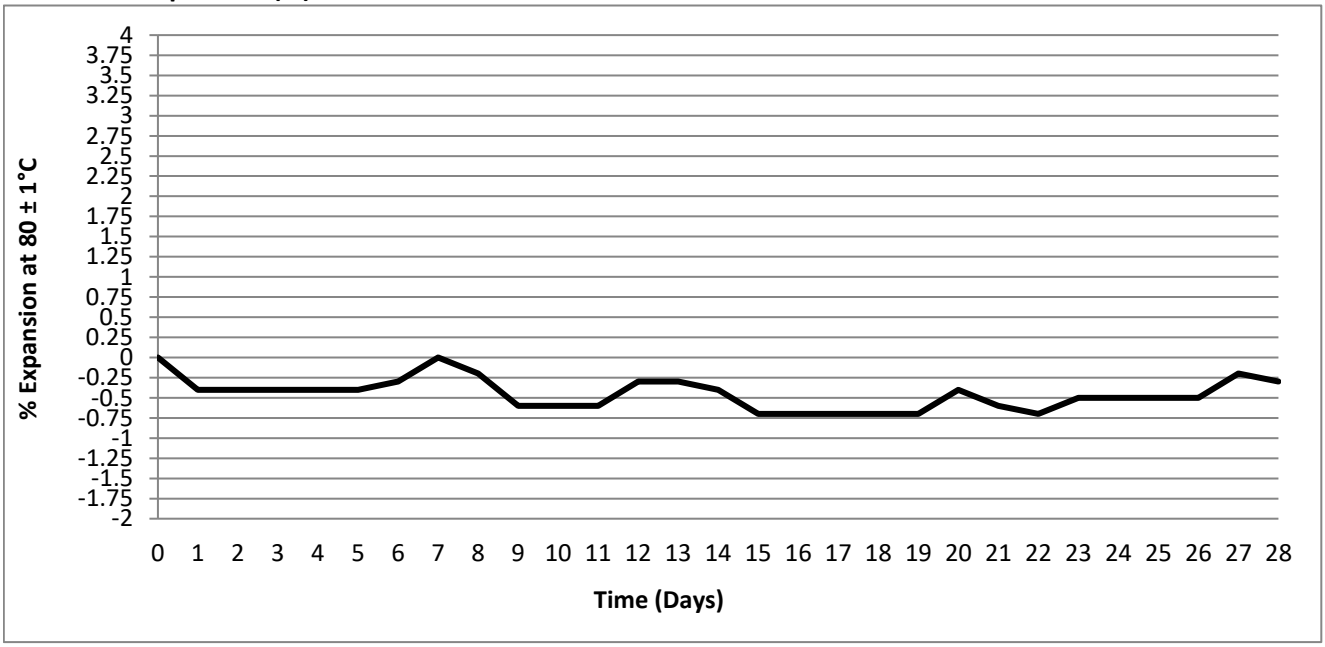
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105136**
Client Ref. No:	**AN34-1 - 1m**
Date and Time of Sampling:	**24/08/2022**
Date of Receipt at Lab:	**30/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**AN34-1 - 1m**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.3
Maximum Expansion (%) = 0



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 22

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 21 February 2023
Test Report Ref: TR 927634

LABORATORY TEST REPORT

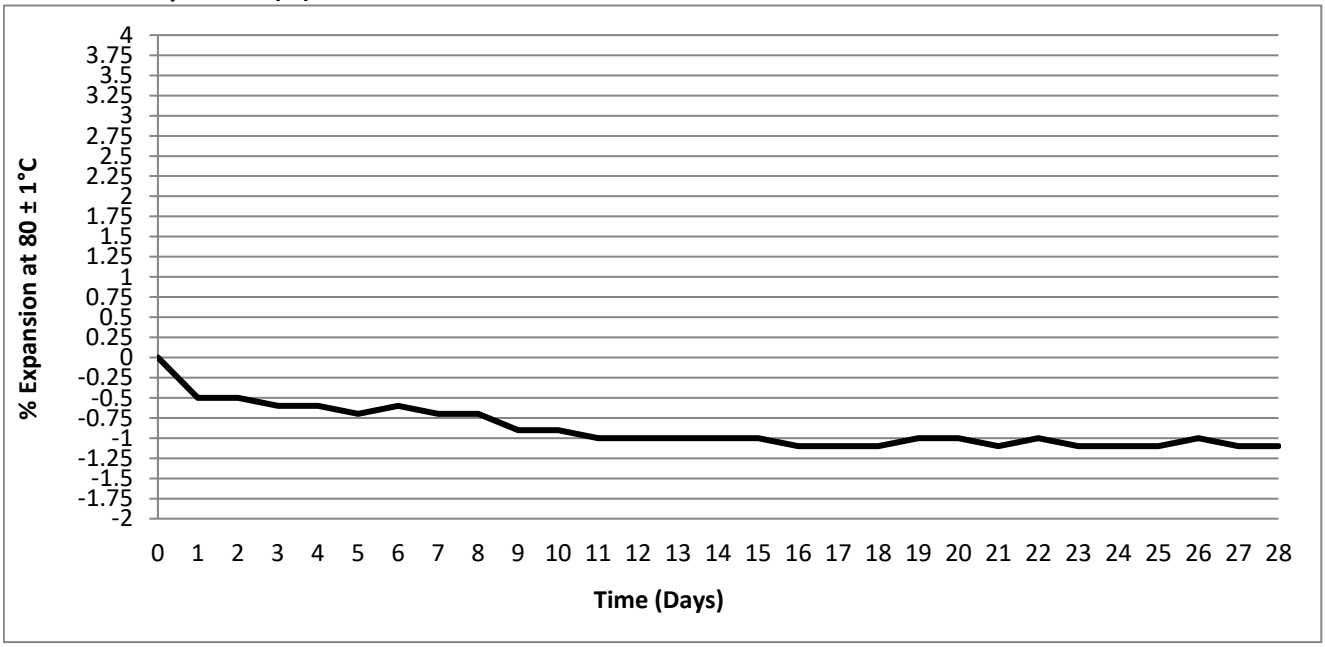
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM34-1 - 0.2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM34-1 - 0.2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**AW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -1.11
Maximum Expansion (%) = -0.5



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 28

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 21 February 2023
Test Report Ref: TR 927643

LABORATORY TEST REPORT

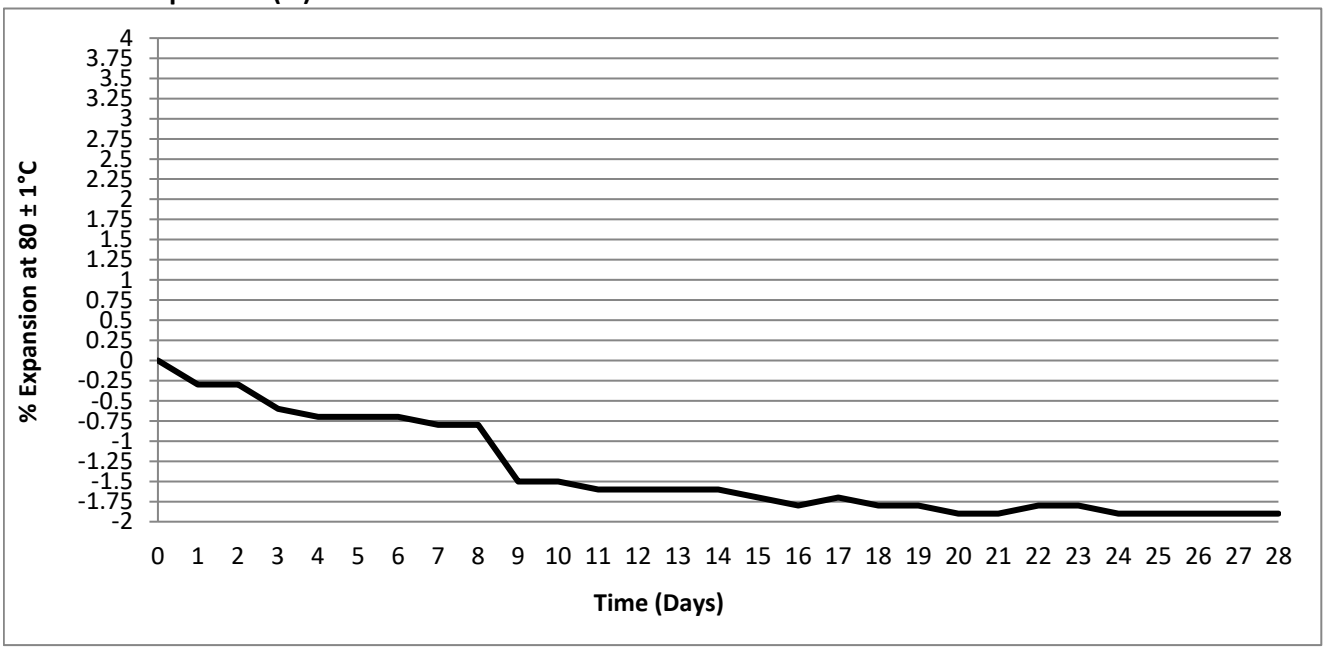
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM36-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM36-1 - 1.5**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**AW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -1.91
Maximum Expansion (%) = -0.3



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 42

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 June 2021
Test Report Ref: TR 782359

LABORATORY TEST REPORT

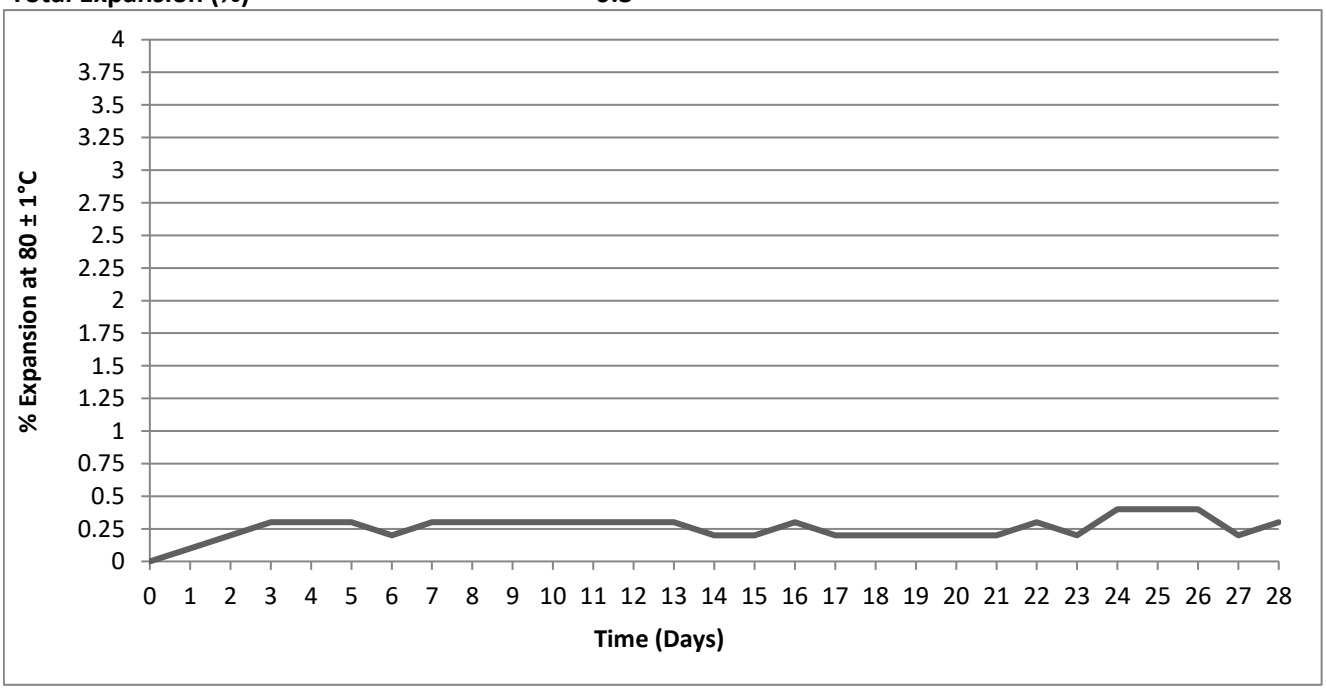
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK34-1 - 1.6**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/04/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = 0.3



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 35

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 June 2021
Test Report Ref: TR 782513

LABORATORY TEST REPORT

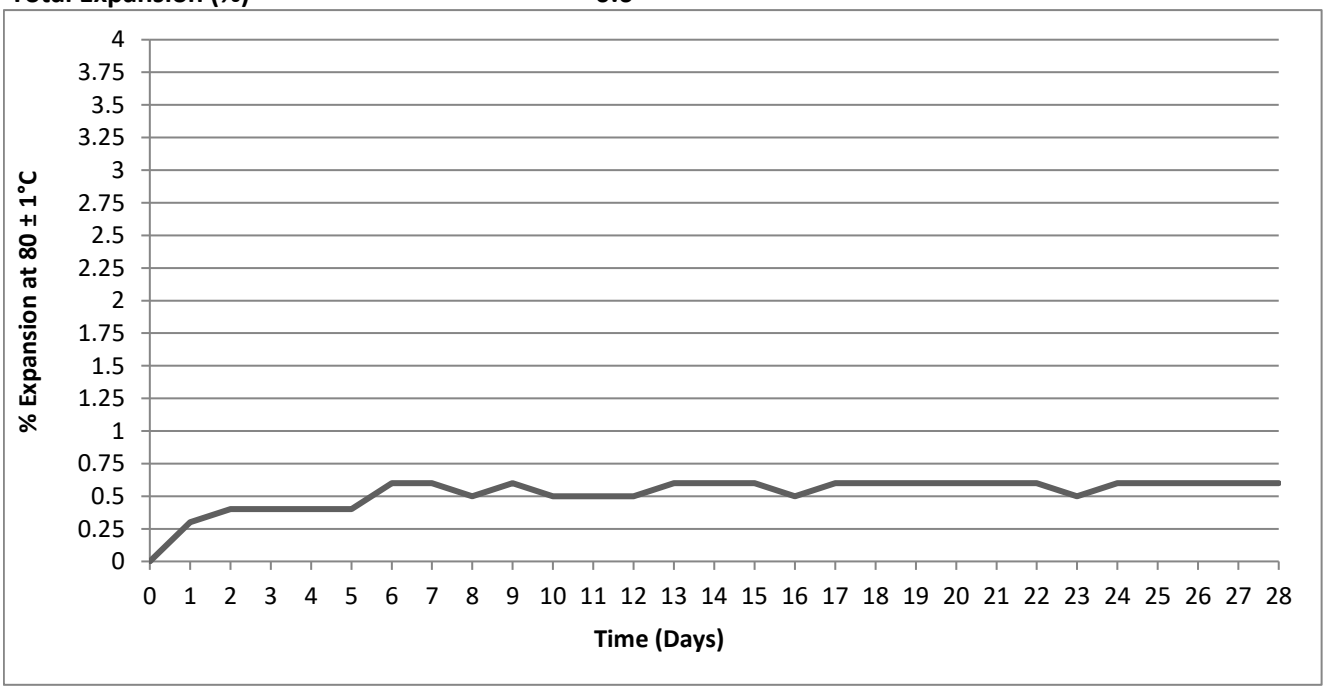
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW29-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/04/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = 0.6



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 22

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 21 April 2021
Test Report Ref: TR 779241

LABORATORY TEST REPORT

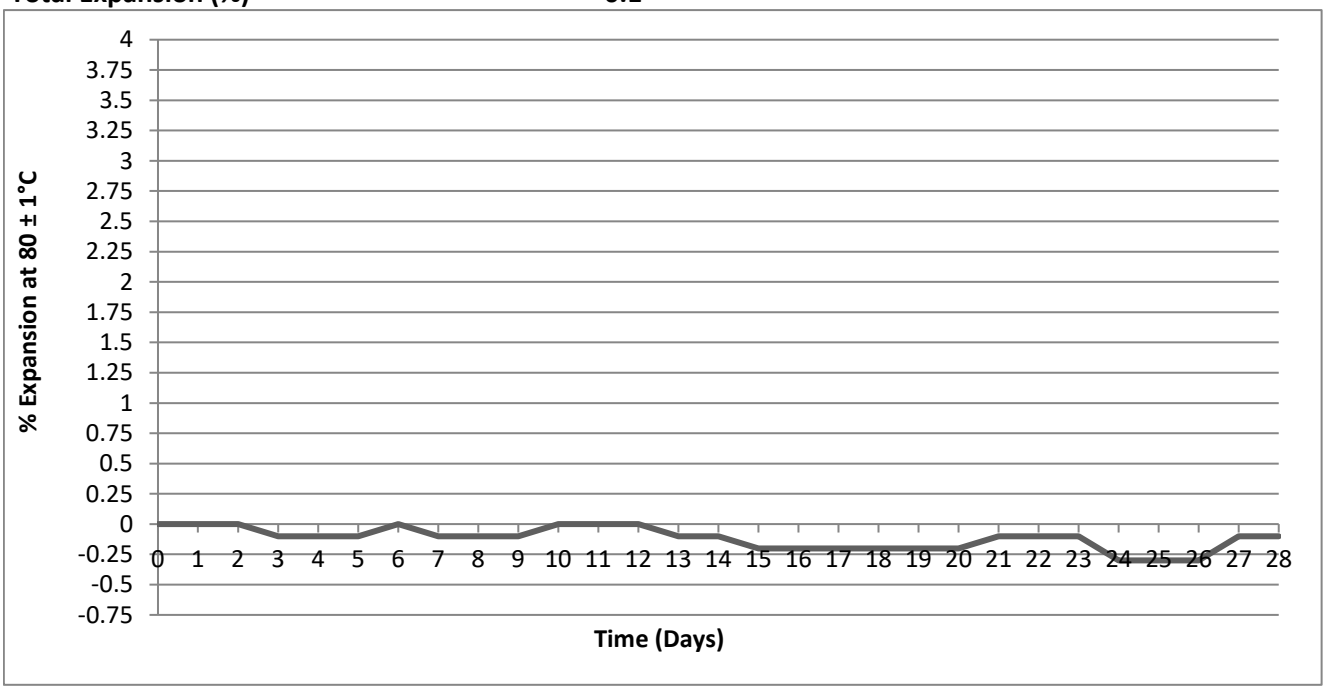
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV29-1 @ 1.0M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**16/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = -0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 45

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 21 April 2021
Test Report Ref: TR 779242

LABORATORY TEST REPORT

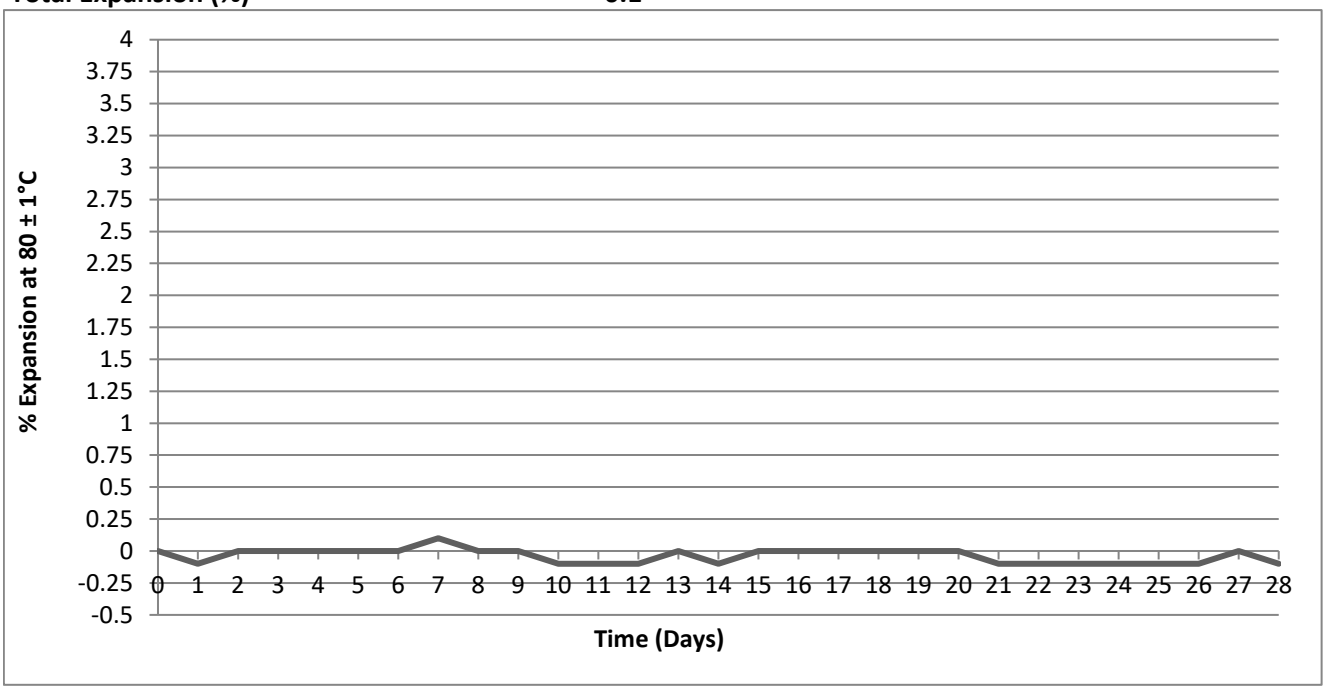
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AU29-1 @ 0.5M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**16/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = -0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 39

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890904

LABORATORY TEST REPORT

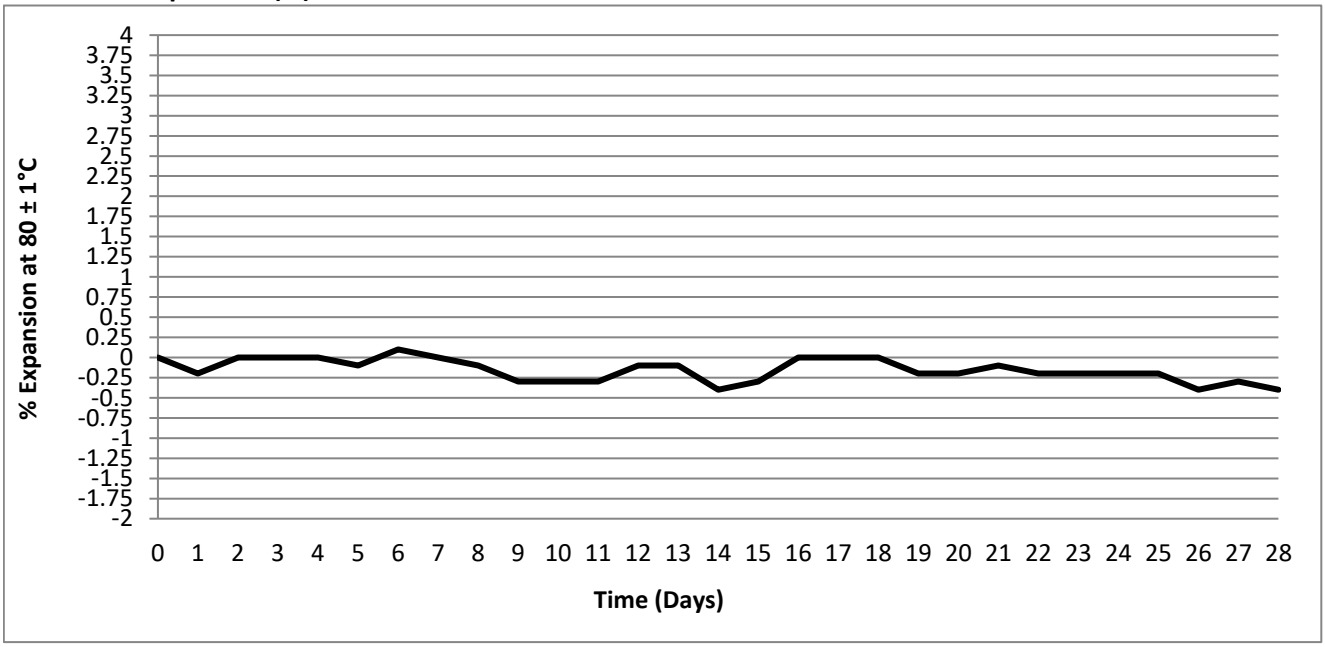
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AQ33-1 0.6M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ33-1 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.35
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 42

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890913

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

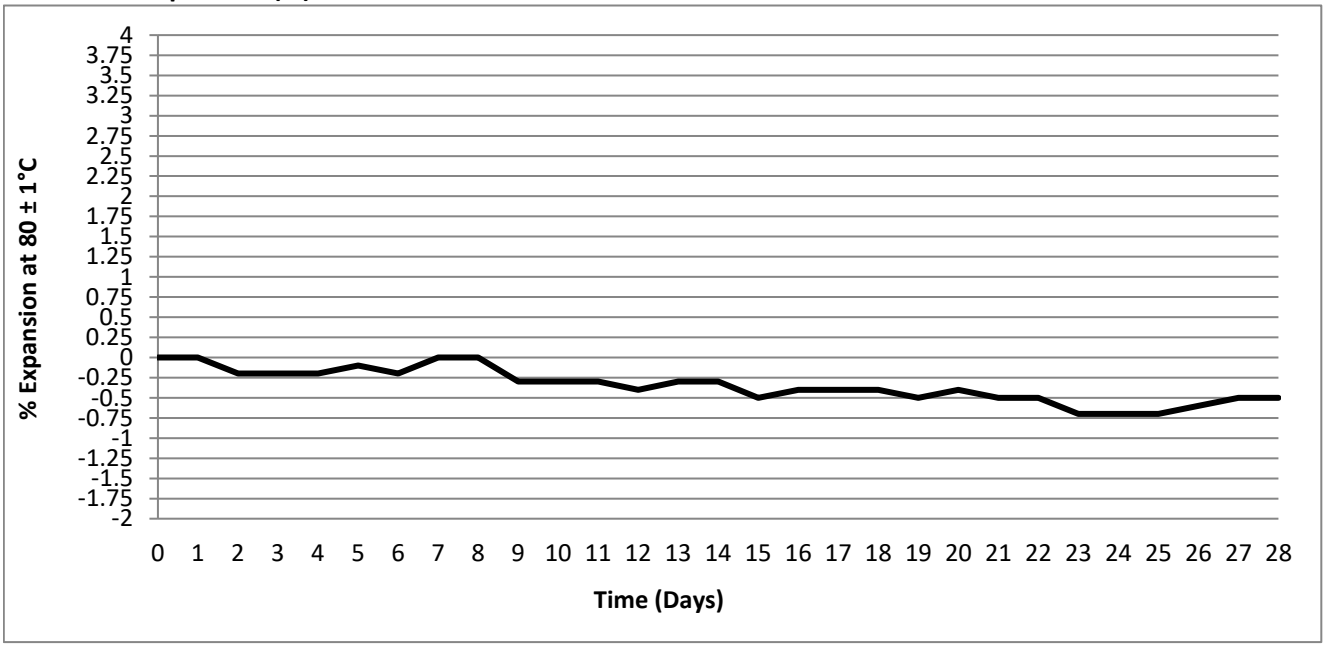
SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AS33-1 1.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AS33-1 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.45

Maximum Expansion (%) = 0



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 30

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

Appendix I

RLL Radiological Walkover Survey Technical Note

Technical Note

Project:	P18-669 Llanwern - Sitewide		
Subject:	Technical Note – Phase 5e2 Radiological Walkover		
Prepared by:	Elliot Thomas – Geo-Environmental Consultant	**Date:**	05 June 2023
Authorised by:	Chris Wilson – Senior Geo-Environmental Consultant	**Status:**	S2 - Information
Document Ref:	18669-RLL-23-XX-RP-O-00400	**Revision:**	P01

1 Introduction

Rodgers Leask Ltd (RLL) have prepared this Technical Note to provide a summary of a radiological walkover undertaken in Phase 5e2 within the Glan Llyn development, Newport. The Site historically comprised part of the Llanwern steelworks. Historical plans of the steelworks during its operational years indicate that a 'Radioactive Store' was present within Phase 5e2 in the south-east of the wider Glan Lynn development.

The Radioactive Store is located approximately central to Phase 5e2, a site location plan is shown on RLL Drawing 18669-RLL-22-XX-DR-O-0321-B included in **Appendix A**.

The Radioactive Store is thought to have been used for the storage of radioactive sources during the operational years of the steelworks, they are thought to no longer remain in situ. The Site was demolished to slab level circa 2006, since demolition the Site has comprised open ground utilised for stockpiling associated with the remediation of the wider development.

The earthworks in Phase 5e2 commenced in June 2022 and involved the turnover of Made Ground and removal of below ground obstructions. In advance of earthworks in the area of the Radioactive Store, as a precaution, a radiological walkover was considered necessary to confirm absence of significant radiological activity within the region of the former Radioactive Store.

2 Radiological Walkover

Two Engineers from RLL undertook a walkover on the 9th of September 2022 in the location of the former Radioactive Store with a handheld monitor - Mini 900 Monitor 44A. This monitor detects gamma radiation and was compared to background levels to see if counts per second (cps) were significantly above.

To establish background levels, measurements were undertaken in the Site car park and a completed phase on the wider development. The area of the radioactive store was marked

out and then covered in passes with the probe, as shown on RLL drawing 18669-RLL-23-XX-RP-O-0401 in **Appendix A.**

The Method statement and risk assessment were produced by a specialist company Radman Associates and are included in **Appendix B**.

3 Results and Conclusion

Results from the walkover are presented below;

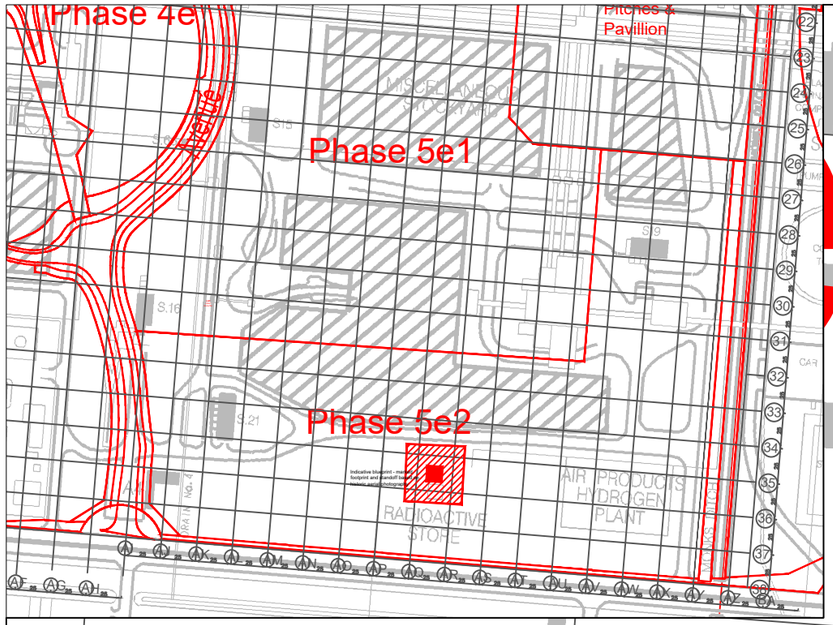
Location*	Count Rate at Ground Level (cps)	Count Rate at 1.00m Height (cps)
Car Park – Control	5	n/a
Phase 4h– Control	5 - 10	
Radioactive Store – Zone 1	5 - 10	n/a
Radioactive Store – Zone 2	5 - 10	n/a
Radioactive Store – Zone 3	7 - 10	n/a
Radioactive Store – Zone 4	7 - 10	n/a
Radioactive Store – Zone 5	8 - 10	n/a
Radioactive Store – Zone 6	8 - 10	n/a
Radioactive Store – Zone 7	8 - 10	n/a
Radioactive Store – Zone 8	7 - 10	n/a
Radioactive Store – Zone 9	7 - 10	n/a
Radioactive Store – Background @ 1.00m	n/a	10
Radioactive Store – 1.00m Perimeter	n/a	5-10
Radioactive Store – Ground Level Perimeter	5 - 10	n/a

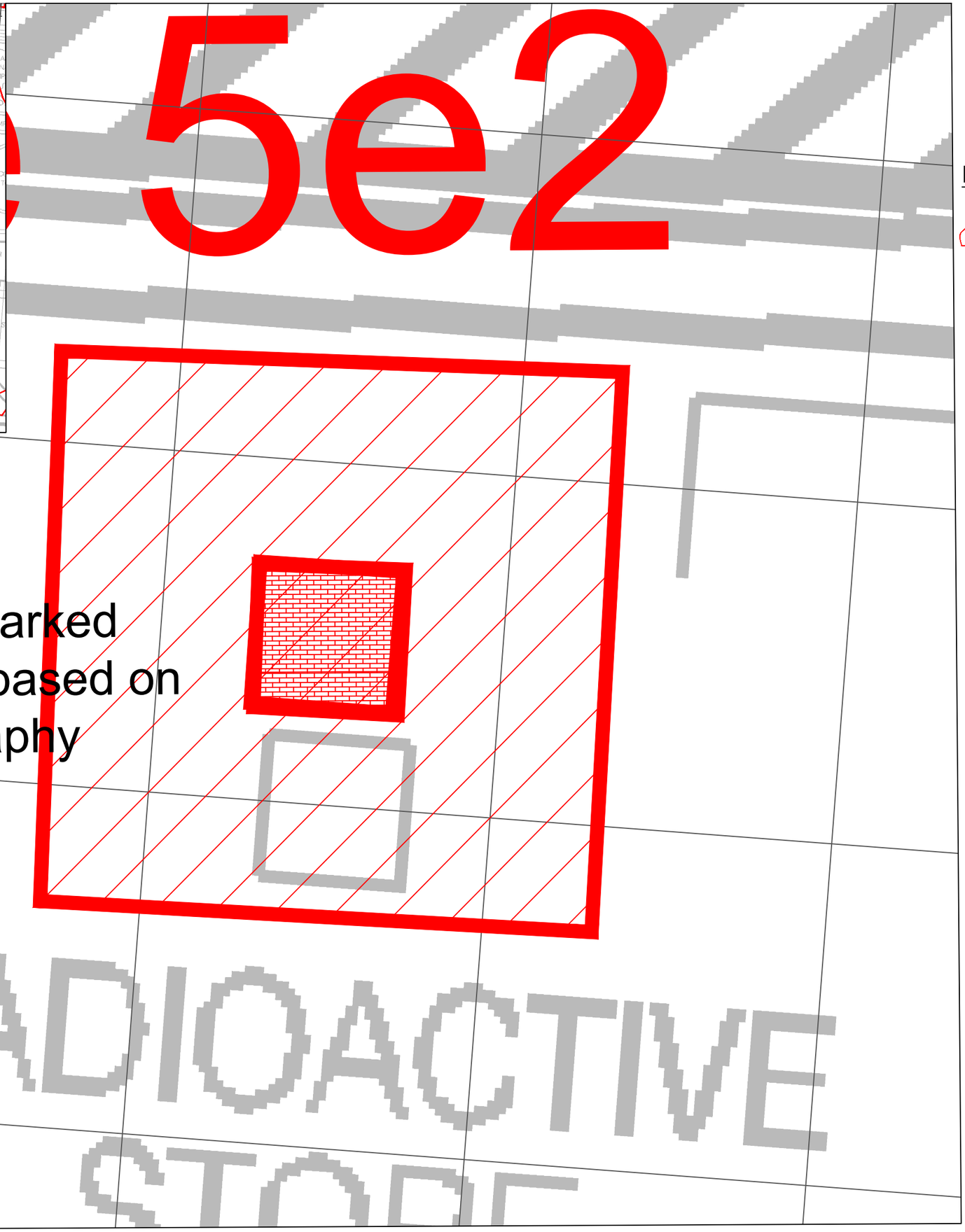
*Zones correspond to RLL drawing 18669-RLL-23-XX-RP-O-0401.

Background levels taken at control areas have shown maximum counts per second (cps) of 10. Monitoring of the radioactive store detected no results higher than 10cps. The lack of elevated cps above background levels indicates that the area has not been significantly impacted by materials historically stored in the location and that any radioactive materials historically stored in the location are no longer present.

No further action / remedial requirements were considered necessary and earthworks within phase 5e2 are able to continue.

Appendix A – Drawings.





Indicative blueprint - marked footprint and standoff based on historic aerial photography

GENERAL NOTES

NO DIMENSIONS TO BE SCALED OFF THIS DRAWING.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.

ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

Key

Phase Boundary

Standoff Area (15m)

Approximate footprint of historical Radioactive Store

Rev	Date	Amendments	By	Chk
B	07/09/2022	Updated Standoff / Footprint	DM	CW
A	02/09/2022		DM	CW

Client

St Modwen Developments

Project

P18-669 Llanwern Reclamation

Drawing Title

Phase 5e2 Radiological Walkover Location Plan

INFORMATION

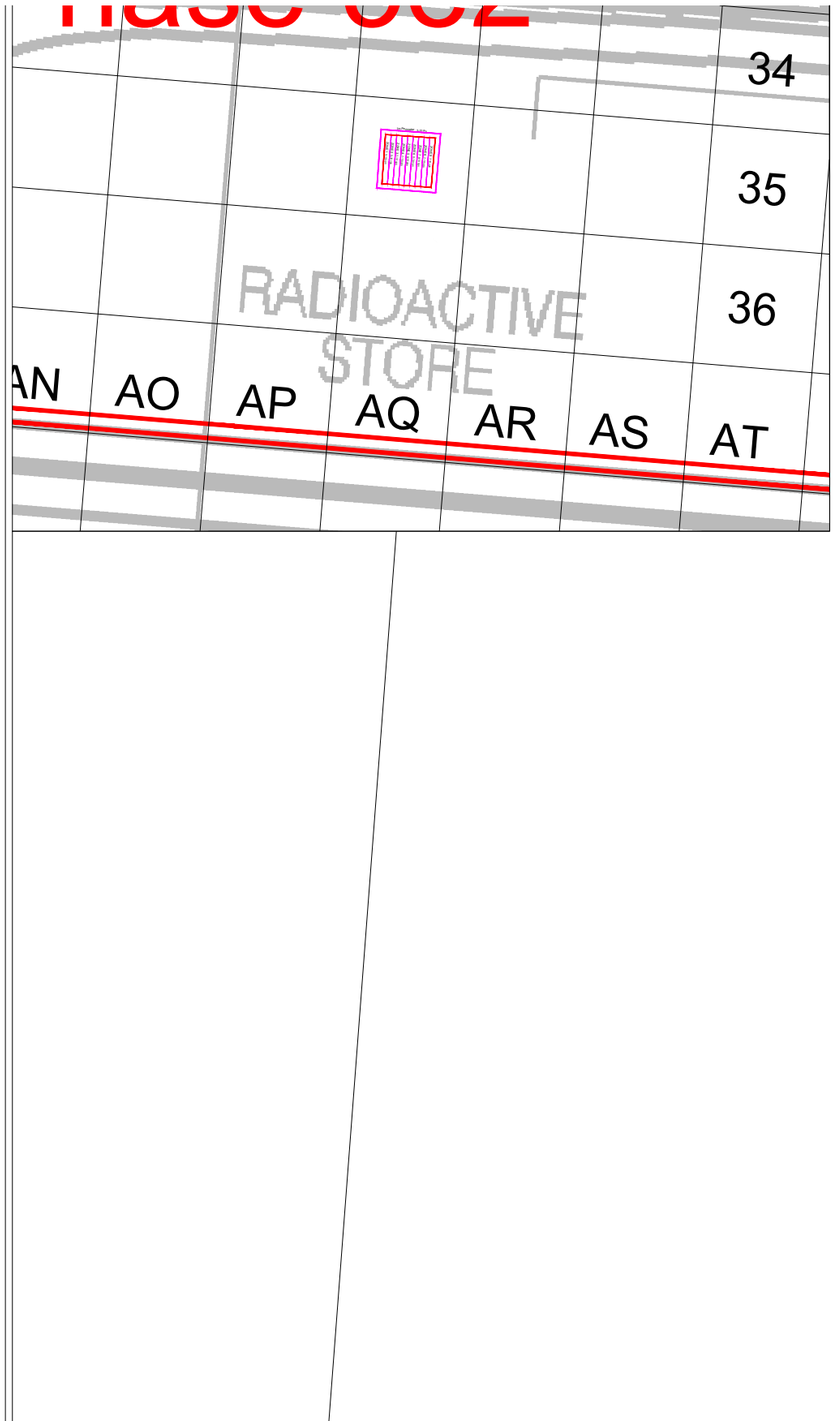
	Drawn	Checked	Date
NTS	DMcC	CW	02/09/22

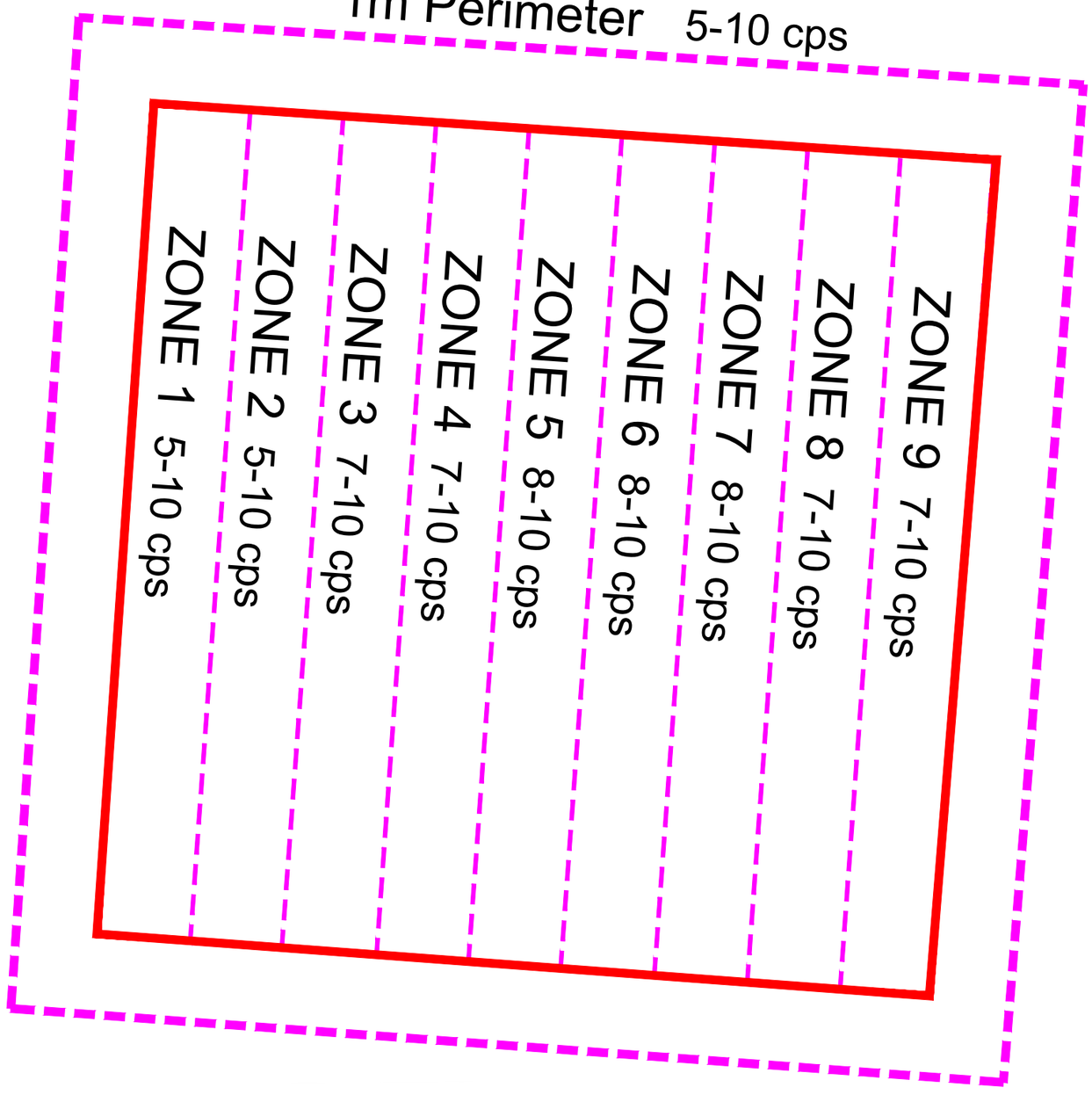
Drawing No. | Rev.

18669-RLL-22-XX-DR-O-0321

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Seven House ● 18 High Street ● Longbridge ● B31 2UQ ● Tel: 0121 475 8462 ● Fax: 01332 291728 ● www.rodgersleask.co.uk





RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINC

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOT OTHERWISE.

ALL LEVELS ARE IN METRES UNLESS NOTED OTHEF

ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

Key

APPROXIMATE FOOTPRINT OF RADIOACTIVE STORE

RADIOLOGICAL SURVEY ZONI

Rev	Date	Amendments	By	Chk

Client

St Modwen Developments

Project

P18-669 Llanwern Reclamatic

Drawing Title

Phase 5e2 Radiological Walkover Results Summary

INFORMATION

	Drawn	Checked	Date
NTS	SR	CW	02/02/

Drawing No. Rev.

18669-RLL-23-XX-DR-O-0401

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Radman Associates

Specialists in Radiological Protection Management

Radiological monitoring during non-intrusive investigations

Risk Assessment/Method Statement

Client:	**Rodgers Leask Limited**
Client address:	Office 311 2430/2440 Aztec West Almondsbury BS32 4AQ
Client contact:	Chris Wilson (Senior Geo-environmental Consultant)
Address of premises to be surveyed:	Llanwern Steelworks, Newport, Gwent
Proposed survey start date:	9 September 2022
RAMS date:	2 September 2022
Author:	 Alan Wale Accredited Radiation Protection Adviser & Radioactive Waste Adviser
Document Status:	1st Issue
Document reference:	RL/LLan/MS1

Appendix B – Method Statement and Risk Assessment

Introduction

This method statement/risk assessment relates to reassurance radiological monitoring by suitably trained site operatives at Llanwern Steelworks, Newport, Gwent.

Walkover monitoring at the site is to be conducted by Rogers Leask personnel for gross radiological contamination in the footprint of a former radioactive store at the site.

The following provides information on the measures to be taken by site operatives to ensure that all on-site exposures to ionising radiation are kept *as low as reasonably practicable (ALARP)*. ALARP is the key principle upon which all radiation protection measures are based and provides the foundation for regulatory control of occupational exposures in the Ionising Radiations Regulations 2017 (IRR17)[1] made under the enabling Health and Safety at Work etc. Act 1974.

1. Potential radioactive contaminants

Whilst this building had been marked as being used for storing radioactive sources none are expected to remain and this monitoring is for reassurance and precautionary purposes only.

Steel works have commonly used or held:

- Gamma ray emitting sealed sources for imaging castings or industrial radiography;
- Refractory furnace linings and casting sands containing Naturally Occurring Radioactive Materials (NORM);
- Orphan radioactive sources identified in scrap coming onto the site prior to offsite disposal.

2. Risk Assessment

All work will be performed in accordance with the ALARP principle for the restriction of exposure to sources of ionising radiation. The work will also be conducted taking into consideration any additional hazards that may be present on site.

2.1 Contaminant radionuclides

Radionuclides can decay via emission of either **alpha** or **beta** particles, frequently accompanied by **gamma rays** (photons).

Alpha particles are intensely ionising but are easily shielded (e.g. piece of paper, layer of dead skin cells). They present an insignificant external radiation hazard, but a significant **internal contamination hazard**. We should therefore prevent uptake of any material into the body via inadvertent ingestion or inhalation.

Beta particles are relatively easily to shield (several mms of Perspex, depending on the nuclide and energy of emission) and so present both an **internal** contamination, and **external** (depending on energy of emission) radiation hazard.

Gamma rays are a highly penetrating form of electromagnetic radiation, requiring dense shielding materials such as lead and concrete. They are considered to present an **external radiation hazard**.

2.2 Exposure routes

External radiation: Being in close proximity to surface ground contamination or radioactive items raises the potential for exposure to external gamma radiation. Since this type of radiation follows the inverse square law, the exposure levels increase significantly with reduced distance from the emitting material/item.

Contamination: Contamination of the person leading to internal exposure may occur via physical skin contact, or uptake via inhalation or ingestion of contaminant radionuclides. Dry, dusty conditions leading to airborne contamination shall be avoided by damping down such materials.

The operational exposure risk from both routes is considered to be low.

2.3 Precautionary measures

Given the potential for internal contamination, workers should take the following precautions to prevent uptake of material:

- No consumption of foodstuffs on site.
- Covering of any broken skin.
- Wearing of disposable gloves (if handling material).

If significant concentrations of contaminated material are found to be present, the following additional precautions are recommended:

- Damping down of material and wearing dust masks if dusty conditions prevail.
- Wearing coveralls and disposable gloves.
- Periodic monitoring of footwear, clothing and equipment, with record keeping.

If significant contamination is found, the contamination contingency (Section 4) should be followed.

Following these simple procedures ensures that the exposure risk from contamination remains ALARP.

2.4 Personal Protective Equipment

The following standard PPE will be worn during the work:

- Hard hat
- High-vis jacket/vest
- Safety boots with steel mid-sole and toe caps

If handling material, disposable gloves will also be worn.

Further PPE will be required for emergency procedures as detailed in Section 5 to include disposable coveralls, safety glasses, overshoes, and gloves, and (if considered necessary by the RPA) suitable RPE.

3. Monitoring protocol

3.1 Monitoring equipment

The identification of contaminated material is possible, and best achieved, via detection of gamma radiation count rates significantly above the natural background response. Monitoring will be performed by suitably trained site operatives who have been taken through this method statement.

A handheld monitor (Table 1) will be used to detect any gamma emitting radionuclides within the excavation spoil. Instrument is calibrated in compliance with Reg 20 of the IRR17 and in accordance with guidance published by the National Physical Laboratory[3].

Table 1 Instruments used during radiological survey

No.	Instrument	Probe	Radiation detected	Background response
1	Mini900	44B probe	Gamma	8-12 cps

cps: counts per second

For the 44B probe the plastic end cap can be left in place, to protect the end window, as gamma rays can pass through. The co-axial cable connecting the 44A to the ratemeter is not designed to support the weight of the probe and the probe should not be hung from this cable. Please ensure the cable connector at the probe is fully screwed in before use.

Prior to each use turn the monitor switch to the first position (battery check) and ensure the needle remains steady in the green band on the dial. The monitor uses one 9V or six AA batteries and these can be replaced at any time without affecting the calibration.

The monitor is not weatherproof and so must be protected from rain. When not in use it should be stored in a dry location. The 44B monitor can be used for short periods inside a plastic bag and this will not affect the sensitivity of their readings.

3.2 Monitoring methodology

1. Record the background count rate on both monitors at a distance of at least 10m away from the area to be surveyed.

2. Monitoring is to be carried out at 10 mm (approximate) from the surface of the material removed.

3. Readings below 20 cps (gamma probe) (Twice natural background) may be regarded as uncontaminated and work may continue. The odd spike above the action levels can occur due to normal fluctuation in the natural background. For the action levels you are looking for a continuous, consistent reading at or above the specified action level.

4. Surfaces returning a count rate **20 – 200 cps** (gamma) shall be noted and the survey can continue without resulting in significant radiological exposure.

5. Where count rates exceed **200 cps** work should cease until advice has been obtained from the RPA about potential exposure rates. Where work is discontinued, the contaminated area will be cordoned off and appropriately marked.

6. A record sheet will be completed following each days monitoring for retention on file.

7. Following work individuals shall be personally monitored to ensure the absence of personal contamination. If personal contamination has occurred then the RPS shall seek advice from the Site operator and RPA.

Any reading greater than 2000 cps recorded on 44B: Work should immediately cease; the area should be cordoned off and the RPA contacted for advice on how to proceed. The emergency procedures detailed in Section 5 should be followed. In this case the RPA is likely to arrange dose-rate monitoring to ascertain whether it is safe to continue work.

4. Emergency Procedures

If measured count rates exceed the specified upper action level then the area shall be cordoned off, and access restricted. The aim at all times is to maintain operational and public exposures to levels agreeable with ALARP. Therefore, in the event of contamination being identified, workers should adhere to the following:

- Immediately cease work.
- Monitor footwear, clothing and hands prior to leaving the work area.
- Remove any contaminated clothing and leave in the contaminated area.
- Decontaminate hands if necessary (wash with water, or wipe using wetted blue roll).
- Leave area, erect suitable cordon and restrict access.

If re-entry is required (e.g. for decontamination and removal of tools/plant, or for sampling/further monitoring), workers should wear suitable disposable coveralls, overshoes, safety glasses and gloves, and (if considered necessary by the RPA) suitable RPE. Monitoring/decontamination of personnel/equipment should be performed as necessary, prior to leaving the area.

5. RPA contact

The monitoring is to be conducted by suitably trained site operatives. Contact may be made with the RPA's office (Radman Associates: 01625 576000), as required.

References

1. Ionising Radiations Regulations 2017 S.I. 1075.
2. Measurement Good Practice Guide No 14: The Examination, Testing & Calibration of Portable Radiation Protection Instruments. Issue 3.

Rodgers Leask Limited & Rodgers Leask Environmental Limited
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Seven House, 18 High Street, Longbridge, Birmingham B31 2UQ