Tionscadal Soláthair Uisce
Water Supply Project

Environmental Impact Assessment Report (EIAR)

Volume 6 of 6: Appendices

(Appendix 10.11) Lot 3 Peatlands TWC 10,000 - TWD 29,000

Document no: 32105801/EIARA10.11

Version: Final

December 2025

Uisce Éireann
Irish Water

Jacobs

TOBIN

PAGE LEFT INTENTIONALLY BLANK

IGSL Ltd

Water Supply Project Eastern and Midlands Region Lot 3 – Peatlands

---

Site Investigation Report

FACTUAL

Project No. 23560

May 2023

M7 Business Park
Naas
Co. Kildare
Ireland

T: +353 (45) 846176
E: info@igsl.ie
W: www.igsl.ie

DOCUMENT ISSUE REGISTER

Distribution	Report Status	Revision	Date of Issue	Prepared By:	Approved By:
Mott MacDonald (via *Sharepoint*)	DRAFT report, PDF by email	A	21 October 2022	John Lawler Professional Geologist BSc MSc PGeo EurGeol FGS	Paul Quigley Chartered Geotechnical Engineer & Registered Ground Engineering Adviser BEng CEng MICE MIEI FGS
Mott MacDonald (via *Sharepoint*)	FINAL Report, PDF by email	B	31 March 2023	John Lawler	Paul Quigley
Mott MacDonald (via *Sharepoint*)	FINAL Report, PDF by email	C	12 May 2023	John Lawler	Paul Quigley
Mott MacDonald (via *Sharepoint*)	FINAL Report, PDF by email	D	06 June 2023	Ciarán Killaly	Paul Quigley
Mott MacDonald (via *Sharepoint*)	FINAL Report, PDF by email	E	21 June 2023	Ciarán Killaly	Paul Quigley

TABLE OF CONTENTS

Foreword

8.1 Introduction

8.2 Site & Geology
- **8.2.1** Site
- **8.2.2** Superficial Geology
  - **8.2.2.1** GI Findings – Soil
  - **8.2.2.2** Published Maps – Soil
- **8.2.3** Solid Geology
  - **8.2.3.1** Published Maps – Rock
  - **8.2.3.2** GI Findings - Rock

8.3 Fieldwork
- **8.3.1** General
- **8.3.2** Cable Percussion / Combined Cable Percussion Borehole + Rotary / Rotary Only
- **8.3.3** Geobore S Rotary Coreholes
- **8.3.4** Dynamic Sampling
- **8.3.5** Trial Pitting
- **8.3.6** Borehole Infiltration Testing
- **8.3.7** Peat Probes
- **8.3.8** Russian Peat Sampling
- **8.3.9** Geophysical Survey
- **8.3.10** Groundwater Monitoring / Data Loggers
- **8.3.11** Surveying of Exploratory Hole Locations

8.4 Laboratory Testing

References

FIGURES

Figure 1	- Approximate Pipeline Route from Ch.103,000 (Rathfeston) to Ch.147,000 (Newtownmoneenluggagh)
Figure 2	- Quaternary Soils Plot for the 'Peatlands' route
Figure 3	- Bedrock Geological Map for the 'Peatlands' route

TABLES

Table 1	- Well installations noting standpipe (SP) diameter and gravel response zones
Table 2	- Geotechnical testing performed on disturbed and undisturbed soils
Table 3	- Geotechnical testing performed on rock cores
Table 4	- Chemical / Environmental testing on soil

APPENDICES

Appendix 8A - Legend / SPT Calibration / Borehole Records
Appendix 8A.1 – Cable Percussion Boreholes / Combined Cable Percussion Borehole & Rotary Corehole Records / Rotary-Only Records
Appendix 8A.2 – Geobore S Corehole Records

Appendix 8B - Dynamic Sampling Records

Appendix 8C - Legend / Trial Pit Records

Appendix 8D - Peat Probe & Russian Core Records
Appendix 8D.1 – Peat Probe Summary Records
Appendix 8D.2 – Russian Peat Sampler Records

Appendix 8E - Field / In-Situ Test Results
Appendix 8E.1 - Borehole Infiltration Tests

~~Appendix 8F - Specialist In-Situ Test Results~~

Appendix 8G - Geophysics Report

Appendix 8H - Laboratory Test Results
Appendix 8H.1 - Geotechnical Laboratory Test Records & – Soil *Including Laboratory Non-Compliance Notes*
Appendix 8H.2 - Geo-environmental & Chemical Testing – Soil
Appendix 8H.3 - Rock Strength Testing
Appendix 8H.4 - Rock Reusability Testing
Appendix 8H.7 - Geological Classification

Appendix 8I - Photographs
Appendix 8I.1 - Trial Pit Photographs - Excavation
Appendix 8I.3 - Core Photographs

Appendix 8J - Groundwater Level Data
Appendix 8J.1 Field Measurements
Appendix 8J.2 Data Logger Records

Appendix 8K - Drawings

~~Appendix 8L - Digital Data (AGS)~~

FOREWORD
The following conditions and notes on the geotechnical site investigation procedures should be read in conjunction with this report.

Standards
The ground investigation works for this project (**Water Supply Project Eastern and Midlands Region Lot 3 – Peatlands**) have been carried out by IGSL Limited in accordance with Eurocode 7 - Part 2: Ground Investigation & Testing (EN 1997-2:2007). This has been used together with complementary documents such as BS 5930 (2015+A1:2020) and BS 1377 (Parts 1 to 9) and the following European Norms:

- EN 1997-2 Eurocode 7: 2007 – Geotechnical Design – Part 2: Ground Investigation & Testing and its associated complementary standards.
- EN ISO 22475-1:2006 Geotechnical Investigation and Sampling – Sampling Methods & Groundwater Measurements
- EN ISO 14688-1:2017 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 1: Identification and Description
- EN ISO 14688-2:2017 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 2: Principles for a classification
- EN ISO 14689-1:2017 Geotechnical Investigation and Testing – Identification, description & classification of rock

The Eurocode 7, Part 2 – Ground Investigation and Testing GI specification shall be read in conjunction with the Specification and Related Documents for Ground Investigation in Ireland, 2nd Edition, published by Engineers Ireland in 2016 and the Ervia Particular Specification document entitled 'A Multi-Supplier Framework for the Provision of Site Investigation Works to Ervia (Ref:18/085) - Annex 2 – Works Order Requirement', framework reference 18/085.

Reporting
No responsibility can be held by IGSL Ltd for ground conditions between exploratory hole locations. The engineering logs provide ground profiles and configuration of strata relevant to the investigation depths achieved and caution should be taken when extrapolating between exploratory points. No liability is accepted for ground conditions extraneous to the investigation points. Unless specifically stated, no account has been taken of possible subsidence due to mineral extraction, mining works or karstification below or close to the site.

This report has been prepared for Irish Water. The information should not be used without their prior written permission. The Engineer is Mott MacDonald Ireland. IGSL Ltd accepts no responsibility or liability for this document being used other than for the purposes for which it was intended.

Boring Procedures
Unless otherwise stated, 'shell and auger' or cable percussive boring technique has been employed as defined by Section 6.3 of IS EN ISO 22475-1:2006. The boring operations, sampling and in-situ testing complies with the recommendations of IS EN 1997-2:2007 and BS 1377:1990 and EN ISO 22476-3:2005. The shell and auger boring technique allows for continuous sampling in clay and silt above the water table and sand and gravel below the water table (Table 2 of IS EN ISO 22475-1:2006).

It is highlighted that some disturbance and variation is unavoidable in particular ground (e.g. blowing sands, gravel / cobble dominant glacial deposits etc). Attention is drawn to this condition, whenever it is suspected. Where cobbles and boulders are recorded, no conclusion should be drawn concerning the size, presence, lithological nature, or numbers per unit volume of ground.

In-Situ Testing

Standard penetration tests were conducted strictly in accordance with Section 4.6 of IS EN 1997-2:2007. The SPT equipment (hammer energy test) has been calibrated in accordance with EN ISO 22476-3:2005 and the Energy Ratio (E_r). A calibration certificate is available upon request. The E_r is defined as the ratio of the actual energy E_{meas} (measured energy during calibration) delivered to the drive weight assembly into the drive rod below the anvil, to the theoretical energy (E_{theor}) as calculated from the drive weight assembly. The measured number of blows (N) reported on the engineering logs are uncorrected. In sands, the energy losses due to rod length and the effect of the overburden pressure should be taken into account (see IS EN ISO 22476-3:2005).

Soil Sampling

Three categories of sampling methods are outlined in EN ISO 22475-1:2006. The categories are referenced A, B and C for any given ground conditions and are shown in Tables 1 and 2 of EN ISO 22475-1:2006. Reference should be made to EN 1997-2:2002 for guidelines on sample class and quality for strength and compressibility testing. Samples of quality classes 1 or 2 can only be obtained by using Category A sampling methods.

Class 1 thin wall undisturbed tube samples (UT100) were obtained in fine grained soils and strictly meet the requirements of EN 1997-2:2002 and EN ISO 22475-1:2006. Soil samples for laboratory tests are divided into five classes with respect to the soil properties that are assumed to remain unchanged during sampling, handling transport and storage. The minimum sample quality required for testing purposes to Eurocode 7 compatibility (EN 1997-2:2002) is shown in Table A.

Table A – Details of Sample Quality Requirements

EN 1997 Clause	Test	Minimum Sample Quality Class
5.5.3	Water Content	3
5.5.4	Bulk Density	2
5.5.5	Particle Density	N/S
5.5.6	Particle Size Analysis	N/S
5.5.7	Consistency Limits	4
5.5.8	Density Index	N/S
5.5.9	Soil Dispersivity	N/S
5.5.10	Frost Susceptibility	N/S
5.6.2	Organic Content	4
5.6.3	Carbonate Content	3
5.6.4	Sulphate Content	3
5.6.5	pH	3
5.6.6	Chloride Content	3
5.7	Strength Index	1
5.8	Strength Tests	1
5.9	Compressibility Tests	1
5.10	Compaction Tests	N/S
5.11	Permeability	2

N/S – not stated. Presume a representative sample of appropriate size.

Samples recovered from trial pits or trenches meet the requirements of IS EN ISO 22475-1. It is highlighted that unforeseen circumstances such as variations in geological strata may lead to lower quality sample classes being obtained.

Groundwater

The depth of entry of any influx of groundwater is recorded during the course of boring operations. However, the normal rate of boring does not usually permit the recording of an equilibrium level for any one water strike. Where possible, drilling is suspended for a period of twenty minutes to monitor the subsequent rise in water level. Groundwater conditions observed in the borings or pits are those

appertaining to the period of investigation. It should be noted however, that groundwater levels are subject to diurnal, seasonal and climatic variations and can also be affected by drainage conditions, tidal variations etc.

Engineering Logging

Soil and rock identification has been based on the examination of the samples recovered and conforms with IS EN ISO 14688-1:2002 and IS EN ISO 14689-1:2004. Rock weathering classification conforms to IS EN ISO 14689-1:2003 while discontinuities (bedding planes, joints, cleavages, faults etc) are classified in accordance with 4.3.3 of IS EN ISO 14689-1:2003. Rock mechanical indices (TCR, SCR, RQD) are defined in accordance with IS EN ISO 22475-1:2006.

Where peat has been encountered, samples have been logged in accordance with the Von Post Classification (ref. Von Post, L. 1992. Sveriges Gologiska Undersoknings torvinventering och nogra av dess hittils vunna resultat (SGU peat inventory and some preliminary results) Svenska Mosskulturforeningens Tidskrift, Jonkoping, Swedden, 36, 1-37 and Hobbs N. B. Mire morphology and the properties of some British and foreign peats. QJEG, Vol. 19, 1986.

Retention of Samples

After satisfactory completion of all the scheduled laboratory tests on any sample, the remaining material will be discarded. Unless a period of retention of samples is agreed, it is our normal practice to discard all soil samples one month after submission of our final report.

8.1 INTRODUCTION

IGSL Limited has undertaken a programme of geotechnical site investigation works along the proposed pipeline route for the Water Supply Project (WSP) – Eastern and Midlands Region scheme. IGSL was tasked with undertaking the site investigation for the section of pipeline on Lot 3 (contract 3). The section extends from chainage Ch.103,000 to 170,000, a total of 67km. Given the widespread occurrence of peatland bogs in the westernmost section, the pipeline report was split into a 'Peatlands' (Ch.103,000 to 147,000) section and a 'Pipeline' (Ch.147,000 to 170,000) section.

The proposed WSP will deliver infrastructure to supply treated water from the River Shannon to sustain Ireland's Eastern and Midlands Region. The entire scheme as proposed extends from the Parteen Basin in North Tipperary to Peamount Reservoir in West Dublin, a distance of approximately 170km. The Termination Point Reservoir [TPR] works at Peamount form part of the greater Lot 3 ground investigation contract and are reported separately.

The aim of the investigation was to gather representative information on the ground conditions to allow for adequate characterisation of the ground conditions in order to inform the next stage design and construction of the scheme. The GI was designed to identify and investigate geotechnical risks such that adequate mitigation may be implemented to manage those risks in the next stage of works.

In terms of the positioning of SI locations in the 'Peatlands' section, IGSL fully considered the buried infrastructure traversing the area when setting out as per the coordinates provided. Good practice was to microsite if necessary, to avoid any potential impact on the pipelines already crossing the route. Known buried service locations were identified and pegged beforehand to inform site workers.

In addition to the IGSL and Mott MacDonald representation on site, the works were attended by an ACoW and an ECoW. The ACoW or Archaeologist in Charge of Works was provided by Edmund O'Donovan and Associates. Their attendance was required to maintain a watching brief on freshly opened trial pit excavations to allow immediate identification and recording of any archaeological remains that may have been present. The role of ECoW or Ecologist in Charge of Works was assumed by Sean Meehan (qualified Ecologist). He was tasked with informing on the presence of potentially sensitive ecological habitats on site in addition to the presence of invasive species which could, if disturbed, be detrimentally spread across the site.

8.2 SITE & GEOLOGY

8.2.1 Site

The section of pipeline reported in this document, entitled 'Peatlands', extends over 44 km. As the name implies, it is a section which primarily encompasses peat bog but which also comprises stretches of intervening grassland. The expansive peat bogs are typically Bord na Mona (The Irish Peat Development Authority) harvested peatlands (cutover bog). The chainages identified extend from Ch.103,000 to Ch.147,000.

Chainage 103,000 represents the westernmost extent of Lot 3 and places the investigation in the townland of Rathfeston, Geashill, County Offaly. The route of the pipeline follows a northeastern course initially, crossing Clonad Bog before skirting Mountlucas Bog and crossing the R402 Daingean – Edenderry Road. The pipeline route then passes through forestry lands at Springfield before revisiting bogland at Newtown. Following the southern edge of worked peatland at Esker Bog, at Rathlumber / Rathvilla the pipeline once again meets the R402. It now charts an E-W course through grass fields before once again encountering bogland at Ballykilleen, Edenderry (Cloncreen Bog). The pipeline crosses the R401 Kinnegad – Edenderry Road in the townland of Shean meeting the Cushaling River shortly afterwards. It is here it meets Ballydermot Bog forcing the pipeline to meander closely with the river course through marginal grassland. Continuing through Bord na Mona cutover bog, in the townland of Ticknevin, Carbury, the pipeline route passes into County Kildare at approximately Ch.128,000. Tracking northeastwards again, the route meets the Grand Canal at Kilpatrick, running through arable farmland towards the R403 Allenwood – Derrinturn Road. Beyond the R403, the pipeline route enters lands south of Monaghan Mushrooms facility ('Carbury Substrate & Farm'). At Drehid Bog, the route follows a course north of Drehid Landfill. Once again, the pipeline skirts the main expanse of cutover bog before crossing the L5025 local road at Timahoe near an industrial railway underpass. From Timahoe Bog, the route tracks E-W towards Gilltown Bog, crossing the L5013 and the L1017 local road at Derryvarroge as it does so. Now in relatively fertile grassland, the proposed pipeline route crosses the River Blackwater. Its track veers northeast again, into the townland of Newtownmoneenluggagh, Donadea. Here, approximately 100m west of the L1008 local road, north of Ballagh Crossroads, it meets chainage 147,000 which marks the end of this 'Peatlands' section.

The IGSL Limited intrusive fieldworks commenced following completion of the initial TPR site investigation at the eastern extent of the WSP project. The fieldworks extended from late November 2021 to August 2022 not inclusive. Siteworks were occasionally halted due to landowner issues most especially when seeking access to farmland during the winter months of 2021 / 2022 – landowners were reluctant to allow plant access what they deemed saturated ground. IGSL rigs were damaged with materials stolen by third parties during works on Ballydermot bog. These factors detrimentally affected the overall works programme.

The investigation comprised cable percussion boring, dynamic (driven) sampling, conventional rotary coring, Geobore-S rotary coring, machine-dug trial pitting, Russian peat sampling in addition to an array of in-situ testing. Such tests included borehole infiltration testing and peat probing.

Geotechnical, chemical and environmental laboratory testing was scheduled on a range of soil and rock samples by the supervising engineer, Mott MacDonald Ltd. The geotechnical testing included moisture contents, Atterberg Limits, Particle Size Distribution [PSD] testing, California Bearing Ratio [CBR], Moisture Condition Value [MCV] and shear box testing among others. Environmental and chemical analyses were carried out using comprehensive soil testing suites. Rock testing remains ongoing. Rock testing will be reported in a future version of this report.

This report presents the factual geotechnical data acquired from the 2021 / 2022 investigation. Ongoing sample retention of untested samples is to be agreed with Irish Water.

Figure 1 – Approximate Pipeline Route from Ch.103,000 (Rathfeston) to Ch.147,000 (Newtownmoneenluggagh)

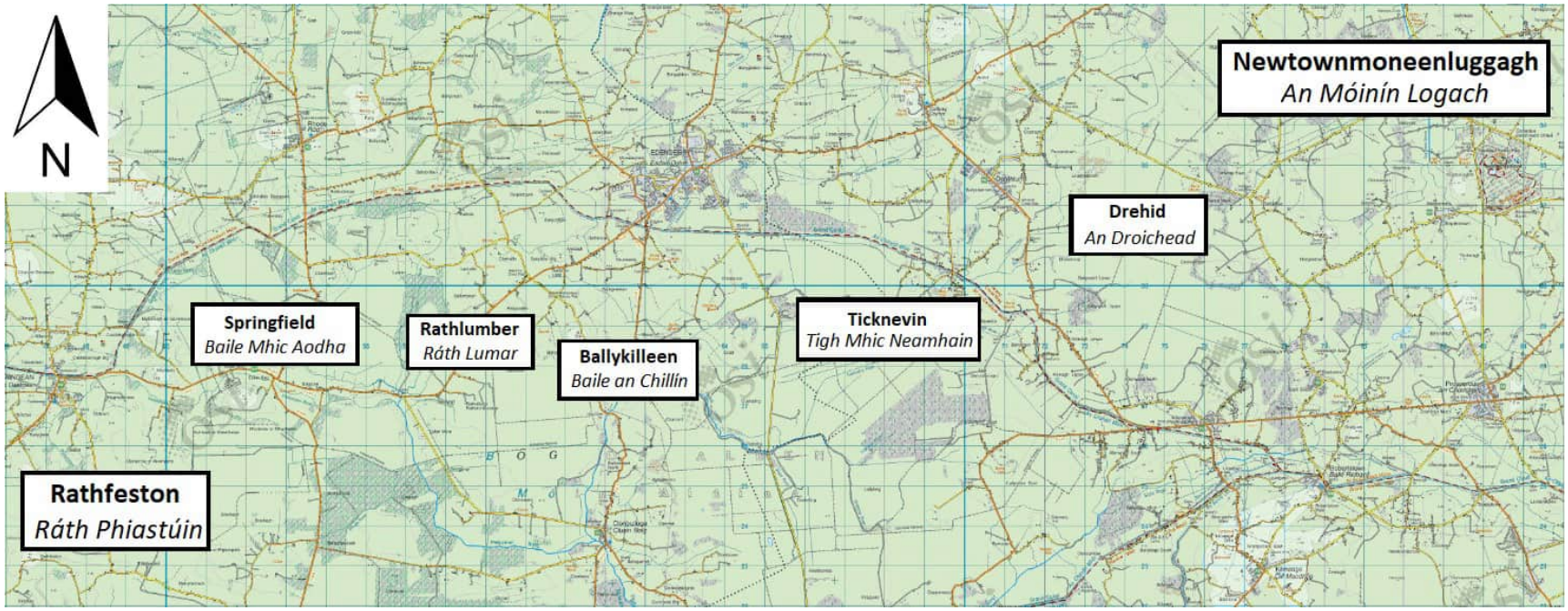


Figure 1 reproduced from OSI website (www.osi.ie)
Ordnance Survey Ireland Licence No. EN 0070022
© Ordnance Survey Ireland / Government of Ireland

Standpipe installations were constructed in boreholes to allow for groundwater measurements. Data loggers were installed in fifty-four of the installations in late 2022 / early 2023. They allow for continuous water level measurement over a 12-month period following site works. Downloading of recorded groundwater monitoring data commenced in February 2023 and will be completed every quarter by IGSL for a period of 12 months.

The investigations were executed in accordance with BS 5930, Code of Practice for Site Investigations (2015+A1:2020) and EN 1997-2 Eurocode 7 Part 2 Ground Investigation & Testing and supervised full-time by an IGSL geotechnical engineer and approved IGSL professional attendant being either Chartered Engineer or Geologist (with a minimum of 10 years relevant experience in planning and supervision of ground investigation works).

8.2.2 Superficial Geology

8.2.2.1 GI Findings - Soil

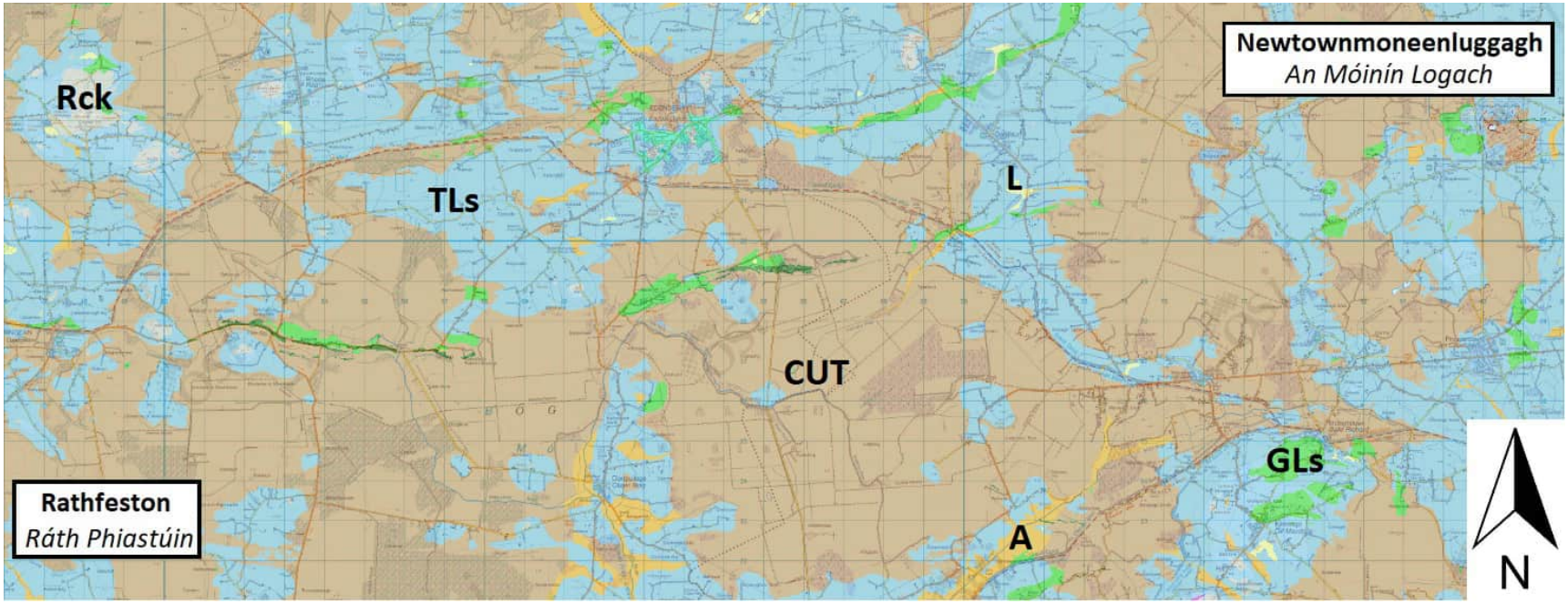
Since the late 1930's, Bord na Mona has developed large expanses of raised bog for the production of milled and machine peat. The industrial peat complex (industrial milled peat and machined peat) occupies 26.803 ha (13.66%) of County Offaly (Hammond & Brennan, 2003). The superficial geology, over the course of the 44 kilometre-long route, can be seen to traverse large expanses of harvested, drained peatland (cutover bog) and smaller-scale anthropogenically modified raised bogs. The numerous cutover peatlands on the route, from Clonad (Offaly) in the west to Gilltown (Kildare) in the east, exhibit a legacy of industrial-scale peat extraction. The route selection, where possible, placed the pipeline in marginal peatland areas to avoid the thickest peat accumulations. For these reasons, peat thickness on the route was generally limited to 2-3 metres. The maximum thickness of soft ground measured by a peat probe was 6.4m measured at a position along the northern fringe of Mountlucas Bog. Von Post classifications are noted on the Russian corer logs where applicable.

The intervening soils along the route range from both limestone-derived gravels and fines-dominant till with minor occurrences of alluvial and lacustrine soils. There was a dearth of very shallow or outcropping bedrock. Multiple cable percussion bores achieved significant depths (up to 15m), illustrating the presence of an often thick accumulation of overburden glacially-derived soils.

8.2.2.2 Published Maps - Soil

The Quaternary Soils plot for the area (retrieved from GSI website) reaffirms the findings of the investigation and highlights the widespread nature of peatland / cutover raised bog.

Figure 2 – Quaternary Soils Plot for the 'Peatlands' route (retrieved from GSI website)



Key:

CUT	=	Cut over raised peat
A	=	Alluvium
L	=	Lacustrine
GLs	=	Gravels derived from Limestones
TLs	=	Till derived from limestones
Rck	=	Bedrock outcrop or subcrop

8.2.3 Solid Geology

8.2.3.1 Published Maps - Rock

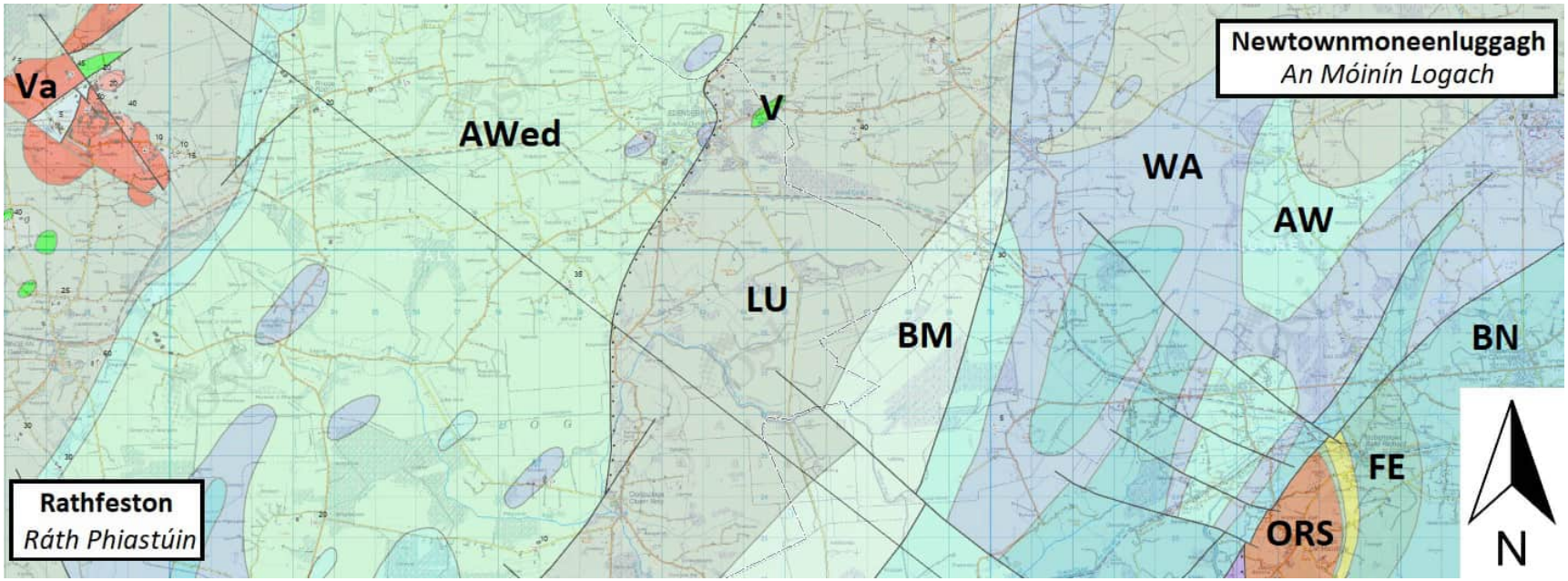
Reference to the GSI map for the area (Figure 3, 1:100,000 Solid Geology series) shows that the site is underlain by chiefly Lower Carboniferous or Dinantian-aged bedrock. The rocks along the pipeline route are represented, for the most part, by the Edenderry Oolite Member of the Allenwood Formation, the Lucan Formation and the Waulsortian Limestones. These rock formations span a depositional history in the geological record of c. 20my from 360mya to 340mya [million years ago].

McConnell & Philcox (1994) describe the Edenderry Oolite Member (AWed) as a predominantly ooid mass with some exposures documented as displaying cross bedding typical of shallow water shelf depositional environment. Dolomitisation is noted as common in the oolitic limestone. Dolomitization is the process by which limestone comes into contact with magnesium-rich water, with the mineral dolomite, calcium and magnesium carbonate, $CaMg(CO3)_2$, replacing the calcite (calcium carbonate, CaCO3) in the rock, volume for volume. Dolomitization, whether complete or not, involves significant recrystallisation of the host rock. Dolomitised limestone and limestone are both prone to karstification.

The Lucan Formation (LU) (Nolan 1986, 1989) forms the bulk of the basinal rocks throughout the geologically termed 'Dublin Basin', and is characterised by graded, intraclastic skeletal packstone/grainstone interbedded with anoxic calcareous mudstone / black shale, laminated calcisiltite and argillaceous micrite (i.e. impure limestone with clay minerals). The Dublin (sedimentary) Basin extends spatially from the east coast of north County Dublin westwards to the River Shannon at Athlone (Somerville & Waters, 2011). It formed in the Lower Carboniferous during a gradual marine transgression from south to north. As a result, the depositional environment within the basin gradually progresses from terrestrial and shallow marine (Edenderry Oolite Member) to deep marine sedimentary facies (Lucan Formation). The basement found beneath the basin is likely to be comprised of Devonian terrestrial sandstone conglomerates. The Old Red Sandstone [ORS] inlier at Kilmeague, County Kildare likely represents this basal red-bed facies.

The Waulsortian Limestone (WA) largely consists of calcareous mudstones, wackestones and packstones many of them containing original cavities (including stromatactis) filled with internal sediments and fibrous and blocky sparry cements (Sevastopulo 1982). The very fine-grained carbonate lithology typical of the Waulsortian Limestones is also relatively pure and, in the right circumstances, amenable to dissolution and karst development. Blake *et al* (2015) suggest the Waulsortian limestone deposits within the Dublin Basin are massive and unbedded and are typically less prone to karstification. Waulsortian Limestone is also susceptible to Magnesium replacement and dolomitisation, which can further enhance permeability. McConnell & Philcox (1994) note the texture of the Waulsortian Limestone when dolomitized can make it almost indistinguishable from dolomitized Allenwood Formation limestones.

Figure 3 - Bedrock Geological Map for the 'Peatlands' route (retrieved from GSI website) (Adapted from McConnell & Philcox, 1994B)



Key:	**LU**	=	Lucan Formation			
	BM	=	Ballyadams Formation			
	AW	=	Allenwood Formation			
	AWed	=	Edenderry Oolite Member			
	WA	=	Waulsortian Limestones			
	BN	=	Boston Hill Formation			
	FE	=	Feighcullen Formation	**Va**	=	Agglomerate (Visean Volcanics)
	ORS	=	Old Red Sandstone	**V**	=	Volcanics (in Carboniferous)

8.2.3.2 GI Findings - Rock

The rotary drillholes reflect the subtle lithological changes highlighted in the Geological Survey of Ireland record. Initially, bedrock is noted as locally dolomitized fine grained LIMESTONE with common dolomite / calcite veining. The cores are typically fresh to very locally slightly weathered. It is thought that these pale grey / dark grey cores represent the Edenderry Oolite Member. North of Mountlucas Bog, rising from the lowland peat, the rock found nearing Ch.111000 is pale bluish grey and is locally dolomitized. This is thought to represent a momentary entry of Waulsortian Limestone into the sequence. It was remarked as strong to very strong in contrast to the rock of the Edenderry Oolite Member being medium strong to strong. Continuing northeast, further coring shows a reintroduction of the Edenderry Oolite Member. Dolomitisation is more pronounced in the core record at BH111604 with some small scale solution weathering logged. Penetrative brownish grey discolouration is found to signal dolomitisation. A corehole undertaken just south of the R403 Regional Road once again indicates what appears to be Waulsortian Limestone and this is thought to be found in successive coreholes through to chainage 112801.

Working east, bedrock was not met in corehole drilling until Ch. 134610 at Drummond, Carbury. As before, rock was described as fresh to very locally slightly weathered strong to medium strong, thickly to thinly bedded, pale grey/dark grey/black mottled fine-grained dolomitised LIMESTONE. Here, rock was intercepted at a depth of 10.0m bgl. Dolomite veins and iron oxide staining were notable. The GSI mapping puts this corehole in a Waulsortian Limestone terrain. Successive coreholes to Ch.137604 continue to show similar rock type.

Rotary Geobore S coring was deployed at two areas where the overburden soils extended to depth. At Ch. 104533 and again at Ch.133986, soils were found to depths of 10.40m and 10.30m respectively without core recovery.

8.3 FIELDWORK

8.3.1 General

The IGSL Limited intrusive fieldworks commenced on in late November 2021 and were completed by August 2022. Each site workspace, conforming to Covid-19 protocols, comprised exclusion zones demarcated with safety barriers to reinforce the necessity for appropriate social distancing between site attendees. The works comprised the following:

- Cable Percussion (91 No.)
- Combined Cable Percussion Borehole / Rotary Coreholes (14 No.)
- Conventional Rotary-Only Drillholes (2 No.)

- Geobore S Rotary Coreholes (2 No.)
- Dynamic Sampling (2 No.)
- Trial Pitting (81 No.)
- Borehole Permeability Test (5 No.)
- Russian Peat Sampler (268 No.)
- Van Walt Peat Probes (999 No.)
- Geophysical Survey
- Groundwater Monitoring / Data Loggers
- Surveying of Exploratory Hole Locations

8.3.2 Cable Percussion / Combined Cable Percussion Borehole + Rotary / Rotary Only

Cable percussion boring (200mm diameter) using a Dando 2000 rig was undertaken solely at ninety-one locations with a further fourteen locations extended using rotary follow-on drilling. This brings the total cable percussion set ups to one hundred and five.

The 'cable percussion only' boreholes extended to depths between 1.50 and 15.0m. Boring commenced through hand-dug services inspection pits. Each service pit was excavated only after undertaking a careful CAT [Cable Avoidance Tool] survey and following consultation of all available utility plans. Disturbed bulk samples were recovered at 1m intervals or change of strata during boring and these are denoted 'B' on the engineering logs. Small disturbed samples were also acquired in 1kg plastic tubs (denoted 'D' on the pit logs). Undisturbed samples were acquired where the ground conditions permitted.

Standard Penetration Tests (SPT's) were performed during boring and reported in accordance with IS EN ISO 22476-3. Given the nature of the soils, a solid cone was used. In accordance with Clause 7.6.6 of the Specification and Related Documents for Ground Investigation in Ireland, 2nd Edition (2016), when a standard penetration test (SPT) was carried out, a bulk disturbed sample was taken over the depth range of the test. Additionally, as per Clause 7.6.4, the frequency of SPT testing in boreholes was at 0.50m below the base of the inspection pit, with the next 1.0m deeper, following at one metre centres thereafter to a depth of 5m. SPT tests were also undertaken to prove the presence of a 'hard stratum' or 'obstruction'. In this case, the SPT test shows a resistance in excess of 35 blows/75 mm, or displays two successive 75mm increments achieving in excess of 50 blows (Clause 2.8.5).

It is noted that the SPT N-Values reported are the number of blows for 300mm increment penetration (e.g. BH104405 at 3.0m where N=5). These exclude the seating blow values, which represent the initial 150mm depth of penetration. Where partial penetration was achieved during testing, the number of blows is shown for the actual penetration depth achieved (e.g. BH105990 at 8.0m where N=50/0mm). In accordance with Eurocode 7, the SPT hammer has been calibrated and the energy ratio (Er) value is incorporated on the engineering logs. It is highlighted that the SPT N-Values reported on the engineering logs are uncorrected for energy ratio.

Descriptions of the soils encountered, in-situ tests undertaken and samples recovered are presented on the borehole records in Appendix 8A.1. Details of groundwater strikes and hard strata boring (i.e. chiselling) are also presented on the aforementioned records.

As already mentioned, at fourteen locations, following completion of the cable percussion bore, rotary drilling was carried out through the backfilled borehole using either a track-mounted Knebel or Comacchio top-drive rig. Symmetrex drilling system was first utilised to clear the superficial / backfill deposits. Where rockhead was met, conventional rotary coring with air/mist flush was used. In the case of both BH112801 and BH132817, Symmetrex drilling (termed 'open-hole' drilling) was utilised to progress the drillhole with no pre-bore undertaken. In the case of BH112801, rock was encountered and cored from 6.40m bgl. In the case of BH132817, rock was also encountered but not cored. The use of 'openhole' techniques solely in BH132817, even in bedrock, was stipulated by the attending MM engineer.

Where coring was undertaken in bedrock, rotary diamond cutting was used to retrieve 78mm diameter bedrock core samples through initial fractured and weathered rockhead, extending to the more competent bedrock at depth. Drilling produced cores of very strong to medium strong, thickly to thinly bedded, light grey and dark grey to brown grey, fine-grained, LIMESTONE (often exhibiting dolomitisation).

The cores were placed in 3m capacity timber boxes and logged by an IGSL engineering geologist. This included photography of the cores with a digital camera. Where rock core was recovered, a graphic fracture log is also presented alongside the mechanical indices. This illustrates the fracture state of the rock cores and allows easy identification of highly fractured / non-intact zones and discontinuity spacings. It should be noted that no correction for dip of the joints has been made and that the spacings shown are successive joint / core intersections within the core.

As with cable percussion boring, Standard Penetration Tests (SPT's) were performed during drilling operations. In accordance with Eurocode 7, the SPT hammer has been calibrated and the energy ratio (Er) value is incorporated on the engineering logs. It is highlighted that the SPT N-Values reported on the engineering logs are uncorrected for energy ratio.

Water monitoring standpipes were installed in fifty-two of the completed drillholes (not including Geobore S holes BH104533 & BH133986 – see Table 1). The standpipes consisted of 50mm diameter HDPE pipework with proprietary 1mm slots and incorporated a pea gravel filter pack and cement / bentonite grout seal. Protective headwork covers were concreted in place. Data loggers were introduced to a number of wells (45 in all), as selected by Mott MacDonald supervising engineers. Quarterly return visits are required under the contract to permit the downloading of data logger information. This will be continued for a period of 12 months from first installed.

Where relevant, the core log records are presented along with cable percussion borehole records on combined logs in Appendix 8A.1. The logs include engineering geological descriptions, details of the bedding / discontinuities and mechanical indices (Total Core Recovery [TCR], Solid Core Recovery [SCR] and Rock Quality Designation [RQD]) for each core run. Core photographs are presented in Appendix 8I.3 and these illustrate the structure and fracture state of the bedrock.

8.3.3 Geobore S Rotary Coreholes

Rotary Geobore S drilling was carried out using a track-mounted Knebel rotary rig at two corehole locations (BH104533 & BH133986). The Knebel drilling unit employed triple-tube Geobore S coring techniques producing 102mm diameter core samples. In the case of the two drillholes, only soil cores were recovered to termination depth. Re-circulated water flush was used to promote sample recovery throughout coring.

The core samples were placed in 2m capacity timber boxes. Photographs of the cores were taken using a digital camera prior to logging by a senior engineering geologist. The boxes were then transported to IGSL's laboratory in Naas for laboratory testing. The core photographs are presented in Appendix 8I.3.

It is noted that core comprised of overburden deposits do not form part of the SCR and RQD percentage values. Comments on casing details are included on the rotary records. The rotary drillhole records are presented in Appendix 8A.2 and reference should be made to the Foreword which provides details on the logging of the cores.

Water monitoring standpipes were installed in both of the completed Geobore S drillholes (See Table 1). As with the installs in cable percussion and combined cable percussion / rotary holes, the standpipes consisted of 50mm diameter HDPE pipework with proprietary 1mm slots and incorporated a pea gravel filter pack and cement / bentonite grout seal. Protective headwork covers were concreted in place. A data logger was introduced to only one of the wells (BH133986) as nominated by Mott MacDonald supervising engineers. Quarterly return visits are required under the contract to permit the downloading of data logger information. This will be continued for a period of 12 months from first installed.

8.3.4 Dynamic Sampling

Dynamic sampling was carried out at two locations using a Dando Terrier rig. The Terrier rig uses a 63.5kg weight to drive a hollow cylindrical windowless sampler and the material is retrieved in a semi-rigid plastic core liner. The dynamic sample records are presented in Appendix 8B and include descriptions of the soils encountered and the total recovery per run. Upon completion of the final sample run, each hole was backfilled.

Standard Penetration Tests (SPT's) were performed during drilling operations in the soil. In accordance with Eurocode 7, the SPT hammer has been calibrated and the energy ratio (Er) value is incorporated on the engineering logs. It is highlighted that the SPT N-Values reported on the engineering logs are uncorrected for energy ratio.

8.3.5 Trial Pitting

Trial pitting was undertaken at eighty-one locations in all. The locations were set out as per the coordinates provided with minor micro-siting where necessary, ie., where services / overhead wires were in proximity. Pits were excavated using both 13tonne and 8tonne tracked excavators. Pits commenced only after scanning (CAT & Genny) to verify the presence or absence of service ducts. In addition, all available service drawings were consulted ahead of breaking ground. An on-site archaeologist (Edmund O'Donovan & Associates assuming the role of ACoW) provided full-time observation for all trial pit excavations. The trial pits were excavated, logged and sampled under the direction of an IGSL geotechnical engineer in accordance with BS 5930 (2015+A1:2020). In-situ hand shear vane testing was completed within non-gravelly cohesive strata where encountered. Bulk disturbed samples (typically 20 to 30kg) were taken as the pits progressed. Small disturbed samples were also acquired in 1kg plastic tubs (denoted 'D' on the pit logs).

The bulk soil samples were placed in heavy-duty polyethylene bags and sealed before being transported to Naas for laboratory testing. The trial pits were backfilled with the as-dug arisings and reinstated to the satisfaction of IGSL's site geotechnical engineer. The trial pit logs are presented in Appendix 8C and include descriptions of the soils encountered, groundwater conditions, in-situ shear vane records and stability of the pit sidewalls. Note, in situ vane tests were only completed in pits where fine non-gravelly soils permitted their use. Additionally, no man-entry into pits <1.20m deep was completed where sidewalls appeared unstable. Pit photos are presented in Appendix 8I.1. Due to files becoming corrupt during processing there is no pit excavation photography for TP10610, TP104707, TP104800, TP133227, TP142792 AND TP143303(6: No Excavations in

Total). Prior to accessing specific GI locations with machinery / plant, pre-condition photos of the site were taken. These will be presented in Appendix 8I.2.

8.3.6 Borehole Infiltration Testing

In situ infiltration tests were undertaken in four exploratory holes during their construction (BH133311, 134500, 139892 & two in BH143383) in accordance with BS 5930. The tests were undertaken in the 200mm diameter boreholes. The records for the tests are presented in Appendix 8E.1.

8.3.7 Peat Probes

A series of peat probes, nine hundred and ninety-nine in all, were scheduled along the proposed pipeline route. The 1.20m long Van Walt peat probe or utility probe was manually pushed into the peat stratum to determine the depth of peat. Multiple extension rods, measuring 0.94m, were added as needed. Probes were pushed until a mineral soil and/or obstruction was encountered. The probe refusal depths along with ITM locations (including elevations where captured) are listed in Appendix 8D.1.

8.3.8 Russian Peat Sampling

Peat sampling using a Russian Corer was undertaken at 268 locations along the route. The manually operated corer is based on a design of a device used in the Soviet Union by Belokopytov and Beresnevich (1955). The stainless-steel push-in sampler is only suitable for very soft and soft sediments, being ideal for peat. It was also viewed as the most practical investigative tool given the limited access available to certain locations.

The apparatus used, a type of gouge auger, is a side-filling sampler or 'spear' that allows collection of uncompressed samples within a chambered-type core barrel. At each location, the 0.50m long half cylinder sampler was pushed manually into the peat or very soft ground by hand (in the closed position). The sampler was then rotated clockwise 180° so that the sharpened edge of the chamber cut a sediment core. The core sample in each case was contained by the cover plate or 'fin' permitting retrieval. Once recovered, the sample was logged and subsampled by an IGSL geotechnical engineer. The deepest sample obtained measured 5.20m bgl (RK110208). Where peat has been encountered, samples have been logged in accordance with the Von Post Classification. Peat Sample Records are presented in Appendix 8D.2. Note that where '*Assumed Peat*' is written on the peat sample logs, this section was pushed past without sampling. On site instructions from MM were to push past soft ground, sampling upon tip refusal.

8.3.9 Geophysical Survey

Minerex Geophysics Limited were commissioned to carry out a geophysical survey for the Water Supply Project – Contract 3. Their survey consisted of 2D-Resistivity and seismic refraction (*p*-wave) measurements at specific locations along the pipeline route targeting areas of alluvium overburden as well as some other nominated locations.

In the case of resistivity profiling, the generated model resistivity values and their spatial distribution can be related to typical values for different geological materials. 2D-Resistivity can also highlight zones of anomalous or karstified rock with lateral extents of 5m and more. The seismic refraction survey method focuses on propagating *p*-waves travelling through the subsurface. As the wave propagates through the subsurface, its velocity varies as it travels through overburden, rock with different elastic properties, and along geological boundaries. Velocity data can therefore, when processed, allow geological layer thicknesses and boundaries to be established. The Minerex interpretative reports are presented in Appendix 8G.

8.3.10 Groundwater Monitoring / Data Loggers

Groundwater monitoring was undertaken both during and following the fieldworks period. Groundwater levels were measured using an electric dipmeter with measurements taken from the

wells installed in the holes on the project (Table 1). The levels recorded are shown in Appendix 8J.1.

Table 1 – Well installations noting standpipe (SP) diameter and gravel response zones.

Location	Installation Date	SP diameter	Date of Data Logger commencement	Response Zone	
				From (m)	To (m)
BH104135	03/02/2022	50mm	22-12-22	4.5	6.5
BH104533 (GB)	28/07/2022	50mm		2.5	5
BH104807	07/02/2022	50mm		3	5
BH104946	14/02/2022	50mm	06-01-23	4.5	6
BH104946	14/02/2022	50mm		3	5
BH105486	18/01/2022	50mm	06-01-23	5	9.5
BH105990	21/01/2022	50mm	06-01-23	2.5	7
BH106421	25/01/2022	50mm	06-01-23	6	7
BH106893	28/01/2022	50mm	06-01-23	5	9.5
BH107272	01/02/2022	50mm	06-01-23	3.5	6
BH107807	07/02/2022	50mm	06-01-23	4.5	6
BH108409	02/02/2022	50mm	06-01-23	2.5	4.5
BH109609	26/05/2022	50mm	06-01-23	2	4.5
BH110055	14/02/2022	50mm	06-01-23	3	5
BH110738	01/06/2022	50mm	22-12-22		
BH111204	28/06/2022	50mm	22-12-22	5	8.5
BH111960	29/06/2022	50mm	22-12-22	1.5	4.5
BH112801	03/08/2022	50mm	22-12-22	4	6.5
BH113399	23/06/2022	50mm	06-01-23	7.5	10
BH114149	08/06/2022	50mm	06-01-23	2.5	4.5
BH115403	14/06/2022	50mm	05-01-23	2	6
BH116189	17/06/2022	50mm	06-01-23	3.5	5.5
BH120200	07/03/2022	50mm	05-01-23	6	8
BH120739	04/03/2022	50mm	04-01-23	5.5	7
BH122408	14/03/2022	50mm		5	6
BH123219	21/03/2022	50mm		5	7
BH123774	23/03/2022	50mm		4	6.5
BH124210	31/03/2022	50mm	04-01-23	3	4.8
BH125177	04/04/2022	50mm	04-01-23	5	8.5
BH125582	05/04/2022	50mm	04-01-23	4	5.8
BH125870	21/06/2022	50mm	22-12-22	2.5	5.5
BH127452		50mm	04-01-23		
BH128127	07/04/2022	50mm	04-01-23	8	9
BH130005	13/04/2022	50mm	04-01-23	4	5.5
BH130451	14/04/2022	50mm		4.5	6
BH131836		50mm	04-01-23		
BH133311	21/03/2022	50mm		2	5.5

GB = Geobore S Drillhole

Table 1 – Continued

Location	Installation Date	SP diameter	Date of Data Logger commencement	Response Zone	
				From (m)	To (m)
BH133986 (GB)	27/07/2022	50mm	22-12-22	1.5	5
BH134500	04/03/2022	50mm	06-01-23	4.2	5
BH135006	01/03/2022	50mm	22-12-22	2.5	4.5
BH135404A	21/02/2022	50mm	22-12-22	2	5
BH135695	15/02/2022	50mm	22-12-22	2.5	6
BH136995	22/07/2022	50mm		3.5	5.5
BH137604	20/07/2022	50mm	03-01-23	4	6.5
BH138802	19/07/2022	50mm	03-01-23	2	6.5
BH139202	26/04/2022	50mm	03-01-23	6	7
BH139752		50mm	04-01-23		
BH139892		50mm	03-01-23		
BH140469	11/05/2022	50mm	03-01-23	8	9
BH140795	12/05/2022	50mm	03-01-23	4	6
BH142295	20/05/2022	50mm	21-12-22	1.5	5.5
BH142795	16/05/2022	50mm	21-12-22	3.5	5.5
BH143383		50mm	21-12-22		
BH144453		50mm	22-12-22		

Fifty-four data loggers were installed in designated wells across the project. One barologger was also positioned on site to record fluctuations in barometric pressure over the long term. A once per quarter visit is required by IGSL to download the logger information. The downloaded logger information, once processed, is being issued to the client through Sharepoint. Note that the downloaded raw data (in excel format) will not feature in these reports. Manual dips taken on the day of download will also be noted (Appendix 8J.1).

8.3.11 Surveying of Exploratory Hole Locations

Following completion of the exploratory works, surveying was carried out using GPS techniques. Co-ordinates (x, y) were measured to Irish Transverse Mercator and ground levels (z) established to Malin Head. The co-ordinates and ground levels are shown on the exploratory hole logs. An exploratory hole plan is included in Appendix 8K.

The exploratory holes from Ch.103 000 to Ch.104 000 in the townland of Rathfeston, Geashill, County Offaly could not be surveyed with accuracy during the fieldworks period. This was due to poor network coverage in the area. The Easting(x) and Northing(y) Coordinates are within +/- 1metre of the coordinates illustrated in the relevant exploratory records, however the elevation recorded were beyond the recommended tolerances and are not presented.

8.4 LABORATORY TESTING

Geotechnical laboratory testing was performed at IGSL's INAB-accredited* laboratory (Naas, County Kildare) in accordance with the methods set out in BS1377; British Standard Methods of Test for Soils for Civil Engineering Purposes; British Standards Institute:1990. Soils testing included moisture content, Atterberg Limits (Liquid / Plastic Limits), Particle Size Distribution (*Hydrometer not INAB-accredited) and Moisture Condition Value testing. The results from geotechnical testing on selected trial pit, borehole and Geobore S soil samples are presented in Appendix 8H.1.

Soil samples were selected from trial pits and subject to the Mott MacDonald Soil Suite of testing as listed in Section 2.13.2 'Geoenvironmental laboratory testing for contamination' contained in the Specification document entitled 'A Multi-Supplier Framework for the Provision of Site Investigation Works to Ervia (Ref:18/085)". The results can be used to classify the material with regard to its potential for disposal to landfill. The results along with BRE SD1 Suite D, loss on ignition and organic matter content testing are presented in Appendix 8H.2.

Rock core strength testing and reusability testing is presented in appendices 8H.3 and 8H.4. A geological classification in accordance with IS EN 14689-1:2004, IS EN 932-3:1997 and IS 398;2013 Part 1, Testing & Categorization Protocol is presented in Appendix 8H.7.

Tables 2, 3 and 4 list the types of laboratory testing performed with quantities. In all cases, the test schedules were prepared by the Client's Engineer (Mott MacDonald Ireland).

Table 2 – Geotechnical testing performed on disturbed and undisturbed soils

Test Type	Number of Tests	Reported in Appendix
Moisture Content	282	Appendix 8H.1
Atterberg Limits	263	
Particle Size Distribution	360	
Hydrometer	358	
Moisture Condition Value [MCV]	17	
5-Point MCV	1	
CBR	9	
Consolidation	9	
Small Shear Box	10	
Quick Undrained Triaxial	28	
Consolidated Undrained Triaxial	1	

Table 3 – Geotechnical testing performed on rock cores

Test Type	Number of Tests	Reported in Appendix
Uniaxial Compressive Strength [UCS]	15	Appendix 8H.3
Point Load - Axial	36	
Point Load - Diametral	1	
Indirect Tensile Strength by Brazil Method	1	
Magnesium Sulphate Soundness	1	Appendix 8H.4
Los Angeles Abrasion	2	
Slake Durability	1	
Particle Shape / Flakiness	1	
Particle Density / Water Absorption	0	

Table 4 – Chemical / Environmental testing on soil

Test Type	Number of Tests	Reported in Appendix
pH	2	Appendix 8H.2
Water Soluble Sulphate	2	
Loss on Ignition	50	
Organic Matter	36	
MM Soil Suite – Soil Analysis	8	
MM Soil Suite – Leachate Analysis	0	
MM Groundwater Suite	0	
BRE SD1 Suite D (Brownfield – Pyrite Present)	57	

REFERENCES

1.0 Belokopytov, I. E. & Beresnevich, V. V. (1955). Giktorf's peat borers. Torf. Prom., No. 8, 9-10

2.0 Blake, S., Jones, A.G., Henry, T., & Kalscheuer, T., & IRETHERM Team (2015). A multi-disciplinary investigation of Irish warm springs and their potential for geothermal energy provision. Proceedings World Geothermal Congress 2015 Melbourne, Australia

3.0 BS 5930:2015 + A1:2020 Code of Practice for Site Investigation, British Standards Institution (BSI).

4.0 BS 1377 (1990) Methods of Testing of Soils for Civil Engineering Purposes, BSI.

5.0 Eurocode 7, Part 2: Ground Investigation & Testing (EN 1997-2:2007)

6.0 Hammond, R.F. & Brennan, L.E. (2003). SOILS of Co. OFFALY. National Soil Survey of Ireland. Teagasc, Dublin

7.0 Kleyn, E. & Van Heerden, M.J. (1983, July). Using DCP Soundings to Optimize Pavement Rehabilitation. Paper presented at the Annual Transportation Convention, Milner Park Showgrounds, Johannesburg.

8.0 McConnell, B. & Philcox, M.E. (1994A). Geology of Kildare – Wicklow. A Geological Description to Accompany the Bedrock Geology 1: 100 000 Map Series, Sheet 16, Kildare – Wicklow. Dublin: Geological Survey of Ireland

9.0 McConnell, B. & Philcox, M.E. (1994B). Bedrock Geology 1:100 000 Scale Map Series, Sheet 16, Kildare – Wicklow. Dublin: Geological Survey of Ireland

10.0 Nolan, S. C. (1986). The Carboniferous geology of the Dublin area. Unpublished Ph.D. Thesis, University of Dublin.

11.0 Sevastopulo, G.D. (1982). The age and depositional setting of Waulsortian Limestones in Ireland. In: Le Mone, D.V. (ed.) Symposium on the paleoenvironmental setting and distribution of the Waulsortian Facies. University of Texas at El Paso and El Paso Geological Society. 65-79.

12.0 Site Investigation Practice: Assessing BS 5930 (1986), Geological Society Special Publication, No. 2.

13.0 Somerville, I. & Waters, C.N. (2011). Dublin Basin. In Waters et al A Revised Correlation of Carboniferous Rocks in the British Isles (Chapter 21). Geological Society of London

Appendix 8A

Legend / Borehole Records

SPT Calibration Report

Driller (Rig)	**SPT Calibration Report No. (Hammer ID)**
WB (Cable Percussion)	**SA1**
PA (Cable Percussion)	**SA3**
MN (Rotary - Knebel)	**RC1**
DH (Rotary – Comacchio)	**RC3**

LEGEND

Trial Pits / Cable Percussion Boreholes

D	Small Disturbed Sample (Tub)
B	Large Disturbed Sample
U	Undisturbed U100 Sample
AA 11235	Sample Reference No
W	Groundwater Sample
Env	Environmental Tub, Jar & Vial
C	SPT N-Value (Solid Cone)
S	SPT N-Value (Split Spoon / Open Shoe)

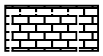
Rotary Core Drillholes

TCR	Total Core Recovery (%)
SCR	Solid Core Recovery (%)
RQD	Rock Quality Designation Value (%)
NI	Non-Intact (where rock core is highly fractured)

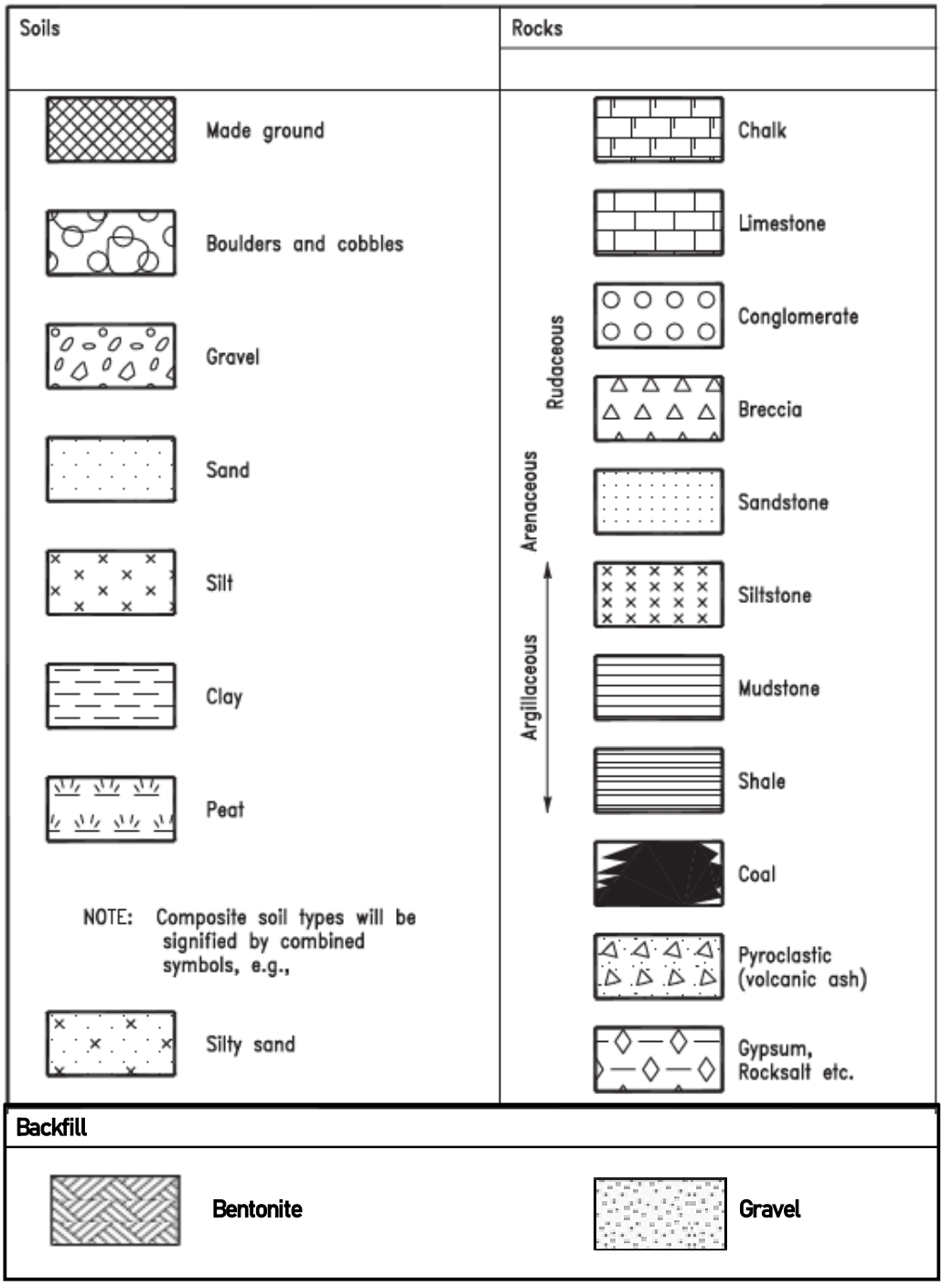
Water Strike Legend

Water Strike

Strata Legends / Symbolic Logs (BS 5930:2015+A1:2020)



Strata legends / symbolic logs reflect main stratum in accordance with BS 5930:2015+A1:2020. Legend codes are selected from GINT software to reflect stratum. Note, due to limited codes, legends may not represent exact constituent proportions (e.g. slightly or very sandy, slightly or very gravelly etc)



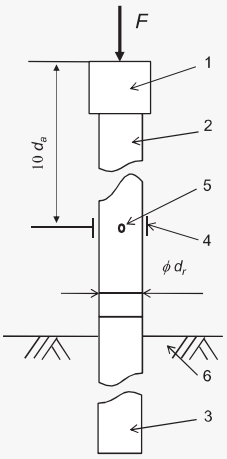
SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer		SPT HAMMER
Test No		2022_117
Client		IGSL
Test Depth (m)		9.85
Mass of hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod

Diameter	d_r =	0.052 m
Length of instrumented rod		0.558 m
Area	A =	11.61 cm²
Modulus	E_a =	206843 MPa



Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2
BS EN ISO 22476-3 : 2005 + A1 : 2011

DATE OF TEST	VALID UNTIL	HAMMER ID
21/02/2022	21/02/2023	SA1

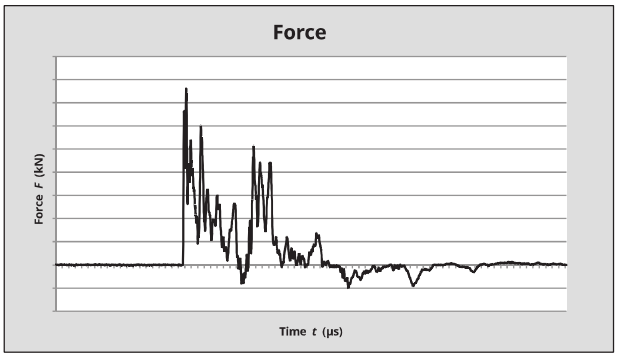
E_{meas} = **0.355** kN-m

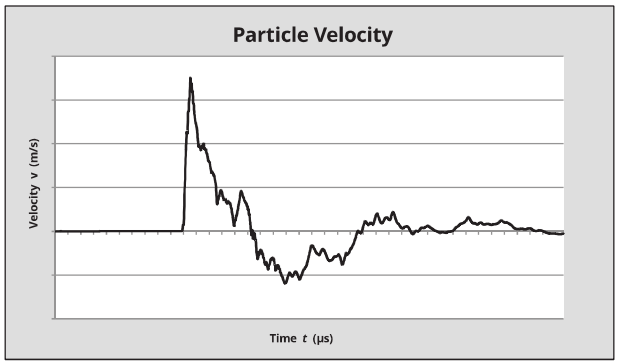
E_{theor} = **0.473** kN-m

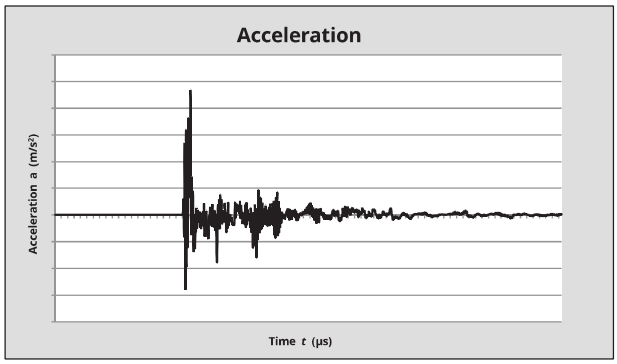
Comments

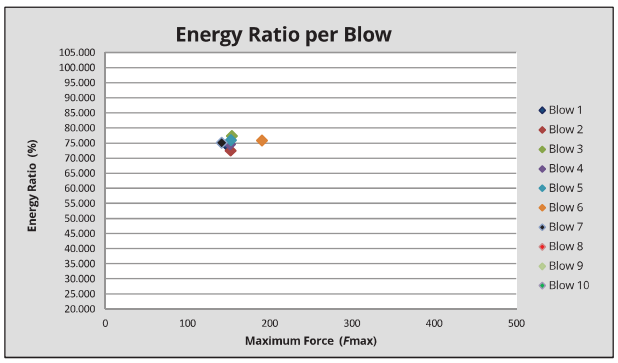
Energy Ratio (Er) = $\frac{E_{meas}}{E_{theor}}$ **75.09%**

© COPYRIGHT 2022









Equipe SPT Analyzer Operator	Certificate prepared by	Certificate checked by	Certificate date
JL			01/03/2022

© Copyright 2022 **Equipe Group**, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
Tel: +44 (0)1295 670990 Fax: +44 (0)1295 678232 Email: info@equipegroup.com

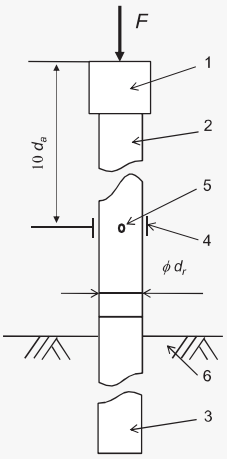
SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer		SPT HAMMER
Test No		2022_119
Client		IGSL
Test Depth (m)		9.85
Mass of hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod

Diameter	d_r =	0.052 m
Length of instrumented rod		0.558 m
Area	A =	11.61 cm²
Modulus	E_a =	206843 MPa



Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2
BS EN ISO 22476-3 : 2005 + A1 : 2011

DATE OF TEST	VALID UNTIL	HAMMER ID
21/02/2022	21/02/2023	SA3

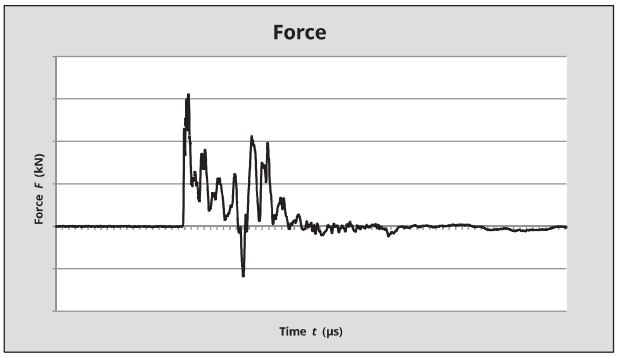
E_{meas} = **0.364** kN-m

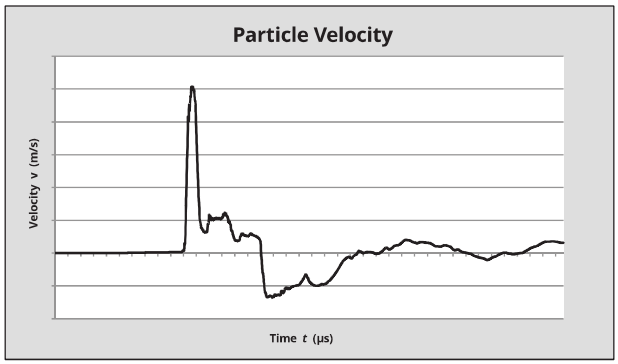
E_{theor} = **0.473** kN-m

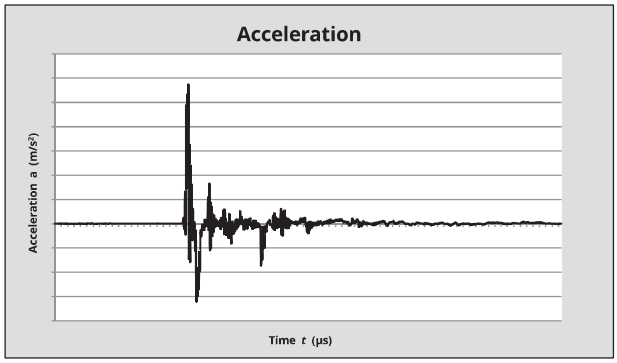
Comments

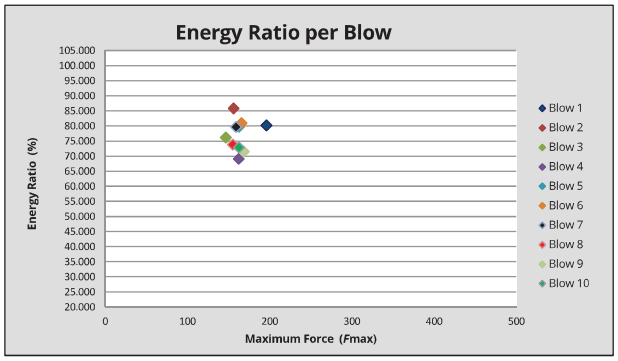
Energy Ratio (Er) = $\frac{E_{meas}}{E_{theor}}$ **77.00%**

© COPYRIGHT 2022









Equipe SPT Analyzer Operator	Certificate prepared by	Certificate checked by	Certificate date
JL			01/03/2022

© Copyright 2022 **Equipe Group**, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
Tel: +44 (0)1295 670990 Fax: +44 (0)1295 678232 Email: info@equipegroup.com

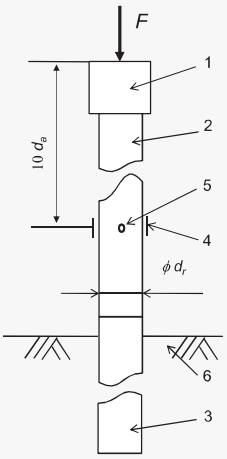
SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer		SPT HAMMER
Test No		2022_122
Client		IGSL
Test Depth (m)		9.85
Mass of hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod

Diameter	d_r =	0.052 m
Length of instrumented rod		0.558 m
Area	A =	11.61 cm²
Modulus	E_a =	206843 MPa



Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2
BS EN ISO 22476-3 : 2005 + A1 : 2011

DATE OF TEST	VALID UNTIL	HAMMER ID
21/02/2022	21/02/2023	RC1

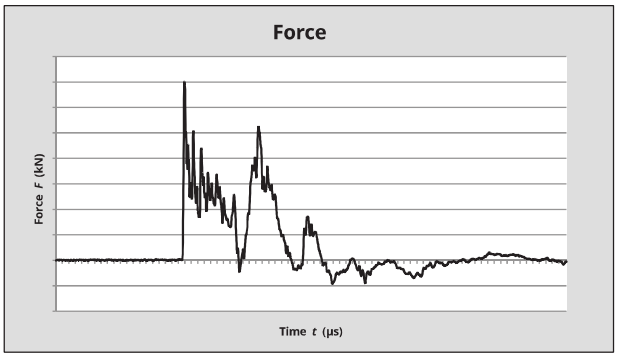
E_{meas} = **0.347** kN-m

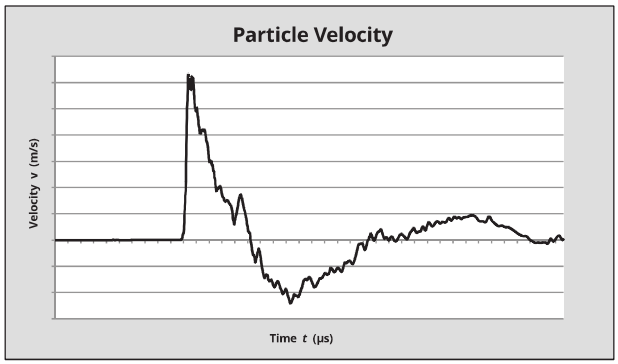
E_{theor} = **0.473** kN-m

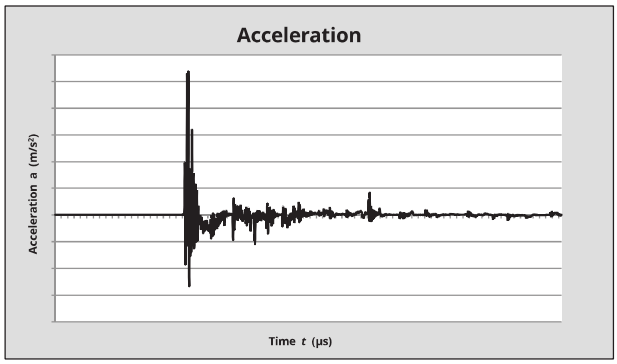
Comments

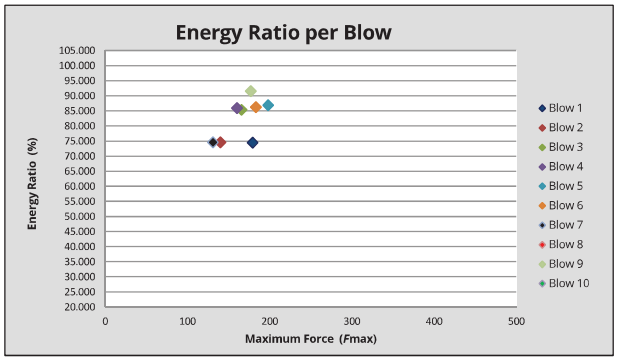
Energy Ratio (Er) = $\frac{E_{meas}}{E_{theor}}$ **73.31%**

© COPYRIGHT 2022









Equipe SPT Analyzer Operator	Certificate prepared by	Certificate checked by	Certificate date
JL			01/03/2022

© Copyright 2022 **Equipe Group**, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
Tel: +44 (0)1295 670990 Fax: +44 (0)1295 678232 Email: info@equipegroup.com

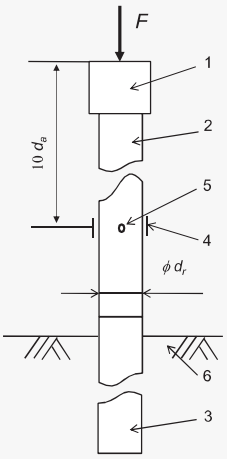
SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer		SPT HAMMER
Test No		2022_125
Client		IGSL
Test Depth (m)		9.85
Mass of hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod

Diameter	d_r =	0.052 m
Length of instrumented rod		0.558 m
Area	A =	11.61 cm²
Modulus	E_a =	206843 MPa



Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2
BS EN ISO 22476-3 : 2005 + A1 : 2011

DATE OF TEST	VALID UNTIL	HAMMER ID
21/02/2022	21/02/2023	RC3

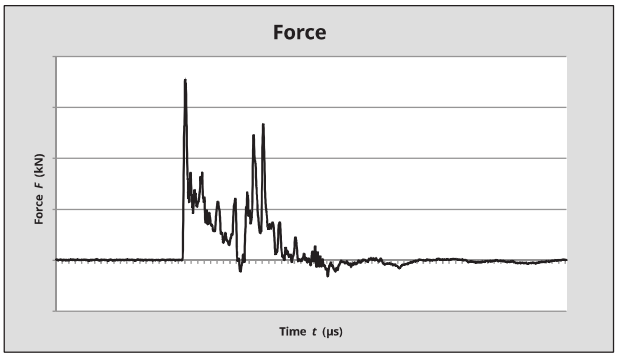
E_{meas} = **0.303** kN-m

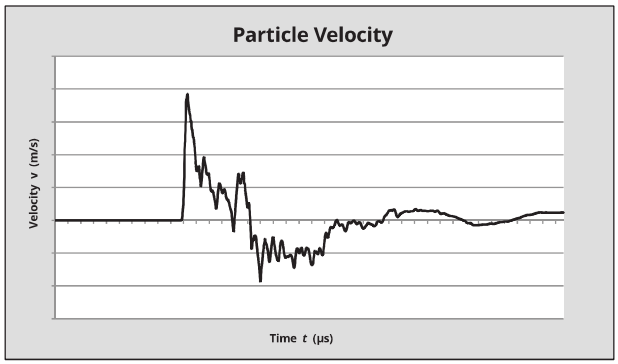
E_{theor} = **0.473** kN-m

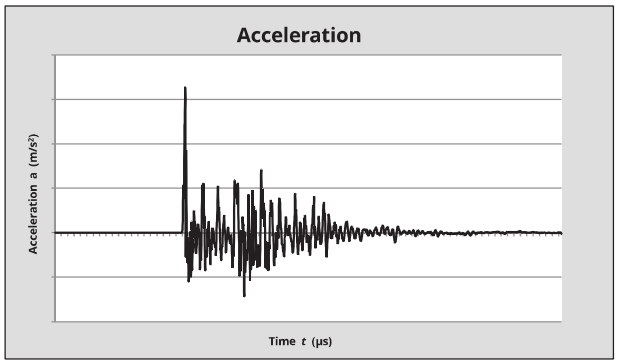
Comments

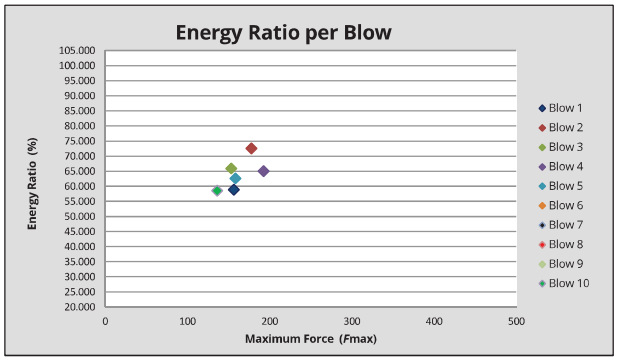
Energy Ratio (Er) = $\frac{E_{meas}}{E_{theor}}$ **63.97%**

© COPYRIGHT 2022









Equipe SPT Analyzer Operator	Certificate prepared by	Certificate checked by	Certificate date
JL			01/03/2022

© Copyright 2022 **Equipe Group**, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
Tel: +44 (0)1295 670990 Fax: +44 (0)1295 678232 Email: info@equipegroup.com

Appendix 8A.1

Cable Percussion Boreholes

BH104020	BH106893	BH113800	BH116189	BH123774	BH126124
BH104135	BH107272	BH114109	BH116213	BH123993	BH126200
BH104405	BH107807	BH114149	BH116733	BH124210	BH126602
BH104807	BH110055	BH114352	BH120200	BH124677	BH126725
BH104946	BH110606	BH114689	BH120739	BH125177	BH126900
BH105486	BH112404	BH115002	BH121933	BH125582	BH127002
BH105990	BH112619	BH115403	BH122408	BH125717	BH127452
BH106421	BH113399	BH115809	BH123219	BH125870	BH128127

BH128605	BH132817	BH135283A	BH139752	BH141906	BH143407
BH129405	BH133229	BH135404	BH139892	BH142202	BH144153
BH129405A	BH133258	BH135404A	BH139912	BH142295	BH144483
BH130005	BH133311	BH135516	BH139941	BH142295A	
BH130451	BH134500	BH135695	BH140469	BH142795	
BH131203	BH135006	BH138802	BH140795	BH143004	
BH131836	BH135207	BH139159	BH141402	BH143203	
BH132133	BH135283	BH139202	BH141402A	BH143383	

Combined Cable Percussion Borehole / Rotary Corehole Records

BH108409
BH108690
BH108988
BH109085
BH109609
BH110738
BH111204
BH111604
BH111960
BH112180
BH112619A
BH112801*
BH132817**
BH134610
BH135163
BH136995
BH137604

*Rotary (Symmetrex + Coring) Only
**Rotary (Symmetrex) Only

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH104020**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	646,700 E 722,880 N
GROUND LEVEL (mOD)	91.86
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	01/02/2022
DATE COMPLETED	01/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												91.76		0.10	TOPSOIL	
												91.56		0.30	Dark brown sandy CLAY	
								B	0.50						Firm mottled light grey brown gravelly slightly sandy CLAY. Gravel is subrounded to subangular predominately of limestone	
1								D U	1.00 1.20				1			
								B	1.50							
2								B D	2.00	15/300mm			1			
								U	2.50			89.36		2.50	Stiff grey brown gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
3								B D	3.00	22/300mm						
4								B D	4.00	16/300mm		87.86		4.00	Firm grey gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
5								D U	5.00				2			
								B	5.50	19/300mm						
6								B D	6.00	39/300mm						
7								B D	7.00	16/300mm		84.86		7.00	Firm brown gravelly very sandy CLAY. Gravel is subrounded to subangular predominately of limestone	
													2	8.00		
8								B D	8.00	50/150mm		83.86			Very stiff brown gravelly slightly sandy CLAY with medium cobble content and low boulder content. Gravel is subangular to angular predominately of limestone	
9								B D	9.00	50/175mm				10.00		
10												81.86			Borehole terminated End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.5	6.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.00	2.00	No	1.30	20	Moderate
8.00	8.00	No	5.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-02-22	10.00	10.00	1.30	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH104135
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	646,788 E 722,916 N
GROUND LEVEL (mOD)	89.72
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.00
DATE COMMENCED	02/02/2022
DATE COMPLETED	02/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Alllen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.40	TOPSOIL	
							161822	D	0.50			89.32			Very soft grey brown slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
1								B								
								U	1.20							
							161823	D	1.50							
								B								
2							161824	D	2.00	5/300mm						
								B								
														3.00		
3							161825	D	3.00	4/300mm		86.72			Very soft grey slightly gravelly slightly sandy SILT with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
								B						4.00		
4							161826	D	4.00	45/300mm		85.72			Very stiff grey gravelly sandy CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to subangular predominately of limestone	
								B								
5							161827	D	5.00	46/300mm			1			
								B								
6							161828	D	6.00	50/245mm			1			
								B								
														7.00		
7										50/15mm		82.72			Obstruction End of Borehole at 7 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.6	4.8	0100	
6.8	7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.00	6.00	No	5.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
03/02/2022	6.50	4.50	6.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
02-02-22	7.00	7.00	5.50	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH104405
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	647,015 E 723,062 N
GROUND LEVEL (mOD)	89.64
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.70
DATE COMMENCED	03/02/2022
DATE COMPLETED	04/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Alllen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	TOPSOIL	
							161829	D B	0.50			89.34			Grey brown sandy CLAY	
1														1.20		
								U	1.20			88.44			Very soft grey brown slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
							161830	D B	1.50							
2										1/300mm						
								U	2.50							
3							161831	D B	3.00	5/300mm						
								U	3.50							
4							161832	D B	4.00	8/300mm		85.64		4.00	Soft/firm grey slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
5							161833	D B	5.00	9/300mm						
6							161834	D B	6.00	10/300mm				6.50		
												83.14			Very stiff grey very gravelly sandy SILT with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to subangular predominately of limestone	
7							161835	D B	7.00	50/300mm						
8							1618336	D B	8.00	65/170mm				8.70		
										50/0mm		80.94			Obstruction End of Borehole at 8.7 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.5	6.7	0100	
8.7	8.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH104807
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	647,221 E 723,339 N
GROUND LEVEL (mOD)	86.64
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.70
DATE COMMENCED	04/02/2022
DATE COMPLETED	07/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Alllen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												86.34		0.30	TOPSOIL	
														1.20	Grey brown sandy CLAY	
1												85.44		2.50	Very soft grey brown gravelly sandy CLAY. Gravel is fine to coarse subrounded to subangular of limestone	
2												84.14		3.70	Soft grey brown gravelly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
3												82.94		5.00	Very soft grey gravelly sandy clayey SILT. Gravel is fine to coarse subrounded to subangular predominately of limestone	
4							162912	D B	5.00	2/300mm		81.64		7.40	Very soft grey gravelly slightly sandy SILT with medium cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
5							162913	D B	6.00	4/300mm						
6							162914	D B	7.00	14/300mm		79.24		9.70	Very stiff grey gravelly sandy CLAY with medium cobble and boulder content	
7							162915	D B	8.00	50/300mm						
8							162916	D B	9.00	50/100mm						
9										50/0mm		76.94			Obstruction End of Borehole at 9.7 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
9.6	9.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
07-02-22	5.00	5.00	0.70	Start of Day
07-02-22	9.70	9.70		End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
07/02/2022	5.00	3.00	5.00	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH104946**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	647,277 E 723,430 N
GROUND LEVEL (mOD)	86.30
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.80
DATE COMMENCED	08/02/2022
DATE COMPLETED	14/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												86.10		0.20	TOPSOIL Grey brown sandy CLAY	
							162917	D B	0.50							
1							162918	D B	1.20	5/300mm		85.10		1.20	Soft/firm grey brown gravelly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular of limestone	
2							162919	D B	2.00	10/300mm						
3								U	3.00							
							162920	D B	3.50	11/300mm						
4							162921	D B	4.00	12/300mm						
														5.00		
5							162922	D B	5.00	50/250mm		81.30			Very stiff grey slightly gravelly slightly sandy CLAY with medium cobble and boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular of predominately limestone	
6							162923	D B	6.00	18/300mm						
7							162924	D B	7.00	50/75mm				7.80		
										50/0mm		78.50			Obstruction End of Borehole at 7.8 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.8	4	0100	
7.3	7.5	0100	
7.8	7.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14/02/2022	6.00	4.50	6.00	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH105486
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	647,506 E 724,018 N
GROUND LEVEL (mOD)	81.46
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	17/01/2022
DATE COMPLETED	18/01/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												81.21		0.25	Very soft brown pseudo fibrous PEAT Very soft fibrous PEAT with bog deal	
1							151433	D	1.00	0/300mm						
							151434	B U	1.50							
2							151435	D	2.00	0/300mm						
							151436	B U	2.50				2			
3							151437	D	3.00	4/300mm						
							151438	B U	3.50					3.80		
4							151439	D	4.00	5/300mm		77.66	1		Very soft brown slightly gravelly slightly sandy CLAY. Gravel is fine rounded limestone	
5							151440	B D	5.00	17/300mm		76.46	1	5.00	Firm grey slightly gravelly slightly sandy SILT with low cobble content. Gravel and cobbles are subrounded to rounded of limestone	
6							151441	B D	6.00	17/300mm						
7							151442	B D	7.00	22/300mm						
8							151443	B D	8.00	13/300mm			2	8.80		
9							151444	B B	9.00	29/300mm		72.66			Medium dense grey silty sandy GRAVEL. Gravel is rounded to subrounded of limestone	
10							151445	D B	10.00	28/300mm		71.46		10.00	Borehole terminated End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00	5.20	4.80	20	Moderate
8.00	8.00	No	3.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
18/01/2022	9.50	5.00	9.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
18-01-22	10.00	0.00	3.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH105990**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	647,979 E 724,174 N
GROUND LEVEL (mOD)	80.82
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.70
DATE COMMENCED	19/01/2022
DATE COMPLETED	20/01/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												80.52		0.30	Very soft brown pseudo fibrous PEAT	
1							151446	D B	1.00	0/300mm					Very soft fibrous PEAT with bog deal	
							151447	U	1.50			79.32		1.50	Very soft/soft brown very sandy slightly gravelly CLAY. Gravel is fine rounded limestone	
2							151448	D B	2.00	1/300mm						
							151449	U	2.50							
3							151450	D B	3.00	2/300mm			1			
4							161401	D B	4.00	6/300mm						
5							161402	D B	5.00	7/300mm			1	5.80		
6							161403	D B	6.00	13/300mm		75.02		7.00	Medium dense grey silty sandy GRAVEL with medium cobble content. Gravel and cobbles is rounded to subrounded of limestone	
7							161404	D B	7.00	39/300mm		73.82		8.70	Dense/very dense COBBLES with sandy silty gravels. Gravel and Cobbles are subrounded to angular of limestone	
8							161405	B	8.00	50/0mm						
9												72.12			Obstruction End of Borehole at 8.7 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.8	8	0100	
8.1	8.3	0100	
8.3	8.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00	6.00	4.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
21/01/2022	7.00	2.50	7.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
21-01-22	8.70	8.70	7.30	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH106421**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	648,334 E 724,424 N	**RIG TYPE**	Dando 2000
GROUND LEVEL (mOD)	79.42	**RC FLUSH MEDIUM**	
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	10.00
		DATE COMMENCED	24/01/2022
		DATE COMPLETED	25/01/2022
		BORED BY	W.Butler
		PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												79.02		0.40	Very soft brown pseudo fibrous PEAT Very soft fibrous PEAT with bog deal	
1							161406	D	1.00	0/300mm						
								B								
							161407	U	1.50							
2							161408	D	2.00	0/300mm						
								B								
							161409	U	2.50				1			
3							161410	D	3.00	0/300mm						
								B								
							161411	U	3.50							
4							161416	D	4.00	0/300mm						
								B								
							161417	U	4.50							
5							161418	D	5.00	7/300mm		74.42		5.00	Soft grey slightly gravelly slightly sandy CLAY. Gravel is subrounded to subangular predominately of limestone	
								B								
6							161419	D	6.00	10/300mm						
								B								
7							161420	B	7.00	15/300mm		72.42	1	7.00	Medium dense grey silty sandy GRAVEL. Gravel is rounded to subrounded of limestone	
														8.00		
8							161421	B	8.00	21/300mm		71.42			Stiff grey slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are rounded to subrounded of limestone	
9							161422	B	9.00	27/300mm						
														10.00		
10							161423	B	10.00			69.42			Termination depth achieved. End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
7.00	7.00	No	3.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
25/01/2022	7.00	6.00	7.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
25-01-22	10.00	0.00	3.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH106893
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	648,696 E 724,715 N
GROUND LEVEL (mOD)	78.17
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.00
DATE COMMENCED	26/01/2022
DATE COMPLETED	27/01/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												77.67		0.50	Very soft brown pseudo fibrous PEAT	
1							161424	D B	1.00	0/300mm					Very soft fibrous PEAT with bog deal	
							161425	U	1.50			76.67		1.50		
2							161426	D B	2.00						Very soft brown slightly gravelly SILT. Gravel is fine rounded limestone	
							161427	U	2.50					3.00		
3							161428	D B	3.00	9/300mm		75.17			Firm grey slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to rounded of limestone	
4							161429	D B	4.00	16/300mm			1			
5							161430	D B	5.00	15/300mm						
6							161431	B	6.00	16/300mm						
7							161432	D B	7.00	8/300mm		71.17	1	7.00	Loose / medium dense grey brown slightly gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse of rounded to subangular limestone	
8							161433	B	8.00	12/300mm						
9							161434	D B	9.00	13/300mm					Blowing sands encountered @ 9.0mbgl to 8.0mbgl	
														10.00		
10							161435	D B	10.00			68.17			Borehole terminated End of Borehole at 9 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.5	4.8	0100	
8	9	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
7.00	7.00	No	4.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
28/01/2022	9.50	5.00	9.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
27-01-22	10.00	0.00	4.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH107272
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	649,062 E 724,813 N
GROUND LEVEL (mOD)	80.42
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.90
DATE COMMENCED	28/01/2022
DATE COMPLETED	31/01/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												79.92		0.50	Very soft brown pseudo fibrous PEAT	
1							161435	D	1.00	0/300mm					Very soft fibrous PEAT with bog deal	
							161436	B U	1.50			78.92		1.50	Very soft/ soft grey slightly gravelly slightly sandy CLAY. Gravel is subrounded to subangular predominately of limestone	
2							161437	D B	2.00	17/300mm						
3							161438	D B	3.00	6/300mm			1			
4							161439	D B	4.00	1/300mm						
5							161440	B	5.00	21/300mm		75.42	1	5.00	Firm/stiff grey gravelly slightly sandy CLAY with medium cobble content. Gravel and Cobbles are rounded to subrounded of limestone	
6							161441	B	6.00	46/300mm		74.42		6.00	Dense grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel and Cobbles are subangular to angular of limestone	
												73.52		6.90	Obstruction End of Borehole at 6.9 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.6	6.8	0100	
6.8	6.9	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00	No	4.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
01/02/2022	6.00	3.50	6.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-02-22	6.70	6.70	4.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH107807**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	649,407 E 725,278 N
GROUND LEVEL (mOD)	79.61
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	04/02/2022
DATE COMPLETED	07/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							173255	D	1.00	0/300mm						
							173256	B U	1.50							
2							173257	D	2.00	0/300mm						
							173258	B U	2.50							
3							173259	D	3.00	2/300mm		76.61		3.00	Very soft/soft grey slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
								B								
4							173260	D	4.00	5/300mm						
								B								
5							173261	D	5.00	9/300mm						
								B								
6							173262	D	6.00	12/300mm		73.61		6.00	Firm grey gravelly sandy SILT with medium cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
								B								
7							173263	D	7.00	10/300mm						
								B								
8							173264	D	8.00	21/300mm		71.61		8.00	Very dense grey sandy silty/clayey GRAVEL with medium cobble content. Gravel and cobbles is fine to coarse of rounded to subrounded limestone. Sand is medium to coarse	
								B								
9							173265	B	9.00	49/225mm						
10							173266	B	10.00	50/150mm		69.61		10.00	Borehole termination depth End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.5	6.6	0100	
9.5	9.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
07/02/2022	6.00	4.50	6.00	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH108409
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	650,019 E 725,285 N
GROUND LEVEL (mOD)	78.54
RIG TYPE	Knebel & dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	11.00
DATE COMMENCED	31/05/2022
DATE COMPLETED	31/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN & PA
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												78.34		0.20	Very soft brown pseudo fibrous PEAT	
															Very soft fibrous PEAT with bog deal	
1							161443	D B	1.00	0/300mm		77.34	1	1.20	Very soft grey slightly gravelly slightly sandy CLAY with medium cobble content. Cobbles and gravel are rounded to subrounded of limestone	
2							161444	D B	2.00	0/300mm						
3							161445	D B	3.00	0/300mm						
							NR	U	3.50					4.00	U100 attempted at 3.5m - No Recovery	
4							161446	B	4.00	50/115mm		74.54	2		Very stiff grey gravelly slightly sandy SILT with subrounded to angular cobbles. Gravel and cobbles is fine to coarse of rounded to subangular limestone	
5							161447	D B	5.00	50/85mm				5.90		
6	6.00	90	0	0						50/0mm		72.64		6.00	Obstruction - CP terminated	
												72.54			SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey COBBLES	
7	7.00	90	0	0											Stiff, dark brown, sandy gravelly CLAY with occasional cobbles. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies, predominately limestone. Cobbles are of limestone.	
8	8.00	100	43	41						50/45mm				8.45		
9	8.90	100	72	35								70.09			Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/black mottled, fine-grained, LIMESTONE (stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining), fresh to very locally slightly weathered.	
	9.50															
10		100	97	93	619.999999999999 640.000000000001											
11	11.00											67.54		11.00	Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared and filled (at	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.9	5.9	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.60 4.75	1.60 4.75	2.00	1.40 4.75	20	Moderate Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
02/02/2022	4.50	2.50	4.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
02-02-22	5.90	5.90	2.00	End of Borehole
31-05-22	11.00	6.00	3.58	Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 01/02/2022 to 01/02/2022.Hole cased 0.00-9.45m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH108409
SHEET	Sheet 2 of 2
CO-ORDINATES(_)	650,019 E 725,285 N
GROUND LEVEL (mOD)	78.54
RIG TYPE	Knebel & dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	11.00
DATE COMMENCED	31/05/2022
DATE COMPLETED	31/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN & PA
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															8.57-8.65m, 8.91-8.93m & 9.40-9.44m), locally calcite/dolomite-veined (1-10mm thick). Dips are subhorizontal & locally 45°.	
13															End of Borehole at 11 (m)	
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
02/02/2022	4.50	2.50	4.50	50mm SP

REMARKS CP Drilled from 01/02/2022 to 01/02/2022.Hole cased 0.00-9.45m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH108690**
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	650,298 E 725,292 N
GROUND LEVEL (mOD)	78.92
RIG TYPE	Knebel & dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	10.65
DATE COMMENCED	30/05/2022
DATE COMPLETED	31/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN & PA
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												78.62		0.30	Very soft brown pseudo fibrous PEAT	
1							173251	D B	1.00	3/300mm		77.42		1.50	Very soft grey slightly gravelly slightly sandy SILT. Gravel is subrounded to subangular predominately of limestone	
2							173252	D B	2.00	6/300mm					Very soft/soft grey brown slightly gravelly slightly sandy CLAY with subrounded to rounded cobbles. Gravel and cobbles are subrounded to subangular predominately of limestone	
3							173253	D B	3.00	2/300mm			1.1			
4							172254	D B	4.00	50/20mm		74.92		4.00		
5	4.50	11	0	0								74.72		4.20	Very dense grey sandy clayey GRAVEL with cobbles. Gravel and cobbles are subrounded to subangular predominately of limestone	
	5.40	0	0	0								73.52		5.40	Obstruction - CP Terminated	
6	6.00	89	0	0								72.92		6.00	Returns of GRAVEL. Gravel is angular to subrounded fine to coarse of limestone	
	6.90	0	0	0								72.42		6.50	SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL	
7	7.50	100	54	42								72.12		6.80		
8	8.00	100	87	84								72.02		6.90	Firm dark brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies, predominately limestone.	
9	9.45				510							71.42		7.50	Dense, brown clayey sandy GRAVEL. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies, predominately limestone.	
10		100	96	88											Firm dark brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies, predominately limestone.	
11	10.65											68.27		10.65	SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey clayey GRAVEL	
															Strong to medium strong, thickly to thinly bedded, pale grey/dark grey,	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.2	4.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.40	3.40		3.40		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
31-05-22	10.65	9.45	2.10	Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 02/02/2022 to 03/02/2022. Hole cased 0.00-9.45m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH108690
SHEET Sheet 2 of 2

CO-ORDINATES(_) 650,298 E
725,292 N
GROUND LEVEL (mOD) 78.92

RIG TYPE Knebel & dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.65

DATE COMMENCED 30/05/2022
DATE COMPLETED 31/05/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN & PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															fine-grained, LIMESTONE (stromatactic structure, locally dolomitised, local stylolites, local dolomite/calcite veining), fresh to very locally slightly weathered. Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared, locally calcite/dolomite-veined (1-6mm thick). Dips are subhorizontal & locally 45°.	
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23															End of Borehole at 10.65 (m)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CP Drilled from 02/02/2022 to 03/02/2022. Hole cased 0.00-9.45m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH108988
SHEET Sheet 1 of 1

CO-ORDINATES(_) 650,549 E 725,450 N
GROUND LEVEL (mOD) 79.06

RIG TYPE GEO-405 & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.00

DATE COMMENCED 30/06/2022
DATE COMPLETED 30/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - AK & PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												78.86		0.20	TOPSOIL	
							179123	D B	0.50						Very stiff grey brown gravelly slightly sandy CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
1							179124	D B	1.20	50/125mm						
2							179125	D B	2.00	50/100mm			1 1	2.50		
										50/40mm		76.56			Obstruction SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey silty GRAVEL	
3														4.20		
4	4.20	100	90	89		890						74.86			Strong to medium strong, thickly to thinly bedded, pale grey/dark grey, fine-grained, LIMESTONE (stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining), fresh to very locally slightly weathered. Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared and filled (at 9.00-9.07m), locally calcite/dolomite-veined (1-30mm thick). Dips are 75° & locally 20-30°.	
5	5.70	100	87	84		700										
6						520										
7	7.20	100	89	78		690										
8																
9	8.70	100	80	74		529.999999999999								10.00		
10	10.00											69.06			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2.3	2.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.70	2.70		2.70		Slow

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
30-06-22	10.00	4.20	2.10	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CP Drilled from 01/06/2022 to 02/06/2022. Hole cased 0.00-4.20m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH109085
SHEET Sheet 1 of 1

CO-ORDINATES(_) 650,605 E
725,507 N
GROUND LEVEL (mOD) 78.66

RIG TYPE Knebel & dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.25

DATE COMMENCED 25/05/2022
DATE COMPLETED 27/05/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN & WB
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												78.26		0.40	Very soft brown pseudo fibrous PEAT	
1							173267	D B	1.00	6/300mm					Soft grey slightly gravelly slightly sandy SILT with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
2							173268	D B	2.00	50/0mm		76.66		2.00	Very stiff grey slightly sandy slightly gravelly CLAY with many cobbles. Gravel and cobbles are angular of limestone	
3							173269	D B	3.00	50/0mm		75.56	1.1	3.10		
	3.20	100	35	0								75.46		3.20	Obstruction Returns of GRAVEL. Gravel is angular fine to coarse of limestone	
4	3.60	100	66	46	650					48/185mm					Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/black mottled, fine-grained, LIMESTONE (stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining), fresh to very locally slightly weathered. Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared and filled (at 4.38-4.45m, 7.86-7.90m, 8.35-8.37m & 8.48-8.52m), locally calcite/dolomite-veined (1-30mm thick). Dips are subhorizontal & locally 45° & 75°.	
5	5.00	100	100	100	529.999999999999											
6	5.87	100	85	74												
7	7.45	100	83	68												
8																
9	8.95	100	95	86	1230											
10														10.25		
11	10.25											68.41			End of Borehole at 10.25 (m)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2.1	2.5	0100	
3	3.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.80	2.80		2.80		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
27-05-22	10.25	5.80	0.92	Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 08/02/2022 to 09/02/2022. Hole cased 0.00-5.80m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH109609
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	650,675 E 726,017 N
GROUND LEVEL (mOD)	75.06
RIG TYPE	Knebel & dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	10.35
DATE COMMENCED	25/05/2022
DATE COMPLETED	26/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN &WB
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT	
1							173270	D B	1.00	0/300mm				1.40		
												73.66			Very soft/soft grey slightly gravelly sandy CLAY with low cobble content. Gravel and cobbles is fine to coarse of rounded to subrounded limestone. Sand is medium to coarse	
2							173271	D B	2.00	1/300mm			2			
3							173272	D B	3.00	1/300mm			1 1			
4							173273	D B	4.00	50/10mm			2	4.20		
										50/185mm		70.86			Very dense grey sandy gravelly COBBLES. Cobbles are angular of limestone	
5							173274	D B	5.00	50/0mm				5.20		
												69.86			Obstruction	
	5.80													5.80	SYMMETRIX DRILLING: No recovery, observed by driller as returns of silty GRAVEL	
6		100	93	140	540							69.26			Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/black mottled, fine-grained, LIMESTONE (stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining), fresh to very locally slightly weathered.	
	6.40															
7		100	100	100	590										Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared, commonly calcite/dolomite-veined (1-20mm thick). Dips are subhorizontal & locally 45° & 75°.	
	7.35															
		100	100	100												
8	7.90															
		100	95	95												
9					1150											
	9.40															
10		100	69	87										10.35		
	10.35											64.71			End of Borehole at 10.35 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.2	4.6	0100	
5	5.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.80	2.80		2.80		Slow
4.10	4.10	No	2.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
26/05/2022	4.00	2.00	4.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
10-02-22	5.20	0.00	3.30	End of Borehole
26-05-22	10.35	7.35	0.85	Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 09/02/2022 to 10/02/2022. Hole cased 0.00-7.35m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH110055**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	650,775 E 726,477 N
GROUND LEVEL (mOD)	73.35
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.20
DATE COMMENCED	15/02/2022
DATE COMPLETED	15/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT	
1							173275	D B	1.00	1/300mm				1.50		
												71.85		1.60	Firm grey gravelly SILT with low cobble content. Gravel and cobbles are subrounded to rounded, limestone	
2							173276	D B	2.00	10/300mm		71.75				
3							173277	D B	3.00	12/300mm					Medium dense grey sandy GRAVEL. Gravels are fine to coarse of rounded to subrounded predominately limestone	
															Water added to assist drilling from 1.6 to 4.0mbgl	
4							173278	D B	4.00	20/300mm		69.35		4.00		
														5.00	Medium dense grey sandy silty GRAVEL. Gravels are fine to coarse of rounded to subrounded predominately limestone	
5							173279	D B	5.00	50/235mm		68.35			Very dense grey sandy GRAVEL with high cobble content. Gravel is fine to coarse. Gravels and cobbles are subrounded to subangular of predominately limestone	
6							173280	D B	6.00	50/225mm						
7							173281	D B	7.00	50/0mm				7.20		
												66.15			Obstruction End of Borehole at 7.2 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7	7.2	0100	
7.2	7.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-02-22	7.20	0.00	5.00	End of Borehole
15-02-22	7.20	7.20	5.00	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
15/02/2022	5.00	3.00	5.00	50mm SP

REMARKS Hand Service inspection Pit

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH110606
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	651,133 E 726,897 N
GROUND LEVEL (mOD)	73.49
RIG TYPE	Knebel & dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	02/06/2022
DATE COMPLETED	02/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN&WB
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT	
1							173282	D B	1.00	0/300mm			2 1	1.50		
							173283	U	1.50			71.99			Loose grey sandy GRAVEL. Gravel is fine to coarse rounded to subrounded.	
2							173284	D B	2.00	2/300mm				3.00		
3							173285	D B	3.00	18/300mm		70.49			Medium dense/dense grey clayey/silty very sandy GRAVEL with high cobble content. Gravel is fine to coarse. Gravel and cobbles are subangular to angular	
4							173286	D B	4.00	47/300mm				5.00		
5							173287	D B	5.00	50/160mm		68.49			Very dense grey very sandy silty GRAVEL with medium cobble content. Gravel and cobbles is fine to coarse of rounded to subrounded limestone. Sand is medium to coarse	
6							173288	D B	6.00	50/95mm			2	6.30		
												67.19			Obstruction Bag Sample Taken - Described by Geologist as returns of brown clayey GRAVEL. Gravel is angular to subrounded fine to coarse of limestone.	
7										50/60mm				7.50		
												65.99			SYMMETRIX DRILLING: No recovery, observed by driller as returns of yellow/brown CLAY	
8																
9										50/65mm						
														10.00		
10												63.49			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.3	6.3	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.20	1.20		1.20		Slow
6.00	6.00	No	1.00	20	Rapid

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
16-02-22	6.30	6.20	1.00	End of Borehole
02-06-22	10.00	7.50	3.75	Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 14/02/2022 to 16/02/2022. Hole cased 0.00-7.50m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH110738**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	651,241 E 727,003 N
GROUND LEVEL (mOD)	73.64
RIG TYPE	Knebel & dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	10.65
DATE COMMENCED	01/06/2022
DATE COMPLETED	01/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN&WB
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												73.54		0.10	TOPSOIL	
														0.80	Brown sandy CLAY	
1							173289	D B	1.00	9/300mm		72.84		2.00	Loose light brown very sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel and cobbles are rounded to subangular predominately of limestone	
2							173290	D B	2.00	23/300mm		71.64	1 2	3.00	Medium dense grey clayey/silty sandy slightly clayey GRAVEL with low cobble content. Gravel is fine to coarse. Gravel and cobbles are subrounded to angular of Limestone	
3							173291	B	3.00	50/0mm		70.64		3.10	Obstruction - Large Boulders	
												70.54		4.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey silty GRAVEL	
4	4.00	100	98	93		870						69.64			Strong to very strong, thickly to thinly bedded, pale blueish grey, fine-grained, LIMESTONE (sandy limestone, locally dolomitised, local stylolites), fresh to very locally slightly weathered. Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared and filled (at 10.26-10.29m), locally calcite/dolomite-veined (1-20mm thick). Dips are 10-20° & locally 75°.	
5	5.50	100	95	95		590										
6	6.05	100	51	32												
7	7.00	100	89	68												
8	7.80	100	100	100		1210										
9	9.30															
10		100	91	87		529.999999999999										
	10.65													10.65		
11												62.99			End of Borehole at 10.65 (m)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3	3.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.60 2.85	2.60 2.85		1.90 2.85	20	Moderate Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-03-22 01-06-22	3.10 10.65	0.00 4.00	1.90 0.68	End of Borehole Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 28/01/2022 to 28/01/2022. Hole cased 0.00-4.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH111204**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	651,523 E 727,352 N	**RIG TYPE**	GEO-405 & Dando 2000
GROUND LEVEL (mOD)	83.24	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	78
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	10.00
		DATE COMMENCED	28/06/2022
		DATE COMPLETED	28/06/2022
		BORED BY	IGSL - AK & PA
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												82.94		0.30	TOPSOIL	
							179127	D B	0.50						Very stiff brown gravelly slightly sandy CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
1										50/75mm		82.14		1.10	Obstruction SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy gravelly CLAY with occasional cobbles	
2																
3																
4														4.50		
5	4.50	100	63	56								78.74			Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/brownish grey, fine-grained, LIMESTONE (local stromatactic structure, dolomitised, local stylolites, common dolomite/calcite veining, evidence of small-scale solution weathering), fresh to very locally slightly weathered. Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally undulose. Apertures are tight to locally moderately open, locally clay-smeared, commonly calcite/dolomite-veined (1-50mm thick). Dips are subhorizontal & locally 30°.	
6	6.00	100	87	75												
7																
8	7.50	100	86	74												
9	8.50	100	91	86										10.00		
10	10.00											73.24			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1	1.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
28/06/2022	7.50	5.00	7.50	50mm SP

REMARKS CP Drilled from 02/06/2022 to 02/06/2022. Hole cased 0.00-4.50m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH111604
SHEET Sheet 1 of 1

CO-ORDINATES(_) 651,843 E
727,569 N
GROUND LEVEL (mOD) 81.19

RIG TYPE GEO-405 & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.00

DATE COMMENCED 24/06/2022
DATE COMPLETED 24/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - AK& PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0								B D	0.50			80.99		0.20	TOPSOIL	
1										50/115mm					Very stiff brown slightly sandy gravelly CLAY with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
2										50/0mm		79.59		1.60	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy gravelly CLAY with occasional cobbles	
3										61/300mm						
4	4.00	100	75	52								77.19		4.00	Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/brownish grey, fine-grained, LIMESTONE (local stromatactic structure, dolomitised, local stylolites, common dolomite/calcite veining, evidence of small-scale solution weathering), fresh to very locally slightly weathered.	
5	5.50															
6		100	85	83	650											
7	7.00															
8		100	91	75											Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally undulose. Apertures are tight to locally moderately open, locally clay-smeared, commonly calcite/dolomite-veined (1-50mm thick), locally slightly iron-oxide stained. Dips are subhorizontal & locally 30-40°.	
9	8.50															
10	10.00	100	68	68	609.999999999999											
10	10.00											71.19		10.00	End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.4	1.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CP Drilled from 02/06/2022 to 02/06/2022.Hole cased 0.00-4.00m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH111960**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	652,153 E 727,759 N	**RIG TYPE**	GEO-405 & Dando 2000
GROUND LEVEL (mOD)	70.10	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	78
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	9.00
		DATE COMMENCED	29/06/2022
		DATE COMPLETED	29/06/2022
		BORED BY	IGSL - AK&PA
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												70.00		0.10	TOPSOIL	
														0.50	Soft brown sandy CLAY.	
							175343	B D	0.50			69.60	1		Soft grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
1							175344	B D	1.20	5/300mm			1	2.00		
2							175345	B D	2.00	16/300mm		68.10	2 3		Medium dense brown slightly silty slightly sandy GRAVEL with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
3							175346	B D	3.00	25/300mm				4.00		
4							175347	B D	4.00	50/225mm		66.10		4.50	Dense brown slightly silty sandy GRAVEL with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
										50/75mm		65.60				
5														6.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly COBBLES	
6										34/300mm		64.10			SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy gravelly CLAY with occasional cobbles	
7	7.50													7.50		
8		33	0	0						25/10mm		62.60			Returns of stiff, orange/brown very sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of limestone.	
														9.00		
9	9.00									19/300mm		61.10			SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	
														10.00		
10										21/300mm		60.10			End of Borehole at 9 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.7	3.9	0100	
4.4	4.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.00	2.00		1.00	20	Slow
2.80	2.80		2.80		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
29/06/2022	4.00	1.50	4.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
29-06-22	10.00	10.00	0.70	Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 20/06/2022 to 20/06/2022. Hole cased 0.00-10.00m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH112180
SHEET Sheet 1 of 2

CO-ORDINATES(_) 652,331 E
727,862 N
GROUND LEVEL (mOD) 70.33

RIG TYPE GEO-405 & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.80

DATE COMMENCED 23/06/2022
DATE COMPLETED 23/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - AK&PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												70.13		0.20	TOPSOIL	
							179128	B D	0.50						Stiff grey brown sandy slightly gravelly CLAY with medium cobble content. Gravel is angular to subangular, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
1							179129	B D	1.20	25/300mm			1			
							179130	B D	2.00	37/300mm			1 2	2.00		
2												68.33			Dense to very dense grey slightly silty very sandy GRAVEL with high cobble content. Sand is fine to coarse. Gravel is subangular to rounded, fine to coarse. Cobbles re subangular to rounded, limestone.	
							179131	B D	3.00	50/225mm				3.50		
3										50/0mm		66.83			SYMMETRIX DRILLING: No recovery, observed by driller as returns of GRAVEL	
4										29/300mm						
5																
6										28/300mm						
7																
8										35/300mm						
9	9.00	100	90	65						25/10mm		61.33		9.00	Strong to medium strong, medium to thinly bedded, pale grey/dark blueish grey, fine-grained, LIMESTONE (local stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining, evidence of small-scale solution weathering), fresh to very locally slightly weathered.	
10	10.00	100	71	60										10.80	Discontinuities are medium to closely spaced, smooth to locally	
11	10.80											59.53				

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.3	3.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.00	2.00		1.50	20	Slow
2.50	2.50		2.50		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
23-06-22	10.80	9.00	3.10	Water level recorded 5 mins after end of drilling.

REMARKS CP Drilled from 03/06/2022 to 03/06/2022. Hole cased 0.00-9.00m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH112180
SHEET Sheet 2 of 2

CO-ORDINATES(_) 652,331 E
727,862 N
GROUND LEVEL (mOD) 70.33

RIG TYPE GEO-405 & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.80

DATE COMMENCED 23/06/2022
DATE COMPLETED 23/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - AK&PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															rough, planar to locally undulose. Apertures are tight to locally moderately open, locally clay-smeared to sandy clay-filled (at 9.77-9.83m), commonly calcite/dolomite-veined (1-20mm thick), locally slightly iron-oxide stained. Dips are 20-30° & locally subvertical.	
13																
14															End of Borehole at 10.8 (m)	
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CP Drilled from 03/06/2022 to 03/06/2022. Hole cased 0.00-9.00m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH112404
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	652,449 E 727,954 N
GROUND LEVEL (mOD)	72.01
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	5.00
DATE COMMENCED	07/06/2022
DATE COMPLETED	07/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												71.81		0.20	TOPSOIL	
							179136	B D	0.50			71.51		0.50	Firm grey brown sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
1							179137	B D	1.20	24/300mm						
2							179138	B D	2.00	41/300mm			2		Very stiff grey brown sandy gravelly SILT with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
3							179139	B D	3.00	50/100mm			1 1	3.50		
												68.51			Medium dense grey brown slightly clayey/silty slightly sandy GRAVEL with medium cobble content. Gravel is angular to subangular, medium to coarse, limestone. Cobbles are angular to subangular, limestone.	
4							179140	B D	4.00	25/300mm			2	5.00		
5										50/20mm		67.01			End of Borehole at 5 (m)	
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.2	3.4	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.50	3.50		3.00	20	Slow
5.00	5.00		2.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
07-06-22	5.00	5.00	2.00	

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH112619
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	652,728 E 728,085 N
GROUND LEVEL (mOD)	72.91
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	1.80
DATE COMMENCED	13/06/2022
DATE COMPLETED	13/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	TOPSOIL	
							175320	B D	0.50			72.61			Stiff brown slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
1							175321	B D	1.20	21/300mm				1.80		
										50/0mm		71.11	1 1		End of Borehole at 1.8 (m)	
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.6	1.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.50	2.50		2.50		Slow

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH112619
SHEET Sheet 2 of 2

CO-ORDINATES(_) 652,728 E
728,085 N
GROUND LEVEL (mOD) 72.91

RIG TYPE Dando 2000
RC FLUSH MEDIUM
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 1.80

DATE COMMENCED 13/06/2022
DATE COMPLETED 13/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY PA
PROCESSED BY AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
20-06-22	15.00	5.00	2.50	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH112619A
SHEET Sheet 1 of 2

CO-ORDINATES(_) 652,728 E
728,085 N
GROUND LEVEL (mOD) 72.91

RIG TYPE GEO-405 & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 15.00

DATE COMMENCED 20/06/2022
DATE COMPLETED 20/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - AK&PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							175322	B D	0.50			72.71		0.20	TOPSOIL	
1							175323	B D	1.20	10/300mm					Firm becoming stiff brown slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
2							175324	B D	2.00	14/300mm			1			
3							175325	B D	3.00	32/300mm			1			
4							175326	B	4.00	27/300mm						
	4.50	100	75	68						50/0mm		68.31		4.60	Strong to medium strong, thickly to thinly bedded, pale grey/dark blueish grey, fine-grained, LIMESTONE (local stromatactic structure, fossiliferous, local stylolites, possible localised chert formation), fresh to very locally slightly weathered.	
5															Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally undulose. Apertures are tight to locally moderately open, locally clay-smeared and filled (at 6.44-6.61m), locally calcite-veined (1-20mm thick), locally slightly iron-oxide stained. Dips are 20-30° & locally subvertical.	
6	6.00	100	83	77											Strong to medium strong, thickly to thinly bedded, pale grey/dark blueish grey, fine-grained, LIMESTONE (local stromatactic structure, fossiliferous, local stylolites, possible localised chert formation), fresh to very locally slightly weathered.	
7																
	7.50	100	93	87												
8																
9	9.00	100	100	99												
10																
	10.50	100	91	87												
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2.4	2.5	0100	
4.5	4.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.00	3.00		2.80	20	Slow

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CP Drilled from 13/06/2022 to 13/06/2022. Hole cased 0.00-10.00m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH112619A
SHEET Sheet 2 of 2

CO-ORDINATES(_) 652,728 E
728,085 N
GROUND LEVEL (mOD) 72.91

RIG TYPE GEO-405 & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 15.00

DATE COMMENCED 20/06/2022
DATE COMPLETED 20/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - AK&PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12	12.00															
		100	95	86	770										Strong to medium strong, thickly to thinly bedded, pale grey/dark blueish grey, fine-grained, LIMESTONE (local stromatactic structure, fossiliferous, local stylolites, possible localised chert formation), fresh to very locally slightly weathered. *(continued)*	
13																
	13.50															
14		100	96	91	910											
														15.00		
15	15.00											57.91			End of Borehole at 15 (m)	
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CP Drilled from 13/06/2022 to 13/06/2022. Hole cased 0.00-10.00m.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH112801
SHEET Sheet 1 of 1

CO-ORDINATES(_) 652,988 E
728,144 N
GROUND LEVEL (mOD) 72.78

RIG TYPE Knebel
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm)
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.60

DATE COMMENCED 02/08/2022
DATE COMPLETED 03/08/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy gravelly cobbly CLAY	
1																
2										27/300mm						
3										42/300mm						
4													1 1			
										51/225mm		68.28		4.50	SYMMETRIX DRILLING: No recovery, observed by driller as returns of light brown silty GRAVEL	
5																
6										50/75mm				6.30		
	6.40											66.48		6.40	SYMMETRIX DRILLING: No recovery, observed by driller as returns of ROCK	
												66.38			Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/brownish grey, fine-grained, LIMESTONE (local stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining, evidence of small-scale solution weathering), fresh to very locally slightly weathered.	
7		100	97	91		630										
	7.80															
8		100	99	99		619.999999999999										
						680.000000000001									Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared, commonly calcite/dolomite-veined (1-50mm thick). Dips are subhorizontal & locally 45° & 75°.	
9	9.30															
10		100	98	98		900										
	10.60											62.18		10.60		
11															End of Borehole at 10.6 (m)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.30	4.30		4.30		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
03/08/2022	6.00	4.00	6.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
03-08-22	10.60	6.40	2.10	Water level recorded 5 mins after end of drilling.

REMARKS Hole cased 0.00-6.40m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH113399
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	653,488 E 728,077 N
GROUND LEVEL (mOD)	72.79
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	22/06/2022
DATE COMPLETED	23/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0								B D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
1								B D	1.20	0/300mm						
2								U	2.00							
								B D	2.50	1/300mm						
3								U	3.00							
4								B D	4.00	0/300mm			1			
5								B D	5.00	1/300mm		67.79		5.00	Very soft grey peaty SILT.	
														5.70		
6								B D	6.00	1/300mm		67.09			Very soft grey sandy SILT.	
7								B D	7.00	1/300mm						
8								B D	8.00	18/300mm		64.79	1	8.00	Firm to stiff dark grey slightly sandy slightly gravelly CLAY with medium cobble content. Sand is fine. Gravel is subangular to angular, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
9								B D	9.00	25/300mm				10.00		
10												62.79			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
8.00	8.00		4.00	20	Rapid

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
23/06/2022	9.50	7.50	9.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH113800
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	653,846 E 727,898 N
GROUND LEVEL (mOD)	70.82
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	21/06/2022
DATE COMPLETED	22/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0								B D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
1								B D	1.20	0/300mm			1			
2								U	2.00							
3								B D U	2.50 3.00	1/300mm				3.50		
								B D	3.50	1/300mm		67.32			Very soft to soft grey slightly sandy SILT.	
4								U	4.00							
5								B D	5.00	5/300mm			1			
														6.00		
6								B D	6.00	9/300mm		64.82			Very stiff dark grey slightly sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone.	
7								B D	7.00	50/225mm						
8								B D	8.00	50/77mm						
9								B D	9.00	50/225mm				10.00		
10												60.82			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8.2	8.4	0100	
9.8	10	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00		3.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH114109**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	654,141 E 727,779 N
GROUND LEVEL (mOD)	71.16
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.20
DATE COMMENCED	20/06/2022
DATE COMPLETED	21/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.50	TOPSOIL	
							171090	B D	0.50			70.66			Soft brown slightly gravelly slightly sandy SILT. Gravel is subangular to subrounded, fine to coarse, limestone.	
1							171091	B D	1.20	8/300mm				1.50		
												69.66			Firm grey slightly sandy slightly gravelly CLAY with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
2							171092	B D	2.00	15/300mm						
3							171093	B D	3.00	26/300mm				3.50		
												67.66			Stiff to very stiff grey slightly sandy slightly gravelly SILT with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
4							171094	B D	4.00	27/300mm						
5							171095	B D	5.00	18/300mm						
6							171096	B D	6.00	43/300mm						
7							171097	B D	7.00	50/75mm						
8										50/75mm 50/0mm				8.20		
												62.96			End of Borehole at 8.2 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.2	7.4	0100	
8	8.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH114149**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	654,175 E 727,764 N
GROUND LEVEL (mOD)	70.36
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.00
DATE COMMENCED	07/06/2022
DATE COMPLETED	08/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	TOPSOIL	
							179141	B D	0.50			70.06			Medium dense grey brown silty/clayey very sandy GRAVEL. Gravel is subangular to subrounded, fine to coarse, limestone.	
1							179142	B D	1.20	13/300mm						
														2.00		
2							179143	B D	2.00	11/300mm		68.36	1		Loose to medium dense grey clayey sandy GRAVEL with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3							179144	B D	3.00	22/300mm						
4							179145	B D	4.00	18/300mm						
5							179146	B D	5.00	19/300mm				5.50		
												64.86			Very stiff grey sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
6							179147	B D	6.00	31/300mm						
7							179148	B D	7.00	41/300mm				8.00		
8										50/25mm		62.36			End of Borehole at 8 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.7	6.9	0100	
7.9	8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.00	3.00		2.50	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
08/06/2022	5.50	2.50	5.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH114352
SHEET Sheet 1 of 1

CO-ORDINATES(_) 654,373 E
727,767 N
GROUND LEVEL (mOD) 70.39

RIG TYPE Dando 2000
RC FLUSH MEDIUM
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 5.70

DATE COMMENCED 08/06/2022
DATE COMPLETED 09/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY PA
PROCESSED BY AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												70.19		0.20	TOPSOIL	
							170344	B D	0.50						Medium dense brown silty sandy GRAVEL with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
1							170345	B D	1.20	27/300mm						
2							170346	B D	2.00	14/300mm				2.50		
												67.89			Very stiff grey slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
3							170347	B D	3.00	50/165mm						
4							170348	B D	4.00	50/75mm						
5							170349	B D	5.00	50/170mm				5.70		
										50/0mm		64.69			End of Borehole at 5.7 (m)	
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4	4.2	0100	
5.6	5.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
09-06-22	5.70	5.70	4.00	

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH114689
SHEET Sheet 1 of 1

CO-ORDINATES(_) 654,709 E
727,773 N
GROUND LEVEL (mOD) 71.20

RIG TYPE Dando 2000
RC FLUSH MEDIUM
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 6.80

DATE COMMENCED 09/06/2022
DATE COMPLETED 10/06/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY PA
PROCESSED BY AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												71.10		0.10	TOPSOIL	
							175213	B D	0.50						Soft grey mottled orange brown slightly sandy slightly gravelly CLAY with a little organic matter. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
1							175214	B D	1.20	6/300mm		70.00		1.20		
							175215	B D	2.00	50/155mm		69.20		2.00	Very soft grey sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse, limestone.	
2																
							175216	B D	3.00	20/300mm					Stiff to very stiff grey sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3																
							175217	B D	4.00	22/300mm						
4																
							175218	B D	5.00	29/300mm						
5																
							175219	B D	6.00	50/150mm						
6														6.80		
										50/75mm		64.40			End of Borehole at 6.8 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2.1	2.3	0100	
6.6	6.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH115002
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	655,014 E 727,853 N
GROUND LEVEL (mOD)	71.66
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	3.10
DATE COMMENCED	30/06/2022
DATE COMPLETED	30/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												71.46		0.20	TOPSOIL	
1							178354	B D	1.00	14/300mm					Firm grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
												70.06		1.60		
2							178355	B D	2.00	10/300mm					Firm grey brown slightly sandy gravelly CLAY with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
3							178356	B D	3.00	50/0mm		68.56		3.10	End of Borehole at 3.1 (m)	
4																
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.1	3.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH115403
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	655,407 E 727,930 N
GROUND LEVEL (mOD)	70.81
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.00
DATE COMMENCED	14/06/2022
DATE COMPLETED	14/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												70.61		0.20	TOPSOIL	
							175327	B D	0.50						Soft grey brown slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse, limestone.	
1							175328	B D	1.20	8/300mm						
														2.00		
2							175329	B D	2.00	24/300mm		68.81			Very stiff grey slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3							175330	B D	3.00	50/225mm						
4							175331	B D	4.00	50/300mm						
5							175332	B D	5.00	47/300mm						
6							175333	B D	6.00	43/300mm						
														7.00		
7										50/40mm		63.81			End of Borehole at 7 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.4	3.5	0100	
6.9	7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14/06/2022	5.50	2.00	5.50	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH115809
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	655,811 E 727,903 N
GROUND LEVEL (mOD)	68.80
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.00
DATE COMMENCED	14/06/2022
DATE COMPLETED	14/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							175334	B D	0.50			68.60		0.20	TOPSOIL	
1							175334	B D	1.20	15/300mm					Firm grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
2							175334	B D	2.00	12/300mm				2.45		
3							175334	B D	3.00	50/100mm		66.35			Very stiff slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
4							175334	B D	4.00	50/245mm			1			
5							175334	B D	5.00	50/231mm						
6							175334	B D	6.00	50/300mm						
7							175334	B D	7.00	39/300mm			2			
8							175334	B D	8.00	50/170mm				9.00		
9										50/95mm		59.80			End of Borehole at 9 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.2	3.4	0100	
5.4	5.5	0100	
8.9	9	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00		4.40	20	Slow
7.50	7.50		4.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH116189**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	656,184 E 727,963 N
GROUND LEVEL (mOD)	69.88
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.20
DATE COMMENCED	16/06/2022
DATE COMPLETED	17/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							171082	B D	0.50						Very soft dark brown pseudo-fibrous PEAT	
1							171083	B D	1.20	0/300mm						
2							171084	B D	2.00							
								U	2.50	0/300mm				3.00		
3							171085	B D	3.00	1/300mm		66.88	1		Very soft grey peaty SILT.	
													1	4.00		
4							171086	B D	4.00	9/300mm		65.88			Soft grey slightly sandy slightly gravelly SILT with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
5							171087	B D	5.00	22/300mm		64.88		5.00		
6							171088	B D	6.00	50/235mm					Stiff to very stiff slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
7							171089	B D	7.00	31/300mm		62.88		7.00	Very stiff brown slightly sandy SILT.	
														7.50		
8										50/75mm		62.38		8.20	Very stiff slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
												61.68			End of Borehole at 8.2 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.4	6.8	0100	
8	8.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00		3.50	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
17/06/2022	5.00	3.50	5.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH116213**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	656,206 E 727,976 N
GROUND LEVEL (mOD)	69.68
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.00
DATE COMMENCED	24/06/2022
DATE COMPLETED	27/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0								B D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
1								B D	1.20	0/300mm						
2								U	2.00							
								B D	2.50	0/300mm				2.80		
3								B D	3.00	0/300mm		66.88			Very soft grey sandy SILT. Sand is fine to coarse	
												66.18		3.50		
4								B D	4.00	9/300mm					Soft becoming stiff dark grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to medium, limestone. Cobbles are subangular to subrounded, limestone.	
5								B D	5.00	27/300mm						
														6.00		
6										50/95mm		63.68			End of Borehole at 6 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.9	6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH116733
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	656,700 E 728,091 N
GROUND LEVEL (mOD)	72.79
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	4.50
DATE COMMENCED	29/06/2022
DATE COMPLETED	30/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1							173400	B D	1.00	0/300mm						
2							178351	B D	2.00	0/300mm				2.80		
3							178352	B D	3.00	5/300mm		69.99			Very soft grey slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse, limestone.	
4							178353	B D	4.00	24/300mm			1	4.20		
										50/0mm		68.59		4.50	Stiff grey slightly sandy gravelly CLAY with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
												68.29			End of Borehole at 4.5 (m)	
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.5	4.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.50	4.50		4.30	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH120200**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	660,076 E 728,125 N
GROUND LEVEL (mOD)	70.06
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.20
DATE COMMENCED	04/03/2022
DATE COMPLETED	07/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							178256	D B	1.00	1/300mm						
							178257	U	1.50							
2							178258	D B	2.00	2/300mm						
							178259	U	2.50							
														3.00		
3							178260	D B	3.00	9/300mm		67.06			Soft becoming stiff grey slightly sandy gravelly CLAY with low cobble content. Cobbles are rounded to subangular of limestone	
4							178261	D B	4.00	25/300mm						
														5.00		
5							178262	B	5.00	27/300mm		65.06			Stiff to very stiff grey brown slightly gravelly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and Cobbles are subrounded to subangular, limestone Water added to assist drilling from 6.0mbgl	
6							178263	B	6.00	50/255mm						
7							178264	B	7.00	50/160mm						
8							178265	B	8.00	50/170mm						
9							178266	B	9.00	50/75mm			1 1	9.20		
												60.86			Obstruction End of Borehole at 9.2 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8.8	9	0030	
9.2	9.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
9.20	9.20		9.20	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
07/03/2022	8.00	6.00	8.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH120739
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	660,455 E 727,968 N
GROUND LEVEL (mOD)	69.72
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	03/03/2022
DATE COMPLETED	04/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							173292	D	1.00	0/300mm						
							173293	B U	1.50					1.50		
												68.22	1		Very soft fibrous PEAT with bog deal	
2							173294	D B	2.00	1/300mm						
							173295	U	2.50							
3							173296	D B	3.00	1/300mm						
							173297	U	3.50							
4							173298	D B	4.00	2/300mm						
							173299	U	4.50				1	4.60		
												65.12		5.00	Grey white sandy clayey SILT. Sand is fine to coarse	
5							173300	B	5.00	6/300mm		64.72			Loose becoming medium dense grey sandy silty GRAVEL with horizons of Clay bands. Gravel is fine to coarse of rounded to subangular predominately of limestone	
6							173301	B	6.00	13/300mm						
														7.00		
7							173302	B	7.00	19/300mm		62.72			Stiff grey slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are rounded to subangular predominately of limestone	
8							173303	B	8.00	41/300mm				8.50		
												61.22			Very stiff grey brown gravelly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
9							173304	B	9.00	50/235mm						
														10.00		
10							173305	B	10.00	50/160mm		59.72			Borehole termination depth achieved. End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.70	4.70	5.90	2.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
04/03/2022	7.00	5.50	7.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
04-03-22	10.00	0.00	2.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH121933**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	661,708 E 727,835 N
GROUND LEVEL (mOD)	66.90
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.20
DATE COMMENCED	10/03/2022
DATE COMPLETED	10/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												66.70		0.20	Peaty TOPSOIL	
1							178267	D B	1.00	4/300mm					Soft grey brown gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
2							178268	D B	2.00	4/300mm				2.50		
3							178269	D B	3.00	11/300mm		64.40	2		Firm grey brown slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
4							178270	D B	4.00	45/300mm		63.10		3.80	Very stiff grey brown slightly gravelly slightly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to angular predominately of limestone	
5							178271	D B	5.00	50/170mm			1 1		Water added to assist drilling from 3.8mbgl	
6							178272	D B	6.00	50/10mm		60.70	2	6.20	Obstruction End of Borehole at 6.2 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.2	6.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.30	5.30	5.30	5.20	20	Moderate
6.00	6.00		3.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
10-03-22	6.20	0.00	3.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH122408
SHEET Sheet 1 of 1

CO-ORDINATES(_) 662,125 E
727,739 N
GROUND LEVEL (mOD) 67.71

RIG TYPE Dando 2000
RC FLUSH MEDIUM
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 6.10

DATE COMMENCED 11/03/2022
DATE COMPLETED 14/03/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY W.Butler
PROCESSED BY C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							178273	D	1.00	0/300mm						
							178274	U	1.50					1.60		
												66.11			Very soft/soft grey gravelly slightly sandy CLAY. Gravel is fine to coarse rounded to subangular, limestone	
2							178275	D B	2.00	2/300mm						
3							178276	D B	3.00	7/300mm						
4							178277	D B	4.00	7/300mm				4.80		
5							178278	D B	5.00	49/300mm		62.91			Very stiff brown sandy gravelly CLAY with medium cobble content. Gravel is fine to coarse. Gravel and Cobbles are round to subrounded, limestone	
														5.90	Water added to assist drilling from 4.8mbgl	
6							178279	D B	6.00	50/10mm		61.81		6.10	Very dense grey gravelly COBBLES. Cobbles are angular of limestone	
												61.61			Obstruction End of Borehole at 6.1 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6	6.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14/03/2022	6.00	5.00	6.00	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH123219**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	662,920 E 727,589 N
GROUND LEVEL (mOD)	67.32
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.10
DATE COMMENCED	15/03/2022
DATE COMPLETED	21/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							178280	D B	1.00	0/300mm				1.40		
												65.92			Soft grey slightly gravelly slightly sandy CLAY. Gravel is fine to coarse rounded to subangular, limestone	
2							178281	D B	2.00	6/300mm						
3							178282	D B	3.00	7/300mm						
4							178283	D B	4.00	9/300mm						
														5.00		
5							178284	D B	5.00	13/300mm		62.32			Firm to stiff grey slightly gravelly sandy CLAY with medium cobble content. Gravel is fine to coarse rounded to subangular. Cobbles are rounded to subrounded, limestone	
6							178285	D B	6.00	23/300mm						
														7.00		
7							178286	B	7.00	50/0mm		60.32			Very dense grey silty sandy GRAVEL with medium cobble and boulder content. Gravel is fine to coarse. Cobbles and boulders are subangular to angular, limestone	
										50/0mm				8.10		
8												59.22			Obstruction End of Borehole at 8.1 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7	7.2	0030	
8.1	8.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
21/03/2022	7.00	5.00	7.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
21-03-22	6.00	6.00	0.60	Start of Day
21-03-22	8.10	8.10	8.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH123774
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	663,344 E 727,223 N
GROUND LEVEL (mOD)	67.50
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	22/03/2022
DATE COMPLETED	23/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							178287	D B	1.00	0/300mm				1.50		
							178288	U	1.50			66.00			Very soft grey gravelly SILT with low cobble content. Gravel is fine to coarse. Gravel and cobbles are rounded to subrounded, limestone	
2							178289	D B	2.00	0/300mm						
							178290	U	2.50							
3							178291	D B	3.00	1/300mm				4.00		
4							178292	D B	4.00	10/300mm		63.50	1		Medium dense grey silty sandy GRAVEL with medium cobble content. Gravel is fine to coarse. Gravel and cobbles are subrounded to subangular, limestone	
5							178293	D B	5.00	11/300mm				6.00		
6							178294	B	6.00	24/300mm		61.50			Medium dense grey brown sandy silty GRAVEL with medium cobble content. Gravel is fine to coarse. Gravels and cobbles are subrounded to subangular, limestone	
7							178295	B	7.00	50/150mm		60.50		7.00		
8							178296	B	8.00	50/0mm					Very stiff grey brown sandy gravelly CLAY with medium cobble and boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular, limestone	
9							178297	B	9.00	50/0mm		58.50		9.00		
10							178298	B	10.00	50/0mm		57.50		10.00	Very dense grey sandy GRAVEL with medium cobble content. Gravel and cobbles are subrounded to rounded of limestone	
11															Termination depth achieved. End of Borehole at 10 (m)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8	8.2	0100	
8.2	10	0200	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00		4.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
23/03/2022	6.50	4.00	6.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
23-03-22	5.00	5.00	0.60	Start of Day
23-03-22	10.00	0.00	1.50	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH123993**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	663,379 E 726,995 N
GROUND LEVEL (mOD)	66.52
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.30
DATE COMMENCED	24/03/2022
DATE COMPLETED	25/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	W.Butler
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							173001	D	1.00	2/300mm				1.30		
							173002	B U	1.50			65.22			Firm grey brown SILT with low cobble content. Gravel is fine to coarse. Gravel and cobbles are subrounded to subangular , limestone	
2							173003	D B	2.00	10/300mm						
								U	2.50							
3							173004	D B	3.00	10/300mm						
4							173005	D B	4.00	19/300mm			1			
5							173006	D B	5.00	14/300mm			1	5.30		
												61.22			Very dense grey brown slightly sandy silty GRAVEL with medium cobble content. Gravel is fine to coarse. Gravels and cobbles are subrounded to subangular, limestone	
6							173007	B	6.00	50/115mm				6.30		
							173008	D	6.30			60.22			Obstruction End of Borehole at 6.3 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.3	6.3	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00	5.50	4.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
25-03-22	6.30	6.30	4.50	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH124210**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	663,527 E 726,863 N	**RIG TYPE**	Dando 2000
GROUND LEVEL (mOD)	66.70	**RC FLUSH MEDIUM**	
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	9.60
		DATE COMMENCED	25/03/2022
		DATE COMPLETED	31/03/2022
		BORED BY	P.Allen
		PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1							179163	D	1.00	4/300mm				1.30		
							179163	B U	1.50			65.40			Very soft grey gravelly slightly sandy SILT. Gravel is subrounded to subangular of limestone	
2							179164	D	2.00	6/300mm						
								B						3.00		
3							179165	D	3.00	1/300mm		63.70			Very soft grey sandy SILT	
4								B U	4.00							
							179166	D	4.50	9/300mm				4.80		
5							179167	B D	5.00	41/300mm		61.90 61.50		5.20	Very stiff grey gravelly CLAY. Gravel is fine to coarse. Gravel is rounded to subangular of predominately limestone	
6							179168	B D	6.00	38/300mm					Very stiff grey gravelly slightly sandy CLAY with medium to high cobble and boulder content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
7							179169	B D	7.00	50/150mm						
8							179170	B D	8.00	40/225mm						
9							179171	B D	9.00	50/150mm						
								B						9.60		
10										50/75mm		57.10			End of Borehole at 9.6 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.4	7.5	0100	
9.5	9.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
31/03/2022	4.80	3.00	4.80	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. Engine stole off Rig - 5 days downtime

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH124677**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	663,944 E 726,605 N
GROUND LEVEL (mOD)	67.08
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.80
DATE COMMENCED	31/03/2022
DATE COMPLETED	01/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							179173	D B	0.50					1.00	Very soft brown pseudo fibrous PEAT with bog deal	
1							179174	D B	1.20	1/300mm		66.08		1.70	Very soft grey silty PEAT	
2							179175	D B	2.00	0/300mm		65.38		3.00	Very loose grey sandy silty GRAVEL with low cobble content. Gravel is fine to coarse. Gravel and cobbles and rounded to subrounded, limestone	
3							179176	D B	3.00	29/300mm		64.08			Stiff grey slightly gravelly slightly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
4							179177	D B	4.00	29/300mm						
5							179178	D B	5.00	35/300mm						
6							179179	D B	6.00	32/300mm						
7							179180	D B	7.00	42/300mm			1	7.00		
												60.08		7.80	Dense/very dense grey sandy GRAVEL with medium cobble and boulder content. Gravel is fine to coarse. Gravels and cobbles are subrounded to angular, limestone	
8										50/75mm		59.28			Obstruction End of Borehole at 7.8 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.7	5.9	0100	
7.6	7.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
7.00	7.00		0.00	20	Rapid

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-04-22	7.80	0.00	0.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH125177
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	664,385 E 726,382 N
GROUND LEVEL (mOD)	68.51
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.50
DATE COMMENCED	04/04/2022
DATE COMPLETED	04/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							179181	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1								U	1.20	0/300mm						
2							179182	D B	2.00	0/300mm						
								U	2.50					2.50		
												66.01	1		Soft grey brown slightly gravelly slightly sandy CLAY. Gravel is rounded to subangular, limestone	
3							179183	D B	3.00	2/300mm				3.50		
												65.01			Soft grey gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular, limestone	
4							179184	D B	4.00	9/300mm						
5							179185	D B	5.00	50/175mm			1	5.00		
												63.51			Very stiff grey gravelly slightly sandy CLAY with medium to high cobble and boulder content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
6							179186	D B	6.00	50/300mm						
7							179187	D B	7.00	50/150mm						
8							179188	D B	8.00	44/225mm						
9							179189	D B	9.00	60/225mm				9.50		
										50/75mm		59.01			Obstruction End of Borehole at 9.5 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.2	7.4	0100	
9.3	9.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00		3.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
04/04/2022	8.50	5.00	8.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
04-04-22	9.50	0.00	3.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH125582
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	664,777 E 726,301 N
GROUND LEVEL (mOD)	71.96
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.50
DATE COMMENCED	05/04/2022
DATE COMPLETED	05/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							179190	D	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
								B								
1								D								
								U	1.20							
2							179191	D	2.00	0/300mm						
								B								
								D								
								U	2.50							
3							179192	D	3.00	0/300mm						
								B								
								D								
								U	3.50							
4							179193	D	4.00	11/300mm		67.96		4.00	Medium dense grey sandy silty GRAVEL. Gravel is rounded to subrounded, limestone	
								B								
								D						5.00		
5							179194	D	5.00	11/300mm		66.96			Firm grey slightly gravelly slightly sandy CLAY with medium cobble content and boulder content. Gravel, cobbles and boulder are subangular to subrounded, limestone.	
								B						5.80		
6							179195	D	6.00	35/300mm		66.16			Very stiff grey gravelly sandy CLAY with medium to high cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
								B								
								D								
7							179196	D	7.00	37/300mm						
								B								
								D								
8							179197	D	8.00	50/175mm						
								B								
								D								
9							179198	D	9.00	50/75mm						
								B								
								D						9.50		
										50/0mm		62.46			Obstruction End of Borehole at 9.5 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.7	7.9	0100	
9.4	9.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
05/04/2022	5.80	4.00	5.80	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH125717
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	664,909 E 726,267 N
GROUND LEVEL (mOD)	70.97
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.70
DATE COMMENCED	17/06/2022
DATE COMPLETED	20/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT with wood fragments	
1							173351	B D	1.00	0/300mm						
2							173352	B D	2.00	0/300mm						
3							173353	B D	3.00	0/300mm						
4							173354	B D	4.00	2/300mm		66.97		4.00		
														4.80	Very soft grey SILT with many wood fragments	
5							173355	B D	5.00	7/300mm		66.17		5.60	Soft grey peaty SILT.	
6							173356	B D	6.00	33/300mm		65.37			Very stiff grey slightly sandy slightly gravelly CLAY with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
7							173357	B D	7.00	50/235mm				7.70		
										50/0mm		63.27			End of Borehole at 7.7 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.7	7.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH125870**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	665,064 E 726,295 N
GROUND LEVEL (mOD)	69.03
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.30
DATE COMMENCED	20/06/2022
DATE COMPLETED	21/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT	
1							173358	B D	1.00	2/300mm				1.40		
												67.63			Medium dense brown very sandy clayey/silty GRAVEL with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
2							173359	B D	2.00	10/300mm				2.60		
												66.43			Stiff grey slightly sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3							173360	B D	3.00	15/300mm						
4							173361	B	4.00	33/300mm						
														5.00		
5							173362	B	5.00	36/300mm		64.03			Very stiff grey sandy gravelly CLAY with high cobble content. Sand is fine. Gravel is subangular to angular, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
6							173363	B	6.00	50/245mm						
7							173364	B	7.00	50/255mm						
8							173365	B	8.00	50/0mm				8.30		
												60.73			End of Borehole at 8.3 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8.3	8.3	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
21/06/2022	5.00	2.50	5.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
21-06-22	5.00	5.00	2.00	

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH126124**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	665,308 E 726,319 N
GROUND LEVEL (mOD)	69.72
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	5.00
DATE COMMENCED	21/06/2022
DATE COMPLETED	22/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1							173366	D B	1.00	0/300mm				1.80		
2							173367	D B	2.00	3/300mm		67.92			Firm grey slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
3							173368	D B	3.00	15/300mm			1			
4							173369	D B	4.00	14/300mm			1	5.00		
5							173370	D B	5.00			64.72			Obstruction End of Borehole at 5 (m)	
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5	5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.50	4.50	5.00	4.00	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH126200
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	665,393 E 726,318 N
GROUND LEVEL (mOD)	70.51
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.80
DATE COMMENCED	27/06/2022
DATE COMPLETED	28/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1								B D	1.00	0/300mm				1.50		
												69.01			Very soft grey peaty SILT.	
2								B D	2.00	6/300mm				2.00		
												68.51			Soft to firm grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3								B D	3.00	8/300mm				3.40		
												67.11			Stiff grey slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
4								B D	4.00	36/300mm						
5								B D	5.00	37/300mm			1			
6								B D	6.00	38/300mm			1	6.80		
												63.71				
7																
8																
9																
														10.00		
10												60.51			End of Borehole at 6.8 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.8	6.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.20	6.00		5.30	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
28-06-22	7.00	7.00	4.20	

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH126602
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	665,803 E 726,360 N
GROUND LEVEL (mOD)	67.33
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.60
DATE COMMENCED	22/06/2022
DATE COMPLETED	23/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												67.13		0.20	TOPSOIL Very soft dark brown pseudo-fibrous PEAT.	
1								B D	1.00	0/300mm				1.80		
2								B D	2.00	11/300mm		65.53 65.33		2.00	Very soft grey peaty SILT. Firm to stiff grey brown slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
3								B D	3.00	20/300mm						
4								B D	4.00	44/300mm		63.33		4.00	Very stiff dark grey slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to medium, limestone. Cobbles are subangular to subrounded, limestone.	
5								B D	5.00	43/300mm						
6								B D	6.00	50/200mm						
7								B D	7.00	50/0mm						
8								B D	8.00	50/0mm						
9								B D	9.00	50/0mm				9.60		
10												57.73			End of Borehole at 9.6 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
9.6	9.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH126725
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	665,916 E 726,358 N
GROUND LEVEL (mOD)	67.73
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.10
DATE COMMENCED	28/06/2022
DATE COMPLETED	28/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1							173393	B D	1.00	0/300mm				1.40		
												66.33			Soft becoming stiff with depth grey slightly gravelly sandy SILT. Gravel is subangular to subrounded, fine to coarse, limestone.	
2							173394	B D	2.00	5/300mm						
3							173395	B D	3.00	18/300mm				3.50		
												64.23			Stiff grey slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
4							173396	B D	4.00	20/300mm						
5							173397	B D	5.00	42/300mm				5.00		
												62.73	1		Very stiff dark grey slightly sandy gravelly CLAY with high cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
6							173398	B D	6.00	50/280mm						
7							173399	B D	7.00	50/0mm			1	7.10		
												60.63			End of Borehole at 7.1 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.5	4.7	0100	
7.1	7.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.80	6.50		5.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH126900
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	666,090 E 726,375 N
GROUND LEVEL (mOD)	67.64
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.80
DATE COMMENCED	27/06/2022
DATE COMPLETED	28/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1							173387	B D	1.00	0/300mm				1.50		
												66.14			Very soft grey peaty SILT.	
2							173388	B D	2.00	6/300mm				2.00		
												65.64			Soft grey sandy slightly gravelly SILT. Gravel is subangular to subrounded, fine to coarse, limestone.	
3							173389	B D	3.00	8/300mm				3.40		
												64.24			Stiff dark grey slightly sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to medium, limestone. Cobbles are subangular to subrounded, limestone.	
4							173390	B D	4.00	36/300mm						
5							173391	B D	5.00	37/300mm			1			
6							173392	B D	6.00	38/300mm			1	6.80		
7												60.84			End of Borehole at 6.8 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.8	6.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.20	6.00		5.30	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
28-06-22	5.00	5.00	4.20	

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH127002
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	666,190 E 726,401 N
GROUND LEVEL (mOD)	67.85
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.20
DATE COMMENCED	24/06/2022
DATE COMPLETED	24/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1							173380	B D	1.00	0/300mm				1.80		
2							173381	B D	2.00	5/300mm		66.05			Very soft grey slightly sandy slightly gravelly SILT. Sand is fine. Gravel is angular to subangular, fine to medium, limestone.	
3							173382	B D	3.00	6/300mm		64.95		2.90	Soft to firm grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
4							173383	B D	4.00	10/300mm			1			
5							173384	B D	5.00	45/300mm		63.35		4.50	Very stiff dark grey slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to medium, limestone. Cobbles are subangular to subrounded, limestone.	
6							173385	B D	6.00	50/225mm						
7							173386	B D	7.00	50/0mm			1	7.20		
												60.65			End of Borehole at 7.2 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.2		0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.90	6.00		4.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH127452
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	666,637 E 726,436 N
GROUND LEVEL (mOD)	69.23
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.50
DATE COMMENCED	06/04/2022
DATE COMPLETED	06/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0																
							174201	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							174202	D B	1.20	0/300mm			1			
2								U	2.00					2.40		
												66.83			Loose grey sandy silty GRAVEL with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3							174203	D B	3.00	0/300mm						
4							174204	D B	4.00	25/300mm			1	4.00		
												65.23			Very dense/dense grey sandy silty GRAVEL with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subrounded, limestone.	
5							174205	D B	5.00	50/75mm						
6							174206	D B	6.00	35/300mm						
7							174207	D B	7.00	52/300mm				7.50		
										50/75mm		61.73			obstruction End of Borehole at 7.5 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.1	5.3	0100	
6.6	6.7	0100	
7.4	7.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00		1.20	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
07-04-22	6.00	6.00	3.00	Start of Day
07-04-22	7.50	0.00	3.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH128127
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	667,186 E 726,840 N
GROUND LEVEL (mOD)	71.68
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.30
DATE COMMENCED	07/04/2022
DATE COMPLETED	08/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174208	B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							174209	D	1.20	0/300mm						
2							174210	B	2.00	0/300mm						
								U	2.50							
3							174211	B	3.00	4/300mm		68.68		3.00	Soft grey slightly gravelly slightly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
4							174212	B	4.00	25/300mm		67.68		4.00	Very stiff grey gravelly slightly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
5							174213	B	5.00	43/300mm		66.68	1	5.00	Very stiff grey gravelly slightly sandy CLAY with medium to high cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
6							174214	B	6.00	36/300mm						
7							174215	B	7.00	50/75mm						
8							174216	B	8.00	44/300mm			1			
9										50/150mm				9.30		
										50/75mm		62.38			obstruction	
10										50/50mm					End of Borehole at 9.3 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.1	7.3	0100	
9.1	9.3	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
8.00	8.00		5.00	20	Rapid

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
07/04/2022	9.00	8.00	9.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
08-04-22	9.30	0.00	5.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH128605
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	667,531 E 727,170 N
GROUND LEVEL (mOD)	73.49
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	5.70
DATE COMMENCED	28/06/2022
DATE COMPLETED	29/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0								B D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
1								B D	1.20	0/300mm				1.80		
2								B D	2.00	2/300mm		71.69			Very soft to firm grey sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3								B D	3.00	4/300mm						
4								B D	4.00	13/300mm						
5								B D	5.00	50/230mm				5.70		
6										50/0mm		67.79			End of Borehole at 5.7 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.6	5.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH129405
SHEET Sheet 1 of 1

CO-ORDINATES(_) 668,139 E
727,692 N
GROUND LEVEL (mOD) 74.68

RIG TYPE Dando 2000
RC FLUSH MEDIUM
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 3.00

DATE COMMENCED 11/04/2022
DATE COMPLETED 11/04/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY P.Allen
PROCESSED BY C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174217	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							174218	D B	1.20	0/300mm				1.80		
2							174219	D B	2.00	0/300mm		72.88	1	2.60	Very soft grey gravelly slightly sandy CLAY with low cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
												72.08	1	3.00		
3										50/75mm		71.68			Very stiff grey gravelly sandy CLAY with high cobble content. Gravel is fine to coarse. Gravel and cobbles are subrounded to subangular predominantly of limestone Obstruction End of Borehole at 3 (m)	
4																
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2.9	3	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.00	3.00		2.50	20	Moderate

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
11-04-22	3.00	0.00	2.50	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH129405A**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	668,139 E 727,692 N
GROUND LEVEL (mOD)	74.68
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	5.00
DATE COMMENCED	11/04/2022
DATE COMPLETED	12/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft brown pseudo fibrous PEAT with bog deal	
1										0/300mm				1.80		
2										0/300mm		72.88		2.60	Very loose grey silty sandy GRAVEL. Gravel is subangular to subrounded, fine to coarse, limestone.	
3										50/75mm		72.08			Very stiff grey brown slightly gravelly slightly sandy CLAY with medium cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
4										48/300mm				4.50		
5										50/75mm		70.18		5.00	Dense grey silty sandy GRAVEL with medium cobble content. Gravel is fine to coarse. Gravel and Cobbles are subrounded to subangular, limestone	
												69.68			Obstruction End of Borehole at 5 (m)	
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.1	3.2	0100	
4.9	5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.00	3.00		2.50	20	Moderate
5.00	5.00		2.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
12-04-22	5.00	0.00	2.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH130005
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	668,581 E 728,091 N
GROUND LEVEL (mOD)	72.81
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.00
DATE COMMENCED	12/04/2022
DATE COMPLETED	13/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174223	D B D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
														1.00		
1							174224	D B D	1.20	11/300mm		71.81			Firm to very stiff dark grey slightly sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone.	
2							174225	D B D	2.00	7/300mm						
3							174226	D B D	3.00	50/0mm			1			
4							174227	D B D	4.00	50/225mm		68.81	1	4.00	Very dense grey silty sandy GRAVEL with medium cobble content. Sand is fine. Gravel is subangular to angular, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
5							174228	D B D	5.00	50/190mm						
														6.00		
6										50/75mm		66.81			Obstruction End of Borehole at 6 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.1	3.3	0100	
5.9	6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00		3.00	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
13/04/2022	5.50	4.00	5.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
13-04-22	6.00	0.00	3.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH130451
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	668,941 E 728,357 N
GROUND LEVEL (mOD)	74.03
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.50
DATE COMMENCED	13/04/2022
DATE COMPLETED	14/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174229	B D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
1							174230	B D	1.20	0/300mm			1			
2								U	2.00					2.10		
												71.93			Very soft grey sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse, limestone. Blowing gravel from 3 - 5m overnight. Borehole redrilled.	
3							174231	B D	2.50	1/300mm						
								U	3.00							
							174232	B D	3.50	6/300mm						
4							174233	B D	4.00	1/300mm				4.50		
												69.53			Very dense grey silty sandy GRAVEL with medium cobble content. Sand is fine. Gravel is subangular to angular, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
5							174234	B D	5.00	50/225mm			1			
6										40/105mm				6.50		
										50/60mm		67.53			Obstruction End of Borehole at 6.5 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.3	5.5	0100	
6.3	6.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00		1.50	20	Rapid

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14/04/2022	6.00	4.50	6.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-04-22	6.50	0.00	1.50	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH131203
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	669,688 E 728,461 N
GROUND LEVEL (mOD)	73.50
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.50
DATE COMMENCED	19/04/2022
DATE COMPLETED	20/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174235	D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
							176235	B								
								D								
1							174236	D	1.20	1/300mm			2			
							176236	B								
								D								
2								U	2.00				1	2.50		
							174237	D	2.50	0/300mm		71.00			Very soft grey sandy SILT. Sand is fine to coarse	
							176237	B								
								D						3.30		
3							174238	D	3.00	17/300mm		70.20			Very stiff dark grey slightly sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to medium, limestone. Cobbles are subangular to subrounded, limestone.	
							176238	B								
								D								
4							174239	D	4.00	33/300mm						
							176239	B								
								D								
5							174240	D	5.00	37/300mm			2			
							176240	B								
								D								
6							174241	D	6.00	19/300mm					Becoming Hard from 6.0mbgl	
							176241	B								
								D								
7							174242	D	7.00	50/150mm						
							176242	B						7.50		
								D		50/75mm		66.00			Obstruction End of Borehole at 7.5 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.8	6	0100	
7.4	7.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.50	2.50		1.50	20	Slow
5.00	5.00		1.50	20	Rapid

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
20-04-22	7.50	0.00	1.50	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH131836
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	670,310 E 728,603 N
GROUND LEVEL (mOD)	74.95
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.00
DATE COMMENCED	21/04/2022
DATE COMPLETED	22/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174115	B D	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							174116	B D	1.20	0/300mm						
2								U	2.00				2			
							174117	B D	2.50	0/300mm						
3								U	3.00							
							174118	B D	3.50	1/300mm						
4							174120	B D	4.00	2/300mm		70.95		4.00	Soft grey brown slightly sandy SILT. Sand is fine to coarse	
5							174121	B D	5.00	1/300mm			1			
6							174122	B D	6.00	12/300mm		68.95	2	6.00	Medium dense grey clayey/silty sand GRAVEL with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
7							174123	B D	7.00	16/300mm		67.95		7.00	Very stiff grey gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
8							174124	B D	8.00	44/300mm						
9										50/75mm		65.95		9.00	Obstruction End of Borehole at 9 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.8	7.9	0100	
8.9	9	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00		2.00	20	Moderate
6.00	6.00		2.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
22-04-22	9.00	0.00	2.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH132133
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	670,461 E 728,851 N
GROUND LEVEL (mOD)	77.30
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	3.00
DATE COMMENCED	30/06/2022
DATE COMPLETED	01/07/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	PA
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.50	Soft dark brown peaty TOPSOIL.	
							171098	B D	0.50			76.80			Soft grey brown slightly sandy CLAY. Sand is fine to coarse	
1							171099	B D	1.20	8/300mm				1.80		
2							171100	B D	2.00	41/300mm		75.50	1		Very stiff brown slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
3										50/95mm		74.30	1	3.00	End of Borehole at 3 (m)	
4																
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2.9	3	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.00	3.00		2.50	20	Slow

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH132817
SHEET Sheet 1 of 2

CO-ORDINATES(_) 670,763 E
729,479 N
GROUND LEVEL (mOD) 80.55

RIG TYPE Knebel
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm)
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 12.00

DATE COMMENCED 23/08/2022
DATE COMPLETED 23/08/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
												80.20		0.35	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy CLAY	
										41/300mm				1.80	SYMMETRIX DRILLING: No recovery, observed by driller as returns of brown cobbly CLAY	
												78.75		2.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of light brown CLAY	
												78.55		2.40	SYMMETRIX DRILLING: No recovery, observed by driller as returns of brown SILT	
										50/85mm		78.15		3.50	SYMMETRIX DRILLING: No recovery, observed by driller as returns of silty GRAVEL.	
												77.05		3.80	SYMMETRIX DRILLING: No recovery, observed by driller as returns of BOULDER	
										50/225mm		76.75	1 1	4.80	SYMMETRIX DRILLING: No recovery, observed by driller as returns of silty GRAVEL.	
												75.75		6.30	SYMMETRIX DRILLING: No recovery, observed by driller as returns of yellow/brown GRAVEL.	
										58/0mm		74.25		12.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of ROCK	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS End of Borehole at 12 (m)

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.80	4.80		4.80		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
23-08-22	12.00	6.30	1.40	Water level recorded 5 mins after end of drilling.

REMARKS Hole cased 0.00-6.30m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH132817
SHEET Sheet 2 of 2

CO-ORDINATES(_) 670,763 E
729,479 N
GROUND LEVEL (mOD) 80.55

RIG TYPE Knebel
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm)
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 12.00

DATE COMMENCED 23/08/2022
DATE COMPLETED 23/08/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12												68.55				
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hole cased 0.00-6.30m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH133229
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	670,884 E 729,846 N
GROUND LEVEL (mOD)	84.03
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.00
DATE COMMENCED	04/03/2022
DATE COMPLETED	07/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												83.73		0.30	TOPSOIL	
							174177	D B	0.50						Soft brown slightly gravelly slightly sandy CLAY with low cobble and boulder content. Gravel, cobbles and boulders are subrounded to subangular predominately of limestone	
1							174178	D B	1.20	7/300mm						
2								U	2.00							
							174179	D B	2.50	8/300mm				3.00		
3								U	3.00			81.03			Very stiff brown gravelly slightly sandy CLAY with low cobble and boulder content. Gravel, cobbles and boulders are subrounded to subangular predominately of limestone	
							174180	D B	3.50	37/300mm						
4							174181	D B	4.00	39/300mm						
5							174182	D B	5.00	50/75mm				6.00		
6										50/75mm		78.03			Obstruction End of Borehole at 6 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.7	4.9	0100	
5.8	6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH133258
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	670,931 E 729,877 N
GROUND LEVEL (mOD)	84.01
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.70
DATE COMMENCED	07/03/2022
DATE COMPLETED	08/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	TOPSOIL	
							174183	D B	0.50			83.71			Stiff brown gravelly slightly sandy CLAY with medium cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
1							174184	D B	1.20	9/300mm						
													1.1			
2							174185	D B	2.00	21/300mm						
3							174186	D B	3.00	23/300mm						
4							174187	D B	4.00	24/300mm						
5							174188	D B	5.00	27/300mm				5.50		
												78.51			stiff becoming very stiff grey brown gravelly slightly sandy CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
6							174189	D B	6.00	25/25mm						
7							174190	D B	7.00	50/125mm						
8							174191	D B	8.00	50/40mm				8.70		
										50/10mm		75.31			Obstruction End of Borehole at 8.7 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.1	6.3	0100	
8.6	8.7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.00	2.00		2.00	20	Seepage

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH133311
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	670,916 E 729,917 N
GROUND LEVEL (mOD)	83.93
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.00
DATE COMMENCED	09/03/2022
DATE COMPLETED	21/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	TOPSOIL	
							179151	D B	0.50			83.63			Soft brown gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
1							179152	D B	1.20	6/300mm				1.50		
												82.43			Firm/stiff brown gravelly slightly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles are subrounded to subangular, limestone	
2								U	2.00							
							179153	D B	2.50	10/300mm						
3							179154	D B	3.00	13/300mm						
4							179155	D B	4.00	20/300mm						
5							179156	D B	5.00	27/300mm				5.50		
												78.43			Very stiff grey slightly gravelly slightly sandy CLAY with medium to high cobble and boulder content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
6							179157	D B	6.00	50/95mm						
7							179158	D B	7.00	48/300mm						
														8.00		
8										50/75mm		75.93			Obstruction End of Borehole at 8 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.1	6.3	0100	
7.9	8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.00	2.00		2.00	20	Seepage

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
21/03/2022	5.50	2.00	5.50	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH134500
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,015 E 730,437 N
GROUND LEVEL (mOD)	83.13
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.00
DATE COMMENCED	03/03/2022
DATE COMPLETED	04/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	TOPSOIL	
							174170	D B	0.50			82.83			Soft/firm grey brown slightly gravelly slightly sandy CLAY with medium cobble contents. Gravel and cobbles are subrounded to subangular of predominately limestone	
1							174171	D B	1.20	10/300mm			1	2.00		
2								U	2.00			81.13			Very soft grey white gravelly slightly sandy SILT. Gravel is subrounded to subangular predominately of limestone	
							174172	D B	2.50	1/300mm						
3							174173	D B	3.00	53/225mm			1	3.20		
												79.93			Very stiff grey gravelly sandy CLAY. Gravel is fine to coarse subrounded to subangular, limestone	
4							174174	D B	4.00	37/300mm						
														5.00		
5							174175	D B	5.00	50/170mm		78.13			Very stiff grey gravelly sandy CLAY with medium cobble content and boulder content. Gravel, cobbles and boulder are subangular to subrounded predominately of limestone.	
6							174176	D B	6.00	50/150mm						
														7.00		
7										50/20mm		76.13			Obstruction End of Borehole at 7 (m)	
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.3	3.5	0100	
6.9	7	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.20	3.20		2.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
04/03/2022	5.00	4.20	5.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
04-03-22	7.00	0.00	2.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH134610**
		SHEET	Sheet 1 of 2
CO-ORDINATES(_)	672,059 E 730,493 N	**RIG TYPE**	GEO-205 & Dando 2000
GROUND LEVEL (mOD)	83.37	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	78
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	11.60
		DATE COMMENCED	24/03/2022
		DATE COMPLETED	24/03/2022
		BORED BY	IGSL - DH&PA
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174164	B	0.50					1.00	Very soft brown pseudo fibrous PEAT with bog deal	
1							174165	D B	1.20	1/300mm		82.37		2.50	Very soft grey slightly gravelly slightly sandy CLAY. Gravel is subrounded to subangular of predominately limestone	
2							174166	D B	2.00	6/300mm		80.87		6.00	Very stiff grey brown gravelly sandy CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
3							174167	D B	3.00	50/200mm						
4							174168	D B	4.00	50/225mm						
5							174169	D B	5.00	50/90mm						
6										50/10mm		77.37		6.30	SYMMETRIX DRILLING: No recovery, observed by driller as returns of BOULDER	
												77.07		6.80	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey sandy gravelly SILT	
7										50/70mm		76.57			SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey silty sandy GRAVEL	
8																
9										50/45mm				9.40		
												73.97		10.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of possible ROCK	
10	10.00											73.37	1 1		Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/black mottled, fine-grained, LIMESTONE (dolomitised, local stylolites), fresh to very locally slightly weathered.	
11		100	85	61										11.60	Discontinuities are widely to closely	
	11.60											71.77				

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.4	3.6	0100	
5.9	6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
10.50	10.00		10.50		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
24-03-22	11.60	10.00	2.00	Water level recorded 5 mins after end of drilling.

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 03/03/2022 to 03/03/2022. Hole cased 0.00-10.00m. Erect Covid-19 Safe Zone - 1hr.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH134610
SHEET Sheet 2 of 2

CO-ORDINATES(_) 672,059 E
730,493 N
GROUND LEVEL (mOD) 83.37

RIG TYPE GEO-205 & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 11.60

DATE COMMENCED 24/03/2022
DATE COMPLETED 24/03/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - DH&PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared, locally slightly iron-oxide stained, locally dolomite-veined (1-20mm thick). Dips are subhorizontal, 40° & locally 70-75°.	
13																
14															End of Borehole at 11.6 (m)	
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 03/03/2022 to 03/03/2022. Hole cased 0.00-10.00m. Erect Covid-19 Safe Zone - 1hr.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH135006
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,202 E 730,885 N
GROUND LEVEL (mOD)	82.20
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.60
DATE COMMENCED	28/02/2022
DATE COMPLETED	01/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174157	D B	0.50			82.00		0.20	TOPSOIL	
														1.00	Grey brown sandy CLAY	
1							174158	D B	1.20	21/300mm		81.20	1		Medium dense becoming dense grey sandy GRAVEL with medium cobble content. Gravels are fine to coarse. Gravel and cobbles are rounded to subangular predominately of limestone Water added to assist drilling from 1.2mbgl	
2							174159	D B	2.00	25/300mm						
3							174160	D B	3.00	50/75mm						
4							174161	D B	4.00	50/245mm				4.60		
5							174162	D B	5.00	32/225mm		77.60			Stiff/very stiff grey brown gravelly CLAY with medium cobble content. Gravel and cobbles are subrounded to subangular predominantly of limestone.	
6							174163	D B	6.00	50/40mm				6.60		
										50/0mm		75.60			Obstruction End of Borehole at 6.6 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3.4	4	0200	
4	4.4	0100	
6.6	6.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00	No	1.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
01/03/2022	4.50	2.50	4.50	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-03-22	6.60	6.60	1.50	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. Standing 1.5hrs waiting for installation details

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH135163
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	672,302 E 731,007 N
GROUND LEVEL (mOD)	83.39
RIG TYPE	GEO-205 & Dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	10.90
DATE COMMENCED	23/03/2022
DATE COMPLETED	23/03/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - DH&PA
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
														0.30	TOPSOIL	
							174109	D B	0.50			83.09	2		Dense to very dense grey slightly silty sandy GRAVEL with high cobble content. Sand is fine to coarse. Gravel is subangular to rounded, fine to coarse. Cobbles re subangular to rounded, limestone.	
							174110	D B	1.20	25/75mm			3			
							174111	D B	2.00	48/300mm						
							174112	D B	3.00	50/25mm			1 1			
							174113	D B	4.00	11/300mm						
							174114	D B	5.00	50/150mm			3			
										50/75mm				6.00		
												77.39		6.30	Obstruction	
												77.09			SYMMETRIX DRILLING: No recovery, observed by driller as returns of BOULDER	
														7.00		
										86/300mm		76.39			SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown sandy GRAVEL	
														8.10		
												75.29			SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey silty sandy GRAVEL	
	8.70													8.70		
		100	51	20								74.69			SYMMETRIX DRILLING: No recovery, observed by driller as returns of possible ROCK	
	9.50	100	28	0											Strong to medium strong, medium to thinly bedded, pale grey/dark grey/black mottled, fine-grained, LIMESTONE (dolomitised, local stylolites), fresh to very locally slightly weathered.	
	9.90	100	77	42										10.90		
	10.90											72.49			Discontinuities are medium to closely spaced, smooth to locally	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3	3.2	0100	
3.7	3.7	0200	
5	5	0200	
5.8	6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.50	3.50		3.50		Slow
3.70	3.70		1.00	20	Moderate
5.00	5.00		1.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
24-02-22	6.00	6.00	1.50	End of Borehole
23-03-22	10.90	8.70	2.20	Water level recorded 5 mins after end of drilling.

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 23/02/2022 to 24/02/2022.Hole cased 0.00-8.70m. Erect Covid-19 Safe Zone - 1hr.

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH135163**
		SHEET	Sheet 2 of 2
CO-ORDINATES(_)	672,302 E 731,007 N	**RIG TYPE**	GEO-205 & Dando 2000
GROUND LEVEL (mOD)	83.39	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	78
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	10.90
		DATE COMMENCED	23/03/2022
		DATE COMPLETED	23/03/2022
		BORED BY	IGSL - DH&PA
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally clay-smeared, locally strongly iron-oxide stained, locally dolomite-veined (1-15mm thick). Dips are subhorizontal, 30°, 70-75° & locally irregular.	
13																
14															End of Borehole at 10.9 (m)	
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 23/02/2022 to 24/02/2022.Hole cased 0.00-8.70m. Erect Covid-19 Safe Zone - 1hr.

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH135207
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,346 E 731,020 N
GROUND LEVEL (mOD)	83.46
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	6.00
DATE COMMENCED	23/02/2022
DATE COMPLETED	24/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	TOPSOIL	
							174109	D B	0.50			83.16	1		Dense to very dense grey sandy clayey GRAVEL with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and rounded to subangular of predominately limestone	
1							174110	D B	1.20	25/75mm			2			
2							174111	D B	2.00	49/300mm						
3							174112	D B	3.00	50/25mm			1			
4							174113	D B	4.00	11/300mm					Blowing sands encountered @ 3.7mbgl, borehole blew back to 2.0mbgl	
5							174114	D B	5.00	25/75mm			2		Blowing sands encountered @ 5.0mbgl, borehole blew back to 3.0mbgl	
														6.00		
6										50/0mm		77.46			Obstruction End of Borehole at 6 (m)	
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
3	3.2	0100	
3.7	3.7	0200	
5	5	0200	
5.8	6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.70	3.70		1.00	20	Moderate
5.00	5.00		1.50	20	Moderate

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
24-02-22	6.00	0.00	1.00	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH135283
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,417 E 731,037 N
GROUND LEVEL (mOD)	82.70
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	1.50
DATE COMMENCED	25/02/2022
DATE COMPLETED	25/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174151	D	0.50			82.20		0.50	Very soft brown pseudo fibrous PEAT	
1							174152	B D B	1.00	50/75mm 50/0mm		81.20		1.50	Very dense grey brown sandy GRAVEL with medium cobble and boulder content. Gravel and cobbles and rounded to subangular of limestone Obstruction End of Borehole at 1.5 (m)	
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.4	1.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH135283A
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,417 E 731,037 N
GROUND LEVEL (mOD)	82.70
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	4.00
DATE COMMENCED	28/02/2022
DATE COMPLETED	28/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.50	Very soft brown pseudo fibrous PEAT	
							174153	D B	0.50			82.20			Dense grey brown sandy clayey/silty GRAVEL with medium cobble contents. Gravel is fine to coarse. Gravel and cobbles are rounded to subangular predominately of limestone	
1							174154	D B	1.20	45/300mm						
2							174155	D B	2.00	28/300mm						
3							174156	D B	3.00	40/300mm				4.00		
4										50/75mm		78.70			Obstruction End of Borehole at 4 (m)	
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2.7	2.9	0045	
3.9	4	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH135404**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,526 E 731,100 N
GROUND LEVEL (mOD)	82.66
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	1.50
DATE COMMENCED	17/02/2022
DATE COMPLETED	17/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							152915	D B	0.50			82.36	1	0.30	Peaty TOPSOIL	
1										50/75mm			1	1.50	Very stiff grey brown slightly sandy gravelly CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to subangular predominately of limestone	
										50/0mm		81.16			Obstruction End of Borehole at 1.5 (m)	
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.4	1.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.00	1.00		0.60	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
17-02-22	1.50	0.00	0.60	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH135404A**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,526 E 731,100 N
GROUND LEVEL (mOD)	82.66
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.00
DATE COMMENCED	17/02/2022
DATE COMPLETED	21/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0													1	0.30	Peaty TOPSOIL	
							152915	D B	0.50			82.36			Stiff grey brown gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subrounded to subangular predominately of limestone	
1							152916	D B	1.20	32/225mm			1	1.50		
												81.16			Medium dense grey sandy silty GRAVEL with medium cobble content Gravel and cobbles are fine to coarse, subrounded to subangular of limestone	
2							152917	D B	2.00	19/300mm				3.00		
3							152918	D B	3.00	50/165mm		79.66			Very stiff grey brown gravelly slightly sandy CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
4							152919	D B	4.00	20/30mm						
5							152920	D B	5.00	50/150mm						
6							152921	D B	6.00	50/75mm						
7							152922	D B	7.00	50/175mm				8.00		
8										50/15mm		74.66			Obstruction End of Borehole at 8 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.4	1.6	0045	
5.8	6	0100	
6	6.3	0100	
8	8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.50	1.50		0.30	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
21/02/2022	5.00	2.00	5.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
21-02-22	8.00	0.00	6.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH135516
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,635 E 731,134 N
GROUND LEVEL (mOD)	83.39
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.00
DATE COMMENCED	22/02/2022
DATE COMPLETED	23/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.30	Peaty TOPSOIL	
							174101	D B	0.50			83.09			Firm brown slightly gravelly slightly sandy CLAY with medium cobble content. Gravel and Cobbles are subrounded to subangular of limestone	
1							174102	D B	1.20	17/300mm						
2							174103	D B	2.00	10/300mm				2.70		
												80.69			Very stiff grey brown gravelly sandy CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
3							174104	D B	3.00	43/300mm						
4							174105	D B	4.00	50/75mm						
5							174106	D B	5.00	50/40mm						
6							174107	D B	6.00	30/300mm						
7							174108	D B	7.00	50/190mm				8.00		
8										50/20mm		75.39			Obstruction End of Borehole at 8 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.1	5.3	0100	
7.9	8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
23-02-22	5.00	5.00	4.00	Start of Day
23-02-22	8.00	0.00	4.00	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH135695
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,709 E 731,297 N
GROUND LEVEL (mOD)	81.61
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	15/02/2022
DATE COMPLETED	16/02/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												81.31		0.30	peaty TOPSOIL	
							162925	D B	0.50						Very soft grey brown slightly gravelly slightly sandy CLAY	
1							162926	D B	1.20	4/300mm			1			
2								D U	2.00				1	2.50		
							162927	D B	2.50	7/300mm		79.11			Soft/firm grey brown slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular of limestone	
3										17/300mm						
4								D U	4.00							
							162928	D B	4.50	20/300mm				4.70		
5							162929	D B	5.00	23/300mm		76.91	2		Stiff grey slightly gravelly slightly sandy CLAY with medium cobble and boulder content. Gravel and cobbles are subrounded to subangular of predominately of limestone	
6							162930	D B	6.00	33/300mm			2			
7							162931	D B	7.00	32/300mm				7.80		
8							162932	D B	8.00	50/225mm		73.81			Very stiff white gravelly slightly sandy CLAY. Gravel is subrounded to subangular of predominately of limestone	
9							162933	D B	9.00	46/300mm						
10														10.00		
												71.61			Termination depth achieved. End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.1	6.2	0100	
7.6	7.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.50	2.50	No	2.00	20	Moderate
6.00	6.00	No	5.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
15/02/2022	6.00	2.50	6.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH136995
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	672,994 E 732,550 N
GROUND LEVEL (mOD)	86.41
RIG TYPE	Knebel & Dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	9.75
DATE COMMENCED	21/07/2022
DATE COMPLETED	22/07/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN & WB
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT with wood fragments	
1							178357	B D	1.00	0/300mm						
2							178358	B D	2.00	0/300mm			1	2.40		
												84.01			Stiff dark grey slightly sandy gravelly CLAY with medium cobble content. Sand is fine. Gravel is subangular to angular, fine to coarse, limestone. Cobbles are subangular to subrounded, limestone.	
3							178359	B D	3.00	20/300mm						
4							178360	B D	4.00	23/300mm			1	4.80		
5							178361	B	4.80	50/0mm		81.61			Obstruction SYMMETRIX DRILLING: No recovery, observed by driller as returns of brown GRAVEL	
														6.00		
6	6.20											80.41		6.20	SYMMETRIX DRILLING: No recovery, observed by driller as returns of ROCK	
		100	68	52								80.21			Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/brownish grey, fine-grained, LIMESTONE (local stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining, evidence of small-scale solution weathering), fresh to very locally slightly weathered.	
7	7.65															
		100	92	92												
8	8.15					950.000000000001										
		100	98	98												
9	8.95															
		100	95	95		800.000000000001									Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally stepped. Apertures are tight to locally moderately open, locally clay-smeared, commonly calcite/dolomite-veined (1-20mm thick). Dips are subhorizontal & locally 45° & 75°.	
	9.75													9.75		
10												76.66			End of Borehole at 9.75 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.7	4.8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.10	4.00		2.10	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
22/07/2022	5.00	3.50	5.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-07-22	4.10	4.00	2.10	
22-07-22	9.75	6.20	1.28	Water level recorded 5 mins after end of drilling.

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 01/07/2022 to 04/07/2022. Hole cased 0.00-6.20m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH137604
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	673,490 E 732,898 N
GROUND LEVEL (mOD)	87.10
RIG TYPE	Knebel & Dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	78
BOREHOLE DEPTH (m)	10.40
DATE COMMENCED	20/07/2022
DATE COMPLETED	20/07/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN & WB
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1							178362	B D	1.00	0/300mm						
2							178363	B D	2.00	0/300mm		85.10		2.00	Very soft dark brown pseudo-fibrous PEAT with wood fragments	
3							178364	B D	3.00	13/300mm			1	3.30		
												83.80		4.00	Firm dark grey slightly sandy slightly gravelly SILT with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone.	
4							178365	B D	4.00	26/300mm		83.10	1		SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey SILT	
5										29/300mm			2 2			
6														6.30		
												80.80			SYMMETRIX DRILLING: No recovery, observed by driller as returns of cobbly bouldery GRAVEL	
7										50/150mm						
8														8.50		
	8.50	100	62	30						50/0mm		78.60			Strong to medium strong, thickly to thinly bedded, pale grey/dark grey/brownish grey, fine-grained, LIMESTONE (local stromatactic structure, locally dolomitised, local stylolites, common dolomite/calcite veining, evidence of small-scale solution weathering), fresh to very locally slightly weathered. Discontinuities are widely to closely spaced, smooth to locally rough, planar to locally curviplanar. Apertures are tight to locally moderately open, locally	
9	9.00	100	94	81	610.000000000001											
10														10.40		
	10.40											76.70				
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.4	4.4	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.30	4.30		3.50	20	Slow
5.60	5.60		5.60		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
20/07/2022	6.00	4.00	6.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
20-07-22	10.40	8.50	4.35	Water level recorded 5 mins after end of drilling.

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 05/07/2022 to 05/07/2022.Hole cased 0.00-6.40m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH137604
SHEET Sheet 2 of 2

CO-ORDINATES(_) 673,490 E
732,898 N
GROUND LEVEL (mOD) 87.10

RIG TYPE Knebel & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) 78
BOREHOLE DEPTH (m) 10.40

DATE COMMENCED 20/07/2022
DATE COMPLETED 20/07/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN & WB
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															clay-smeared, commonly calcite/dolomite-veined (1-20mm thick). Dips are subhorizontal & locally 45° & 75°.	
13															End of Borehole at 10.4 (m)	
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
20/07/2022	6.00	4.00	6.00	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 05/07/2022 to 05/07/2022.Hole cased 0.00-6.40m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH138802**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	674,658 E 733,037 N	**RIG TYPE**	Knebel & Dando 2000
GROUND LEVEL (mOD)	86.80	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	10.00
		DATE COMMENCED	18/07/2022
		DATE COMPLETED	19/07/2022
		BORED BY	IGSL - MN & PA
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0								B D	0.50						Very soft dark brown pseudo-fibrous PEAT.	
1								B D	1.20	1/300mm		85.60		1.20	Soft to firm dark grey slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone.	
2								B D	2.00	9/300mm						
3								B D	3.00	9/300mm						
4								B D	4.00	15/300mm						
5								B D	5.00	50/155mm						
										50/0mm		81.30	1 1	5.50	Obstruction SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey slightly sandy gravelly silty CLAY with medium cobble content.	
7										43/300mm		79.80		7.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of GRAVEL.	
8										50/235mm		78.30		8.50	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL.	
9														10.00		
10										50/165mm		76.80			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
5.3	5.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.80	5.80		5.80		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
19/07/2022	6.00	2.00	6.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
19-07-22	10.00	10.00	8.25	Water level recorded 5 mins after end of drilling.

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 30/06/2022 to 30/06/2022. Hole cased 0.00-10.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH139159
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	675,004 E 732,933 N
GROUND LEVEL (mOD)	86.88
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.00
DATE COMMENCED	17/05/2022
DATE COMPLETED	16/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174134	B D B	0.50						Very soft brown pseudo-fibrous PEAT with frequent decayed wood fragments.	
1							174135	B D B	1.20	0/300mm 0/300mm						
2								U	2.00							
3							174136	B D D U B B D U B D B	2.50 3.00 3.50	1/300mm 0/300mm						
4							174137		4.00	1/300mm				4.40		
5							174138	B D B	5.00	6/300mm		82.48			Soft becoming firm, grey slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded fine to coarse limestone. Cobbles are subangular to subrounded, limestone.	
6							174139	B D B	6.00	10/300mm						
7							174140	B D B	7.00	15/300mm						
8							174141	B D B	8.00	14/300mm				9.00		
9										50/75mm		77.88			Obstruction End of Borehole at 9 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8.8	9	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH139202
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	675,038 E 732,971 N
GROUND LEVEL (mOD)	86.95
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	26/04/2022
DATE COMPLETED	26/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174124	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							174125	D B	1.20	0/300mm						
2								U	2.00							
							174126	D B	2.50	0/300mm						
3								U	3.00							
							174127	D B	3.50	0/300mm				4.00		
4							174128	D B	4.00	0/300mm		82.95			Very soft grey slightly gravelly slightly sandy SILT. Gravel is subangular to subrounded fine to coarse limestone.	
													1	5.00		
5							174129	D B	5.00	2/300mm		81.95			Very soft grey gravelly sandy CLAY. Gravel is subangular to subrounded fine to coarse limestone. Below 5m: Becoming gravelly.	
6								U	6.00							
														7.00		
7							174130	D B	7.00	15/300mm		79.95			Firm becoming very stiff grey gravelly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles are subrounded to subangular	
8							174131	D B	8.00	28/300mm						
9							174132	D B	9.00	49/300mm						
														10.00		
10												76.95			Termination depth achieved End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
9.8	10	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.00	6.00		5.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
26/04/2022	7.00	6.00	7.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
26-04-22	10.00	0.00	5.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH139752
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	675,426 E 733,363 N
GROUND LEVEL (mOD)	87.15
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	27/04/2022
DATE COMPLETED	27/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							174243	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							174244	D B	1.20	0/300mm						
2								U	2.00							
							174245	D B	2.50	0/300mm						
3								U	3.00							
							174246	D B	3.50	0/300mm						
4								U	4.00							
							174247	D B	4.50	2/300mm			1			
							174248	D B	5.00	9/300mm		82.15		5.00	Firm grey gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
6							174249	D B	6.00	11/300mm						
7							174250	D B	7.00	14/300mm						
							174251	D B	8.00	49/300mm		79.15	1	8.00	Very stiff grey gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
9							174252	D B	9.00	45/300mm						
														10.00		
10												77.15			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8.4	8.5	0030	
9.5	9.7	0030	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
8.00	8.00		5.00	20	Moderate

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
27-04-22	10.00	0.00	5.00	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH139892
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	675,559 E 733,352 N
GROUND LEVEL (mOD)	86.53
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	15.00
DATE COMMENCED	28/04/2022
DATE COMPLETED	29/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							179203	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							179212	D	1.00							
							179204	B	1.20	0/300mm						
								D B								
2								U	2.00							
							179205	D B	2.50	0/300mm						
3								U	3.00							
							179206	D B	3.50	0/300mm						
4								U	4.00							
										1/300mm				4.50		
5							179207	D B	5.00	6/300mm		82.03			Soft grey gravelly sandy SILT. Gravel is fine to coarse, subrounded to subangular, limestone	
														6.00		
6							179208	D B	6.00	12/300mm		80.53			Firm grey gravelly sandy CLAY. Gravel is fine to coarse, subrounded to subangular, limestone	
														7.00		
7							179209	D B	7.00	36/300mm		79.53			Stiff to very stiff grey gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
8							179210	D B	8.00	40/300mm						
													1	9.00		
9							179211	D B	9.00	50/150mm		77.53			Very stiff grey gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
10										50/225mm						
													1			
11							179213	D B	11.00	37/300mm						

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
9.2	9.4	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
11.00	11.00		9.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH139892**
SHEET	Sheet 2 of 2
CO-ORDINATES(_)	675,559 E 733,352 N
GROUND LEVEL (mOD)	86.53
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	15.00
DATE COMMENCED	28/04/2022
DATE COMPLETED	29/04/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12							179214	D B	12.00	47/300mm					Very stiff grey gravelly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone. *(continued)*	
13							179215	D B	13.00	50/75mm						
14							179216	D B	14.00	50/150mm				15.00		
15												71.53			End of Borehole at 15 (m)	
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
12.7	12.9	0030	
14.8	15	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
29-04-22	15.00	0.00	9.00	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH139912
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	675,587 E 733,381 N
GROUND LEVEL (mOD)	84.27
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	12.50
DATE COMMENCED	04/05/2022
DATE COMPLETED	05/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							179217	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							179218	D B	1.20	0/300mm						
2								U	2.00				1			
							179219	D B	2.50	0/300mm						
3								U	3.00					3.50		
							179220	D B	3.50	1/300mm		80.77		4.00	Very soft grey gravelly SILT. Gravel is subangular to subrounded fine to coarse limestone.	
4							179221	D B	4.00	7/300mm		80.27		5.00	Soft firm slightly gravelly slightly sandy CLAY with low cobble content. Gravel is subangular to subrounded fine to coarse limestone. Cobbles are subangular to subrounded, limestone.	
5							179222	D B	5.00	21/300mm		79.27		5.50		
												78.77			Stiff grey slightly gravelly slightly sandy CLAY with low cobble content. Gravel is subangular to subrounded fine to coarse limestone. Cobbles are subangular to subrounded, limestone.	
6							179223	D B	6.00	75/150mm				6.80		
7							179224	D B	7.00	19/300mm		77.47			Very stiff grey slightly gravelly slightly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
8							179225	D B	8.00	42/300mm		76.27		8.00		
9							179226	D B	9.00	50/300mm					Firm grey slightly gravelly slightly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
10							179227	D B	10.00	50/300mm			2		Very stiff grey slightly gravelly slightly sandy CLAY with medium cobble content. Gravel and cobbles are subangular to subrounded predominately of limestone.	
11							179228	D B	11.00	50/75mm			2			

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.2	6.5	0100	
11.1	11.3	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.00	3.00		2.50	20	Slow
11.50	11.50		10.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
05-05-22	7.00	7.00	1.00	Start of Day

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH139912**
SHEET	Sheet 2 of 2
CO-ORDINATES(_)	675,587 E 733,381 N
GROUND LEVEL (mOD)	84.27
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	12.50
DATE COMMENCED	04/05/2022
DATE COMPLETED	05/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12										50/75mm				12.50		
										50/75mm		71.77			Obstruction End of Borehole at 12.5 (m)	
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
12.3	12.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
05-05-22	12.50	0.00	2.50	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH139941**
		SHEET	Sheet 1 of 2
CO-ORDINATES(_)	675,619 E 733,376 N	**RIG TYPE**	Dando 2000
GROUND LEVEL (mOD)	83.43	**RC FLUSH MEDIUM**	
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	12.00
		DATE COMMENCED	09/05/2022
		DATE COMPLETED	10/05/2022
		BORED BY	P.Allen
		PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							170315	D B	0.50					1.20	Very soft brown pseudo fibrous PEAT with bog deal	
1							170316	D B	1.20	2/300mm		82.23		2.00	Loose brown clayey/silty sandy GRAVEL with low cobble content. Gravel is subangular to subrounded fine to coarse limestone.	
2							170317	D B	2.00	6/300mm		81.43			Soft grey slightly gravelly slightly sandy CLAY with low cobble content. Gravel and cobbles are subrounded to subangular, limestone	
3							170318	D B	3.00	6/300mm						
4								U	4.00	8/300mm						
5							170319	D B	5.00	7/300mm				5.50		
6							170320	D B	6.00	20/300mm		77.93		8.30	Stiff grey slightly gravelly slightly sandy CLAY with medium cobble and low boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular of predominantly limestone	
7							170321	D B	7.00	29/300mm			1			
8							170322	D B	8.00	40/300mm		75.13			Very stiff grey slightly gravelly slightly sandy CLAY with medium cobble content. Gravel and cobbles are subrounded to subangular, limestone	
9							170323	D B	9.00	50/150mm			1			
10							170324	D B	10.00	51/300mm						
11							170325	D B	11.00	35/150mm				12.00		

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
9.2	9.4	0100	
10.3	10.5	0100	
11.9	12	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
9.00	9.00		7.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
09-05-22	10.00	10.00	7.50	End of Borehole
10-05-22	12.00	0.00		End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH139941
SHEET Sheet 2 of 2

CO-ORDINATES(_) 675,619 E
733,376 N
GROUND LEVEL (mOD) 83.43

RIG TYPE Dando 2000
RC FLUSH MEDIUM
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 12.00

DATE COMMENCED 09/05/2022
DATE COMPLETED 10/05/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY P.Allen
PROCESSED BY C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12										50/75mm		71.43			Obstruction End of Borehole at 12 (m)	
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH140469
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	676,155 E 733,365 N
GROUND LEVEL (mOD)	79.57
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.00
DATE COMMENCED	10/05/2022
DATE COMPLETED	11/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							171064	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							171065	D B	1.20	0/300mm						
2								U	2.00							
							171066	D B	2.50	0/300mm						
3								U	3.00							
							171067	D B	3.50	1/300mm			1			
4								U	4.00	1/300mm						
							171068	D B	4.50					5.00		
5												74.57			Soft grey gravelly CLAY. Gravel is subangular to subrounded fine to coarse limestone.	
							171069	D B	5.50	8/300mm				5.80		
6							171070	D B	6.00	32/300mm		73.77			Stiff/very stiff grey gravelly sandy CLAY with medium cobble and low boulder content. Gravel is fine to coarse. Gravel, Cobbles and boulders are subrounded to subangular of limestone	
7							171071	D B	7.00	50/150mm						
													1	8.00		
8							171072	D B	8.00	47/300mm		71.57			Very dense grey clayey sandy GRAVEL with medium cobble content. Gravel is fine to coarse. Gravel and Cobbles are subrounded to angular, limestone	
														9.00		
9										50/75mm		70.57			Obstruction End of Borehole at 9 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.2	7.4	0100	
8.9	9	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
8.00	8.00		4.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
11/05/2022	9.00	8.00	9.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
11-05-22	9.00	0.00	0.00	Artesian water flowing from standpipe
11-05-22	9.00		0.40	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH140795**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	676,420 E 733,551 N
GROUND LEVEL (mOD)	79.61
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.00
DATE COMMENCED	11/05/2022
DATE COMPLETED	12/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							171074	D B	0.50						Very soft brown pseudo fibrous PEAT with bog deal	
1							171075	D B	1.00	0/300mm						
2								U	2.00							
							171076	D B	2.50	1/300mm						
3								U	3.00							
							171077	D B	3.50	1/300mm						
														4.00		
4							171078	D B	4.00	1/300mm		75.61			Very soft grey gravelly silty SAND. Sand is fine to coarse	
														5.00		
5							171079	D B	5.00	11/300mm		74.61			Firm grey gravelly sandy CLAY with low cobble content. Gravel is fine to coarse. Cobbles are rounded to subangular, limestone	
														5.80		
6							171080	D B	6.00	29/300mm		73.81			Stiff to very stiff grey gravelly sandy CLAY with medium cobble and low boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
7							171081	D B	7.00	38/300mm						
														8.00		
8										50/75mm		71.61			Obstruction End of Borehole at 8 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.2	7.3	0045	
7.9	8	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
12-05-22	7.00	7.00	6.50	Start of Day

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
12/05/2022	6.00	4.00	6.00	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH141402
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	677,032 E 733,549 N
GROUND LEVEL (mOD)	79.74
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	2.00
DATE COMMENCED	12/05/2022
DATE COMPLETED	12/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							171082	D B	0.50			79.24		0.50	Very soft brown pseudo fibrous PEAT with bog deal	
1							171083	D B	1.20	24/300mm				2.00	Stiff grey gravelly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
2										50/75mm		77.74			Obstruction End of Borehole at 2 (m)	
3																
4																
5																
6										49/75mm						
7																
8										90/300mm						
9										50/150mm						
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.9	2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH141402A
SHEET Sheet 1 of 1

CO-ORDINATES(_) 677,032 E
733,549 N
GROUND LEVEL (mOD) 79.74

RIG TYPE Knebel & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 10.00

DATE COMMENCED 24/05/2022
DATE COMPLETED 24/05/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN&PA
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.50	Very soft brown pseudo fibrous PEAT with bog deal	
							171084	D B	0.50			79.24			Firm grey brown gravelly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to subangular, limestone	
1							171085	D B	1.20	15/300mm				2.00		
2							171086	D B	2.00	6/300mm		77.74	2		Soft grey gravelly SILT. Gravel is fine to coarse. Gravel is rounded to subangular of limestone	
													1 1	3.00		
3							171087	D B	3.00	24/300mm		76.74			Stiff grey gravelly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular limestone	
													2	4.00		
4										50/75mm		75.74			Obstruction	
														5.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	
5												74.74			SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey GRAVEL	
														6.00		
6												73.74			SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey clayey silty GRAVEL	
7																
														8.00		
8												71.74		8.40	SYMMETRIX DRILLING: No recovery, observed by driller as returns of COBBLE	
												71.34			SYMMETRIX DRILLING: No recovery, observed by driller as returns of yellow/black GRAVEL	
9														10.00		
10												69.74			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.8	1.9	0100	
3.9	4	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.20	3.20		3.20		Slow
4.00	4.00		2.50	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
12-05-22	4.00	4.00	2.50	End of Borehole
24-05-22	10.00	10.00	2.10	Water level recorded 5 mins after end of drilling.

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 12/05/2022 to 12/05/2022. Hole cased 0.00-10.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH141906
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	677,503 E 733,682 N
GROUND LEVEL (mOD)	77.23
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.60
DATE COMMENCED	25/05/2022
DATE COMPLETED	25/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.40	TOPSOIL	
							174142 176142	D B D	0.50			76.83			Dense grey brown sandy GRAVEL with medium cobble content. Gravel is fine to coarse. Gravel is rounded to subangular of limestone	
1							174143 176143	D B D	1.20	36/300mm			1	2.00		
2							174144 176144	D B D	2.00	20/300mm		75.23			Medium dense grey brown sandy silty GRAVEL with medium cobble content. Gravel is fine to coarse. Gravels and cobbles are subrounded to subangular	
3							174145 176145	D B D	3.00	29/300mm			1			
4							174146 176146	D B D	4.00	50/77mm				4.50		
												72.73			Stiff grey gravelly sandy CLAY with medium cobble and low boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular of predominantly limestone	
5							174147 176147	D B D	5.00	22/300mm						
6							174148 176148	D B D	6.00	21/300mm				7.00		
7							174149 176149	D B D	7.00	15/300mm		70.23		7.50	Firm grey gravelly sandy CLAY with medium cobble and low boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular of predominantly limestone	
												69.73				
8							174150 176150	D B D	8.00	50/229mm				8.60		
										50/0mm		68.63			Very stiff grey gravelly sandy CLAY with medium cobble and low boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular of predominantly limestone Obstruction End of Borehole at 8.6 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
4.2	4.5	0100	
8.5	8.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.00	3.00		1.20	20	Slow

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
25-05-22	8.60	0.00	1.20	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH142202
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	677,787 E 733,755 N
GROUND LEVEL (mOD)	76.11
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	9.00
DATE COMMENCED	24/05/2022
DATE COMPLETED	24/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												76.01		0.10	TOPSOIL	
							174133	D B	0.50			75.61	1	0.50	Very soft brown pseudo-fibrous PEAT with frequent decayed wood fragments.	
1							174134	D B	1.20	5/300mm		75.11		1.00	Grey SILT	
															Very soft/soft grey gravelly sandy CLAY. Gravel is subangular to subrounded fine to coarse limestone.	
2							174135	D B	2.00	8/300mm		74.11		2.00	Medium dense grey brown sandy GRAVEL with medium cobble content. Gravel is fine to coarse. Gravel is rounded to subangular of limestone	
3							174136	D B	3.00	20/300mm						
4							174137	D B	4.00	6/300mm		72.11		4.00	Soft grey gravelly CLAY. Gravel is subangular to subrounded fine to coarse limestone.	
5							174138	D B	5.00	23/300mm		71.11		5.00	Stiff grey SILT	
6							174139	D B	6.00	30/300mm				6.50		
7							174140	D B	7.00	37/300mm		69.61			Stiff/very stiff grey gravelly sandy CLAY with medium coble and low boulder content. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to angular predominately of limestone	
8							174141	D B	8.00	41/300mm				9.00		
9										50/75mm		67.11			Obstruction End of Borehole at 9 (m)	
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
7.4	7.6	0100	
8.6	8.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.00	2.00		1.00	20	Moderate

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
24-05-22	9.00	0.00	1.00	End of Borehole

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH142295
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	677,888 E 733,747 N
GROUND LEVEL (mOD)	76.25
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	1.50
DATE COMMENCED	14/05/2022
DATE COMPLETED	14/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.50	Very soft brown pseudo fibrous PEAT with bog deal	
							170327	D	0.50			75.75				
1							171328	B D	1.00	50/300mm		75.25		1.00	Grey slightly sandy gravelly SILT. Gravel is subangular to subrounded fine to coarse limestone.	
								B						1.50	Very dense grey brown sandy GRAVEL with medium cobble content. Gravel is subangular to subrounded fine to coarse limestone. Cobbles are subangular to subrounded, limestone.	
												74.75			Obstruction End of Borehole at 1.5 (m)	
2										50/75mm						
3																
4																
5																
6																
7																
8																
9										50/40mm						
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.4	1.5	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.30	1.30		1.30		Slow

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
20/05/2022	5.00	1.50	5.00	50mm SP

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH142295A**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	677,888 E 733,747 N
GROUND LEVEL (mOD)	76.25
RIG TYPE	Knebel & Dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	10.00
DATE COMMENCED	19/05/2022
DATE COMPLETED	20/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN&PA
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0													1	0.50	Very soft brown pseudo fibrous PEAT with bog deal	
							170329	D B	0.50			75.75	1			
1														1.00	Grey silty sandy GRAVEL. Gravel is subangular to subrounded fine to coarse limestone.	
							170330	D B	1.20	15/300mm		75.25			Medium dense grey brown sandy silty GRAVEL with medium cobble content. Gravel is fine to coarse. Gravels and cobbles are subrounded to subangular, limestone	
2							170331	D B	2.00	50/150mm						
3							170332	D B	3.00	16/300mm						
4							170333	D B	4.00	9/300mm						
5							170334	D B	5.00	50/225mm						
														6.00		
6							170335	D B	6.00	44/300mm		70.25			Very stiff grey gravelly sandy CLAY with medium cobble content. Gravel is fine to coarse. Gravel and cobbles and subrounded to angular, limestone	
7										50/75mm 50/75mm		69.05		7.20	Obstruction SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy cobbly GRAVEL.	
8																
9														10.00		
10												66.25			End of Borehole at 10 (m)	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
2	2.3	0100	
3.3	3.4	0030	
7	7.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.00	1.00		0.60	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
15-05-22	7.20	0.00	0.60	End of Borehole
20-05-22	10.00	6.80	4.00	Water level recorded 5 mins after end of drilling.

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 14/05/2022 to 15/05/2022.Hole cased 0.00-10.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH142795
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	678,357 E 733,868 N
GROUND LEVEL (mOD)	77.76
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	7.60
DATE COMMENCED	15/05/2022
DATE COMPLETED	16/05/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	P.Allen
PROCESSED BY	C.Killaly

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0							170336	D B	0.50			77.56		0.20	TOPSOIL	
1							170337	D B	1.20	50/225mm					Dense grey brown sandy GRAVEL with high cobble content. Gravel is subangular to subrounded fine to coarse limestone. Cobbles are subangular to subrounded, limestone.	
2							170338	D B	2.00	50/75mm			1			
3							170339	D B	3.00	37/300mm						
4							170340	D B	4.00	19/300mm		73.76	1	4.00	Medium dense brown sandy GRAVEL. Gravel is subangular to subrounded fine to coarse limestone.	
5							170341	D B	5.00	43/300mm		72.76		5.00	Medium dense/dense grey sandy GRAVEL with medium cobble and boulder content. Gravel is subangular to subrounded fine to coarse limestone. Cobbles are subangular to subrounded, limestone.	
6							170342	D B	6.00	26/300mm						
7							170343	D B	7.00	50/300mm				7.60		
8										50/75mm		70.16			Obstruction End of Borehole at 7.6 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
1.2	2.5	0230	
7.5	7.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00		2.20	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
16/05/2022	5.00	3.50	5.00	50mm SP

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
16-05-22	7.60	0.00	2.20	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	**BH143004**
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	678,552 E 733,943 N
GROUND LEVEL (mOD)	77.34
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.60
DATE COMMENCED	01/06/2022
DATE COMPLETED	01/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0														0.50	TOPSOIL	
												76.84			Medium dense grey and brown slightly silty sandy GRAVEL with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
1							173333	B	1.00	12/300mm						
2							173334	B	2.00	27/300mm						
3							173335	B	3.00	12/300mm						
4							173336	B	4.00	18/300mm				5.00		
5							173337	B D	5.00	15/300mm		72.34			Firm to stiff grey slightly sandy gravelly SILT with low cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are angular to subangular, limestone.	
6							173338	B D	6.00	15/300mm						
7							173339	B D	7.00	23/300mm			1			
8							173340	B	8.00	45/300mm			1	8.60		
										50/0mm		68.74			End of Borehole at 8.6 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8.6	8.6	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
8.00	8.00		7.00	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH143203
SHEET	Sheet 1 of 1
CO-ORDINATES(_)	678,743 E 733,996 N
GROUND LEVEL (mOD)	75.01
RIG TYPE	Dando 2000
RC FLUSH MEDIUM	
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	8.10
DATE COMMENCED	02/06/2022
DATE COMPLETED	02/06/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	WB
PROCESSED BY	AG

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT	
1							173341	B D	1.00	1/300mm		73.91		1.10		
														2.00	Very soft grey brown slightly sandy slightly gravelly SILT. Gravel is subangular to subrounded fine to coarse limestone.	
2							173342	B	2.00	16/300mm		73.01			Medium dense/ dense grey slightly silty sandy GRAVEL with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
3							173343	B	3.00	38/300mm			1			
4							173344	B	4.00	43/300mm				4.50		
5							173345	B	5.00	39/300mm		70.51	1		Dense grey silty sandy GRAVEL with high cobble content. Sand is fine. Gravel is angular to subangular, medium to coarse, limestone. Cobbles are angular to subangular, limestone.	
6							173346	B	6.00	50/205mm						
7							173347	B	7.00	50/95mm						
8							173348	B	8.00	50/0mm				8.10		
												66.91			End of Borehole at 8.1 (m)	
9																
10																
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
8.1	8.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00		3.00	20	Moderate

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH143383**
		SHEET	Sheet 1 of 2
CO-ORDINATES(_)	678,923 E 734,003 N	**RIG TYPE**	Knebel & Dando 2000
GROUND LEVEL (mOD)	77.56	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	15.00
		DATE COMMENCED	08/08/2022
		DATE COMPLETED	08/08/2022
		BORED BY	IGSL - MN & WB
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												77.36		0.20	TOPSOIL	
1							173349	B	1.00	9/300mm					Medium dense grey silty sandy GRAVEL with medium cobble content. Gravel is subangular to subrounded, fine to coarse, limestone. Cobbles are subangular subrounded, limestone.	
2							178301	B	2.00	21/300mm						
3							178302	B	3.00	24/300mm			2			
4							178303	B	4.00	21/300mm			1 1			
5							178304	B	5.00	14/300mm						
6							178305	B	6.00	26/300mm			2			
7							178306	B	7.00	18/300mm						
8							178307	B	8.00	27/300mm						
9							178308	B	9.00	35/300mm					Below 9m: Dense.	
10							178309	B	10.00	40/300mm						
11							178310	B	11.00	50/0mm 50/15mm		66.56		11.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey silty sandy GRAVEL with medium cobble content.	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
11	11	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.50	4.50		4.50		Slow
6.00	6.00		3.00	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 09/06/2022 to 09/06/2022. Hole cased 0.00-15.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH143383**
		SHEET	Sheet 2 of 2
CO-ORDINATES(_)	678,923 E 734,003 N	**RIG TYPE**	Knebel & Dando 2000
GROUND LEVEL (mOD)	77.56	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	15.00
		DATE COMMENCED	08/08/2022
		DATE COMPLETED	08/08/2022
		BORED BY	IGSL - MN & WB
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey silty sandy GRAVEL with medium cobble content. *(continued)*	
13										54/30mm				13.80		
14										58/20mm		63.76		15.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of silty GRAVEL.	
15												62.56			End of Borehole at 15 (m)	
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
08-08-22	15.00	15.00	6.35	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 09/06/2022 to 09/06/2022. Hole cased 0.00-15.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH143407**
		SHEET	Sheet 1 of 2
CO-ORDINATES(_)	678,950 E 733,981 N	**RIG TYPE**	Knebel & Dando 2000
GROUND LEVEL (mOD)	74.82	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	15.00
		DATE COMMENCED	08/08/2022
		DATE COMPLETED	08/08/2022
		BORED BY	IGSL - MN & WB
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												74.72		0.10	TOPSOIL Very soft dark brown pseudo-fibrous PEAT	
1							178311	D B	1.00	0/300mm			1			
2							178312	D B	2.00	0/300mm				2.50		
3							178313	D B	3.00	10/300mm		72.32	1	3.50	Soft grey gravelly SILT. Gravel is rounded to subrounded of limestone	
4							178314	B	4.00	16/300mm		71.32	2 3		Medium dense grey sandy GRAVEL with medium cobble content. Sand is fine to coarse. Gravel and cobbles are subangular of limestone	
5							178315	B	5.00	14/300mm						
6							178316	B	6.00	14/300mm				6.20		
7							178317	B	7.00	21/300mm		68.62 67.92		6.90 7.50	Medium dense grey sandy silty GRAVEL with medium cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone	
8							178318	B	8.00	21/300mm		67.32			Stiff grey brown slightly gravelly slightly sandy CLAY with medium cobble content. Cobbles are subrounded to subangular of limestone	
9							178319	B	9.00			65.82		9.00	Stiff grey thickly laminated clayey SILT	
10							178320	B	10.00	40/300mm		64.82		10.00	Dense grey brown clayey sandy GRAVEL with medium cobble and boulder Content. Sand is fine to coarse. Gravel, cobbles and Boulders are subrounded to subangular of limestone Obstruction	
11										50/15mm					SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy cobbly GRAVEL.	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
10	10	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.20 4.50	3.20 4.50		1.40 4.50	20	Moderate Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
11-06-22	10.00	0.00	4.00	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 11/06/2022 to 11/06/2022. Hole cased 0.00-15.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH143407
SHEET Sheet 2 of 2

CO-ORDINATES(_) 678,950 E
733,981 N
GROUND LEVEL (mOD) 74.82

RIG TYPE Knebel & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 15.00

DATE COMMENCED 08/08/2022
DATE COMPLETED 08/08/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN & WB
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12															SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy cobbly GRAVEL. *(continued)*	
13										54/30mm				13.80		
14												61.02		14.10	SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL.	
										58/20mm		60.72		15.00	SYMMETRIX DRILLING: No recovery, observed by driller as returns of silty GRAVEL.	
15												59.82			End of Borehole at 15 (m)	
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
08-08-22	15.00	15.00	6.35	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 11/06/2022 to 11/06/2022. Hole cased 0.00-15.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH144153
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	679,681 E 734,046 N
GROUND LEVEL (mOD)	76.09
RIG TYPE	Knebel & Dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	12.00
DATE COMMENCED	13/07/2022
DATE COMPLETED	13/07/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN & WB
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0															Very soft dark brown pseudo-fibrous PEAT.	
1							178366	B D	1.00	0/300mm						
2							178367	B D	2.00	0/300mm						
3							178368	B D	3.00	0/300mm						
4							178369	B D	4.00	0/300mm			1.1			
														4.90		
5							178370	B D	5.00	8/300mm		71.19			Soft grey sandy slightly gravelly clayey SILT. Gravel is subangular to subrounded, fine to coarse, limestone.	
														5.90		
6							178371	B D	6.00	50/0mm		70.19 69.99		6.10	Very stiff grey slightly sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded, fine to medium, limestone. Cobbles are subangular to subrounded, limestone.	
7														7.50		
										49/245mm		68.59			SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey slightly gravelly SILT	
8															SYMMETRIX DRILLING: No recovery, observed by driller as returns of silty GRAVEL.	
9										32/300mm						
10														10.40		
										26/300mm		65.69		10.90	SYMMETRIX DRILLING: No recovery, observed by driller as returns of GRAVEL.	
11												65.19			SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL.	
														12.00		

End of Borehole at 12 (m)

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.1	6.1	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00		4.00		Slow

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
13-07-22	12.00	12.00	6.35	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 07/07/2022 to 07/07/2022.Hole cased 0.00-12.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH144153
SHEET Sheet 2 of 2

CO-ORDINATES(_) 679,681 E
734,046 N
GROUND LEVEL (mOD) 76.09

RIG TYPE Knebel & Dando 2000
RC FLUSH MEDIUM Air/Mist
CASING DIAMETER (mm) 200
CORE DIAMETER (mm) N/A
BOREHOLE DEPTH (m) 12.00

DATE COMMENCED 13/07/2022
DATE COMPLETED 13/07/2022

CLIENT Irish Water
ENGINEER Eriva

BORED BY IGSL - MN & WB
PROCESSED BY D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12										50/255mm		64.09				
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 07/07/2022 to 07/07/2022.Hole cased 0.00-12.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH144483
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	679,964 E 733,904 N
GROUND LEVEL (mOD)	77.81
RIG TYPE	Knebel & Dando 2000
RC FLUSH MEDIUM	Air/Mist
CASING DIAMETER (mm)	200
CORE DIAMETER (mm)	N/A
BOREHOLE DEPTH (m)	15.00
DATE COMMENCED	14/07/2022
DATE COMPLETED	14/07/2022
CLIENT	Irish Water
ENGINEER	Eriva
BORED BY	IGSL - MN & WB
PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												77.71		0.10	TOPSOIL Very soft dark brown pseudo-fibrous PEAT	
1							178372	D B	1.00	0/300mm						
2							178373	D B	2.00	0/300mm						
3							178374	D B	3.00	0/300mm						
4							178375	D B	4.00	0/300mm			1 1			
5							178376	D B	5.00	15/300mm		72.81		5.00	Firm grey gravelly sandy slightly gravelly SILT	
6							178377	D B	6.00	50/150mm		71.91		5.90		
7										23/300mm		71.61		6.20	Very stiff grey brown sandy gravelly CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse Subangular to subrounded of limestone Obstruction SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey SILT	
8																
9										26/300mm						
10										27/300mm		67.31	2 2	10.50	SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey slightly gravelly SILT	
11																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments
6.2	6.2	0100	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00		4.00		Slow
10.60	10.60		10.60		Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
08-07-22	6.20	0.00	5.80	End of Borehole

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 08/07/2022 to 08/07/2022. Hole cased 0.00-15.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH144483**
		SHEET	Sheet 2 of 2
CO-ORDINATES(_)	679,964 E 733,904 N	**RIG TYPE**	Knebel & Dando 2000
GROUND LEVEL (mOD)	77.81	**RC FLUSH MEDIUM**	Air/Mist
		CASING DIAMETER (mm)	200
CLIENT	Irish Water	**CORE DIAMETER (mm)**	N/A
ENGINEER	Eriva	**BOREHOLE DEPTH (m)**	15.00
		DATE COMMENCED	14/07/2022
		DATE COMPLETED	14/07/2022
		BORED BY	IGSL - MN & WB
		PROCESSED BY	D.O'Shea

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
12										50/235mm		65.61		12.20	SYMMETRIX DRILLING: No recovery, observed by driller as returns of GRAVEL.	
13																
14										41/300mm				15.00		
15										47/300mm		62.81			End of Borehole at 15 (m)	
16																
17																
18																
19																
20																
21																
22																
23																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-07-22	15.00	15.00	9.35	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand Service inspection Pit progressed to 1.2mbgl. CP Drilled from 08/07/2022 to 08/07/2022. Hole cased 0.00-15.00m

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 21/6/23

Appendix 8A.2

Geobore S Corehole Records

BH104533
BH133986

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH104533
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	647,109 E 723,149 N
GROUND LEVEL (mOD)	89.51
RIG TYPE	
RC FLUSH MEDIUM	P. Gel
CASING DIAMETER (mm)	
CORE DIAMETER (mm)	102
BOREHOLE DEPTH (m)	10.40
DATE COMMENCED	
DATE COMPLETED	
CLIENT	Irish Water / Ervia
ENGINEER	Mott MacDonald
BORED BY	
PROCESSED BY	

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												89.26		0.25	Firm reddish brown slightly sandy TOPSOIL with thin rootlets	
		83	0	0											Stiff brown/grey mottled sandy slightly gravelly CLAY with occasional cobbles. Sand is fine to medium. Gravel is angular to subrounded fine to coarse of various lithologies predominately limestone. Cobbles are of limestone.	
1	1.20									38/300mm						
		100	0	0												
2														2.10		
	2.20											87.41			Firm to locally soft greyish brown slightly sandy CLAY. Sand is fine to medium.	
		25	0	0												
3	3.00									50/35mm						
		60	0	0												
4														4.50		
	4.50									50/150mm		85.01			Returns of dark brown sandy very gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies predominately limestone. Driller notes gravel layers and loss (50%) of water.	
5		40	0	0												
														6.00		
6	6.00									50/0mm		83.51			Firm (becoming stiff with depth) dark brown sandy gravelly (locally very gravelly) CLAY with occasional cobbles. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies predominately limestone. Cobbles are of limestone.	
		100	0	0												
7	7.50	100	0	0						50/15mm						
	7.80															
8		83	0	0												
9	9.00									50/0mm						
		100	0	0												

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
28-07-22		1.20	1.80	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 19/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT WSP Ground Investigation Contract Lot 3

HOLE NO. BH104533
SHEET Sheet 2 of 2

CO-ORDINATES(_) 647,109 E
723,149 N
GROUND LEVEL (mOD) 89.51

RIG TYPE
RC FLUSH MEDIUM P. Gel
CASING DIAMETER (mm)
CORE DIAMETER (mm) 102
BOREHOLE DEPTH (m) 10.40

DATE COMMENCED
DATE COMPLETED

CLIENT Irish Water / Ervia
ENGINEER Mott MacDonald

BORED BY
PROCESSED BY

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
10	9.90	100	0	0										10.40		
	10.40											79.11			End of Borehole at 10.4 (m)	
11																
12																
13																
14																
15																
16																
17																
18																
19																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 19/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
HOLE NO.	BH133986
SHEET	Sheet 1 of 2
CO-ORDINATES(_)	671,535 E 730,253 N
GROUND LEVEL (mOD)	83.71
RIG TYPE	
RC FLUSH MEDIUM	P. Gel
CASING DIAMETER (mm)	
CORE DIAMETER (mm)	102
BOREHOLE DEPTH (m)	10.30
DATE COMMENCED	
DATE COMPLETED	
CLIENT	Irish Water / Ervia
ENGINEER	Mott MacDonald
BORED BY	
PROCESSED BY	

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
0												83.31		0.40	Firm reddish brown slightly sandy TOPSOIL with thin rootlets	
1	1.50	80	0	0						50/150mm		82.21		1.50	Stiff brown/grey mottled sandy slightly gravelly CLAY with occasional cobbles. Sand is fine to medium. Gravel is angular to subrounded fine to coarse of various lithologies predominately limestone. Cobbles are of limestone.	
2	2.00	100	0	0								81.81		1.90	Firm to locally soft greyish brown silty slightly sandy CLAY. Sand is fine to medium.	
3	3.00	50	0	0						75/135mm		80.71		3.00	Returns of brown clayey GRAVEL. Gravel is angular to subrounded fine to coarse of limestone.	
4	4.50	67	0	0						50/75mm		79.71		4.00	Firm dark brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies predominately limestone.	
5		93	0	0											Stiff dark brown sandy gravelly (locally very gravelly) CLAY with occasional cobbles. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies predominately limestone. Cobbles are of limestone.	
6	6.00	93	0	0						50/15mm						
7	7.50	67	0	0						50/0mm						
8	8.85	100	0	0										9.00		
9	9.00	75	0	0						50/20mm		74.71		9.40	Returns of brown clayey GRAVEL. Gravel is angular to subrounded fine to coarse of limestone.	
	9.40	100	0	0								74.31				

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
27-07-22		1.20	1.65	Water level recorded 5 mins after end of drilling.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 19/6/23

BOREHOLE RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**HOLE NO.**	**BH133986**
		SHEET	Sheet 2 of 2
CO-ORDINATES(_)	671,535 E 730,253 N	**RIG TYPE**	
GROUND LEVEL (mOD)	83.71	**RC FLUSH MEDIUM**	P. Gel
		CASING DIAMETER (mm)	
CLIENT	Irish Water / Ervia	**CORE DIAMETER (mm)**	102
ENGINEER	Mott MacDonald	**BOREHOLE DEPTH (m)**	10.30
		DATE COMMENCED	
		DATE COMPLETED	
		BORED BY	
		PROCESSED BY	

Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Sample Ref. Number	Sample Type	Sample Depth (m)	SPT "N" Value	Legend	Elevation	Water	Depth (m)	Description	Standpipe Details
10														10.30	Stiff dark brown sandy very gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies predominately limestone. *(continued)*	
	10.30											73.41			End of Borehole at 10.3 (m)	
11																
12																
13																
14																
15																
16																
17																
18																
19																

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (hhmm)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS

IGSL COMBINED BH/RC DUB PORT 23560 PIPELIN AND PEATLANDS RECORDS ONLY FINAL.GPJ IGSL.GDT 19/6/23

Appendix 8B

Dynamic Sampling Records

DS103405
DS135782

Percussive Terrier Boring Record

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
BH NO.	**DS103405**
SHEET	Sheet 1 of 1
CO-ORDINATES	646,148.00 E 722,571.00 N
GROUND LEVEL (mOD)	
DATE COMMENCED	29/07/2022
DATE COMPLETED	29/07/2022
CLIENT	Irish Water / Ervia
DRILLED BY	C.Kavanagh
ENGINEER	Mott MacDonald
LOGGED BY	M.B

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Field Test Results
0.0	TOPSOIL: Firm dark brown sandy slightly gravelly silty CLAY with rootlets. Sand is fine to medium. Gravel is fine to medium and subangular to subrounded.					0.00-1.00	80		
			0.60						
	Firm grey sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium and subangular to subrounded								
1.0						1.00-2.00	100		N = 21 (2, 4, 5, 8, 5, 3)
			1.30						
	Firm to Stiff grey sandy slightly gravelly silty CLAY. Sand is fine. Gravel is fine to medium and subangular - Porr Recovery Puching Cobbles								
2.0						2.00-2.90	50		N = 43 (5, 6, 12, 10, 12, 9)
			2.90						
	Final Depth 2.90m								N = 50/75 mm (25, 50)
3.0									

General Remarks
Servcie Inspection Pit Excavated

Installations

Percussive Terrier Boring Record

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3
BH NO.	DS135782
SHEET	Sheet 1 of 1
CO-ORDINATES	672,778.94 E 731,380.00 N
GROUND LEVEL (mOD)	81.99
DATE COMMENCED	02/08/2022
DATE COMPLETED	02/08/2022
CLIENT	Irish Water / Ervia
ENGINEER	Mott MacDonald
DRILLED BY	C.Kavanagh
LOGGED BY	M.B

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Field Test Results
0.0	TOPSOIL: Dark brown sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is fine to medium and subrounded.					0.00-1.00	100		
			0.40	81.59					
	Grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to medium and subangular to subrounded								
			0.70	81.29					
	Grey slightly sandy slightly gravelly silty CLAY. Sand is fine to medium. Gravel is fine to medium and subangular.								
			0.90	81.09					
	Poor Recovery: Very soft light grey slightly sandy gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium and subrounded.								
1.0						1.00-2.00	70		
									N = 2 (0, 0, 1, 0, 1, 0)
			1.30	80.69					
	Stiff grey mottled brown sandy slightly gravelly silty CLAY. Sand is fine to medium. Gravel is fine to medium and subrounded.								
			2.00	79.99					
2.0	Poor Recovery/Obstruction					2.00-2.80	10		N = 36 (5, 4, 8, 9, 9, 10)
			2.70	79.29					
	Stiff light grey gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is fine to medium and subrounded.								
3.0									N = 24 (9, 10, 4, 6, 8, 6)
			3.50	78.49					N = 50 (10, 12, 10, 12, 8, 20)
	Final Depth 3.50m								

General Remarks
Servcie Inspection Pit Excavated

Installations

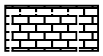
PERCUSSIVE TERRIER BH WITH SPT 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 19/10/22

Appendix 8C

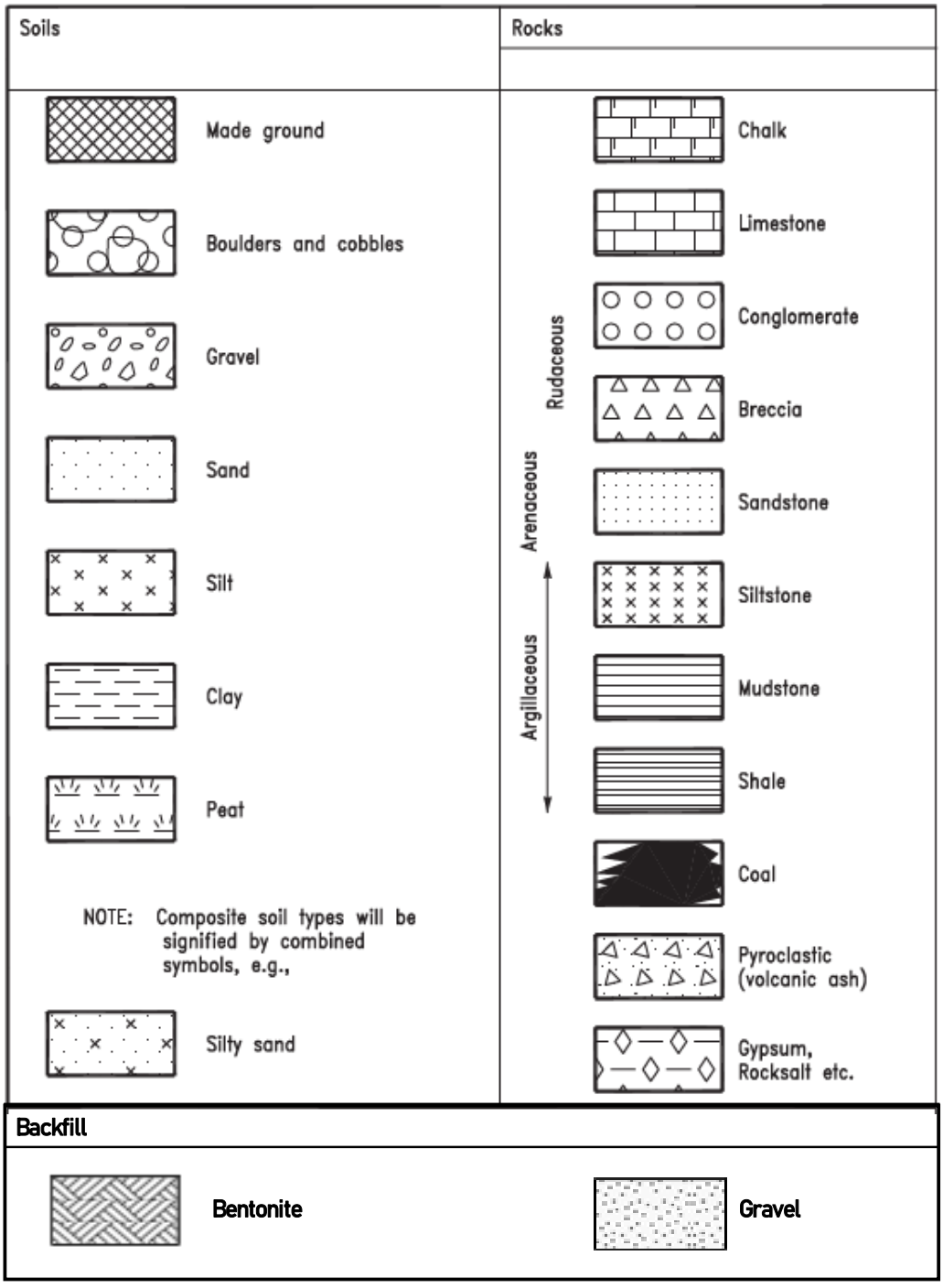
Legend / Trial Pit Records

TP103304	TP119502	TP135607
TP103504	TP119586	TP135708
TP104425	TP119700	TP135904
TP104507	TP125701	TP136007
TP104610	TP125800	TP136108
TP104707	TP125902	TP139902
TP104800	TP126004	TP142792
TP104908	TP132838	TP142904
TP108804	TP132908	TP143006
TP108905	TP133012	TP143104
TP110906	TP133108	TP143303
TP111007	TP133227	TP143502
TP111105	TP133308	TP144592
TP111202	TP133780	
TP111305	TP133904	
TP111389	TP133989	
TP111505	TP133999	
TP111615	TP134001	
TP111704	TP134040	
TP111803	TP134082	
TP117582	TP134096	
TP117703	TP134139	
TP117780	TP134181	
TP117901	TP134196	
TP118385	TP134239	
TP118502	TP134281	
TP118605	TP134296	
TP118801	TP134340	
TP118902	TP134396	
TP118987	TP134406	
TP119102	TP134439	
TP119201	TP134490	
TP119302	TP135009	
TP119389	TP135503	

Strata Legends / Symbolic Logs (BS 5930:2015+A1:2020)



Strata legends / symbolic logs reflect main stratum in accordance with BS 5930:2015+A1:2020. Legend codes are selected from GINT software to reflect stratum. Note, due to limited codes, legends may not represent exact constituent proportions (e.g. slightly or very sandy, slightly or very gravelly etc)



TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP103304**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	646,045.00 E 722,552.00 N
		DATE STARTED	09/02/2022
		DATE COMPLETED	09/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft black slightly sandy PEAT. Sand is fine to coarse.						D	0.20-0.30		
		0.30			AA173553	B	0.20-0.30		
Grey slightly clayey very sandy GRAVEL with a medium cobble content. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.						ES	0.50-0.60		
					AA173555	B	0.50-0.60		
		0.90		1 (Moderate)					
1.0 Light grey clayey/silty sandy GRAVEL with high cobble content and some boulders. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.									
		1.90			AA173556	B	1.80-1.90		
2.0 Pit terminated due to instability. End of Trial Pit at 1.90m									
3.0									
4.0									

Groundwater Conditions
moderate flow from 0.9m

Stability
Unstable from 0.9m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP103504**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	646,225.00 E 722,639.00 N
		DATE STARTED	09/02/2022
		DATE COMPLETED	09/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft black slightly sandy PEAT. Sand is fine to coarse						D	0.20-0.30		
		0.30				ES	0.20		
Stiff light grey slightly sandy gravelly CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.					AA178552	B	0.20-0.30		
						D	0.50-0.60		
					AA178551	B	0.50-0.60		
		0.80							
1.0 Dark grey to grey brown clayey slightly gravelly SAND to slightly gravelly sandy CLAY with a low cobble content. Assessed as loose. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.					AA173552	B	1.00-1.10		
		1.30							
Soft grey slightly sandy slightly gravelly CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.				1 (Rapid)					
2.0									
		2.20				D	2.10-2.20		
Pit terminated due to instability. End of Trial Pit at 2.20m					AA173552	B	2.10-2.20		
3.0									
4.0									

Groundwater Conditions
fast flow from 1.5m

Stability
Unstable from 1.3m

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP104425**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	647,026.49 E 723,095.12 N
		DATE STARTED	10/02/2022
		DATE COMPLETED	10/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	89.97
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	89.57						
Firm to stiff grey mottled brown slightly sandy gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.				1 (Slow)		D AA153557 B	0.50-0.60 0.50-0.60		
1.90			88.07						
Firm brown slightly sandy slightly gravelly CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.						D AA153558 B	2.00-2.10 2.00-2.10		
						D ES	3.10-3.20 3.10		
3.30 End of Trial Pit at 3.30m		3.30	86.67		AA153559	B	3.10-3.20		

Groundwater Conditions
Seepage from 1.4m

Stability
Slightly unstable below 1.4m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP104507**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	647,085.02 E 723,130.00 N
		DATE STARTED	10/02/2022
		DATE COMPLETED	10/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	89.61
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.20	89.41						
Soft to firm brown mottled grey sandy gravelly CLAY with low cobble content and occasional boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone. Cobbles and boulders are subrounded of limestone.						D	0.50-0.60		
					AA173560	B	0.50-0.60		
		0.80	88.81						
Firm to stiff grey mottled brown sandy gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.						D	0.90-1.00		
1.0					AA173561	B	0.90-1.00		
		1.80	87.81						
Firm brown slightly sandy slightly gravelly SILT with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.									
2.0									
3.0						D	3.00-3.10		
Pit terminated due to instability. End of Trial Pit at 3.10m		3.10	86.51		AA173562	B	3.00-3.10		
4.0									

Groundwater Conditions
Dry

Stability
unstable below 0.8m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP104610**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	647,163.02 E 723,202.03 N
		DATE STARTED	10/02/2022
		DATE COMPLETED	10/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	90.13
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.30	89.83			D	0.50-0.60		
Firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.					AA173563	B	0.50-0.60		
		0.80	89.33						
Firm brown slightly sandy slightly gravelly CLAY with medium cobble content. Gravel is fine to coarse, subangular to subrounded of limestone.						D	1.10-1.20		
1.0					AA173564	B	1.10-1.20		
2.0									
3.0						D	3.10-3.20		
		3.30	86.83		AA173565	B	3.10-3.20		
End of Trial Pit at 3.30m									
4.0									

Groundwater Conditions
Dry

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP104707**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	647,195.00 E 723,297.00 N
		DATE STARTED	10/02/2022
		DATE COMPLETED	10/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	87.16
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.20	86.96						
Firm brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		0.40	86.76			D	0.30-0.40		
					AA173556	B	0.30-0.40		
Firm light brownish grey slightly sandy slightly gravelly CLAY with a low cobble content. Gravel is fine to coarse, subangular to subrounded of limestone.				1 (Moderate)					
1.0						D	1.10-1.20		
					AA173557	B	1.10-1.20		
Firm light brown sandy gravelly CLAY with low cobble content. Gravel is fine to coarse, subangular to subrounded of limestone.		1.50	85.66						
2.0				2 (Slow)					
3.0 Pit terminated due to instability. End of Trial Pit at 3.00m		3.00	84.16			D	2.90-3.00		
						ES	2.90		
					AA173558	B	2.90-3.00		
4.0									

Groundwater Conditions
Slow flow from 0.8m, moderate flow from 2.2m

Stability
Unstable below 1.0m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP104800**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	647,229.01 E 723,375.00 N
		DATE STARTED	10/02/2022
		DATE COMPLETED	10/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	86.19
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.20	85.99						
Soft grey mottled brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.						D	0.50-0.60		
					AA173559	B	0.50-0.60		
1.0									
Firm light brown slightly sandy gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		1.70	84.49			D	1.80-1.90		
2.0					AA173560	B	1.80-1.90		
						D	2.90-3.00		
3.0 Pit terminated due to instability. End of Trial Pit at 3.00m		3.00	83.19		AA173561	B	2.90-3.00		
4.0									

Groundwater Conditions
Dry

Stability
Unstable below 0.9m

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP104908**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	647,286.00 E 723,474.17 N
		DATE STARTED	11/02/2022
		DATE COMPLETED	11/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.73
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft black slightly sandy PEAT. Sand is fine to coarse.						D	0.30-0.40		
		0.40	83.33			ES	0.30-0.40		
Firm light greyish brown to brown slightly sandy gravelly CLAY with a low cobble content and occasional boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone. Cobbles and boulders are subrounded of limestone.					AA173572	B	0.30-0.40		
1.0						D	1.20-1.30		
					AA173573	B	1.20-1.30		
2.0				1 (Slow)					
		2.90	80.83			D	2.80-2.90		
Obstruction - Possible boulders 3.0 End of Trial Pit at 2.90m					AA173574	B	2.80-2.90		
4.0									

Groundwater Conditions
Slow flow from 2.6m

Stability
slightly unstable below 1.5m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP108804**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	650,390.96 E 725,362.91 N
		DATE STARTED	11/02/2022
		DATE COMPLETED	11/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	79.94
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL		0.30	79.64						
Firm brownish grey to brown slightly sandy gravelly SILT with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subrounded to rounded of limestone.						D	0.50-0.60		
					AA173575	B	0.50-0.60		
		1.10	78.84						
Firm brown slightly sandy becoming very sandy slightly gravelly CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subrounded to rounded of limestone.						D	1.40-1.50		
					AA173576	B	1.40-1.50		
				1 (Slow)					
		2.50	77.44			D	2.40-2.50		
Pit terminated due to instability. End of Trial Pit at 2.50m						ES	2.40		
					AA173577	B	2.40-2.50		

Groundwater Conditions
Slow flow from 2.3m

Stability
Slightly unstable below 1.1m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP108905**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	650,473.10 E 725,421.79 N
		DATE STARTED	11/02/2022
		DATE COMPLETED	11/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	80.05
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL		0.30	79.75			D	0.50-0.60		
Firm to stiff light brown slightly sandy slightly gravelly SILT with a medium cobble content and some boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone. Cobbles and boulders are subrounded of limestone.					AA173578	B	0.50-0.60		
						D	1.50-1.60		
					AA173579	B	1.50-1.60		
		2.60	77.45			D	2.50-2.60		
Obstruction - Possible boulders End of Trial Pit at 2.60m					AA173580	B	2.50-2.60		

Groundwater Conditions
Dry

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP110906**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,327.05 E 727,126.01 N
		DATE STARTED	02/02/2022
		DATE COMPLETED	02/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	78.18
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	77.78						
Light grey brown gravelly slightly sandy CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse of subrounded to subangular of limestone.					162176	D B	0.50-0.60 0.50-0.60	44 41 48	
1.0 2.0									
Obstruction - Probable Bedrock End of Trial Pit at 2.60m		2.60	75.58		162177	D B	2.50-2.60 2.50-2.60		
3.0 4.0									

Groundwater Conditions
Dry

Stability
Good

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111007**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,412.90 E 727,185.09 N
		DATE STARTED	02/02/2022
		DATE COMPLETED	02/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.48
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.10	83.38						
Soft to firm light brown slightly gravelly slightly sandy CLAY with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone.						D	0.30-0.40		
		0.50	82.98		162178	B	0.30-0.40		
Light grey brown gravelly sandy CLAY with a low to medium cobble content and low boulder content. Sand is fine to coarse. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular of limestone.						D	0.60-0.70	33	
					162179	B	0.60-0.70	39	
								34	
1.0								38	
								43	
								41	
		1.40	82.08						
Light brown clayey/silty very sandy GRAVEL with a low to medium cobble and boulder content. Sand is fine to coarse. Cobbles and boulders are subrounded to angular of limestone.						D	1.60-1.70		
		1.70	81.78		162180	B	1.60-1.70		
Obstruction - Probable Bedrock End of Trial Pit at 1.70m									
2.0									
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Good

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111105**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,462.57 E 727,270.63 N
		DATE STARTED	02/02/2022
		DATE COMPLETED	02/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	87.48
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.20	87.28						
Possible weathered Rock comprised of compact light brown gravelly sandy clayey COBBLES with high cobble and boulder content. Cobbles and boulders are subangular to angular of limestone.					162181	B	0.50-0.60		
Obstruction - Probable Bedrock End of Trial Pit at 0.90m		0.90	86.58						

Groundwater Conditions
Dry

Stability
Good

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111202**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,516.34 E 727,368.17 N
		DATE STARTED	03/02/2022
		DATE COMPLETED	03/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.04
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL		0.30	81.74						
Soft to firm light brown gravelly slightly sandy SILT with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone.		0.50	81.54			D	0.40		
					AA162182	B	0.40	26 38 42	
Light grey brown clayey/silty very sandy GRAVEL with medium cobble content. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.					AA162183	B	0.90		
Possible weathered rock comprised of grey brown gravelly slightly sandy COBBLES of limestone.		1.30 1.40	80.74 80.64						
Obstruction - Probable Bedrock End of Trial Pit at 1.40m									

Groundwater Conditions
Dry

Stability
Good

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111305**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,606.14 E 727,409.03 N
		DATE STARTED	03/02/2022
		DATE COMPLETED	03/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	84.26
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.20	84.06			D	0.30-0.40		
Soft to firm light brown gravelly sandy SILT with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone.		0.50	83.76		162185	B	0.30-0.40	30	
Grey brown COBBLES with some slightly clayey/silty slightly sandy gravel and a high boulder content. Assessed as medium dense. Cobbles and boulders are angular to subrounded of limestone.								27	
1.0					162186	B	0.90-1.00	29	
		1.20	83.06						
Possible weathered rock comprised of grey brown COBBLES with some brown slightly clayey/silty sandy gravel. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		1.40	82.86		162187	B	1.30-1.40		
Obstruction - Probable Bedrock End of Trial Pit at 1.40m									
2.0									
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Good

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111389**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,690.53 E 727,431.42 N
		DATE STARTED	04/02/2022
		DATE COMPLETED	04/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	89.14
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.20	88.94						
Possible weathered Rock comprised of light brown COBBLES with much grey brown clayey/silty sandy gravel with a high boulder content. Assessed as medium dense. Gravel, cobbles and boulders are subangular to angular of limestone.		0.60	88.54		162188	B	0.50-0.60		
Obstruction - Probable Bedrock End of Trial Pit at 0.60m									
1.0									
2.0									
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Good

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111505**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,776.75 E 727,529.65 N
		DATE STARTED	04/02/2022
		DATE COMPLETED	04/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.61
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.30	83.31			D	0.40-0.50		
Soft brown gravelly slightly sandy SILT with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone.		0.60	83.01		162189	B	0.40-0.50		
Grey brown sandy clayey/silty GRAVEL with a medium cobble content and low boulder content. Assessed as medium dense. Gravel is fine to coarse. Gravel, cobbles and boulders are subrounded to subangular of limestone.					162190	B	0.90-1.00		
		1.50	82.11						
Possible weathered Rock comprised of light brown COBBLES with some brown slightly clayey/silty slightly sandy gravel and a high boulder content. Assessed as medium dense. Gravel, cobbles and boulders are subangular to angular of limestone.		1.70	81.91		162191	B	1.60-1.70		
Obstruction - Probable Bedrock End of Trial Pit at 1.70m									

Groundwater Conditions
Dry

Stability
Trial pit unstable from 0.6mbgl

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111615**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,864.69 E 727,592.04 N
		DATE STARTED	07/02/2022
		DATE COMPLETED	07/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.78
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TOPSOIL		0.20	77.58						
	Soft brown gravelly slightly sandy CLAY with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone.		0.40	77.38			D	0.30-0.40		
						162192	B	0.30-0.40	26	
	Grey brown clayey/silty very sandy GRAVEL with a medium to high cobble and boulder content. Assessed as medium dense. Gravel, cobbles and boulders are subrounded to subangular of limestone.					162193	B	0.50-0.60	18	
1.0										
			1.90	75.88		162194	B	1.80-1.90		
2.0	Obstruction - Probable Bedrock End of Trial Pit at 1.90m									
3.0										
4.0										

Groundwater Conditions
Dry

Stability
Good

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111704**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	651,945.99 E 727,617.00 N
		DATE STARTED	07/02/2022
		DATE COMPLETED	07/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.55
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.20	77.35						
Soft brown gravelly sandy CLAY with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone.		0.40	77.15			D	0.30-0.40		
					162195	B	0.30-0.40	26	
Grey brown clayey/silty very sandy GRAVEL with a medium to high cobble and boulder content. Assessed as medium dense. Gravel, cobbles and boulder are subrounded to subangular of limestone.					192196	B	0.50-0.60	29 31	
1.0									
Grey sandy clayey GRAVEL with medium cobble content. Assessed as medium dense. Gravel and cobbles are subrounded to subangular of limestone.		1.70	75.85		192198	B	1.70-1.80		
2.0									
3.0									
Trial pit terminated due to instability End of Trial Pit at 3.10m		3.10	74.45		192199	B	3.00-3.10		
4.0									

Groundwater Conditions
Dry

Stability
Trial pit unstable from 1.70bgl

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP111803**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	652,045.03 E 727,648.13 N
		DATE STARTED	08/02/2022
		DATE COMPLETED	08/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	72.57
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.20	72.37						
Soft brown slightly gravelly sandy SILT with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subangular to subrounded of limestone.		0.40	72.17			D	0.30-0.40		
					162200	B	0.30-0.40	29	
Brown slightly sandy slightly gravelly SILT with a medium to high cobble content. Gravel and cobbles are subrounded to subangular of limestone.					162201	B	0.50-0.60	27 33	
1.0 Grey sandy clayey/silty GRAVEL with a medium cobble content. Assessed as medium dense. Gravel and cobbles are subrounded to subangular of limestone.		1.00	71.57						
					162197	B	1.50-1.60		
Obstruction - Probable Bedrock End of Trial Pit at 1.70m		1.70	70.87						
2.0									
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Good

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP117582**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	657,433.16 E 728,498.70 N
		DATE STARTED	16/02/2022
		DATE COMPLETED	16/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	75.95
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
Firm brown very sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		0.30	75.65			D	0.50-0.60		
					AA173581	B	0.50-0.60		
1.0 Firm light yellowish brown to brown slightly sandy gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		1.00	74.95			D	1.50-1.60		
					AA173582	B	1.50-1.60		
2.0 Light grey brown clayey very sandy GRAVEL with a low cobble content. Assessed as loose to medium dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		2.10	73.85	1 (Moderate)		ES	2.50-2.60		
					AA173583	B	2.50-2.60		
Pit terminated due to instability. End of Trial Pit at 2.70m		2.70	73.25						
3.0									
4.0									

Groundwater Conditions
Moderate flow from 2.1m

Stability
Unstable below 2.1m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP117703**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	657,553.60 E 728,506.22 N
		DATE STARTED	16/02/2022
		DATE COMPLETED	16/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.35
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL		0.30	77.05						
Light yellowish brown clayey sandy GRAVEL with a medium to high cobble content and medium boulder content. Assessed as dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone.					AA173584	B	0.50-0.60		
					AA173585	B	1.50-1.60		
				1 (Slow)	AA173586	B	3.00-3.10		
Pit terminated due to Water ingress End of Trial Pit at 3.20m		3.20	74.15						

Groundwater Conditions
Slow inflow from 3.0m

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP117780**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	657,638.77 E 728,490.49 N
		DATE STARTED	16/02/2022
		DATE COMPLETED	16/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.12
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	76.82						
Light yellowish brown clayey sandy GRAVEL with a medium to high cobble content and medium boulder content. Assessed as dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone.					AA173587	B	0.50-0.60		
1.0									
Light yellowish brown clayey sandy GRAVEL with medium to high cobble content and some boulders. Assessed as dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone.		1.70	75.42	1 (Moderate)	AA173588	B	1.70-1.80		
2.0									
					AA173589	B	2.80-2.90		
3.0									
Pit terminated due to Water ingress End of Trial Pit at 3.20m		3.20	73.92						
4.0									

Groundwater Conditions
Moderate inflow from 1.8m

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP117901**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	657,754.00 E 728,515.10 N
		DATE STARTED	16/02/2022
		DATE COMPLETED	16/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.65
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	76.25						
Soft to firm brown and grey brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.						D	0.50-0.60		
					AA173590	B	0.50-0.60		
		0.90	75.75						
1.0 Firm brown slightly sandy slightly gravelly CLAY with a medium cobble content and some boulders. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.				1 (Rapid)		D	1.10-1.20		
					AA173591	B	1.10-1.20		
2.0		2.30	74.35			D	2.20-2.30		
Pit terminated due to instability. End of Trial Pit at 2.30m						ES	2.20-2.30		
					AA173592	B	2.20-2.30		
3.0									
4.0									

Groundwater Conditions
Fast inflow from 1.4m

Stability
Unstable below 0.9m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP118385**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	658,210.00 E 728,407.00 N
		DATE STARTED	17/02/2022
		DATE COMPLETED	17/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	74.92
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	74.62						
Stiff brown slightly sandy slightly gravelly CLAY with a low cobble content and low to medium boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.						D B	0.50-0.60 0.50-0.60		
		1.00	73.92		AA173593				
1.0 Brown clayey very gravelly SAND with a medium cobble content and some boulders and lenses of brown slightly sandy gravelly clay. Assessed as medium dense to dense. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone.					AA173594	B	1.10-1.20		
2.0					AA173595	B	2.60-2.70		
		2.80	72.12						
Pit terminated due to instability. End of Trial Pit at 2.80m									
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Unstable below 1.0m

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP118502**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	658,307.01 E 728,345.98 N
		DATE STARTED	17/02/2022
		DATE COMPLETED	17/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	75.16
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	74.86						
Brown mottled grey firm to stiff slightly sandy gravelly CLAY with a medium cobble content and some boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.						D B	0.50-0.60 0.50-0.60		
					AA173596				
1.0 Brown clayey very sandy GRAVEL with medium cobble content and some boulders. Assessed as dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone.		1.40	73.76						
					AA173597	B	1.50-1.60		
2.0				1 (Slow)					
3.0 Pit terminated due to Water ingress End of Trial Pit at 3.30m		3.30	71.86		AA173598	B	3.20-3.30		
4.0									

Groundwater Conditions
Slow flow from 2.5m

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP118605**
		SHEET	Sheet 1 of 1
LOGGED BY	J. Condon	**CO-ORDINATES**	658,421.99 E 728,290.94 N
		DATE STARTED	17/02/2022
		DATE COMPLETED	17/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	75.50
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	75.20						
Firm to stiff brown slightly sandy slightly gravelly CLAY with a medium cobble content and some boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to angular of limestone.						D	0.50-0.60		
					AA173599	B	0.50-0.60		
1.0									
						D	1.50-1.60		
					AA178554	B	1.50-1.60		
2.0 Brown slightly sandy gravelly CLAY with a medium cobble content and some boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		2.00	73.50						
					AA178555	B	2.70-2.80		
Refusal due to boulders. End of Trial Pit at 2.80m		2.80	72.70						
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP118801**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	658,613.08 E 728,240.01 N
		DATE STARTED	17/02/2022
		DATE COMPLETED	17/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.86
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.50	76.36						
Firm brown slightly sandy slightly gravelly CLAY with low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse and subangular of limestone.						D	0.70-0.80		
					AA178556	B	0.70-0.80		
1.0		1.40	75.46						
Brown clayey very sandy GRAVEL with medium cobble content and occasional boulders. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded.					AA178557	B	1.50-1.60		
2.0									
3.0					AA178558	B	3.40-3.50		
		3.80	73.06						
Refusal due to boulders. End of Trial Pit at 3.80m									
4.0									

Groundwater Conditions
Dry

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP118902**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	658,716.58 E 728,238.52 N
		DATE STARTED	18/02/2022
		DATE COMPLETED	18/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.67
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	76.27						
Firm brown slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse and subangular of limestone.						D	0.50-0.60		
					AA178559	B	0.50-0.60		
1.0									
Brown clayey very sandy GRAVEL with medium cobble content and occasional boulders. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded of limestone.		1.40	75.27						
					AA178560	B	1.50-1.60		
					Gravel	ES	1.50		
2.0									
3.0									
		3.10	73.57		AA178561	B	3.00-3.10		
Obstruction - boulders End of Trial Pit at 3.10m									
4.0									

Groundwater Conditions
Dry

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP118987**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	658,808.01 E 728,206.10 N
		DATE STARTED	18/02/2022
		DATE COMPLETED	18/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.41
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TOPSOIL									
			0.30	76.11						
	Soft to firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse and subangular of limestone.						B	0.50-0.60		
			0.70	75.71		AA178562	B	0.50-0.60		
1.0	Light greyish brown slightly clayey sandy GRAVEL with medium to high cobble content and medium boulder content. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse and subangular.									
						AA178566	B	1.50-1.60		
2.0										
						AA178567	B	2.60-2.70		
			2.80	73.61						
3.0	Obstruction - boulders End of Trial Pit at 2.80m									
4.0										

Groundwater Conditions
Dry

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP119102**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	658,931.06 E 728,273.06 N
		DATE STARTED	18/02/2022
		DATE COMPLETED	18/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.11
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 8 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Topsoil		0.30	76.81						
Soft to firm brown sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is fine to coarse and subangular		0.60	76.51			D	0.40-0.50		
					AA178568	B	0.40-0.50		
Medium compact light greysih brown slightly clayey very sandy GRAVEL with Medium cobble content and some boulders									
1.0									
					AA178569	B	1.50-1.60		
2.0									
3.0		3.20	73.91		AA178570	B	3.10-3.20		
Refusal due to boulders. End of Trial Pit at 3.20m									
4.0									

Groundwater Conditions
Dry

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP119201**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	659,037.91 E 728,281.01 N
		DATE STARTED	18/02/2022
		DATE COMPLETED	18/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.75
		EXCAVATION METHOD	Hitachi 8 Tonne
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	76.35						
Fim brown very sandy very gravelly CLAY with medium cobble content and occasional to some boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded.					AA178571	B	0.50-0.60		
Firm brown slightly sandy gravelly CLAY with a medium cobble content and low to medium boulder content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		1.40	75.35						
Medium compact brown clayey very sandy GRAVEL with medium cobble content and occasional to some boulders. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded.		1.60	75.15		AA178572	B	1.60-1.70		
Brown clayey very sandy GRAVEL with medium cobble content and occasional to some boulders. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded of limestone.				1 (Slow)					
Obstruction - boulders End of Trial Pit at 3.10m		3.10	73.65		AA178573	B	3.00-3.10		

Groundwater Conditions
Slow inflow from 2.6m

Stability
Slightly unstable from 1.4m

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP119302**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	659,131.02 E 728,294.97 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.45
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	76.05						
Firm brown slightly sandy gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse and subangular of limestone.						D	0.50-0.60		
					AA178574	B	0.50-0.60		
1.0 Light greyish brown slightly clayey very sandy GRAVEL with medium cobble content and occasional boulders. Assessed as medium dense. Sand is fine to coarse. Gravel (fine to coarse) , cobbles and boulders are subangular to subrounded of limestone.		1.10	75.35						
				1 (Moderate)	AA178575	B	1.50-1.60		
2.0									
Pit terminated due to instability. End of Trial Pit at 2.40m		2.40	74.05		AA178576	B	2.30-2.40		
3.0									
4.0									

Groundwater Conditions
Moderate inflow from 1.8m

Stability
Unstable below 1.1m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP119389**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	659,215.51 E 728,352.06 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.69
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	76.39						
Firm brown slightly sandy slightly gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse and subangular of limestone.						D	0.50-0.60		
					AA178577	B	0.50-0.60		
1.0 Firm brown slightly sandy slightly gravelly CLAY with a low to medium cobble content and occasional boulders. Sand is fine to medium. Gravel (fine to coarse), cobbles and boulders are subangular to subrounded of limestone.		1.20	75.49	1 (Slow)		D	1.50-1.60		
						ES	1.50-1.60		
2.0					AA178578	B	1.50-1.60		
Brown very clayey very sandy GRAVEL with medium cobble content and some boulders. Assessed as medium dense. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of limestone.		2.40	74.29						
Medium compact to compact brown very clayey very sandy GRAVEL with medium cobble content and some boulders. Clay is firm to stiff. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular.		3.10	73.59		AA178579	B	3.10-3.20		
3.0 Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		3.30	73.39						
Obstruction - boulders End of Trial Pit at 3.30m									
4.0									

Groundwater Conditions
Slow inflow from 1.2m

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP119502**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	659,330.99 E 728,381.10 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.15
		EXCAVATION METHOD	CAT 13 Tonne
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.30	75.85			D	0.50-0.60		
Firm brown slightly sandy slightly gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse and subangular of limestone.					AA178580	B	0.50-0.60		
1.0				1 (Slow)					
						D	1.60-1.70		
Brown very clayey sandy GRAVEL with a medium cobble content and some boulders. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		1.80	74.35		AA178581	B	1.60-1.70		
2.0									
3.0									
		3.30	72.85						
Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		3.49	72.66		AA178582	B	3.40-3.50		
Pit terminated due to instability.		3.50	72.65						
Pit terminated due to instability. End of Trial Pit at 3.50m									
4.0									

Groundwater Conditions
Slow inflow 1.1m

Stability
Unstable below 1.8m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP119586**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	659,418.96 E 728,391.97 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	74.98
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	74.68						
Firm brown mottled grey sandy very gravelly CLAY with medium cobble content and some boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded.						D	0.50-0.60		
					AA178583	B	0.50-0.60		
Firm brown mottled grey sandy very gravelly CLAY with medium cobble content and some boulders. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone.				1 (Moderate)					
1.0 Medium compact brown very clayey very sandy GRAVEL with medium cobble content and occasional to some boulders. CLAY is firm to stiff. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded.		1.30	73.68						
		1.50	73.48		AA178584	B	1.50-1.60		
Brown very clayey very sandy GRAVEL with medium cobble content and occasional to some boulders. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.									
2.0									
		2.70	72.28		AA178585	B	2.60-2.70		
Pit terminated due to instability. End of Trial Pit at 2.70m									
3.0									
4.0									

Groundwater Conditions
Moderate inflow from 0.9m

Stability
Unstable below 0.3m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP119700**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	659,526.96 E 728,350.94 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	73.39
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft black slightly sandy PEAT. Sand is fine to coarse.		0.20	73.19			D	0.10-0.20		
Firm occasionally soft to firm light brown slightly sandy gravelly CLAY to very clayey sandy gravel with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.				1 (Rapid)		ES	0.10-0.20		
					AA178586	B	0.10-0.20		
1.0					AA178587	B	1.40-1.50		
					Gravel	ES	1.40		
Pit terminated due to instability. End of Trial Pit at 1.70m		1.70	71.69						
2.0									
3.0									
4.0									

Groundwater Conditions
Fast inflow from 0.6m

Stability
Unstable below 0.2m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP125701**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	664,895.82 E 726,289.45 N
		DATE STARTED	22/02/2022
		DATE COMPLETED	22/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	71.03
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft black slightly sandy PEAT. Sand is fine to coarse.						D	0.50-0.60		
						ES	0.50-0.60		
					AA178597	B	0.50-0.60		
1.0									
Soft brown slightly sandy PEAT with some decayed and undecayed plant material. Sand is fine to coarse.		1.80	69.23						
2.0						D	1.90-2.00		
						ES	1.90-2.00		
					AA178598	B	1.90-2.00		
3.0									
Stiff to very stiff grey slightly sandy slightly gravelly silty CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of limestone.		3.70	67.33						
4.0 End of Trial Pit at 4.00m		4.00	67.03			D	3.90-4.00		
					AA178599	B	3.90-4.00		

Groundwater Conditions
Dry

Stability
Stable

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP125800**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	664,999.04 E 726,259.70 N
		DATE STARTED	22/02/2022
		DATE COMPLETED	22/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	68.87
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft black slightly sandy PEAT. Sand is fine to coarse.						D	0.50-0.60		
						ES	0.50-0.60		
					AA178594	B	0.50-0.60		
		0.80	68.07						
Stiff becoming very stiff grey slightly sandy slightly gravelly (becoming very sandy and very gravelly) SILT with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.				1 (Rapid)					
1.0						D	1.50-1.60		
						ES	1.50-1.60		
2.0					AA178595	B	1.50-1.60		
						D	2.90-3.00		
3.0 Pit terminated due to instability. End of Trial Pit at 3.00m		3.00	65.87		AA178596	B	2.90-3.00		
4.0									

Groundwater Conditions
Fast inflow from 1.2m

Stability
Unstable below 1.2m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP125902**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	665,090.22 E 726,299.55 N
		DATE STARTED	22/02/2022
		DATE COMPLETED	22/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	68.62
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
Soft black slightly sandy PEAT. Sand is fine to coarse.				1 (Slow)		ES	0.20-0.60		
						D	0.50-0.60		
					AA178588	B	0.50-0.60		
Firm to stiff grey slightly sandy gravelly (becoming very sandy and very gravelly) silty CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.		0.80	67.82						
						D	1.40-1.50		
					AA178589	B	1.40-1.50		
						D	3.10-3.20		
					AA178590	B	3.10-3.20		
Pit terminated due to instability. End of Trial Pit at 3.30m		3.30	65.32						

Groundwater Conditions
Slow inflow from 0.5m

Stability
Unstable below 0.8m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP126004**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	665,193.95 E 726,324.02 N
		DATE STARTED	22/02/2022
		DATE COMPLETED	22/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	69.32
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft black slightly sandy PEAT. Sand is fine to coarse.				1 (Seepage)		D	0.50-0.60		
						ES	0.50-0.60		
		0.80	68.52		AA178591	B	0.50-0.60		
Firm to stiff grey slightly sandy slightly gravelly (becoming very sandy and very gravelly) CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone.									
1.0						D	1.50-1.60		
					AA178592	B	1.50-1.60		
2.0									
3.0						D	3.20-3.30		
		3.40	65.92		AA178593	B	3.20-3.30		
Pit terminated due to instability. End of Trial Pit at 3.40m									
4.0									

Groundwater Conditions
Seepage from 0.2m

Stability
Unstable below 0.8m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP132838**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	670,743.50 E 729,511.18 N
		DATE STARTED	04/03/2022
		DATE COMPLETED	04/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	79.77
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	79.37						
Firm to stiff grey mottled brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.						D	0.50-0.50	63	
					AA152180	B	0.50-0.50	85	
								82	
1.0		1.10	78.67					81	
Firm greyish brown gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.								90	
								77	
						D	1.50-1.50		
						ES	1.50		
					AA152181	B	1.50-1.50		
2.0				1 (Moderate)					
Trial pit terminated due to collapse End of Trial Pit at 2.10m		2.10	77.67						
3.0									
4.0									

Groundwater Conditions
Moderate flow at 2.0m

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP132908**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	670,779.32 E 729,562.95 N
		DATE STARTED	04/03/2022
		DATE COMPLETED	04/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	80.06
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.40	79.66						
Stiff greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.						D	0.50-0.50	61	
					AA152177	B	0.50-0.50	52	
								83	
1.0								77	
		1.20	78.86					62	
Firm brownish grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.								99	
						D	1.50-1.50		
					AA152178	B	1.50-1.50		
2.0									
						D	2.50-2.50		
					AA152179	B	2.50-2.50		
3.0									
		3.20	76.86						
Trial pit terminated due to collapse End of Trial Pit at 3.20m									
4.0									

Groundwater Conditions
DRY

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133012**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	670,840.25 E 729,653.97 N
		DATE STARTED	03/03/2022
		DATE COMPLETED	03/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	81.73
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.40	81.33						
Firm stiff brownish grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.						D	0.50-0.50	102	
					AA152173	B	0.50-0.50	83	
								93	
1.0									
		1.10	80.63					95	
Firm greyish brown gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.								85	
								88	
						D	1.50-1.50		
					AA152174	B	1.50-1.50		
2.0									
		2.60	79.13	1 (Seepage)		D	2.50-2.50		
(Medium dense) Slightly clayey sandy GRAVEL with a medium cobble content. Sand is fine to coarse. Gravel is subangular to rounded of limestone.						ES	2.50		
					AA152175	B	2.50-2.50		
3.0									
						D	3.50-3.50		
		3.70	78.03		AA152176	B	3.50-3.50		
Trial pit terminated due to collapse End of Trial Pit at 3.70m									
4.0									

Groundwater Conditions
Seepage at 2.60m

Stability
Slightly unstable

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133108**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	670,853.04 E 729,747.98 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.61
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL		0.30	82.31						
Firm greyish brown slightly sandy slightly gravelly CLAY with a medium cobble content. Sand is fine to coarse. Gravel is subrounded fine to coarse of limestone. Cobbles are subangular to rounded of limestone.		0.80	81.81	1 (Seepage)	AA174488	D B	0.50-0.50 0.50-0.50	82 28 51	
Firm brownish grey slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Sand is fine to coarse. Gravel is subrounded fine to coarse of limestone. Cobbles and boulders subangular to rounded of limestone.					AA174489	D B	1.50-1.50 1.50-1.50	60 82 37	
Trial pit terminated due to collapse End of Trial Pit at 2.50m		2.50	80.11		AA174490	D B	2.50-2.50 2.50-2.50		

Groundwater Conditions
Seepage at 0.80m

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133227**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	670,882.64 E 729,842.59 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.94
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.30	83.64			D	0.50-0.50	61	
Soft to firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.					AA174485	B	0.50-0.50	43	
		0.80	83.14					60	
1.0 Firm brownish grey slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Gravel is fine to coarse, angular to subangular of limestone. Cobbles and boulders are subangular to rounded of limestone.						D	1.00-1.00		
					AA174486	B	1.00-1.00		
								72	
								58	
								70	
2.0						D	2.00-2.00		
						ES	2.00		
					AA174487	B	2.00-2.00		
3.0				1 (Seepage)					
		3.30	80.64						
Trial pit terminated due to boulders End of Trial Pit at 3.30m									
4.0									

Groundwater Conditions
Seepage at 3.0m

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133308**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	670,937.07 E 729,898.73 N
		DATE STARTED	21/02/2022
		DATE COMPLETED	21/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	84.13
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.40	83.73			D	0.50-0.50	92	
Firm brown sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of limestone.					AA174481	B	0.50-0.50	58 101	
		0.90	83.23						
1.0 Firm brownish grey slightly sandy gravelly CLAY with a medium cobble content. Gravel is angular to subrounded fine to coarse of limestone. Cobbles are subangular to rounded of limestone.						D	1.50-1.50	98	
					AA174482	B	1.50-1.50	71 80	
2.0									
						D	2.50-2.50		
						ES	2.50		
		2.80	81.33		AA174483	B	2.50-2.50		
Soft to firm brownish grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		3.00	81.13						
3.0 Trial pit terminated due to collapse End of Trial Pit at 3.00m						D	3.00-3.00		
					AA174484	B	3.00-3.00		
4.0									

Groundwater Conditions
DRY

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133780**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,348.00 E 730,145.98 N
		DATE STARTED	03/03/2022
		DATE COMPLETED	03/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.08
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
Firm greyish brown gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		0.60	81.48	1 (Moderate)		D B	1.50-1.50 1.50-1.50		
					AA152167				
2.0 Firm greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		2.10	79.98			D B	2.50-2.50 2.50-2.50		
					AA152168				
3.0 Trial pit terminated due to collapse End of Trial Pit at 3.00m		3.00	79.08						
4.0									

Groundwater Conditions
Moderate flow at 0.60m

Stability
Unstable from 0.60m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133904**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,454.99 E 730,213.87 N
		DATE STARTED	03/03/2022
		DATE COMPLETED	03/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.30
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL									
Firm to stiff greyish brown gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		0.60	82.70	1 (Moderate)		D	0.60-0.60		
					AA152164	B	0.60-0.60		
						D	1.50-1.50		
					AA152165	B	1.50-1.50		
						D	2.50-3.50		
					AA152166	B	2.50-3.50		
Trial pit terminated due to collapse End of Trial Pit at 3.50m		3.50	79.80						

0.0 1.0 2.0 3.0 4.0

Groundwater Conditions
Moderate flow at 0.60m

Stability
Very unstable from ground level

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133989**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,537.59 E 730,246.05 N
		DATE STARTED	01/03/2022
		DATE COMPLETED	01/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.64
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.60	83.04			D	0.60-0.60		
Firm brownish yellow slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152144	B	0.60-0.60		
1.0									
						D	1.50-1.50		
					AA152145	B	1.50-1.50		
2.0									
						D	2.50-3.50		
					AA152146	B	2.50-3.50		
3.0									
4.0 End of Trial Pit at 4.00m		4.00	79.64						

Groundwater Conditions
DRY

Stability
Stable

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP133999**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,567.84 E 730,196.20 N
		DATE STARTED	02/03/2022
		DATE COMPLETED	02/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.71
		EXCAVATION METHOD	Tracked Excavator
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL									
						D	0.50-0.50	88	
Firm brownish grey gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		0.60	83.11		AA152154	B	0.60-0.60	72 91	
								93 95 89	
Firm to stiff brownish grey slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		1.50	82.21	1 (Slow)		D B	1.50-1.50 1.50-1.50		
Trial pit terminated due to collapse End of Trial Pit at 2.50m		2.50	81.21						

Groundwater Conditions
Slow flow at 1.50m

Stability
Unstable from 1.50m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134001**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,525.72 E 730,314.51 N
		DATE STARTED	01/03/2022
		DATE COMPLETED	01/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.20
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.60	82.60					103	
Firm brownish yellow slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.				1 (Seepage)		D	0.60-0.60	72	
					AA152141	B	0.60-0.60	79	
1.0								82	
								85	
								63	
						D	1.50-1.50		
2.0					AA152142	B	1.50-1.50		
						D	2.50-3.50		
3.0					AA152143	B	2.50-3.50		
4.0 End of Trial Pit at 4.00m		4.00	79.20						

Groundwater Conditions
Seepage at 1.0m

Stability
Unstable from 1.0m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134040**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,581.04 E 730,264.03 N
		DATE STARTED	02/03/2022
		DATE COMPLETED	02/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.68
		EXCAVATION METHOD	Tracked Excavator
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.60	83.08			D	0.60-0.60	90	
Firm greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152151	B	0.60-0.60	62 53	
1.0								100 72 75	
						D	1.50-1.50		
					AA152152	B	1.50-1.50		
2.0				1 (Moderate)					
Firm greyish brown gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		2.10	81.58						
						D	2.50-3.50		
					AA152153	B	2.50-3.50		
3.0									
4.0 End of Trial Pit at 4.00m		4.00	79.68						

Groundwater Conditions
Moderate flow at 2.0m

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134082**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,601.03 E 730,325.04 N
		DATE STARTED	01/03/2022
		DATE COMPLETED	01/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.80
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.60	82.20			D	0.60-0.60	63	
Firm yellow brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152138	B	0.60-0.60	82 81	
1.0								101 72 61	
		1.50	81.30	1 (Moderate)		D	1.50-1.50		
Firm greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152139	B	1.50-1.50		
2.0									
						D	2.50-3.50		
					AA152140	B	2.50-3.50		
3.0									
4.0 End of Trial Pit at 4.00m		4.00	78.80						

Groundwater Conditions
Moderate flow at 1.50m

Stability
Unstable from 1.0m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134096**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,652.31 E 730,237.75 N
		DATE STARTED	02/03/2022
		DATE COMPLETED	02/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	84.32
		EXCAVATION METHOD	Tracked Excavator
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.60	83.72			D	0.60-0.60	61	
Firm greyish brown slightly sandy slightly gravelly CLAY with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152156	B	0.60-0.60	75 72	
1.0								82 66 97	
		1.60	82.72			D	1.50-1.50		
Firm brown gravelly slightly sandy CLAY with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152157	B	1.50-1.50		
2.0									
						D	2.50-2.50		
					AA152158	B	2.50-2.50		
3.0									
						D	3.50-3.50		
					AA152159	B	3.50-3.50		
4.0 End of Trial Pit at 4.00m		4.00	80.32						

Groundwater Conditions
DRY

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134139**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,674.00 E 730,299.99 N
		DATE STARTED	01/03/2022
		DATE COMPLETED	01/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.11
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.60	82.51					91	
Firm greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.						D	0.60-0.60	72	
					AA179498	B	0.60-0.60	88	
1.0		1.10	82.01					101	
Soft to firm brownish grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.								76	
								62	
						D	1.50-1.50		
					AA179499	B	1.50-1.50		
2.0									
						D	2.50-2.50		
					AA179500	B	2.50-2.50		
3.0									
						D	3.50-3.50		
					AA152137	B	3.50-3.50		
4.0 End of Trial Pit at 4.00m		4.00	79.11						

Groundwater Conditions
DRY

Stability
Slightly unstable from 1.0m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134181**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,698.83 E 730,357.04 N
		DATE STARTED	01/03/2022
		DATE COMPLETED	01/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.67
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
Firm brownish grey slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		0.60	82.07	1 (Seepage)		D	0.60-0.60		
					AA179495	B	0.60-0.60		
1.0									
						D	1.50-1.50		
					AA179496	B	1.50-1.50		
2.0 Firm brownish grey gravelly slightly sandy CLAY with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		2.10	80.57						
Trial pit terminated due to collapse End of Trial Pit at 2.50m		2.50	80.17			D	2.50-2.50		
					AA179497	B	2.50-2.50		
3.0									
4.0									

Groundwater Conditions
Seepage at 0.60m

Stability
Unstable from 1.0m

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134196**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,748.84 E 730,271.50 N
		DATE STARTED	02/03/2022
		DATE COMPLETED	02/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.33
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
Firm greyish brown gravelly slightly sandy CLAY with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.		0.40	82.93			D	0.50-0.50	101	
					AA152160	B	0.50-0.50	72	
								89	
1.0				1 (Seepage)					
Firm greyish brown slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.. Cobbles and boulders are subangular to rounded of limestone..		1.20	82.13					91	
								73	
								77	
						D	1.50-1.50		
					AA152161	B	1.50-1.50		
2.0									
						D	2.50-2.50		
					AA152162	B	2.50-2.50		
3.0									
Trial pit terminated due to collapse End of Trial Pit at 3.50m		3.50	79.83						
						D	3.50-3.50		
					AA152163	B	3.50-3.50		
4.0									

Groundwater Conditions
Seepage at 1.0m

Stability
Unstable from 1.0m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134239**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,767.01 E 730,335.98 N
		DATE STARTED	02/03/2022
		DATE COMPLETED	02/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.03
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.50	82.53			D	0.50-0.50	82	
Firm greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152147	B	0.50-0.50	69	
								99	
1.0								71	
								107	
								88	
						D	1.50-1.50		
					AA152148	B	1.50-1.50		
2.0		2.10	80.93						
Firm brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.									
						D	2.50-2.50		
					AA152149	B	2.50-2.50		
3.0									
		3.30	79.73						
Firm brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.									
						D	3.50-3.50		
					AA152150	B	3.50-3.50		
4.0 End of Trial Pit at 4.00m		4.00	79.03						

Groundwater Conditions
DRY

Stability
Stable

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134281**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,802.69 E 730,395.37 N
		DATE STARTED	01/03/2022
		DATE COMPLETED	01/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.76
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.40	82.36						
Firm to stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.						D	0.50-0.50	78	
					AA179491	B	0.50-0.50	62	
								65	
1.0								81	
		1.20	81.56					93	
Firm to stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.								78	
						D	1.50-1.50		
					AA179492	B	1.50-1.50		
		1.80	80.96						
Firm to stiff gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.									
2.0									
						D	2.50-2.50		
					AA179493	B	2.50-2.50		
3.0									
						D	3.50-3.50		
					AA179494	B	3.50-3.50		
4.0 End of Trial Pit at 4.00m		4.00	78.76						

Groundwater Conditions
DRY

Stability
Slightly unstable

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134296**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,839.02 E 730,310.07 N
		DATE STARTED	16/02/2022
		DATE COMPLETED	16/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.14
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL		0.30	82.84	1 (Seepage)					
Firm brown mottled grey slightly sandy gravelly CLAY with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.						D	0.50-0.50	80	
					AA174478	B	0.50-0.50	62	
								53	
Stiff grey mottled brown slightly sandy gravelly CLAY with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		1.00	82.14	2 (Slow)					
						D	1.50-1.50	62	
					AA174479	B	1.50-1.50	101	
								82	
Firm brown slightly sandy gravelly CLAY with a medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		1.80	81.34						
						D	2.00-2.00		
					AA174480	B	2.00-2.00		
Trial pit terminated due to collapse End of Trial Pit at 2.40m		2.40	80.74						

Groundwater Conditions
Slow flow at 1.0m

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134340**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,861.10 E 730,372.03 N
		DATE STARTED	15/02/2022
		DATE COMPLETED	15/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.74
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL									
		0.40	82.34			D	0.50-0.50	78	
Stiff greyish brown slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Gravel is subangular to subrounded fine to coarse of limestone. Cobbles and boulders rounded to subangular of limestone.					AA174475	B	0.50-0.50	50 118	
						D	1.50-1.50	42	
					AA174476	B	1.50-1.50	98	
						D	2.50-2.50		
					AA174477	B	2.50-2.50		
Trial pit terminated due to collapse End of Trial Pit at 2.80m		2.80	79.94						

Groundwater Conditions
DRY

Stability
Unstable from 0.40m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134396**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,932.52 E 730,347.59 N
		DATE STARTED	15/02/2022
		DATE COMPLETED	15/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.72
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL				1 (Slow)					
Firm greyish brown slightly sandy gravelly CLAY with a high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are subrounded of limestone.		0.30	82.42			D	0.50-0.50	94	
					AA174464	B	0.50-0.50	99	
								105	
1.0 Firm grey brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		1.10	81.62						
						D	1.50-1.50	86	
					AA174465	B	1.50-1.50	75	
								60	
2.0 Firm grey slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		2.10	80.62			D	2.10-2.10		
		2.30	80.42		AA174466	B	2.10-2.10		
Trial pit terminated due to collapse End of Trial Pit at 2.30m									
3.0									
4.0									

Groundwater Conditions
Slow flow at 0.30m

Stability
Unstable from 0.30m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134406**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,912.01 E 730,421.09 N
		DATE STARTED	15/02/2022
		DATE COMPLETED	15/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.03
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.30	82.73						
Firm brownish grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.						D	0.50-0.50	74	
					AA174470	B	0.50-0.50	92	
								69	
1.0						D	1.00-1.00		
					AA174471	B	1.00-1.00		
		1.40	81.63						
Firm yellowish brown slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Gravel is subangular to subrounded fine to coarse of limestone. Cobbles and boulders are rounded to subangular of limestone.						D	1.50-1.50	120	
					AA174472	B	1.50-1.50	79	
2.0								91	
		2.40	80.63			D	2.40-2.40		
Firm to stiff grey sandy gravelly CLAY with occasional boulder. Gravel is subangular to subrounded fine to coarse of limestone. Boulders are rounded to subangular of limestone.		2.60	80.43		AA174473	B	2.40-2.40		
						D	2.60-2.60		
		2.80	80.23		AA174474	B	2.60-2.60		
Firm yellowish brown sandy gravelly CLAY with a medium cobble content and low boulder content. Gravel is subangular to subrounded fine to coarse of limestone. Cobbles and boulders are rounded to subangular of limestone.									
Trial pit terminated due to collapse End of Trial Pit at 2.80m									
3.0									
4.0									

Groundwater Conditions
DRY

Stability
Unstable from 1.40m

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134439**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,951.98 E 730,399.47 N
		DATE STARTED	15/02/2022
		DATE COMPLETED	15/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.81
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
Firm greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		0.40	82.41	1 (Seepage)		D	0.50-0.50	108	
					AA174467	B	0.50-0.50	101 89	
1.0						D	1.50-1.50	64	
					AA174468	B	1.50-1.50	78 91	
2.0						ES	2.00-3.00		
Firm grey slightly sandy gravelly CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		2.30	80.51	2 (Seepage)		D	2.30-2.30		
		2.50	80.31		AA174469	B	2.30-2.30		
Trial pit terminated due to collapse End of Trial Pit at 2.50m									
3.0									
4.0									

Groundwater Conditions
Seepage at 2.30m

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP134490**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	671,992.90 E 730,445.02 N
		DATE STARTED	15/02/2022
		DATE COMPLETED	15/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.90
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	82.60	1 (Slow)	AA174461	D B	0.50-0.50 0.50-0.50	100 120 114	
Stiff greyish brown slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Gravel is subangular to subrounded fine to coarse of limestone. Cobbles and boulders rounded to subangular of limestone.					AA174462	D B	1.50-1.50 1.50-1.50	70 40 16	
Stiff grey slightly sandy gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are subrounded of limestone.		2.20	80.70		AA174463	D B	2.20-2.20 2.20-2.20		
Trial pit terminated due to collapse End of Trial Pit at 2.40m		2.40	80.50						

Groundwater Conditions
Slow flow at 0.50m

Stability
Slightly unstable from ground level

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP135009**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	672,224.03 E 730,871.05 N
		DATE STARTED	14/02/2022
		DATE COMPLETED	14/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.18
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL						D	0.30-0.30		
				1 (Slow)	AA174458	B	0.30-0.30		
						D	0.50-0.50	12	
Firm brownish grey slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Gravel is subangular to subrounded fine to coarse of limestone. Cobbles and boulders are rounded to subangular of limestone.		0.50	81.68		AA174459	B	0.50-0.50	10	
1.0								26	
								23	
								49	
								46	
				2 (Seepage)		D	2.00-2.00		
2.0					AA174460	B	2.00-2.00		
Trial pit terminated due to boulders End of Trial Pit at 2.80m		2.80	79.38						
3.0									
4.0									

Groundwater Conditions
Seepage at 2.0m

Stability
Slightly unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP135503**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	672,618.01 E 731,138.03 N
		DATE STARTED	14/02/2022
		DATE COMPLETED	14/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.32
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.40	82.92			D	0.50-0.50	88	
Firm brown mottled yellow slightly sandy gravelly CLAY with a medium cobble content. Cobbles are angular to subrounded. Gravel is subangular fine to coarse of limestone.					AA174452	B	0.50-0.50	86 82	
		1.00	82.32	1 (Seepage)					
1.0 Firm greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.						D	1.50-1.50	69	
2.0					AA174453	B	1.50-1.50	106 80	
		2.40	80.92						
Trial pit terminated due to collapse End of Trial Pit at 2.40m									
3.0									
4.0									

Groundwater Conditions
Seepage at 1.0m

Stability
Unstable from 1.0m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP135607**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	672,657.06 E 731,227.05 N
		DATE STARTED	14/02/2022
		DATE COMPLETED	14/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.08
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL									
Very soft grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.		0.40	81.68			D	0.50-0.50	42	
				1 (Seepage)	AA174450	B	0.50-0.50	86	
Soft grey mottled brown slightly sandy slightly gravelly CLAY with a low to medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are subrounded of limestone.		0.80	81.28					54	
						D	1.50-1.50	68	
					AA174451	B	1.50-1.50	82	
								98	
Trial Pit termainted due to instability End of Trial Pit at 2.80m		2.80	79.28						

Groundwater Conditions
Seepage at 0.80m

Stability
Slightly unstable from 0.40m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP135708**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	672,743.87 E 731,297.05 N
		DATE STARTED	14/02/2022
		DATE COMPLETED	14/02/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	82.05
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	81.75						
Firm grey slightly sandy gravelly CLAY with a medium cobble content. Gravel is subrounded fine to medium of limestone. Cobbles are rounded to subangular of limestone.		0.60	81.45	1 (Slow)	AA174455	D B	0.50-0.50 0.50-0.50	75 79 86	
1.0 Firm to stiff brownish grey slightly sandy gravelly CLAY with a medium cobble content and low boulder content. Gravel is subangular to subrounded fine to coarse of limestone. Cobbles and boulders are rounded to subangular of limestone.					AA174456	D B	1.50-1.50 1.50-1.50	98 87 102	
2.0					AA174457	D B	2.00-2.00 2.00-2.00		
Trial pit terminated due to boulders End of Trial Pit at 2.20m		2.20	79.85						
3.0									
4.0									

Groundwater Conditions
Slow flow at 0.60m

Stability
Unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP135904**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	672,779.02 E 731,474.28 N
		DATE STARTED	03/03/2022
		DATE COMPLETED	03/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.87
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.20	83.67			D	0.50-0.50	77	
Firm brown mottled grey gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.					AA152169	B	0.50-0.50	72 81	
1.0		1.00	82.87						
Firm brown gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.								93 69 68	
						D	1.50-1.50		
					AA152170	B	1.50-1.50		
2.0		2.20	81.67						
Firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.									
						D	2.50-2.50		
						ES	2.50		
					AA152171	B	2.50-2.50		
3.0		3.30	80.57						
Trial pit terminated due to collapse End of Trial Pit at 3.30m									
						D	3.50-3.50		
					AA152172	B	3.50-3.50		
4.0									

Groundwater Conditions
DRY

Stability
Slightly unstable

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP136007**
		SHEET	Sheet 1 of 1
LOGGED BY	DN	**CO-ORDINATES**	672,795.14 E 731,590.99 N
		DATE STARTED	01/04/2022
		DATE COMPLETED	01/04/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	85.17
		EXCAVATION METHOD	Hitachi 6.5T
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL - Brown sandy very slightly gravelly CLAY with occasional rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of limestone.		0.30	84.87						
Firm brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		0.50	84.67						
Firm to stiff slightly sandy slightly gravelly CLAY with low cobble content (subrounded to rounded). Sand is fine to medium. Gravel is subangular to rounded fine to coarse of limestone.						D AA156007 B	0.60-0.60 0.60-0.60		
1.0									
Soft to firm (slightly moist) brown to light brown slightly sandy slightly gravelly CLAY with a low cobble content (subangular to subrounded) and low boulder content (Blocky limestone, up to 0.40m). Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of limestone.		1.70	83.47						
2.0						D AA156008 B	1.90-1.90 1.90-1.90		
End of Trial Pit at 2.50m		2.50	82.67						
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Good Stability

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP136108**
		SHEET	Sheet 1 of 1
LOGGED BY	DN	**CO-ORDINATES**	672,833.03 E 731,687.63 N
		DATE STARTED	01/04/2022
		DATE COMPLETED	01/04/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	86.02
		EXCAVATION METHOD	Hitachi 6.5T
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL - Brown sandy very slightly gravelly CLAY with occasional rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of limestone.		0.35	85.67						
Firm brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		0.50	85.52						
Firm light brown slightly sandy slightly gravelly CLAY with a low cobble content (subangular to subrounded). Sand is fine to medium. Gravel is subangular to rounded fine to coarse of limestone.						D AA156009 B	0.60-0.60 0.60-0.60		
1.0									
Soft (recovered moist) light brown mottled grey slightly sandy slightly gravelly silty CLAY with a low cobble content (angular to subrounded). Sand is fine to medium. Gravel is subangular to subrounded fine to coarse of limestone.		1.50	84.52			D ES AA156010 B	1.80-1.80 1.80 1.80-1.80		
2.0									
End of Trial Pit at 2.40m		2.40	83.62						
3.0									
4.0									

Groundwater Conditions
Dry

Stability
Good Stability

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP139902**
		SHEET	Sheet 1 of 1
LOGGED BY	AG	**CO-ORDINATES**	675,572.87 E 733,379.10 N
		DATE STARTED	04/05/2022
		DATE COMPLETED	04/05/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	84.49
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 10.5T

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft brown pseudo fibrous PEAT - Possible made ground								10 0[R]	
1.0						D	1.00-1.50		
					AA156460	B	1.00-1.50	12 0[R]	
Orange Brown fibrous PEAT - strong odour		1.60	82.89						
Soft dark brown pseudofibrous PEAT with high wood content - Possible Bog deal.		1.70	82.79						
2.0						D	2.00-3.00		
					AA156461	B	2.00-3.00		
3.0									
Soft grey blue slightly gravelly slightly sandy SILT with a low cobble content. Sand is fine to coarse. Gravel and cobbles are subrounded to subangular of limestone.		3.40	81.09	1 (Seepage)		D	3.50-4.00		
					AA156462	B	3.50-4.00		
4.0 End of Trial Pit at 4.00m		4.00	80.49						

Groundwater Conditions
Seepage at 3.5m

Stability
Moderate stability

General Remarks
Vane test [R] = Remould Strength

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP142792**
		SHEET	Sheet 1 of 1
LOGGED BY	J.Condon	**CO-ORDINATES**	678,343.73 E 733,874.54 N
		DATE STARTED	07/03/2022
		DATE COMPLETED	07/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.91
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	CAT 13 Tonne

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.30	77.61						
Grey very sandy GRAVEL with low cobble content. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse, subrounded to rounded of limestone.					AA173643	B	0.50-0.60		
1.0									
2.0									
Grey sandy GRAVEL with a medium to high cobble content and low to medium boulder content. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse, subrounded to rounded of limestone.		2.30	75.61		AA173644	B	2.30-2.40		
3.0									
Pit terminated due to instability. End of Trial Pit at 3.10m		3.10	74.81						
4.0									

Groundwater Conditions
Dry

Stability
Slightly unstable from 1.2m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP142904**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	678,462.91 E 733,907.18 N
		DATE STARTED	07/03/2022
		DATE COMPLETED	07/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.61
		EXCAVATION METHOD	Tracked Excavator
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL									
		0.40	77.21			D	0.50-0.50	52	
Grey slightly clayey sandy GRAVEL with a medium cobble content. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone.. Cobbles subangular to rounded of limestone.					AA152182	B	0.50-0.50	41 45	
		0.90	76.71						
Grey slightly clayey sandy GRAVEL with a medium cobble content. Assessed as medium dense. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular of limestone. Cobbles subangular to rounded of limestone.								61 44 53	
						D	1.50-1.50		
					AA152183	B	1.50-1.50		
						D	2.00-2.00		
					AA152184	B	2.00-2.00		
		2.30	75.31						
Trial pit terminated due to collapse End of Trial Pit at 2.30m									

Groundwater Conditions
DRY

Stability
Unstable from 0.90m

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP143006**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	678,558.26 E 733,921.60 N
		DATE STARTED	07/03/2022
		DATE COMPLETED	07/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.39
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
Grey very sandy GRAVEL. Assessed as medium dense. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		0.40	76.99			D	0.50-0.50		
					AA152185	B	0.50-0.50		
1.0									
						D	1.50-1.50		
					AA152186	B	1.50-1.50		
Trial pit terminated due to collapse End of Trial Pit at 1.90m		1.90	75.49						
2.0									
3.0									
4.0									

Groundwater Conditions
DRY

Stability
Very unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP143104**
		SHEET	Sheet 1 of 1
LOGGED BY	C. Moynihan	**CO-ORDINATES**	678,640.04 E 733,973.92 N
		DATE STARTED	07/03/2022
		DATE COMPLETED	07/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	76.08
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL		0.40	75.68						
Grey slightly clayey gravelly SAND. Assessed as medium dense. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone.		0.60	75.48			D	0.50-0.50		
					AA152187	B	0.50-0.50		
Grey slightly clayey very sandy GRAVEL. Assessed as medium dense. Gravel is subangular to rounded fine to coarse of limestone. Sand is fine to coarse.									
1.0									
				1 (Seepage)					
Trial pit terminated due to collapse End of Trial Pit at 1.50m		1.50	74.58			D	1.50-1.50		
					AA152188	B	1.50-1.50		
2.0									
3.0									
4.0									

Groundwater Conditions
Seepage at 1.50m

Stability
Very unstable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP143303**
		SHEET	Sheet 1 of 1
LOGGED BY	DN	**CO-ORDINATES**	678,842.94 E 734,003.98 N
		DATE STARTED	01/04/2022
		DATE COMPLETED	01/04/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	77.15
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Hitachi 6.5T

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TOPSOIL - Dark brown sandy very slightly gravelly CLAY with occasional rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of limestone.		0.30	76.85						
Dark brown sandy very slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of limestone. Sidewall collapse		0.50	76.65						
Dark grey clayey very sandy GRAVEL with a medium cobble content (subrounded to rounded) and low boulder content (varied lithologies, max 0.50m). Assessed as medium dense. Sand is medium to coarse. Gravel is subrounded to rounded fine to coarse of limestone.					AA156004	D B	0.80-0.80 0.80-0.80		
					AA156005	D B	2.00-2.00 2.00-2.00		
End of Trial Pit at 3.40m		3.40	73.75		AA156006	D B	3.30-3.30 3.30-3.30		

Groundwater Conditions
Dry

Stability
Very poor stability

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP143502**
		SHEET	Sheet 1 of 1
LOGGED BY	A. Garne	**CO-ORDINATES**	679,037.46 E 734,017.02 N
		DATE STARTED	08/03/2022
		DATE COMPLETED	08/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	74.71
		EXCAVATION METHOD	Tracked Excavator
ENGINEER	Mott MacDonald		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Soft to firm dark brown pseudofibrous PEAT						D	0.50-0.50	12	
						ES	0.50	18	
					AA173645	B	0.50-0.50	25	
Soft to firm orange brown pseudofibrous PEAT		0.80	73.91						
1.0								31	
								15	
								22	
						D	1.50-1.50		
						ES	1.50		
					AA173646	B	1.50-1.50		
2.0									
Very soft light brown to cream slightly sandy SILT. Sand is fine to medium.		2.80	71.91						
3.0 Soft grey sandy slightly gravelly SILT. Sand is fine. Gravel is subangular to subrounded coarse of limestone.		3.00	71.71	1 (Rapid)		D	3.00-3.00		
						ES	3.00		
					AA173647	B	3.00-3.00		
Trial pit terminated due to groundwater entry End of Trial Pit at 3.80m		3.80	70.91						
4.0									

Groundwater Conditions
Fast flow from 3.0m

Stability
Unstable from 3.0m

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 23560

CONTRACT	WSP Ground Investigation Contract Lot 3	**TRIAL PIT NO.**	**TP144592**
		SHEET	Sheet 1 of 1
LOGGED BY	A. Garne	**CO-ORDINATES**	680,063.16 E 733,872.53 N
		DATE STARTED	08/03/2022
		DATE COMPLETED	08/03/2022
CLIENT	Irish Water / Ervia	**GROUND LEVEL (m)**	83.04
ENGINEER	Mott MacDonald	**EXCAVATION METHOD**	Tracked Excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TOPSOIL									
		0.30	82.74						
Firm brown sandy SILT. Sand is fine to coarse						D	0.50-0.50	66	
					AA173648	B	0.50-0.50	89	
		0.80	82.24					107	
Firm greyish brown to brown black slightly gravelly slightly sandy SILT. Gravel is fine subangular to subrounded of limestone.						D	1.00-1.00	78	
1.0					AA173649	B	1.00-1.00	89	
								96	
		1.50	81.54						
Loose greyish brown silty fine to medium SAND									
2.0						D	2.00-3.00		
					AA173650	B	2.00-3.00		
3.0									
		4.00	79.04						
4.0 End of Trial Pit at 4.00m									

Groundwater Conditions
DRY

Stability
Stable

General Remarks

Report ID: IGSL TP LOG || Project: 23560 PEATLINDS AND PIPELINE FINAL AGS 4.GPJ || Library: IGSL LIBRARY 4_0 LOT 3 SHITE.GLB || Date: 19 June 2023

Appendix 8D

Peat Probe & Russian Core Records

Appendix 8D.1

Peat Probe Summary Records

PP103263	PP105687	PP106828	PP108191	PP109848	PP112296
PP103272	PP105781	PP106829	PP108192	PP109849	PP112462
PP103273	PP105784	PP106906	PP108290	PP109945	PP112550
PP103359	PP105789	PP106909	PP108291	PP109949	PP112557
PP103369	PP105881	PP106911	PP108292	PP109950	PP112561
PP103377	PP105884	PP107006	PP108399	PP110045	PP112659
PP103459	PP105886	PP107007	PP108400	PP110049	PP112663
PP103471	PP105970	PP107015	PP108401	PP110068	PP112668
PP103490	PP105971	PP107107	PP108498	PP110158	
PP104088	PP105975	PP107108	PP108501	PP110159	
PP104109	PP106040	PP107110	PP108597	PP110167	
PP104125	PP106047	PP107201	PP108598	PP110254	
PP104211	PP106049	PP107202	PP108600	PP110259	
PP104231	PP106143	PP107203	PP108690	PP110267	
PP104250	PP106147	PP107303	PP108691	PP110358	
PP104307	PP106148	PP107305	PP108700	PP110361	
PP104326	PP106243	PP107306	PP108780	PP110367	
PP104338	PP106247	PP107397	PP108791	PP110453	
PP104393	PP106249	PP107402	PP108944	PP110459	
PP104399	PP106308	PP107403	PP108948	PP110467	
PP104405	PP106342	PP107503	PP108952	PP110560	
PP104464	PP106347	PP107504	PP109052	PP110567	
PP104482	PP106354	PP107505	PP109054	PP110655	
PP104895	PP106365	PP107596	PP109056	PP110659	
PP104940	PP106422	PP107604	PP109146	PP110668	
PP105036	PP106429	PP107605	PP109147	PP110760	
PP105038	PP106445	PP107654	PP109148	PP110761	
PP105040	PP106450	PP107701	PP109246	PP110768	
PP105146	PP106464	PP107704	PP109247	PP110857	
PP105250	PP106480	PP107708	PP109248	PP110861	
PP105251	PP106503	PP107756	PP109347	PP110865	
PP105255	PP106533	PP107804	PP109349	PP111872	
PP105351	PP106546	PP107810	PP109350	PP111874	
PP105352	PP106548	PP107811	PP109446	PP111875	
PP105353	PP106549	PP107853	PP109447	PP111978	
PP105440	PP106550	PP107896	PP109450	PP111979	
PP105453	PP106557	PP107897	PP109545	PP111981	
PP105478	PP106598	PP107898	PP109548	PP112069	
PP105503	PP106643	PP107990	PP109645	PP112070	
PP105504	PP106647	PP107991	PP109648	PP112077	
PP105587	PP106648	PP107992	PP109651	PP112116	
PP105588	PP106748	PP108090	PP109745	PP112144	
PP105589	PP106749	PP108091	PP109749	PP112174	
PP105682	PP106751	PP108092	PP109751	PP112283	
PP105684	PP106818	PP108190	PP109845	PP112291	

Peat Probe Summary Records (cont.)

PP112760	PP114565	PP116064	PP120004	PP122494	PP124087
PP112768	PP114613	PP116161	PP120102	PP122498	PP124091
PP112791	PP114661	PP116262	PP120194	PP122503	PP124094
PP112831	PP114663	PP116263	PP120293	PP122591	PP124100
PP112873	PP114664	PP116264	PP120294	PP122594	PP124126
PP112874	PP114762	PP116361	PP120297	PP122597	PP124186
PP112875	PP114763	PP116363	PP120394	PP122691	PP124194
PP112962	PP114764	PP116366	PP120395	PP122694	PP124249
PP112963	PP114862	PP116462	PP120397	PP122697	PP124274
PP112964	PP114863	PP116463	PP120495	PP122793	PP124289
PP113458	PP114962	PP116464	PP120497	PP122795	PP124294
PP113462	PP114963	PP116562	PP120498	PP122797	PP124303
PP113466	PP114964	PP116563	PP120592	PP122890	PP124312
PP113559	PP115062	PP116564	PP120593	PP122897	PP124327
PP113563	PP115062	PP116662	PP120594	PP122898	PP124392
PP113567	PP115063	PP116663	PP120693	PP122990	PP124394
PP113659	PP115063	PP116664	PP120695	PP122995	PP124395
PP113662	PP115064	PP116753	PP120698	PP122997	PP124494
PP113666	PP115159	PP116754	PP121094	PP123095	PP124502
PP113758	PP115163	PP116755	PP121193	PP123097	PP124503
PP113763	PP115166	PP117573	PP121195	PP123294	PP124593
PP113764	PP115259	PP117957	PP121196	PP123296	PP124594
PP113861	PP115269	PP118059	PP121291	PP123297	PP124601
PP113863	PP115362	PP118064	PP121292	PP123394	PP124692
PP113865	PP115363	PP118064	PP121299	PP123395	PP124694
PP113955	PP115363	PP118070	PP121305	PP123397	PP124702
PP113963	PP115364	PP118144	PP121994	PP123494	PP124745
PP113971	PP115462	PP118149	PP121995	PP123495	PP124788
PP114060	PP115463	PP118154	PP121996	PP123496	PP124794
PP114063	PP115467	PP118231	PP122090	PP123594	PP124801
PP114066	PP115562	PP118232	PP122094	PP123599	PP124889
PP114260	PP115563	PP118233	PP122095	PP123644	PP124894
PP114263	PP115564	PP118301	PP122103	PP123694	PP124901
PP114264	PP115661	PP118302	PP122191	PP123696	PP124993
PP114363	PP115663	PP118303	PP122192	PP123697	PP124994
PP114363	PP115665	PP119684	PP122194	PP123792	PP125001
PP114364	PP115761	PP119718	PP122195	PP123794	PP125094
PP114365	PP115762	PP119742	PP122197	PP123797	PP125095
PP114413	PP115763	PP119794	PP122200	PP123889	PP125101
PP114461	PP115862	PP119815	PP122296	PP123895	PP125190
PP114463	PP115863	PP119824	PP122298	PP123896	PP125194
PP114465	PP115864	PP119900	PP122302	PP123969	PP125200
PP114465	PP115963	PP119903	PP122394	PP123976	PP125288
PP114513	PP115964	PP119906	PP122395	PP123994	PP124289
PP114561	PP115965	PP120002	PP122397	PP123999	PP124294

Peat Probe Summary Records (cont.)

PP125001	PP126887	PP128387	PP130392	PP131894	PP136761
PP125094	PP126891	PP128392	PP130490	PP131987	PP136858
PP125095	PP126895	PP128394	PP130491	PP131992	PP136860
PP125101	PP126986	PP128487	PP130492	PP131997	PP136861
PP125190	PP126991	PP128492	PP130590	PP134504	PP136958
PP125194	PP126994	PP128498	PP130591	PP134534	PP136960
PP125200	PP127087	PP128592	PP130592	PP134550	PP136967
PP125288	PP127091	PP128988	PP130691	PP134629	PP137054
PP125292	PP127094	PP128989	PP130692	PP134633	PP137060
PP125294	PP127186	PP128990	PP130693	PP134643	PP137065
PP125388	PP127191	PP129087	PP130790	PP134743	PP137156
PP125392	PP127194	PP129091	PP130791	PP134846	PP137160
PP125394	PP127287	PP129188	PP130792	PP134903	PP137166
PP125490	PP127291	PP129191	PP130890	PP134919	PP137264
PP125492	PP127294	PP129292	PP130892	PP134947	PP137267
PP125494	PP127386	PP129389	PP130893	PP135032	PP137275
PP125561	PP127391	PP129391	PP130990	PP135048	PP137368
PP125594	PP127394	PP129392	PP130991	PP135071	PP137371
PP125615	PP127484	PP129488	PP130992	PP135123	PP137375
PP126053	PP127491	PP129492	PP131090	PP135141	PP137469
PP126109	PP127504	PP129587	PP131091	PP135176	PP137471
PP126154	PP127587	PP129591	PP131092	PP135193	PP137475
PP126210	PP127590	PP129593	PP131190	PP135207	PP137578
PP126211	PP127592	PP129597	PP131191	PP135230	PP137579
PP126212	PP127685	PP129690	PP131192	PP135249	PP137581
PP126308	PP127691	PP129691	PP131290	PP135268	PP137672
PP126310	PP127700	PP129788	PP131291	PP135277	PP137673
PP126312	PP127785	PP129791	PP131292	PP135282	PP137679
PP126408	PP127791	PP129891	PP131390	PP135377	PP137777
PP126410	PP127801	PP129892	PP131391	PP136155	PP137779
PP126412	PP127889	PP129893	PP131392	PP136164	PP137780
PP126509	PP127891	PP129987	PP131490	PP136167	PP137872
PP126511	PP127893	PP129991	PP131491	PP136257	PP137873
PP126512	PP127988	PP129994	PP131492	PP136260	PP137879
PP126602	PP127991	PP130087	PP131590	PP136262	PP137975
PP126605	PP127993	PP130188	PP131591	PP136356	PP137976
PP126610	PP128087	PP130189	PP131592	PP136357	PP137979
PP126612	PP128091	PP130191	PP131690	PP136358	PP138075
PP126695	PP128099	PP130192	PP131690	PP136458	PP138076
PP126708	PP128189	PP130193	PP131691	PP136460	PP138077
PP126714	PP128191	PP130291	PP131692	PP136461	PP138175
PP126751	PP128196	PP130293	PP131790	PP136558	PP138176
PP126786	PP128287	PP130294	PP131791	PP136560	PP138177
PP126791	PP128292	PP130389	PP131792	PP136758	PP138277
PP126796	PP128298	PP130391	PP131891	PP136760	PP138278

Peat Probe Summary Records (cont.)

PP138279	PP139805	PP140912	PP142411	PP144308	PP145912
PP138381	PP139806	PP141007	PP142506	PP144309	PP146010
PP138382	PP139902	PP141008	PP142507	PP144398	PP146011
PP138383	PP139905	PP141009	PP142599	PP144407	PP146012
PP138482	PP139909	PP141106	PP142601	PP144411	PP146109
PP138483	PP139930	PP141107	PP142697	PP144507	PP146110
PP138484	PP139956	PP141108	PP142698	PP144509	PP146111
PP138587	PP139996	PP141108	PP142785	PP144511	PP146306
PP138588	PP140003	PP141205	PP142787	PP144609	PP146309
PP138590	PP140005	PP141206	PP142859	PP144624	PP146311
PP138688	PP140006	PP141207	PP142869	PP144638	PP146408
PP138689	PP140051	PP141302	PP142874	PP144706	PP146410
PP138787	PP140061	PP141303	PP142875	PP144708	PP146415
PP138788	PP140100	PP141304	PP143097	PP144710	PP146509
PP138790	PP140105	PP141402	PP143099	PP144809	PP146510
PP138890	PP140106	PP141403	PP143115	PP144810	PP146512
PP138895	PP140107	PP141405	PP143128	PP144811	PP146709
PP138896	PP140152	PP141502	PP143184	PP144909	PP146710
PP138945	PP140204	PP141503	PP143187	PP144910	PP146711
PP138997	PP140205	PP141506	PP143188	PP144911	
PP138999	PP140206	PP141612	PP143192	PP145008	
PP139002	PP140208	PP141613	PP143251	PP145009	
PP139097	PP140259	PP141614	PP143284	PP145010	
PP139101	PP140303	PP141712	PP143296	PP145109	
PP139103	PP140305	PP141713	PP143297	PP145110	
PP139198	PP140306	PP141714	PP143381	PP145111	
PP139200	PP140307	PP141810	PP143409	PP145410	
PP139202	PP140308	PP141811	PP143441	PP145411	
PP139260	PP140408	PP141812	PP143441	PP145412	
PP139296	PP140409	PP141910	PP143462	PP145509	
PP139297	PP140410	PP141912	PP143519	PP145511	
PP139305	PP140508	PP141913	PP143521	PP145512	
PP139397	PP140509	PP142011	PP143522	PP145608	
PP139398	PP140511	PP142012	PP143555	PP145611	
PP139399	PP140608	PP142013	PP143618	PP145612	
PP139501	PP140610	PP142109	PP143619	PP145679	
PP139502	PP140612	PP142110	PP143622	PP145710	
PP139503	PP140708	PP142210	PP143916	PP145711	
PP139603	PP140711	PP142212	PP144010	PP145712	
PP139604	PP140715	PP142213	PP144014	PP145773	
PP139605	PP140809	PP142311	PP144115	PP145809	
PP139707	PP140812	PP142312	PP144116	PP145810	
PP139708	PP140815	PP142313	PP144212	PP145811	
PP139709	PP140910	PP142409	PP144213	PP145910	
PP139803	PP140911	PP142410	PP144307	PP145911	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP103263	04/02/2022	646000.00	722545.00		0.20	
PP103272	04/02/2022	646020.00	722532.00		0.40	
PP103273	04/02/2022	646035.00	722512.00		0.30	
PP103359	04/02/2022	646088.00	722591.00		0.50	
PP103369	04/02/2022	646106.00	722576.00		0.70	
PP103377	04/02/2022	646124.00	722557.00		0.40	
PP103459	04/02/2022	646177.00	722636.00		0.30	
PP103471	04/02/2022	646198.00	722620.00		0.30	
PP103490	04/02/2022	646226.00	722606.00		1.40	
PP104088	04/02/2022	646764.01	722867.00	89.29	0.20	
PP104109	04/02/2022	646769.00	722896.99	89.72	0.20	
PP104125	04/02/2022	646768.94	722927.06	90.10	0.20	
PP104211	04/02/2022	646870.00	722930.01	88.83	0.40	
PP104231	04/02/2022	646872.05	722962.98	89.61	0.60	
PP104250	04/02/2022	646875.01	722992.99	90.45	0.80	
PP104307	04/02/2022	646950.05	722982.04	89.69	0.50	
PP104326	04/02/2022	646951.02	723015.00	89.66	0.40	
PP104338	04/02/2022	646949.01	723040.97	89.97	0.30	
PP104393	04/02/2022	647021.98	723028.99	88.77	0.30	
PP104399	04/02/2022	647012.01	723055.01	89.51	0.40	
PP104405	04/02/2022	647005.02	723077.00	90.02	0.30	
PP104464	04/02/2022	647066.00	723090.98	89.37	0.10	
PP104482	04/02/2022	647095.03	723093.97	89.08	0.30	
PP104895	11/02/2022	647299.01	723454.98	84.91	0.40	
PP104940	11/02/2022	647291.37	723475.40	83.70	0.50	
PP105036	22/01/2022	647337.91	723592.40	81.64	2.20	
PP105038	22/01/2022	647354.43	723587.69	81.59	1.20	
PP105040	22/01/2022	647321.71	723602.71	81.77	2.45	
PP105146	22/01/2022	647355.00	723704.00	82.15	2.50	
PP105250	22/01/2022	647396.30	723800.66	82.04	2.70	
PP105251	22/01/2022	647418.99	723790.35	82.70	1.90	
PP105255	22/01/2022	647436.16	723785.58	82.17	2.20	
PP105351	22/01/2022	647434.25	723892.90	80.90	3.20	
PP105352	22/01/2022	647475.84	723877.78	80.53	2.60	
PP105353	22/01/2022	647459.09	723884.27	80.58	3.20	
PP105440	22/01/2022	647472.42	723973.82	80.48	2.70	
PP105453	22/01/2022	647497.34	723980.71	80.09	2.10	
PP105478	22/01/2022	647525.23	723993.64	79.85	0.90	
PP105503	22/01/2022	647520.10	724029.46	81.34	1.40	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP105504	22/01/2022	647525.99	724012.87	80.06	1.80	
PP105587	22/01/2022	647601.22	724055.54	79.86	1.00	
PP105588	22/01/2022	647599.31	724036.53	79.25	1.10	
PP105589	22/01/2022	647601.94	724011.41	79.02	1.00	
PP105682	19/01/2022	647704.15	724040.50	78.35	1.10	
PP105684	19/01/2022	647696.84	724069.65	78.92	1.10	
PP105687	19/01/2022	647694.23	724087.03	79.74	1.30	
PP105781	19/01/2022	647801.15	724081.47	77.99	1.20	
PP105784	19/01/2022	647791.23	724101.01	79.99	2.40	
PP105789	19/01/2022	647791.93	724118.64	81.24	1.20	
PP105881	19/01/2022	647893.11	724107.96	79.31	1.00	
PP105884	19/01/2022	647891.54	724129.37	80.40	1.20	
PP105886	19/01/2022	647885.67	724148.27	81.83	0.50	
PP105970	19/01/2022	647959.84	724166.17	81.79	1.00	
PP105971	19/01/2022	647968.99	724161.86	81.20	2.40	
PP105975	19/01/2022	647987.78	724146.11	79.03	1.10	
PP106040	22/01/2022	648016.22	724216.70	79.94	0.00	
PP106047	22/01/2022	648032.58	724205.26	79.97	0.40	
PP106049	22/01/2022	648047.14	724187.37	79.96	1.40	
PP106143	22/01/2022	648097.02	724279.99	78.26	1.70	
PP106147	22/01/2022	648114.32	724260.95	78.41	1.70	
PP106148	22/01/2022	648127.73	724242.84	78.10	1.20	
PP106243	22/01/2022	648179.22	724335.80	77.80	0.60	
PP106247	22/01/2022	648197.18	724318.04	77.07	2.30	
PP106249	22/01/2022	648203.01	724297.95	76.89	1.60	
PP106308	22/01/2022	648281.07	724299.45	77.06	1.70	
PP106342	22/01/2022	648261.20	724391.82	77.81	1.80	
PP106347	22/01/2022	648279.30	724373.26	77.56	2.30	
PP106354	22/01/2022	648292.23	724346.81	77.01	2.80	
PP106365	22/01/2022	648356.86	724295.21	79.09	2.20	
PP106422	22/01/2022	648389.97	724368.31	78.53	1.80	
PP106429	22/01/2022	648325.99	724441.92	79.54	3.70	
PP106445	05/02/2022	648466.70	724326.83	76.52	1.90	
PP106450	22/01/2022	648381.30	724417.64	78.59	3.70	
PP106464	22/01/2022	648370.83	724446.95	79.23	2.80	
PP106480	05/02/2022	648461.43	724377.88	75.68	0.90	
PP106503	05/02/2022	648545.99	724329.76	76.82	1.80	
PP106533	05/02/2022	648464.26	724450.97	75.52	1.00	
PP106546	05/02/2022	648402.87	724529.31	77.81	0.20	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP106548	05/02/2022	648427.41	724508.22	77.71	1.80	
PP106549	05/02/2022	648446.21	724490.77	77.28	2.80	
PP106550	05/02/2022	648461.25	724500.42	77.13	1.10	
PP106557	22/01/2022	648530.32	724421.71	76.66	0.00	
PP106598	05/02/2022	648461.86	724543.08	76.27	2.10	
PP106643	05/02/2022	648512.96	724558.14	76.50	1.90	
PP106647	05/02/2022	648477.54	724596.77	76.48	1.00	
PP106648	05/02/2022	648495.83	724580.10	76.68	2.40	
PP106748	05/02/2022	648551.71	724666.11	76.88	1.80	
PP106749	05/02/2022	648593.40	724643.58	75.58	0.20	
PP106751	05/02/2022	648569.11	724652.73	75.64	0.30	
PP106818	05/02/2022	648615.76	724719.61	77.80	2.00	
PP106828	05/02/2022	648634.09	724692.02	76.23	0.80	
PP106829	05/02/2022	648649.51	724660.35	76.82	1.00	
PP106906	05/02/2022	648697.77	724743.64	78.00	1.70	
PP106909	05/02/2022	648710.04	724720.01	78.72	1.90	
PP106911	05/02/2022	648724.99	724684.97	78.16	0.60	
PP107006	05/02/2022	648801.05	724754.07	79.45	2.00	
PP107007	05/02/2022	648815.95	724729.80	77.95	0.80	
PP107015	05/02/2022	648848.88	724770.66	80.42	3.80	
PP107107	05/02/2022	648900.58	724787.68	81.47	2.80	
PP107108	05/02/2022	648930.28	724756.89	79.43	2.00	
PP107110	05/02/2022	648894.93	724804.66	81.18	0.80	
PP107201	05/02/2022	648975.38	724824.08	79.82	1.20	
PP107202	05/02/2022	649002.45	724805.83	80.13	0.70	
PP107203	05/02/2022	648995.72	724811.38	80.12	1.00	
PP107303	05/02/2022	649102.09	724850.26	80.80	0.20	
PP107305	05/02/2022	649092.08	724863.96	80.92	0.30	
PP107306	05/02/2022	649123.00	724829.00	80.67	0.30	
PP107397	05/02/2022	649158.00	724950.00	80.42	0.20	
PP107402	05/02/2022	649185.58	724924.21	80.60	0.20	
PP107403	05/02/2022	649199.56	724920.11	80.55	0.20	
PP107503	05/02/2022	649216.24	725011.63	80.17	1.20	
PP107504	05/02/2022	649233.32	725011.16	80.09	1.00	
PP107505	05/02/2022	649253.63	724980.21	78.99	0.80	
PP107596	05/02/2022	649269.25	725106.93	79.74	1.00	
PP107604	05/02/2022	649292.06	725091.94	79.91	1.00	
PP107605	05/02/2022	649303.14	725080.13	80.04	0.70	
PP107654	05/02/2022	649315.00	725144.04	78.57	1.20	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP107701	05/02/2022	649334.14	725190.64	79.10	2.20	
PP107704	05/02/2022	649354.01	725172.01	78.42	2.20	
PP107708	05/02/2022	649368.04	725161.96	78.15	2.30	
PP107756	05/02/2022	649379.94	725218.18	78.32	2.40	
PP107804	05/02/2022	649428.94	725238.02	79.00	0.40	
PP107810	05/02/2022	649402.99	725275.82	79.60	1.90	
PP107811	05/02/2022	649418.36	725257.22	77.13	0.40	
PP107853	05/02/2022	649460.23	725274.00	79.18	2.80	
PP107896	05/02/2022	649505.79	725282.65	78.99	1.90	
PP107897	05/02/2022	649504.01	725274.42	78.88	1.00	
PP107898	05/02/2022	649504.39	725239.48	78.73	2.40	
PP107990	05/02/2022	649597.20	725283.88	79.08	0.10	
PP107991	05/02/2022	649598.70	725259.94	78.37	0.30	
PP107992	05/02/2022	649599.12	725237.86	75.26	1.10	
PP108090	05/02/2022	649699.45	725285.46	79.15	0.10	
PP108091	05/02/2022	649698.94	725265.06	77.71	0.10	
PP108092	05/02/2022	649699.04	725239.98	77.85	0.10	
PP108190	05/02/2022	649796.59	725288.58	78.86	1.40	
PP108191	05/02/2022	649797.11	725278.34	78.91	1.30	
PP108192	05/02/2022	649799.00	725242.00	78.79	0.60	
PP108290	05/02/2022	649899.00	725245.00	78.85	1.30	
PP108291	05/02/2022	649899.80	725291.34	78.84	1.80	
PP108292	05/02/2022	649899.15	725280.46	78.61	1.80	
PP108399	05/02/2022	650007.11	725292.34	78.51	0.70	
PP108400	05/02/2022	650007.51	725284.12	78.58	1.00	
PP108401	05/02/2022	650010.00	725251.00	78.60	0.90	
PP108498	05/02/2022	650103.32	725307.95	80.22	0.40	
PP108501	05/02/2022	650111.00	725258.00	80.10	1.00	
PP108597	05/02/2022	650202.76	725315.78	79.65	0.50	
PP108598	05/02/2022	650205.55	725291.49	79.01	0.10	
PP108600	05/02/2022	650210.00	725268.00	80.10	0.20	
PP108690	05/02/2022	650296.11	725296.70	79.19	0.60	
PP108691	05/02/2022	650299.06	725290.29	78.91	0.30	
PP108700	05/02/2022	650298.30	725310.79	80.31	0.10	
PP108780	11/02/2022	650369.00	725354.10	79.93	0.20	
PP108791	11/02/2022	650403.43	725329.59	79.46	0.30	
PP108944	11/02/2022	650501.93	725452.45	79.68	0.20	
PP108948	11/02/2022	650513.86	725438.80	79.73	0.30	
PP108952	11/02/2022	650534.02	725416.18	79.26	0.10	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP109052	05/02/2022	650585.99	725517.99	78.99	0.10	
PP109054	05/02/2022	650599.93	725501.00	78.86	0.20	
PP109056	05/02/2022	650614.87	725481.92	78.34	0.20	
PP109146	05/02/2022	650636.62	725577.98	78.54	0.10	
PP109147	05/02/2022	650607.04	725582.01	78.52	0.10	
PP109148	05/02/2022	650656.00	725576.00	78.70	0.10	
PP109246	05/02/2022	650617.08	725680.97	78.22	1.00	
PP109247	05/02/2022	650641.95	725678.90	77.98	0.20	
PP109248	05/02/2022	650661.87	725680.74	77.33	1.10	
PP109347	05/02/2022	650624.70	725781.62	78.18	0.30	
PP109349	05/02/2022	650651.93	725779.68	77.89	1.10	
PP109350	05/02/2022	650668.69	725783.32	77.78	0.20	
PP109446	05/02/2022	650635.92	725880.05	78.21	0.50	
PP109447	05/02/2022	650660.96	725878.05	78.07	0.80	
PP109450	05/02/2022	650672.08	725879.43	77.84	0.10	
PP109545	05/02/2022	650654.20	725978.92	77.12	1.00	
PP109548	05/02/2022	650671.66	725984.92	75.74	0.90	
PP109645	05/02/2022	650671.09	726086.94	74.75	1.50	
PP109648	05/02/2022	650699.36	726087.56	74.14	1.10	
PP109651	05/02/2022	650720.00	726074.00	75.02	0.70	
PP109745	05/02/2022	650693.58	726177.15	75.24	1.10	
PP109749	05/02/2022	650719.16	726172.31	74.90	1.50	
PP109751	05/02/2022	650738.92	726172.66	74.69	1.80	
PP109845	28/04/2022	650715.70	726272.25	73.49	1.10	
PP109848	28/04/2022	650740.86	726271.48	73.43	0.80	
PP109849	28/04/2022	650760.02	726276.84	73.40	1.00	
PP109945	28/04/2022	650734.62	726368.16	73.29	0.20	
PP109949	28/04/2022	650762.50	726370.69	73.20	0.40	
PP109950	28/04/2022	650784.70	726379.17	73.17	0.40	
PP110045	28/04/2022	650753.02	726469.05	73.49	0.80	
PP110049	28/04/2022	650778.09	726468.51	73.43	0.90	
PP110068	28/04/2022	650807.02	726468.60	73.08	1.10	
PP110158	28/04/2022	650829.02	726567.01	76.94	3.70	
PP110159	28/04/2022	650846.05	726553.05	76.35	6.20	
PP110167	28/04/2022	650870.55	726545.62	76.08	6.40	
PP110254	28/04/2022	650892.99	726638.98	77.35	6.30	
PP110259	28/04/2022	650912.02	726630.02	77.42	6.40	
PP110267	28/04/2022	650936.07	726620.03	77.23	6.30	
PP110358	28/04/2022	650962.01	726716.94	76.71	2.90	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP110361	28/04/2022	650977.98	726706.96	76.99	6.10	
PP110367	28/04/2022	651000.97	726695.97	76.98	6.30	
PP110453	28/04/2022	651024.37	726786.72	76.00	1.50	
PP110459	28/04/2022	651037.41	726783.02	75.73	5.70	
PP110467	28/04/2022	651065.97	726772.10	73.98	5.80	
PP110560	28/04/2022	651104.27	726859.25	73.59	0.10	
PP110567	28/04/2022	651130.98	726847.99	73.58	1.00	
PP110655	28/04/2022	651155.43	726937.12	73.74	1.90	
PP110659	28/04/2022	651169.94	726930.01	73.85	1.80	
PP110668	28/04/2022	651193.35	726919.03	74.22	2.40	
PP110760	03/02/2022	651233.00	727041.01	73.90	0.32	
PP110761	03/02/2022	651253.10	727029.00	74.12	0.49	
PP110768	03/02/2022	651273.01	727023.05	74.60	0.11	
PP110857	03/02/2022	651318.00	727068.99	77.22	0.10	
PP110861	03/02/2022	651302.02	727088.03	76.83	0.10	
PP110865	03/02/2022	651288.00	727104.98	76.31	0.10	
PP111872	07/02/2022	652067.97	727729.05	70.94	0.30	
PP111874	07/02/2022	652087.90	727708.05	70.61	0.40	
PP111875	07/02/2022	652099.00	727693.96	70.66	0.30	
PP111978	07/02/2022	652164.45	727786.53	70.10	0.10	
PP111979	07/02/2022	652190.00	727791.01	70.09	0.10	
PP111981	07/02/2022	652222.00	727783.98	70.17	0.10	
PP112069	07/02/2022	652235.03	727839.99	70.16	0.60	
PP112070	07/02/2022	652248.02	727818.98	70.04	0.70	
PP112077	07/02/2022	652257.99	727803.03	70.04	0.50	
PP112116	07/02/2022	652283.97	727864.95	70.14	0.80	
PP112144	07/02/2022	652330.97	727861.51	70.33	0.90	
PP112174	07/02/2022	652351.98	727846.10	70.14	0.70	
PP112283	09/02/2022	652423.02	727944.02	71.71	0.10	
PP112291	09/02/2022	652442.92	727924.06	71.69	0.10	
PP112296	09/02/2022	652458.02	727904.94	72.74	0.10	
PP112462	09/02/2022	652589.00	728014.00	72.28	0.30	
PP112550	09/02/2022	652662.00	728064.00	72.57	0.20	
PP112557	09/02/2022	652680.00	728045.00	72.49	0.10	
PP112561	09/02/2022	652690.93	728032.30	72.70	0.20	
PP112659	07/02/2022	652755.00	728119.90	73.40	0.40	
PP112663	07/02/2022	652769.97	728101.58	73.08	0.30	
PP112668	07/02/2022	652781.95	728077.09	73.23	0.10	
PP112760	07/02/2022	652843.94	728168.03	73.71	0.10	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP112768	07/02/2022	652854.68	728162.19	73.66	0.20	
PP112791	09/02/2022	652883.05	728129.01	73.67	0.40	
PP112831	09/02/2022	652922.97	728118.95	73.40	0.50	
PP112873	09/02/2022	652966.03	728123.99	72.83	0.40	
PP112874	09/02/2022	652966.97	728150.04	73.19	0.50	
PP112875	09/02/2022	652969.05	728174.02	73.41	0.30	
PP112962	09/02/2022	653056.00	728167.00	73.20	0.20	
PP112963	09/02/2022	653056.00	728145.00	73.10	0.20	
PP112964	09/02/2022	653056.00	728119.00	7.30	0.30	
PP113458	24/05/2022	653548.00	728065.91	70.41	2.40	
PP113462	24/05/2022	653542.01	728044.01	71.22	2.90	
PP113466	24/05/2022	653533.92	728019.89	73.05	4.00	
PP113559	24/05/2022	653638.91	728021.97	71.02	2.90	
PP113563	24/05/2022	653632.03	727999.00	70.99	3.00	
PP113567	24/05/2022	653624.08	727975.02	71.19	3.10	
PP113659	24/05/2022	653729.09	727978.99	71.03	3.00	
PP113662	24/05/2022	653720.97	727954.92	70.91	3.00	
PP113666	24/05/2022	653706.24	727915.70	71.64	3.80	
PP113758	24/05/2022	653818.21	727934.51	70.69	2.80	
PP113763	24/05/2022	653811.11	727909.99	70.91	3.20	
PP113764	24/05/2022	653796.96	727874.99	71.69	2.50	
PP113861	24/05/2022	653908.98	727890.02	70.59	2.60	
PP113863	24/05/2022	653900.12	727864.62	70.70	2.70	
PP113865	24/05/2022	653884.05	727832.94	72.63	2.00	
PP113955	24/05/2022	653994.93	727853.01	70.86	2.50	
PP113963	24/05/2022	653993.01	727826.03	72.09	3.00	
PP113971	24/05/2022	653989.15	727799.12	73.38	3.20	
PP114060	24/05/2022	654091.11	727818.07	72.04	0.90	
PP114063	24/05/2022	654087.98	727795.98	72.26	2.50	
PP114066	24/05/2022	654080.90	727781.20	72.56	1.00	
PP114260	05/03/2022	654279.90	727790.89	70.73	0.30	
PP114263	05/03/2022	654282.70	727771.96	70.62	0.80	
PP114264	05/03/2022	654285.80	727748.11	70.60	0.50	
PP114363	05/03/2022	654381.06	727801.90	71.02	1.90	
PP114364	05/03/2022	654383.21	727778.00	70.60	0.30	
PP114365	05/03/2022	654385.02	727752.94	70.35	0.40	
PP114413	05/03/2022	654433.23	727780.23	71.66	0.50	
PP114461	05/03/2022	654483.14	727800.98	73.16	2.20	
PP114463	05/03/2022	654483.00	727781.98	71.98	0.50	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP114465	05/03/2022	654485.01	727757.08	71.01	0.20	
PP114513	05/03/2022	654532.59	727782.32	71.78	1.10	
PP114561	05/03/2022	654582.88	727806.19	73.31	2.50	
PP114565	05/03/2022	654585.37	727760.31	71.75	2.20	
PP114613	05/03/2022	654633.21	727784.11	72.44	0.40	
PP114661	17/02/2022	654682.81	727806.12	72.27	2.10	
PP114663	05/03/2022	654685.17	727784.74	71.47	1.10	
PP114664	05/03/2022	654684.10	727762.06	71.05	0.20	
PP114762	05/03/2022	654776.00	727820.06	71.74	0.80	
PP114763	05/03/2022	654782.00	727795.99	71.63	0.60	
PP114764	05/03/2022	654787.03	727775.01	71.44	0.30	
PP114862	05/03/2022	654872.92	727842.05	72.32	0.40	
PP114863	05/03/2022	654878.95	727817.99	71.94	0.50	
PP114962	05/03/2022	654980.95	727817.88	71.90	0.30	
PP114963	05/03/2022	654971.00	727863.99	71.79	0.30	
PP114964	05/03/2022	654976.93	727839.91	71.95	0.30	
PP115062	24/05/2022	655068.18	727886.10	71.64	1.30	
PP115063	24/05/2022	655073.34	727865.18	71.63	2.00	
PP115064	05/03/2022	655080.14	727838.96	71.59	0.30	
PP115159	05/03/2022	655162.90	727907.02	71.59	0.50	
PP115163	05/03/2022	655172.23	727883.91	71.80	0.50	
PP115166	05/03/2022	655180.04	727861.04	71.68	0.40	
PP115259	05/03/2022	655262.05	727929.03	71.50	0.90	
PP115269	05/03/2022	655279.02	727883.01	71.14	0.40	
PP115362	05/03/2022	655371.29	727941.29	70.96	0.30	
PP115363	05/03/2022	655367.89	727920.00	70.93	0.40	
PP115364	05/03/2022	655373.21	727896.89	70.95	0.50	
PP115462	05/03/2022	655463.02	727959.08	70.60	0.40	
PP115463	05/03/2022	655467.02	727934.08	70.74	0.40	
PP115467	05/03/2022	655475.26	727911.99	70.99	0.30	
PP115562	05/03/2022	655568.00	727953.04	69.99	0.40	
PP115563	05/03/2022	655567.22	727929.90	70.08	0.40	
PP115564	05/03/2022	655565.10	727904.86	70.14	0.50	
PP115661	05/03/2022	655667.10	727942.07	69.47	0.50	
PP115663	05/03/2022	655665.96	727919.05	69.76	0.50	
PP115665	05/03/2022	655664.77	727893.94	70.10	0.40	
PP115761	05/03/2022	655765.06	727907.94	69.06	0.20	
PP115762	05/03/2022	655767.01	727930.14	68.85	0.20	
PP115763	05/03/2022	655762.97	727883.00	69.27	0.40	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP115862	05/03/2022	655862.14	727928.18	68.80	0.40	
PP115863	05/03/2022	655866.41	727904.35	68.88	0.40	
PP115864	05/03/2022	655868.10	727879.93	68.87	0.40	
PP115963	05/03/2022	655967.01	727887.96	68.72	0.90	
PP115964	24/05/2022	655954.91	727901.93	68.90	1.00	
PP115965	24/05/2022	655947.45	727913.55	68.85	0.80	
PP116064	24/05/2022	656057.94	727953.93	69.33	2.00	
PP116161	24/05/2022	656154.82	727986.96	71.05	0.00	
PP116262	24/05/2022	656241.30	728003.54	67.98	1.20	
PP116263	24/05/2022	656255.95	727980.02	68.36	1.30	
PP116264	24/05/2022	656265.02	727959.03	69.19	1.10	
PP116361	24/05/2022	656340.02	728036.92	68.45	1.20	
PP116363	24/05/2022	656350.01	728013.98	69.71	2.40	
PP116366	24/05/2022	656360.06	727995.11	70.47	3.10	
PP116462	24/05/2022	656435.00	728072.10	69.36	1.80	
PP116463	24/05/2022	656444.37	728047.92	68.66	0.85	
PP116464	24/05/2022	656452.01	728029.01	68.83	0.80	
PP116562	18/05/2022	656538.06	728093.83	73.59	4.20	
PP116563	18/05/2022	656540.87	728068.99	73.70	4.90	
PP116564	18/05/2022	656544.48	728046.07	73.24	3.70	
PP116662	24/05/2022	656632.70	728106.40	72.46	2.30	
PP116663	24/05/2022	656640.10	728080.01	72.24	2.00	
PP116664	24/05/2022	656644.08	728056.02	72.23	1.90	
PP116753	24/05/2022	656727.08	728114.94	72.89	1.90	
PP116754	24/05/2022	656739.00	728100.00		0.00	Non accessible
PP116755	24/05/2022	656751.00	728058.00		0.00	Non accessible
PP117573	17/02/2022	657425.10	728496.01	75.76	0.10	
PP117957	17/02/2022	657810.00	728531.99	75.86	0.10	
PP118059	17/02/2022	657913.96	728517.03	74.90	0.19	
PP118064	17/02/2022	657915.01	728491.08	75.12	0.17	
PP118070	17/02/2022	657917.00	728468.08	75.24	0.11	
PP118144	17/02/2022	657998.08	728502.95	74.59	0.14	
PP118149	17/02/2022	657998.99	728477.07	74.50	0.18	
PP118154	17/02/2022	658000.00	728453.03	74.42	0.10	
PP118231	17/02/2022	658083.95	728488.03	74.03	0.10	
PP118232	17/02/2022	658077.12	728440.15	73.78	0.10	
PP118233	17/02/2022	658081.96	728462.98	73.73	0.10	
PP118301	17/02/2022	658158.02	728457.04	73.83	0.19	
PP118302	17/02/2022	658147.07	728443.11	74.16	0.15	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP118303	17/02/2022	658132.05	728423.10	74.29	0.16	
PP119684	21/02/2022	659505.01	728325.02	73.38	0.40	
PP119718	21/02/2022	659543.03	728342.02	73.14	0.57	
PP119742	21/02/2022	659571.02	728356.08	72.99	0.43	
PP119794	28/04/2022	659612.36	728324.90	72.61	0.30	
PP119815	28/04/2022	659640.49	728326.32	72.55	0.80	
PP119824	28/04/2022	659667.10	728320.55	72.00	0.40	
PP119900	28/04/2022	659707.04	728271.08	71.86	0.80	
PP119903	28/04/2022	659721.06	728292.97	72.05	0.40	
PP119906	28/04/2022	659730.89	728307.07	72.00	0.95	
PP120002	18/05/2022	659808.01	728250.04	71.60	0.30	
PP120004	18/05/2022	659819.03	728265.09	71.66	0.52	
PP120102	18/05/2022	659908.23	728228.42	71.23	0.33	
PP120194	03/03/2022	659908.00	728223.00	70.06	0.00	
PP120293	03/03/2022	660080.11	728141.48	69.97	1.90	
PP120294	03/03/2022	660073.95	728126.31	69.99	3.00	
PP120297	03/03/2022	660067.99	728099.60	69.10	1.90	
PP120394	03/03/2022	660174.31	728107.50	68.34	1.30	
PP120395	03/03/2022	660168.13	728090.10	68.81	1.70	
PP120397	03/03/2022	660161.98	728065.04	68.70	1.80	
PP120495	03/03/2022	660260.74	728053.50	68.15	2.70	
PP120497	03/03/2022	660270.77	728072.45	68.06	2.20	
PP120498	03/03/2022	660255.99	728031.01	68.44	3.50	
PP120592	03/03/2022	660342.98	727996.02	67.19	1.90	
PP120593	03/03/2022	660359.90	728036.08	67.74	2.20	
PP120594	03/03/2022	660354.78	728019.01	66.92	2.00	
PP120693	03/03/2022	660454.13	728001.05	69.82	2.90	
PP120695	03/03/2022	660448.00	727982.07	69.76	3.20	
PP120698	03/03/2022	660441.76	727956.93	69.64	2.10	
PP121094	18/05/2022	660842.55	728014.20	68.43	3.10	
PP121193	18/05/2022	660933.01	728025.65	67.48	1.80	
PP121195	18/05/2022	660967.76	727991.00	67.61	2.40	
PP121196	18/05/2022	660981.98	727967.60	67.92	1.95	
PP121291	18/05/2022	661029.99	727922.04	68.01	1.15	
PP121292	18/05/2022	661038.16	727967.15	67.55	2.00	
PP121299	18/05/2022	661048.00	727990.95	67.70	1.90	
PP121305	18/05/2022	661055.20	728004.13	67.65	2.23	
PP121994	24/03/2022	661721.57	727834.94	66.70	0.60	
PP121995	24/03/2022	661715.49	727849.09	66.74	0.10	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP121996	24/03/2022	661718.71	727811.95	67.13	0.20	
PP122090	24/03/2022	661812.13	727776.34	66.83	1.20	
PP122094	24/03/2022	661821.10	727796.23	67.16	0.20	
PP122095	24/03/2022	661834.06	727812.10	67.00	1.10	
PP122103	24/03/2022	661836.41	727827.56	67.03	1.90	
PP122191	24/03/2022	661890.90	727758.77	68.91	1.00	
PP122192	24/03/2022	661910.91	727765.01	68.87	3.10	
PP122194	24/03/2022	661911.05	727800.77	68.97	1.30	
PP122195	24/03/2022	661917.15	727786.70	68.91	3.00	
PP122197	24/03/2022	661930.71	727779.82	69.31	1.00	
PP122200	24/03/2022	661922.18	727806.52	67.40	2.00	
PP122296	24/03/2022	662001.97	727750.94	66.25	1.10	
PP122298	24/03/2022	662016.39	727766.29	66.62	0.60	
PP122302	24/03/2022	662029.63	727786.65	67.27	1.00	
PP122394	24/03/2022	662101.95	727714.05	66.75	0.40	
PP122395	24/03/2022	662108.92	727734.90	67.38	1.20	
PP122397	24/03/2022	662120.06	727756.79	67.93	0.10	
PP122494	24/03/2022	662204.07	727703.04	67.48	0.10	
PP122498	24/03/2022	662200.45	727677.98	66.71	0.60	
PP122503	24/03/2022	662217.28	727714.19	67.74	0.10	
PP122591	24/03/2022	662303.09	727694.90	67.53	0.20	
PP122594	24/03/2022	662297.94	727669.97	67.24	0.20	
PP122597	24/03/2022	662289.92	727650.98	66.76	0.20	
PP122691	24/03/2022	662397.95	727660.95	67.43	0.30	
PP122694	24/03/2022	662393.04	727637.98	67.28	1.10	
PP122697	24/03/2022	662387.08	727612.94	66.69	1.50	
PP122793	24/03/2022	662493.97	727621.44	67.72	0.80	
PP122795	24/03/2022	662487.99	727605.07	67.12	0.50	
PP122797	24/03/2022	662481.97	727580.13	66.75	0.80	
PP122890	24/03/2022	662580.97	727571.95	66.03	0.10	
PP122897	24/03/2022	662590.99	727619.00	66.96	0.70	
PP122898	24/03/2022	662590.01	727596.22	67.06	1.00	
PP122990	24/03/2022	662681.09	727566.02	66.11	1.00	
PP122995	24/03/2022	662686.90	727590.64	66.51	1.10	
PP122997	24/03/2022	662690.87	727613.01	67.64	1.00	
PP123095	24/03/2022	662787.15	727583.94	66.25	3.00	
PP123097	24/03/2022	662791.18	727607.02	67.40	0.10	
PP123294	12/03/2022	662967.99	727528.00	66.50	0.30	
PP123296	12/03/2022	662985.13	727544.12	67.09	0.30	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP123297	12/03/2022	662953.91	727506.94	66.25	0.20	
PP123394	12/03/2022	663044.06	727463.09	66.91	0.30	
PP123395	12/03/2022	663028.88	727443.01	66.49	0.40	
PP123397	12/03/2022	663061.69	727476.45	67.09	0.50	
PP123494	12/03/2022	663120.04	727398.01	67.33	0.70	
PP123495	12/03/2022	663135.02	727413.95	67.51	0.80	
PP123496	12/03/2022	663105.04	727377.01	67.18	1.20	
PP123594	12/03/2022	663195.98	727332.94	67.84	0.90	
PP123599	12/03/2022	663212.52	727347.64	67.93	0.80	
PP123644	12/03/2022	663233.88	727300.47	67.65	1.30	
PP123694	12/03/2022	663272.10	727268.04	67.19	1.10	
PP123696	12/03/2022	663287.02	727282.01	67.62	0.80	
PP123697	12/03/2022	663258.00	727247.01	66.58	1.20	
PP123792	12/03/2022	663357.99	727204.02	67.41	1.60	
PP123794	12/03/2022	663338.02	727196.06	66.91	1.00	
PP123797	12/03/2022	663321.03	727187.12	66.53	0.90	
PP123889	12/03/2022	663383.71	727112.19	67.77	2.20	
PP123895	12/03/2022	663339.08	727091.98	67.28	1.20	
PP123896	12/03/2022	663363.01	727099.06	67.79	1.30	
PP123969	12/03/2022	663412.24	727050.64	67.52	0.80	
PP123976	12/03/2022	663406.84	727026.10	67.48	1.20	
PP123994	12/03/2022	663387.93	727002.92	66.61	1.40	
PP123999	12/03/2022	663373.99	726982.04	66.50	1.70	
PP124087	12/03/2022	663494.01	726978.93	66.79	0.20	
PP124091	12/03/2022	663474.95	726953.96	66.86	0.30	
PP124094	12/03/2022	663460.14	726932.97	66.99	0.10	
PP124100	12/03/2022	663446.99	726910.97	66.97	0.20	
PP124126	12/03/2022	663502.97	726932.78	66.82	0.30	
PP124186	12/03/2022	663562.03	726846.93	66.76	0.30	
PP124194	12/03/2022	663493.97	726871.00	66.93	0.40	
PP124249	12/03/2022	663556.52	726780.78	67.00	0.20	
PP124274	12/03/2022	663623.91	726861.93	66.95	0.90	
PP124289	12/03/2022	663632.88	726817.01	66.55	0.90	
PP124294	12/03/2022	663608.98	726801.04	67.08	0.40	
PP124303	12/03/2022	663593.11	726777.10	66.87	0.20	
PP124312	12/03/2022	663606.92	726756.74	67.05	1.10	
PP124327	12/03/2022	663664.03	726827.11	67.54	0.80	
PP124392	12/03/2022	663704.95	726769.94	69.36	0.90	
PP124394	12/03/2022	663694.24	726747.45	68.80	0.80	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP124395	12/03/2022	663682.99	726729.00	69.55	1.30	
PP124494	12/03/2022	663781.72	726698.00	67.54	1.10	
PP124502	12/03/2022	663772.05	726672.11	69.29	1.20	
PP124503	12/03/2022	663798.89	726714.38	68.47	1.30	
PP124593	12/03/2022	663878.05	726670.03	69.65	1.50	
PP124594	12/03/2022	663868.91	726649.80	69.45	1.40	
PP124601	12/03/2022	663862.03	726624.00	70.46	1.90	
PP124692	12/03/2022	663964.88	726623.95	67.54	1.90	
PP124694	12/03/2022	663956.36	726601.91	67.20	1.90	
PP124702	12/03/2022	663949.96	726575.96	67.58	1.80	
PP124745	12/03/2022	664001.16	726577.17	69.32	1.60	
PP124788	25/03/2022	664050.02	726578.99	69.42	2.25	
PP124794	25/03/2022	664044.10	726554.53	69.11	2.80	
PP124801	25/03/2022	664038.01	726529.01	69.10	3.60	
PP124889	25/03/2022	664139.06	726531.91	67.73	1.80	
PP124894	25/03/2022	664132.97	726507.89	67.56	1.80	
PP124901	25/03/2022	664123.19	726482.25	67.95	1.90	
PP124993	25/03/2022	664230.94	726485.01	69.75	2.30	
PP124994	25/03/2022	664221.03	726462.02	69.58	2.70	
PP125001	25/03/2022	664215.97	726436.97	69.99	2.90	
PP125094	25/03/2022	664309.97	726416.94	68.68	1.20	
PP125095	25/03/2022	664320.92	726437.81	67.02	1.20	
PP125101	25/03/2022	664306.62	726396.10	68.78	1.40	
PP125190	25/03/2022	664407.22	726395.92	67.44	1.95	
PP125194	25/03/2022	664399.86	726372.11	68.04	1.90	
PP125200	25/03/2022	664391.18	726345.23	68.49	1.80	
PP125288	25/03/2022	664488.96	726357.84	67.10	0.85	
PP125292	25/03/2022	664486.02	726309.94	68.58	0.10	
PP125294	25/03/2022	664491.01	726334.02	67.67	0.20	
PP125388	25/03/2022	664586.95	726347.02	68.79	0.20	
PP125392	25/03/2022	664585.02	726298.01	68.07	1.20	
PP125394	25/03/2022	664590.14	726322.86	68.87	1.20	
PP125490	25/03/2022	664687.98	726333.88	70.07	1.90	
PP125492	25/03/2022	664684.96	726287.06	70.71	0.10	
PP125494	25/03/2022	664690.01	726310.92	70.06	1.50	
PP125561	25/03/2022	664753.70	726292.91	71.93	1.54	
PP125594	25/03/2022	664788.58	726301.76	71.73	1.90	
PP125615	25/03/2022	664812.09	726319.00	71.46	1.75	
PP126053	25/03/2022	665242.97	726329.99	69.51	1.00	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP126109	25/03/2022	665299.98	726312.85	69.56	0.66	
PP126154	25/03/2022	665355.61	726289.08	69.60	1.10	
PP126210	25/03/2022	665411.42	726290.73	69.96	0.90	
PP126211	25/03/2022	665403.05	726320.04	70.60	1.40	
PP126212	25/03/2022	665396.18	726351.40	69.80	2.50	
PP126308	25/03/2022	665501.98	726304.93	68.99	2.00	
PP126310	25/03/2022	665498.36	726331.11	70.12	2.80	
PP126312	25/03/2022	665501.05	726354.03	69.97	2.70	
PP126408	25/03/2022	665604.46	726318.21	68.93	1.00	
PP126410	25/03/2022	665601.06	726338.19	69.86	1.90	
PP126412	25/03/2022	665597.62	726369.66	69.11	2.00	
PP126509	25/03/2022	665701.92	726323.96	67.64	1.10	
PP126511	25/03/2022	665700.00	726349.39	69.12	1.60	
PP126512	25/03/2022	665700.05	726371.99	70.02	2.60	
PP126602	25/03/2022	665796.90	726311.14	67.51	1.00	
PP126605	25/03/2022	665798.11	726331.89	67.54	1.00	
PP126610	25/03/2022	665801.48	726357.11	67.32	0.90	
PP126612	25/03/2022	665809.57	726381.28	67.36	1.40	
PP126695	25/03/2022	665855.02	726313.02	67.47	1.20	
PP126708	25/03/2022	665875.01	726362.97	67.57	1.20	
PP126714	25/03/2022	665882.96	726390.08	67.53	1.10	
PP126751	25/03/2022	665946.04	726317.93	67.39	1.60	
PP126786	25/03/2022	665978.05	726349.96	67.41	2.20	
PP126791	25/03/2022	665979.98	726374.88	67.50	1.90	
PP126796	25/03/2022	665982.99	726400.06	67.53	1.90	
PP126887	25/03/2022	666078.14	726360.01	67.50	1.60	
PP126891	25/03/2022	666080.01	726384.97	67.58	2.10	
PP126895	25/03/2022	666080.96	726409.03	67.77	2.70	
PP126986	25/03/2022	666176.93	726370.11	67.81	2.10	
PP126991	25/03/2022	666179.18	726394.96	67.91	2.00	
PP126994	25/03/2022	666179.27	726419.30	68.14	2.00	
PP127087	25/03/2022	666277.03	726380.02	68.00	0.40	
PP127091	25/03/2022	666279.03	726405.09	68.60	1.00	
PP127094	25/03/2022	666279.16	726427.04	69.01	1.90	
PP127186	25/03/2022	666375.91	726390.06	67.99	2.00	
PP127191	25/03/2022	666375.01	726416.86	68.36	2.50	
PP127194	25/03/2022	666379.88	726436.02	68.67	3.50	
PP127287	25/03/2022	666471.18	726400.30	68.20	1.80	
PP127291	25/03/2022	666477.99	726424.91	68.67	1.70	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP127294	25/03/2022	666483.14	726437.81	68.62	1.30	
PP127386	25/03/2022	666573.55	726410.01	69.16	1.90	
PP127391	25/03/2022	666576.85	726434.45	68.87	1.50	
PP127394	25/03/2022	666577.96	726453.94	69.34	2.00	
PP127484	25/03/2022	666673.30	726450.63	69.54	1.00	
PP127491	25/03/2022	666669.07	726465.06	69.59	1.00	
PP127504	25/03/2022	666663.96	726493.26	69.35	0.90	
PP127587	25/03/2022	666738.44	726508.26	70.01	0.90	
PP127590	25/03/2022	666732.09	726545.96	69.76	0.50	
PP127592	25/03/2022	666749.08	726526.00	70.10	1.00	
PP127685	25/03/2022	666822.97	726580.84	70.70	0.40	
PP127691	25/03/2022	666823.36	726590.36	70.88	0.30	
PP127700	25/03/2022	666819.24	726610.82	71.11	1.20	
PP127785	25/03/2022	666917.10	726607.47	71.55	0.90	
PP127791	25/03/2022	666899.87	726663.61	71.11	0.30	
PP127801	25/03/2022	666896.98	726676.02	71.37	1.80	
PP127889	25/03/2022	667013.14	726693.11	71.56	1.70	
PP127891	25/03/2022	666975.92	726719.51	71.16	1.40	
PP127893	25/03/2022	666971.53	726735.08	71.43	1.90	
PP127988	25/03/2022	667042.01	726792.10	71.32	1.20	
PP127991	25/03/2022	667066.41	726767.06	71.86	1.00	
PP127993	25/03/2022	667087.42	726756.25	71.51	1.90	
PP128087	25/03/2022	667148.80	726811.94	71.29	1.70	
PP128091	25/03/2022	667139.12	726838.06	71.15	1.40	
PP128099	25/03/2022	667129.95	726862.01	71.00	1.30	
PP128189	25/03/2022	667231.99	726882.69	71.55	1.90	
PP128191	25/03/2022	667219.88	726901.65	72.02	2.00	
PP128196	25/03/2022	667209.20	726924.96	71.26	1.30	
PP128287	25/03/2022	667305.91	726942.05	73.24	1.00	
PP128292	25/03/2022	667297.17	726961.90	72.97	2.50	
PP128298	25/03/2022	667283.70	726981.70	72.95	2.00	
PP128387	25/03/2022	667389.19	727007.48	73.13	0.80	
PP128392	25/03/2022	667377.89	727029.10	72.88	1.70	
PP128394	25/03/2022	667363.34	727049.64	72.06	1.00	
PP128487	25/03/2022	667467.02	727071.63	73.05	1.90	
PP128492	25/03/2022	667454.07	727094.98	72.63	1.10	
PP128498	25/03/2022	667443.68	727116.99	72.02	0.50	
PP128592	25/03/2022	667541.33	727138.10	73.90	1.00	
PP128988	28/04/2022	667842.05	727399.99	74.13	0.60	

Peat Probe Records

Site Location	WSP Lot 3
Project No.	23560
Engineer	Mott MacDonald

Location	Date	Easting	Northing	Elevation	Final Peat Probe Depth(mbgl)	Remarks
PP128989	28/04/2022	667818.00	727443.00	74.01	0.00	
PP128990	28/04/2022	667829.00	727420.00	74.00	0.00	
PP129087	28/04/2022	667918.00	727463.86	73.93	0.50	
PP129091	28/04/2022	667913.00	727471.34	73.93	0.30	
PP129188	28/04/2022	667995.91	727530.67	74.30	1.70	
PP129191	28/04/2022	667992.01	727539.20	74.19	1.80	
PP129291	28/04/2022	668072.03	727598.10	74.24	1.60	
PP129292	28/04/2022	668064.45	727606.49	74.33	1.00	
PP129389	28/04/2022	668146.13	727662.06	74.65	0.90	
PP129391	28/04/2022	668135.12	727668.31	74.25	2.10	
PP129392	28/04/2022	668119.08	727698.99	74.03	1.10	
PP129488	28/04/2022	668220.98	727726.92	73.87	0.70	
PP129492	28/04/2022	668214.06	727733.62	74.15	0.80	
PP129587	28/04/2022	668296.05	727792.03	73.92	0.80	
PP129591	28/04/2022	668290.31	727800.26	73.89	0.40	
PP129593	25/03/2022	668282.46	727797.29	73.50	1.80	
PP129597	25/03/2022	668293.21	727806.08	73.92	1.00	
PP129690	28/04/2022	668374.11	727858.99	73.68	1.20	
PP129691	28/04/2022	668374.37	727872.15	73.70	1.00	
PP129788	28/04/2022	668448.05	727923.98	73.49	1.30	
PP129791	28/04/2022	668440.46	727931.18	73.28	1.30	
PP129891	28/04/2022	668510.16	728009.50	73.11	1.30	
PP129892	28/04/2022	668493.84	728027.99	72.61	0.80	
PP129893	28/04/2022	668527.06	727993.09	73.26	1.30	
PP129987	28/04/2022	668598.31	728052.41	72.89	2.00	
PP129991	28/04/2022	668585.00	728075.00	73.25	1.20	
PP129994	28/04/2022	668568.34	728096.89	73.18	1.20	
PP130087	28/04/2022	668674.72	728120.10	72.94	1.20	
PP130188	28/04/2022	668748.88	728187.96	73.13	1.60	
PP130189	28/04/2022	668716.20	728226.40	72.66	1.10	
PP130191	28/04/2022	668725.88	728216.00	72.73	1.50	
PP130192	28/04/2022	668737.18	728205.01	73.32	0.20	
PP130193	28/04/2022	668744.11	728197.75	73.42	1.10	
PP130291	28/04/2022	668808.29	728279.38	73.39	3.00	
PP130293	28/04/2022	668826.66	728255.29	73.19	1.90	
PP130294	28/04/2022	668796.11	728294.06	72.63	1.90	
PP130389	28/04/2022	668897.03	728322.64	73.82	0.30	
PP130391	28/04/2022	668886.79	728340.25	74.01	3.20	
PP130392	28/04/2022	668868.90	728358.87	73.18	1.20	

Appendix 8D.2

Russian Peat Sampler Records

RK103369	RK109598	RK116313	RK126460	RK130941	RK140559
RK103420	RK109699	RK116413	RK126561	RK131041	RK140660
RK104363	RK109798	RK116513	RK126659	RK131141	RK140762
RK104433	RK109899	RK116613	RK126750	RK131241	RK140861
RK105092	RK109999	RK116713	RK126841	RK131342	RK140960
RK105200	RK110103	RK118067	RK126942	RK131442	RK141058
RK105303	RK110208	RK118191	RK127041	RK131542	RK141156
RK105403	RK110310	RK119127	RK127142	RK131641	RK141255
RK105477	RK110410	RK119766	RK127241	RK131741	RK141353
RK105546	RK110509	RK119859	RK127342	RK131836	RK141453
RK105637	RK110610	RK119951	RK127442	RK131941	RK141559
RK105735	RK110710	RK120050	RK127542	RK132042	RK141663
RK105835	RK110811	RK120245	RK127642	RK132120	RK141762
RK105928	RK112024	RK120344	RK127741	RK134582	RK141861
RK105947	RK112110	RK120444	RK127841	RK134882	RK141961
RK106009	RK112329	RK120544	RK127941	RK135095	RK142060
RK106097	RK112610	RK120644	RK128041	RK135317	RK142160
RK106197	RK112716	RK121045	RK128141	RK136810	RK142262
RK106297	RK113313	RK121247	RK128241	RK136910	RK142360
RK106398	RK113414	RK121346	RK128342	RK137010	RK142457
RK106498	RK113513	RK122544	RK128441	RK137110	RK142554
RK106598	RK113613	RK122644	RK128541	RK137213	RK142649
RK106700	RK113713	RK122745	RK128641	RK137317	RK142743
RK106791	RK113813	RK122844	RK128741	RK137418	RK142831
RK106868	RK113913	RK122944	RK128842	RK137522	RK143142
RK106958	RK114013	RK123045	RK128942	RK137625	RK143243
RK107057	RK114114	RK123247	RK129042	RK137725	RK143481
RK107155	RK114313	RK123444	RK129142	RK137825	RK143572
RK107253	RK114413	RK124145	RK129241	RK138024	RK144065
RK107353	RK114513	RK124244	RK129341	RK138948	RK144164
RK107453	RK114613	RK124344	RK129441	RK139051	RK144260
RK107553	RK114713	RK124444	RK129541	RK139159	RK144356
RK107654	RK114803	RK124544	RK129642	RK139254	RK144460
RK107756	RK114913	RK124644	RK129742	RK139347	RK144667
RK107853	RK115012	RK124744	RK129842	RK139450	RK144760
RK107943	RK115113	RK124844	RK129941	RK139552	RK144860
RK108040	RK115213	RK124944	RK130041	RK139655	RK144960
RK108140	RK115413	RK125044	RK130141	RK139759	RK145060
RK108241	RK115613	RK125144	RK130242	RK139855	RK145160
RK109106	RK115713	RK125243	RK130342	RK139958	RK145760
RK109146	RK115813	RK125344	RK130451	RK140055	RK146461
RK109196	RK115913	RK125444	RK130542	RK140155	RK146560
RK109298	RK116013	RK125544	RK130641	RK140255	RK146660
RK109399	RK116112	RK126209	RK130742	RK140357	
RK109498	RK116213	RK126360	RK130841	RK140460	

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK103369**
		SHEET	Sheet 1 of 1
CO-ORDINATES	646,060.67 E 722,537.07 N	**DATE DRILLED**	23/06/2022
GROUND LEVEL (mOD)		**DATE LOGGED**	23/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown psuedo fibrous PEAT(Von Post H7)		0.20			0.00-0.20	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H8)		0.50			0.20-0.50	100	0 blows		
	No Recovery - Assumed PEAT		0.90			0.50-0.90	100	0 blows		
1.0	Brown psuedo fibrous PEAT(Von Post H8)		1.50			0.90-1.50	100	0 blows		
	Final Depth 0.00m									
2.0										
3.0										
4.0										
5.0										

General Remarks
RS Failed

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	647,360.26 E 723,640.52 N
GROUND LEVEL (mOD)	81.31
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK105092
SHEET	Sheet 1 of 1
DATE DRILLED	27/06/2022
DATE LOGGED	27/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	81.31						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK104363**
		SHEET	Sheet 1 of 1
CO-ORDINATES	646,982.01 E 723,035.01 N	**DATE DRILLED**	28/06/2022
GROUND LEVEL (mOD)	89.46	**DATE LOGGED**	28/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	89.46						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5X Set Ups failed

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK103420**
		SHEET	Sheet 1 of 1
CO-ORDINATES	646,152.00 E 722,598.00 N	**DATE DRILLED**	27/06/2022
GROUND LEVEL (mOD)		**DATE LOGGED**	27/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00							
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK105200**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,404.00 E 723,770.49 N	**DATE DRILLED**	27/06/2022
GROUND LEVEL (mOD)	82.35	**DATE LOGGED**	27/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown psuedo fibrous PEAT(Von Post H6)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	81.95						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK104433**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,040.55 E 723,068.19 N	**DATE DRILLED**	28/06/2022
GROUND LEVEL (mOD)	89.35	**DATE LOGGED**	28/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	89.35						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5X Set Ups failed

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK105303**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,440.01 E 723,837.86 N	**DATE DRILLED**	27/06/2022
GROUND LEVEL (mOD)	81.10	**DATE LOGGED**	27/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	81.00						
	Brown psuedo fibrous PEAT(Von Post H6)		0.25	80.85						
	Brown fibrous PEAT(Von Post H5)		0.37	80.73						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.58	80.52						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK105403**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,478.03 E 723,931.01 N	**DATE DRILLED**	27/06/2022
GROUND LEVEL (mOD)	80.30	**DATE LOGGED**	27/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown psuedo fibrous PEAT(Von Post H6)		0.40	79.90						
	Brown fibrous PEAT(Von Post H5)		0.50	79.80						
						0.40-0.90	100	0 blows		
	Final Depth 0.90m		0.90	79.40						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	647,506.00 E 723,999.05 N
GROUND LEVEL (mOD)	80.32
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK105477
SHEET	Sheet 1 of 1
DATE DRILLED	23/06/2022
DATE LOGGED	23/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.50	79.82						
						0.50-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	79.32						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK105546**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,565.10 E 724,026.99 N	**DATE DRILLED**	23/06/2022
GROUND LEVEL (mOD)	80.15	**DATE LOGGED**	23/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
	Brown fibrous PEAT(Von Post H4)		0.45	79.70		0.00-0.55	100	0 blows		
	Final Depth 0.55m		0.55	79.60						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	647,653.11 E 724,054.89 N
GROUND LEVEL (mOD)	78.44
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK105637
SHEET	Sheet 1 of 1
DATE DRILLED	23/06/2022
DATE LOGGED	23/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT		0.10	78.34						
	Brown fibrous PEAT(Von Post H3)		0.28	78.16						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	77.84						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK105735**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,745.99 E 724,085.95 N	**DATE DRILLED**	23/06/2022
GROUND LEVEL (mOD)	78.66	**DATE LOGGED**	23/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT		0.10	78.56						
	Brown fibrous PEAT(Von Post H3)		0.28	78.38						
	Grey gravelly clayey SILT					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	78.06						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK105835**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,839.58 E 724,119.24 N	**DATE DRILLED**	23/06/2022
GROUND LEVEL (mOD)	80.55	**DATE LOGGED**	23/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.50	80.05						
	Brown fibrous PEAT(Von Post H4)		0.80	79.75		0.40-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	79.55						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK105947**
		SHEET	Sheet 1 of 1
CO-ORDINATES	647,943.97 E 724,154.91 N	**DATE DRILLED**	27/06/2022
GROUND LEVEL (mOD)	80.11	**DATE LOGGED**	27/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	80.11						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	648,001.08 E 724,183.18 N
GROUND LEVEL (mOD)	79.86
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK106009
SHEET	Sheet 1 of 1
DATE DRILLED	23/06/2022
DATE LOGGED	23/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT		0.10	79.76						
	Brown fibrous PEAT(Von Post H5)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	79.26						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK106197**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,156.17 E 724,288.83 N	**DATE DRILLED**	23/06/2022
GROUND LEVEL (mOD)	77.43	**DATE LOGGED**	23/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H5)		0.90	76.53						
1.0										
	Very soft grey SILT		1.30	76.13		0.90-1.40	100	0 blows		
	Final Depth 1.40m		1.40	76.03						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	648,321.00 E 724,403.01 N
GROUND LEVEL (mOD)	77.52
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK106398
SHEET	Sheet 1 of 1
DATE DRILLED	23/06/2022
DATE LOGGED	23/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
2.0										
	Very soft grey SILT		2.20	75.32		2.20-2.70	100	0 blows		
	Final Depth 2.70m		2.70	74.82						
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK106498**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,393.59 E 724,474.52 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	78.48	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
			0.45	78.03		0.00-0.45	100	0 blows		
	Final Depth 0.45m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK106598**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,461.86 E 724,543.08 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	76.27	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	76.17						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	75.67						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	648,533.37 E 724,617.88 N
GROUND LEVEL (mOD)	76.94
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK106700
SHEET	Sheet 1 of 1
DATE DRILLED	29/06/2022
DATE LOGGED	29/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	76.84						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	76.34						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK106791**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,599.75 E 724,676.90 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	77.18	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	77.08						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	76.58						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK106868**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,653.09 E 724,696.02 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	76.51	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	76.41						
	Brown fibrous PEAT(Von Post H3)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	75.91						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK106958**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,756.09 E 724,737.03 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	78.76	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	78.36						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107057**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,848.88 E 724,770.66 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	80.42	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	80.22						
						0.20-0.65	100	0 blows		
	Final Depth 0.65m		0.65	79.77						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107155**
		SHEET	Sheet 1 of 1
CO-ORDINATES	648,944.01 E 724,794.06 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	79.88	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	79.48						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107253**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,036.01 E 724,824.04 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	80.41	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	80.41						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107353**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,114.42 E 724,926.28 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	80.86	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	80.46						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107453**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,202.09 E 724,966.45 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	79.35	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	79.15						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	78.65						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107553**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,258.72 E 725,032.13 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	79.76	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	79.26						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	649,315.00 E 725,144.04 N
GROUND LEVEL (mOD)	78.57
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK107654
SHEET	Sheet 1 of 1
DATE DRILLED	29/06/2022
DATE LOGGED	29/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	77.97						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	77.47						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	649,379.94 E 725,218.18 N
GROUND LEVEL (mOD)	78.32
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK107756
SHEET	Sheet 1 of 1
DATE DRILLED	29/06/2022
DATE LOGGED	29/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H5)		0.70	77.62						
1.0						0.70-1.20	100	0 blows		
	Final Depth 1.20m		1.20	77.12						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107853**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,460.23 E 725,274.00 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	79.18	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	79.18						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK107943**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,557.19 E 725,253.29 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	75.53	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.35	100	0 blows		
	Final Depth 0.35m		0.35	75.18						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK108040**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,649.07 E 725,264.04 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	77.26	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	76.86						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK108140**
		SHEET	Sheet 1 of 1
CO-ORDINATES	649,740.66 E 725,271.87 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	78.59	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	78.59						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	649,846.55 E 725,280.49 N
GROUND LEVEL (mOD)	78.94
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK108241
SHEET	Sheet 1 of 1
DATE DRILLED	29/06/2022
DATE LOGGED	29/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT		0.10	78.84						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	78.34						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK109106**
		SHEET	Sheet 1 of 1
CO-ORDINATES	650,630.05 E 725,539.11 N	**DATE DRILLED**	28/06/2022
GROUND LEVEL (mOD)	78.59	**DATE LOGGED**	28/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	78.59						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5X Set Ups failed

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK109146**
		SHEET	Sheet 1 of 1
CO-ORDINATES	650,636.62 E 725,577.98 N	**DATE DRILLED**	28/06/2022
GROUND LEVEL (mOD)	78.54	**DATE LOGGED**	28/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	78.54						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5X Set Ups failed

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	650,642.67 E 725,629.71 N
GROUND LEVEL (mOD)	77.81
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK109196
SHEET	Sheet 1 of 1
DATE DRILLED	28/06/2022
DATE LOGGED	28/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H5)									
	Final Depth 0.30m		0.30	77.51						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK109298**
		SHEET	Sheet 1 of 1
CO-ORDINATES	650,647.15 E 725,730.36 N	**DATE DRILLED**	28/06/2022
GROUND LEVEL (mOD)	78.03	**DATE LOGGED**	28/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H5)									
	Final Depth 0.42m		0.42	77.61						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK109399**
		SHEET	Sheet 1 of 1
CO-ORDINATES	650,651.56 E 725,828.96 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	78.34	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H5)					0.00-0.35	100	0 blows		
	Final Depth 0.35m		0.35	77.99						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK109498**
		SHEET	Sheet 1 of 1
CO-ORDINATES	650,670.02 E 725,927.95 N	**DATE DRILLED**	29/06/2022
GROUND LEVEL (mOD)	77.37	**DATE LOGGED**	29/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	77.27						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	76.77						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	650,670.62 E 726,005.39 N
GROUND LEVEL (mOD)	75.49
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK109598
SHEET	Sheet 1 of 1
DATE DRILLED	29/06/2022
DATE LOGGED	29/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H5)		0.60	74.89						
						0.60-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	74.49						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	650,708.52 E 726,125.39 N
GROUND LEVEL (mOD)	74.42
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK109699
SHEET	Sheet 1 of 1
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT Brown fibrous PEAT(Von Post H5)		0.70	73.72						
1.0						0.10-1.20	100	0 blows		
	Final Depth 1.20m		1.20	73.22						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	650,729.38 E 726,217.84 N
GROUND LEVEL (mOD)	73.67
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK109798
SHEET	Sheet 1 of 1
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H5)		0.50	73.17						
						0.50-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	72.67						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	650,748.99 E 726,320.97 N
GROUND LEVEL (mOD)	73.76
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK109899
SHEET	Sheet 1 of 1
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.70	73.06						
1.0						0.70-1.20	100	0 blows		
	Final Depth 1.20m		1.20	72.56						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	650,764.24 E 726,417.62 N
GROUND LEVEL (mOD)	73.18
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK109999
SHEET	Sheet 1 of 1
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	73.18						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK110103**
		SHEET	Sheet 1 of 1
CO-ORDINATES	650,812.09 E 726,510.04 N	**DATE DRILLED**	30/06/2022
GROUND LEVEL (mOD)	72.82	**DATE LOGGED**	30/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
2.0										
	Brown fibrous PEAT(Von Post H3)		2.40	70.42		2.40-2.65	100	0 blows		
	Brown fibrous PEAT(Von Post H4)		2.65	70.17		2.65-2.80	100	0 blows		
3.0	Final Depth 2.80m		2.80	70.02						
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	650,879.09 E 726,591.09 N
GROUND LEVEL (mOD)	77.20
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK110208
SHEET	Sheet 1 of 1
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
2.0										
3.0										
4.0										
	Brown fibrous PEAT(Von Post H4)		4.70	72.50						
5.0						4.70-5.20	100	0 blows		
	Final Depth 5.20m		5.20	72.00						

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK110310**
SHEET	Sheet 1 of 1
CO-ORDINATES	650,945.07 E 726,668.01 N
GROUND LEVEL (mOD)	77.11
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
2.0										
3.0										
	Brown fibrous PEAT(Von Post H3)		3.80	73.31						
4.0						3.80-4.30	100	0 blows		
	Final Depth 4.30m		4.30	72.81						
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK110410**
SHEET	Sheet 1 of 1
CO-ORDINATES	651,009.04 E 726,744.97 N
GROUND LEVEL (mOD)	76.91
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
2.0										
3.0										
4.0	Brown fibrous PEAT(Von Post H3)		4.00	72.91		4.00-4.50	100	0 blows		
	Final Depth 4.50m		4.50	72.41						
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK110509**
SHEET	Sheet 1 of 1
CO-ORDINATES	651,073.98 E 726,820.00 N
GROUND LEVEL (mOD)	73.72
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.20	100	0 blows		
	Final Depth 0.20m		0.20	73.52						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	651,137.12 E 726,896.46 N
GROUND LEVEL (mOD)	73.46
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK110610
SHEET	Sheet 1 of 1
DATE DRILLED	30/06/2022
DATE LOGGED	30/06/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H5)		0.60	72.86						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	72.36						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK110710**
		SHEET	Sheet 1 of 1
CO-ORDINATES	651,248.45 E 727,001.68 N	**DATE DRILLED**	30/06/2022
GROUND LEVEL (mOD)	73.91	**DATE LOGGED**	30/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	73.91						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK110811**
		SHEET	Sheet 1 of 1
CO-ORDINATES	651,268.98 E 727,050.05 N	**DATE DRILLED**	30/06/2022
GROUND LEVEL (mOD)	75.09	**DATE LOGGED**	30/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	75.09						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK112024**
		SHEET	Sheet 1 of 1
CO-ORDINATES	652,207.96 E 727,797.02 N	**DATE DRILLED**	30/06/2022
GROUND LEVEL (mOD)	70.13	**DATE LOGGED**	30/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	70.13						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK112110**
		SHEET	Sheet 1 of 1
CO-ORDINATES	652,282.97 E 727,838.03 N	**DATE DRILLED**	30/06/2022
GROUND LEVEL (mOD)	70.03	**DATE LOGGED**	30/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	70.03						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	652,478.17 E 727,932.98 N
GROUND LEVEL (mOD)	71.64
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK112329
SHEET	Sheet 1 of 1
DATE DRILLED	04/07/2022
DATE LOGGED	04/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.64						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK112610**
SHEET	Sheet 1 of 1
CO-ORDINATES	652,722.54 E 728,075.43 N
GROUND LEVEL (mOD)	72.88
DATE DRILLED	04/07/2022
DATE LOGGED	04/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	72.88						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK112716**
		SHEET	Sheet 1 of 1
CO-ORDINATES	652,816.15 E 728,121.32 N	**DATE DRILLED**	04/07/2022
GROUND LEVEL (mOD)	73.14	**DATE LOGGED**	04/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	73.14						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK113313**
		SHEET	Sheet 1 of 1
CO-ORDINATES	653,441.07 E 728,098.10 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	72.27	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
	Final Depth 0.40m		0.40	71.87						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK113414**
		SHEET	Sheet 1 of 1
CO-ORDINATES	653,499.08 E 728,065.95 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	72.73	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
	Final Depth 0.20m		0.20	72.53						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK113513**
		SHEET	Sheet 1 of 1
CO-ORDINATES	653,585.32 E 728,023.59 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	71.44	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0										
1.0										
	Brown fibrous PEAT(Von Post H4)		1.70	69.74						
2.0						1.70-2.20	100	0 blows		
	Final Depth 2.20m		2.20	69.24						
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	653,676.85 E 727,977.15 N
GROUND LEVEL (mOD)	70.41
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK113613
SHEET	Sheet 1 of 1
DATE DRILLED	04/07/2022
DATE LOGGED	04/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
	Brown fibrous PEAT(Von Post H4)		1.50	68.91		0.50-2.00	100	0 blows		
2.0	Final Depth 2.00m		2.00	68.41						
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	653,766.70 E 727,931.44 N
GROUND LEVEL (mOD)	70.34
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK113713
SHEET	Sheet 1 of 1
DATE DRILLED	04/07/2022
DATE LOGGED	04/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
	Brown fibrous PEAT(Von Post H4)		1.60	68.74		1.60-1.95	100	0 blows		
2.0	Final Depth 1.95m		1.95	68.39						
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK113813**
		SHEET	Sheet 1 of 1
CO-ORDINATES	653,856.01 E 727,888.13 N	**DATE DRILLED**	04/07/2022
GROUND LEVEL (mOD)	71.12	**DATE LOGGED**	04/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.20	70.92						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	70.42						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK113913**
		SHEET	Sheet 1 of 1
CO-ORDINATES	653,948.59 E 727,846.17 N	**DATE DRILLED**	04/07/2022
GROUND LEVEL (mOD)	71.48	**DATE LOGGED**	04/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.50	70.98						
						0.50-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	70.48						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	654,040.02 E 727,810.84 N
GROUND LEVEL (mOD)	73.03
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK114013
SHEET	Sheet 1 of 1
DATE DRILLED	04/07/2022
DATE LOGGED	04/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	72.93						
	Brown fibrous PEAT(Von Post H2)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	72.43						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK114114**
		SHEET	Sheet 1 of 1
CO-ORDINATES	654,115.38 E 727,773.50 N	**DATE DRILLED**	04/07/2022
GROUND LEVEL (mOD)	72.64	**DATE LOGGED**	04/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H1)					0.00-0.20	100	0 blows		
	Final Depth 0.20m		0.20	72.44						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK114803**
		SHEET	Sheet 1 of 1
CO-ORDINATES	654,841.94 E 727,813.87 N	**DATE DRILLED**	04/07/2022
GROUND LEVEL (mOD)	71.68	**DATE LOGGED**	04/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.68						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK114913**
		SHEET	Sheet 1 of 1
CO-ORDINATES	654,927.73 E 727,829.14 N	**DATE DRILLED**	04/07/2022
GROUND LEVEL (mOD)	71.86	**DATE LOGGED**	04/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.86						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK115012**
		SHEET	Sheet 1 of 1
CO-ORDINATES	655,024.81 E 727,850.71 N	**DATE DRILLED**	04/07/2022
GROUND LEVEL (mOD)	71.61	**DATE LOGGED**	04/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.61						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	655,130.55 E 727,872.90 N
GROUND LEVEL (mOD)	71.60
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK115113
SHEET	Sheet 1 of 1
DATE DRILLED	05/07/2022
DATE LOGGED	05/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.60						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK115213**
		SHEET	Sheet 1 of 1
CO-ORDINATES	655,220.88 E 727,894.09 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	71.82	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.82						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK115413**
		SHEET	Sheet 1 of 1
CO-ORDINATES	655,409.23 E 727,927.72 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	70.77	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	70.77						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK115613**
		SHEET	Sheet 1 of 1
CO-ORDINATES	655,615.23 E 727,924.67 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	69.76	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	69.76						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	655,716.01 E 727,913.10 N
GROUND LEVEL (mOD)	69.39
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK115713
SHEET	Sheet 1 of 1
DATE DRILLED	05/07/2022
DATE LOGGED	05/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	69.39						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	655,844.67 E 727,904.05 N
GROUND LEVEL (mOD)	68.98
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK115813
SHEET	Sheet 1 of 1
DATE DRILLED	05/07/2022
DATE LOGGED	05/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	68.98						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK115913**
		SHEET	Sheet 1 of 1
CO-ORDINATES	655,915.00 E 727,907.90 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	68.73	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	68.73						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	656,014.01 E 727,921.01 N
GROUND LEVEL (mOD)	69.02
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK116013
SHEET	Sheet 1 of 1
DATE DRILLED	05/07/2022
DATE LOGGED	05/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	69.02						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK116112**
		SHEET	Sheet 1 of 1
CO-ORDINATES	656,114.27 E 727,939.35 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	69.40	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	69.40						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK116213**
		SHEET	Sheet 1 of 1
CO-ORDINATES	656,207.92 E 727,966.07 N	**DATE DRILLED**	05/07/2022
GROUND LEVEL (mOD)	70.04	**DATE LOGGED**	05/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	70.04						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK116313**
		SHEET	Sheet 1 of 1
CO-ORDINATES	656,303.02 E 727,996.97 N	**DATE DRILLED**	06/07/2022
GROUND LEVEL (mOD)	68.04	**DATE LOGGED**	06/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
						0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	67.64						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK116413**
		SHEET	Sheet 1 of 1
CO-ORDINATES	656,396.99 E 728,031.03 N	**DATE DRILLED**	06/07/2022
GROUND LEVEL (mOD)	69.22	**DATE LOGGED**	06/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.70	68.52						
1.0						0.70-1.20	100	0 blows		
	Final Depth 1.20m		1.20	68.02						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	656,491.14 E 728,064.09 N
GROUND LEVEL (mOD)	69.01
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK116513
SHEET	Sheet 1 of 1
DATE DRILLED	06/07/2022
DATE LOGGED	06/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.20	68.81						
	Grey SILT		0.60	68.41		0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	68.31						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK116613**
		SHEET	Sheet 1 of 1
CO-ORDINATES	656,590.90 E 728,075.11 N	**DATE DRILLED**	06/07/2022
		DATE LOGGED	06/07/2022
GROUND LEVEL (mOD)	72.18		
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.40	71.78		0.40-0.90	100	0 blows		
1.0	Final Depth 0.90m		0.90	71.28						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK116713**
		SHEET	Sheet 1 of 1
CO-ORDINATES	656,689.57 E 728,084.84 N	**DATE DRILLED**	06/07/2022
GROUND LEVEL (mOD)	72.66	**DATE LOGGED**	06/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	72.26						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK119127**
		SHEET	Sheet 1 of 1
CO-ORDINATES	659,533.14 E 728,333.66 N	**DATE DRILLED**	30/06/2022
GROUND LEVEL (mOD)	73.40	**DATE LOGGED**	30/06/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H1)					0.00-0.20	100	0 blows		
	Final Depth 0.20m		0.20	73.20						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	RK119766
SHEET	Sheet 1 of 1
CO-ORDINATES	659,591.50 E 728,334.64 N
GROUND LEVEL (mOD)	72.87
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H1)		0.10	72.77		0.00-0.10	100	0 blows		
	Final Depth 0.10m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	659,680.97 E 728,310.90 N
GROUND LEVEL (mOD)	72.03
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK119859
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0						0.00-0.25	100	0 blows		
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	659,762.13 E 728,279.09 N
GROUND LEVEL (mOD)	71.94
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK119951
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	71.54						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	659,852.51 E 728,234.17 N
GROUND LEVEL (mOD)	71.51
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK120050
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)					0.00-0.20	100	0 blows		
	Final Depth 0.20m		0.20	71.31						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	660,030.66 E 728,126.74 N
GROUND LEVEL (mOD)	70.35
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK120245
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	69.85						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK120344**
		SHEET	Sheet 1 of 1
CO-ORDINATES	660,120.73 E 728,107.06 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	69.70	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.70	100	0 blows		
	Final Depth 0.70m		0.70	69.00						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	660,214.91 E 728,073.03 N
GROUND LEVEL (mOD)	68.91
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK120444
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.70	100	0 blows		
	Final Depth 0.70m		0.70	68.21						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	660,307.92 E 728,036.97 N
GROUND LEVEL (mOD)	68.60
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK120544
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	68.00						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK120644**
		SHEET	Sheet 1 of 1
CO-ORDINATES	660,401.03 E 727,999.99 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	67.94	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.60	67.34						
1.0						0.60-1.20	100	0 blows		
	Final Depth 1.20m		1.20	66.74						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK121045**
		SHEET	Sheet 1 of 1
CO-ORDINATES	660,803.69 E 727,989.05 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	68.52	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	68.42						
	Brown fibrous PEAT(Von Post H3)					0.10-0.40	100	0 blows		
	Final Depth 0.40m		0.40	68.12						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	660,996.01 E 727,993.98 N
GROUND LEVEL (mOD)	67.82
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK121247
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.50	67.32						
						0.50-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	66.82						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK121346**
SHEET	Sheet 1 of 1
CO-ORDINATES	661,113.94 E 727,995.88 N
GROUND LEVEL (mOD)	67.33
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)		0.15	67.18		0.00-0.15	100	0 blows		
	Final Depth 0.15m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	662,251.01 E 727,685.99 N
GROUND LEVEL (mOD)	67.53
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK122544
SHEET	Sheet 1 of 1
DATE DRILLED	28/03/2022
DATE LOGGED	28/03/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT					0.00-0.25	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H8)		0.25	67.28		0.25-0.50	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H7)		0.50	67.03		0.50-0.75	100	0 blows		
	Final Depth 0.85m		0.75	66.78		0.25-0.85				
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	662,345.98 E 727,654.08 N
GROUND LEVEL (mOD)	67.19
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK122644
SHEET	Sheet 1 of 1
DATE DRILLED	28/03/2022
DATE LOGGED	28/03/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT					0.00-0.10	100	0 blows		
	No Recovery - Assumed PEAT		0.10	67.09		0.10-0.20	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H8)		0.20	66.99						
	Brown psuedo fibrous PEAT(Von Post H5)									
	Brown psuedo fibrous PEAT(Von Post H6)		0.60	66.59		0.10-0.70	100	0 blows		
	Final Depth 0.70m		0.70	66.49		0.20-0.70				
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	662,456.44 E 727,610.07 N
GROUND LEVEL (mOD)	67.31
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK122745
SHEET	Sheet 1 of 1
DATE DRILLED	23/03/2022
DATE LOGGED	23/03/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H7)		0.20	67.11						
			0.60	66.71		0.20-0.60	100	0 blows		
1.0	Final Depth 1.00m									
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK122844**
		SHEET	Sheet 1 of 1
CO-ORDINATES	662,537.01 E 727,600.99 N	**DATE DRILLED**	28/03/2022
GROUND LEVEL (mOD)	67.05	**DATE LOGGED**	28/03/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown psuedo fibrous PEAT(Von Post H8)					0.00-0.25	100	0 blows		
			0.25	66.80						
	Brown psuedo fibrous PEAT(Von Post H7)					0.00-0.40	100	0 blows		
			0.40	66.65		0.25-0.40				
	Redish brown fibrous PEAT(Von Post H4)									
			0.70	66.35						
	Brown psuedo fibrous PEAT(Von Post H7)									
			0.90	66.15		0.50-1.00	100	0 blows		
	Grey SILT		1.00	66.05						
1.0	Final Depth 0.40m									
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK122944**
		SHEET	Sheet 1 of 1
CO-ORDINATES	662,637.00 E 727,592.91 N	**DATE DRILLED**	28/03/2022
GROUND LEVEL (mOD)	66.23	**DATE LOGGED**	28/03/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown psuedo fibrous PEAT(Von Post H8)		0.20	66.03		0.00-0.35	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H8)		0.35	65.88		0.00-0.50	100	0 blows		
	Grey SILT		0.50	65.73		0.35-0.50				
	Final Depth 0.50m		0.70	65.53						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	662,737.00 E 727,587.01 N
GROUND LEVEL (mOD)	66.62
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK123045
SHEET	Sheet 1 of 1
DATE DRILLED	28/03/2022
DATE LOGGED	28/03/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT		0.10	66.52		0.00-0.10	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H9)		0.30	66.32		0.10-0.30	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H8)		0.50	66.12		0.30-0.50	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H7)		0.75	65.87		0.10-0.75	100	0 blows		
	Final Depth 0.75m					0.50-0.75				
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	662,932.00 E 727,557.94 N
GROUND LEVEL (mOD)	66.37
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK123247
SHEET	Sheet 1 of 1
DATE DRILLED	28/03/2022
DATE LOGGED	28/03/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	PEAT		0.10	66.27		0.00-0.10	100	0 blows		
	Brown psuedo fibrous PEAT(Von Post H7)					0.10-0.40	100	0 blows		
	Brown fibrous PEAT(Von Post H5)		0.40	65.97		0.10-0.75	100	0 blows		
	Final Depth 0.75m		0.75	65.62		0.40-0.75				
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	663,082.01 E 727,430.03 N
GROUND LEVEL (mOD)	66.93
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK123444
SHEET	Sheet 1 of 1
DATE DRILLED	28/03/2022
DATE LOGGED	28/03/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0						0.10-0.65				
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK124145**
		SHEET	Sheet 1 of 1
CO-ORDINATES	663,496.06 E 726,897.99 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	66.86	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Dark Brown CLAY with rootlets		0.00	66.86		0.00-0.34	100	0 blows		
	Final Depth 0.00m		0.34	66.52						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK124244**
		SHEET	Sheet 1 of 1
CO-ORDINATES	663,569.93 E 726,831.98 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	66.85	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Dark Brown CLAY with rootlets Brown fibrous PEAT(Von Post H3)		0.20	66.65						
						0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	66.35		0.20-0.60	100	0 blows		
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK124344**
		SHEET	Sheet 1 of 1
CO-ORDINATES	663,651.20 E 726,773.96 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	67.19	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post 7)		0.15	67.04						
	Brown fibrous PEAT(Von Post H3)									
			0.50	66.69		0.15-0.65	100	0 blows		
	Final Depth 0.65m		0.65	66.54						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK124444**
		SHEET	Sheet 1 of 1
CO-ORDINATES	663,738.10 E 726,723.05 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	67.28	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	66.78						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK124544**
		SHEET	Sheet 1 of 1
CO-ORDINATES	663,826.75 E 726,676.24 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	68.91	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post 8) No Recovery - Assumed PEAT					0.00-0.50	100	0 blows		
			0.50	68.41						
	Brown fibrous PEAT(Von Post H3)		0.60	68.31		0.60-1.10	100	0 blows		
1.0										
	Final Depth 1.10m		1.10	67.81						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	663,912.52 E 726,627.08 N
GROUND LEVEL (mOD)	67.99
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK124644
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.70	67.29						
1.0						0.70-1.20	100	0 blows		
	Final Depth 1.20m		1.20	66.79						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	664,001.16 E 726,577.17 N
GROUND LEVEL (mOD)	69.32
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK124744
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.50	68.82						
						0.50-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	68.32						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK124844**
		SHEET	Sheet 1 of 1
CO-ORDINATES	664,088.16 E 726,531.05 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	67.36	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.60	66.76						
	Grey brown sandy CLAY		0.85	66.51						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	66.26						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	664,177.05 E 726,484.93 N
GROUND LEVEL (mOD)	68.82
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK124944
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.90	67.92						
1.0						0.90-1.40	100	0 blows		
	Final Depth 1.40m		1.40	67.42						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK125044**
		SHEET	Sheet 1 of 1
CO-ORDINATES	664,265.95 E 726,440.05 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	68.41	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	68.31						
	Brown psuedo fibrous PEAT(Von Post H7)		0.35	68.06						
	Brown psuedo fibrous PEAT(Von Post H7)					0.10-0.60	100	0 blows		
			0.60	67.81						
	Brown fibrous PEAT(Von Post H4)		0.70	67.71						
1.0						0.70-1.20	100	0 blows		
	Final Depth 1.20m		1.20	67.21						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	664,354.90 E 726,393.94 N
GROUND LEVEL (mOD)	68.42
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK125144
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.30	68.12						
						0.30-0.80	100	0 blows		
	Final Depth 0.80m		0.80	67.62						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	664,444.93 E 726,352.98 N
GROUND LEVEL (mOD)	67.94
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK125243
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	67.74						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	67.24						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	664,540.97 E 726,328.93 N
GROUND LEVEL (mOD)	67.95
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK125344
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	67.35						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	66.85						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK125444**
		SHEET	Sheet 1 of 1
CO-ORDINATES	664,644.77 E 726,314.78 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	69.48	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	69.28						
	Gret SILT		0.60	68.88		0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	68.78						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK125544**
		SHEET	Sheet 1 of 1
CO-ORDINATES	664,739.07 E 726,305.07 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	71.51	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.20	71.31						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	70.81						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	665,396.27 E 726,318.74 N
GROUND LEVEL (mOD)	70.12
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK126209
SHEET	Sheet 1 of 1
DATE DRILLED	12/07/2022
DATE LOGGED	12/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	69.62						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK126360**
		SHEET	Sheet 1 of 1
CO-ORDINATES	665,547.32 E 726,333.00 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	69.81	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
	Brown fibrous PEAT(Von Post H3)		1.50	68.31						
	Grey brown sandy CLAY		1.90	67.91		1.50-2.00	100	0 blows		
2.0	Final Depth 2.00m		2.00	67.81						
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK126460**
		SHEET	Sheet 1 of 1
CO-ORDINATES	665,657.75 E 726,345.92 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	69.05	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)		0.35	68.70		0.00-0.35	100	0 blows		
	Final Depth 0.50m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK126561**
		SHEET	Sheet 1 of 1
CO-ORDINATES	665,750.09 E 726,352.04 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	69.52	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Grey brown SAND		0.15	69.37						
	Grey brown sligt sandy CLAY					0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	68.92						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK126659**
		SHEET	Sheet 1 of 1
CO-ORDINATES	665,848.99 E 726,362.06 N	**DATE DRILLED**	12/07/2022
GROUND LEVEL (mOD)	67.45	**DATE LOGGED**	12/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)		0.30	67.15		0.00-0.30	100	0 blows		
	Final Depth 0.30m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK126750**
		SHEET	Sheet 1 of 1
CO-ORDINATES	665,942.97 E 726,373.09 N	**DATE DRILLED**	14/07/2022
GROUND LEVEL (mOD)	67.55	**DATE LOGGED**	14/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	67.15						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK126841**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,029.94 E 726,380.07 N	**DATE DRILLED**	14/07/2022
GROUND LEVEL (mOD)	67.60	**DATE LOGGED**	14/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.40	67.20						
						0.40-0.90	100	0 blows		
	Final Depth 0.90m		0.90	66.70						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK126942**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,130.05 E 726,390.08 N	**DATE DRILLED**	14/07/2022
GROUND LEVEL (mOD)	67.75	**DATE LOGGED**	14/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.30	100	0 blows		
	Final Depth 0.30m		0.30	67.45						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK127041**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,228.67 E 726,400.26 N	**DATE DRILLED**	14/07/2022
GROUND LEVEL (mOD)	67.99	**DATE LOGGED**	14/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)		0.20	67.79		0.00-0.20	100	0 blows		
	Final Depth 0.80m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK127142**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,328.19 E 726,411.25 N	**DATE DRILLED**	14/07/2022
GROUND LEVEL (mOD)	68.35	**DATE LOGGED**	14/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.30	68.05						
						0.30-0.80	100	0 blows		
	Final Depth 0.30m		0.80	67.55						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK127241**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,428.11 E 726,411.52 N	**DATE DRILLED**	14/07/2022
GROUND LEVEL (mOD)	68.00	**DATE LOGGED**	14/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)		0.30	67.70		0.00-0.30	100	0 blows		
	Final Depth 0.20m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK127342**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,534.14 E 726,438.03 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	68.90	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	68.70						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	68.20						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	666,628.05 E 726,441.03 N
GROUND LEVEL (mOD)	69.56
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK127442
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	68.96						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	68.46						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	666,709.00 E 726,495.98 N
GROUND LEVEL (mOD)	69.79
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK127542
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	69.19						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	68.69						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK127642**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,788.12 E 726,561.97 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	70.39	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	69.79						
1.0	Grey SILT		1.00	69.39		0.50-1.10	100	0 blows		
	Final Depth 1.10m		1.10	69.29						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK127741**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,826.03 E 726,611.57 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	71.05	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.30	70.75		0.30-0.60	100	0 blows		
	Final Depth 0.60m		0.60	70.45						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK127841**
		SHEET	Sheet 1 of 1
CO-ORDINATES	666,941.00 E 726,690.00 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	71.16	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	70.96						
						0.20-0.60	100	0 blows		
	Final Depth 0.60m		0.60	70.56						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK127941**
SHEET	Sheet 1 of 1
CO-ORDINATES	667,016.36 E 726,755.98 N
GROUND LEVEL (mOD)	71.17
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.20	70.97						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	70.47						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	667,101.10 E 726,813.04 N
GROUND LEVEL (mOD)	71.05
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK128041
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.60	70.45						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	69.95						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK128141**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,180.05 E 726,875.00 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	71.17	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.50	70.67		0.50-0.80	100	0 blows		
	Grey sandy CLAY		0.80	70.37						
1.0	Final Depth 1.00m		1.00	70.17						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	667,270.07 E 726,913.98 N
GROUND LEVEL (mOD)	72.22
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK128241
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	72.02						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	71.52						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK128342**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,331.67 E 727,002.50 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	72.36	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.40	71.96						
						0.40-0.90	100	0 blows		
	Final Depth 0.90m		0.90	71.46						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	667,411.99 E 727,066.95 N
GROUND LEVEL (mOD)	72.92
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK128441
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.50	72.42						
						0.50-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	71.92						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK128541**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,499.97 E 727,114.13 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	72.89	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.40	72.49						
						0.40-0.90	100	0 blows		
	Final Depth 0.90m		0.90	71.99						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK128641**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,586.25 E 727,178.41 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	73.74	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.50	73.24						
						0.50-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	72.74						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK128741**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,640.81 E 727,233.24 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	74.40	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	74.30						
	Brown fibrous PEAT(Von Post H3)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	74.00						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK128842**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,722.83 E 727,302.15 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	74.15	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	73.65						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK128942**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,827.37 E 727,386.77 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	73.91	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)		0.90	73.01						
1.0	Grey brown gravelly sandy CLAY		1.10	72.81		0.60-1.10	100	0 blows		
	Final Depth 1.10m									
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK129042**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,882.13 E 727,433.29 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	73.99	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.50	73.49						
1.0	Grey brown gravelly sandy CLAY		1.00	72.99		0.50-1.10	100	0 blows		
	Final Depth 1.10m		1.10	72.89						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK129142**
		SHEET	Sheet 1 of 1
CO-ORDINATES	667,956.62 E 727,498.73 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	73.81	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	73.71						
	Brown fibrous PEAT(Von Post H4)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	73.21						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK129241**
		SHEET	Sheet 1 of 1
CO-ORDINATES	668,030.17 E 727,564.32 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	74.41	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.70	73.71						
1.0						0.70-1.20	100	0 blows		
	Final Depth 1.20m		1.20	73.21						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	668,091.30 E 727,630.36 N
GROUND LEVEL (mOD)	74.02
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK129341
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	73.42						
1.0	Grey brown gravelly sandy CLAY		1.00	73.02		0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	72.92						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK129441**
		SHEET	Sheet 1 of 1
CO-ORDINATES	668,168.27 E 727,708.98 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	73.88	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.40	73.48						
						0.40-0.90	100	0 blows		
	Final Depth 0.90m		0.90	72.98						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	668,277.94 E 727,781.17 N
GROUND LEVEL (mOD)	73.26
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK129541
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
	Grey brown gravelly sandy CLAY		0.20	73.06						
						0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	72.76						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	668,331.31 E 727,825.15 N
GROUND LEVEL (mOD)	73.70
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK129642
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H5)									
						0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	73.10						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK129742**
		SHEET	Sheet 1 of 1
CO-ORDINATES	668,406.52 E 727,891.11 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	73.61	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	73.51						
	Brown fibrous PEAT(Von Post H3)					0.10-0.70	100	0 blows		
	Final Depth 0.70m		0.70	72.91						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK129842**
		SHEET	Sheet 1 of 1
CO-ORDINATES	668,484.70 E 727,968.94 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	73.16	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	72.56						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK129941**
		SHEET	Sheet 1 of 1
CO-ORDINATES	668,557.44 E 728,032.30 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	72.92	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.10	72.82						
	Brown fibrous PEAT(Von Post H5)									
	Brown fibrous PEAT(Von Post H5)		0.40	72.52		0.10-0.60	100	0 blows		
			0.60	72.32		0.00-0.65	100	0 blows		
	Final Depth 0.60m		0.65	72.27						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	668,622.12 E 728,088.05 N
GROUND LEVEL (mOD)	73.05
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK130041
SHEET	Sheet 1 of 1
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H5)		0.20	72.85						
			0.70	72.35		0.20-0.80	100	0 blows		
	Final Depth 0.80m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK130141**
		SHEET	Sheet 1 of 1
CO-ORDINATES	668,707.03 E 728,163.25 N	**DATE DRILLED**	15/07/2022
GROUND LEVEL (mOD)	72.61	**DATE LOGGED**	15/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	72.51						
	Brown fibrous PEAT(Von Post H5)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	72.01						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK130242**
SHEET	Sheet 1 of 1
CO-ORDINATES	668,764.23 E 728,248.11 N
GROUND LEVEL (mOD)	72.52
DATE DRILLED	15/07/2022
DATE LOGGED	15/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H5)									
			0.45	72.07		0.00-0.45	100	0 blows		
	Final Depth 0.45m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK130342**
		SHEET	Sheet 1 of 1
CO-ORDINATES	668,847.99 E 728,306.91 N	**DATE DRILLED**	16/07/2022
GROUND LEVEL (mOD)	73.54	**DATE LOGGED**	16/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	73.44						
	Brown fibrous PEAT(Von Post H4)					0.10-0.70	100	0 blows		
	Final Depth 0.70m		0.70	72.84						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	668,942.46 E 728,368.96 N
GROUND LEVEL (mOD)	74.19
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK130451
SHEET	Sheet 1 of 1
DATE DRILLED	16/07/2022
DATE LOGGED	16/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	73.59						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	669,034.04 E 728,376.99 N
GROUND LEVEL (mOD)	74.05
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK130542
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	73.45						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK130641**
SHEET	Sheet 1 of 1
CO-ORDINATES	669,133.06 E 728,388.01 N
GROUND LEVEL (mOD)	72.68
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	72.08						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	669,233.03 E 728,398.02 N
GROUND LEVEL (mOD)	72.50
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK130742
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.60	71.90						
1.0						0.60-1.20	100	0 blows		
	Final Depth 1.20m		1.20	71.30						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	669,334.03 E 728,395.99 N
GROUND LEVEL (mOD)	72.83
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK130841
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.50	72.33						
1.0						0.50-1.10	100	0 blows		
	Final Depth 1.10m		1.10	71.73						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK130941**
		SHEET	Sheet 1 of 1
CO-ORDINATES	669,432.96 E 728,406.09 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	73.31	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	73.21						
	Brown fibrous PEAT(Von Post H3)					0.10-0.70	100	0 blows		
	Final Depth 0.70m		0.70	72.61						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK131041**
		SHEET	Sheet 1 of 1
CO-ORDINATES	669,532.11 E 728,420.11 N	**DATE DRILLED**	21/07/2022
GROUND LEVEL (mOD)	73.36	**DATE LOGGED**	21/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	73.26						
	Brown fibrous PEAT(Von Post H2)					0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	72.76						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK131141**
		SHEET	Sheet 1 of 1
CO-ORDINATES	669,630.03 E 728,441.05 N	**DATE DRILLED**	21/07/2022
GROUND LEVEL (mOD)	73.24	**DATE LOGGED**	21/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.50	72.74						
1.0						0.50-1.10	100	0 blows		
	Final Depth 1.10m		1.10	72.14						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	669,726.96 E 728,465.03 N
GROUND LEVEL (mOD)	74.98
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK131241
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0						0.00-0.50	100	0 blows		
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	669,823.83 E 728,490.66 N
GROUND LEVEL (mOD)	73.61
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK131342
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0	Brown fibrous PEAT(Von Post H2)		1.20	72.41		1.20-1.80	100	0 blows		
	Final Depth 1.80m		1.80	71.81						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	669,920.93 E 728,515.01 N
GROUND LEVEL (mOD)	74.47
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK131442
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0	Brown fibrous PEAT(Von Post H3)		1.00	73.47		1.00-1.60	100	0 blows		
	Final Depth 1.30m		1.60	72.87						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	670,018.03 E 728,538.96 N
GROUND LEVEL (mOD)	74.83
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK131542
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.70	74.13						
1.0						0.70-1.20	100	0 blows		
	Final Depth 1.30m		1.20	73.63						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	670,113.95 E 728,564.05 N
GROUND LEVEL (mOD)	75.71
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK131641
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	75.11						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK131741**
		SHEET	Sheet 1 of 1
CO-ORDINATES	670,210.97 E 728,588.97 N	**DATE DRILLED**	21/07/2022
GROUND LEVEL (mOD)	74.90	**DATE LOGGED**	21/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.40	74.50						
						0.40-1.00	100	0 blows		
1.0	Final Depth 1.00m		1.00	73.90						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK131836**
		SHEET	Sheet 1 of 1
CO-ORDINATES	670,303.03 E 728,612.01 N	**DATE DRILLED**	21/07/2022
GROUND LEVEL (mOD)	75.09	**DATE LOGGED**	21/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	74.99						
	Brown fibrous PEAT(Von Post H3)					0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	74.49						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	670,371.96 E 728,691.96 N
GROUND LEVEL (mOD)	75.48
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK131941
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	74.88						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	670,431.58 E 728,771.49 N
GROUND LEVEL (mOD)	77.54
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK132042
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	77.54						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	670,466.79 E 728,830.72 N
GROUND LEVEL (mOD)	77.02
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK132120
SHEET	Sheet 1 of 1
DATE DRILLED	21/07/2022
DATE LOGGED	21/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	77.02						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	672,063.27 E 730,493.00 N
GROUND LEVEL (mOD)	83.62
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK134582
SHEET	Sheet 1 of 1
DATE DRILLED	23/07/2022
DATE LOGGED	23/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)		0.30	83.32		0.00-0.30	100	0 blows		
	Final Depth 0.30m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK134882**
		SHEET	Sheet 1 of 1
CO-ORDINATES	672,153.21 E 730,789.24 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	82.20	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.30m		0.00	82.20						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK135095**
		SHEET	Sheet 1 of 1
CO-ORDINATES	672,262.02 E 730,951.00 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	81.85	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	81.45						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK135317**
		SHEET	Sheet 1 of 1
CO-ORDINATES	672,447.97 E 731,062.10 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	82.60	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	82.60						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	672,934.62 E 732,378.00 N
GROUND LEVEL (mOD)	86.67
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK136810
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.40	86.27						
						0.40-0.90	100	0 blows		
	Final Depth 0.90m		0.90	85.77						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK136910**
		SHEET	Sheet 1 of 1
CO-ORDINATES	672,963.18 E 732,470.54 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	86.11	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	85.71						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK137010**
		SHEET	Sheet 1 of 1
CO-ORDINATES	672,996.43 E 732,559.35 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	86.70	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	86.20						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK137110**
		SHEET	Sheet 1 of 1
CO-ORDINATES	673,055.41 E 732,633.05 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	87.51	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	87.01						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	673,155.16 E 732,697.38 N
GROUND LEVEL (mOD)	88.22
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK137213
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	87.62						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	87.12						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	673,243.23 E 732,753.11 N
GROUND LEVEL (mOD)	88.23
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK137317
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.20	88.03						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	87.53						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK137418**
		SHEET	Sheet 1 of 1
CO-ORDINATES	673,329.71 E 732,805.39 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	88.06	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	87.66						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	673,429.27 E 732,857.15 N
GROUND LEVEL (mOD)	87.40
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK137522
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.40	87.00						
						0.40-0.90	100	0 blows		
	Final Depth 0.90m		0.90	86.50						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	673,512.81 E 732,905.27 N
GROUND LEVEL (mOD)	86.47
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK137625
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.30	86.17						
						0.30-0.80	100	0 blows		
	Final Depth 0.80m		0.80	85.67						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK137725**
		SHEET	Sheet 1 of 1
CO-ORDINATES	673,605.04 E 732,940.22 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	86.25	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	85.85						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK137825**
		SHEET	Sheet 1 of 1
CO-ORDINATES	673,697.78 E 732,975.22 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	86.18	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	85.78						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK138024**
		SHEET	Sheet 1 of 1
CO-ORDINATES	673,881.64 E 733,051.17 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	86.98	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
						0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	86.58						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK138948**
		SHEET	Sheet 1 of 1
CO-ORDINATES	674,800.10 E 733,015.52 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	87.08	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.30	86.78		0.30-0.70	100	0 blows		
	Final Depth 0.00m		0.70	86.38						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK139051**
		SHEET	Sheet 1 of 1
CO-ORDINATES	674,965.96 E 732,978.63 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	87.11	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	86.71						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	RK139159
SHEET	Sheet 1 of 1
CO-ORDINATES	674,994.82 E 732,954.64 N
GROUND LEVEL (mOD)	87.01
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
4.0	Brown fibrous PEAT(Von Post H4)		4.00	83.01		4.00-4.50	100	0 blows		
	Final Depth 4.50m		4.50	82.51						
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	675,067.50 E 733,013.96 N
GROUND LEVEL (mOD)	87.68
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK139254
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.30	87.38						
						0.30-0.90	100	0 blows		
	Final Depth 0.90m		0.90	86.78						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	675,133.95 E 733,080.02 N
GROUND LEVEL (mOD)	88.72
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK139347
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0										
1.0						0.60-1.20	100	0 blows		
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	675,208.54 E 733,151.03 N
GROUND LEVEL (mOD)	88.37
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK139450
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.60	87.77						
1.0	Final Depth 1.20m		1.10	87.27		0.60-1.20	100	0 blows		
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	675,283.03 E 733,221.16 N
GROUND LEVEL (mOD)	88.55
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK139552
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	88.45						
	Brown fibrous PEAT(Von Post H2)					0.10-0.60	100	0 blows		
	Final Depth 0.60m		0.60	87.95						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	675,357.99 E 733,291.14 N
GROUND LEVEL (mOD)	87.91
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK139655
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.60	87.31						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.20m		1.10	86.81						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK139759**
		SHEET	Sheet 1 of 1
CO-ORDINATES	675,434.91 E 733,358.36 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	86.98	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.70	86.28						
1.0			1.20	85.78		0.70-1.20	100	0 blows		
2.0										
3.0	Final Depth 3.00m									
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	675,530.88 E 733,371.38 N
GROUND LEVEL (mOD)	86.67
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK139855
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H2)		0.50	86.17		0.50-1.00	100	0 blows		
1.0	Final Depth 1.10m		1.00	85.67						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK139958**
		SHEET	Sheet 1 of 1
CO-ORDINATES	675,633.08 E 733,383.21 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	82.99	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H5)									
	Grey SILT		0.20	82.79		0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	82.59						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK140055**
SHEET	Sheet 1 of 1
CO-ORDINATES	675,730.36 E 733,381.26 N
GROUND LEVEL (mOD)	82.27
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.60	100	0 blows		
	Final Depth 0.60m		0.60	81.67						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK140155**
		SHEET	Sheet 1 of 1
CO-ORDINATES	675,830.06 E 733,378.71 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	82.37	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT		0.10	82.27						
	Brown fibrous PEAT(Von Post H3)					0.10-0.70	100	0 blows		
	Final Depth 0.70m		0.70	81.67						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	675,930.55 E 733,377.25 N
GROUND LEVEL (mOD)	82.31
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK140255
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.30	82.01						
						0.30-0.80	100	0 blows		
	Final Depth 0.80m		0.80	81.51						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	676,038.01 E 733,386.22 N
GROUND LEVEL (mOD)	79.49
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK140357
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT Brown fibrous PEAT(Von Post H3)		1.10	78.39		1.10-1.70	100	0 blows		
1.0	Final Depth 1.70m		1.70	77.79						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK140460**
		SHEET	Sheet 1 of 1
CO-ORDINATES	676,138.40 E 733,376.53 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	79.73	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	79.73						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	676,220.46 E 733,415.65 N
GROUND LEVEL (mOD)	79.26
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK140559
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0	Brown fibrous PEAT(Von Post H3)		1.00	78.26		1.00-1.50	100	0 blows		
	Final Depth 1.50m		1.50	77.76						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK140660**
		SHEET	Sheet 1 of 1
CO-ORDINATES	676,307.81 E 733,475.23 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	79.08	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.30	100	0 blows		
	Final Depth 0.30m		0.30	78.78						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	676,392.78 E 733,528.34 N
GROUND LEVEL (mOD)	79.49
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK140762
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)					0.00-0.20	100	0 blows		
	Final Depth 0.20m		0.20	79.29						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	676,487.14 E 733,551.60 N
GROUND LEVEL (mOD)	79.16
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK140861
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	78.66						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK140960**
		SHEET	Sheet 1 of 1
CO-ORDINATES	676,598.32 E 733,571.95 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	79.90	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.20	79.70		0.20-0.40	100	0 blows		
	Final Depth 0.70m		0.70	79.20						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK141058**
		SHEET	Sheet 1 of 1
CO-ORDINATES	676,700.60 E 733,580.73 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	80.28	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	80.28						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	676,781.27 E 733,559.45 N
GROUND LEVEL (mOD)	79.95
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK141156
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	79.55						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK141255**
		SHEET	Sheet 1 of 1
CO-ORDINATES	676,885.03 E 733,552.29 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	79.73	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	79.73						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	676,978.03 E 733,548.23 N
GROUND LEVEL (mOD)	79.69
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK141353
SHEET	Sheet 1 of 1
DATE DRILLED	19/07/2022
DATE LOGGED	19/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	79.69						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK141453**
		SHEET	Sheet 1 of 1
CO-ORDINATES	677,078.98 E 733,543.99 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	79.44	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	79.44						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK141559**
		SHEET	Sheet 1 of 1
CO-ORDINATES	677,166.87 E 733,528.43 N	**DATE DRILLED**	19/07/2022
GROUND LEVEL (mOD)	77.31	**DATE LOGGED**	19/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	77.31						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK141663**
SHEET	Sheet 1 of 1
CO-ORDINATES	677,283.99 E 733,576.91 N
GROUND LEVEL (mOD)	76.73
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.73						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	677,372.21 E 733,621.13 N
GROUND LEVEL (mOD)	76.78
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK141762
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.78						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	677,459.98 E 733,667.06 N
GROUND LEVEL (mOD)	77.22
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK141861
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	77.22						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK141961**
		SHEET	Sheet 1 of 1
CO-ORDINATES	677,552.13 E 733,703.99 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	76.47	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.47						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK142060**
		SHEET	Sheet 1 of 1
CO-ORDINATES	677,646.89 E 733,731.97 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	75.89	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	75.89						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK142160**
		SHEET	Sheet 1 of 1
CO-ORDINATES	677,745.02 E 733,749.92 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	76.00	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.00						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK142262**
		SHEET	Sheet 1 of 1
CO-ORDINATES	677,846.99 E 733,749.94 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	76.55	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.55						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK142360**
		SHEET	Sheet 1 of 1
CO-ORDINATES	677,944.99 E 733,750.06 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	76.13	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.13						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK142457**
		SHEET	Sheet 1 of 1
CO-ORDINATES	678,042.03 E 733,751.02 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	76.97	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.97						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK142554**
		SHEET	Sheet 1 of 1
CO-ORDINATES	678,134.01 E 733,777.06 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	77.13	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	77.13						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK142649**
		SHEET	Sheet 1 of 1
CO-ORDINATES	678,223.04 E 733,810.96 N	**DATE DRILLED**	20/07/2022
GROUND LEVEL (mOD)	76.53	**DATE LOGGED**	20/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	76.53						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	678,309.97 E 733,845.05 N
GROUND LEVEL (mOD)	77.67
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK142743
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	77.67						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	678,391.89 E 733,875.94 N
GROUND LEVEL (mOD)	77.73
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK142831
SHEET	Sheet 1 of 1
DATE DRILLED	20/07/2022
DATE LOGGED	20/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	77.73						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK143142**
		SHEET	Sheet 1 of 1
CO-ORDINATES	678,683.01 E 733,986.99 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	75.20	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	75.20						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK143243**
		SHEET	Sheet 1 of 1
CO-ORDINATES	678,784.03 E 733,993.87 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	74.74	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	74.74						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK143481**
SHEET	Sheet 1 of 1
CO-ORDINATES	679,020.99 E 734,012.97 N
GROUND LEVEL (mOD)	74.38
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	74.38						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	679,112.09 E 734,018.95 N
GROUND LEVEL (mOD)	74.13
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK143572
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)									
			0.30	73.83		0.00-0.30	100	0 blows		
	Final Depth 0.30m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK144065**
		SHEET	Sheet 1 of 1
CO-ORDINATES	679,588.94 E 734,084.02 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	74.17	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H2)					0.00-0.20	100	0 blows		
	Final Depth 0.20m		0.20	73.97						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK144164**
		SHEET	Sheet 1 of 1
CO-ORDINATES	679,677.26 E 734,040.82 N	**DATE DRILLED**	22/07/2022
GROUND LEVEL (mOD)	76.33	**DATE LOGGED**	22/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H3)		0.20	76.13						
						0.20-0.70	100	0 blows		
	Final Depth 0.70m		0.70	75.63						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	679,759.99 E 733,991.91 N
GROUND LEVEL (mOD)	77.32
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	**RK144260**
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0	Brown fibrous PEAT(Von Post H4)		1.20	76.12		1.20-1.70	100	0 blows		
	Final Depth 1.70m		1.70	75.62						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK144356**
SHEET	Sheet 1 of 1
CO-ORDINATES	679,845.93 E 733,949.92 N
GROUND LEVEL (mOD)	77.25
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0	Brown fibrous PEAT(Von Post H4)		1.10	76.15		1.10-1.60	100	0 blows		
	Final Depth 1.60m		1.60	75.65						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	679,945.57 E 733,912.91 N
GROUND LEVEL (mOD)	77.63
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK144460
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
	Brown fibrous PEAT(Von Post H5)		1.40	76.23		1.40-1.90	100	0 blows		
	Final Depth 1.90m		1.90	75.73						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	680,146.99 E 733,882.81 N
GROUND LEVEL (mOD)	77.53
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK144667
SHEET	Sheet 1 of 1
DATE DRILLED	22/07/2022
DATE LOGGED	22/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)		0.30	77.23		0.00-0.30	100	0 blows		
	Final Depth 0.30m									
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	680,240.12 E 733,879.97 N
GROUND LEVEL (mOD)	78.54
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK144760
SHEET	Sheet 1 of 1
DATE DRILLED	23/07/2022
DATE LOGGED	23/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
1.0										
	Brown fibrous PEAT(Von Post H3)		1.80	76.74						
2.0						1.80-2.30	100	0 blows		
	Final Depth 2.30m		2.30	76.24						
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK144860**
		SHEET	Sheet 1 of 1
CO-ORDINATES	680,339.10 E 733,874.98 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	76.99	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	No Recovery - Assumed PEAT									
	Brown fibrous PEAT(Von Post H4)		0.60	76.39						
1.0						0.60-1.10	100	0 blows		
	Final Depth 1.10m		1.10	75.89						
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	680,436.99 E 733,894.02 N
GROUND LEVEL (mOD)	76.24
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK144960
SHEET	Sheet 1 of 1
DATE DRILLED	23/07/2022
DATE LOGGED	23/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	75.84						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
CO-ORDINATES	680,533.04 E 733,922.96 N
GROUND LEVEL (mOD)	75.82
CLIENT	Irish Water
ENGINEER	Mott MacDonald
PROBE NO.	RK145060
SHEET	Sheet 1 of 1
DATE DRILLED	23/07/2022
DATE LOGGED	23/07/2022
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H4)									
						0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	75.32						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation
PROBE NO.	**RK145160**
SHEET	Sheet 1 of 1
CO-ORDINATES	680,627.67 E 733,945.52 N
GROUND LEVEL (mOD)	75.48
DATE DRILLED	23/07/2022
DATE LOGGED	23/07/2022
CLIENT	Irish Water
ENGINEER	Mott MacDonald
SAMPLED BY	Colm
LOGGED BY	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.50	100	0 blows		
	Final Depth 0.50m		0.50	74.98						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK145760**
		SHEET	Sheet 1 of 1
CO-ORDINATES	681,214.99 E 734,073.00 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	71.50	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Brown fibrous PEAT(Von Post H3)					0.00-0.40	100	0 blows		
	Final Depth 0.40m		0.40	71.10						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks

Installations

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK146461**
		SHEET	Sheet 1 of 1
CO-ORDINATES	681,810.99 E 734,342.02 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	71.55	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.55						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK146560**
		SHEET	Sheet 1 of 1
CO-ORDINATES	681,888.01 E 734,404.96 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	71.56	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	71.56						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

RUSSIAN PEAT SAMPLER RECORD

REPORT NUMBER 23560

CONTRACT	WSP Lot 3 Ground Investigation	**PROBE NO.**	**RK146660**
		SHEET	Sheet 1 of 1
CO-ORDINATES	681,976.92 E 734,443.03 N	**DATE DRILLED**	23/07/2022
GROUND LEVEL (mOD)	73.48	**DATE LOGGED**	23/07/2022
CLIENT	Irish Water	**SAMPLED BY**	Colm
ENGINEER	Mott MacDonald	**LOGGED BY**	D.Newell

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	5 x Attempts Failed Final Depth 0.00m		0.00	73.48						
1.0										
2.0										
3.0										
4.0										
5.0										

General Remarks
5 x Attempts

Installations

RUSSIAN PEAT SAMPLER 23560 PEATLANDS AND PIPELINE.GPJ IGSL.GDT 23/3/23

Appendix 8E

Field / In-Situ Test Results

Appendix 8E.1

Borehole Infiltration Tests

Borehole Infiltration Test

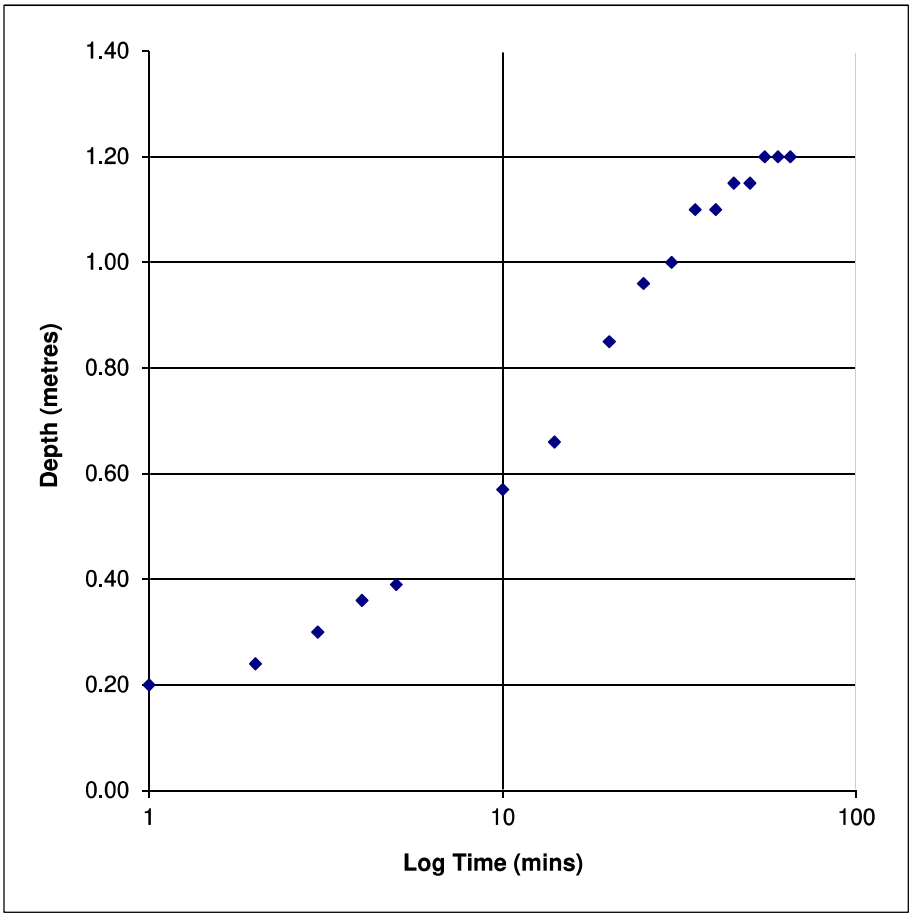
IGSL

CONTRACT:	WSP Lot 3 - Peatlands
NUMBER	23560
CLIENT:	Ervia / Irish Water
ENGINEER:	MM
LOCATION:	BH133311
BOREHOLE No.	BH133311
TEST No.	1
Date	24/03/2022

TEST RESPONSE ZONE DETAILS:

Top (mbgl):	3.00
Bottom (mbgl):	4.00
Length (m):	1.00
Diameter (m):	0.200
Initial Standing Water Level (m below top of casing)	None
Height of casing or standpipe : above ground level (m)	0.20
Falling or Rising Head Test?	Falling

Elapsed Time (mins)	Depth to Water* (m)
0.00	0.00
1	0.20
2	0.24
3	0.30
4	0.36
5	0.39
10	0.57
14	0.66
20	0.85
25	0.96
30	1.00
35	1.10
40	1.10
45	1.15
50	1.15
55	1.20
60	1.20
65	1.20



Calculation of steady flow Rate

T1 (mins)	0.00
T2 (mins)	65.00
Flow period (mins)	65.00
Initial depth (m)	0.00
Final depth (m)	1.20
Fall in level (m)	1.20
Vol. Dispersed (m3)	0.0377

Respone Zone

Length (m)	1.000
Diameter (m)	0.200
Exposed Area (m2)	0.660

f-value = Volume dispersed / unit exposed area / unit time

f-value (m/min) = 8.79E-04

* Below Ground level

Borehole Infiltration Test

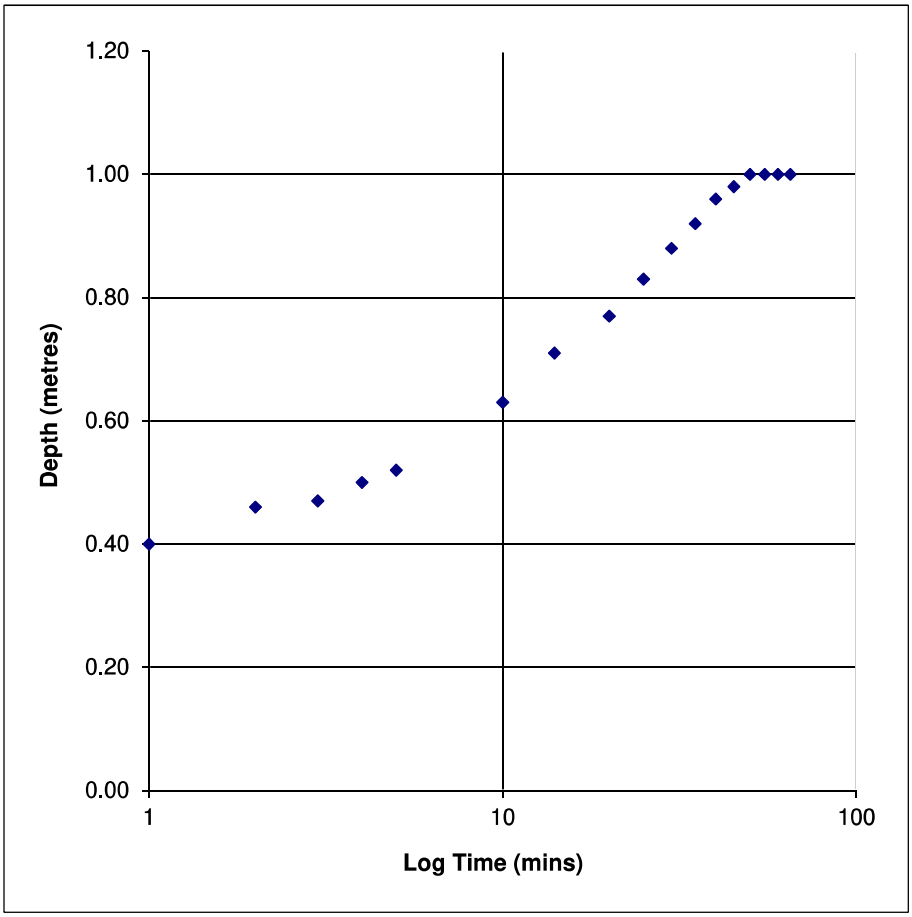
IGSL

CONTRACT:	WSP Lot 3 - Peatlands
NUMBER	23560
CLIENT:	Ervia / Irish Water
ENGINEER:	MM
LOCATION:	BH134500
BOREHOLE No.	BH134500
TEST No.	1
Date	14/03/2022

TEST RESPONSE ZONE DETAILS:

Top (mbgl):	4.10
Bottom (mbgl):	4.60
Length (m):	0.50
Diameter (m):	0.200
Initial Standing Water Level (m below top of casing)	None
Height of casing or standpipe : above ground level (m)	0.40
Falling or Rising Head Test?	Falling

Elapsed Time (mins)	Depth to Water* (m)
0.00	0.00
1	0.40
2	0.46
3	0.47
4	0.50
5	0.52
10	0.63
14	0.71
20	0.77
25	0.83
30	0.88
35	0.92
40	0.96
45	0.98
50	1.00
55	1.00
60	1.00
65	1.00



Calculation of steady flow Rate

T1 (mins)	0.00
T2 (mins)	65.00
Flow period (mins)	65.00
Initial depth (m)	0.00
Final depth (m)	1.00
Fall in level (m)	1.00
Vol. Dispersed (m3)	0.0314

Respone Zone

Length (m)	0.500
Diameter (m)	0.200
Exposed Area (m2)	0.346

f-value = Volume dispersed / unit exposed area / unit time

f-value (m/min) = 1.40E-03

* Below Ground level

Borehole Infiltration Test

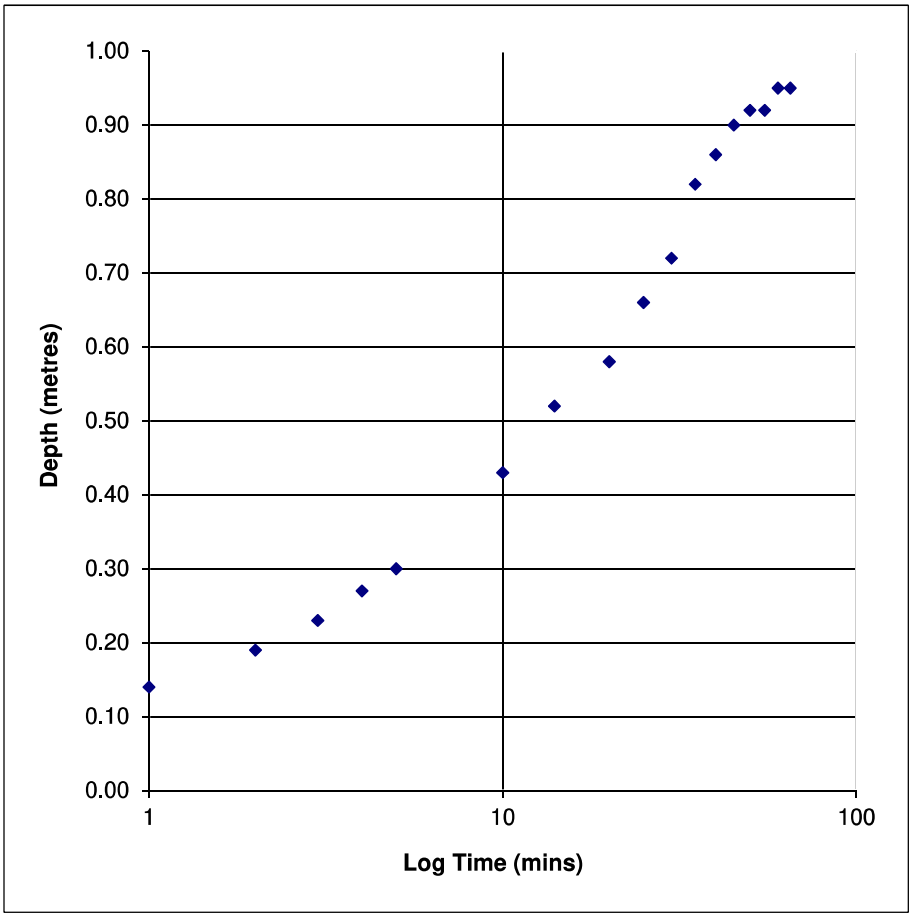
IGSL

CONTRACT:	WSP Lot 3 - Peatlands
NUMBER	23560
CLIENT:	Ervia / Irish Water
ENGINEER:	MM
LOCATION:	BH139892
BOREHOLE No.	BH139892
TEST No.	1
Date	09/05/2022

TEST RESPONSE ZONE DETAILS:

Top (mbgl):	4.50
Bottom (mbgl):	6.00
Length (m):	1.50
Diameter (m):	0.200
Initial Standing Water Level (m below top of casing)	None
Height of casing or standpipe : above ground level (m)	0.20
Falling or Rising Head Test?	Falling

Elapsed Time (mins)	Depth to Water* (m)
0.00	0.00
1	0.14
2	0.19
3	0.23
4	0.27
5	0.30
10	0.43
14	0.52
20	0.58
25	0.66
30	0.72
35	0.82
40	0.86
45	0.90
50	0.92
55	0.92
60	0.95
65	0.95



Calculation of steady flow Rate

T1 (mins)	0.00
T2 (mins)	65.00
Flow period (mins)	65.00
Initial depth (m)	0.00
Final depth (m)	0.95
Fall in level (m)	0.95
Vol. Dispersed (m3)	0.0298

Respone Zone

Length (m)	1.500
Diameter (m)	0.200
Exposed Area (m2)	0.974

f-value = Volume dispersed / unit exposed area / unit time

f-value (m/min) = 4.71E-04

* Below Ground level

Borehole Infiltration Test

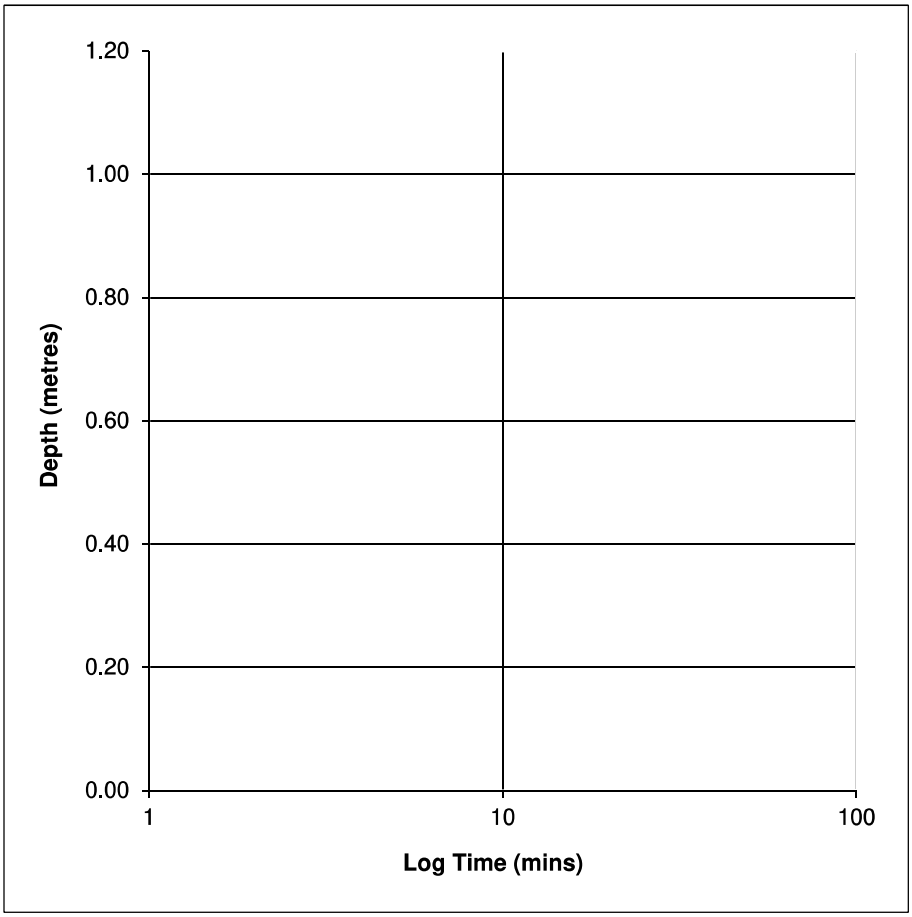
IGSL

CONTRACT:	WSP Lot 3 - Peatlands
NUMBER	23560
CLIENT:	Ervia / Irish Water
ENGINEER:	MM
LOCATION:	BH143383
BOREHOLE No.	BH143383
TEST No.	1 @ 1.50m
Date	08/08/2022

TEST RESPONSE ZONE DETAILS:

Top (mbgl):	1.50
Bottom (mbgl):	2.00
Length (m):	0.50
Diameter (m):	0.200
Initial Standing Water Level (m below top of casing)	None
Height of casing or standpipe : above ground level (m)	0.20
Falling or Rising Head Test?	Falling

Elapsed Time (mins)	Depth to Water* (m)
0.00	Test Failed
1	
2	
3	
4	
5	
10	
14	
20	
25	
30	
35	
40	
45	
50	
55	
60	
65	



Calculation of steady flow Rate

T1 (mins)	0.00
T2 (mins)	Test Failed
Flow period (mins)	
Initial depth (m)	0.00
Final depth (m)	Test Failed
Fall in level (m)	
Vol. Dispersed (m3)	

Respone Zone

Length (m)	0.500
Diameter (m)	0.200
Exposed Area (m2)	0.346

f-value = Volume dispersed / unit exposed area / unit time

f-value (m/min) =

* Below Ground level

Borehole Infiltration Test

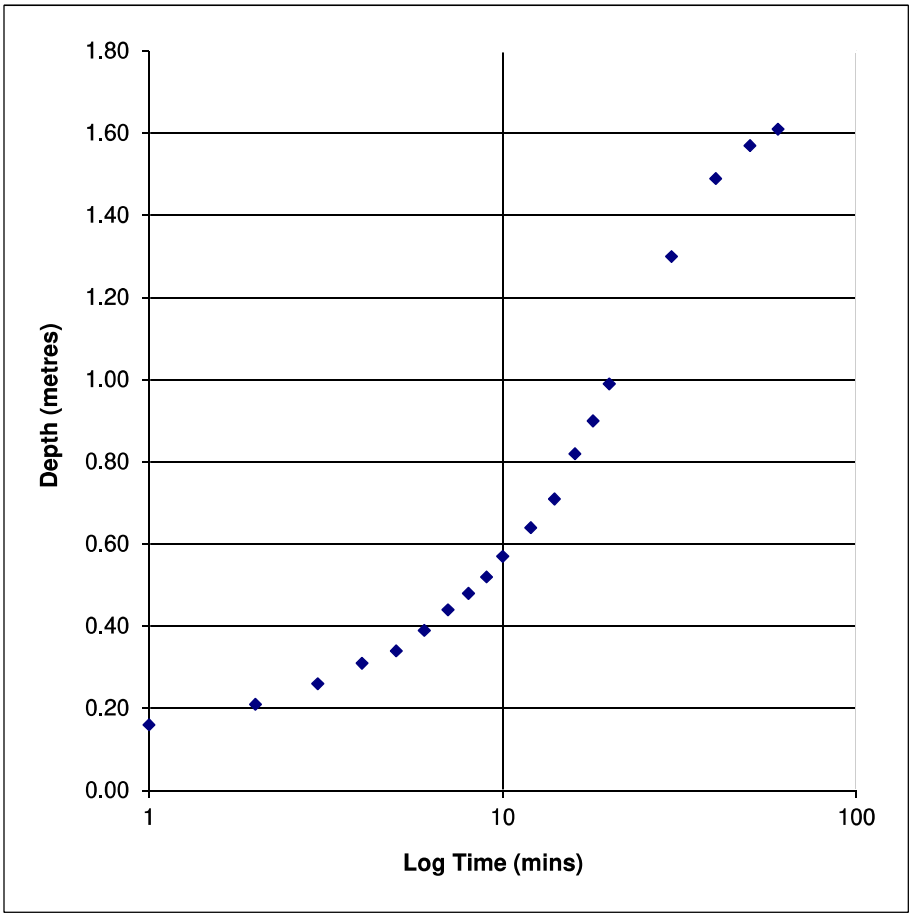
IGSL

CONTRACT:	WSP Lot 3 - Peatlands
NUMBER	23560
CLIENT:	Ervia / Irish Water
ENGINEER:	MM
LOCATION:	BH143383
BOREHOLE No.	BH143383
TEST No.	2 @ 3.0mbgl
Date	08/08/2022

TEST RESPONSE ZONE DETAILS:

Top (mbgl):	3.00
Bottom (mbgl):	4.00
Length (m):	1.00
Diameter (m):	0.200
Initial Standing Water Level (m below top of casing)	None
Height of casing or standpipe : above ground level (m)	0.20
Falling or Rising Head Test?	Falling

Elapsed Time (mins)	Depth to Water* (m)
0.00	0.00
1	0.16
2	0.21
3	0.26
4	0.31
5	0.34
6	0.39
7	0.44
8	0.48
9	0.52
10	0.57
12	0.64
14	0.71
16	0.82
18	0.90
20	0.99
30	1.30
40	1.49
50	1.57
60	1.61



Calculation of steady flow Rate

T1 (mins)	0.00
T2 (mins)	60.00
Flow period (mins)	60.00
Initial depth (m)	0.00
Final depth (m)	1.61
Fall in level (m)	1.61
Vol. Dispersed (m3)	0.0506

Respone Zone

Length (m)	1.000
Diameter (m)	0.200
Exposed Area (m2)	0.660

f-value = Volume dispersed / unit exposed area / unit time

f-value (m/min) = 1.28E-03

* Below Ground level

Appendix 8F

Specialist In-Situ Test Results

Appendix 8G

Geophysics Report (Combined Peatland & Pipeline)

Ervia Sheet No.	MGX Report Map/Figure No.	Treated Water Chainage
95	1	133050 - 133452
95	2	133050 - 133452
96	3	135592 - 135805
98	4	139734 - 139927
100	5	143294 - 143414

Water Supply Project – Contract 3 - Peatlands

Eastern and Midlands Region

Geophysical Survey

Report Status: Final

MGX Project Number: 6586

MGX File Ref: 6586pt-005.doc

30th May 2023

Confidential Report To:

IGSL
Unit F
N7 Business Park
Naas
Co. Kildare

Report submitted by:
Minerex Geophysics Limited

Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare, W23X7Y5
Ireland
Tel.: 01-6510030
Email: info@mgx.ie

Issued by:

Author: John Connaughton (Geophysicist)

Reviewer: Hartmut Krahn (Senior Geophysicist)

Minerex Geophysics Limited

Subsurface Geophysical Investigations

EXECUTIVE SUMMARY

1. Minerex Geophysics Ltd. (MGX) carried out a geophysical survey consisting of 2D-Resistivity and seismic refraction (p-wave) surveying for the ground investigation for the Water Supply Project, Eastern and Midlands Region – Contract 3 - Peatlands.
2. The main objectives of the survey were to determine ground conditions under the site; determine the depth to rock and the overburden thickness in order to estimate the strength or stiffness or compaction of overburden and the rock quality; establish the presence of faults and fracture zones, and to detect possible karstified rock.
3. Four separate areas within the 'peatlands area' were surveyed along the route for this contract. Most sites were interpreted as consisting deep clay rich overburden. An esker, consisting of sand and gravel was identified at Ch143294 – 143414.
4. Peat was surveyed to depths of 5m in the area between Ch139734 - 139927. The deepest peat is found on the west side of this area and becomes shallower to the east.
5. The rock at most of the survey locations was deep.
6. This report was finalised after the completed direct ground investigation data was received.

CONTENTS

1. INTRODUCTION 1

1.1 Background 1
1.2 Objectives 1
1.3 Site Description 2
1.4 Geology 2
1.5 Report 2

2. GEOPHYSICAL SURVEY 3

2.1 Methodology 3
2.2 2D-Resistivity (ERT) 3
2.3 Seismic Refraction 3
2.4 Site Work 4

3. RESULTS AND INTERPRETATION 5

3.1 2D-Resistivity (ERT) 5
3.2 Seismic Refraction 6
3.3 Interpretation of Resistivity and Seismic Refraction 6

4. INTERPRETATION BY LOCATION 9

4.1 Ch133050 9
4.2 Ch135592 9
4.3 Ch139734 10
4.4 Ch143294 10

5. CONCLUSIONS AND RECOMMENDATIONS 11

6. REFERENCES 12

List of Tables, Maps and Figures:

Title	Pages	Document Reference
Table 1: Geophysical Survey Locations and Acquisition Parameters	1 x A4	6586pt-Tab1.xls
Table 2: Summary of Interpretation	In text	In text
Map 1: Geophysical Survey Location Map Ch133050	1 x A3	6586pt_Drawings.dwg
Figure 1a: Models of Geophysical Survey Ch133050	1 x A3	6586pt_Drawings.dwg
Figure 1b: Interpretation of Geophysical Survey Ch133050	1 x A3	6586pt_Drawings.dwg
Map 2: Geophysical Survey Location Map Ch133050	1 x A3	6586pt_Drawings.dwg
Figure 2a: Models of Geophysical Survey Ch133050	1 x A3	6586pt_Drawings.dwg
Figure 2b: Interpretation of Geophysical Survey Ch133050	1 x A3	6586pt_Drawings.dwg
Map 3: Geophysical Survey Location Map Ch135592	1 x A3	6586pt_Drawings.dwg
Figure 3a: Models of Geophysical Survey Ch135592	1 x A3	6586pt_Drawings.dwg
Figure 3b: Interpretation of Geophysical Survey Ch135592	1 x A3	6586pt_Drawings.dwg
Map 4: Geophysical Survey Location Map Ch139734	1 x A3	6586pt_Drawings.dwg
Figure 4a: Models of Geophysical Survey Ch139734	1 x A3	6586pt_Drawings.dwg
Figure 4b: Interpretation of Geophysical Survey Ch139734	1 x A3	6586pt_Drawings.dwg
Map 5: Geophysical Survey Location Map Ch143294	1 x A3	6586pt_Drawings.dwg
Figure 5a: Models of Geophysical Survey Ch143294	1 x A3	6586pt_Drawings.dwg
Figure 5b: Interpretation of Geophysical Survey Ch143294	1 x A3	6586pt_Drawings.dwg

1. INTRODUCTION

1.1 Background

Minerex Geophysics Ltd. (MGX) carried out a geophysical survey for the Water Supply Project – Contract 3 – peatlands area. The survey consisted of 2D-Resistivity and seismic refraction (p-wave) measurements at specific locations along the pipeline route targeting areas of alluvium overburden. The survey was commissioned by IGSL.

Surveying was carried out on all sites where access was available at the time of this report.

A previous geophysical report (MGX, 2017) was carried out for this scheme concentrating of water crossings along the full route. This survey was aimed mainly at areas containing alluvium overburden as well as some other targeted locations.

A broad geophysical interpretation covering various geological setting expected across the country was used in the previous survey which is again used in this report and is shown in Table 2. A more refined interpretation based on individual locations are provided on the interpretation figures and in Chapter 4 of this report.

This survey utilized various complimentary geophysical methods to improve final interpretations. The role of geophysics as a non-destructive fast method is to provide a geological interpretation over a wide area to complement direct ground investigations at specific locations. The direct ground investigation results can be used to improve the initial geophysical results and interpretation.

The proposed development is a large 2m diameter water supply pipeline from the River Shannon to Dublin.

1.2 Objectives

The main objectives of the geophysical survey were:

- To determine the ground conditions under the site
- To determine the depth to rock and the overburden thickness
- To estimate the strength or stiffness or compaction of overburden materials and the rock quality
- To determine the type of overburden and rock
- To detect lateral changes within the geological layers
- To determine the presence of possible faults and fracture zones
- To detect possible karstified zones within the rock, karst features

1.3 Site Description

The four geophysical survey sites which have been completed to date for Contract 3 – peatlands area are located along the proposed pipeline route. For naming the locations, the chainage provided at the time of the survey is used in the labelling in this report.

1.4 Geology

The overburden and bedrock geological conditions as taken from the Geological Survey of Ireland (GSI, 2023) are shown in Table 1. The quaternary sediments in most areas are described as alluvium, limestone till or cut over raised peat. The bedrock formations are Waulsortian Limestone, Lucan Formation, and Boston Hill Formation. There are no karst features noted at any of the survey areas.

1.5 Report

This report includes the results and interpretation of the geophysical survey. Maps, figures and tables are included to illustrate the results of the survey. More detailed descriptions of geophysical methods and measurements can be found in GSEG (2002), Milsom (1989) and Reynolds (1997).

The description of soil, rock and the use of geotechnical terms (soft, stiff, dense etc) follows Eurocode (2007) and BSI (2015) standards. The terms are defined in the standards and the physical parameters are related from experience. This geophysical survey has been acquired, processed, interpreted and reported in accordance with these guidelines.

The client provided maps of the site and the digital version was used as the background map in this report. Elevations were surveyed on site and are used in the vertical sections.

The interpretative nature and the non-invasive survey methods must be taken into account when considering the results of this survey and Minerex Geophysics Limited, while using appropriate practice to execute, interpret and present the data, give no guarantees in relation to the existing subsurface.

2. GEOPHYSICAL SURVEY

2.1 Methodology

The methodology was agreed before surveying and consisted of 2D-Resistivity surveying and Seismic Refraction surveying along a number of lines in each area.

The survey locations are indicated on Map 1. The lines, locations, chainage and parameters are tabulated in Table 1.

2.2 2D-Resistivity (ERT)

2D-Resistivity lines were surveyed with electrode spacing of 3m, up to 64 electrodes per set-up and a maximum length of 189m per set-up. The readings were taken with a Tigre Resistivity Meter, Imager Cables, stainless steel electrodes and a laptop with ImagerPro acquisition software.

Some data was acquired in the roll-along mode where lines extended greater than 189m to achieve continuous coverage to a depth of 15m.

During 2D-Resistivity surveying, data is acquired in the form of linear arrays using a suite of metal electrodes. A current is induced into the ground via a pair of electrodes whilst a potential difference is measured across a second pair of electrodes. This allows for the recording of the apparent resistivity in a two-dimensional arrangement below the line. The data is inverted after the survey to obtain a model of subsurface resistivities. The generated model resistivity values and their spatial distribution can then be related to typical values for different geological materials.

2D-Resistivity has previously proven zones of anomalous or karstified rock with lateral extents of 5m and more.

2.3 Seismic Refraction

Seismic refraction lines were surveyed with geophone spacing of 3m and 24 geophones per set-up resulting in a 69m length per set-up. The recording equipment consisted of a 24 Channel GEOMETRICS ES-3000 engineering seismograph with 4.5Hz vertical geophones. The seismic energy source consisted of a hammer and plate. A zero-delay trigger was used to start the recording. Normally 7 shot points per p-wave set-up were used.

Many set-ups were acquired in longer continuous lines using common shot points between set-ups and concatenating into longer lines at the processing stage.

The seismic refraction survey method focuses on propagating p-waves travelling through the subsurface, which are generated by hitting a hammer on a plate or other source. As the wave propagates through the

subsurface, its velocity varies as it travels through overburden, rock with different elastic properties, and along geological boundaries. Velocity data is recorded via the surveying equipment, which is then processed, allowing geological layer thicknesses and boundaries to be established.

Seismic Refraction generally determines the depth to horizontal or near horizontal layers where the compaction or strength or rock quality changes with an accuracy of 10 – 20% of depth to that layer. Where low velocity layers or shadow zones are present (e.g., below solid ground surface) or where layers dip with more than a 20 degree angle the accuracy becomes much less.

The seismic refraction set-ups with 69m individual length have a reasonable penetration depth of around 15m. An internationally accepted maximum depth estimate for a seismic refraction set-up is 1/6 of the set-up length including offshots. The depth penetration varies according to the velocity structure of the subsurface. In this report we used a depth of 15m below ground level (bgl). where the seismic modelling was ended as deeper modelling becomes less meaningful.

2.4 Site Work

The data acquisition was carried out between the 24th of January and 28th of February 2022. The weather conditions were fair throughout the acquisition period. Health and safety standards were adhered to at all times. The locations and elevations were surveyed with a Carlson NR3 RTK-GPS to accuracy < 0.05m.

3. RESULTS AND INTERPRETATION

The interpretation of geophysical data was executed utilizing the known response of geophysical measurements, typical physical parameters for subsurface features that may underlay the site, and the experience of the authors.

Some ground investigation results were available before and after the survey from surveying carried out in 2017, and the abbreviated borehole logs are indicated on the sections. Further borehole results from the IGSL ground investigation work in 2022 were added to the final version of this report.

3.1 2D-Resistivity (ERT)

The 2D-Resistivity data was positioned and inverted with the RES2DINV inversion package. Lines using the roll-along method were concatenated for a joint inversion. The programme uses a smoothness constrained least-squares inversion method to produce a 2D model of the subsurface resistivities from the recorded apparent resistivity values. Three variations of the least squares method are available and for this project the Jacobian Matrix was recalculated for the first three iterations, then a Quasi-Newton approximation was used for subsequent iterations. Each dataset was inverted using seven iterations resulting in a typical RMS error of <3.0%. The resulting models were colour contoured with the same resistivity scale for all lines and they are displayed as cross sections (Figure 1a – 5a).

Resistivities are characteristic for certain overburden and rock types. If there is a high content of clay minerals (which are electrically conductive) then the overburden resistivity will be lower than as if there is a high content of clastic grains like sand or gravel. The purer the clay and the lower the sand and gravel content, the lower the resistivity. Water content in overburden layers can influence the resistivities, but generally clay content has a more dominating effect.

Within bedrock types like clean limestone, high resistivities indicate a fresh, strong, unweathered rock. As the weathering in the rock increases, the resistivity gets lower because of weathering products, remineralisation of rock and infill of cracks, faults and voids with clay and water. Weathering within rock is typically indicated by lower resistivity values in the cross sections.

In limestone areas, karstified rock is defined in this report as a formerly intact clean limestone rock, liable to karstification, that has been partially dissolved by water over long geological time scales and where the cavities and voids have either remained empty (filled by air) or became filled by overburden sediment (clay, silt, sand), weathering product of the broken rock itself or water. This process would lead to a reduction of the resistivity of the overall rock and therefore karstified rock has a lower resistivity than intact clean limestone rock. This is generally indicated by lower resistivities embedded within high resistivity at depth.

The resistivities cover a range typical for materials from clay rich overburden (low resistivities) to fresh strong unweathered bedrock (high resistivities). The ranges have been taken into the consideration for the

interpretation. Within the overburden layers, very low resistivities (<62.5 Ohmm) indicate a clay rich overburden. Low resistivity values (62.5 - 250 Ohmm) indicates a sandy gravelly clay and silt. Medium values (250 to 500 Ohmm) show a clayey silty sand and gravel while high resistivities (>500 Ohmm) indicate sand and gravel.

Within Rock layers, the resistivities indicate different rock types as well as differing levels of weathering within a rock. Low resistivities (<250 Ohmm) indicate a mudstone or shale bedrock or a very infilled limestone. Medium resistivities (250 – 500 Ohmm) may be a shale or infilled limestone. High resistivities (500 – 2000 Ohmm) are interpreted either as shale or limestone while very high resistivities (>2000 Ohmm) indicate a clean limestone.

3.2 Seismic Refraction

The seismic refraction data was positioned and processed with the SEISIMAGER software package to give a layered model of the subsurface. The number of layers has been determined by analysing the seismic traces and up to 7 layers in total were used in the models ranging from 3 to 4-layer models. All seismic profiles were subject to a standardised processing sequence which consisted of a topographic correction which was based on integrated elevation data, first break picking, tomographic inversion, travel-time computation via ray-tracing and velocity modelling. Residual deviations of typically 0.4 to 1.8 msec RMS have been obtained for each profile. Following each processing stage QC procedures were adhered to. The resulting layer boundaries are shown as thick lines overlaid on the 2D-Resistivity cross sections (Figures 1a to 9a). The average seismic velocities obtained within the layers are annotated on the sections as bold black numbers.

The p-wave seismic velocity is closely linked to the density of subsurface materials and to parameters like compaction, stiffness, strength and rock quality. The higher the density of the subsurface materials the higher the seismic velocity. Similarly for the other parameters it is generally valid that a more compacted, stiffer and stronger material will have a higher seismic velocity. For rock, the seismic velocity is higher when the rock is stronger, less weathered and has a higher quality. If the rock is more weathered, broken, fractured, fissured or karstified then the seismic velocity will be reduced compared to that of intact fresh rock.

Because of the above relationship, the seismic refraction method and seismic velocities are suitable to investigate ground where the layers get denser, more compacted and stronger with depth. A disadvantage is that some materials may have the same seismic velocity: Very stiff to hard or very dense highly consolidated overburden and a weathered rock can have the same seismic velocity range.

3.3 Interpretation of Resistivity and Seismic Refraction

Table 2 summarises the interpretation. The stiffness or compaction and the rock strength or quality have been estimated from the seismic velocity. The estimation of the excavatability for the bedrock has been made according to the caterpillar chart published in Reynolds (1997). The geotechnical assessment for

rippability will have to take factors like rock type and jointing into account and the estimation in this report is solely based on the seismic velocities.

Interpreted cross sections are shown in Figure 1b to 5b. The interpretation has been made from all available information. For overburden layers and the top of the rock, the seismic refraction data has been used as seismic refraction is the best method to delineate layer boundaries. The resistivity models have been used to delineate generalised types of overburden and rock. Resistivity data is better suited to show rock types and features within the rock while seismic refraction velocities are indicating the change of compaction, stiffness or rock quality with depth. Along short profile parts where only one data type is available an interpolation for the interpreted layers was made.

Table 2: Summary of Interpretation

Layer	**General Seismic Velocity Range (m/sec)**	**General Resistivity Range (Ohmm)**	**Stiffness/ Compaction or Rock Strength/ Quality**	**Interpretation**	**Estimated Excavation Method**
1	<150	N/A		Peat	Diggable
2	170 – 400	N/A	Soft or loose	Topsoil	Diggable
3A	500 - 900	<62.5	Firm	Clay	Diggable
3B	500 - 900	62.5 - 250	Firm	Sandy gravelly Clay or Silt	Diggable
3C	500 – 900	250 – 500	Medium Dense	Clayey silty Sand or Gravel	Diggable
4A	1000 – 1500	<62.5	Stiff	Clay	Diggable
4B	1000 – 1500	62.5 - 250	Stiff	Sandy gravelly Clay or Silt	Diggable
4C	1000 – 1500	250 - 500	Dense	Clayey silty Sand or Gravel	Diggable
4D	1000 – 1500	500 - 2000	Dense	Sand or Gravel	Diggable
5A	1600 – 2000	<62.5	Very Stiff or Poor	Clay or Very Weathered Mudstone or Shale or very infilled Limestone	Diggable/Rippable
5B	1600 – 2000	62.5 - 250	Very Stiff or Poor	Sandy gravelly Clay or Silt or	Diggable/Rippable

				very Weathered Mudstone or Shale or infilled Limestone	
5C	1600 – 2000	250 - 500	Very Dense or Poor	Clayey silty Sand or Gravel or very Weathered Shale or Limestone	Diggable/Rippable
6A	2100 – 2900	<62.5	Fair or very stiff	Weathered Mudstone or Shale or very infilled Limestone or Clay	Diggable/Rippable
6B	2100 – 2900	62.5 - 250	Fair or Very Stiff	Weathered Mudstone or Shale or very infilled Limestone or sandy gravelly Clay or Silt	Rippable/Marginal Rippable or Breaking and Blasting
6C	2100 – 2900	250 - 500	Fair or Very Dense	Weathered Shale or infilled Limestone or clayey silty Sand or Gravel	Rippable/Marginal Rippable or Breaking and Blasting
6D	2100 – 2900	500 - 2000	Fair or Very Dense	Weathered Shale or Limestone or Sand or Gravel	Rippable/Marginal Rippable or Breaking and Blasting
7B	>3000	62.5 - 250	Good	Mudstone, Shale or very infilled Limestone	Breaking or Blasting
7C	>3000	250 - 500	Good	Shale or Infilled Limestone	Breaking or Blasting
7D	>3000	500 - 2000	Good	Shale or Limestone	Breaking or Blasting
7E	>3000	>2000	Good	Clean Limestone	Breaking or Blasting

4. INTERPRETATION BY LOCATION

Due to the large distances covered during this project and the space between each survey area, the geology varies greatly throughout the project. In this chapter the interpretations are divided into a section for each box. The layers shown in table 2 are narrowed for each location to provide the most likely geological interpretation for each area using all available information available. The chainages, indicating the survey location indicate the lowest chainage where surveying being.

4.1 Ch133050

Maps and Figures: 1 & 2

Lines: 1 - 6

Location Comments: Three parallel lines were surveyed which were broken at a field boundary.

GI Points: BH133229,133258,133311

The seismic refraction velocities provided a three-layer model ranging from topsoil to good rock. The seismic refraction model ties in will with the 2D-Resistivity trends.

The soft and loose topsoil layer is 2 – 3m thick and underlain by 4 – 10m of very stiff sandy gravelly clay and silt. Good clean limestone is interpreted at a depth of 6 – 12m. The rock layer becomes deeper along all three lines towards the SW which may indicate a fault zone or karstified limestone.

4.2 Ch135592

Maps and Figures: 3

Lines: 7 - 12

Location Comments: Three lines perpendicular to the Cushaling River on both banks.

GI Points: RC208, BH135695

The 2D-Resistivity models show deep low resistivity across all three lines. The seismic refraction velocities layers indicate deep overburden which no rock being interpreted from the data.

There is 0.5 – 1.5m of topsoil, underlain by 1.5 – 5m of firm sandy gravelly clay and silt. The deepest layer is described as very stiff sandy gravelly clay and silt with some very dense clay in parts. The depth to the top of this layer is between 2.5 – 6.5m. There is no rock interpreted to a depth of 15m bgl.

RC208 indicates predominantly clay and silt with some peat and sand near the surface to a depth of 10.1m bgl.

4.3 Ch139734

Maps and Figures: 4

Lines: 13 -17

Location Comments: Three parallel lines surveyed which were split by a stream. The NW area was inaccessible.

GI Points: BH139892,139912,139941

Peat was noted in this area and peat probing was carried out along the line. The results were used to calibrate the seismic refraction models.

The peat is thicker in the west where it reaches depths of up to 5m but becomes very thin in the east. The peat is underlain by sandy gravelly clay and silt increasing in stiffness with depth from soft to very stiff. Increases in resistivity at depths of 5 – 7m bgl may indicate a weathered rock or a clayey silty sand and gravel overburden.

4.4 Ch143294

Maps and Figures: 5

Lines: 18 - 20

Location Comments: Three parallel lines covering the survey area.

GI Points: BH143383,143407

The main geological feature noted in this area is the high resistivities on the higher ground near the surface. This is an esker comprising of sand and gravel. This sand and gravel lens is underlain by thick hard sandy gravelly clay and silt.

The sand and gravel lens is up to 6m thick and is present on the higher ground. On the lower ground there is clay or possibly peat near the surface. The seismic refraction models indicate that if there is peat it is a thin layer.

Rock is indicated at depths of over 15m bgl. The depth of the rock means an accurate description cannot be provided.

5. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are made:

- The large area the survey was carried out across means that the interpretation varies significantly across the project.
- The main geological concerns when constructing a pipeline are soft ground, shallow rock and karstified rock.

Soft Ground:

- The area between Ch139734 - 139927 (Map 4) shows peat to depths of 5m along the west side of the survey area, underlain by deep very stiff overburden.

Shallow Rock:

- Shallowest rock was not encountered within the peatland area.

Karst Features:

- There were no clear karst features identified within any of the survey areas.
- The interpretation was reviewed after the completed geotechnical data became available.

6. REFERENCES

1. **BSI, 2015.** BS5930, Code of Practice for Ground Investigations, British Standards Institute 2015

2. **Eurocode, 2007.** EN 1997-2:2007. Eurocode 7. Part 2 Ground Investigation and Testing 2007

3. **GSEG, 2002.** Geophysics in Engineering Investigations. Geological Society Engineering Geology Special Publication 19, London, 2002

4. **GSI, 2023.** Online Bedrock Geological Map of Ireland. Geological Survey of Ireland 2023

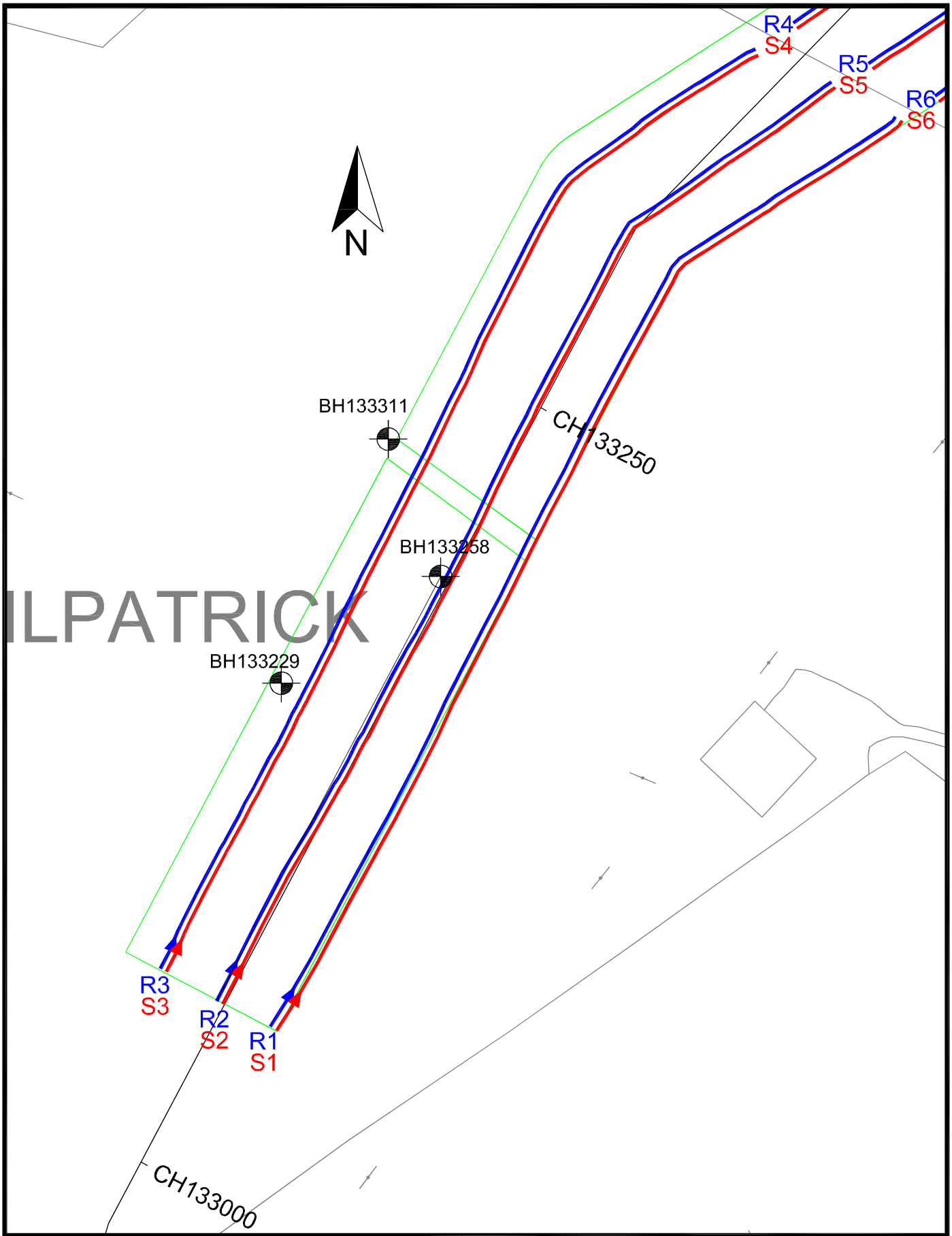
5. **Milsom, 1989.** Field Geophysics. John Wiley and Sons, 1989

6. **Reynolds, 1997.** An Introduction to Applied and Environmental Geophysics. John Wiley and Son, 1997

7. **Weaver, 1975.** Geological Factors significant in the Assessment of Rippability, 1975

Table 1: Geophysical Survey Locations and Acquisition Parameters

Ervia Sheet No.	MGX Report Map/Figure No.	Treated Water Chainage	Profile Numbers	Display Direction	Combined Line Length Resistivity (m)	Combined Line Length Seismics (m)	Quatenary Sediments	Bedrock	Karst/Fault	Relevent Boreholes
							From Geological Survey of Ireland Database			
95	1	133050 - 133452	R1 - R3, S1 - S3	NW - SE	990	990	Limestone Till	Waulsortian Limestone		BH133229 BH133258 BH 133311
95	2	133050 - 133452	R4 - R6, S4 - S6	NW - SE	177	177	Limestone Till	Waulsortian Limestone		
96	3	135592 - 135805	R7 - R12, S7 - S12	SW - NE	558	558	Alluvium Along River. Till away from it	Waulsortian Limestone		BH135695 RC208
98	4	139734 - 139927	R13 - R17, S13 - S17	W - E	465	465	Cut over raised Peat	Waulsortian Limestone		BH139892 BH139912 BH139941
100	5	143294 - 143414	R18 - R20, S18 - S20	W - E	351	351	Eskers, Cut over raised Peat	Lucan Formation		BH143383 BH143407
				Sums:	2541	2541				



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Map 1: Geophysical Survey Location Map Ch133050

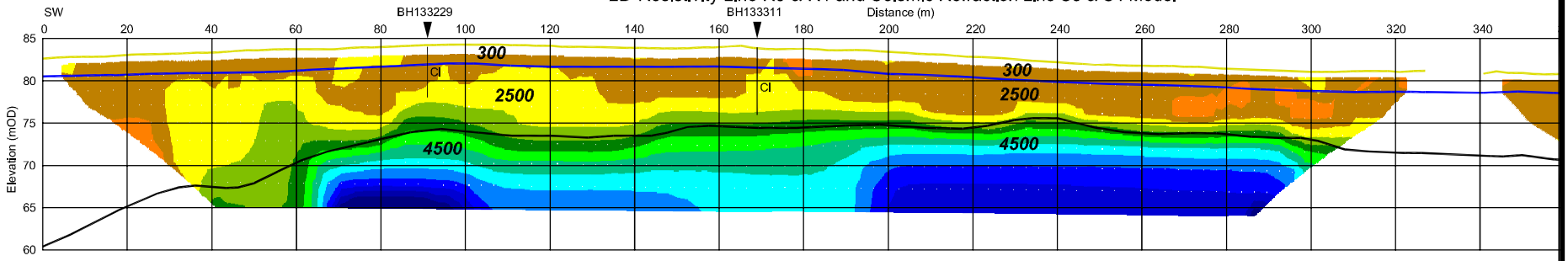
SCALE:	1:1000 @ A3
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

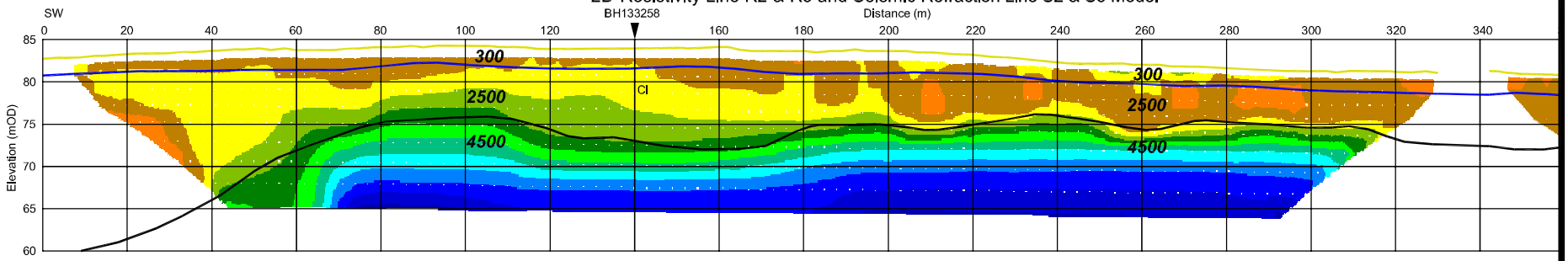
R2	2D-Resistivity Line
S1	Seismic Refraction Line
	Survey Area
BH	Borehole

Locations are in Irish Transverse Mercator (ITM), Elevations are in mOD (Malin Head)

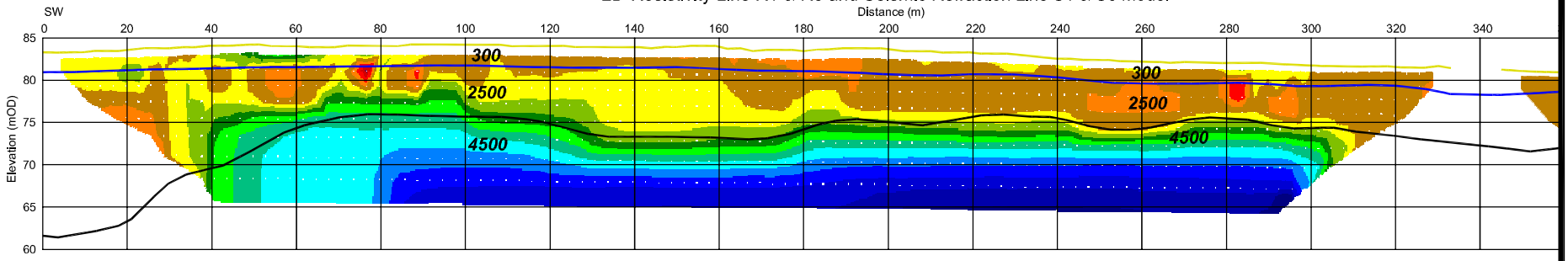
2D-Resistivity Line R3 & R4 and Seismic Refraction Line S3 & S4 Model



2D-Resistivity Line R2 & R5 and Seismic Refraction Line S2 & S5 Model



2D-Resistivity Line R1 & R6 and Seismic Refraction Line S1 & S6 Model



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 1a: Models of Geophysical Survey Ch133050

SCALE:	1:1000 @ A3, VE x 2
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (<150 m/s)
- Ground Surface/Top of Layer 2 (200 - 400 m/s)
- Top of Layer 3 (500 - 900 m/s)
- Top of Layer 4 (1000 - 1500 m/s)
- Top of Layer 5 (1600 - 2000 m/s)
- Top of Layer 6 (2100 - 2900 m/s)
- Top of Layer 7 (>3000 m/s)

Resistivities (Ohmm) for 2D-Resistivity Model

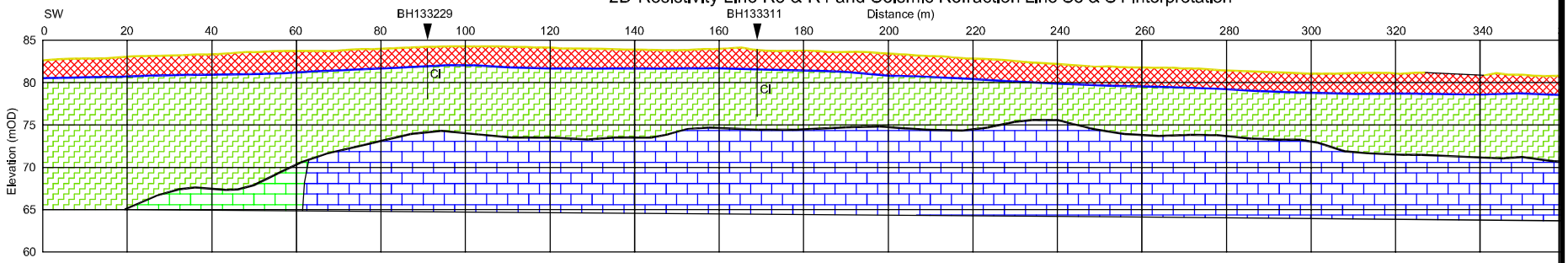
31.3 62.5 125 250 500 1000 2000 4000

Abbreviated GI Logs:

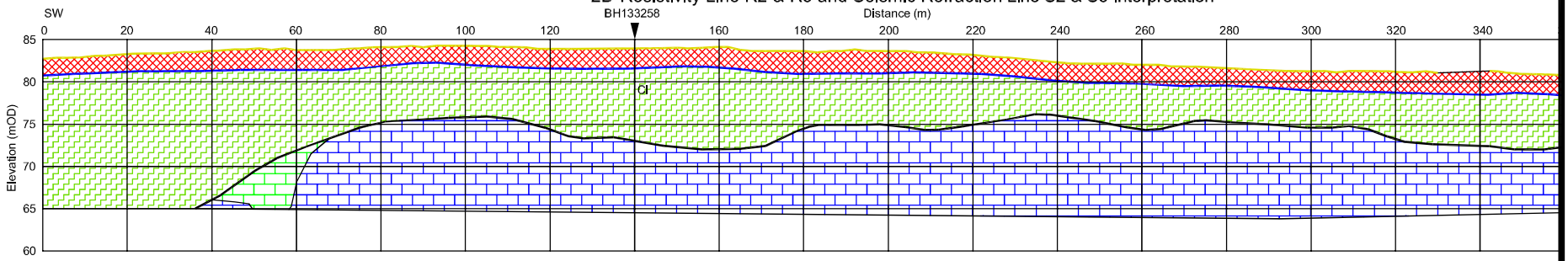
BH01 Borehole Name and Location

Pt	Peat	Mg	Made Ground
Bo	Boulders	Co	Cobbles
Cl	Clay	Slt	Silt
Grv	Gravel	Ls	Limestone
Sd	Sand	Sst	Sandstone
WRk	Weathered Rock	Ob	Overburden
Rk	Rock	Ts	Topsoil

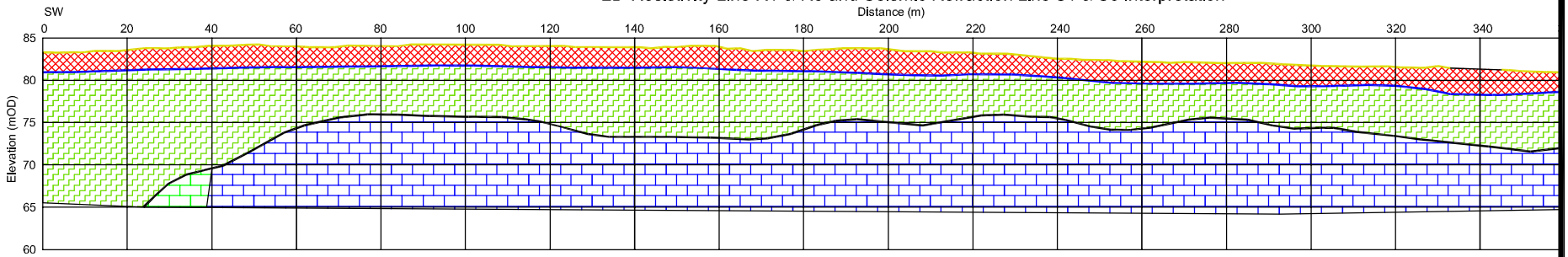
2D-Resistivity Line R3 & R4 and Seismic Refraction Line S3 & S4 Interpretation



2D-Resistivity Line R2 & R5 and Seismic Refraction Line S2 & S5 Interpretation



2D-Resistivity Line R1 & R6 and Seismic Refraction Line S1 & S6 Interpretation



Minerex
Geophysics Limited

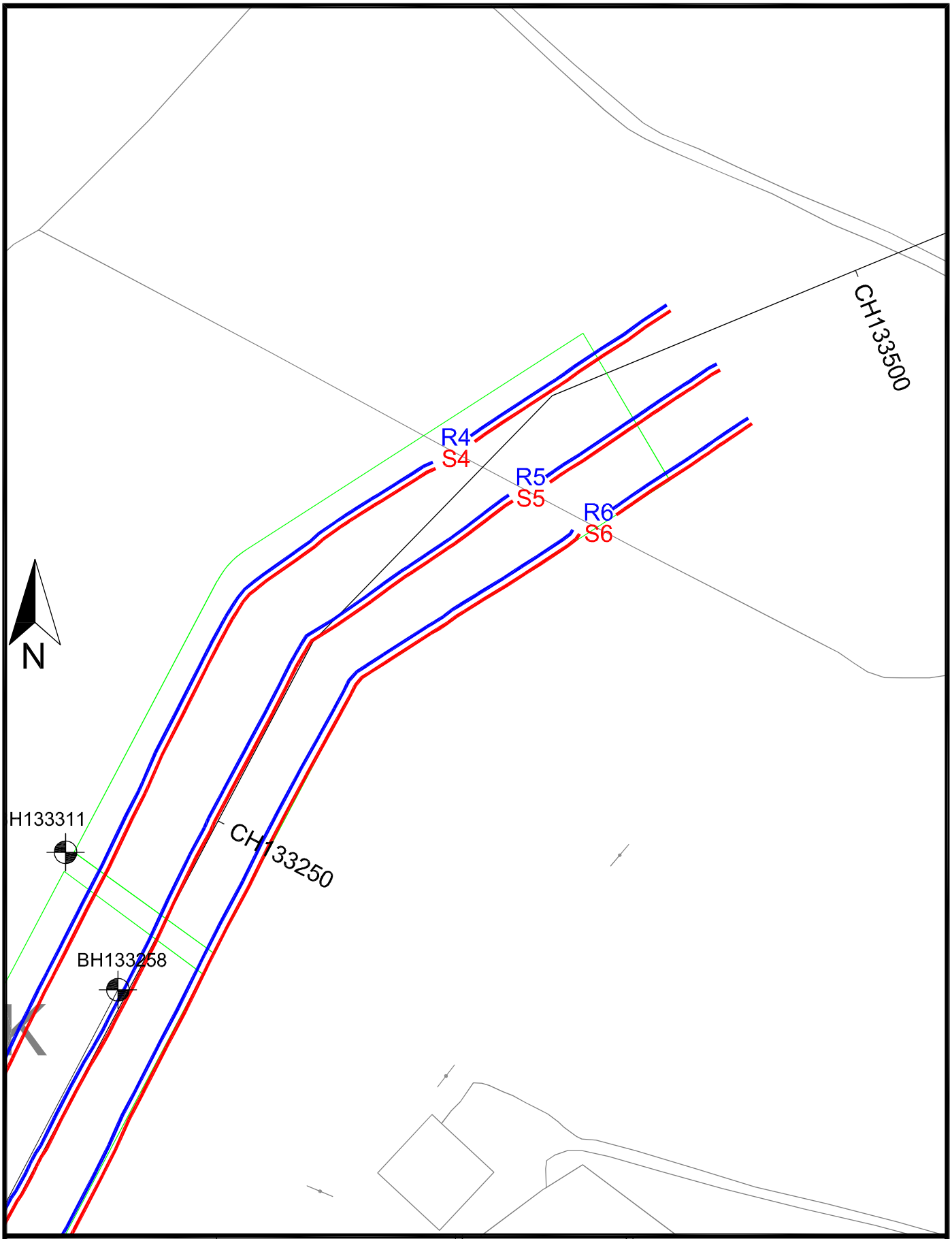
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 1b: Interpretation of Geophysical Survey Ch133050

SCALE:	1:1000 @ A3, VE x 2
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

- 2 Soft or loose Topsoil
- 6b Very stiff sandy gravelly Clay and Silt
- 7c Infilled Limestone
- 7e Good Limestone



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Map 2: Geophysical Survey Location Map Ch133050

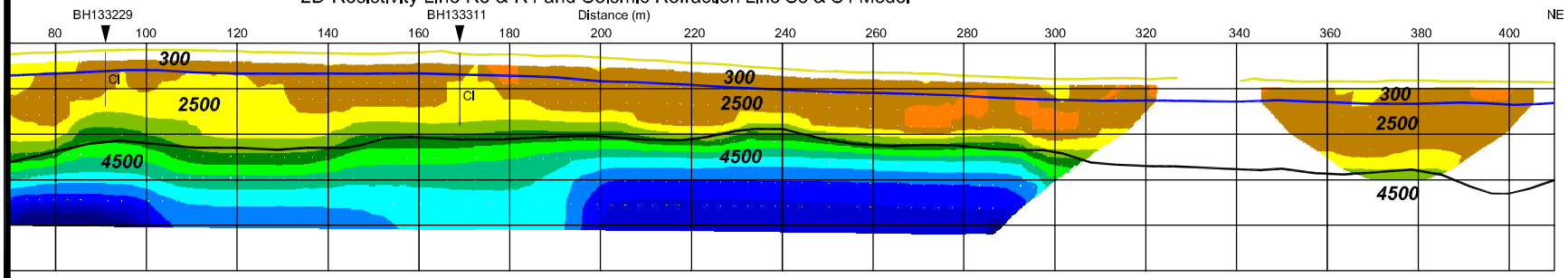
SCALE:	1:1000 @ A3
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

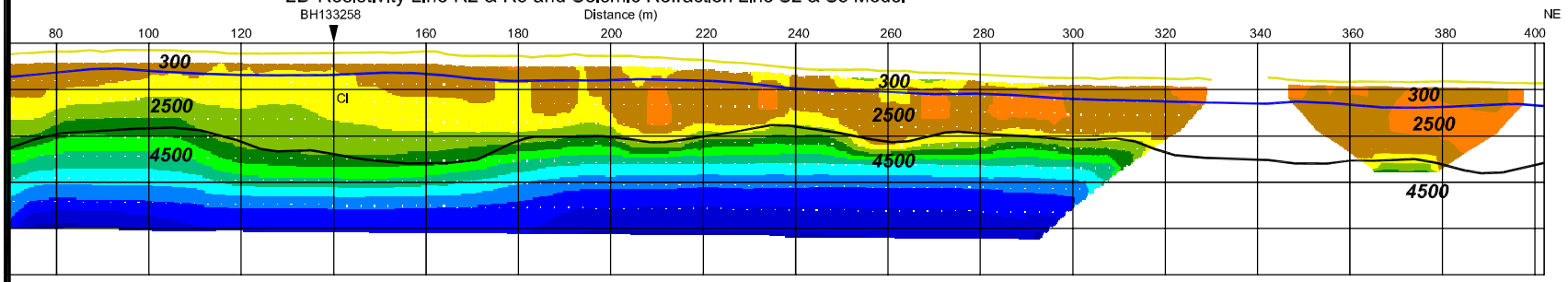
R2	2D-Resistivity Line
S1	Seismic Refraction Line
	Survey Area
BH	Borehole

Locations are In Irish Transverse Mercator (ITM), Elevations are In mOD (Malin Head)

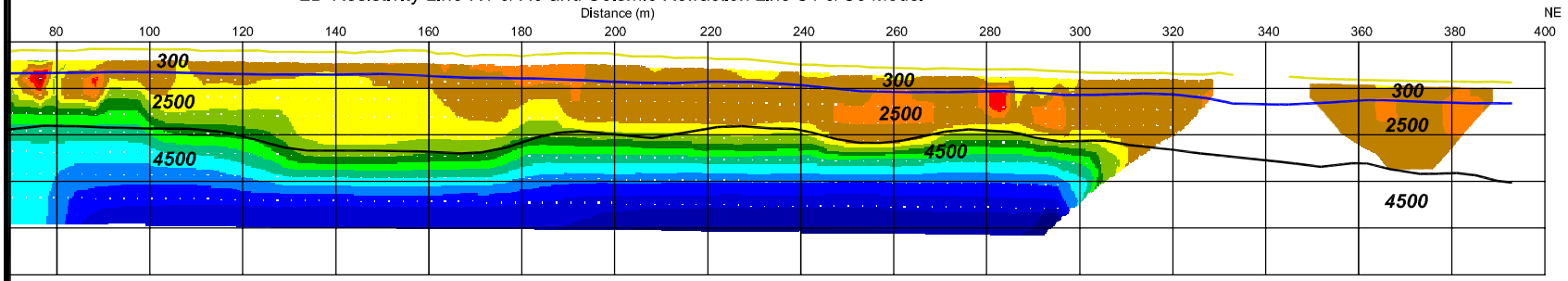
2D-Resistivity Line R3 & R4 and Seismic Refraction Line S3 & S4 Model



2D-Resistivity Line R2 & R5 and Seismic Refraction Line S2 & S5 Model



2D-Resistivity Line R1 & R6 and Seismic Refraction Line S1 & S6 Model



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 2a: Models of Geophysical Survey Ch133050

SCALE:	1:1000 @ A3, VE x 2
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (<150 m/s)
- Ground Surface/Top of Layer 2 (200 - 400 m/s)
- Top of Layer 3 (500 - 900 m/s)
- Top of Layer 4 (1000 - 1500 m/s)
- Top of Layer 5 (1600 - 2000 m/s)
- Top of Layer 6 (2100 - 2900 m/s)
- Top of Layer 7 (>3000 m/s)

Resistivities (Ohmm) for 2D-Resistivity Model

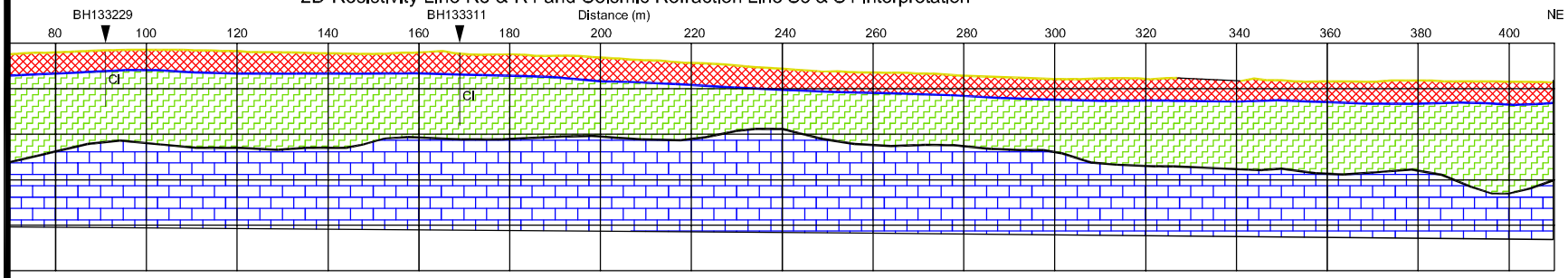
31.3 62.5 125 250 500 1000 2000 4000

Abbreviated GI Logs:

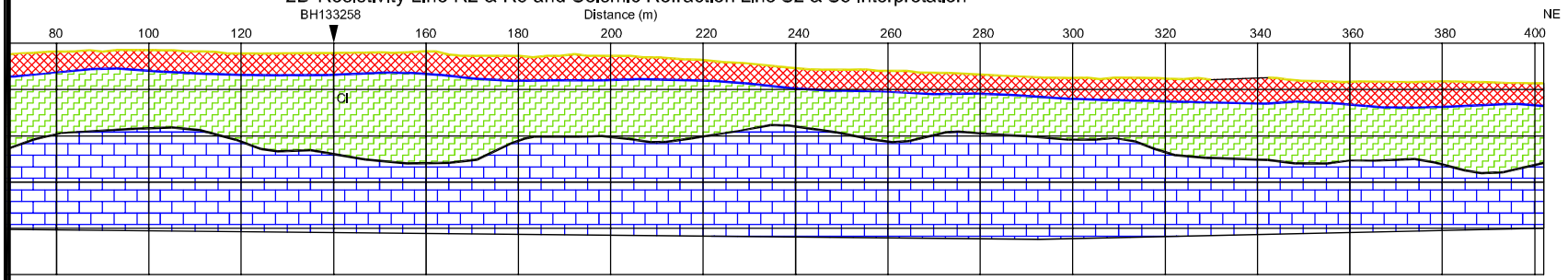
BH01 Borehole Name and Location

Pt	Peat	Mg	Made Ground
Bo	Boulders	Co	Cobbles
Cl	Clay	Slt	Silt
Grv	Gravel	Ls	Limestone
Sd	Sand	Sst	Sandstone
WRk	Weathered Rock	Ob	Overburden
Rk	Rock	Ts	Topsoil

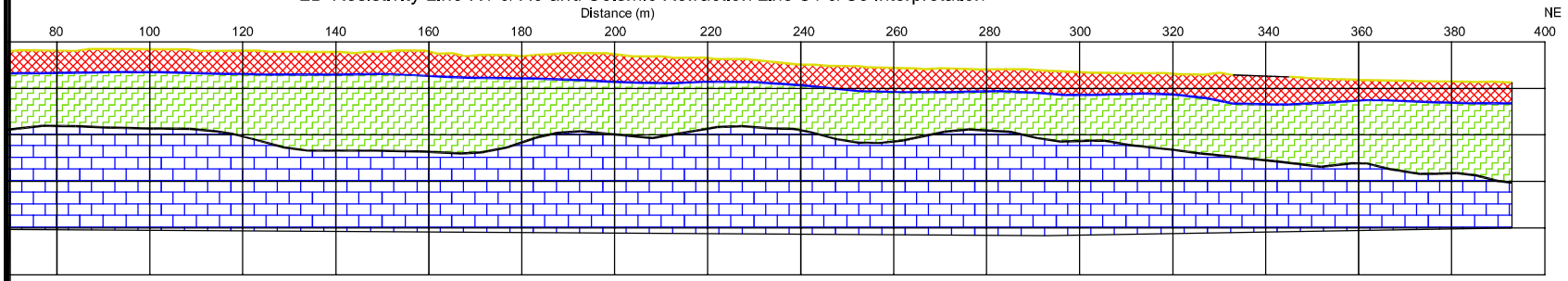
2D-Resistivity Line R3 & R4 and Seismic Refraction Line S3 & S4 Interpretation



2D-Resistivity Line R2 & R5 and Seismic Refraction Line S2 & S5 Interpretation



2D-Resistivity Line R1 & R6 and Seismic Refraction Line S1 & S6 Interpretation



Minerex
Geophysics Limited

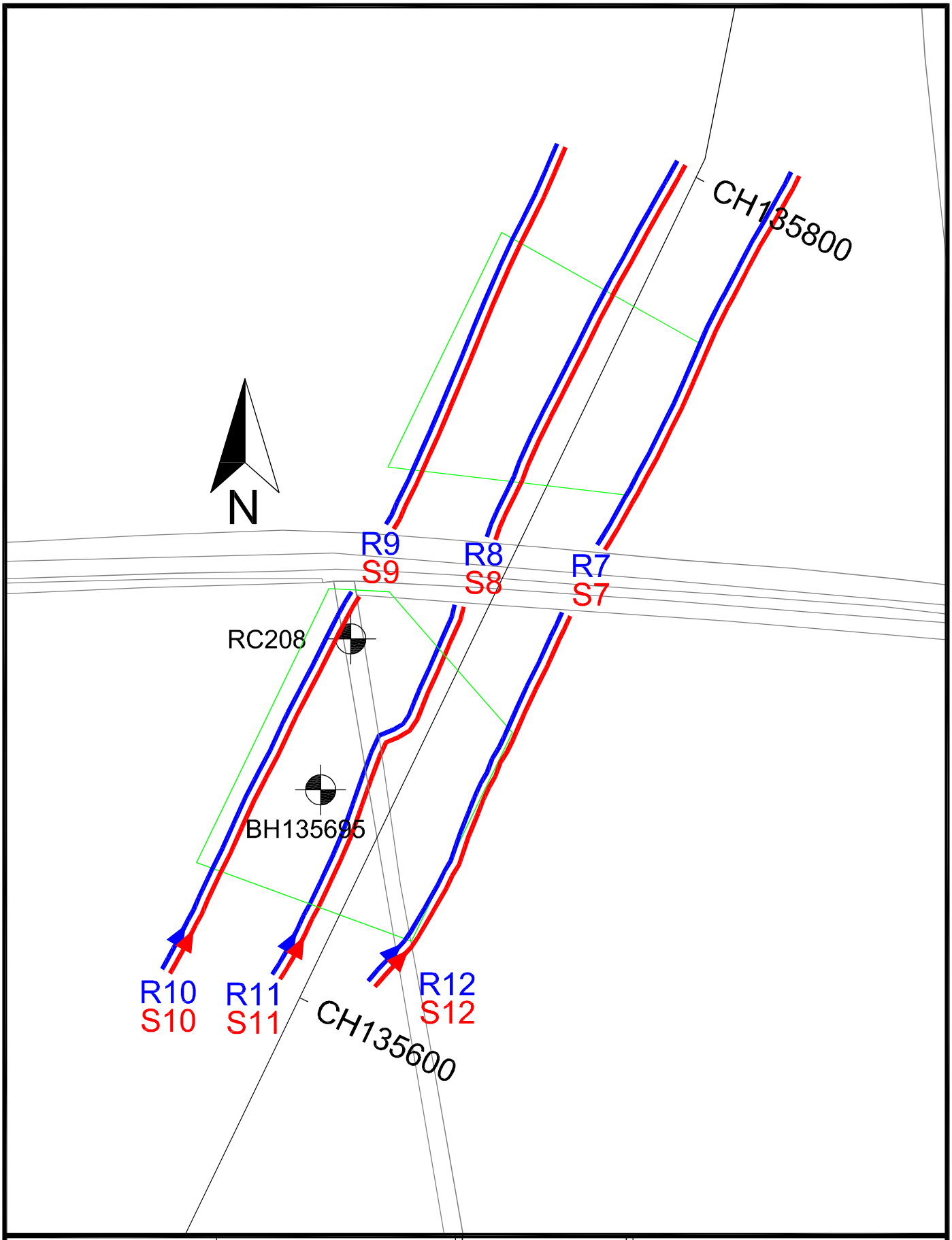
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 2b: interpretation of Geophysical Survey Ch133050

SCALE:	1:1000 @ A3, VE x 2
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

- 2 Soft or loose Topsoil
- 6b Very stiff sandy gravelly Clay and Silt
- 7c Infilled Limestone
- 7e Good Limestone



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Map 3: Geophysical Survey Location Map From Ch135592

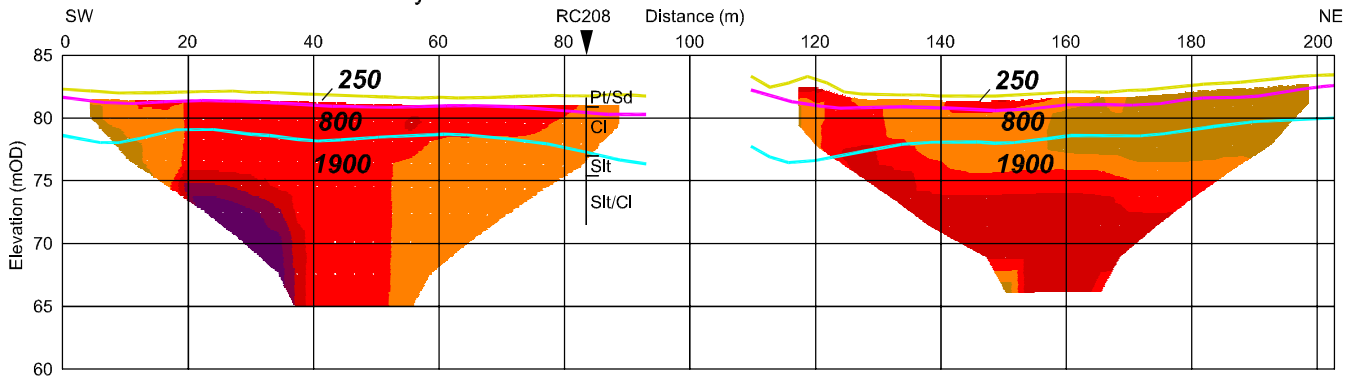
SCALE:	1:750 @ A3
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

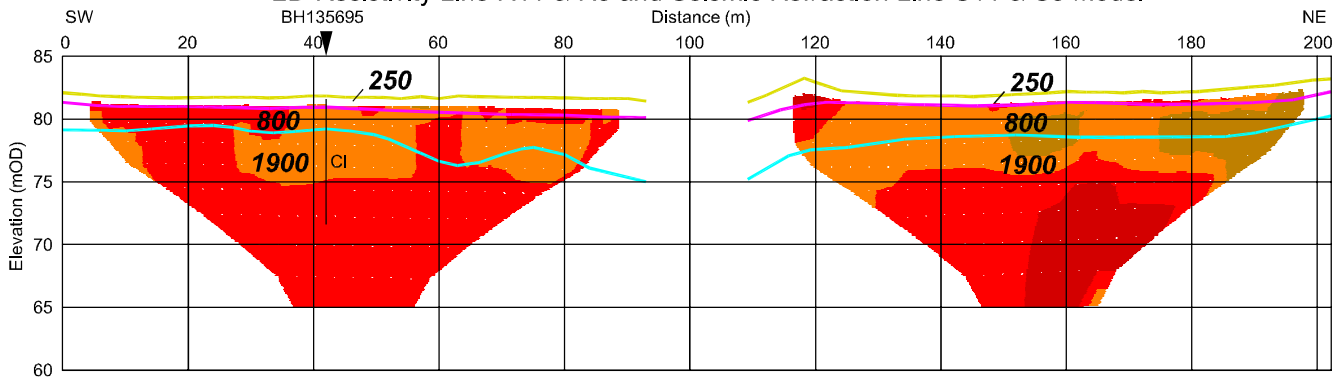
- R2 — 2D-Resistivity Line
- S1 — Seismic Refraction Line
- Survey Area
- BH — Borehole

Locations are In Irish Transverse Mercator (ITM), Elevations are In mOD (Malin Head)

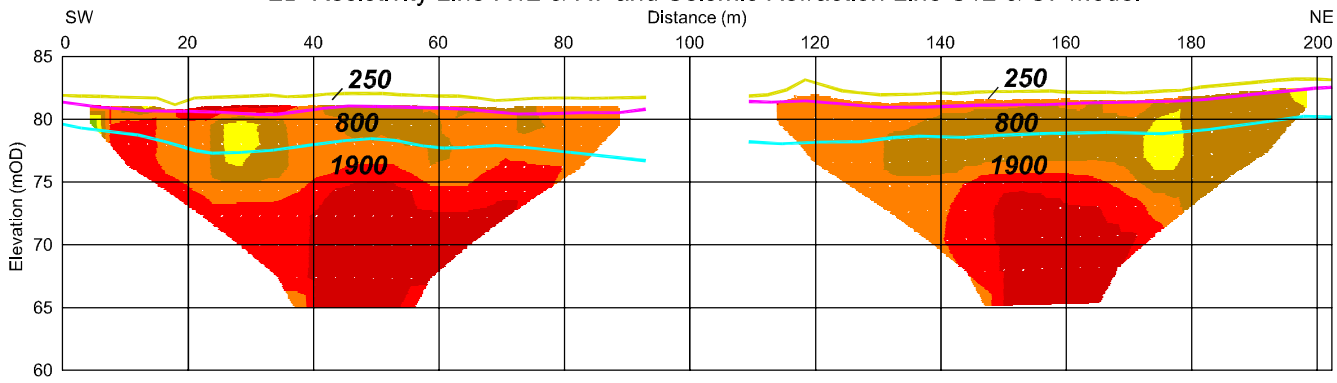
2D-Resistivity Line R10 & R9 and Seismic Refraction Line S10 & S9 Model



2D-Resistivity Line R11 & R8 and Seismic Refraction Line S11 & S8 Model



2D-Resistivity Line R12 & R7 and Seismic Refraction Line S12 & S7 Model



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 3a: Models of Geophysical Survey from Ch135592

SCALE:	1:800 @ A3, VE x 2
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

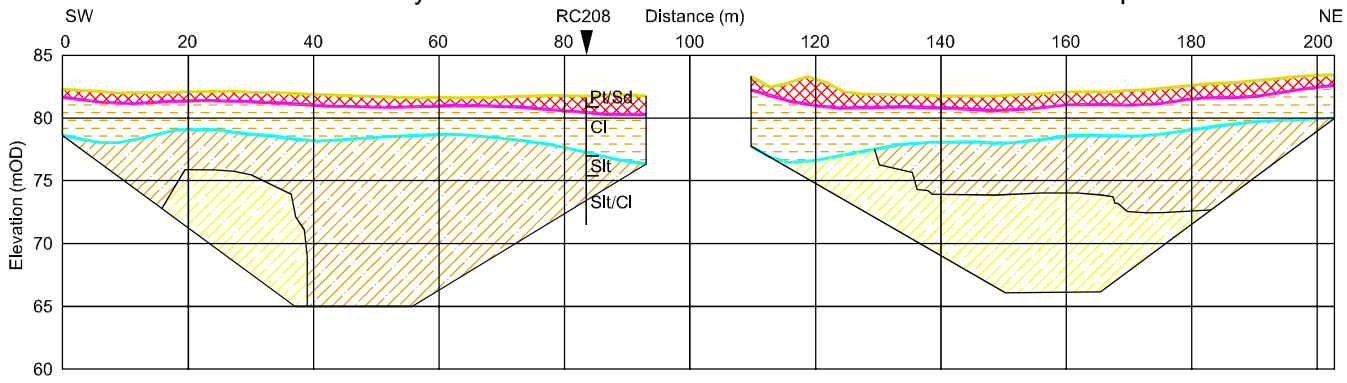
Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (<150 m/s)
- Ground Surface/Top of Layer 2 (200 - 400 m/s)
- Top of Layer 3 (500 - 900 m/s)
- Top of Layer 4 (1000 - 1500 m/s)
- Top of Layer 5 (1600 - 2000 m/s)
- Top of Layer 6 (2100 - 2900 m/s)
- Top of Layer 7 (>3000 m/s)

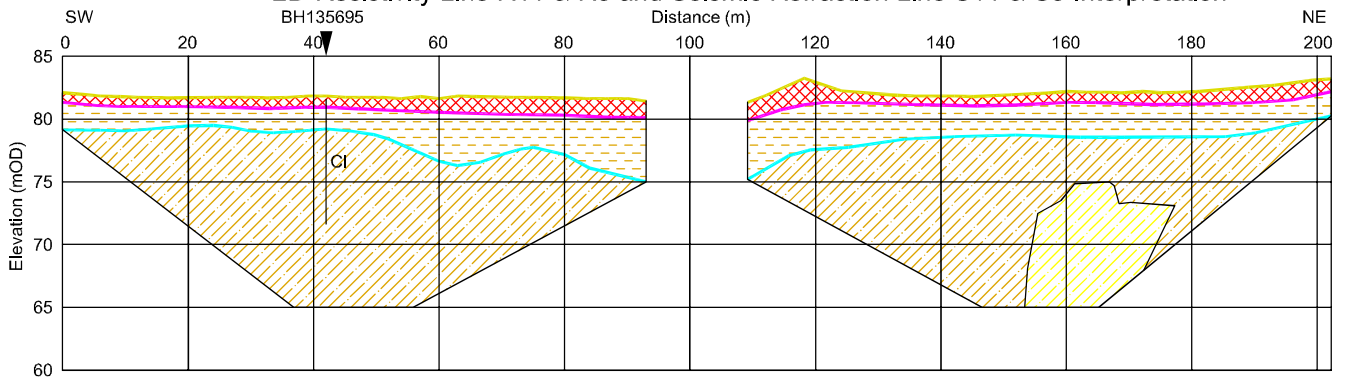
Resistivities (Ohmm) for 2D-Resistivity Model

31.3 62.5 125 250 500 1000 2000 4000

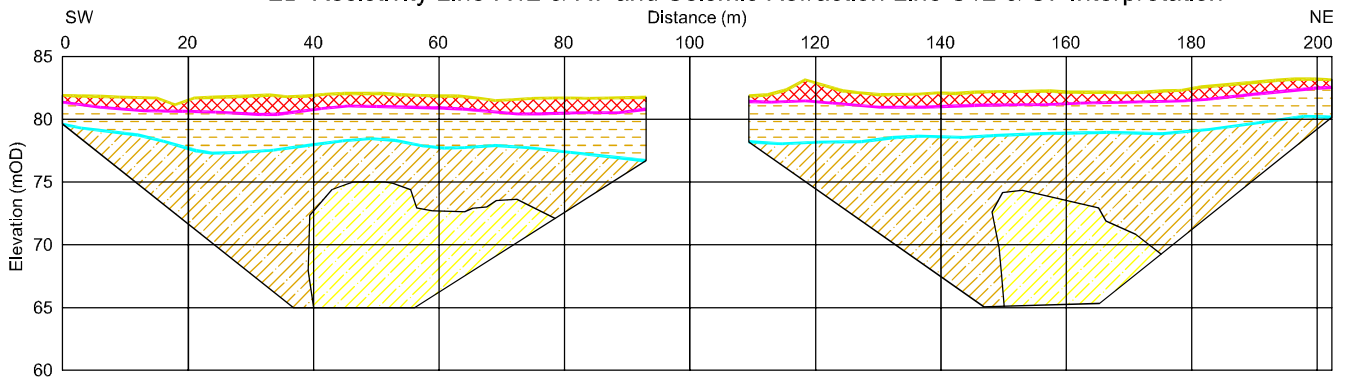
2D-Resistivity Line R10 & R9 and Seismic Refraction Line S10 & S9 Interpretation



2D-Resistivity Line R11 & R8 and Seismic Refraction Line S11 & S8 Interpretation



2D-Resistivity Line R12 & R7 and Seismic Refraction Line S12 & S7 Interpretation



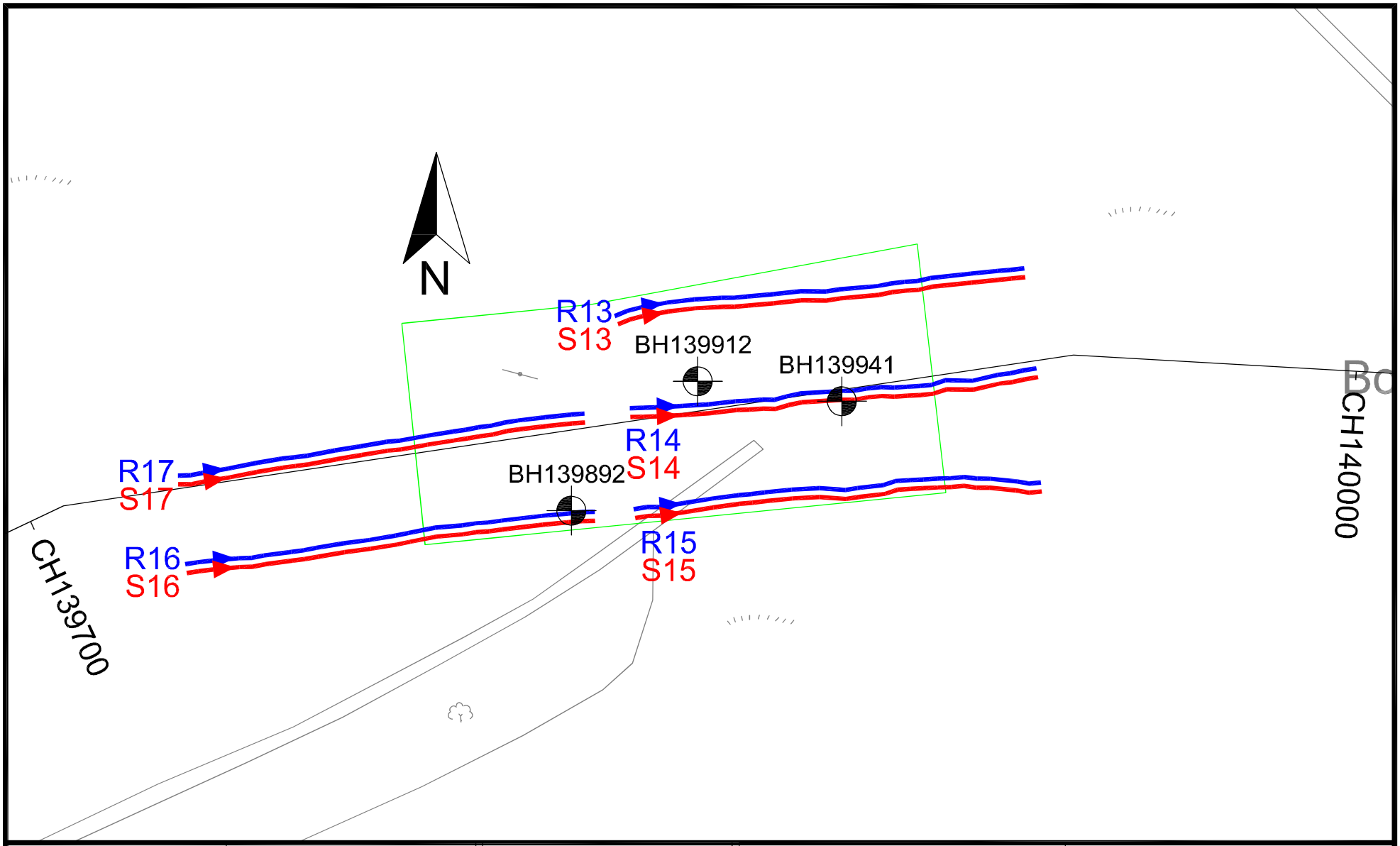
Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 3b: Interpretation of Geophysical Survey from Ch135592

SCALE:	1:800 @ A3, VE x 2
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

- 2 Soft or loose Topsoil
- 3B Firm sandy gravelly Clay or Silt
- 5A Very stiff Clay
- 5B Very stiff sandy gravelly Clay or Silt



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Map 4: Geophysical Survey Location Map Ch139734

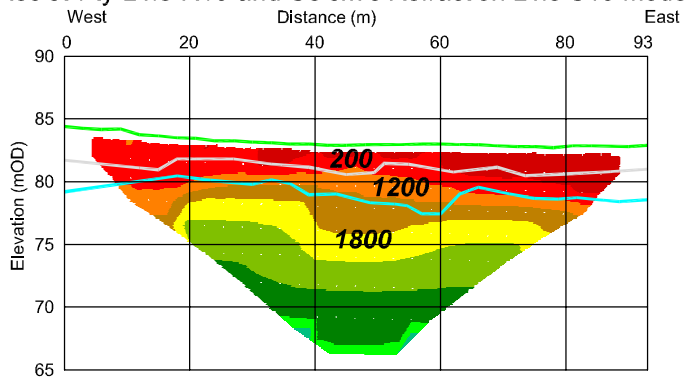
SCALE:	1:800 @ A3
PROJECT:	6486
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

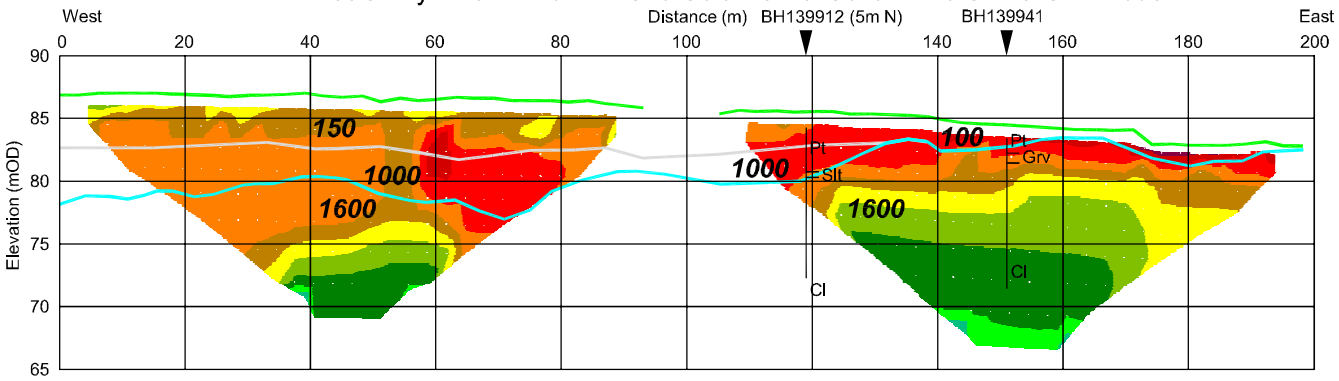
R2	2D-Resistivity Line
S1	Seismic Refraction Line
	Survey Area
BH	Borehole

Locations are in Irish Transverse Mercator (ITM), Elevations are in mOD (Malin Head)

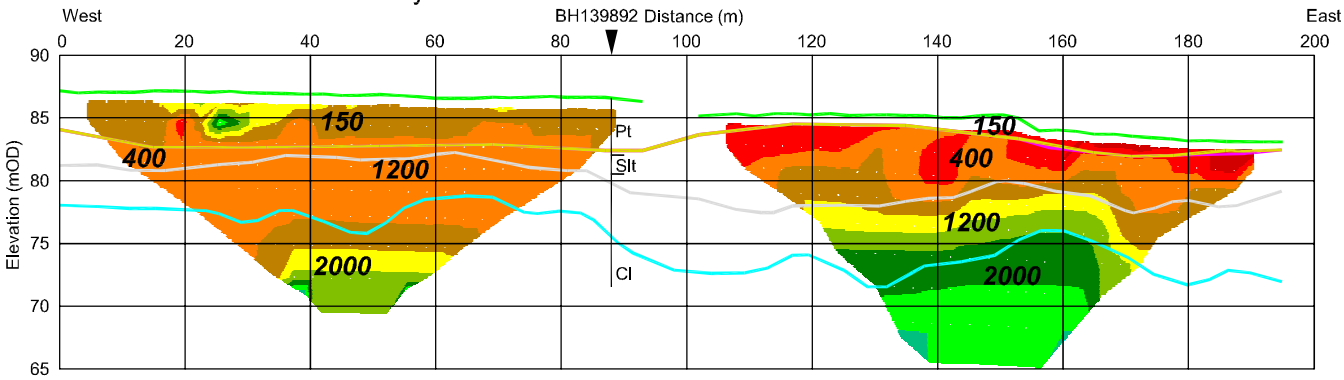
2D-Resistivity Line R13 and Seismic Refraction Line S13 Model



2D-Resistivity Line R17 & R14 and Seismic Refraction Line S17 & S14 Model



2D-Resistivity Line R16 & R15 and Seismic Refraction Line S16 & S15 Model



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 4a: Models of Geophysical Survey Ch139734

SCALE:	1:800 @ A3
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

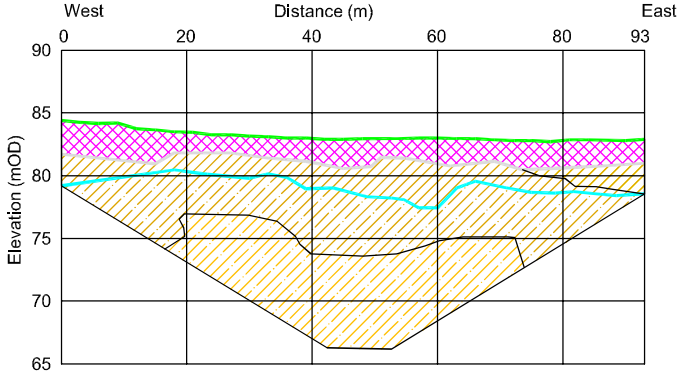
Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (<150 m/s)
- Ground Surface/Top of Layer 2 (200 - 400 m/s)
- Top of Layer 3 (500 - 900 m/s)
- Top of Layer 4 (1000 - 1500 m/s)
- Top of Layer 5 (1600 - 2000 m/s)
- Top of Layer 6 (2100 - 2900 m/s)
- Top of Layer 7 (>3000 m/s)

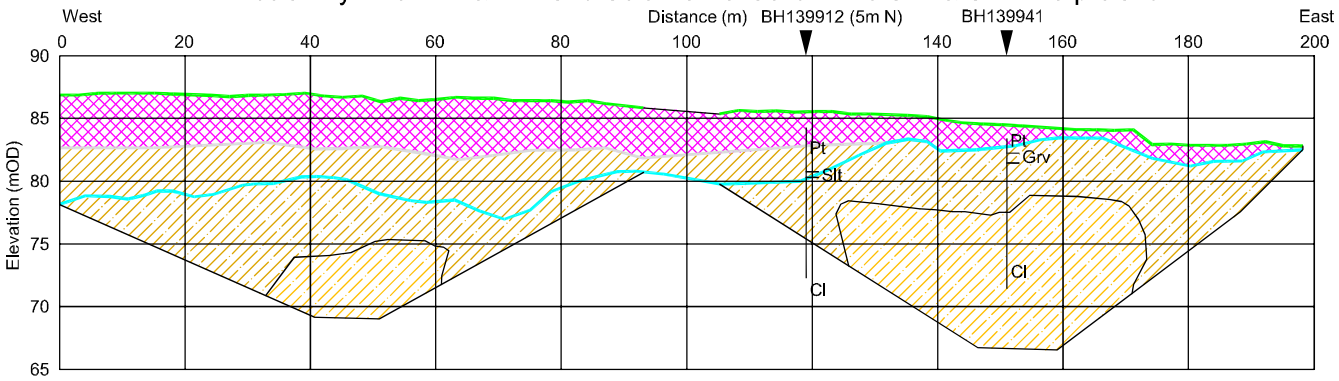
Resistivities (Ohmm) for 2D-Resistivity Model

31.3 62.5 125 250 500 1000 2000 4000

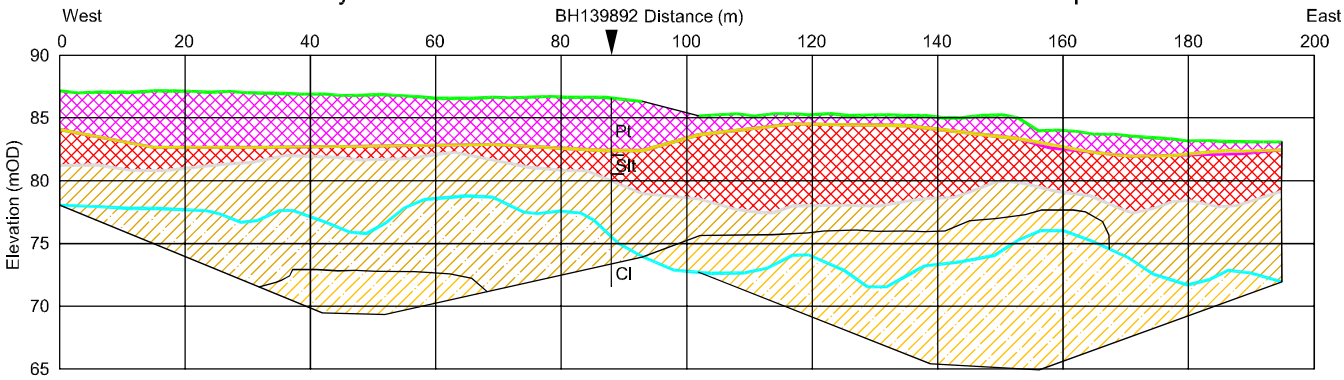
2D-Resistivity Line R13 and Seismic Refraction Line S13 Interpretation



2D-Resistivity Line R17 & R14 and Seismic Refraction Line S17 & S14 Interpretation



2D-Resistivity Line R16 & R15 and Seismic Refraction Line S16 & S15 Interpretation



Minerex
Geophysics Limited

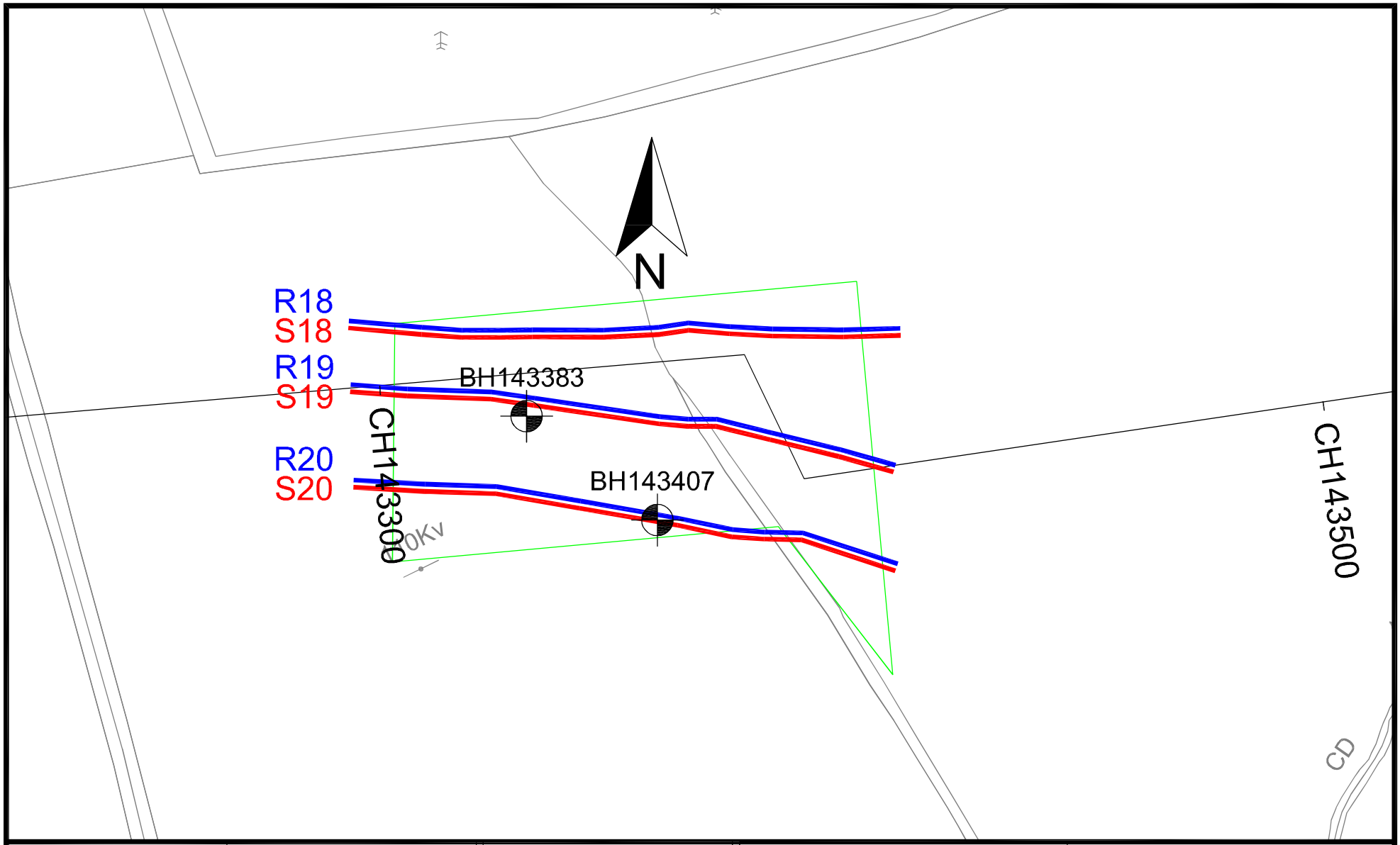
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 4b: Interpretation of Geophysical Survey Ch139734

SCALE:	1:800 @ A3
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

- 1 Peat
- 2 Soft or loose Topsoil
- 4B Stiff sandy gravelly Clay or Silt
- 5B Very stiff sandy gravelly Clay or Silt
- 5C Very dense clayey silty Sand or Gravel or poor very weathered Shale or Limestone



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Map 5: Geophysical Survey Location Map Ch143294

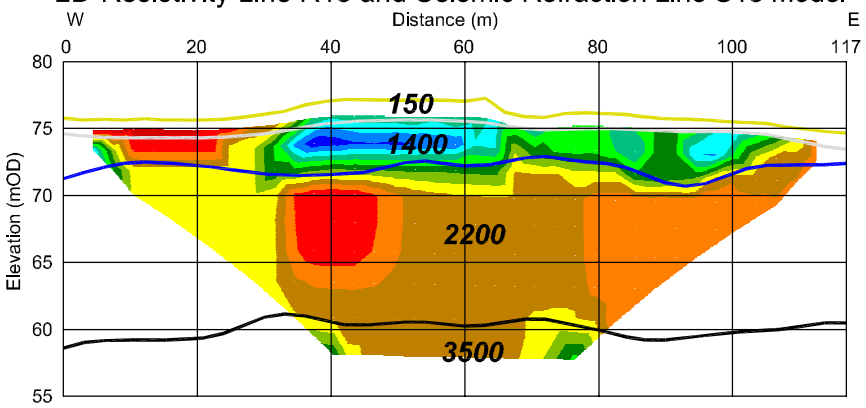
SCALE:	1:750 @ A3
PROJECT:	6486
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

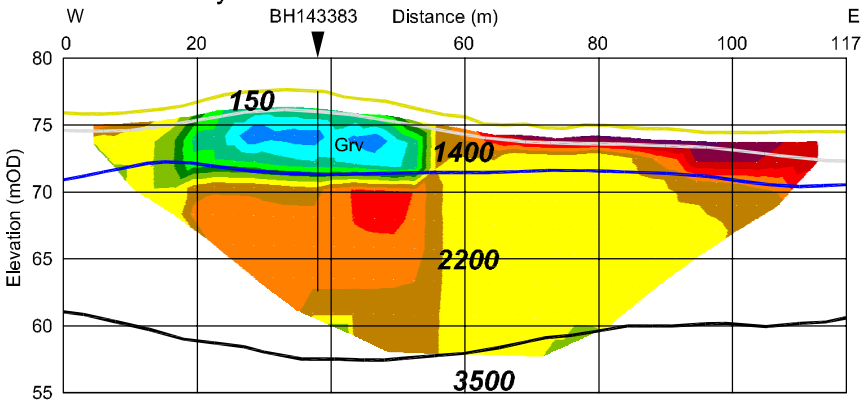
R2	2D-Resistivity Line
S1	Seismic Refraction Line
	Survey Area
BH	Borehole

Locations are in Irish Transverse Mercator (ITM), Elevations are in mOD (Malin Head)

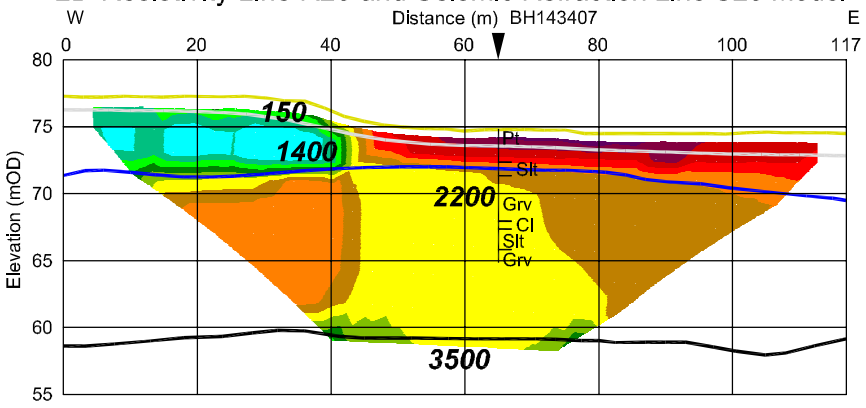
2D-Resistivity Line R18 and Seismic Refraction Line S18 Model



2D-Resistivity Line R19 and Seismic Refraction Line S19 Model



2D-Resistivity Line R20 and Seismic Refraction Line S20 Model



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 5a: Models of Geophysical Survey Ch143294

SCALE:	1:750 @ A3
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

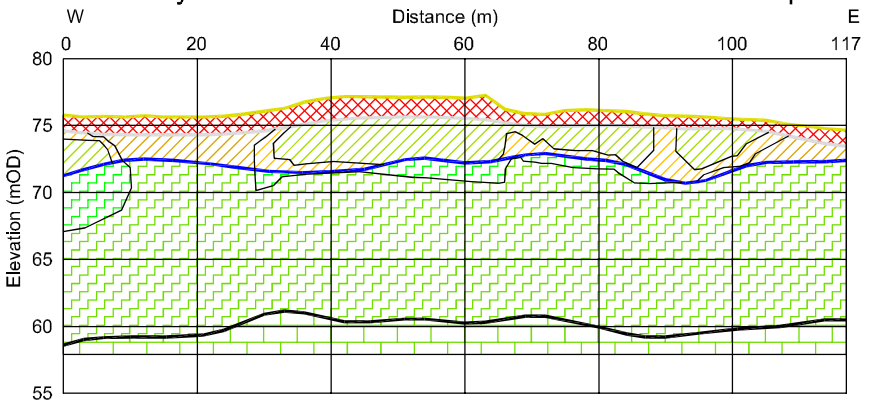
Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (<150 m/s)
- Ground Surface/Top of Layer 2 (200 - 400 m/s)
- Top of Layer 3 (500 - 900 m/s)
- Top of Layer 4 (1000 - 1500 m/s)
- Top of Layer 5 (1600 - 2000 m/s)
- Top of Layer 6 (2100 - 2900 m/s)
- Top of Layer 7 (>3000 m/s)

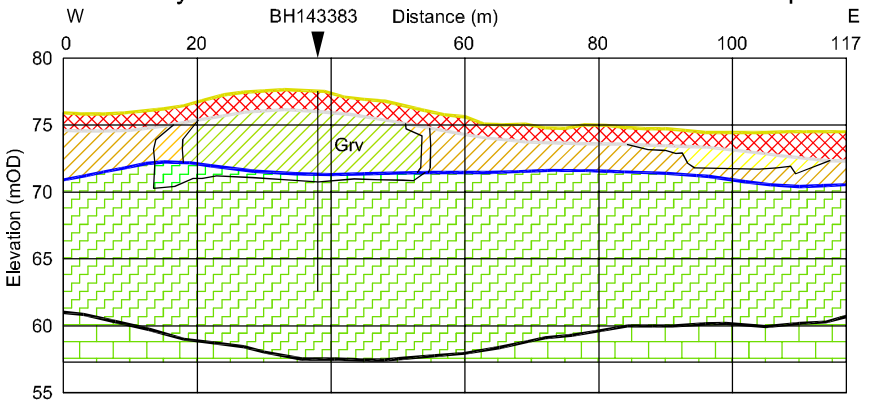
Resistivities (Ohmm) for 2D-Resistivity Model

31.3 62.5 125 250 500 1000 2000 4000

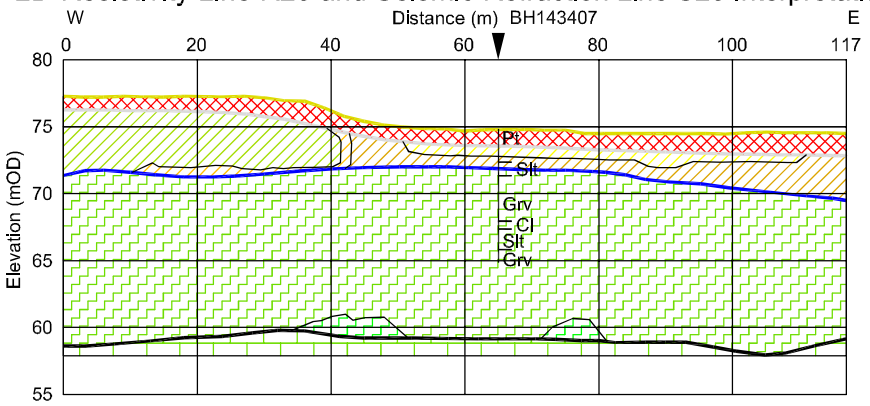
2D-Resistivity Line R18 and Seismic Refraction Line S18 Interpretation



2D-Resistivity Line R19 and Seismic Refraction Line S19 Interpretation



2D-Resistivity Line R20 and Seismic Refraction Line S20 Interpretation



Minerex
Geophysics Limited
Unit F4, Maynooth Business Campus
Maynooth, Co. Kildare
Tel. (01) 6510030
Email: info@mgx.ie
Web: www.mgx.ie

CLIENT	IGSL Irish Water
PROJECT	Water Supply Project, Lot 3 Geophysical Survey
TITLE	Figure 5b: Interpretation of Geophysical Survey Ch143294

SCALE:	1:750 @ A3
PROJECT:	6586
DRAWN:	JC
DATE:	30/05/2023
MGX FILE:	6586f_Drawings.dwg
STATUS:	Final

Interpretation:

- 2 Soft or loose Topsoil
- 4B Stiff sandy gravelly Clay or Silt
- 4C Dense clayey silty Sand or Gravel
- 4D Dense Sand or Gravel
- 6B Very stiff sandy gravelly Clay or Silt
- 6C Very dense clayey silty Sand or gravel
- 7B Good Mudstone, Shale or very infilled Limestone

Appendix 8H

Laboratory Test Results

Appendix 8H.1

Geotechnical Laboratory Test Records – Soil

Including Laboratory Non-Compliance Notes

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH104020	0.50	1.00		B									1								
BH104020	1.20	1.70		U													1				
BH104020	1.50	2.00		B																	
BH104020	2.00	2.50		B			1	1													
BH104020	2.50			U													1				
BH104020	3.00	3.50		B			1	1													
BH104020	4.00	4.50		B																	
BH104020	5.00			U												1	1				
BH104020	5.50	6.00		B			1	1													
BH104020	6.00	6.50		B																	
BH104020	7.00	7.50		B			1	1													
BH104020	8.00	8.50		B																	
BH104020	9.00	9.50		B			1	1													
BH104020	1.00			D																	
BH104020	2.00			D	1	1															
BH104020	3.00			D	1	1															
BH104020	4.00			D																	
BH104020	5.00			D	1	1															
BH104020	6.00			D																	
BH104020	7.00			D	1	1															
BH104020	8.00			D																	
BH104020	9.00			D	1	1															
BH104135	0.50	1.00	161822	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH104135	0.50	1.00		D																	
BH104135	1.20	1.70		U												1	1				
BH104135	1.50	2.00	161823	B			1	1													
BH104135	1.50	2.00		D	1	1															
BH104135	2.00	2.50	161824	B																	
BH104135	2.00	2.50		D																	
BH104135	3.00	3.50	161825	B			1	1													
BH104135	3.00	3.50		D	1	1															
BH104135	4.00	4.50	161826	B																	
BH104135	4.00	4.50		D																	
BH104135	5.00	5.50	161827	B			1	1													
BH104135	5.00	5.50		D	1	1															
BH104135	6.00	6.50	161828	B																	
BH104135	6.00	6.50		D																	
BH104405	0.50	1.00	161829	B			1	1													
BH104405	0.50	1.00		D	1	1															
BH104405	1.20	1.70		U													1				
BH104405	1.50	2.00	161830	B			1	1													
BH104405	1.50	2.00		D	1	1															
BH104405	2.50	3.00		U													1	1			SAMPLE DISTURBED
BH104405	3.00	3.50	161831	B											1						
BH104405	3.00	3.50		D																	
BH104405	3.50	4.00		U													1				
BH104405	4.00	4.50	161832	B			1	1													
BH104405	4.00	4.50		D	1	1															
BH104405	5.00	5.50	161833	B																	
BH104405	5.00	5.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH104405	6.00	6.50	161834	B																	
BH104405	6.00	6.50		D																	
BH104405	7.00	7.50	161835	B			1	1													
BH104405	7.00	7.50		D	1	1															
BH104405	8.00	8.50	1618336	B																	
BH104405	8.00	8.50		D																	
BH104807	5.00	5.50	162912	B																	
BH104807	6.00	6.50	162913	B			1	1													
BH104807	7.00	7.50	162914	B																	
BH104807	8.00	8.50	162915	B			1	1													
BH104807	9.00	9.50	162916	B																	
BH104807	5.00	5.50		D																	
BH104807	6.00	6.50		D	1	1															
BH104807	7.00	7.50		D																	
BH104807	8.00	8.50		D	1	1															
BH104807	9.00	9.50		D																	
BH104946	0.50	1.00	162917	B																	
BH104946	1.20	1.70	162918	B																	
BH104946	2.00	2.50	162919	B			1	1													
BH104946	3.00	3.50		U												1	1				
BH104946	3.50	4.00	162920	B																	
BH104946	4.00	4.50	162921	B																	
BH104946	5.00	5.50	162922	B																	
BH104946	6.00	6.50	162923	B			1	1													
BH104946	7.00	7.50	162924	B																	
BH104946	0.50	1.00		D																	
BH104946	1.20	1.70		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing "please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column." For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH104946	2.00	2.50		D	1	1															
BH104946	3.50	4.00		D																	
BH104946	4.00	4.50		D																	
BH104946	5.00	5.50		D																	
BH104946	6.00	6.50		D	1	1															
BH104946	7.00	7.50		D																	
BH104946	0.50	1.00	162917	B																	
BH104946	1.20	1.70	162918	B																	
BH104946	2.00	2.50	162919	B																	
BH104946	3.00	3.50		U																	
BH104946	3.50	4.00	162920	B																	
BH104946	4.00	4.50	162921	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH104946	5.00	5.50	162922	B																	
BH104946	6.00	6.50	162923	B																	
BH104946	7.00	7.50	162924	B																	
BH104946	0.50	1.00		D																	
BH104946	1.20	1.70		D																	
BH104946	2.00	2.50		D																	
BH104946	4.00	4.50		D																	
BH104946	5.00	5.50		D																	
BH104946	6.00	6.50		D																	
BH104946	7.00	7.50		D																	
BH105486	1		151433	B																	
BH105486	1			D	1																
BH105486	1.5		151434	U																	
BH105486	2		151435	B																	
BH105486	2			D																	
BH105486	2.5		151436	U																	
BH105486	3		151437	B																	
BH105486	3			D	1																
BH105486	3.5		151438	U													1				
BH105486	4		151439	B			1	1													
BH105486	4			D	1	1															
BH105486	5		151440	B																	
BH105486	5			D																	
BH105486	6		151441	B			1	1													
BH105486	6			D	1	1															
BH105486	7		151442	B																	
BH105486	7			D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH105486	8		151443	B																	
BH105486	8			D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH105486	9		151444	B			1	1													
BH105486	10		151445	B																	
BH105486	10			D																	
BH105990	1		151446	B																	
BH105990	1			D	1																
BH105990	1.5		151447	U																	
BH105990	2		151448	B					1												
BH105990	2			D																	
BH105990	2.5		151449	U													1				
BH105990	3		151450	B			1	1													
BH105990	3			D	1	1															
BH105990	4		161401	B																	
BH105990	4			D																	
BH105990	5		161402	B																	
BH105990	5			D																	
BH105990	6		161403	B			1	1													
BH105990	6			D																	
BH105990	7		161404	B																	
BH105990	7			D																	
BH105990	8		161405	B			1	1													
BH106421	1	1.00	161406	B																	
BH106421	1.5	1.50	161407	U																	
BH106421	2	2.00	161408	B																	
BH106421	2.5	2.50	161409	U																	
BH106421	3	3.00	161410	B																	
BH106421	3.5	3.50	161411	U																	
BH106421	4	4.00	161416	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH106421	4.5	4.50	161417	U																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH106421	5	5.00	161418	B																	
BH106421	6	6.00	161419	B			1	1													
BH106421	7	7.00	161420	B			1	1													
BH106421	8	8.00	161421	B																	
BH106421	9	9.00	161422	B	1	1	1	1													
BH106421	10	10.00	161423	B																	
BH106421	1	1.00		D	1																
BH106421	2	2.00		D																	
BH106421	3	3.00		D	1																
BH106421	4	4.00		D																	
BH106421	5	5.00		D																	
BH106421	6	6.00		D	1	1															
BH106893	1	1.00	161424	B																	
BH106893	1	1.00		D	1																
BH106893	1.5	1.50	161425	U																	
BH106893	2	2.00	161426	B																	
BH106893	2	2.00		D																	
BH106893	2.5	2.50	161427	U													1				
BH106893	3	3.00	161428	B			1	1													
BH106893	3	3.00		D	1	1															
BH106893	4	4.00	161429	B																	
BH106893	4	4.00		D																	
BH106893	5	5.00	161430	B			1	1													
BH106893	5	5.00		D	1	1															
BH106893	6	6.00	161431	B																	
BH106893	7	7.00	161432	B																	
BH106893	7	7.00		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH106893	8	8.00	161433	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH106893	9	9.00	161434	B			1	1													
BH106893	9	9.00		D																	
BH106893	10	10.00	161435	B																	
BH106893	10	10.00		D																	
BH107272	1.00		161435	B	1																
BH107272	1.00			D																	
BH107272	1.50		161436	U													1				
BH107272	2.00		161437	B			1	1													
BH107272	2.00			D	1	1															
BH107272	3.00		161438	B																	
BH107272	3.00			D																	
BH107272	4.00		161439	B			1	1													
BH107272	4.00			D	1	1															
BH107272	5.00		161440	B			1	1													
BH107272	6.00		161441	B			1	1													
BH107807	1.00	1.50	173255	B																	
BH107807	1.50	2.00	173256	U																	
BH107807	2.00	2.50	173257	B																	
BH107807	2.50	3.00	173258	U																	
BH107807	3.00	3.50	173259	B			1	1													
BH107807	4.00	4.50	173260	B																	
BH107807	5.00	5.50	173261	B																	
BH107807	6.00	6.50	173262	B			1	1													
BH107807	7.00	7.50	173263	B																	
BH107807	8.00	8.50	173264	B																	
BH107807	9.00	9.50	173265	B			1	1													
BH107807	10.00	10.00	173266	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH107807	1.00	1.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH107807	2.00	2.50		D																	
BH107807	3.00	3.50		D	1	1															
BH107807	4.00	4.50		D																	
BH107807	5.00	5.50		D																	
BH107807	6.00	6.50		D	1	1															
BH107807	7.00	7.50		D																	
BH107807	8.00	8.50		D																	
BH108409	1.00		161443	B	1																
BH108409	1.00			D																	
BH108409	2.00		161444	B																	
BH108409	2.00			D																	
BH108409	3.00		161445	B			1	1													
BH108409	3.00			D	1	1															
BH108409	4.00		161446	B																	
BH108409	5.00		161447	B			1	1													
BH108409	5.00			D	1	1															
BH108409	3.50		NR	U																	
BH108690	1.00	1.00	173251	B			1	1													
BH108690	1.00	1.00		D	1	1															
BH108690	2.00	2.00	173252	B																	
BH108690	2.00	2.00		D																	
BH108690	3.00	3.00	173253	B			1	1													
BH108690	3.00	3.00		D	1	1															
BH108690	4.00	4.00	172254	B																	
BH108690	4.00	4.00		D			1	1													
BH108988	0.50	1.00	179123	B			1	1													
BH108988	1.20	1.70	179124	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH108988	2.00	2.50	179125	B							1										

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH108988	0.50	1.00		D	1	1															
BH108988	1.20	1.70		D																	
BH108988	2.00	2.50		D	1	1															
BH109085	1.00	1.50	173267	B			1	1													
BH109085	2.00	2.50	173268	B			1														
BH109085	3.00	3.10	173269	B																	
BH109085	1.00	1.50		D	1	1															
BH109085	2.00	2.50		D																	
BH109085	3.00	3.10		D																	
BH109609	1.00	1.50	173270	B																	
BH109609	2.00	2.50	173271	B									1								
BH109609	3.00	3.50	173272	B			1	1													
BH109609	4.00	4.50	173273	B			1	1													
BH109609	5.00	5.20	173274	B																	
BH109609	1.00	1.50		D																	
BH109609	2.00	2.50		D																	
BH109609	3.00	3.50		D	1	1															
BH109609	4.00	4.50		D																	
BH109609	5.00	5.20		D																	
BH110055	1.00	1.50	173275	B																	
BH110055	2.00	2.50	173276	B																	
BH110055	3.00	3.50	173277	B																	
BH110055	4.00	4.50	173278	B																	
BH110055	5.00	5.50	173279	B																	
BH110055	6.00	6.50	173280	B																	
BH110055	7.00	7.20	173281	B																	
BH110055	1.00	1.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH110055	2.00	2.50		D																	
BH110055	3.00	3.50		D																	
BH110055	4.00	4.50		D																	
BH110055	5.00	5.50		D																	
BH110055	6.00	6.50		D																	
BH110055	7.00	7.20		D																	
BH110055	1.00	1.00	173275	B																	
BH110055	2.00	2.00	173276	B			1	1													
BH110055	3.00	3.00	173277	B																	
BH110055	4.00	4.00	173278	B			1	1													
BH110055	5.00	5.00	173279	B			1	1													
BH110055	6.00	6.00	173280	B																	
BH110055	7.00	7.00	173281	B																	
BH110055	1.00	1.00		D																	
BH110055	2.00	2.00		D																	
BH110055	3.00	3.00		D																	
BH110055	4.00	4.00		D																	
BH110606	1.00	1.00	173282	B																	
BH110606	1.50	1.50	173283	U																	
BH110606	2.00	2.00	173284	B			1	1													
BH110606	3.00	3.00	173285	B																	
BH110606	4.00	4.00	173286	B			1	1													
BH110606	5.00	5.00	173287	B			1	1													
BH110606	6.00	6.00	173288	B																	
BH110606	1.00	1.00		D																	
BH110606	2.00	2.00		D																	
BH110606	3.00	3.00		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH110606	4.00	4.00		D																	
BH110606	5.00	5.00		D																	
BH110606	6.00	6.00		D																	
BH110738	1.00	1.50	173289	B			1	1													
BH110738	2.00	2.50	173290	B			1	1													
BH110738	3.00	3.10	173291	B																	
BH110738	1.00	1.50		D																	
BH110738	2.00	2.50		D																	
BH111204	0.50	1.00	179127	B			1	1													
BH111204	0.50	1.00		D	1	1															
BH111604	0.50	1.00		B			1	1													
BH111604	0.50	1.00		D	1	1															
BH111960	0.50	1.00	175343	B																	
BH111960	1.20	1.70	175344	B			1	1													
BH111960	2.00	2.50	175345	B			1	1													
BH111960	3.00	3.50	175346	B																	
BH111960	4.00	4.50	175347	B			1	1													
BH111960	0.50	1.00	175343	D																	
BH111960	1.20	1.70	175344	D	1	1															
BH111960	2.00	2.50	175345	D																	
BH111960	3.00	3.50	175346	D																	
BH111960	4.00	4.50	175347	D	1	1															
BH112180	0.50	1.00	179128	B																	
BH112180	1.20	1.70	179129	B			1	1													
BH112180	2.00	2.50	179130	B			1	1													
BH112180	3.00	3.50	179131	B																	
BH112180	0.50	1.00	179128	D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH112180	1.20	1.70	179129	D	1	1															
BH112180	2.00	2.50	179130	D																	
BH112180	3.00	3.50	179131	D																	
BH112404	0.50	1.00	179136	B																	
BH112404	1.20	1.70	179137	B																	
BH112404	2.00	2.50	179138	B			1	1													
BH112404	3.00	3.50	179139	B																	
BH112404	4.00	4.50	179140	B			1	1													
BH112404	0.50	1.00	179136	D																	
BH112404	1.20	1.70	179137	D																	
BH112404	2.00	2.50	179138	D	1	1															
BH112404	3.00	3.50	179139	D																	
BH112404	4.00	4.50	179140	D																	
BH112619	0.50	1.00	175320	B																	
BH112619	1.20	1.70	175321	B			1	1													
BH112619	0.50	1.00	175320	D																	
BH112619	1.20	1.70	175321	D	1	1															
BH112619A	0.50	1.00	175322	B																	
BH112619A	1.20	1.70	175323	B									1								
BH112619A	2.00	2.50	175324	B																	
BH112619A	3.00	3.50	175325	B			1	1													
BH112619A	4.00	4.50	175326	B																	
BH112619A	0.50	1.00	175322	D																	
BH112619A	1.20	1.70	175323	D																	
BH112619A	2.00	2.50	175324	D																	
BH112619A	3.00	3.50	175325	D	1	1															
BH112619A	4.00	4.50	175326	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH113399	0.50	1.00		B																	
BH113399	1.20	1.70		B																	
BH113399	2.00	2.50		U																	
BH113399	2.50	3.00		B																	
BH113399	3.00	3.50		U																	
BH113399	4.00	4.50		B																	
BH113399	5.00	5.50		B			1	1													
BH113399	6.00	6.50		B																	
BH113399	7.00	7.50		B																	
BH113399	8.00	8.50		B																	
BH113399	9.00	9.50		B																	
BH113399	0.50	1.00		D																	
BH113399	1.20	1.70		D																	
BH113399	2.50	3.00		D																	
BH113399	4.00	4.50		D																	
BH113399	5.00	5.50		D	1	1															
BH113399	6.00	6.50		D																	
BH113399	7.00	7.50		D																	
BH113399	8.00	8.50		D																	
BH113399	9.00	9.50		D																	
BH113800	0.50	1.00		B																	
BH113800	1.20	1.70		B																	
BH113800	2.00	2.50		U																	
BH113800	2.50	3.00		B																	
BH113800	3.00	3.50		U																	
BH113800	3.50	4.00		B			1	1													
BH113800	4.00	4.50		U													1				

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH113800	5.00	5.50		B																	
BH113800	6.00	6.50		B																	
BH113800	7.00	7.50		B																	
BH113800	8.00	8.50		B																	
BH113800	9.00	9.50		B																	
BH113800	0.50	1.00		D																	
BH113800	1.20	1.70		D																	
BH113800	2.50	3.00		D																	
BH113800	3.50	4.00		D	1	1															
BH113800	5.00	5.50		D																	
BH113800	6.00	6.50		D																	
BH113800	7.00	7.50		D																	
BH113800	8.00	8.50		D																	
BH113800	9.00	9.50		D																	
BH114109	0.50	1.00	171090	B																	
BH114109	1.20	1.70	171091	B			1	1													
BH114109	2.00	2.50	171092	B			1	1													
BH114109	3.00	3.50	171093	B																	
BH114109	4.00	4.50	171094	B			1	1													
BH114109	5.00	5.50	171095	B																	
BH114109	6.00	6.50	171096	B																	
BH114109	7.00	7.50	171097	B																	
BH114109	0.50	1.00	171090	D																	
BH114109	1.20	1.70	171091	D																	
BH114109	2.00	2.50	171092	D																	
BH114109	3.00	3.50	171093	D																	
BH114109	4.00	4.50	171094	D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH114109	5.00	5.50	171095	D																	
BH114109	6.00	6.50	171096	D																	
BH114109	7.00	7.50	171097	D																	
BH114149	0.50	1.00	179141	B																	
BH114149	1.20	1.70	179142	B			1	1													
BH114149	2.00	2.50	179143	B			1	1													
BH114149	3.00	3.50	179144	B																	
BH114149	4.00	4.50	179145	B																	
BH114149	5.00	5.50	179146	B																	
BH114149	6.00	6.50	179147	B																	
BH114149	7.00	7.50	179148	B																	
BH114149	0.50	1.00	179141	D																	
BH114149	1.20	1.70	179142	D	1	1															
BH114149	2.00	2.50	179143	D																	
BH114149	3.00	3.50	179144	D																	
BH114149	4.00	4.50	179145	D																	
BH114149	5.00	5.50	179146	D																	
BH114149	6.00	6.50	179147	D																	
BH114149	7.00	7.50	179148	D																	
BH114352	0.50	1.00	170344	B																	
BH114352	1.20	1.70	170345	B			1	1													
BH114352	2.00	2.50	170346	B																	
BH114352	3.00	3.50	170347	B			1	1													
BH114352	4.00	4.50	170348	B																	
BH114352	5.00	5.50	170349	B																	
BH114352	0.50	1.00	170344	D																	
BH114352	1.20	1.70	170345	D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH114352	2.00	2.50	170346	D																	
BH114352	3.00	3.50	170347	D	1	1															
BH114352	4.00	4.50	170348	D																	
BH114352	5.00	5.50	170349	D																	
BH114689	0.50	1.00	175213	B			1	1													
BH114689	1.20	1.70	175214	B			1	1													
BH114689	2.00	2.50	175215	B																	
BH114689	3.00	3.50	175216	B			1	1													
BH114689	4.00	4.50	175217	B																	
BH114689	5.00	5.50	175218	B																	
BH114689	6.00	6.50	175219	B																	
BH114689	0.50	1.00	175213	D	1	1															
BH114689	1.20	1.70	175214	D	1	1															
BH114689	2.00	2.50	175215	D																	
BH114689	3.00	3.50	175216	D	1	1															
BH114689	4.00	4.50	175217	D																	
BH114689	5.00	5.50	175218	D																	
BH114689	6.00	6.50	175219	D																	
BH115002	1.00		178354	B			1	1													
BH115002	2.00		178355	B																	
BH115002	3.00		178356	B																	
BH115002	1.00		178354	D	1	1															
BH115002	2.00		178355	D	1	1															
BH115002	3.00		178356	D																	
BH115403	0.50	1.00	175327	B																	
BH115403	1.20	1.70	175328	B			1	1													
BH115403	2.00	2.50	175329	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH115403	3.00	3.50	175330	B																	
BH115403	4.00	4.50	175331	B																	
BH115403	5.00	5.50	175332	B																	
BH115403	6.00	6.50	175333	B																	
BH115403	0.50	1.00	175327	D																	
BH115403	1.20	1.70	175328	D	1	1															
BH115403	2.00	2.50	175329	D	1	1															
BH115403	3.00	3.50	175330	D																	
BH115403	4.00	4.50	175331	D																	
BH115403	5.00	5.50	175332	D																	
BH115403	6.00	6.50	175333	D																	
BH115809	0.50	1.00	175334	B																	
BH115809	1.20	1.70	175334	B			1	1													
BH115809	2.00	2.50	175334	B																	
BH115809	3.00	3.50	175334	B																	
BH115809	4.00	4.50	175334	B			1	1													
BH115809	5.00	5.50	175334	B																	
BH115809	6.00	6.50	175334	B																	
BH115809	7.00	7.50	175334	B																	
BH115809	8.00	8.50	175334	B																	
BH115809	0.50	1.00	175334	D																	
BH115809	1.20	1.70	175334	D	1	1															
BH115809	2.00	2.50	175334	D																	
BH115809	3.00	3.50	175334	D																	
BH115809	4.00	4.50	175334	D	1	1															
BH115809	5.00	5.50	175334	D																	
BH115809	6.00	6.50	175334	D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH115809	7.00	7.50	175334	D																	
BH115809	8.00	8.50	175334	D																	
BH116189	0.50	1.00	171082	B																	
BH116189	1.20	1.70	171083	B																	
BH116189	2.00	2.50	171084	B																	
BH116189	3.00	3.50	171085	B																	
BH116189	4.00	4.50	171086	B			1	1													
BH116189	5.00	5.50	171087	B																	
BH116189	6.00	6.50	171088	B																	
BH116189	7.00	7.50	171089	B																	
BH116189	2.50	3.00		U																	
BH116189	0.50	1.00	171082	D																	
BH116189	1.20	1.70	171083	D																	
BH116189	2.00	2.50	171084	D																	
BH116189	3.00	3.50	171085	D																	
BH116189	4.00	4.50	171086	D	1	1															
BH116189	5.00	5.50	171087	D																	
BH116189	6.00	6.50	171088	D																	
BH116189	7.00	7.50	171089	D																	
BH116213	0.50	1.00		B																	
BH116213	1.20	1.70		B																	
BH116213	2.00	2.50		U																	
BH116213	2.50	3.00		B																	
BH116213	3.00	3.50		B			1	1													
BH116213	4.00	4.50		B			1	1													
BH116213	5.00	5.50		B																	
BH116213	0.50	1.00		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH116213	1.20	1.70		D																	
BH116213	2.50	3.00		D																	
BH116213	3.00	3.50		D	1	1															
BH116213	4.00	4.50		D	1	1															
BH116213	5.00	5.50		D																	
BH116733	1.00		173400	B																	
BH116733	2.00		178351	B																	
BH116733	3.00		178352	B			1	1													
BH116733	4.00		178353	B																	
BH116733	1.00		173400	D	1																
BH116733	2.00		178351	D																	
BH116733	3.00		178352	D	1	1															
BH116733	4.00		178353	D	1	1															
BH120200	1.00	1.50	178256	B																	
BH120200	1.50	2.00	178257	U																	
BH120200	2.00	2.50	178258	B																	
BH120200	2.50	3.00	178259	U																	
BH120200	3.00	3.50	178260	B																	
BH120200	4.00	4.50	178261	B			1	1													
BH120200	5.00	5.50	178262	B			1	1													
BH120200	6.00	6.50	178263	B	1	1															
BH120200	7.00	7.50	178264	B																	
BH120200	8.00	8.50	178265	B																	
BH120200	9.00	9.20	178266	B																	
BH120200	1.00	1.50		D																	
BH120200	2.00	2.50		D																	
BH120200	3.00	3.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH120200	4.00	4.50		D	1	1															
BH120739	1.00	1.50	173292	B																	
BH120739	1.50	2.00	173293	U																	
BH120739	2.00	2.50	173294	B																	
BH120739	2.50	3.00	173295	U																	
BH120739	3.00	3.50	173296	B																	
BH120739	3.50	4.00	173297	U																	
BH120739	4.00	4.50	173298	B																	
BH120739	4.50	5.00	173299	U																	
BH120739	5.00	5.50	173300	B			1	1													
BH120739	6.00	6.50	173301	B																	
BH120739	7.00	7.50	173302	B																	
BH120739	8.00	8.50	173303	B	1	1	1	1													
BH120739	9.00	9.50	173304	B																	
BH120739	10.00	10.00	173305	B																	
BH120739	1.00	1.50		D																	
BH120739	2.00	2.50		D																	
BH120739	3.00	3.50		D																	
BH120739	4.00	4.50		D																	
BH121933	1.00	1.50	178267	B																	
BH121933	2.00	2.50	178268	B			1	1													
BH121933	3.00	3.50	178269	B																	
BH121933	4.00	4.50	178270	B			1	1													
BH121933	5.00	5.50	178271	B																	
BH121933	6.00	6.20	178272	B																	
BH121933	1.00	1.50		D																	
BH121933	2.00	2.50		D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH121933	3.00	3.50		D																	
BH121933	4.00	4.50		D																	
BH121933	5.00	5.50		D																	
BH121933	6.00	6.20		D																	
BH122408	1.00	1.50	178273	B																	
BH122408	1.50	2.00	178274	U													1				
BH122408	2.00	2.50	178275	B																	
BH122408	3.00	3.50	178276	B			1	1													
BH122408	4.00	4.50	178277	B																	
BH122408	5.00	5.50	178278	B																1	
BH122408	6.00	6.10	178279	B																	
BH122408	1.00	1.50		D																	
BH122408	2.00	2.50		D																	
BH122408	3.00	3.50		D	1	1															
BH122408	4.00	4.50		D																	
BH122408	5.00	5.50		D																	
BH122408	6.00	6.10		D																	
BH122408	1.00	1.50	178273	B																	
BH122408	1.50	2.00	178274	U																	
BH122408	2.00	2.50	178275	B			1	1													
BH122408	3.00	3.50	178276	B																	
BH122408	4.00	4.50	178277	B																	
BH122408	5.00	5.50	178278	B			1	1													
BH122408	6.00	6.10	178279	B																	
BH122408	1.00	1.50		D																	
BH122408	2.00	2.50		D	1	1															
BH122408	3.00	3.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing "please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column." For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH122408	4.00	4.50		D																	
BH122408	5.00	5.50		D																	
BH122408	6.00	6.10		D																	
BH123219	1.00	1.50	178280	B																	
BH123219	2.00	2.50	178281	B																	
BH123219	3.00	3.50	178282	B			1	1													
BH123219	4.00	4.50	178283	B																	
BH123219	5.00	5.50	178284	B			1	1													
BH123219	6.00	6.50	178285	B																	
BH123219	7.00	7.50	178286	B																	
BH123219	1.00	1.50		D																	
BH123219	2.00	2.50		D																	
BH123219	3.00	3.50		D	1	1															
BH123219	4.00	4.50		D																	
BH123219	5.00	5.50		D																	
BH123219	6.00	6.50		D																	
BH123219	1.00	1.50	178280	B																	
BH123219	2.00	2.50	178281	B			1	1													
BH123219	3.00	3.50	178282	B																	
BH123219	4.00	4.50	178283	B																	
BH123219	5.00	5.50	178284	B																	
BH123219	6.00	6.50	178285	B																	
BH123219	7.00	7.50	178286	B																	
BH123219	1.00	1.50		D																	
BH123219	2.00	2.50		D	1	1															
BH123219	3.00	3.50		D																	
BH123219	4.00	4.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH123219	5.00	5.50		D																	
BH123219	6.00	6.50		D	1	1															
BH123774	1.00	1.50	178287	B																	
BH123774	1.50	2.00	178288	U																	
BH123774	2.00	2.50	178289	B																	
BH123774	2.50	3.00	178290	U																	
BH123774	3.00	3.50	178291	B			1	1													
BH123774	4.00	4.50	178292	B																	
BH123774	5.00	5.50	178293	B																	
BH123774	6.00	6.50	178294	B																	
BH123774	1.00	1.50		D																	
BH123774	2.00	2.50		D																	
BH123774	3.00	3.50		D	1	1															
BH123774	5.00	5.50		D																	
BH123774	7.00	7.50	178295	B																	
BH123774	8.00	8.50	178296	B																	
BH123774	9.00	9.50	178297	B																	
BH123774	10.00	10.00	178298	B																	
BH123774	1.00	1.50	178287	B																	
BH123774	1.50	2.00	178288	U																	
BH123774	2.00	2.50	178289	B			1	1													
BH123774	2.50	3.00	178290	U																	
BH123774	3.00	3.50	178291	B																	
BH123774	4.00	4.50	178292	B			1	1													
BH123774	5.00	5.50	178293	B																	
BH123774	6.00	6.50	178294	B			1	1													
BH123774	1.00	1.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH123774	2.00	2.50		D	1	1															
BH123774	3.00	3.50		D																	
BH123774	4.00	4.50		D	1	1															
BH123774	5.00	5.50		D																	
BH123774	7.00	7.50	178295	B																	
BH123774	8.00	8.50	178296	B																	
BH123774	9.00	9.50	178297	B																	
BH123774	10.00	10.00	178298	B																	
BH123993	1.00	1.50	173001	B																	
BH123993	1.50	2.00	173002	U													1				
BH123993	2.00	2.50	173003	B									1								
BH123993	3.00	3.50	173004	B																	
BH123993	4.00	4.50	173005	B	1	1	1	1													
BH123993	5.00	5.50	173006	B																	
BH123993	6.00	6.30	173007	B			1	1													
BH123993	6.30	6.30	173008	D																	
BH123993	1.00																				
BH123993	2.00																				
BH123993	3.00																				
BH123993	4.00																				
BH123993	5.00																				
BH123993	1.00	1.50	173001	B																	
BH123993	1.50	2.00	173002	U																	
BH123993	2.00	2.50	173003	B	1	1	1	1													
BH123993	2.50	3.00		U																	SAMPLE DISTURBED
BH123993	3.00	3.50	173004	B																	
BH123993	4.00	4.50	173005	B																	INSUFFICIENT

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH123993	5.00	5.50	173006	B																	
BH123993	6.00	6.30	173007	B																	
BH123993	6.30	6.30	173008	D																	
BH123993	1.00			D																	
BH123993	2.00			D																	
BH123993	3.00			D																	
BH123993	4.00			D																	
BH123993	5.00			D																	
BH124210	1.00	1.50	179163	B																	
BH124210	2.00	2.50	179164	B			1	1													
BH124210	3.00	3.50	179165	B	1	1															
BH124210	4.00	4.50		U																	
BH124210	4.50	5.00	179166	B																	
BH124210	5.00	5.50	179167	B																	
BH124210	6.00	6.50	179168	B			1	1													
BH124210	7.00	7.50	179169	B																	
BH124210	8.00	8.50	179170	B																	
BH124210	9.00	9.60	179171	B																	
BH124210	1.00	1.50		D																	
BH124210	2.00	2.50		D	1	1															
BH124210	4.50	5.00		D																	
BH124210	5.00	5.50		D																	
BH124210	6.00	6.50		D	1	1															
BH124210	7.00	7.50		D																	
BH124210	8.00	8.50		D																	
BH124210	9.00	9.60		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH124210	1.00	1.50	179163	B																	
BH124210	1.50	2.00	179163	U																	
BH124210	2.00	2.50	179164	B																	
BH124210	3.00	3.50	179165	B			1	1													
BH124210	4.00	4.50		U																	
BH124210	4.50	5.00	179166	B																	
BH124210	5.00	5.50	179167	B																	
BH124210	6.00	6.50	179168	B																	
BH124210	7.00	7.50	179169	B																	
BH124210	8.00	8.50	179170	B																	
BH124210	9.00	9.60	179171	B																	
BH124677	0.50	1.00	179173	B																	
BH124677	1.20	1.70	179174	B																	
BH124677	2.00	2.50	179175	B			1	1													
BH124677	3.00	3.50	179176	B			1	1													
BH124677	4.00	4.50	179177	B																	
BH124677	5.00	5.50	179178	B																	
BH124677	6.00	6.50	179179	B																	
BH124677	7.00	7.50	179180	B																	
BH124677	0.50	1.00		D																	
BH124677	1.20	1.70		D																	
BH124677	2.00	2.50		D																	
BH124677	3.00	3.50		D	1	1															
BH124677	4.00	4.50		D																	
BH124677	5.00	5.50		D																	
BH124677	6.00	6.50		D																	
BH124677	7.00	7.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH124677	0.50	1.00	179173	B																	
BH124677	1.20	1.70	179174	B																	
BH124677	2.00	2.50	179175	B																	
BH124677	3.00	3.50	179176	B																	
BH124677	4.00	4.50	179177	B																	
BH124677	5.00	5.50	179178	B																	
BH124677	6.00	6.50	179179	B																	
BH124677	7.00	7.50	179180	B																	
BH125177	0.5	1.00	179181	B																	
BH125177	1.20	1.70		U																	
BH125177	2.00	2.50	179182	B																	
BH125177	2.50	3.00		U													1				
BH125177	3.00	3.50	179183	B			1	1													
BH125177	4.00	4.50	179184	B			1	1													
BH125177	5.00	5.50	179185	B			1	1													
BH125177	6.00	6.50	179186	B																	
BH125177	7.00	7.50	179187	B																	
BH125177	8.00	8.50	179188	B																	
BH125177	9.00	9.50	179189	B																	
BH125177	0.50	1.00		D																	
BH125177	2.00	2.50		D																	
BH125177	3.00	3.50		D																	
BH125177	4.00	4.50		D	1	1															
BH125177	5.00	5.50		D	1	1															
BH125177	6.00	6.50		D																	
BH125177	7.00	7.50		D																	
BH125177	8.00	8.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH125177	9.00	9.50		D																	
BH125582	0.50	1.00	179190	B																	
BH125582	1.20	1.70		U																	
BH125582	2.00	2.50	179191	B																	
BH125582	2.50	3.00		U																	
BH125582	3.00	3.50	179192	B																	
BH125582	3.50	4.00		U																	
BH125582	4.00	4.50	179193	B																	
BH125582	5.00	5.50	179194	B			1	1													
BH125582	6.00	6.50	179195	B																	
BH125582	7.00	7.50	179196	B																	
BH125582	8.00	8.50	179197	B																	
BH125582	9.00	9.50	179198	B																	
BH125582	0.50	1.00		D																	
BH125582	2.00	2.50		D																	
BH125582	3.00	3.50		D																	
BH125582	4.00	4.50		D																	
BH125582	5.00	5.50		D	1	1															
BH125582	6.00	6.50		D																	
BH125582	7.00	7.50		D																	
BH125582	8.00	8.50		D																	
BH125582	9.00	9.50		D																	
BH125717	1.00		173351	B																	
BH125717	2.00		173352	B																	
BH125717	3.00		173353	B																	
BH125717	4.00		173354	B																	
BH125717	5.00		173355	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH125717	6.00		173356	B			1	1													
BH125717	7.00		173357	B																	
BH125717	1.00		173351	D																	
BH125717	2.00		173352	D																	
BH125717	3.00		173353	D																	
BH125717	4.00		173354	D																	
BH125717	5.00		173355	D																	
BH125717	6.00		173356	D	1	1															
BH125717	7.00		173357	D																	
BH125870	1.00		173358	B																	
BH125870	2.00		173359	B			1	1													
BH125870	3.00		173360	B			1	1													
BH125870	4.00		173361	B																	
BH125870	5.00		173362	B																	
BH125870	6.00		173363	B																	
BH125870	7.00		173364	B																	
BH125870	8.00		173365	B																	
BH125870	1.00		173358	D																	
BH125870	2.00		173359	D	1	1															
BH125870	3.00		173360	D	1	1															
BH126124	1.00	1.50	173366	B																	
BH126124	2.00	2.50	173367	B																	
BH126124	3.00	3.50	173368	B																	
BH126124	4.00	4.50	173369	B																	
BH126124	5.00	5.50	173370	B																	
BH126124	1.00	1.50		D																	
BH126124	2.00	2.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH126124	3.00	3.50		D																	
BH126124	4.00	4.50		D																	
BH126200	1.00			B																	
BH126200	2.00			B			1	1													
BH126200	3.00			B																	
BH126200	4.00			B			1	1													
BH126200	5.00			B																	
BH126200	6.00			B																	
BH126200	1.00			D																	
BH126200	2.00			D	1	1															
BH126200	3.00			D																	
BH126200	4.00			D	1	1															
BH126200	5.00			D																	
BH126200	6.00			D																	
BH126602	1.00			B																	
BH126602	2.00			B																	
BH126602	3.00			B			1	1													
BH126602	4.00			B			1	1													
BH126602	5.00			B																	
BH126602	6.00			B																	
BH126602	7.00			B																	
BH126602	8.00			B																	
BH126602	9.00			B																	
BH126602	1.00			D																	
BH126602	2.00			D	1	1															
BH126602	3.00			D																	
BH126602	4.00			D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH126602	5.00			D																	
BH126602	6.00			D																	
BH126602	7.00			D																	
BH126602	8.00			D																	
BH126602	9.00			D																	
BH126725	1.00		173393	B																	
BH126725	2.00		173394	B			1	1													
BH126725	3.00		173395	B							1										
BH126725	4.00		173396	B			1	1													
BH126725	5.00		173397	B																	
BH126725	6.00		173398	B																	
BH126725	7.00		173399	B																	
BH126725	1.00		173393	D	1																
BH126725	2.00		173394	D	1	1															
BH126725	3.00		173395	D																	
BH126725	4.00		173396	D	1	1															
BH126725	5.00		173397	D	1	1															
BH126725	6.00		173398	D																	
BH126725	7.00		173399	D	1	1															
BH126900	1.00		173387	B																	
BH126900	2.00		173388	B			1	1													
BH126900	3.00		173389	B																	
BH126900	4.00		173390	B			1	1													
BH126900	5.00		173391	B																	
BH126900	6.00		173392	B																	
BH126900	1.00		173387	D																	
BH126900	2.00		173388	D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH126900	3.00		173389	D																	
BH126900	4.00		173390	D	1	1															
BH126900	5.00		173391	D																	
BH126900	6.00		173392	D																	
BH127002	1.00		173380	B																	
BH127002	2.00		173381	B			1	1													
BH127002	3.00		173382	B			1	1													
BH127002	4.00		173383	B																	
BH127002	5.00		173384	B																	
BH127002	6.00		173385	B																	
BH127002	7.00		173386	B																	
BH127002	1.00		173380	D																	
BH127002	2.00		173381	D	1	1															
BH127002	3.00		173382	D	1	1															
BH127002	4.00		173383	D																	
BH127002	5.00		173384	D																	
BH127002	6.00		173385	D																	
BH127002	7.00		173386	D																	
BH127452	0.50	1.00	174201	B																	
BH127452	1.20	1.70	174202	B																	
BH127452	2.00	2.50		U																	
BH127452	3.00	3.50	174203	B			1	1													
BH127452	4.00	4.50	174204	B																	
BH127452	5.00	5.50	174205	B			1	1													
BH127452	6.00	6.50	174206	B																	
BH127452	7.00	7.50	174207	B																	
BH127452	0.50	1.00		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH127452	1.20	1.70		D																	
BH127452	3.00	3.50		D																	
BH127452	4.00	4.50		D																	
BH127452	5.00	5.50		D																	
BH127452	6.00	6.50		D																	
BH127452	7.00	7.50		D																	
BH128127	0.50		174208	B																	
BH128127	1.20	1.70		U																	
BH128127	1.20	1.70	174209	B																	
BH128127	2.00	2.50	174210	B																	
BH128127	2.50	3.00		U																	
BH128127	3.00	3.50	174211	B			1	1													
BH128127	4.00	4.50	174212	B			1	1													
BH128127	5.00	5.50	174213	B																	
BH128127	6.00	6.50	174214	B			1	1													
BH128127	7.00	7.50	174215	B																	
BH128127	8.00	8.50	174216	B																	
BH128127	0.50			D																	
BH128127	1.20	1.70		D																	
BH128127	2.00	2.50		D																	
BH128127	3.00	3.50		D	1	1															
BH128127	4.00	4.50		D	1	1															
BH128127	5.00	5.50		D																	
BH128127	6.00	6.50		D	1	1															
BH128127	7.00	7.50		D																	
BH128127	8.00	8.50		D																	
BH128605	0.50	1.00		B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH128605	1.20	1.70		B																	
BH128605	2.00	2.50		B			1	1													
BH128605	3.00	3.50		B																	
BH128605	4.00	4.50		B																	
BH128605	5.00	5.50		B																	
BH128605	0.50	1.00		D	1																
BH128605	1.20	1.70		D																	
BH128605	2.00	2.50		D	1	1															
BH128605	3.00	3.50		D																	
BH128605	4.00	4.50		D																	
BH128605	5.00	5.50		D	1	1															
BH129405	0.50	1.00	174217	B																	
BH129405	1.20	1.70	174218	B																	
BH129405	2.00	2.50	174219	B			1	1													
BH129405	0.50	1.00		D																	
BH129405	1.20	1.70		D																	
BH129405	2.00	2.50		D	1	1															
BH129405A	3.00	3.50	174220	B			1	1													
BH129405A	4.00	4.50	174221	B																	
BH129405A	4.50	5.00	174222	B			1	1													
BH129405A	3.00	3.50		D	1	1															
BH129405A	4.00	4.50		D																	
BH129405A	4.50	5.00		D																	
BH130005	0.50	1.00	174223	B																	
BH130005	1.20	1.70	174224	B																	
BH130005	2.00	2.50	174225	B																	
BH130005	3.00	3.50	174226	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH130005	4.00	4.50	174227	B																	
BH130005	5.00	5.50	174228	B																	
BH130005	0.50	1.00		D																	
BH130005	1.20	1.70		D																	
BH130005	2.00	2.50		D																	
BH130005	3.00	3.50		D	1	1															
BH130005	4.00	4.50		D																	
BH130005	5.00	5.50		D																	
BH130451	0.50	1.00	174229	B																	
BH130451	1.20	1.70	174230	B																	
BH130451	2.00	2.50		U																	
BH130451	2.50	3.00	174231	B			1	1													
BH130451	3.00	3.50		U													1				
BH130451	3.50	4.00	174232	B																	
BH130451	4.00	4.50	174233	B																	
BH130451	5.00	5.50	174234	B			1	1													
BH130451	0.50	1.00	174229	D																	
BH130451	1.20	1.70	174230	D																	
BH130451	2.50	3.00	174231	D	1	1															
BH130451	3.50	4.00	174232	D																	
BH130451	4.00	4.50	174233	D																	
BH130451	5.00	5.50	174234	D																	
BH131203	0.5	1.00	174235	B																	
BH131203	1.20	1.70	174236	B																	
BH131203	2.00	2.50		U																	
BH131203	2.50	3.00	174237	B			1	1													
BH131203	3.00	3.50	174238	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH131203	4.00	4.50	174239	B																	
BH131203	5.00	5.50	174240	B			1	1													
BH131203	6.00	6.50	174241	B																	
BH131203	7.00	7.50	174242	B																	
BH131203	0.50	1.00		D																	
BH131203	1.20	1.70		D																	
BH131203	2.50	3.00		D	1	1															
BH131203	3.00	3.50		D																	
BH131203	4.00	4.50		D																	
BH131203	5.00	5.50		D	1	1															
BH131203	6.00	6.50		D																	
BH131203	7.00	7.50		D																	
BH131836	0.50	1.00	174115	B																	
BH131836	1.20	1.70	174116	B																	
BH131836	2.00	2.50		U																	
BH131836	2.50	3.00	174117	B																	
BH131836	3.00	3.50		U																	
BH131836	3.50	4.00	174118	B																	
BH131836	4.00	4.50	174120	B																	
BH131836	5.00	5.50	174121	B			1	1													
BH131836	6.00	6.50	174122	B			1	1													
BH131836	7.00	7.50	174123	B																	
BH131836	8.00	8.50	174124	B																	
BH131836	0.50	1.00	174115	D																	
BH131836	1.20	1.70	174116	D																	
BH131836	2.50	3.00	174117	D																	
BH131836	3.50	4.00	174118	D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH131836	4.00	4.50	174120	D																	
BH131836	5.00	5.50	174121	D																	
BH131836	6.00	6.50	174122	D	1	1															
BH131836	7.00	7.50	174123	D																	
BH131836	8.00	8.50	174124	D																	
BH132133	0.50	1.00	171098	B																	
BH132133	1.20	1.70	171099	B			1	1													
BH132133	2.00	2.50	171100	B			1	1													
BH132133	0.50	1.00	171098	D																	
BH132133	1.20	1.70	171099	D	1	1															
BH132133	2.00	2.50	171100	D	1	1															
BH133229	0.50	1.00	174177	B						1											
BH133229	1.20	1.70	174178	B			1	1													
BH133229	2.00	2.50		U													1				
BH133229	2.50	3.00	174179	B																	
BH133229	3.00	3.50		U													1				SAMPLE DISTURBED
BH133229	3.50	4.00	174180	B			1	1													
BH133229	4.00	4.50	174181	B																	
BH133229	5.00	5.50	174182	B																	
BH133229	0.50	1.00		D																	
BH133229	1.20	1.70		D	1	1															
BH133229	2.50	3.00		D																	
BH133229	3.50	4.00		D	1	1															
BH133229	4.00	4.50		D																	
BH133229	5.00	5.50		D																	
BH133258	0.50	1.00	174183	B																	
BH133258	1.20	1.70	174184	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH133258	2.00	2.50	174185	B					1				1								
BH133258	3.00	3.50	174186	B			1	1													
BH133258	4.00	4.50	174187	B																	
BH133258	5.00	5.50	174188	B																	
BH133258	6.00	6.50	174189	B			1	1													
BH133258	7.00	7.50	174190	B																	
BH133258	8.00	8.50	174191	B																	
BH133258	0.50	1.00		D																	
BH133258	1.20	1.70		D																	
BH133258	2.00	2.50		D	1	1															
BH133258	3.00	3.50		D																	
BH133258	4.00	4.50		D																	
BH133258	5.00	5.50		D																	
BH133258	6.00	6.50		D	1	1															
BH133258	7.00	7.50		D																	
BH133258	8.00	8.50		D																	
BH133311	0.50	1.00	179151	B																	
BH133311	1.20	1.70	179152	B																	
BH133311	2.00	2.50		U																	
BH133311	2.50	3.00	179153	B																	
BH133311	3.00	3.50	179154	B			1	1													
BH133311	4.00	4.50	179155	B																	
BH133311	5.00	5.50	179156	B																	
BH133311	6.00	6.50	179157	B			1	1													
BH133311	7.00	7.50	179158	B																	
BH133311	0.50	1.00		D																	
BH133311	1.20	1.70		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH133311	2.50	3.00		D																	
BH133311	3.00	3.50		D	1	1															
BH133311	4.00	4.50		D																	
BH133311	5.00	5.50		D																	
BH133311	6.00	6.50		D	1	1															
BH133311	7.00	7.50		D																	
BH133311	0.50	1.00	179151	B																	
BH133311	1.20	1.70	179152	B			1	1													
BH133311	2.00	2.50		U																	
BH133311	2.50	3.00	179153	B			1	1													
BH133311	3.00	3.50	179154	B																	
BH133311	4.00	4.50	179155	B																	
BH133311	5.00	5.50	179156	B																	
BH133311	6.00	6.50	179157	B																	
BH133311	7.00	7.50	179158	B																	
BH133311	0.50	1.00		D																	
BH133311	1.20	1.70		D	1	1															
BH133311	2.50	3.00		D	1	1															
BH133311	3.00	3.50		D																	
BH133311	4.00	4.50		D																	
BH133311	5.00	5.50		D																	
BH133311	6.00	6.50		D																	
BH133311	7.00	7.50		D																	
BH134500	0.50	1.00	174170	B			1	1													
BH134500	1.20	1.70	174171	B																	
BH134500	2.00	2.50		U													1				
BH134500	2.50	3.00	174172	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing- please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH134500	3.00	3.50	174173	B																	
BH134500	4.00	4.50	174174	B																	
BH134500	5.00	5.50	174175	B																	
BH134500	6.00	6.50	174176	B																	
BH134500	0.50	1.00		D	1	1															
BH134500	1.20	1.70		D																	
BH134500	2.50	3.00		D																	
BH134500	3.00	3.50		D																	
BH134500	4.00	4.50		D																	
BH134500	5.00	5.50		D																	
BH134500	6.00	6.50		D																	
BH134610	0.50	1.00	174164	B																	
BH134610	1.20	1.70	174165	B																	
BH134610	2.00	2.50	174166	B			1	1													
BH134610	3.00	3.50	174167	B									1								
BH134610	4.00	4.50	174168	B																	
BH134610	5.00	5.50	174169	B																	
BH134610	1.20	1.70		D																	
BH134610	2.00	2.50		D	1	1															
BH134610	3.00	3.50		D																	
BH134610	4.00	4.50		D																	
BH134610	5.00	5.50		D																	
BH135006	0.50	1.00	174157	B																	
BH135006	1.20	1.70	174158	B																	
BH135006	2.00	2.50	174159	B			1	1													
BH135006	3.00	3.50	174160	B																	
BH135006	4.00	4.50	174161	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH135006	5.00	5.50	174162	B																	
BH135006	6.00	6.50	174163	B																	
BH135006	0.50	1.00		D																	
BH135006	1.20	1.70		D																	
BH135006	2.00	2.50		D																	
BH135006	3.00	3.50		D																	
BH135006	4.00	4.50		D																	
BH135006	5.00	5.50		D	1	1															
BH135006	6.00	6.50		D																	
BH135163	0.50	1.00	174109	B			1	1													
BH135163	1.20	1.70	174110	B																	
BH135163	2.00	2.50	174111	B																1	
BH135163	3.00	3.50	174112	B																	
BH135163	4.00	4.50	174113	B																	
BH135163	5.00	5.50	174114	B			1	1													
BH135163	0.50	1.00		D	1																
BH135163	1.20	1.70		D																	
BH135163	2.00	2.50		D																	
BH135163	3.00	3.50		D																	
BH135163	4.00	4.50		D																	
BH135163	5.00	5.50		D	1																
BH135207	0.50	1.00	174109	B																	
BH135207	1.20	1.70	174110	B																	
BH135207	2.00	2.50	174111	B			1	1													
BH135207	3.00	3.50	174112	B																	
BH135207	4.00	4.50	174113	B			1	1													
BH135207	5.00	5.50	174114	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH135207	0.50	1.00		D																	
BH135207	1.20	1.70		D																	
BH135207	2.00	2.50		D																	
BH135207	3.00	3.50		D																	
BH135207	4.00	4.50		D																	
BH135207	5.00	5.50		D																	
BH135283	0.50	1.00	174151	B																	
BH135283	1.00	1.50	174152	B																	
BH135283	0.50	1.00		D																	
BH135283	1.00	1.50		D																	
BH135283A	0.50	1.00	174153	B																	
BH135283A	1.20	1.70	174154	B			1	1													
BH135283A	2.00	2.50	174155	B																	
BH135283A	3.00	3.50	174156	B																	
BH135283A	0.50	1.00		D																	
BH135283A	1.20	1.70		D																	
BH135283A	2.00	2.50		D																	
BH135283A	3.00	3.50		D																	
BH135404	0.50	1.00	152915	B			1	1													
BH135404	0.50	1.00		D	1	1															
BH135404A	0.50	1.00	152915	B			1	1													
BH135404A	1.20	1.70	152916	B																	
BH135404A	2.00	2.50	152917	B			1	1													
BH135404A	3.00	3.50	152918	B			1	1													
BH135404A	4.00	4.50	152919	B																	
BH135404A	5.00	5.50	152920	B																	
BH135404A	6.00	6.50	152921	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH135404A	7.00	7.50	152922	B																	
BH135404A	0.50	1.00		D	1	1															
BH135404A	1.20	1.70		D																	
BH135404A	2.00	2.50		D																	
BH135404A	3.00	3.50		D	1	1															
BH135404A	4.00	4.50		D																	
BH135404A	5.00	5.50		D																	
BH135404A	6.00	6.50		D																	
BH135404A	7.00	7.50		D																	
BH135516	0.50	1.00	174101	B																	
BH135516	1.20	1.70	174102	B						1											
BH135516	2.00	2.50	174103	B			1	1													
BH135516	3.00	3.50	174104	B																	
BH135516	4.00	4.50	174105	B																	
BH135516	5.00	5.50	174106	B																	
BH135516	6.00	6.50	174107	B																	
BH135516	7.00	7.50	174108	B																	
BH135516	0.50	1.00		D																	
BH135516	1.20	1.70		D																	
BH135516	2.00	2.50		D	1	1															
BH135516	3.00	3.50		D																	
BH135516	4.00	4.50		D																	
BH135516	5.00	5.50		D																	
BH135516	6.00	6.50		D																	
BH135516	7.00	7.50		D																	
BH135695	0.50	1.00	162925	B																	
BH135695	1.20	1.70	162926	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH135695	2.00	2.50		U													1				SAMPLE DISTURBED
BH135695	2.50	3.00	162927	B																	
BH135695	4.00	4.50		U												1					
BH135695	4.50	5.00	162928	B																	
BH135695	5.00	5.50	162929	B			1	1													
BH135695	6.00	6.50	162930	B																	
BH135695	7.00	7.50	162931	B																	
BH135695	8.00	8.50	162932	B			1	1													
BH135695	9.00	9.50	162933	B																	
BH135695	0.50	1.00		D																	
BH135695	1.20	1.70		D																	
BH135695	2.00	2.50		D	1	1															
BH135695	2.50	3.00		D																	
BH135695	4.00	4.50		D	1	1															
BH135695	4.50	5.00		D																	
BH135695	5.00	5.50		D																	
BH135695	6.00	6.50		D																	
BH135695	7.00	7.50		D																	
BH135695	8.00	8.50		D																	
BH135695	9.00	9.50		D																	
BH135695	9.00	9.50		D																	
BH135695	0.50	1.00	162925	B																	
BH135695	1.20	1.70	162926	B																	
BH135695	2.00	2.50		U																	
BH135695	2.50	3.00	162927	B			1	1													
BH135695	4.00	4.50		U																	
BH135695	4.50	5.00	162928	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH135695	5.00	5.50	162929	B																	
BH135695	6.00	6.50	162930	B																	
BH135695	7.00	7.50	162931	B																	
BH135695	8.00	8.50	162932	B																	
BH135695	9.00	9.50	162933	B																	
BH135695	0.50	1.00		D																	
BH135695	1.20	1.70		D	1	1															
BH135695	2.00	2.50		D																	
BH135695	2.50	3.00		D	1	1															
BH135695	4.00	4.50		D																	
BH135695	4.50	5.00		D																	
BH135695	5.00	5.50		D	1	1															
BH135695	6.00	6.50		D																	
BH135695	7.00	7.50		D																	
BH135695	8.00	8.50		D																	
BH135695	9.00	9.50		D																	
BH135695	9.00	9.50		D																	
BH137604	1.00		178362	B																	
BH137604	2.00		178363	B																	
BH137604	3.00		178364	B																	
BH137604	4.00		178365	B			1	1													
BH137604	1.00		178362	D	1																
BH137604	2.00		178363	D																	
BH137604	3.00		178364	D	1																
BH137604	4.00		178365	D	1	1															
BH138802	0.50	1.00		B																	
BH138802	1.20	1.70		B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH138802	2.00	2.50		B									1								
BH138802	3.00	3.50		B			1	1													
BH138802	4.00	4.50		B																	
BH138802	5.00	5.50		B																	
BH138802	0.50	1.00		D	1																
BH138802	1.20	1.70		D	1	1															
BH138802	2.00	2.50		D																	
BH138802	3.00	3.50		D	1	1															
BH138802	4.00	4.50		D																	
BH138802	5.00	5.50		D																	
BH139159	0.50	1.00		B																	
BH139159	0.50	1.00		D																	
BH139159	1.20	1.70		B																	
BH139159	1.20	1.70		D																	
BH139159	2.00	2.50		U																	
BH139159	2.50	3.00		B																	
BH139159	2.50	3.00		D																	
BH139159	3.00	3.50		U																	
BH139159	3.50	4.00		B																	
BH139159	3.50	4.00		D																	
BH139159	4.00	4.50		B																	
BH139159	4.00	4.50		D																	
BH139159	5.00	5.50		B			1	1													
BH139159	5.00	5.50		D	1	1															
BH139159	6.00	6.50		B																	
BH139159	6.00	6.50		D																	
BH139159	7.00	7.50		B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH139159	7.00	7.50		D																	
BH139159	8.00	8.50		B																	
BH139159	8.00	8.50		D																	
BH139202	0.50	1.00	174124	B																	
BH139202	1.20	1.70	174125	B																	
BH139202	2.00	2.50		U																	
BH139202	2.50	3.00	174126	B																	
BH139202	3.00	3.50		U																	
BH139202	3.50	4.00	174127	B																	
BH139202	4.00	4.50	174128	B			1	1													
BH139202	5.00	5.50	174129	B			1	1													
BH139202	6.00	6.50		U													1				SAMPLE DISTURBED
BH139202	7.00	7.50	174130	B																	
BH139202	8.00	8.50	174131	B																	
BH139202	9.00	9.50	174132	B																	
BH139202	0.50	1.00		D																	
BH139202	1.20	1.70		D																	
BH139202	2.50	3.00		D																	
BH139202	3.50	4.00		D																	
BH139202	4.00	4.50		D	1	1															
BH139202	5.00	5.50		D	1	1															
BH139202	7.00	7.50		D																	
BH139202	8.00	8.50		D																	
BH139202	9.00	9.50		D																	
BH139752	0.50	1.00	174243	B																	
BH139752	1.20	1.70	174244	B																	
BH139752	2.00	2.50		U																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing "please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column." For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH139752	2.50	3.00	174245	B																	
BH139752	3.00	3.50		U																	
BH139752	3.50	4.00	174246	B																	
BH139752	4.00	4.50		U																	
BH139752	4.50	5.00	174247	B																	
BH139752	5.00	5.50	174248	B																	
BH139752	6.00	6.50	174249	B			1	1													
BH139752	7.00	7.50	174250	B																	
BH139752	8.00	8.50	174251	B																	
BH139752	9.00	9.50	174252	B																	
BH139752	0.50	1.00		D																	
BH139752	1.20	1.70		D																	
BH139752	2.50	3.00		D																	
BH139752	3.50	4.00		D																	
BH139752	4.50	5.00		D																	
BH139752	5.00	5.50		D																	
BH139752	6.00	6.50		D	1	1															
BH139752	7.00	7.50		D																	
BH139752	8.00	8.50		D																	
BH139752	9.00	9.50		D																	
BH139892	0.50	1.00	179203	B																	
BH139892	1.20	1.70	179204	B																	
BH139892	2.00	2.50		U																	
BH139892	2.50	3.00	179205	B																	
BH139892	3.00	3.50		U																	
BH139892	3.50	4.00	179206	B																	
BH139892	4.00	4.50		U																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH139892	5.00	5.50	179207	B			1	1													
BH139892	6.00	6.50	179208	B			1	1													
BH139892	7.00	7.50	179209	B																	
BH139892	8.00	8.50	179210	B			1	1													
BH139892	9.00	9.50	179211	B																	
BH139892	1.00	10.50	179212	B																	
BH139892	11.00	11.50	179213	B																	
BH139892	12.00	12.50	179214	B																	
BH139892	13.00	13.50	179215	B																	
BH139892	14.00	14.50	179216	B																	
BH139892	0.50	1.00		D																	
BH139892	1.20	1.70		D																	
BH139892	2.50	3.00		D																	
BH139892	3.50	4.00		D																	
BH139892	5.00	5.50		D	1	1															
BH139892	6.00	6.50		D	1	1															
BH139892	7.00	7.50		D																	
BH139892	8.00	8.50		D	1	1															
BH139892	9.00	9.50		D																	
BH139892	1.00	10.50		D																	
BH139892	11.00	11.50		D																	
BH139892	12.00	12.50		D																	
BH139892	13.00	13.50		D																	
BH139892	14.00	14.50		D																	
BH139912	0.50	1.00	179217	B																	
BH139912	1.20	1.70	179218	B																	
BH139912	2.00	2.50		U																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing "please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column." For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH139912	2.50	3.00	179219	B																	
BH139912	3.00	3.50		U																	
BH139912	3.50	4.00	179220	B																	
BH139912	4.00	4.50	179221	B			1	1													
BH139912	5.00	5.50	179222	B																	
BH139912	6.00	6.50	179223	B			1	1													
BH139912	7.00	7.50	179224	B			1	1													
BH139912	8.00	8.50	179225	B																	
BH139912	9.00	9.50	179226	B																	
BH139912	10.00	10.50	179227	B																	
BH139912	11.00	11.50	179228	B																	
BH139912	0.50	1.00		D																	
BH139912	1.20	1.70		D																	
BH139912	2.50	3.00		D																	
BH139912	3.50	4.00		D																	
BH139912	4.00	4.50		D	1	1															
BH139912	5.00	5.50		D																	
BH139912	6.00	6.50		D	1	1															
BH139912	7.00	7.50		D	1	1															
BH139912	8.00	8.50		D																	
BH139912	9.00	9.50		D																	
BH139912	10.00	10.50		D																	
BH139912	11.00	11.50		D																	
BH139912	0.50	1.00	179217	B																	
BH139912	1.20	1.70	179218	B																	
BH139912	2.00	2.50		U																	
BH139912	2.50	3.00	179219	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH139912	3.00	3.50		U																	
BH139912	3.50	4.00	179220	B			1	1													
BH139912	4.00	4.50	179221	B																	
BH139912	5.00	5.50	179222	B			1	1													
BH139912	6.00	6.50	179223	B																	
BH139912	7.00	7.50	179224	B																	
BH139912	8.00	8.50	179225	B																	
BH139912	9.00	9.50	179226	B																	
BH139912	10.00	10.50	179227	B																	
BH139912	11.00	11.50	179228	B																	
BH139912	0.50	1.00		D																	
BH139912	1.20	1.70		D																	
BH139912	2.50	3.00		D																	
BH139912	3.50	4.00		D	1	1															
BH139912	4.00	4.50		D																	
BH139912	5.00	5.50		D	1	1															
BH139912	6.00	6.50		D																	
BH139912	7.00	7.50		D																	
BH139912	8.00	8.50		D																	
BH139912	9.00	9.50		D																	
BH139912	10.00	10.50		D																	
BH139912	11.00	11.50		D																	
BH139941	0.50	1.00	170315	B																	
BH139941	1.20	1.70	170316	B			1	1													
BH139941	2.00	2.50	170317	B																	
BH139941	3.00	3.50	170318	B			1	1													
BH139941	4.00	4.50		U													1				

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH139941	5.00	5.50	170319	B																	
BH139941	6.00	6.50	170320	B			1	1													
BH139941	7.00	7.50	170321	B																	
BH139941	8.00	8.50	170322	B																	
BH139941	9.00	9.50	170323	B																	
BH139941	10.00	10.50	170324	B																	
BH139941	11.00	11.50	170325	B																	
BH139941	0.50	1.00		D																	
BH139941	1.20	1.70		D	1	1															
BH139941	2.00	2.50		D																	
BH139941	3.00	3.50		D	1	1															
BH139941	5	5.50		D																	
BH139941	6	6.50		D	1	1															
BH139941	7	7.50		D																	
BH139941	8	8.50		D																	
BH139941	9	9.50		D																	
BH139941	10	10.50		D																	
BH139941	11	11.50		D																	
BH140469	0.5	1.00	171064	B																	
BH140469	1.2	1.70	171065	B																	
BH140469	2	2.50		U																	
BH140469	2.5	3.00	171066	B																	
BH140469	3	3.50		U																	
BH140469	3.5	4.00	171067	B																	
BH140469	4	4.50		U																	
BH140469	4.5	5.00	171068	B																	
BH140469	5.5	6.00	171069	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH140469	6	6.50	171070	B																	
BH140469	7	7.50	171071	B			1	1													
BH140469	8.00	8.50	171072	B																	
BH140469	0.50	1.00		D																	
BH140469	1.20	1.70		D																	
BH140469	2.50	3.00		D																	
BH140469	3.50	4.00		D																	
BH140469	4.50	5.00		D																	
BH140469	5.50	6.00		D																	
BH140469	6.00	6.50		D																	
BH140469	7.00	7.50		D	1	1															
BH140469	8.00	8.50		D																	
BH140795	0.50	1.00	171074	B																	
BH140795	1.00	1.70	171075	B																	
BH140795	2.00	2.50		U																	
BH140795	2.50	3.00	171076	B																	
BH140795	3.00	3.50		U																	
BH140795	3.50	4.00	171077	B																	
BH140795	4.00	4.50	171078	B			1	1													
BH140795	5.00	5.50	171079	B			1	1													
BH140795	6.00	6.50	171080	B			1	1													
BH140795	7.00	7.50	171081	B																	
BH140795	0.50	1.00		D																	
BH140795	1	1.70		D																	
BH140795	2.5	3.00		D																	
BH140795	3.5	4.00		D																	
BH140795	4.00	4.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH140795	5.00	5.50		D	1	1															
BH140795	6.00	6.50		D	1	1															
BH140795	7.00	7.50		D																	
BH141402	0.50	1.00	171082	B																	
BH141402	1.20	1.70	171083	B			1	1													
BH141402	0.50	1.00		D																	
BH141402	1.20	1.70		D	1	1															
BH141402A	0.50	1.00	171084	B																	
BH141402A	1.20	1.70	171085	B																	
BH141402A	2.00	2.50	171086	B			1	1													
BH141402A	3.00	3.50	171087	B			1	1													
BH141402A	0.50	1.00		D																	
BH141402A	1.20	1.70		D																	
BH141402A	2.00	2.50		D	1	1															
BH141402A	3.00	3.50		D	1	1															
BH141906	0.50	1.00	174142	B																	
BH141906	1.20	1.70	174143	B			1	1													
BH141906	2.00	2.50	174144	B																	
BH141906	3.00	3.50	174145	B			1	1													
BH141906	4.00	4.50	174146	B																	
BH141906	5.00	5.50	174147	B			1	1													
BH141906	6.00	6.50	174148	B																	
BH141906	7.00	7.50	174149	B																	
BH141906	8.00	8.50	174150	B																	
BH141906	0.50	1.00		D																	
BH141906	1.20	1.70		D																	
BH141906	2.00	2.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH141906	3.00	3.50		D																	
BH141906	4.00	4.50		D																	
BH141906	5.00	5.50		D	1	1															
BH141906	6.00	6.50		D																	
BH141906	7.00	7.50		D																	
BH141906	8.00	8.50		D																	
BH141906	0.50	1.00	176142	B																	
BH141906	1.20	1.70	176143	B																	
BH141906	2.00	2.50	176144	B																	
BH141906	3.00	3.50	176145	B																	INSUFFICIENT
BH141906	4.00	4.50	176146	B																	
BH141906	5.00	5.50	176147	B																	
BH141906	6.00	6.50	176148	B																	
BH141906	7.00	7.50	176149	B																	
BH141906	8.00	8.50	176150	B																	
BH141906	0.50	1.00	176142	D																	
BH141906	1.20	1.70	176143	D																	
BH141906	2.00	2.50	176144	D																	
BH141906	3.00	3.50	176145	D																	
BH141906	4.00	4.50	176146	D																	
BH141906	5.00	5.50	176147	D																	
BH141906	6.00	6.50	176148	D																	
BH141906	7.00	7.50	176149	D																	
BH141906	8.00	8.50	176150	D																	
BH142202	0.50	1.00	174133	B																	
BH142202	1.20	1.70	174134	B			1	1													
BH142202	2.00	2.50	174135	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH142202	3.00	3.50	174136	B																	
BH142202	4.00	4.50	174137	B			1	1													
BH142202	5.00	5.50	174138	B																	
BH142202	6.00	6.50	174139	B																	
BH142202	7.00	7.50	174140	B																	
BH142202	8.00	8.50	174141	B																	
BH142202	0.50	1.00		D																	
BH142202	1.20	1.70		D	1	1															
BH142202	2.00	2.50		D																	
BH142202	3.00	3.50		D																	
BH142202	4.00	4.50		D	1	1															
BH142202	5.00	5.50		D																	
BH142202	6.00	6.50		D																	
BH142202	7.00	7.50		D																	
BH142202	8.00	8.50		D																	
BH142295	0.50	1.00	170327	B			1	1													
BH142295	1.00	1.50	171328	B			1	1													
BH142295	0.50	1.00		D	1	1															
BH142295	1.00	1.50		D																	
BH142295A	0.50	1.00	170329	B			1	1													
BH142295A	1.20	1.70	170330	B																	
BH142295A	2.00	2.50	170331	B			1	1													
BH142295A	3.00	3.50	170332	B																	
BH142295A	4.00	4.50	170333	B																	
BH142295A	5.00	5.50	170334	B																	
BH142295A	6.00	6.50	170335	B	1	1	1	1													
BH142295A	0.50	1.00		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH142295A	1.20	1.70		D																	
BH142295A	2.00	2.50		D																	
BH142295A	3.00	3.50		D																	
BH142295A	4.00	4.50		D																	
BH142295A	5.00	5.50		D																	
BH142295A	6.00	6.50		D																	
BH142795	0.50	1.00	170336	B																	
BH142795	1.20	1.70	170337	B																	
BH142795	2.00	2.50	170338	B			1	1													
BH142795	3.00	3.50	170339	B																	
BH142795	4.00	4.50	170340	B			1	1													
BH142795	5.00	5.50	170341	B			1	1													
BH142795	6.00	6.50	170342	B																	
BH142795	7.00	7.50	170343	B																	
BH142795	0.50	1.00		D																	
BH142795	1.20	1.70		D																	
BH142795	2.00	2.50		D																	
BH142795	3.00	3.50		D																	
BH142795	4.00	4.50		D																	
BH142795	5.00	5.50		D																	
BH142795	6.00	6.50		D																	
BH142795	7.00	7.50		D																	
BH143004	1.00		173333	B																	
BH143004	2.00		173334	B			1	1													
BH143004	3.00		173335	B																	
BH143004	4.00		173336	B																	
BH143004	5.00		173337	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH143004	6.00		173338	B																	
BH143004	7.00		173339	B																	
BH143004	8.00		173340	B																	
BH143004	5.00		173337	D																	
BH143004	6.00		173338	D																	
BH143004	7.00		173339	D																	
BH143203	1.00		173341	B																	
BH143203	2.00		173342	B																	
BH143203	3.00		173343	B			1	1													
BH143203	4.00		173344	B																	
BH143203	5.00		173345	B																	
BH143203	6.00		173346	B																	
BH143203	7.00		173347	B																	
BH143203	8.00		173348	B																	
BH143203	1.00		173341	D																	
BH143383	1.00		173349	B																	
BH143383	2.00		178301	B			1	1													
BH143383	3.00		178302	B																	
BH143383	4.00		178303	B																	
BH143383	5.00		178304	B																	
BH143383	6.00		178305	B																	
BH143383	7.00		178306	B																	
BH143383	8.00		178307	B																	
BH143383	9.00		178308	B																	
BH143383	10.00		178309	B																	
BH143383	11.00		178310	B																	
BH143407	1.00	1.50	178311	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
BH143407	2.00	2.50	178312	B																	
BH143407	3.00	3.50	178313	B			1	1													
BH143407	4.00	4.50	178314	B																	
BH143407	5.00	5.50	178315	B			1	1													
BH143407	6.00	6.50	178316	B																	
BH143407	7.00	7.50	178317	B																	
BH143407	8.00	8.50	178318	B			1	1													
BH143407	9.00	9.50	178319	B			1	1													
BH143407	10.00	10.00	178320	B																	
BH143407	1.00	1.50		D	1																
BH143407	2.00	2.50		D																	
BH143407	3.00	3.45		D	1	1															
BH144483	1.00	1.50	178372	B																	
BH144483	2.00	2.50	178373	B																	
BH144483	3.00	3.50	178374	B																	
BH144483	4.00	4.50	178375	B																	
BH144483	5.00	5.50	178376	B			1	1													
BH144483	6.00	6.20	178377	B																	
BH144483	1.00	1.50		D	1																
BH144483	2.00	2.50		D																	
BH144483	3.00	3.50		D																	
BH144483	4.00	4.50		D	1																
BH144483	5.00	5.50		D	1	1															
BH144483	6.00	6.20		D																	
DS135782	0.00	1.00					1	1													
DS135782	1.00	2.00																			
DS135782	2.00	2.80																			

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
DS143405	0.00	1.00																			
DS143405	1.00	2.00																			
DS143405	2.00	2.80																			
TP103304	0.20	0.30	AA173553	B																	
TP103304	0.50	0.60	AA173555	D																	
TP103304	1.80	1.90	AA173556	B			1	1													
TP103304	0.20	0.30		D			1	1													
TP103504	0.20	0.30	AA178552	B																	
TP103504	0.50	0.60	AA178551	B			1	1													
TP103504	1.00	1.10	AA173552	B			1	1													
TP103504	2.10	2.20	AA173552	B			1	1													
TP103504	0.20	0.30		D																	
TP103504	0.50	0.60		D	1	1															
TP103504	2.10	2.20		D	1	1															
TP104425	0.50	0.60	AA153557	B			1	1													
TP104425	2.00	2.10	AA153558	B									1								
TP104425	3.10	3.20	AA153559	B			1	1													
TP104425	0.50	0.60		D	1	1															
TP104425	2.00	2.10		D																	
TP104425	3.10	3.20		D	1	1															
TP104425	0.50	0.60	AA153557	B																	
TP104425	2.00	2.10	AA153558	B																	
TP104425	3.10	3.20	AA153559	B																	
TP104425	0.50	0.60		D																	
TP104425	2.00	2.10		D																	
TP104425	3.10	3.20		D																	
TP104507	0.50	0.60	AA173560	B																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP104507	0.90	1.00	AA173561	B			1	1													
TP104507	3.00	3.10	AA173562	B			1	1													
TP104507	0.50	0.60		D																	
TP104507	0.90	1.00		D	1	1															
TP104507	3.00	3.10		D	1	1															
TP104610	0.50	0.60	AA173563	B			1	1													
TP104610	1.10	1.20	AA173564	B																	
TP104610	3.10	3.20	AA173565	B			1	1													
TP104610	0.50	0.60		D	1	1															
TP104610	1.10	1.20		D																	
TP104610	3.10	3.20		D	1	1															
TP104707	0.30	0.40	AA173556	B																	
TP104707	1.10	1.20	AA173557	B			1	1													
TP104707	2.90	3.00	AA173558	B			1	1													
TP104707	0.30	0.40		D																	
TP104707	1.10	1.20		D	1	1															
TP104707	2.90	3.00		D	1	1															
TP104800	0.50	0.60	AA173559	B			1	1													
TP104800	1.80	1.90	AA173560	B			1	1													
TP104800	2.90	3.00	AA173561	B																	
TP104800	0.50	0.60		D	1	1															
TP104800	1.80	1.90		D	1	1															
TP104800	2.90	3.00		D																	
TP104908	0.30	0.40	AA173572	B																	
TP104908	1.20	1.30	AA173573	B									1								
TP104908	2.80	2.90	AA173574	B			1	1													
TP104908	0.30	0.40		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP104908	1.20	1.30		D																	
TP104908	2.80	2.90		D	1	1															
TP108804	0.50	0.60	AA173575	B			1	1													
TP108804	1.40	1.50	AA173576	B																	
TP108804	2.40	2.50	AA173577	B			1	1													
TP108804	0.50	0.60		D	1	1															
TP108804	1.40	1.50		D																	
TP108804	2.40	2.50		D	1	1															
TP108905	0.50	0.60	AA173578	B																	
TP108905	1.50	1.60	AA173579	B			1	1													
TP108905	2.50	2.60	AA173580	B																	
TP108905	0.50	0.60		D																	
TP108905	1.50	1.60		D	1	1															
TP108905	2.50	2.60		D																	
TP110906	0.50	0.60	162176	B			1	1													
TP110906	0.50	0.60		D	1	1															
TP110906	2.50	2.60	162177	B			1	1													
TP110906	2.50	2.60		D																	
TP111007	0.30	0.40	162178	B			1	1													
TP111007	0.30	0.40		D	1	1															
TP111007	0.60	0.70	162179	B			1	1													
TP111007	0.60	0.70		D																	
TP111007	1.60	1.70	162180	B			1	1													
TP111007	1.60	1.70		D																	
TP111105	0.50	0.60	162181	B			1	1													
TP111202	0.40	0.50	162182	B			1	1													
TP111202	0.40	0.50		D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP111202	0.90	1.00	162183	B			1	1													
TP111202	1.30	1.40	162184	B																	
TP111305	0.30	0.40	162185	B			1	1													
TP111305	0.30	0.40		D	1	1															
TP111305	0.90	1.00	162186	B			1	1													
TP111305	1.30	1.40	162187	B			1	1													
TP111389	0.50	0.60	162188	B			1	1													
TP111505	0.40	0.50	162189	B			1	1													
TP111505	0.40	0.50		D	1	1															
TP111505	0.90	1.00	162190	B			1	1													
TP111505	1.60	1.70	162191	B			1	1													
TP111615	0.30	0.40	162192	B			1	1													
TP111615	0.30	0.40		D	1	1															
TP111615	0.50	0.60	162193	B									1								
TP111615	1.80	1.90	162194	B			1	1													
TP111704	0.30	0.40	162195	B			1	1													
TP111704	0.30	0.40		D	1	1															
TP111704	0.50	0.60	192196	B			1	1													
TP111704	1.70	1.80	192198	B						1											
TP111704	3.00	3.10	192199	B																	
TP111803	0.30	0.40	162200	B			1	1													
TP111803	0.30	0.40		D	1	1															
TP111803	0.50	0.60	162201	B			1	1													
TP111803	1.50	1.60	162197	B			1	1													
TP117582	0.50	0.60	AA173581	B																	
TP117582	1.50	1.60	AA173582	B			1	1													
TP117582	2.50	2.60	AA173583	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP117582	0.50	0.60		D																	
TP117582	1.50	1.60		D	1	1															
TP117703	0.50	0.60	AA173584	B									1								
TP117703	1.50	1.60	AA173585	B																	
TP117703	3.00	3.10	AA173586	B			1	1													
TP117780	0.50	0.60	AA173587	B			1	1													
TP117780	1.70	1.80	AA173588	B			1	1													
TP117780	2.80	2.90	AA173589	B																	
TP117901	0.50	0.60	AA173590	B			1	1													
TP117901	1.10	1.20	AA173591	B																	
TP117901	2.20	2.30	AA173592	B			1	1													
TP117901	0.50	0.60		D	1	1															
TP117901	1.10	1.20		D																	
TP117901	2.20	2.30		D	1	1															
TP118385	0.50	0.60	AA173593	B			1	1													
TP118385	1.10	1.20	AA173594	B																	
TP118385	2.60	2.70	AA173595	B			1														
TP118385	0.50	0.60		D	1	1															
TP118502	0.50	0.60	AA173596	B			1	1													
TP118502	1.50	1.60	AA173597	B			1	1													
TP118502	3.20	3.30	AA173598	B																	
TP118502	0.50	0.60		D	1	1															
TP118605	0.50	0.60	AA173599	B						1											
TP118605	1.50	1.60	AA178554	B			1	1													
TP118605	2.70	2.80	AA178555	B			1	1													
TP118605	0.50	0.60		D																	
TP118605	1.50	1.60		D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP118801	0.70	0.80	AA178556	B			1	1													
TP118801	1.50	1.60	AA178557	B			1	1													
TP118801	3.40	3.50	AA178558	B																	
TP118801	0.70	0.80		D	1	1															
TP118902	0.50	0.60	AA178559	B			1	1													
TP118902	1.50	1.60	AA178560	B																	
TP118902	3.00	3.10	AA178561	B			1	1													
TP118902	0.50	0.60		D	1	1															
TP118987	0.50	0.60	AA178562	B			1	1													
TP118987	1.50	1.60	AA178566	B			1	1													
TP118987	2.60	2.70	AA178567	B																	
TP118987	0.50	0.60		D	1	1															
TP119102	0.40	0.50	AA178568	B																	
TP119102	1.50	1.60	AA178569	B																	
TP119102	3.10	3.20	AA178570	B																	
TP119102	0.40	0.50		D																	
TP119102	0.40	0.50	AA178568	B																	
TP119102	1.50	1.60	AA178569	B			1	1													
TP119102	3.10	3.20	AA178570	B																	
TP119102	0.40	0.50		D																	
TP119201	0.50	0.60	AA178571	B			1	1													
TP119201	1.60	1.70	AA178572	B			1	1													
TP119201	3.00	3.10	AA178573	B																	
TP119302	0.50	0.60	AA178574	B			1	1													
TP119302	1.50	1.60	AA178575	B																	
TP119302	2.30	2.40	AA178576	B			1	1													
TP119302	0.50	0.60		D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP119389	0.50	0.60	AA178577	B			1	1													
TP119389	1.50	1.60	AA178578	B			1	1													
TP119389	3.10	3.20	AA178579	B			1	1													
TP119389	0.50	0.60		D	1	1															
TP119389	1.50	1.60		D	1	1															
TP119502	0.50	0.60	AA178580	B			1	1					1								
TP119502	1.60	1.70	AA178581	B																	
TP119502	3.40	3.50	AA178582	B			1	1													
TP119502	0.50	0.60		D	1	1															
TP119502	1.60	1.70		D																	
TP119586	0.50	0.60	AA178583	B			1	1													
TP119586	1.50	1.60	AA178584	B			1	1													
TP119586	2.60	2.70	AA178585	B																	
TP119586	0.50	0.60		D	1	1															
TP119700	0.10	0.20	AA178586	B																	
TP119700	1.40	1.50	AA178587	B			1	1													
TP119700	0.10	0.20		D																	
TP125701	0.50	0.60	AA178597	B																	
TP125701	1.90	2.00	AA178598	B																	
TP125701	3.90	4.00	AA178599	B			1	1													
TP125701	0.50	0.60		D																	
TP125701	1.90	2.00		D																	
TP125701	3.90	4.00		D	1	1															
TP125800	0.50	0.60	AA178594	B																	
TP125800	1.50	1.60	AA178595	B			1	1													
TP125800	2.90	3.00	AA178596	B																	
TP125800	0.50	0.60		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP125800	1.50	1.60		D	1	1															
TP125800	2.90	3.00		D																	
TP125902	0.50	0.60	AA178588	B																	
TP125902	1.40	1.50	AA178589	B						1											
TP125902	3.10	3.20	AA178590	B			1	1													
TP125902	0.50	0.60		D																	
TP125902	1.40	1.50		D																	
TP125902	3.10	3.20		D	1	1															
TP126004	0.50	0.60	AA178591	B																	
TP126004	1.50	1.60	AA178592	B			1	1													
TP126004	3.20	3.30	AA178593	B																	
TP126004	0.50	0.60		D																	
TP126004	1.50	1.60		D	1	1															
TP126004	3.20	3.30		D																	
TP132838	0.5	0.50	AA152180	B			1	1													
TP132838	1.5	1.50	AA152181	B			1	1													
TP132838	0.5	0.50		D	1	1															
TP132838	1.5	1.50		D	1	1															
TP132908	0.5	0.50	AA152177	B			1	1													
TP132908	1.5	1.50	AA152178	B																	
TP132908	2.5	2.50	AA152179	B			1	1													
TP132908	0.5	0.50		D	1	1															
TP132908	1.5	1.50		D																	
TP132908	2.5	2.50		D	1	1															
TP133012	0.5	0.50	AA152173	B																	
TP133012	1.5	1.50	AA152174	B						1											
TP133012	2.5	2.50	AA152175	B	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP133012	3.5	3.50	AA152176	B			1	1													
TP133012	0.5	0.50		D																	
TP133012	1.5	1.50		D																	
TP133012	2.5	2.50		D																	
TP133012	3.5	3.50		D																	
TP133108	0.50	0.50	AA174488	B			1	1													
TP133108	1.50	1.50	AA174489	B									1								
TP133108	2.50	2.50	AA174490	B			1	1													
TP133108	0.50	0.50		D	1	1															
TP133108	1.50	1.50		D																	
TP133108	2.50	2.50		D	1	1															
TP133227	0.50	0.50	AA174485	B			1	1													
TP133227	1.00	1.00	AA174486	B																	
TP133227	2.00	2.00	AA174487	B			1	1													
TP133227	0.50	0.50		D	1	1															
TP133227	1.00	1.00		D																	
TP133227	2.00	2.00		D	1	1															
TP133308	0.50	0.50	AA174481	B																	
TP133308	1.50	1.50	AA174482	B			1	1													
TP133308	2.50	2.50	AA174483	B																	
TP133308	3.00	3.00	AA174484	B			1	1													
TP133308	0.50	0.50		D																	
TP133308	1.50	1.50		D	1	1															
TP133308	2.50	2.50		D																	
TP133308	3.00	3.00		D	1	1															
TP133780	1.50	1.50	AA152167	B						1											
TP133780	2.5	2.50	AA152168	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP133780	1.5	1.50		D	1	1															
TP133780	2.5	2.50		D	1	1															
TP133904	0.60	0.60	AA152164	B																	
TP133904	1.50	1.50	AA152165	B									1								
TP133904	2.50	3.50	AA152166	B			1	1													
TP133904	0.60	0.60		D																	
TP133904	1.50	1.50		D																	
TP133904	2.50	3.50		D	1	1															
TP133989	0.60	0.60	AA152144	B																	
TP133989	1.50	1.50	AA152145	B			1	1		1											
TP133989	2.50	3.50	AA152146	B			1	1													
TP133989	0.60	0.60		D																	
TP133989	1.50	1.50		D																	
TP133989	2.50	3.50		D	1	1															
TP133999	0.60	0.60	AA152154	B																	
TP133999	1.50	1.50	AA152155	B			1	1													
TP133999	0.50	0.50		D																	
TP133999	1.50	1.50		D	1	1															
TP134001	0.60	0.60	AA152141	B																	
TP134001	1.50	1.50	AA152142	B									1								
TP134001	2.50	3.50	AA152143	B			1	1													
TP134001	0.60	0.60		D																	
TP134001	1.50	1.50		D																	
TP134001	2.50	3.50		D	1	1															
TP134040	0.60	0.60	AA152151	B																	
TP134040	1.50	1.50	AA152152	B			1	1													
TP134040	2.50	3.50	AA152153	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP134040	0.60	0.60		D																	
TP134040	1.50	1.50		D	1	1															
TP134040	2.50	3.50		D	1	1															
TP134082	0.60	0.60	AA152138	B			1	1													
TP134082	1.50	1.50	AA152139	B																	
TP134082	2.50	3.50	AA152140	B			1	1													
TP134082	0.60	0.60		D	1	1															
TP134082	1.50	1.50		D																	
TP134082	2.50	3.50		D	1	1															
TP134096	0.60	0.60	AA152156	B			1	1													
TP134096	1.50	1.50	AA152157	B																	
TP134096	2.50	2.50	AA152158	B																	
TP134096	3.50	3.50	AA152159	B			1	1													
TP134096	0.60	0.60		D	1	1															
TP134096	1.50	1.50		D																	
TP134096	2.50	2.50		D																	
TP134096	3.50	3.50		D	1	1															
TP134139	0.60	0.60	AA179498	B			1	1													
TP134139	1.50	1.50	AA179499	B						1											
TP134139	2.50	2.50	AA179500	B																	
TP134139	3.50	3.50	AA152137	B			1	1													
TP134139	0.60	0.60		D	1	1															
TP134139	1.50	1.50		D																	
TP134139	2.50	2.50		D																	
TP134139	3.50	3.50		D	1	1															
TP134181	0.60	0.60	AA179495	B																	
TP134181	1.50	1.50	AA179496	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP134181	2.50	2.50	AA179497	B			1	1													
TP134181	0.60	0.60		D																	
TP134181	1.50	1.50		D	1	1															
TP134181	2.50	2.50		D	1	1															
TP134196	0.50	0.50	AA152160	B			1	1													
TP134196	1.50	1.50	AA152161	B																	
TP134196	2.50	2.50	AA152162	B			1	1													
TP134196	3.50	3.50	AA152163	B																	
TP134196	0.50	0.50		D	1	1															
TP134196	1.50	1.50		D																	
TP134196	2.50	2.50		D	1	1															
TP134196	3.50	3.50		D																	
TP134239	0.50	0.50	AA152147	B																	
TP134239	1.50	1.50	AA152148	B			1	1													
TP134239	2.50	2.50	AA152149	B																	
TP134239	3.50	3.50	AA152150	B			1	1													
TP134239	0.50	0.50		D																	
TP134239	1.50	1.50		D	1	1															
TP134239	2.50	2.50		D																	
TP134239	3.50	3.50		D	1	1															
TP134281	0.50	0.50	AA179491	B			1	1													
TP134281	1.50	1.50	AA179492	B			1	1													
TP134281	2.50	2.50	AA179493	B																	
TP134281	3.50	3.50	AA179494	B			1	1													
TP134281	0.50	0.50		D	1	1															
TP134281	1.50	1.50		D	1	1															
TP134281	2.50	2.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column.

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP134281	3.50	3.50		D	1	1															
TP134296	0.50	0.50	AA174478	B																	
TP134296	1.50	1.50	AA174479	B			1	1													
TP134296	2.00	2.00	AA174480	B			1	1													
TP134296	0.50	0.50		D																	
TP134296	1.50	1.50		D	1	1															
TP134296	2.00	2.00		D	1	1															
TP134340	0.50	0.50	AA174475	B																	
TP134340	1.50	1.50	AA174476	B			1	1													
TP134340	2.50	2.50	AA174477	B																	
TP134340	0.50	0.50		D																	
TP134340	1.50	1.50		D																	
TP134340	2.50	2.50		D																	
TP134396	0.50	0.50	AA174464	B			1	1													
TP134396	1.50	1.50	AA174465	B			1	1													
TP134396	2.10	2.10	AA174466	B			1	1													
TP134396	0.50	0.50		D	1	1															
TP134396	1.50	1.50		D	1	1															
TP134396	2.10	2.10		D	1	1															
TP134406	0.50	0.50	AA174470	B																	
TP134406	1.00	1.00	AA174471	B			1	1													
TP134406	1.50	1.50	AA174472	B			1	1													
TP134406	2.40	2.40	AA174473	B																	
TP134406	2.60	2.60	AA174474	B																	
TP134406	0.50	0.50		D																	
TP134406	1.00	1.00		D	1	1															
TP134406	1.50	1.50		D	1	1															

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP134406	2.40	2.40		D																	
TP134406	2.60	2.60		D																	
TP134439	0.50	0.50	AA174467	B									1								
TP134439	1.50	1.50	AA174468	B			1	1													
TP134439	2.30	2.30	AA174469	B			1	1													
TP134439	0.50	0.50		D																	
TP134439	1.50	1.50		D	1	1															
TP134439	2.30	2.30		D	1	1															
TP134490	0.50	0.50	AA174461	B																	
TP134490	1.50	1.50	AA174462	B			1	1													
TP134490	2.20	2.20	AA174463	B			1	1													
TP134490	0.50	0.50		D																	
TP134490	1.50	1.50		D	1	1															
TP134490	2.20	2.20		D	1	1															
TP135009	0.30	0.30	AA174458	B																	
TP135009	0.50	0.50	AA174459	B																	
TP135009	2.00	2.00	AA174460	B			1	1													
TP135009	0.30	0.30		D																	
TP135009	0.50	0.50		D																	
TP135009	2.00	2.00		D	1	1															
TP135503	0.50	0.50	AA174452	B			1	1													
TP135503	1.50	1.50	AA174453	B			1	1													
TP135503	0.50	0.50		D	1	1															
TP135503	1.50	1.50		D	1	1															
TP135607	0.50	0.50	AA174450	B																	
TP135607	1.50	1.50	AA174451	B			1	1													
TP135607	0.50	0.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP135607	1.50	1.50		D	1	1															
TP135708	0.50	0.50	AA174455	B																	
TP135708	1.50	1.50	AA174456	B			1	1													
TP135708	2.00	2.00	AA174457	B																	
TP135708	0.50	0.50		D																	
TP135708	1.50	1.50		D	1	1															
TP135708	2.00	2.00		D																	
TP135904	0.5	0.50	AA152169	B																	
TP135904	1.5	1.50	AA152170	B			1	1													
TP135904	2.5	2.50	AA152171	B			1	1													
TP135904	3.5	3.50	AA152172	B																	
TP135904	0.5	0.50		D																	
TP135904	1.5	1.50		D	1	1															
TP135904	2.5	2.50		D	1	1															
TP135904	3.5	3.50		D																	
TP136007	0.6	0.60	AA156007	B			1	1													
TP136007	1.9	1.90	AA156008	B			1	1													
TP136007	0.6	0.60		D	1	1															
TP136007	1.9	1.90		D	1	1															
TP136108	0.6	0.60	AA156009	B			1	1													
TP136108	1.8	1.80	AA156010	B			1	1													
TP136108	0.6	0.60		D	1	1															
TP136108	1.8	1.80		D	1	1															
TP139902	1.00	1.50	AA156460	B																	
TP139902	2.00	3.00	AA156461	B																	
TP139902	3.50	4.00	AA156462	B			1	1													
TP139902	1.00	1.50		D																	

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP139902	2.00	3.00		D																	
TP139902	3.50	4.00		D																	
TP142792	0.50	0.60	AA173643	B																	
TP142792	2.30	2.40	AA173644	B																	
TP142904	0.5	0.50	AA152182	B			1	1													
TP142904	1.5	1.50	AA152183	B																	
TP142904	2	2.00	AA152184	B			1	1													
TP142904	0.5	0.50		D																	
TP142904	1.5	1.50		D																	
TP142904	2	2.00		D																	
TP143006	0.5	0.50	AA152185	B																	
TP143006	1.5	1.50	AA152186	B			1	1													
TP143006	0.5	0.50		D																	
TP143006	1.5	1.50		D																	
TP143104	0.5	0.50	AA152187	B																	
TP143104	1.5	1.50	AA152188	B			1	1													
TP143104	0.5	0.50		D																	
TP143104	1.5	1.50		D																	
TP143303	0.8	0.80	AA156004	B																	
TP143303	2	2.00	AA156005	B			1	1													
TP143303	3.3	3.30	AA156006	B																	
TP143303	0.8	0.80		D																	
TP143303	2	2.00		D																	
TP143303	3.3	3.30		D																	
TP143502	0.5	0.50	AA173645	B																	
TP143502	1.5	1.50	AA173646	B																	
TP143502	3	3.00	AA173647	B			1	1													

	CONTRACT NO:	23560	SCHEDULE NO:	Compliance	COPIED TO (tick):	CLIENT	
IGSL Ltd.	CONTRACT NAME:	WSP Lot 3 - GI				NGINEE	

NB: For Sieve analysis testing please specify if hydrometer testing is reuired on 10%, 15% or 20% fines passing or not required at all in the remarks column. For compaction testing please specify if 2.5kg or 4.5kg vibrating hammer is required in the remarks column

ISSUED BY	C.Killaly	DATE	30/03/2023	COMPANY NAM	IGSL Limited
APPROVED BY		DATE		COMPANY NAM	

HOLE NO	SAMPLE DEPTH (TOP)	SAMPLE DEPTH (BTM)	Sample Reference	SAMPLE TYPE	MOISTURE CONTENT	ATTERBERG LIMITS	SIEVE	HYDROMETER	MCV	CBR	COMP	CBR	MCV	CBR 5 POINT	MCV 5 POINT	CONSOL	TRIAXIAL (U)	TRIAXIAL (C U)	LAB VANE	Shearbox	Testing Non Compliance
TP143502	0.5	0.50		D																	
TP143502	1.5	1.50		D																	
TP143502	3	3.00		D	1	1															
TP144592	0.5	0.50	AA173648	B																	
TP144592	1	1.00	AA173649	B			1	1													
TP144592	2	3.00	AA173650	B			1	1													
TP144592	0.5	0.50		D																	
TP144592	1	1.00		D	1	1															
TP144592	2	3.00		D																	

IGSL Ltd
Materials Laboratory
Unit J5, M7 Business Park
Newhall, Naas
Co. Kildare
045 846176

Test Report

Determination of Moisture Content, Liquid & Plastic Limits

Tested in accordance with BS1377:Part 2:1990, clauses 3.2, 4.3, 4.4 & 5.3**

Report No. **R144086** Contract No. 23560 Contract Name: WSP Lot 3

Customer Ervia

Samples Received: Various Date Tested: Various

BH/TP*	Sample No.	Depth* (m)	Lab. Ref	Sample Type*	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Preparation	Liquid Limit Clause	Classification (BS5930)	Description
BH104020	0	2.00	A22/2291	D	8.4	23	NP	NP	68	WS	4.4		Grey/Brown sandy gravelly SILT
BH104020	0	3.00	A22/2292	D	10	23	11	12	67	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH104020	0	5.00	A22/2293	D	15	24	12	12	68	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH104020	0	7.00	A22/2294	D	17	25	NP	NP	56	WS	4.4		Brown sandy gravelly SILT
BH104020	0	9.00	A22/2295	D	25	38	25	13	54	WS	4.4	M I	Brown sandy gravelly SILT
BH104135	AA161823	1.50	A22/2301	D	17	29	15	14	87	WS	4.4	C L	Brown sandy gravelly CLAY
BH104135	AA161825	3.00	A22/2302	D	12	25	NP	NP	25	WS	4.4		Brown sandy gravelly SILT
BH104135	AA161827	5.00	A22/2303	D	9.3	25	12	13	55	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH104405	AA161839	0.50	A22/2304	D	17	22	NP	NP	77	WS	4.4		Brown sandy gravelly SILT
BH104405	AA161830	1.50	A22/2305	D	11	23	NP	NP	48	WS	4.4		Brown sandy gravelly SILT
BH104405	AA161832	4.00	A22/2307	D	9.6	19	10	9	49	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH104405	AA161835	7.00	A22/2308	D	8.3	17	NP	NP	44	WS	4.4		Brown sandy gravelly SILT
BH104807	0	6.00	A22/2422	D	7.1	15	NP	NP	54	WS	4.4		Grey brown sandy gravelly SILT
BH104807	0	8.00	A22/2423	D	5.4	18	NP	NP	41	WS	4.4		Brown sandy gravelly SILT
BH104946	0	2.00	A22/2432	D	9.3	23	NP	NP	55	WS	4.4		Brown sandy gravelly SILT
BH104946	0	6.00	A22/2433	D	13	22	10	12	64	WS	4.4	C L	Brown sandy gravelly CLAY
BH105486	0	1.00	A22/2383	D	268	29	14	15	90	WS	4.4	C L	Black brown Fibrous PEAT
BH105486	0	3.00	A22/2384	D	339	26	15	11	69	WS	4.4	C L	Black brown Fibrous PEAT
BH105486	AA151439	4.00	A22/2385	D	19	24	15	9	83	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH105486	AA151441	6.00	A22/2386	D	15	27	12	15	70	WS	4.4	C L	Brown sandy gravelly CLAY
BH105990	0	1.00	A22/2388	D	365								Black brown Fibrous PEAT
BH105990	0	3.00	A22/2390	D	24	32	16	16	55	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH106421	0	1.00	A22/2377	D	432								Black brown Fibrous PEAT
BH106421	0	3.00	A22/2378	D	235								Black brown Fibrous PEAT
BH106421	AA161419	6.00	A22/2374	D	15	27	12	15	71	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH106421	AA161422	9.00	A22/2376	D	25	29	14	15	90	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH106893	0	1.00	A22/2380A	D	198								Black brown Fibrous PEAT

BH106893	AA161428	3.00	A22/2380	D	17	26	15	11	69	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH106893	AA161430	5.00	A22/2381	D	12	27	18	9	81	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH107272	AA161435	1.00	A22/23009	B	626								Brown Fibrous PEAT
BH107272	AA161437	2.00	A22/2310	D	16	30	15	15	78	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH107272	AA161439	4.00	A22/2311	D	16	27	14	13	89	WS	4.4	C L	Brown sandy gravelly CLAY
BH107807	0	3.00	A22/2424	D	17	29	15	14	90	WS	4.4	C L	Brown sandy gravelly CLAY
BH107807	0	6.00	A22/2425	D	11	22	13	9	73	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH108409	AA161443	1.00	A22/2314B	B	665								Brown Fibrous PEAT
BH108409	AA161445	3.00	A22/2314A	D	14	25	13	12	49	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH108409	AA161447	5.00	A22/2315	D	10	46	NP	NP	60	WS	4.4		Brown sandy gravelly SILT
BH108690	AA173251	1.00	A22/2316	D	25	48	NP	NP	73	WS	4.4		Brown sandy gravelly SILT
BH108690	AA173253	3.00	A22/2317	D	7.7	26	14	12	49	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH108988	0	0.50	A22/6622	B	7.1	19	NP	NP	38	WS	4.4		Brown sandy gravelly SILT
BH108988	0	2.00	A22/6623	B	11	20	11	9	68	WS	4.4	C L	Grey Brown sandy gravelly CLAY
Bh109085	0	1.00	A22/2430	D	14	31	17	14	63	WS	4.4	C L	Brown sandy gravelly CLAY
BH109609	0	3.00	A22/2428	D	11	23	14	9	59	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH111204	0	0.50	A22/6625	B	13	26	14	12	27	WS	4.4	C L	Brown sandy gravelly CLAY
BH111606	0	0.50	A22/6396	B	14	29	15	14	64	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH111960	AA175344	1.20	A22/6399	B	15	27	13	14	71	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH111960	AA175347	4.00	A22/6400	B	7.8		NP	NP		WS	4.4		Brown silty sandy GRAVEL
BH112180	AA179129	1.20	A22/6404	B	24	47	22	25	35	WS	4.4	C I	Brown sandy gravelly CLAY
BH112404	AA179138	2.00	A22/6407	B	8.8	23	NP	NP	37	WS	4.4		Grey brown sandy gravelly SILT
BH112619	AA175321	1.20	A22/6409	B	11	21	12	9	63	WS	4.4	C L	Brown sandy gravelly CLAY
BH112619A	AA175325	3.00	A22/6412	B	12	27	14	13	44	WS	4.4	C L	Brown sandy gravelly CLAY
BH113399	0	5.00	A22/6414	B	555	405	NP	NP	N/A	AR	4.4		Brown black PEAT
BH113800	0	3.50	A22/6417	B	31	36	16	20	100	WS	4.4	C I	Grey brown CLAY
BH114109	AA171094	4.00	A22/6421	B	7.9	20	NP	NP	27	WS	4.4		Grey brown sandy gravelly SILT
BH114149	AA179142	1.20	A22/6425	B	25	28	14	14	72	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH114352	AA170347	3.00	A22/6428	B	11	21	10	11	65	WS	4.4	C L	Grey sandy gravelly CLAY
BH114689	AA175213	0.50	A22/6432	B	13	32	15	17	71	WS	4.4	C L	Brown sandy gravelly CLAY
BH114689	AA175214	1.20	A22/6433	B	11	22	12	10	66	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH114689	AA175216	3.00	A22/6434	B	7.1	22	NP	NP	29	WS	4.4		Grey brown silty sandy GRAVEL
BH115002	0	1.00	A22/6627	B	17	25	11	14	69	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH115002	0	2.00	A22/6628	B	13	25	12	13	55	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH115403	AA175328	1.20	A22/6437	B	13	35	17	18	61	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH115403	AA175329	2.00	A22/6437	B	10	28	13	15	47	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH115809	0	1.20	A22/6362	B	22	45	22	23	53	WS	4.4	C I	Brown sandy gravelly CLAY
BH115809	0	4.00	A22/6363	B	24	47	20	27	72	WS	4.4	C I	Brown sandy gravelly CLAY
BH116189	AA171086	4.00	A22/6365	B	39	36	NP	NP	98	WS	4.4		Grey brown sandy gravelly SILT
BH116213	0	3.00	A22/6368	B	26	28	17	11	98	WS	4.4	C L	Grey brown slightly sandy slightly gravelly CLAY
BH116213	0	4.00	A22/6369	B	16	24	12	12	68	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH116733	0	1.00	A22/6630	B	189								Black brown PEAT
BH116733	0	3.00	A22/6631	B	14	26	15	11	84	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH116733	0	4.00	A22/6632	B	18	23	13	10	85	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH120200	AA178261	4.00	A22/2447	D	9.2	25	14	11	53	WS	4.4	C L	Brown sandy gravelly CLAY

BH120200	AA178263	6.00	A22/2449	D	10	25	13	12	52	WS	4.4	C L	Brown sandy gravelly CLAY
BH120739	AA173303	8.00	A22/2451	D	9.1	23	11	12	54	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH121933	AA178268	2.00	A22/2456	D	13	28	15	13	47	WS	4.4	C L	Brown sandy gravelly CLAY
BH122408	0	2.00	A22/6520	B	11	26	13	13	56	WS	4.4	C L	Brown sandy gravelly CLAY
BH122408	0	3.00	A22/2393	D	22	33	17	16	67	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH123219	0	2.00	A22/6523	B	27	36	15	21	99	WS	4.4	C I	Grey Brown sandy gravelly CLAY
BH123219	0	3.00	A22/2394	D	28	27	17	10	100	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH123219	0	6.00	A22/6524	B	10	21	10	11	53	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH123774	AA178289	2.00	A22/4050	D	23	28	14	14	98	WS	4.4	C L	Grey sandy gravelly CLAY
BH123774	0	3.00	A22/2395	D	23	27	16	11	98	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH123774	0	4.00	A22/2396	D	20	26	14	12	96	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH123993	0	2.00	A22/6532	B	9.7	24	NP	NP	40	WS	4.4		Grey Brown sandy gravelly SILT
BH123993	0	4.00	A22/2400	D	21	28	NP	NP	100	WS	4.4		Brown sandy gravelly CLAY
BH124210	0	2.00	A22/2408	D	26	42	17	25	100	WS	4.4	C I	Grey brown sandy gravelly CLAY
BH124210	0	3.00	A22/2409	D	21	37	17	20	89	WS	4.4	C I	Grey Brown sandy gravelly CLAY
BH124210	0	6.00	A22/2410	D	11	26	13	13	62	WS	4.4	C L	Brown sandy gravelly CLAY
Bh124677	0	3.00	A22/2415	D	12	25	14	11	65	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH125177	AA179184	4.00	A22/3882	D	10	25	16	9	68	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH125177	AA179185	5.00	A22/3885	D	5.4	23	13	10	43	WS	4.4	C L	Brown sandy gravelly CLAY
BH125582	AA179194	5.00	A22/3887	D	13	24	13	11	51	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH125717	0	6.00	A22/6371	B	18	30	15	15	82	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH125870	AA173359	2.00	A22/6374	B	7.9	25	NP	NP	19	WS	4.4		Brown silty sandy GRAVEL
BH125870	AA173359	3.00	A22/6375	B	11	21	NP	NP	31	WS	4.4		Grey brown silty sandy GRAVEL
BH126200	0	2.00	A22/6378	B	16	27	NP	NP	58	WS	4.4		Grey brown sandy gravelly CLAY
BH126200	0	4.00	A22/6379	B	13	24	13	11	51	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH126602	0	2.00	A22/6382	B	25	28	NP	NP	99	WS	4.4		Brown black SILT
BH126602	0	4.00	A22/6383	B	7.8	23	11	12	31	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH126725	0	1.00	A22/6636	B	625								Black brown PEAT
BH126725	0	2.00	A22/6637	B	19	21	NP	NP	87	WS	4.4		Grey brown sandy gravelly SILT
BH126725	0	4.00	A22/6638	B	10	22	11	11	59	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH126725	0	5.00	A22/6639	B	12	25	12	13	51	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH126725	0	7.00	A22/6640	B	13	25	12	13	55	WS	4.4	C L	Grey Brown sandy gravelly CLAY
Bh126900	AA173388	2.00	A22/6386	B	49	56	NP	NP	99	WS	4.4		Grey brown sandy gravelly SILT
BH126900	AA173390	4.00	A22/6387	B	8.1	22	10	12	55	WS	4.4	C L	Grey brown sandy gravelly CLAY
Bh127002	AA173381	2.00	A22/6393	B	7.8	60	NP	NP	99	WS	4.4		Grey SILT
BH127002	AA173382	3.00	A22/6394	B	25	29	14	15	96	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH128127	AA174211	3.00	A22/3894	D	14	26	15	11	83	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH128127	AA174212	4.00	A22/3892	D	10	30	14	16	52	WS	4.4	C L	Brown sandy gravelly CLAY
BH128127	0	6.00	A22/3896	D	12	32	18	16	63	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH128605	0	0.50	A22/6646	B	17								Grey Brown sandy gravelly SILT/CLAY
BH128605	0	2.00	A22/6647	B	14	24	14	10	74	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH128605	0	5.00	A22/6648	B	15	24	13	11	69	WS	4.4	C L	Brown sandy gravelly CLAY
BH129405	AA174219	2.00	A22/3897	D	25	50	25	25	68	WS	4.4	C I	Grey/brown sandy gravelly CLAY
BH129405A	0	3.00	A22/3901	D	17	28	16	12	50	WS	4.4	C L	Brown sandy gravelly CLAY
BH130005	AA174226	3.00	A22/3902	D	5.9	25	15	10	54	WS	4.4	C L	Grey/brown sandy gravelly CLAY

BH130451	AA174231	2.50	A22/3904	D	17	35	20	15	60	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH131203	0	2.50	A22/3988	D	18	54	38	16	89	WS	4.4	M H	Grey brown sandy SILT
BH131203	0	5.00	A22/3989	D	23	32	13	19	61	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH131836	AA174122	6.00	A22/3992	D	3.4		NP	NP					Brown sandy GRAVEL
BH132133	AA171099	1.20	A22/6656	B	21	29	15	14	97	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH132133	AA171100	2.00	A22/6657	B	14	31	16	15	52	WS	4.4	C L	Brown sandy gravelly CLAY
BH133229	AA174178	1.20	A22/2459	D	11	28	13	15	59	WS	4.4	C L	Brown sandy gravelly CLAY
BH133229	AA174180	3.50	A22/2460	D	11	28	16	12	47	WS	4.4	C L	Brown sandy gravelly CLAY
BH133258	AA174185	2.00	A22/2463	D	11	27	16	11	34	WS	4.4	C L	Brown sandy gravelly CLAY
BH133258	AA174189	6.00	A22/2462	D	10	27	14	13	49	WS	4.4	C L	Brown sandy gravelly CLAY
BH133311	0	1.20	A22/6548	B	13	22	12	10	54	WS	4.4	C L	Brown sandy gravelly CLAY
BH133311	0	2.50	A22/6549	B	14	25	15	10	50	WS	4.4	C L	Brown sandy gravelly CLAY
BH133311	0	3.00	A22/2402	D	10	25	13	12	53	WS	4.4	C L	Brown sandy gravelly CLAY
BH133311	0	6.00	A22/2403	D	13	28	15	13	49	WS	4.4	C L	Brown sandy gravelly CLAY
BH134500	AA174170	0.50	A22/2452	D	12	26	14	12	63	WS	4.4	C L	Brown sandy gravelly CLAY
BH134610	AA174166	2.00	A22/2465	D	16	27	14	13	62	WS	4.4	C L	Brown sandy gravelly CLAY
BH135006	AA174162	5.00	A22/2446	D	6.5	33	19	14	37	WS	4.4	C L	Brown sandy gravelly CLAY
BH135163	0	0.50	A22/6643	B	8.5								Grey silty sandy GRAVEL
BH135163	0	5.00	A22/6644	B	9.1								Grey silty sandy GRAVEL
BH135404	0	0.50	A22/2469	D	12	30	16	14	58	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH135404A	0	0.50	A22/2470	D	12	30	16	14	58	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH135404A	0	3.00	A22/2472	D	11	25	15	10	49	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH135516	AA174103	2.00	A22/2474	D	6.2	25	15	10	46	WS	4.4	C L	Brown sandy gravelly CLAY
BH135695	AA162926	1.20	A22/4070	D	11	24	13	11	66	WS	4.4	C L	Brown sandy gravelly CLAY
BH135695	0	2.00	A22/6555	B	11	24	12	12	57	AR	4.4	C L	Grey Brown sandy gravelly CLAY
BH135695	AA162927	2.50	A22/4074	D	7.9	22	12	10	48	WS	4.4	C L	Brown sandy gravelly CLAY
BH135695	0	4.00	A22/6556	B	9.5	23	12	11	44	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH135695	0	5.00	A22/6557	B	16	31	15	16	52	WS	4.4	C L	Brown sandy gravelly CLAY
BH137604	0	1.00	A22/6659	B	715								Black brown PEAT
BH137604	0	3.00	A22/6660	B	614								Black brown PEAT
BH137604	0	4.00	A22/6661	B	32	48	NP	NP	68	WS	4.4		Grey sandy gravelly SILT
BH138802	0	0.50	A22/6651	B	748								Black brown PEAT
BH138802	0	1.20	A22/6652	B	16	29	15	14	67	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH138802	0	3.00	A22/6653	B	17	28	14	14	80	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH139159	0	5.00	A22/3931	D	11	23	14	9	68	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH139202	AA174128	4.00	A22/3994	D	37	54	31	23	84	WS	4.4	M H	Grey brown sandy gravelly SILT
BH139202	AA174129	5.00	A22/3995	D	12	26	13	13	58	WS	4.4	C L	Grey sandy gravelly CLAY
BH139752	0	6.00	A22/3999	D	18	27	NP	NP	54	WS	4.4		Grey sandy gravelly SILT
BH139892	AA179207	5.00	A22/4000	D	13	28	15	13	62	WS	4.4	C L	Brown sandy gravelly CLAY
BH139892	AA179208	6.00	A22/4001	D	9.1	26	12	14	76	WS	4.4	C L	Brown sandy gravelly CLAY
BH139892	AA179210	8.00	A22/4002	D	9.6	24	12	12	44	WS	4.4	C L	Brown sandy gravelly CLAY
BH139912	0	3.50	A22/6563	B	20	28	NP	NP	61	WS	4.4		Grey Brown sandy gravelly SILT
BH139912	AA179221	4.00	A22/4006	D	13	28	14	14	61	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH139912	0	5.00	A22/6565	B	10	24	13	11	59	WS	4.4	C L	Brown sandy gravelly CLAY
BH139912	AA179223	6.00	A22/4007	D	19	28	15	13	82	WS	4.4	C L	Brown sandy gravelly CLAY

BH139912	AA179224	7.00	A22/4011	D	8.9	23	13	10	56	WS	4.4	C L	Brown sandy gravelly CLAY
BH139941	AA170316	1.20	A22/4012	D	381	615	NP	NP	N/A	AR	4.4		Black brown fibrous PEAT
BH139941	AA170318	3.00	A22/4013	D	13	25	14	11	63	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH139941	AA170320	6.00	A22/4014	D	10	26	13	13	54	WS	4.4	C L	Brown sandy gravelly CLAY
BH140469	AA171071	7.00	A22/4018	D	12	29	16	13	64	WS	4.4	C L	Brown sandy gravelly CLAY
BH140795	AA171079	5.00	A22/4021	D	16	24	14	10	76	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH140795	AA171080	6.00	A22/4022	D	8.8	25	15	10	75	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH141402	0	1.20	A22/4026	D	23	28	14	14	59	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH141402A	0	2.00	A22/4029	D	18	32	16	16	63	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH141402A	0	3.00	A22/4030	D	16	26	14	12	57	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH141906	0	5.00	A22/6456	B	14	23	12	11	56	WS	4.4	C L	Grey brown sandy gravelly CLAY
BH142202	0	1.20	A22/6574	B	58	46	NP	NP	93	WS	4.4		Grey sandy silt
BH142202	0	4.00	A22/6572	B	11	28	15	13	55	WS	4.4	C L	Grey Brown sandy gravelly CLAY
BH142295	AA170327	5.00	A22/4033	D	2.1		NP	NP					Grey sandy GRAVEL
BH142295A	AA170335	6.00	A22/4037	D	5.0	26	15	11	16	WS	4.4	C L	Grey brown clayey sandy GRAVEL
BH143407	0	1.00	A22/6666	B	544								Black brown PEAT
BH143407	0	3.00	A22/6667	B	21	29	NP	NP	89	AR	4.4		Brown sandy gravelly SILT
BH144483	0	1.00	A22/6669	B	543								Black brown PEAT
BH144483	0	4.00	A22/6670	B	520								Black brown PEAT
BH144483	0	5.00	A22/6671	B	9.7	26	13	13	60	WS	4.4	C L	Grey sandy gravelly CLAY
TP103504	0	0.50	A22/2540	D	15	26	14	12	79	WS	4.4	C L	Brown sandy gravelly CLAY
TP103504	0	2.10	A22/2542	D	10	21	11	10	47	WS	4.4	C L	Grey/brown sandy gravelly CLAY
TP104425	0	0.50	A22/2545	D	11	30	13	17	55	WS	4.4	C L	Brown sandy gravelly CLAY
TP104425	0	3.10	A22/2547	D	9.1	23	12	11	69	WS	4.4	C L	Brown sandy gravelly CLAY
TP104507	0	0.90	A22/2548	D	11	19	12	7	62	WS	4.4	C L	Grey/brown sandy gravelly CLAY
TP104507	0	3.00	A22/2549	D	20	28	NP	NP	82	WS	4.4		Brown sandy gravelly CLAY
TP104610	0	0.50	A22/2550	D	22	27	20	7	85	WS	4.4	C L	Brown sandy gravelly CLAY
TP104610	0	3.10	A22/2551	D	10	24	12	12	61	WS	4.4	C L	Brown sandy gravelly CLAY
TP104707	0	1.10	A22/2552	D	17	25	14	11	74	WS	4.4	C L	Brown sandy gravelly CLAY
TP104707	0	2.90	A22/2553	D	11	21	11	10	59	WS	4.4	C L	Brown sandy gravelly CLAY
TP104800	0	0.50	A22/2554	D	13	24	14	10	69	WS	4.4	C L	Grey/brown sandy gravelly CLAY
TP104800	0	1.80	A22/2555	D	8.7	21	11	10	68	WS	4.4	C L	Brown sandy gravelly CLAY
TP104908	0	2.80	A22/2557	D	11	24	12	12	66	WS	4.4	C L	Brown sandy gravelly CLAY
TP108804	0	0.50	A22/2558	D	8.2	36	NP	NP	57	WS	4.4		Brown sandy gravelly SILT
TP108804	0	2.40	A22/2559	D	18	27	11	16	62	WS	4.4	C L	Brown sandy gravelly CLAY
TP108905	0	1.50	A22/2562	D	9.1	25	NP	NP	65	WS	4.4		Brown sandy gravelly SILT
TP110906	0	0.50	A22/2497	D	10	25	11	14	55	WS	4.4	C L	Brown sandy gravelly CLAY
TP111007	0	0.30	A22/2499	D	29	36	19	17	70	WS	4.4	C I	Brown sandy gravelly CLAY
TP111202	0	0.40	A22/2503	D	24	46	NP	NP	63	WS	4.4		Brown sandy gravelly SILT
TP111305	0	0.30	A22/2506	D	17	35	NP	NP	61	WS	4.4		Brown sandy gravelly SILT
TP111505	0	0.40	A22/2509	D	15	27	NP	NP	58	WS	4.4		Brown sandy gravelly SILT
TP111615	0	0.30	A22/2516	D	21	41	21	20	51	WS	4.4	C I	Brown sandy gravelly CLAY
TP111704	0	0.30	A22/2513	D	24	24	14	10	54	WS	4.4	C L	Brown sandy gravelly CLAY
TP111803	0	0.30	A22/2519	D	32	30	NP	NP	72	WS	4.4		Brown sandy gravelly SILT
TP117582	0	1.50	A22/2564	D	17	22	16	33	32	WS	4.4	C L	Brown sandy gravelly CLAY

TP117901	0	0.50	A22/2567	D	21	33	19	14	56	WS	4.4	C L	Brown sandy gravelly CLAY
TP117901	0	2.20	A22/2568	D	8.1	29	18	11	47	WS	4.4	C L	Brown sandy gravelly CLAY
TP118385	0	0.50	A22/2569	D	25	41	20	21	71	WS	4.4	C I	Brown sandy gravelly CLAY
TP118502	0	0.50	A22/2571	D	15	34	16	18	52	WS	4.4	C L	Brown sandy gravelly CLAY
TP118605	0	1.50	A22/2574	D	9.5	27	16	11	49	WS	4.4	C L	Brown sandy gravelly CLAY
TP118801	0	0.70	A22/2576	D	13	26	14	12	60	WS	4.4	C L	Brown sandy gravelly CLAY
TP118902	0	0.50	A22/2578	D	15	28	17	11	44	WS	4.4	C L	Brown sandy gravelly CLAY
TP118987	0	0.50	A22/2580	D	23	29	14	15	71	WS	4.4	C L	Brown sandy gravelly CLAY
TP119302	0	0.50	A22/2584	D	18	34	20	14	57	WS	4.4	C L	Brown sandy gravelly CLAY
TP119389	0	0.50	A22/2586	D	17	32	17	15	62	WS	4.4	C L	Brown sandy gravelly CLAY
TP119389	0	1.50	A22/2587	D	16	31	17	14	44	WS	4.4	C L	Brown sandy gravelly CLAY
TP119502	0	0.50	A22/2589	D	18	33	18	15	56	WS	4.4	C L	Brown sandy gravelly CLAY
TP119586	0	0.50	A22/2591	D	13	28	15	13	54	WS	4.4	C L	Brown sandy gravelly CLAY
TP125701	0	3.90	A22/2598	D	16	23	13	10	89	WS	4.4	C L	Grey/brown sandy gravelly CLAY
TP125800	0	1.50	A22/2597	D	12	19	NP	NP	67	WS	4.4		Grey/brown sandy gravelly SILT
TP125902	0	3.10	A22/2595	D	10	20	12	8	59	WS	4.4	C L	Grey/brown sandy gravelly CLAY
TP126004	0	1.50	A22/2596	D	10	21	12	9	67	WS	4.4	C L	Grey sandy gravelly CLAY
TP132838	AA152180	0.50	A22/3233	D	14	28	14	14	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP132838	AA152181	1.50	A22/3234	D	10	25	15	10	50	WS	4.4	C L	Brown sandy gravelly CLAY
TP132908	AA152177	0.50	A22/3235	D	15	30	16	14	63	WS	4.4	C L	Brown sandy gravelly CLAY
TP132908	0	2.50	A22/3235	D	18	34	20	14	67	WS	4.4	C L	Grey sandy gravelly CLAY
TP133012	AA152175	2.50	A22/3238	D	9	23	15	8	48	WS	4.4	C L	Brown sandy gravelly CLAY
TP133108	AA174488	0.50	A22/3240	D	15	28	15	13	64	WS	4.4	C L	Brown sandy gravelly CLAY
TP133108	0	1.50	A22/3241	D	16	30	15	15	68	WS	4.4	C L	Brown sandy gravelly CLAY
TP133227	AA174485	0.50	A22/3243	D	19	32	17	15	66	WS	4.4	C L	Brown sandy gravelly CLAY
TP133227	AA174487	2.00	A22/3244	D	12	28	15	13	62	WS	4.4	C L	Brown sandy gravelly CLAY
TP133308	AA174482	1.50	A22/3245	D	12	25	14	11	68	WS	4.4	C L	Brown sandy gravelly CLAY
TP133308	0	3.00	A22/3246	D	14	28	14	14	62	WS	4.4	C L	Brown sandy gravelly CLAY
TP133780	AA152167	1.50	A22/3247	D	12	23	13	10	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP133780	AA152168	2.50	A22/3248	D	12	29	14	15	61	WS	4.4	C L	Brown sandy gravelly CLAY
TP133904	AA152166	2.50	A22/3250	D	11	28	15	13	54	WS	4.4	C L	Brown sandy gravelly CLAY
TP133989	AA152146	2.50	A22/3252	D	11	22	13	9	62	WS	4.4	C L	Brown sandy gravelly CLAY
TP133999	AA152155	1.50	A22/3253	D	12	25	18	7	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP134001	AA152143	2.50	A22/3255	D	12	24	13	11	61	WS	4.4	C L	Brown sandy gravelly CLAY
TP134040	AA152152	1.50	A22/3256	D	12	22	13	9	54	WS	4.4	C L	Brown sandy gravelly CLAY
TP134040	AA152153	2.50	A22/3257	D	11	21	13	8	56	WS	4.4	C L	Brown sandy gravelly CLAY
TP134082	AA152138	0.60	A22/3258	D	20	37	14	23	55	WS	4.4	C I	Brown sandy gravelly CLAY
TP134082	AA152140	2.50	A22/3259	D	12	26	15	11	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP134096	AA152156	0.60	A22/3260	D	10	25	14	11	59	WS	4.4	C L	Brown sandy gravelly CLAY
TP134096	AA152159	3.50	A22/3261	D	10	24	14	10	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP134139	AA179498	0.60	A22/3262	D	13	28	15	13	55	WS	4.4	C L	Brown sandy gravelly CLAY
TP134139	AA152137	3.50	A22/3264	D	9.6	44	16	28	58	WS	4.4	C I	Brown sandy gravelly CLAY
TP134181	AA179496	1.50	A22/3265	D	10	24	13	11	57	WS	4.4	C L	Brown sandy gravelly CLAY
TP134181	AA179497	2.50	A22/3266	D	9.1	22	11	11	55	WS	4.4	C L	Brown sandy gravelly CLAY
TP134196	AA152160	0.50	A22/3267	D	11	23	12	11	58	WS	4.4	C L	Brown sandy gravelly CLAY

TP134196	AA152162	2.50	A22/3268	D	11	25	13	12	61	WS	4.4	C L	Brown sandy gravelly CLAY
TP134239	AA152148	1.50	A22/3269	D	9.4	27	13	14	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP134239	AA152150	3.50	A22/3270	D	8.8	21	11	10	60	WS	4.4	C L	Brown sandy gravelly CLAY
TP134281	AA179491	0.50	A22/3271	D	24	37	23	14	80	WS	4.4	C I	Brown sandy gravelly CLAY
TP134281	AA179492	1.50	A22/3272	D	12	24	13	11	54	WS	4.4	C L	Brown sandy gravelly CLAY
TP134281	AA179494	3.50	A22/3273	D	11	21	13	8	51	WS	4.4	C L	Brown sandy gravelly CLAY
TP134296	0	1.50	A22/2538	D	13	28	14	14	61	WS	4.4	C L	Brown sandy gravelly CLAY
TP134296	0	2.00	A22/2539	D	11	24	13	11	54	WS	4.4	C L	Brown sandy gravelly CLAY
TP134396	0	0.50	A22/2529	D	10	32	15	17	63	WS	4.4	C L	Brown sandy gravelly CLAY
TP134396	0	1.50	A22/2530	D	11	23	13	10	43	WS	4.4	C L	Brown sandy gravelly CLAY
TP134396	0	2.10	A22/2531	D	8.8	24	11	13	43	WS	4.4	C L	Brown sandy gravelly CLAY
TP134406	0	1.00	A22/2535	D	14	29	17	12	59	WS	4.4	C L	Brown sandy gravelly CLAY
TP134406	0	1.50	A22/2536	D	8.7	27	14	13	53	WS	4.4	C L	Brown sandy gravelly CLAY
TP134439	0	1.50	A22/2533	D	9.4	25	15	10	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP134439	0	2.30	A22/2534	D	9.0	23	13	10	58	WS	4.4	C L	Brown sandy gravelly CLAY
TP134490	0	1.50	A22/2527	D	12	27	16	11	66	WS	4.4	C L	Brown sandy gravelly CLAY
TP134490	0	2.20	A22/2528	D	8.9	24	14	10	50	WS	4.4	C L	Brown sandy gravelly CLAY
TP135009	0	2.00	A22/2526	D	11	17	NP	NP	60	WS	4.4		Brown sandy gravelly SILT
TP135503	0	0.50	A22/2522	D	17	28	16	12	49	WS	4.4	C L	Brown sandy gravelly CLAY
TP135503	0	1.50	A22/2523	D	15	29	15	14	55	WS	4.4	C L	Brown sandy gravelly CLAY
TP135607	0	1.50	A22/2521	D	22	34	21	13	61	WS	4.4	C L	Brown sandy gravelly CLAY
TP135708	0	1.50	A22/2524	D	14	30	15	15	63	WS	4.4	C L	Grey brown sandy gravelly CLAY
TP135904	AA152170	1.50	A22/3274	D	12	22	13	9	51	WS	4.4	C L	Brown sandy gravelly CLAY
TP135904	AA152171	2.50	A22/3275	D	15	29	16	13	64	WS	4.4	C L	Brown sandy gravelly CLAY
TP136007	AA156007	0.60	A22/3276	D	14	28	13	15	70	WS	4.4	C L	Brown sandy gravelly CLAY
TP136007	AA156008	1.90	A22/3277	D	14	26	15	11	71	WS	4.4	C L	Brown sandy gravelly CLAY
TP136108	AA156009	0.60	A22/3278	D	14	26	13	13	64	WS	4.4	C L	Brown sandy gravelly CLAY
TP136108	AA156010	1.80	A22/3279	D	15	26	15	11	61	WS	4.4	C L	Brown sandy gravelly CLAY
TP143502	AA173647	3.00	A22/3285	D	17	29	NP	NP	70	WS	4.4		Brown sandy gravelly SILT
TP144592	AA173649	1.00	A22/3286	D	23	24	NP	NP	96	WS	4.4		Brown sandy gravelly SILT

Preparation: WS - Wet sieved

Sample Type: B - Bulk Disturbed

AR - As received

U - Undisturbed

NP - Non plastic

Liquid Limit 4.3 Cone Penetrometer definitive method

Clause: 4.4 Cone Penetrometer one point method

Remarks:

Reports Combined:R138419A,R148419,R134964,R143917,R138420A, R138420,R135907,R135908R138421 to R138427, R138791 to R138796, R138428R143916,R138430,R138431R138429, R141722,R141723,R141721,R141717,R141724 to R141729,R134959 To R134962, R143948 R143949 R134960.

Results relate only to the specimen tested,in as received condition unless otherwise noted.

NOTE: **These clauses have been superceded by EN 17892-1 and EN17892-12.

Opinions and interpretations are outside the scope of accreditation. * denotes Customer supplied information.

This report shall not be reproduced except in fullwithout written approval from the Laboratory.

IGSL Ltd Materials Laboratory

Persons authorized to approve reports

H Byrne (Laboratory Manager)

Approved by	Date	Page
	28/03/23	1 of 1

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

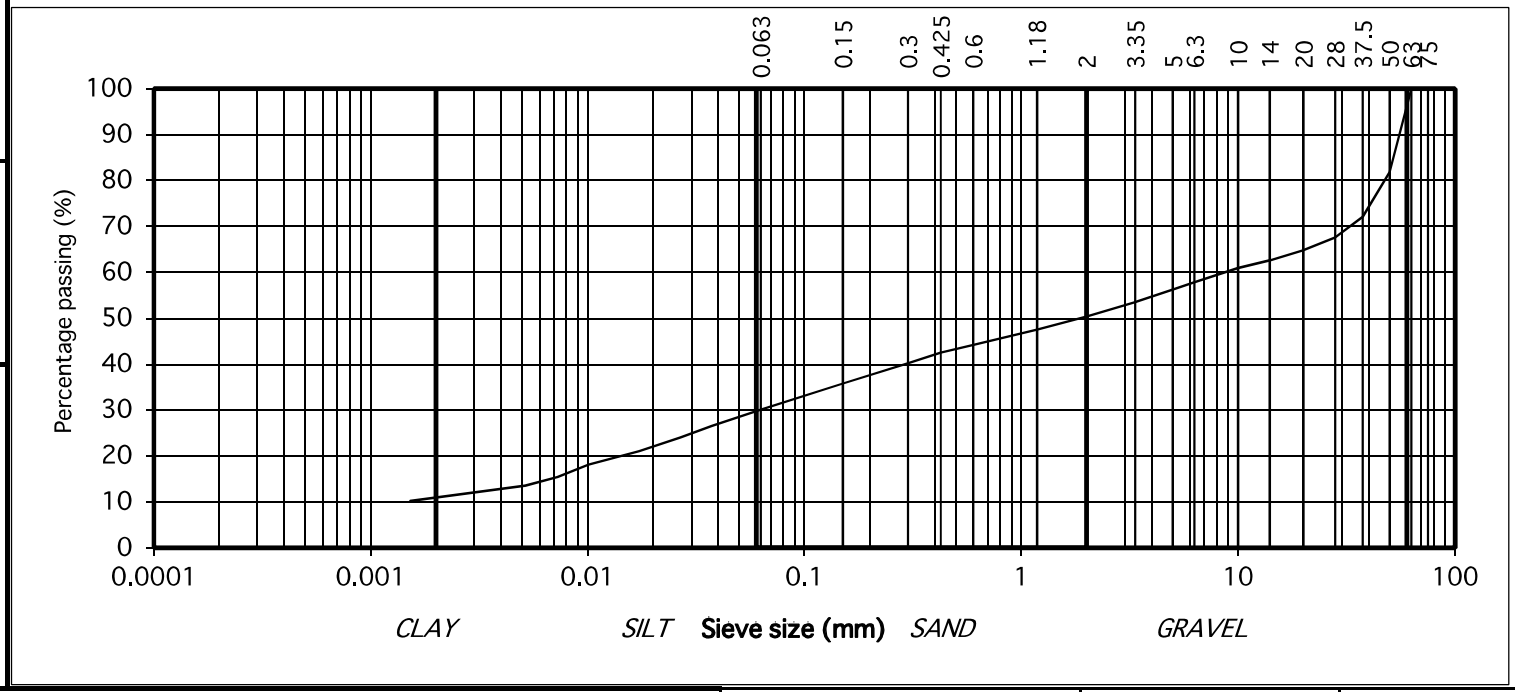
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	82	GRAVEL
37.5	72	
28	68	
20	65	
14	63	
10	61	
6.3	58	
5	56	
3.35	54	
2	50	
1.18	48	SAND
0.6	44	
0.425	43	
0.3	40	
0.15	36	
0.063	30	SILT/CLAY
0.037	27	
0.027	24	
0.017	21	
0.010	18	
0.007	15	
0.005	14	
0.002	10	

Contract No.	23560	Report No.	R134142	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104020			
Sample No.*	N/A	Lab. Sample No.		A22/2291
Sample Type:	B			
Depth* (m)	2.0-2.5	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

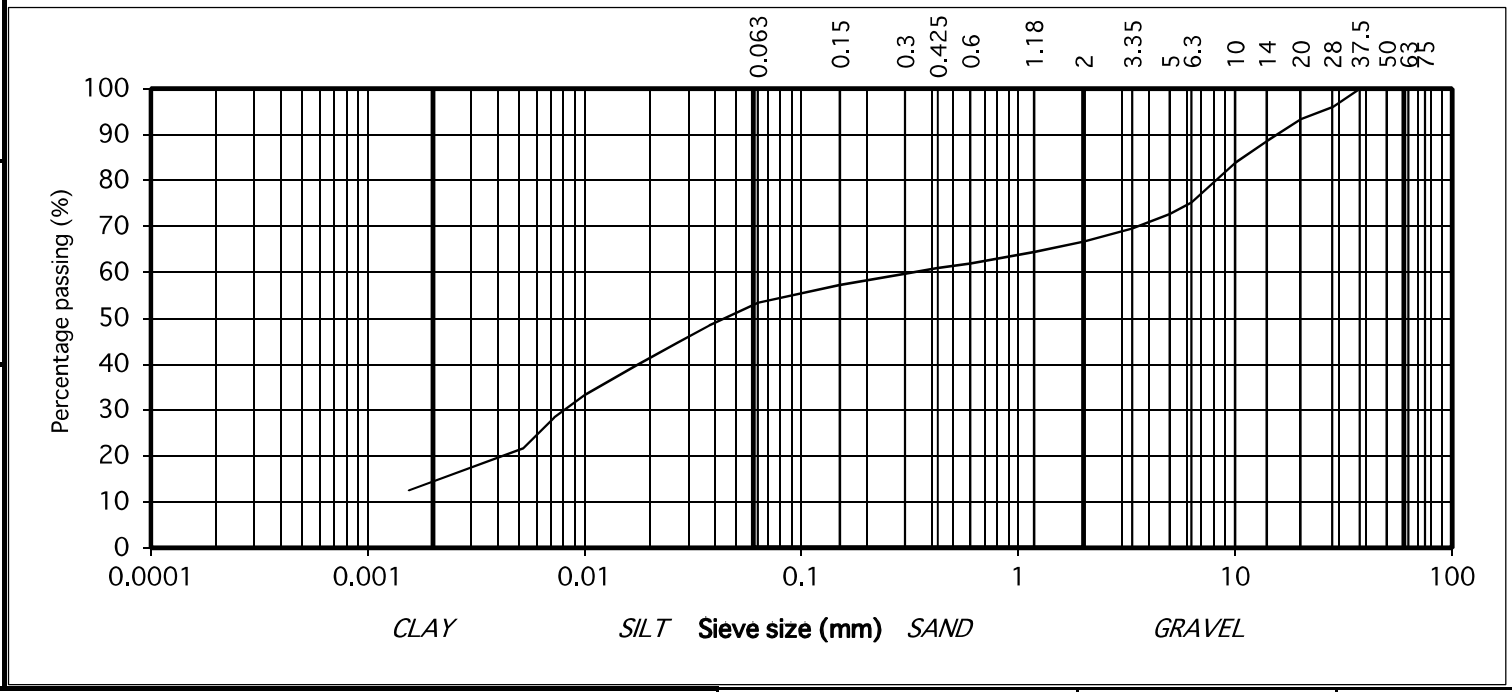
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	93	
14	89	
10	84	
6.3	75	
5	73	
3.35	70	
2	67	
1.18	64	SAND
0.6	62	
0.425	61	
0.3	60	
0.15	57	
0.063	53	SILT/CLAY
0.037	48	
0.027	45	
0.017	40	
0.010	33	
0.007	28	
0.005	22	
0.002	13	

Contract No. 23560 Report No. R134145
Contract Name: WSP - Lot 3
BH/TP* : BH104020
Sample No.* N/A Lab. Sample No. A22/2295
Sample Type: B
Depth* (m) 9.0-9.5 Customer: Ervia
Date Received 04/05/2022 Date Testing started 04/05/2022
Description: Brown slightly sandy, slightly gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

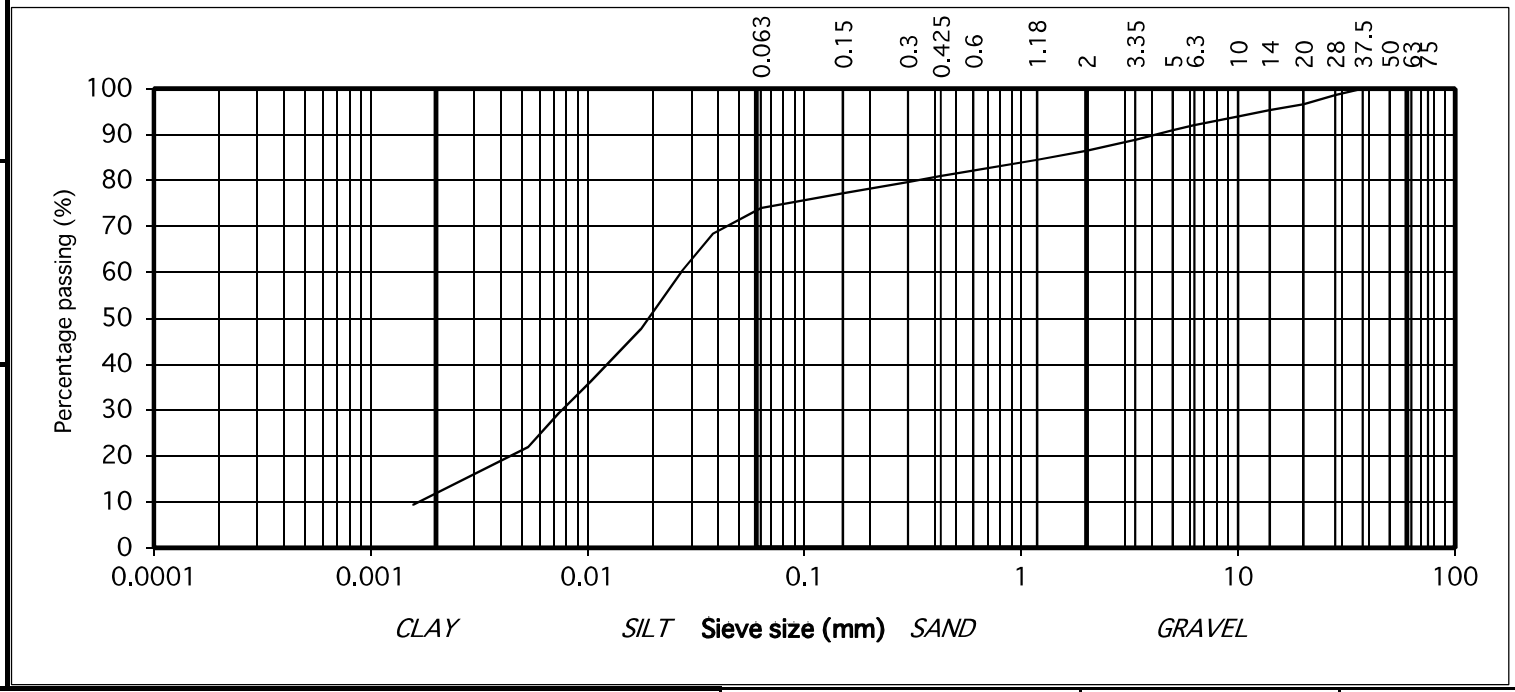
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	97	
14	95	
10	94	
6.3	92	
5	91	
3.35	89	
2	87	
1.18	85	SAND
0.6	82	
0.425	81	
0.3	80	
0.15	77	
0.063	74	SILT/CLAY
0.038	68	
0.027	60	
0.018	48	
0.010	36	
0.007	29	
0.005	22	
0.002	9	

Contract No.	23560	Report No.	R134146	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104135			
Sample No.*	AA161823	Lab. Sample No.		A22/2301
Sample Type:	B			
Depth* (m)	1.5-2.0	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

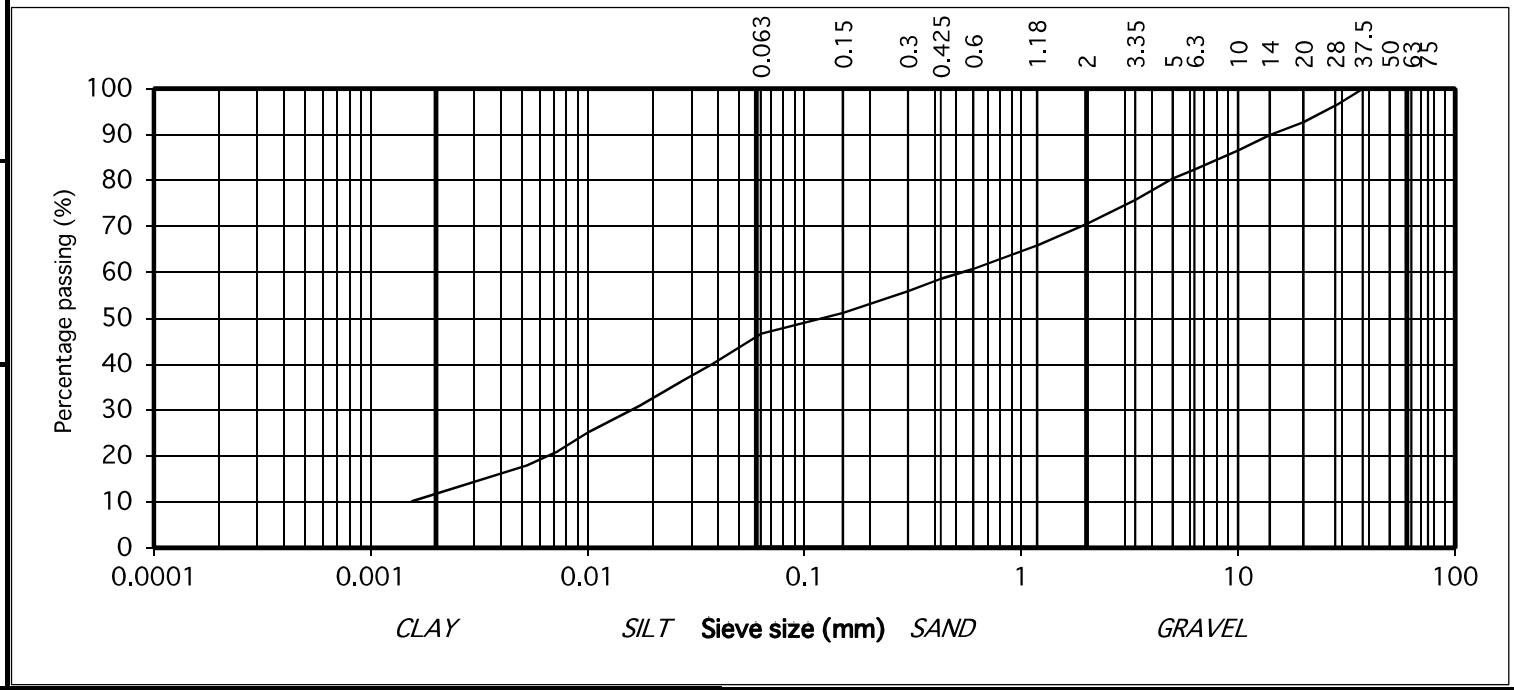
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	93	
14	90	
10	87	
6.3	82	
5	80	
3.35	76	
2	71	
1.18	66	SAND
0.6	61	
0.425	59	
0.3	56	
0.15	51	
0.063	47	SILT/CLAY
0.037	40	
0.027	36	
0.017	31	
0.010	25	
0.007	21	
0.005	18	
0.002	10	

Contract No.	23560	Report No.	R134147	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104135			
Sample No.*	AA161825	Lab. Sample No.		A22/2302
Sample Type:	B			
Depth* (m)	3.0-3.5	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

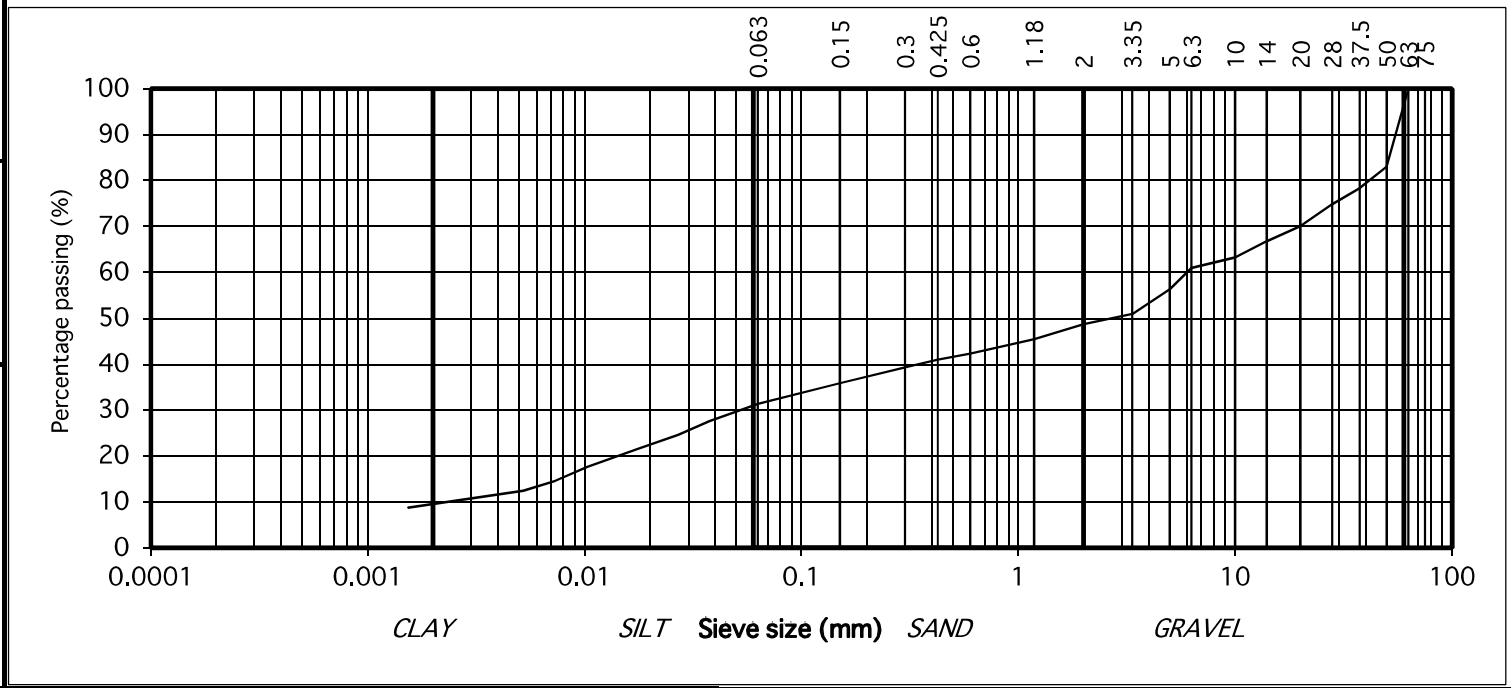
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	83	GRAVEL
37.5	78	
28	75	
20	70	
14	67	
10	63	
6.3	61	
5	56	
3.35	51	
2	49	
1.18	46	SAND
0.6	42	
0.425	41	
0.3	39	
0.15	36	
0.063	31	SILT/CLAY
0.038	28	
0.027	25	
0.017	21	
0.010	18	
0.007	15	
0.005	12	
0.002	9	

Contract No. 23560 Report No. R134148
Contract Name: WSP - Lot 3
BH/TP* : BH104135
Sample No.* AA161827 Lab. Sample No. A22/2303
Sample Type: B
Depth* (m) 5.0-5.5 Customer: Ervia
Date Received 04/05/2022 Date Testing started 04/05/2022
Description: Grey/brown slightly sandy, gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

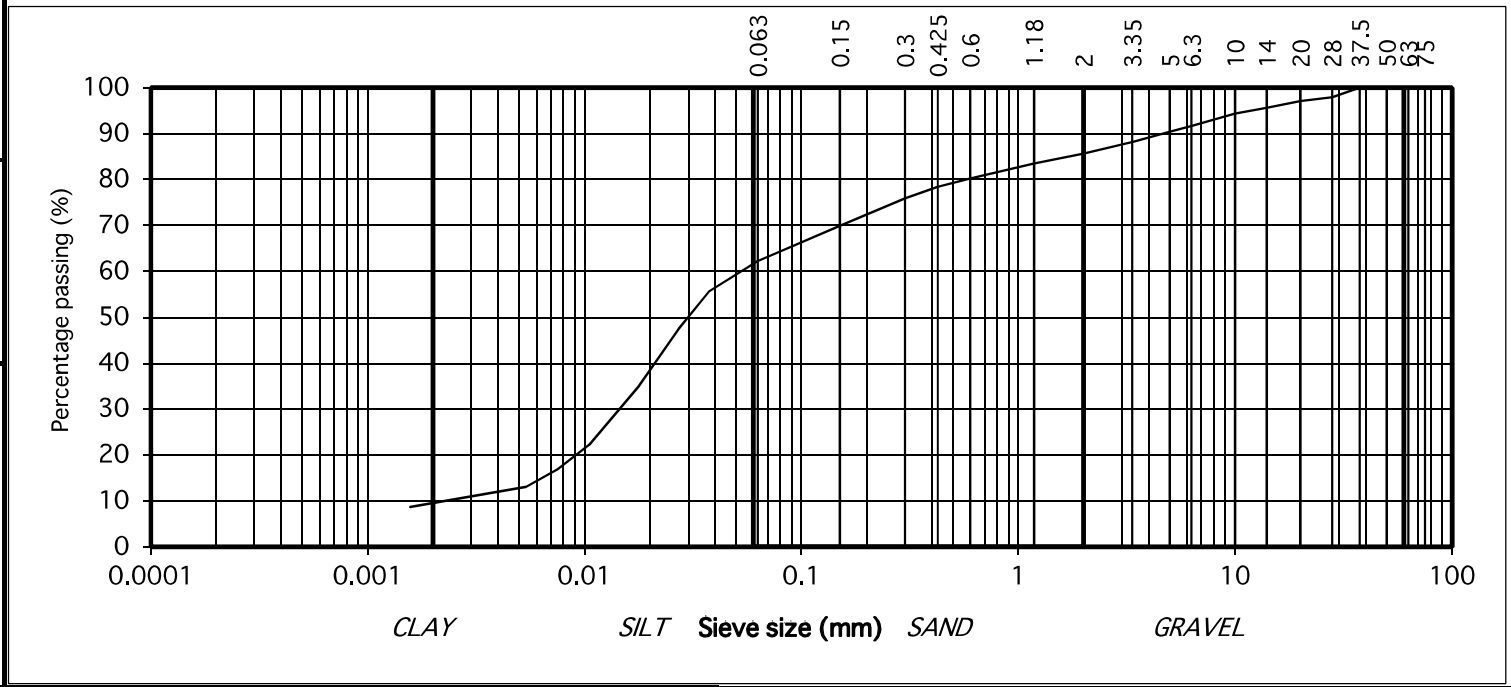
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	97	
14	96	
10	94	
6.3	92	
5	90	
3.35	88	
2	86	
1.18	83	SAND
0.6	80	
0.425	78	
0.3	76	
0.15	70	
0.063	62	SILT/CLAY
0.037	56	
0.027	47	
0.018	35	
0.011	22	
0.008	17	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R134149	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104405			
Sample No.*	AA161829	Lab. Sample No.		A22/2304
Sample Type:	B			
Depth* (m)	0.5-1.0	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Mottled brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

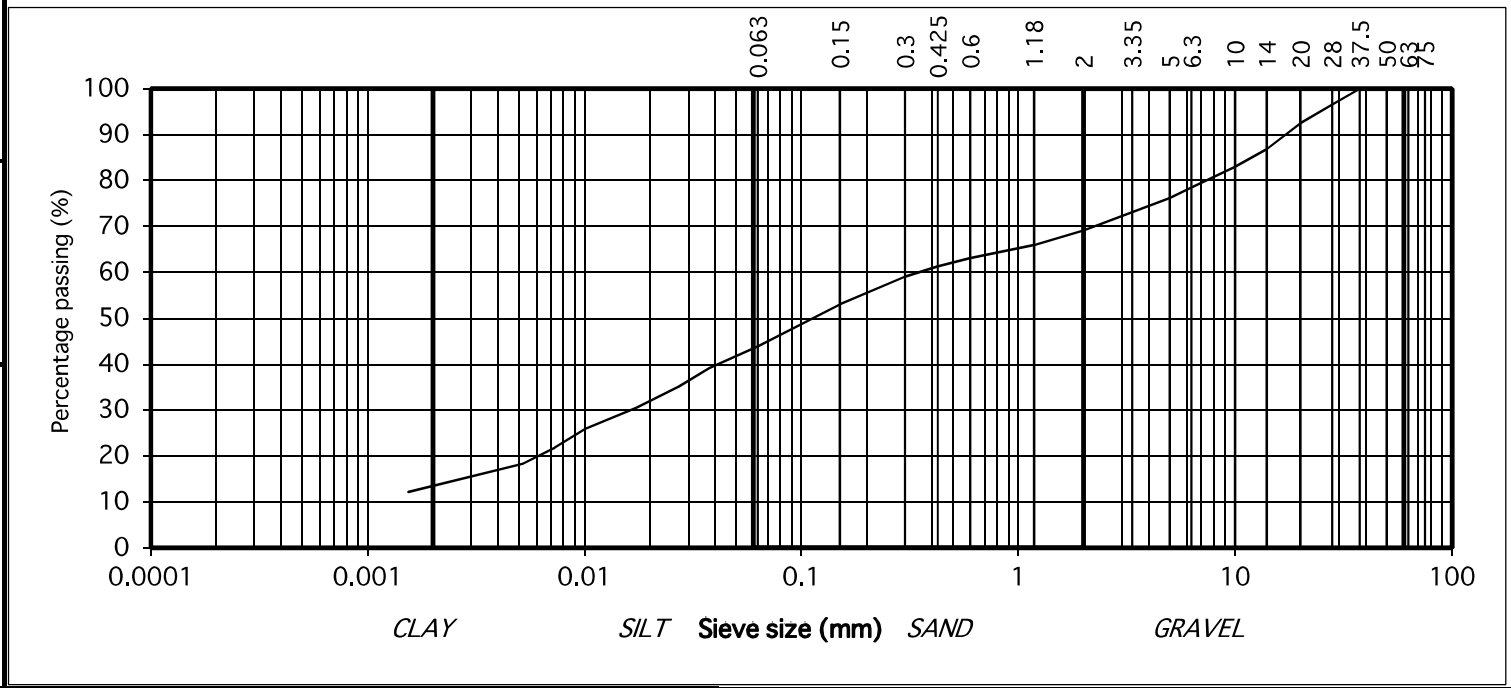
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	93	
14	87	
10	83	
6.3	78	
5	76	
3.35	73	
2	69	
1.18	66	SAND
0.6	63	
0.425	61	
0.3	59	
0.15	53	
0.063	44	SILT/CLAY
0.038	39	
0.027	35	
0.017	31	
0.010	26	
0.007	22	
0.005	18	
0.002	12	

Contract No.	23560	Report No.	R134150	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104405			
Sample No.*	AA161830	Lab. Sample No.		A22/2305
Sample Type:	B			
Depth* (m)	1.5-2.0	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

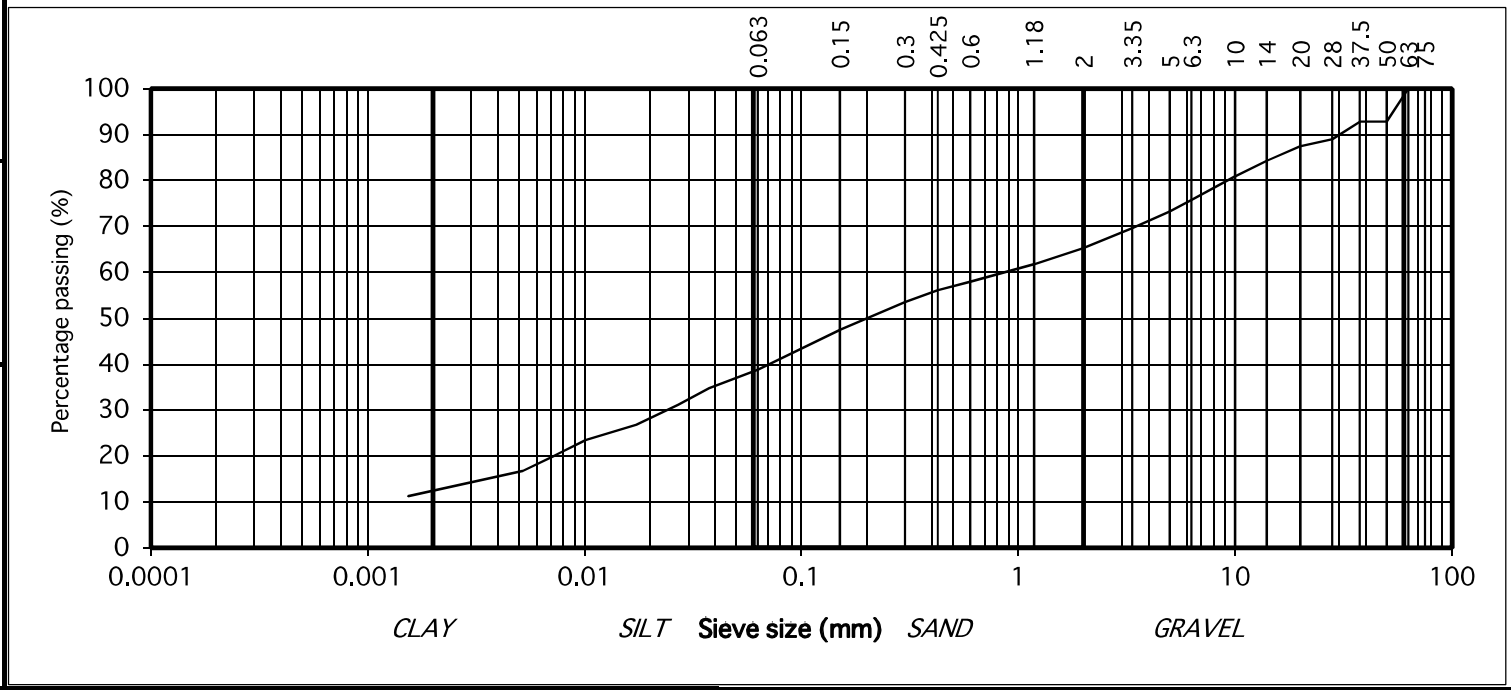
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	93	GRAVEL
37.5	93	
28	89	
20	87	
14	84	
10	81	
6.3	76	
5	73	
3.35	70	
2	65	
1.18	62	SAND
0.6	58	
0.425	56	
0.3	54	
0.15	48	
0.063	39	SILT/CLAY
0.037	35	
0.027	31	
0.017	27	
0.010	24	
0.007	20	
0.005	17	
0.002	11	

Contract No. 23560 Report No. R134151
Contract Name: WSP - Lot 3
BH/TP* : BH104405
Sample No.* AA161832 Lab. Sample No. A22/2307
Sample Type: B
Depth* (m) 4.0-4.5 Customer: Ervia
Date Received 04/05/2022 Date Testing started 04/05/2022
Description: Grey/brown slightly sandy, slightly gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

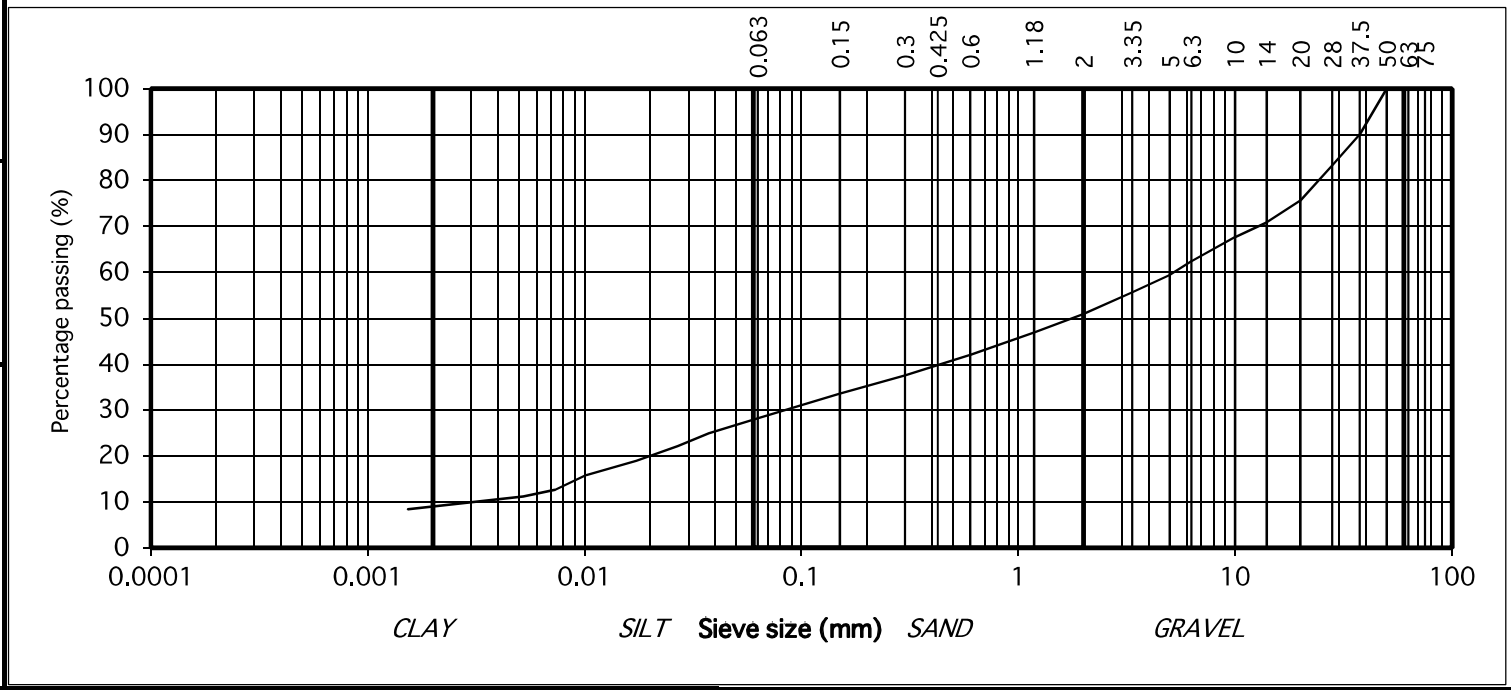
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	90	
28	83	
20	76	
14	71	
10	68	
6.3	62	
5	59	
3.35	56	
2	51	
1.18	47	SAND
0.6	42	
0.425	40	
0.3	38	
0.15	34	
0.063	28	SILT/CLAY
0.037	25	
0.027	22	
0.017	19	
0.010	16	
0.007	13	
0.005	11	
0.002	8	

Contract No.	23560	Report No.	R134152	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104405			
Sample No.*	AA161835	Lab. Sample No.		A22/2308
Sample Type:	B			
Depth* (m)	7.0-7.5	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

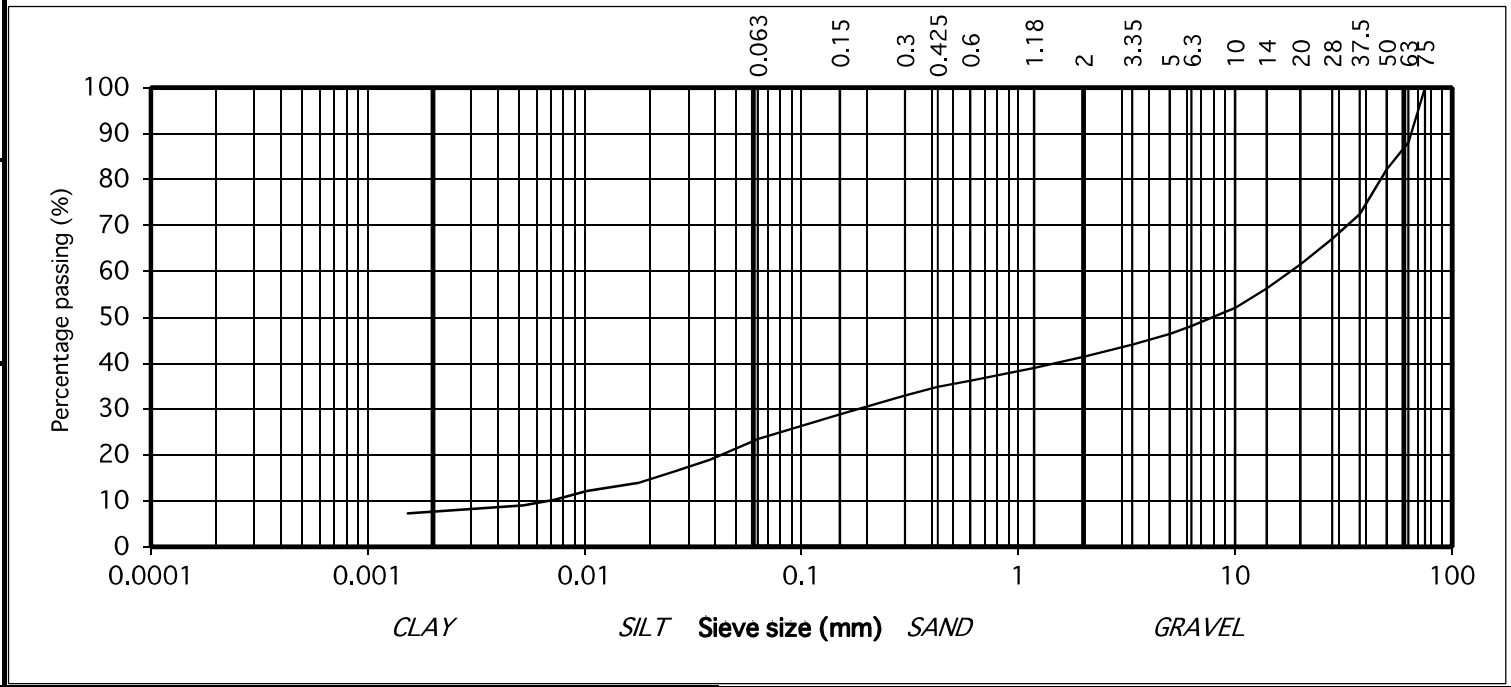
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	88	
50	82	GRAVEL
37.5	72	
28	67	
20	62	
14	56	
10	52	
6.3	48	
5	46	
3.35	44	
2	41	
1.18	39	SAND
0.6	36	
0.425	35	
0.3	33	
0.15	29	
0.063	24	SILT/CLAY
0.038	19	
0.027	17	
0.018	14	
0.010	12	
0.007	10	
0.005	9	
0.002	7	

Contract No.	23560	Report No.	R134283	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104807			
Sample No.*	AA162913	Lab. Sample No.		A22/2422
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey/brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

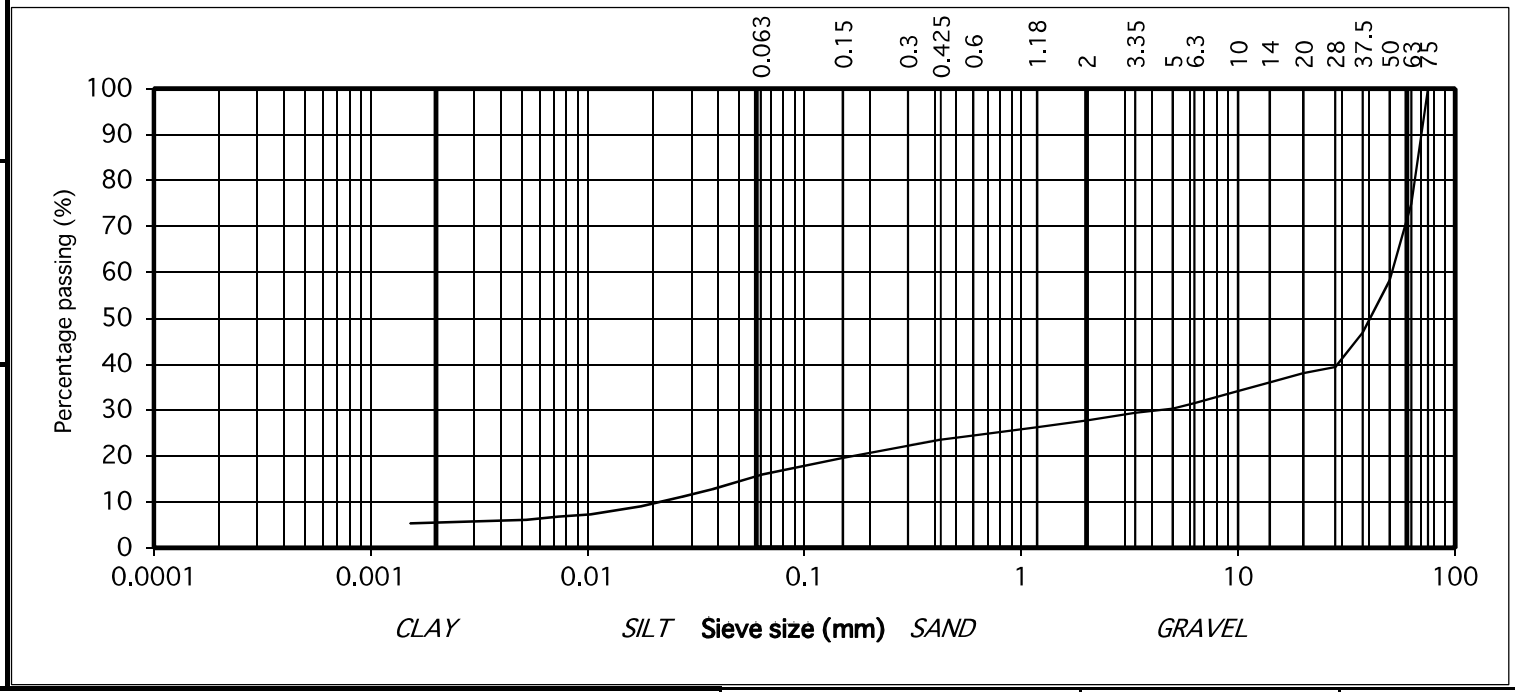
particle size	% passing	
75	100	COBBLES
63	75	
50	58	GRAVEL
37.5	47	
28	39	
20	38	
14	36	
10	34	
6.3	31	
5	30	
3.35	29	
2	28	
1.18	26	SAND
0.6	24	
0.425	24	
0.3	22	
0.15	20	
0.063	16	SILT/CLAY
0.038	13	
0.027	11	
0.018	9	
0.010	7	
0.007	7	
0.005	6	
0.002	5	

Contract No.	23560	Report No.	R134284	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104807			
Sample No.*	AA162915	Lab. Sample No.		A22/2423
Sample Type:	B			
Depth* (m)	8.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

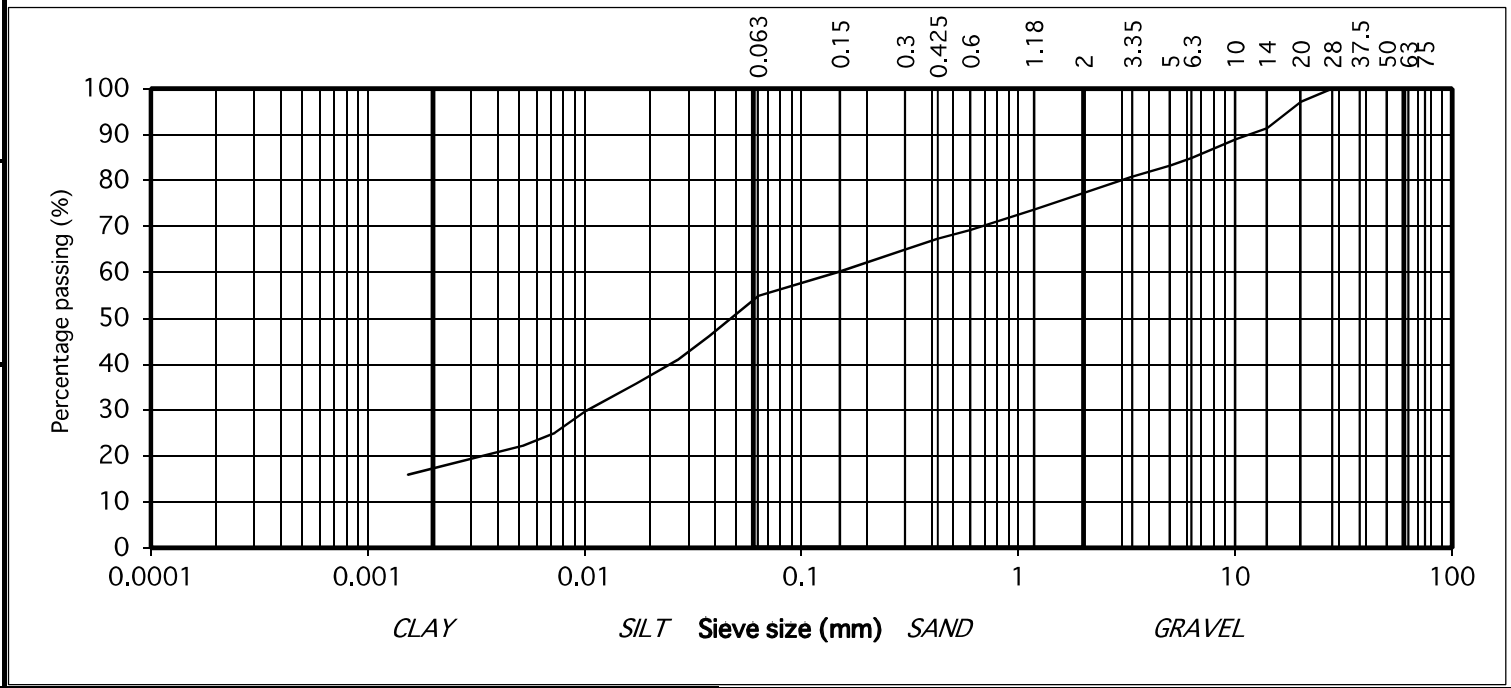
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	97	
14	91	
10	89	
6.3	85	
5	83	
3.35	81	
2	77	
1.18	74	SAND
0.6	69	
0.425	67	
0.3	65	
0.15	60	
0.063	55	SILT/CLAY
0.037	46	
0.027	41	
0.017	36	
0.010	30	
0.007	25	
0.005	22	
0.002	16	

Contract No.	23560	Report No.	R134287
Contract Name:	WSP - Lot 3		
BH/TP* :	BH104946		
Sample No.*	N/A	Lab. Sample No.	A22/2433
Sample Type:	B		
Depth* (m)	6.00	Customer:	Ervia
Date Received	04/05/2022	Date Testing started	05/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY		
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

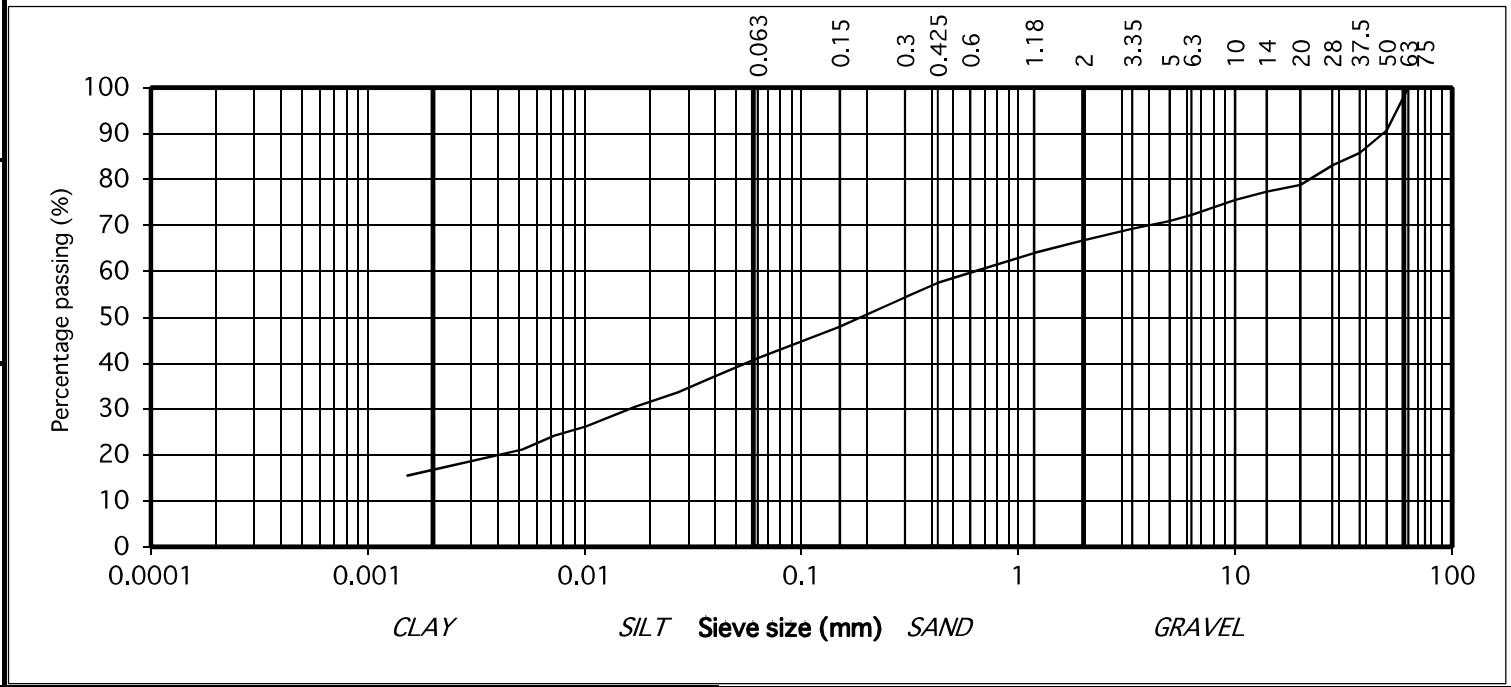
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	91	GRAVEL
37.5	86	
28	83	
20	79	
14	77	
10	76	
6.3	72	
5	71	
3.35	69	
2	67	
1.18	64	SAND
0.6	60	
0.425	57	
0.3	54	
0.15	48	
0.063	41	SILT/CLAY
0.038	37	
0.027	34	
0.017	31	
0.010	26	
0.007	24	
0.005	21	
0.002	15	

Contract No.	23560	Report No.	R134285	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104946			
Sample No.*	N/A	Lab. Sample No.		A22/2432
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

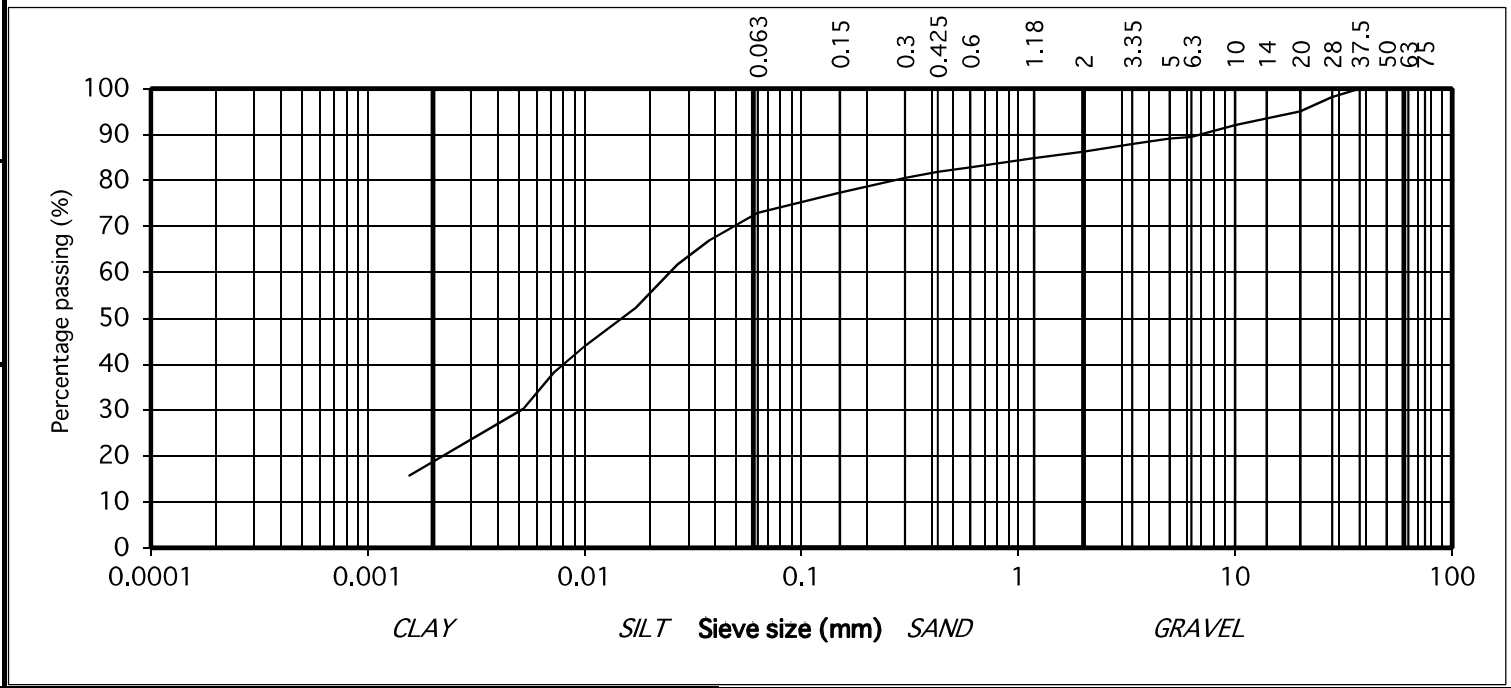
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	95	
14	94	
10	92	
6.3	90	
5	89	
3.35	88	
2	86	
1.18	85	SAND
0.6	83	
0.425	82	
0.3	81	
0.15	77	
0.063	73	SILT/CLAY
0.037	67	
0.027	62	
0.017	52	
0.010	44	
0.007	38	
0.005	30	
0.002	16	

Contract No.	23560	Report No.	R134281	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH105486			
Sample No.*	AA151439	Lab. Sample No.		A22/2385
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

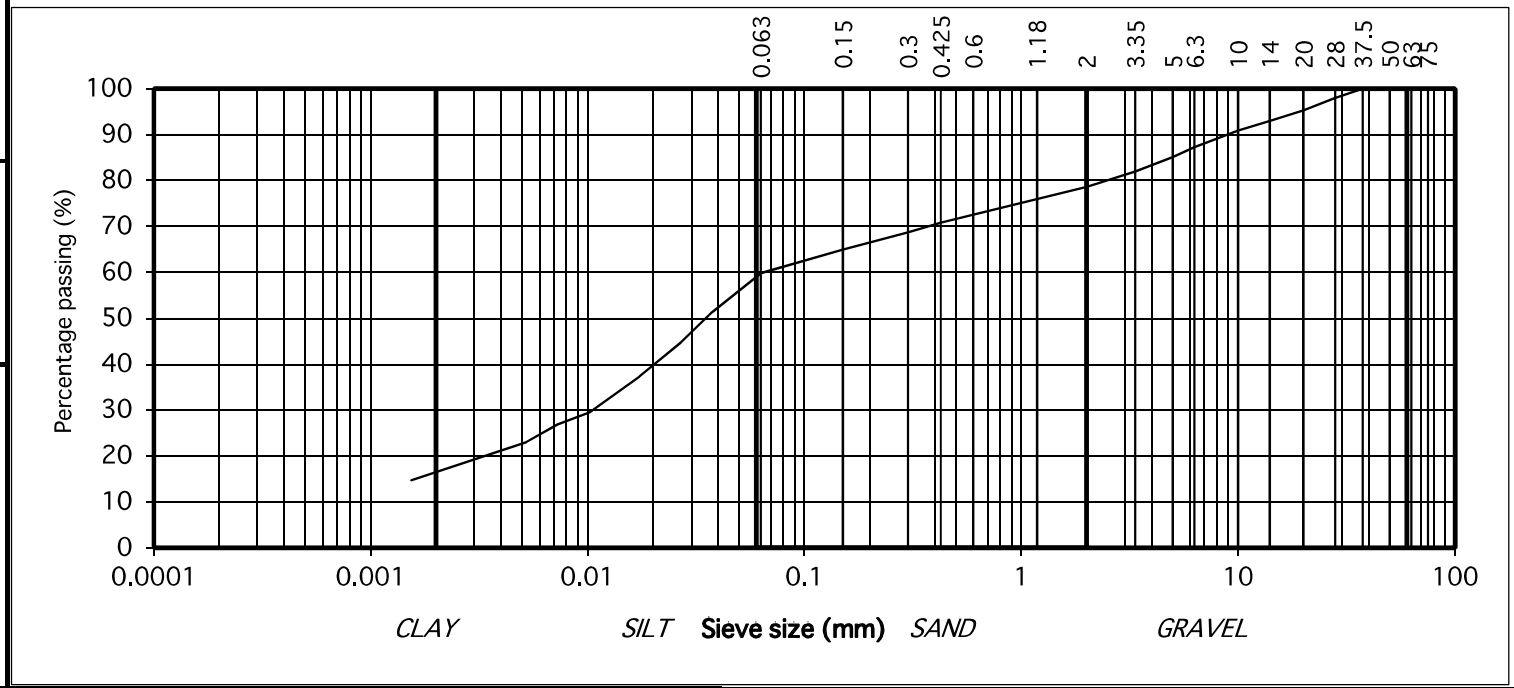
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	95	
14	93	
10	91	
6.3	87	
5	85	
3.35	82	
2	79	
1.18	76	SAND
0.6	73	
0.425	71	
0.3	69	
0.15	65	
0.063	60	SILT/CLAY
0.037	51	
0.027	45	
0.017	37	
0.010	30	
0.007	27	
0.005	23	
0.002	15	

Contract No.	23560	Report No.	R134782	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH105486			
Sample No.*	AA151441	Lab. Sample No.		A22/2386
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

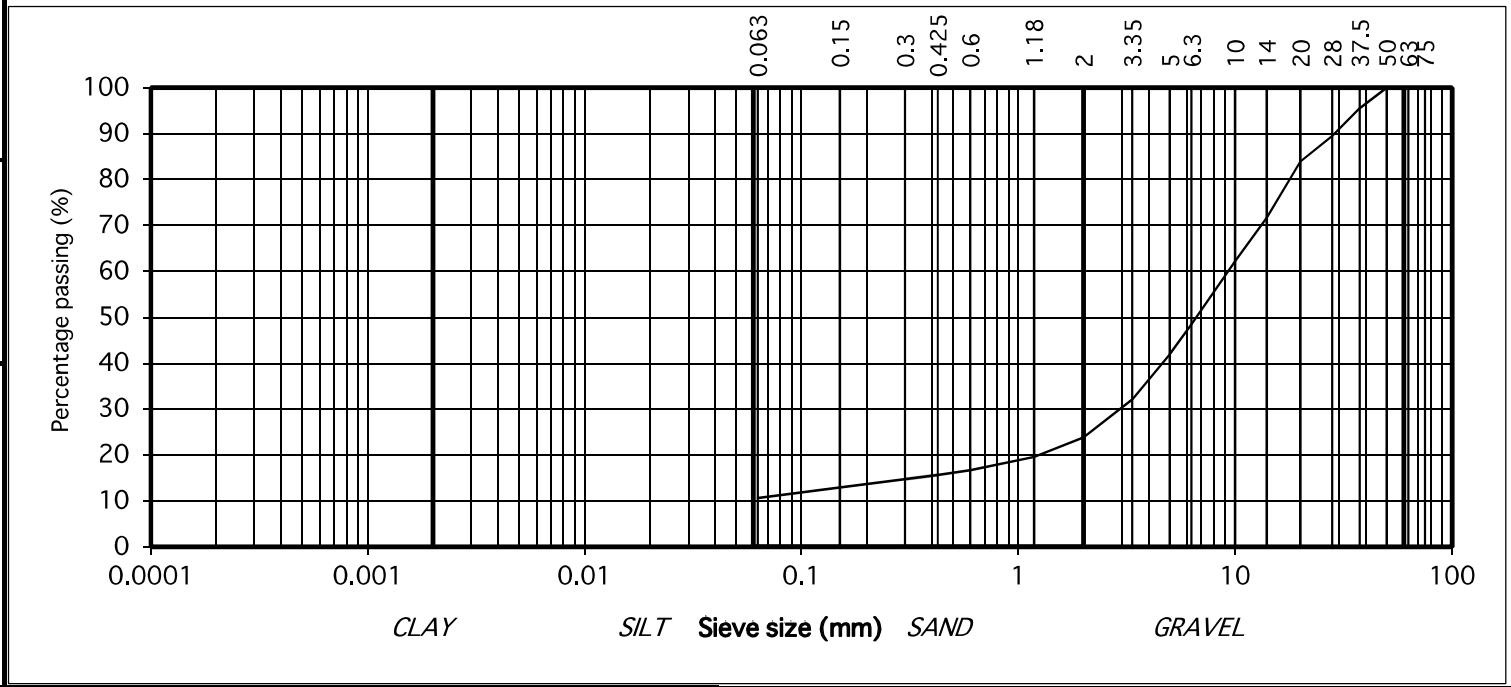
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	90	
20	84	
14	72	
10	62	
6.3	48	
5	42	
3.35	32	
2	24	
1.18	20	SAND
0.6	17	
0.425	16	
0.3	15	
0.15	13	
0.063	11	SILT/CLAY

Contract No.	23560	Report No.	R134282	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH105486			
Sample No.*	AA151444	Lab. Sample No.		A22/2387
Sample Type:	B			
Depth* (m)	9.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey clayey/silty, sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

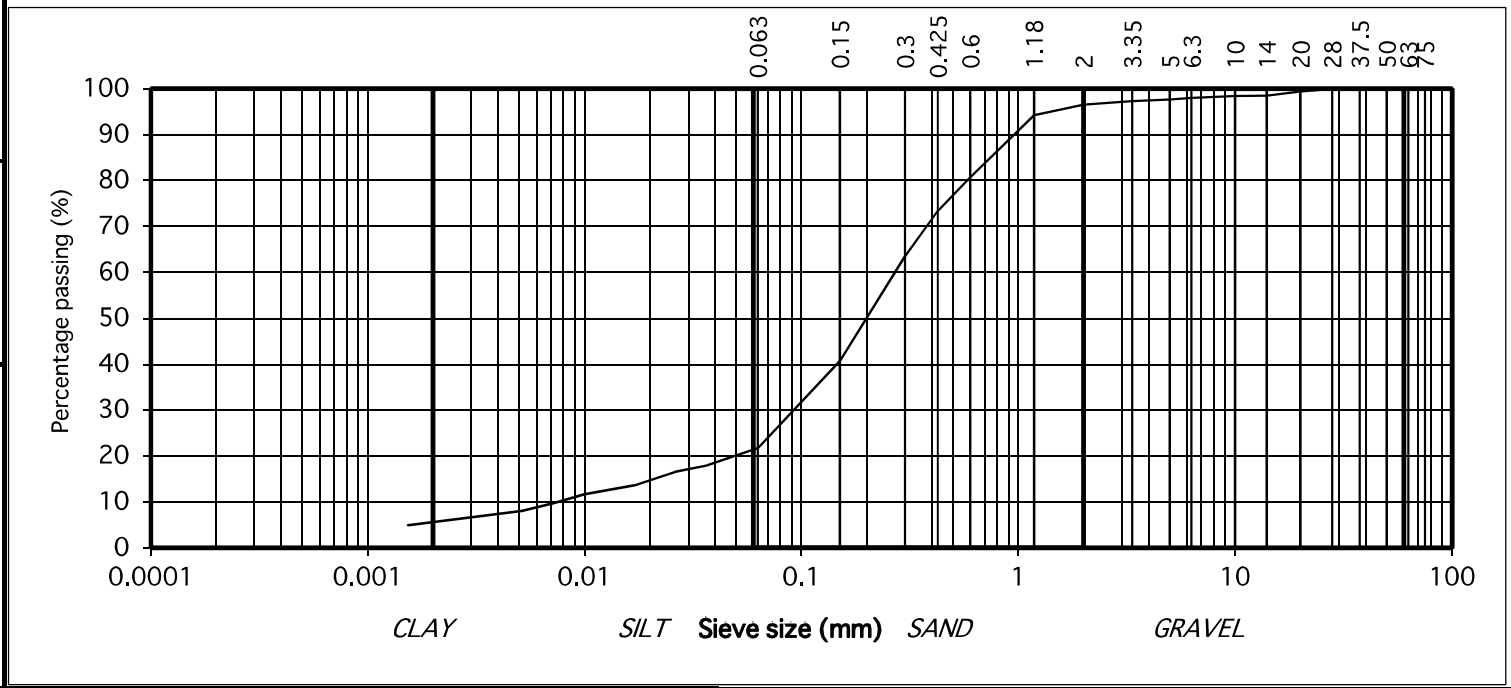
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	99	
14	99	
10	98	
6.3	98	
5	98	
3.35	97	
2	97	
1.18	94	SAND
0.6	81	
0.425	73	
0.3	64	
0.15	41	
0.063	22	SILT/CLAY
0.036	18	
0.026	17	
0.017	14	
0.010	12	
0.007	10	
0.005	8	
0.002	5	

Contract No.	23560	Report No.	R144032	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH105990			
Sample No.*	AA151450	Lab. Sample No.		A22/2390
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown very sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

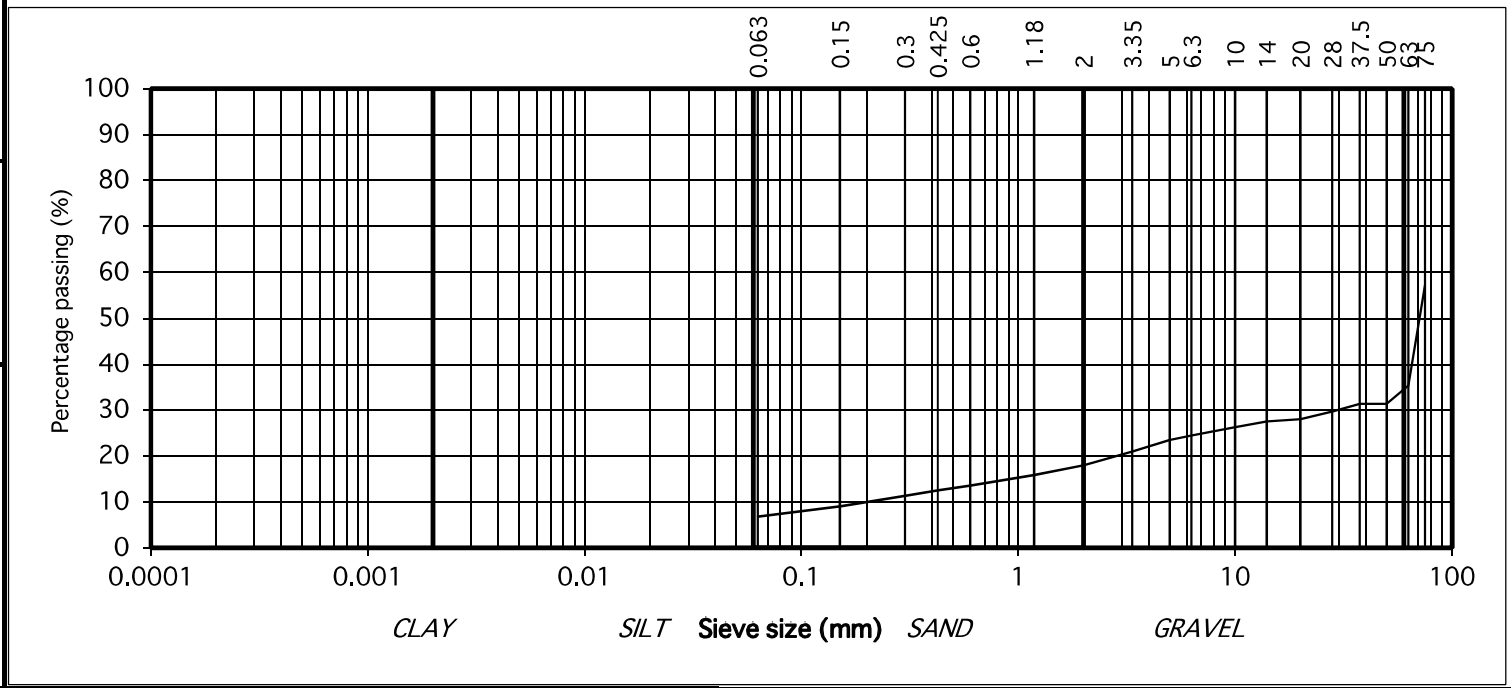
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	57	COBBLES
63	35	
50	31	GRAVEL
37.5	31	
28	30	
20	28	
14	28	
10	26	
6.3	25	
5	24	
3.35	21	
2	18	
1.18	16	SAND
0.6	14	
0.425	13	
0.3	11	
0.15	9	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R144034	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH105990			
Sample No.*	AA161405	Lab. Sample No.		A22/2392
Sample Type:	B			
Depth* (m)	8.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	COBBLES with grey clayey/silty, sandy, gravel			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

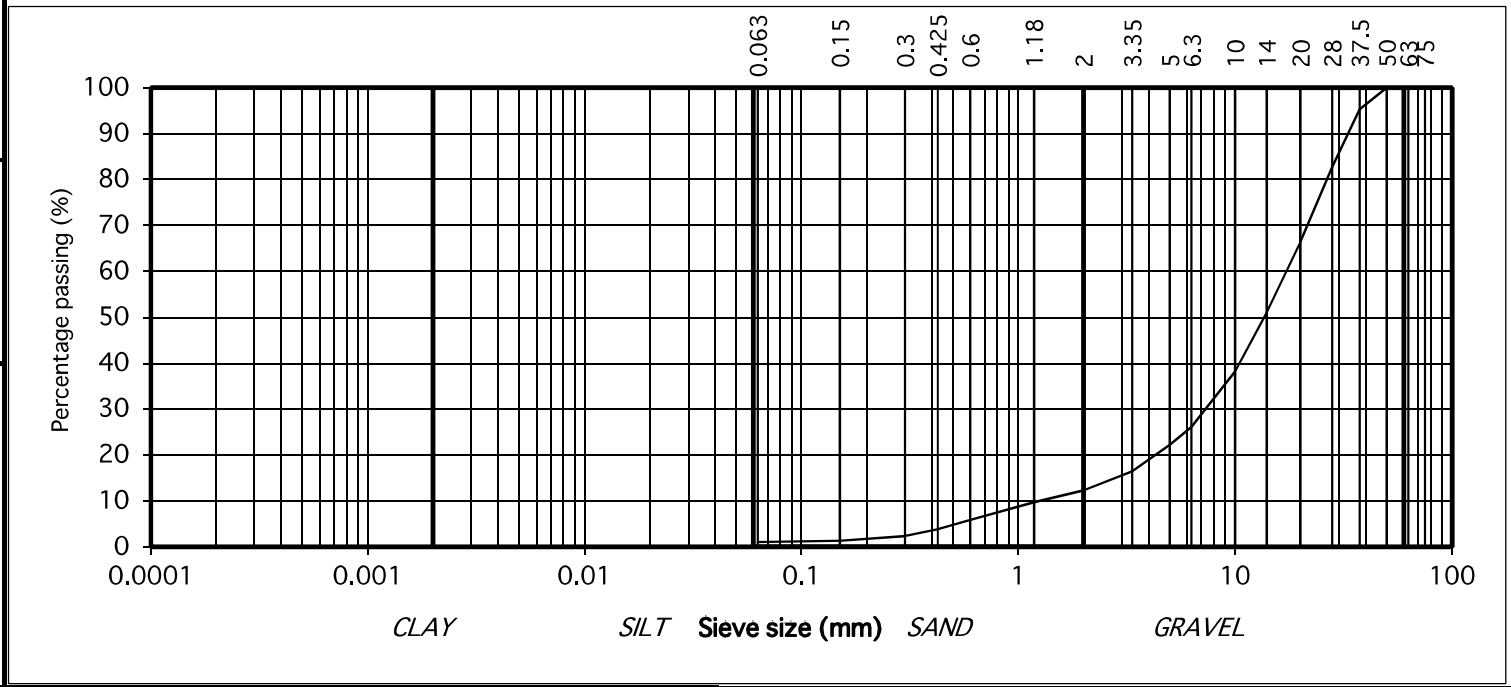
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	83	
20	66	
14	51	
10	38	
6.3	26	
5	22	
3.35	16	
2	12	
1.18	10	SAND
0.6	6	
0.425	4	
0.3	2	
0.15	1	
0.063	1	SILT/CLAY

Contract No.	23560	Report No.	R144033	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH105990			
Sample No.*	AA161403	Lab. Sample No.		A22/2391
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey slightly clayey/silty, sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

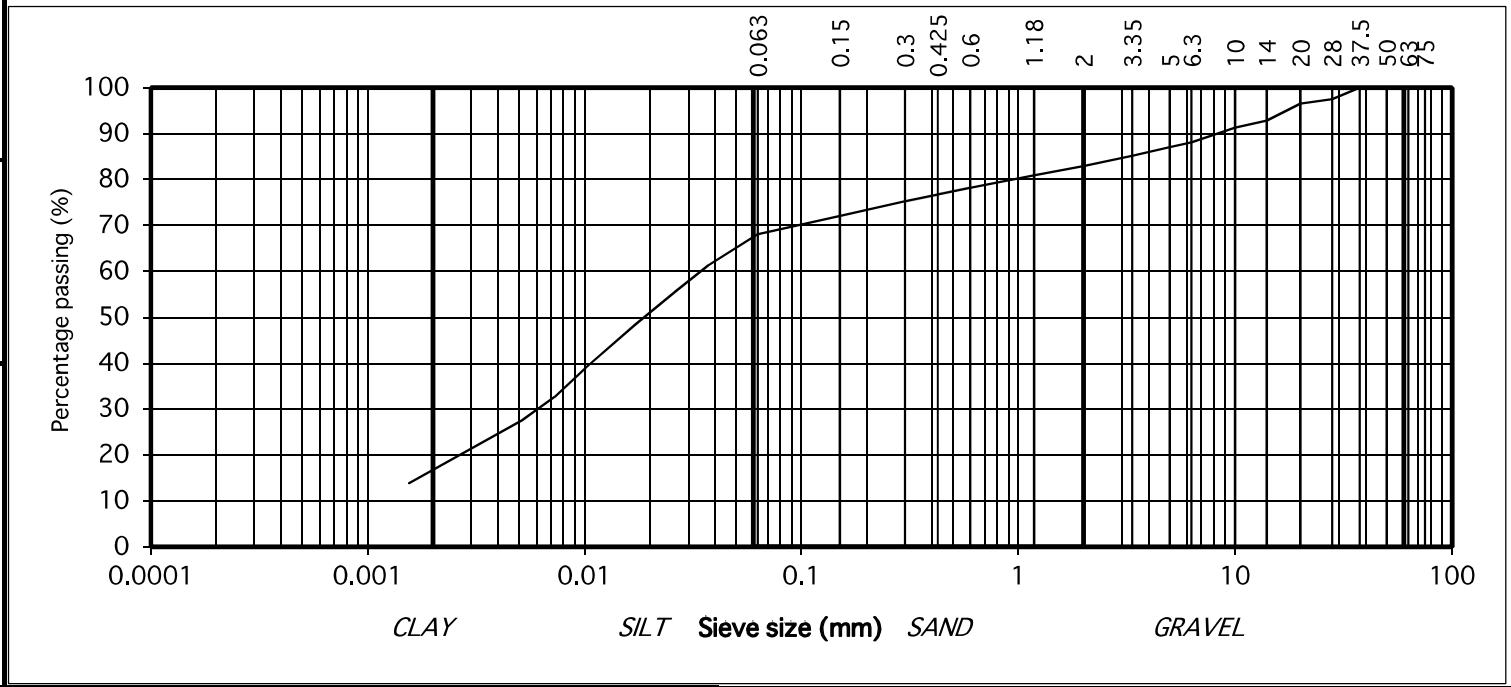
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	97	
14	93	
10	91	
6.3	88	
5	87	
3.35	85	
2	83	
1.18	81	SAND
0.6	78	
0.425	77	
0.3	75	
0.15	72	
0.063	68	SILT/CLAY
0.037	61	
0.027	56	
0.017	48	
0.010	39	
0.007	33	
0.005	28	
0.002	14	

Contract No.	23560	Report No.	R134288	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH106421			
Sample No.*	AA161419	Lab. Sample No.		A22/2374
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

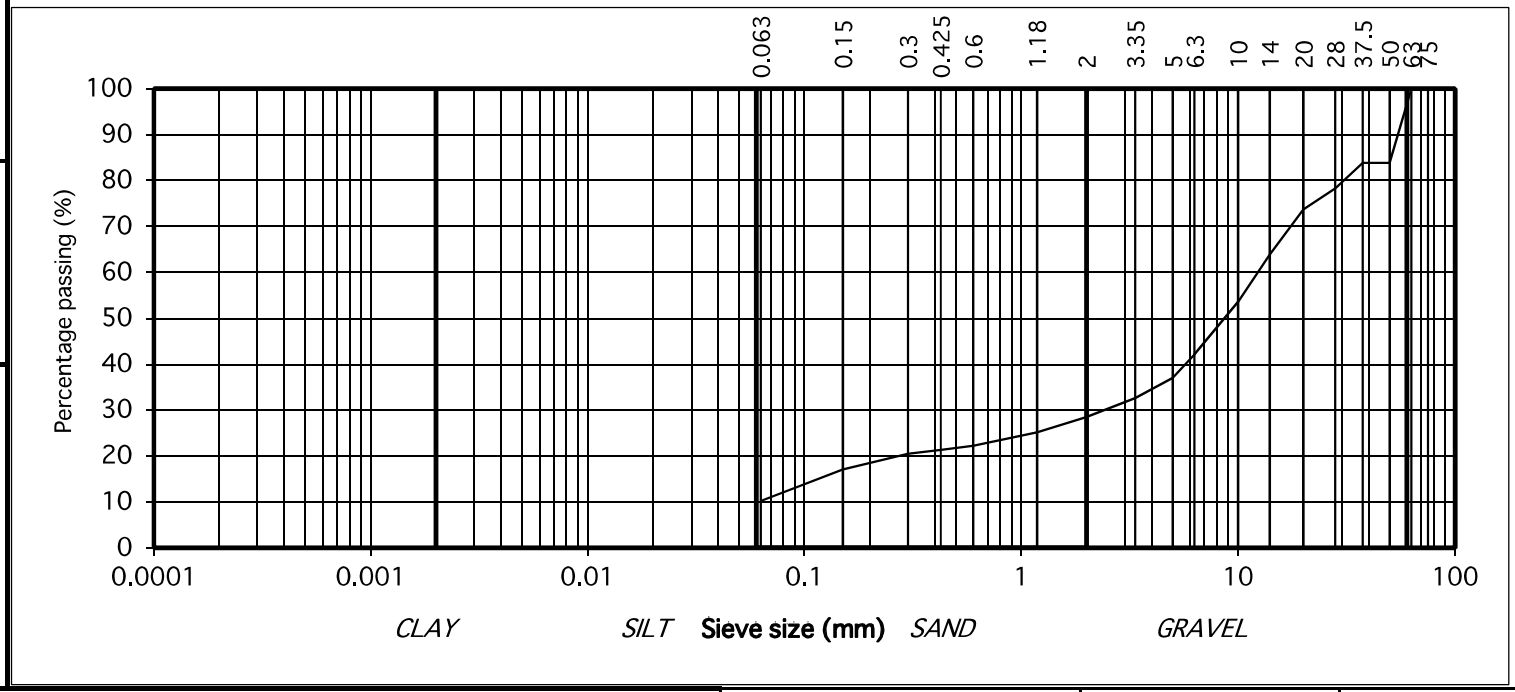
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	84	GRAVEL
37.5	84	
28	78	
20	74	
14	64	
10	54	
6.3	42	
5	37	
3.35	33	
2	28	
1.18	25	SAND
0.6	22	
0.425	21	
0.3	21	
0.15	17	
0.063	10	SILT/CLAY

Contract No.	23560	Report No.	R134286	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH106421			
Sample No.*	AA161420	Lab. Sample No.		A22/2375
Sample Type:	B			
Depth* (m)	7.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey clayey/silty, sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requriements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

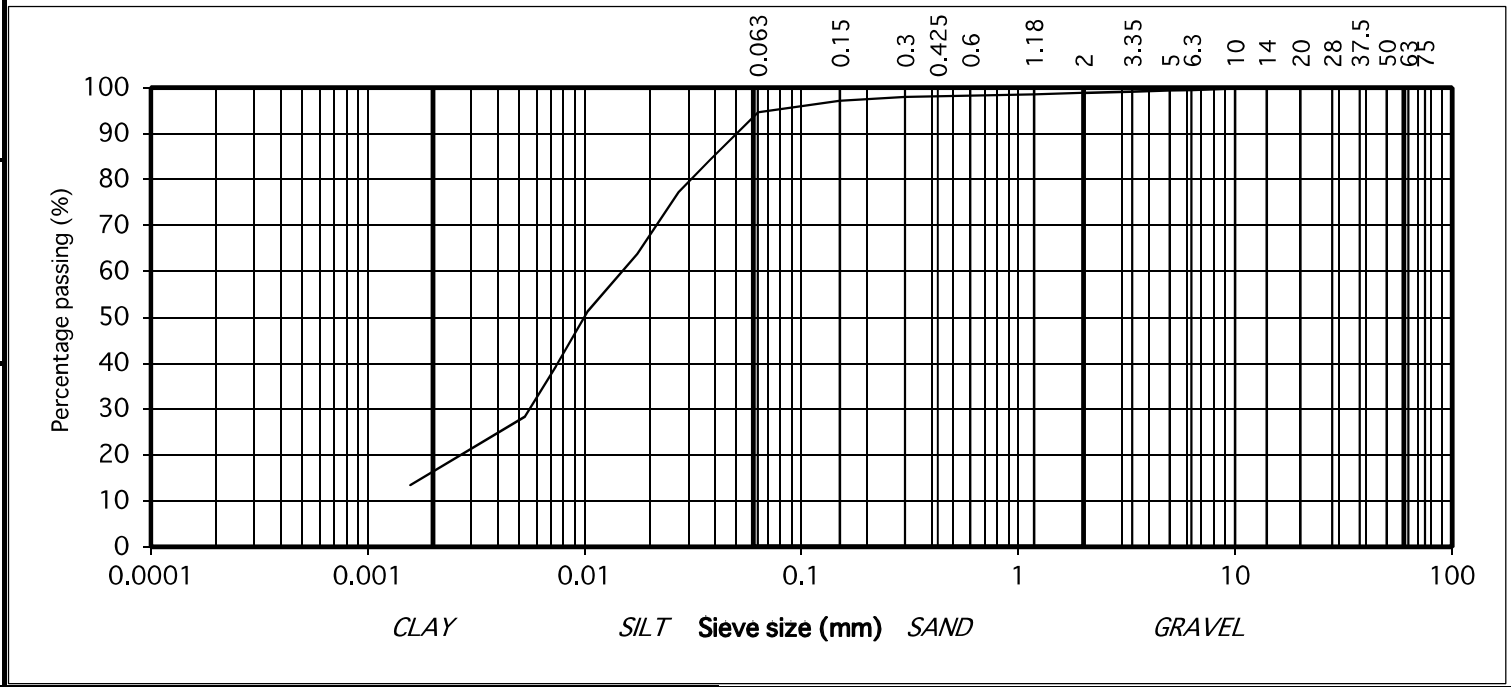
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	99	
3.35	99	
2	99	
1.18	99	SAND
0.6	98	
0.425	98	
0.3	98	
0.15	97	
0.063	95	SILT/CLAY
0.038	84	
0.027	77	
0.017	64	
0.010	51	
0.007	39	
0.005	28	
0.002	13	

Contract No.	23560	Report No.	R134795	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH106421			
Sample No.*	AA161422	Lab. Sample No.		A22/2376
Sample Type:	B			
Depth* (m)	9.00	Customer:	Ervia	
Date Received	05/05/2022	Date Testing started		05/05/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

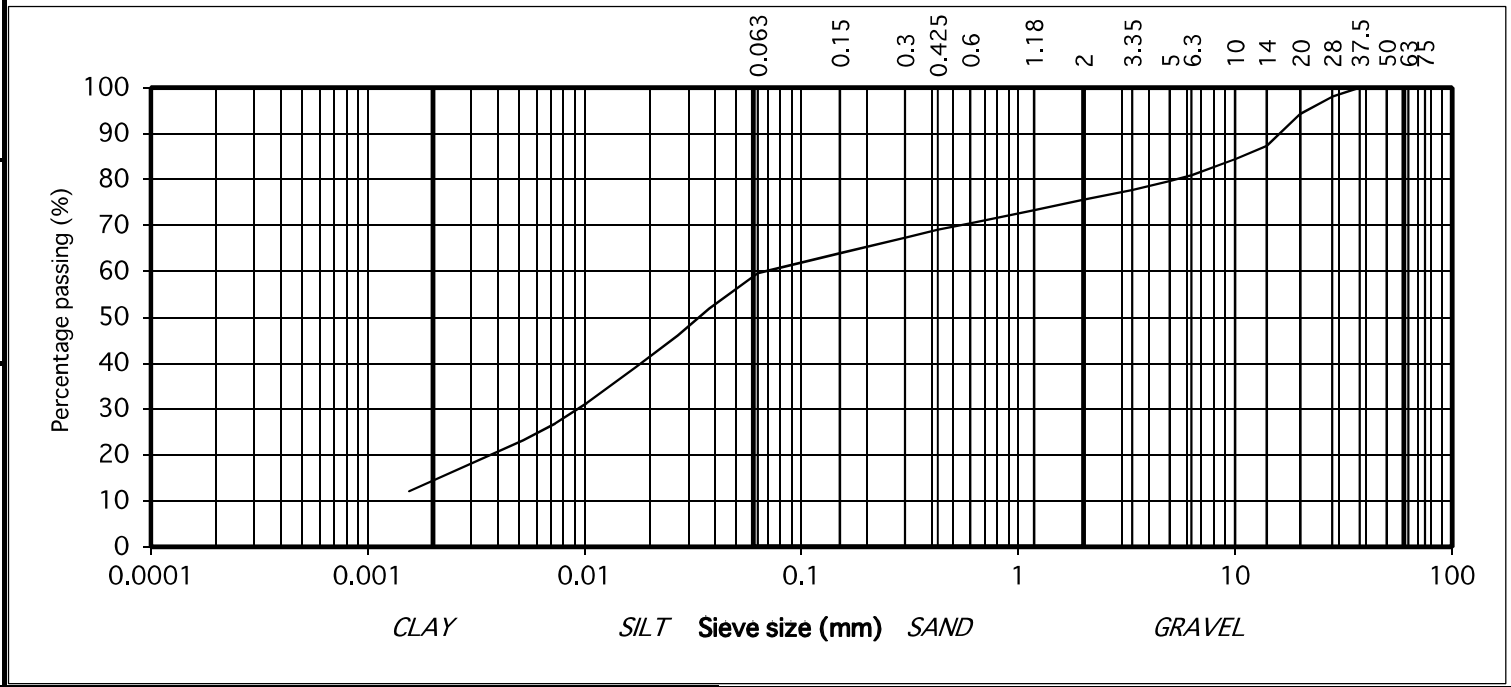
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	94	
14	87	
10	84	
6.3	81	
5	80	
3.35	78	
2	76	
1.18	73	SAND
0.6	71	
0.425	69	
0.3	67	
0.15	64	
0.063	60	SILT/CLAY
0.037	52	
0.027	46	
0.017	39	
0.010	31	
0.007	27	
0.005	23	
0.002	12	

Contract No.	23560	Report No.	R134783	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH106893			
Sample No.*	AA161428	Lab. Sample No.		A22/2380
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey/Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

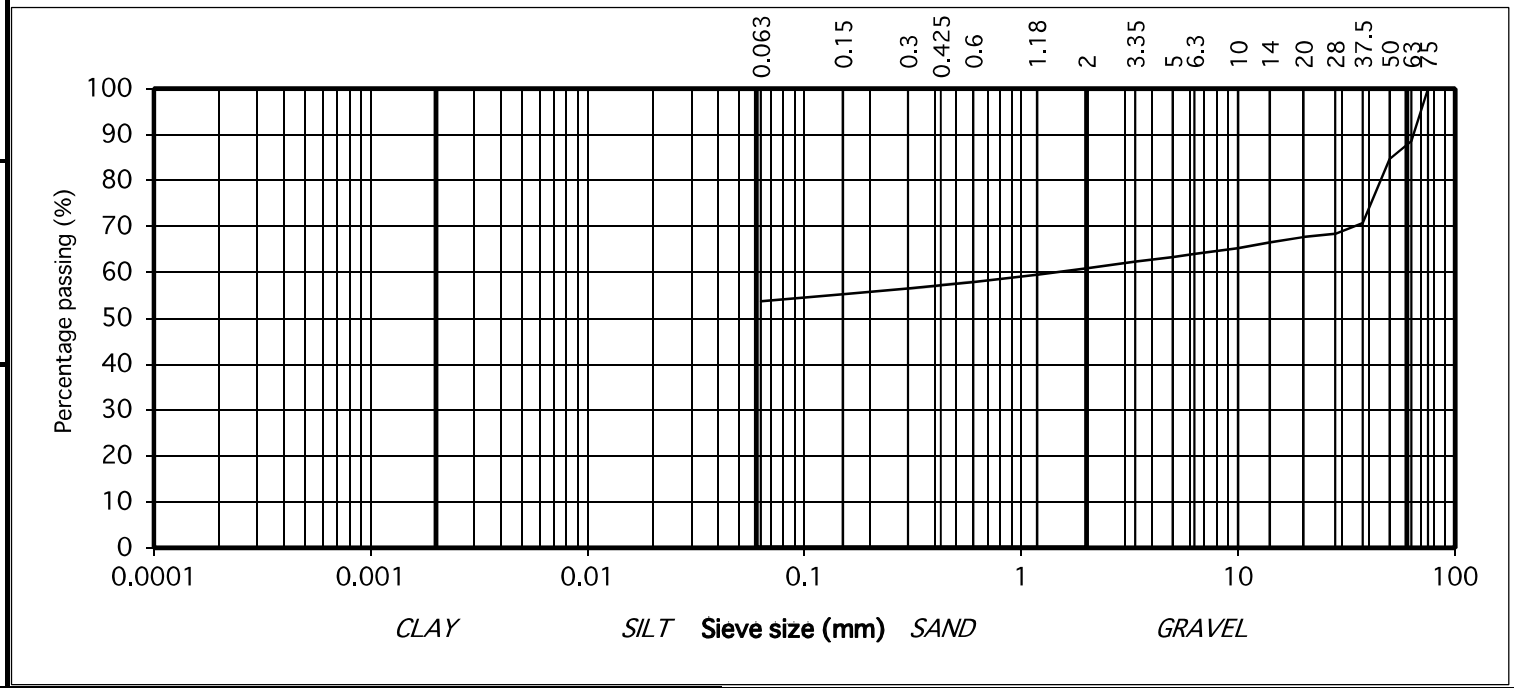
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	89	
50	85	GRAVEL
37.5	71	
28	68	
20	68	
14	67	
10	65	
6.3	64	
5	63	
3.35	62	
2	61	
1.18	60	SAND
0.6	58	
0.425	57	
0.3	57	
0.15	55	
0.063	54	SILT/CLAY

Contract No.	23560	Report No.	R136473	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH106893			
Sample No.*	AA161430	Lab. Sample No.		A22/2381
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

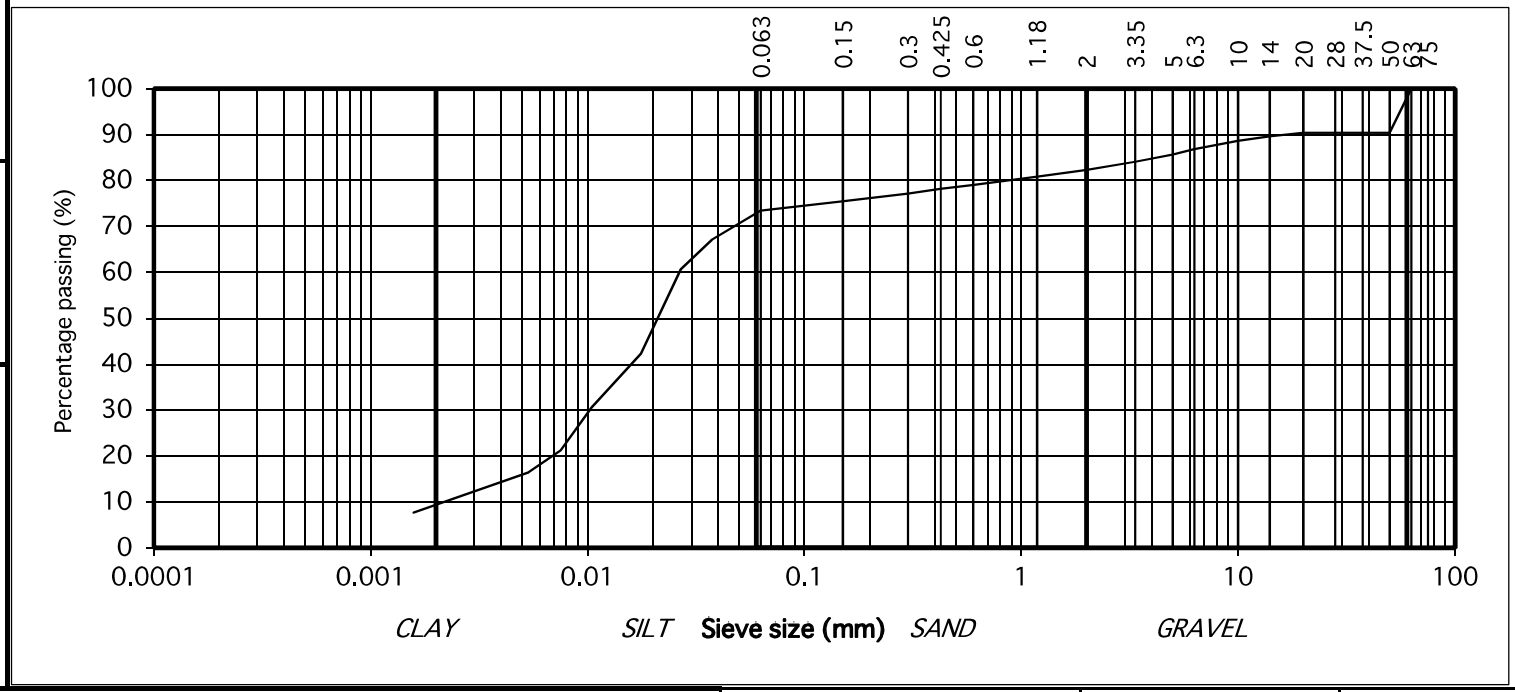
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	90	GRAVEL
37.5	90	
28	90	
20	90	
14	90	
10	89	
6.3	87	
5	86	
3.35	84	
2	82	
1.18	81	SAND
0.6	79	
0.425	78	
0.3	77	
0.15	75	
0.063	73	SILT/CLAY
0.037	67	
0.027	61	
0.018	42	
0.010	31	
0.008	21	
0.005	16	
0.002	8	

Contract No.	23560	Report No.	R134153	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH107272			
Sample No.*	AA161437	Lab. Sample No.		A22/2310
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

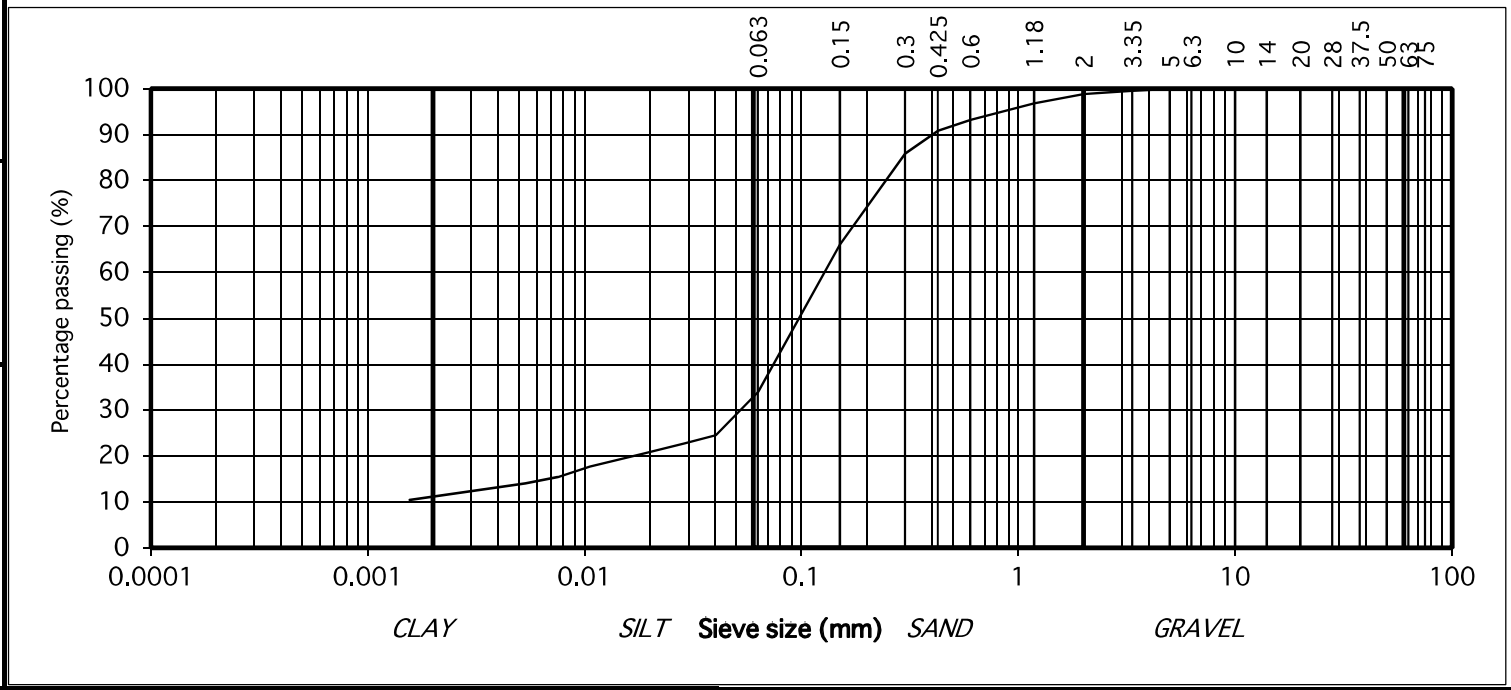
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	99	
1.18	97	SAND
0.6	93	
0.425	91	
0.3	86	
0.15	66	
0.063	34	SILT/CLAY
0.040	25	
0.029	23	
0.018	20	
0.011	18	
0.008	15	
0.005	14	
0.002	10	

Contract No.	23560	Report No.	R136474	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH106893			
Sample No.*	AA161434	Lab. Sample No.		A22/2382
Sample Type:	B			
Depth* (m)	9.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey sandy, slightly gravelly, SILT/CLAY			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

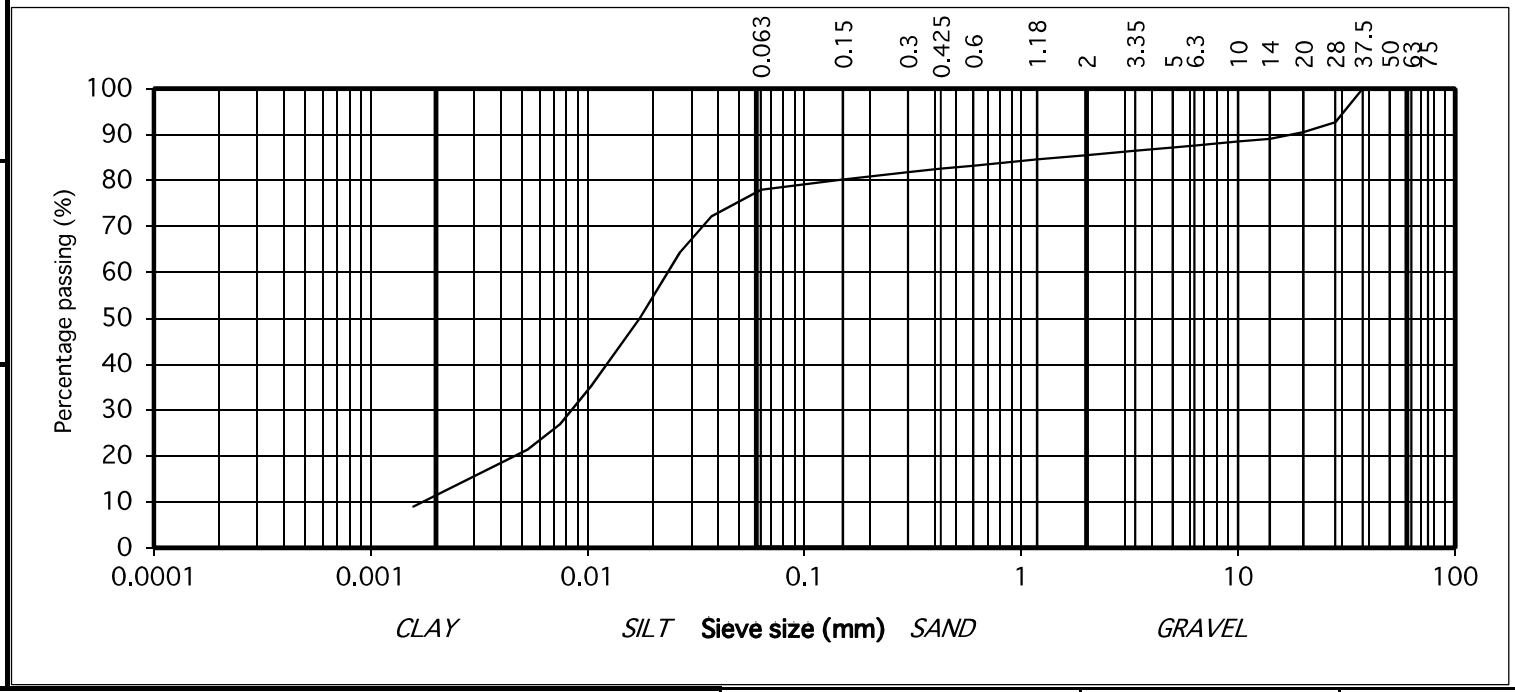
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	93	
20	91	
14	89	
10	89	
6.3	88	
5	87	
3.35	87	
2	86	
1.18	85	SAND
0.6	83	
0.425	83	
0.3	82	
0.15	80	
0.063	78	SILT/CLAY
0.037	72	
0.027	64	
0.017	50	
0.010	35	
0.007	27	
0.005	21	
0.002	9	

Contract No.	23560	Report No.	R134790	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH107272			
Sample No.*	AA161439	Lab. Sample No.		A22/2311
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

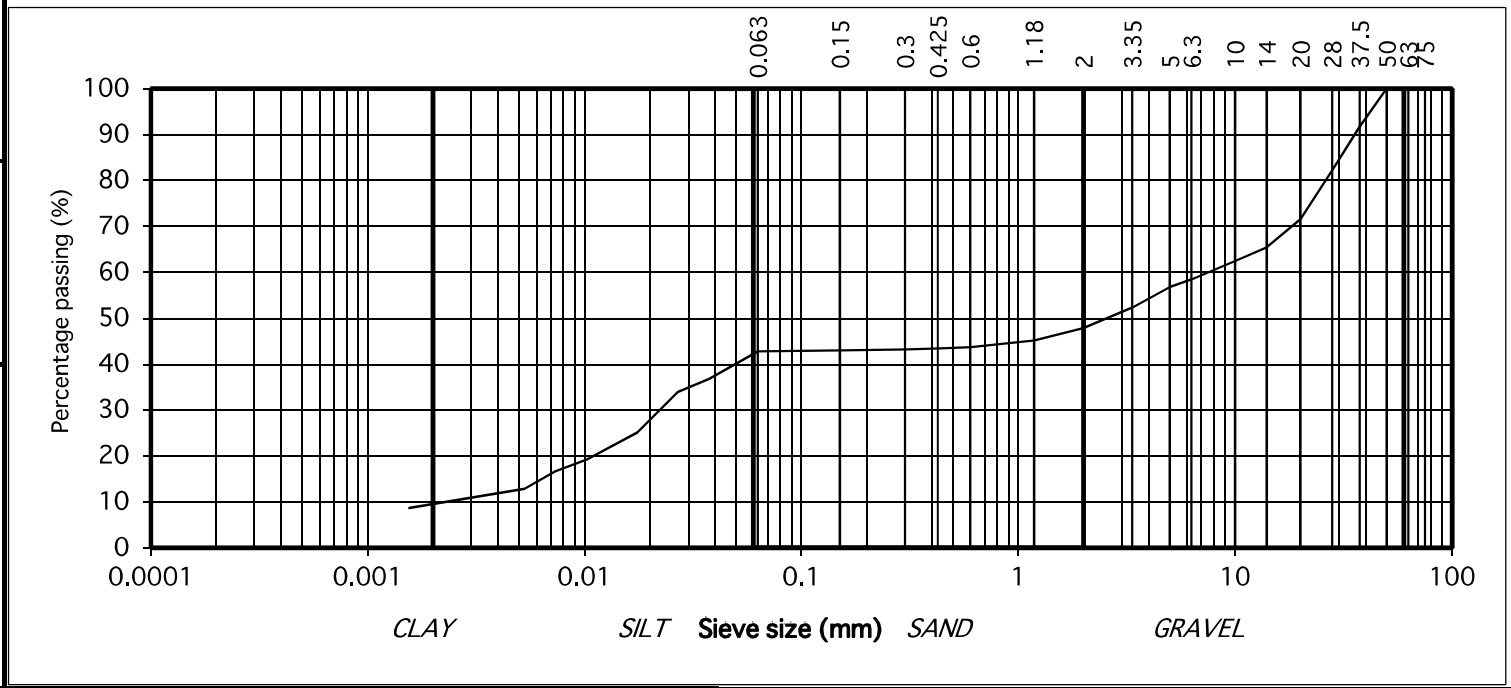
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	92	
28	82	
20	72	
14	66	
10	62	
6.3	58	
5	57	
3.35	52	
2	48	
1.18	45	SAND
0.6	44	
0.425	43	
0.3	43	
0.15	43	
0.063	43	SILT/CLAY
0.037	37	
0.027	34	
0.018	25	
0.010	19	
0.007	17	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R134154	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH107272			
Sample No.*	AA161440	Lab. Sample No.		A22/2312
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

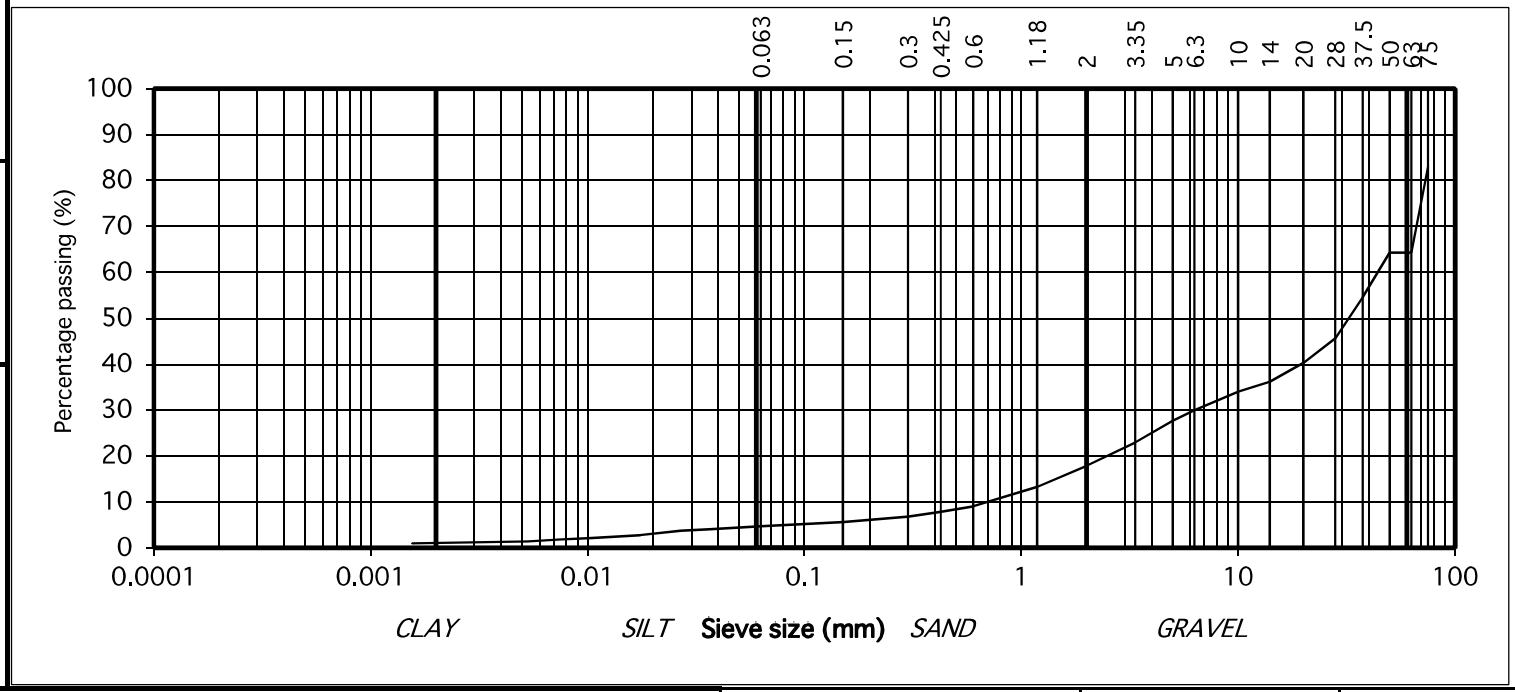
particle size	% passing	
75	83	COBBLES
63	64	
50	64	GRAVEL
37.5	55	
28	46	
20	40	
14	36	
10	34	
6.3	30	
5	28	
3.35	23	
2	18	
1.18	13	SAND
0.6	9	
0.425	8	
0.3	7	
0.15	6	
0.063	5	SILT/CLAY
0.037	4	
0.027	4	
0.018	3	
0.010	2	
0.007	2	
0.005	1	
0.002	1	

Contract No.	23560	Report No.	R134155	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH107272			
Sample No.*	AA161441	Lab. Sample No.		A22/2313
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey slightly clayey/silty, sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

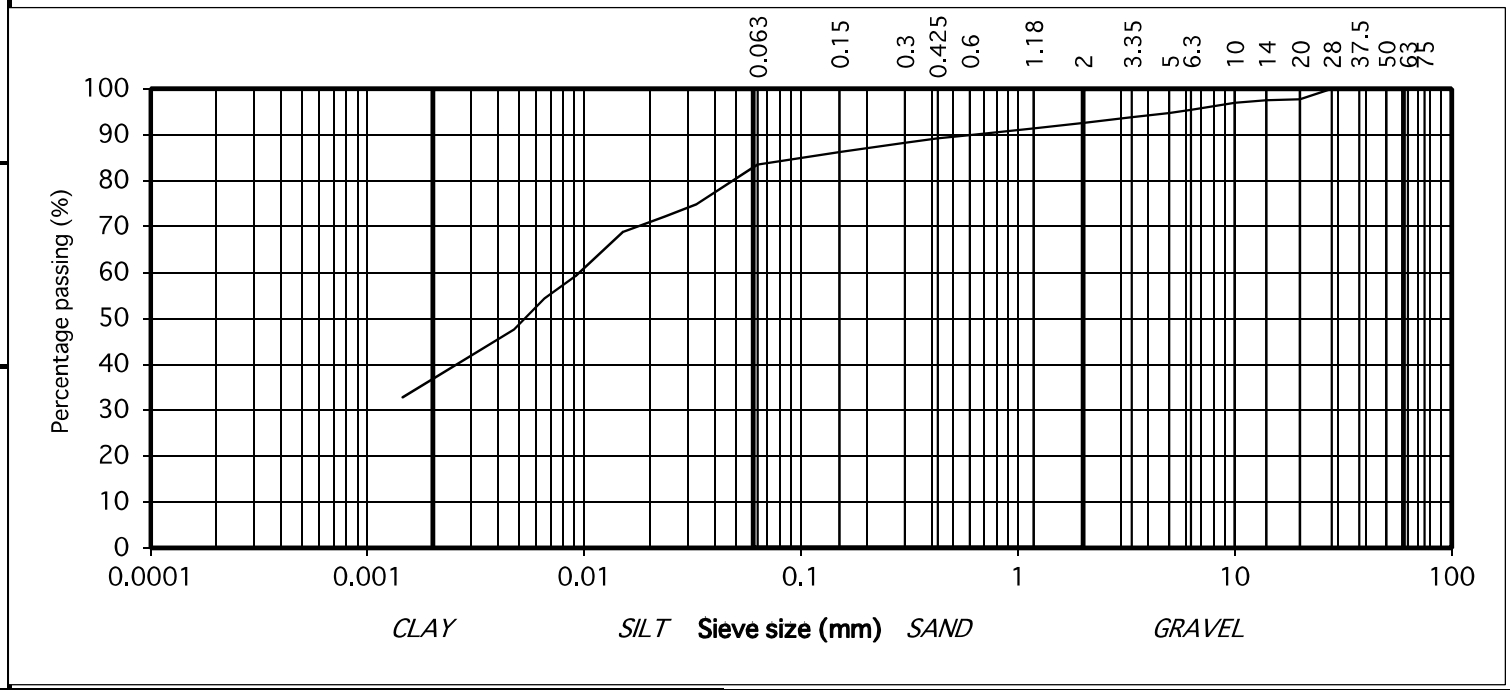
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	98	
14	98	
10	97	
6.3	95	
5	95	
3.35	94	
2	93	
1.18	91	SAND
0.6	90	
0.425	89	
0.3	88	
0.15	86	
0.063	83	SILT/CLAY
0.033	75	
0.024	72	
0.015	69	
0.009	59	
0.007	54	
0.005	48	
0.001	33	

Contract No.	23560	Report No.	R136479	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH107807			
Sample No.*	AA173258	Lab. Sample No.		A22/2424
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

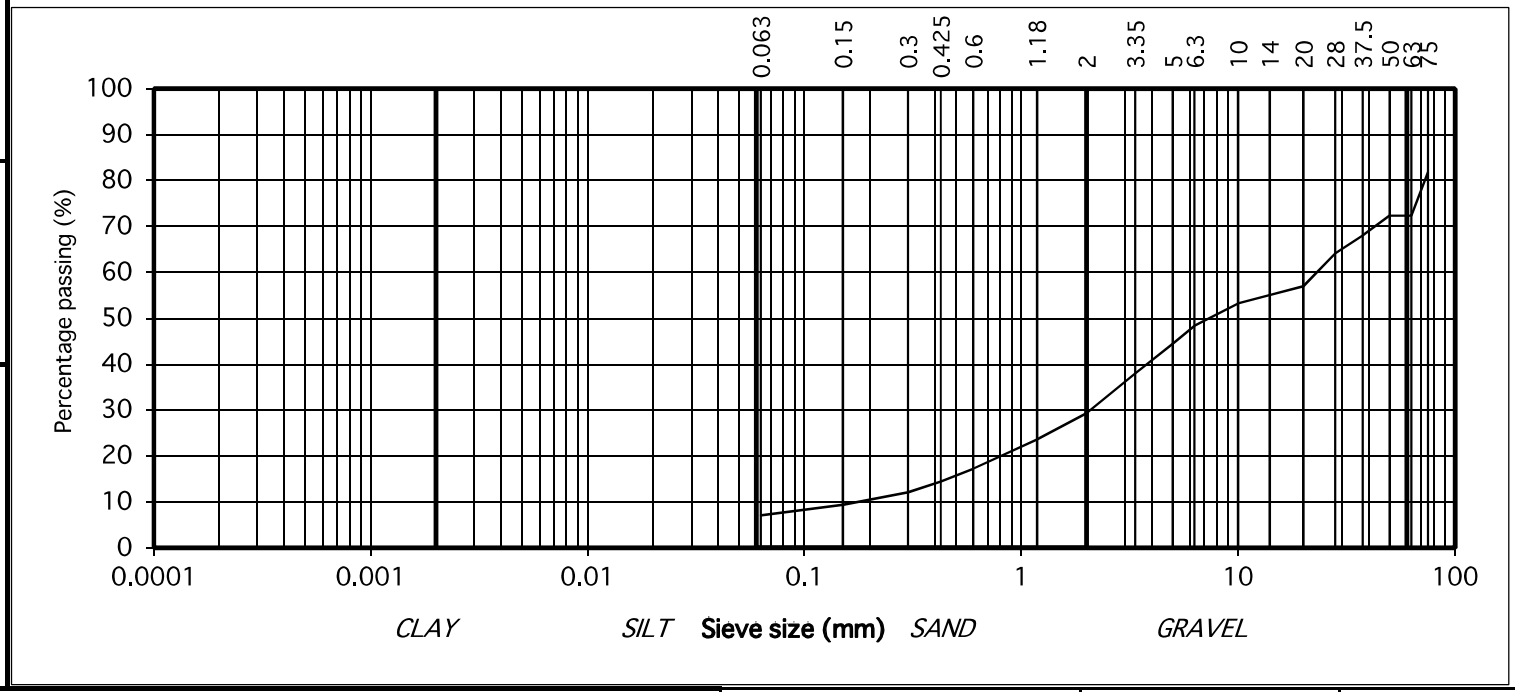
particle size	% passing	
75	82	COBBLES
63	72	
50	72	GRAVEL
37.5	68	
28	64	
20	57	
14	55	
10	53	
6.3	48	
5	45	
3.35	38	
2	29	
1.18	24	SAND
0.6	17	
0.425	15	
0.3	12	
0.15	9	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R137398	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH107807			
Sample No.*	AA173265	Lab. Sample No.		A22/2426
Sample Type:	B			
Depth* (m)	9.00	Customer:	Ervia	
Date Received	15/07/2022	Date Testing started		15/07/2022
Description:	Brown clayey/silty, very sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

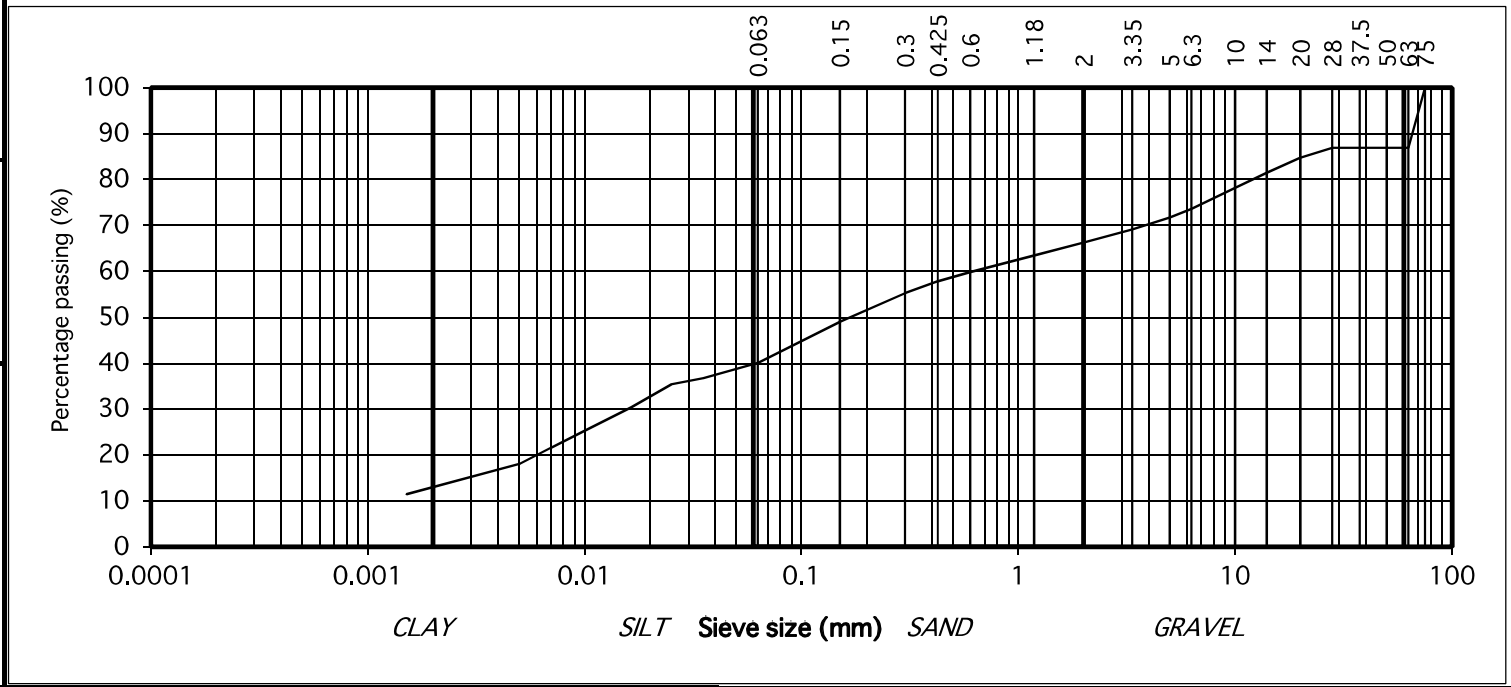
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	87	
50	87	GRAVEL
37.5	87	
28	87	
20	85	
14	81	
10	78	
6.3	74	
5	72	
3.35	69	
2	66	
1.18	63	SAND
0.6	60	
0.425	58	
0.3	55	
0.15	49	
0.063	40	SILT/CLAY
0.035	37	
0.025	35	
0.016	30	
0.010	25	
0.007	22	
0.005	18	
0.002	12	

Contract No.	23560	Report No.	R135246	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH124677			
Sample No.*	AA179176	Lab. Sample No.		A22/2415
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

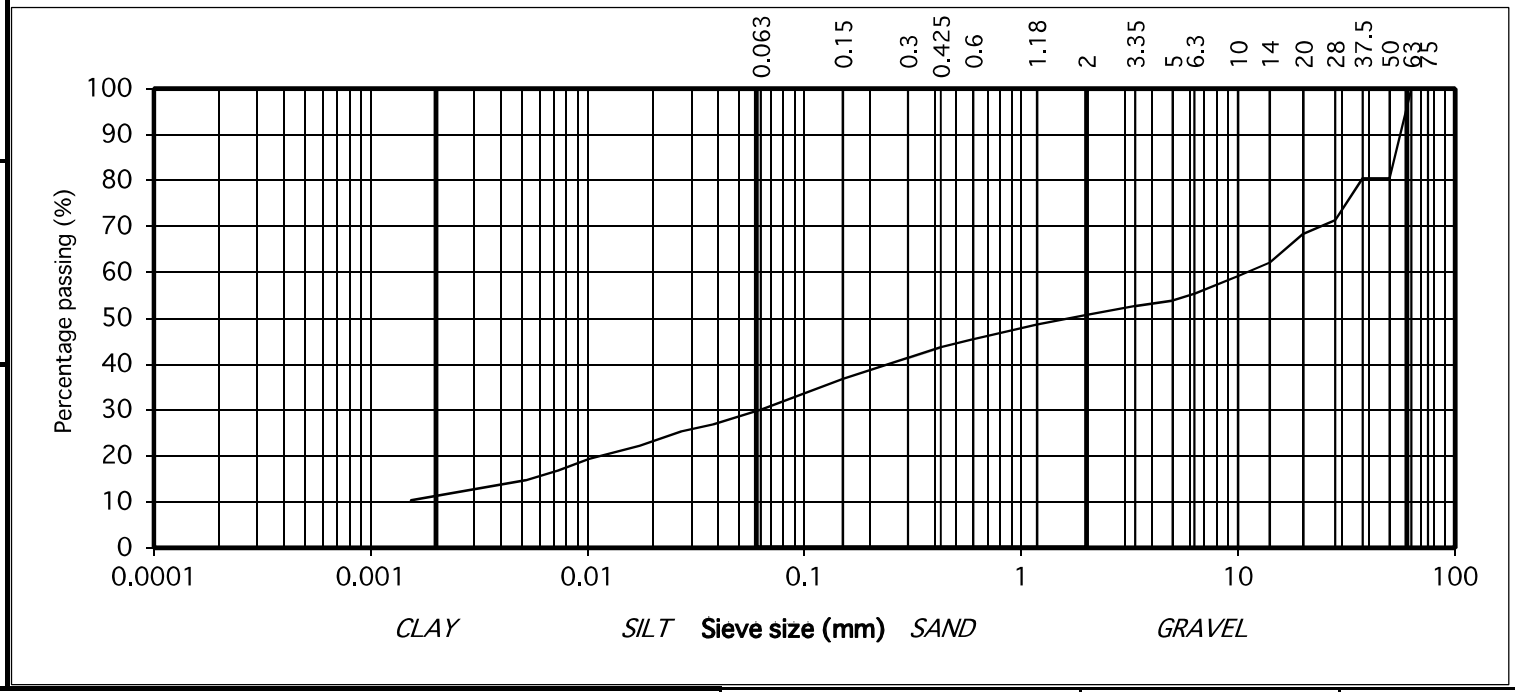
particle size	% passing	
75	100	COBBLES
63	100	
50	81	GRAVEL
37.5	81	
28	71	
20	68	
14	62	
10	59	
6.3	55	
5	54	
3.35	53	
2	51	
1.18	49	SAND
0.6	45	
0.425	44	
0.3	41	
0.15	37	
0.063	30	SILT/CLAY
0.038	27	
0.027	25	
0.017	22	
0.010	19	
0.007	17	
0.005	15	
0.002	10	

Contract No.	23560	Report No.	R134794	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH108409			
Sample No.*	AA161447	Lab. Sample No.		A22/2315
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	05/05/2022	Date Testing started		05/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

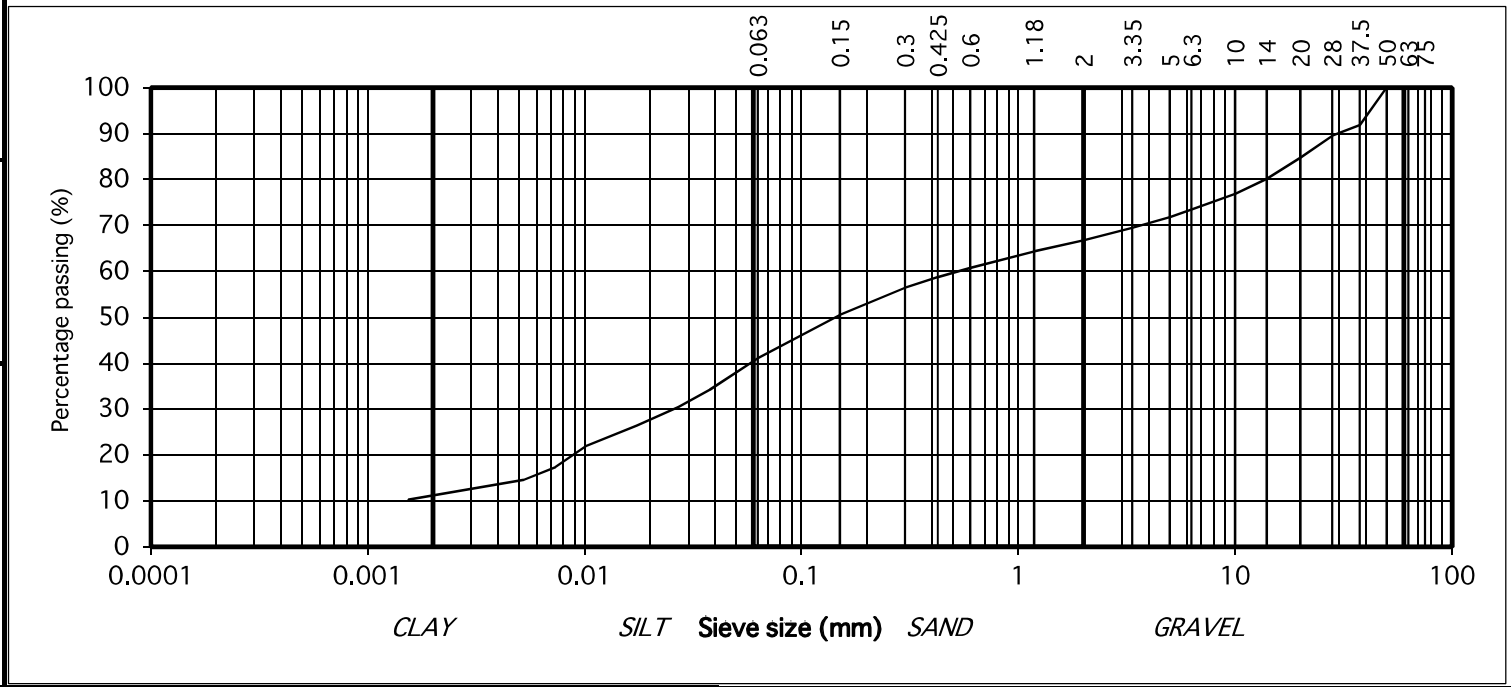
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	92	
28	90	
20	85	
14	80	
10	77	
6.3	73	
5	72	
3.35	70	
2	67	
1.18	64	SAND
0.6	61	
0.425	59	
0.3	56	
0.15	51	
0.063	41	SILT/CLAY
0.038	34	
0.027	30	
0.017	26	
0.010	22	
0.007	17	
0.005	15	
0.002	10	

Contract No. 23560 Report No. R134156
Contract Name: WSP - Lot 3
BH/TP* : BH108409
Sample No.* AA161445 Lab. Sample No. A22/2314
Sample Type: B
Depth* (m) 3.00 Customer: Ervia
Date Received 04/05/2022 Date Testing started 05/05/2022
Description: Grey/brown slightly sandy, slightly gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

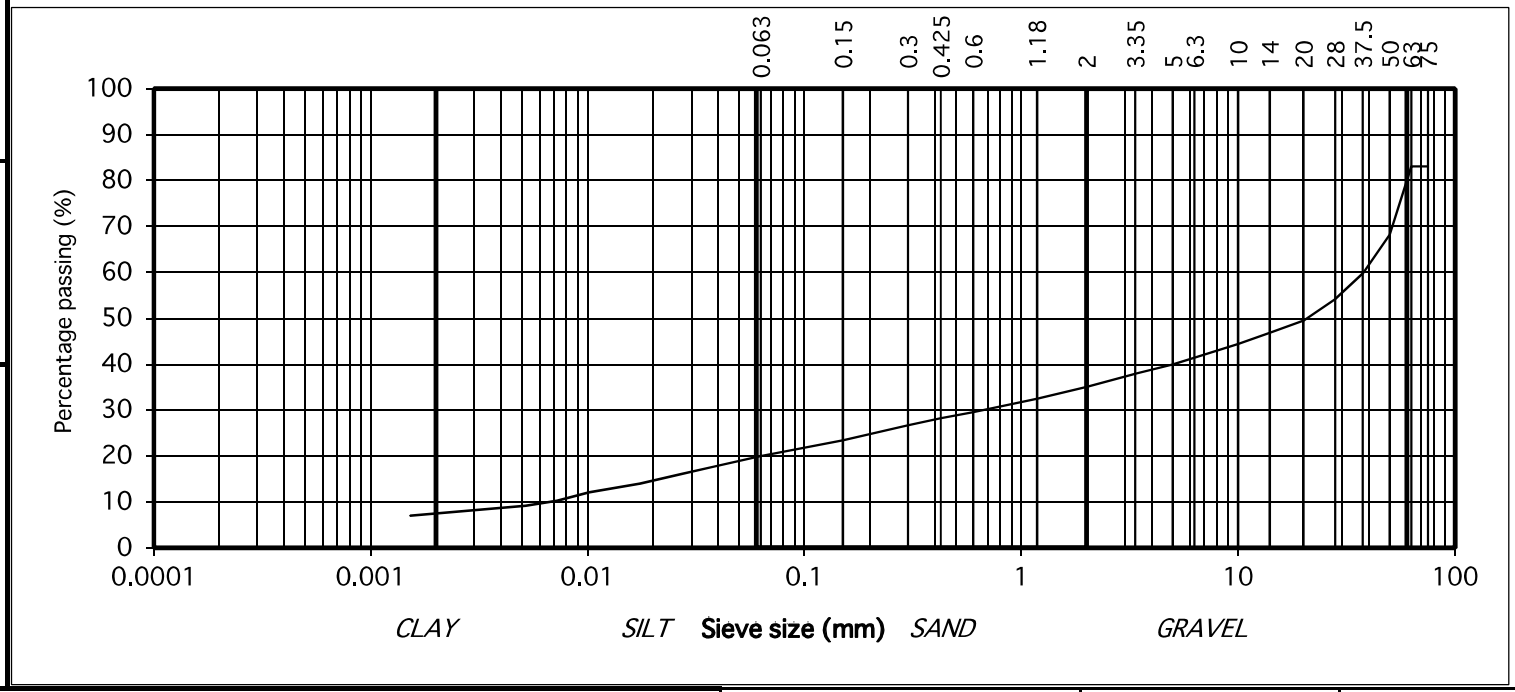
particle size	% passing	
75	83	COBBLES
63	83	
50	68	GRAVEL
37.5	60	
28	54	
20	49	
14	47	
10	44	
6.3	41	
5	40	
3.35	38	
2	35	
1.18	33	SAND
0.6	30	
0.425	28	
0.3	27	
0.15	23	
0.063	20	SILT/CLAY
0.038	18	
0.027	16	
0.017	14	
0.010	12	
0.007	10	
0.005	9	
0.002	7	

Contract No.	23560	Report No.	R134157	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH108690			
Sample No.*	AA173253	Lab. Sample No.		A22/2317
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Grey/brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

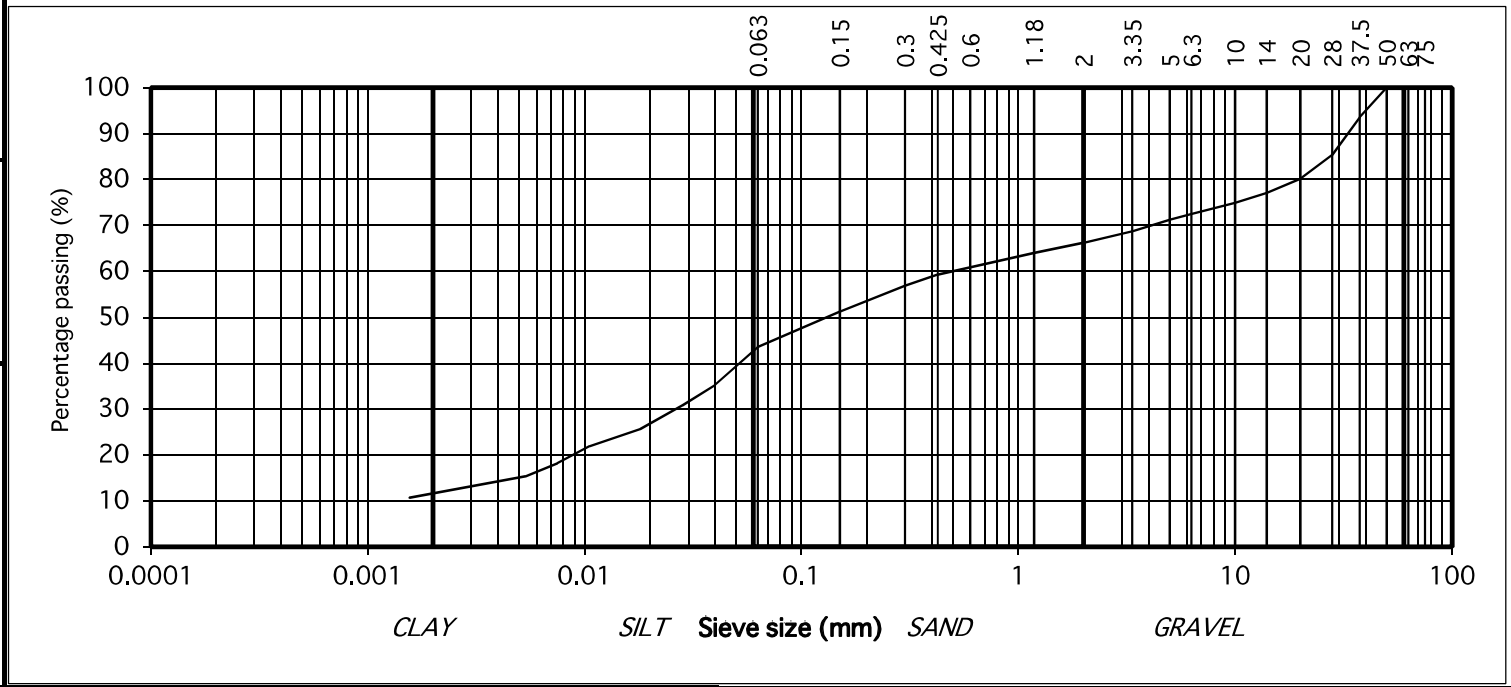
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	94	
28	85	
20	80	
14	77	
10	75	
6.3	73	
5	71	
3.35	69	
2	66	
1.18	64	SAND
0.6	61	
0.425	59	
0.3	57	
0.15	51	
0.063	44	SILT/CLAY
0.039	35	
0.028	31	
0.018	26	
0.010	22	
0.007	18	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R137011	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH108690			
Sample No.*	AA173251	Lab. Sample No.		A22/2316
Sample Type:	B			
Depth* (m)	1.00	Customer:	Ervia	
Date Received	05/05/2022	Date Testing started		05/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

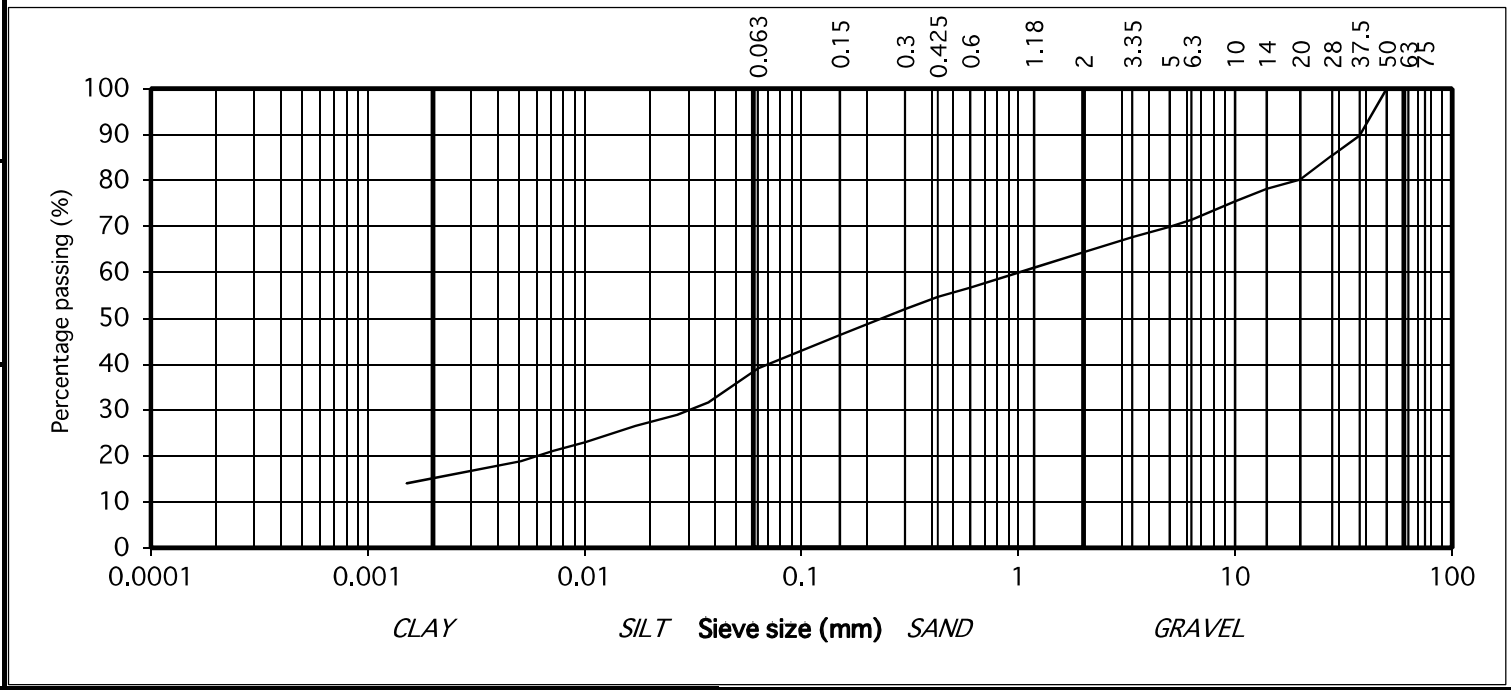
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	90	
28	86	
20	80	
14	78	
10	75	
6.3	71	
5	70	
3.35	68	
2	64	
1.18	61	SAND
0.6	57	
0.425	55	
0.3	52	
0.15	46	
0.063	39	SILT/CLAY
0.037	32	
0.027	29	
0.017	27	
0.010	23	
0.007	21	
0.005	19	
0.002	14	

Contract No.	23560	Report No.	R137012	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH108690			
Sample No.*	AA173254	Lab. Sample No.		A22/2318
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	05/05/2022	Date Testing started		05/05/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

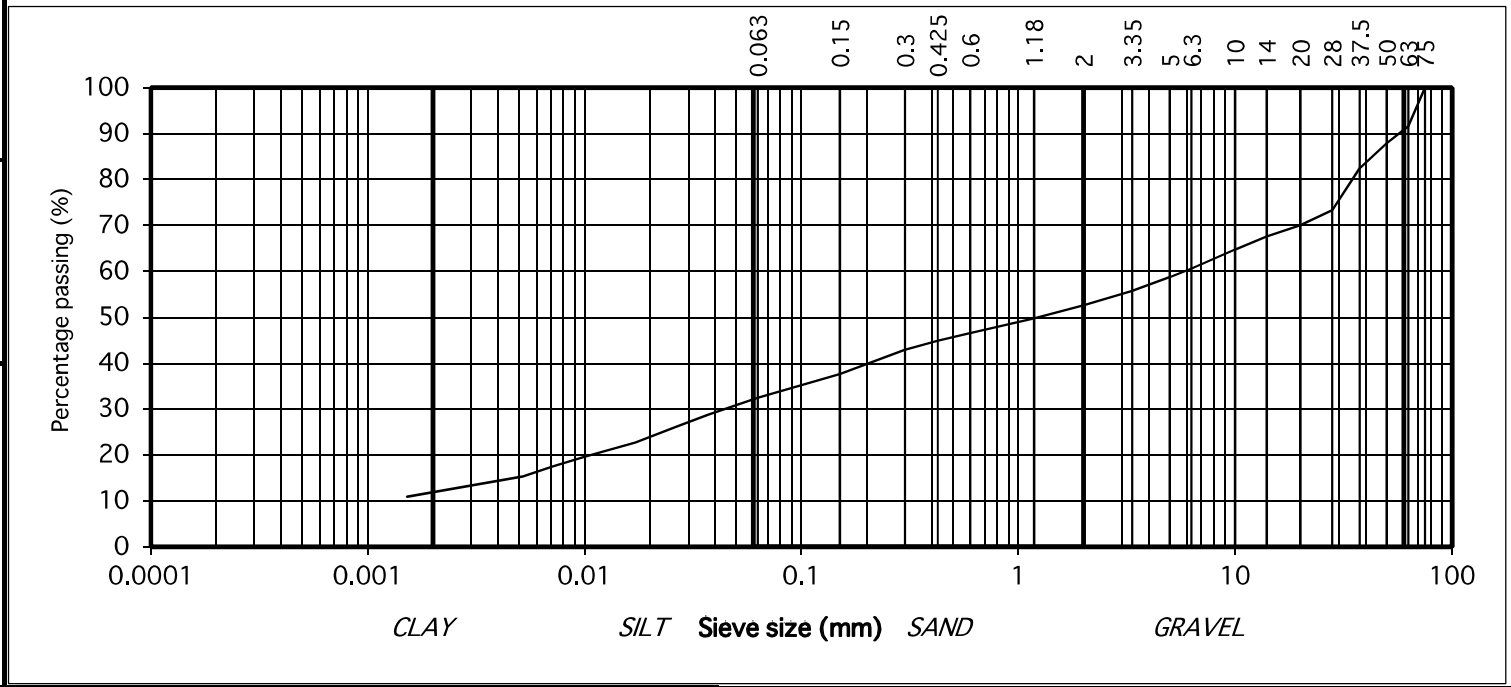
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	92	
50	88	GRAVEL
37.5	82	
28	73	
20	70	
14	68	
10	65	
6.3	61	
5	59	
3.35	56	
2	53	
1.18	50	SAND
0.6	47	
0.425	45	
0.3	43	
0.15	38	
0.063	32	SILT/CLAY
0.037	29	
0.027	26	
0.017	23	
0.010	20	
0.007	18	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R141480	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH108988			
Sample No.*	AA179123	Lab. Sample No.		A22/6620
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	17/11/2022	Date Testing started		17/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

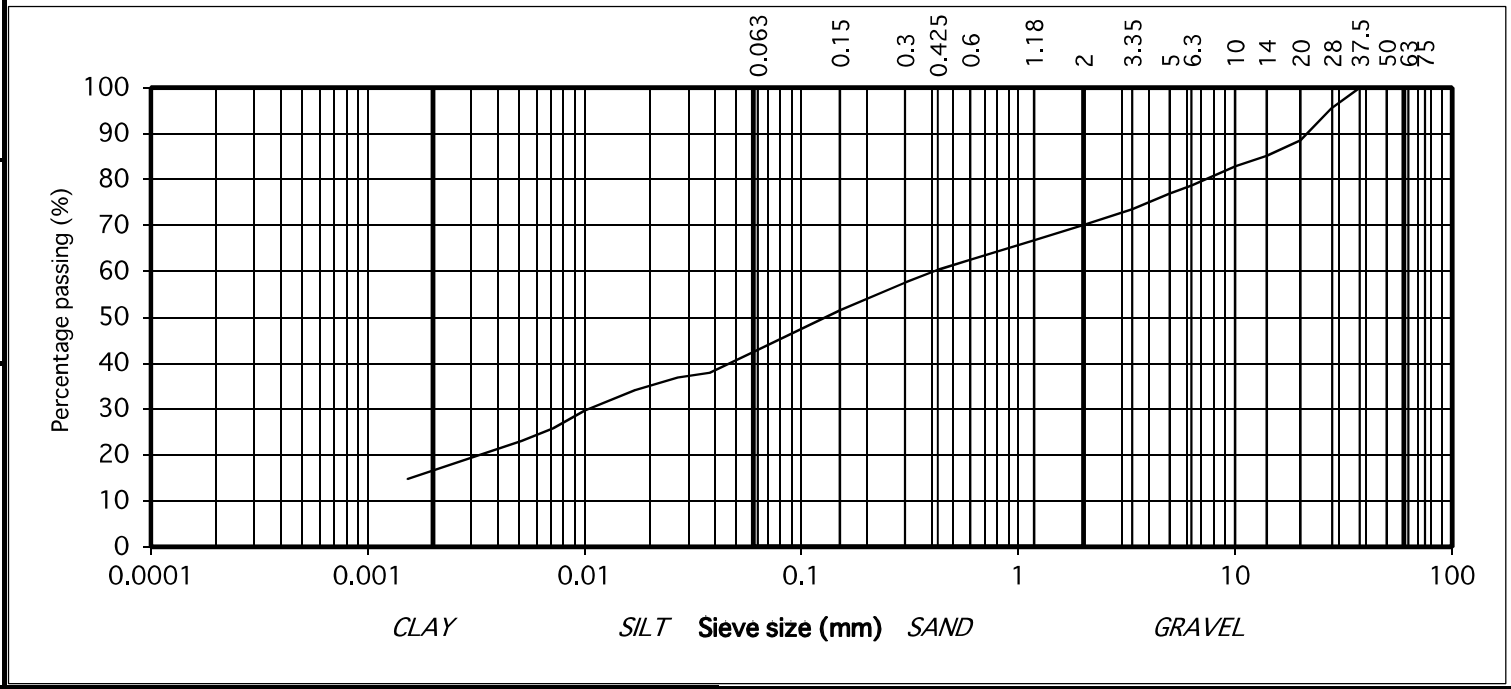
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	89	
14	85	
10	83	
6.3	79	
5	77	
3.35	74	
2	70	
1.18	67	SAND
0.6	63	
0.425	60	
0.3	58	
0.15	52	
0.063	43	SILT/CLAY
0.038	38	
0.027	37	
0.017	34	
0.010	30	
0.007	26	
0.005	23	
0.002	15	

Contract No.	23560	Report No.	R137015	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH109085			
Sample No.*	AA173267	Lab. Sample No.		A22/2430
Sample Type:	B			
Depth* (m)	1.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

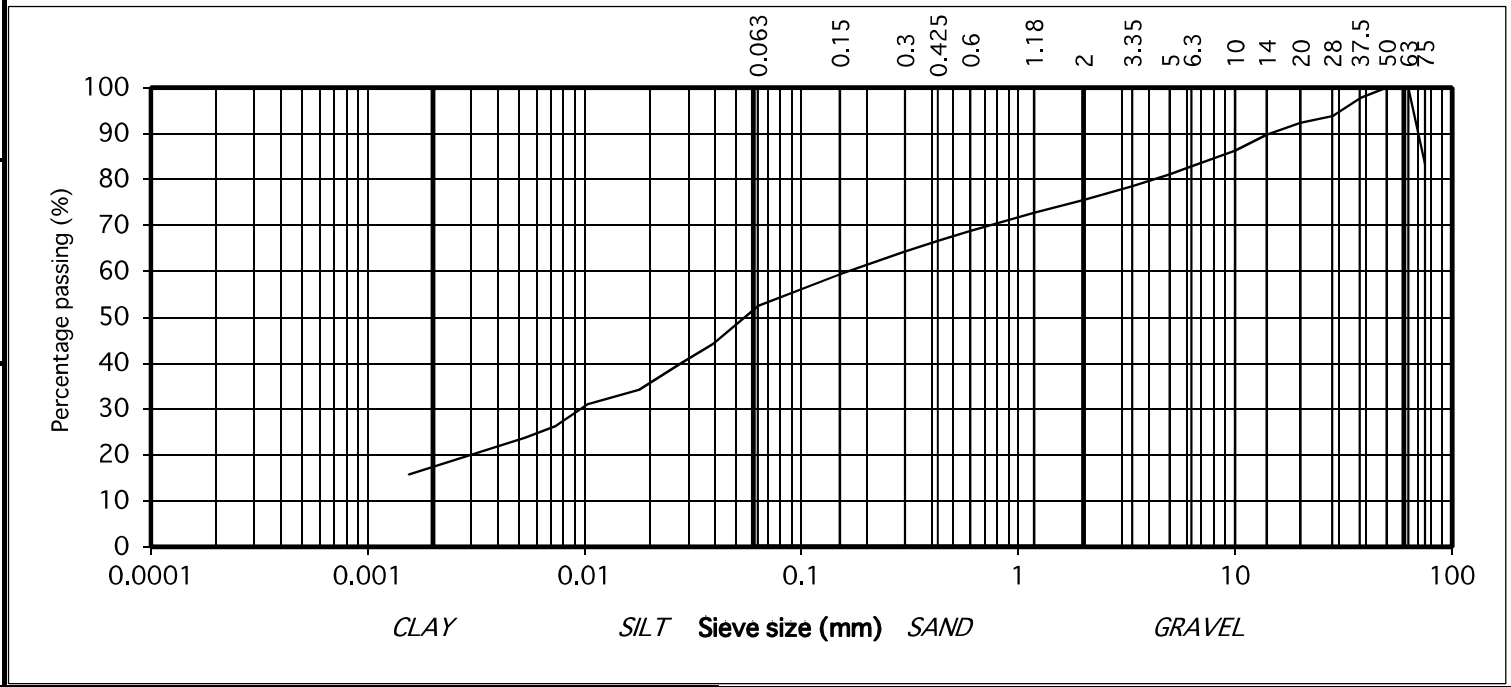
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	83	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	94	
20	92	
14	90	
10	86	
6.3	83	
5	81	
3.35	79	
2	76	
1.18	73	SAND
0.6	69	
0.425	67	
0.3	64	
0.15	59	
0.063	52	SILT/CLAY
0.039	44	
0.028	40	
0.018	34	
0.010	31	
0.007	26	
0.005	24	
0.002	16	

Contract No.	23560	Report No.	R135247	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH109085			
Sample No.*	AA173268	Lab. Sample No.		A22/2430
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

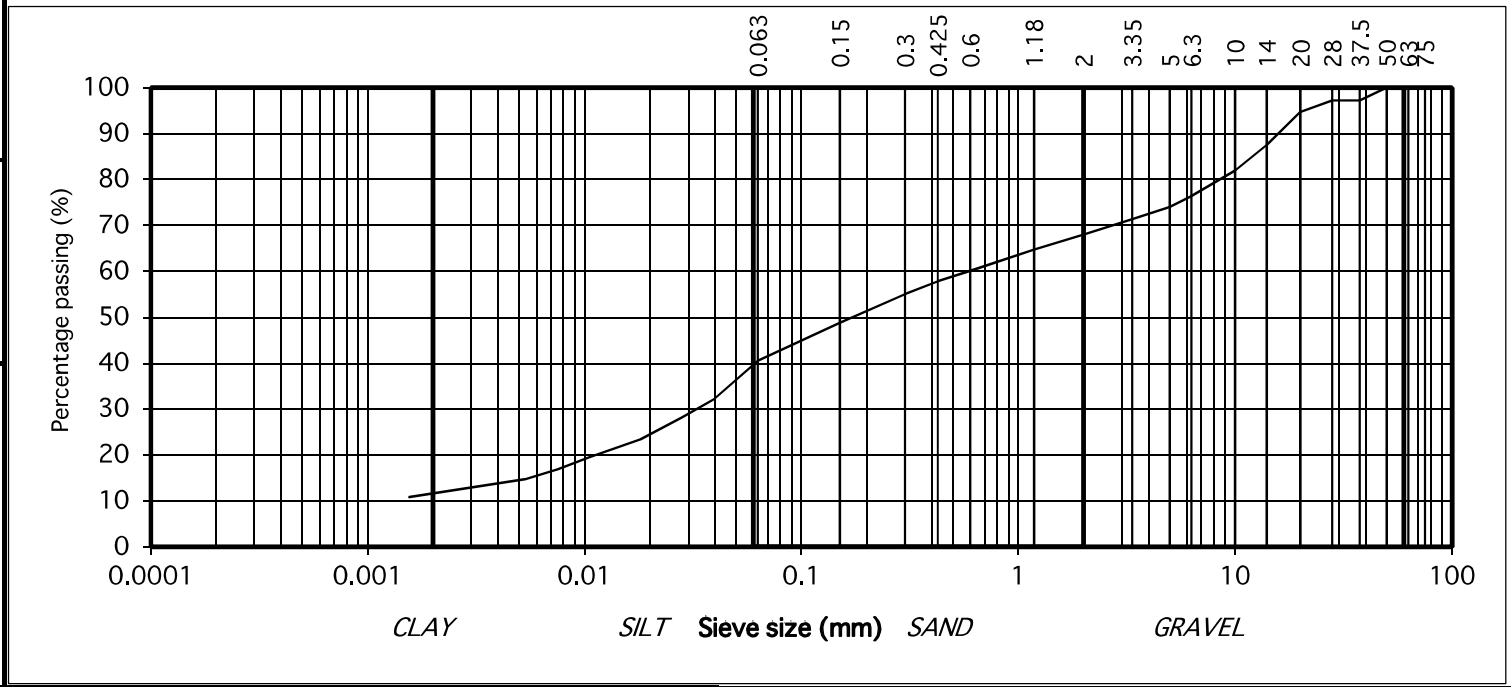
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	97	
20	95	
14	88	
10	82	
6.3	76	
5	74	
3.35	71	
2	68	
1.18	65	SAND
0.6	60	
0.425	58	
0.3	55	
0.15	49	
0.063	41	SILT/CLAY
0.039	32	
0.028	28	
0.018	23	
0.011	20	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R135258	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH109609			
Sample No.*	AA173272	Lab. Sample No.		A22/2428
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

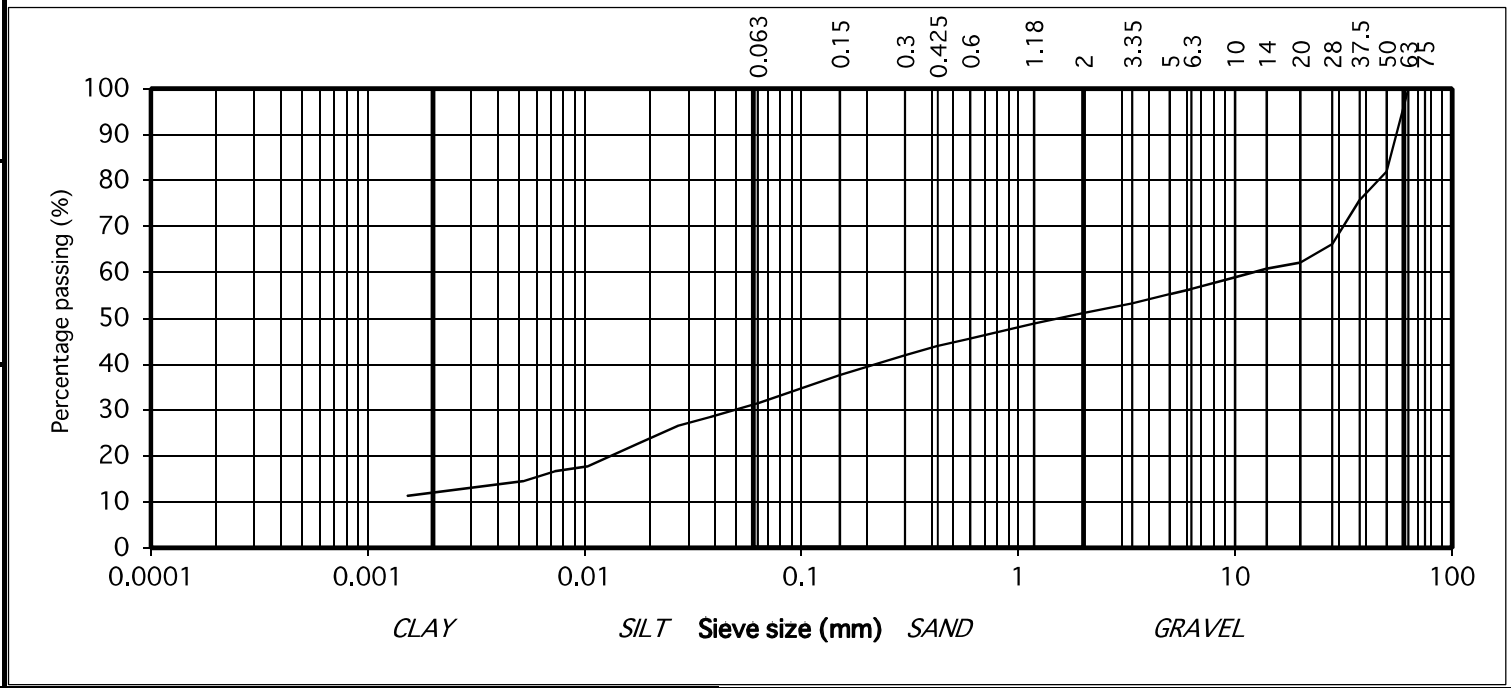
particle size	% passing	
75	100	COBBLES
63	100	
50	82	GRAVEL
37.5	76	
28	66	
20	62	
14	61	
10	59	
6.3	56	
5	55	
3.35	53	
2	51	
1.18	49	SAND
0.6	46	
0.425	44	
0.3	42	
0.15	38	
0.063	32	SILT/CLAY
0.038	29	
0.027	27	
0.017	23	
0.010	18	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R135259	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH109609			
Sample No.*	AA173273	Lab. Sample No.		A22/2429
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

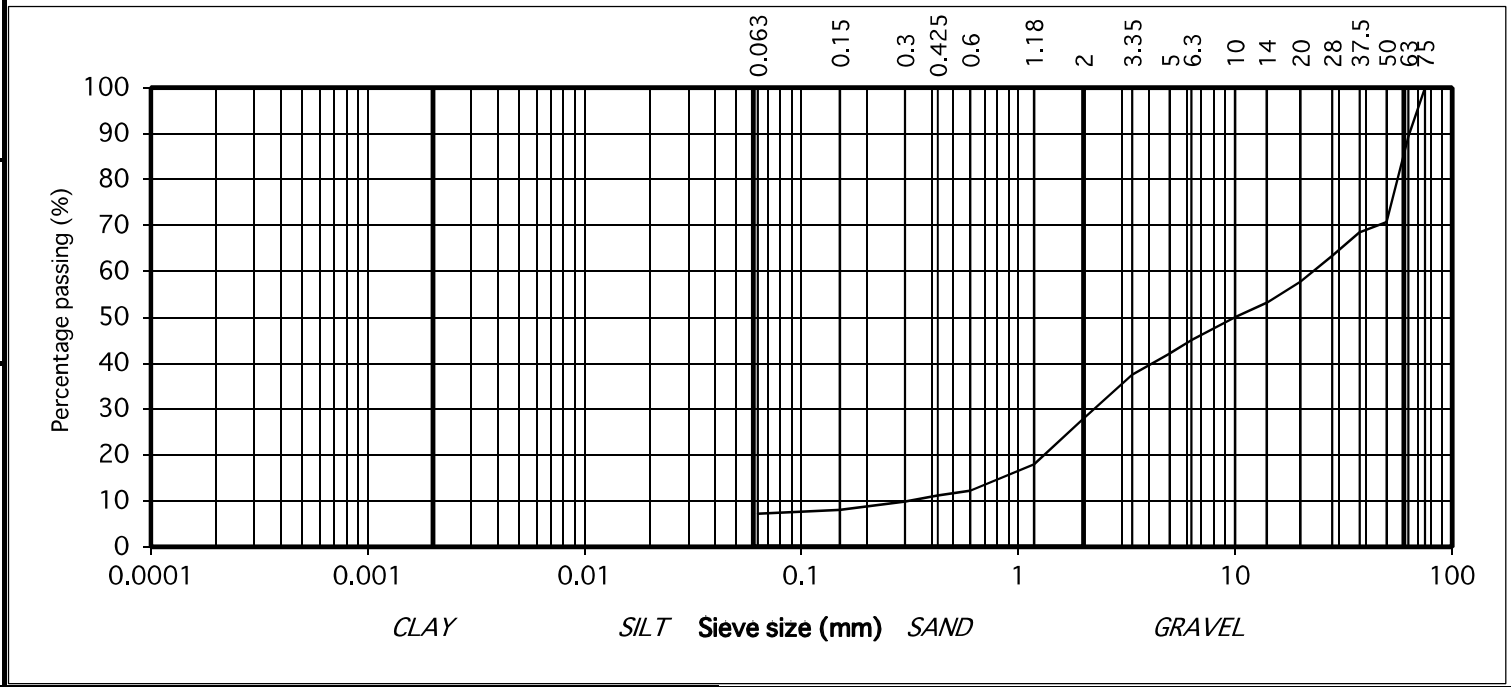
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	89	
50	71	GRAVEL
37.5	69	
28	63	
20	58	
14	53	
10	50	
6.3	45	
5	42	
3.35	38	
2	28	
1.18	18	SAND
0.6	12	
0.425	11	
0.3	10	
0.15	8	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R143919	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH110055			
Sample No.*	AA173278	Lab. Sample No.		A22/2440
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey clayey/silty, very sandy, GRAVEL with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

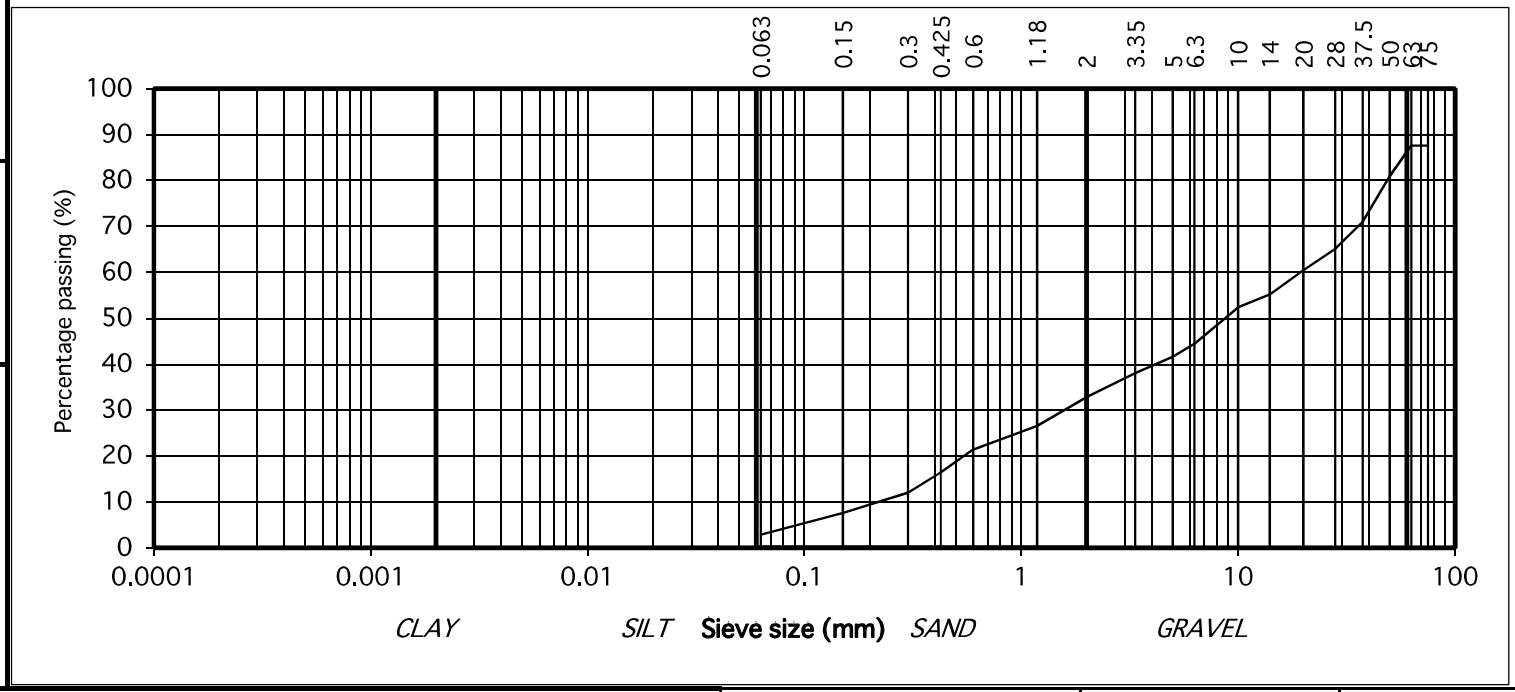
particle size	% passing	
75	88	COBBLES
63	88	
50	81	GRAVEL
37.5	71	
28	65	
20	60	
14	55	
10	52	
6.3	45	
5	42	
3.35	38	
2	33	
1.18	27	SAND
0.6	21	
0.425	16	
0.3	12	
0.15	8	
0.063	3	SILT/CLAY

Contract No.	23560	Report No.	R143919	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH110055			
Sample No.*	AA173276	Lab. Sample No.		A22/2439
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly clayey/silty, very sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

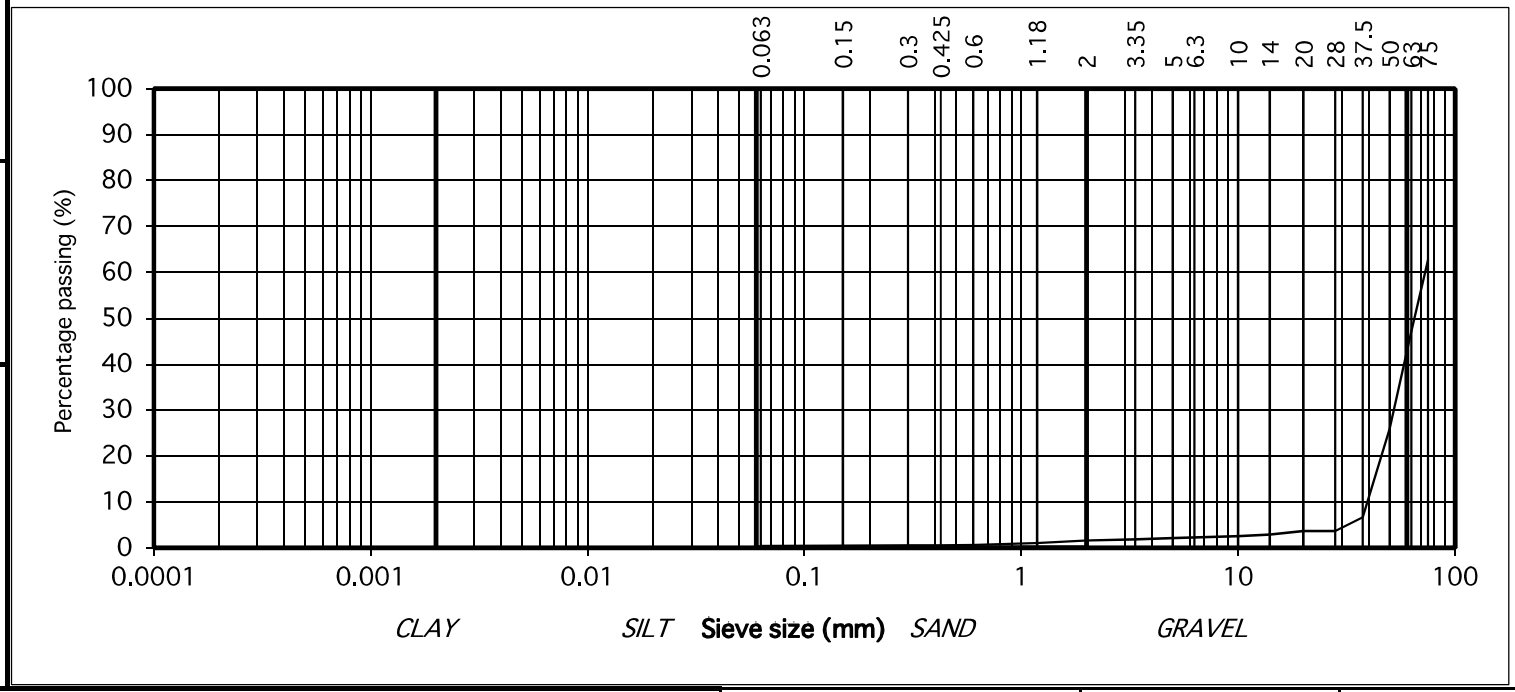
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	63	COBBLES
63	47	
50	26	GRAVEL
37.5	7	
28	4	
20	4	
14	3	
10	3	
6.3	2	
5	2	
3.35	2	
2	2	
1.18	1	SAND
0.6	1	
0.425	1	
0.3	1	
0.15	1	
0.063	0	SILT/CLAY

Contract No.	23560	Report No.	R143925	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH110055			
Sample No.*	AA173279	Lab. Sample No.		A22/2441
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	COBBLES with grey slightly sandy, gravel			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

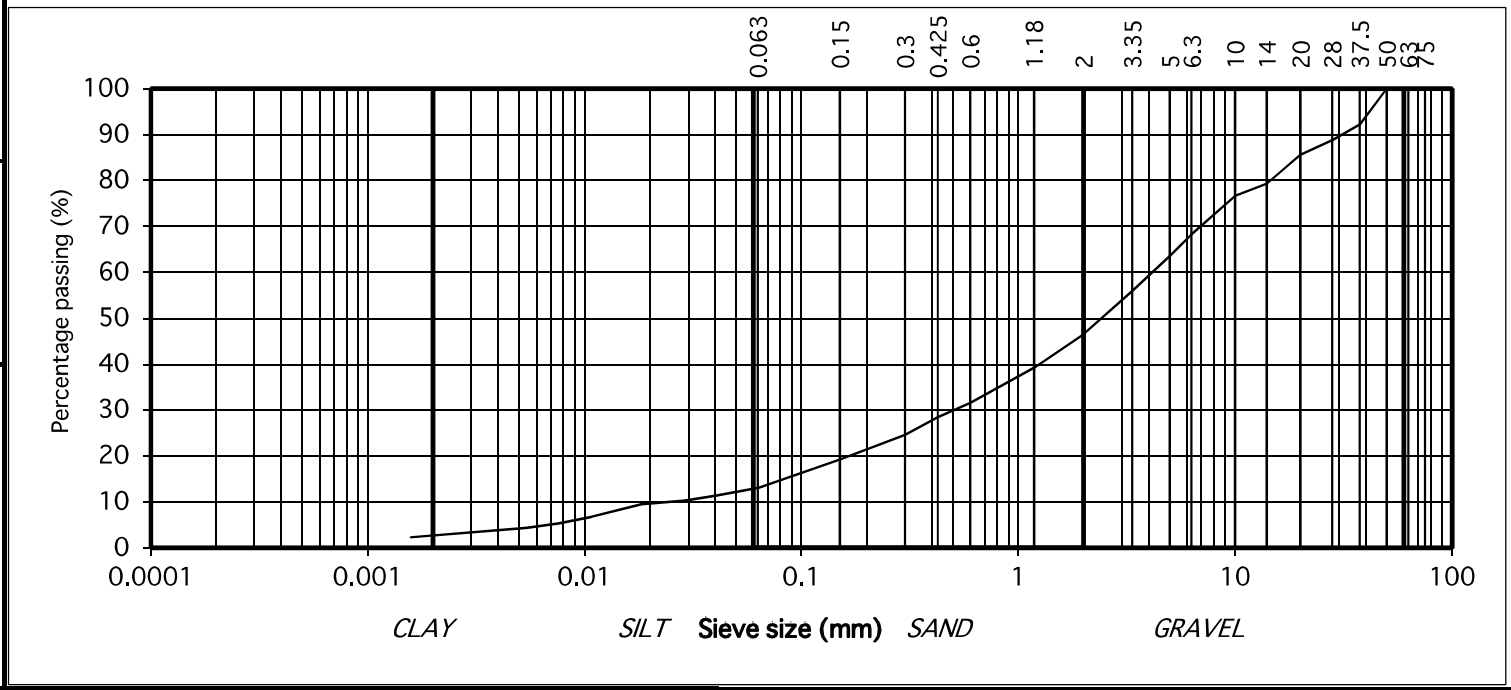
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	92	
28	89	
20	86	
14	79	
10	77	
6.3	68	
5	64	
3.35	56	
2	47	
1.18	39	SAND
0.6	32	
0.425	28	
0.3	25	
0.15	19	
0.063	13	SILT/CLAY
0.041	11	
0.029	10	
0.018	10	
0.011	7	
0.008	5	
0.005	4	
0.002	2	

Contract No.	23560	Report No.	R135249	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH10606			
Sample No.*	AA173287	Lab. Sample No.		A22/2444
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey clayey/silty, very sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

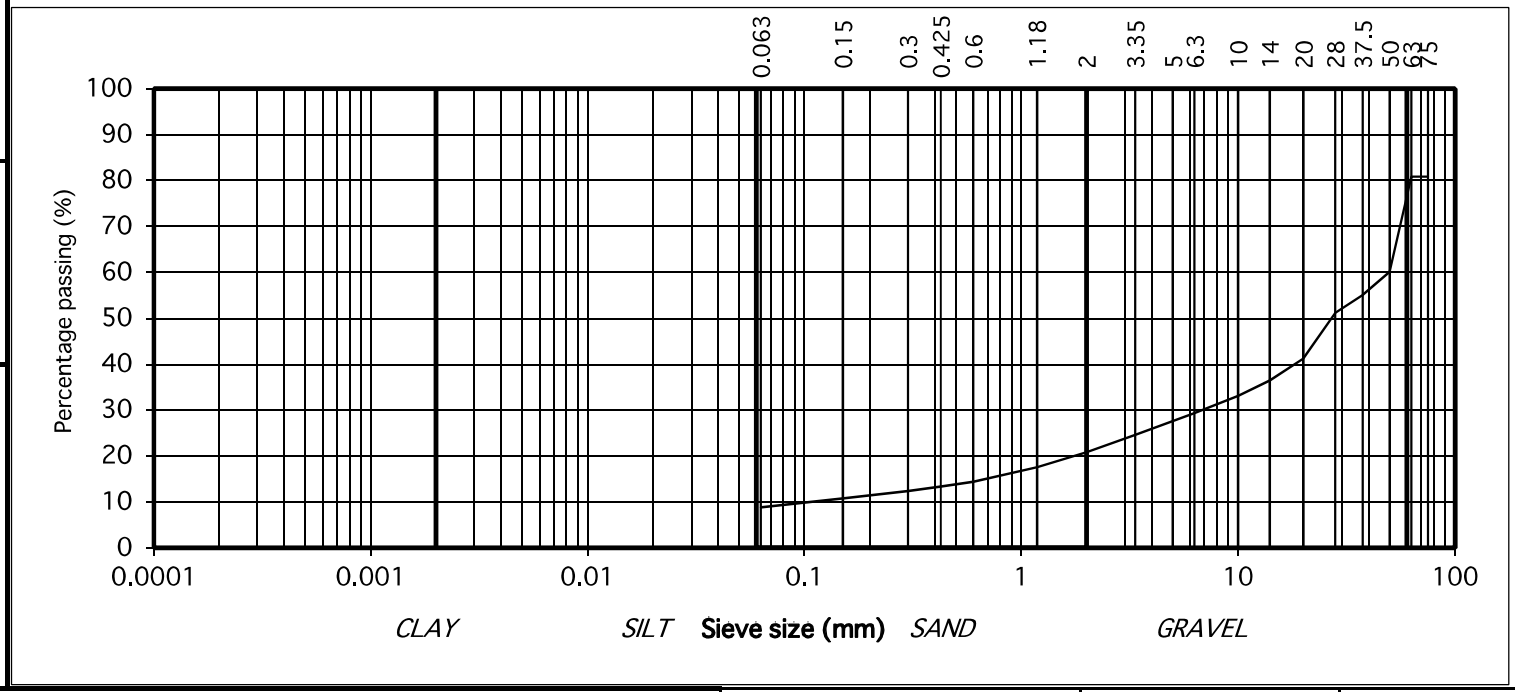
particle size	% passing	
75	81	COBBLES
63	81	
50	60	GRAVEL
37.5	55	
28	51	
20	41	
14	37	
10	33	
6.3	29	
5	28	
3.35	25	
2	21	
1.18	18	SAND
0.6	14	
0.425	13	
0.3	12	
0.15	11	
0.063	9	SILT/CLAY

Contract No.	23560	Report No.	R143926	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH110606			
Sample No.*	AA173284	Lab. Sample No.		A22/2442
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey clayey/silty, sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

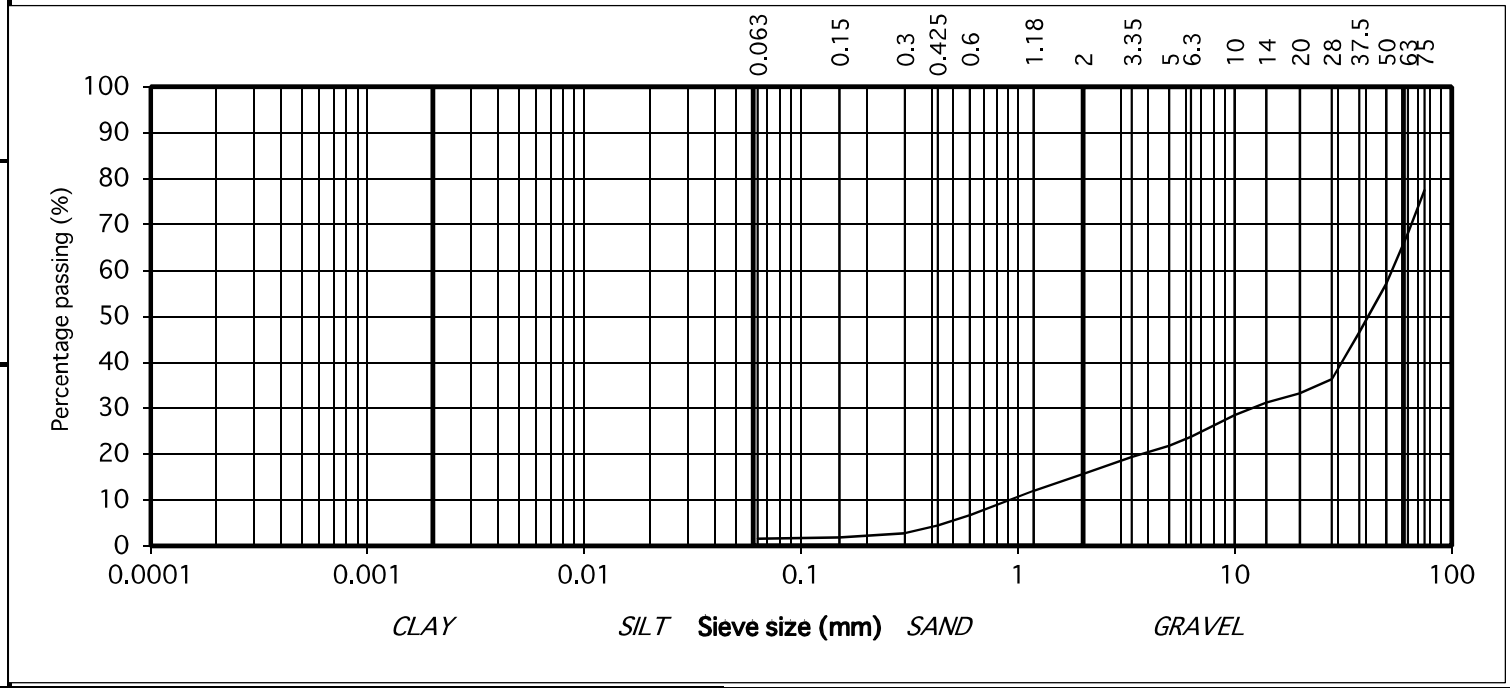
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	77	COBBLES
63	68	
50	57	GRAVEL
37.5	47	
28	36	
20	33	
14	31	
10	29	
6.3	24	
5	22	
3.35	19	
2	16	
1.18	12	SAND
0.6	7	
0.425	4	
0.3	3	
0.15	2	
0.063	2	SILT/CLAY

Contract No.	23560	Report No.	R136480	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH110606			
Sample No.*	AA173286	Lab. Sample No.		A22/2443
Sample Type:	B			
Depth* (m)	4.40	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey slightly clayey/silty, sandy, GRAVEL with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

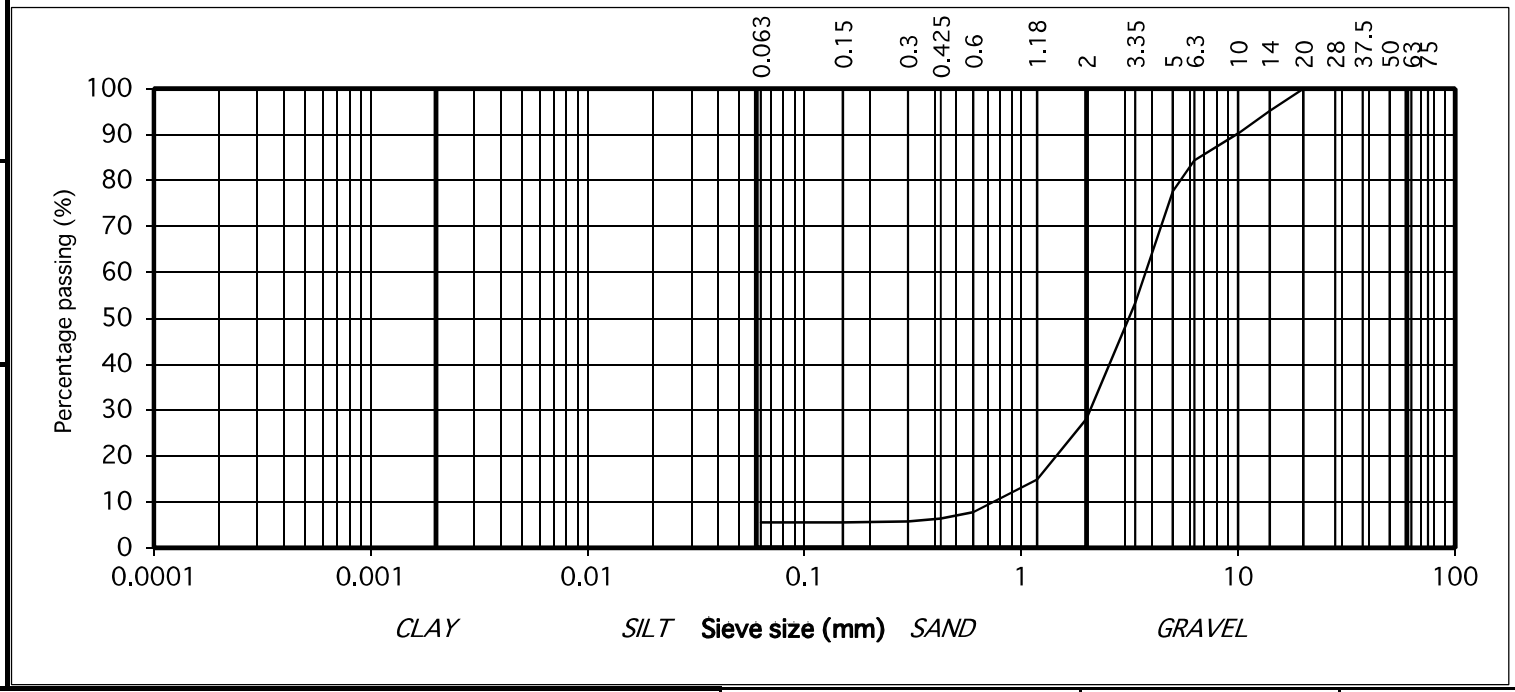
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	95	
10	90	
6.3	84	
5	78	
3.35	53	
2	28	
1.18	15	SAND
0.6	8	
0.425	6	
0.3	6	
0.15	6	
0.063	6	SILT/CLAY

Contract No.	23560	Report No.	R143928
Contract Name:	WSP - Lot 3		
BH/TP* :	BH110738		
Sample No.*	AA173289	Lab. Sample No.	A22/2454
Sample Type:	B		
Depth* (m)	1.00	Customer:	Ervia
Date Received	25/11/2022	Date Testing started	25/11/2022
Description:	Grey clayey/silty, very sandy, GRAVEL		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

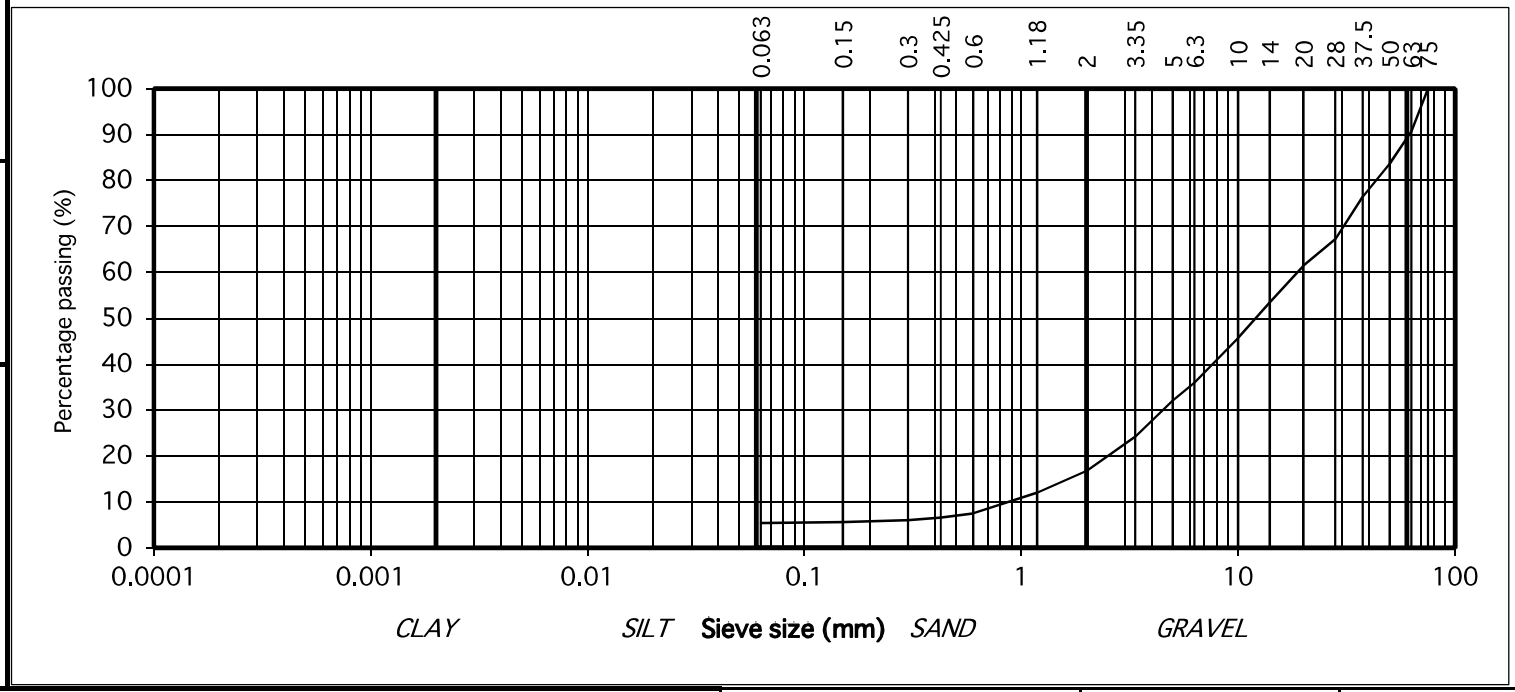
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	91	
50	84	GRAVEL
37.5	76	
28	67	
20	61	
14	53	
10	46	
6.3	36	
5	32	
3.35	24	
2	17	
1.18	12	SAND
0.6	8	
0.425	7	
0.3	6	
0.15	6	
0.063	5	SILT/CLAY

Contract No.	23560	Report No.	R143927	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH110738			
Sample No.*	AA173290	Lab. Sample No.		A22/2455
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey clayey/silty, sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

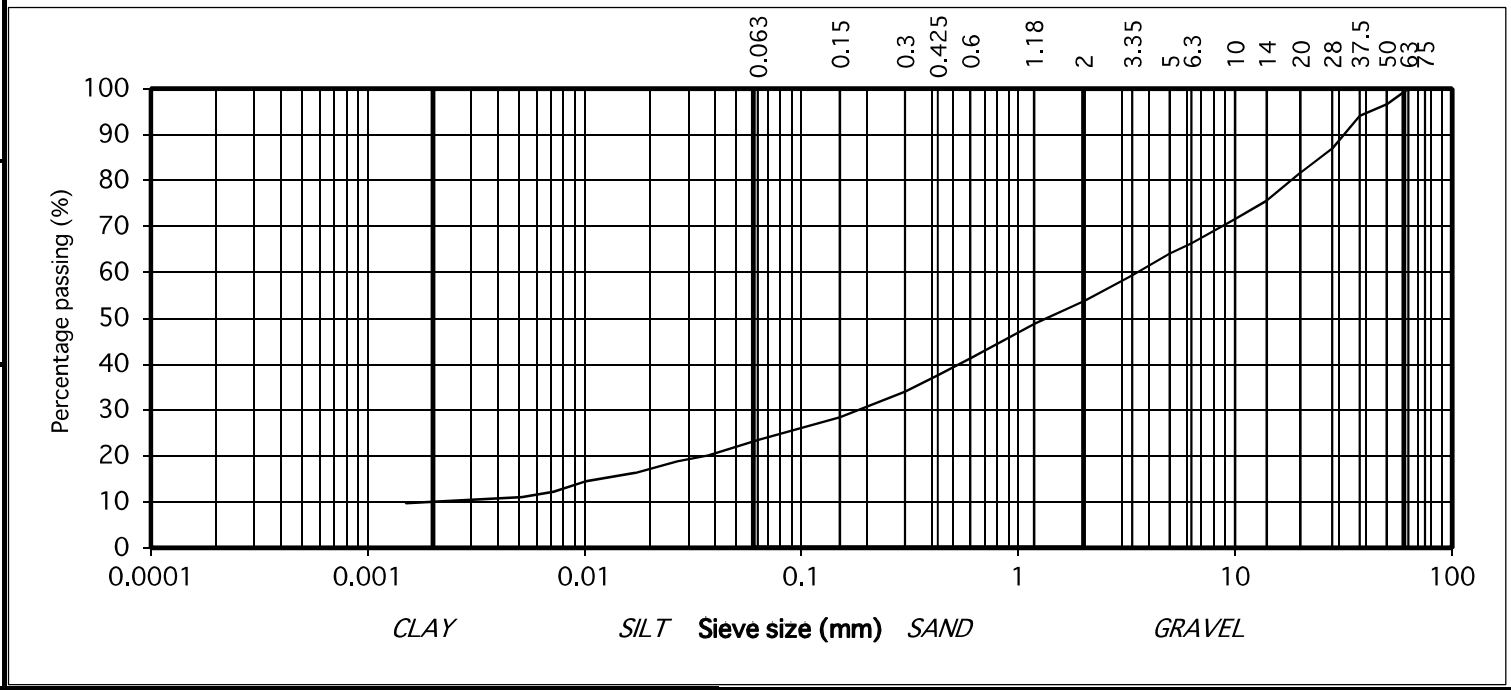
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	97	GRAVEL
37.5	94	
28	87	
20	82	
14	76	
10	72	
6.3	66	
5	64	
3.35	59	
2	54	
1.18	49	SAND
0.6	41	
0.425	38	
0.3	34	
0.15	28	
0.063	24	SILT/CLAY
0.037	20	
0.027	19	
0.017	16	
0.010	14	
0.007	12	
0.005	11	
0.001	10	

Contract No.	23560	Report No.	R141481	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH111204			
Sample No.*	AA179127	Lab. Sample No.		A22/6625
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	17/11/2022	Date Testing started		17/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

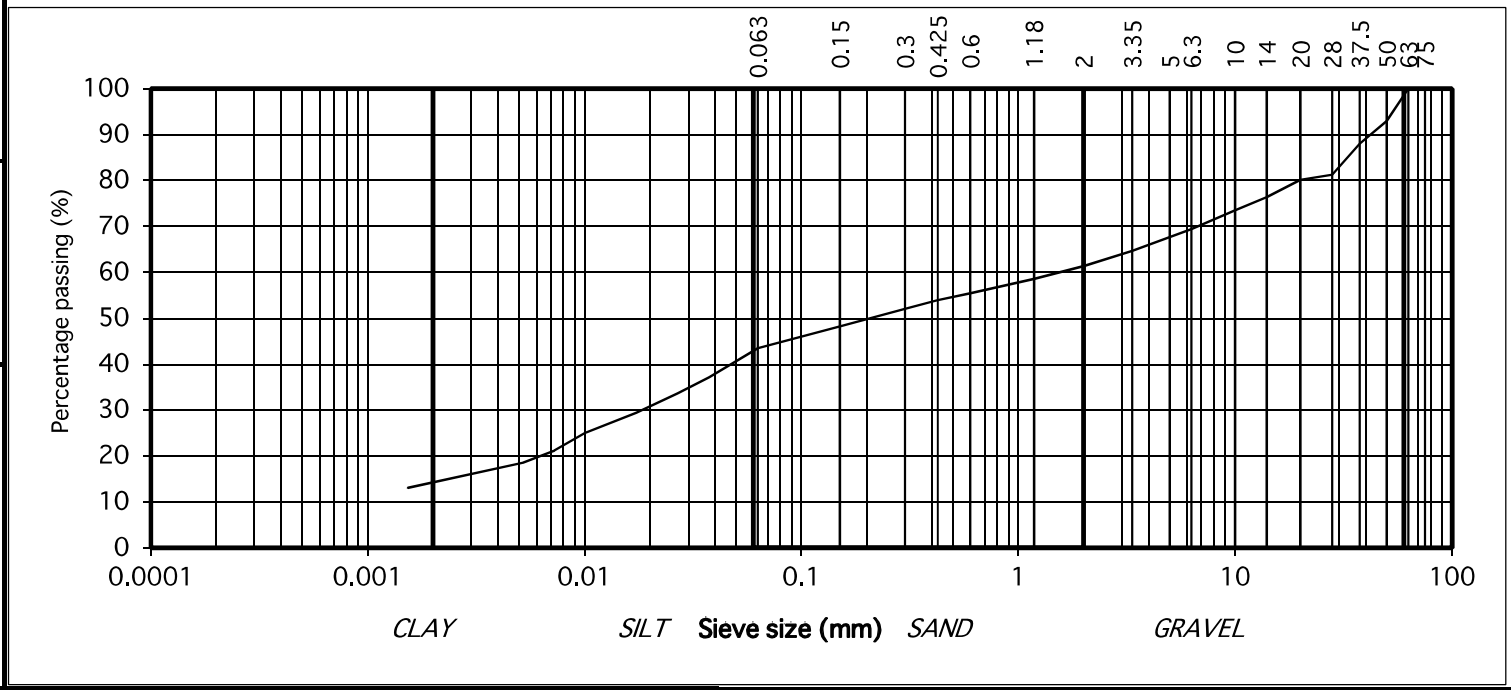
particle size	% passing	
75	100	COBBLES
63	100	
50	93	GRAVEL
37.5	88	
28	81	
20	80	
14	76	
10	74	
6.3	69	
5	68	
3.35	65	
2	61	
1.18	59	SAND
0.6	56	
0.425	54	
0.3	52	
0.15	48	
0.063	44	SILT/CLAY
0.037	37	
0.027	34	
0.017	29	
0.010	25	
0.007	21	
0.005	19	
0.002	13	

Contract No.	23560	Report No.	R141538
Contract Name:	WSP - Lot 3		
BH/TP* :	BH111604		
Sample No.*	N/A	Lab. Sample No.	A22/6395
Sample Type:	B		
Depth* (m)	0.50	Customer:	Ervia
Date Received	24/11/2022	Date Testing started	24/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

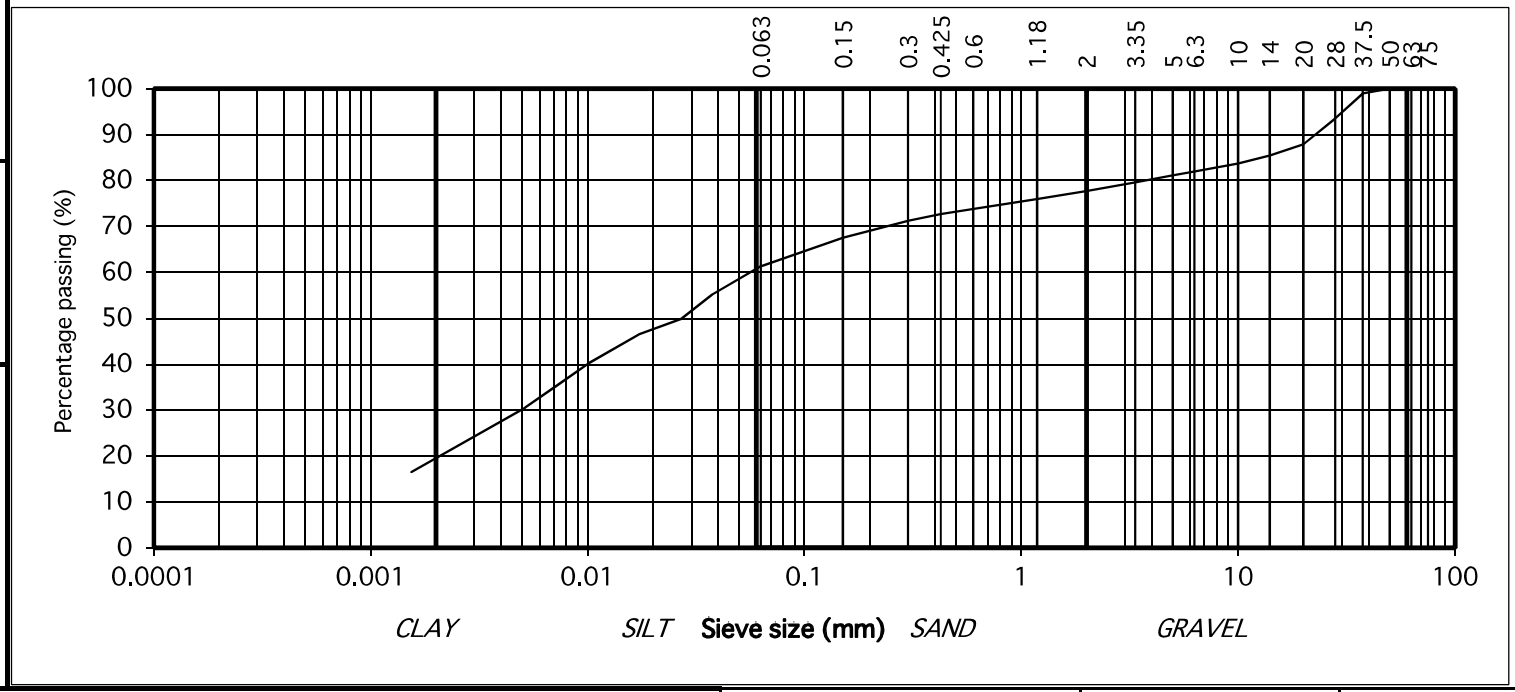
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	99	
28	94	
20	88	
14	86	
10	84	
6.3	82	
5	81	
3.35	80	
2	78	
1.18	76	SAND
0.6	74	
0.425	73	
0.3	71	
0.15	68	
0.063	61	SILT/CLAY
0.037	55	
0.027	50	
0.017	46	
0.010	40	
0.007	35	
0.005	31	
0.002	16	

Contract No.	23560	Report No.	R141663	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH111960			
Sample No.*	175344	Lab. Sample No.		A22/6397
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

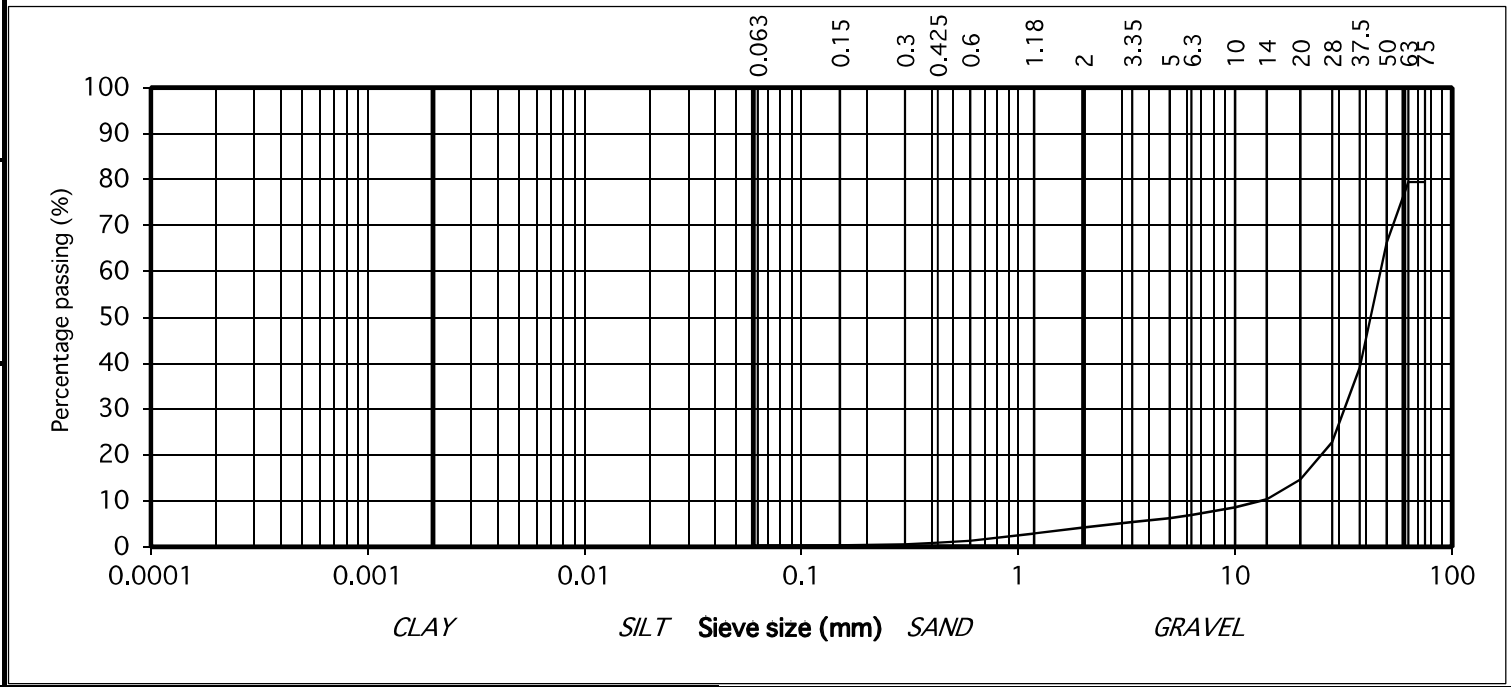
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	79	COBBLES
63	79	
50	66	GRAVEL
37.5	39	
28	23	
20	15	
14	10	
10	9	
6.3	7	
5	6	
3.35	5	
2	4	
1.18	3	SAND
0.6	1	
0.425	1	
0.3	1	
0.15	0	
0.063	0	SILT/CLAY

Contract No.	23560	Report No.	R141539	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH111960			
Sample No.*	AA175345	Lab. Sample No.		A22/6398
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Brown slightly sandy, GRAVEL with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

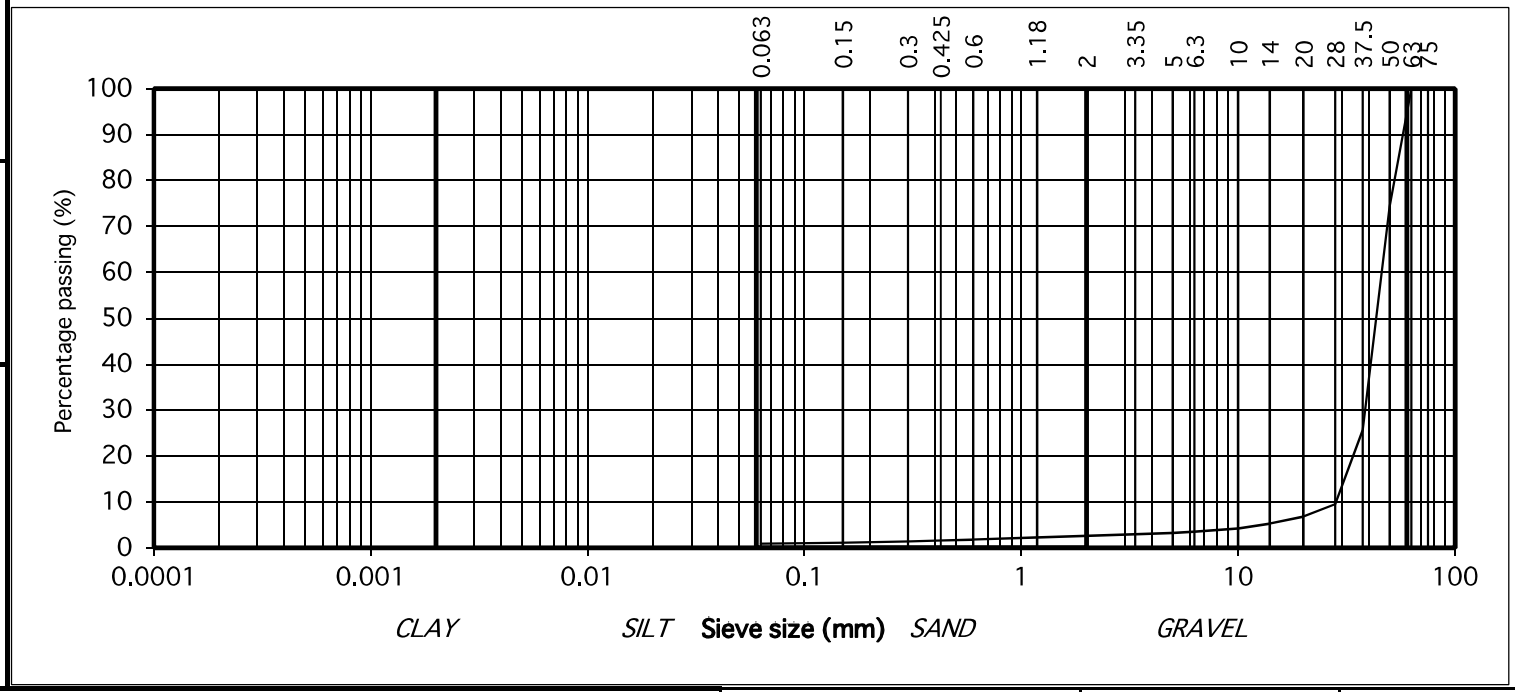
particle size	% passing	
75	100	COBBLES
63	100	
50	74	GRAVEL
37.5	26	
28	10	
20	7	
14	5	
10	4	
6.3	4	
5	3	
3.35	3	
2	3	
1.18	2	SAND
0.6	2	
0.425	2	
0.3	1	
0.15	1	
0.063	1	SILT/CLAY

Contract No.	23560	Report No.	R141540	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH111960			
Sample No.*	AA175347	Lab. Sample No.		A22/6401
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Brown slightly clayey/silty, slightly sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

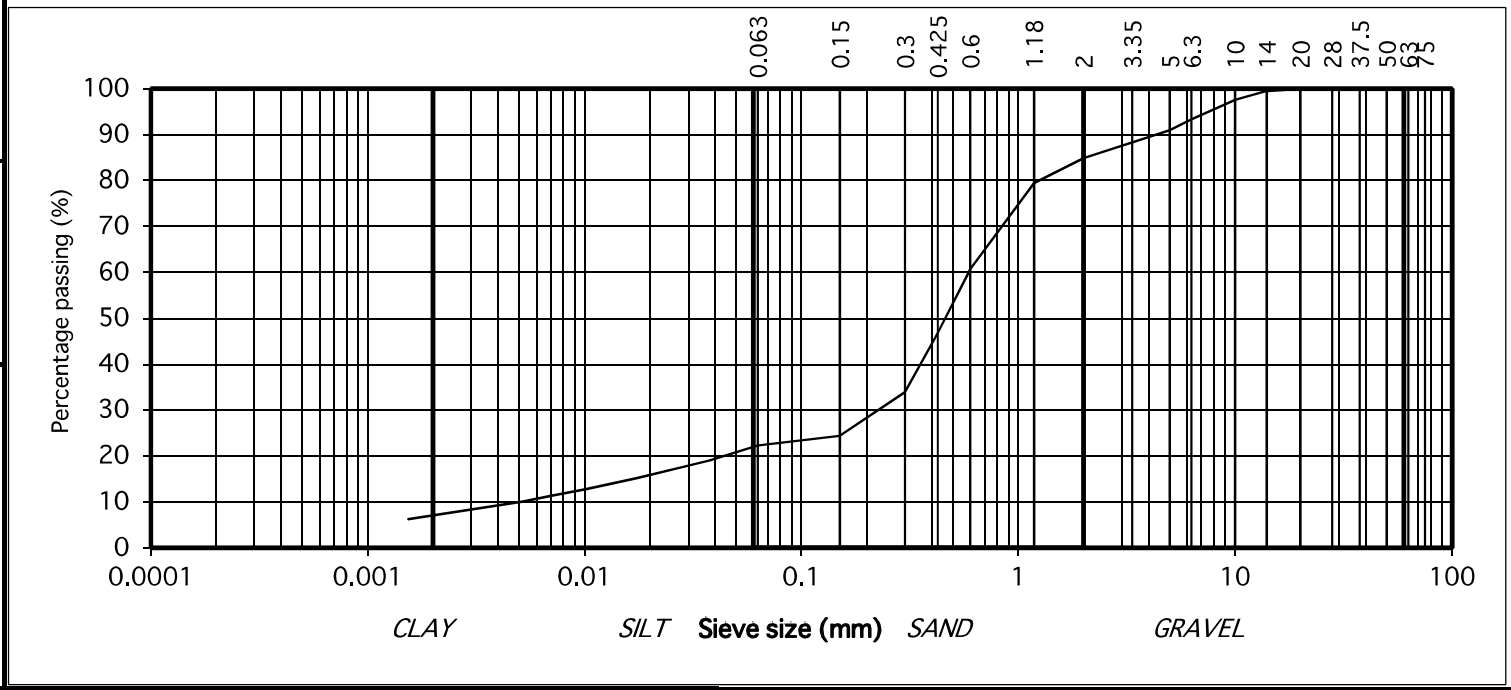
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	98	
6.3	93	
5	91	
3.35	88	
2	85	
1.18	79	SAND
0.6	61	
0.425	47	
0.3	34	
0.15	24	
0.063	22	SILT/CLAY
0.038	19	
0.027	17	
0.017	15	
0.010	13	
0.007	11	
0.005	10	
0.002	6	

Contract No.	23560	Report No.	R141664	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH112180			
Sample No.*	179129	Lab. Sample No.		A22/6402
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown sandy, slightly gravelly, SILT/CLAY			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

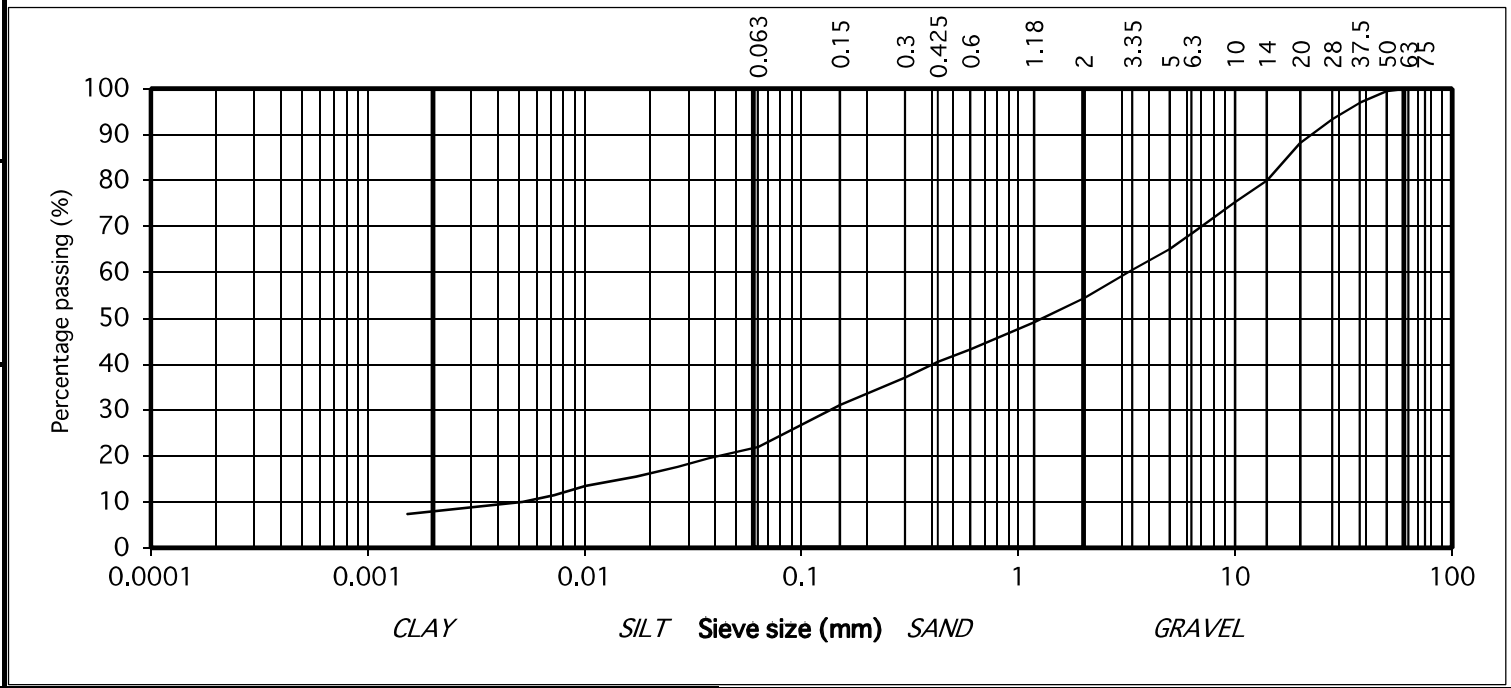
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	99	GRAVEL
37.5	97	
28	93	
20	88	
14	80	
10	75	
6.3	68	
5	65	
3.35	61	
2	54	
1.18	49	SAND
0.6	43	
0.425	41	
0.3	37	
0.15	31	
0.063	22	SILT/CLAY
0.037	20	
0.027	18	
0.017	16	
0.010	14	
0.007	12	
0.005	10	
0.002	7	

Contract No.	23560	Report No.	R141541	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH112404			
Sample No.*	AA179138	Lab. Sample No.		A22/6405
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

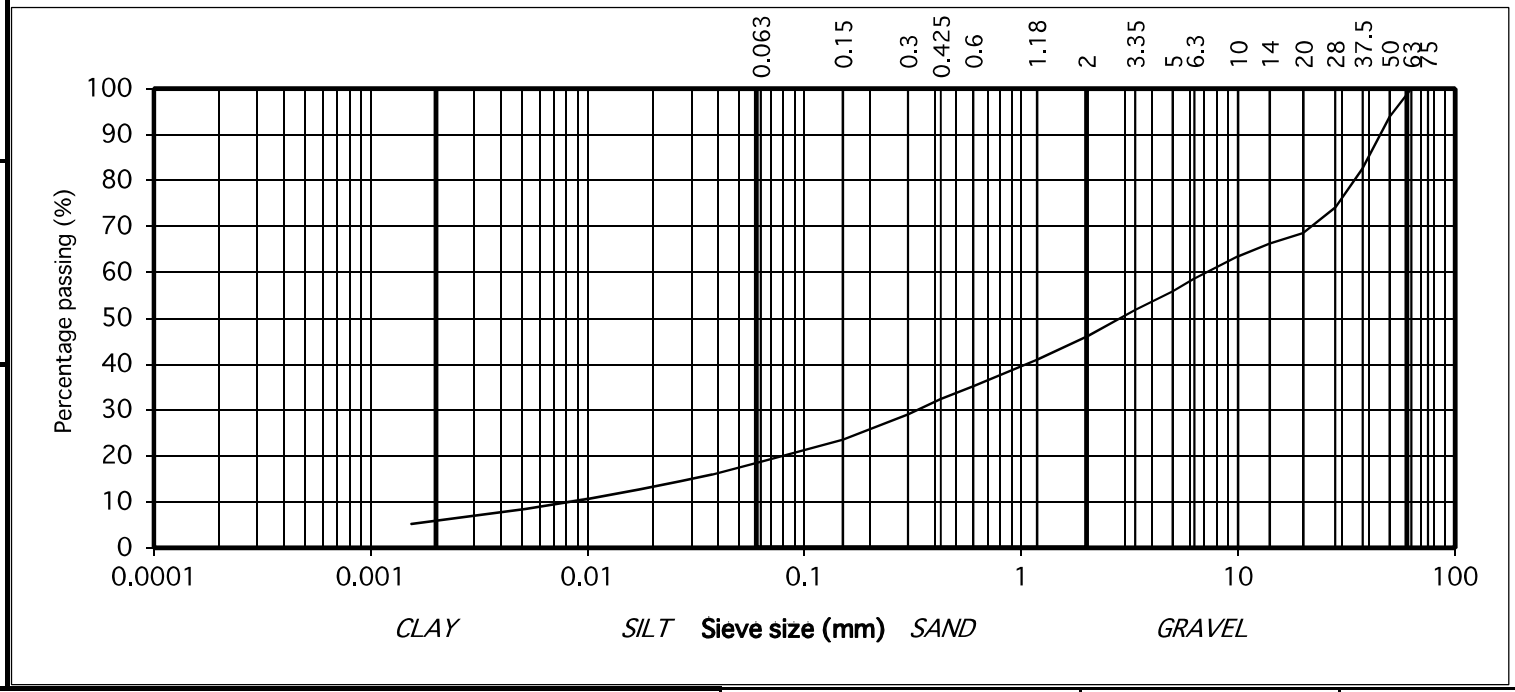
particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	83	
28	74	
20	69	
14	66	
10	64	
6.3	59	
5	56	
3.35	52	
2	46	
1.18	41	SAND
0.6	35	
0.425	32	
0.3	29	
0.15	24	
0.063	19	SILT/CLAY
0.038	16	
0.027	15	
0.017	13	
0.010	11	
0.007	10	
0.005	8	
0.002	5	

Contract No.	23560	Report No.	R141665	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH112180			
Sample No.*	179130	Lab. Sample No.		A22/6403
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown clayey/silty, very sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

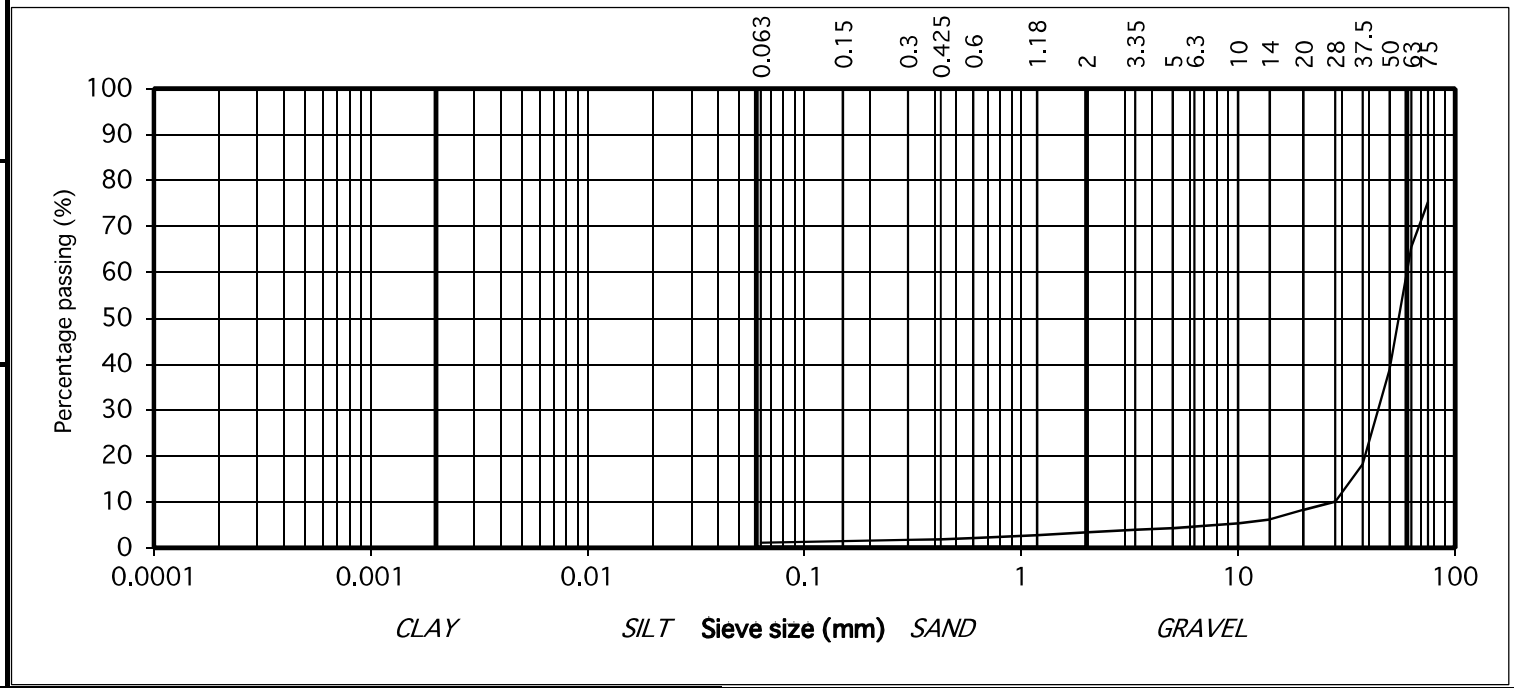
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	75	COBBLES
63	66	
50	39	GRAVEL
37.5	18	
28	10	
20	8	
14	6	
10	5	
6.3	5	
5	4	
3.35	4	
2	3	
1.18	3	SAND
0.6	2	
0.425	2	
0.3	2	
0.15	1	
0.063	1	SILT/CLAY

Contract No. 23560 Report No. R141542
Contract Name: WSP - Lot 3
BH/TP* : BH112404
Sample No.* AA179140 Lab. Sample No. A22/6406
Sample Type: B
Depth* (m) 4.00 Customer: Ervia
Date Received 23/11/2022 Date Testing started 23/11/2022
Description: Grey Brown slightly clayey/silty, slightly sandy, GRAVEL with many cobbles

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

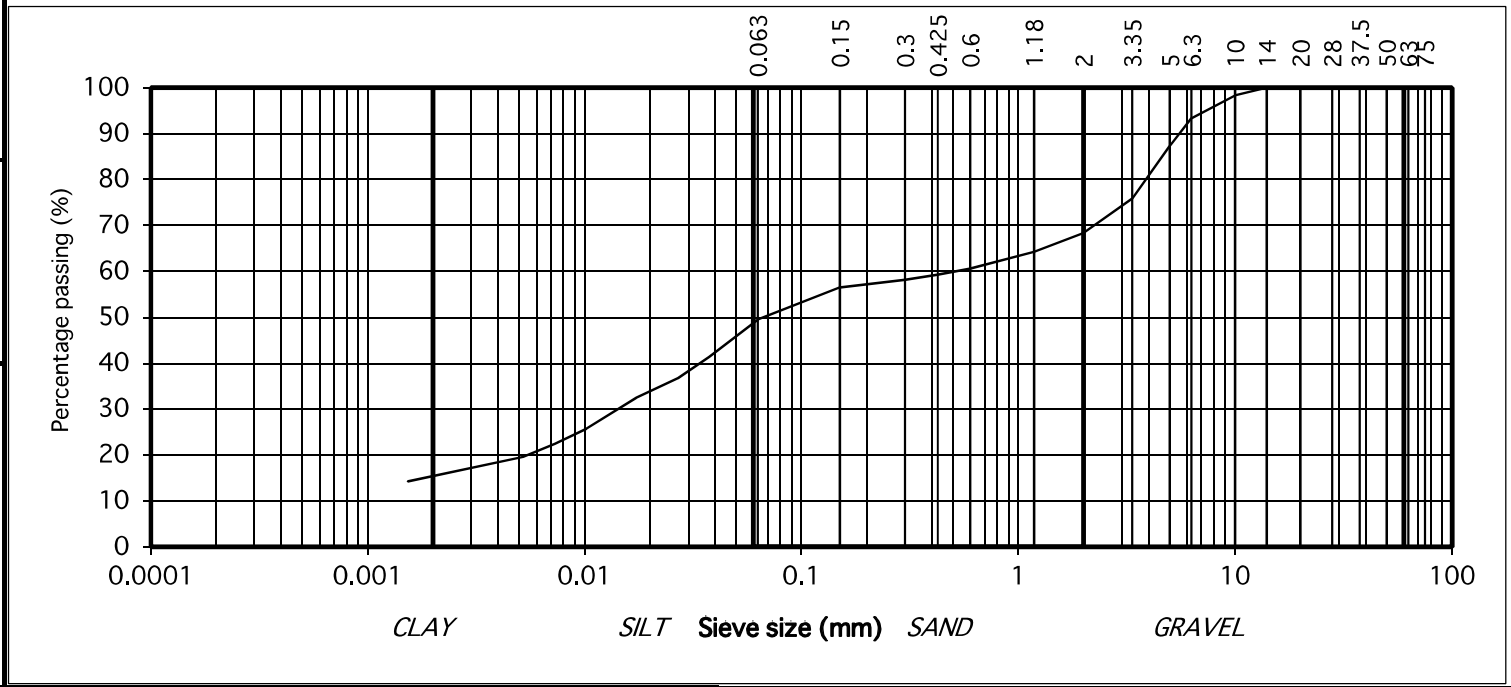
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	98	
6.3	93	
5	87	
3.35	76	
2	68	
1.18	64	SAND
0.6	61	
0.425	59	
0.3	58	
0.15	57	
0.063	50	SILT/CLAY
0.037	41	
0.027	37	
0.017	32	
0.010	26	
0.007	22	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R141543	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH113399			
Sample No.*	N/A	Lab. Sample No.		A22/6414
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 PEAT in Sample			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

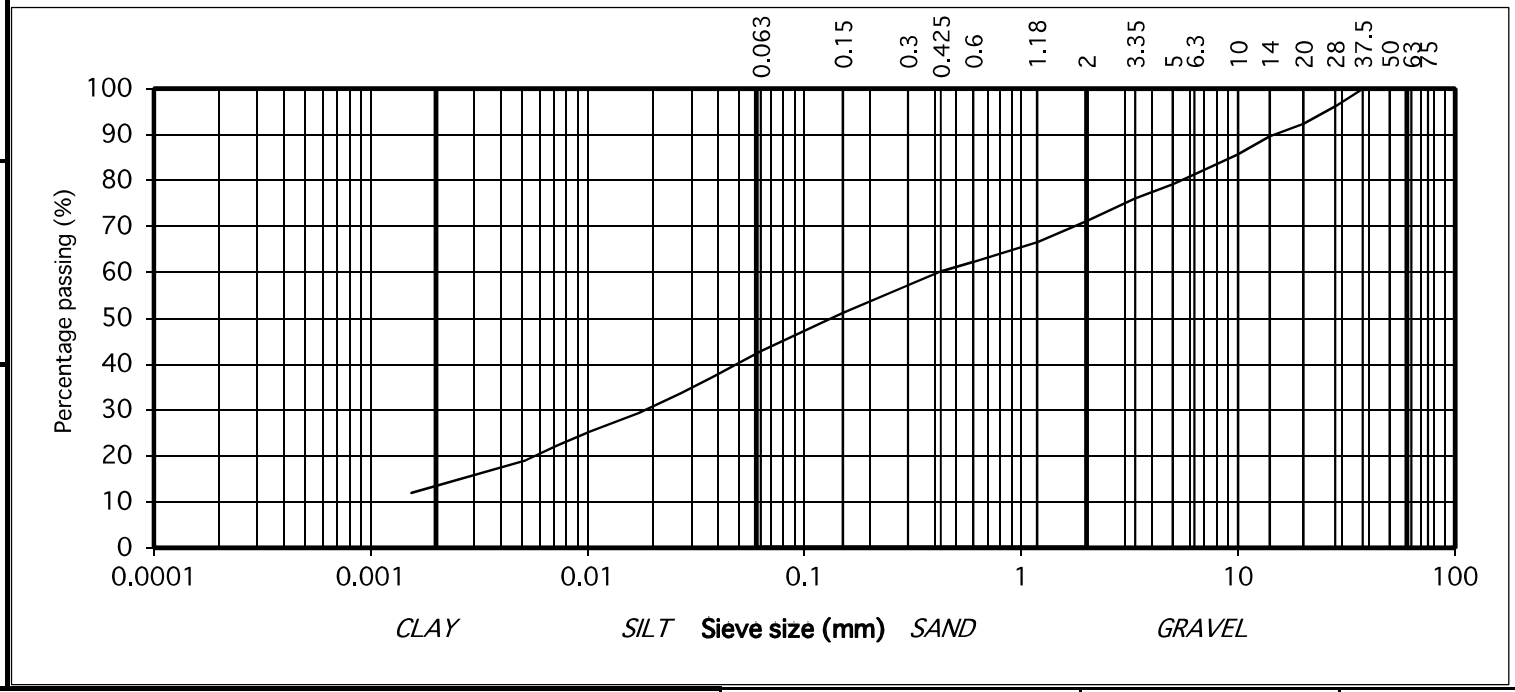
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	92	
14	90	
10	86	
6.3	81	
5	79	
3.35	76	
2	71	
1.18	67	SAND
0.6	62	
0.425	60	
0.3	57	
0.15	51	
0.063	43	SILT/CLAY
0.037	37	
0.027	34	
0.017	29	
0.010	25	
0.007	22	
0.005	19	
0.002	12	

Contract No.	23560	Report No.	R141666	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH112619			
Sample No.*	175321	Lab. Sample No.		A22/6408
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

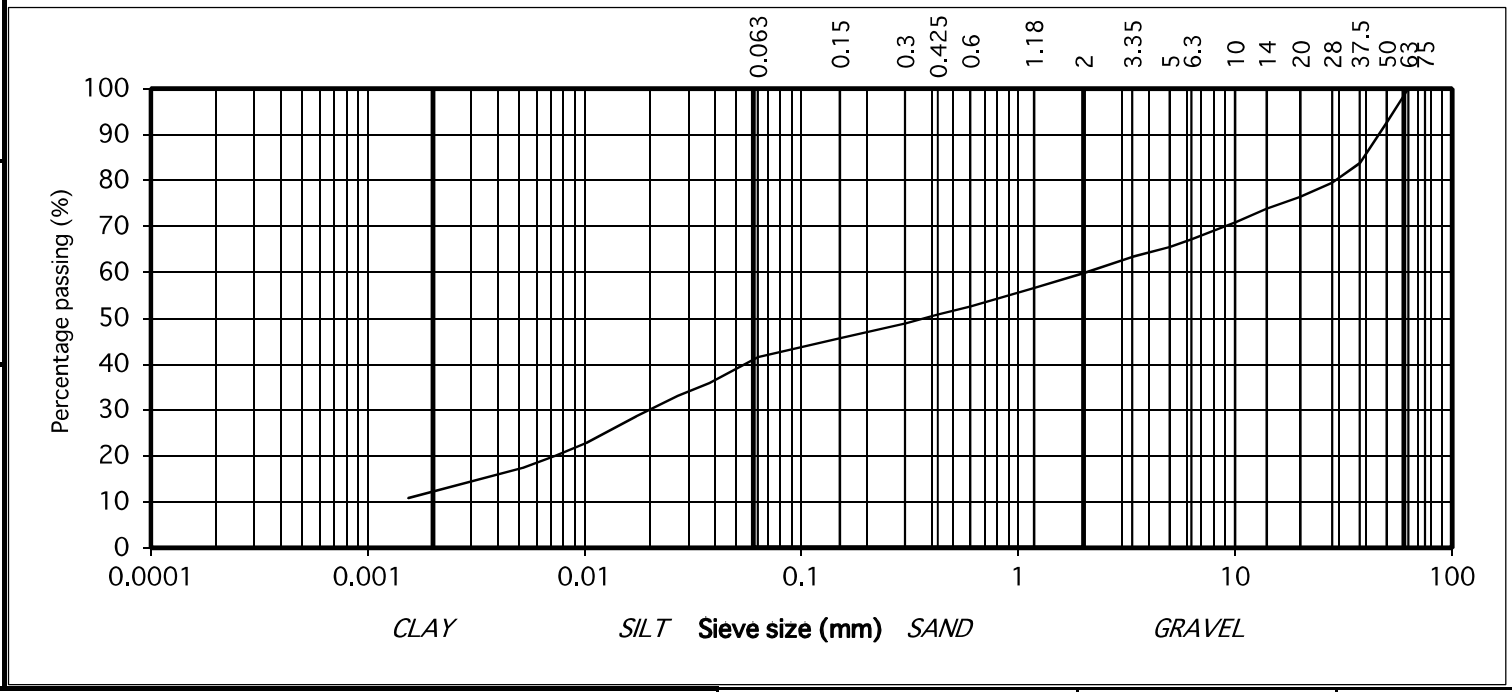
particle size	% passing	
75	100	COBBLES
63	100	
50	93	GRAVEL
37.5	84	
28	80	
20	76	
14	74	
10	71	
6.3	67	
5	66	
3.35	63	
2	60	
1.18	57	SAND
0.6	53	
0.425	51	
0.3	49	
0.15	46	
0.063	42	SILT/CLAY
0.038	36	
0.027	33	
0.017	29	
0.010	23	
0.007	20	
0.005	18	
0.002	11	

Contract No.	23560	Report No.	R141667	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH112619A			
Sample No.*	175325	Lab. Sample No.		A22/6411
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

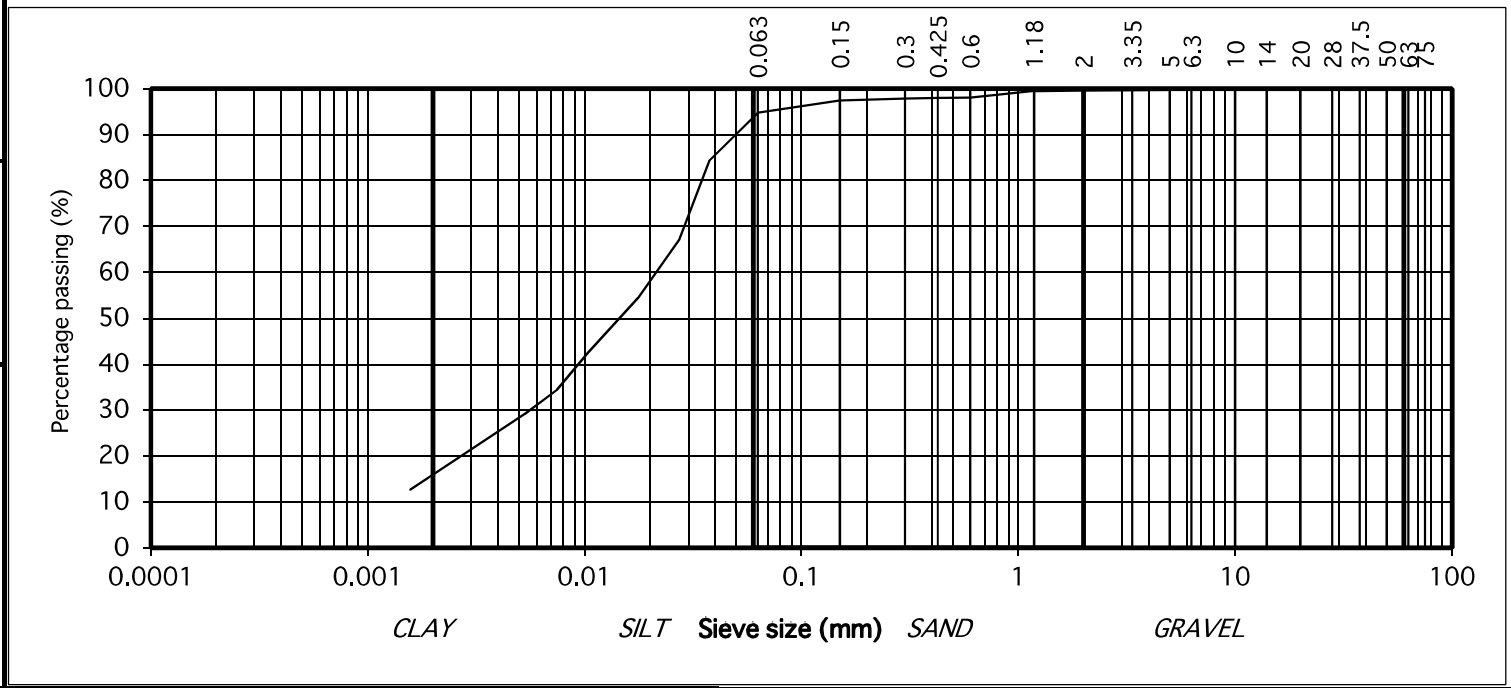
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	100	
1.18	100	SAND
0.6	98	
0.425	98	
0.3	98	
0.15	97	
0.063	95	SILT/CLAY
0.038	84	
0.027	67	
0.018	55	
0.010	43	
0.007	34	
0.005	29	
0.002	13	

Contract No. 23560 Report No. R141668
Contract Name: WSP - Lot 3
BH/TP* : BH113800
Sample No.* N/A Lab. Sample No. A22/6415
Sample Type: B
Depth* (m) 3.50 Customer: Ervia
Date Received 21/11/2022 Date Testing started 21/11/2022
Description: Brown slightly sandy, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

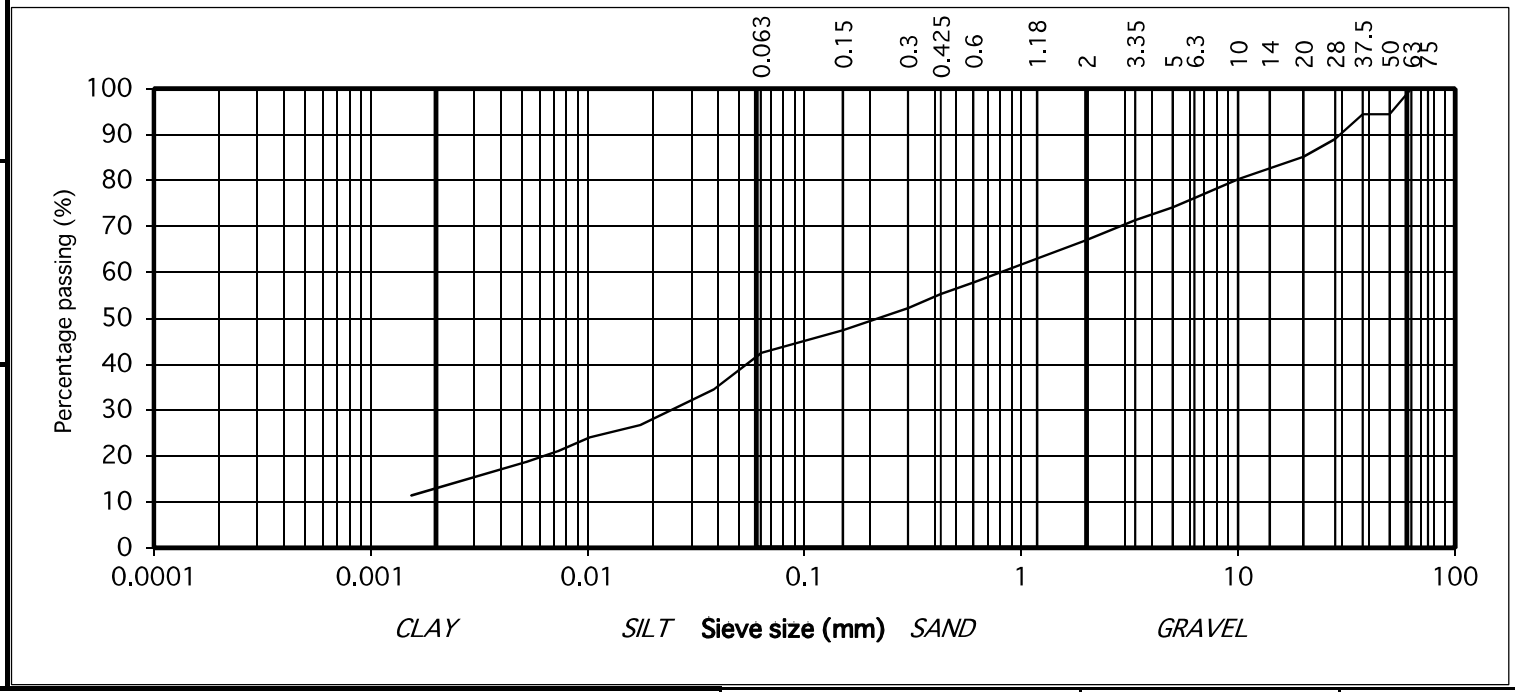
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	94	
28	89	
20	85	
14	83	
10	80	
6.3	76	
5	74	
3.35	71	
2	67	
1.18	63	SAND
0.6	58	
0.425	55	
0.3	52	
0.15	47	
0.063	42	SILT/CLAY
0.038	34	
0.027	31	
0.018	27	
0.010	24	
0.007	21	
0.005	19	
0.002	11	

Contract No.	23560	Report No.	R141669	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH114109			
Sample No.*	171091	Lab. Sample No.		A22/6418
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

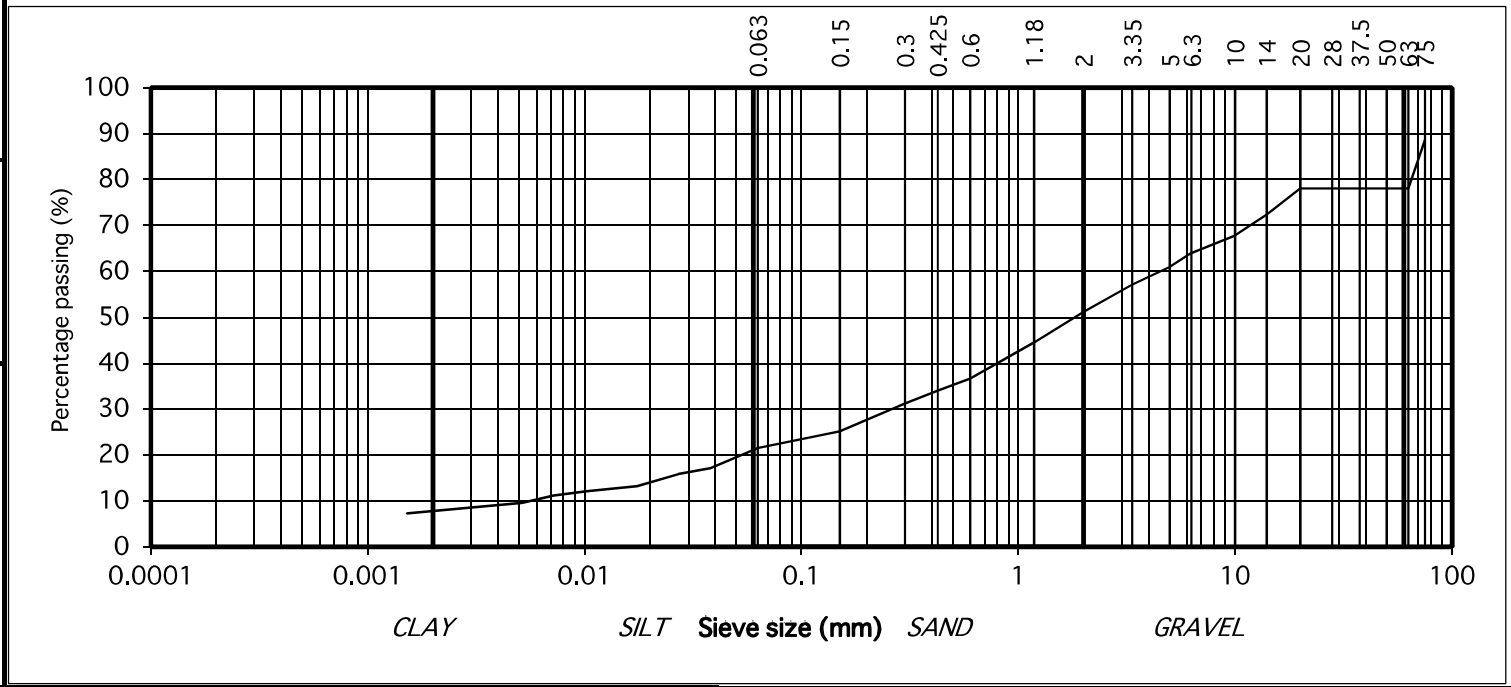
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	89	COBBLES
63	78	
50	78	GRAVEL
37.5	78	
28	78	
20	78	
14	72	
10	68	
6.3	64	
5	61	
3.35	57	
2	51	
1.18	45	SAND
0.6	37	
0.425	34	
0.3	31	
0.15	25	
0.063	22	SILT/CLAY
0.038	17	
0.027	16	
0.017	13	
0.010	12	
0.007	11	
0.005	10	
0.002	7	

Contract No.	23560	Report No.	R141545	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH114109			
Sample No.*	AA171094	Lab. Sample No.		A22/6420
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

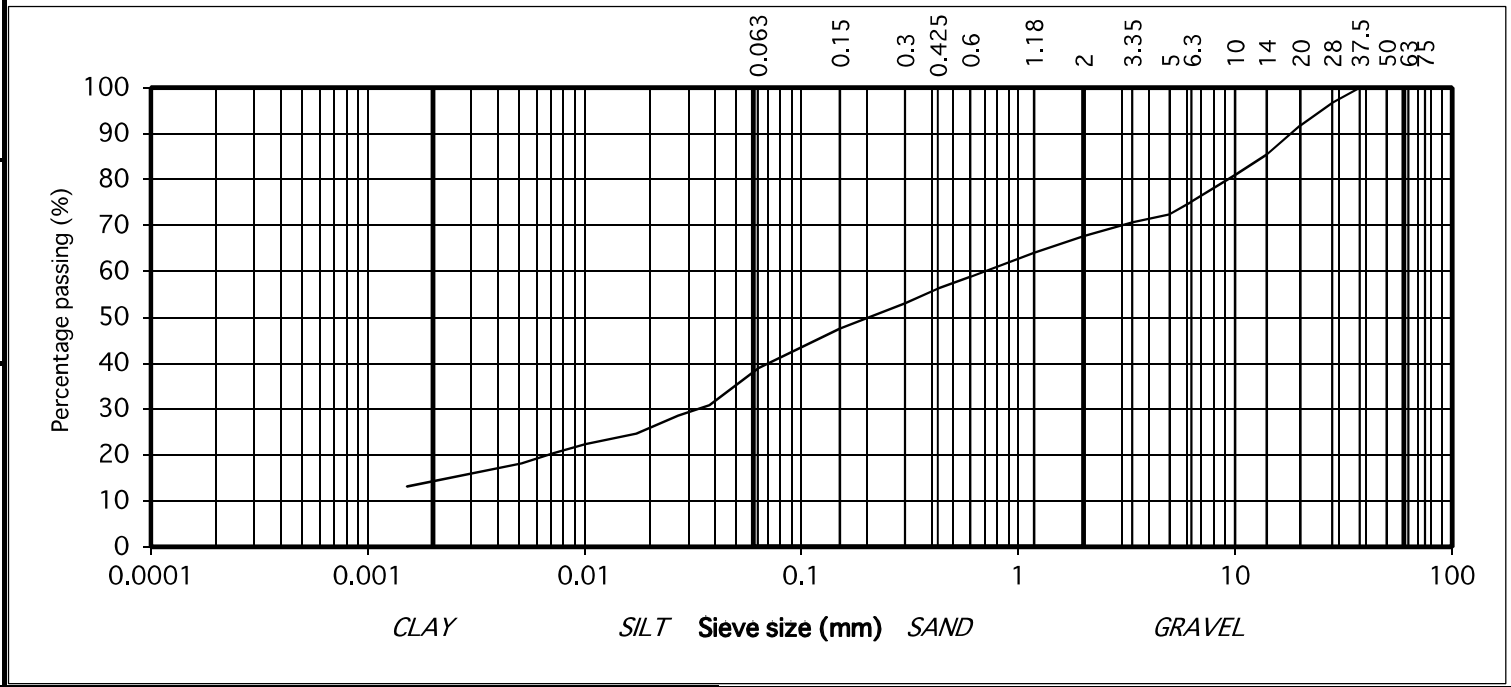
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	92	
14	86	
10	81	
6.3	75	
5	72	
3.35	71	
2	68	
1.18	64	SAND
0.6	59	
0.425	56	
0.3	53	
0.15	48	
0.063	39	SILT/CLAY
0.038	31	
0.027	29	
0.017	25	
0.010	22	
0.007	20	
0.005	18	
0.002	13	

Contract No.	23560	Report No.	R141544	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH114109			
Sample No.*	AA171092	Lab. Sample No.		A22/6419
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

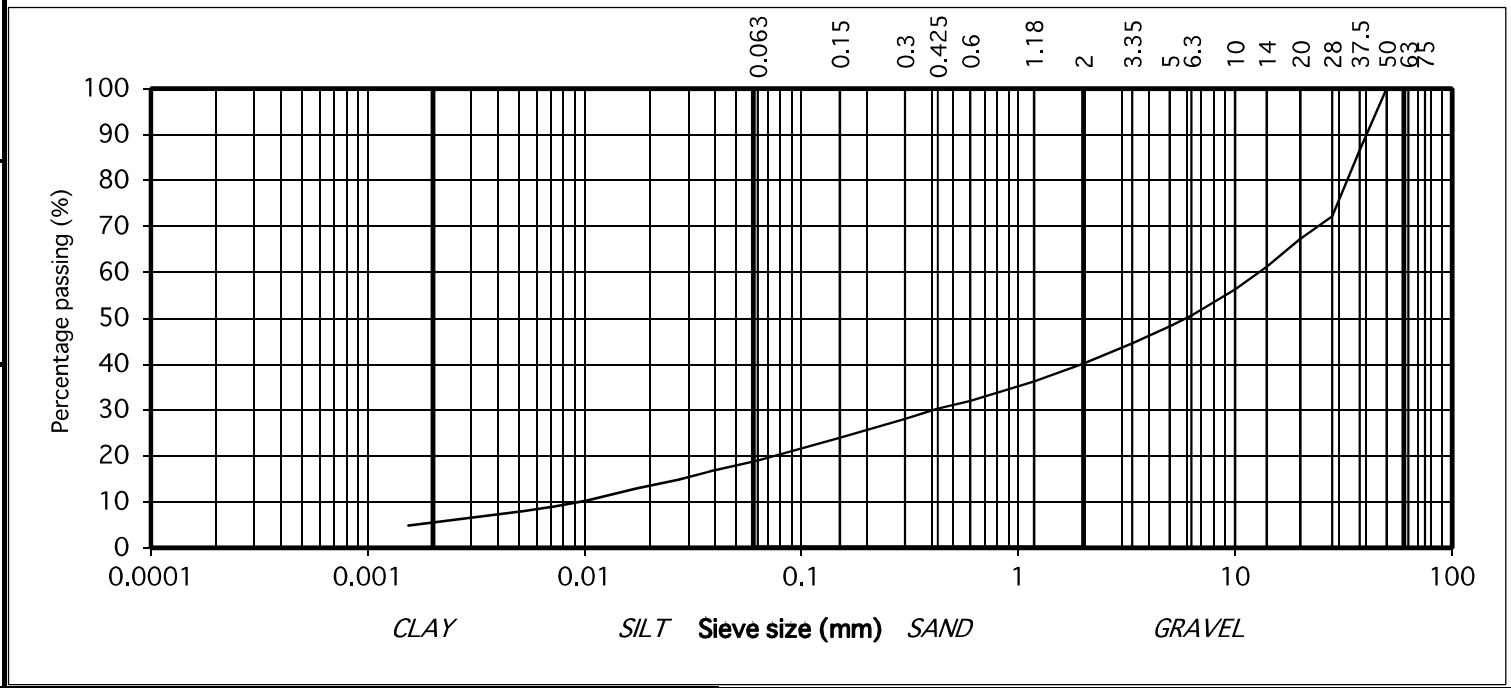
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	87	
28	72	
20	67	
14	61	
10	56	
6.3	51	
5	48	
3.35	45	
2	40	
1.18	36	SAND
0.6	32	
0.425	30	
0.3	28	
0.15	24	
0.063	19	SILT/CLAY
0.037	17	
0.027	15	
0.017	13	
0.010	10	
0.007	9	
0.005	8	
0.002	5	

Contract No.	23560	Report No.	R141670
Contract Name:	WSP - Lot 3		
BH/TP* :	BH114149		
Sample No.*	179142	Lab. Sample No.	A22/6422
Sample Type:	B		
Depth* (m)	1.20	Customer:	Ervia
Date Received	21/11/2022	Date Testing started	21/11/2022
Description:	Brown clayey/silty, very sandy, GRAVEL		

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

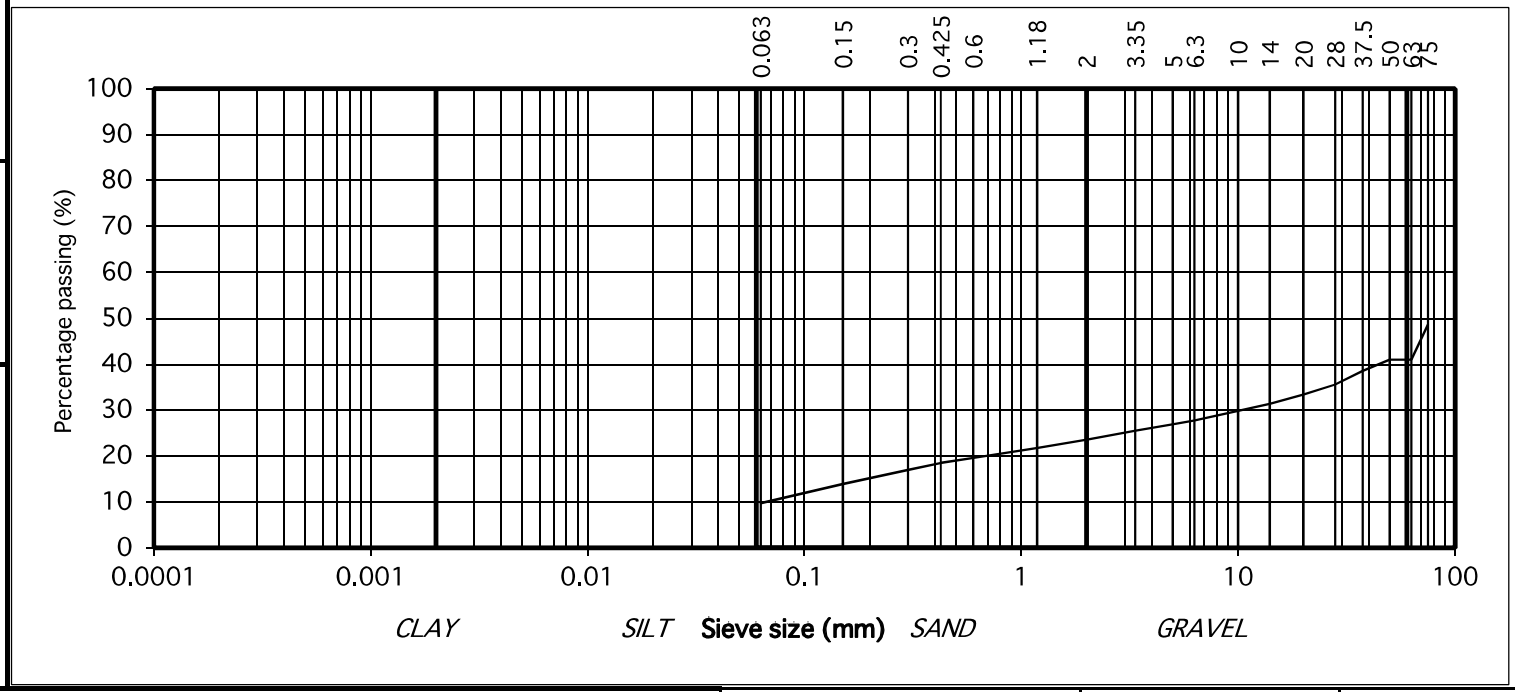
particle size	% passing	
75	49	COBBLES
63	41	
50	41	GRAVEL
37.5	39	
28	36	
20	33	
14	31	
10	30	
6.3	28	
5	27	
3.35	26	
2	24	
1.18	22	SAND
0.6	20	
0.425	19	
0.3	17	
0.15	14	
0.063	10	SILT/CLAY

Contract No.	23560	Report No.	R141671
Contract Name:	WSP - Lot 3		
BH/TP* :	BH114352		
Sample No.*	170347	Lab. Sample No.	A22/6427
Sample Type:	B		
Depth* (m)	3.00	Customer:	Ervia
Date Received	17/11/2022	Date Testing started	17/11/2022
Description:	COBBLES with brown clayey/silty, sandy, gravel		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

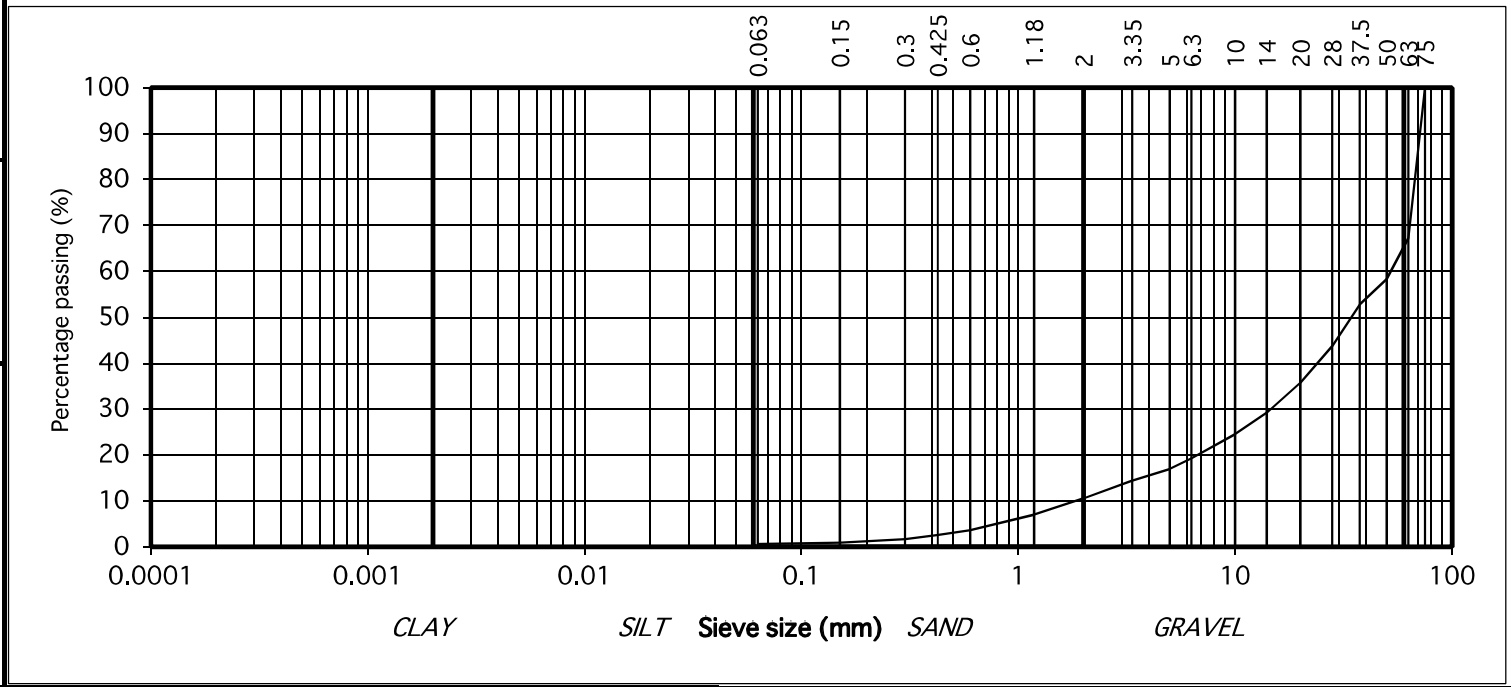
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	67	
50	58	GRAVEL
37.5	53	
28	44	
20	36	
14	29	
10	25	
6.3	19	
5	17	
3.35	14	
2	11	
1.18	7	SAND
0.6	4	
0.425	3	
0.3	2	
0.15	1	
0.063	1	SILT/CLAY

Contract No.	23560	Report No.	R141546
Contract Name:	WSP - Lot 3		
BH/TP* :	BH114149		
Sample No.*	AA179143	Lab. Sample No.	A22/6423
Sample Type:	B		
Depth* (m)	2.00	Customer:	Ervia
Date Received	23/11/2022	Date Testing started	23/11/2022
Description:	Grey Brown slightly clayey/silty, sandy, GRAVEL with many cobbles		
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

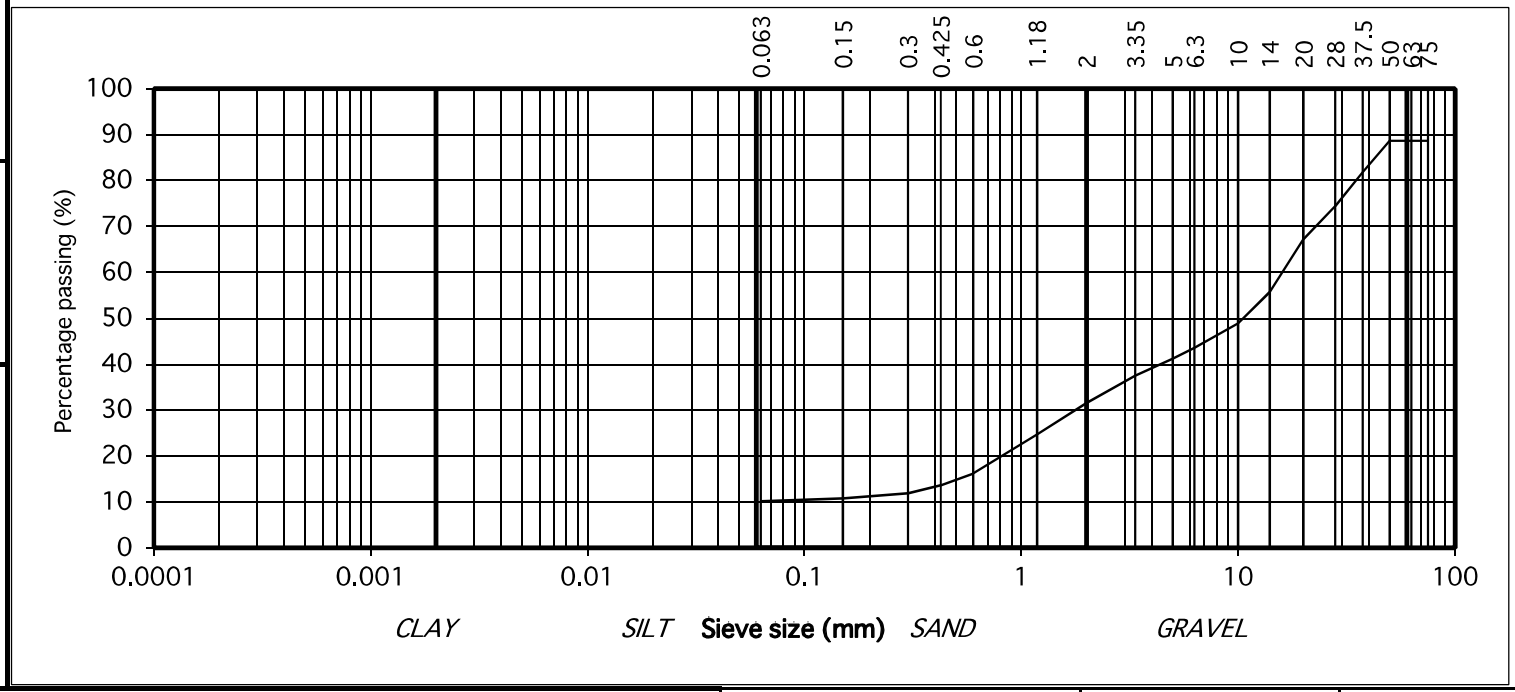
particle size	% passing	
75	89	COBBLES
63	89	
50	89	GRAVEL
37.5	82	
28	74	
20	67	
14	56	
10	49	
6.3	44	
5	41	
3.35	38	
2	32	
1.18	25	SAND
0.6	16	
0.425	14	
0.3	12	
0.15	11	
0.063	10	SILT/CLAY

Contract No.	23560	Report No.	R141547	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH114352			
Sample No.*	AA170345	Lab. Sample No.		A22/6426
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	18/11/2022	Date Testing started		18/11/2022
Description:	Grey Brown clayey/silty, very sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

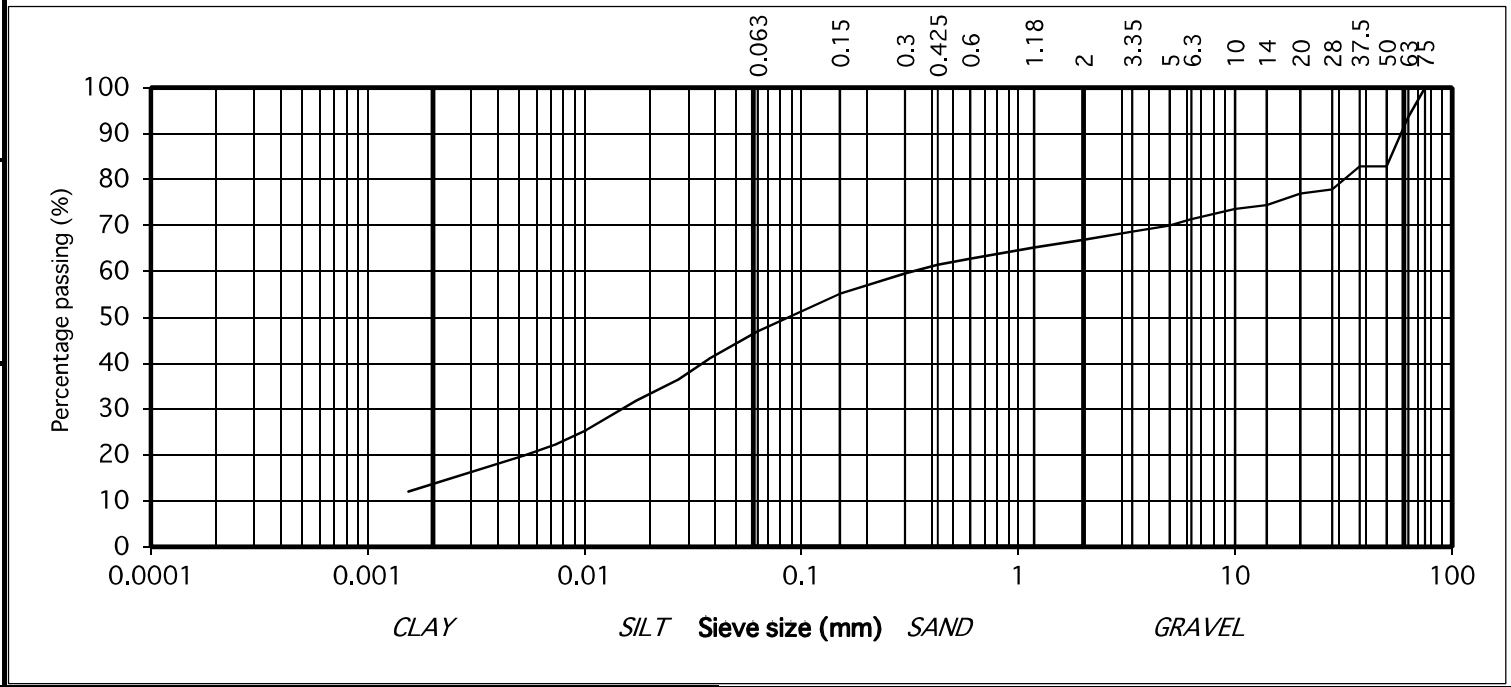
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	94	
50	83	GRAVEL
37.5	83	
28	78	
20	77	
14	74	
10	74	
6.3	71	
5	70	
3.35	69	
2	67	
1.18	65	SAND
0.6	63	
0.425	61	
0.3	60	
0.15	55	
0.063	47	SILT/CLAY
0.037	41	
0.027	36	
0.017	32	
0.010	25	
0.007	22	
0.005	20	
0.002	12	

Contract No.	23560	Report No.	R141672	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH114689			
Sample No.*	175213	Lab. Sample No.		A22/6429
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

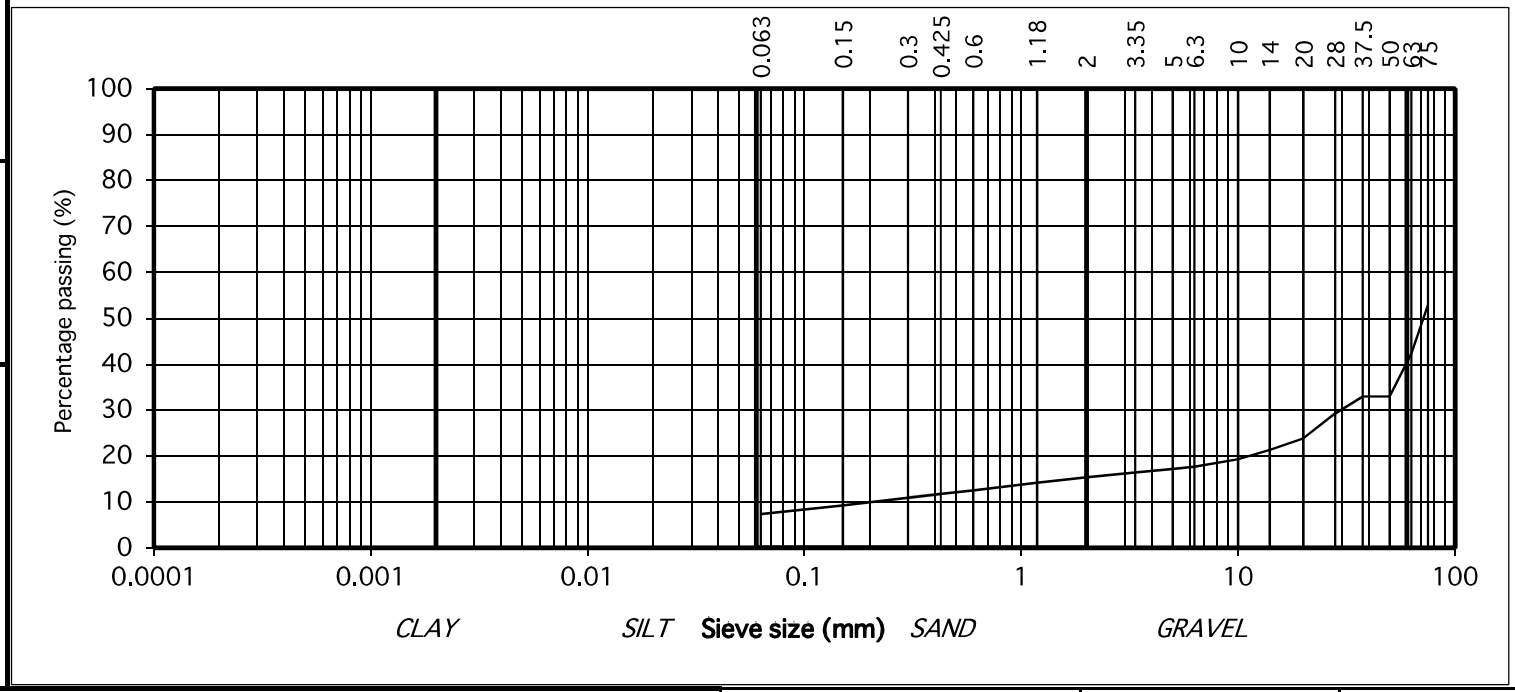
particle size	% passing	
75	53	COBBLES
63	42	
50	33	GRAVEL
37.5	33	
28	29	
20	24	
14	21	
10	19	
6.3	18	
5	17	
3.35	16	
2	15	
1.18	14	SAND
0.6	13	
0.425	12	
0.3	11	
0.15	9	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R141549	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH114689			
Sample No.*	AA175216	Lab. Sample No.		A22/6431
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	COBBLES with grey brown clayey/silty, sandy, gravel			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

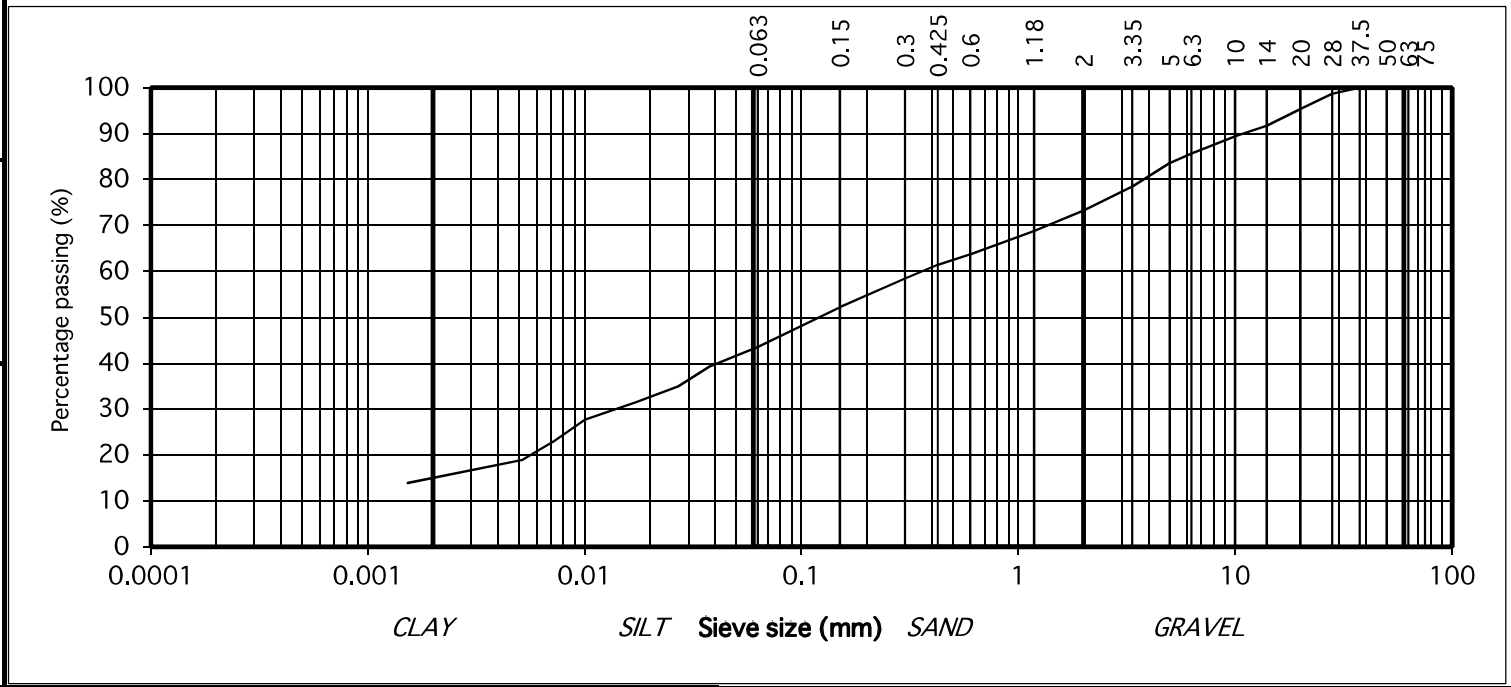
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	95	
14	92	
10	89	
6.3	86	
5	84	
3.35	78	
2	73	
1.18	69	SAND
0.6	64	
0.425	61	
0.3	58	
0.15	52	
0.063	44	SILT/CLAY
0.037	39	
0.027	35	
0.017	32	
0.010	28	
0.007	23	
0.005	19	
0.002	14	

Contract No.	23560	Report No.	R141548	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH114689			
Sample No.*	AA175214	Lab. Sample No.		A22/6430
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

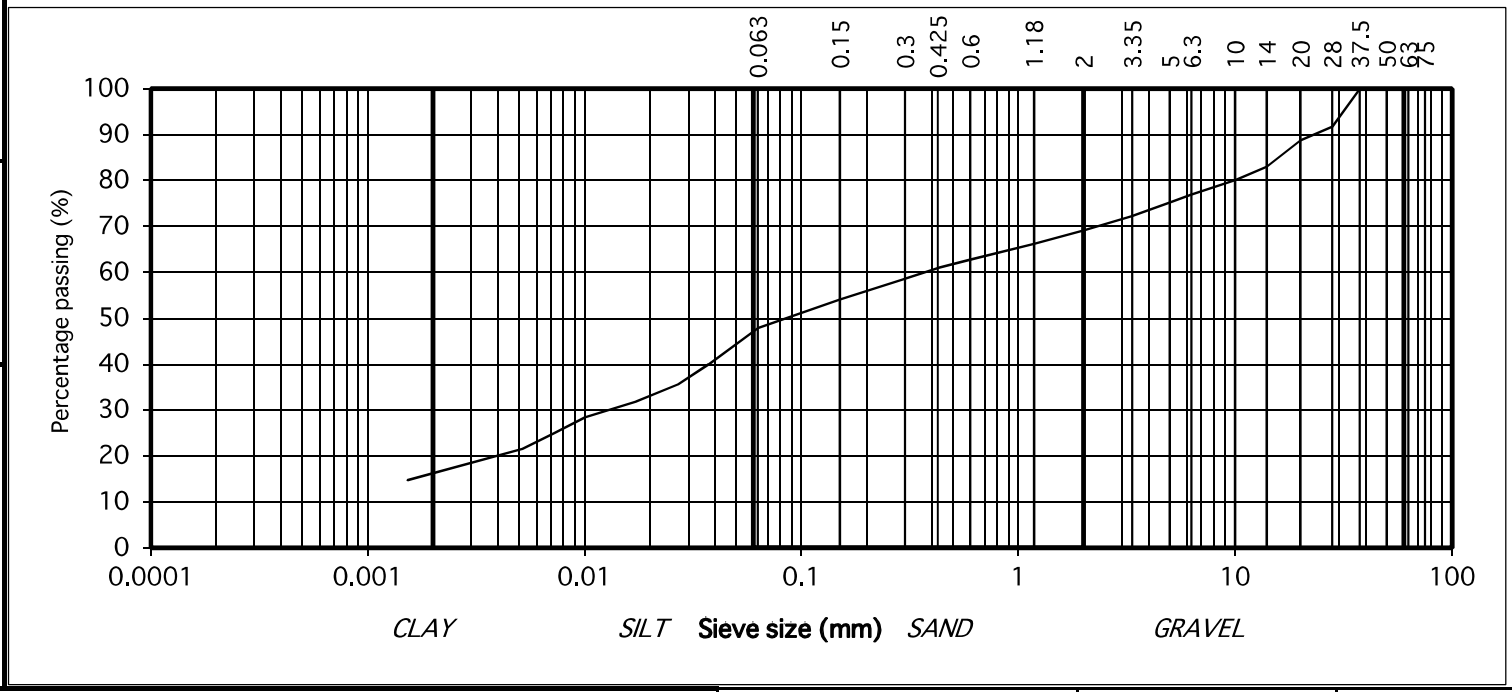
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	92	
20	89	
14	83	
10	80	
6.3	77	
5	75	
3.35	72	
2	69	
1.18	66	SAND
0.6	63	
0.425	61	
0.3	59	
0.15	54	
0.063	48	SILT/CLAY
0.037	40	
0.027	36	
0.017	32	
0.010	28	
0.007	25	
0.005	22	
0.002	15	

Contract No.	23560	Report No.	R141482	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH1115002			
Sample No.*	AA178354	Lab. Sample No.		A22/6626
Sample Type:	B			
Depth* (m)	1.00	Customer:	Ervia	
Date Received	17/11/2022	Date Testing started		17/11/2022
Description:	Grey slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

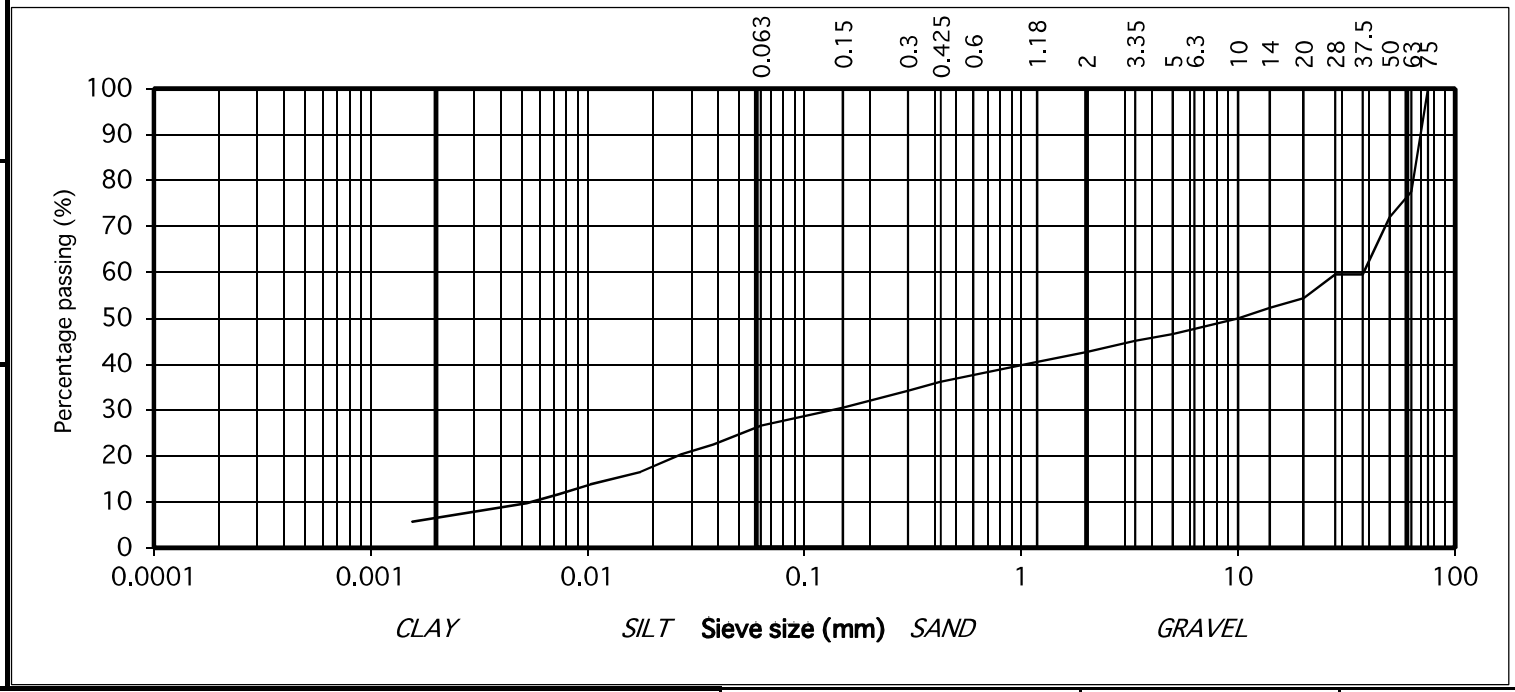
particle size	% passing	
75	100	COBBLES
63	78	
50	72	GRAVEL
37.5	60	
28	60	
20	54	
14	52	
10	50	
6.3	48	
5	47	
3.35	45	
2	43	
1.18	41	SAND
0.6	38	
0.425	36	
0.3	34	
0.15	31	
0.063	27	SILT/CLAY
0.038	23	
0.027	20	
0.018	17	
0.010	14	
0.007	12	
0.005	10	
0.002	6	

Contract No.	23560	Report No.	R141265	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH115809			
Sample No.*	N/A	Lab. Sample No.		A22/6360
Sample Type:	B			
Depth* (m)	1.20-1.7	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

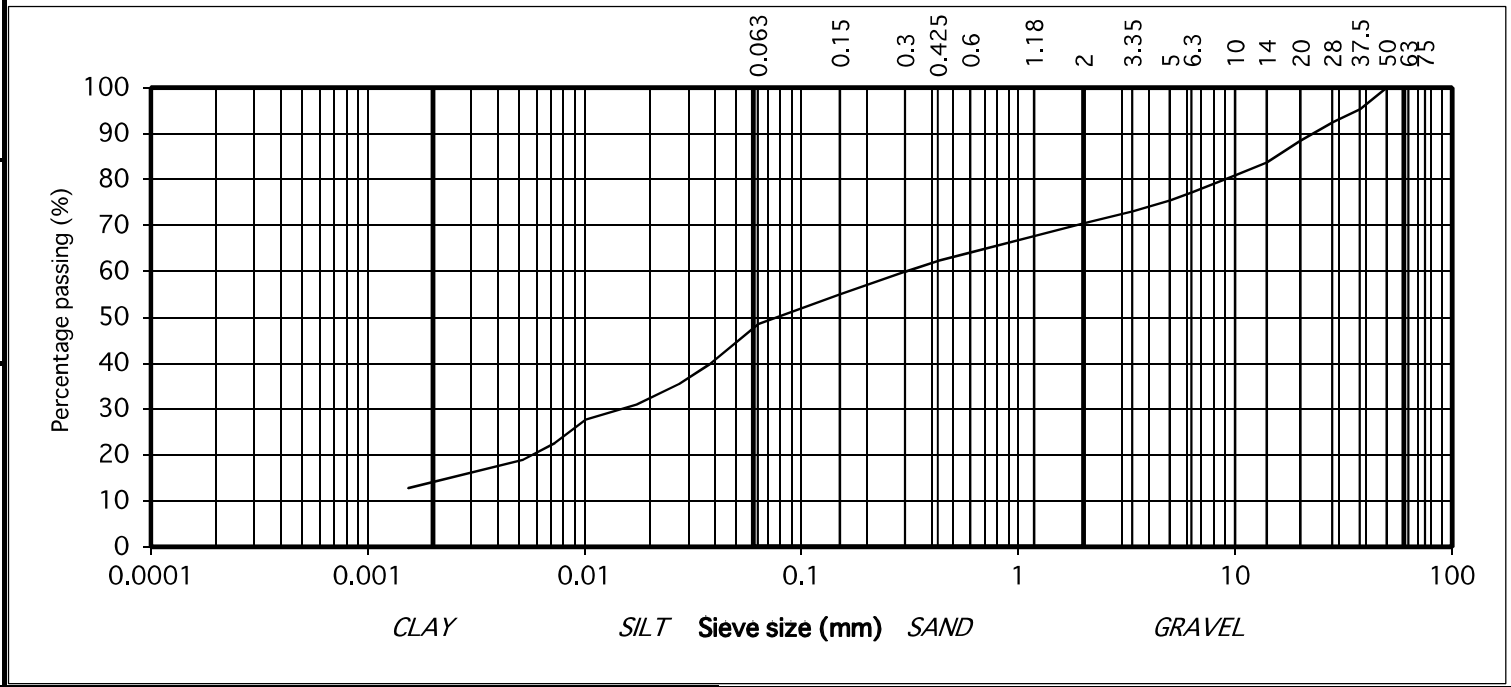
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	92	
20	88	
14	84	
10	81	
6.3	77	
5	75	
3.35	73	
2	70	
1.18	68	SAND
0.6	64	
0.425	62	
0.3	60	
0.15	55	
0.063	49	SILT/CLAY
0.038	40	
0.027	35	
0.017	31	
0.010	28	
0.007	23	
0.005	19	
0.002	13	

Contract No.	23560	Report No.	R141550	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH115403			
Sample No.*	AA175328	Lab. Sample No.		A22/6435
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

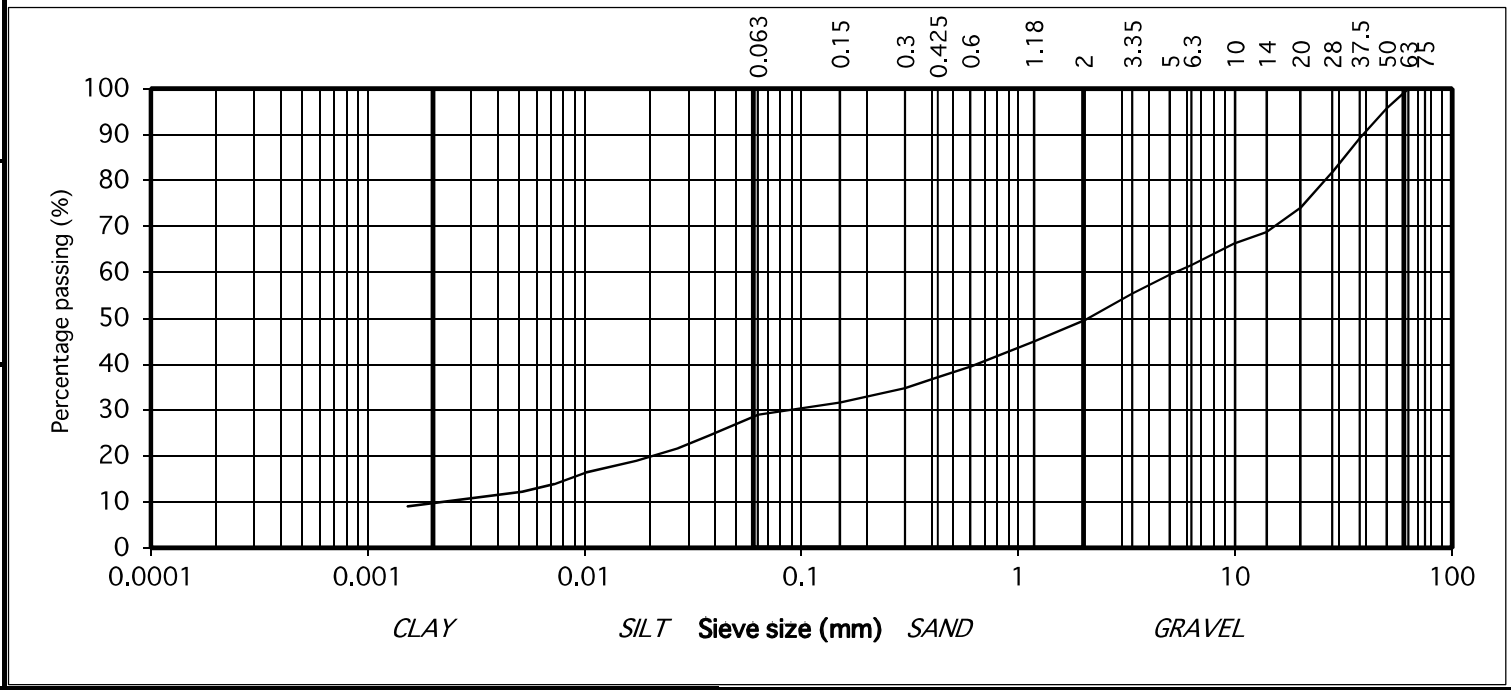
particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	89	
28	82	
20	74	
14	69	
10	66	
6.3	62	
5	60	
3.35	55	
2	50	
1.18	45	SAND
0.6	40	
0.425	37	
0.3	35	
0.15	32	
0.063	29	SILT/CLAY
0.037	24	
0.027	22	
0.017	19	
0.010	16	
0.007	14	
0.005	12	
0.002	9	

Contract No.	23560	Report No.	R141673	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH115403			
Sample No.*	175329	Lab. Sample No.		A22/6436
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

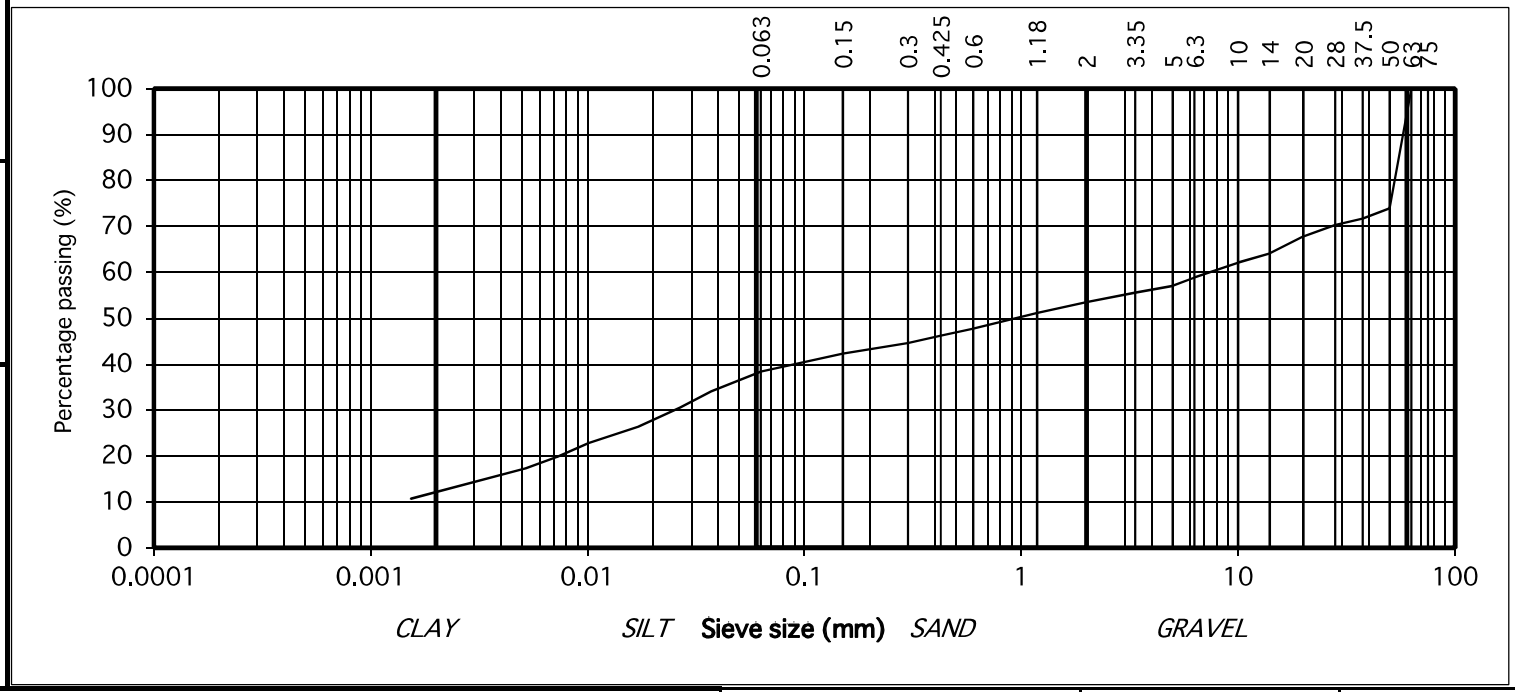
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	74	GRAVEL
37.5	72	
28	70	
20	68	
14	64	
10	62	
6.3	59	
5	57	
3.35	56	
2	54	
1.18	51	SAND
0.6	48	
0.425	46	
0.3	45	
0.15	42	
0.063	38	SILT/CLAY
0.037	34	
0.027	31	
0.017	26	
0.010	23	
0.007	20	
0.005	17	
0.002	11	

Contract No.	23560	Report No.	R141657	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH115809			
Sample No.*	175334	Lab. Sample No.		A22/6361
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	15/11/2022	Date Testing started		15/11/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

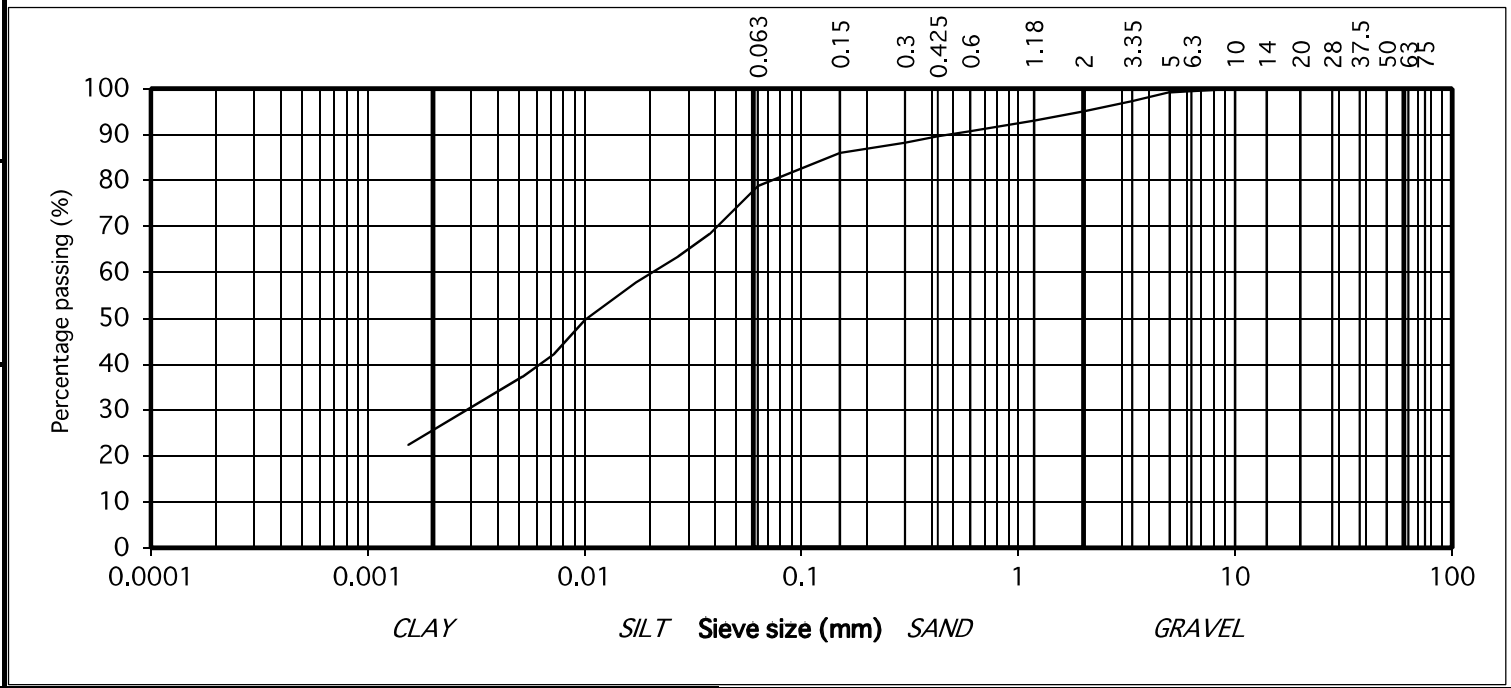
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	99	
3.35	97	
2	95	
1.18	93	SAND
0.6	91	
0.425	90	
0.3	88	
0.15	86	
0.063	79	SILT/CLAY
0.038	68	
0.027	63	
0.017	58	
0.010	50	
0.007	42	
0.005	37	
0.002	22	

Contract No.	23560	Report No.	R141266	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH1116189			
Sample No.*	N/A	Lab. Sample No.		A22/6364
Sample Type:	B			
Depth* (m)	4.0-4.5	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

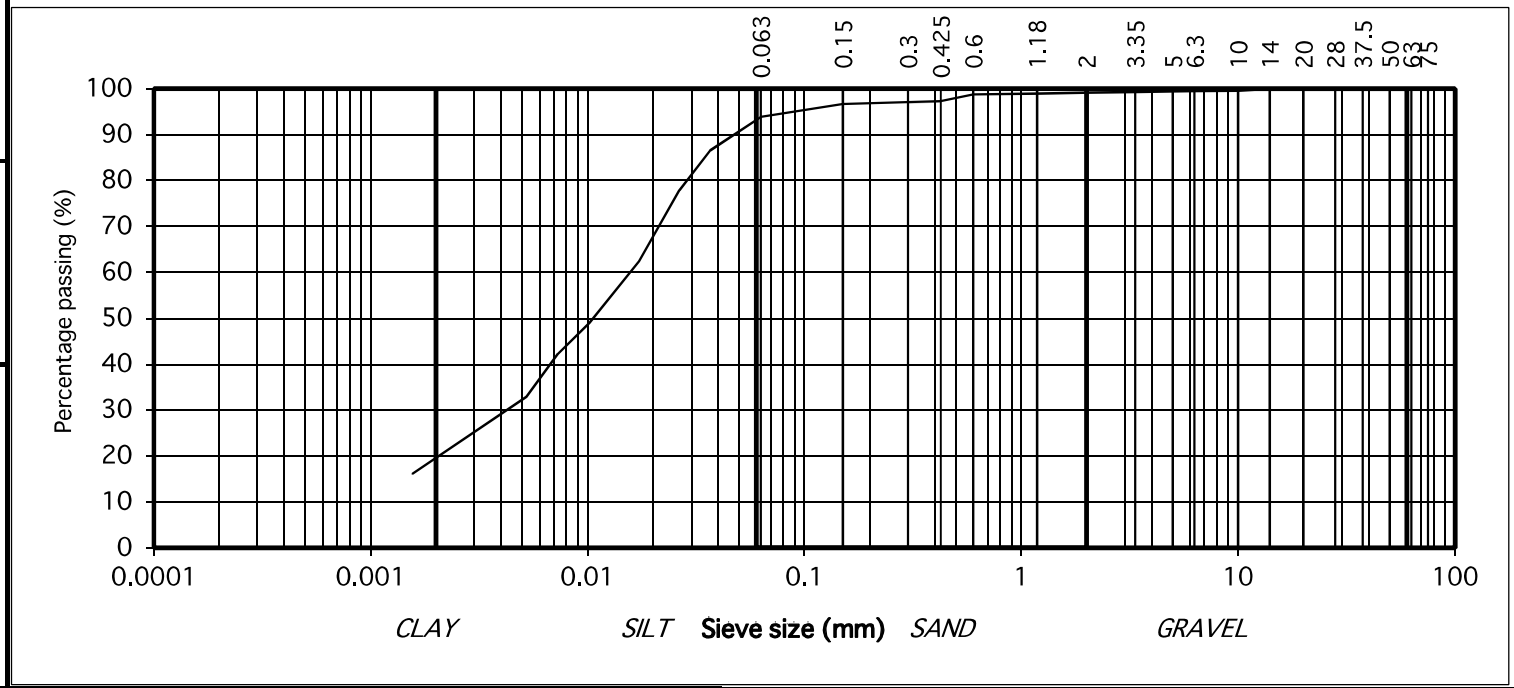
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	99	
3.35	99	
2	99	
1.18	99	SAND
0.6	99	
0.425	97	
0.3	97	
0.15	97	
0.063	94	SILT/CLAY
0.037	87	
0.026	78	
0.017	62	
0.010	49	
0.007	42	
0.005	33	
0.002	16	

Contract No.	23560	Report No.	R141658	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH116213			
Sample No.*	N/A	Lab. Sample No.		A22/6366
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

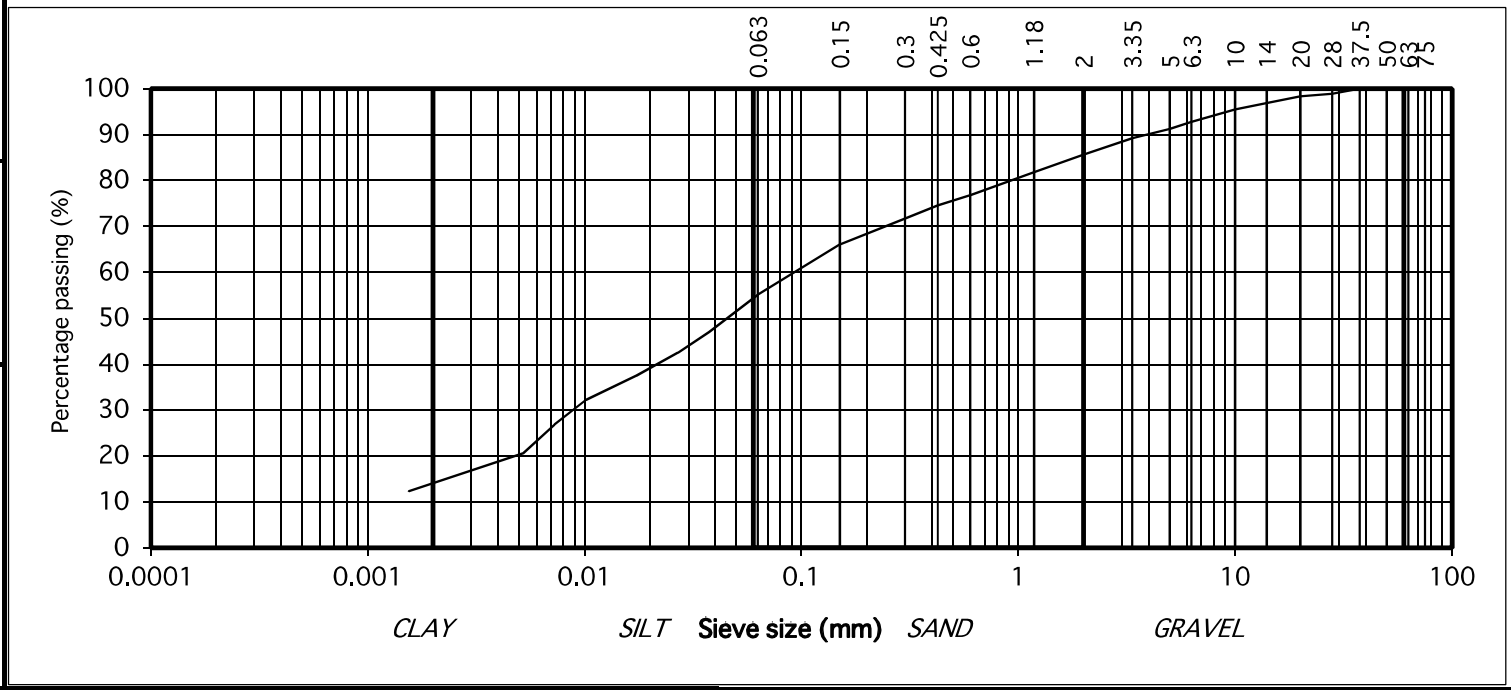
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	98	
14	97	
10	95	
6.3	93	
5	91	
3.35	89	
2	86	
1.18	82	SAND
0.6	77	
0.425	75	
0.3	72	
0.15	66	
0.063	55	SILT/CLAY
0.037	47	
0.027	43	
0.017	38	
0.010	32	
0.007	27	
0.005	21	
0.002	12	

Contract No.	23560	Report No.	R141267	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH116213			
Sample No.*	N/A	Lab. Sample No.		A22/6367
Sample Type:	B			
Depth* (m)	4.0-4.5	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

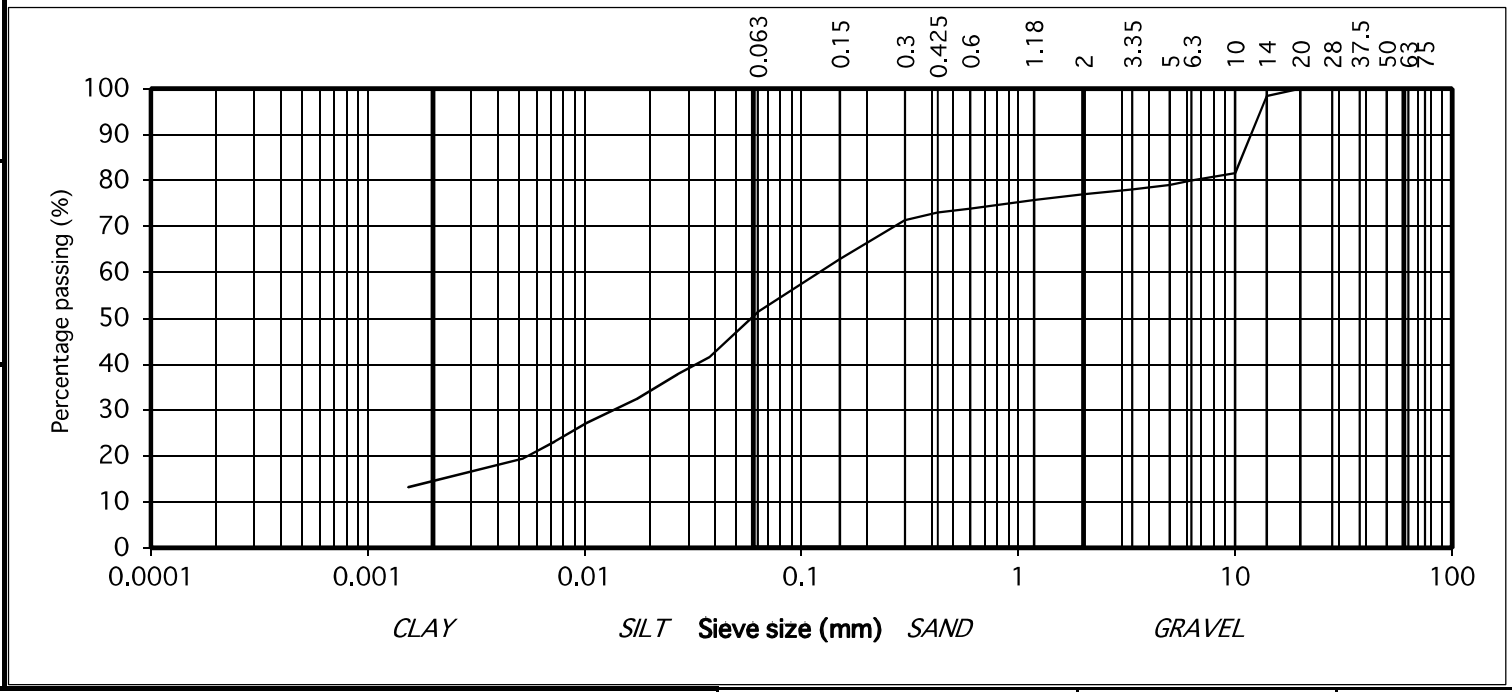
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	98	
10	82	
6.3	80	
5	79	
3.35	78	
2	77	
1.18	76	SAND
0.6	74	
0.425	73	
0.3	71	
0.15	63	
0.063	51	SILT/CLAY
0.038	42	
0.027	38	
0.017	32	
0.010	27	
0.007	23	
0.005	20	
0.002	13	

Contract No.	23560	Report No.	R141483	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH116733			
Sample No.*	AA178352	Lab. Sample No.		A22/6629
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	29/11/2022	Date Testing started		29/11/2022
Description:	Grey slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

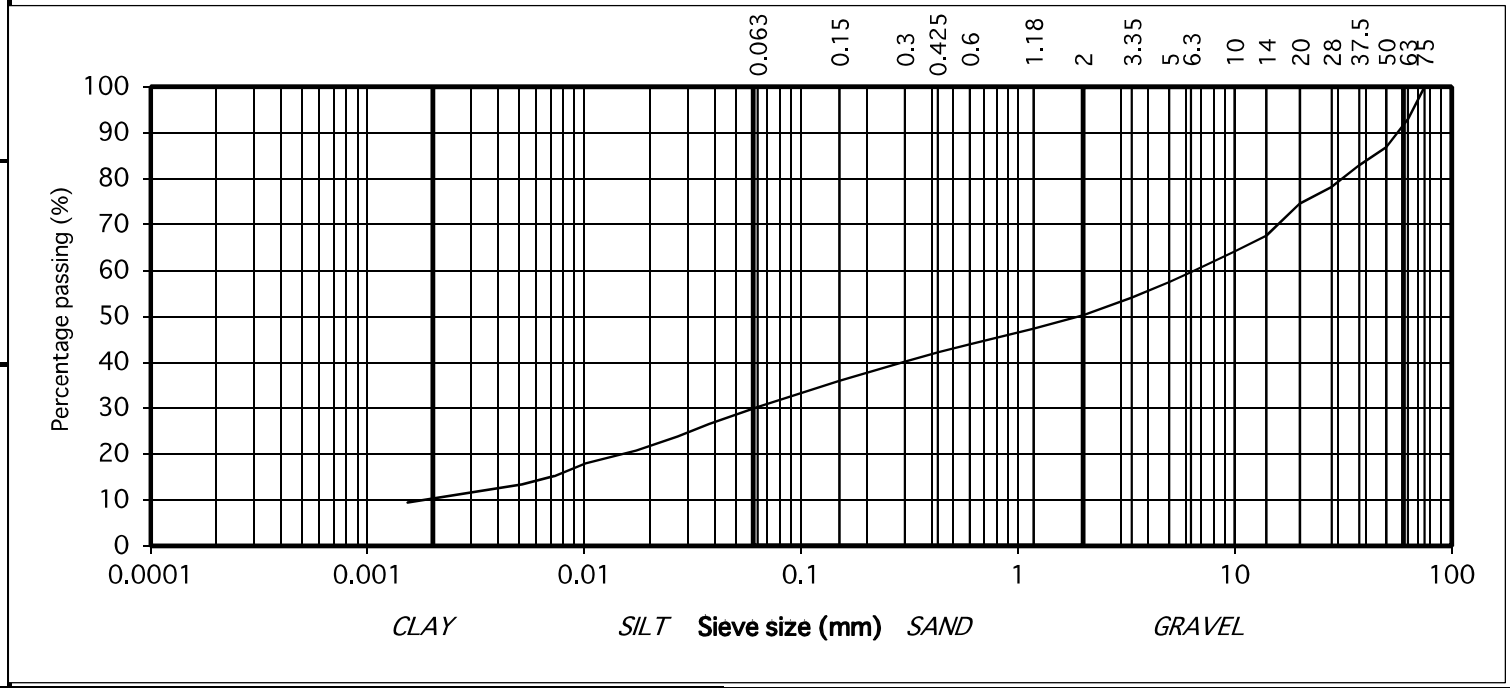
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	93	
50	87	GRAVEL
37.5	83	
28	78	
20	75	
14	68	
10	64	
6.3	60	
5	57	
3.35	54	
2	50	
1.18	47	SAND
0.6	44	
0.425	42	
0.3	40	
0.15	36	
0.063	30	SILT/CLAY
0.037	27	
0.027	24	
0.017	21	
0.010	18	
0.007	15	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R136481	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH120200			
Sample No.*	AA178261	Lab. Sample No.		A22/2447
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

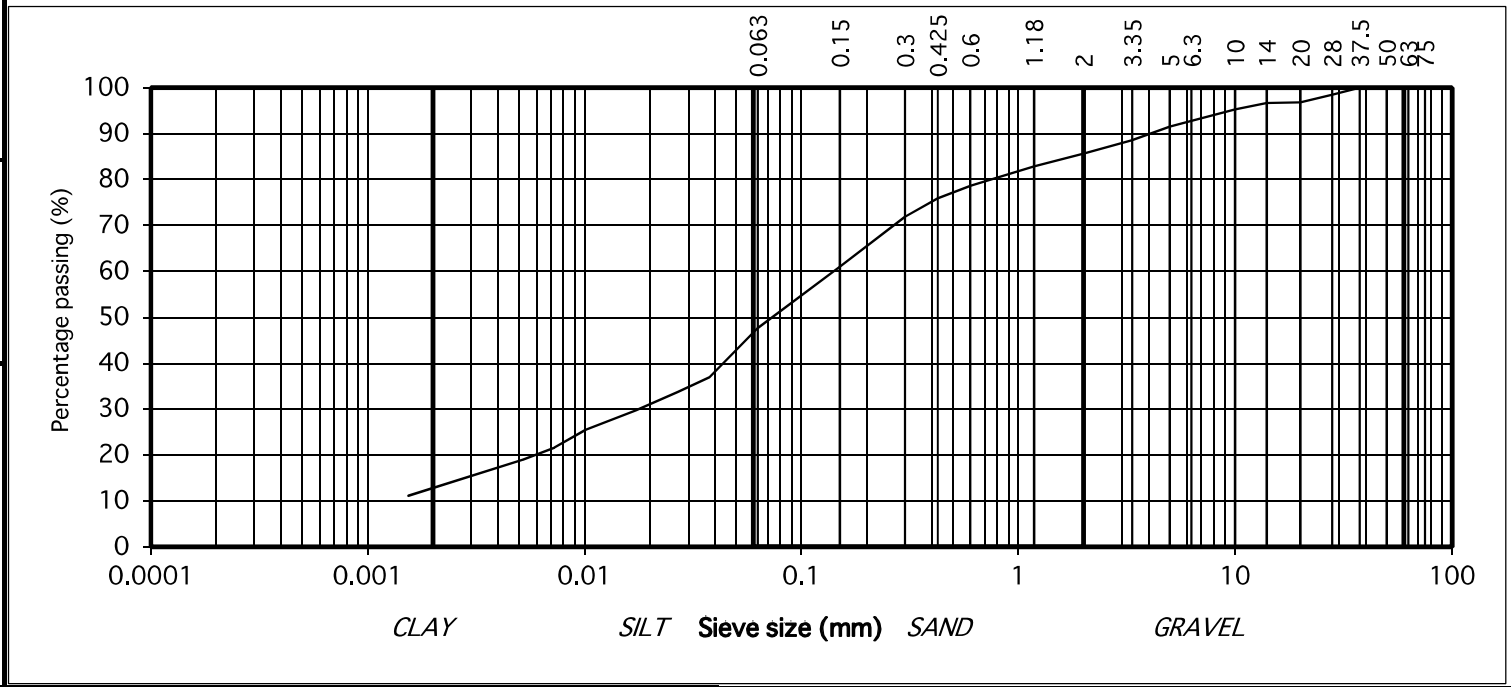
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	97	
14	97	
10	95	
6.3	93	
5	92	
3.35	89	
2	86	
1.18	83	SAND
0.6	79	
0.425	76	
0.3	72	
0.15	61	
0.063	48	SILT/CLAY
0.038	37	
0.027	34	
0.017	30	
0.010	26	
0.007	22	
0.005	19	
0.002	11	

Contract No.	23560	Report No.	R137399	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH120200			
Sample No.*	AA178262	Lab. Sample No.		A22/2448
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	18/07/2022	Date Testing started		18/07/2022
Description:	Brown/grey sandy, slightly gravelly, SILT/CLAY			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	08/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

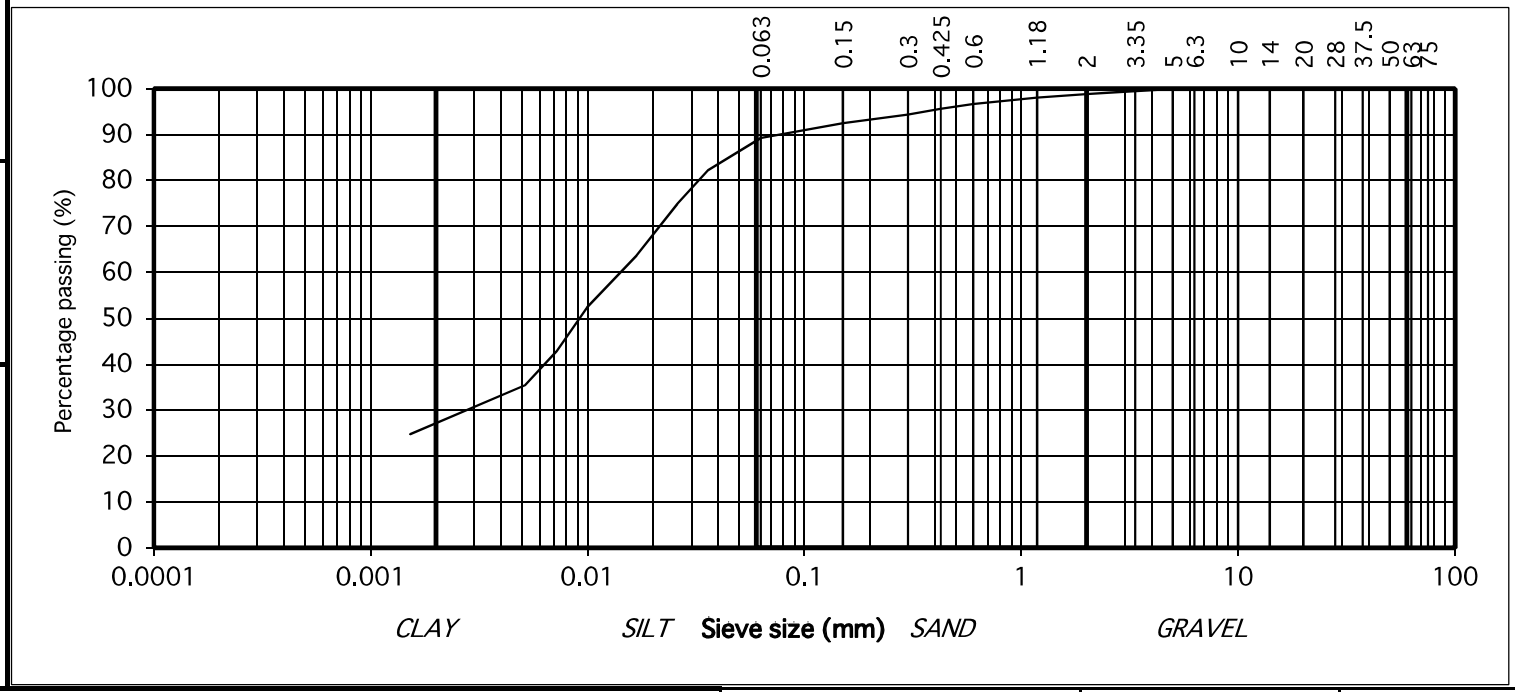
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	99	
1.18	98	SAND
0.6	97	
0.425	96	
0.3	94	
0.15	93	
0.063	89	SILT/CLAY
0.036	82	
0.026	75	
0.017	64	
0.010	52	
0.007	43	
0.005	35	
0.002	25	

Contract No.	23560	Report No.	R137400	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH120739			
Sample No.*	AA173300	Lab. Sample No.		A22/2450
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	15/07/2022	Date Testing started		15/07/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	08/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

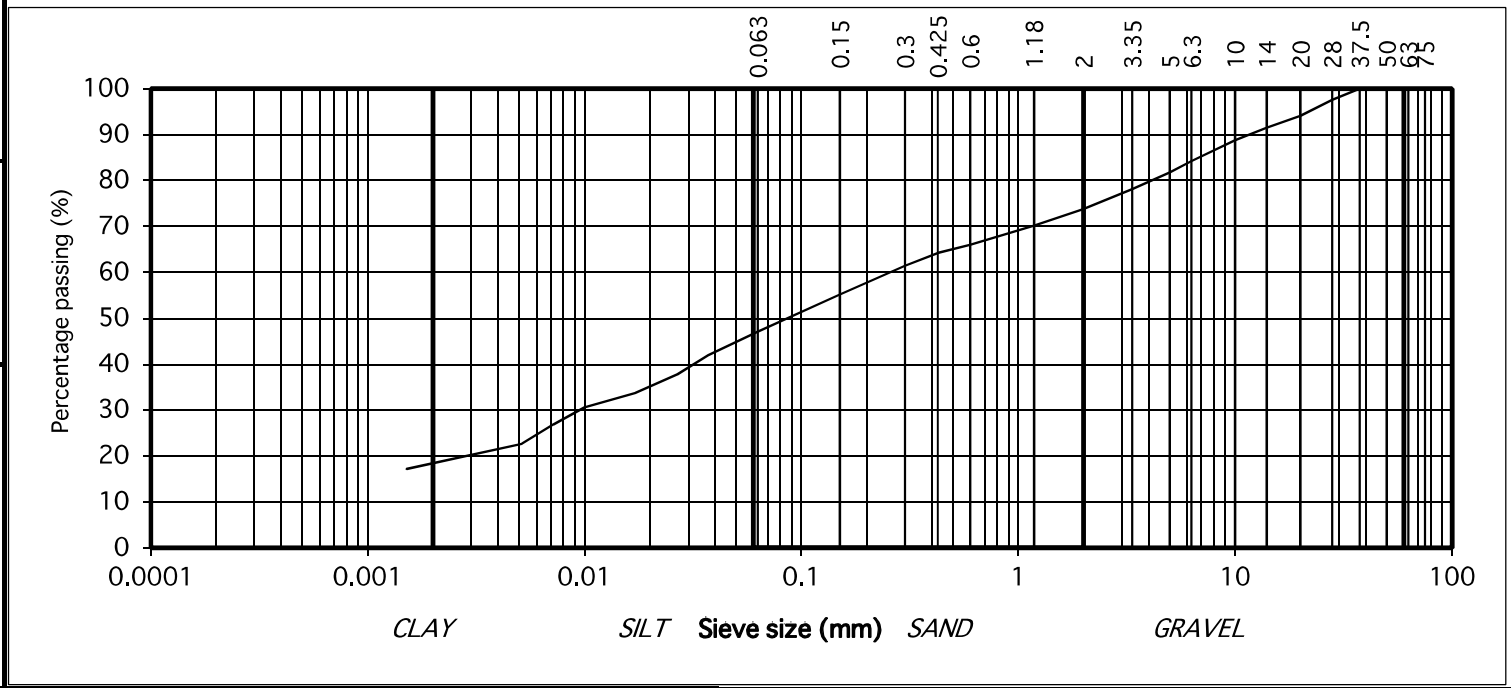
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	94	
14	92	
10	89	
6.3	84	
5	82	
3.35	78	
2	74	
1.18	70	SAND
0.6	66	
0.425	64	
0.3	61	
0.15	55	
0.063	47	SILT/CLAY
0.037	42	
0.027	38	
0.017	34	
0.010	31	
0.007	27	
0.005	23	
0.002	17	

Contract No.	23560	Report No.	R135252	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH121933			
Sample No.*	AA178270	Lab. Sample No.		A22/2457
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

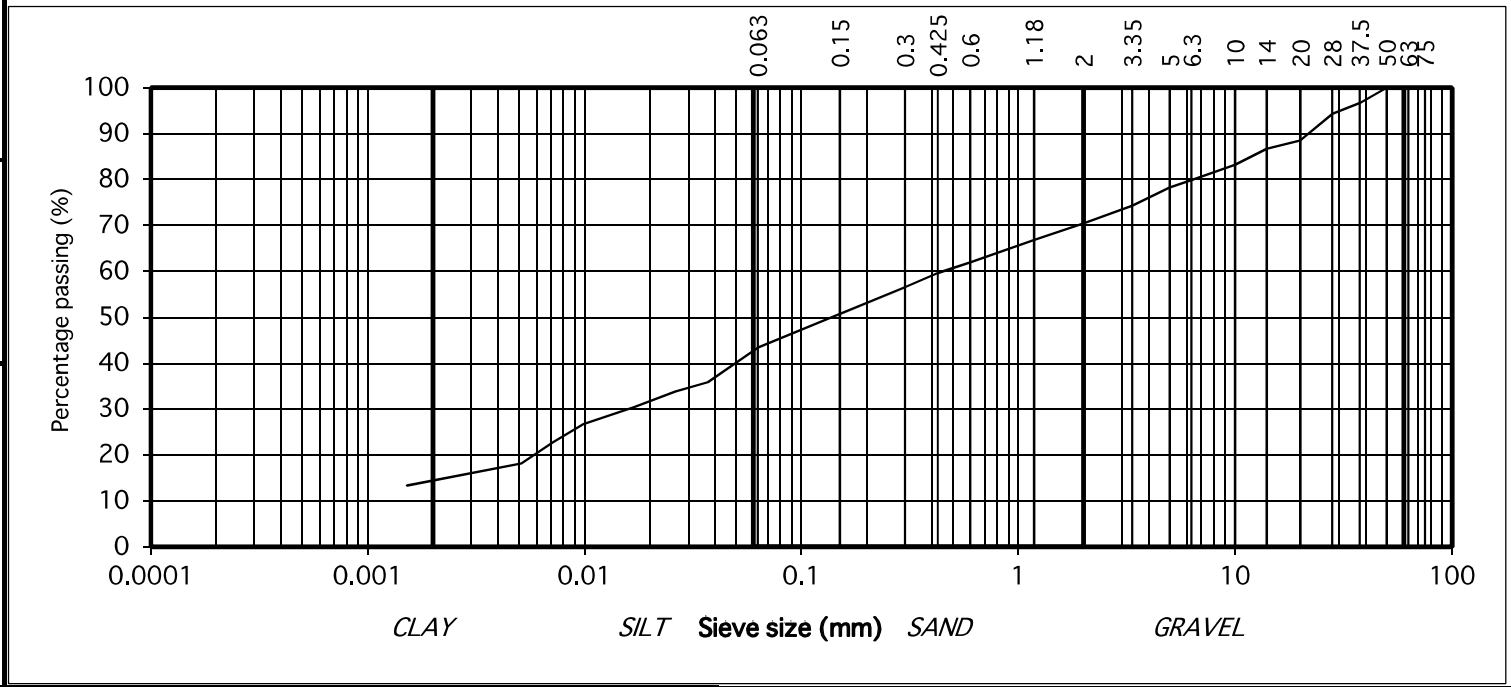
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	94	
20	89	
14	87	
10	83	
6.3	80	
5	78	
3.35	74	
2	71	
1.18	67	SAND
0.6	62	
0.425	60	
0.3	57	
0.15	51	
0.063	43	SILT/CLAY
0.037	36	
0.026	34	
0.017	30	
0.010	27	
0.007	23	
0.005	18	
0.002	13	

Contract No.	23560	Report No.	R137017	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH120739			
Sample No.*	AA173303	Lab. Sample No.		A22/2451
Sample Type:	B			
Depth* (m)	8.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

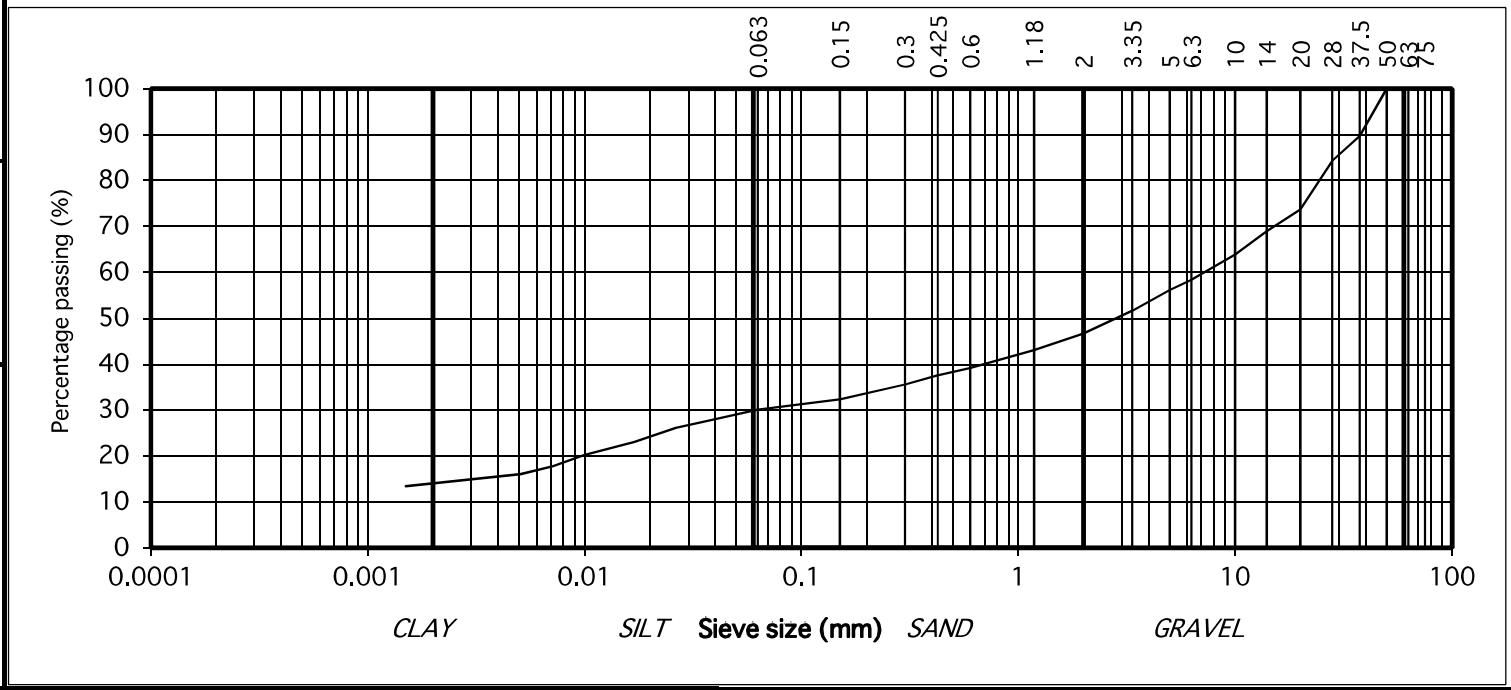
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	90	
28	84	
20	74	
14	69	
10	64	
6.3	58	
5	56	
3.35	52	
2	47	
1.18	43	SAND
0.6	39	
0.425	38	
0.3	36	
0.15	32	
0.063	30	SILT/CLAY
0.037	28	
0.026	26	
0.017	23	
0.010	20	
0.007	18	
0.005	16	
0.001	13	

Contract No.	23560	Report No.	R135251	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH121933			
Sample No.*	AA178268	Lab. Sample No.		A22/2456
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

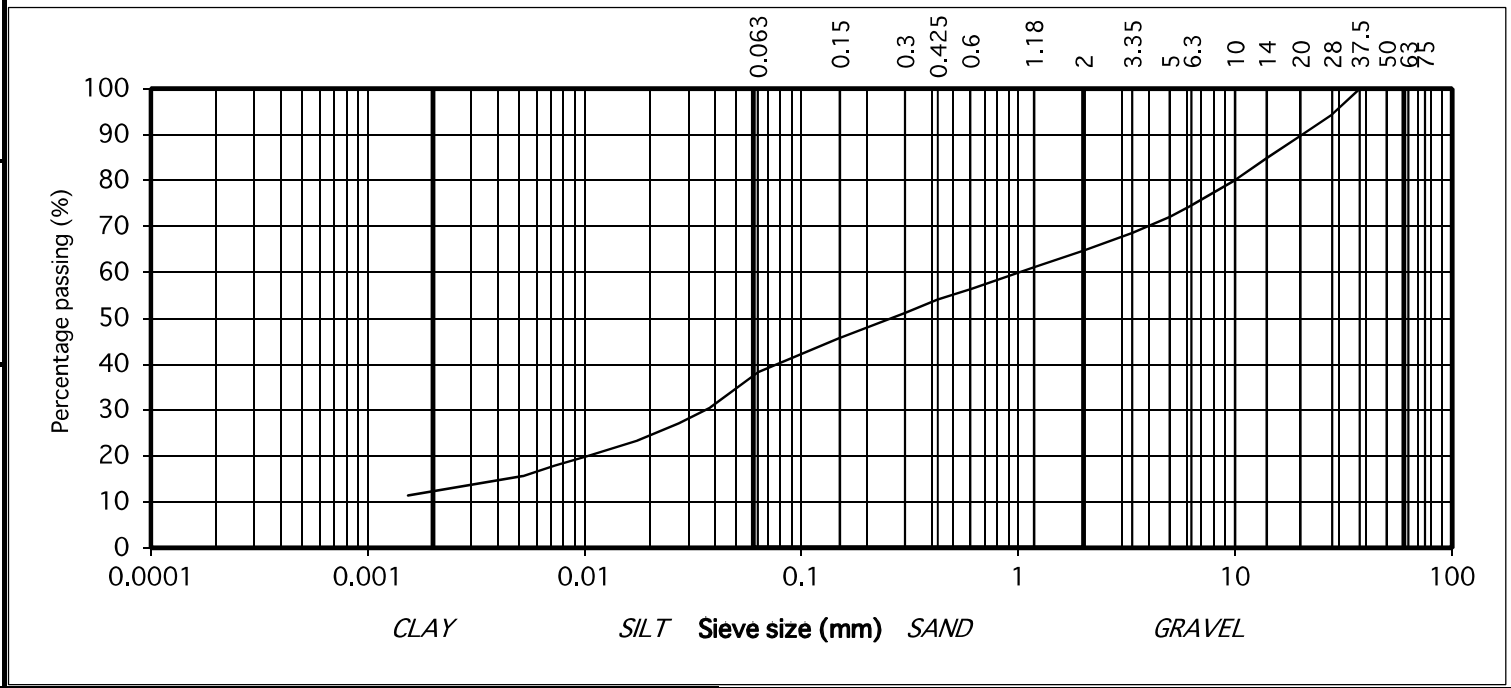
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	94	
20	90	
14	85	
10	80	
6.3	75	
5	72	
3.35	69	
2	65	
1.18	61	SAND
0.6	56	
0.425	54	
0.3	51	
0.15	46	
0.063	38	SILT/CLAY
0.038	31	
0.027	27	
0.017	23	
0.010	20	
0.007	18	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R141692	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH122408			
Sample No.*	178275	Lab. Sample No.		A22/6518
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

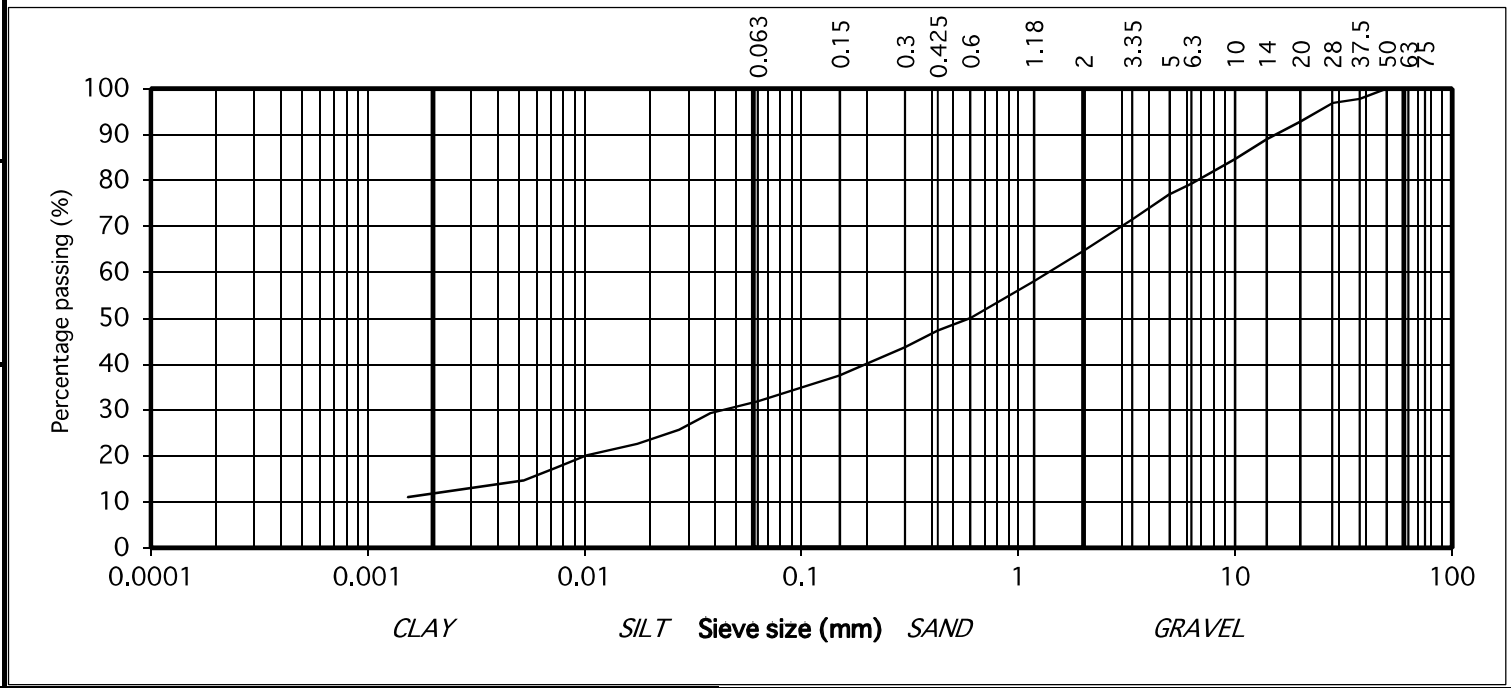
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	97	
20	93	
14	89	
10	85	
6.3	79	
5	77	
3.35	72	
2	65	
1.18	58	SAND
0.6	50	
0.425	47	
0.3	44	
0.15	38	
0.063	32	SILT/CLAY
0.038	29	
0.027	26	
0.017	23	
0.010	20	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R141442	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH122408			
Sample No.*	AA178278	Lab. Sample No.		A22/6519
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	18/11/2022	Date Testing started		18/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

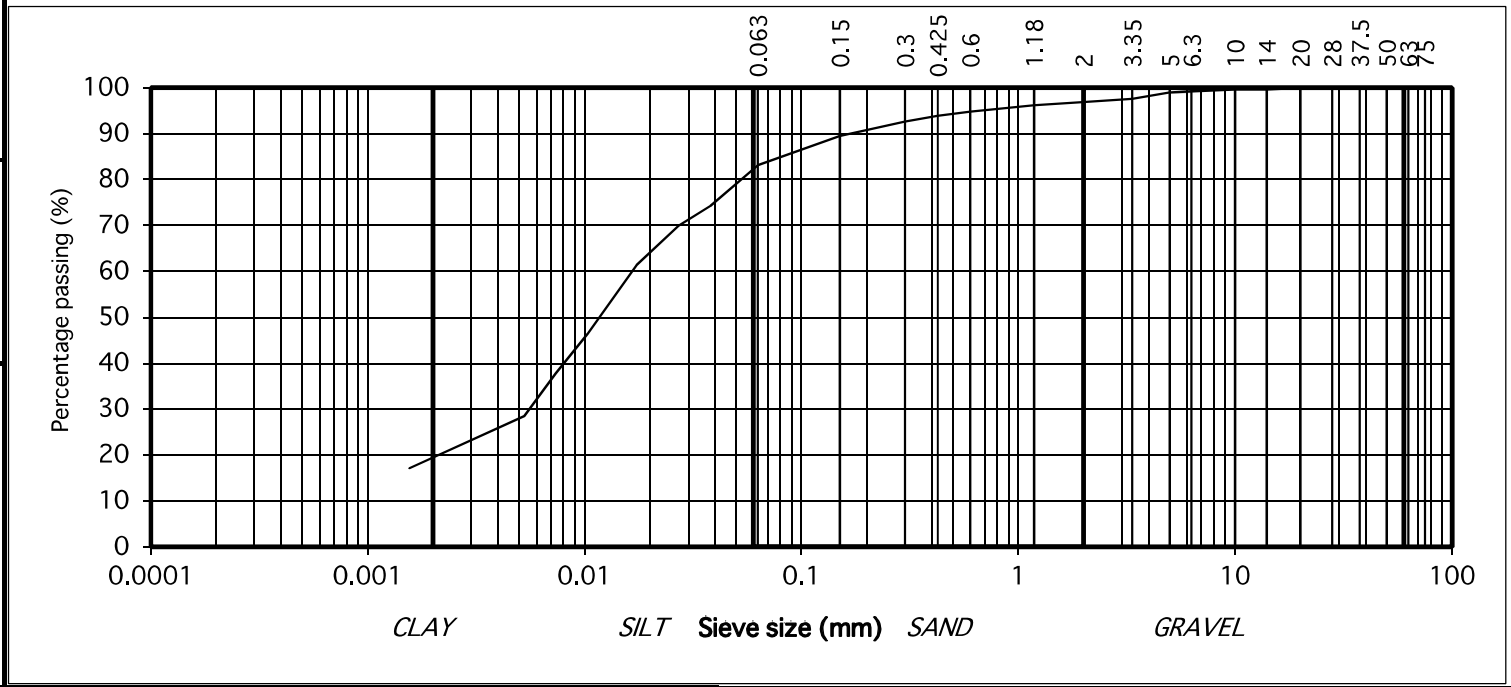
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	99	
5	99	
3.35	98	
2	97	
1.18	96	SAND
0.6	95	
0.425	94	
0.3	93	
0.15	90	
0.063	83	SILT/CLAY
0.038	74	
0.027	70	
0.017	61	
0.010	46	
0.007	38	
0.005	29	
0.002	17	

Contract No.	23560	Report No.	R135240	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH122408			
Sample No.*	AA178276	Lab. Sample No.		A22/2393
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

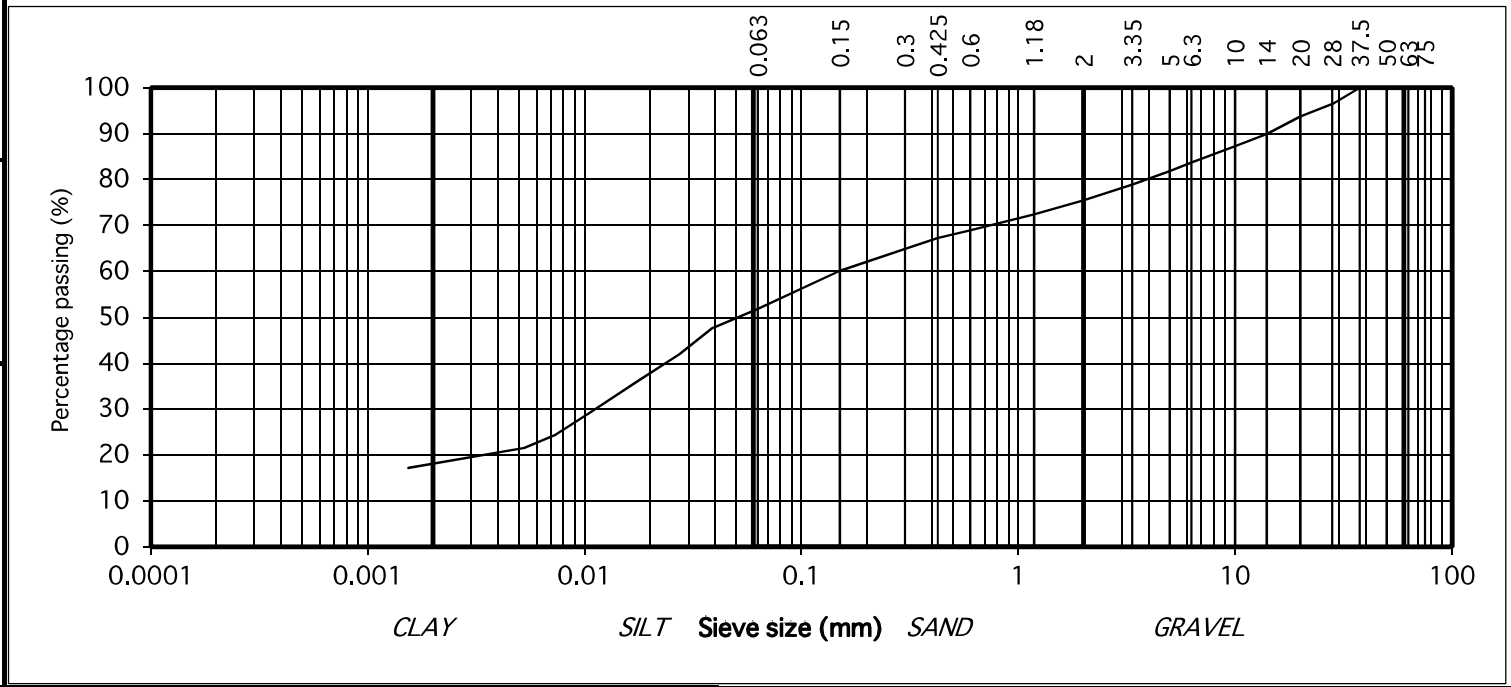
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	94	
14	90	
10	87	
6.3	84	
5	82	
3.35	79	
2	76	
1.18	72	SAND
0.6	69	
0.425	67	
0.3	65	
0.15	60	
0.063	52	SILT/CLAY
0.038	48	
0.027	42	
0.018	36	
0.010	29	
0.007	25	
0.005	22	
0.002	17	

Contract No.	23560	Report No.	R135242	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123219			
Sample No.*	AA178284	Lab. Sample No.		A22/2395
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

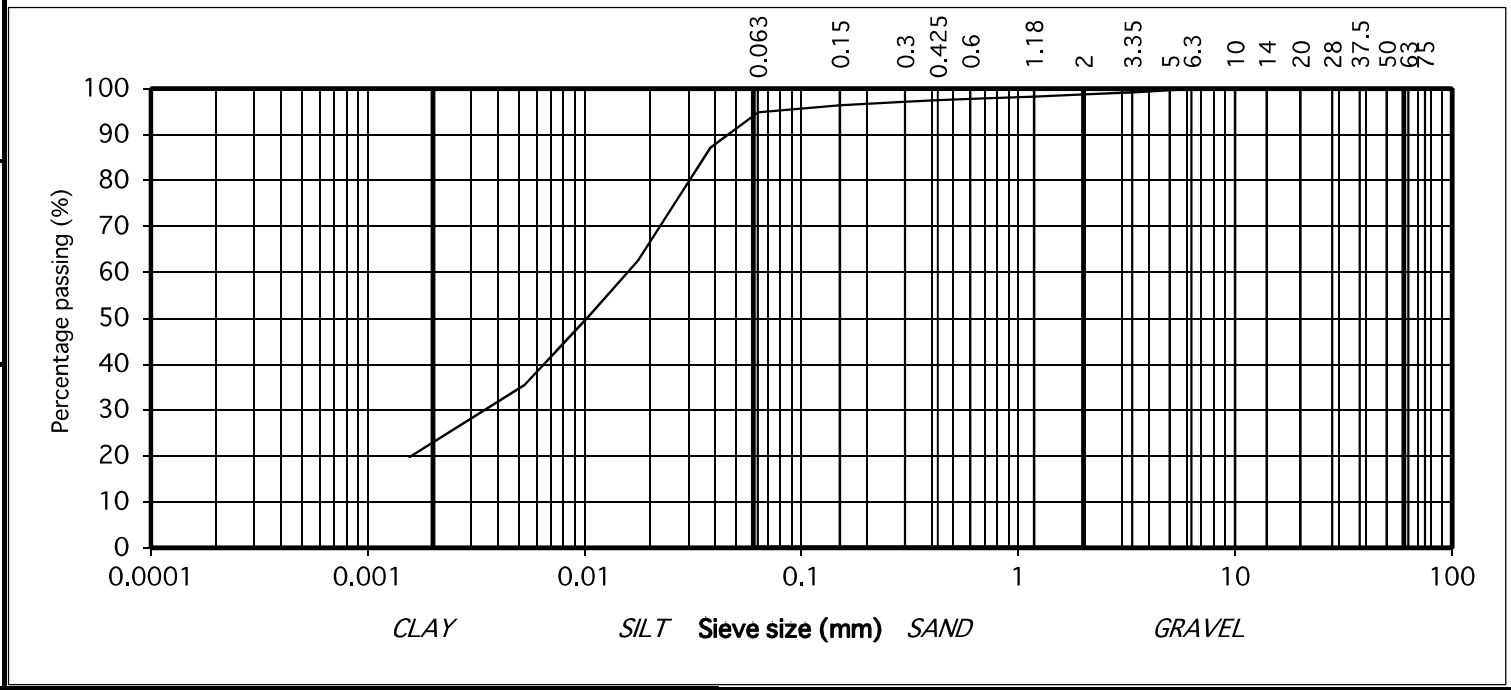
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	99	
2	99	
1.18	98	SAND
0.6	98	
0.425	98	
0.3	97	
0.15	96	
0.063	95	SILT/CLAY
0.038	87	
0.027	77	
0.018	63	
0.010	50	
0.007	43	
0.005	35	
0.002	20	

Contract No.	23560	Report No.	R141443	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123219			
Sample No.*	AA178281	Lab. Sample No.		A22/6521
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	18/11/2022	Date Testing started		18/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

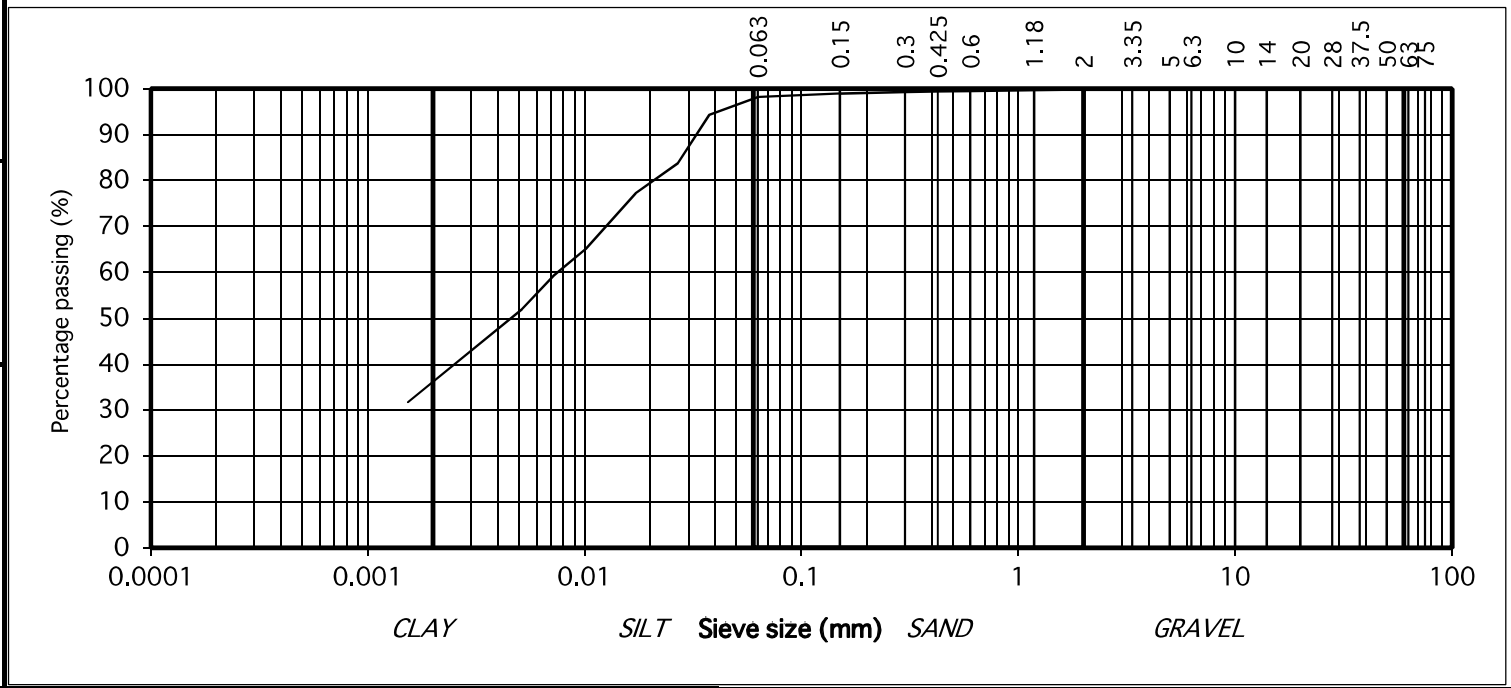
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	100	
1.18	100	SAND
0.6	100	
0.425	99	
0.3	99	
0.15	99	
0.063	98	SILT/CLAY
0.037	94	
0.027	84	
0.017	77	
0.010	65	
0.007	59	
0.005	52	
0.002	32	

Contract No.	23560	Report No.	R135241	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123219			
Sample No.*	AA178282	Lab. Sample No.		A22/2394
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Grey Brown slightly sandy, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

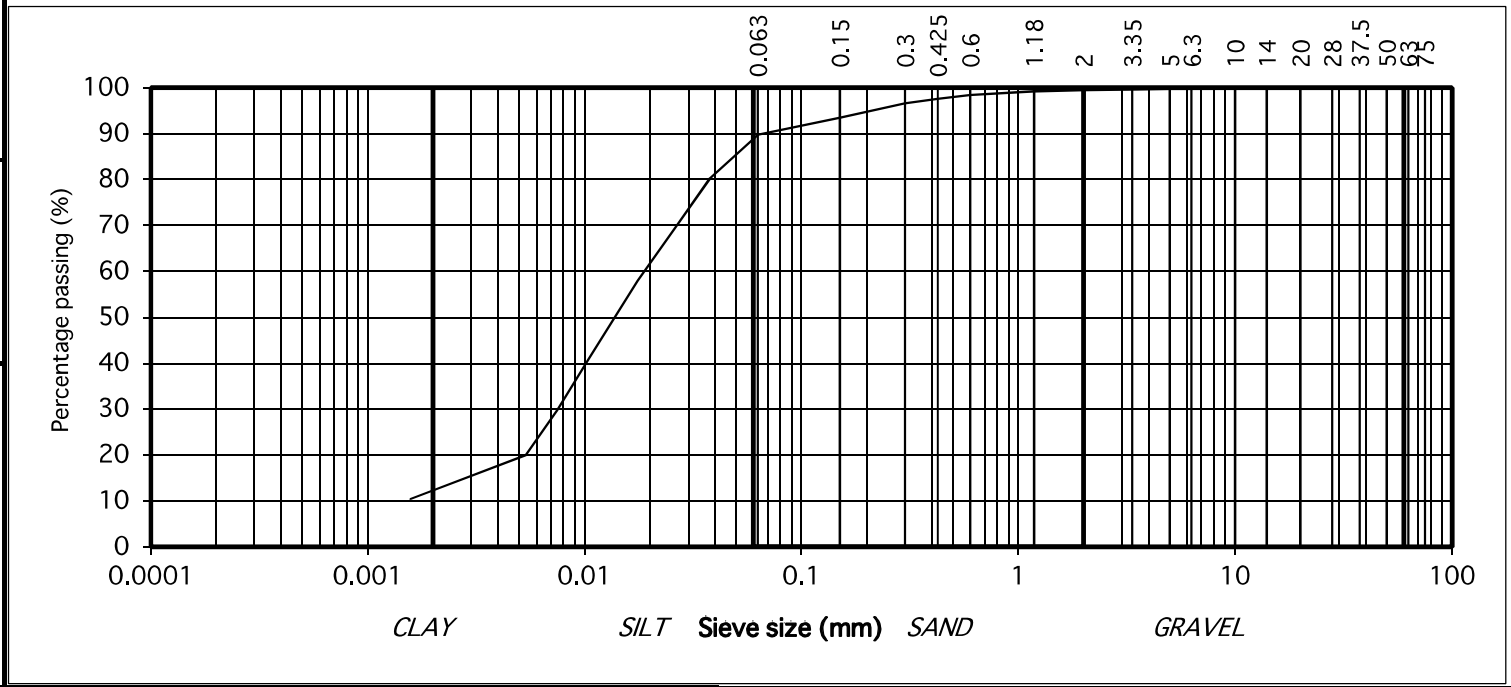
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	100	
1.18	99	SAND
0.6	98	
0.425	98	
0.3	97	
0.15	94	
0.063	90	SILT/CLAY
0.038	80	
0.027	71	
0.018	58	
0.010	41	
0.007	30	
0.005	20	
0.002	10	

Contract No.	23560	Report No.	R139294	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123774			
Sample No.*	AA178289	Lab. Sample No.		A22/4050
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	15/07/2022	Date Testing started		15/07/2022
Description:	Grey Brown slightly sandy, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

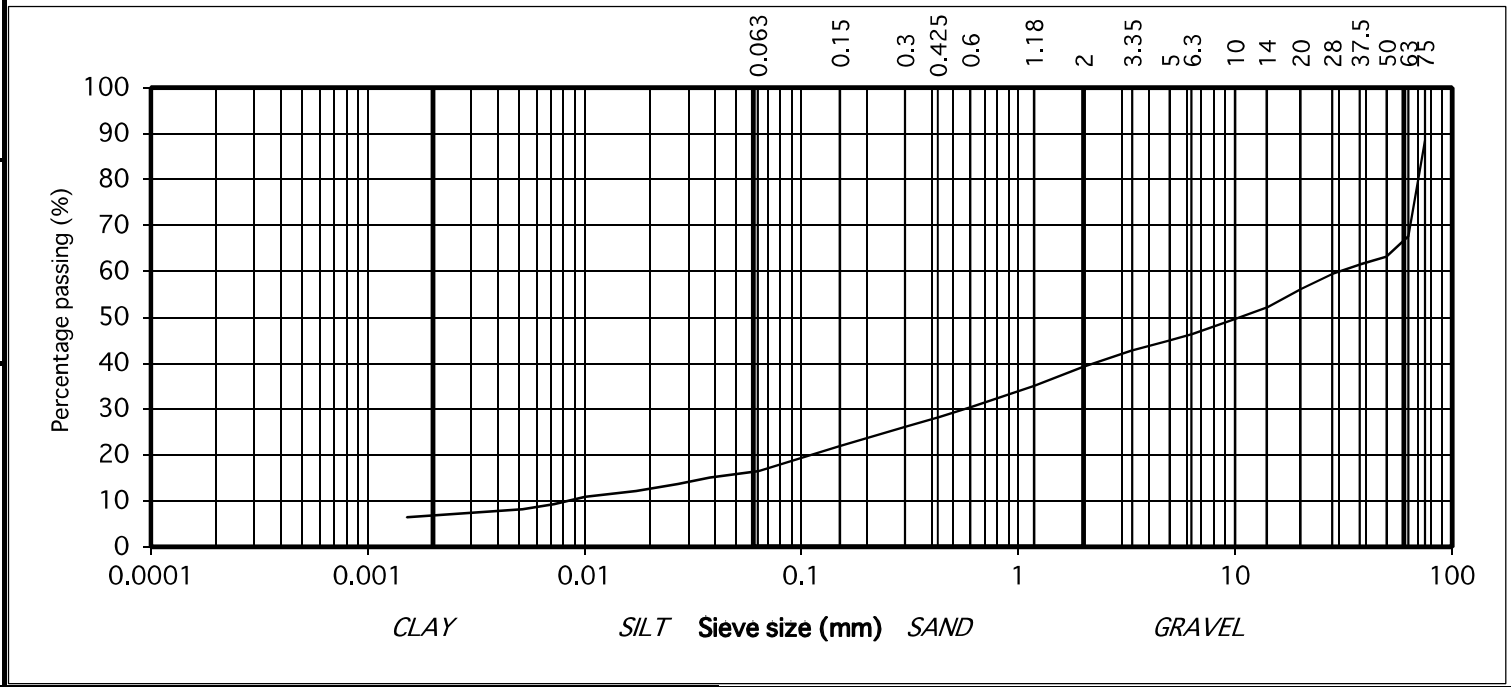
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	89	COBBLES
63	68	
50	63	GRAVEL
37.5	62	
28	59	
20	56	
14	52	
10	50	
6.3	46	
5	45	
3.35	43	
2	39	
1.18	35	SAND
0.6	30	
0.425	28	
0.3	26	
0.15	22	
0.063	16	SILT/CLAY
0.038	15	
0.027	14	
0.017	12	
0.010	11	
0.007	9	
0.005	8	
0.002	6	

Contract No.	23560	Report No.	R141446	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123993			
Sample No.*	AA173003	Lab. Sample No.		A22/6532
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey Brown clayey/silty, very sandy, GRAVEL with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

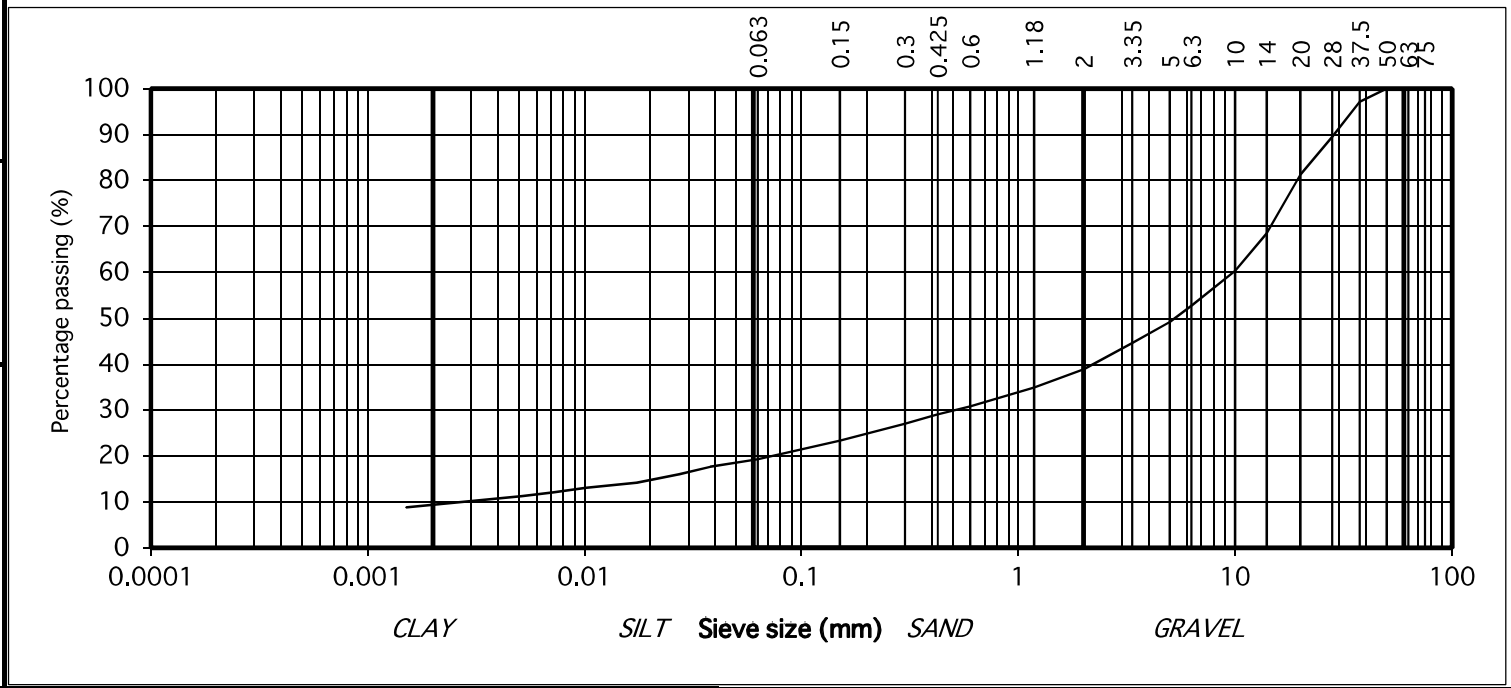
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	90	
20	81	
14	69	
10	60	
6.3	53	
5	49	
3.35	45	
2	39	
1.18	35	SAND
0.6	31	
0.425	29	
0.3	27	
0.15	23	
0.063	19	SILT/CLAY
0.038	18	
0.027	16	
0.017	14	
0.010	13	
0.007	12	
0.005	11	
0.002	9	

Contract No.	23560	Report No.	R141444	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123774			
Sample No.*	AA178292	Lab. Sample No.		A22/6527
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Brown clayey/silty, sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

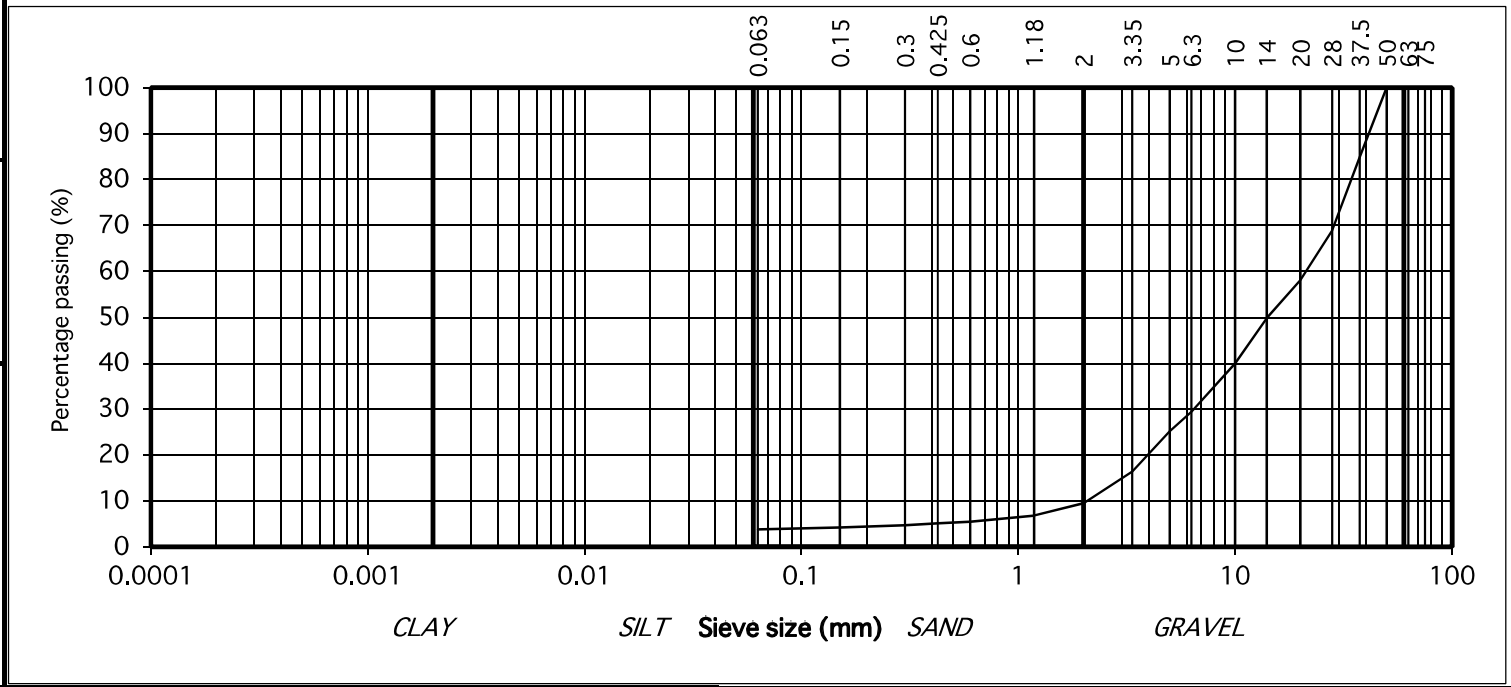
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	85	
28	69	
20	58	
14	50	
10	40	
6.3	29	
5	25	
3.35	16	
2	10	
1.18	7	SAND
0.6	6	
0.425	5	
0.3	5	
0.15	4	
0.063	4	SILT/CLAY

Contract No.	23560	Report No.	R141699
Contract Name:	WSP - Lot 3		
BH/TP* :	BH123774		
Sample No.*	178294	Lab. Sample No.	A22/6528
Sample Type:	B		
Depth* (m)	6.00	Customer:	Ervia
Date Received	25/11/2022	Date Testing started	25/11/2022
Description:	Grey brown slightly clayey/silty, sandy, GRAVEL		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

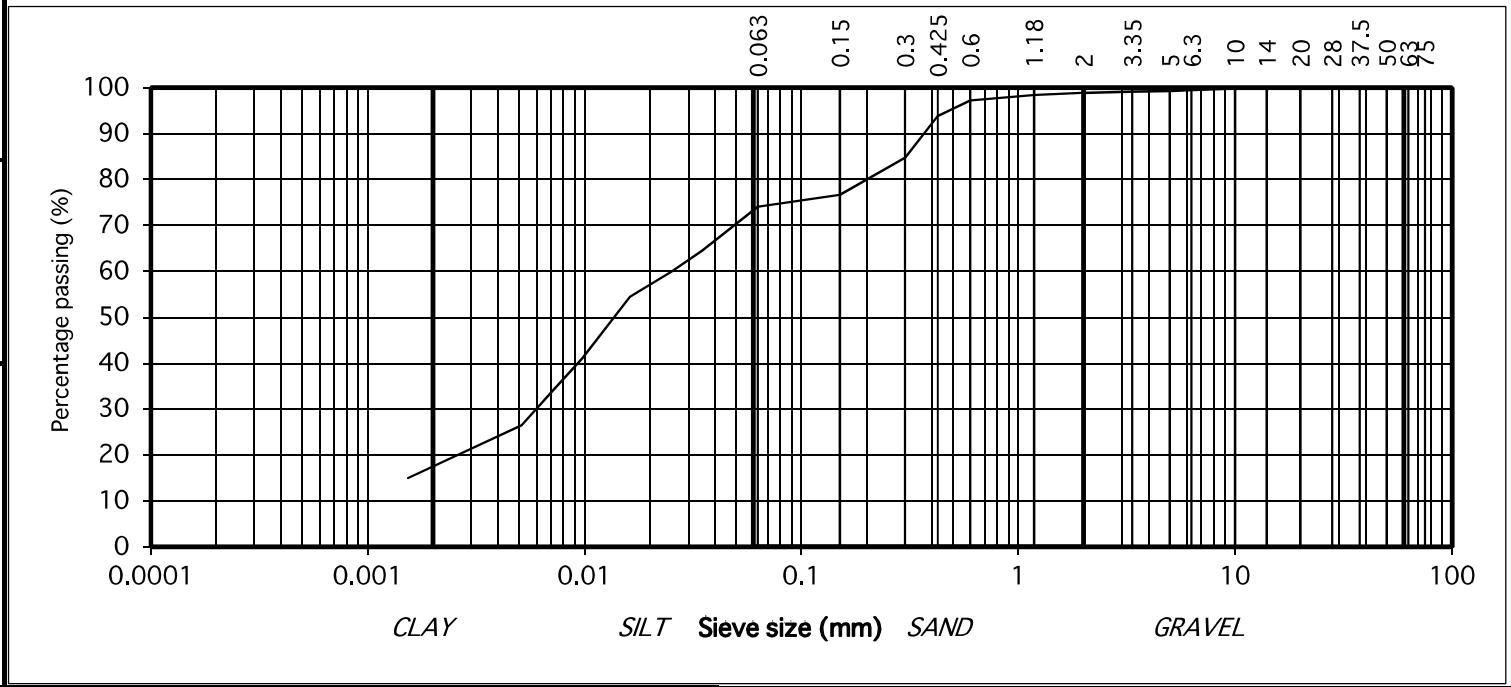
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	99	
3.35	99	
2	99	
1.18	98	SAND
0.6	97	
0.425	94	
0.3	85	
0.15	77	
0.063	74	SILT/CLAY
0.035	65	
0.025	60	
0.016	55	
0.010	41	
0.007	34	
0.005	26	
0.002	15	

Contract No.	23560	Report No.	R135243	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123774			
Sample No.*	AA178291	Lab. Sample No.		A22/2396
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

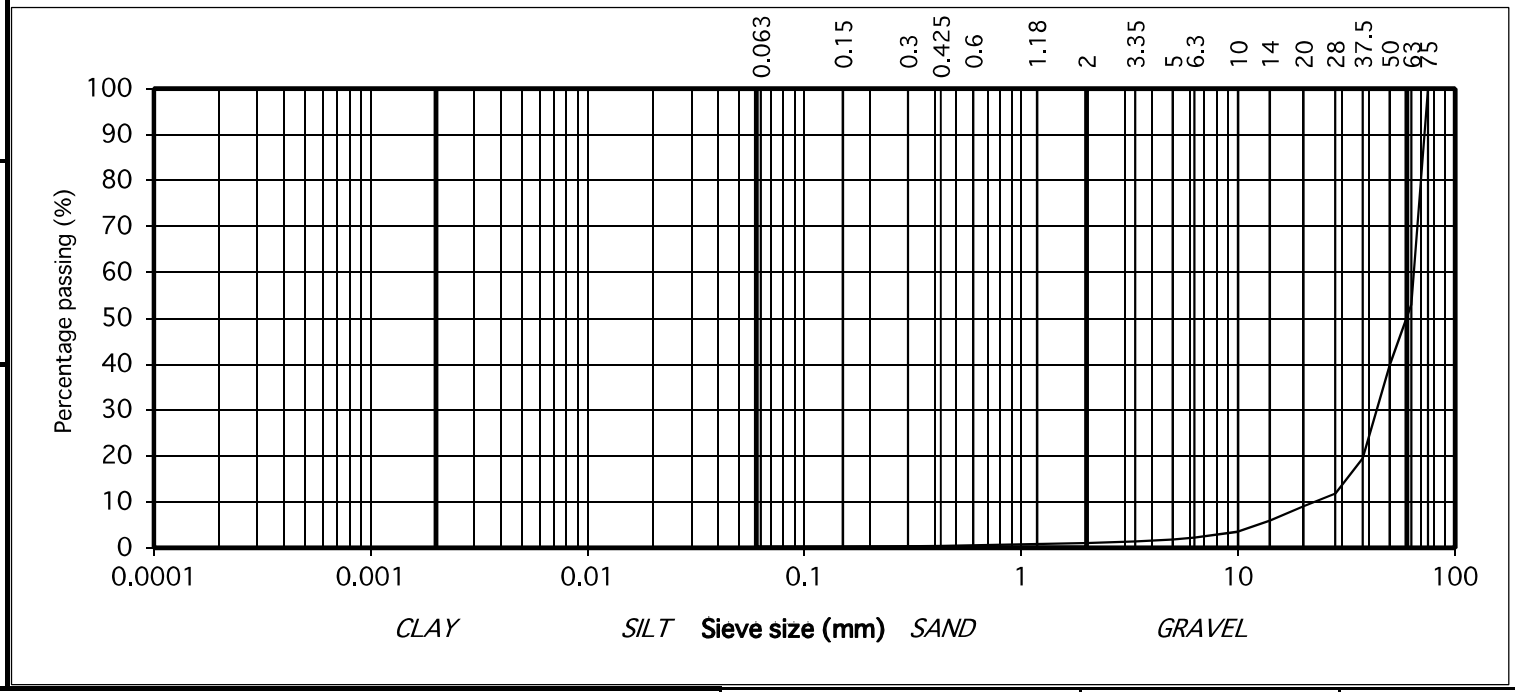
particle size	% passing	
75	100	COBBLES
63	53	
50	40	GRAVEL
37.5	20	
28	12	
20	9	
14	6	
10	4	
6.3	2	
5	2	
3.35	1	
2	1	
1.18	1	SAND
0.6	1	
0.425	0	
0.3	0	
0.15	0	
0.063	0	SILT/CLAY

Contract No.	23560	Report No.	R141447	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123993			
Sample No.*	AA173007	Lab. Sample No.		A22/6534
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey Brown slightly sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

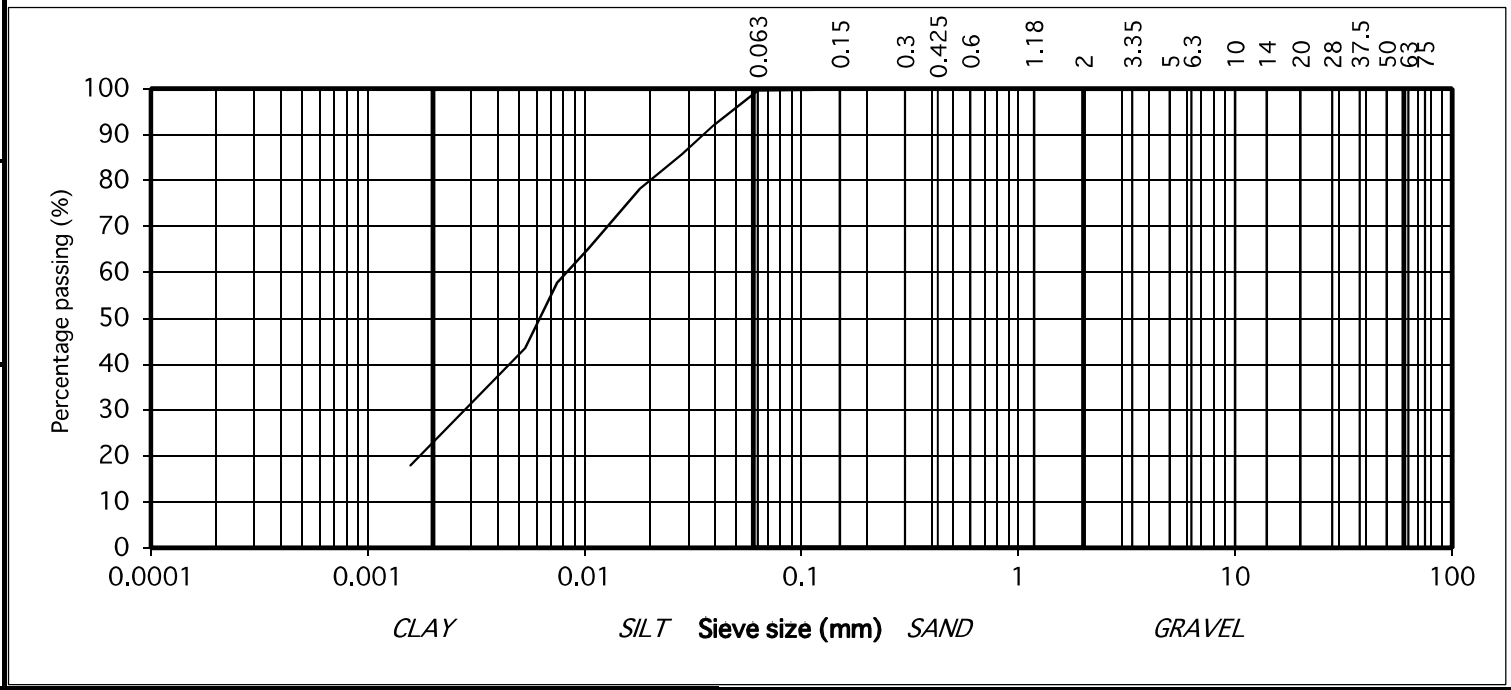
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	100	
1.18	100	SAND
0.6	100	
0.425	100	
0.3	100	
0.15	100	
0.063	100	SILT/CLAY
0.040	92	
0.028	86	
0.018	78	
0.010	65	
0.007	58	
0.005	44	
0.002	18	

Contract No.	23560	Report No.	R135244	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH123993			
Sample No.*	AA173005	Lab. Sample No.		A22/2400
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Grey Brown SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

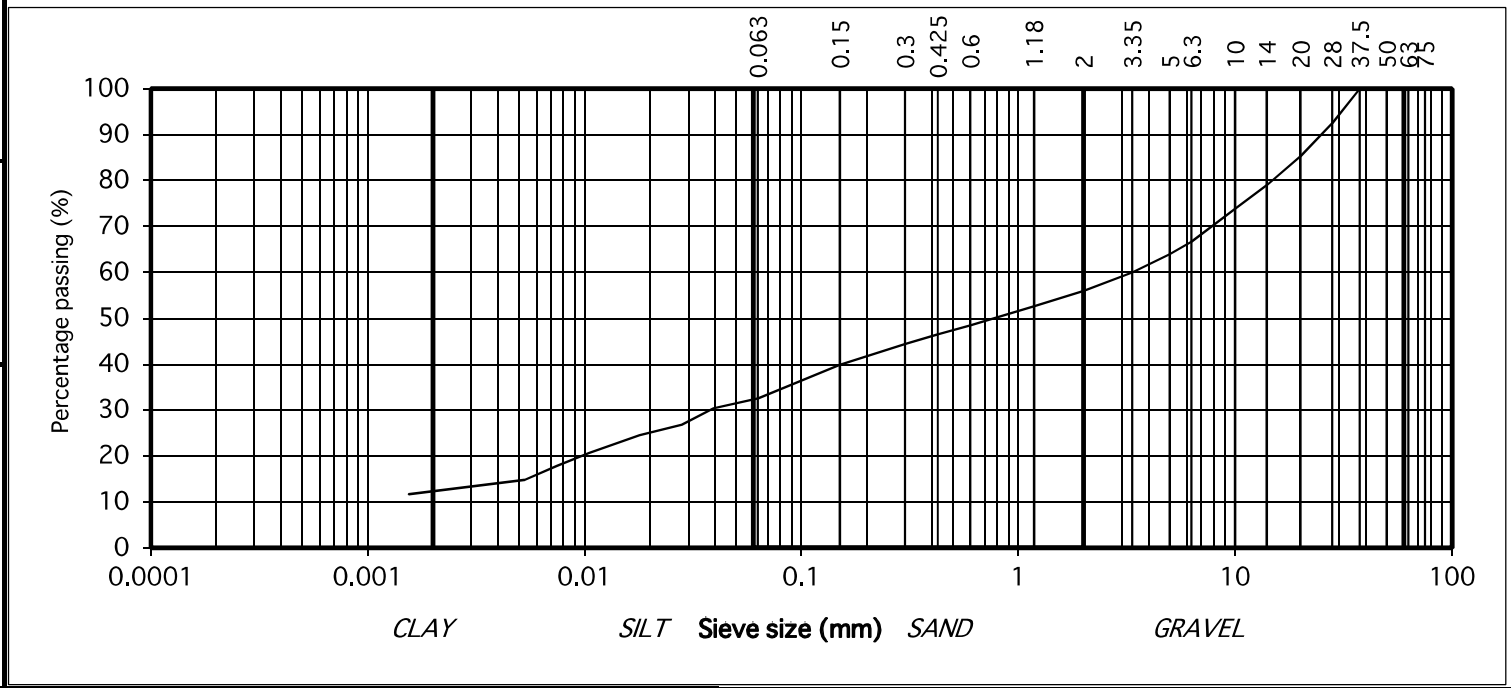
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	93	
20	85	
14	79	
10	74	
6.3	67	
5	64	
3.35	60	
2	56	
1.18	53	SAND
0.6	48	
0.425	47	
0.3	44	
0.15	40	
0.063	33	SILT/CLAY
0.039	30	
0.028	27	
0.018	25	
0.010	21	
0.007	18	
0.005	15	
0.002	12	

Contract No.	23560	Report No.	R136476	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH124210			
Sample No.*	AA174903	Lab. Sample No.		A22/2412
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

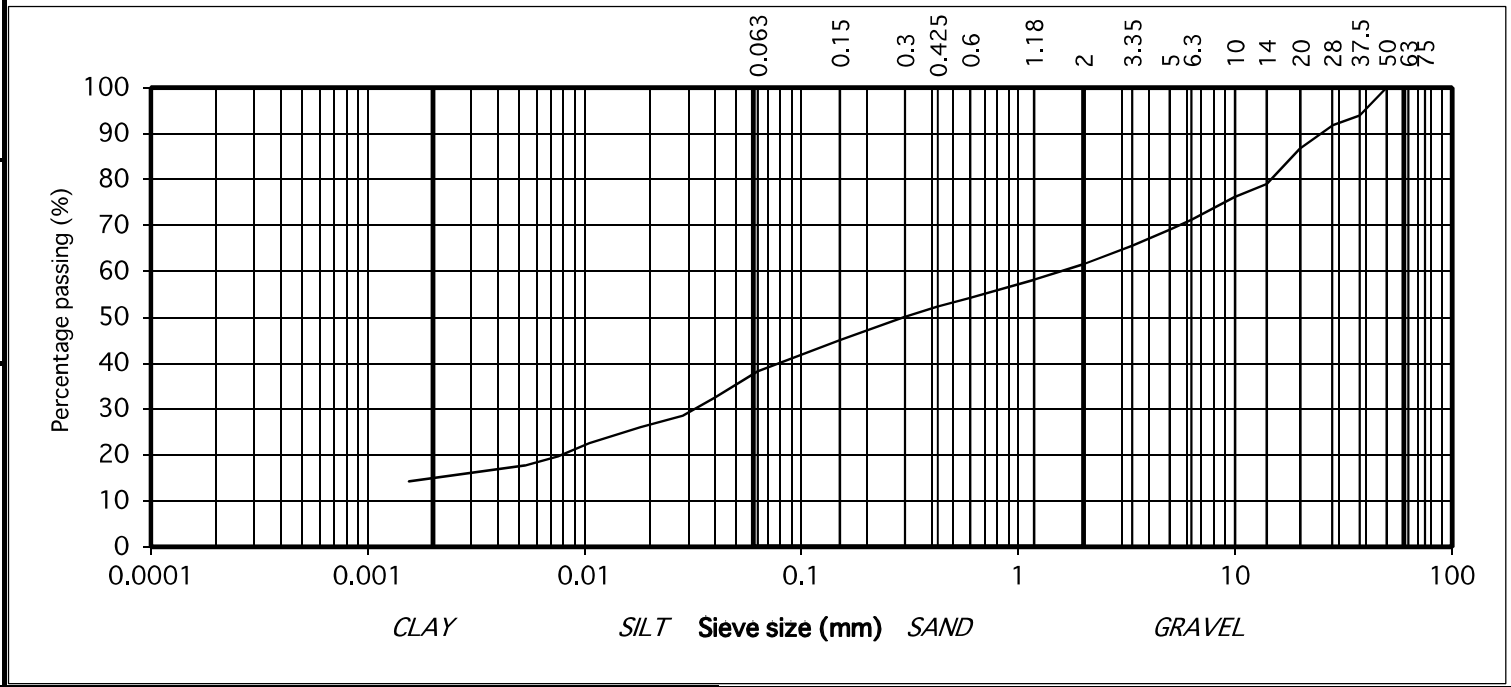
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	94	
28	92	
20	87	
14	79	
10	76	
6.3	71	
5	69	
3.35	66	
2	62	
1.18	58	SAND
0.6	54	
0.425	52	
0.3	50	
0.15	45	
0.063	38	SILT/CLAY
0.040	32	
0.028	29	
0.018	26	
0.011	23	
0.007	20	
0.005	18	
0.002	14	

Contract No.	23560	Report No.	R136475	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH124210			
Sample No.*	AA17168	Lab. Sample No.		A22/2410
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

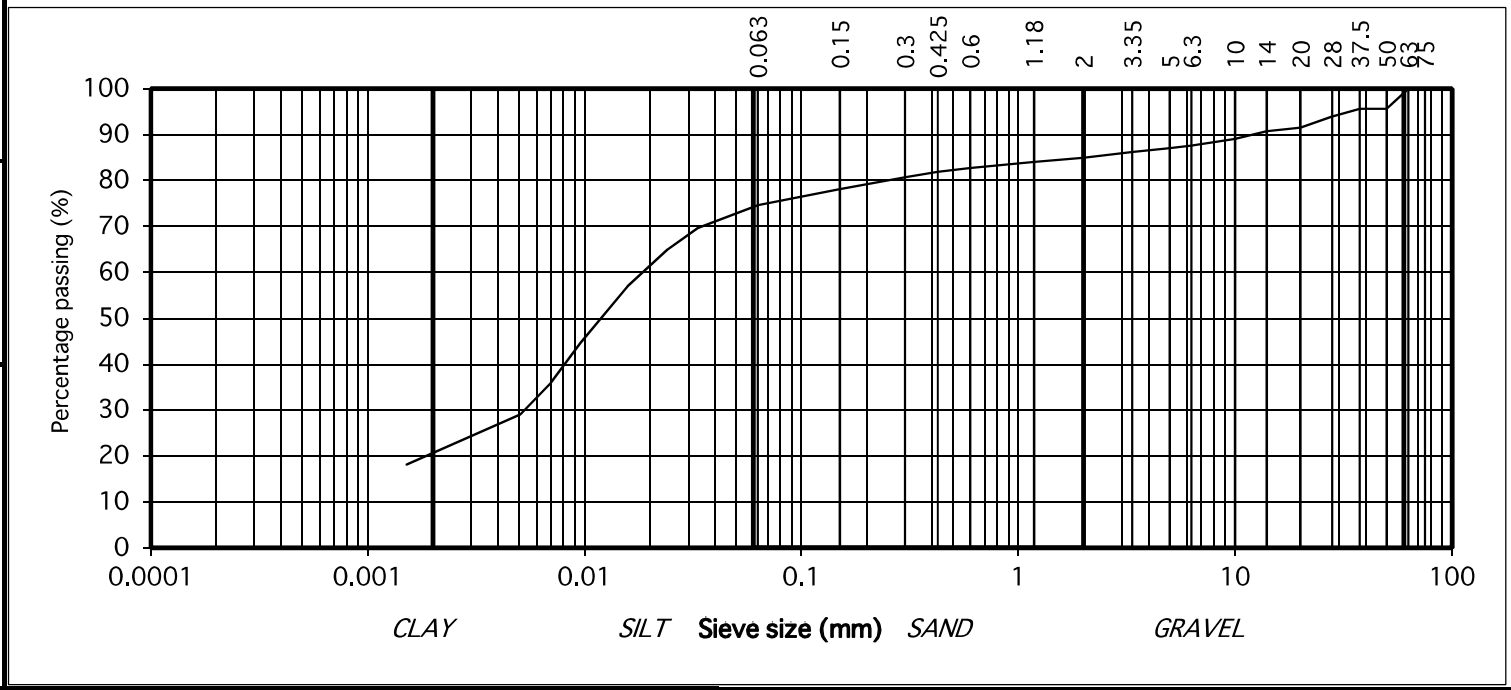
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	96	
28	94	
20	92	
14	91	
10	89	
6.3	88	
5	87	
3.35	86	
2	85	
1.18	84	SAND
0.6	83	
0.425	82	
0.3	81	
0.15	78	
0.063	75	SILT/CLAY
0.033	70	
0.024	65	
0.016	57	
0.010	45	
0.007	36	
0.005	29	
0.002	18	

Contract No.	23560	Report No.	R135256	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH124210			
Sample No.*	AA179165	Lab. Sample No.		A22/2404
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

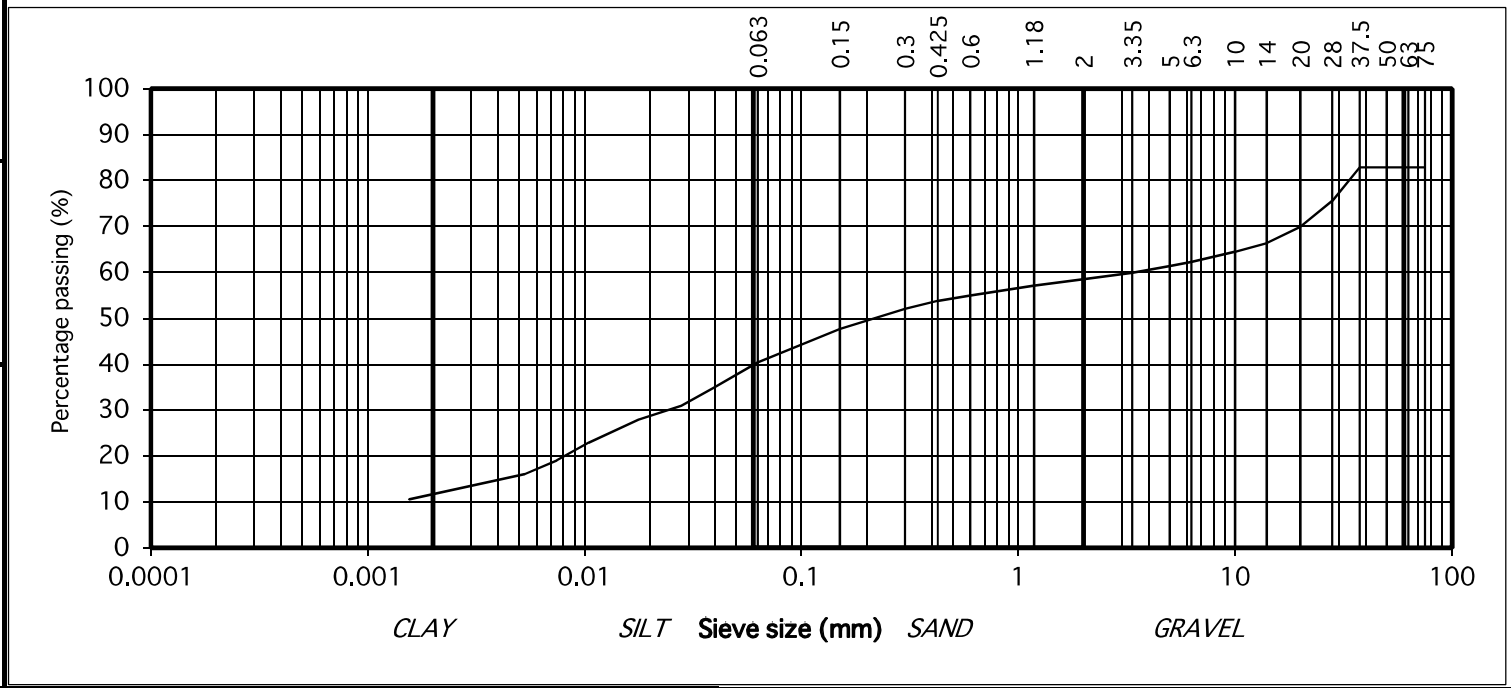
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	83	COBBLES
63	83	
50	83	GRAVEL
37.5	83	
28	76	
20	70	
14	66	
10	65	
6.3	62	
5	61	
3.35	60	
2	59	
1.18	57	SAND
0.6	55	
0.425	54	
0.3	52	
0.15	48	
0.063	40	SILT/CLAY
0.039	35	
0.028	31	
0.018	28	
0.010	23	
0.007	19	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R136477	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH124677			
Sample No.*	AA179175	Lab. Sample No.		A22/2414
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

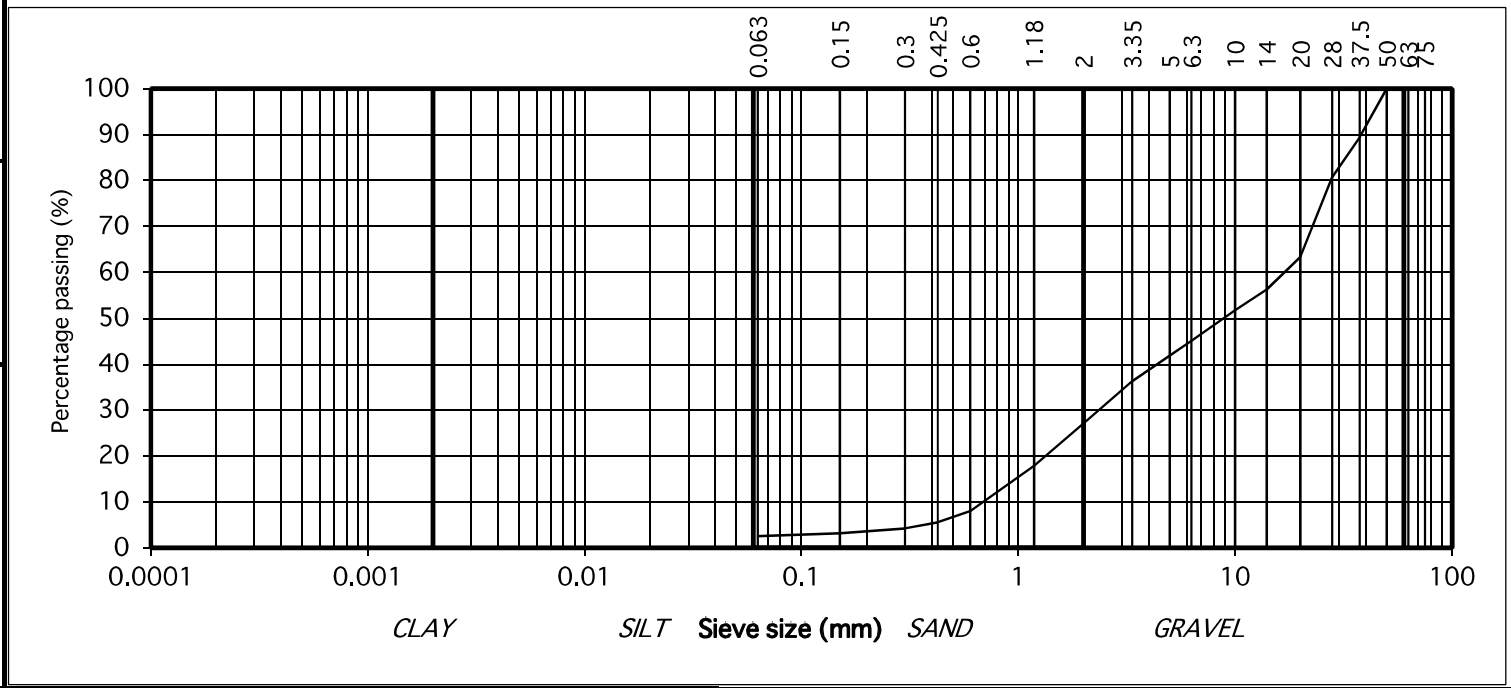
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	90	
28	81	
20	63	
14	56	
10	52	
6.3	45	
5	42	
3.35	36	
2	27	
1.18	18	SAND
0.6	8	
0.425	6	
0.3	4	
0.15	3	
0.063	3	SILT/CLAY

Contract No.	23560	Report No.	R141449	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH124677			
Sample No.*	AA179176	Lab. Sample No.		A22/6543
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly clayey/silty, very sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

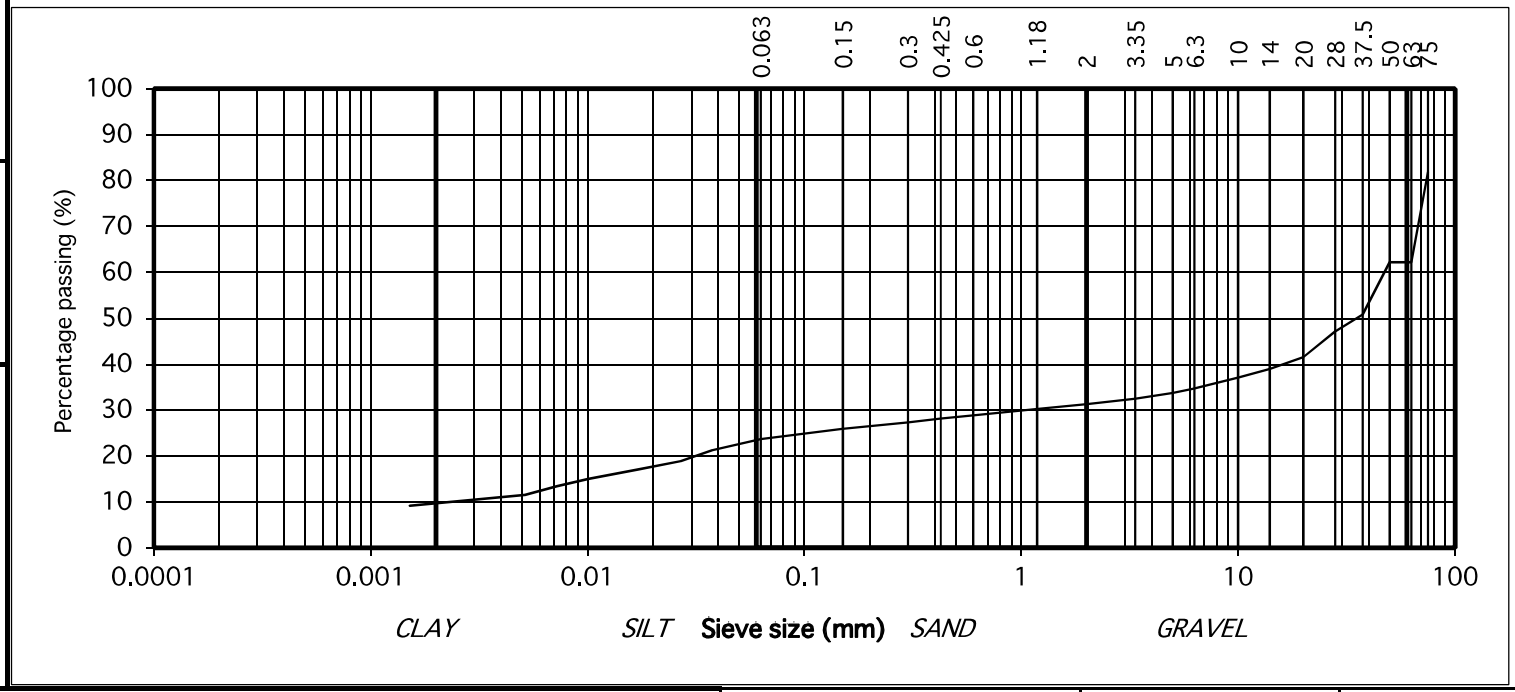
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	82	COBBLES
63	62	
50	62	GRAVEL
37.5	51	
28	47	
20	42	
14	39	
10	37	
6.3	35	
5	34	
3.35	32	
2	31	
1.18	30	SAND
0.6	29	
0.425	28	
0.3	27	
0.15	26	
0.063	24	SILT/CLAY
0.037	21	
0.027	19	
0.017	17	
0.010	15	
0.007	13	
0.005	12	
0.002	9	

Contract No.	23560	Report No.	R137404	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH125177			
Sample No.*	AA179185	Lab. Sample No.		A22/2885
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	15/07/2022	Date Testing started		15/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	08/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

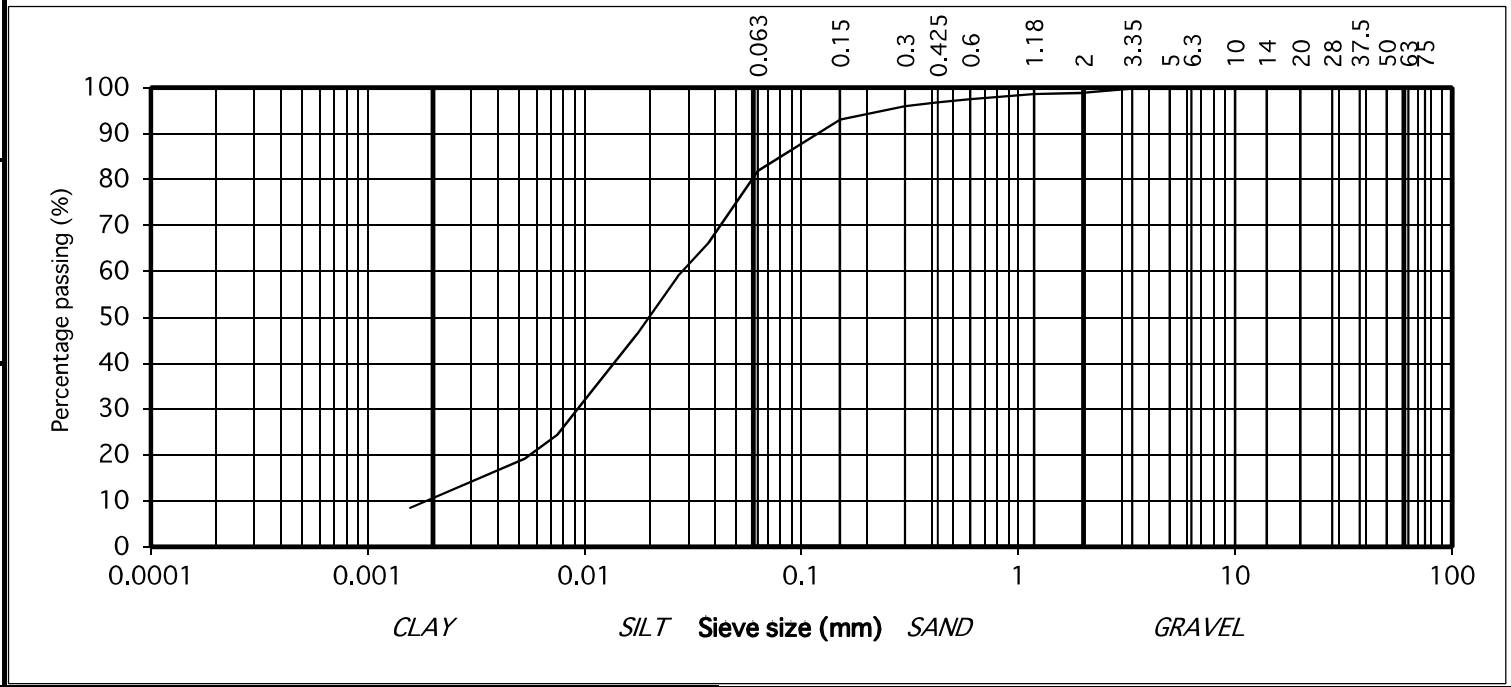
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	99	
1.18	99	SAND
0.6	97	
0.425	97	
0.3	96	
0.15	93	
0.063	82	SILT/CLAY
0.037	66	
0.027	59	
0.017	46	
0.010	33	
0.007	24	
0.005	19	
0.002	9	

Contract No.	23560	Report No.	R138780	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH125177			
Sample No.*	AA179183	Lab. Sample No.		A22/3881
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown/grey slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

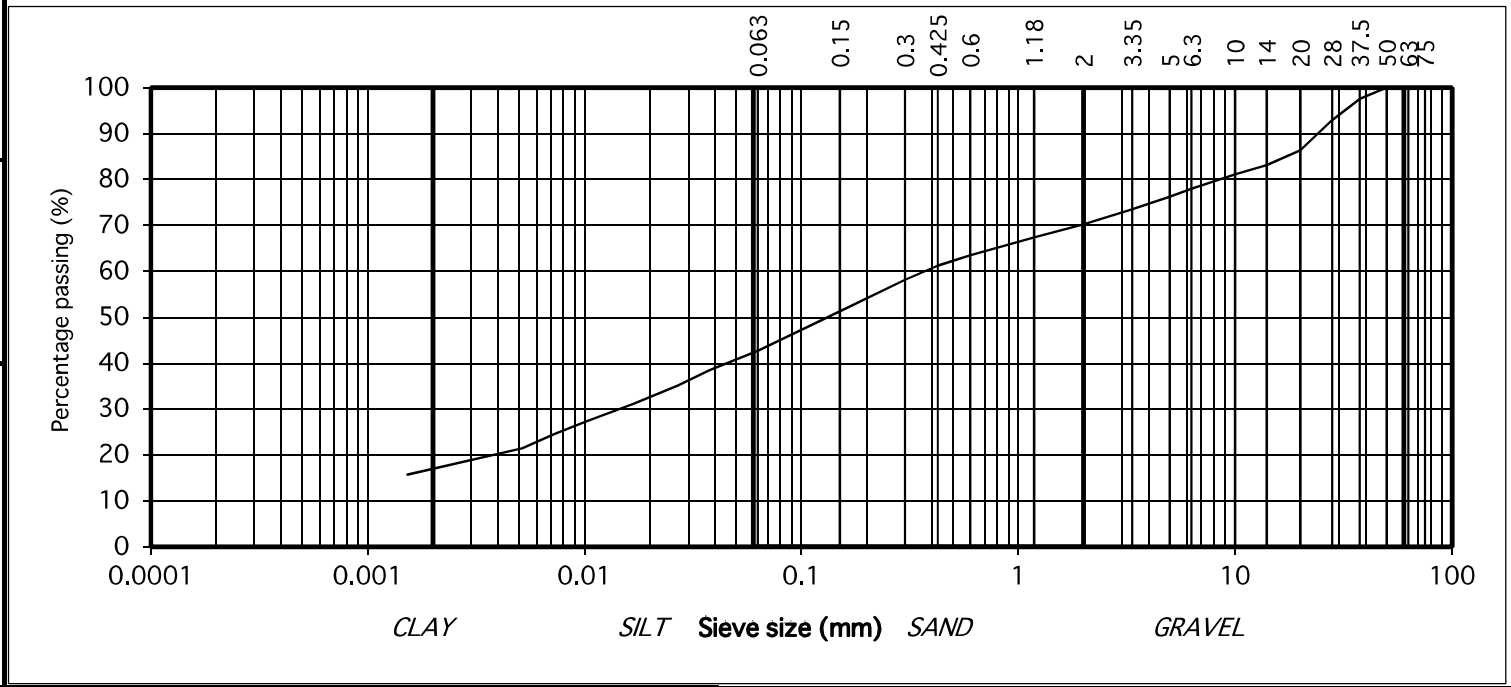
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	93	
20	86	
14	83	
10	81	
6.3	78	
5	76	
3.35	74	
2	70	
1.18	67	SAND
0.6	64	
0.425	61	
0.3	58	
0.15	51	
0.063	43	SILT/CLAY
0.038	39	
0.027	35	
0.017	31	
0.010	27	
0.007	25	
0.005	21	
0.002	16	

Contract No.	23560	Report No.	R138484	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH125582			
Sample No.*	AA179194	Lab. Sample No.		A22/3987
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

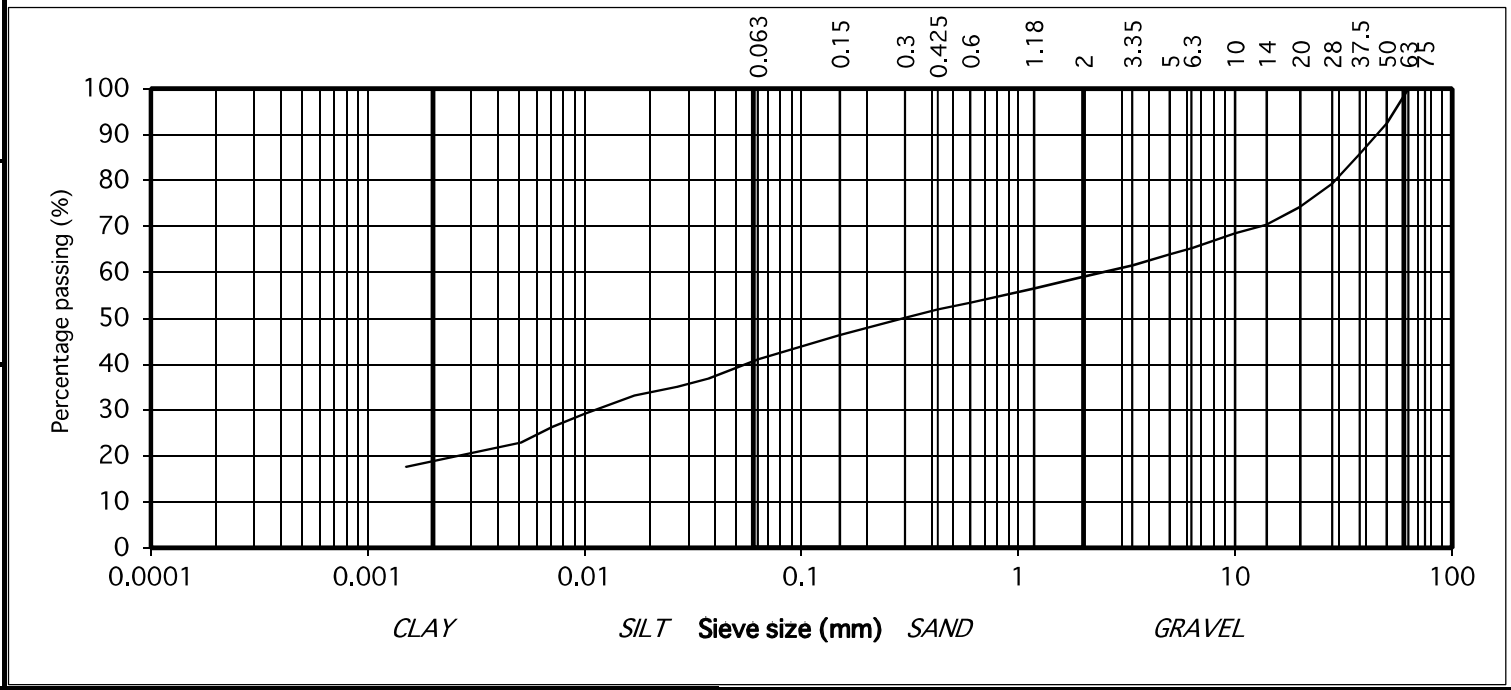
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	92	GRAVEL
37.5	86	
28	79	
20	74	
14	70	
10	69	
6.3	65	
5	64	
3.35	62	
2	59	
1.18	57	SAND
0.6	53	
0.425	52	
0.3	50	
0.15	46	
0.063	41	SILT/CLAY
0.037	37	
0.027	35	
0.017	33	
0.010	29	
0.007	26	
0.005	23	
0.001	18	

Contract No.	23560	Report No.	R137445	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH125177			
Sample No.*	AA179184	Lab. Sample No.		A22/3882
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Grey/brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

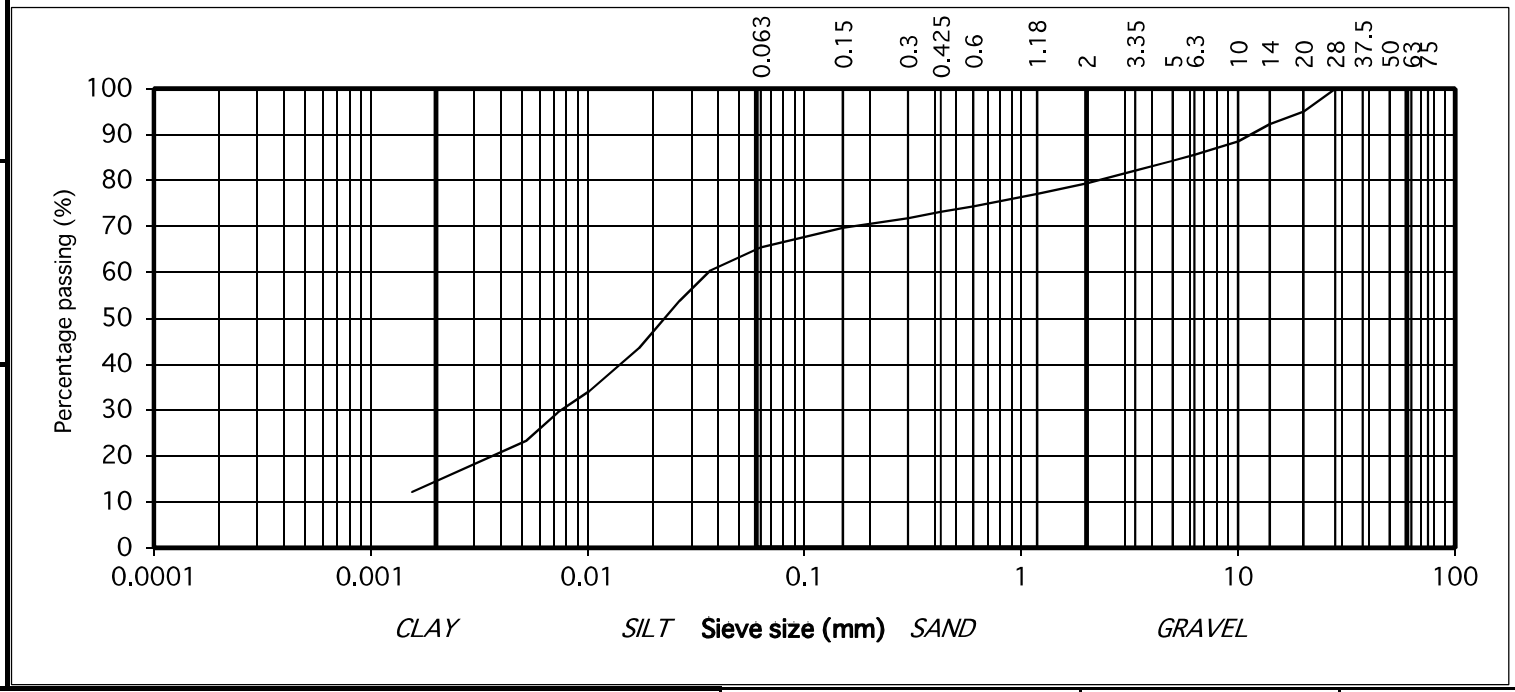
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	95	
14	92	
10	89	
6.3	86	
5	84	
3.35	82	
2	79	
1.18	77	SAND
0.6	74	
0.425	73	
0.3	72	
0.15	70	
0.063	65	SILT/CLAY
0.037	60	
0.026	54	
0.017	44	
0.010	34	
0.007	29	
0.005	23	
0.002	12	

Contract No.	23560	Report No.	R141659	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH125717			
Sample No.*	173356	Lab. Sample No.		A22/6370
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

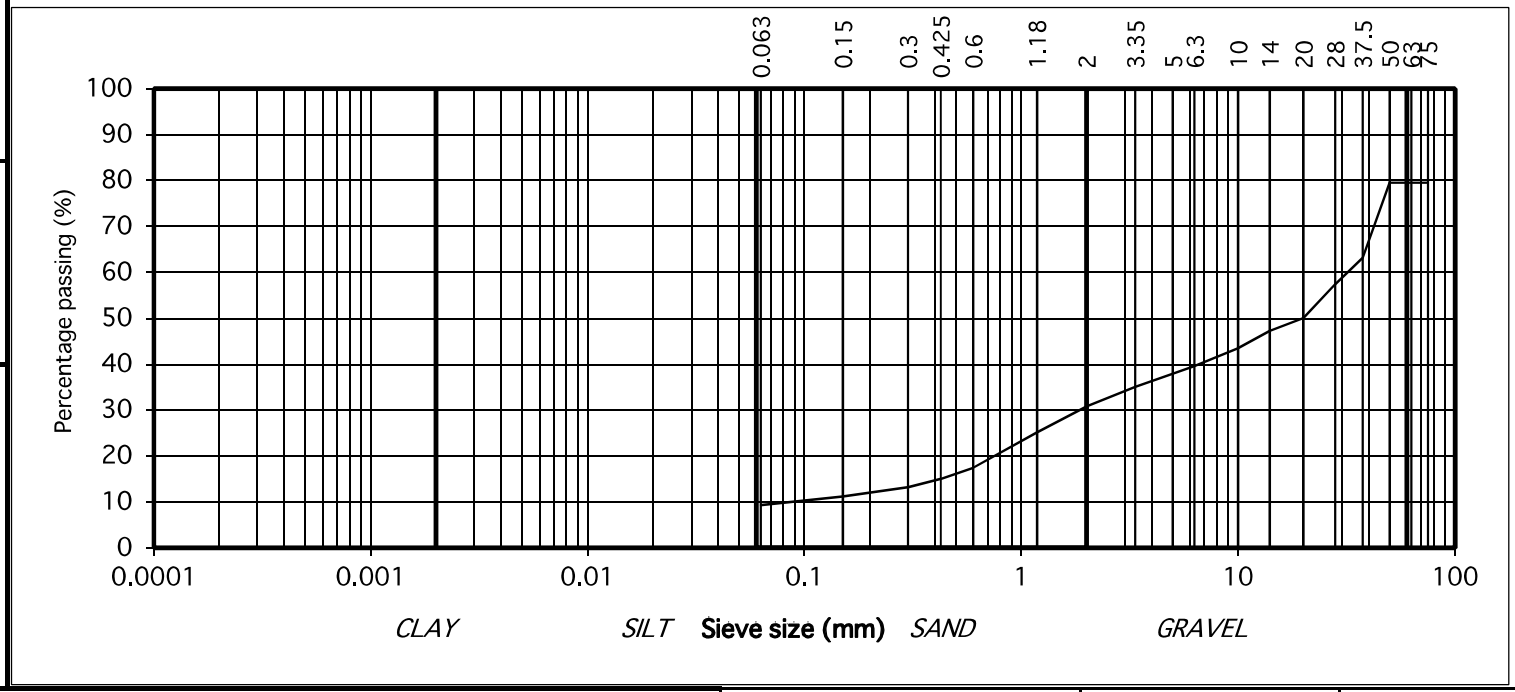
particle size	% passing	
75	80	COBBLES
63	80	
50	80	GRAVEL
37.5	63	
28	57	
20	50	
14	47	
10	44	
6.3	40	
5	38	
3.35	35	
2	31	
1.18	25	SAND
0.6	17	
0.425	15	
0.3	13	
0.15	11	
0.063	9	SILT/CLAY

Contract No.	23560	Report No.	R141268	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH125870			
Sample No.*	AA173359	Lab. Sample No.		A22/6372
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Brown clayey/silty, very sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

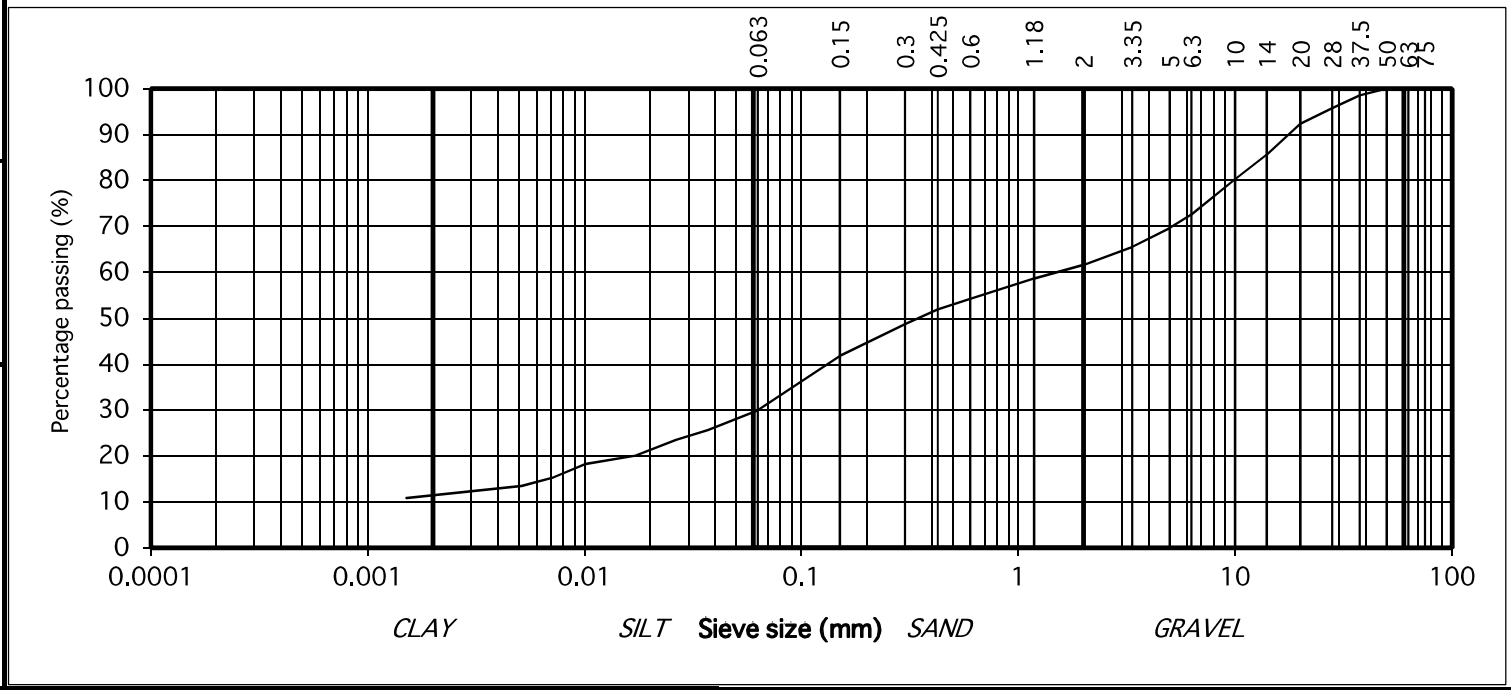
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	99	
28	96	
20	92	
14	86	
10	80	
6.3	73	
5	70	
3.35	66	
2	62	
1.18	59	SAND
0.6	54	
0.425	52	
0.3	49	
0.15	42	
0.063	30	SILT/CLAY
0.037	26	
0.026	24	
0.017	20	
0.010	18	
0.007	15	
0.005	14	
0.002	11	

Contract No.	23560	Report No.	R141660	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH125870			
Sample No.*	173360	Lab. Sample No.		A22/6373
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

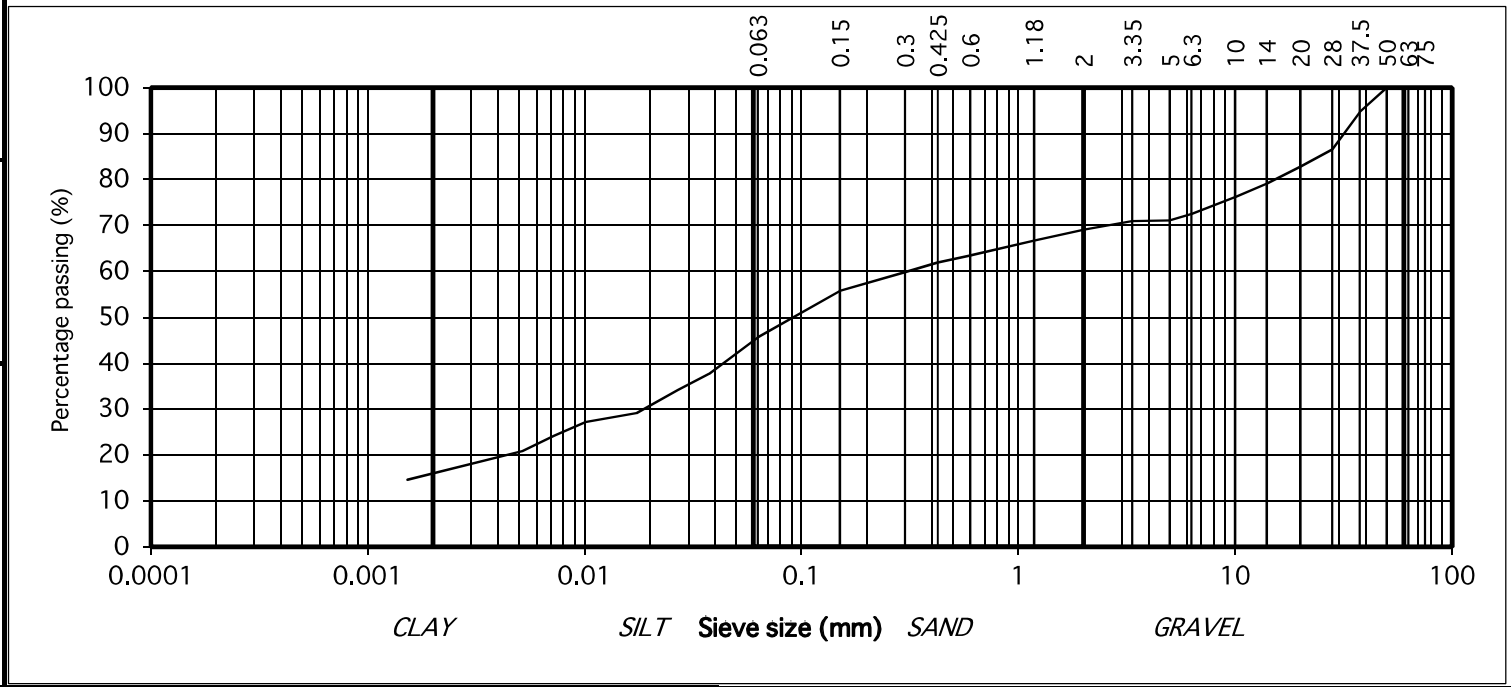
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	87	
20	83	
14	79	
10	76	
6.3	73	
5	71	
3.35	71	
2	69	
1.18	67	SAND
0.6	63	
0.425	62	
0.3	60	
0.15	56	
0.063	46	SILT/CLAY
0.037	38	
0.027	34	
0.017	29	
0.010	27	
0.007	24	
0.005	21	
0.002	15	

Contract No.	23560	Report No.	R141269
Contract Name:	WSP - Lot 3		
BH/TP* :	BH126200		
Sample No.*	N/A	Lab. Sample No.	A22/6376
Sample Type:	B		
Depth* (m)	2.00	Customer:	Ervia
Date Received	24/11/2022	Date Testing started	24/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY		
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

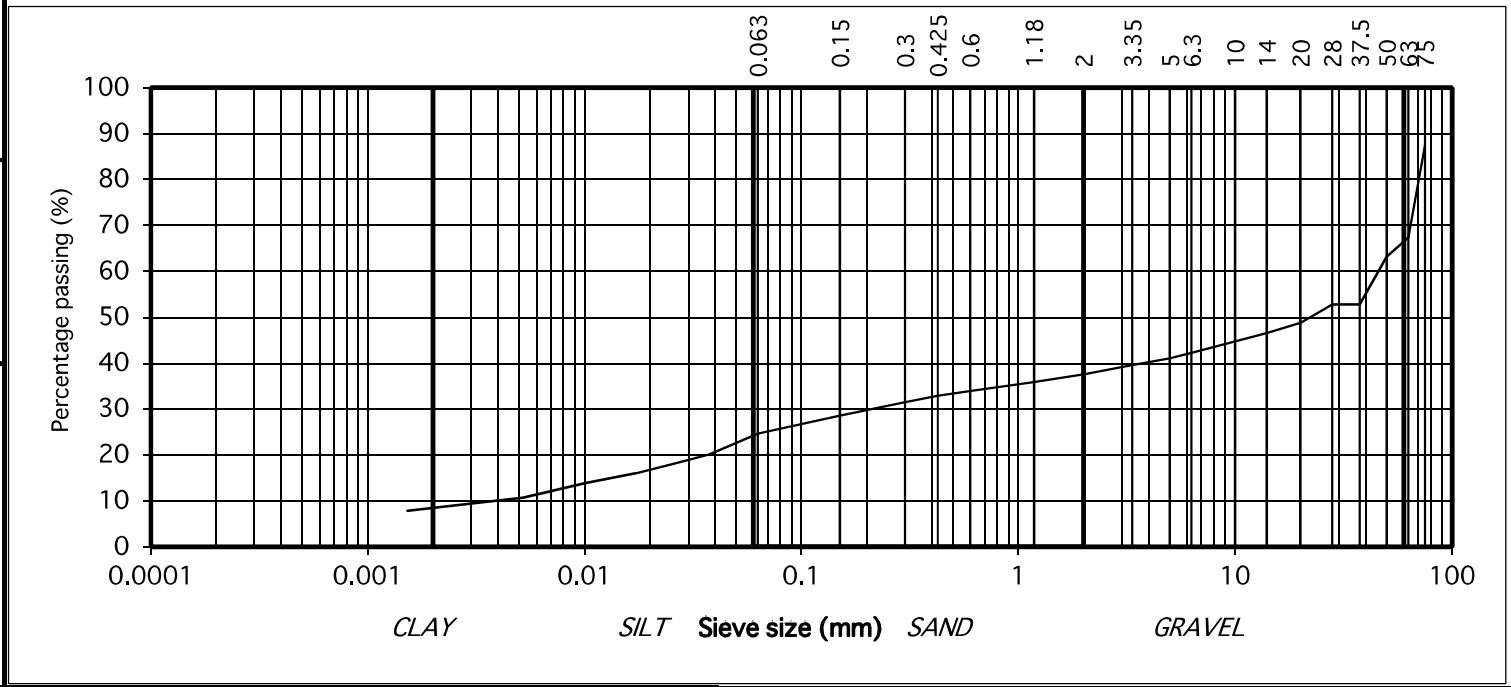
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	87	COBBLES
63	67	
50	63	GRAVEL
37.5	53	
28	53	
20	49	
14	47	
10	45	
6.3	42	
5	41	
3.35	40	
2	38	
1.18	36	SAND
0.6	34	
0.425	33	
0.3	31	
0.15	29	
0.063	25	SILT/CLAY
0.038	20	
0.027	18	
0.017	16	
0.010	14	
0.007	12	
0.005	11	
0.002	8	

Contract No.	23560	Report No.	R141270
Contract Name:	WSP - Lot 3		
BH/TP* :	BH126200		
Sample No.*	N/A	Lab. Sample No.	A22/6377
Sample Type:	B		
Depth* (m)	4.00	Customer:	Ervia
Date Received	24/11/2022	Date Testing started	24/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with many cobbles		
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

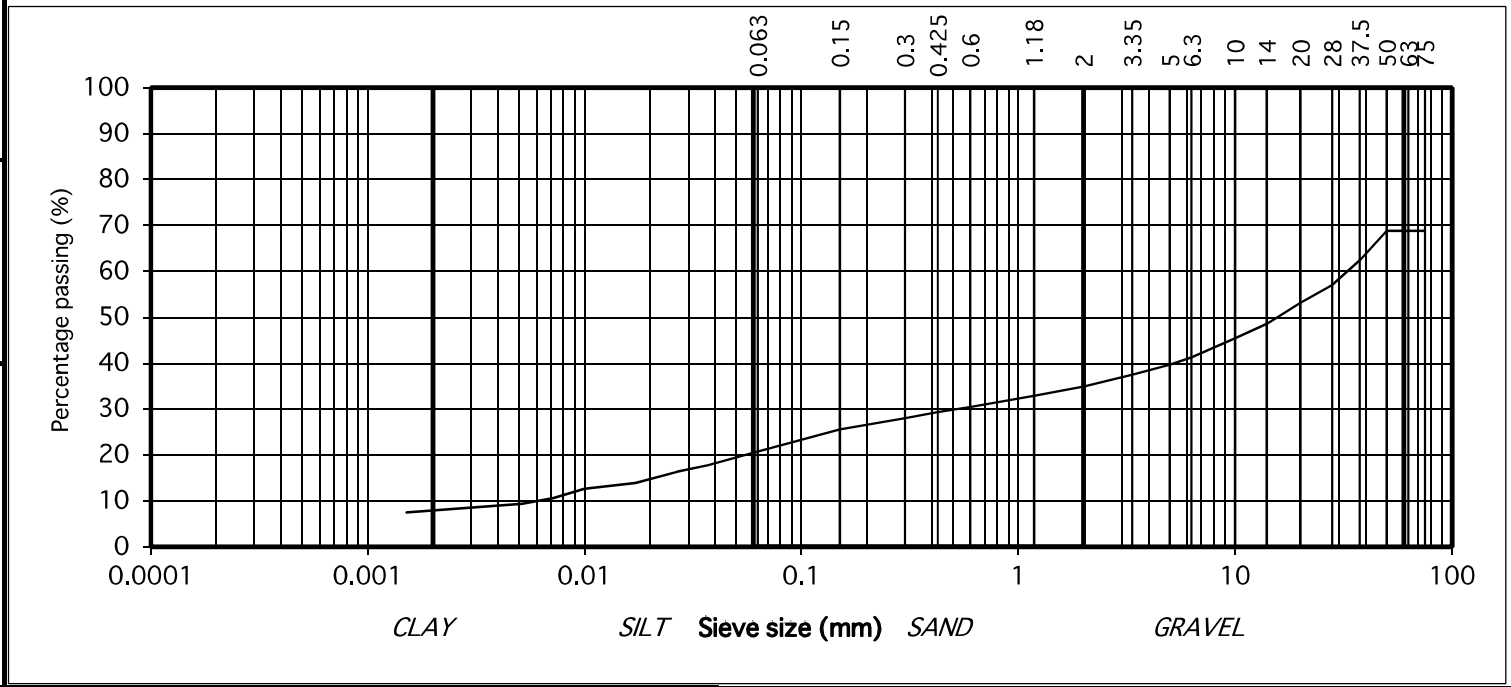
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	69	COBBLES
63	69	
50	69	GRAVEL
37.5	62	
28	57	
20	53	
14	49	
10	45	
6.3	41	
5	40	
3.35	38	
2	35	
1.18	33	SAND
0.6	30	
0.425	29	
0.3	28	
0.15	26	
0.063	21	SILT/CLAY
0.037	18	
0.026	16	
0.017	14	
0.010	13	
0.007	11	
0.005	9	
0.002	8	

Contract No.	23560	Report No.	R141661
Contract Name:	WSP - Lot 3		
BH/TP* :	BH126602		
Sample No.*	173360	Lab. Sample No.	A22/6380
Sample Type:	B		
Depth* (m)	3.00	Customer:	Ervia
Date Received	24/11/2022	Date Testing started	24/11/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles		
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

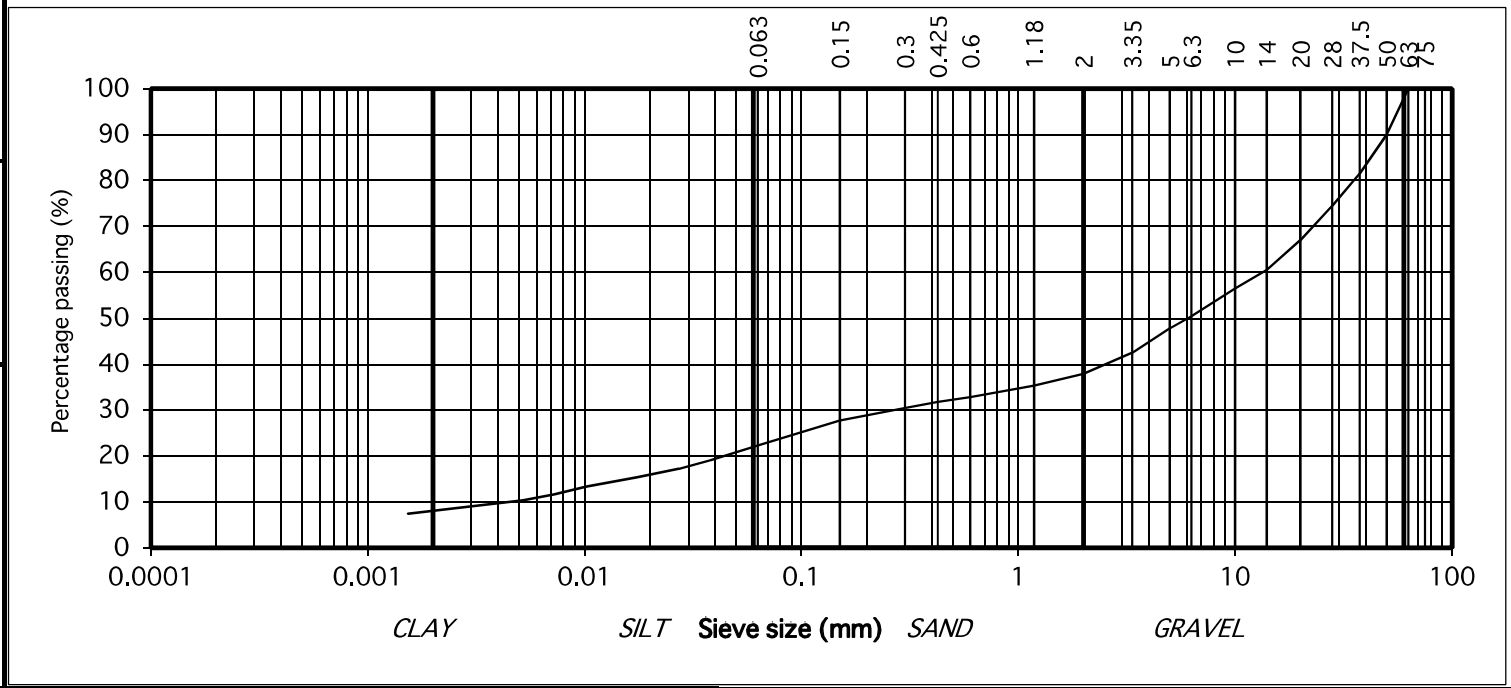
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	90	GRAVEL
37.5	82	
28	74	
20	67	
14	61	
10	57	
6.3	50	
5	48	
3.35	43	
2	38	
1.18	35	SAND
0.6	33	
0.425	32	
0.3	30	
0.15	28	
0.063	22	SILT/CLAY
0.038	19	
0.027	17	
0.017	15	
0.010	13	
0.007	12	
0.005	10	
0.002	7	

Contract No.	23560	Report No.	R141485	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH126725			
Sample No.*	AA173396	Lab. Sample No.		A22/6635
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	29/11/2022	Date Testing started		29/11/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

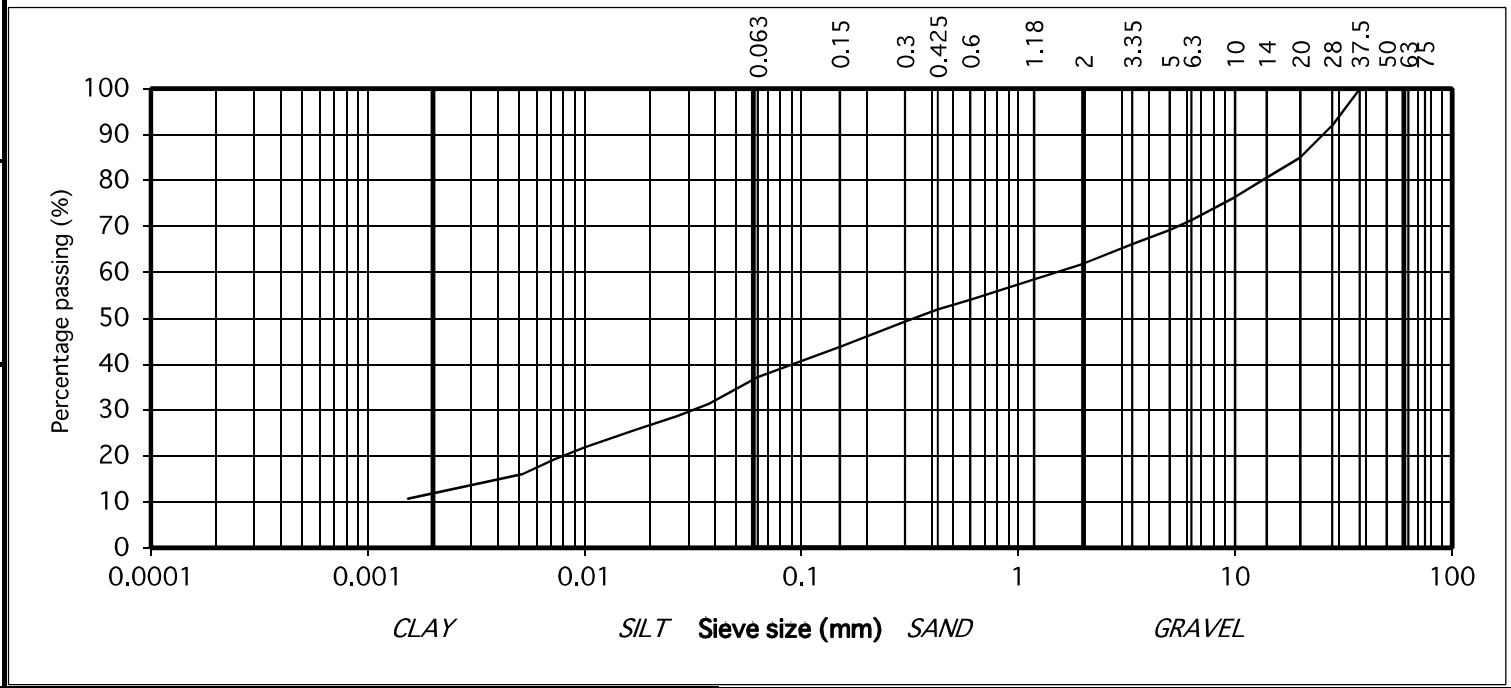
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	92	
20	85	
14	81	
10	76	
6.3	71	
5	69	
3.35	66	
2	62	
1.18	58	SAND
0.6	54	
0.425	52	
0.3	49	
0.15	44	
0.063	37	SILT/CLAY
0.037	31	
0.027	29	
0.017	26	
0.010	22	
0.007	19	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R141662	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH126602			
Sample No.*	N/A	Lab. Sample No.		A22/6383
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

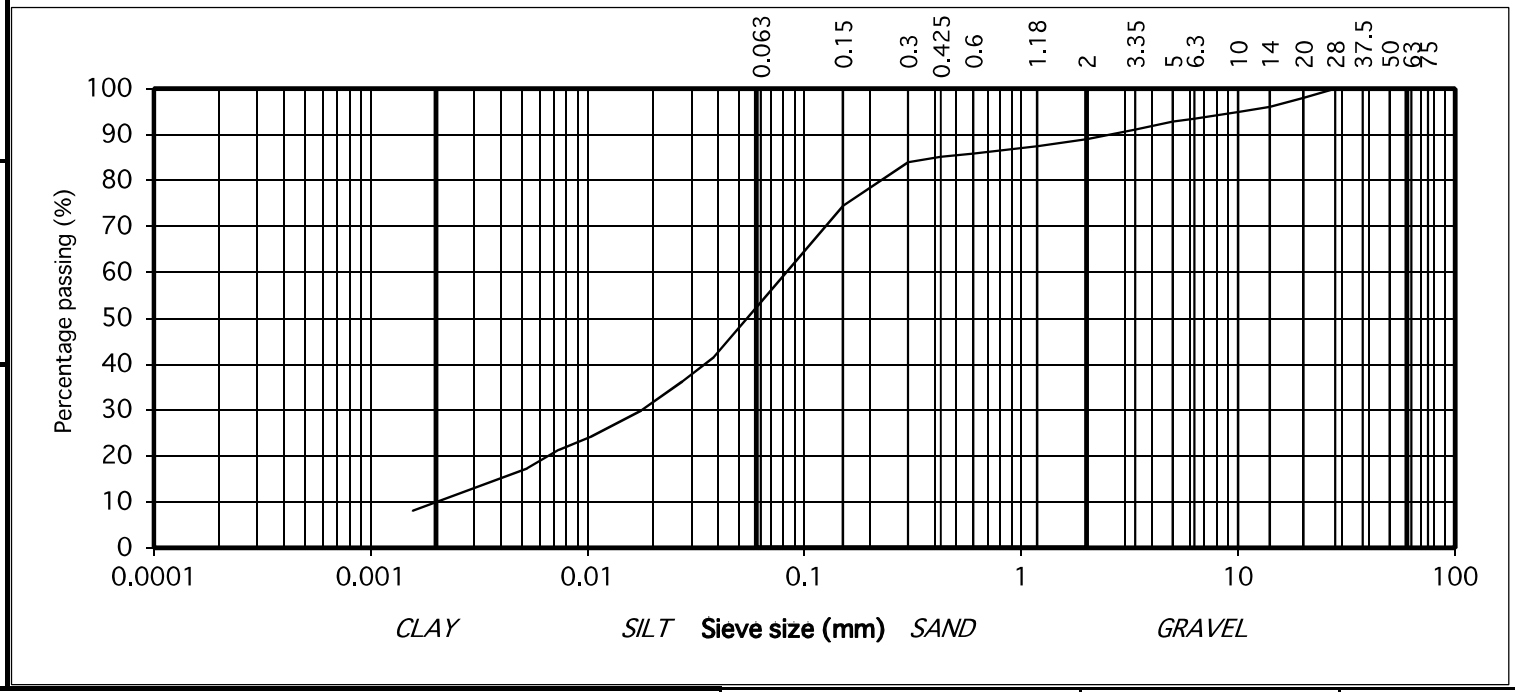
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	98	
14	96	
10	95	
6.3	93	
5	93	
3.35	91	
2	89	
1.18	88	SAND
0.6	86	
0.425	85	
0.3	84	
0.15	74	
0.063	54	SILT/CLAY
0.038	42	
0.027	36	
0.018	30	
0.010	24	
0.007	21	
0.005	17	
0.002	8	

Contract No.	23560	Report No.	R141484	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH126725			
Sample No.*	AA173394	Lab. Sample No.		A22/6633
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	29/11/2022	Date Testing started		29/11/2022
Description:	Grey sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

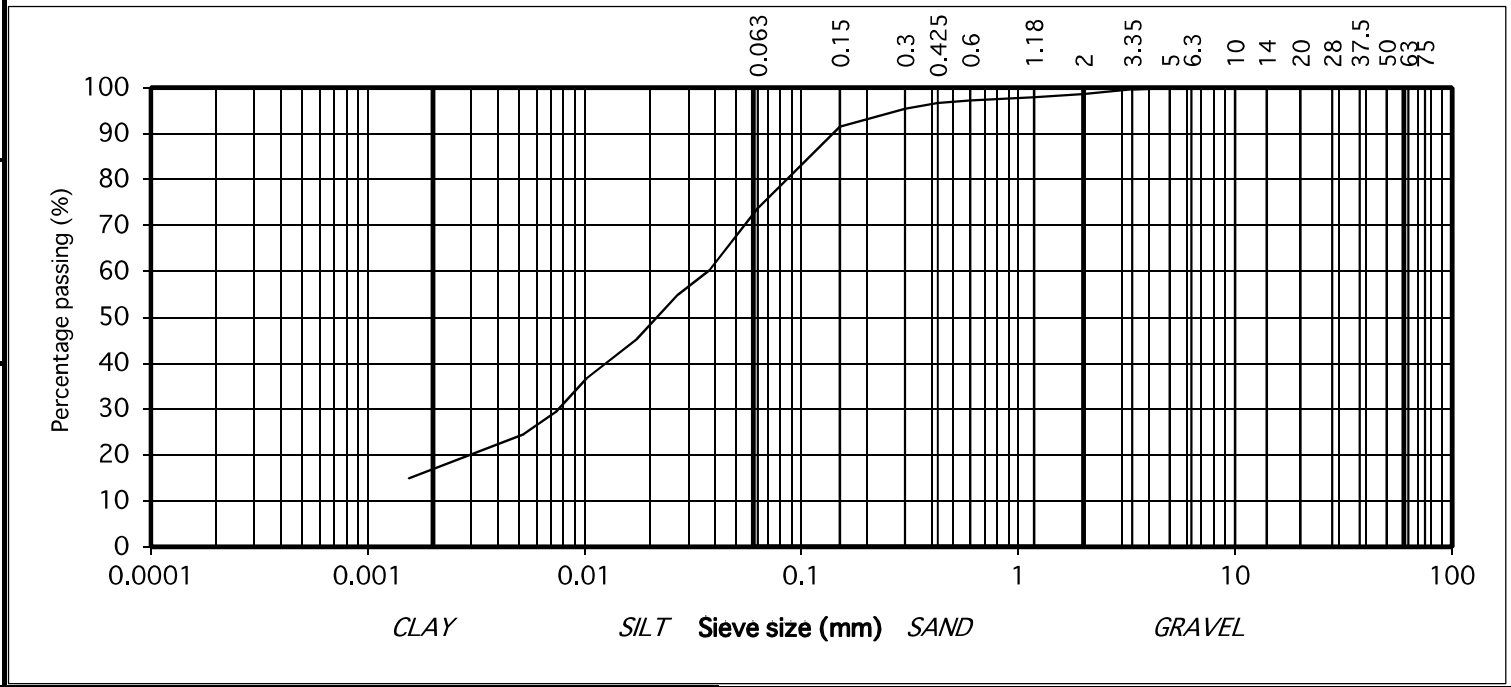
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	99	
1.18	98	SAND
0.6	97	
0.425	97	
0.3	95	
0.15	92	
0.063	74	SILT/CLAY
0.038	60	
0.027	55	
0.017	45	
0.010	37	
0.007	29	
0.005	25	
0.002	15	

Contract No.	23560	Report No.	R141271	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH126900			
Sample No.*	AA173388	Lab. Sample No.		A22/6384
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

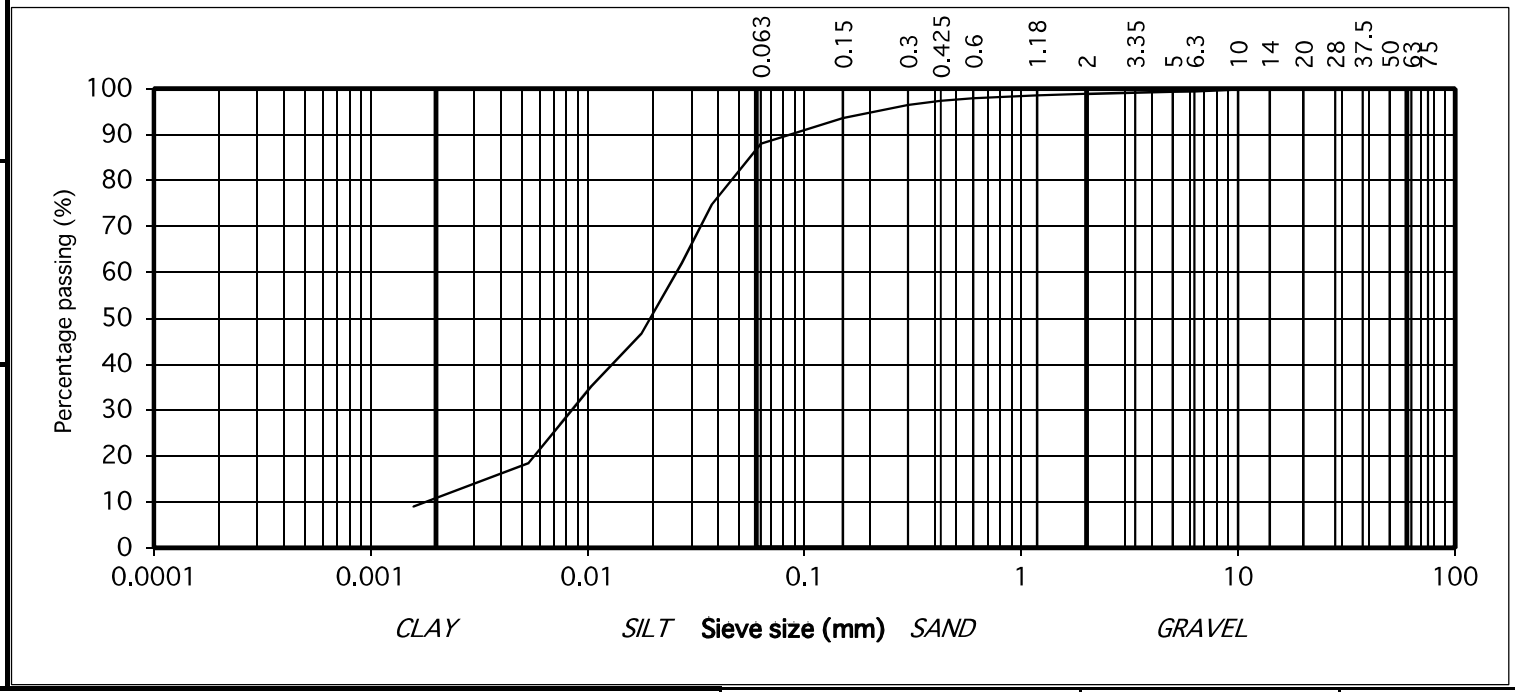
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	99	
3.35	99	
2	99	
1.18	99	SAND
0.6	98	
0.425	97	
0.3	96	
0.15	94	
0.063	88	SILT/CLAY
0.037	75	
0.027	62	
0.018	47	
0.010	35	
0.007	27	
0.005	19	
0.002	9	

Contract No.	23560	Report No.	R141534	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH127002			
Sample No.*	AA173382	Lab. Sample No.		A22/6389
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

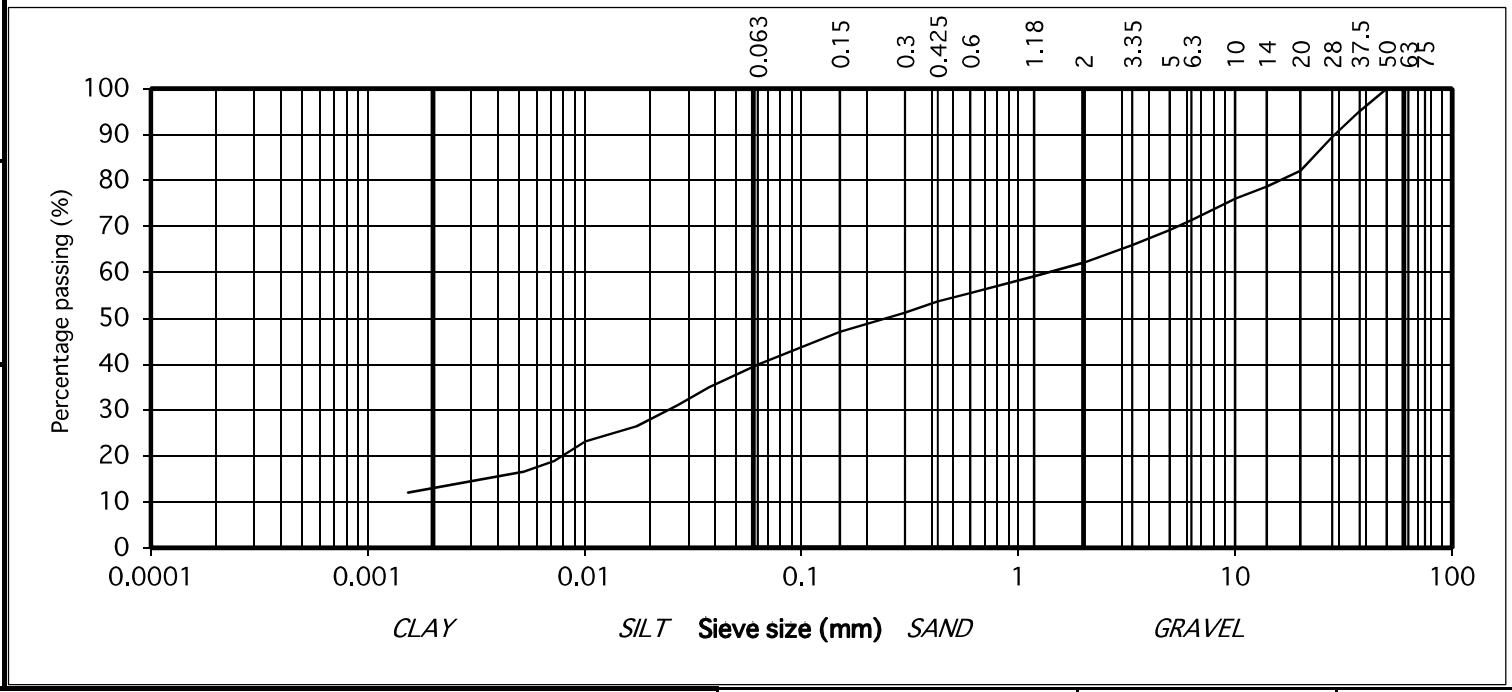
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	90	
20	82	
14	79	
10	76	
6.3	71	
5	69	
3.35	66	
2	62	
1.18	59	SAND
0.6	55	
0.425	54	
0.3	51	
0.15	47	
0.063	40	SILT/CLAY
0.037	35	
0.027	31	
0.017	27	
0.010	23	
0.007	19	
0.005	17	
0.002	12	

Contract No.	23560	Report No.	R141532	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH126900			
Sample No.*	AA173390	Lab. Sample No.		A22/6385
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	24/11/2022	Date Testing started		24/11/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

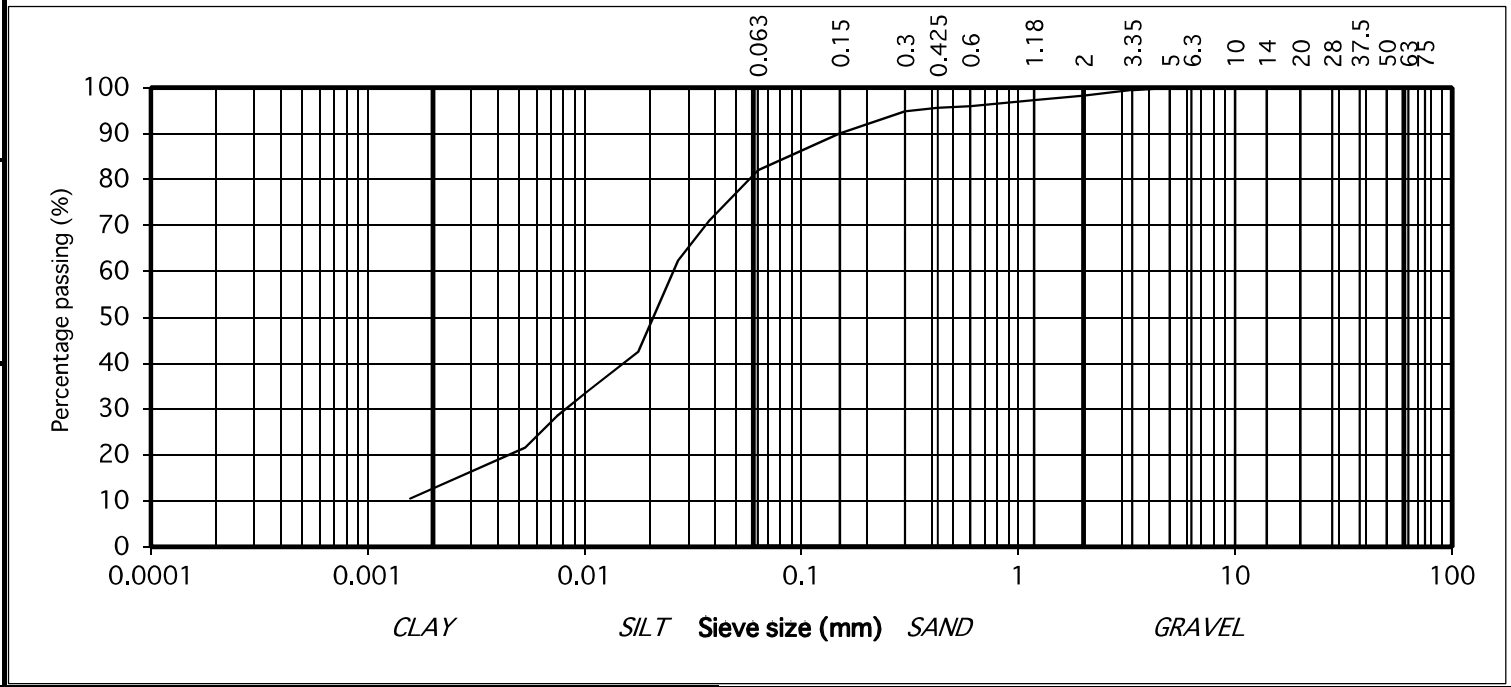
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	98	
1.18	97	SAND
0.6	96	
0.425	96	
0.3	95	
0.15	90	
0.063	82	SILT/CLAY
0.037	71	
0.027	62	
0.018	43	
0.010	34	
0.007	28	
0.005	22	
0.002	11	

Contract No.	23560	Report No.	R141533	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH127002			
Sample No.*	AA173381	Lab. Sample No.		A22/6388
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Pockets of PEAT in sample			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

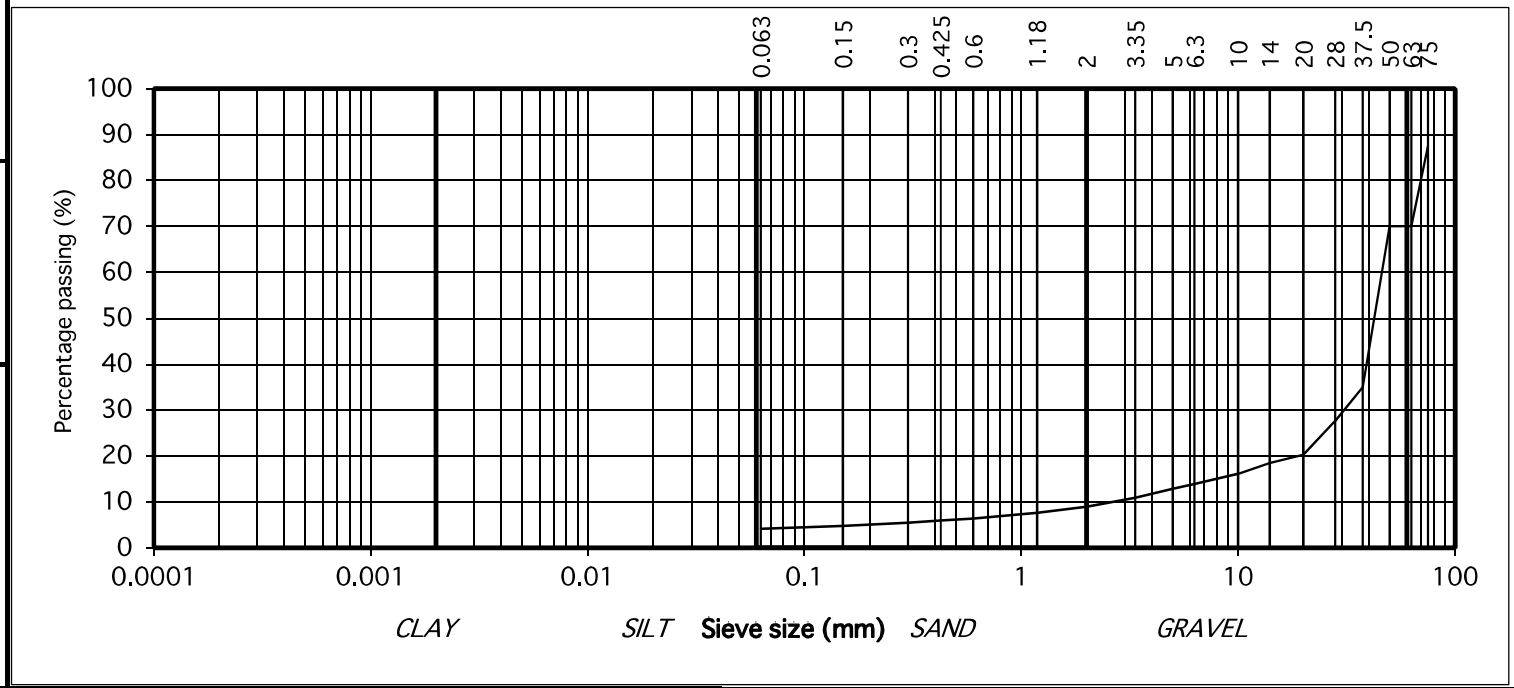
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	88	COBBLES
63	70	
50	70	GRAVEL
37.5	35	
28	28	
20	20	
14	19	
10	16	
6.3	14	
5	13	
3.35	11	
2	9	
1.18	8	SAND
0.6	6	
0.425	6	
0.3	6	
0.15	5	
0.063	4	SILT/CLAY

Contract No.	23560	Report No.	R143908	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH127452			
Sample No.*	AA174203	Lab. Sample No.		A22/3888
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey slightly clayey/silty, slightly sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

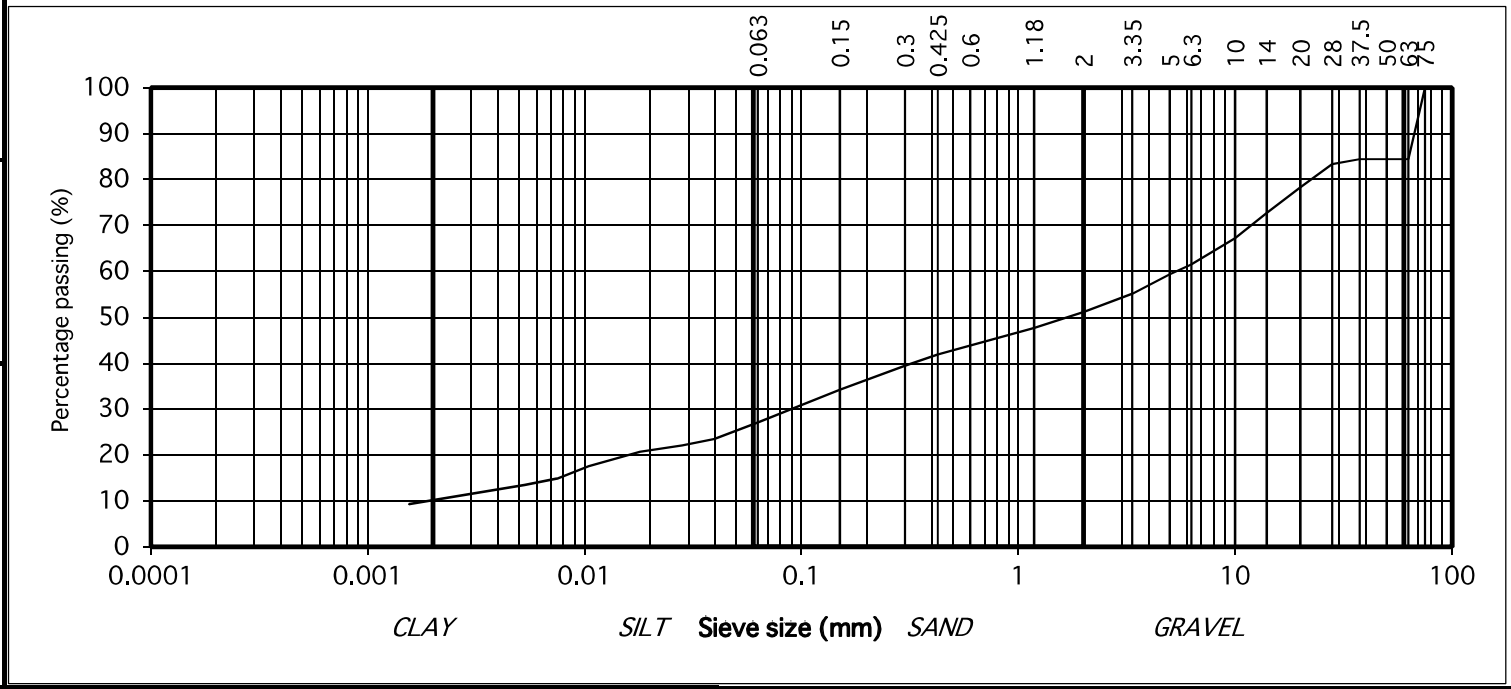
particle size	% passing	
75	100	COBBLES
63	84	
50	84	GRAVEL
37.5	84	
28	83	
20	78	
14	73	
10	67	
6.3	61	
5	59	
3.35	55	
2	51	
1.18	48	SAND
0.6	44	
0.425	42	
0.3	39	
0.15	34	
0.063	27	SILT/CLAY
0.040	24	
0.028	22	
0.018	21	
0.010	18	
0.007	15	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R137446	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH128127			
Sample No.*	AA174212	Lab. Sample No.		A22/3892
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

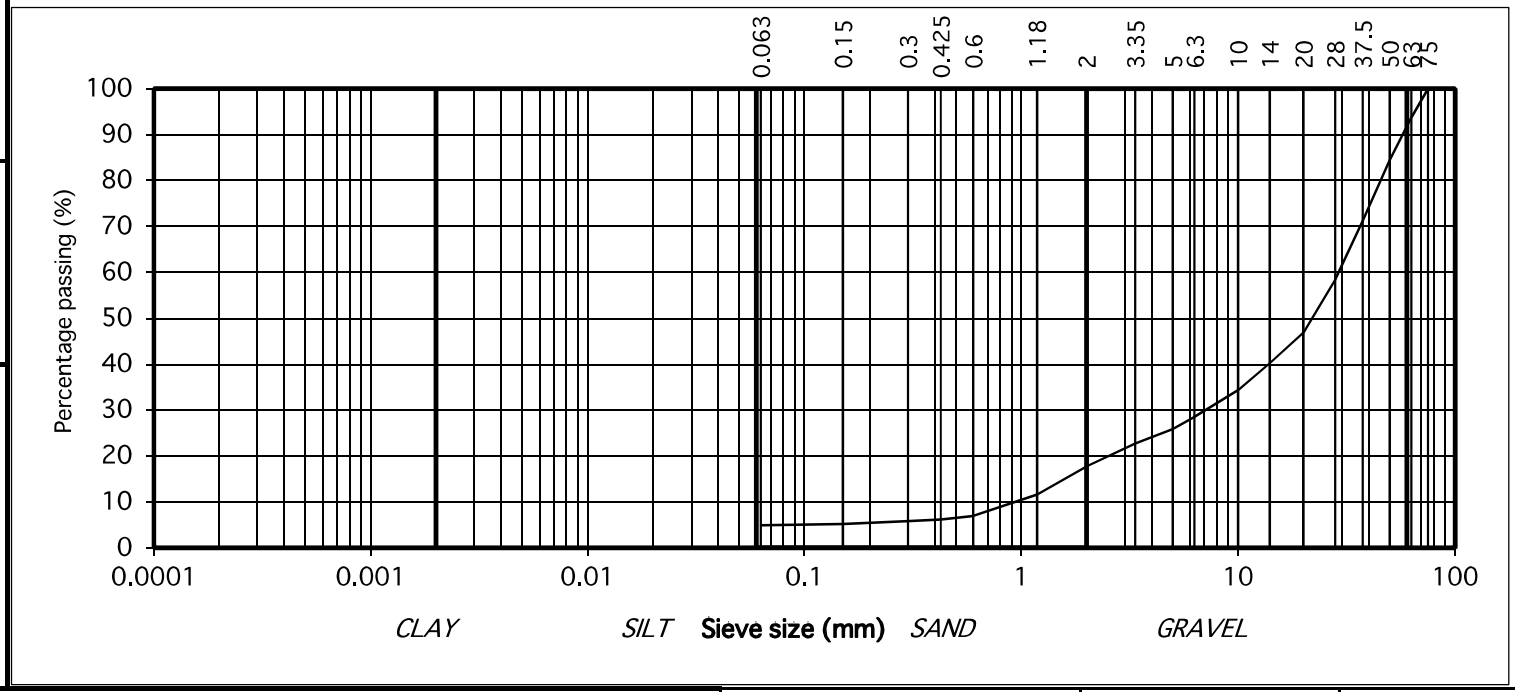
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	94	
50	84	GRAVEL
37.5	71	
28	58	
20	47	
14	40	
10	34	
6.3	28	
5	26	
3.35	23	
2	18	
1.18	12	SAND
0.6	7	
0.425	6	
0.3	6	
0.15	5	
0.063	5	SILT/CLAY

Contract No.	23560	Report No.	R143912	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH127452			
Sample No.*	AA174205	Lab. Sample No.		A22/3889
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey slightly clayey/silty, sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size di not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

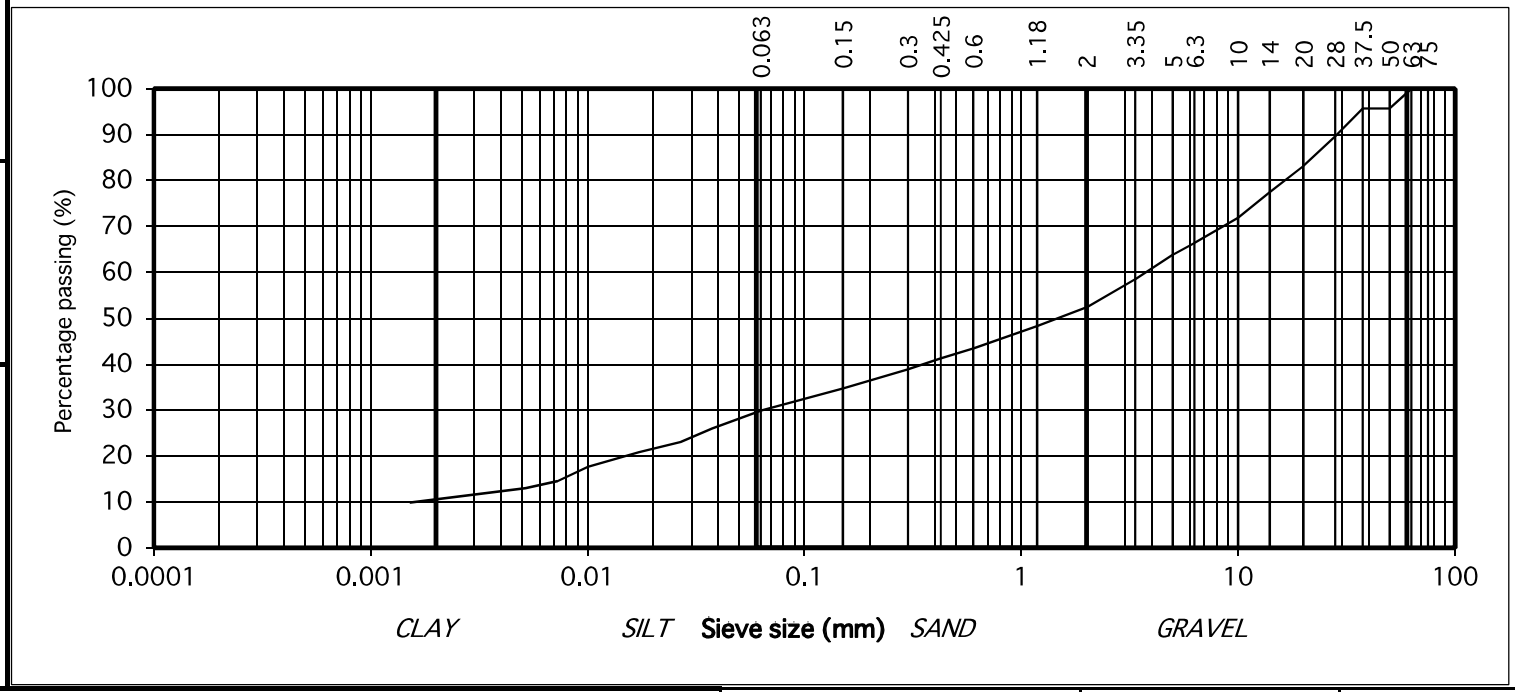
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	96	
28	90	
20	83	
14	77	
10	72	
6.3	66	
5	64	
3.35	59	
2	52	
1.18	48	SAND
0.6	43	
0.425	41	
0.3	39	
0.15	35	
0.063	30	SILT/CLAY
0.037	26	
0.027	23	
0.017	21	
0.010	18	
0.007	15	
0.005	13	
0.002	10	

Contract No.	23560	Report No.	R143909	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH128127			
Sample No.*	AA174214	Lab. Sample No.		A22/3892
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

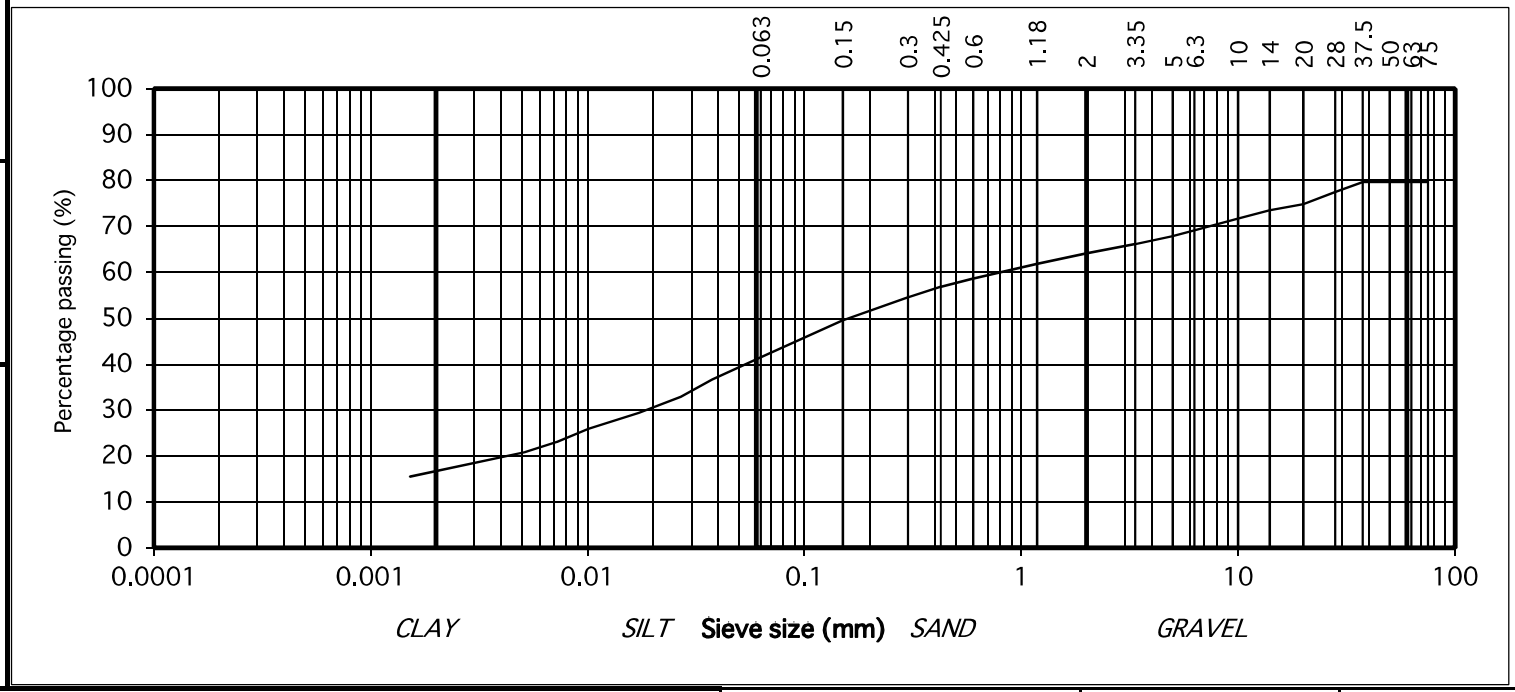
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	80	COBBLES
63	80	
50	80	GRAVEL
37.5	80	
28	78	
20	75	
14	74	
10	72	
6.3	69	
5	68	
3.35	66	
2	64	
1.18	62	SAND
0.6	59	
0.425	57	
0.3	55	
0.15	50	
0.063	42	SILT/CLAY
0.037	37	
0.027	33	
0.017	29	
0.010	26	
0.007	23	
0.005	21	
0.002	16	

Contract No.	23560	Report No.	R137446	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH128127			
Sample No.*	AA174211	Lab. Sample No.		A22/3894
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Grey brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

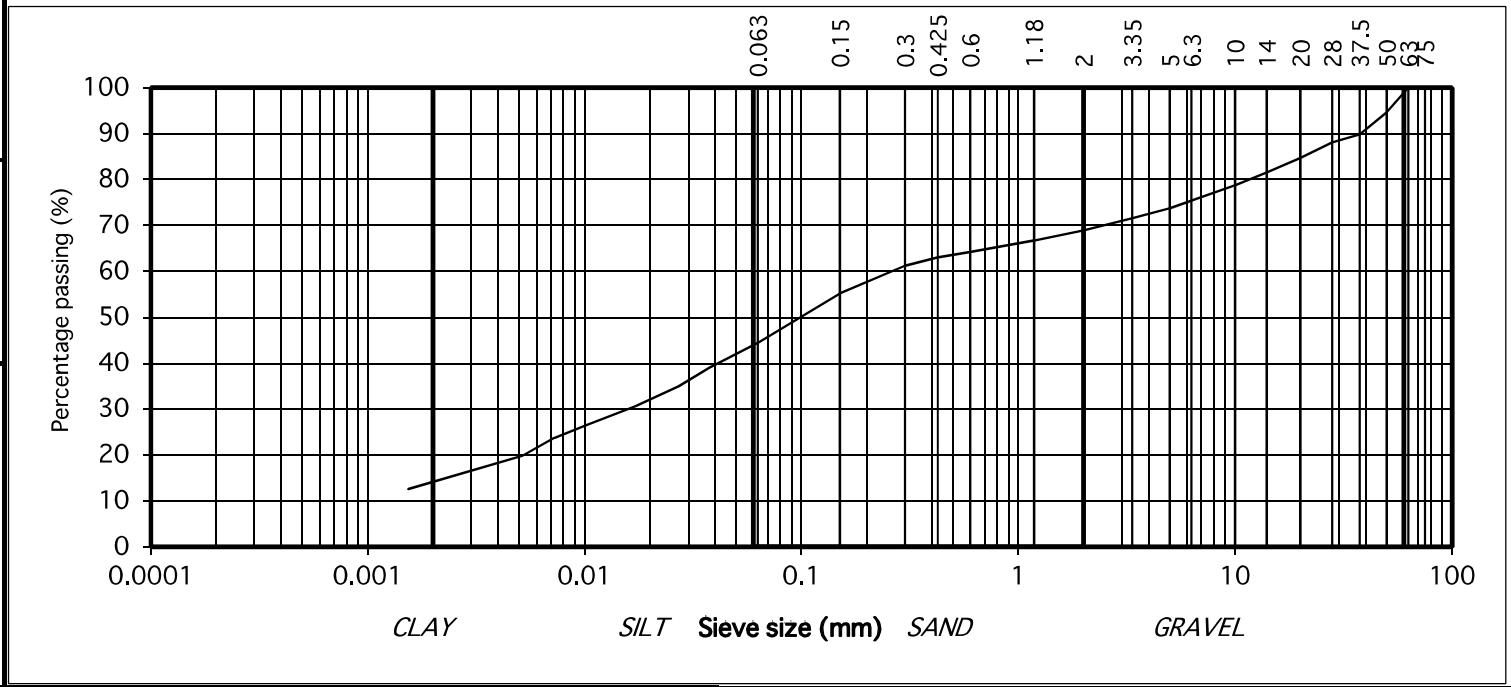
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	90	
28	88	
20	85	
14	82	
10	79	
6.3	75	
5	74	
3.35	72	
2	69	
1.18	67	SAND
0.6	64	
0.425	63	
0.3	61	
0.15	55	
0.063	44	SILT/CLAY
0.038	39	
0.027	35	
0.017	31	
0.010	27	
0.007	24	
0.005	20	
0.002	13	

Contract No.	23560	Report No.	R141488	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH128605			
Sample No.*	N/A	Lab. Sample No.		A22/6645
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	29/11/2022	Date Testing started		29/11/2022
Description:	Grey slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

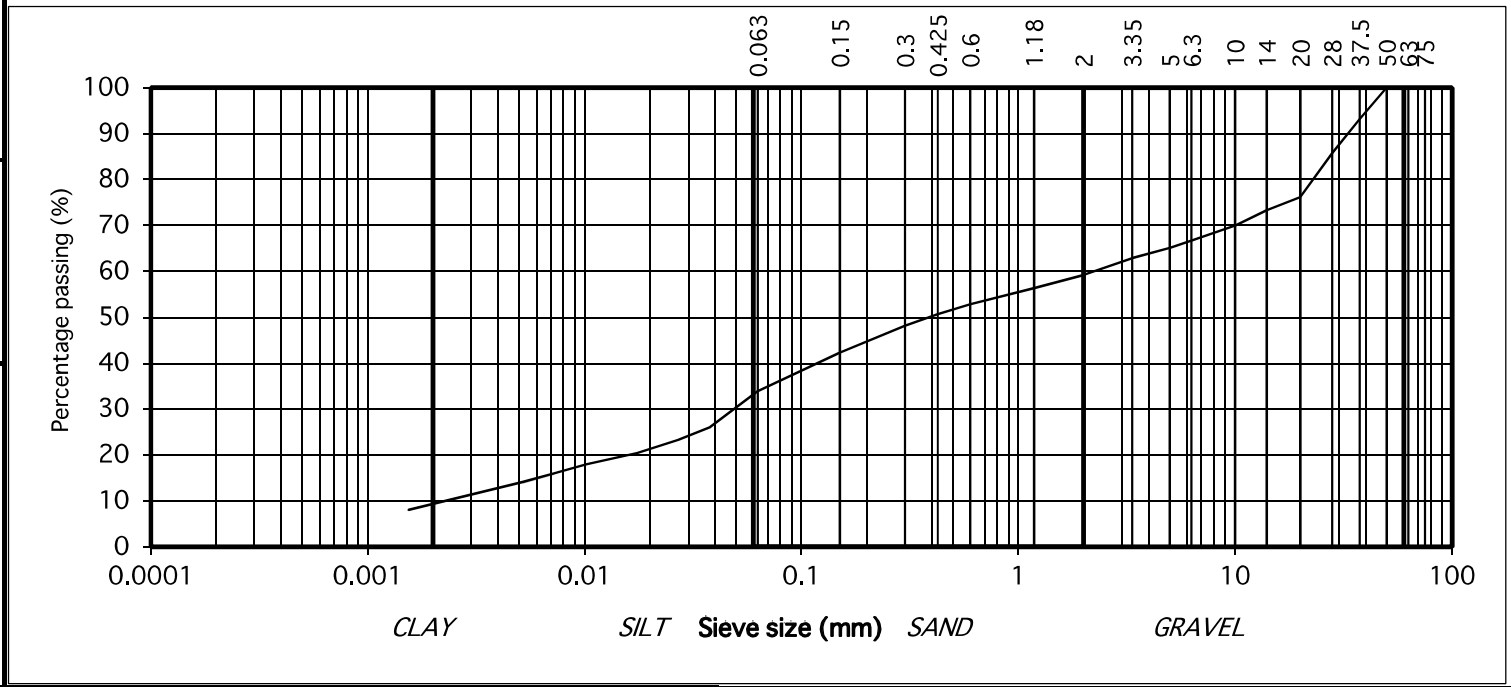
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	93	
28	86	
20	76	
14	73	
10	70	
6.3	67	
5	65	
3.35	63	
2	59	
1.18	56	SAND
0.6	53	
0.425	51	
0.3	48	
0.15	42	
0.063	34	SILT/CLAY
0.038	26	
0.027	23	
0.017	20	
0.010	18	
0.007	16	
0.005	14	
0.002	8	

Contract No.	23560	Report No.	R138781	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH129405			
Sample No.*	AA174219	Lab. Sample No.		A22/3897
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown/grey slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

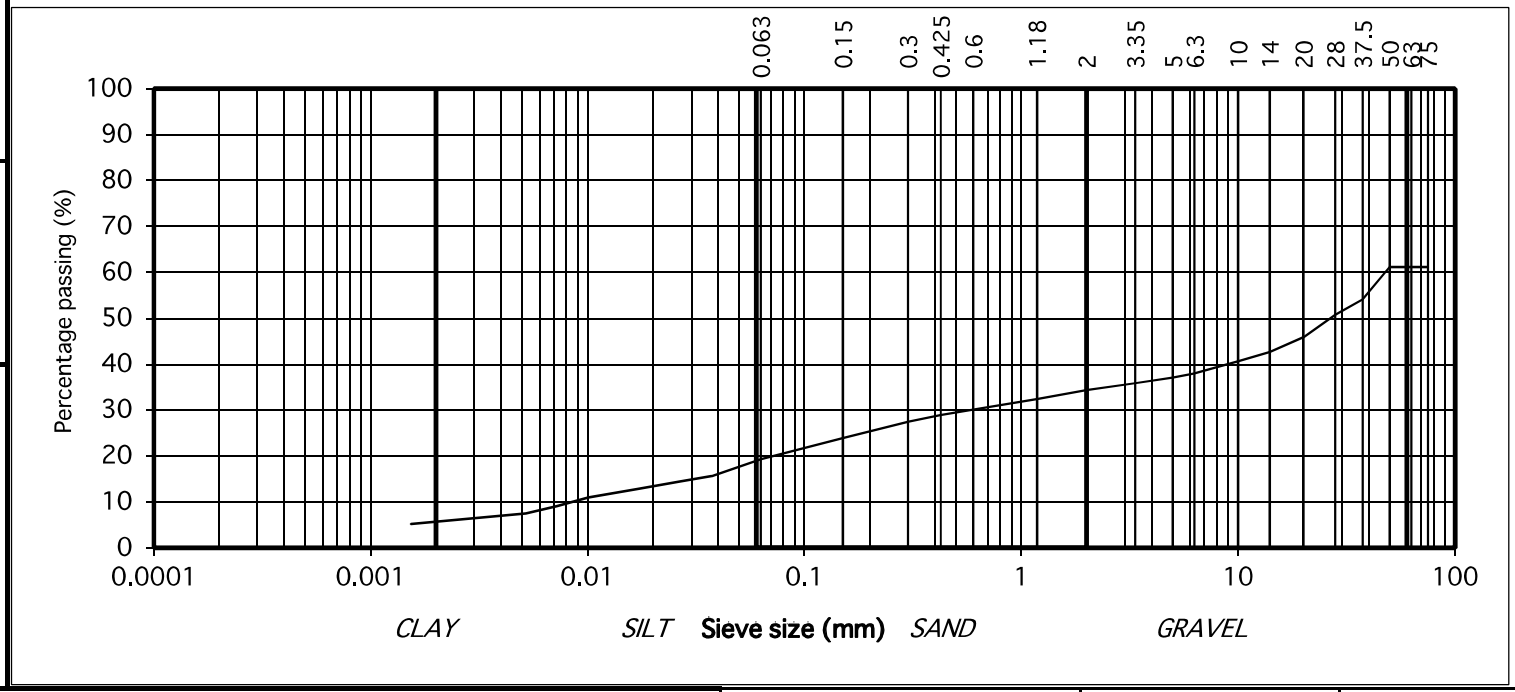
particle size	% passing	
75	61	COBBLES
63	61	
50	61	GRAVEL
37.5	54	
28	51	
20	46	
14	43	
10	41	
6.3	38	
5	37	
3.35	36	
2	34	
1.18	32	SAND
0.6	30	
0.425	29	
0.3	27	
0.15	24	
0.063	19	SILT/CLAY
0.037	16	
0.027	14	
0.017	13	
0.010	11	
0.007	9	
0.005	8	
0.002	5	

Contract No.	23560	Report No.	R137448	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH130005			
Sample No.*	AA174226	Lab. Sample No.		A22/3902
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Grey brown clayey/silty, sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

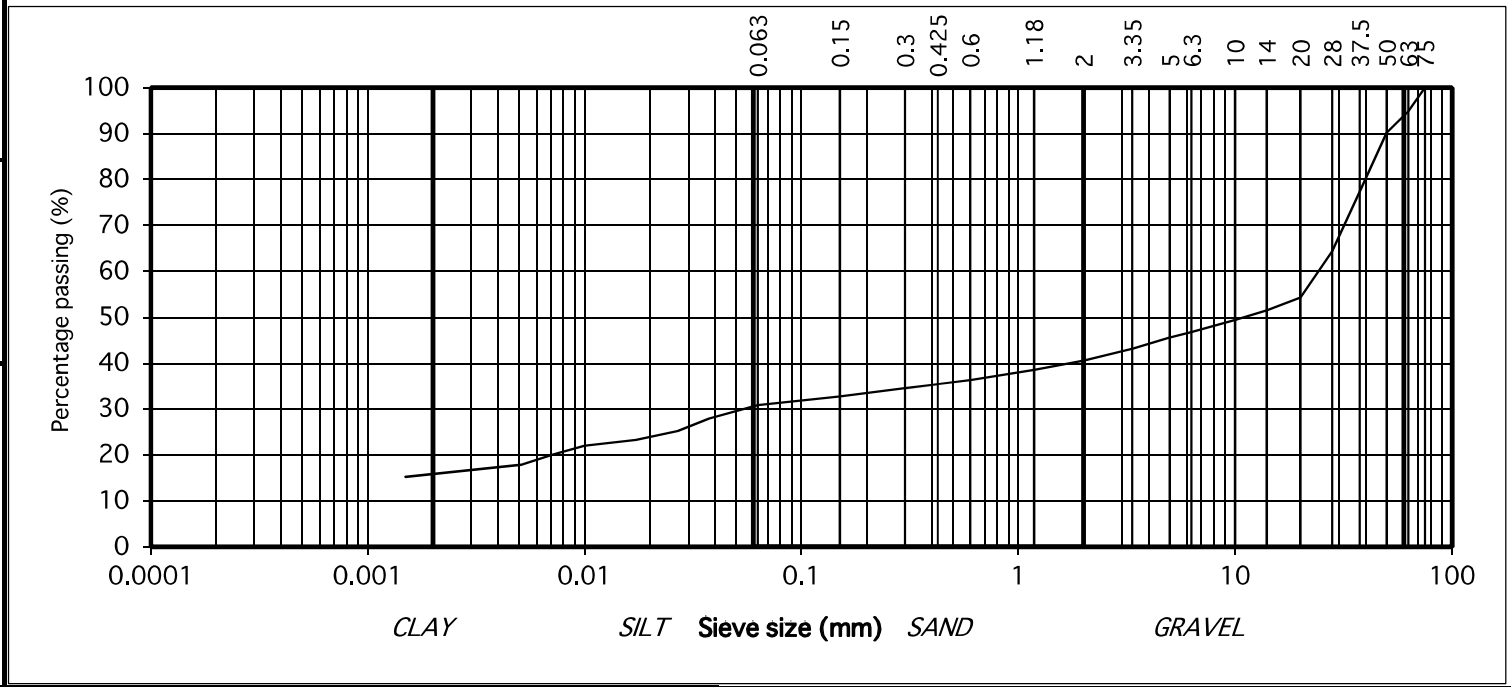
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	95	
50	90	GRAVEL
37.5	77	
28	64	
20	54	
14	52	
10	49	
6.3	47	
5	46	
3.35	43	
2	41	
1.18	39	SAND
0.6	36	
0.425	35	
0.3	35	
0.15	33	
0.063	31	SILT/CLAY
0.037	28	
0.027	25	
0.017	23	
0.010	22	
0.007	20	
0.005	18	
0.001	15	

Contract No.	23560	Report No.	R143913	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH129405A			
Sample No.*	AA174220	Lab. Sample No.		A22/3898
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

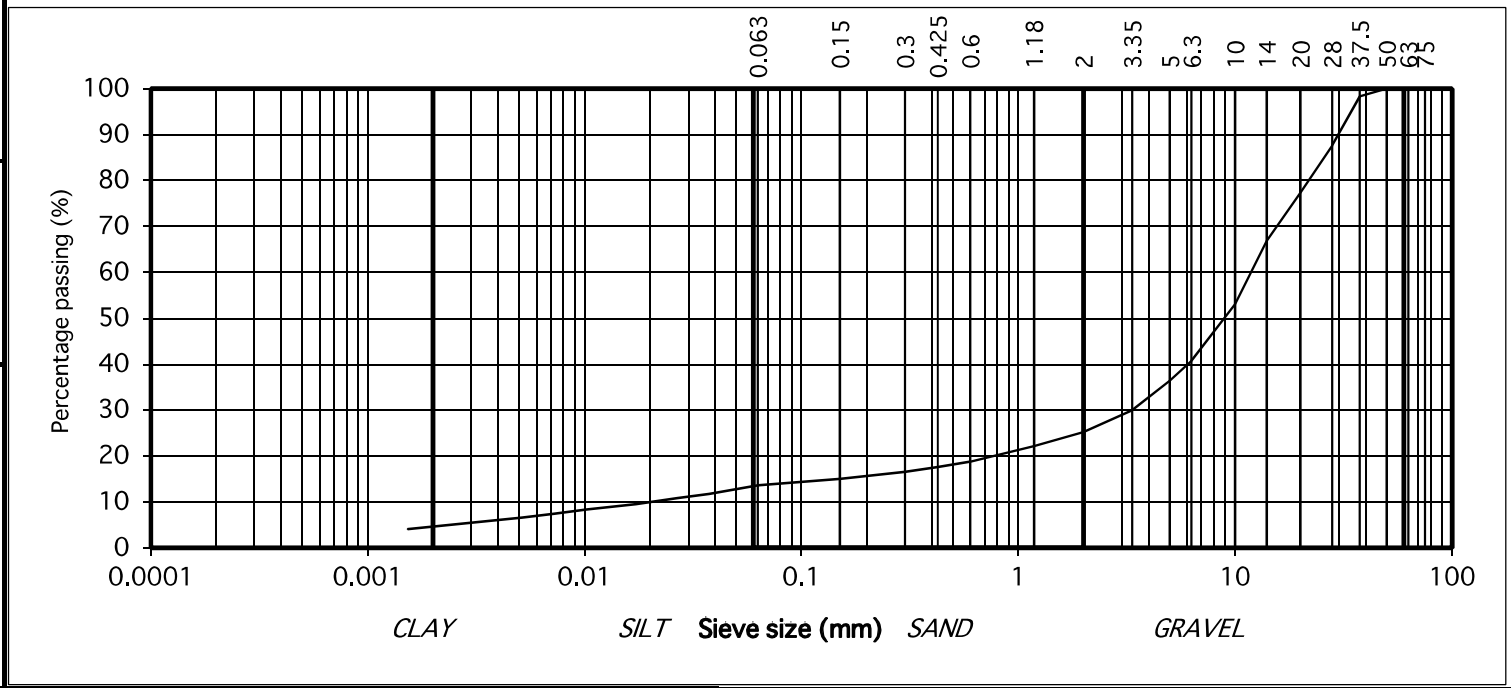
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	88	
20	77	
14	67	
10	53	
6.3	41	
5	36	
3.35	30	
2	25	
1.18	22	SAND
0.6	19	
0.425	18	
0.3	17	
0.15	15	
0.063	14	SILT/CLAY
0.037	12	
0.027	11	
0.017	10	
0.010	8	
0.007	7	
0.005	7	
0.002	4	

Contract No.	23560	Report No.	R143910	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH129405A			
Sample No.*	AA174222	Lab. Sample No.		A22/3899
Sample Type:	B			
Depth* (m)	4.50	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey clayey/silty, sandy, GRAVEL			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

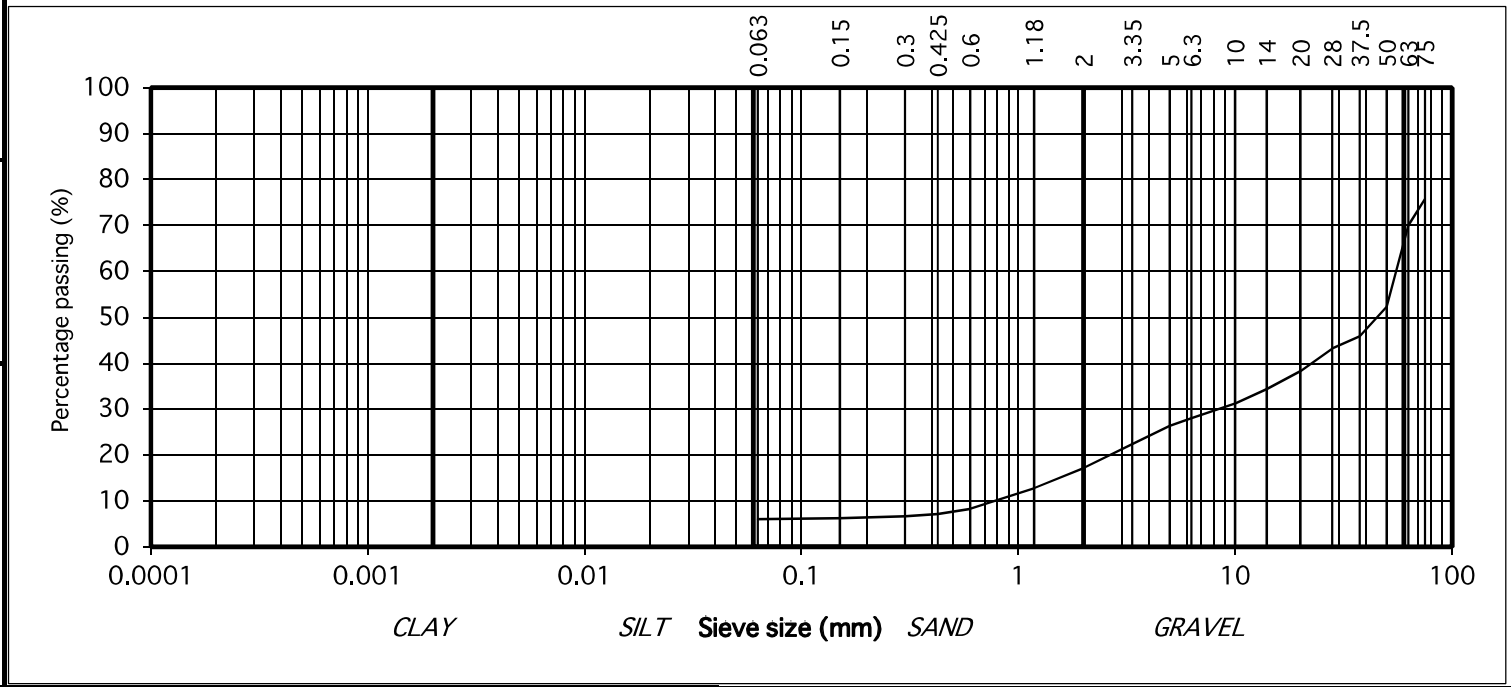
particle size	% passing	
75	76	COBBLES
63	70	
50	52	GRAVEL
37.5	46	
28	43	
20	38	
14	34	
10	31	
6.3	28	
5	26	
3.35	22	
2	17	
1.18	13	SAND
0.6	8	
0.425	7	
0.3	7	
0.15	6	
0.063	6	SILT/CLAY

Contract No.	23560	Report No.	R143911
Contract Name:	WSP - Lot 3		
BH/TP* :	BH130451		
Sample No.*	AA174234	Lab. Sample No.	A22/3904
Sample Type:	B		
Depth* (m)	5.00	Customer:	Ervia
Date Received	14/07/2022	Date Testing started	14/07/2022
Description:	Grey clayey/silty, sandy, GRAVEL with many cobbles		

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size di not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

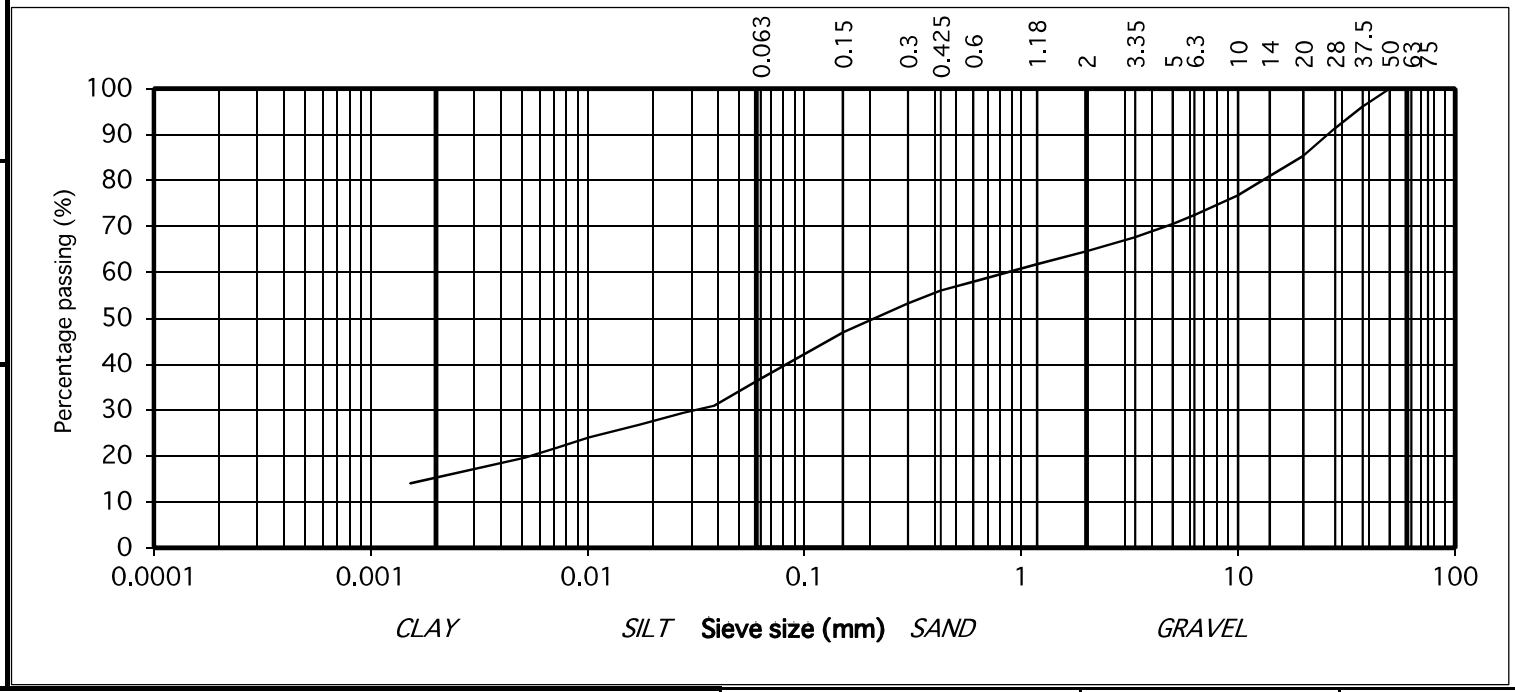
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	92	
20	85	
14	81	
10	77	
6.3	72	
5	71	
3.35	68	
2	65	
1.18	62	SAND
0.6	58	
0.425	56	
0.3	53	
0.15	47	
0.063	37	SILT/CLAY
0.038	31	
0.027	29	
0.017	27	
0.010	24	
0.007	22	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R138782	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH130451			
Sample No.*	AA174231	Lab. Sample No.		A22/3904
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

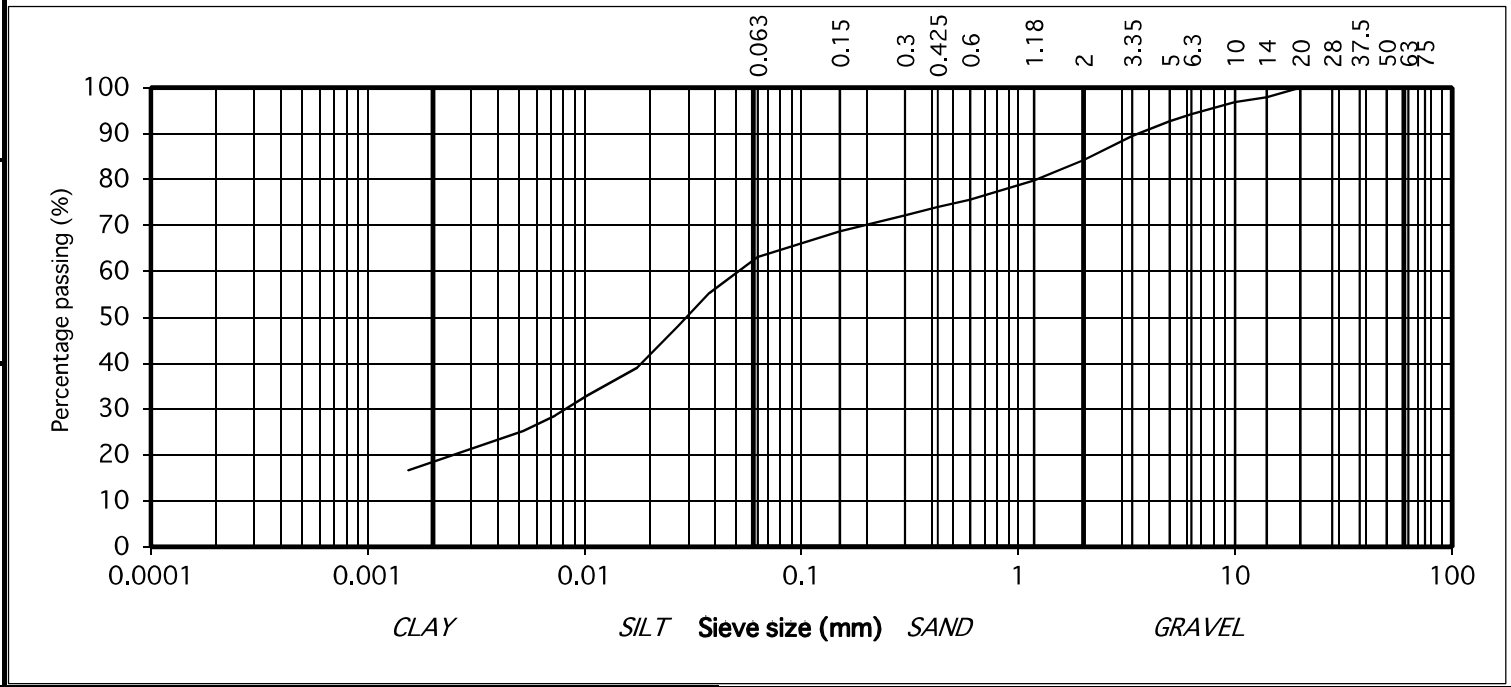
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	98	
10	97	
6.3	94	
5	93	
3.35	90	
2	84	
1.18	80	SAND
0.6	76	
0.425	74	
0.3	72	
0.15	69	
0.063	63	SILT/CLAY
0.037	55	
0.027	48	
0.017	39	
0.010	33	
0.007	29	
0.005	25	
0.002	17	

Contract No.	23560	Report No.	R143935	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH131203			
Sample No.*	AA174237	Lab. Sample No.		A22/3986
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Grey brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

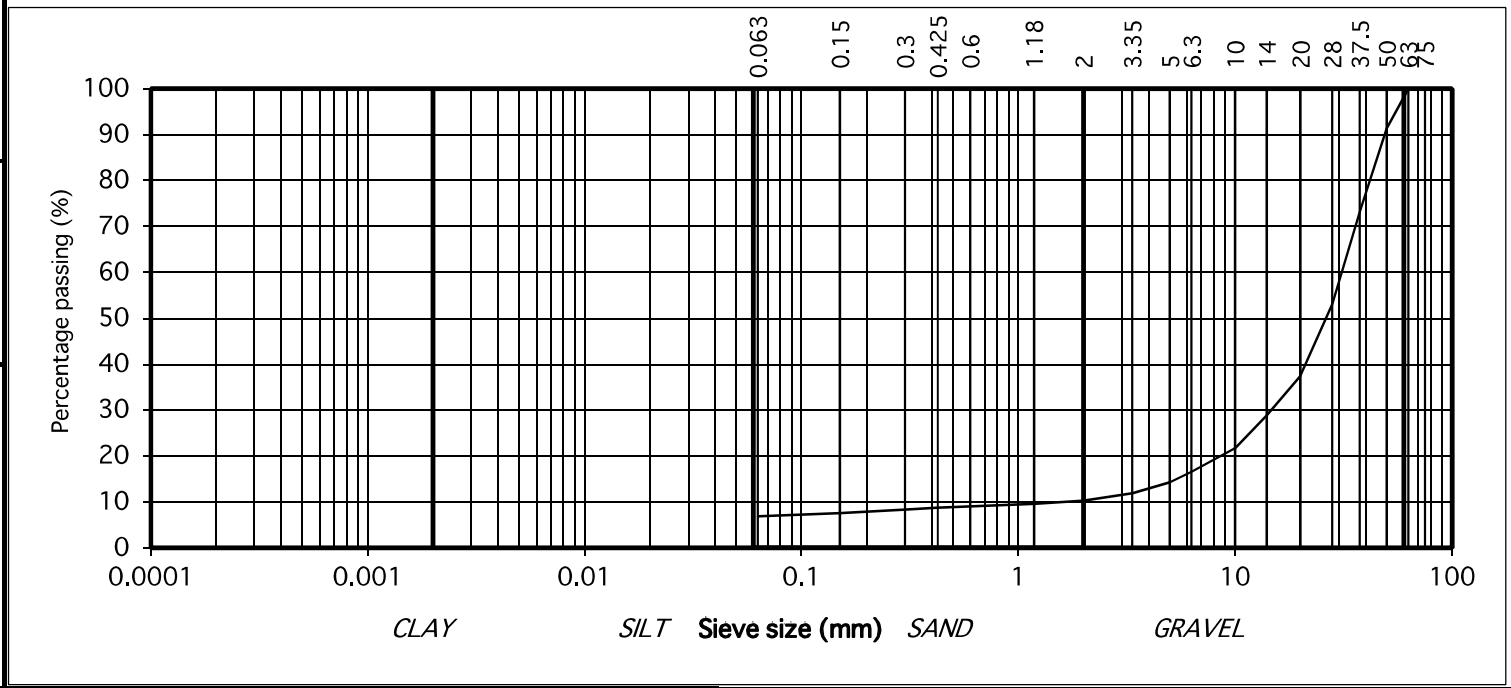
particle size	% passing	
75	100	COBBLES
63	100	
50	91	GRAVEL
37.5	73	
28	53	
20	37	
14	29	
10	22	
6.3	17	
5	14	
3.35	12	
2	10	
1.18	10	SAND
0.6	9	
0.425	9	
0.3	8	
0.15	8	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R139281	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH131836			
Sample No.*	AA174122	Lab. Sample No.		A22/3992
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown clayey/silty, slightly sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

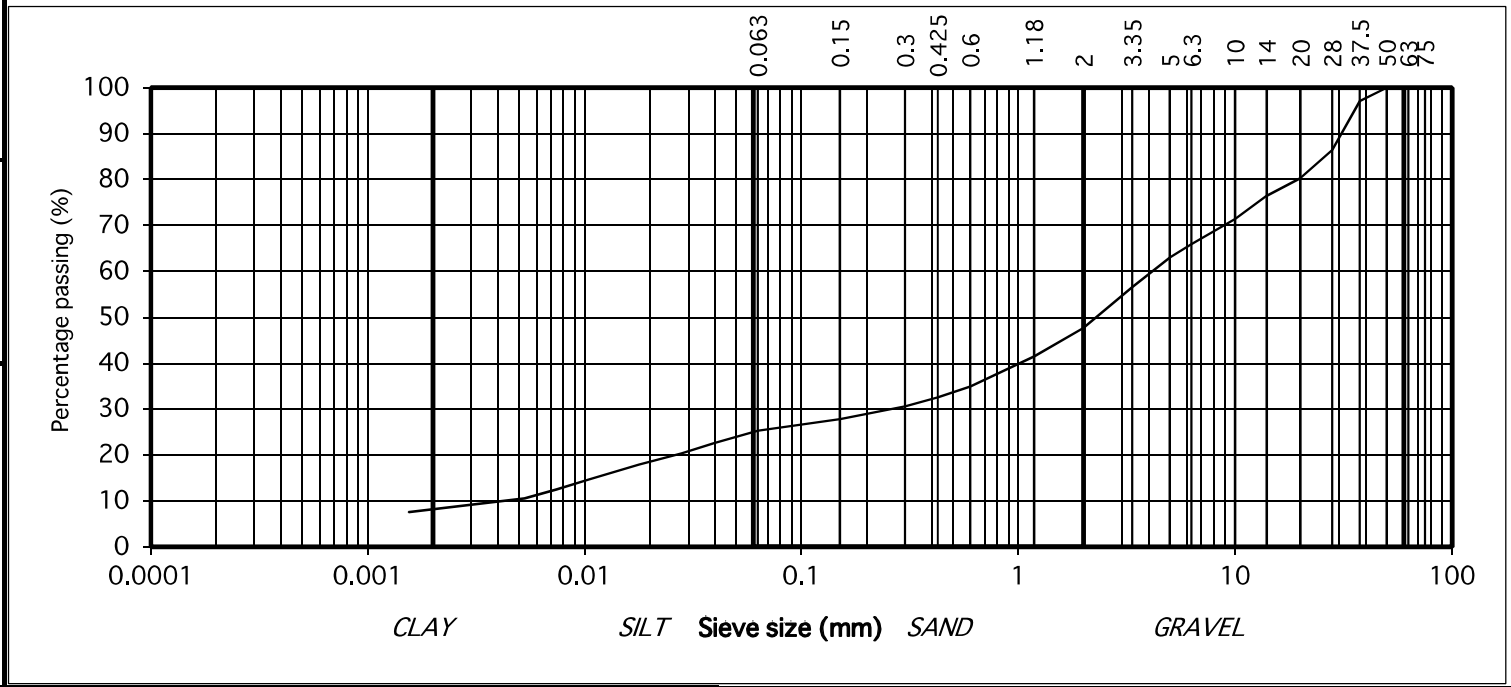
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	86	
20	80	
14	76	
10	71	
6.3	66	
5	63	
3.35	57	
2	48	
1.18	42	SAND
0.6	35	
0.425	33	
0.3	31	
0.15	28	
0.063	25	SILT/CLAY
0.039	23	
0.028	20	
0.018	18	
0.010	15	
0.007	13	
0.005	11	
0.002	8	

Contract No.	23560	Report No.	R143931	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH131203			
Sample No.*	AA174240	Lab. Sample No.		A22/3988
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Grey brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

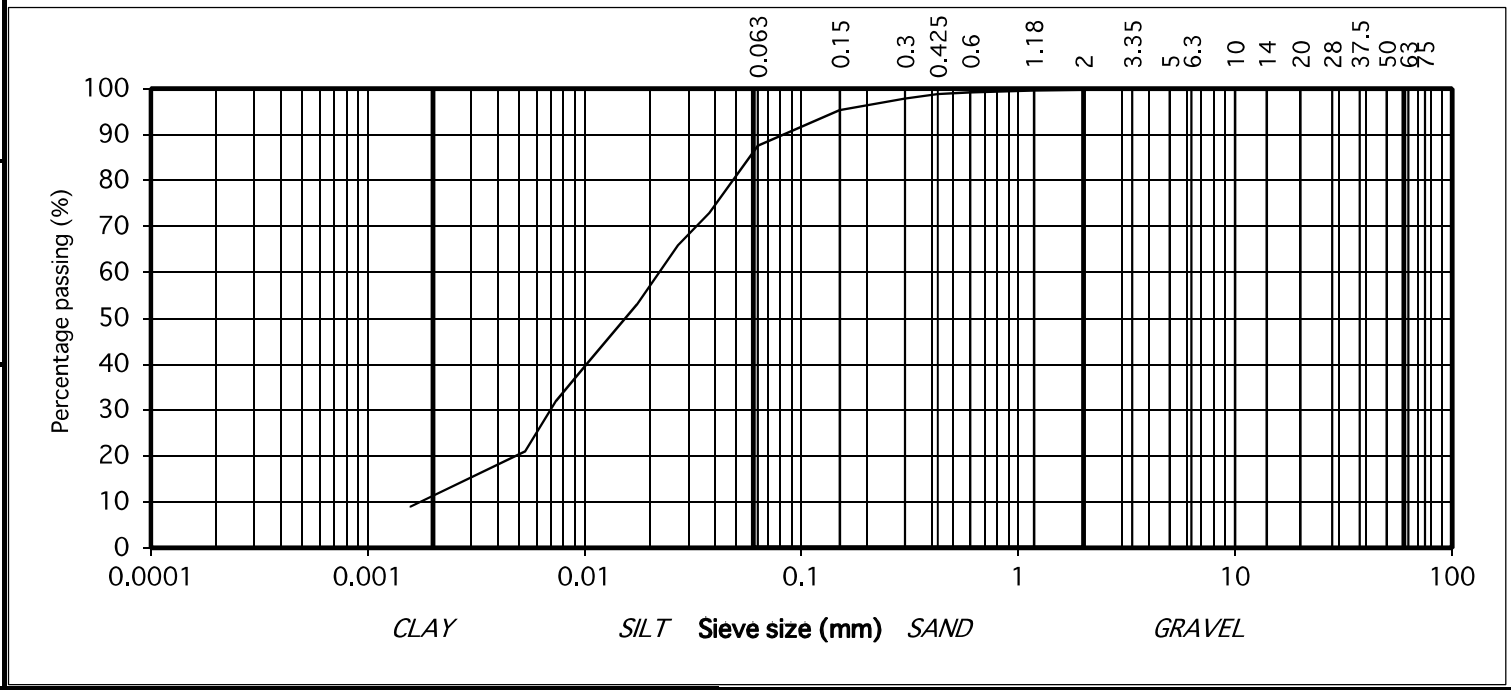
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	100	
1.18	100	SAND
0.6	99	
0.425	99	
0.3	98	
0.15	95	
0.063	88	SILT/CLAY
0.037	73	
0.027	66	
0.017	53	
0.010	40	
0.007	32	
0.005	21	
0.002	9	

Contract No.	23560	Report No.	R139280	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH131836			
Sample No.*	AA174121	Lab. Sample No.		A22/3990
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Grey/Brown slightly sandy, SILT/CLAY			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

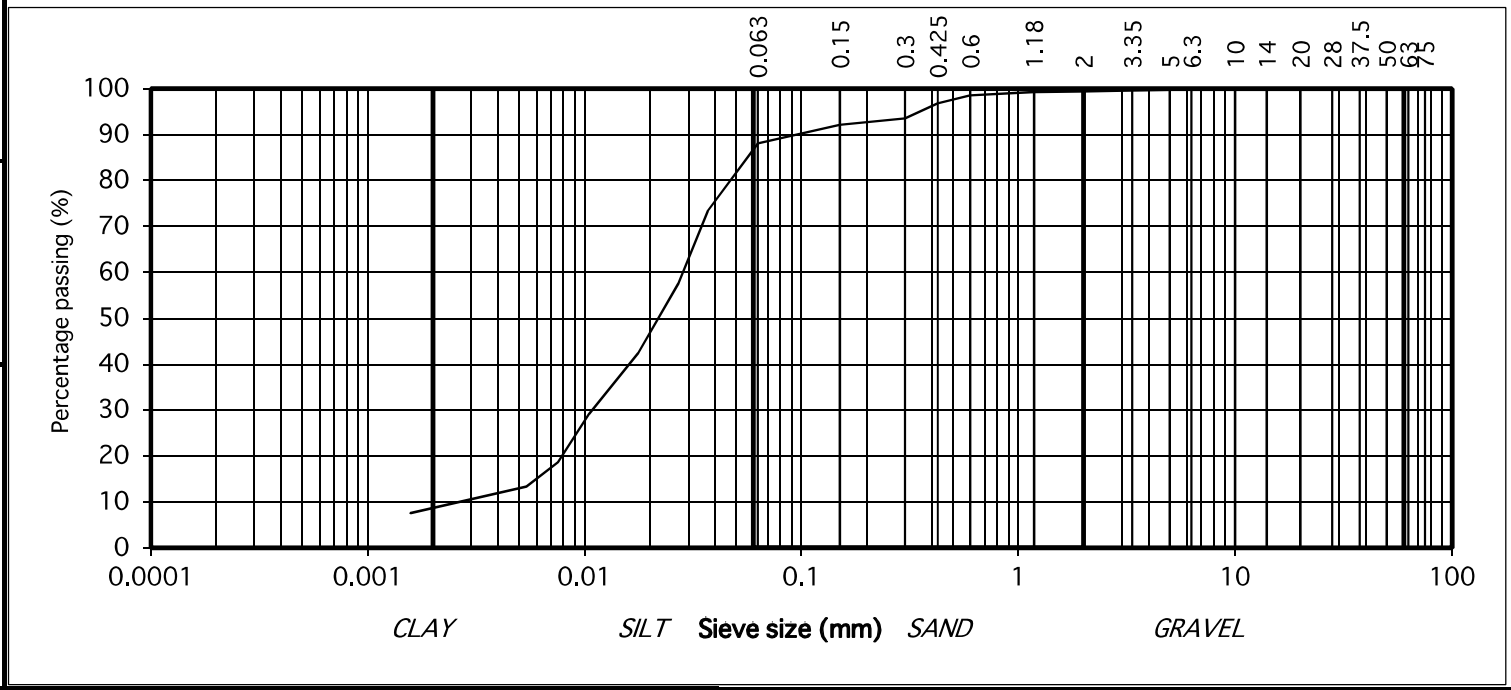
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	100	
1.18	99	SAND
0.6	99	
0.425	97	
0.3	94	
0.15	92	
0.063	88	SILT/CLAY
0.037	73	
0.027	58	
0.018	43	
0.010	29	
0.008	19	
0.005	13	
0.002	8	

Contract No.	23560	Report No.	R141490	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH132133			
Sample No.*	171099	Lab. Sample No.		A22/6654
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Grey brown slightly sandy, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

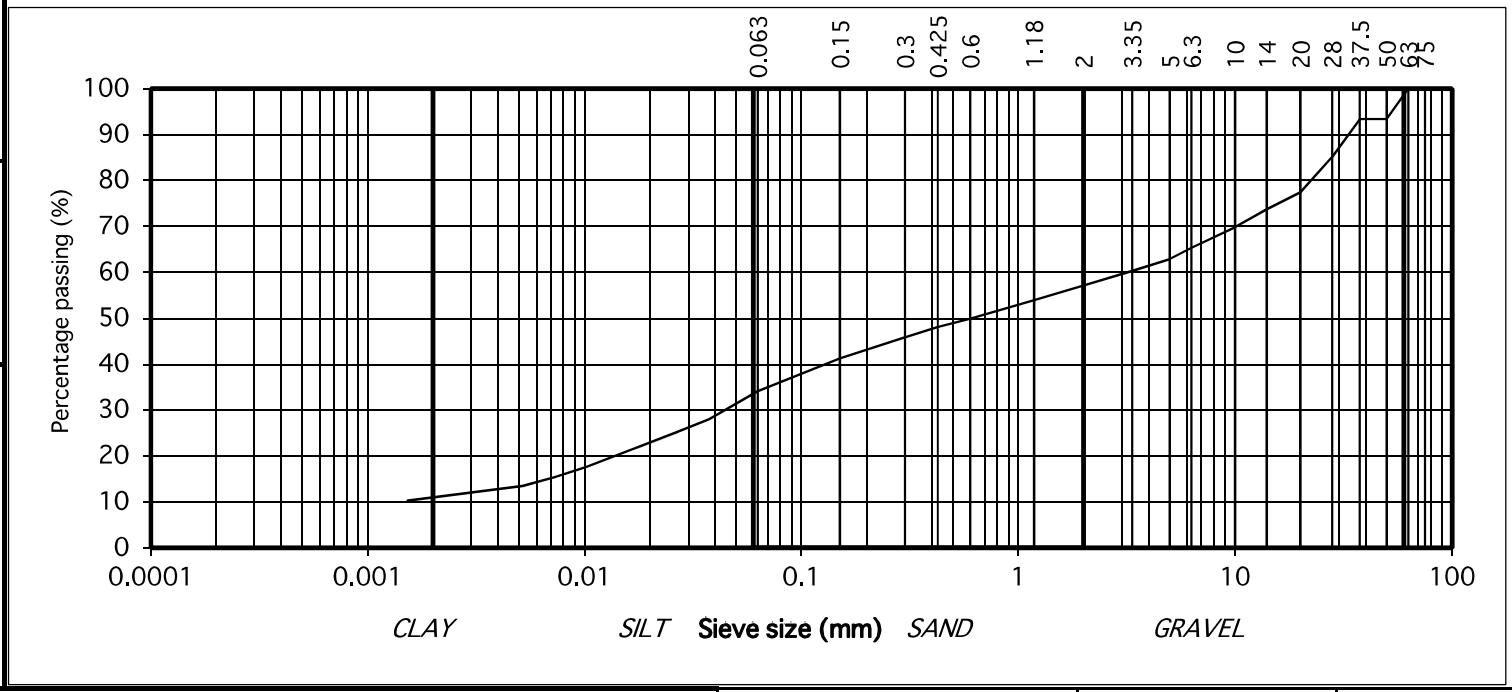
particle size	% passing	
75	100	COBBLES
63	100	
50	93	GRAVEL
37.5	93	
28	85	
20	77	
14	74	
10	70	
6.3	65	
5	63	
3.35	60	
2	57	
1.18	54	SAND
0.6	50	
0.425	48	
0.3	46	
0.15	41	
0.063	34	SILT/CLAY
0.037	28	
0.027	25	
0.017	22	
0.010	18	
0.007	15	
0.005	14	
0.002	10	

Contract No.	23560	Report No.	R141491	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH132133			
Sample No.*	AA171100	Lab. Sample No.		A22/6655
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

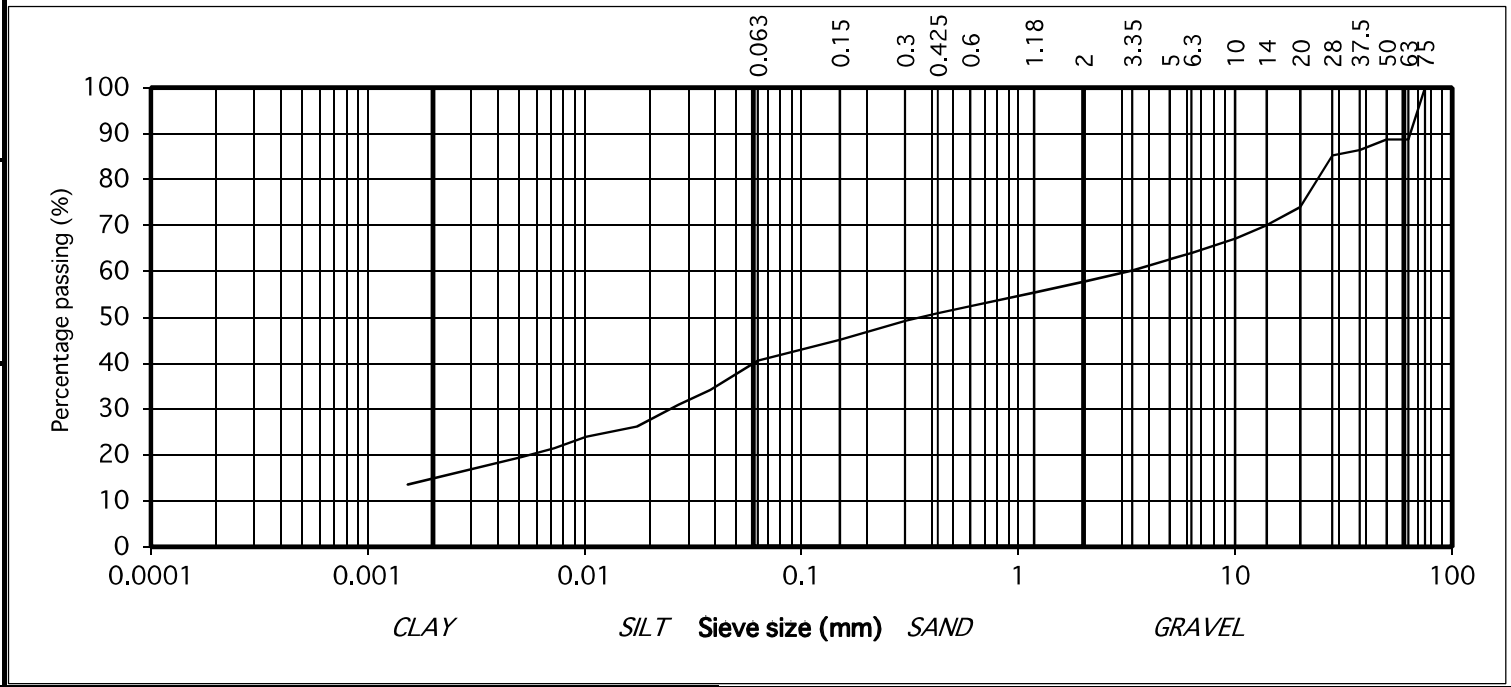
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	89	
50	89	GRAVEL
37.5	86	
28	85	
20	74	
14	70	
10	67	
6.3	64	
5	63	
3.35	60	
2	58	
1.18	55	SAND
0.6	52	
0.425	51	
0.3	49	
0.15	45	
0.063	41	SILT/CLAY
0.038	34	
0.027	31	
0.017	26	
0.010	24	
0.007	21	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R135798	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133229			
Sample No.*	AA174178	Lab. Sample No.		A22/2459
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		25/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	26/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

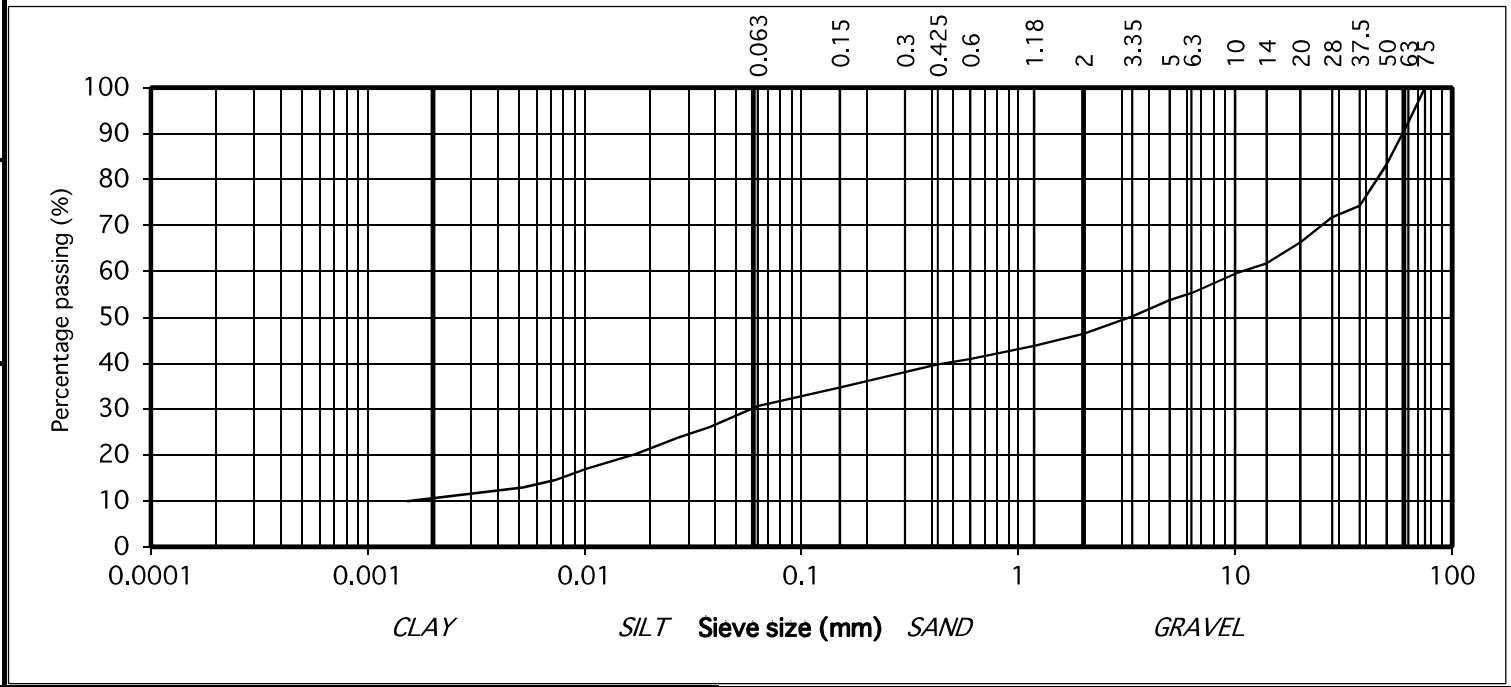
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	93	
50	83	GRAVEL
37.5	74	
28	72	
20	66	
14	62	
10	59	
6.3	55	
5	54	
3.35	50	
2	46	
1.18	44	SAND
0.6	41	
0.425	40	
0.3	38	
0.15	35	
0.063	31	SILT/CLAY
0.038	26	
0.027	24	
0.017	20	
0.010	17	
0.007	15	
0.005	13	
0.002	10	

Contract No.	23560	Report No.	R135794	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133229			
Sample No.*	AA174180	Lab. Sample No.		A22/2460
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		25/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	26/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

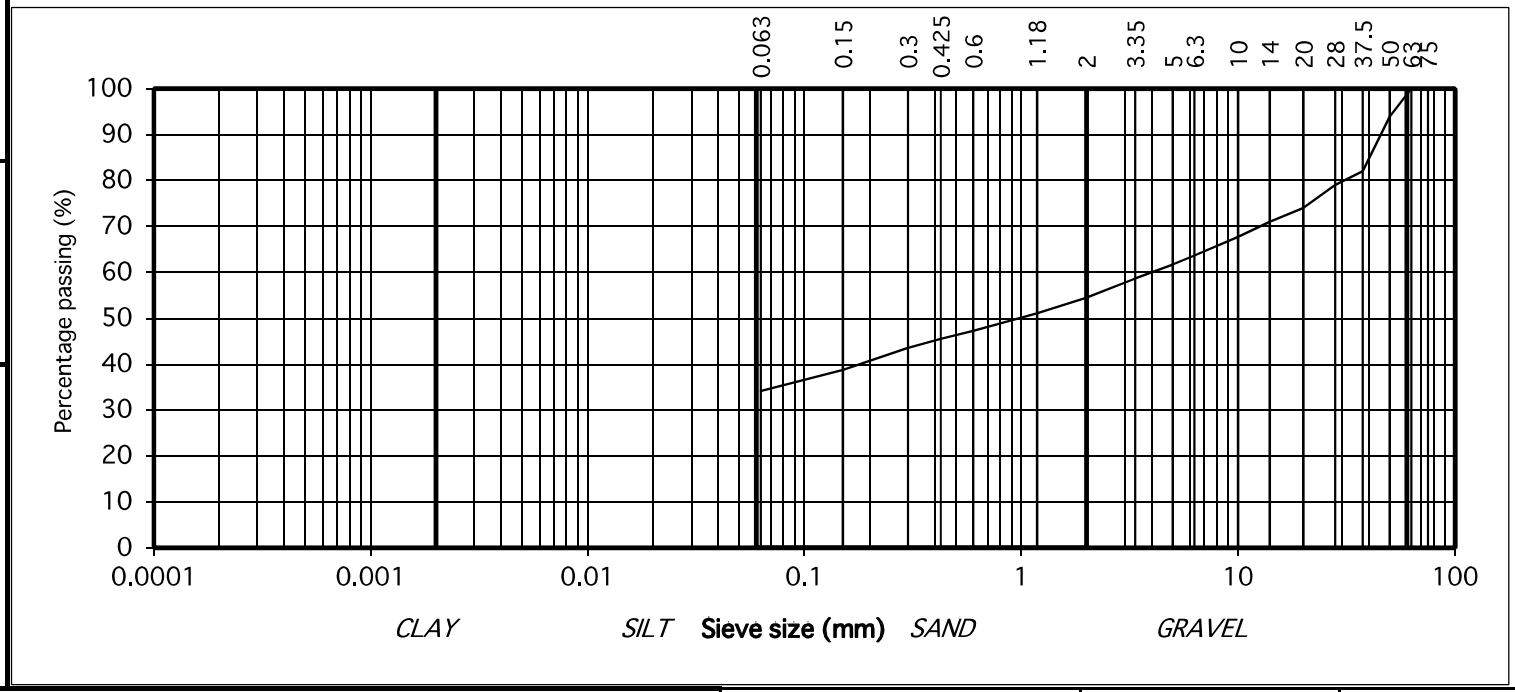
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	82	
28	79	
20	74	
14	71	
10	68	
6.3	64	
5	62	
3.35	59	
2	55	
1.18	51	SAND
0.6	47	
0.425	46	
0.3	44	
0.15	39	
0.063	34	SILT/CLAY

Contract No.	23560	Report No.	R141450	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133311			
Sample No.*	AA179152	Lab. Sample No.		A22/6545
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

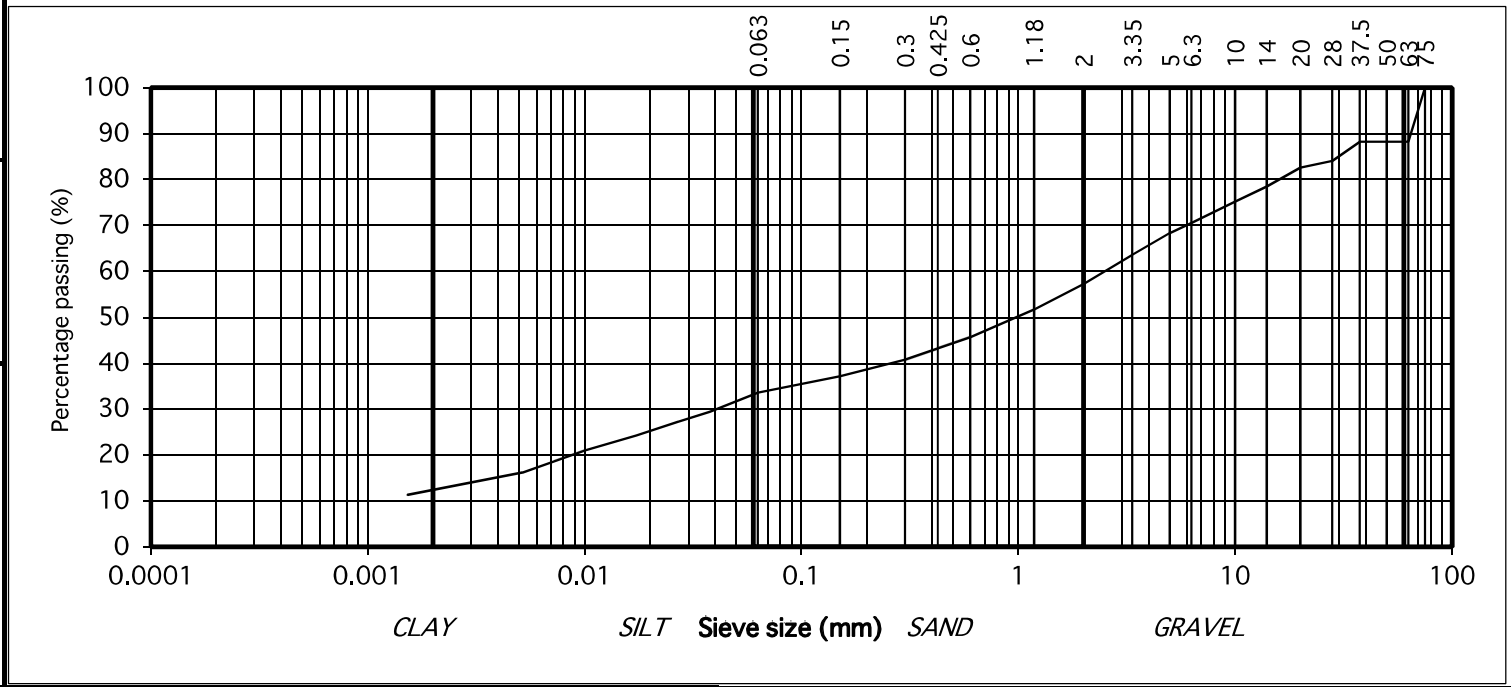
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	88	
50	88	GRAVEL
37.5	88	
28	84	
20	83	
14	79	
10	75	
6.3	71	
5	68	
3.35	64	
2	57	
1.18	52	SAND
0.6	46	
0.425	43	
0.3	41	
0.15	37	
0.063	34	SILT/CLAY
0.038	29	
0.027	27	
0.017	24	
0.010	21	
0.007	19	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R135791	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133258			
Sample No.*	AA174186	Lab. Sample No.		A22/2461
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		25/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	26/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

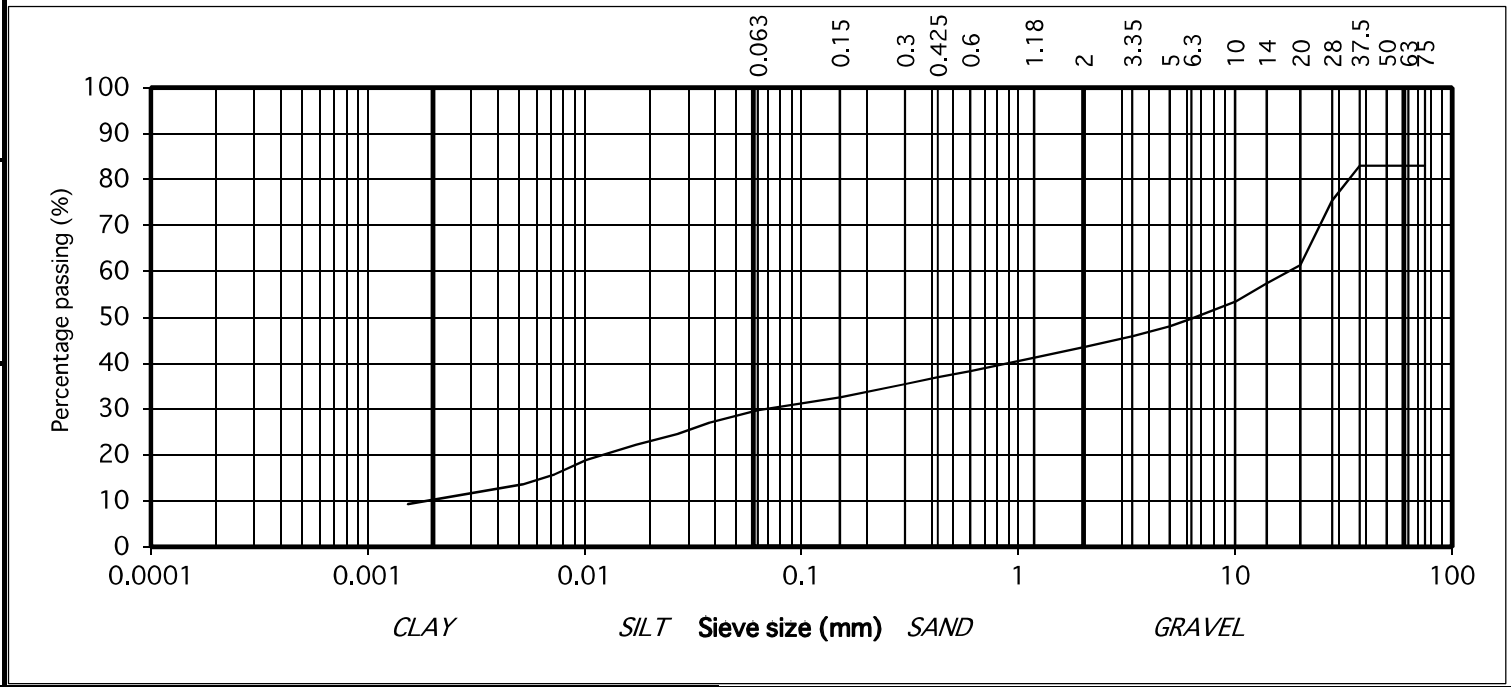
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	83	COBBLES
63	83	
50	83	GRAVEL
37.5	83	
28	76	
20	61	
14	57	
10	53	
6.3	50	
5	48	
3.35	46	
2	44	
1.18	41	SAND
0.6	38	
0.425	37	
0.3	35	
0.15	33	
0.063	30	SILT/CLAY
0.038	27	
0.027	25	
0.017	22	
0.010	19	
0.007	16	
0.005	14	
0.002	9	

Contract No.	23560	Report No.	R135789	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133258			
Sample No.*	AA174289	Lab. Sample No.		A22/2462
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		25/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	26/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

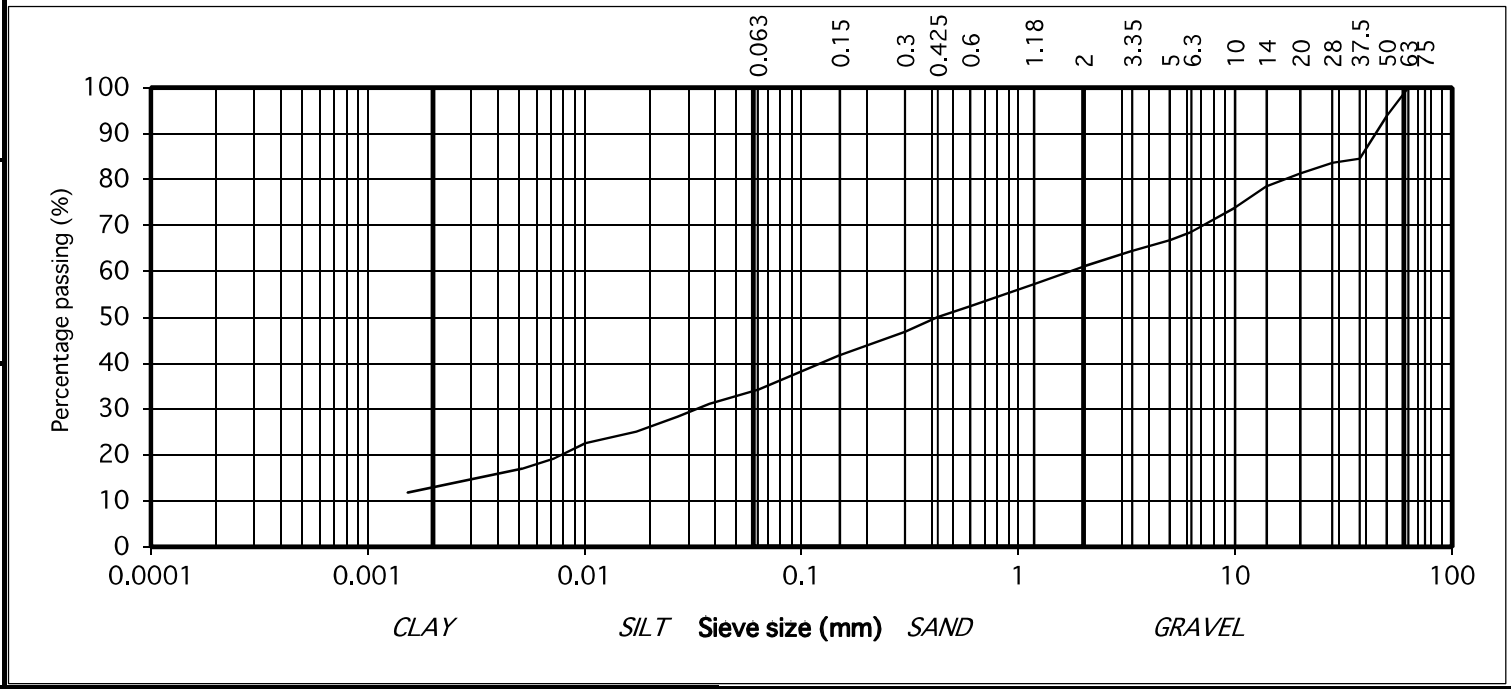
particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	85	
28	84	
20	81	
14	79	
10	74	
6.3	69	
5	67	
3.35	65	
2	61	
1.18	57	SAND
0.6	52	
0.425	50	
0.3	47	
0.15	42	
0.063	34	SILT/CLAY
0.038	31	
0.027	28	
0.017	25	
0.010	23	
0.007	19	
0.005	17	
0.002	12	

Contract No.	23560	Report No.	R141451	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133311			
Sample No.*	AA179153	Lab. Sample No.		A22/6547
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

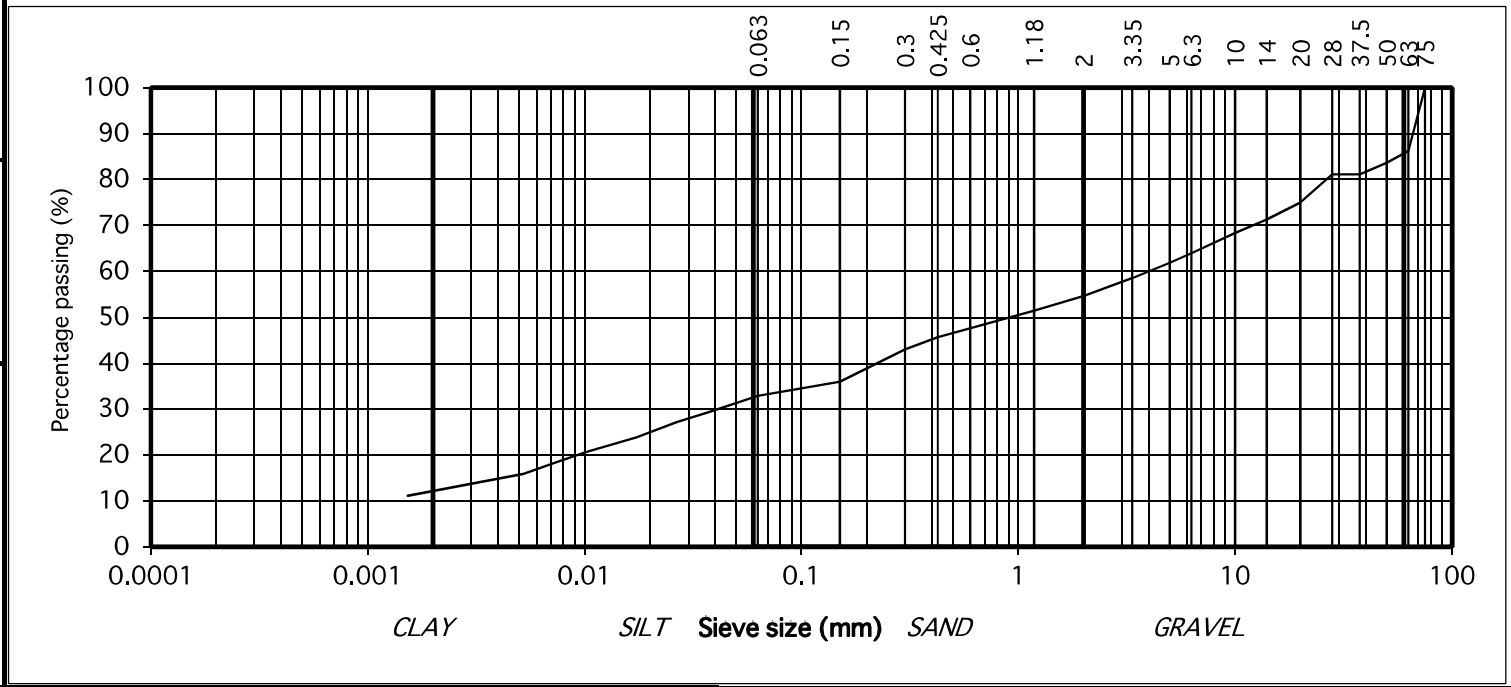
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	86	
50	84	GRAVEL
37.5	81	
28	81	
20	75	
14	71	
10	68	
6.3	64	
5	62	
3.35	59	
2	55	
1.18	51	SAND
0.6	48	
0.425	46	
0.3	43	
0.15	36	
0.063	33	SILT/CLAY
0.038	29	
0.027	27	
0.017	24	
0.010	21	
0.007	18	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R135790	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133311			
Sample No.*	AA179154	Lab. Sample No.		A22/2402
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		25/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	26/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

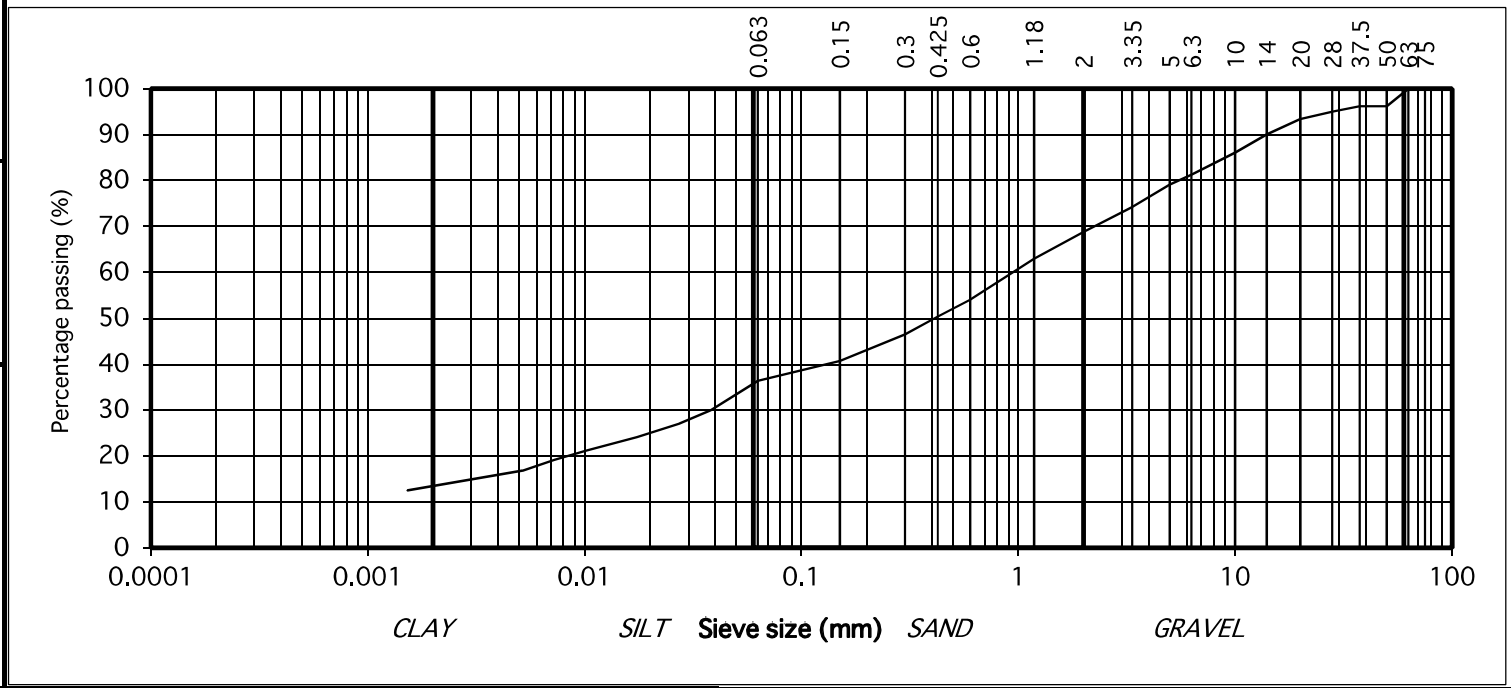
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	96	
28	95	
20	93	
14	90	
10	86	
6.3	81	
5	79	
3.35	74	
2	69	
1.18	63	SAND
0.6	54	
0.425	50	
0.3	47	
0.15	41	
0.063	36	SILT/CLAY
0.038	30	
0.027	27	
0.017	24	
0.010	21	
0.007	19	
0.005	17	
0.002	13	

Contract No.	23560	Report No.	R135787	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH133311			
Sample No.*	AA179157	Lab. Sample No.		A22/2403
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		25/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	26/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

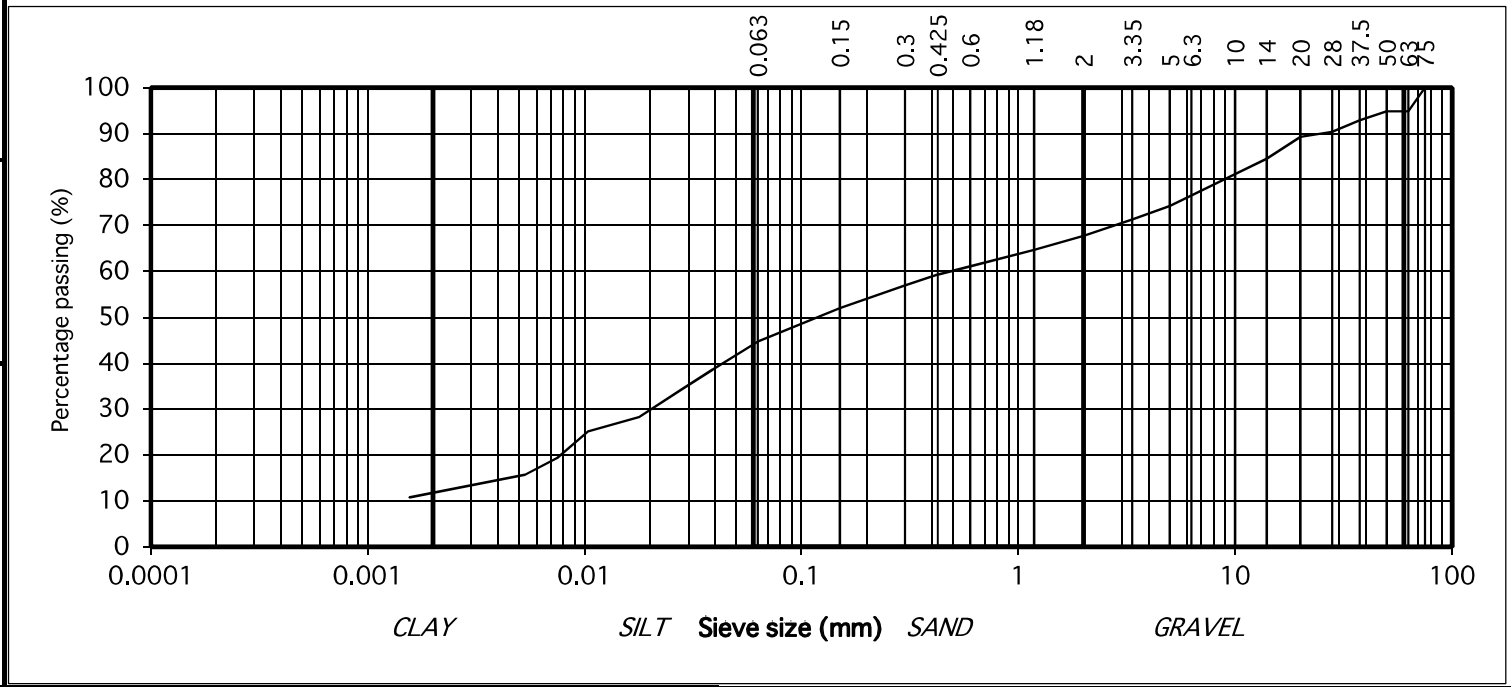
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	95	
50	95	GRAVEL
37.5	93	
28	90	
20	89	
14	85	
10	81	
6.3	77	
5	74	
3.35	71	
2	68	
1.18	65	SAND
0.6	61	
0.425	59	
0.3	57	
0.15	52	
0.063	45	SILT/CLAY
0.039	39	
0.028	34	
0.018	28	
0.010	25	
0.007	19	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R135250	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH134500			
Sample No.*	AA174170	Lab. Sample No.		A22/2452
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

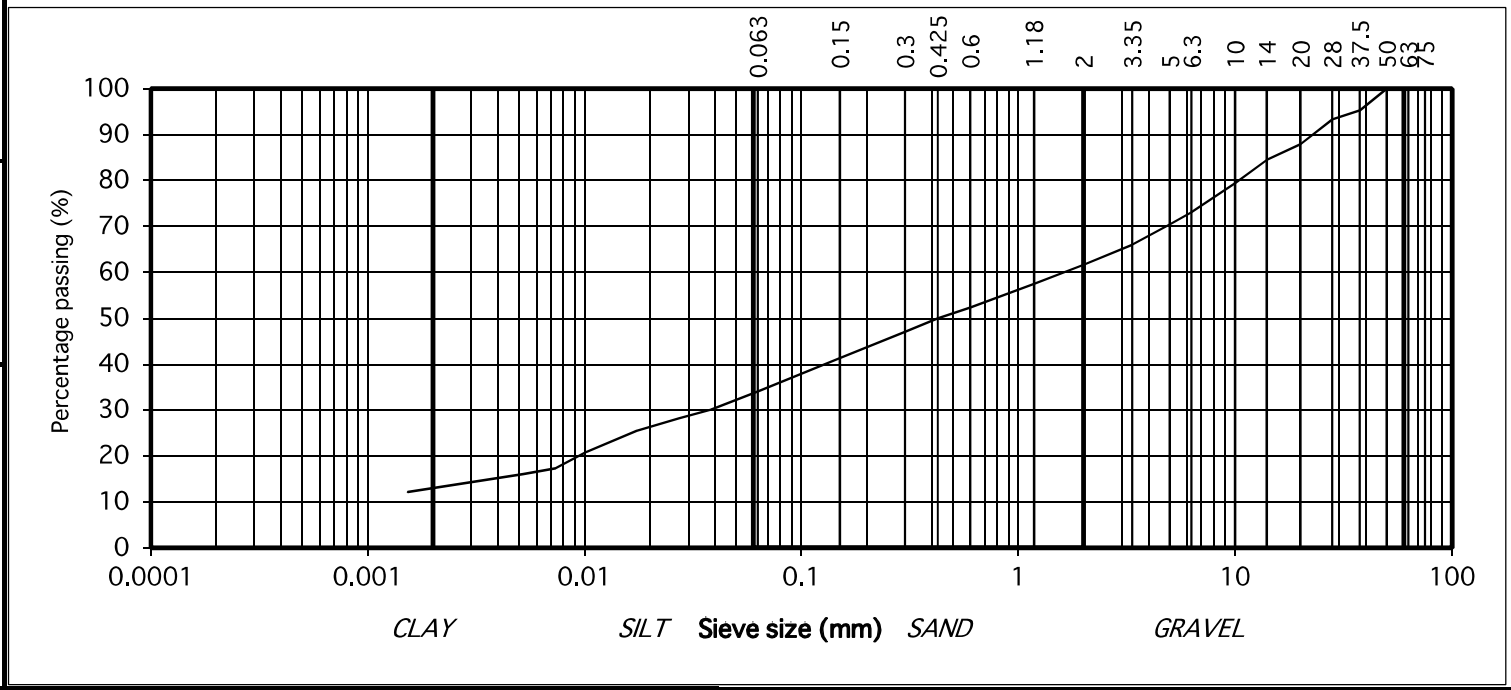
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	93	
20	88	
14	85	
10	79	
6.3	73	
5	70	
3.35	66	
2	62	
1.18	58	SAND
0.6	52	
0.425	50	
0.3	47	
0.15	41	
0.063	34	SILT/CLAY
0.038	30	
0.027	28	
0.017	26	
0.010	21	
0.007	17	
0.005	16	
0.002	12	

Contract No.	23560	Report No.	R135260	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH134500			
Sample No.*	AA174172	Lab. Sample No.		A22/2453
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

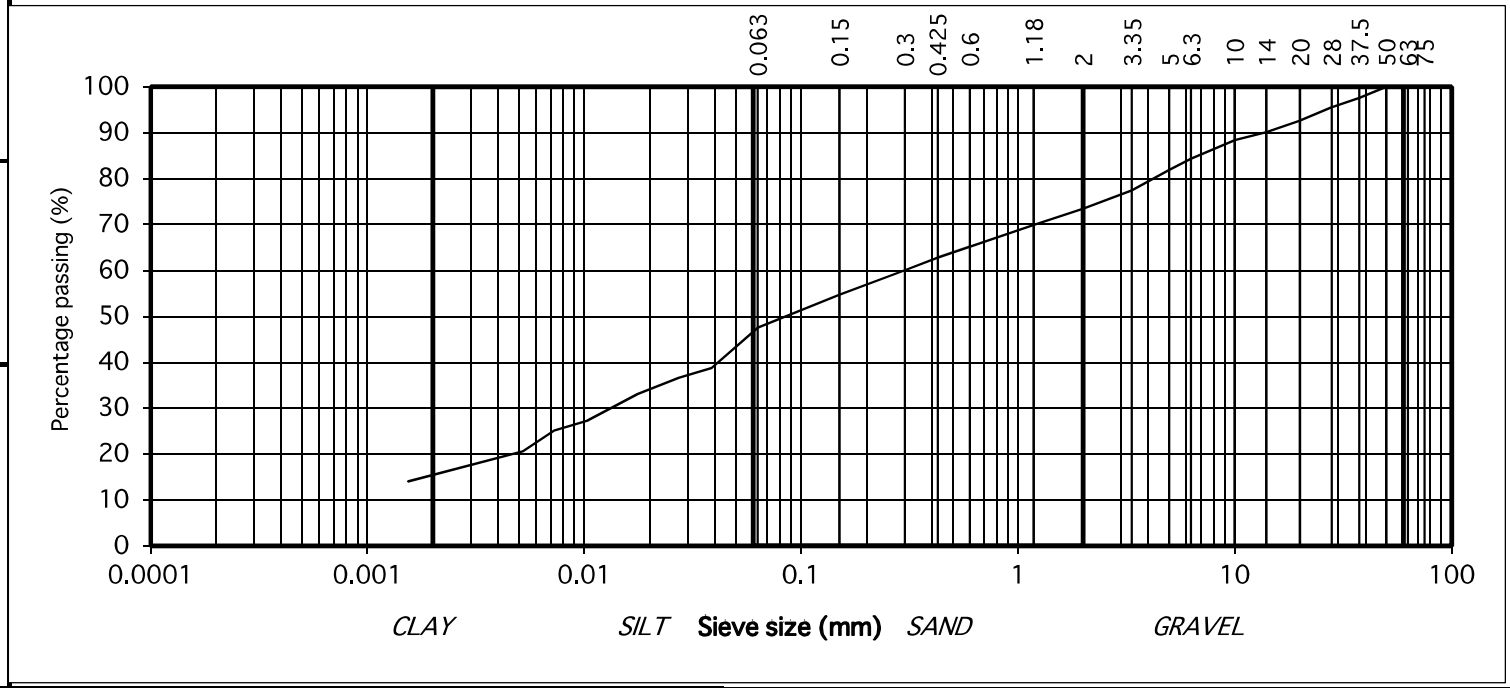
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	96	
20	93	
14	90	
10	88	
6.3	84	
5	82	
3.35	77	
2	74	
1.18	70	SAND
0.6	65	
0.425	63	
0.3	60	
0.15	55	
0.063	48	SILT/CLAY
0.038	39	
0.027	37	
0.018	33	
0.010	27	
0.007	25	
0.005	21	
0.002	14	

Contract No.	23560	Report No.	R136482	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH134610			
Sample No.*	AA174166	Lab. Sample No.		A22/2465
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

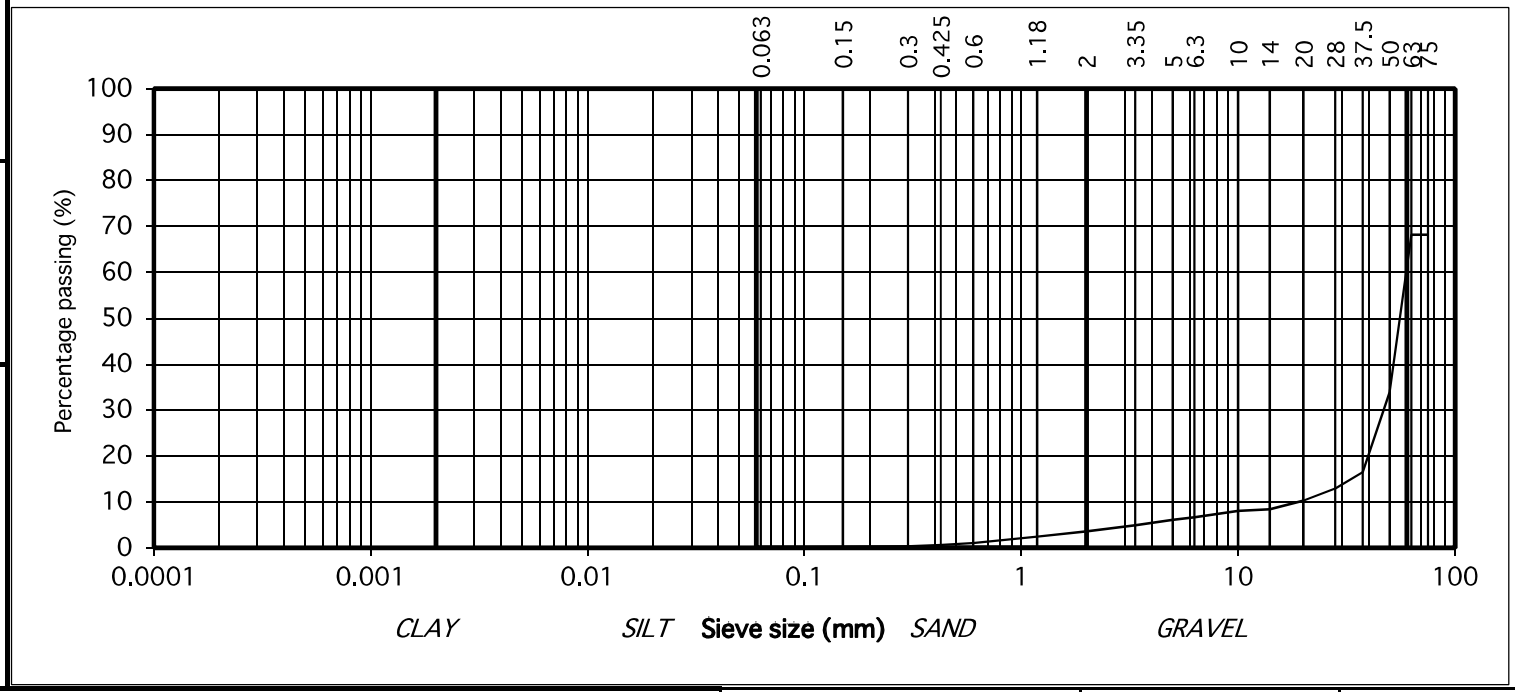
particle size	% passing	
75	68	COBBLES
63	68	
50	34	GRAVEL
37.5	17	
28	13	
20	10	
14	8	
10	8	
6.3	7	
5	6	
3.35	5	
2	4	
1.18	2	SAND
0.6	1	
0.425	1	
0.3	0	
0.15	0	
0.063	0	SILT/CLAY

Contract No.	23560	Report No.	R137016	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135006			
Sample No.*	AA174159	Lab. Sample No.		A22/2445
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

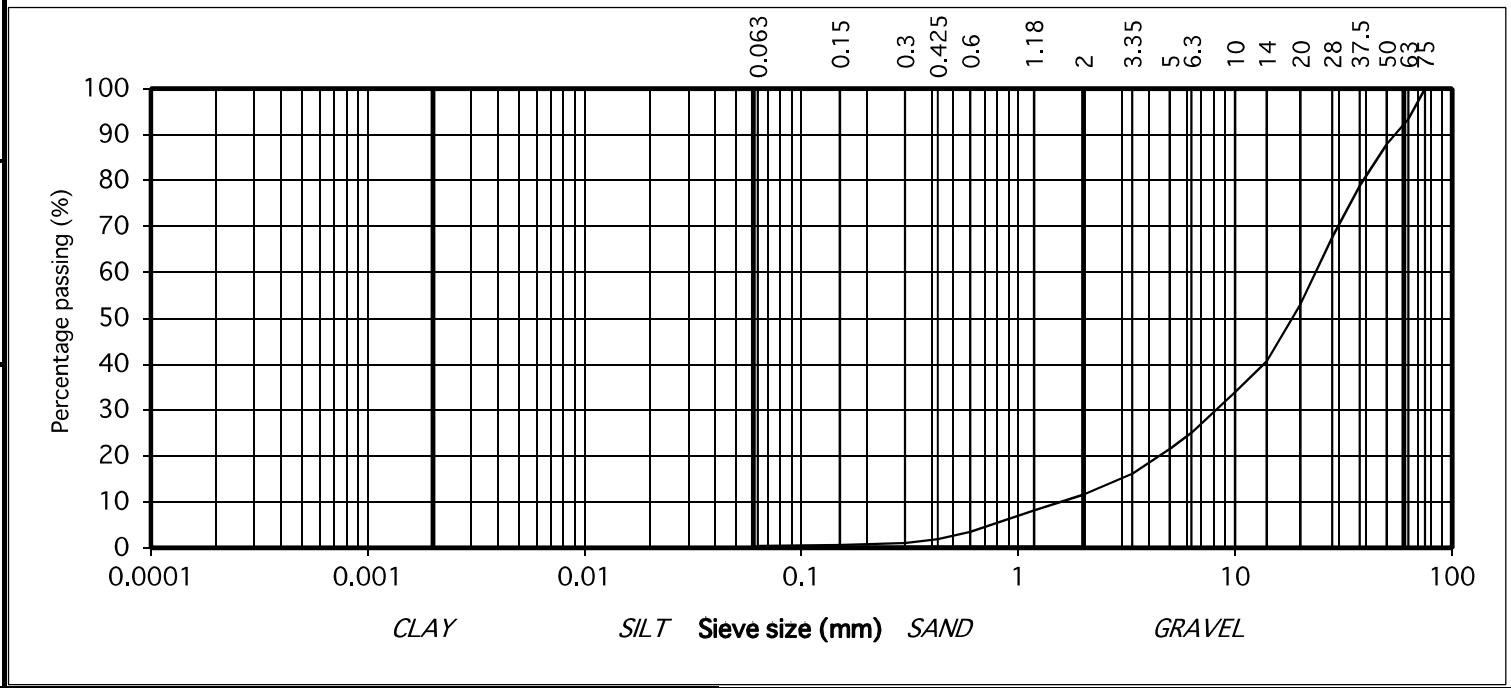
particle size	% passing	
75	100	COBBLES
63	93	
50	88	GRAVEL
37.5	79	
28	68	
20	53	
14	41	
10	34	
6.3	25	
5	22	
3.35	16	
2	12	
1.18	8	SAND
0.6	4	
0.425	2	
0.3	1	
0.15	1	
0.063	0	SILT/CLAY

Contract No.	23560	Report No.	R141486	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135163			
Sample No.*	AA174109	Lab. Sample No.		A22/6641
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	29/11/2022	Date Testing started		29/11/2022
Description:	Grey sandy, GRAVEL with some cobbles			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

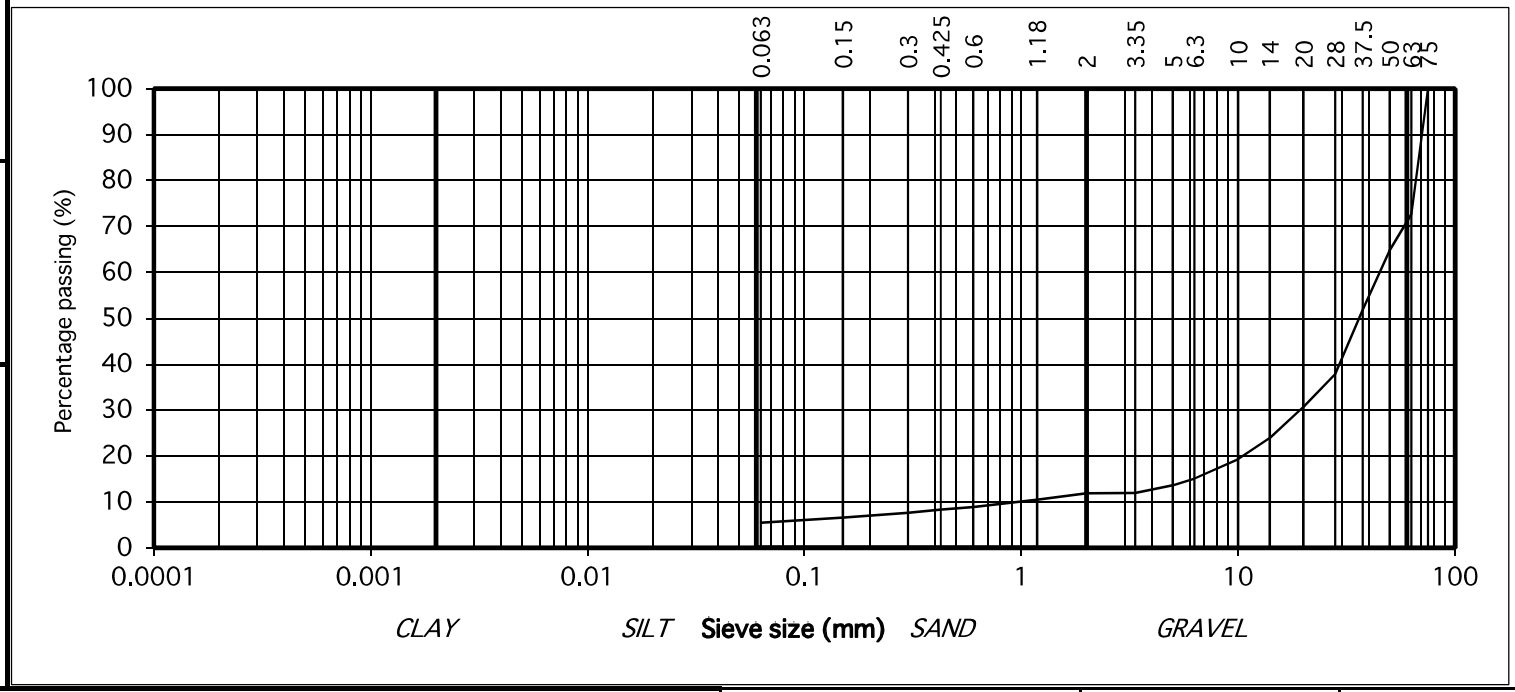
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	73	
50	65	GRAVEL
37.5	52	
28	38	
20	31	
14	24	
10	19	
6.3	15	
5	14	
3.35	12	
2	12	
1.18	11	SAND
0.6	9	
0.425	8	
0.3	8	
0.15	7	
0.063	6	SILT/CLAY

Contract No.	23560	Report No.	R141487	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135163			
Sample No.*	AA174114	Lab. Sample No.		A22/6642
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	29/11/2022	Date Testing started		29/11/2022
Description:	Grey clayey/silty, sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

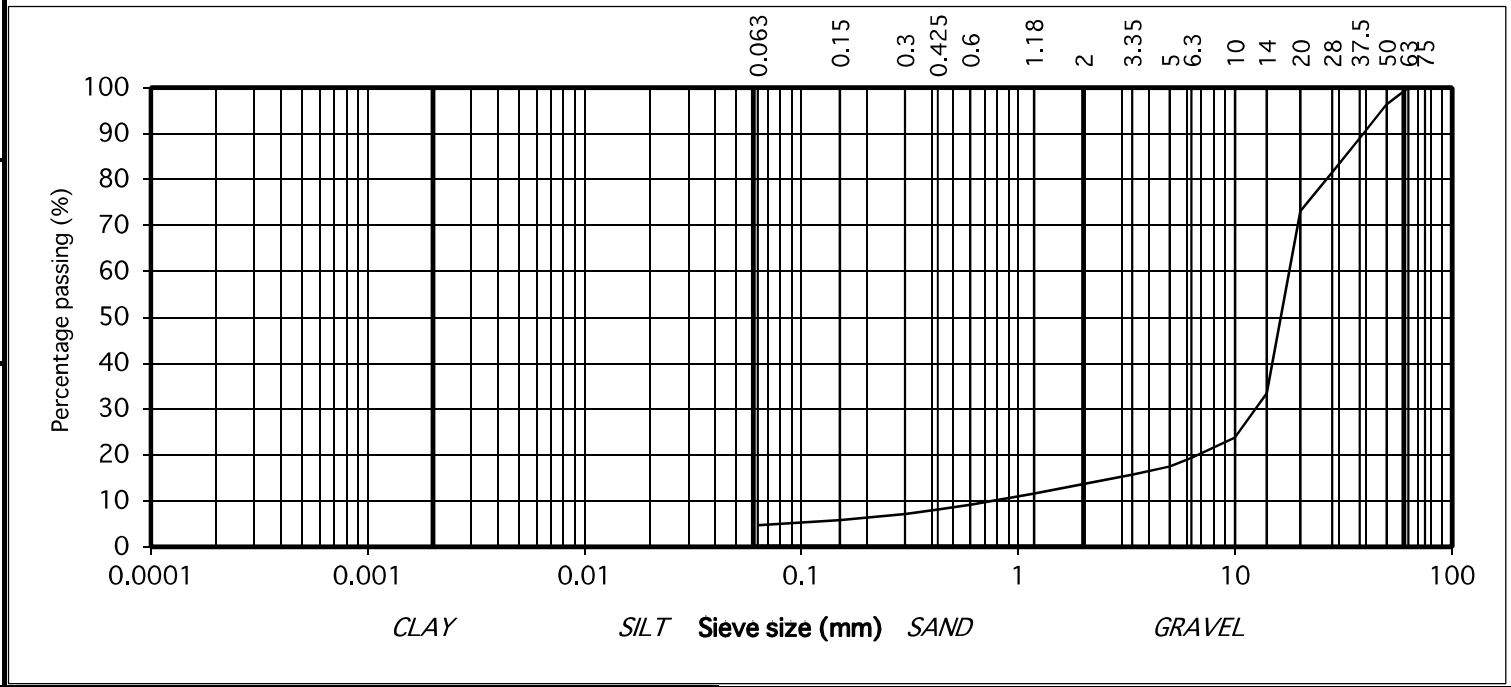
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	89	
28	82	
20	73	
14	33	
10	24	
6.3	19	
5	18	
3.35	16	
2	14	
1.18	12	SAND
0.6	9	
0.425	8	
0.3	7	
0.15	6	
0.063	5	SILT/CLAY

Contract No.	23560	Report No.	R143929	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135207			
Sample No.*	AA174113	Lab. Sample No.		A22/2467
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly clayey/silty, sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

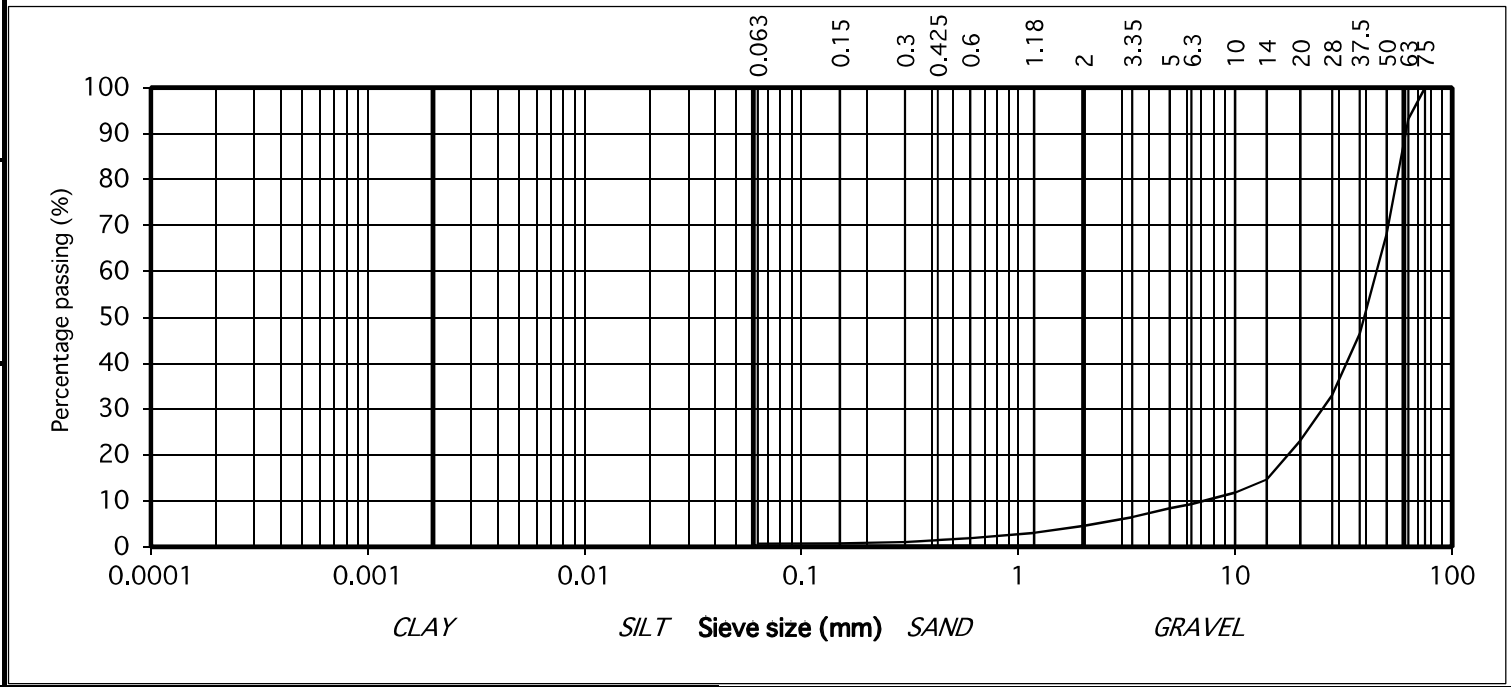
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	93	
50	68	GRAVEL
37.5	46	
28	33	
20	23	
14	15	
10	12	
6.3	9	
5	8	
3.35	7	
2	5	
1.18	3	SAND
0.6	2	
0.425	1	
0.3	1	
0.15	1	
0.063	1	SILT/CLAY

Contract No.	23560	Report No.	R135253	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135207			
Sample No.*	AA174111	Lab. Sample No.		A22/2466
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	01/06/2022	Date Testing started		01/06/2022
Description:	Brown slightly clayey/silty, slightly sandy, GRAVEL with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

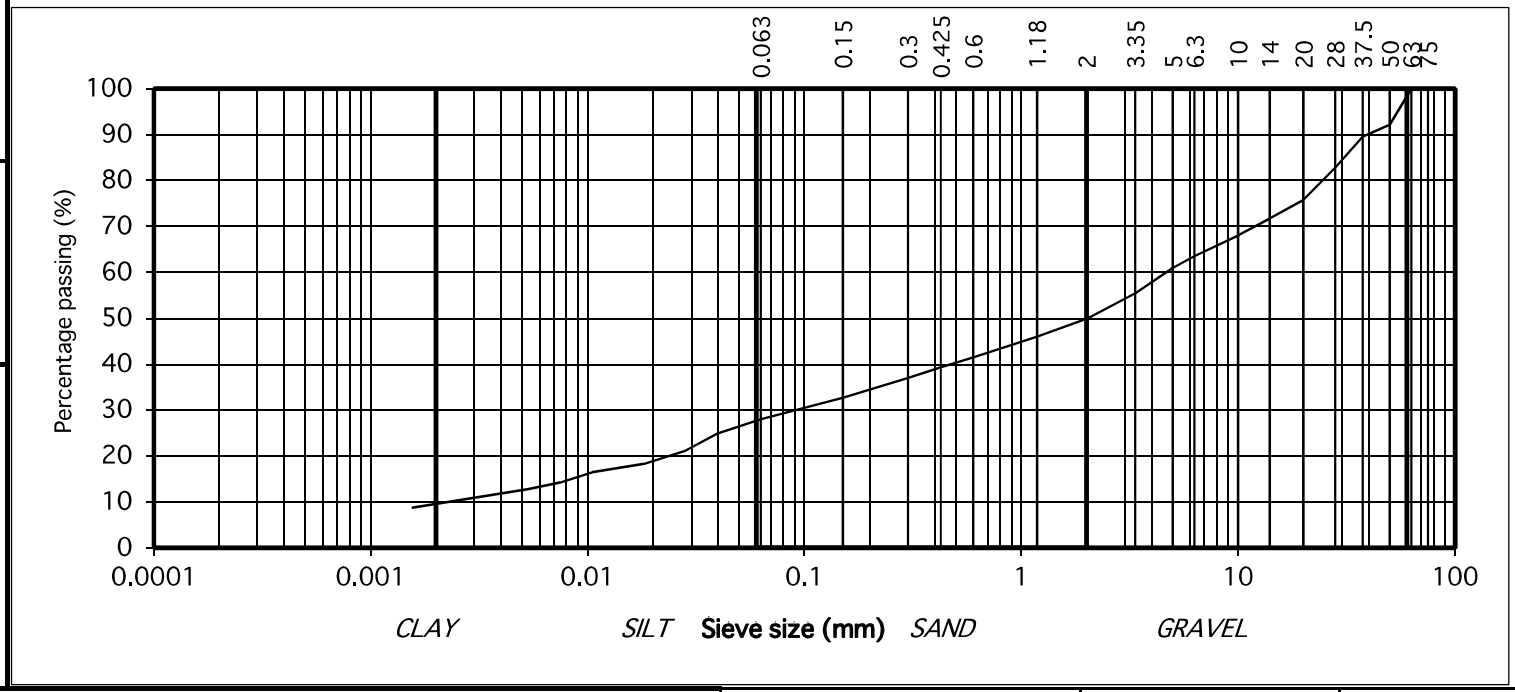
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	92	GRAVEL
37.5	90	
28	83	
20	76	
14	72	
10	68	
6.3	64	
5	61	
3.35	55	
2	50	
1.18	46	SAND
0.6	41	
0.425	39	
0.3	37	
0.15	33	
0.063	28	SILT/CLAY
0.040	25	
0.028	21	
0.018	18	
0.011	16	
0.007	14	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R143923	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135404A			
Sample No.*	AA152915	Lab. Sample No.		A22/2470
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

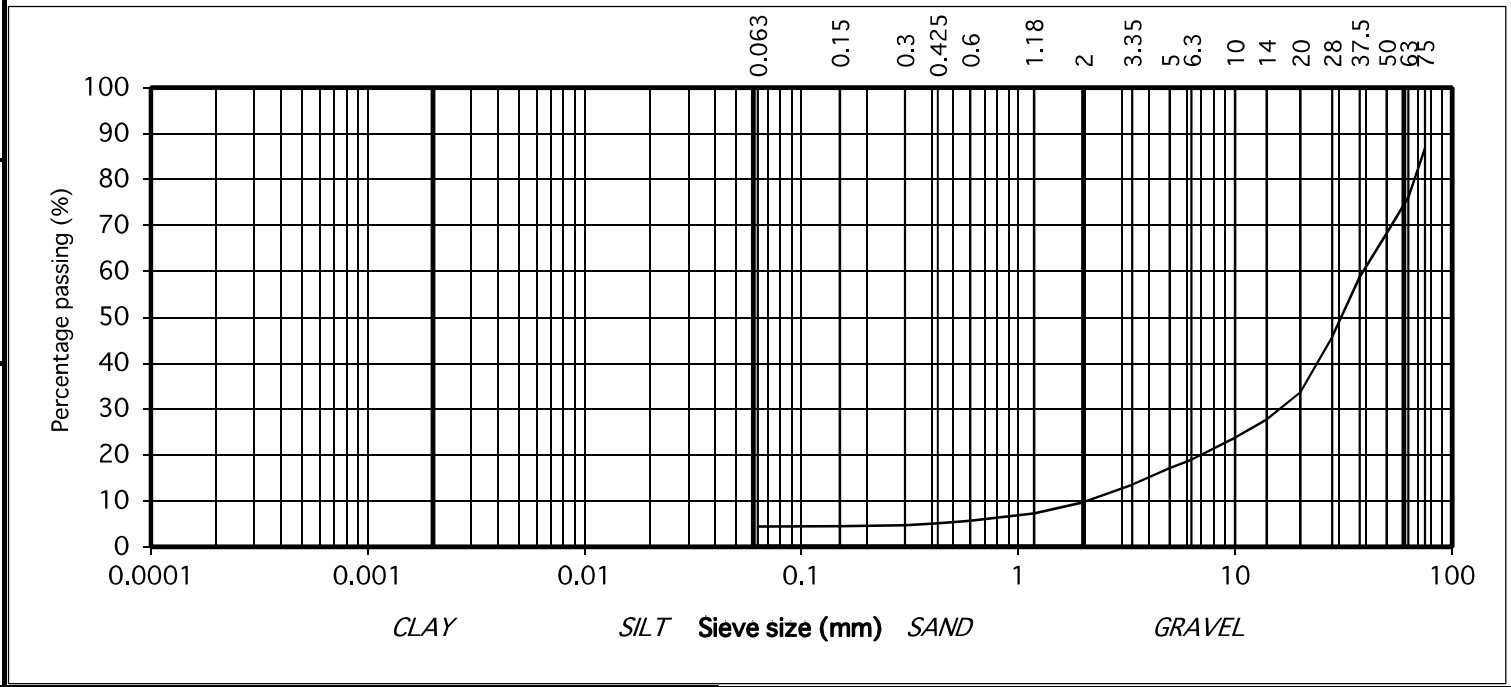
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	87	COBBLES
63	76	
50	68	GRAVEL
37.5	59	
28	46	
20	34	
14	28	
10	24	
6.3	19	
5	17	
3.35	14	
2	10	
1.18	7	SAND
0.6	6	
0.425	5	
0.3	5	
0.15	5	
0.063	4	SILT/CLAY

Contract No.	23560	Report No.	R137401	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135283A			
Sample No.*	AA174154	Lab. Sample No.		A22/2468
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	18/07/2022	Date Testing started		18/07/2022
Description:	Grey slightly clayey/silty, sandy, GRAVEL with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	08/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

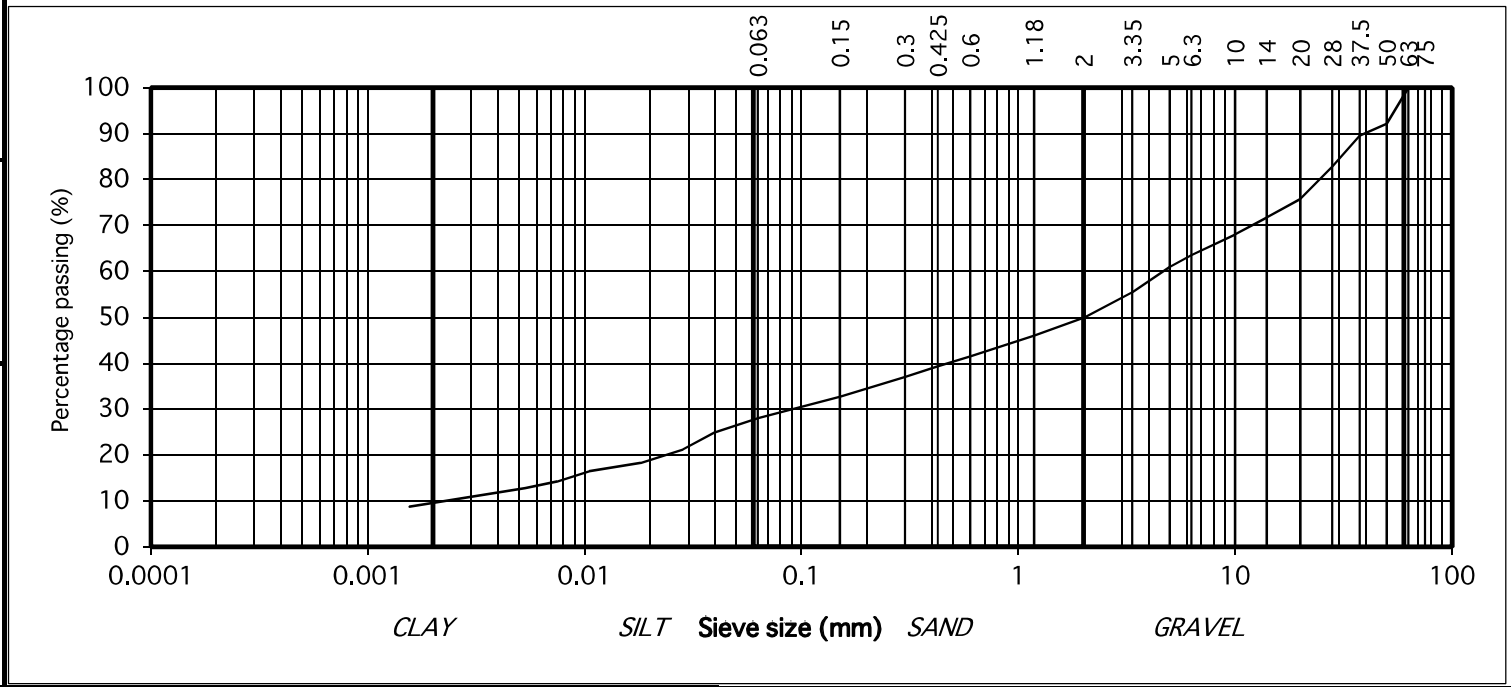
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	92	GRAVEL
37.5	90	
28	83	
20	76	
14	72	
10	68	
6.3	64	
5	61	
3.35	55	
2	50	
1.18	46	SAND
0.6	41	
0.425	39	
0.3	37	
0.15	33	
0.063	28	SILT/CLAY
0.040	25	
0.028	21	
0.018	18	
0.011	16	
0.007	14	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R143921	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135404			
Sample No.*	AA152915	Lab. Sample No.		A22/2469
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

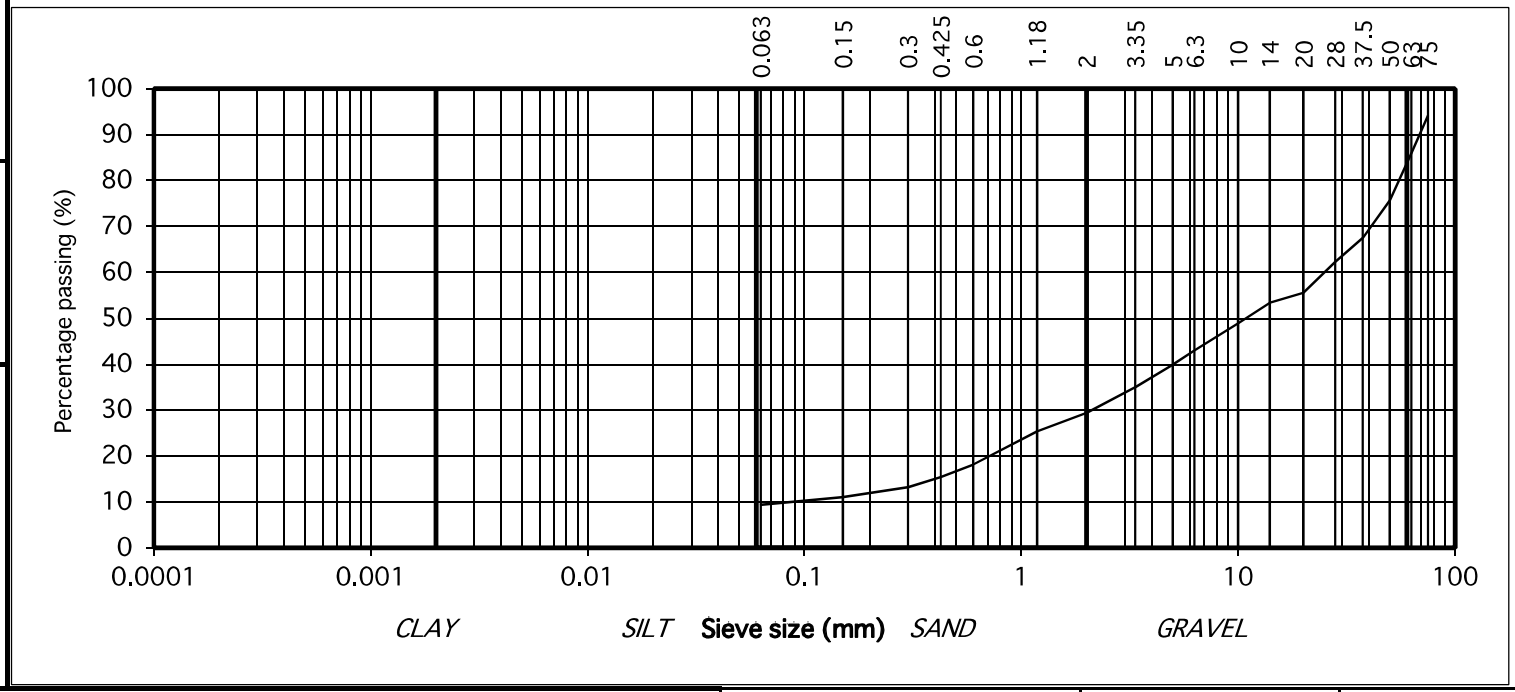
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	94	COBBLES
63	86	
50	76	GRAVEL
37.5	68	
28	62	
20	56	
14	53	
10	49	
6.3	43	
5	40	
3.35	35	
2	29	
1.18	25	SAND
0.6	18	
0.425	15	
0.3	13	
0.15	11	
0.063	9	SILT/CLAY

Contract No.	23560	Report No.	R143924	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135404A			
Sample No.*	AA152917	Lab. Sample No.		A22/2471
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey clayey/silty, sandy, GRAVEL with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

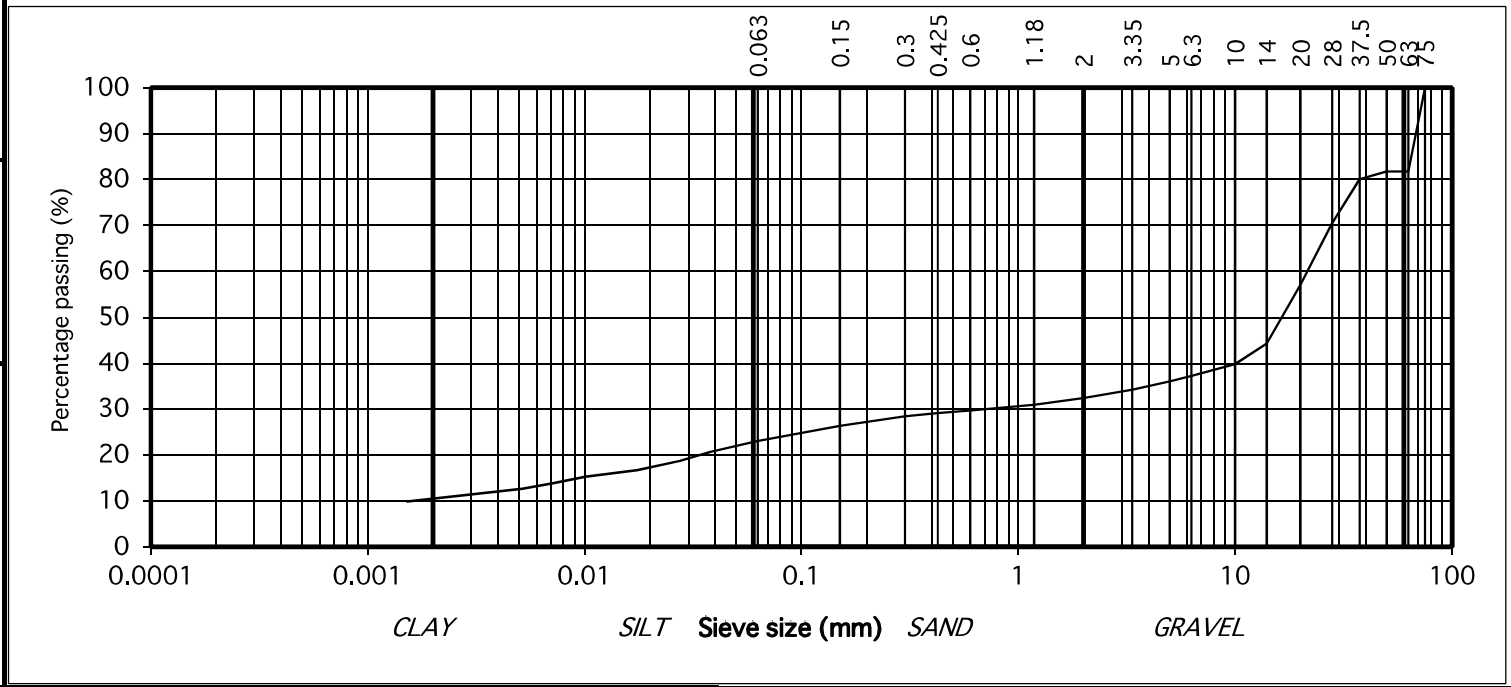
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	82	
50	82	GRAVEL
37.5	80	
28	71	
20	57	
14	44	
10	40	
6.3	37	
5	36	
3.35	34	
2	32	
1.18	31	SAND
0.6	30	
0.425	29	
0.3	28	
0.15	26	
0.063	23	SILT/CLAY
0.038	21	
0.027	19	
0.017	17	
0.010	15	
0.007	14	
0.005	13	
0.002	10	

Contract No.	23560	Report No.	R143922	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135404A			
Sample No.*	AA152918	Lab. Sample No.		A22/2472
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey slightly sandy, very gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

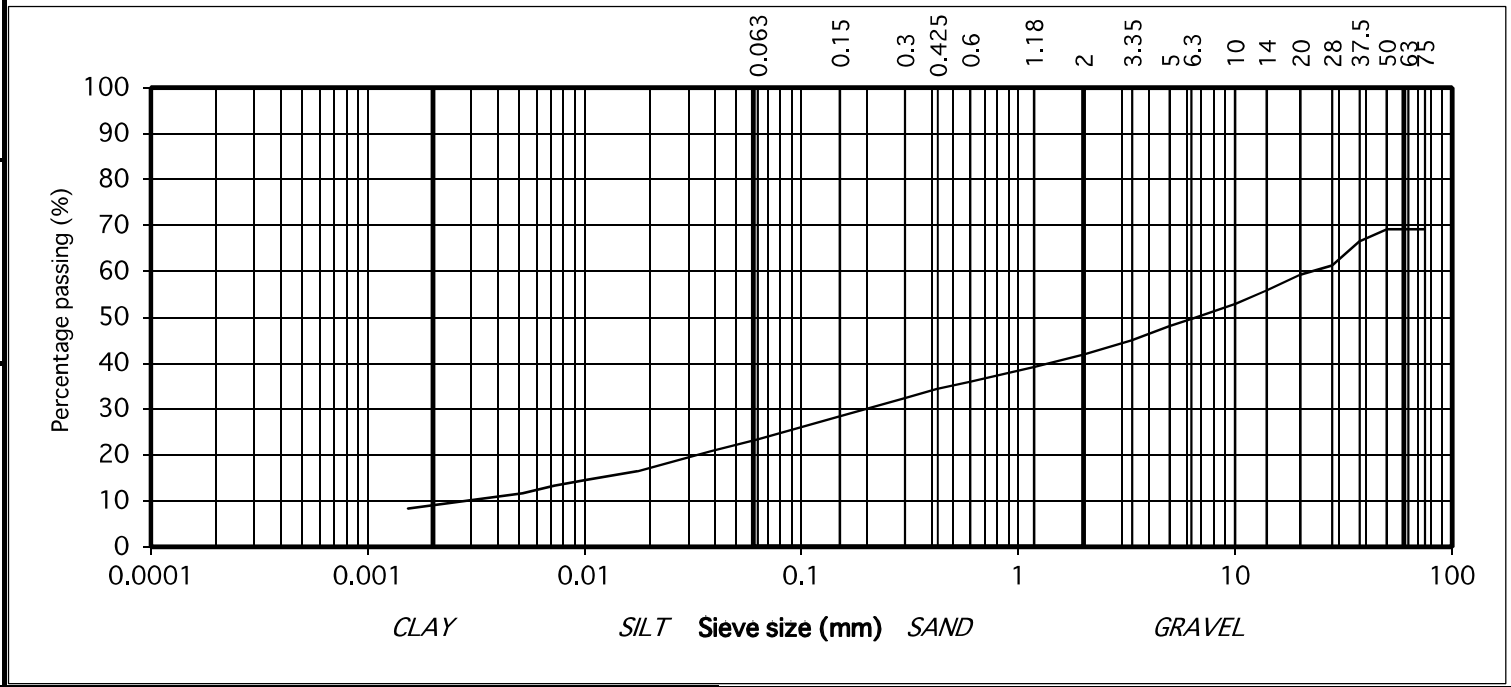
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	69	COBBLES
63	69	
50	69	GRAVEL
37.5	67	
28	61	
20	59	
14	56	
10	53	
6.3	50	
5	48	
3.35	45	
2	42	
1.18	39	SAND
0.6	36	
0.425	34	
0.3	32	
0.15	28	
0.063	23	SILT/CLAY
0.038	21	
0.027	19	
0.018	17	
0.010	15	
0.007	13	
0.005	12	
0.002	8	

Contract No.	23560	Report No.	R137018	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135516			
Sample No.*	AA174103	Lab. Sample No.		A22/2474
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

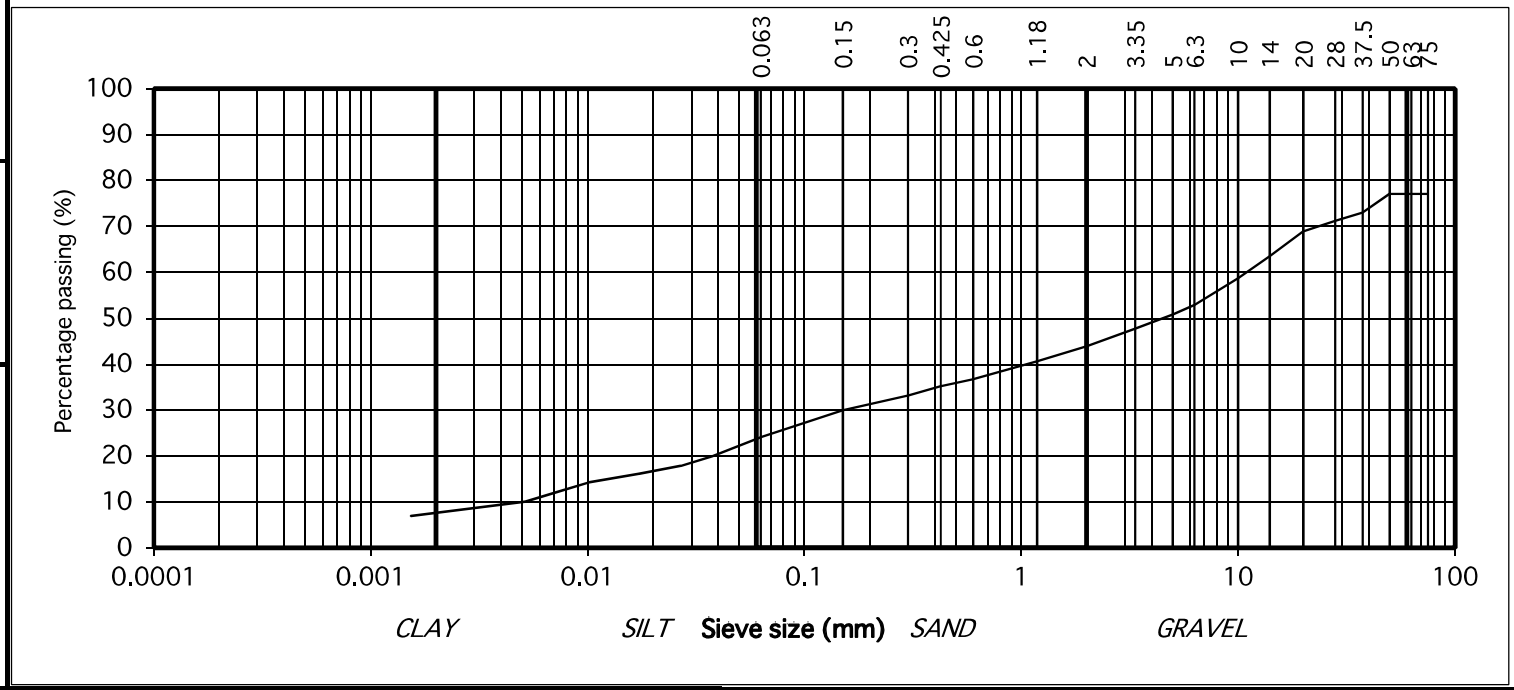
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	77	COBBLES
63	77	
50	77	GRAVEL
37.5	73	
28	71	
20	69	
14	64	
10	59	
6.3	53	
5	51	
3.35	48	
2	44	
1.18	41	SAND
0.6	37	
0.425	35	
0.3	33	
0.15	30	
0.063	24	SILT/CLAY
0.037	20	
0.027	18	
0.017	16	
0.010	14	
0.007	12	
0.005	10	
0.002	7	

Contract No. 23560 Report No. R141697
Contract Name: WSP - Lot 3
BH/TP* : BH135695
Sample No.* 162927 Lab. Sample No. A22/6552
Sample Type: B
Depth* (m) 2.50 Customer: Ervia
Date Received 25/11/2022 Date Testing started 25/11/2022
Description: Grey brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

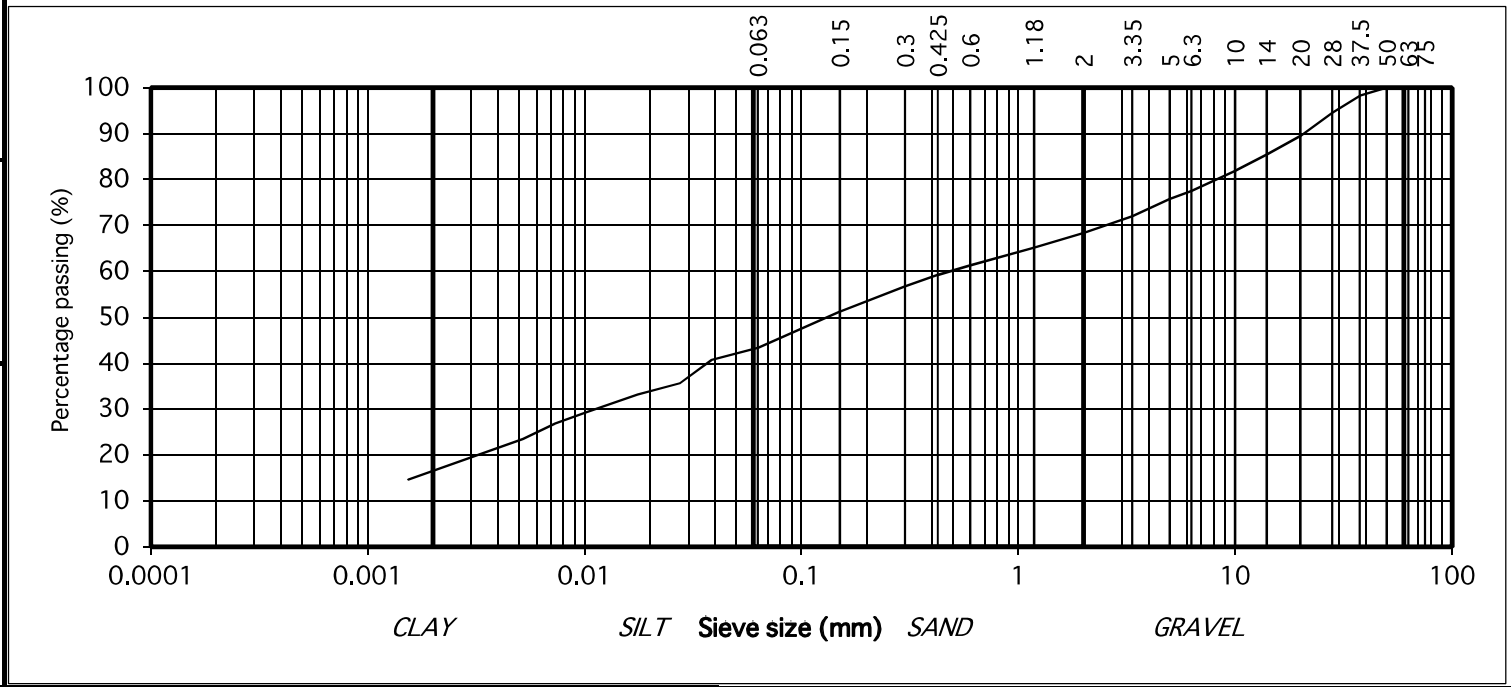
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	95	
20	90	
14	86	
10	82	
6.3	78	
5	76	
3.35	72	
2	68	
1.18	65	SAND
0.6	61	
0.425	59	
0.3	57	
0.15	51	
0.063	43	SILT/CLAY
0.038	41	
0.028	36	
0.018	33	
0.010	29	
0.007	27	
0.005	24	
0.002	15	

Contract No.	23560	Report No.	R139296	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135695			
Sample No.*	AA162926	Lab. Sample No.		A22/4070
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

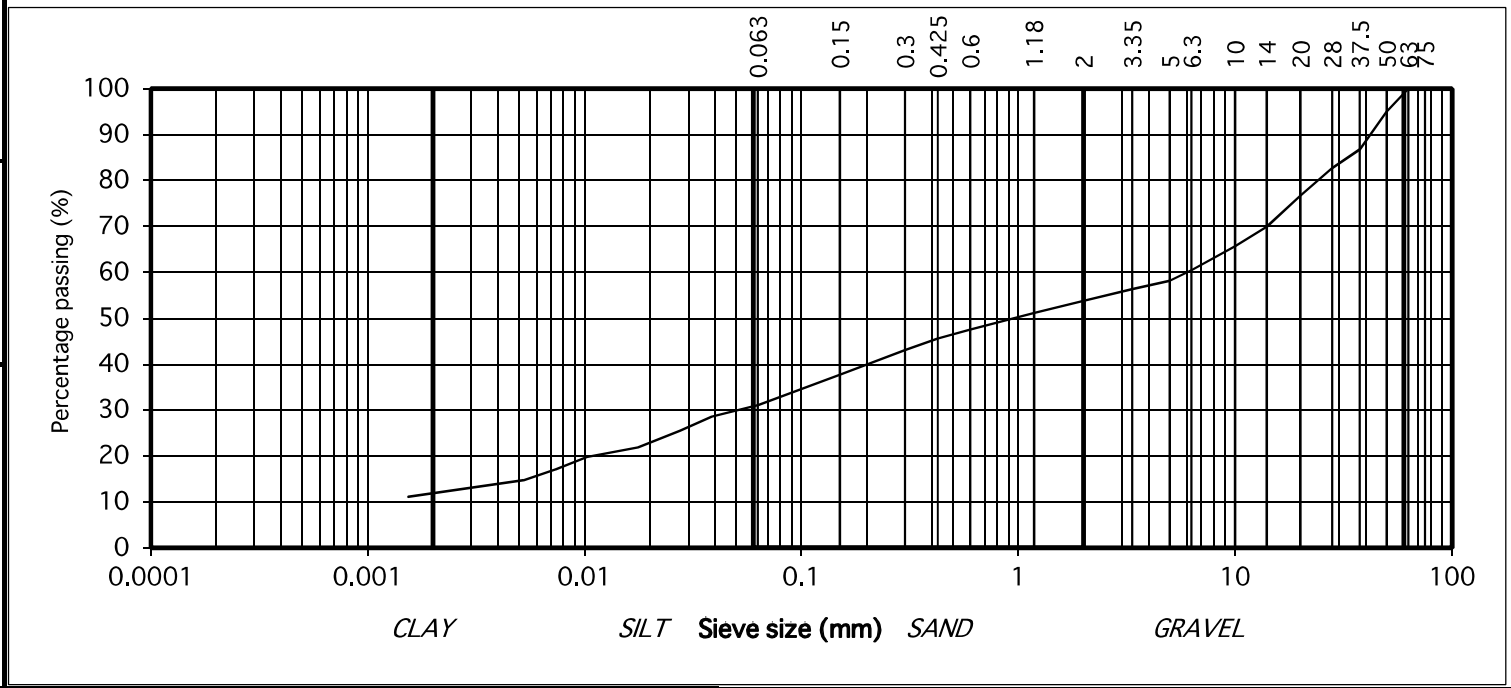
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	87	
28	83	
20	77	
14	70	
10	66	
6.3	61	
5	58	
3.35	56	
2	54	
1.18	51	SAND
0.6	48	
0.425	46	
0.3	43	
0.15	38	
0.063	31	SILT/CLAY
0.038	29	
0.028	26	
0.018	22	
0.010	20	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R139297	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135695			
Sample No.*	AA162932	Lab. Sample No.		A22/4076
Sample Type:	B			
Depth* (m)	8.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

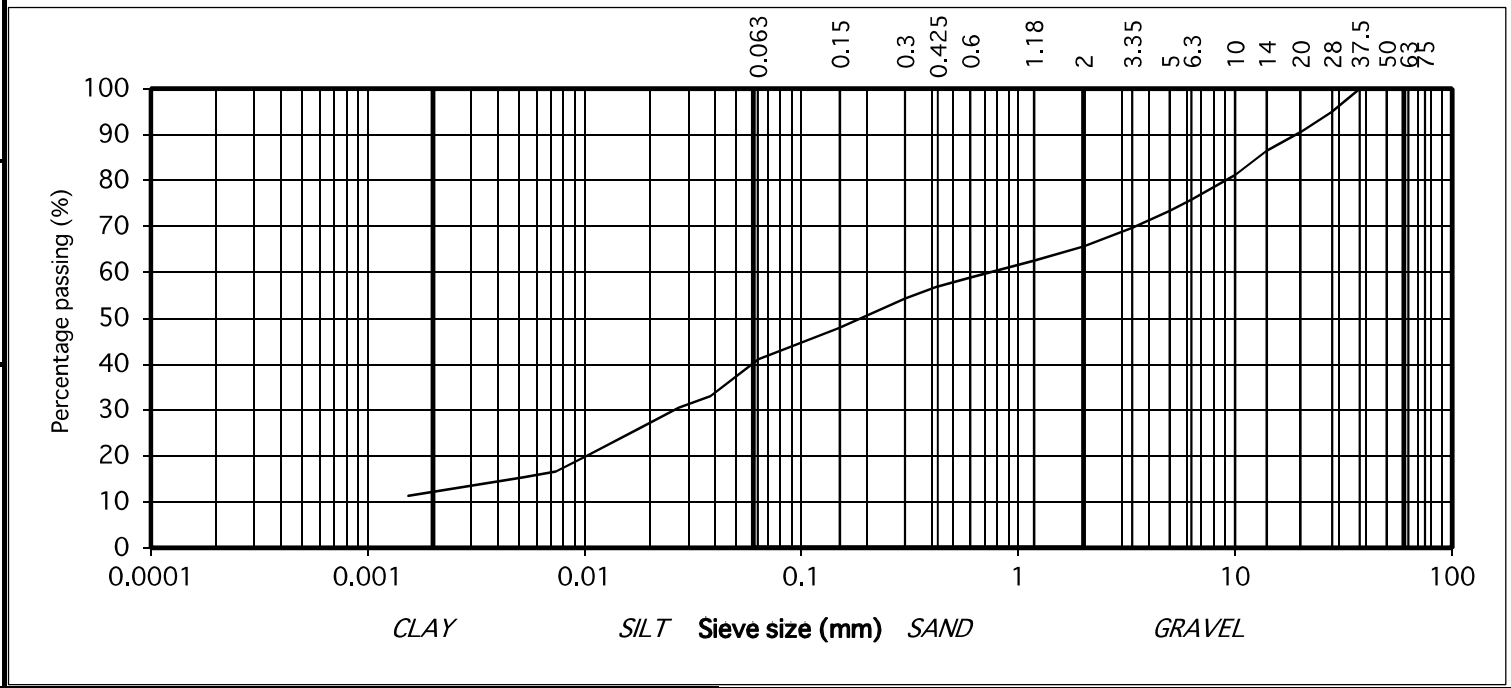
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	95	
20	91	
14	87	
10	81	
6.3	76	
5	73	
3.35	70	
2	66	
1.18	63	SAND
0.6	59	
0.425	57	
0.3	54	
0.15	48	
0.063	41	SILT/CLAY
0.038	33	
0.027	31	
0.017	26	
0.010	20	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R135248	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH135695			
Sample No.*	AA162929	Lab. Sample No.		A22/2435
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

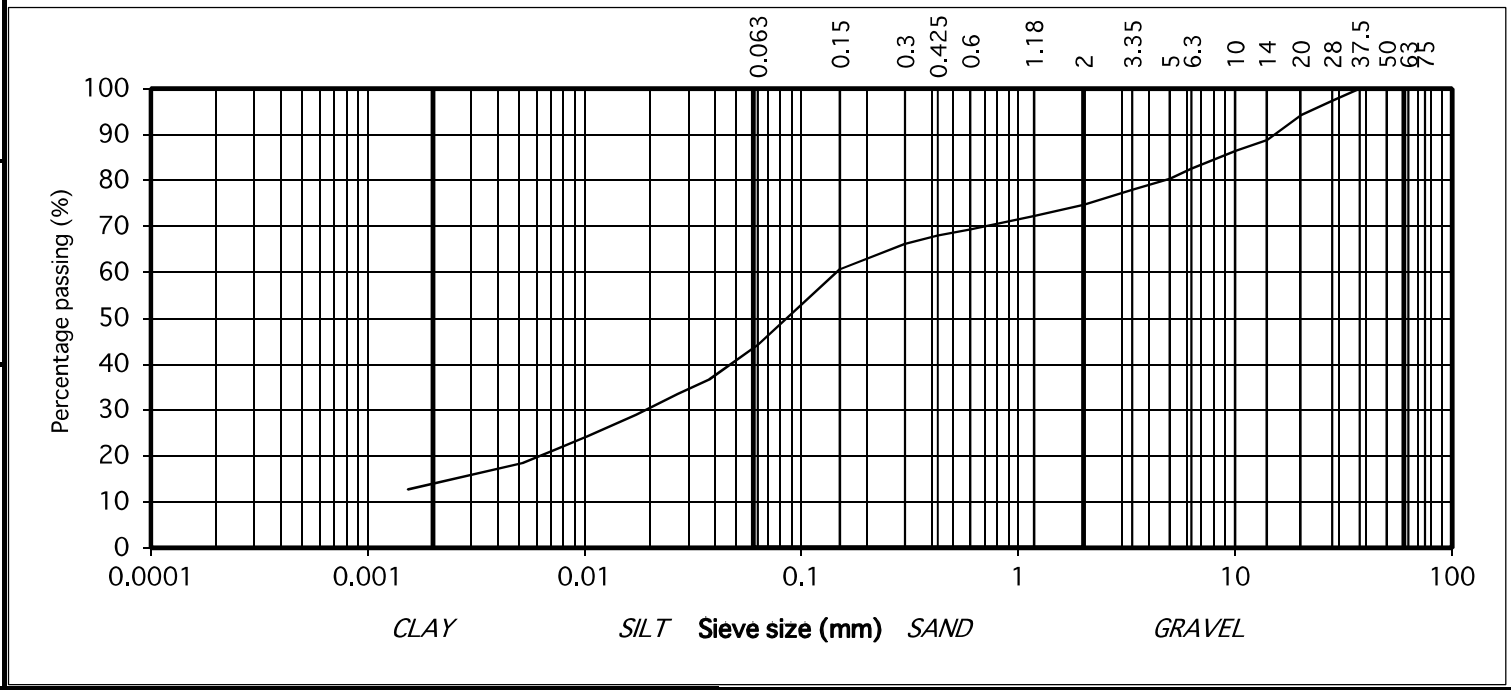
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	94	
14	89	
10	86	
6.3	83	
5	80	
3.35	78	
2	75	
1.18	72	SAND
0.6	69	
0.425	68	
0.3	66	
0.15	61	
0.063	44	SILT/CLAY
0.037	37	
0.027	33	
0.017	29	
0.010	24	
0.007	21	
0.005	19	
0.002	13	

Contract No.	23560	Report No.	R141492	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH137604			
Sample No.*	AA178365	Lab. Sample No.		A22/6658
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Grey slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

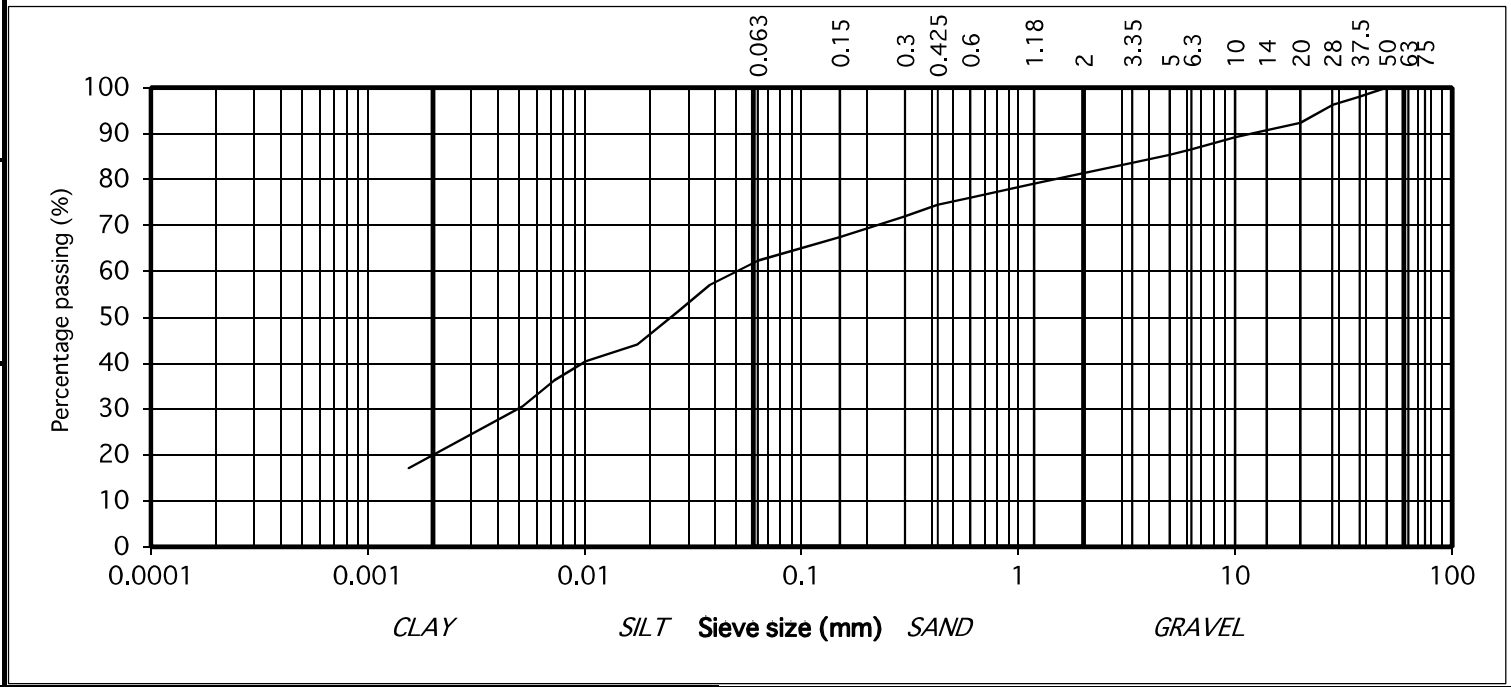
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	96	
20	92	
14	91	
10	89	
6.3	87	
5	85	
3.35	84	
2	81	
1.18	79	SAND
0.6	76	
0.425	75	
0.3	72	
0.15	67	
0.063	62	SILT/CLAY
0.038	57	
0.027	51	
0.017	44	
0.010	40	
0.007	36	
0.005	31	
0.002	17	

Contract No.	23560	Report No.	R141489	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH138802			
Sample No.*	N/A	Lab. Sample No.		A22/6650
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	21/11/2022	Date Testing started		21/11/2022
Description:	Grey brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

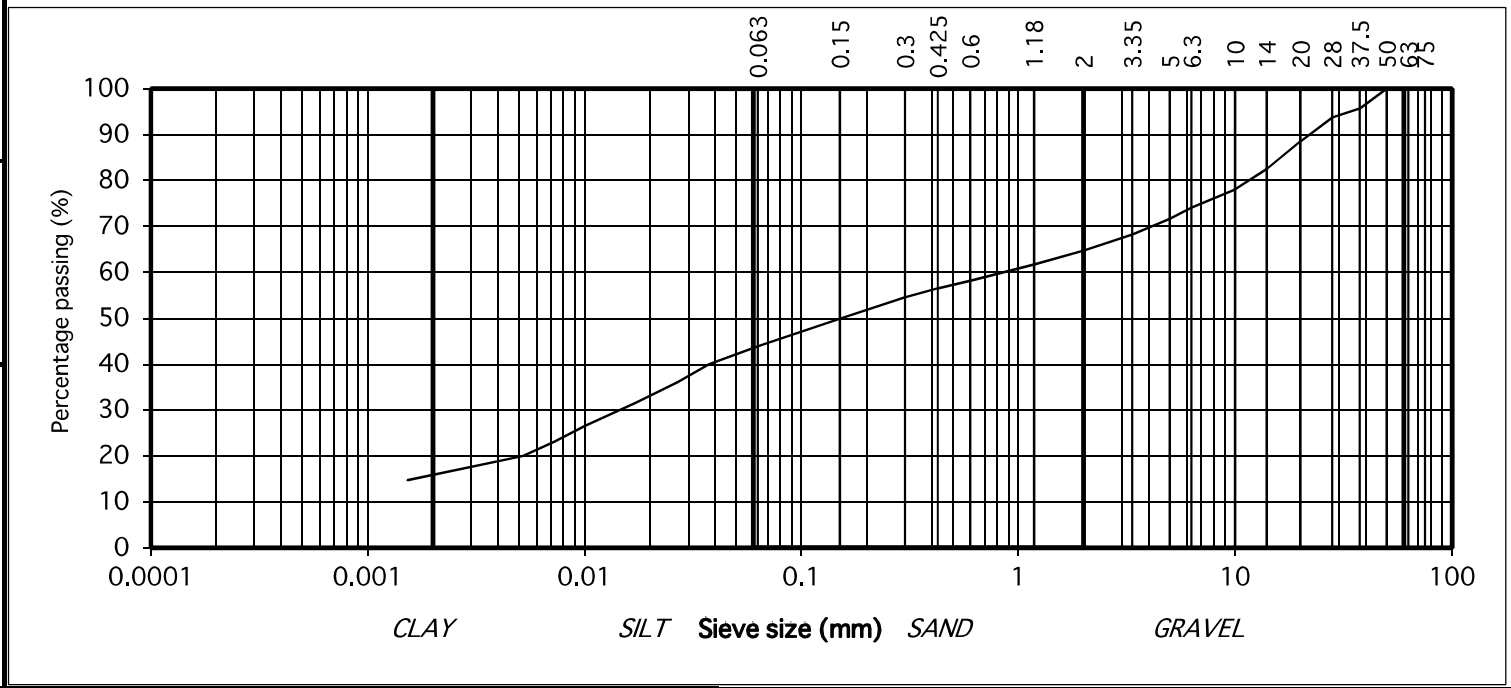
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	94	
20	89	
14	83	
10	78	
6.3	74	
5	72	
3.35	68	
2	65	
1.18	62	SAND
0.6	58	
0.425	57	
0.3	55	
0.15	50	
0.063	44	SILT/CLAY
0.037	40	
0.027	36	
0.017	32	
0.010	27	
0.007	23	
0.005	20	
0.002	15	

Contract No.	23560	Report No.	R139273	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139159			
Sample No.*	N/A	Lab. Sample No.		A22/3931
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	15/07/2022	Date Testing started		15/07/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

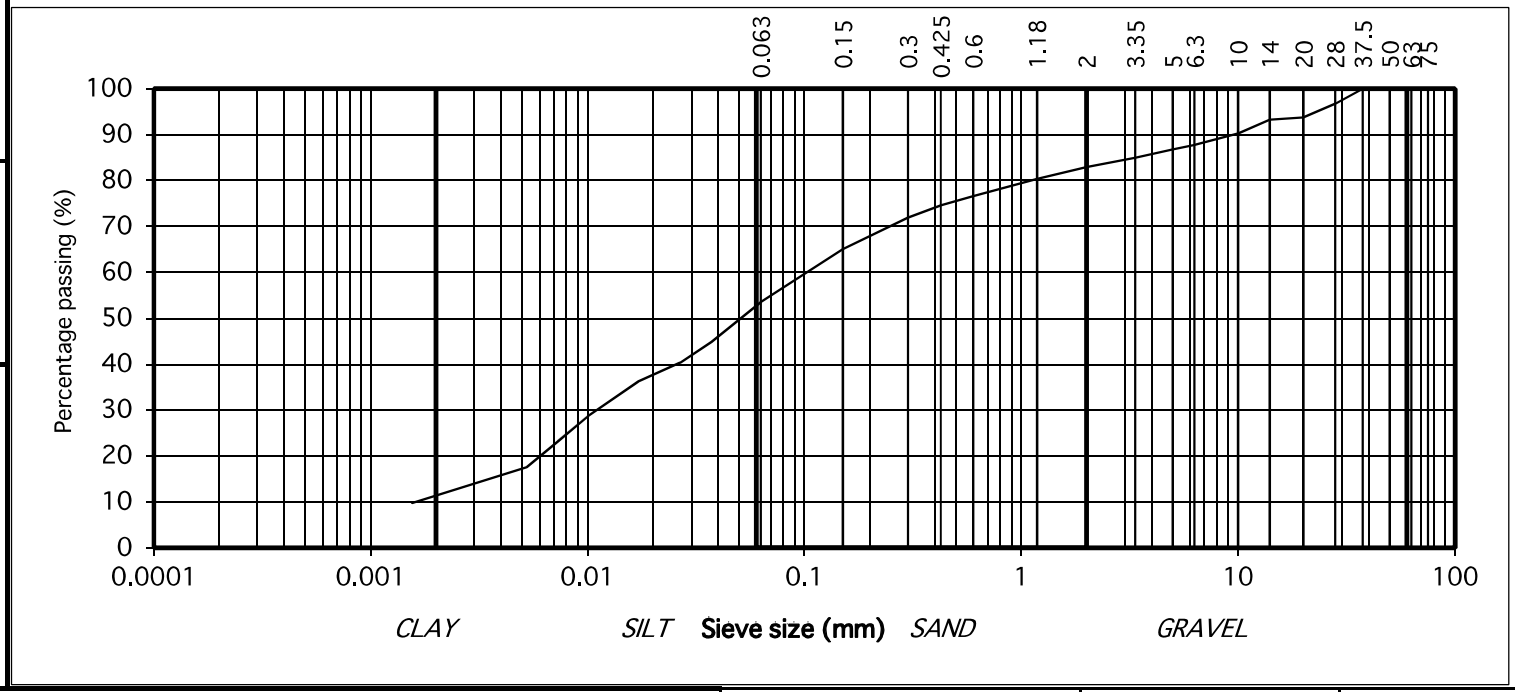
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	94	
14	93	
10	90	
6.3	88	
5	87	
3.35	85	
2	83	
1.18	80	SAND
0.6	77	
0.425	75	
0.3	72	
0.15	65	
0.063	54	SILT/CLAY
0.037	45	
0.027	40	
0.017	36	
0.010	29	
0.007	23	
0.005	18	
0.002	10	

Contract No.	23560	Report No.	R139282	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139202			
Sample No.*	AA174128	Lab. Sample No.		A22/3994
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

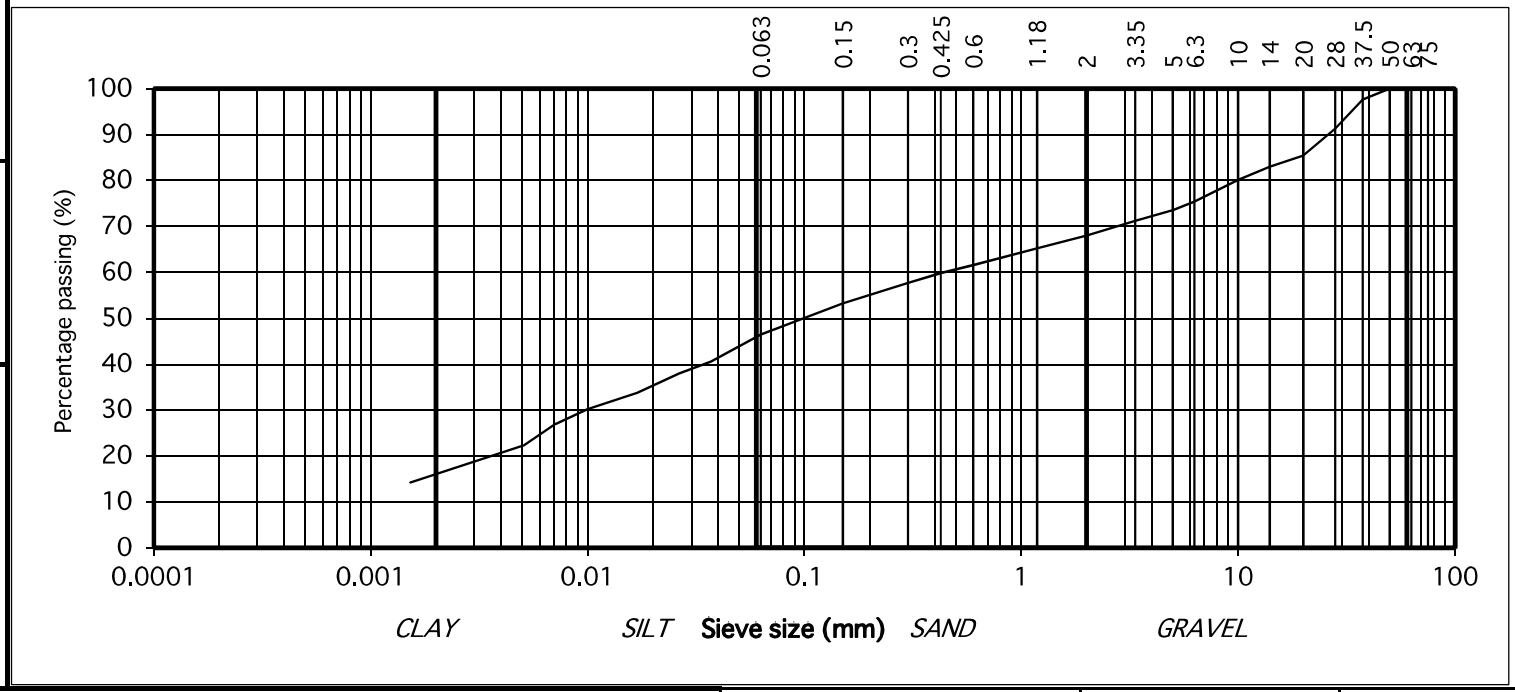
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	91	
20	85	
14	83	
10	80	
6.3	75	
5	74	
3.35	71	
2	68	
1.18	65	SAND
0.6	62	
0.425	60	
0.3	58	
0.15	53	
0.063	47	SILT/CLAY
0.037	41	
0.026	38	
0.017	34	
0.010	30	
0.007	27	
0.005	22	
0.002	14	

Contract No.	23560	Report No.	R139283	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139202			
Sample No.*	AA174129	Lab. Sample No.		A22/3995
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

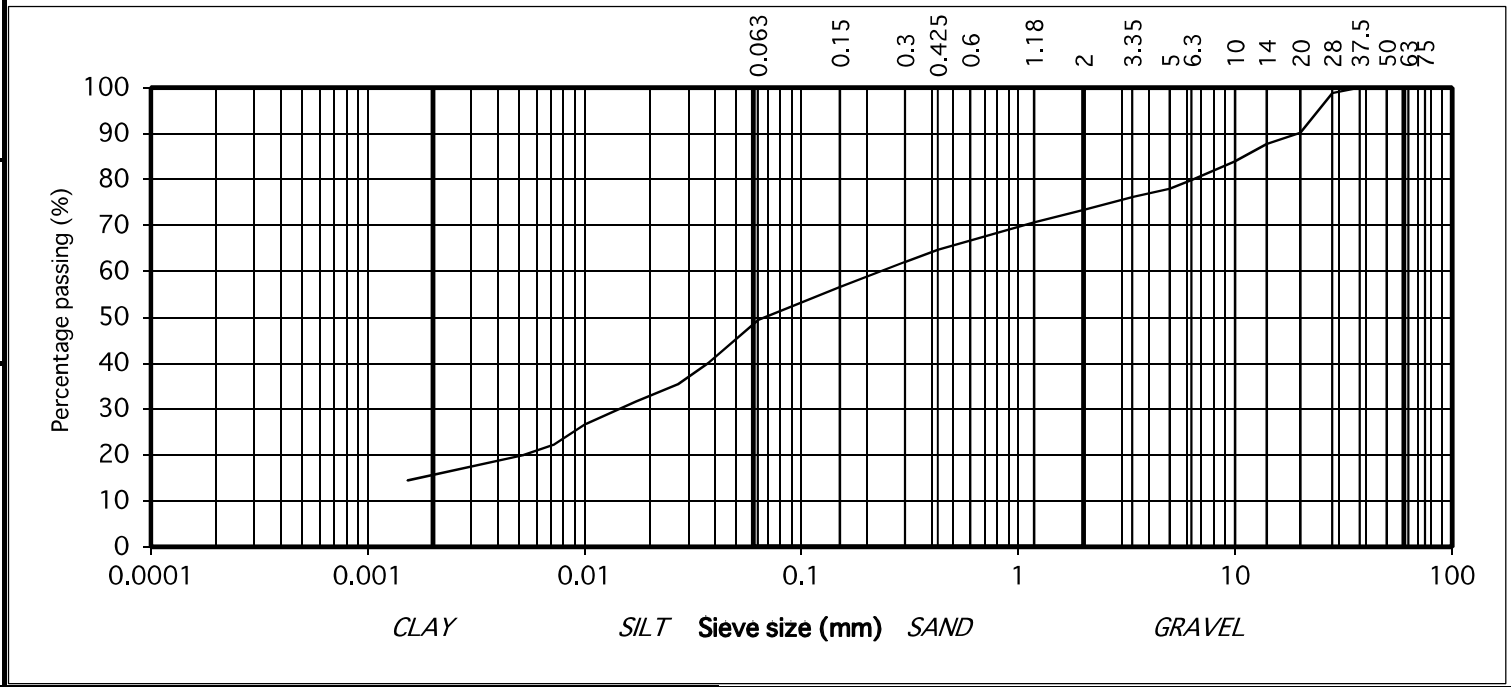
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	90	
14	88	
10	84	
6.3	80	
5	78	
3.35	76	
2	73	
1.18	71	SAND
0.6	67	
0.425	65	
0.3	62	
0.15	57	
0.063	49	SILT/CLAY
0.037	40	
0.027	35	
0.017	32	
0.010	27	
0.007	22	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R139307	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139752			
Sample No.*	AA174249	Lab. Sample No.		A22/4150
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	15/07/2022	Date Testing started		15/07/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

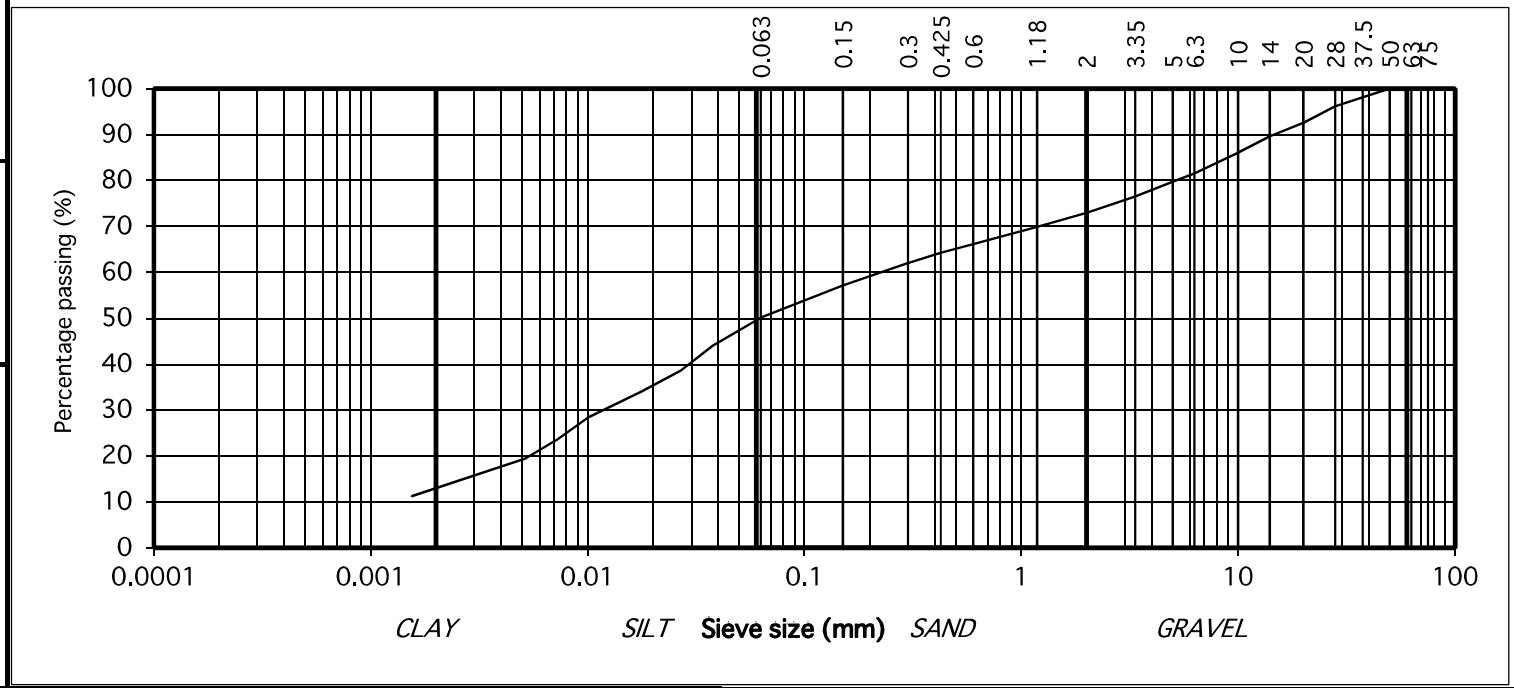
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	96	
20	93	
14	90	
10	86	
6.3	82	
5	80	
3.35	77	
2	73	
1.18	70	SAND
0.6	66	
0.425	64	
0.3	62	
0.15	57	
0.063	50	SILT/CLAY
0.037	44	
0.027	39	
0.017	34	
0.010	29	
0.007	24	
0.005	20	
0.002	11	

Contract No.	23560	Report No.	R139284	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139892			
Sample No.*	AA179207	Lab. Sample No.		A22/4000
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

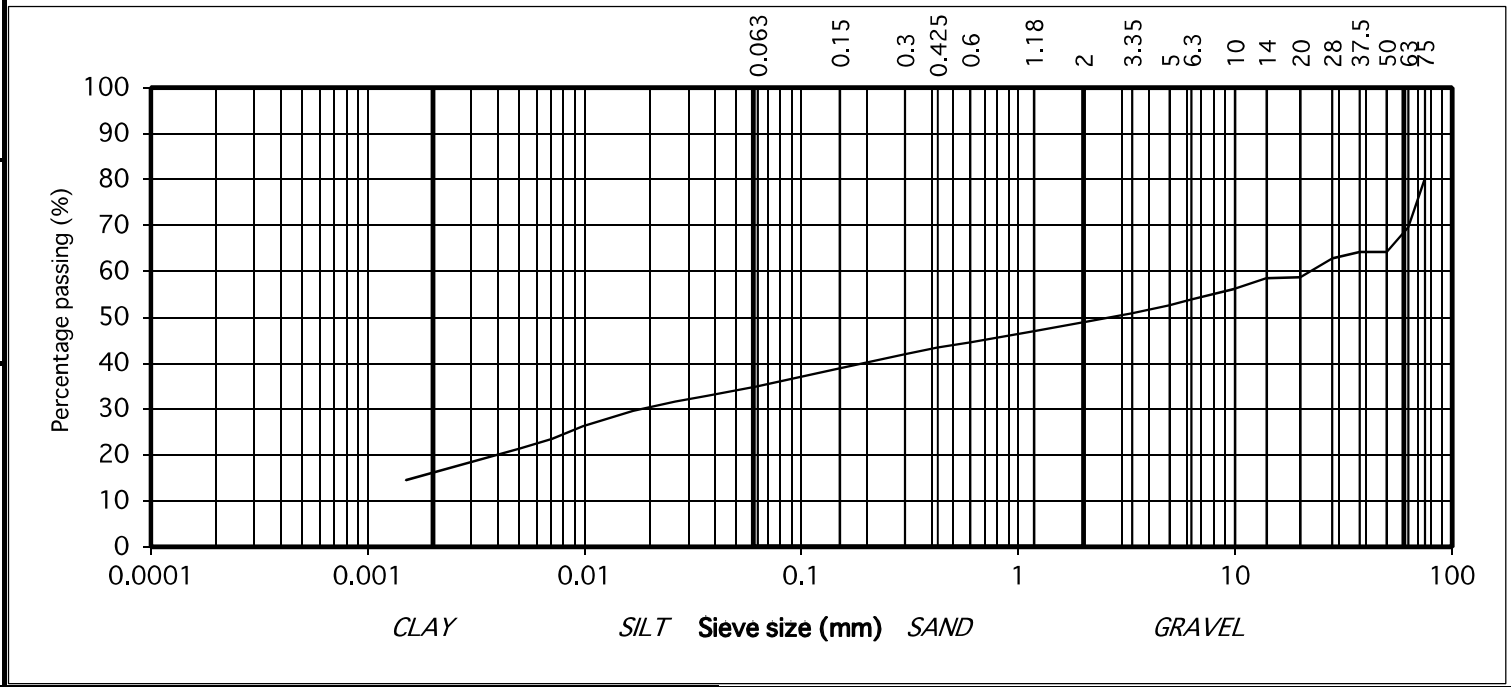
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	80	COBBLES
63	70	
50	64	GRAVEL
37.5	64	
28	63	
20	59	
14	59	
10	56	
6.3	54	
5	53	
3.35	51	
2	49	
1.18	47	SAND
0.6	45	
0.425	43	
0.3	42	
0.15	39	
0.063	35	SILT/CLAY
0.037	33	
0.026	32	
0.017	30	
0.010	26	
0.007	23	
0.005	21	
0.001	15	

Contract No.	23560	Report No.	R138485	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139892			
Sample No.*	AA179208	Lab. Sample No.		A22/4001
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

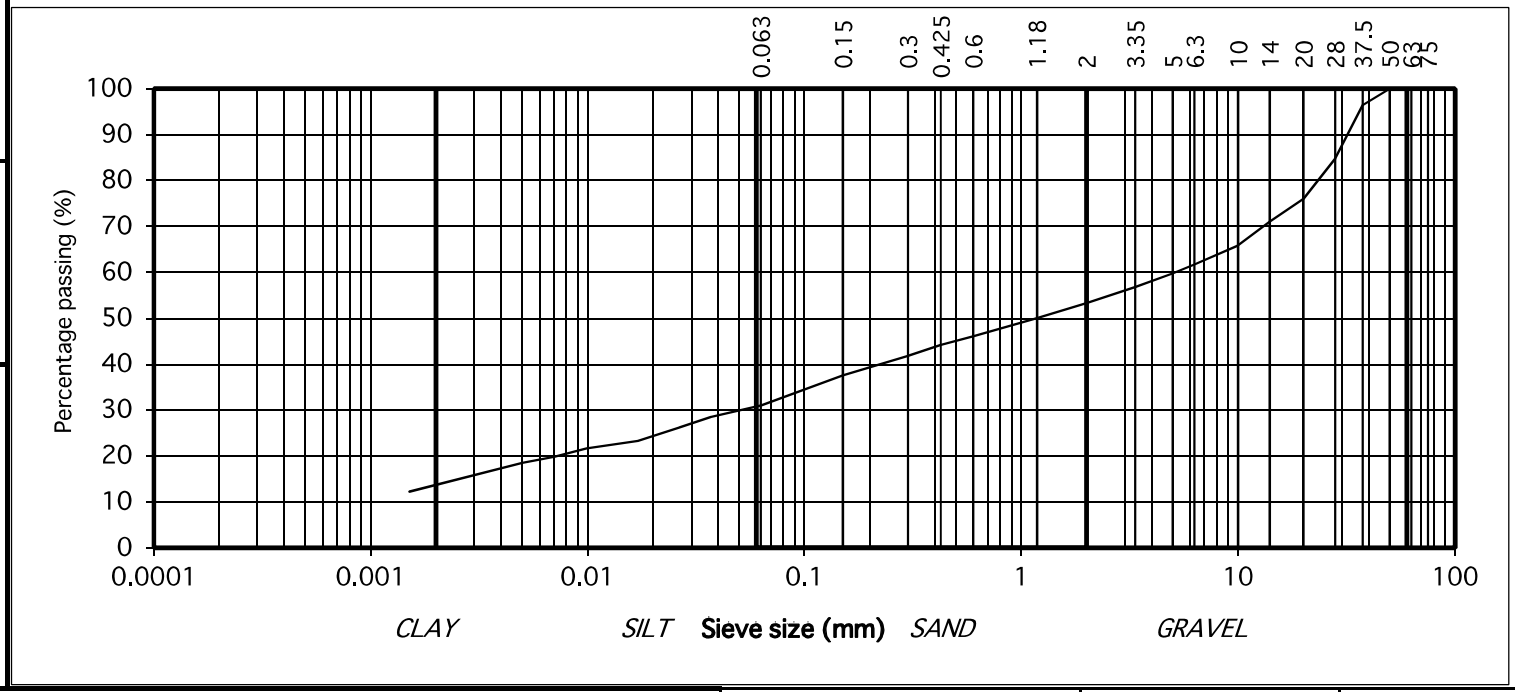
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	85	
20	76	
14	71	
10	66	
6.3	62	
5	60	
3.35	57	
2	53	
1.18	50	SAND
0.6	46	
0.425	44	
0.3	42	
0.15	38	
0.063	31	SILT/CLAY
0.037	29	
0.026	26	
0.017	23	
0.010	22	
0.007	20	
0.005	19	
0.002	12	

Contract No.	23560	Report No.	R138486	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139892			
Sample No.*	AA179210	Lab. Sample No.		A22/4002
Sample Type:	B			
Depth* (m)	8.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

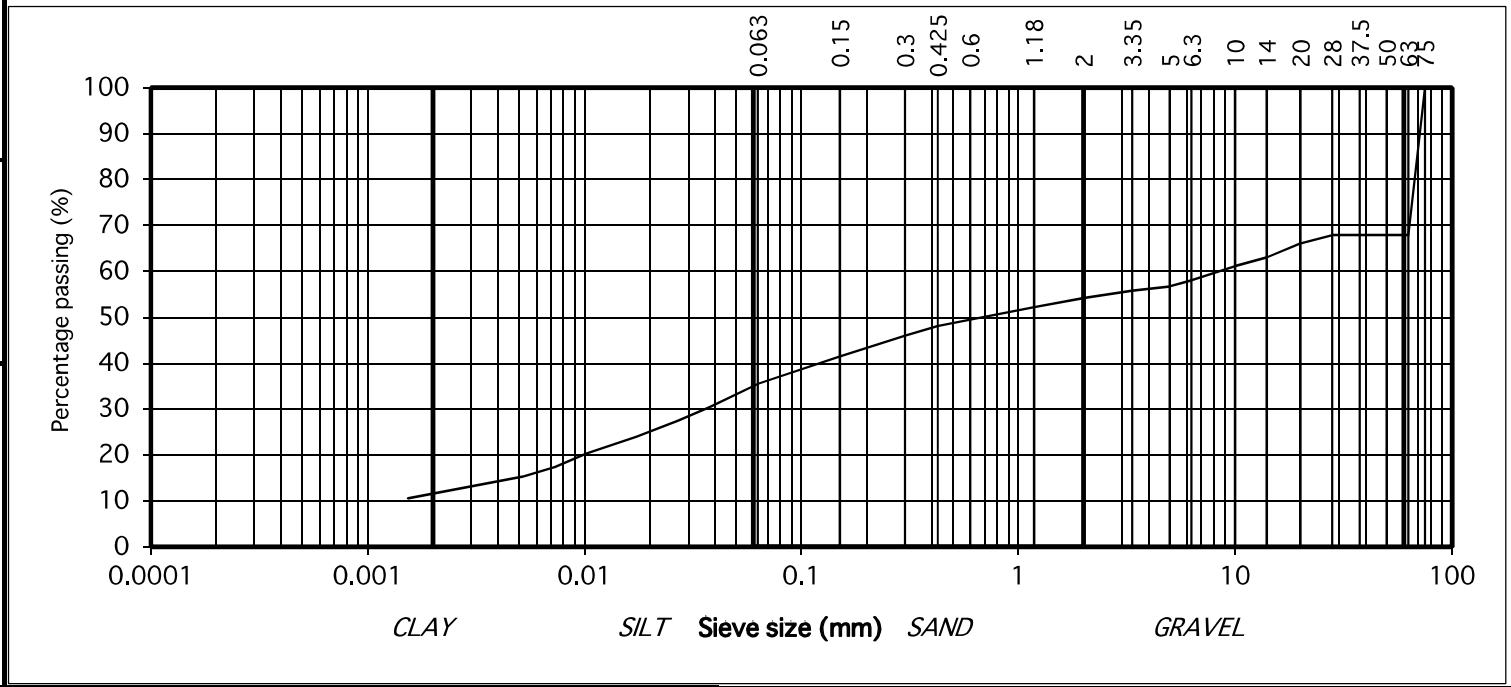
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	68	
50	68	GRAVEL
37.5	68	
28	68	
20	66	
14	63	
10	61	
6.3	58	
5	57	
3.35	56	
2	54	
1.18	52	SAND
0.6	50	
0.425	48	
0.3	46	
0.15	42	
0.063	36	SILT/CLAY
0.037	30	
0.027	27	
0.017	24	
0.010	20	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R141460	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139912			
Sample No.*	AA179220	Lab. Sample No.		A22/6560
Sample Type:	B			
Depth* (m)	3.50	Customer:	Ervia	
Date Received	23/11/2022	Date Testing started		23/11/2022
Description:	Grey Brown slightly sandy, gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	09/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

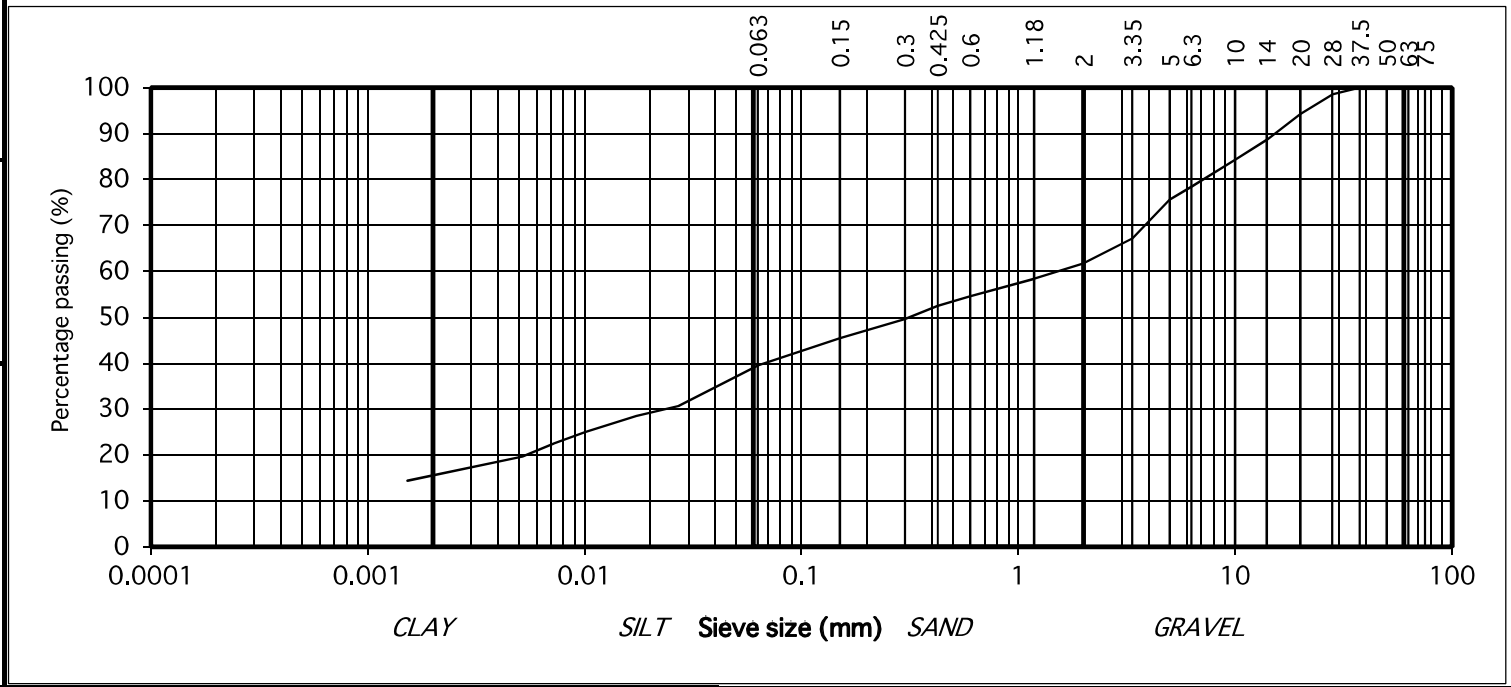
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	94	
14	89	
10	84	
6.3	78	
5	76	
3.35	67	
2	62	
1.18	58	SAND
0.6	55	
0.425	52	
0.3	50	
0.15	45	
0.063	40	SILT/CLAY
0.038	34	
0.027	31	
0.017	28	
0.010	25	
0.007	23	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R141698	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139912			
Sample No.*	179222	Lab. Sample No.		A22/6562
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	25/11/2022	Date Testing started		25/11/2022
Description:	Grey brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

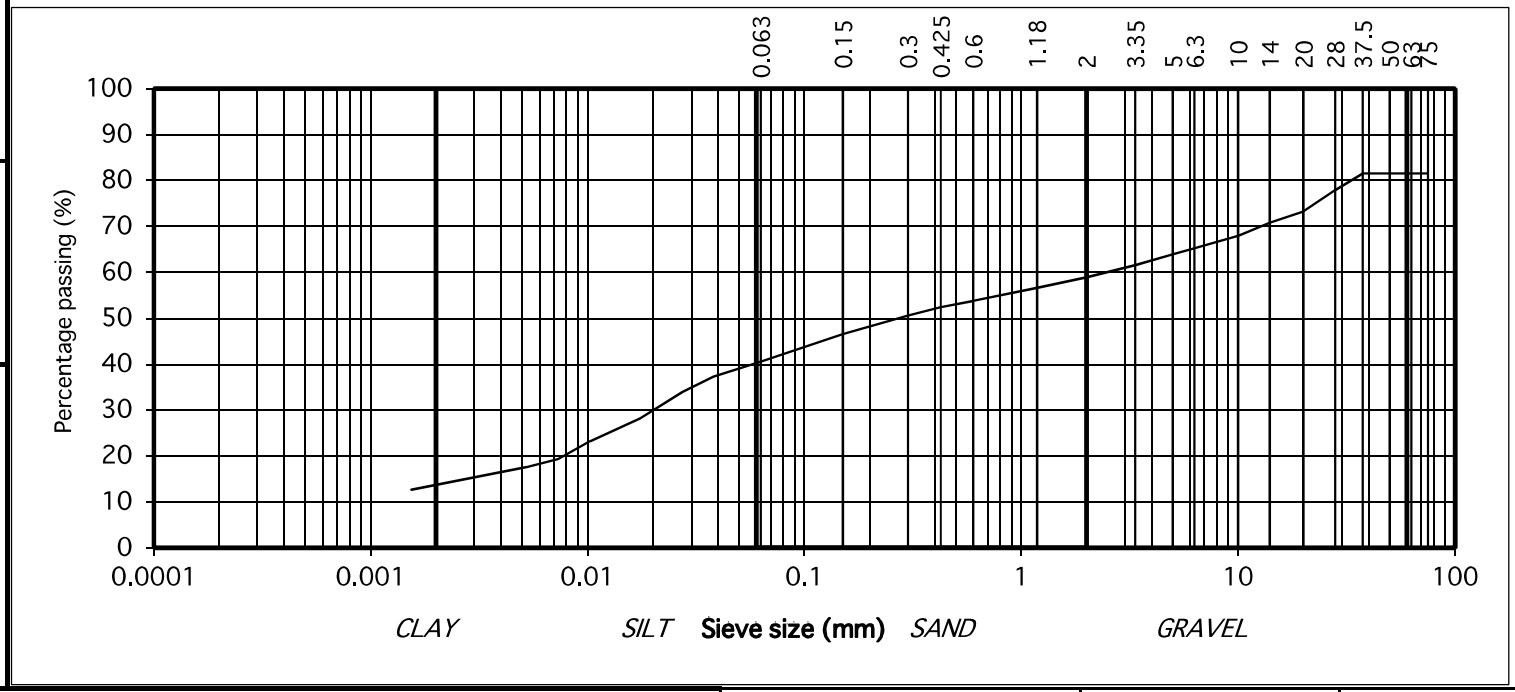
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	82	COBBLES
63	82	
50	82	GRAVEL
37.5	82	
28	78	
20	73	
14	71	
10	68	
6.3	65	
5	64	
3.35	62	
2	59	
1.18	57	SAND
0.6	54	
0.425	52	
0.3	51	
0.15	47	
0.063	41	SILT/CLAY
0.038	37	
0.027	34	
0.018	28	
0.010	23	
0.007	19	
0.005	18	
0.002	13	

Contract No.	23560	Report No.	R139285	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139912			
Sample No.*	AA179221	Lab. Sample No.		A22/4006
Sample Type:	B			
Depth* (m)	4.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

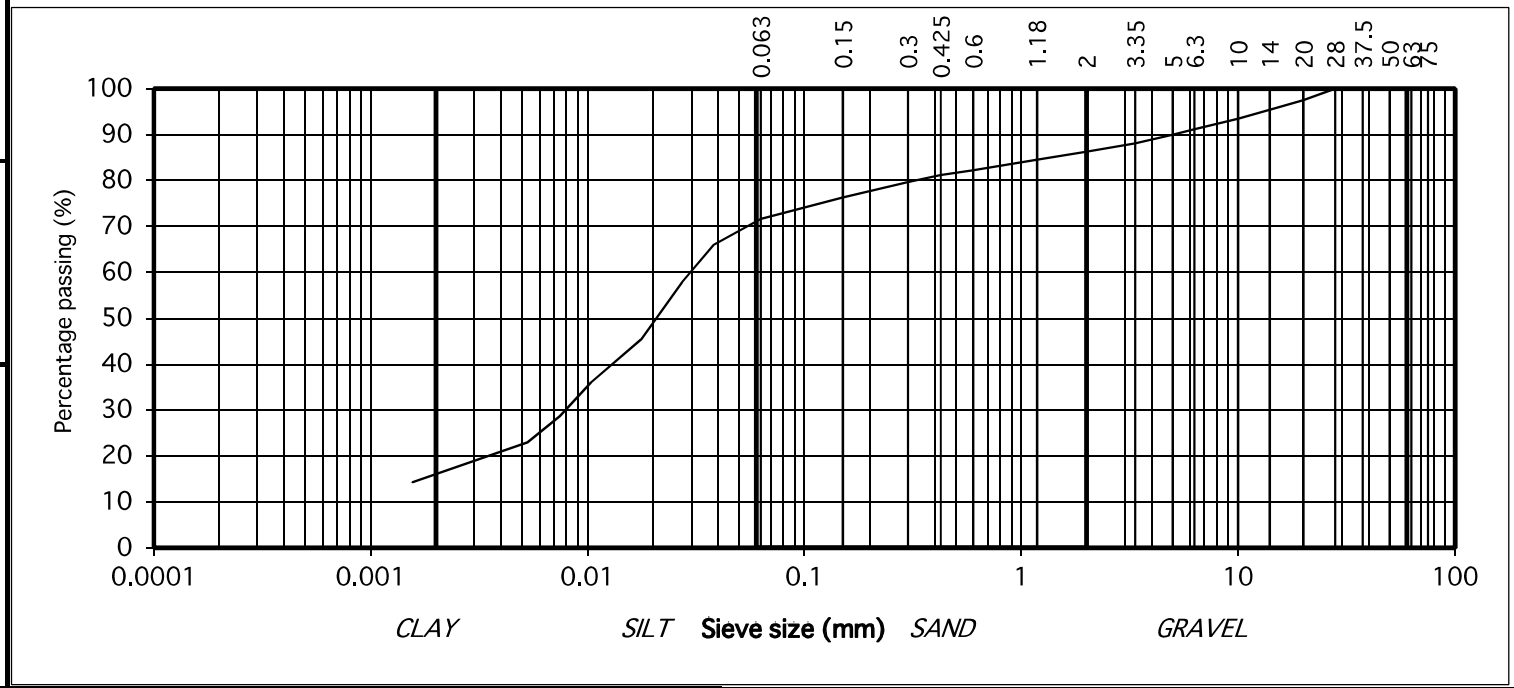
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	98	
14	95	
10	93	
6.3	91	
5	90	
3.35	88	
2	86	
1.18	85	SAND
0.6	82	
0.425	81	
0.3	80	
0.15	76	
0.063	72	SILT/CLAY
0.038	66	
0.027	58	
0.018	45	
0.010	36	
0.007	29	
0.005	23	
0.002	14	

Contract No.	23560	Report No.	R139286	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139912			
Sample No.*	AA179223	Lab. Sample No.		A22/4007
Sample Type:	B			
Depth* (m)	6.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

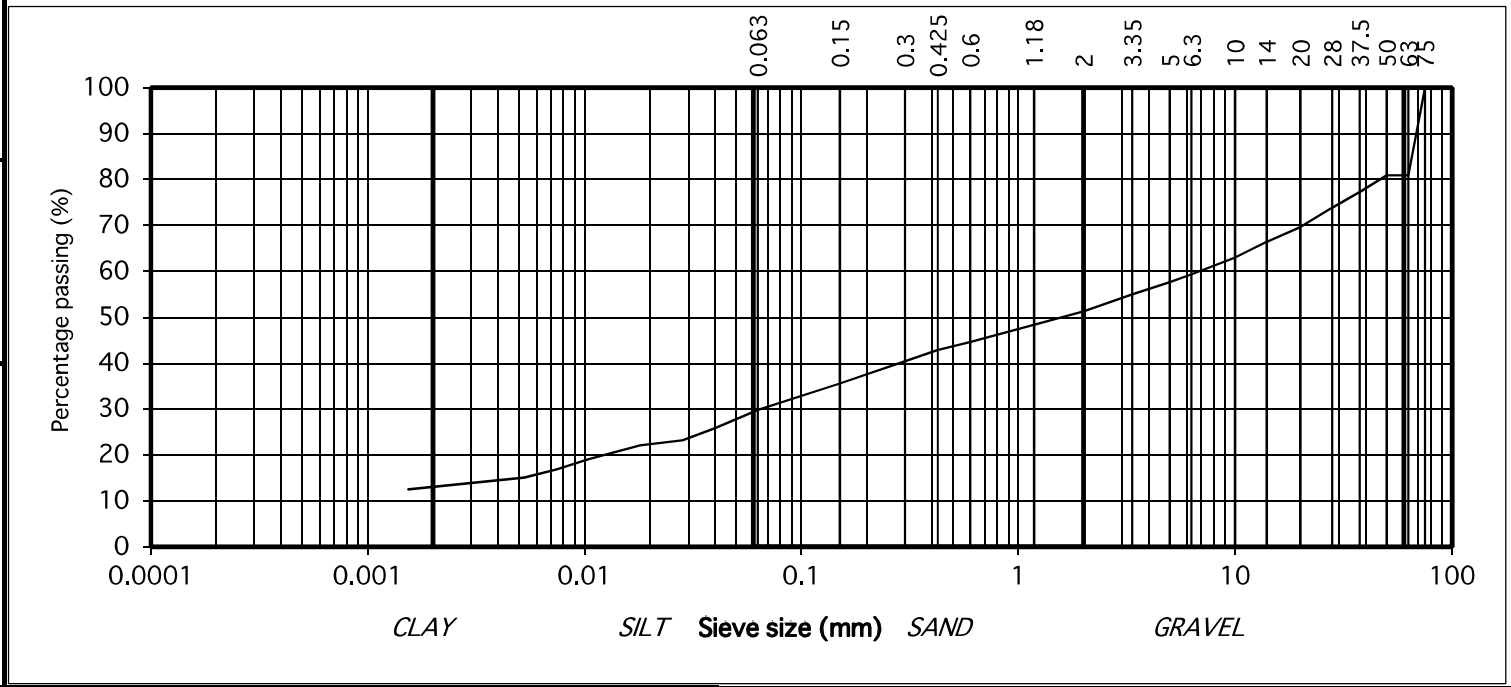
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	81	
50	81	GRAVEL
37.5	77	
28	74	
20	70	
14	66	
10	63	
6.3	59	
5	58	
3.35	55	
2	51	
1.18	48	SAND
0.6	45	
0.425	43	
0.3	40	
0.15	36	
0.063	30	SILT/CLAY
0.040	26	
0.028	23	
0.018	22	
0.010	19	
0.007	17	
0.005	15	
0.002	13	

Contract No.	23560	Report No.	R138487	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139912			
Sample No.*	AA179224	Lab. Sample No.		A22/4011
Sample Type:	B			
Depth* (m)	7.00	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

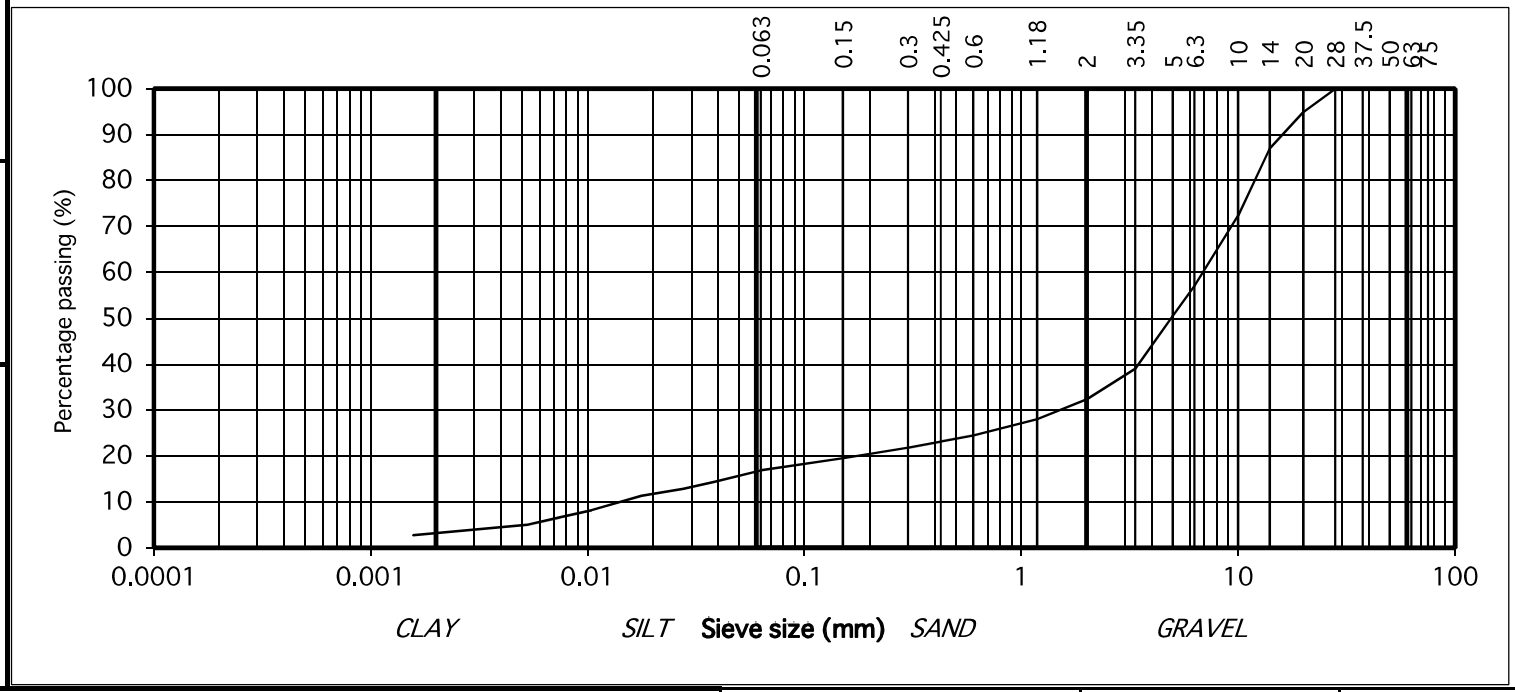
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	95	
14	87	
10	72	
6.3	57	
5	50	
3.35	39	
2	32	
1.18	28	SAND
0.6	24	
0.425	23	
0.3	22	
0.15	20	
0.063	17	SILT/CLAY
0.039	14	
0.028	13	
0.018	11	
0.010	8	
0.007	7	
0.005	5	
0.002	3	

Contract No.	23560	Report No.	R139287	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH139941			
Sample No.*	AA170316	Lab. Sample No.		A22/4012
Sample Type:	B			
Depth* (m)	1.20	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown clayey/silty, sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Peat in sample



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	06/10/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

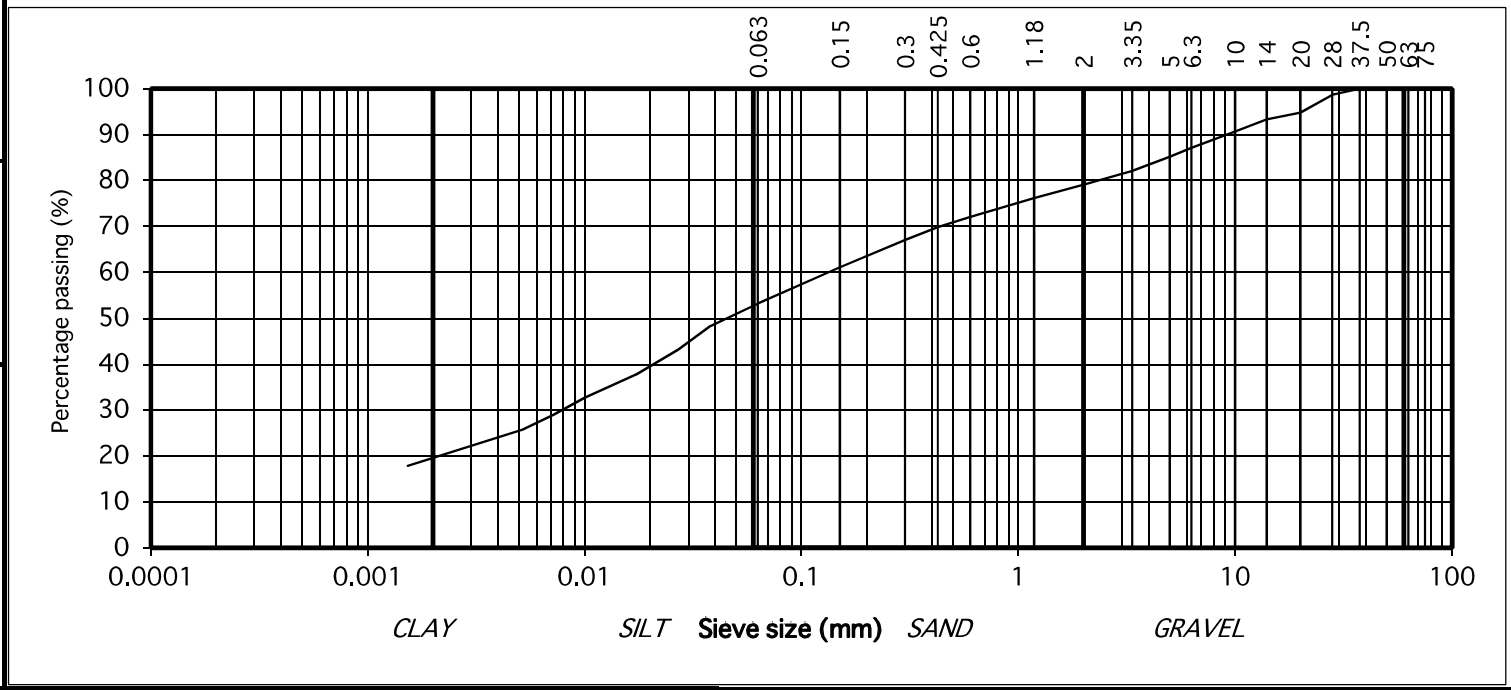
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	95	
14	93	
10	91	
6.3	87	
5	85	
3.35	82	
2	79	
1.18	76	SAND
0.6	72	
0.425	70	
0.3	67	
0.15	61	
0.063	53	SILT/CLAY
0.037	48	
0.027	43	
0.017	38	
0.010	33	
0.007	29	
0.005	26	
0.002	18	

Contract No.	23560	Report No.	R134143	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104020			
Sample No.*	N/A	Lab. Sample No.		A22/2293
Sample Type:	B			
Depth* (m)	5.5-6.0	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Brown/grey slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

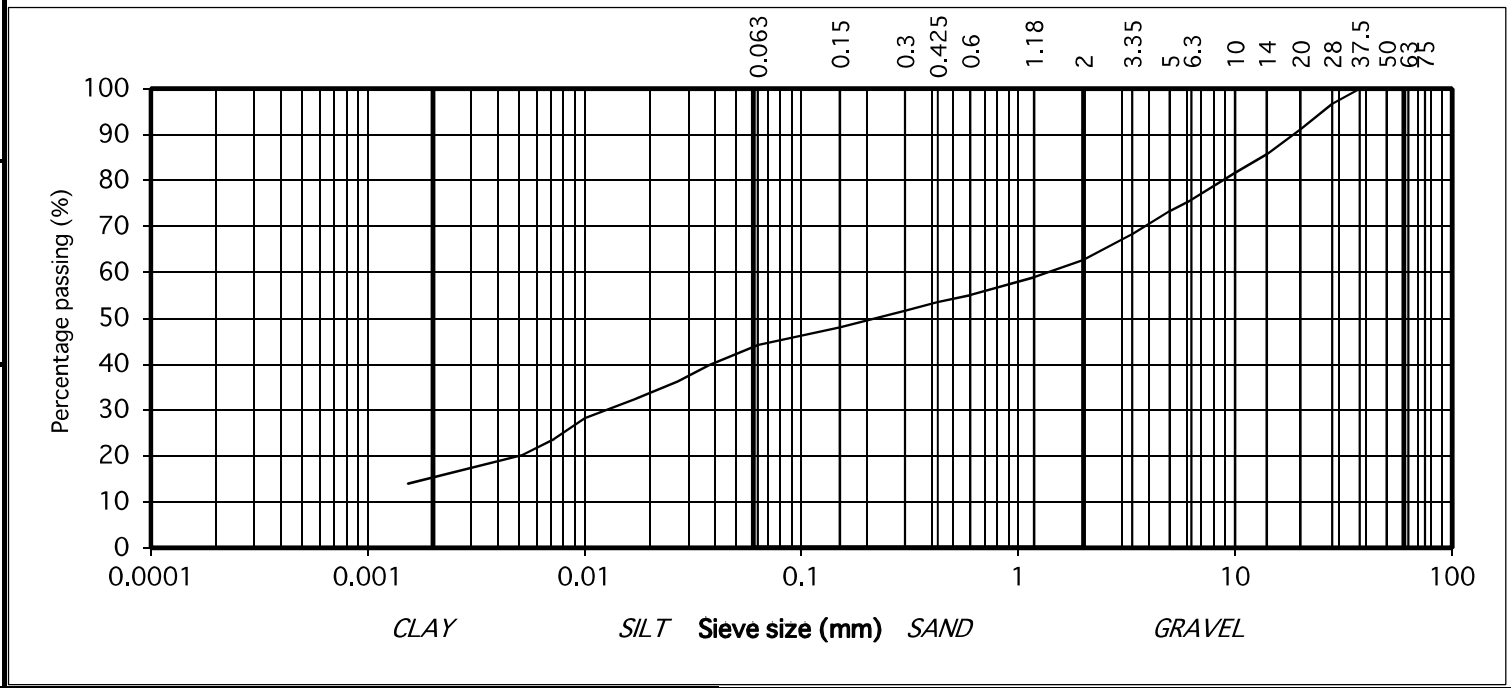
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	91	
14	86	
10	82	
6.3	76	
5	73	
3.35	68	
2	63	
1.18	59	SAND
0.6	55	
0.425	54	
0.3	52	
0.15	48	
0.063	44	SILT/CLAY
0.037	40	
0.027	36	
0.017	32	
0.010	28	
0.007	24	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R134144	
Contract Name:	WSP - Lot 3			
BH/TP* :	BH104020			
Sample No.*	N/A	Lab. Sample No.		A22/2294
Sample Type:	B			
Depth* (m)	7.0-7.5	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

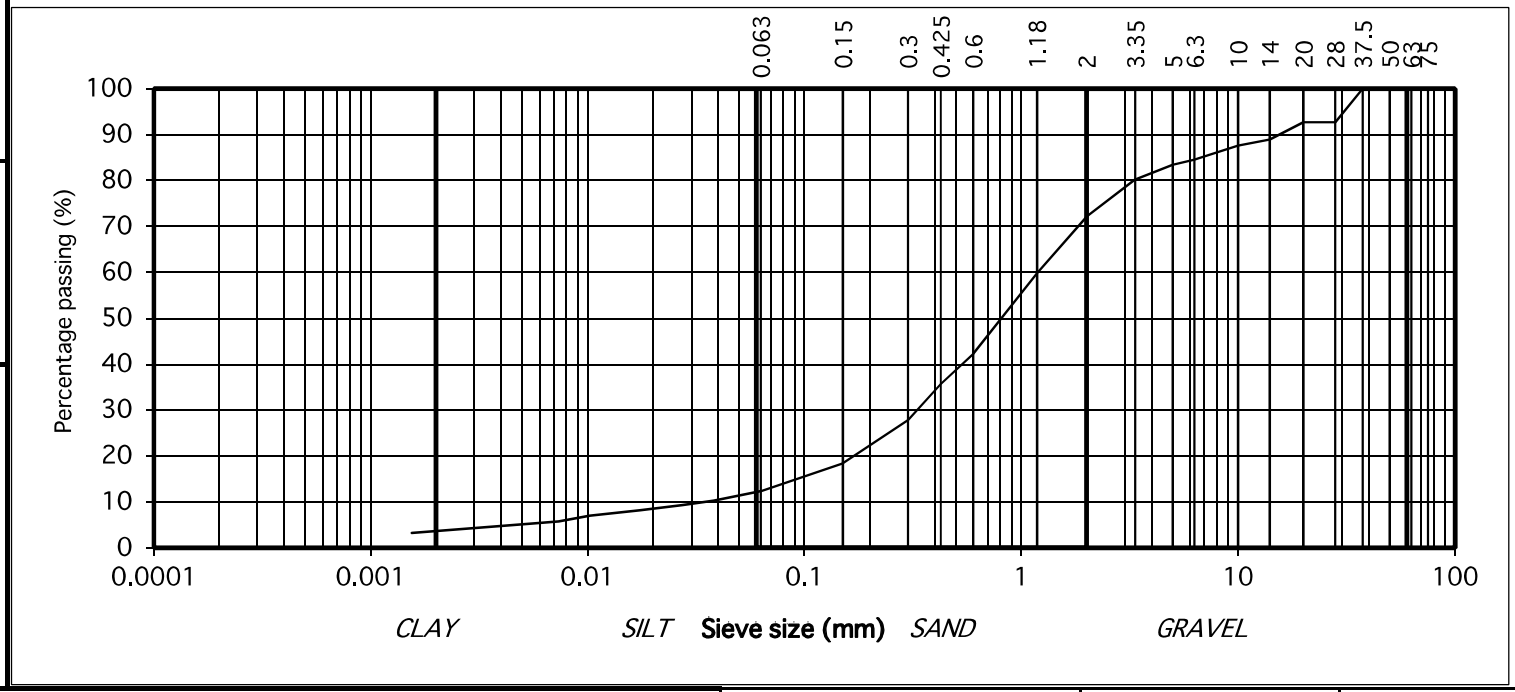
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	93	
20	93	
14	89	
10	88	
6.3	85	
5	83	
3.35	80	
2	72	
1.18	60	SAND
0.6	42	
0.425	36	
0.3	28	
0.15	18	
0.063	12	SILT/CLAY
0.038	10	
0.027	9	
0.017	8	
0.010	7	
0.007	6	
0.005	5	
0.002	3	

Contract No.	23560	Report No.	R134936	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP103304			
Sample No.*	AA173553	Lab. Sample No.		A22/2544
Sample Type:	B			
Depth* (m)	0.20	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, very gravelly, SAND			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

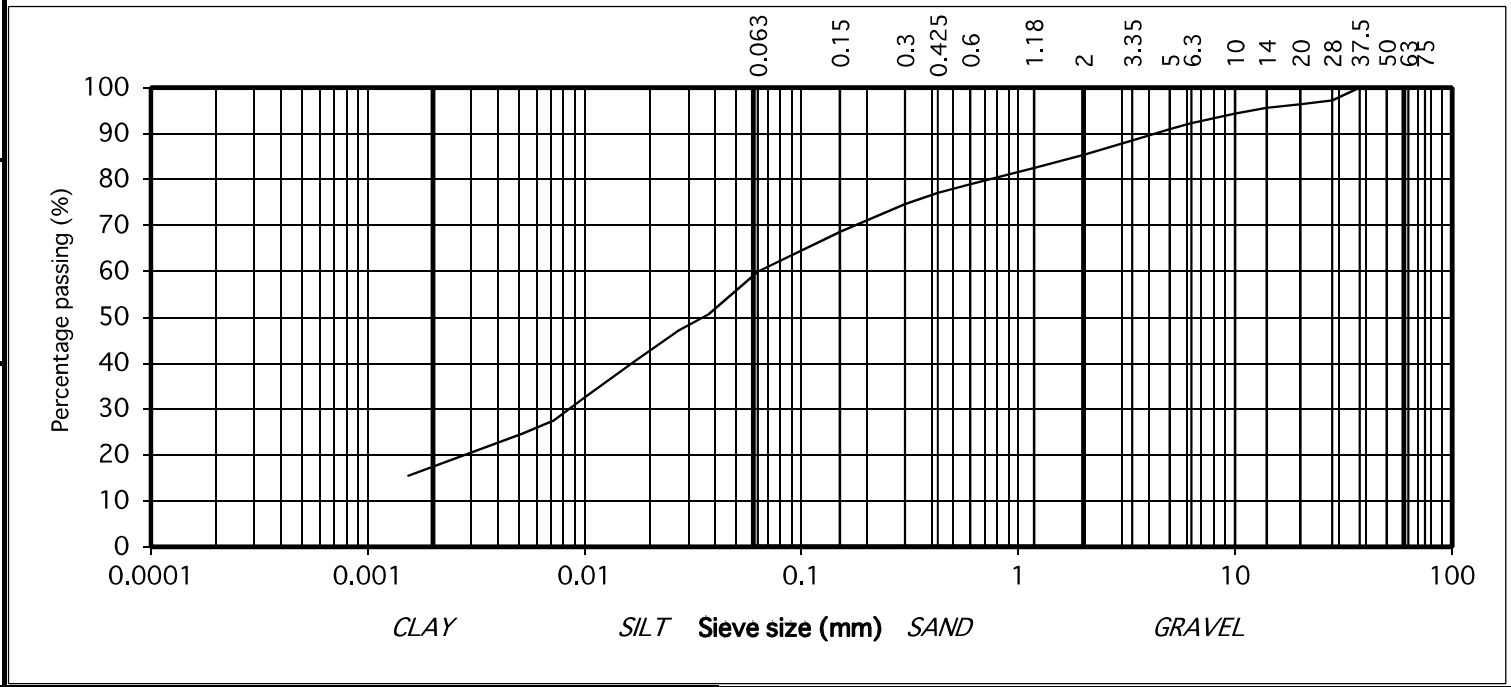
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	96	
14	96	
10	94	
6.3	92	
5	91	
3.35	89	
2	85	
1.18	83	SAND
0.6	79	
0.425	77	
0.3	75	
0.15	69	
0.063	60	SILT/CLAY
0.037	51	
0.027	47	
0.017	41	
0.010	33	
0.007	28	
0.005	25	
0.002	16	

Contract No.	23560	Report No.	R134789	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP103504			
Sample No.*	AA178551	Lab. Sample No.		A22/2540
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

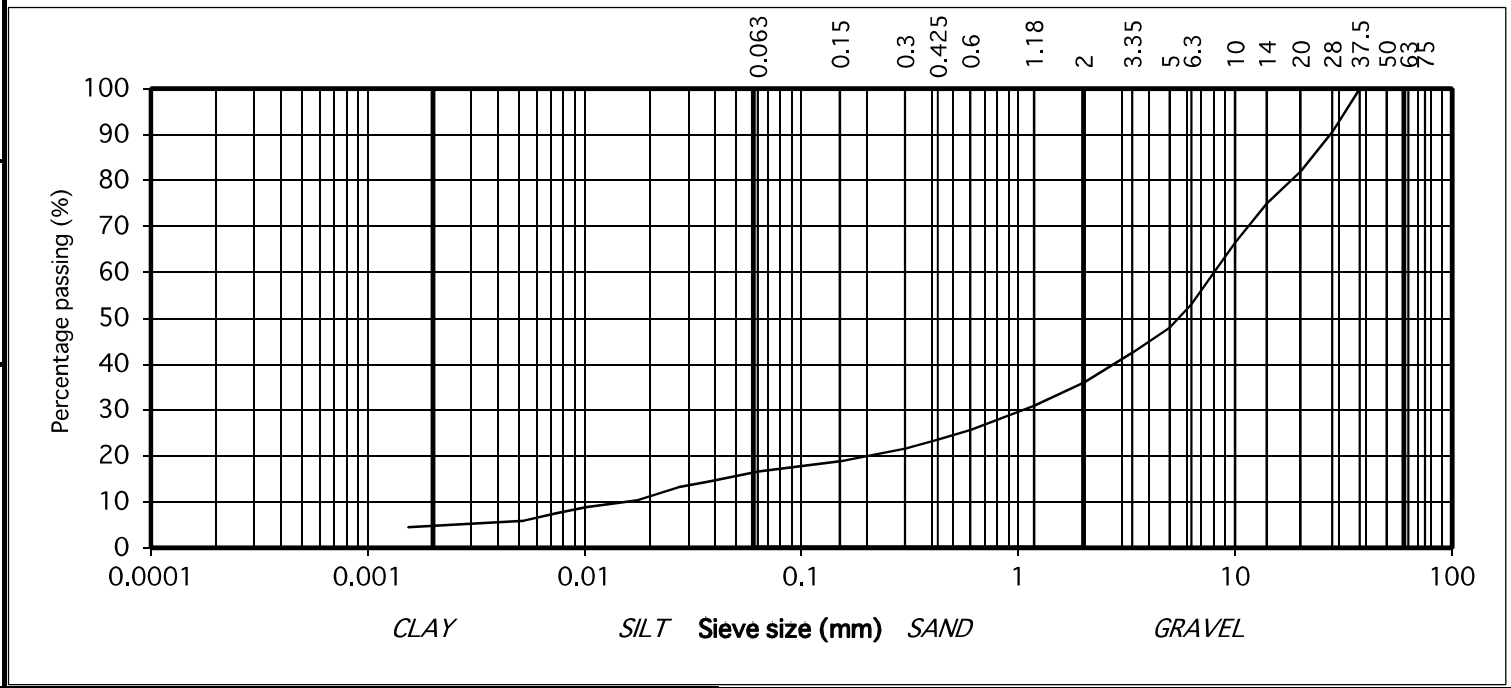
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	91	
20	82	
14	75	
10	66	
6.3	53	
5	48	
3.35	43	
2	36	
1.18	31	SAND
0.6	26	
0.425	24	
0.3	22	
0.15	19	
0.063	17	SILT/CLAY
0.038	15	
0.027	13	
0.018	10	
0.010	9	
0.007	8	
0.005	6	
0.002	5	

Contract No.	23560	Report No.	R134949	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP103304			
Sample No.*	AA173556	Lab. Sample No.		A22/2543
Sample Type:	B			
Depth* (m)	1.80	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

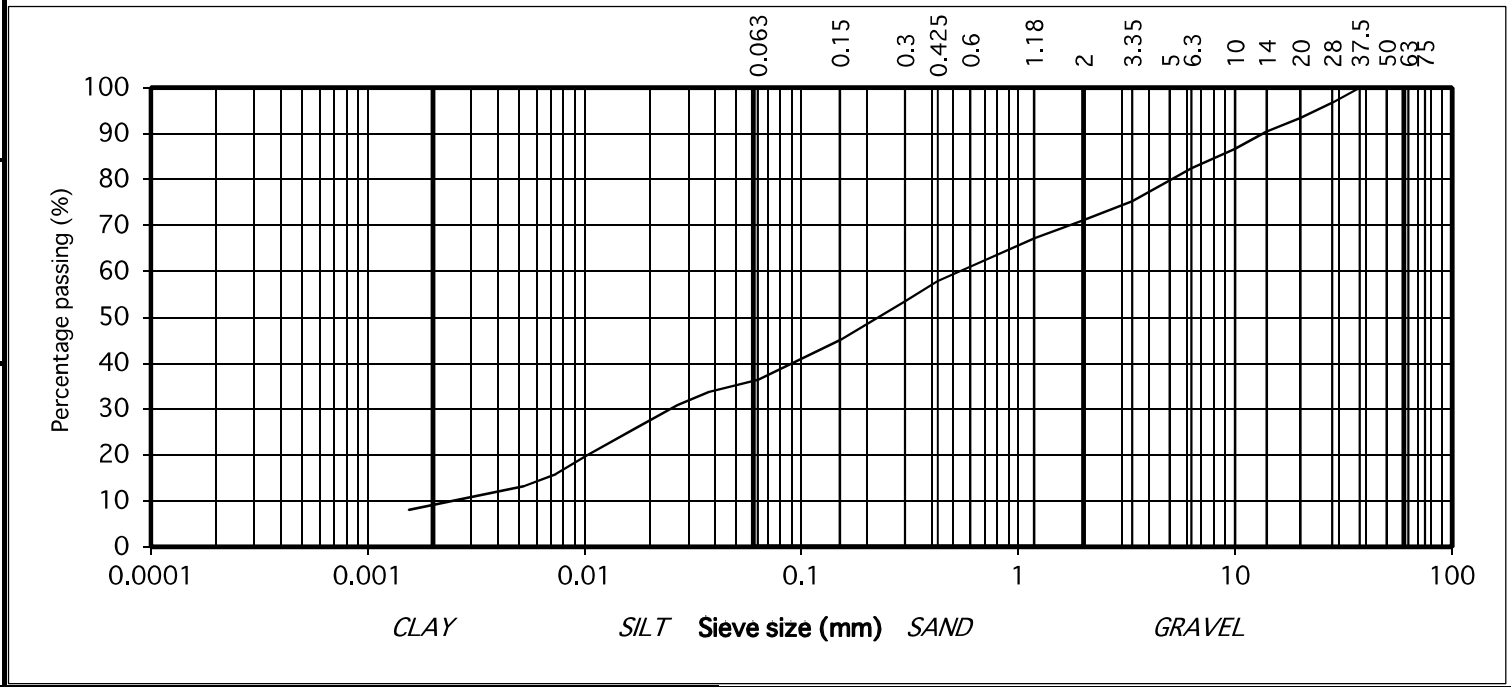
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	93	
14	91	
10	87	
6.3	82	
5	80	
3.35	75	
2	71	
1.18	67	SAND
0.6	61	
0.425	58	
0.3	54	
0.15	45	
0.063	36	SILT/CLAY
0.037	34	
0.027	31	
0.017	26	
0.010	20	
0.007	16	
0.005	13	
0.002	8	

Contract No.	23560	Report No.	R135017	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP103504			
Sample No.*	AA173552	Lab. Sample No.		A22/2542
Sample Type:	B			
Depth* (m)	2.10	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Grey brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

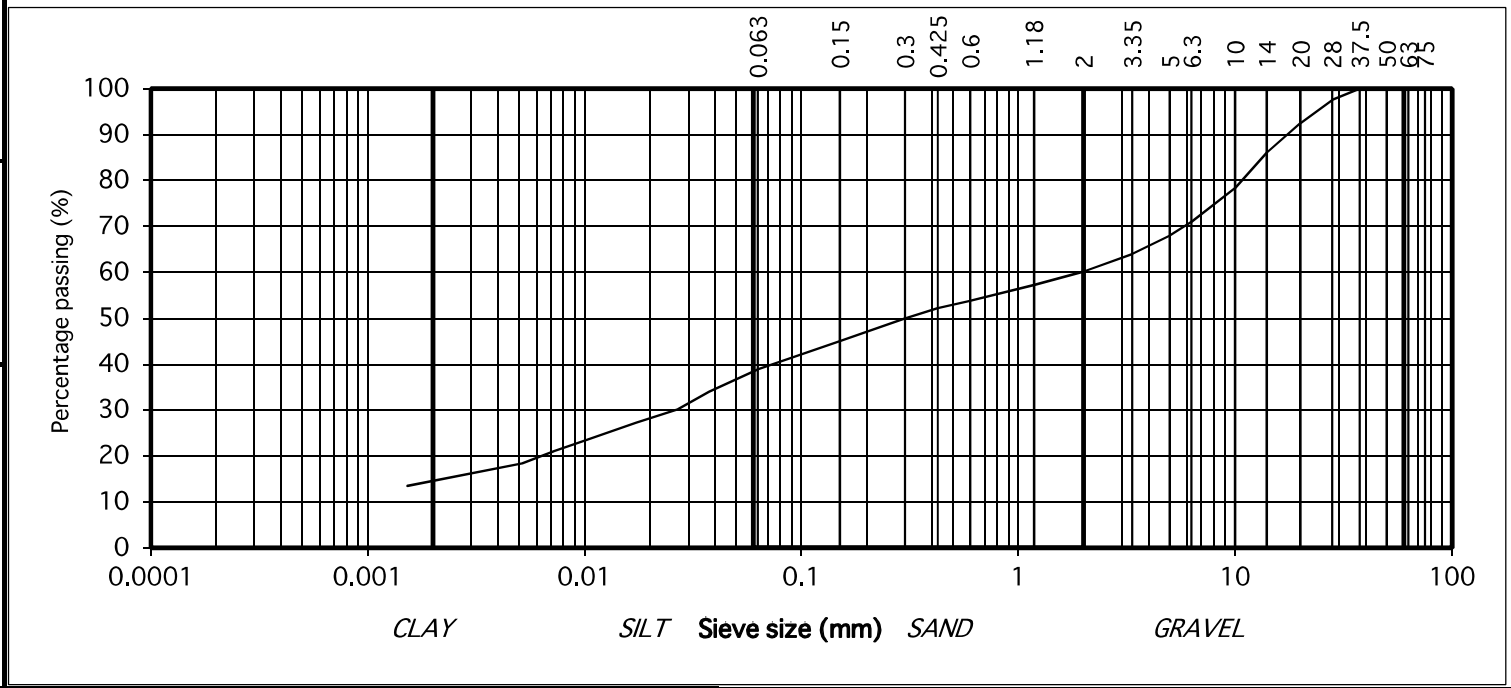
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	92	
14	86	
10	78	
6.3	71	
5	68	
3.35	64	
2	60	
1.18	57	SAND
0.6	54	
0.425	52	
0.3	50	
0.15	45	
0.063	39	SILT/CLAY
0.037	34	
0.027	30	
0.017	27	
0.010	23	
0.007	21	
0.005	18	
0.002	13	

Contract No.	23560	Report No.	R134958	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104425			
Sample No.*	AA153557	Lab. Sample No.		A22/2545
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

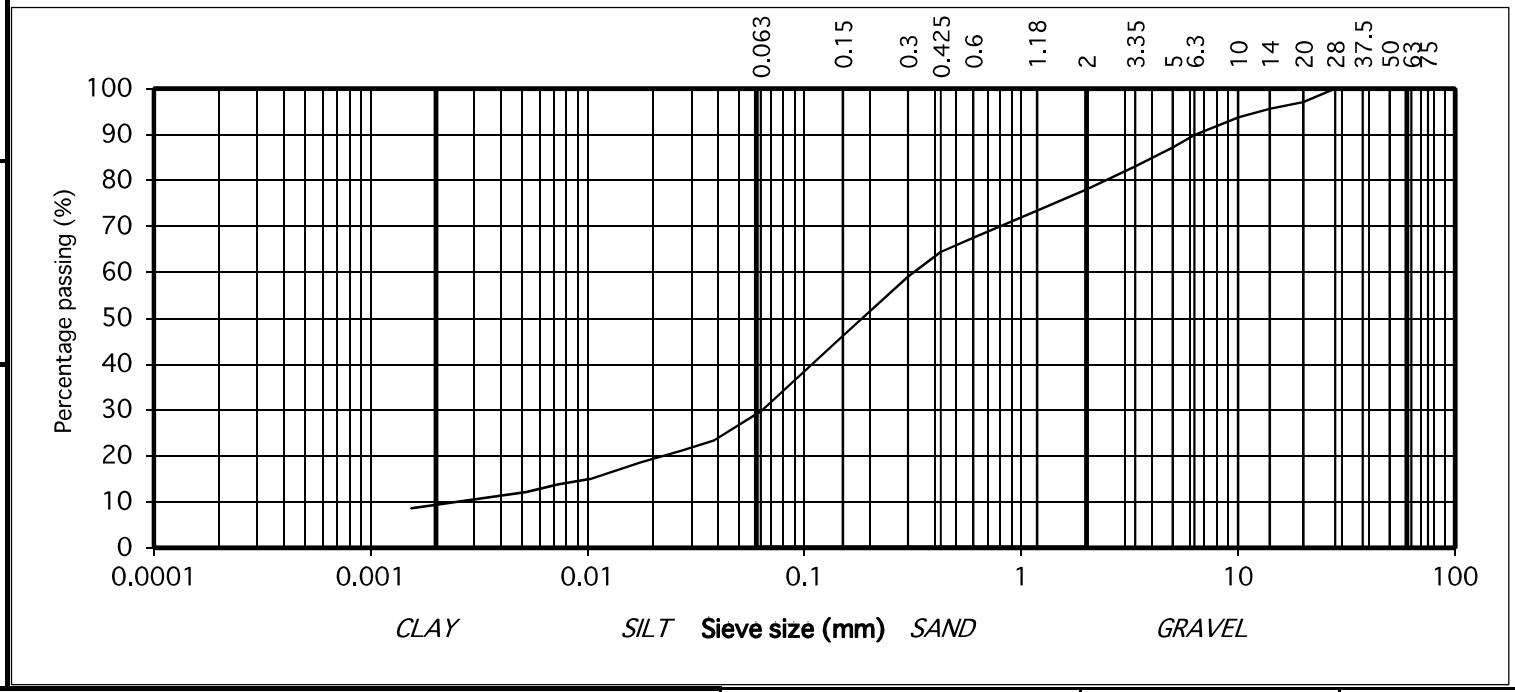
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	97	
14	96	
10	94	
6.3	90	
5	87	
3.35	83	
2	78	
1.18	73	SAND
0.6	68	
0.425	64	
0.3	59	
0.15	46	
0.063	30	SILT/CLAY
0.038	23	
0.027	21	
0.018	19	
0.010	15	
0.007	14	
0.005	12	
0.002	9	

Contract No.	23560	Report No.	R135217	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP103504			
Sample No.*	AA173552	Lab. Sample No.		A22/2541
Sample Type:	B			
Depth* (m)	1.00	Customer:	Ervia	
Date Received	14/06/2022	Date Testing started		14/06/2022
Description:	Grey Brown sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

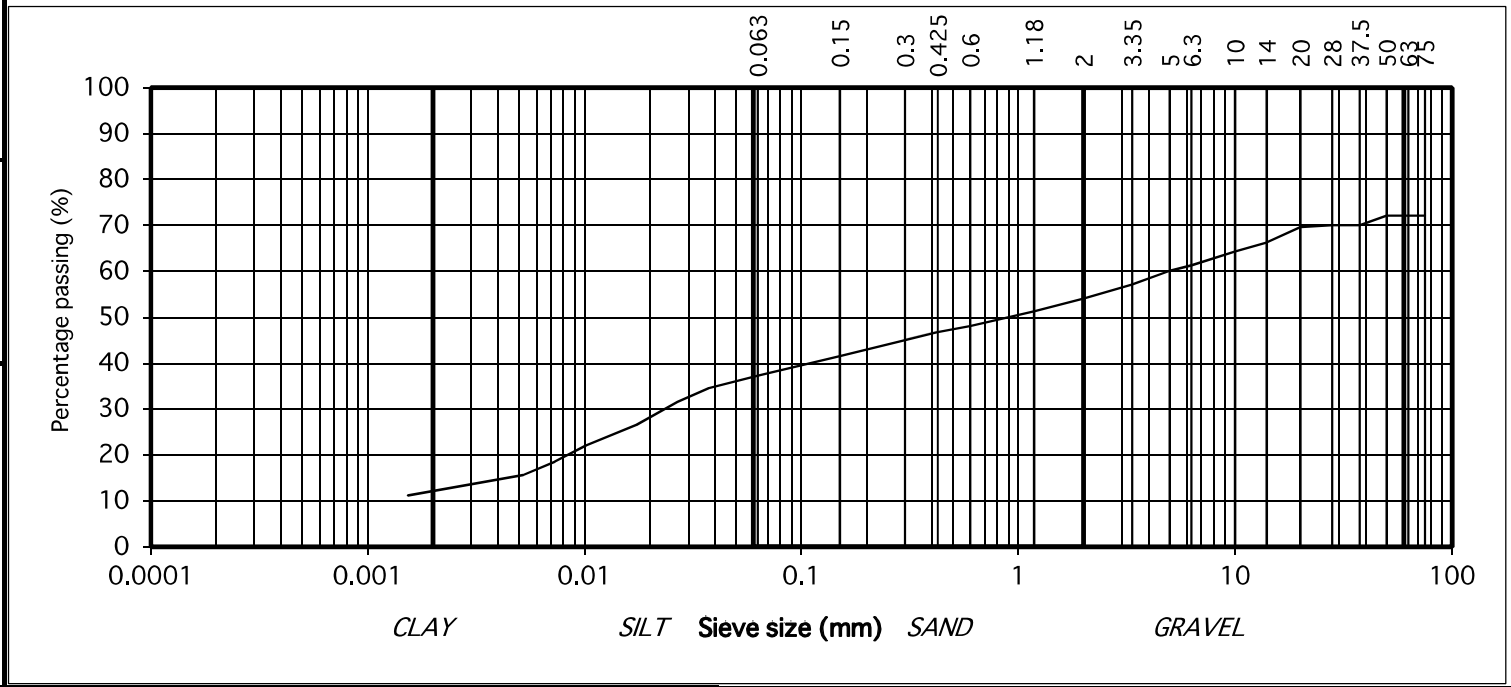
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	72	COBBLES
63	72	
50	72	GRAVEL
37.5	70	
28	70	
20	70	
14	66	
10	64	
6.3	61	
5	60	
3.35	57	
2	54	
1.18	51	SAND
0.6	48	
0.425	47	
0.3	45	
0.15	42	
0.063	37	SILT/CLAY
0.037	35	
0.027	32	
0.017	27	
0.010	22	
0.007	19	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R135018	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104425			
Sample No.*	AA153559	Lab. Sample No.		A22/2547
Sample Type:	B			
Depth* (m)	3.10	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		11/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

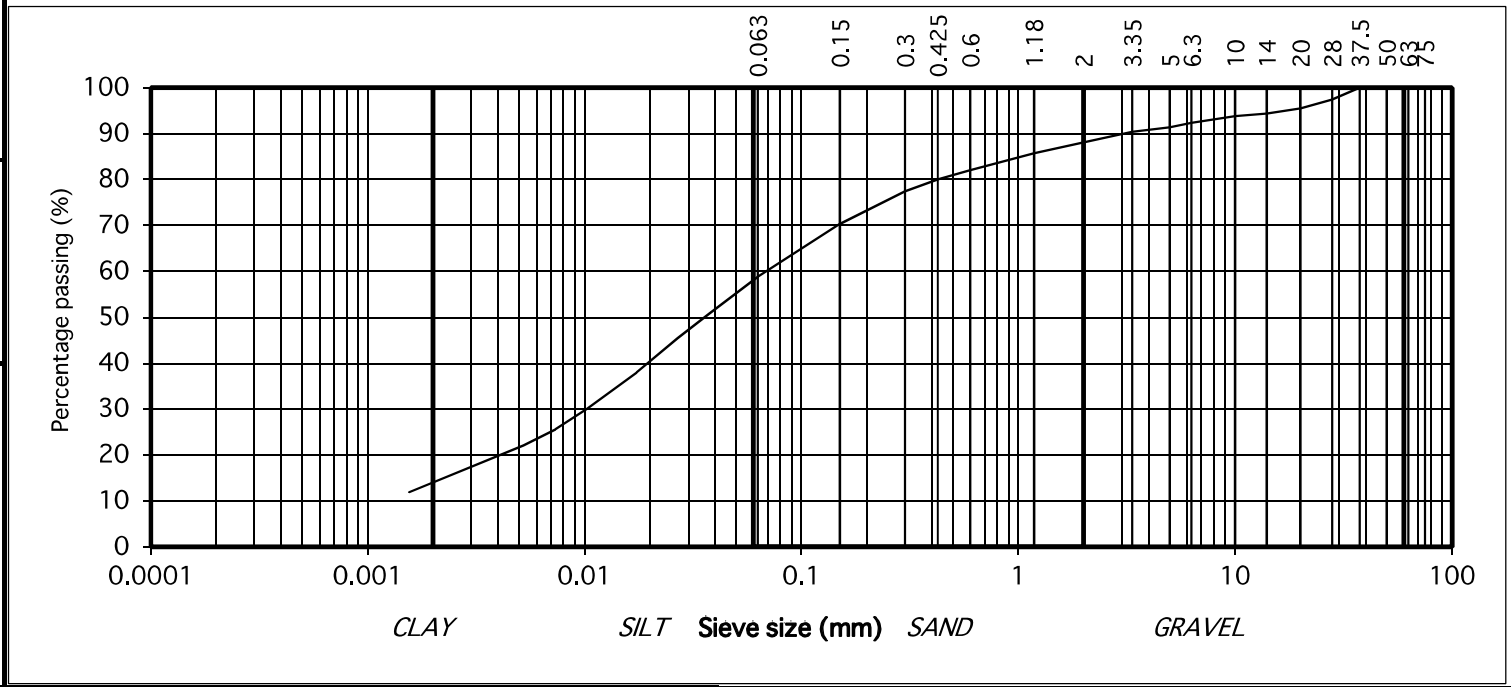
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	95	
14	94	
10	94	
6.3	92	
5	91	
3.35	90	
2	88	
1.18	86	SAND
0.6	82	
0.425	80	
0.3	77	
0.15	70	
0.063	59	SILT/CLAY
0.037	51	
0.027	46	
0.017	38	
0.010	30	
0.007	26	
0.005	22	
0.002	12	

Contract No.	23560	Report No.	R134784	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104507			
Sample No.*	AA173562	Lab. Sample No.		A22/2549
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

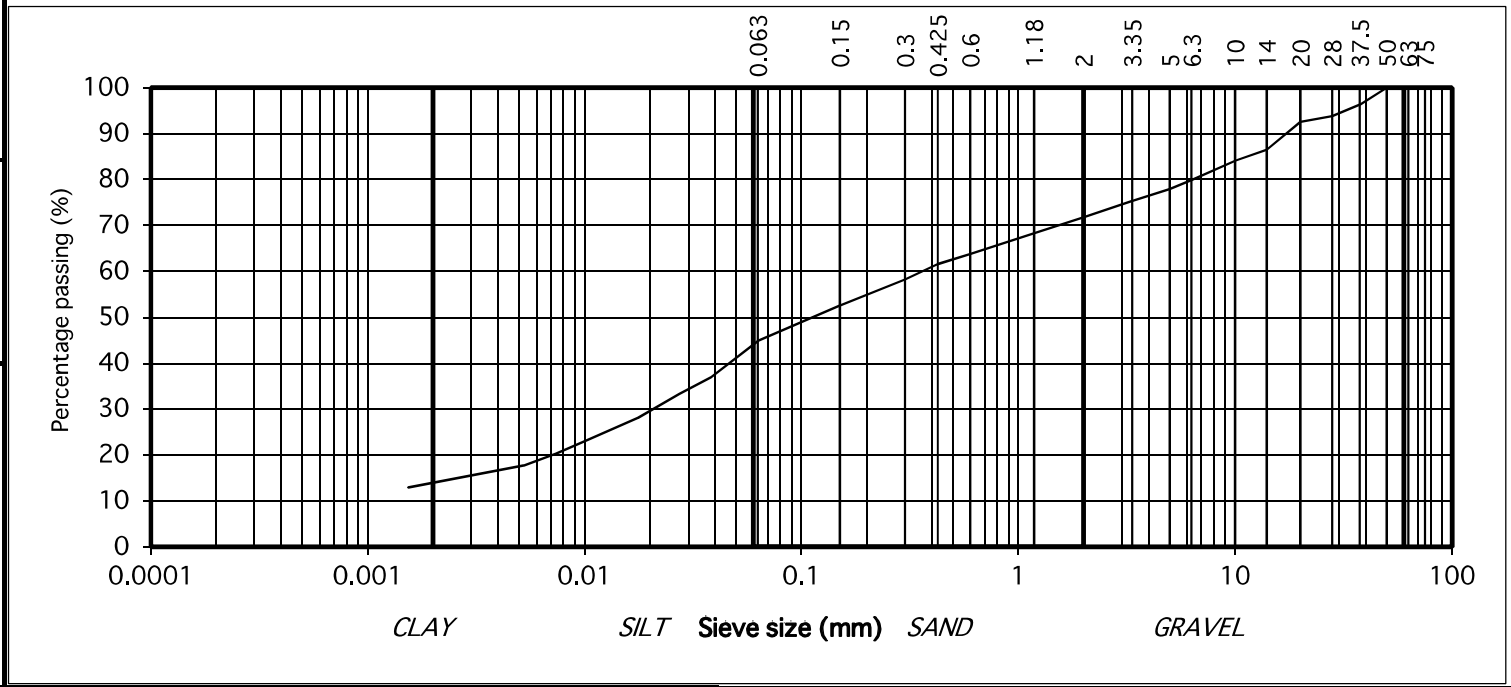
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	94	
20	93	
14	87	
10	84	
6.3	80	
5	78	
3.35	75	
2	72	
1.18	68	SAND
0.6	64	
0.425	62	
0.3	58	
0.15	53	
0.063	45	SILT/CLAY
0.038	37	
0.027	33	
0.018	28	
0.010	23	
0.007	20	
0.005	18	
0.002	13	

Contract No.	23560	Report No.	R134793	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104507			
Sample No.*	AA173561	Lab. Sample No.		A22/2548
Sample Type:	B			
Depth* (m)	0.90	Customer:	Ervia	
Date Received	07/05/2022	Date Testing started		07/05/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

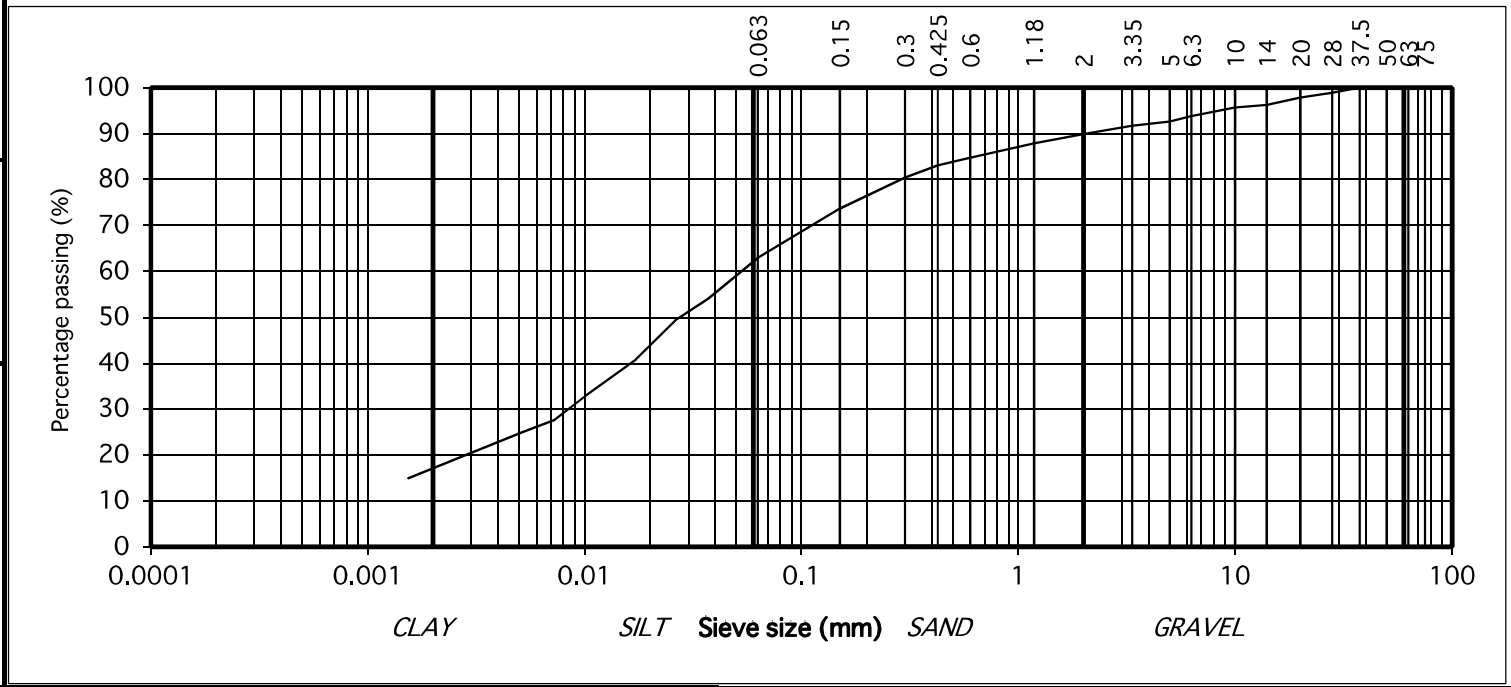
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	98	
14	96	
10	96	
6.3	94	
5	93	
3.35	92	
2	90	
1.18	88	SAND
0.6	85	
0.425	83	
0.3	80	
0.15	74	
0.063	63	SILT/CLAY
0.037	54	
0.027	50	
0.017	41	
0.010	33	
0.007	28	
0.005	25	
0.002	15	

Contract No.	23560	Report No.	R134788	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104610			
Sample No.*	AA173563	Lab. Sample No.		A22/2550
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

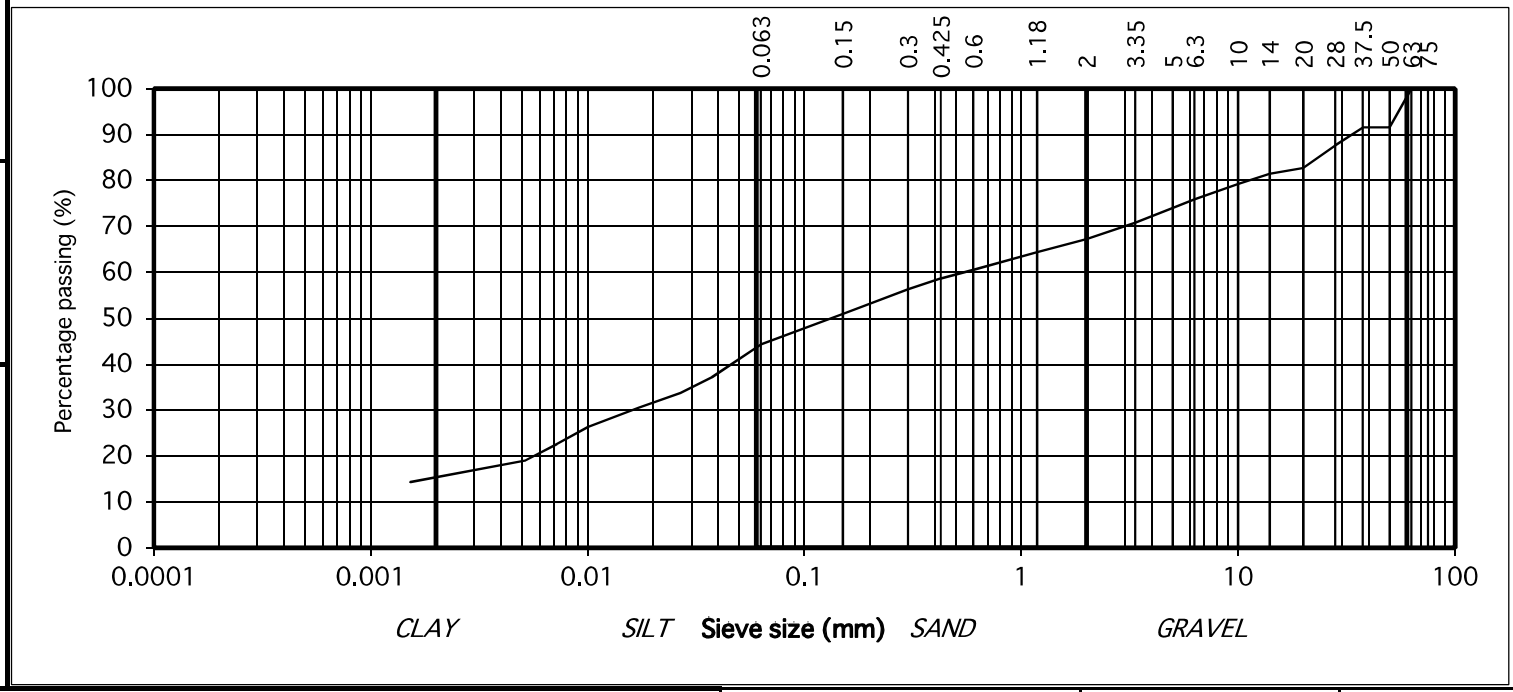
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	92	GRAVEL
37.5	92	
28	88	
20	83	
14	81	
10	79	
6.3	76	
5	74	
3.35	71	
2	67	
1.18	64	SAND
0.6	61	
0.425	59	
0.3	56	
0.15	51	
0.063	44	SILT/CLAY
0.037	37	
0.027	34	
0.017	31	
0.010	26	
0.007	23	
0.005	19	
0.002	14	

Contract No.	23560	Report No.	R134301	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104610			
Sample No.*	AA173565	Lab. Sample No.		A22/2551
Sample Type:	B			
Depth* (m)	3.10	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

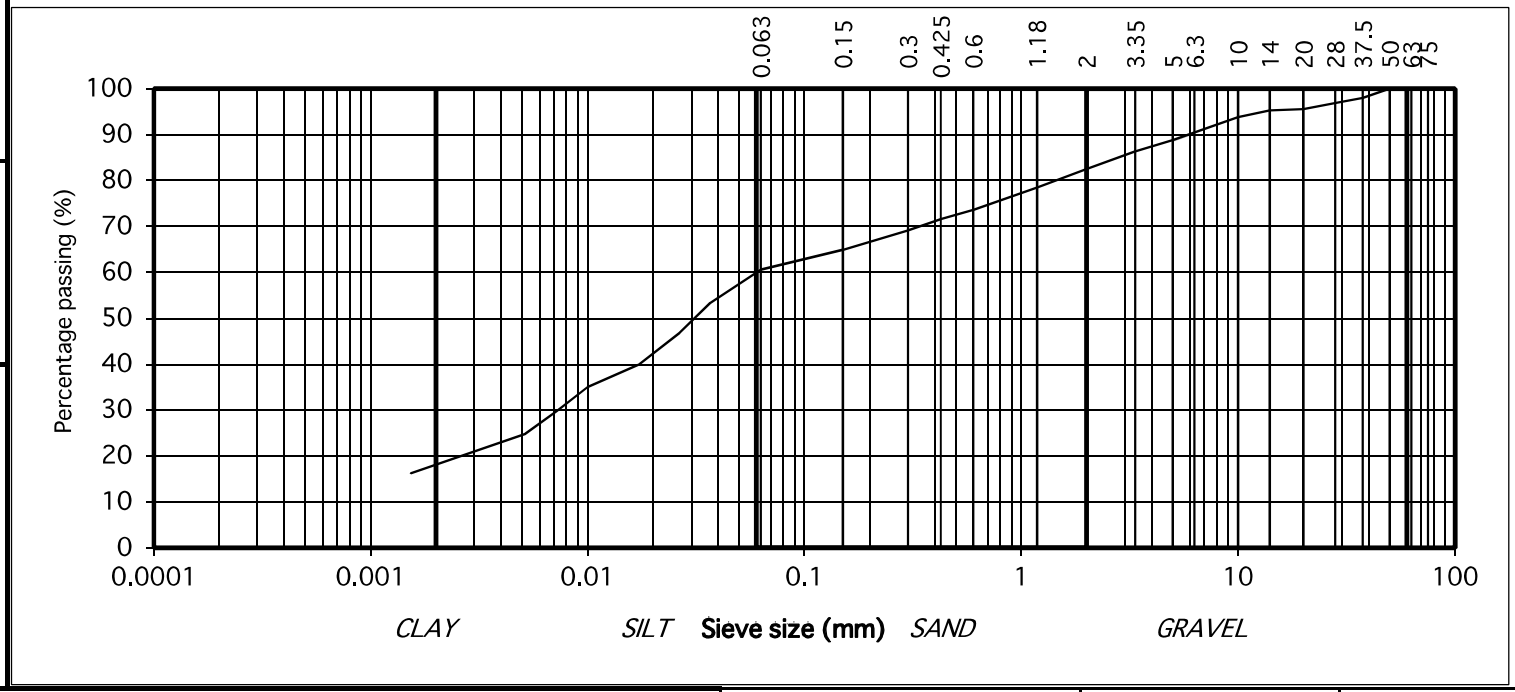
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	97	
20	96	
14	95	
10	94	
6.3	91	
5	89	
3.35	86	
2	82	
1.18	78	SAND
0.6	74	
0.425	72	
0.3	69	
0.15	65	
0.063	61	SILT/CLAY
0.037	53	
0.026	47	
0.017	40	
0.010	35	
0.007	30	
0.005	25	
0.002	16	

Contract No.	23560	Report No.	R134295	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104707			
Sample No.*	AA173557	Lab. Sample No.		A22/2552
Sample Type:	B			
Depth* (m)	1.10	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

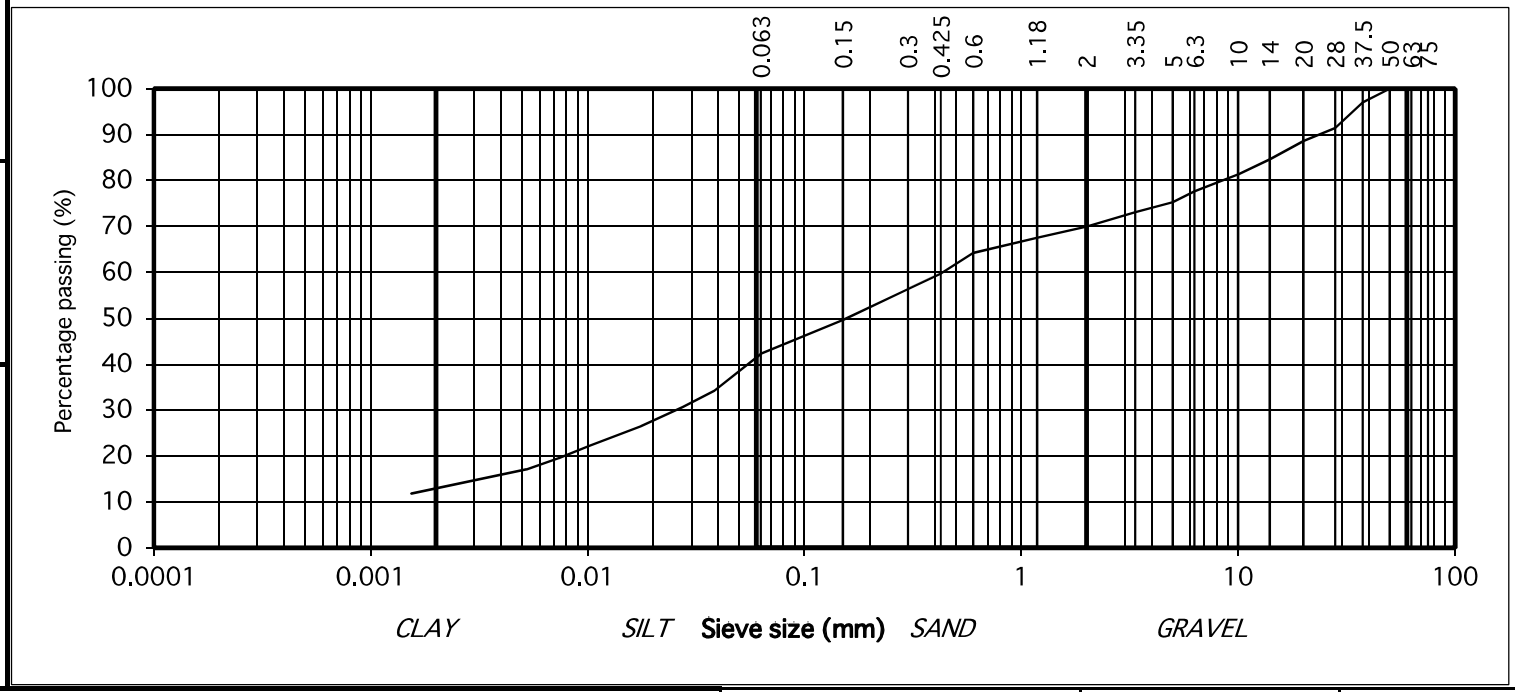
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	91	
20	89	
14	85	
10	81	
6.3	78	
5	75	
3.35	73	
2	70	
1.18	68	SAND
0.6	64	
0.425	60	
0.3	56	
0.15	50	
0.063	42	SILT/CLAY
0.038	34	
0.027	31	
0.018	27	
0.010	22	
0.007	20	
0.005	17	
0.002	12	

Contract No.	23560	Report No.	R134796	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104507			
Sample No.*	AA173558	Lab. Sample No.		A22/2553
Sample Type:	B			
Depth* (m)	2.90	Customer:	Ervia	
Date Received	07/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

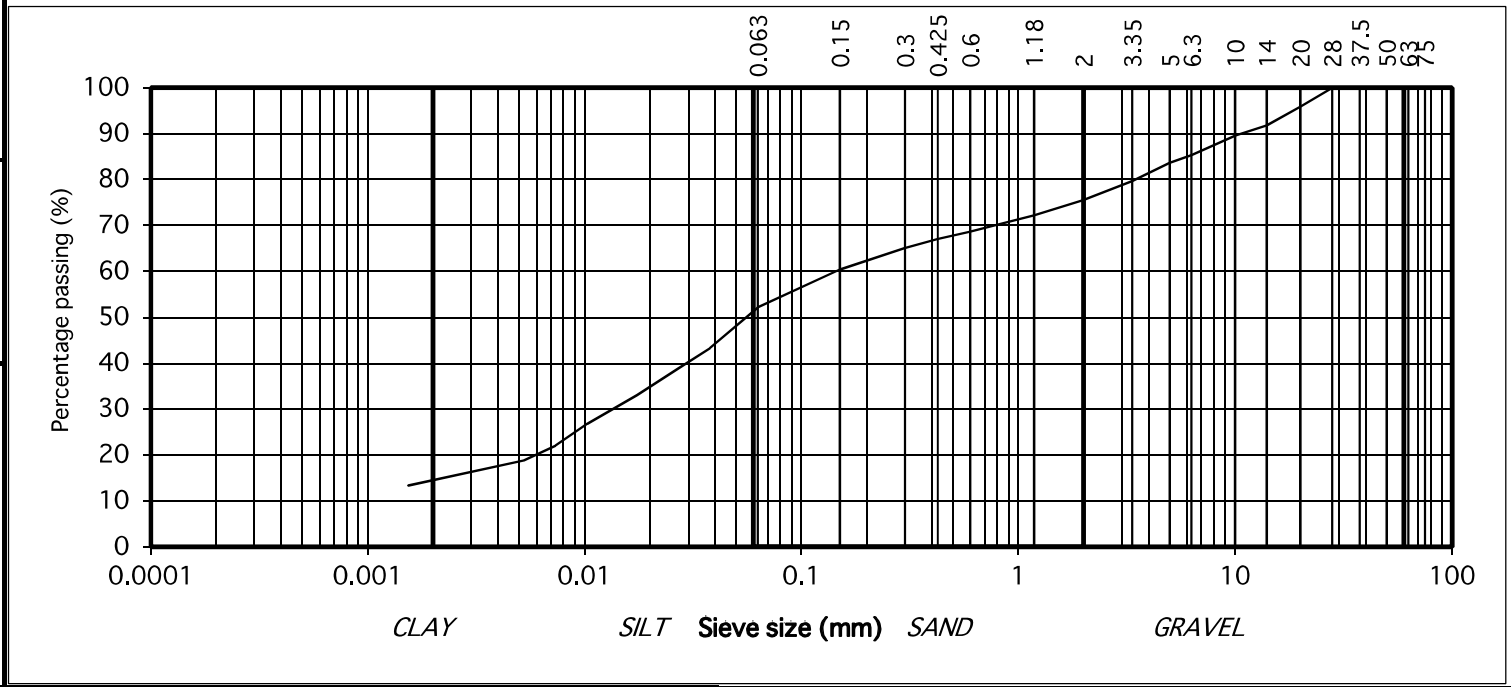
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	96	
14	92	
10	90	
6.3	85	
5	84	
3.35	80	
2	76	
1.18	72	SAND
0.6	69	
0.425	67	
0.3	65	
0.15	60	
0.063	52	SILT/CLAY
0.038	43	
0.027	39	
0.017	33	
0.010	27	
0.007	22	
0.005	19	
0.002	13	

Contract No.	23560	Report No.	R135019	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP104800			
Sample No.*	AA173559	Lab. Sample No.		A22/2554
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		11/05/2022
Description:	Grey brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

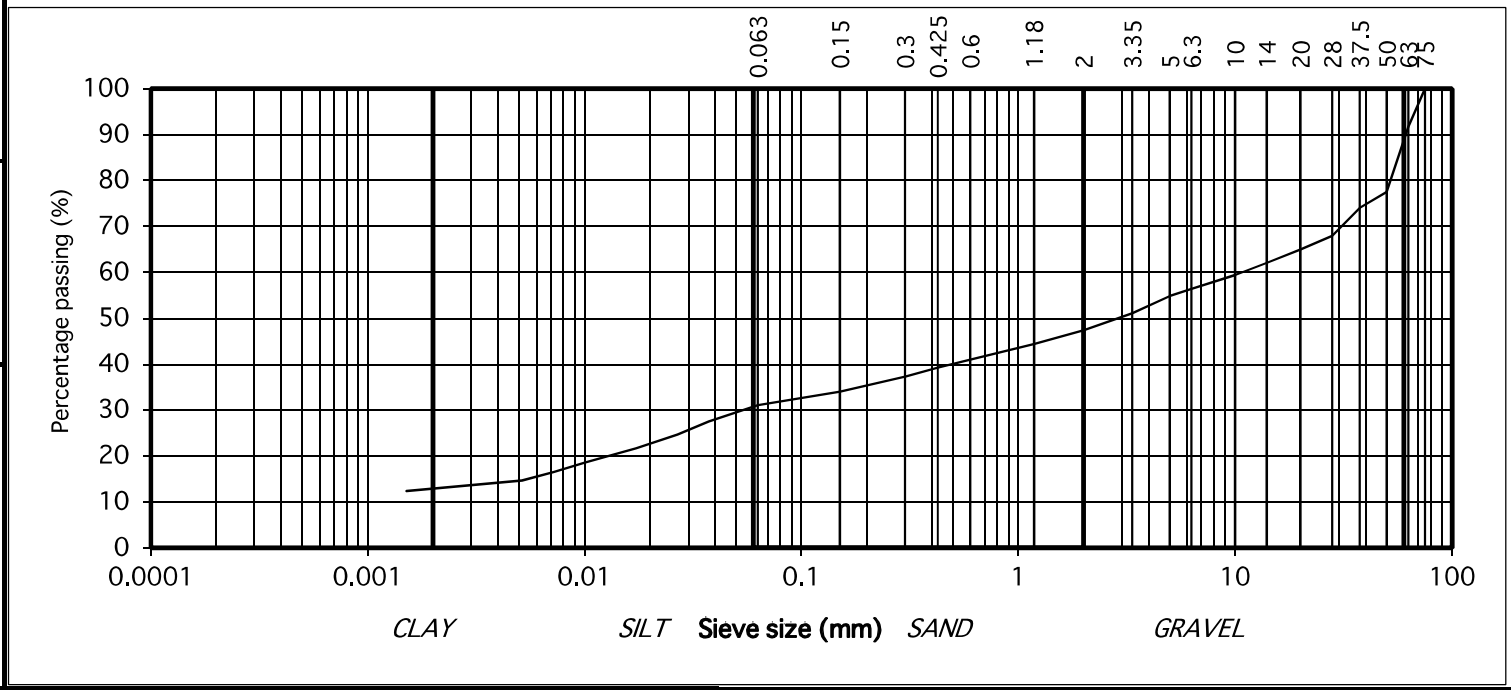
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	92	
50	78	GRAVEL
37.5	74	
28	68	
20	65	
14	62	
10	59	
6.3	56	
5	55	
3.35	51	
2	47	
1.18	44	SAND
0.6	41	
0.425	39	
0.3	37	
0.15	34	
0.063	31	SILT/CLAY
0.037	28	
0.027	25	
0.017	22	
0.010	19	
0.007	17	
0.005	15	
0.002	12	

Contract No. 23560 Report No. R134300
Contract Name: WSP - Lot 3
BH/TP* : TP104800
Sample No.* AA173560 Lab. Sample No. A22/2555
Sample Type: B
Depth* (m) 1.80 Customer: Ervia
Date Received 04/05/2022 Date Testing started 06/05/2022
Description: Brown slightly sandy, gravelly, SILT/CLAY with some cobbles

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

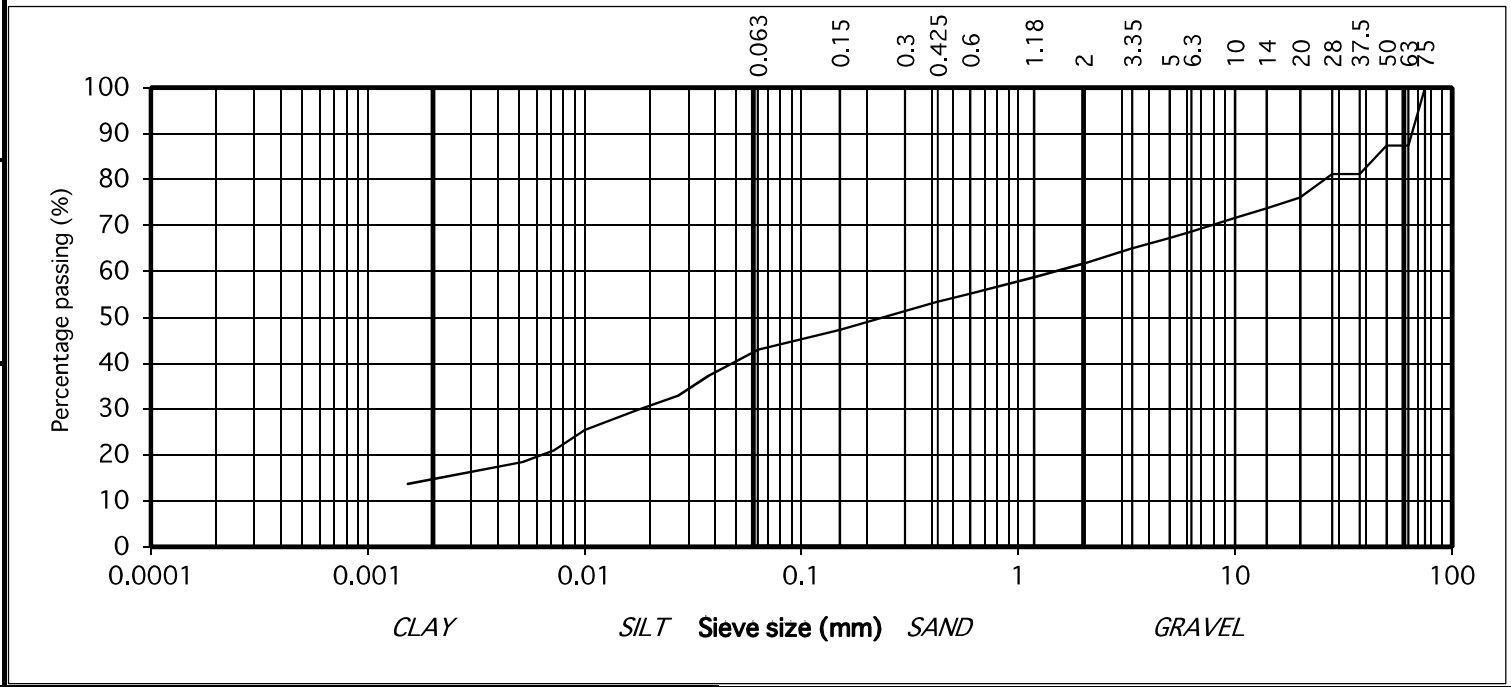
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	87	
50	87	GRAVEL
37.5	81	
28	81	
20	76	
14	74	
10	72	
6.3	69	
5	67	
3.35	65	
2	62	
1.18	59	SAND
0.6	55	
0.425	53	
0.3	51	
0.15	47	
0.063	43	SILT/CLAY
0.037	37	
0.027	33	
0.017	30	
0.010	26	
0.007	21	
0.005	19	
0.002	14	

Contract No. 23560 Report No. R134951
Contract Name: WSP - Lot 3
BH/TP* : TP104908
Sample No.* AA173574 Lab. Sample No. A22/2557
Sample Type: B
Depth* (m) 2.80 Customer: Ervia
Date Received 04/05/2022 Date Testing started 06/05/2022
Description: Brown slightly sandy, gravelly, SILT/CLAY with some cobbles

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

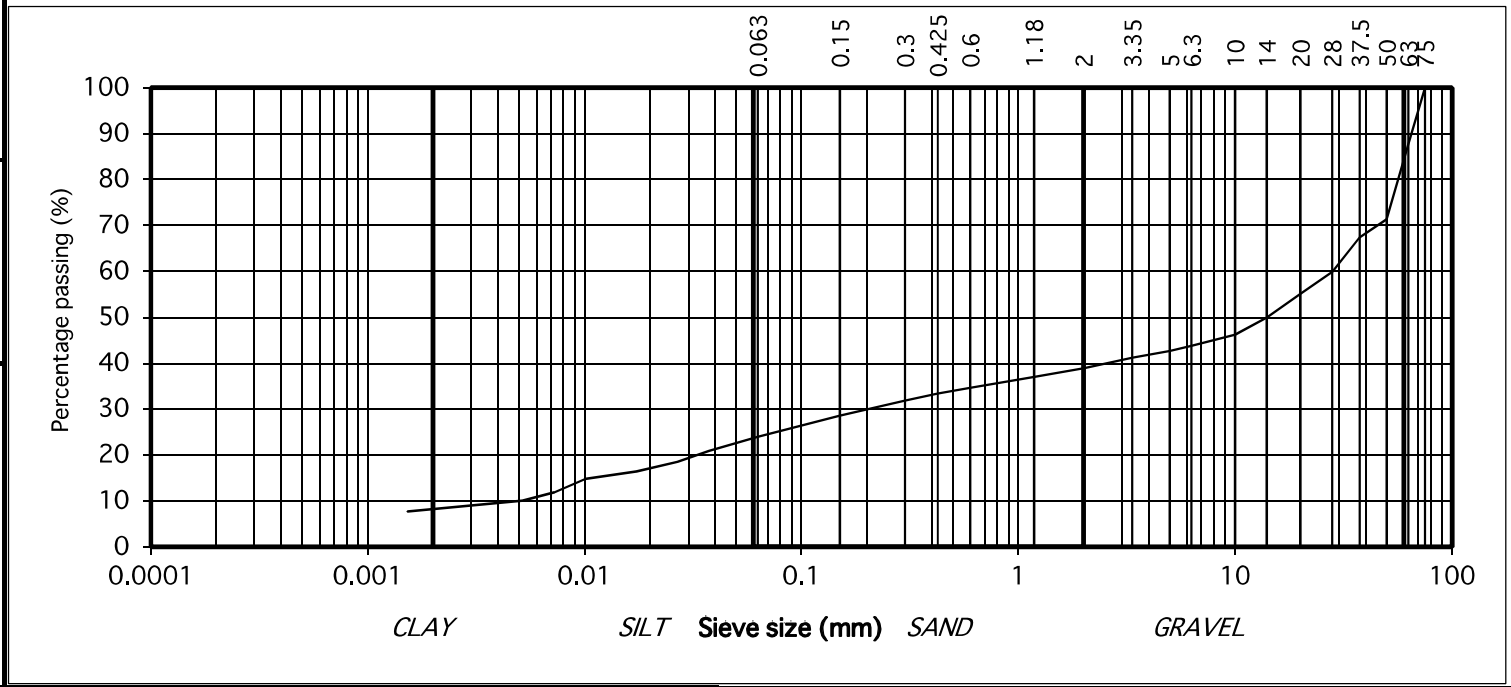
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	88	
50	71	GRAVEL
37.5	67	
28	60	
20	55	
14	50	
10	46	
6.3	44	
5	43	
3.35	41	
2	39	
1.18	37	SAND
0.6	35	
0.425	33	
0.3	32	
0.15	29	
0.063	24	SILT/CLAY
0.037	21	
0.027	19	
0.017	16	
0.010	15	
0.007	12	
0.005	10	
0.002	8	

Contract No.	23560	Report No.	R134939	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP108804			
Sample No.*	AA173575	Lab. Sample No.		A22/2558
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

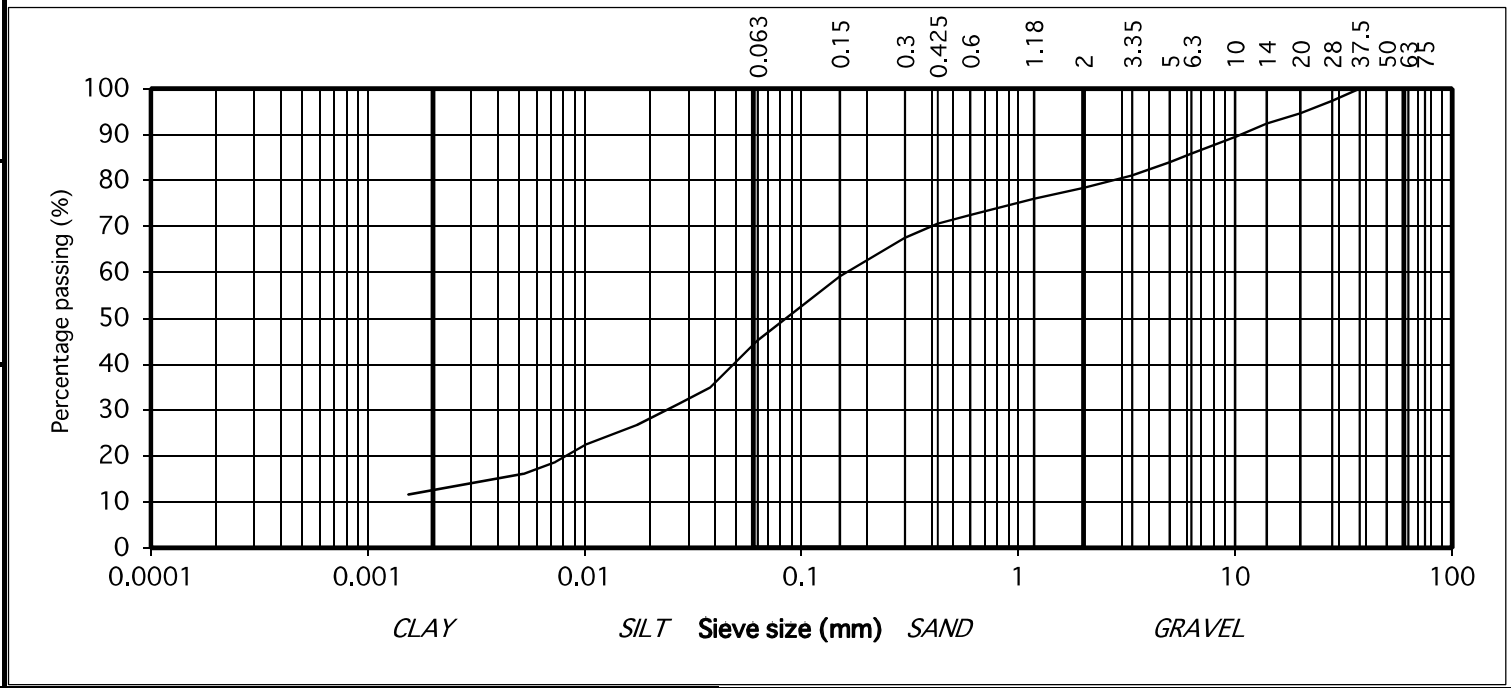
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	95	
14	92	
10	90	
6.3	86	
5	84	
3.35	81	
2	78	
1.18	76	SAND
0.6	73	
0.425	71	
0.3	68	
0.15	59	
0.063	45	SILT/CLAY
0.038	35	
0.027	31	
0.017	27	
0.010	23	
0.007	19	
0.005	16	
0.002	12	

Contract No.	23560	Report No.	R134797	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP108804			
Sample No.*	AA173577	Lab. Sample No.		A22/2559
Sample Type:	B			
Depth* (m)	2.40	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		11/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

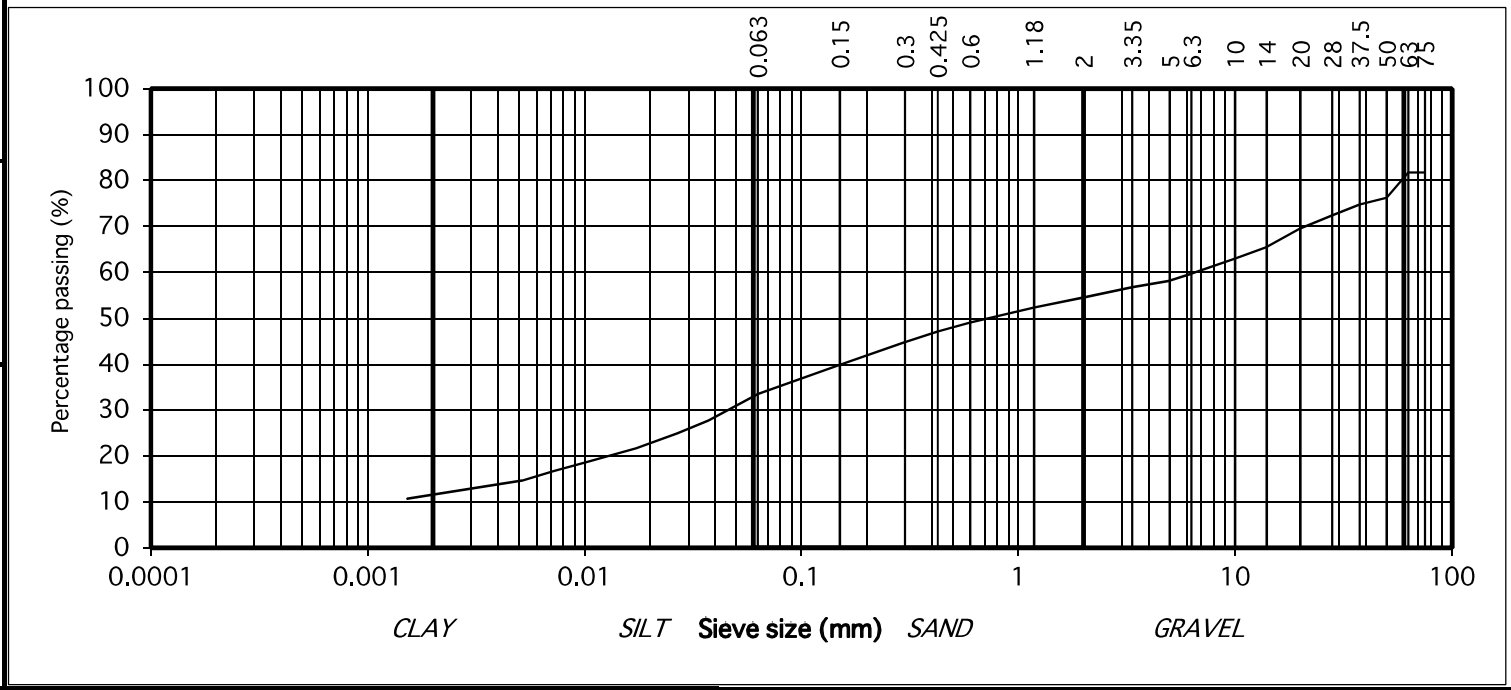
particle size	% passing	
75	82	COBBLES
63	82	
50	76	GRAVEL
37.5	75	
28	72	
20	70	
14	66	
10	63	
6.3	60	
5	58	
3.35	57	
2	55	
1.18	52	SAND
0.6	49	
0.425	47	
0.3	45	
0.15	40	
0.063	34	SILT/CLAY
0.037	28	
0.027	25	
0.017	22	
0.010	19	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R134947	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP108905			
Sample No.*	AA173579	Lab. Sample No.		A22/2562
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

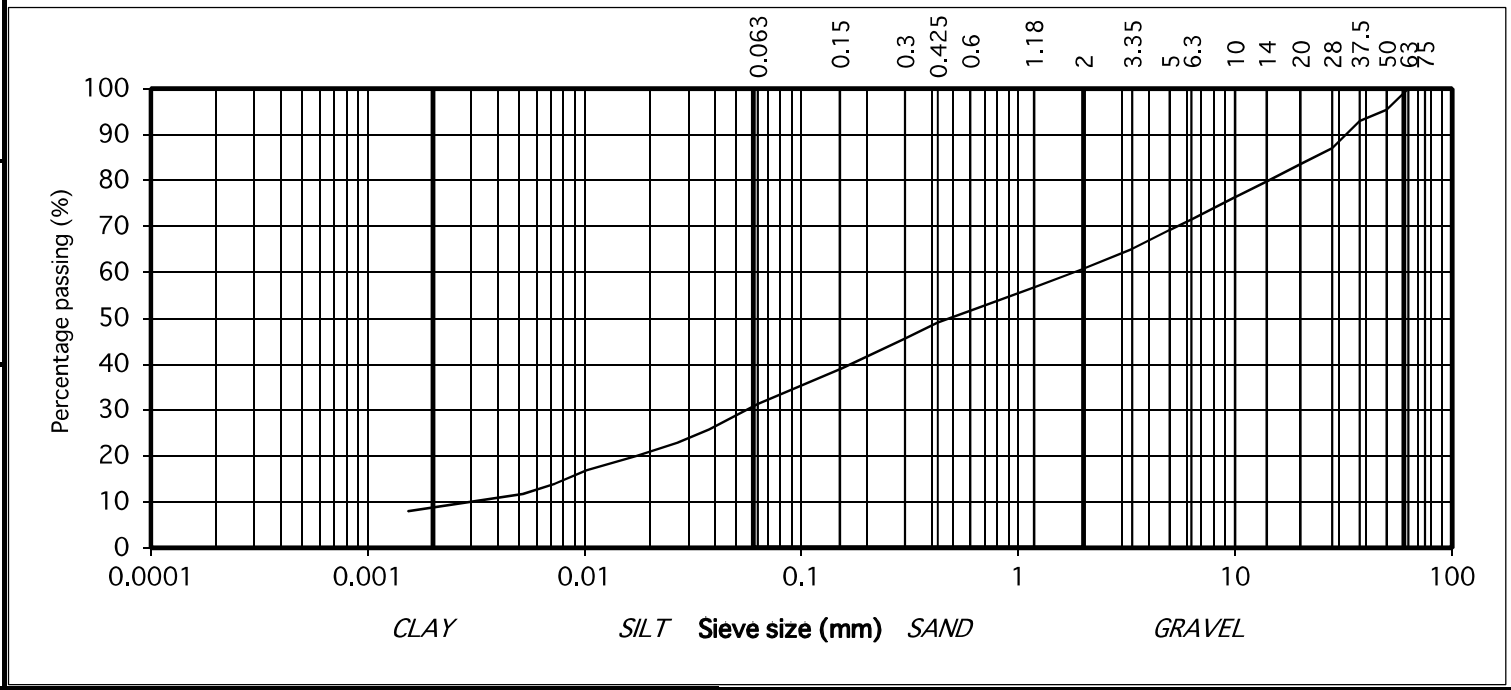
particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	93	
28	87	
20	84	
14	80	
10	76	
6.3	72	
5	69	
3.35	65	
2	61	
1.18	57	SAND
0.6	52	
0.425	49	
0.3	46	
0.15	39	
0.063	31	SILT/CLAY
0.037	26	
0.027	23	
0.017	20	
0.010	17	
0.007	14	
0.005	12	
0.002	8	

Contract No.	23560	Report No.	R134299	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP110906			
Sample No.*	AA162176	Lab. Sample No.		A22/2497
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

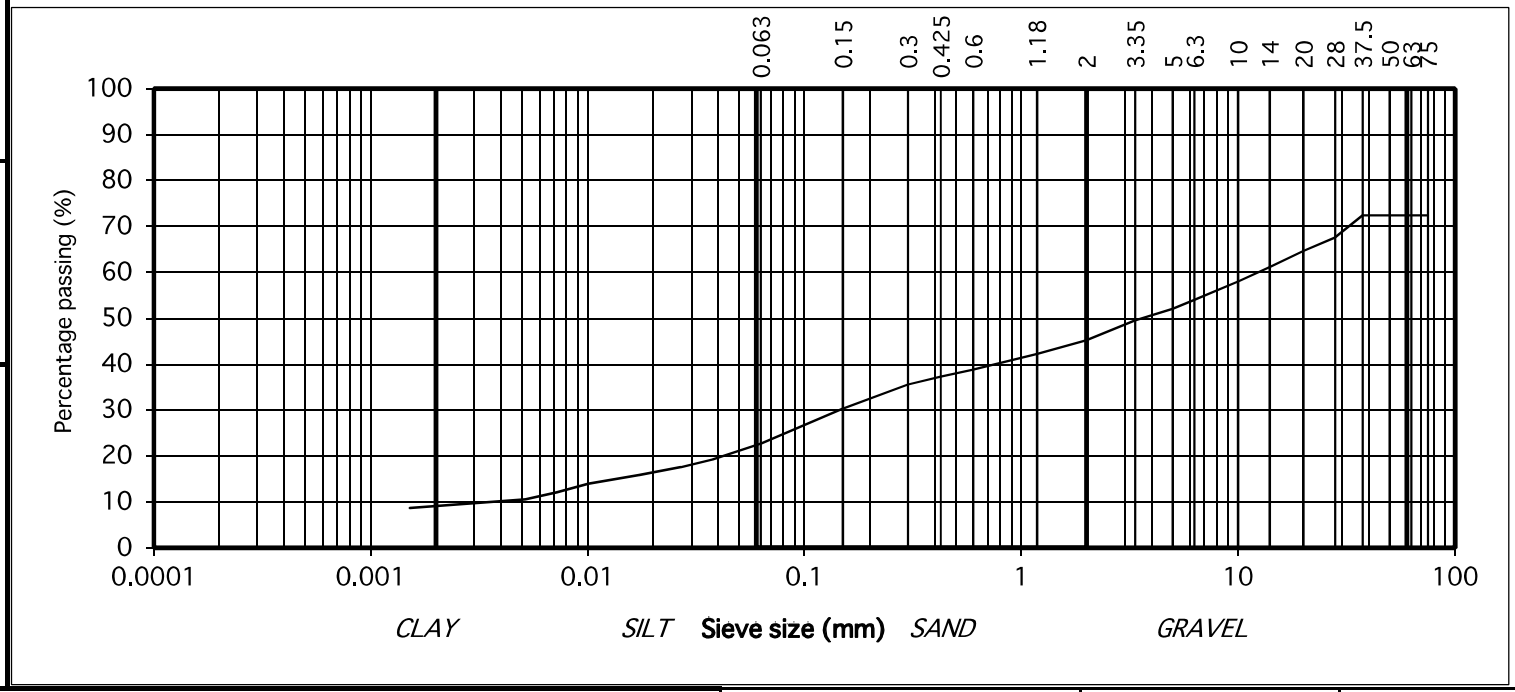
particle size	% passing	
75	72	COBBLES
63	72	
50	72	GRAVEL
37.5	72	
28	68	
20	65	
14	61	
10	58	
6.3	54	
5	52	
3.35	50	
2	45	
1.18	42	SAND
0.6	39	
0.425	37	
0.3	36	
0.15	30	
0.063	23	SILT/CLAY
0.038	19	
0.027	18	
0.017	16	
0.010	14	
0.007	12	
0.005	11	
0.002	9	

Contract No.	23560	Report No.	R134792	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP110906			
Sample No.*	AA162177	Lab. Sample No.		A22/2498
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

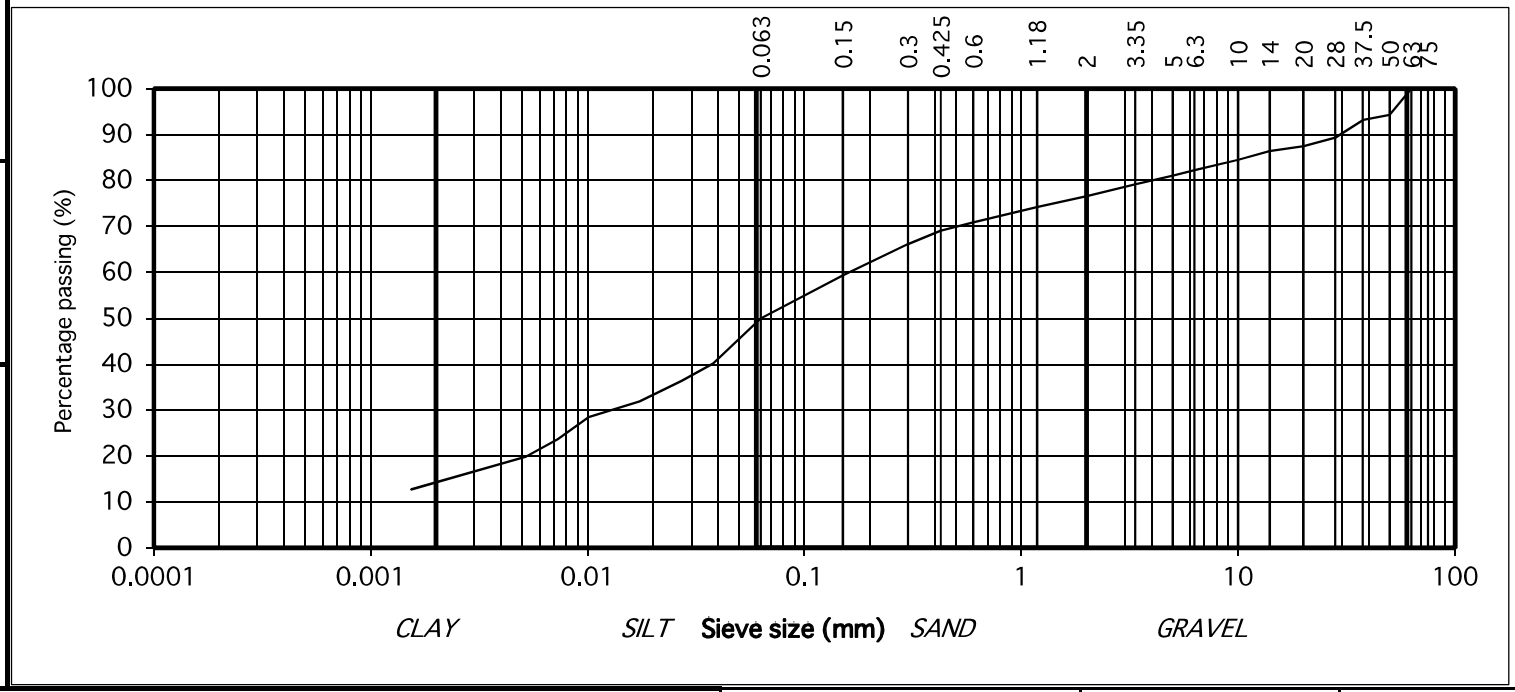
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	93	
28	89	
20	88	
14	86	
10	85	
6.3	82	
5	81	
3.35	79	
2	77	
1.18	74	SAND
0.6	71	
0.425	69	
0.3	66	
0.15	59	
0.063	50	SILT/CLAY
0.038	40	
0.027	36	
0.017	32	
0.010	29	
0.007	24	
0.005	20	
0.002	13	

Contract No.	23560	Report No.	R135020	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111007			
Sample No.*	AA162178	Lab. Sample No.		A22/2499
Sample Type:	B			
Depth* (m)	0.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

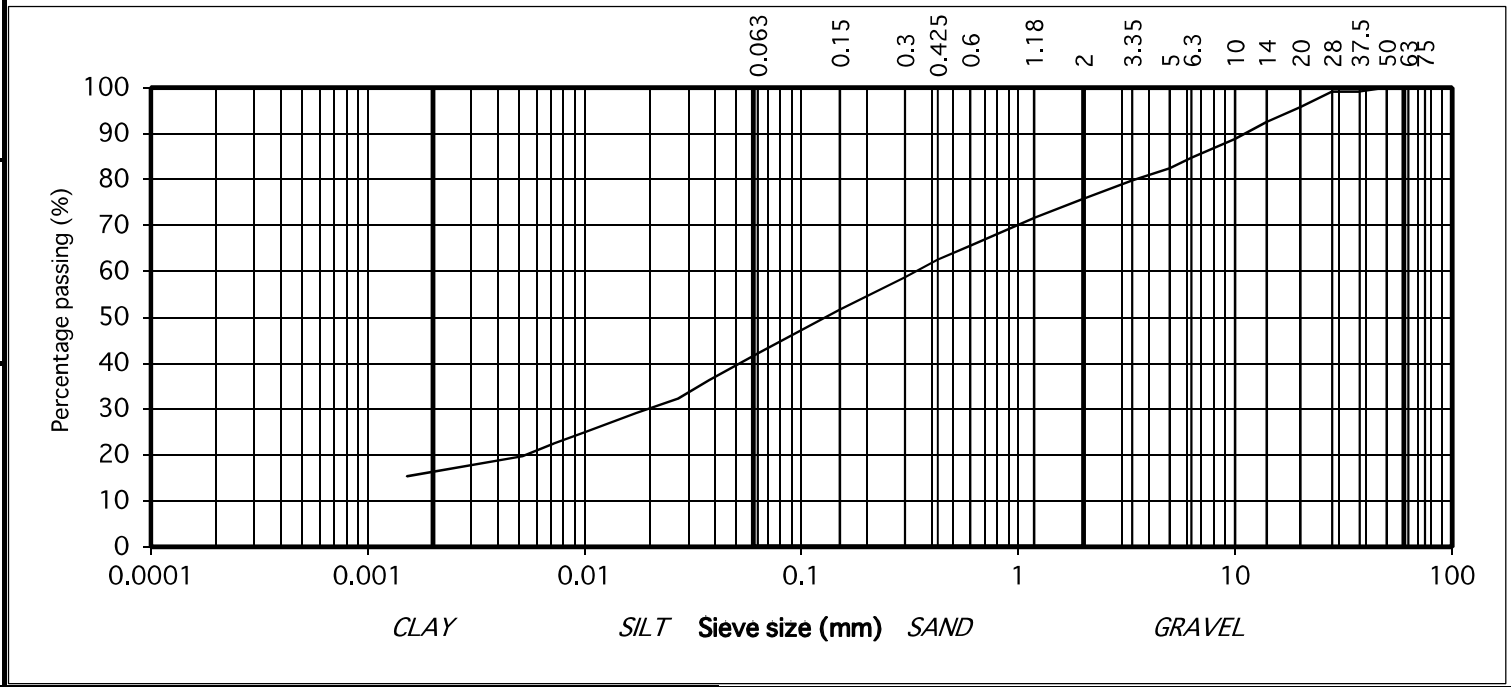
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	99	
28	99	
20	96	
14	93	
10	89	
6.3	85	
5	82	
3.35	80	
2	76	
1.18	72	SAND
0.6	66	
0.425	63	
0.3	59	
0.15	52	
0.063	42	SILT/CLAY
0.037	36	
0.027	32	
0.017	29	
0.010	25	
0.007	23	
0.005	20	
0.002	15	

Contract No.	23560	Report No.	R134957	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111007			
Sample No.*	AA162179	Lab. Sample No.		A22/2500
Sample Type:	B			
Depth* (m)	0.60	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

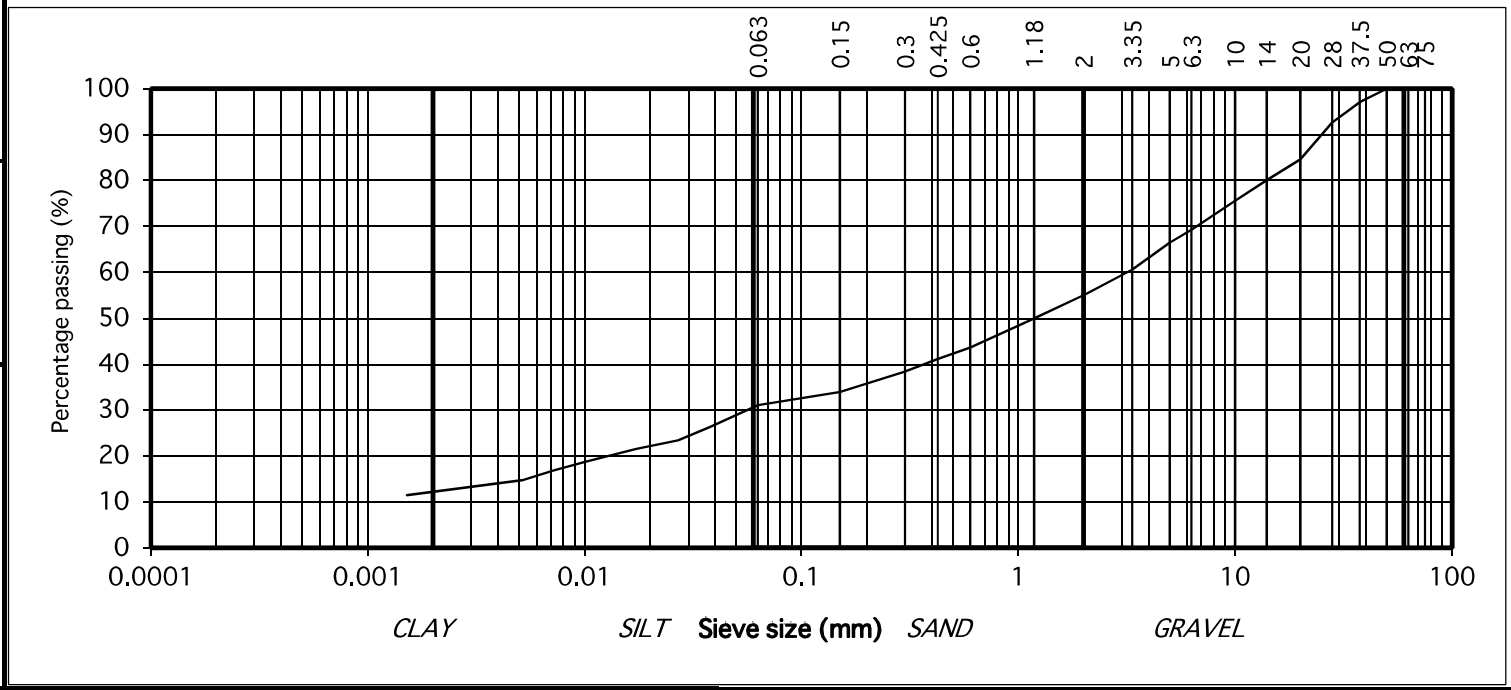
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	93	
20	85	
14	80	
10	76	
6.3	69	
5	66	
3.35	61	
2	55	
1.18	50	SAND
0.6	44	
0.425	41	
0.3	38	
0.15	34	
0.063	31	SILT/CLAY
0.038	26	
0.027	23	
0.017	22	
0.010	19	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R143950	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111202			
Sample No.*	AA162182	Lab. Sample No.		A22/2503
Sample Type:	B			
Depth* (m)	0.40	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

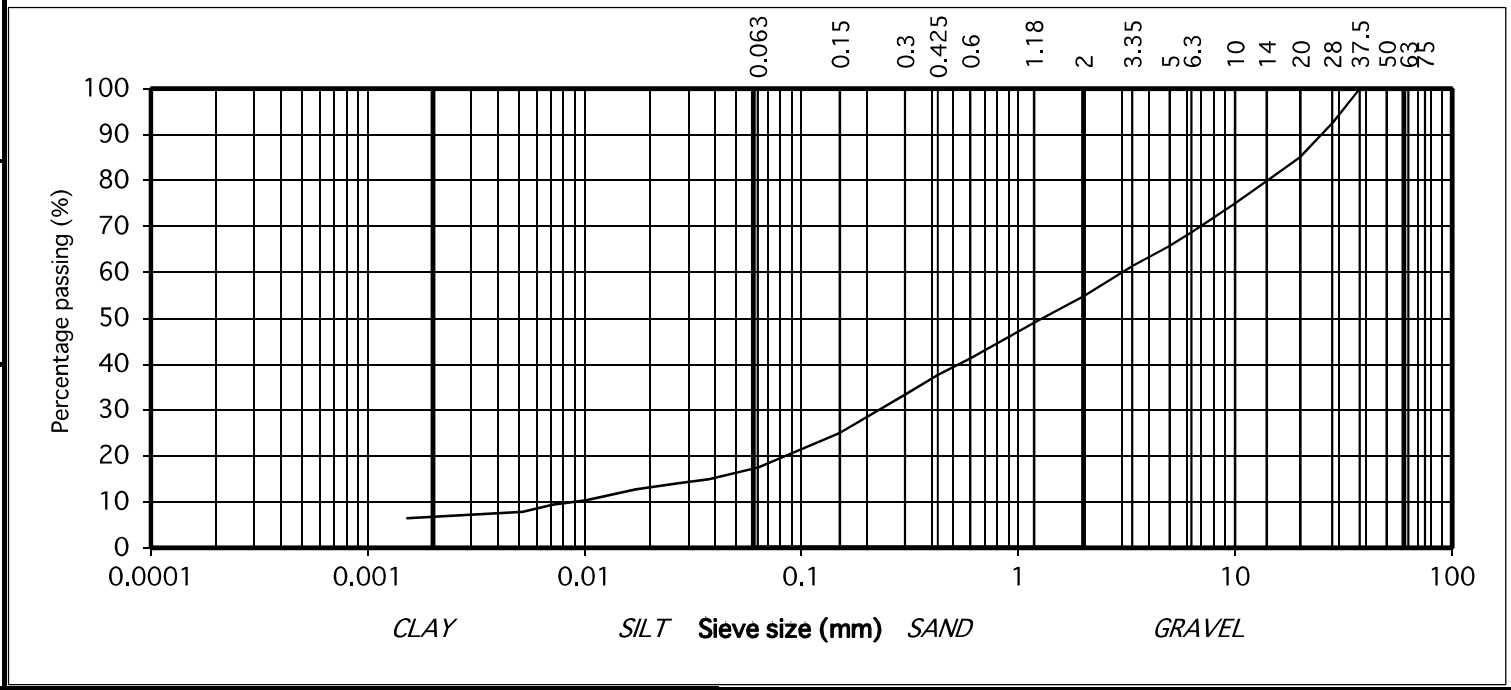
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	93	
20	85	
14	80	
10	75	
6.3	69	
5	66	
3.35	61	
2	55	
1.18	49	SAND
0.6	41	
0.425	38	
0.3	33	
0.15	25	
0.063	18	SILT/CLAY
0.037	15	
0.027	14	
0.017	13	
0.010	10	
0.007	9	
0.005	8	
0.002	6	

Contract No.	23560	Report No.	R134304	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111007			
Sample No.*	AA162180	Lab. Sample No.		A22/2501
Sample Type:	B			
Depth* (m)	1.60	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, very sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

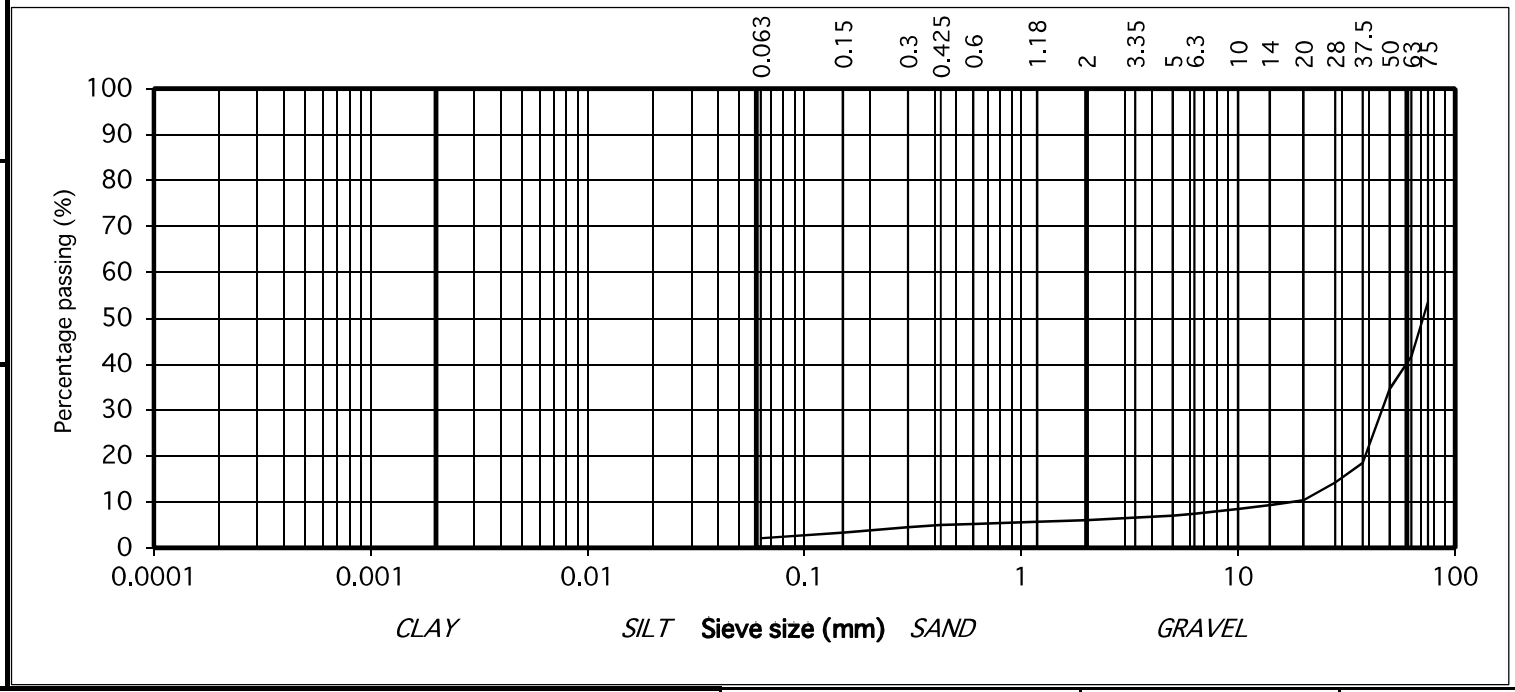
particle size	% passing	
75	54	COBBLES
63	42	
50	35	GRAVEL
37.5	18	
28	14	
20	10	
14	9	
10	9	
6.3	7	
5	7	
3.35	7	
2	6	
1.18	6	SAND
0.6	5	
0.425	5	
0.3	5	
0.15	3	
0.063	2	SILT/CLAY

Contract No.	23560	Report No.	R134293	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP11105			
Sample No.*	AA162181	Lab. Sample No.		A22/2502
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	COBBLES with brown slightly clayey/silty, slightly sandy, gravel			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

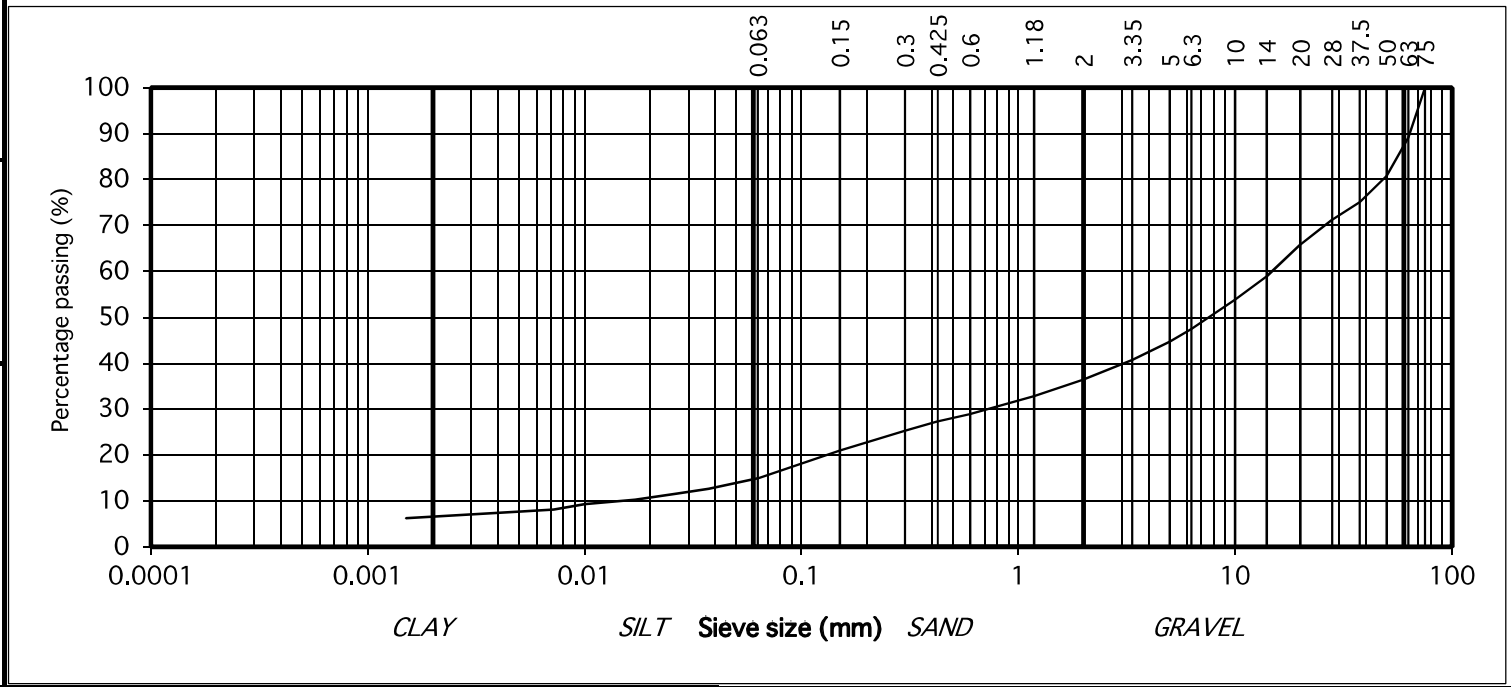
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	89	
50	81	GRAVEL
37.5	75	
28	71	
20	66	
14	59	
10	54	
6.3	47	
5	45	
3.35	41	
2	36	
1.18	33	SAND
0.6	29	
0.425	27	
0.3	25	
0.15	21	
0.063	15	SILT/CLAY
0.037	13	
0.027	12	
0.017	10	
0.010	9	
0.007	8	
0.005	8	
0.001	6	

Contract No.	23560	Report No.	R134292	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111202			
Sample No.*	AA162183	Lab. Sample No.		A22/2504
Sample Type:	B			
Depth* (m)	0.90	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, very sandy, GRAVEL with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

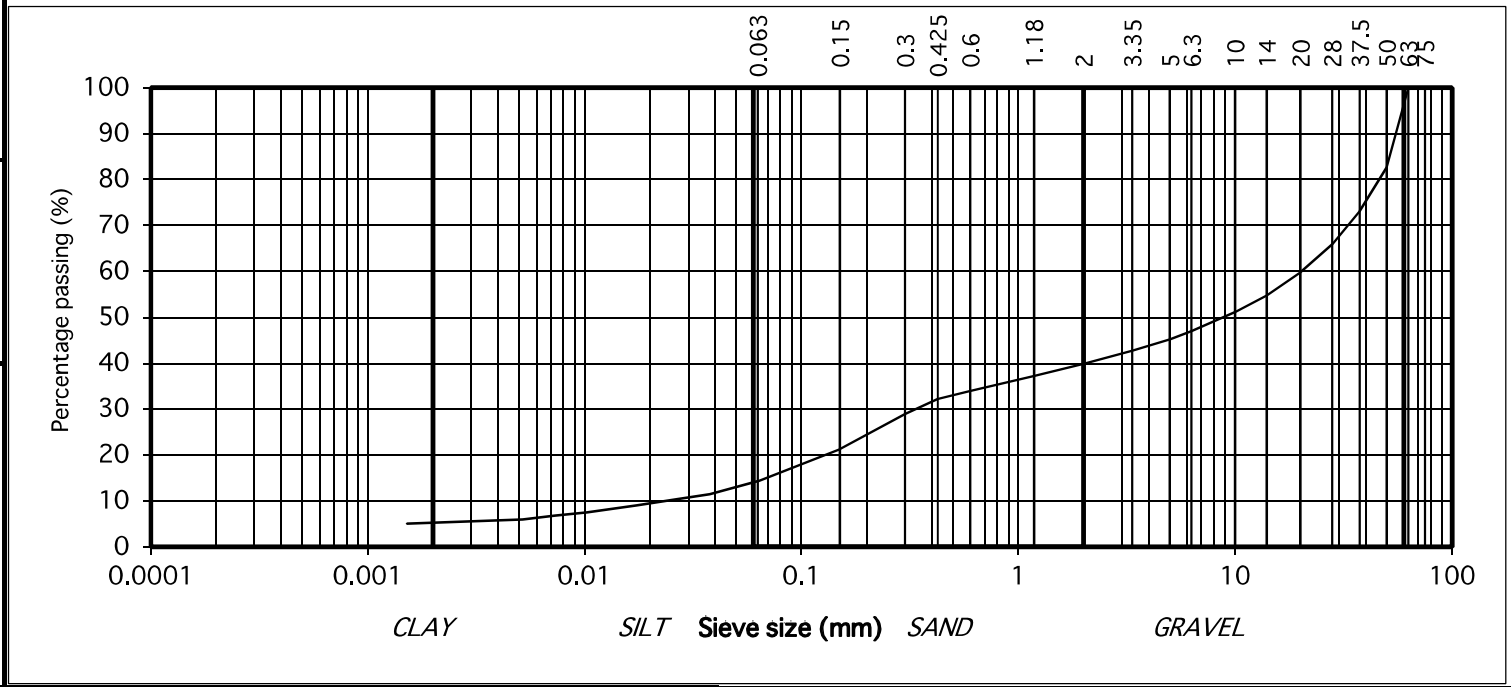
particle size	% passing	
75	100	COBBLES
63	100	
50	83	GRAVEL
37.5	73	
28	66	
20	60	
14	55	
10	51	
6.3	47	
5	45	
3.35	43	
2	40	
1.18	37	SAND
0.6	34	
0.425	32	
0.3	29	
0.15	21	
0.063	14	SILT/CLAY
0.038	11	
0.027	10	
0.017	9	
0.010	8	
0.007	7	
0.005	6	
0.002	5	

Contract No.	23560	Report No.	R134774	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP11305			
Sample No.*	AA162186	Lab. Sample No.		A22/2507
Sample Type:	B			
Depth* (m)	0.90	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown clayey/silty, very sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

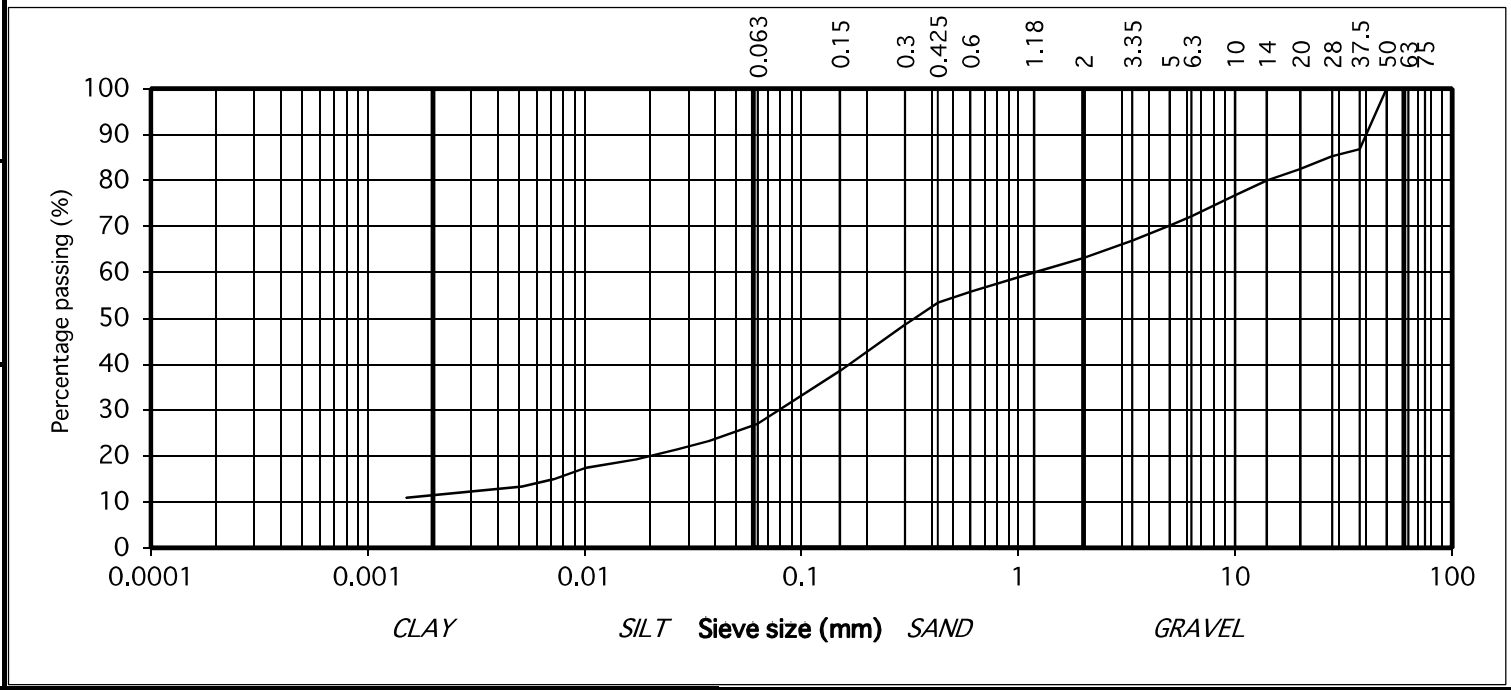
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	87	
28	85	
20	82	
14	80	
10	77	
6.3	72	
5	70	
3.35	67	
2	63	
1.18	60	SAND
0.6	56	
0.425	53	
0.3	49	
0.15	39	
0.063	27	SILT/CLAY
0.037	23	
0.027	21	
0.017	19	
0.010	17	
0.007	15	
0.005	13	
0.002	11	

Contract No.	23560	Report No.	R134302	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111305			
Sample No.*	AA162185	Lab. Sample No.		A22/2506
Sample Type:	B			
Depth* (m)	0.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

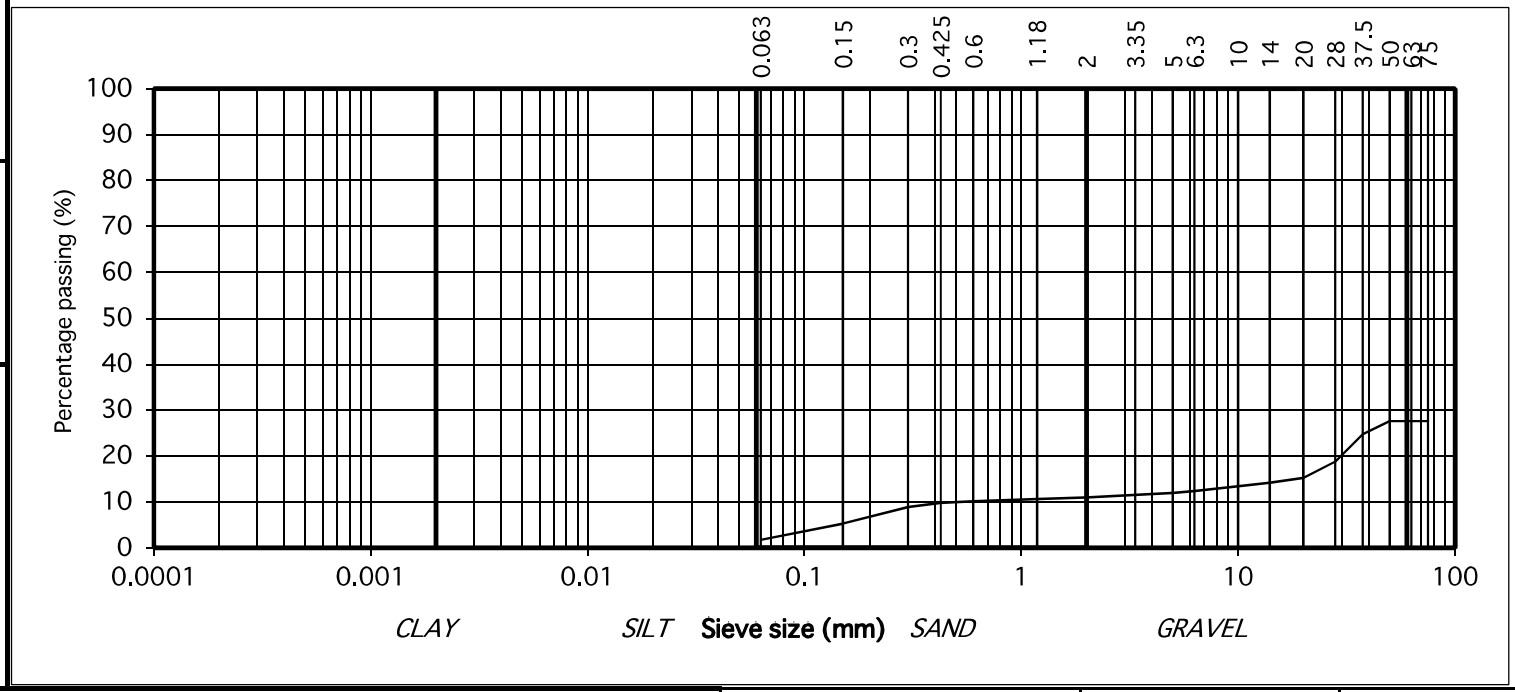
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	28	COBBLES
63	28	
50	28	GRAVEL
37.5	25	
28	19	
20	15	
14	14	
10	13	
6.3	12	
5	12	
3.35	12	
2	11	
1.18	11	SAND
0.6	10	
0.425	10	
0.3	9	
0.15	5	
0.063	2	SILT/CLAY

Contract No.	23560	Report No.	R134950	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111305			
Sample No.*	AA162187	Lab. Sample No.		A22/2508
Sample Type:	B			
Depth* (m)	1.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	COBBLES with brown slightly clayey/silty, sandy, gravel			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

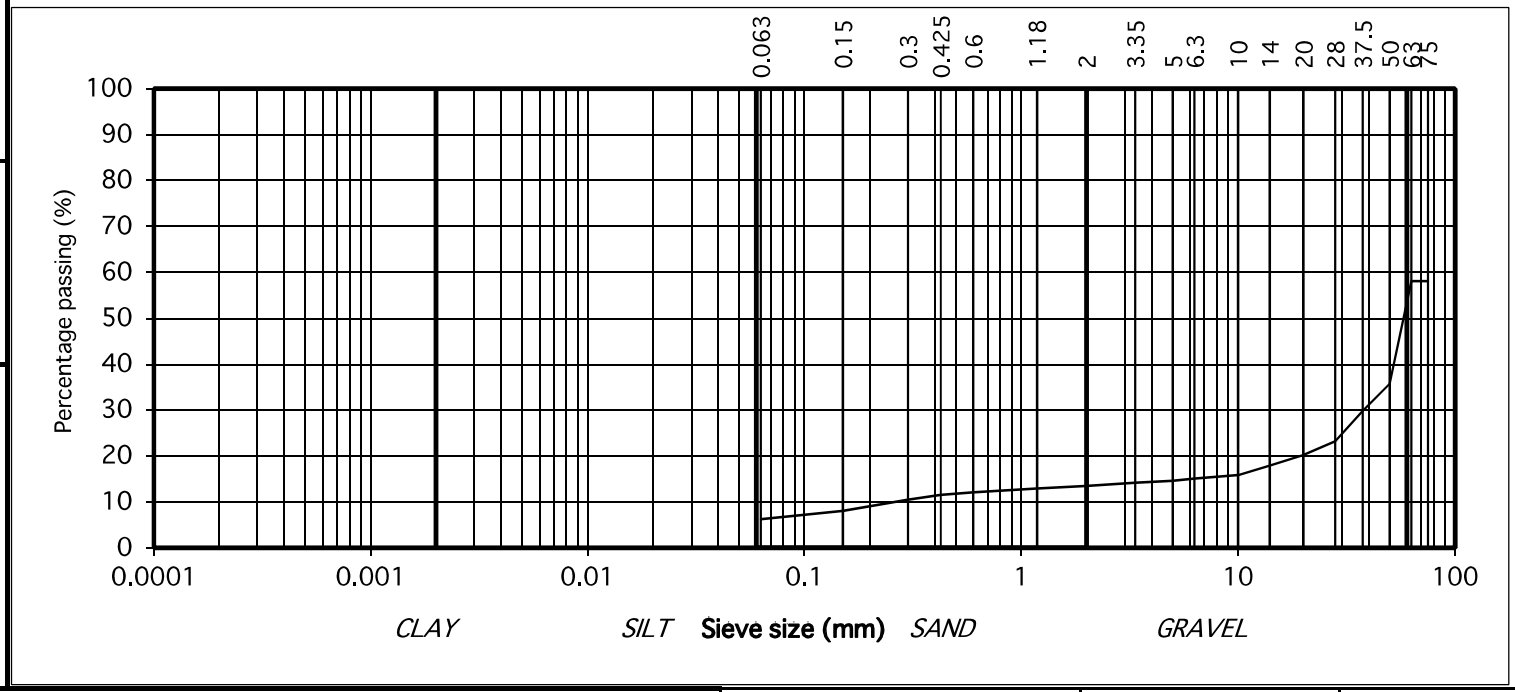
particle size	% passing	
75	58	COBBLES
63	58	
50	36	GRAVEL
37.5	30	
28	23	
20	20	
14	18	
10	16	
6.3	15	
5	15	
3.35	14	
2	14	
1.18	13	SAND
0.6	12	
0.425	12	
0.3	11	
0.15	8	
0.063	6	SILT/CLAY

Contract No.	23560	Report No.	R143958	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111389			
Sample No.*	AA162188	Lab. Sample No.		A22/2512
Sample Type:	B			
Depth* (m)	0.60	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Grey brown clayey/silty, sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size di dnot meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

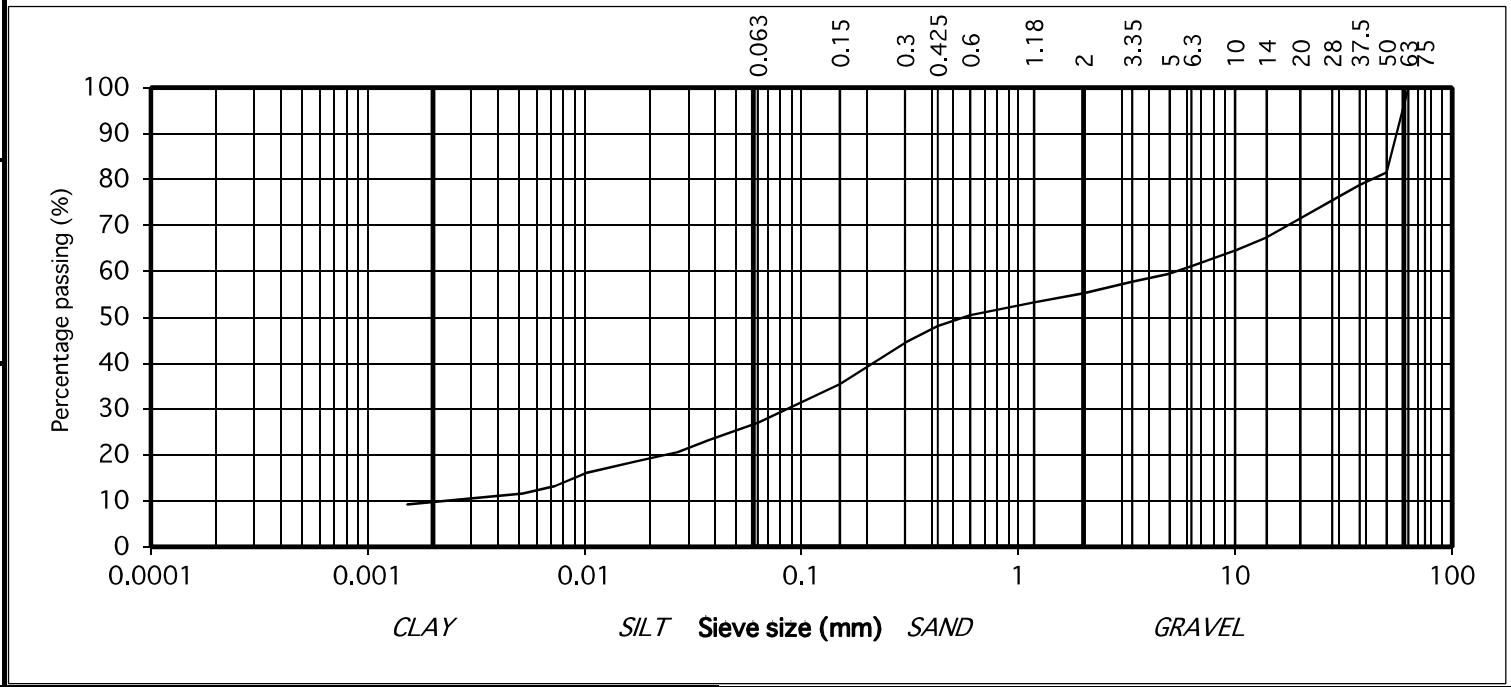
particle size	% passing	
75	100	COBBLES
63	100	
50	82	GRAVEL
37.5	79	
28	76	
20	72	
14	67	
10	65	
6.3	61	
5	60	
3.35	58	
2	55	
1.18	53	SAND
0.6	50	
0.425	48	
0.3	45	
0.15	35	
0.063	27	SILT/CLAY
0.037	23	
0.027	21	
0.017	19	
0.010	16	
0.007	13	
0.005	12	
0.002	9	

Contract No.	23560	Report No.	R134937	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111505			
Sample No.*	AA162189	Lab. Sample No.		A22/2509
Sample Type:	B			
Depth* (m)	0.40	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

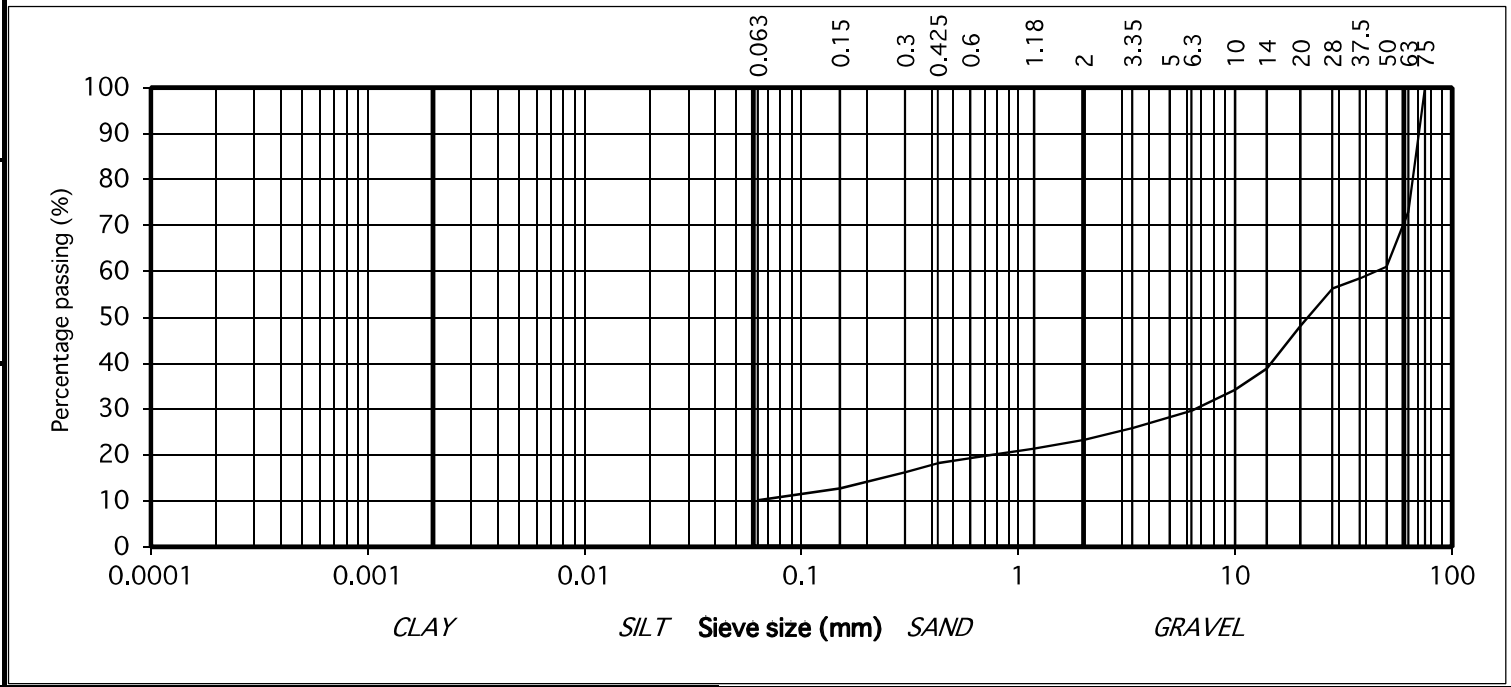
particle size	% passing	
75	100	COBBLES
63	73	
50	61	GRAVEL
37.5	59	
28	56	
20	48	
14	39	
10	34	
6.3	30	
5	28	
3.35	26	
2	23	
1.18	21	SAND
0.6	19	
0.425	18	
0.3	16	
0.15	13	
0.063	10	SILT/CLAY

Contract No.	23560	Report No.	R134952	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111505			
Sample No.*	AA162190	Lab. Sample No.		A22/2510
Sample Type:	B			
Depth* (m)	0.90	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

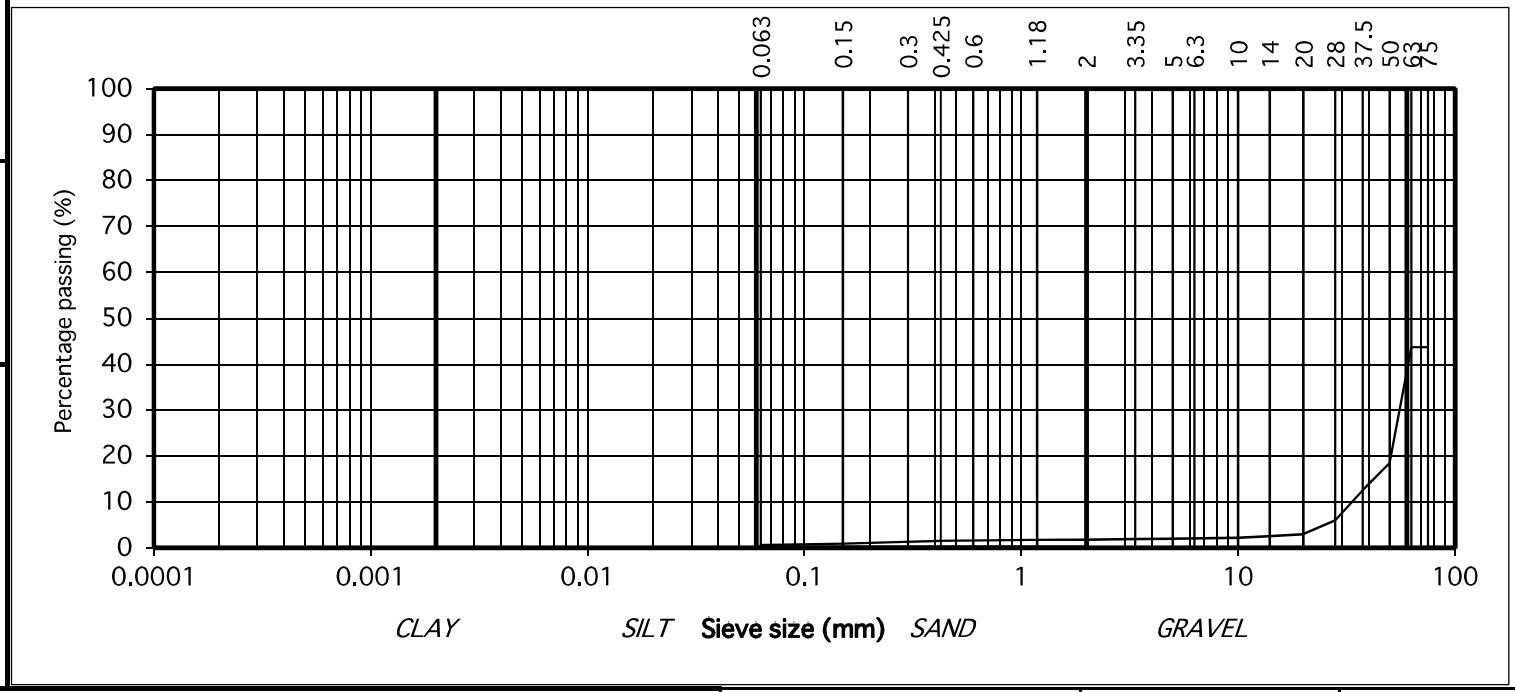
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	44	COBBLES
63	44	
50	19	GRAVEL
37.5	13	
28	6	
20	3	
14	3	
10	2	
6.3	2	
5	2	
3.35	2	
2	2	
1.18	2	SAND
0.6	2	
0.425	2	
0.3	1	
0.15	1	
0.063	1	SILT/CLAY

Contract No.	23560	Report No.	R134779	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111505			
Sample No.*	AA162191	Lab. Sample No.		A22/2511
Sample Type:	B			
Depth* (m)	1.60	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	COBBLES with brown slightly clayey/silty, slightly sandy, gravel			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 SAmple size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

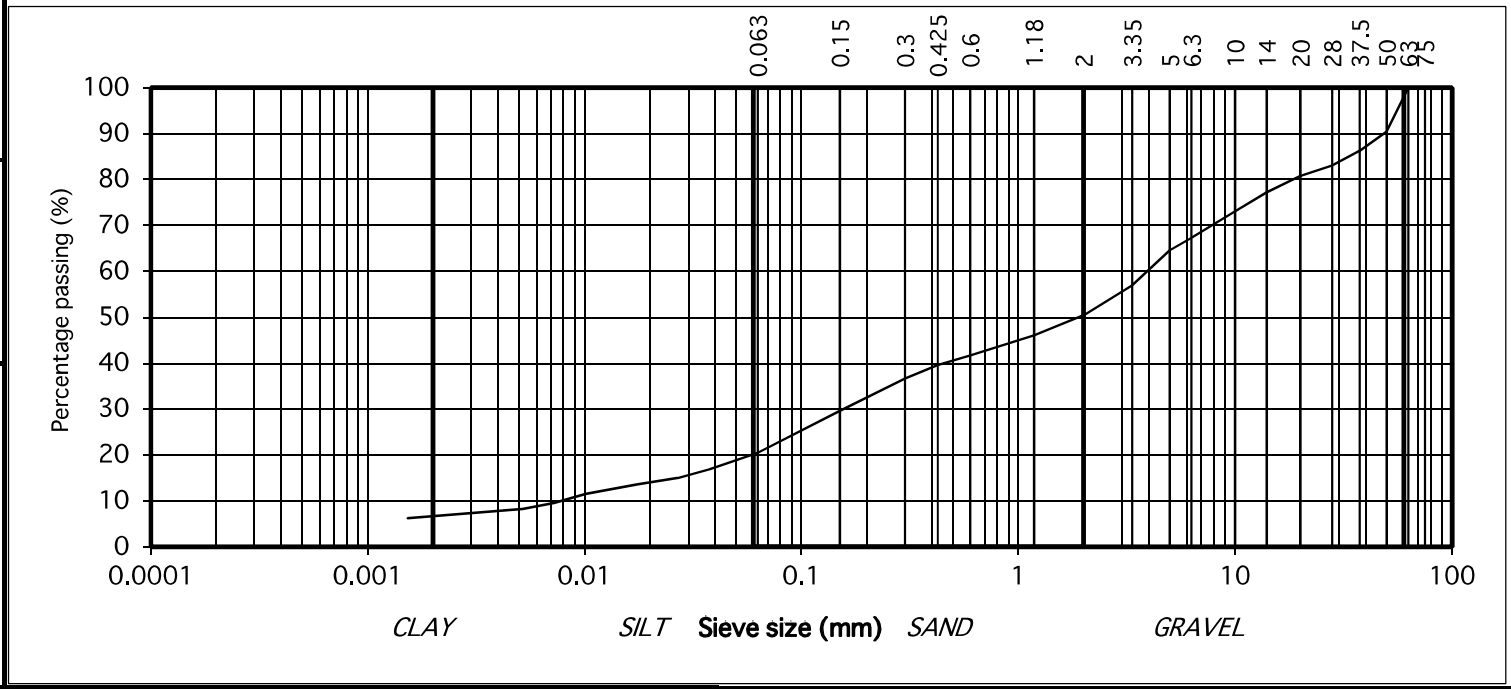
particle size	% passing	
75	100	COBBLES
63	100	
50	90	GRAVEL
37.5	86	
28	83	
20	81	
14	77	
10	73	
6.3	67	
5	65	
3.35	57	
2	51	
1.18	46	SAND
0.6	42	
0.425	40	
0.3	37	
0.15	30	
0.063	21	SILT/CLAY
0.037	17	
0.027	15	
0.017	14	
0.010	12	
0.007	10	
0.005	8	
0.002	6	

Contract No.	23560	Report No.	R134941	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111615			
Sample No.*	AA162192	Lab. Sample No.		A22/2516
Sample Type:	B			
Depth* (m)	0.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

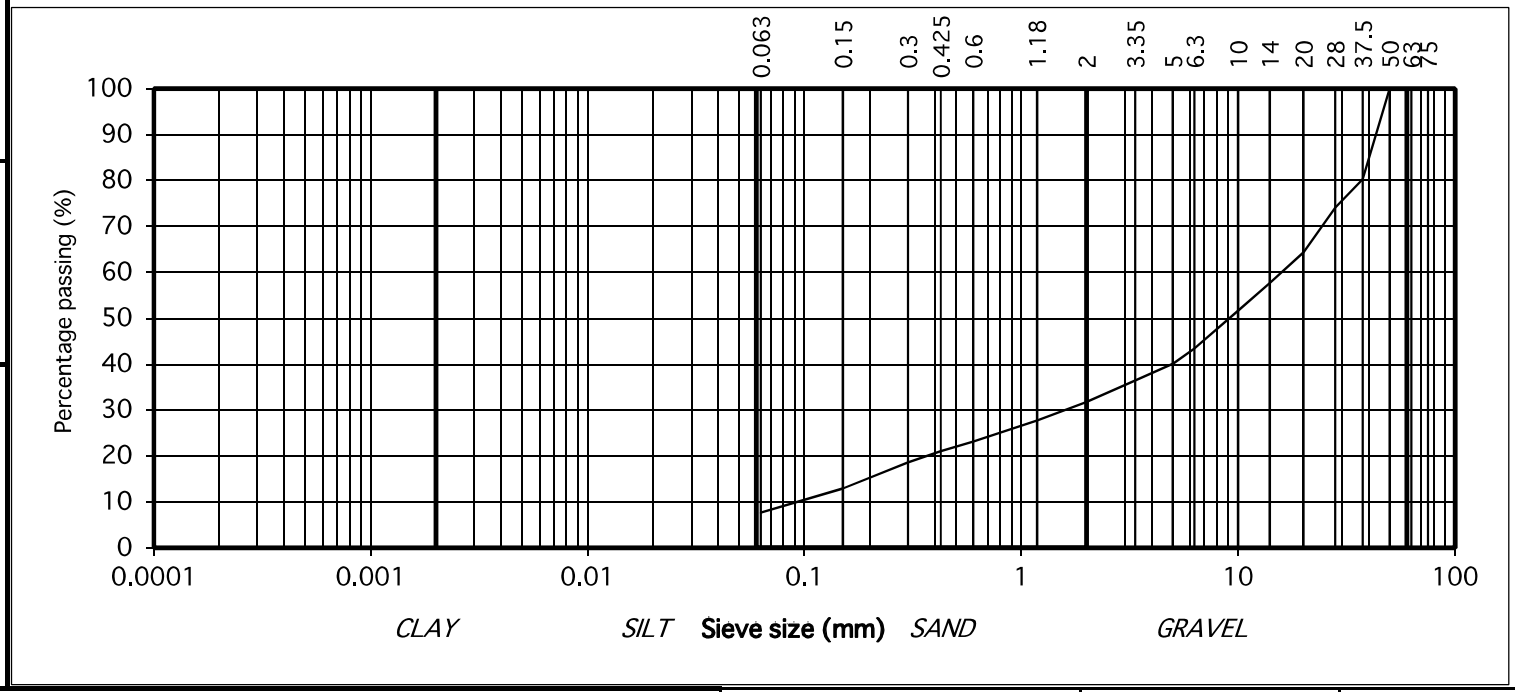
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	80	
28	74	
20	64	
14	58	
10	52	
6.3	43	
5	40	
3.35	37	
2	32	
1.18	28	SAND
0.6	23	
0.425	21	
0.3	19	
0.15	13	
0.063	8	SILT/CLAY

Contract No.	23560	Report No.	R134956	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111615			
Sample No.*	AA162194	Lab. Sample No.		A22/2518
Sample Type:	B			
Depth* (m)	1.80	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, very sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

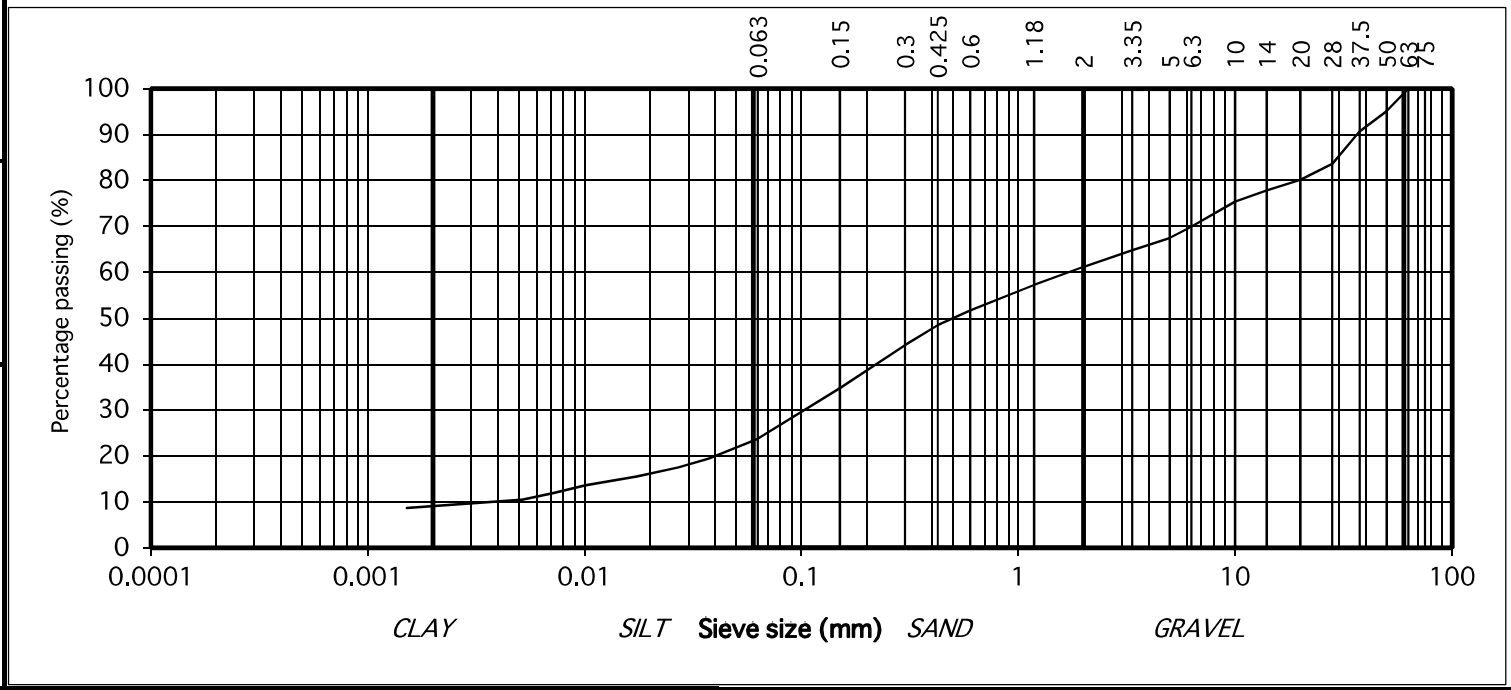
particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	91	
28	84	
20	80	
14	78	
10	75	
6.3	70	
5	67	
3.35	65	
2	61	
1.18	57	SAND
0.6	52	
0.425	49	
0.3	44	
0.15	35	
0.063	24	SILT/CLAY
0.037	20	
0.027	18	
0.017	16	
0.010	14	
0.007	12	
0.005	11	
0.002	9	

Contract No.	23560	Report No.	R134297	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111704			
Sample No.*	AA162195	Lab. Sample No.		A22/2513
Sample Type:	B			
Depth* (m)	0.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

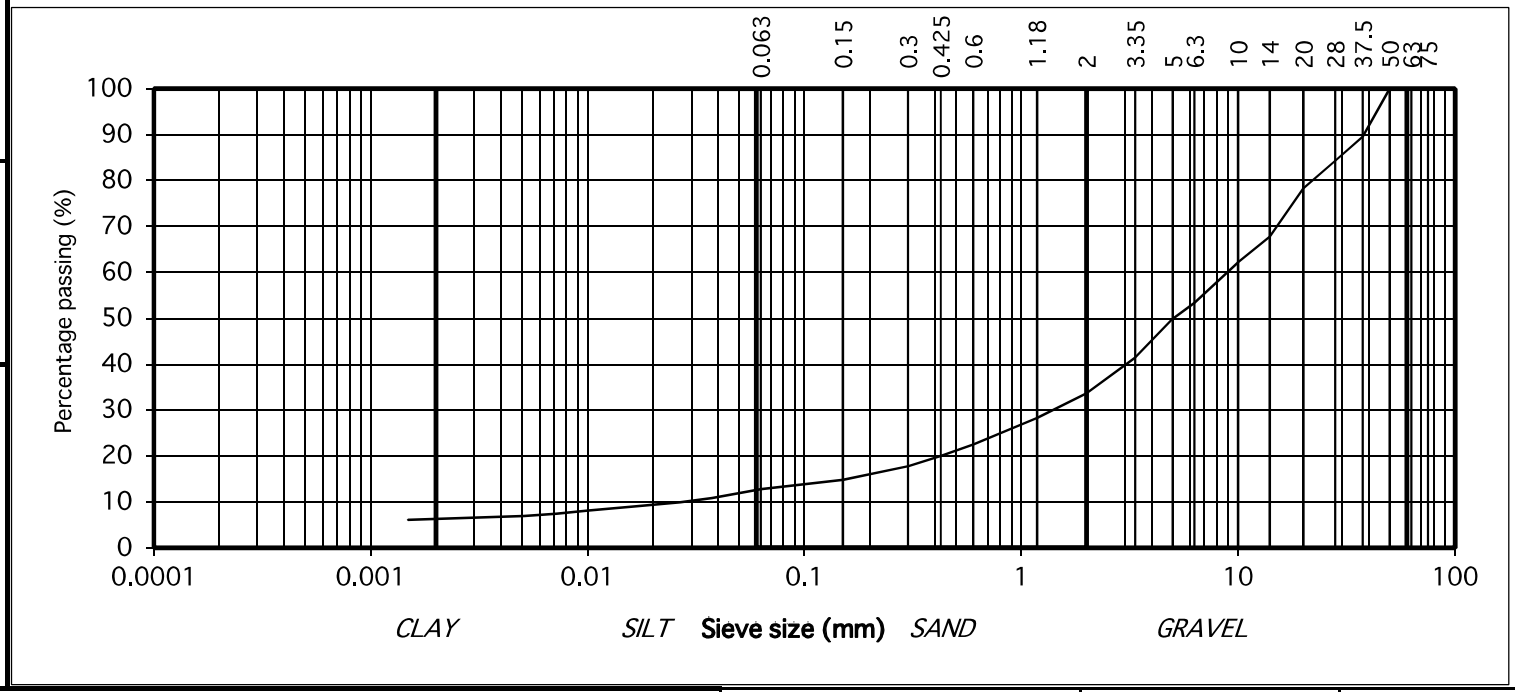
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	90	
28	84	
20	78	
14	68	
10	62	
6.3	53	
5	50	
3.35	42	
2	34	
1.18	28	SAND
0.6	23	
0.425	20	
0.3	18	
0.15	15	
0.063	13	SILT/CLAY
0.037	11	
0.027	10	
0.017	9	
0.010	8	
0.007	7	
0.005	7	
0.001	6	

Contract No.	23560	Report No.	R134780	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111704			
Sample No.*	AA192196	Lab. Sample No.		A22/2514
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, very sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 SAmple size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

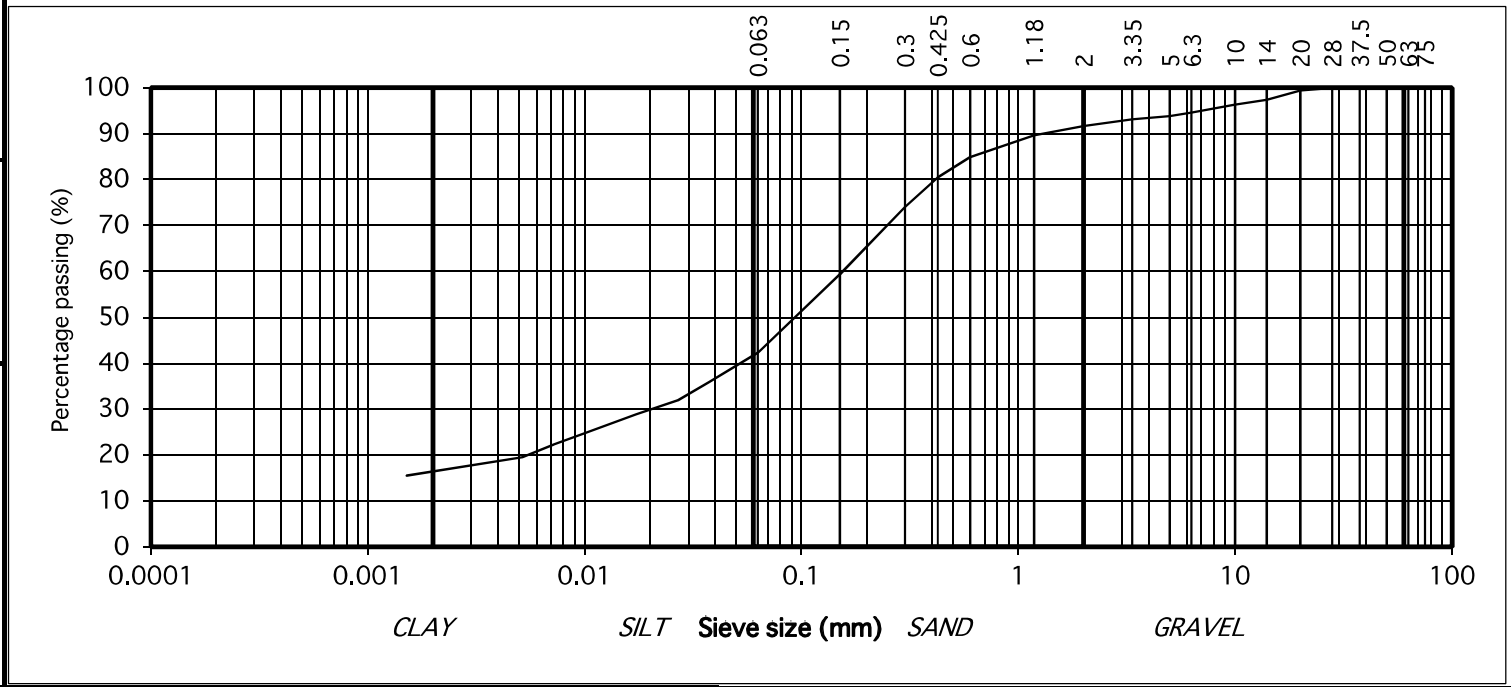
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	99	
14	97	
10	96	
6.3	95	
5	94	
3.35	93	
2	92	
1.18	90	SAND
0.6	85	
0.425	80	
0.3	74	
0.15	59	
0.063	42	SILT/CLAY
0.037	36	
0.027	32	
0.017	29	
0.010	25	
0.007	22	
0.005	20	
0.002	16	

Contract No.	23560	Report No.	R134953	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111803			
Sample No.*	AA162200	Lab. Sample No.		A22/2519
Sample Type:	B			
Depth* (m)	0.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

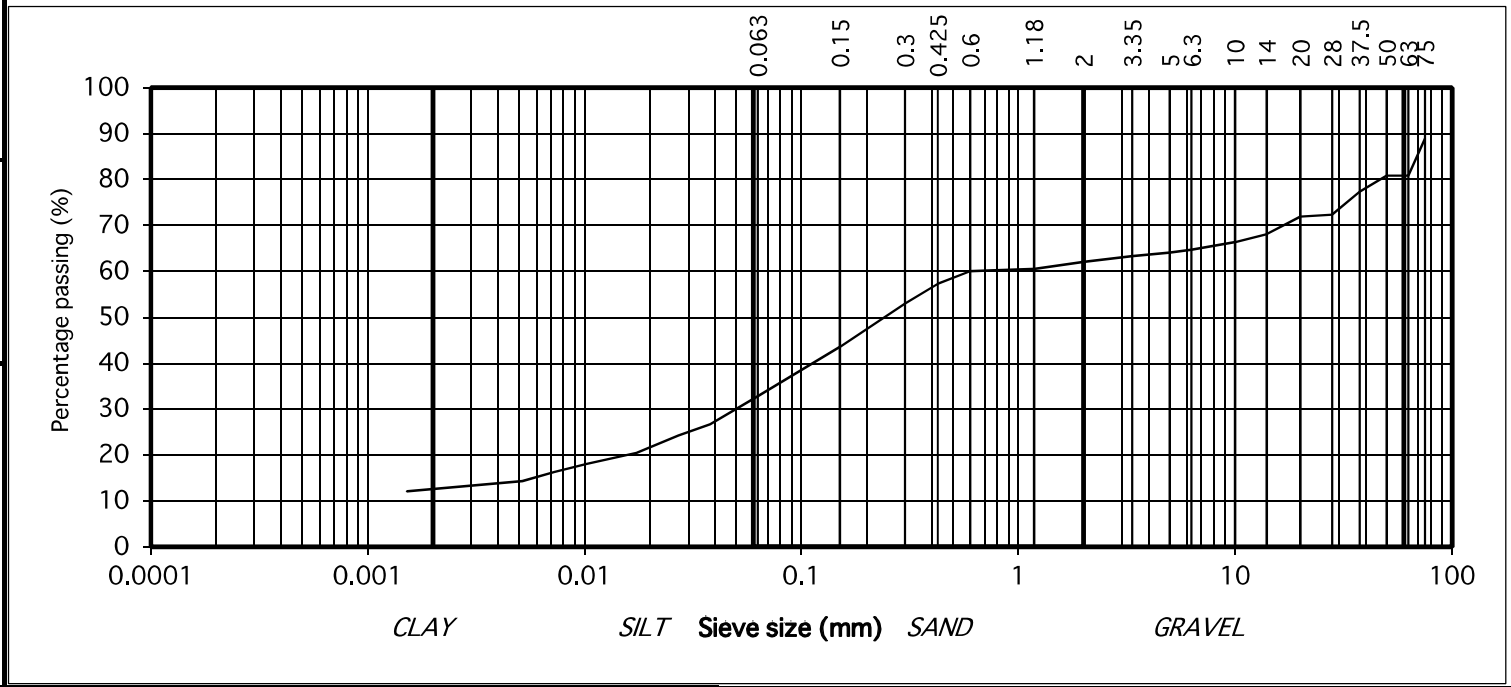
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	89	COBBLES
63	81	
50	81	GRAVEL
37.5	77	
28	72	
20	72	
14	68	
10	66	
6.3	65	
5	64	
3.35	63	
2	62	
1.18	61	SAND
0.6	60	
0.425	57	
0.3	53	
0.15	44	
0.063	33	SILT/CLAY
0.038	27	
0.027	24	
0.017	21	
0.010	18	
0.007	16	
0.005	14	
0.002	12	

Contract No.	23560	Report No.	R135021	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111803			
Sample No.*	AA162201	Lab. Sample No.		A22/2520
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

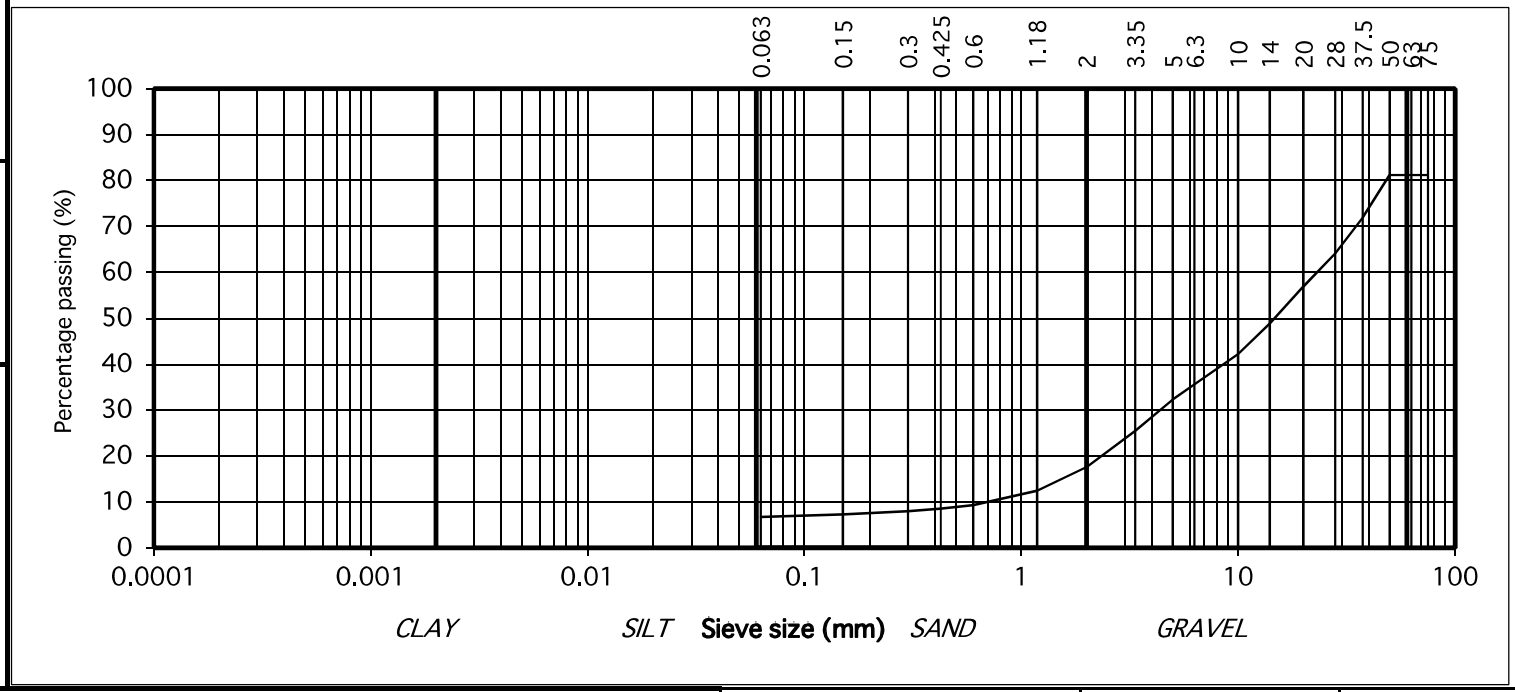
particle size	% passing	
75	81	COBBLES
63	81	
50	81	GRAVEL
37.5	72	
28	64	
20	57	
14	49	
10	42	
6.3	36	
5	32	
3.35	25	
2	18	
1.18	12	SAND
0.6	9	
0.425	9	
0.3	8	
0.15	7	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R134798	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111803			
Sample No.*	AA162197	Lab. Sample No.		A22/2521
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

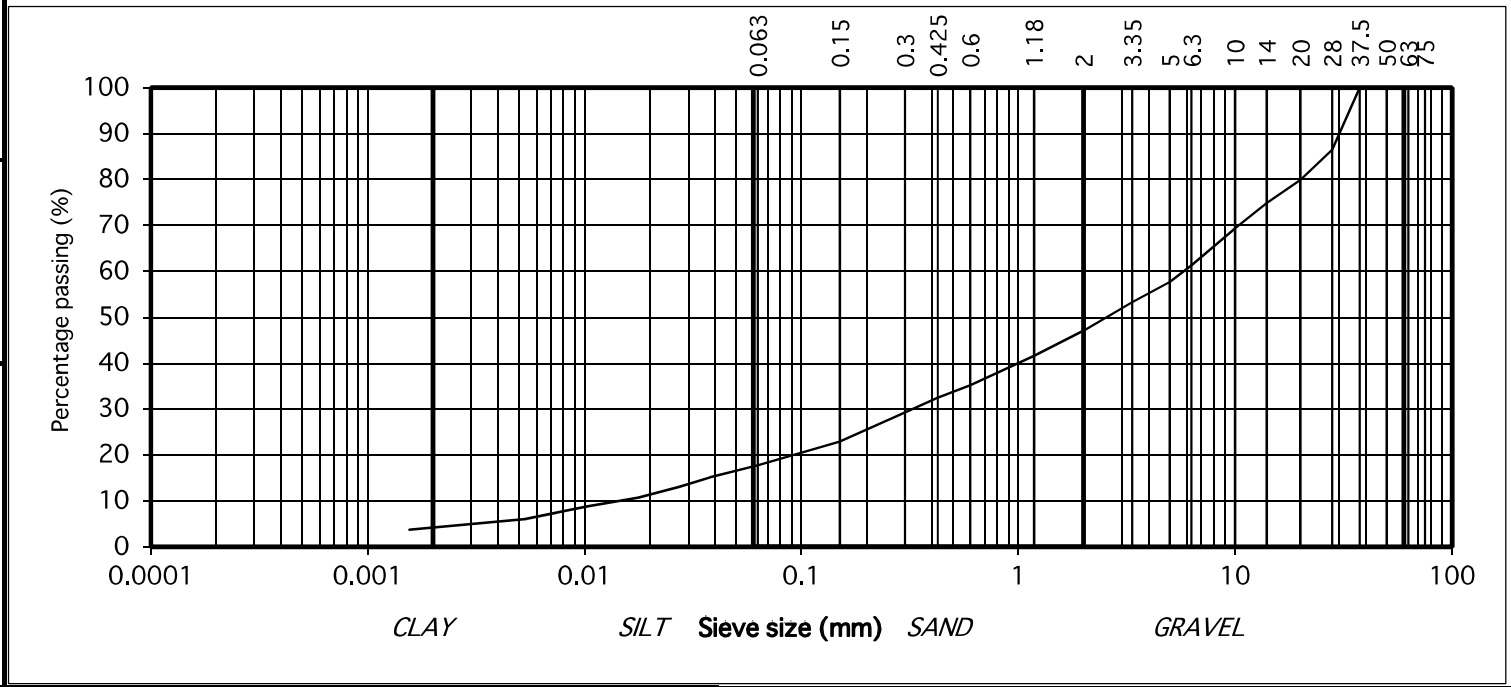
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	87	
20	80	
14	75	
10	69	
6.3	61	
5	58	
3.35	53	
2	47	
1.18	42	SAND
0.6	35	
0.425	33	
0.3	29	
0.15	23	
0.063	18	SILT/CLAY
0.038	15	
0.027	13	
0.018	11	
0.010	9	
0.007	7	
0.005	6	
0.002	4	

Contract No.	23560	Report No.	R143957	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP117582			
Sample No.*	AA173583	Lab. Sample No.		A22/2562
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Grey brown clayey/silty, very sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

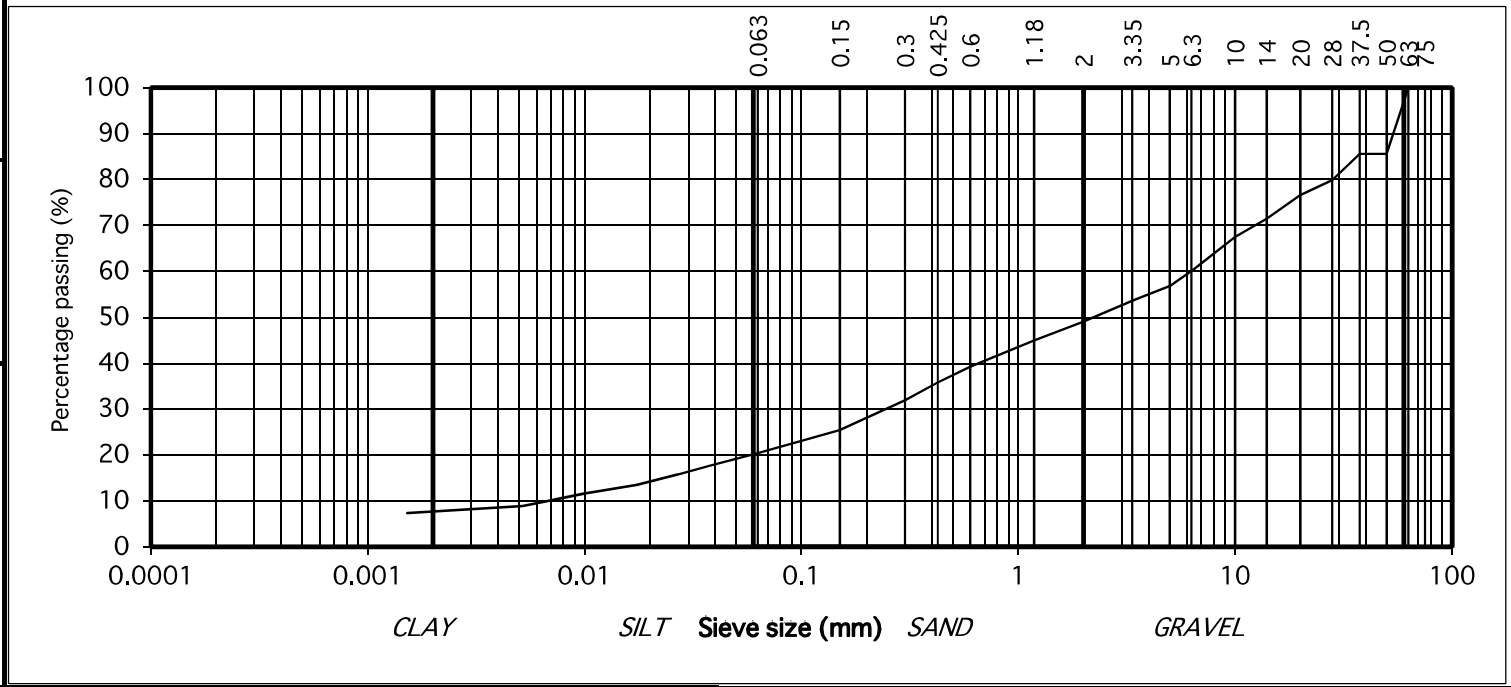
particle size	% passing	
75	100	COBBLES
63	100	
50	86	GRAVEL
37.5	86	
28	80	
20	77	
14	71	
10	68	
6.3	60	
5	57	
3.35	54	
2	49	
1.18	45	SAND
0.6	39	
0.425	36	
0.3	32	
0.15	25	
0.063	20	SILT/CLAY
0.037	18	
0.027	16	
0.017	14	
0.010	12	
0.007	10	
0.005	9	
0.002	7	

Contract No.	23560	Report No.	R134785	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP1175582			
Sample No.*	AA173582	Lab. Sample No.		A22/2561
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

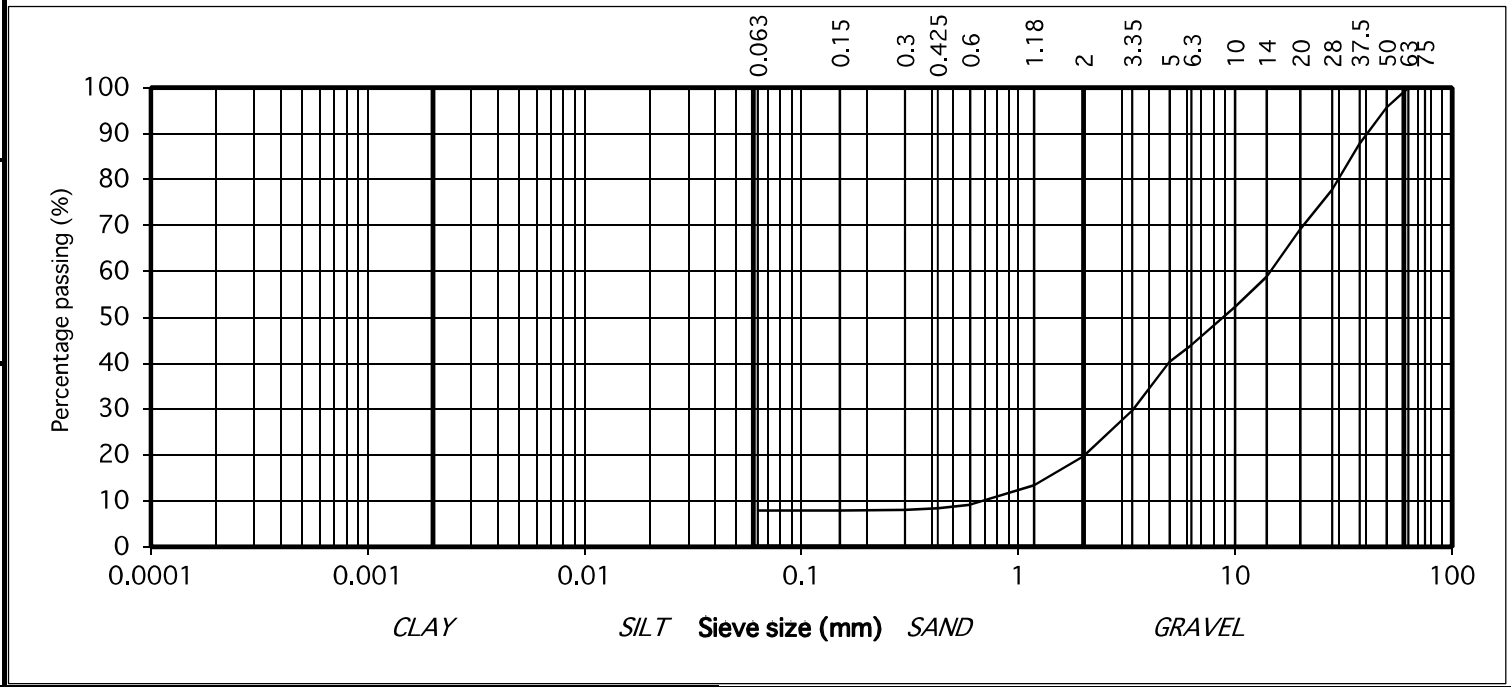
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	88	
28	78	
20	69	
14	59	
10	52	
6.3	44	
5	40	
3.35	30	
2	20	
1.18	13	SAND
0.6	9	
0.425	8	
0.3	8	
0.15	8	
0.063	8	SILT/CLAY

Contract No.	23560	Report No.	R137023	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP117703			
Sample No.*	AA173586	Lab. Sample No.		A22/2564
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	07/05/2022	Date Testing started		07/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

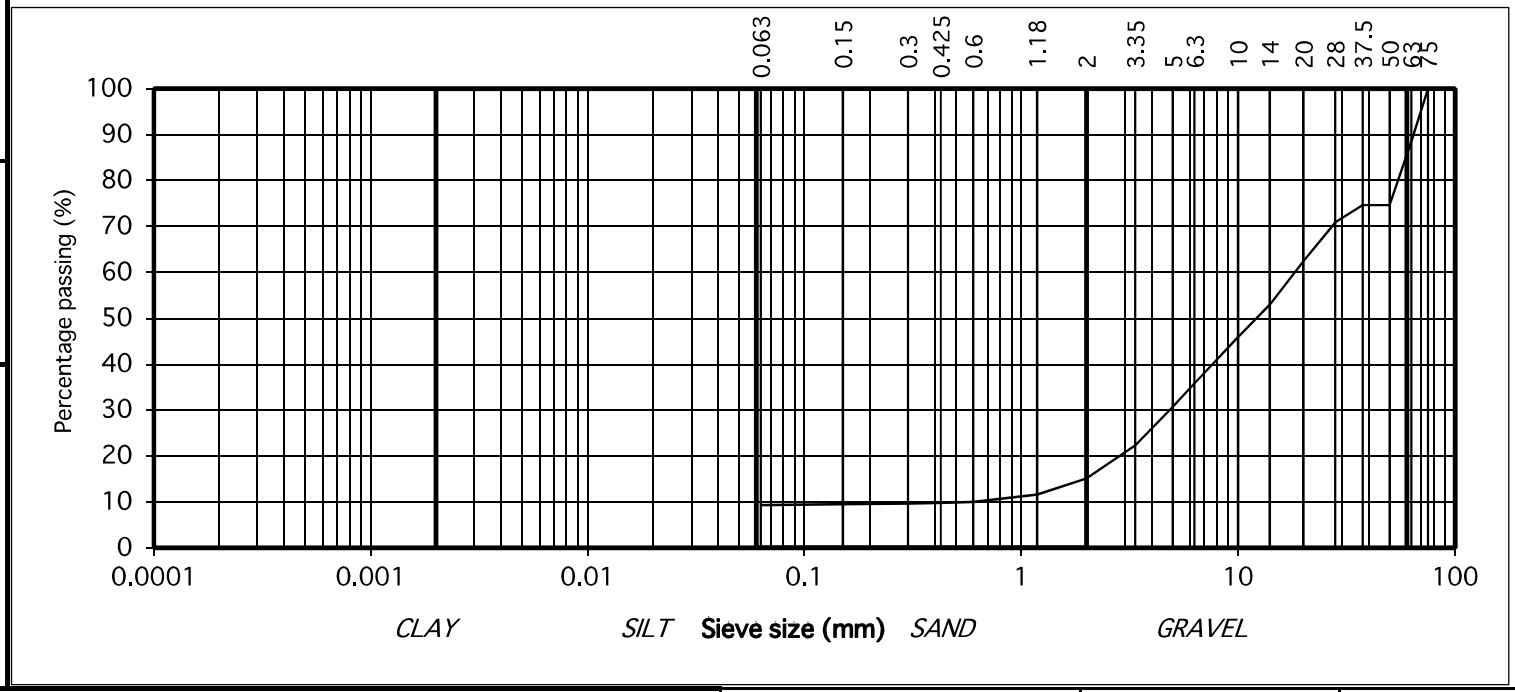
particle size	% passing	
75	100	COBBLES
63	89	
50	75	GRAVEL
37.5	75	
28	71	
20	62	
14	53	
10	46	
6.3	36	
5	31	
3.35	22	
2	15	
1.18	12	SAND
0.6	10	
0.425	10	
0.3	10	
0.15	10	
0.063	9	SILT/CLAY

Contract No.	23560	Report No.	R134776	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP117780			
Sample No.*	AA173584	Lab. Sample No.		A22/2565
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size di dnot meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

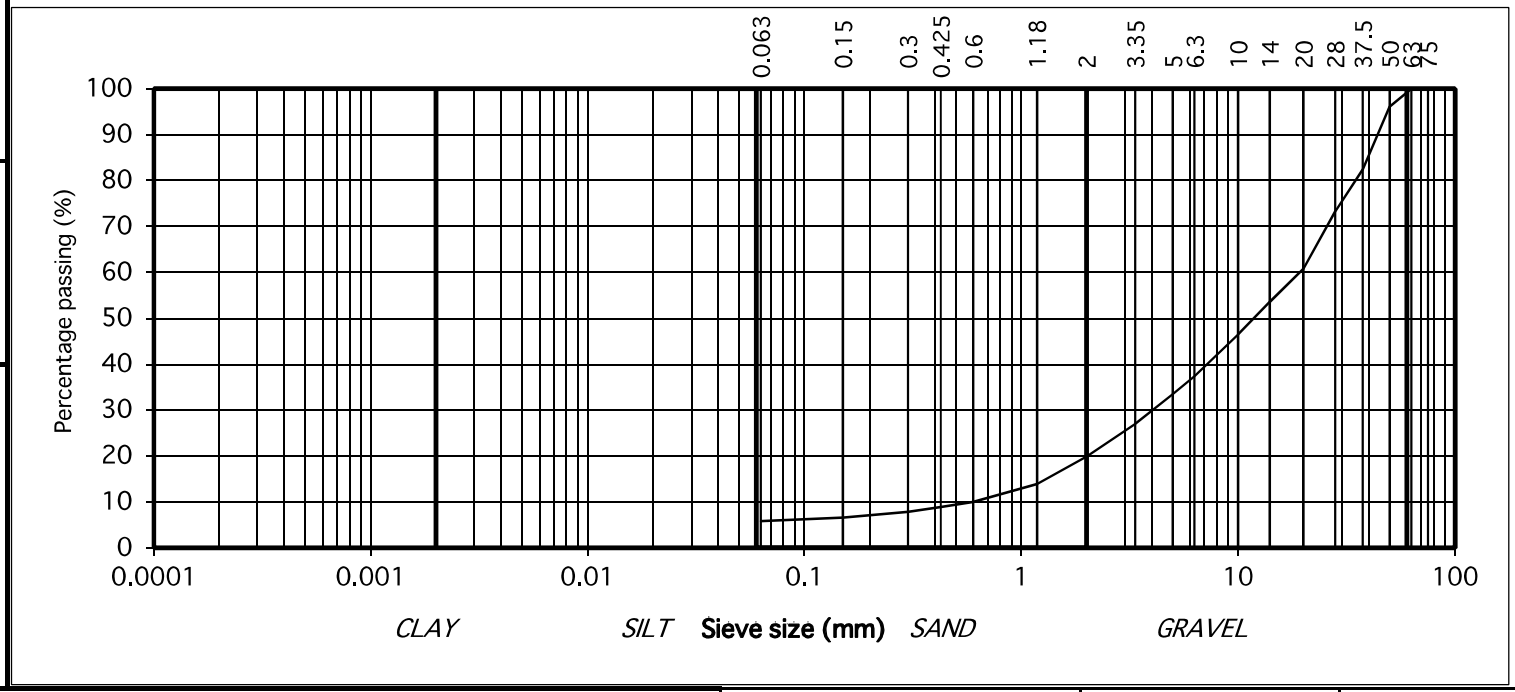
particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	82	
28	73	
20	61	
14	54	
10	47	
6.3	37	
5	33	
3.35	27	
2	20	
1.18	14	SAND
0.6	10	
0.425	9	
0.3	8	
0.15	7	
0.063	6	SILT/CLAY

Contract No.	23560	Report No.	R134933
Contract Name:	WSP - Lot 3		
BH/TP* :	TP117780		
Sample No.*	AA173588	Lab. Sample No.	A22/2566
Sample Type:	B		
Depth* (m)	1.70	Customer:	Ervia
Date Received	04/05/2022	Date Testing started	06/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL		

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

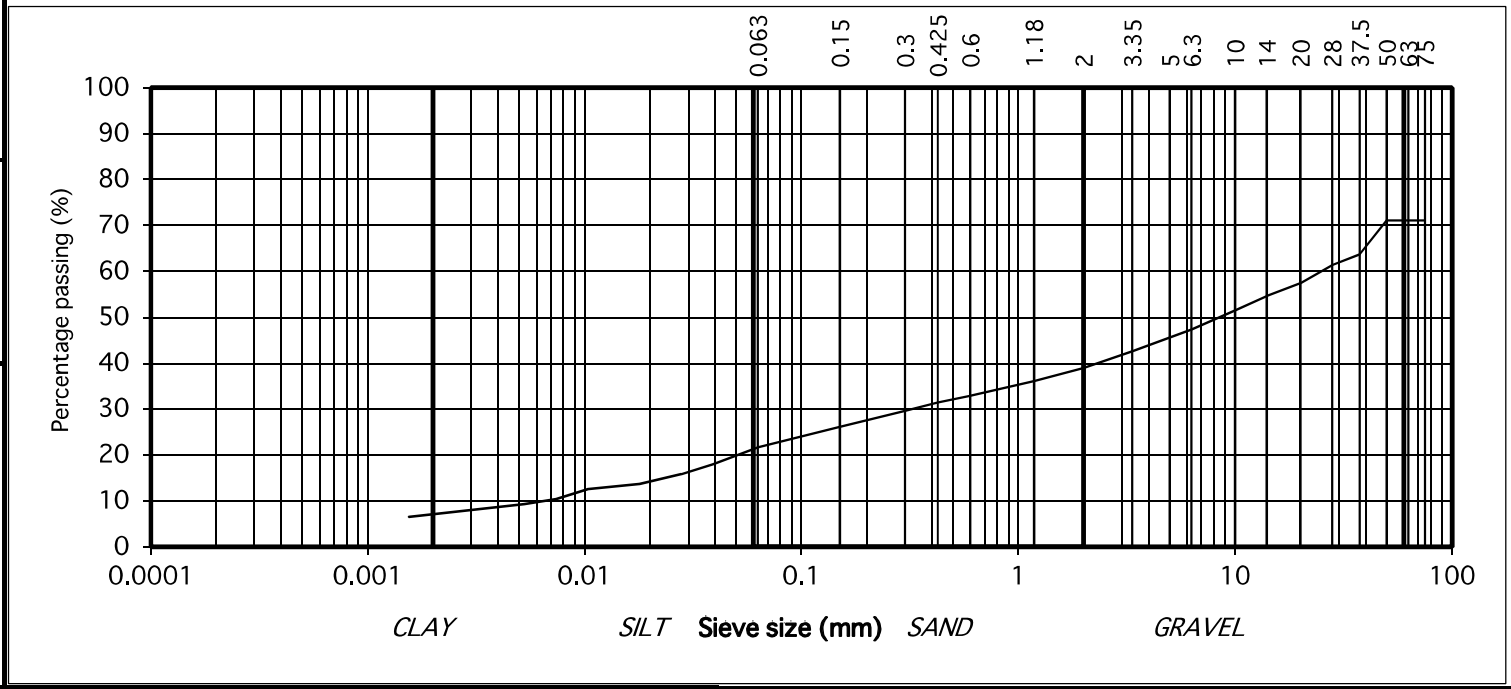
particle size	% passing	
75	71	COBBLES
63	71	
50	71	GRAVEL
37.5	64	
28	61	
20	57	
14	55	
10	52	
6.3	47	
5	46	
3.35	43	
2	39	
1.18	36	SAND
0.6	33	
0.425	31	
0.3	30	
0.15	26	
0.063	22	SILT/CLAY
0.039	18	
0.028	16	
0.018	14	
0.010	13	
0.007	10	
0.005	9	
0.002	7	

Contract No.	23560	Report No.	R137024	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP117901			
Sample No.*	AA173592	Lab. Sample No.		A22/2568
Sample Type:	B			
Depth* (m)	2.20	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

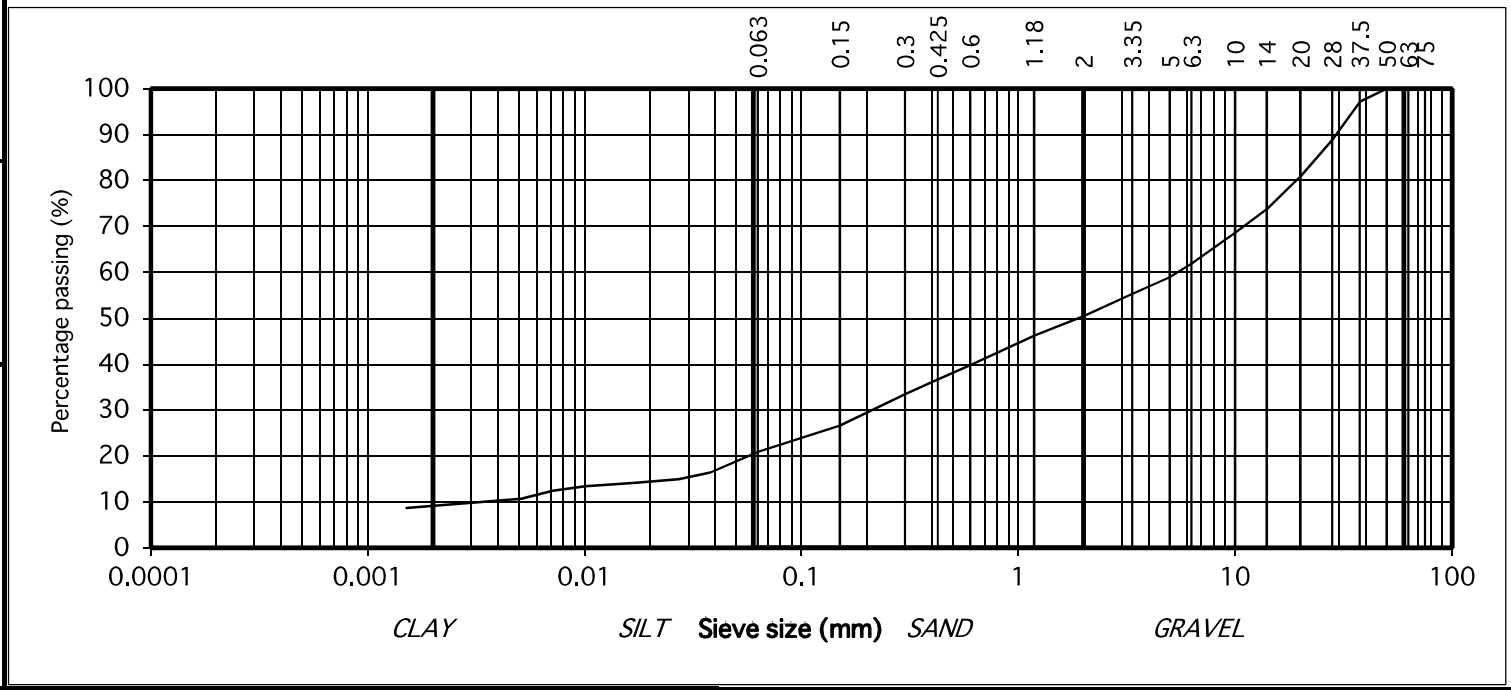
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	89	
20	81	
14	74	
10	69	
6.3	62	
5	59	
3.35	55	
2	50	
1.18	46	SAND
0.6	40	
0.425	37	
0.3	33	
0.15	27	
0.063	21	SILT/CLAY
0.038	16	
0.027	15	
0.017	14	
0.010	13	
0.007	12	
0.005	11	
0.002	9	

Contract No. 23560 Report No. R143960
Contract Name: WSP - Lot 3
BH/TP* : TP117901
Sample No.* AA173590 Lab. Sample No. A22/2567
Sample Type: B
Depth* (m) 0.50 Customer: Ervia
Date Received 04/05/2022 Date Testing started 07/05/2022
Description: Grey brown slightly sandy, gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

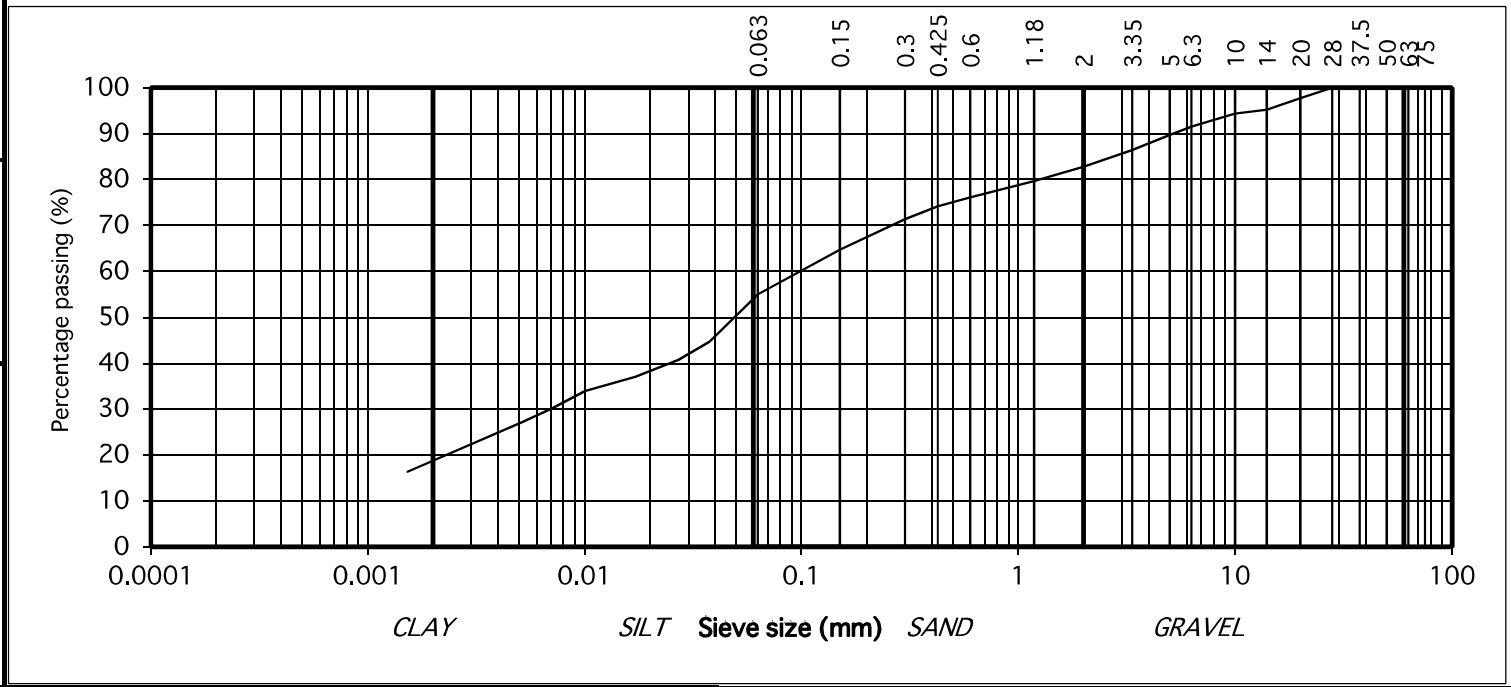
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	98	
14	95	
10	94	
6.3	92	
5	90	
3.35	86	
2	83	
1.18	80	SAND
0.6	76	
0.425	74	
0.3	71	
0.15	65	
0.063	55	SILT/CLAY
0.038	45	
0.027	41	
0.017	37	
0.010	34	
0.007	30	
0.005	27	
0.002	16	

Contract No.	23560	Report No.	R134777	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118385			
Sample No.*	AA173590	Lab. Sample No.		A22/2569
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size di dnot meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

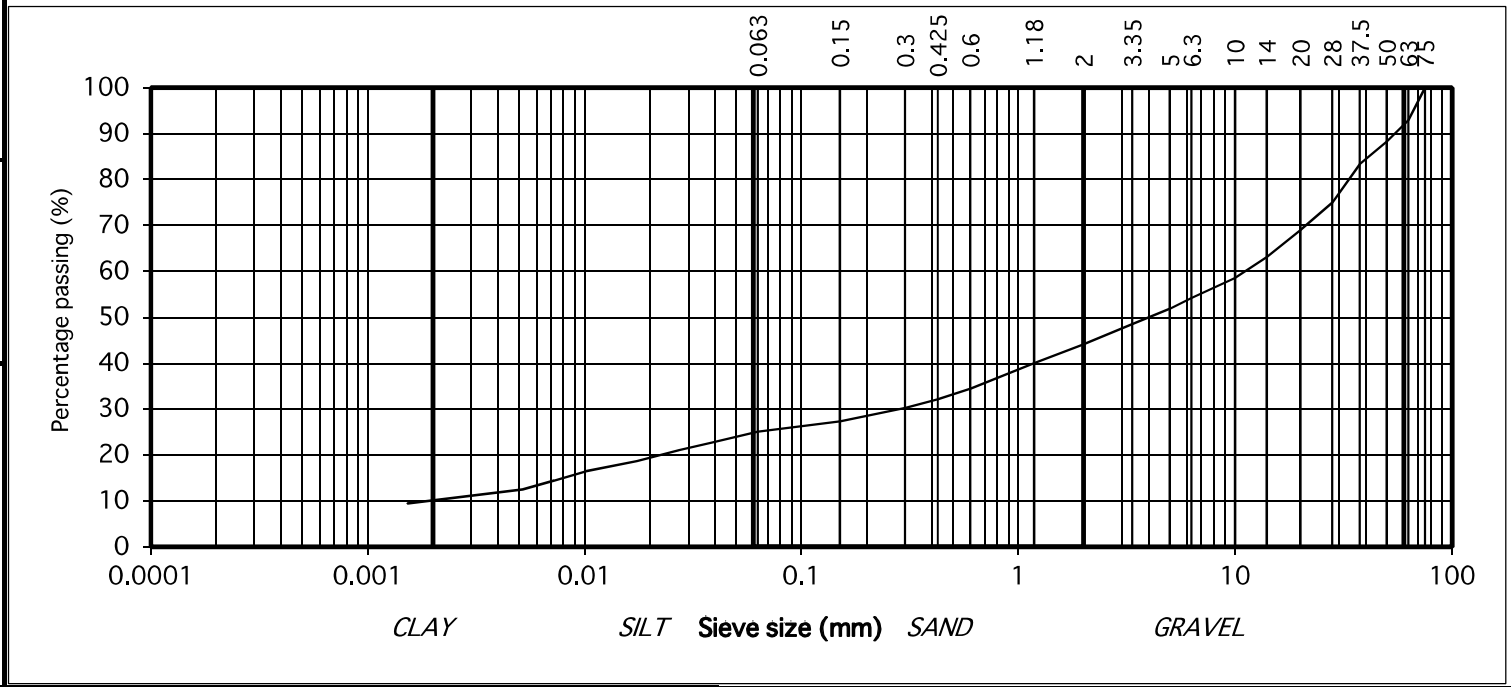
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	93	
50	88	GRAVEL
37.5	83	
28	75	
20	69	
14	63	
10	59	
6.3	54	
5	52	
3.35	49	
2	44	
1.18	40	SAND
0.6	34	
0.425	32	
0.3	30	
0.15	27	
0.063	25	SILT/CLAY
0.038	23	
0.027	21	
0.017	19	
0.010	16	
0.007	15	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R143960	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118502			
Sample No.*	AA173592	Lab. Sample No.		A22/2571
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Grey brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

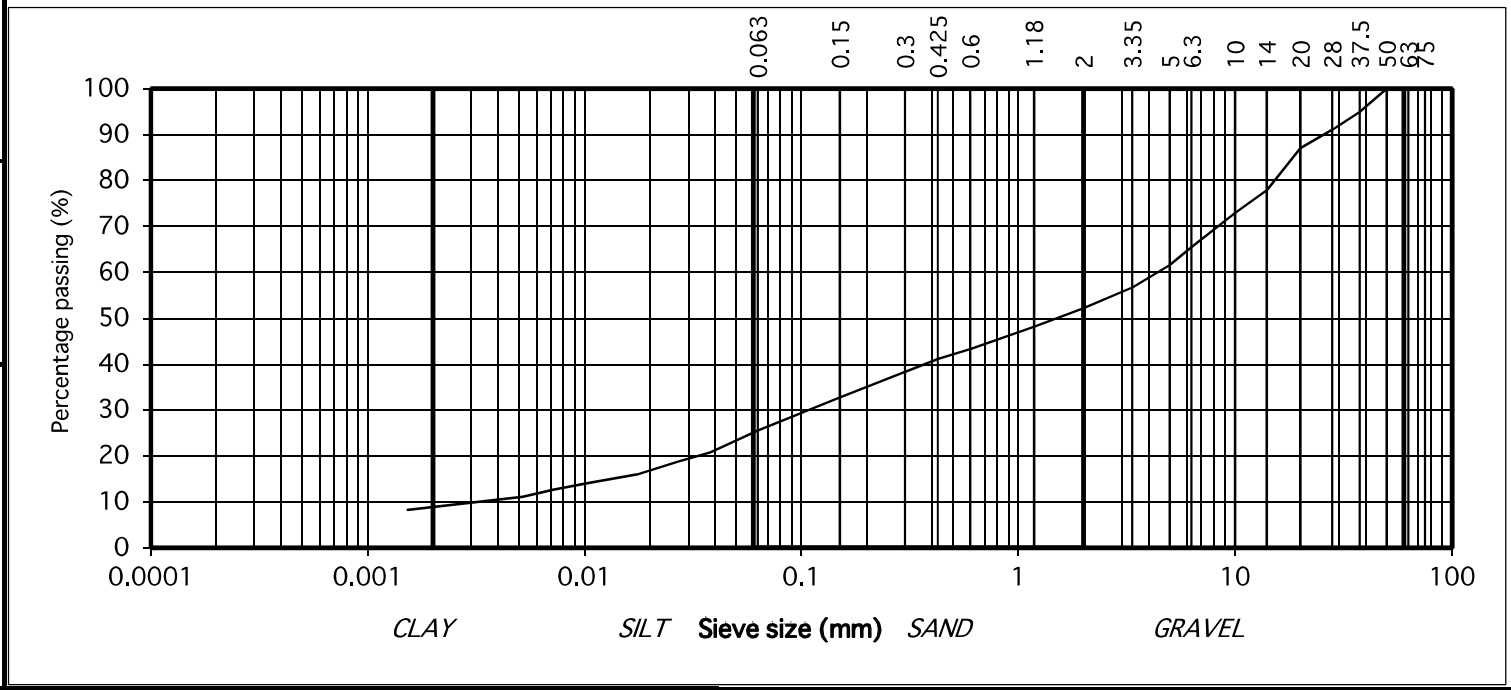
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	91	
20	87	
14	78	
10	73	
6.3	65	
5	62	
3.35	57	
2	52	
1.18	48	SAND
0.6	43	
0.425	41	
0.3	38	
0.15	33	
0.063	26	SILT/CLAY
0.038	21	
0.027	19	
0.017	16	
0.010	14	
0.007	13	
0.005	11	
0.002	8	

Contract No.	23560	Report No.	R135022	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118385			
Sample No.*	AA173595	Lab. Sample No.		A22/2570
Sample Type:	B			
Depth* (m)	2.60	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

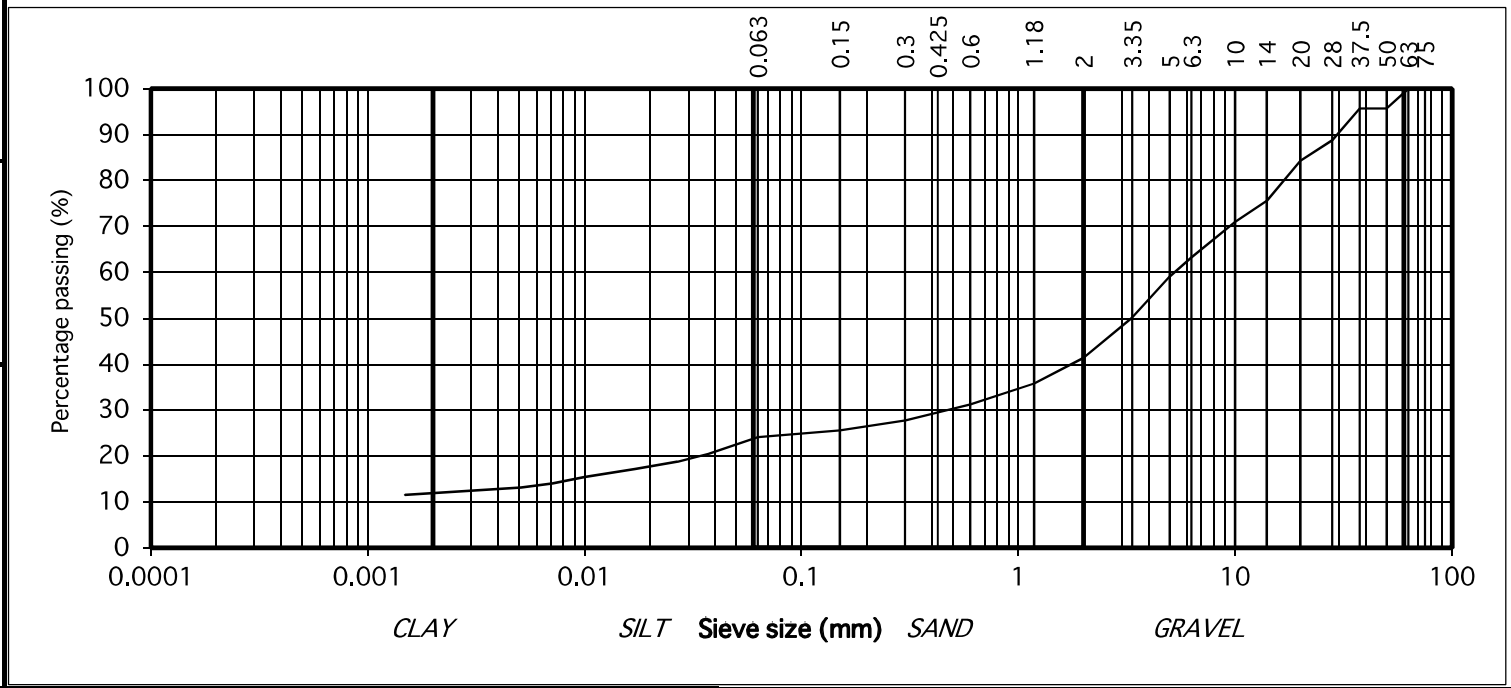
particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	96	
28	89	
20	84	
14	76	
10	71	
6.3	63	
5	59	
3.35	50	
2	41	
1.18	36	SAND
0.6	31	
0.425	29	
0.3	28	
0.15	26	
0.063	24	SILT/CLAY
0.037	21	
0.027	19	
0.017	17	
0.010	15	
0.007	14	
0.005	13	
0.001	12	

Contract No.	23560	Report No.	R134778	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118502			
Sample No.*	AA173597	Lab. Sample No.		A22/2572
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

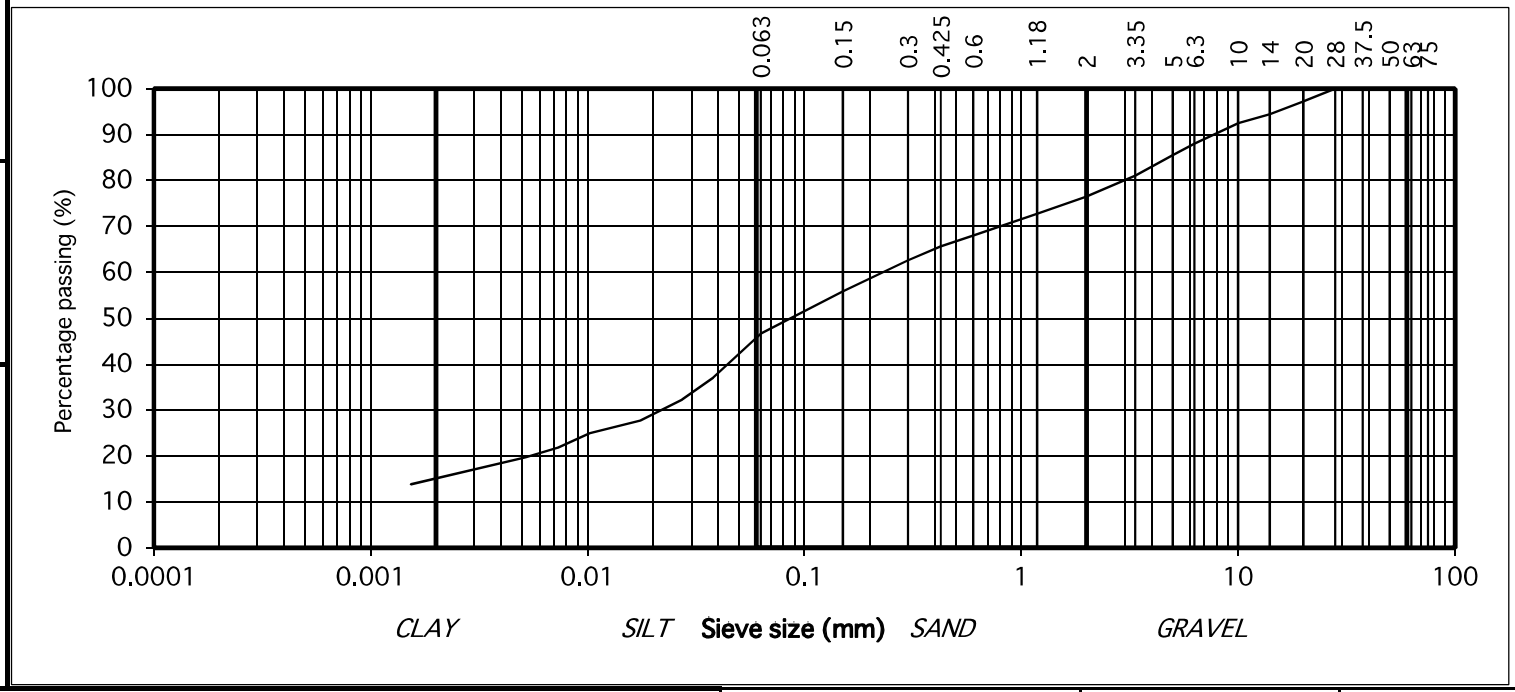
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	97	
14	94	
10	93	
6.3	88	
5	86	
3.35	81	
2	77	
1.18	73	SAND
0.6	68	
0.425	66	
0.3	63	
0.15	56	
0.063	47	SILT/CLAY
0.038	37	
0.027	32	
0.018	28	
0.010	25	
0.007	22	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R134925	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118801			
Sample No.*	AA178556	Lab. Sample No.		A22/2576
Sample Type:	B			
Depth* (m)	0.70	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		13/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

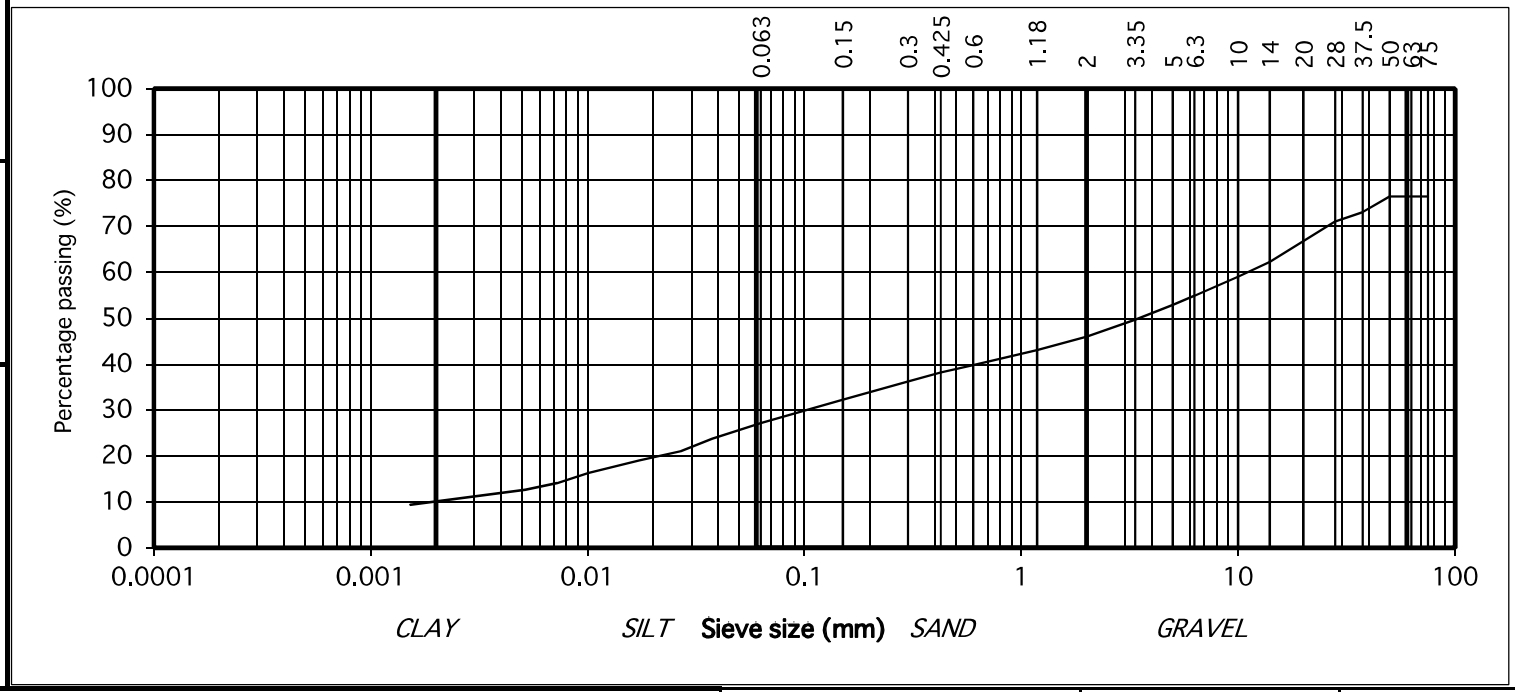
particle size	% passing	
75	77	COBBLES
63	77	
50	77	GRAVEL
37.5	73	
28	71	
20	67	
14	62	
10	59	
6.3	55	
5	53	
3.35	50	
2	46	
1.18	43	SAND
0.6	40	
0.425	38	
0.3	36	
0.15	32	
0.063	27	SILT/CLAY
0.037	24	
0.027	21	
0.017	19	
0.010	16	
0.007	14	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R134940	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118605			
Sample No.*	AA178554	Lab. Sample No.		A22/2574
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

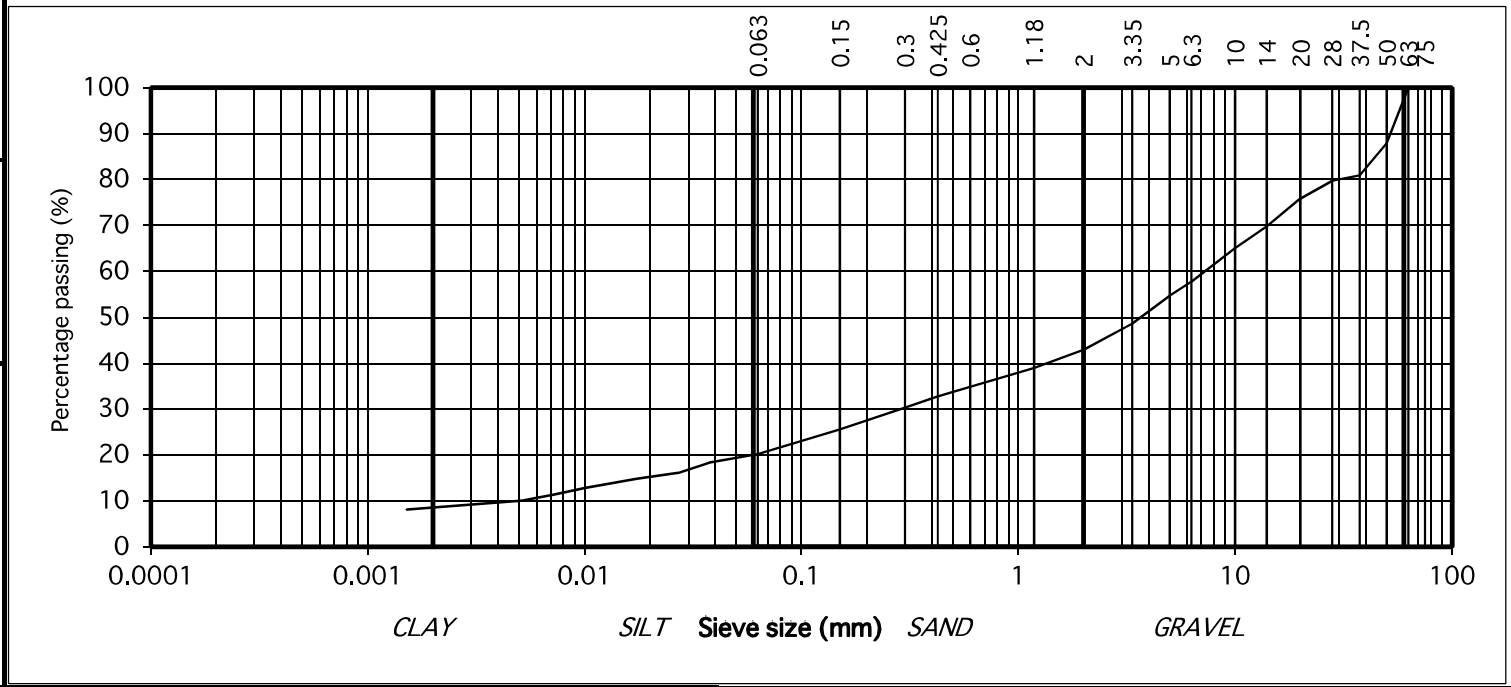
particle size	% passing	
75	100	COBBLES
63	100	
50	88	GRAVEL
37.5	81	
28	80	
20	76	
14	70	
10	65	
6.3	58	
5	55	
3.35	49	
2	43	
1.18	39	SAND
0.6	35	
0.425	33	
0.3	30	
0.15	26	
0.063	20	SILT/CLAY
0.038	18	
0.027	16	
0.017	15	
0.010	13	
0.007	11	
0.005	10	
0.002	8	

Contract No.	23560	Report No.	R137025	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118605			
Sample No.*	AA178555	Lab. Sample No.		A22/2575
Sample Type:	B			
Depth* (m)	2.70	Customer:	Ervia	
Date Received	06/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

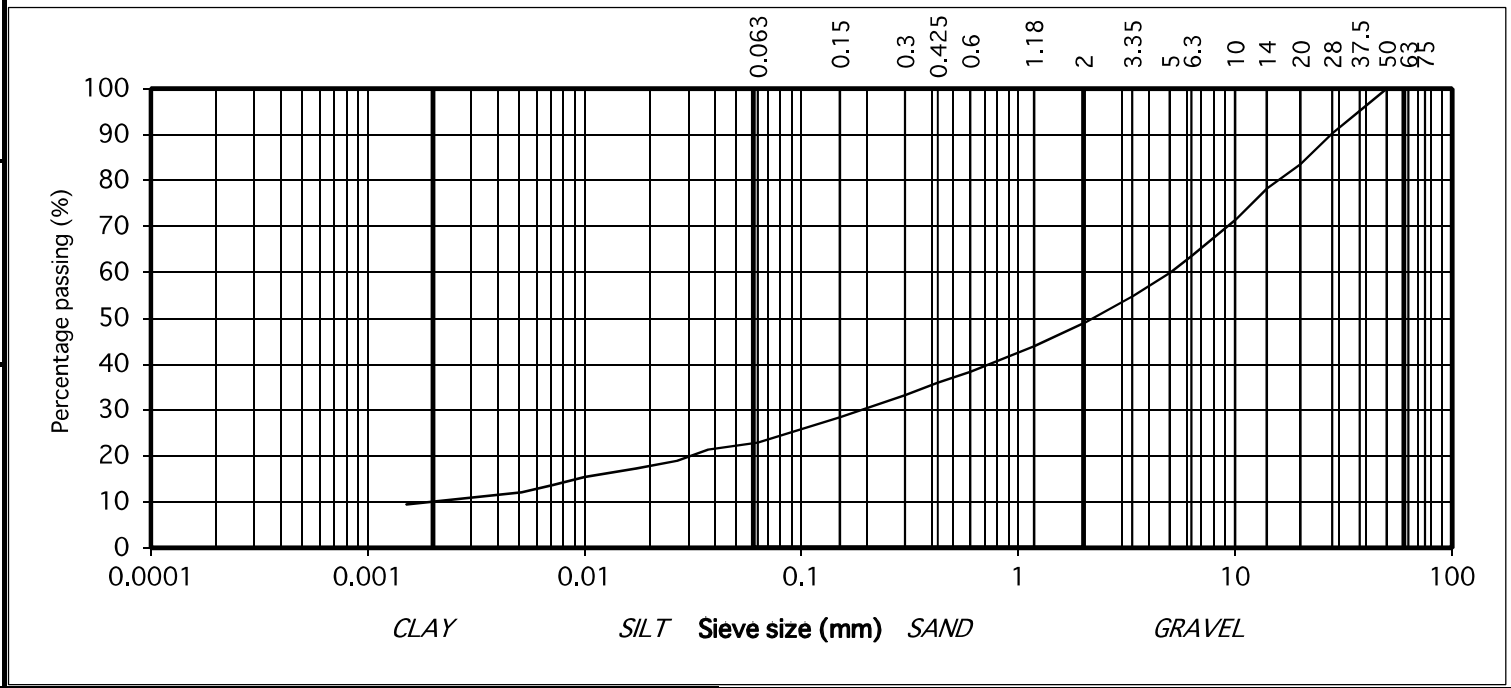
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	90	
20	83	
14	78	
10	71	
6.3	64	
5	60	
3.35	55	
2	49	
1.18	44	SAND
0.6	38	
0.425	36	
0.3	33	
0.15	28	
0.063	23	SILT/CLAY
0.037	21	
0.027	19	
0.017	17	
0.010	15	
0.007	14	
0.005	12	
0.002	9	

Contract No.	23560	Report No.	R137402	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118801			
Sample No.*	AA178557	Lab. Sample No.		A22/2577
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	18/07/2022	Date Testing started		18/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	08/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

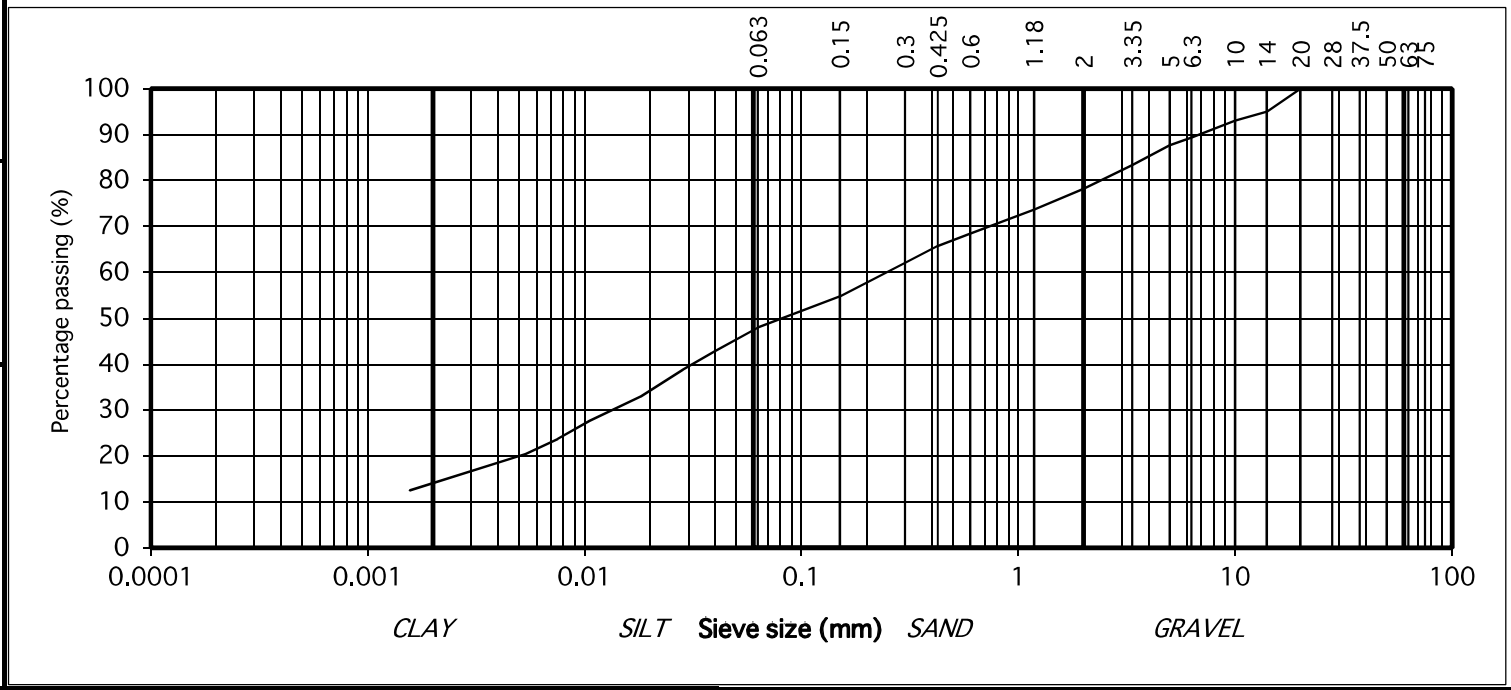
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	95	
10	93	
6.3	89	
5	88	
3.35	83	
2	78	
1.18	74	SAND
0.6	68	
0.425	66	
0.3	62	
0.15	55	
0.063	48	SILT/CLAY
0.040	43	
0.028	39	
0.018	33	
0.011	28	
0.008	24	
0.005	20	
0.002	13	

Contract No.	23560	Report No.	R137026	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118987			
Sample No.*	AA178562	Lab. Sample No.		A22/2580
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	10/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

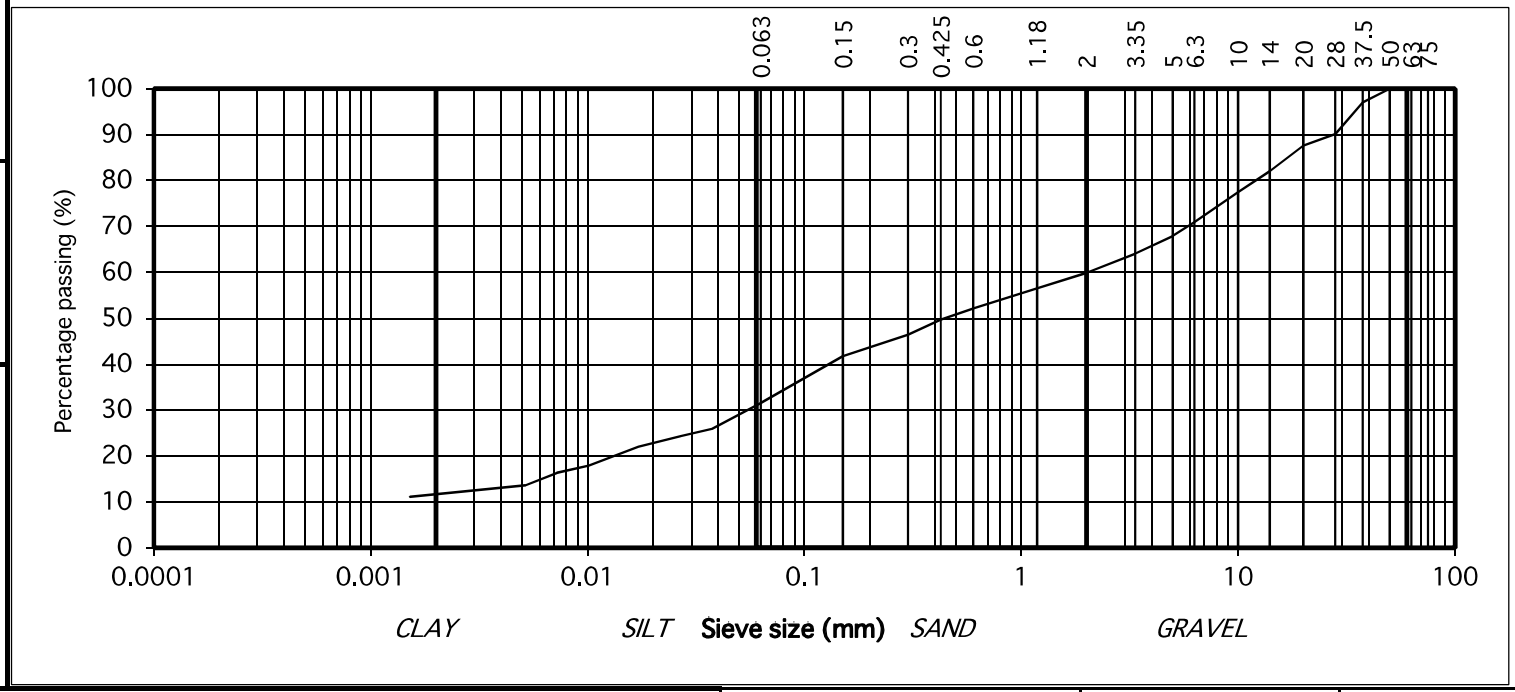
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	90	
20	88	
14	82	
10	77	
6.3	71	
5	68	
3.35	64	
2	60	
1.18	57	SAND
0.6	52	
0.425	50	
0.3	46	
0.15	42	
0.063	32	SILT/CLAY
0.037	26	
0.027	24	
0.017	22	
0.010	18	
0.007	16	
0.005	14	
0.002	11	

Contract No.	23560	Report No.	R134773	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118902			
Sample No.*	AA162180	Lab. Sample No.		A22/2578
Sample Type:	AA178559			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

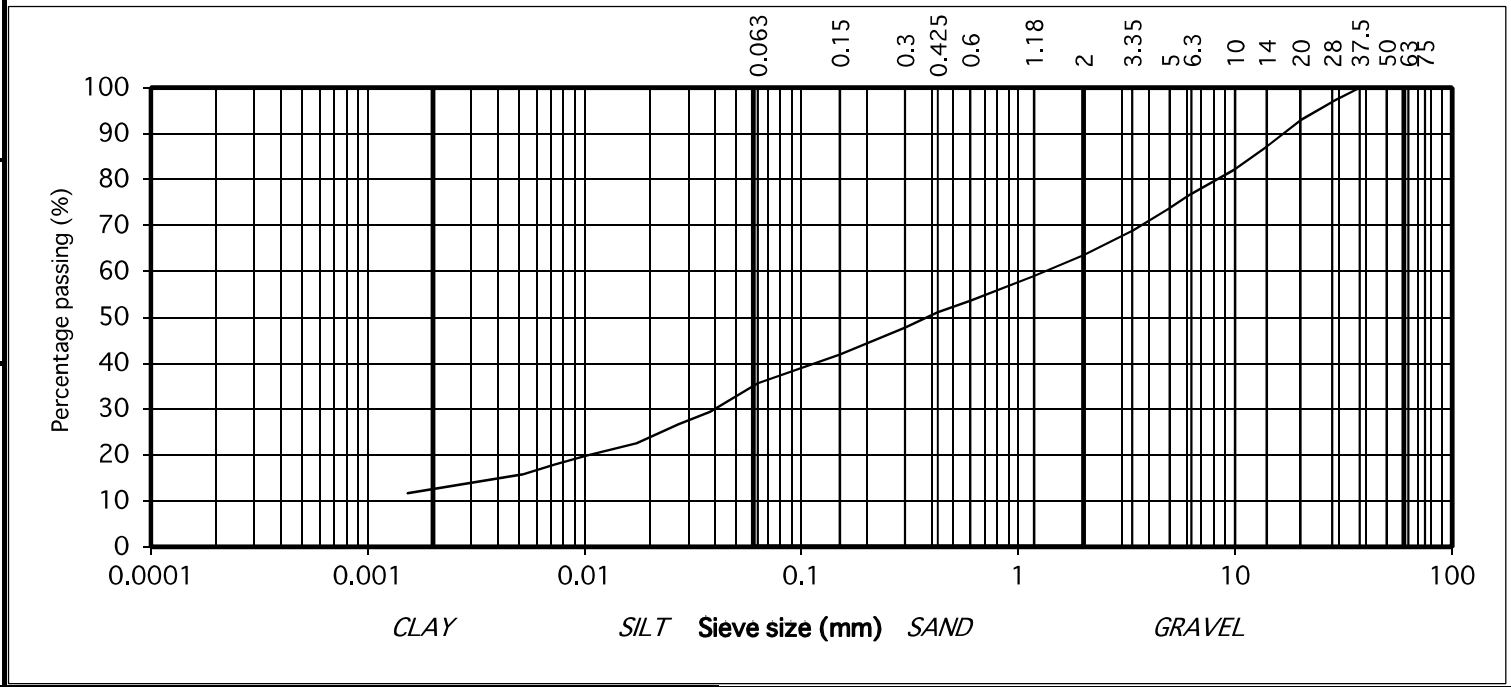
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	93	
14	87	
10	82	
6.3	77	
5	74	
3.35	69	
2	64	
1.18	59	SAND
0.6	54	
0.425	51	
0.3	48	
0.15	42	
0.063	36	SILT/CLAY
0.038	29	
0.027	27	
0.017	23	
0.010	20	
0.007	18	
0.005	16	
0.002	12	

Contract No.	23560	Report No.	R135024	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP111902			
Sample No.*	AA178561	Lab. Sample No.		A22/2579
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	15/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

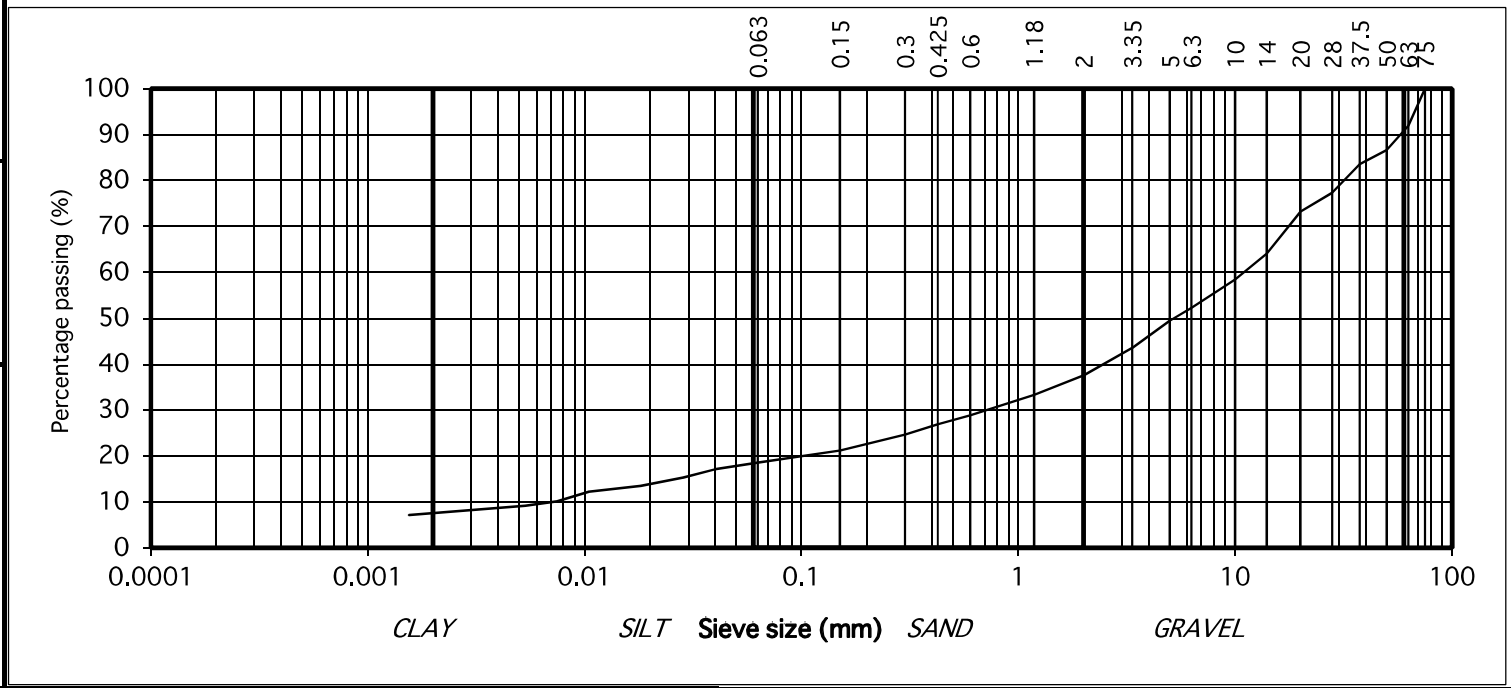
particle size	% passing	
75	100	COBBLES
63	92	
50	87	GRAVEL
37.5	84	
28	77	
20	73	
14	64	
10	59	
6.3	52	
5	50	
3.35	44	
2	38	
1.18	33	SAND
0.6	29	
0.425	27	
0.3	25	
0.15	21	
0.063	19	SILT/CLAY
0.040	17	
0.028	15	
0.018	14	
0.010	12	
0.007	10	
0.005	9	
0.002	7	

Contract No.	23560	Report No.	R137028	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP118987			
Sample No.*	AA178566	Lab. Sample No.		A22/2581
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	10/05/2022	Date Testing started		10/05/2022
Description:	Brown clayey/silty, sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

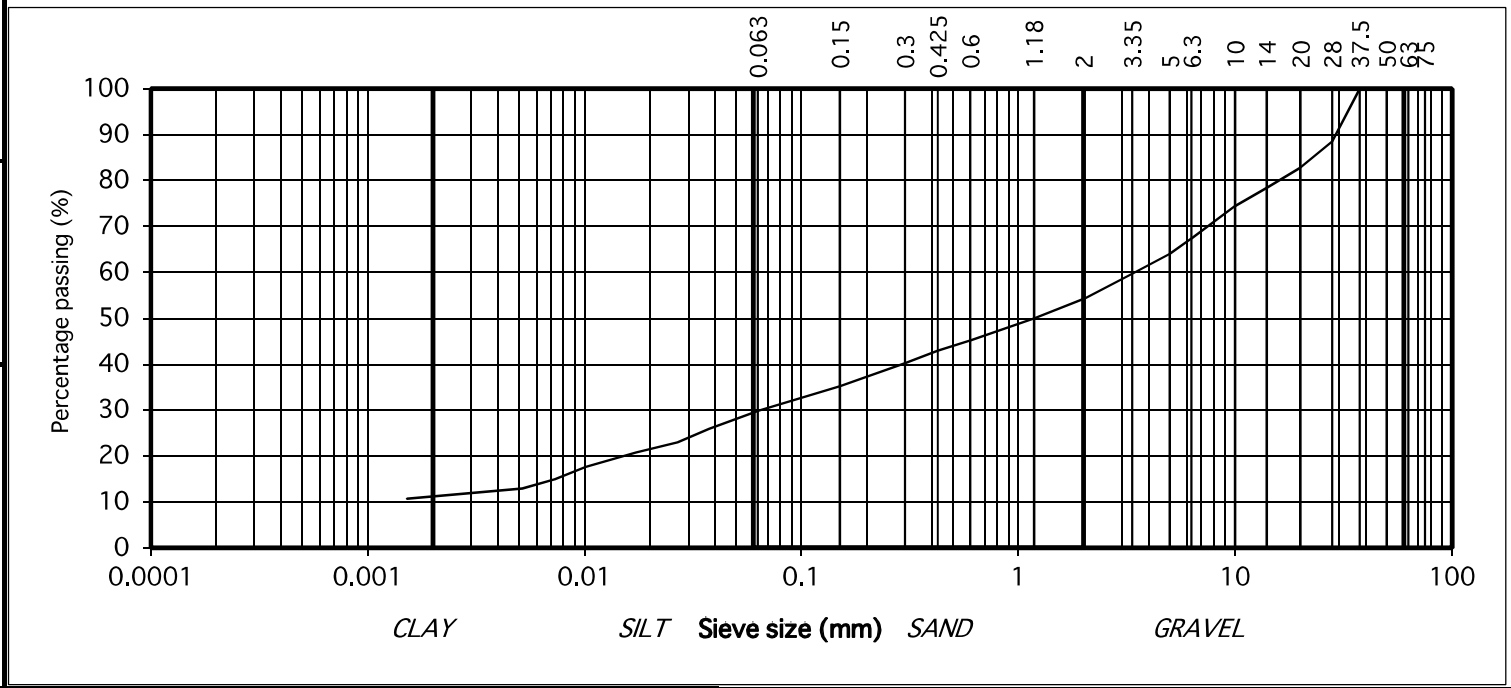
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	89	
20	83	
14	78	
10	74	
6.3	67	
5	64	
3.35	60	
2	54	
1.18	50	SAND
0.6	45	
0.425	43	
0.3	40	
0.15	35	
0.063	30	SILT/CLAY
0.037	26	
0.027	23	
0.017	21	
0.010	18	
0.007	15	
0.005	13	
0.002	11	

Contract No.	23560	Report No.	R134791	
Contract Name:	WSP - Lot 3			
BH/TP* :	TH119201			
Sample No.*	AA178571	Lab. Sample No.		A22/2582
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

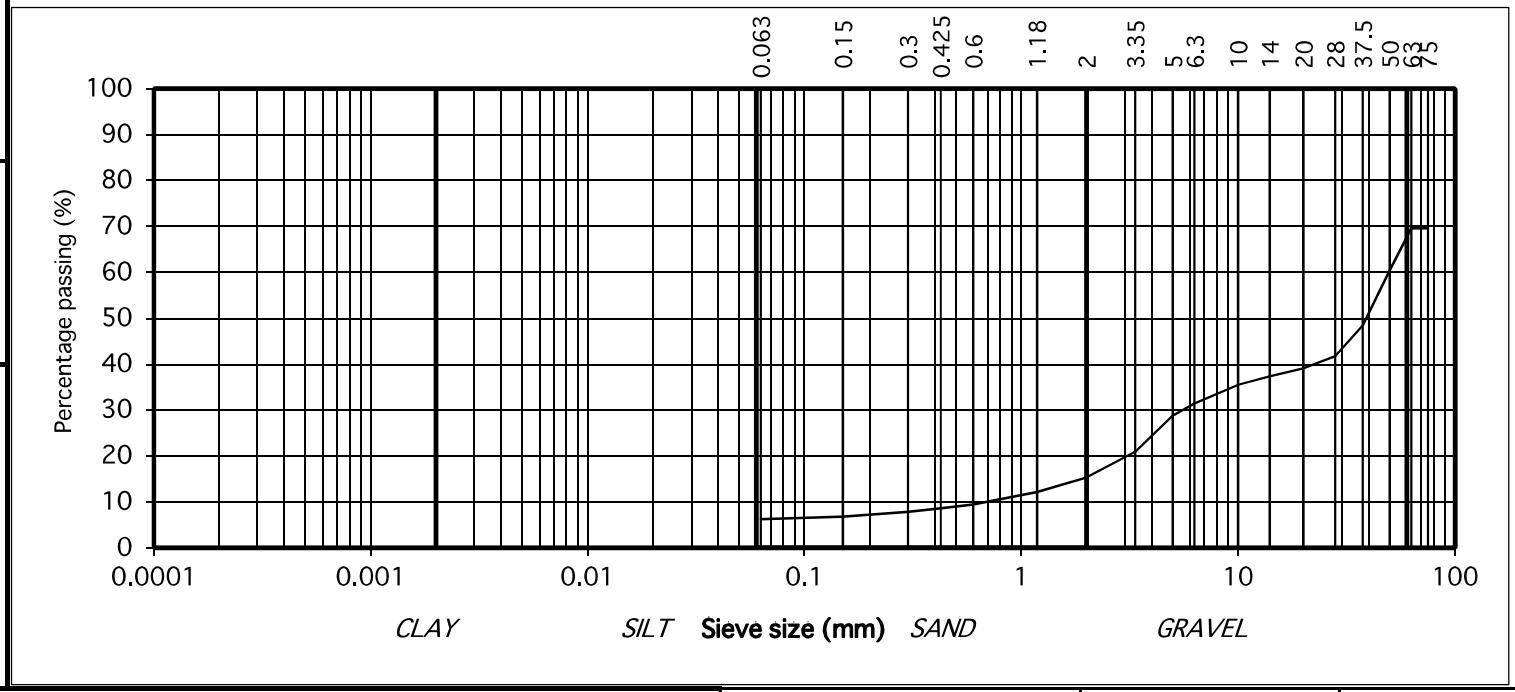
particle size	% passing	
75	70	COBBLES
63	70	
50	60	GRAVEL
37.5	48	
28	42	
20	39	
14	37	
10	36	
6.3	31	
5	29	
3.35	21	
2	15	
1.18	12	SAND
0.6	10	
0.425	9	
0.3	8	
0.15	7	
0.063	6	SILT/CLAY

Contract No.	23560	Report No.	R143968
Contract Name:	WSP - Lot 3		
BH/TP* :	TP119102		
Sample No.*	AA178569	Lab. Sample No.	A22/3232
Sample Type:	B		
Depth* (m)	1.50	Customer:	Ervia
Date Received	08/08/2022	Date Testing started	08/08/2022
Description:	Brown clayey/silty, sandy, GRAVEL with many cobbles		

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

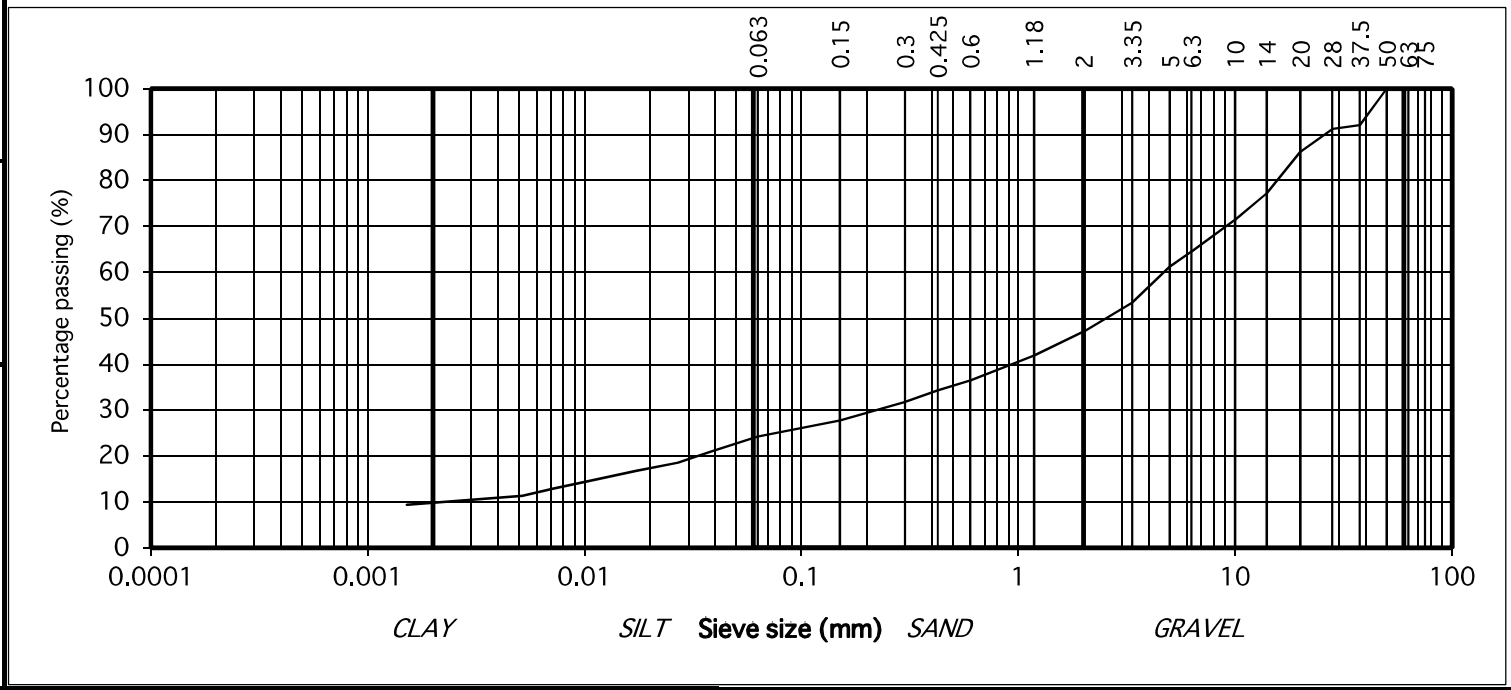
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	92	
28	91	
20	86	
14	77	
10	72	
6.3	65	
5	61	
3.35	53	
2	47	
1.18	42	SAND
0.6	37	
0.425	34	
0.3	32	
0.15	28	
0.063	24	SILT/CLAY
0.037	21	
0.027	19	
0.017	17	
0.010	14	
0.007	13	
0.005	11	
0.002	9	

Contract No.	23560	Report No.	R134928	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119201			
Sample No.*	AA178572	Lab. Sample No.		A22/2583
Sample Type:	B			
Depth* (m)	1.60	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		13/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

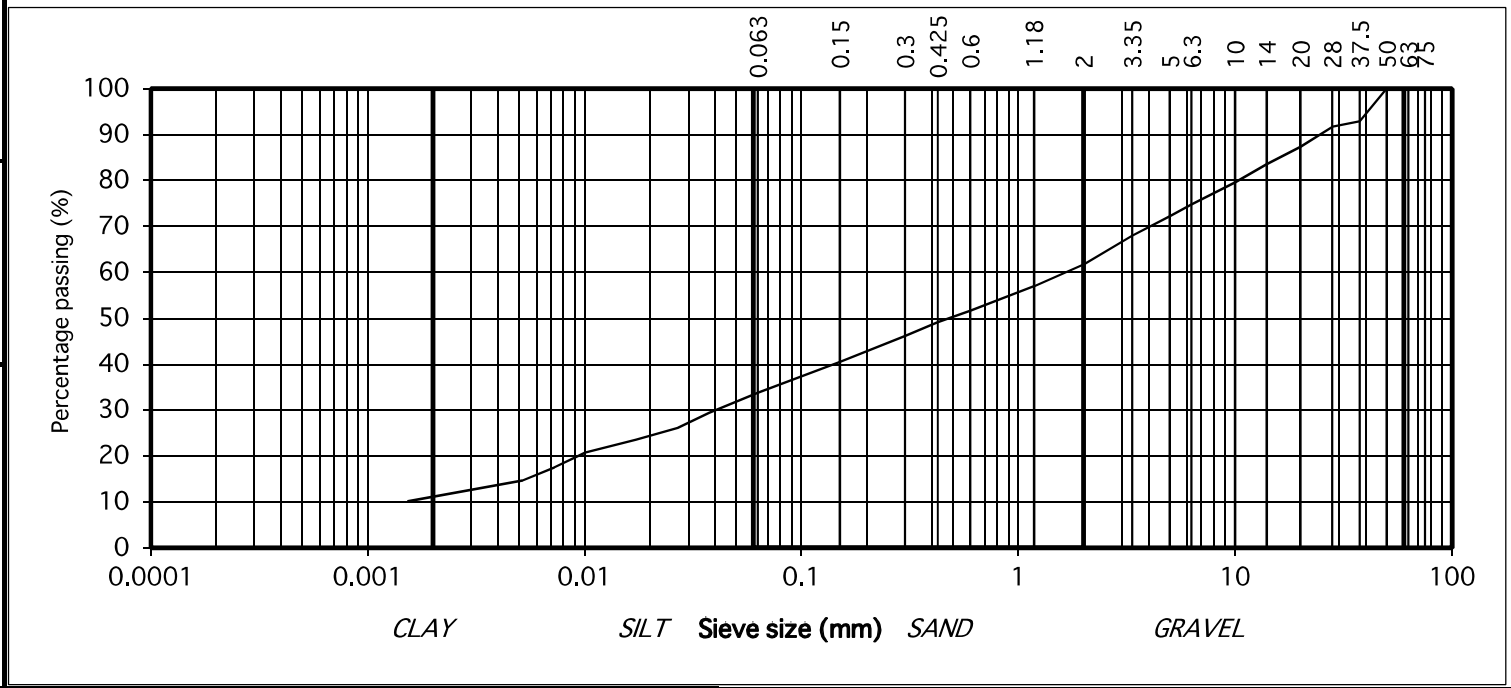
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	93	
28	92	
20	87	
14	84	
10	80	
6.3	75	
5	72	
3.35	68	
2	62	
1.18	57	SAND
0.6	52	
0.425	49	
0.3	46	
0.15	41	
0.063	34	SILT/CLAY
0.037	29	
0.027	26	
0.017	24	
0.010	21	
0.007	18	
0.005	15	
0.002	10	

Contract No.	23560	Report No.	R134954	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119302			
Sample No.*	AA178574	Lab. Sample No.		A22/2584
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

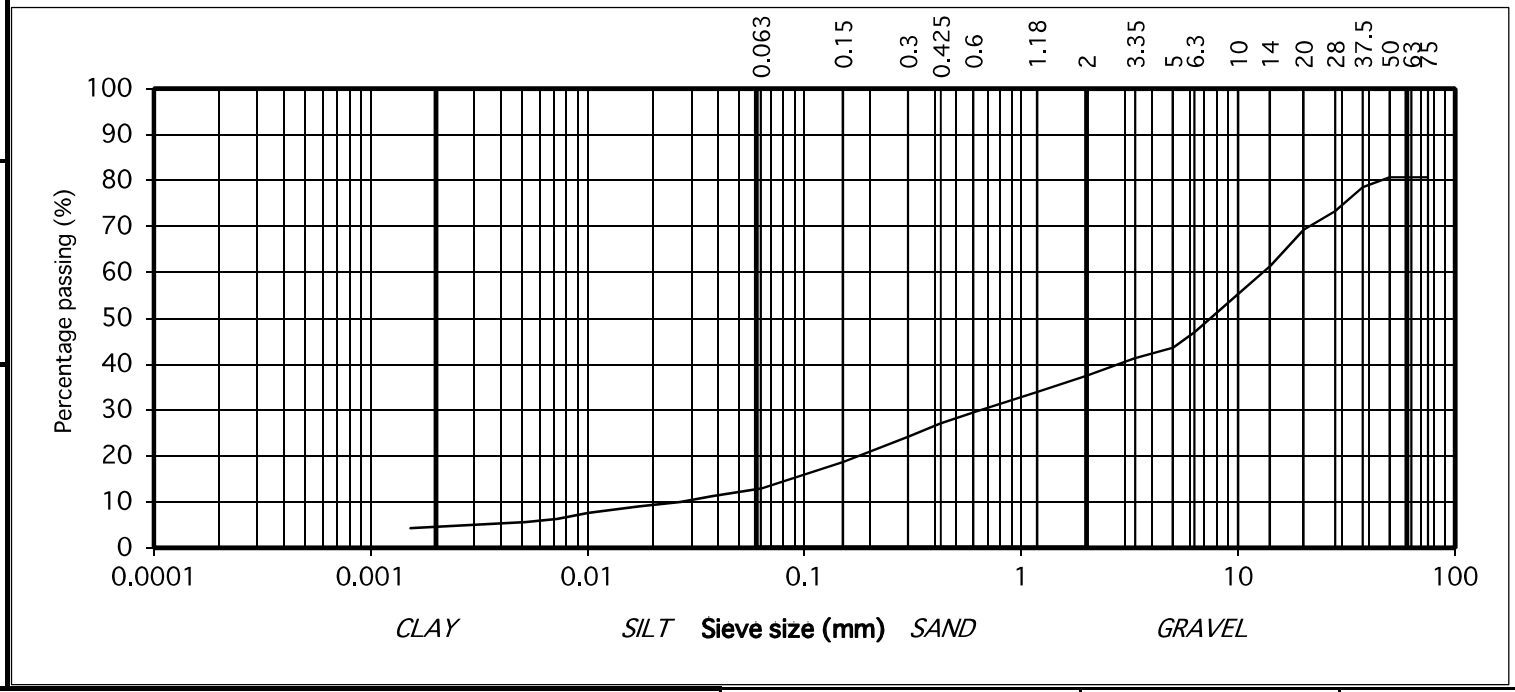
particle size	% passing	
75	81	COBBLES
63	81	
50	81	GRAVEL
37.5	79	
28	73	
20	69	
14	61	
10	55	
6.3	47	
5	44	
3.35	41	
2	38	
1.18	34	SAND
0.6	30	
0.425	27	
0.3	24	
0.15	19	
0.063	13	SILT/CLAY
0.037	11	
0.027	10	
0.017	9	
0.010	8	
0.007	6	
0.005	6	
0.002	4	

Contract No.	23560	Report No.	R134948	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119302			
Sample No.*	AA178576	Lab. Sample No.		A22/2585
Sample Type:	B			
Depth* (m)	2.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown clayey/silty, very sandy, GRAVEL with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

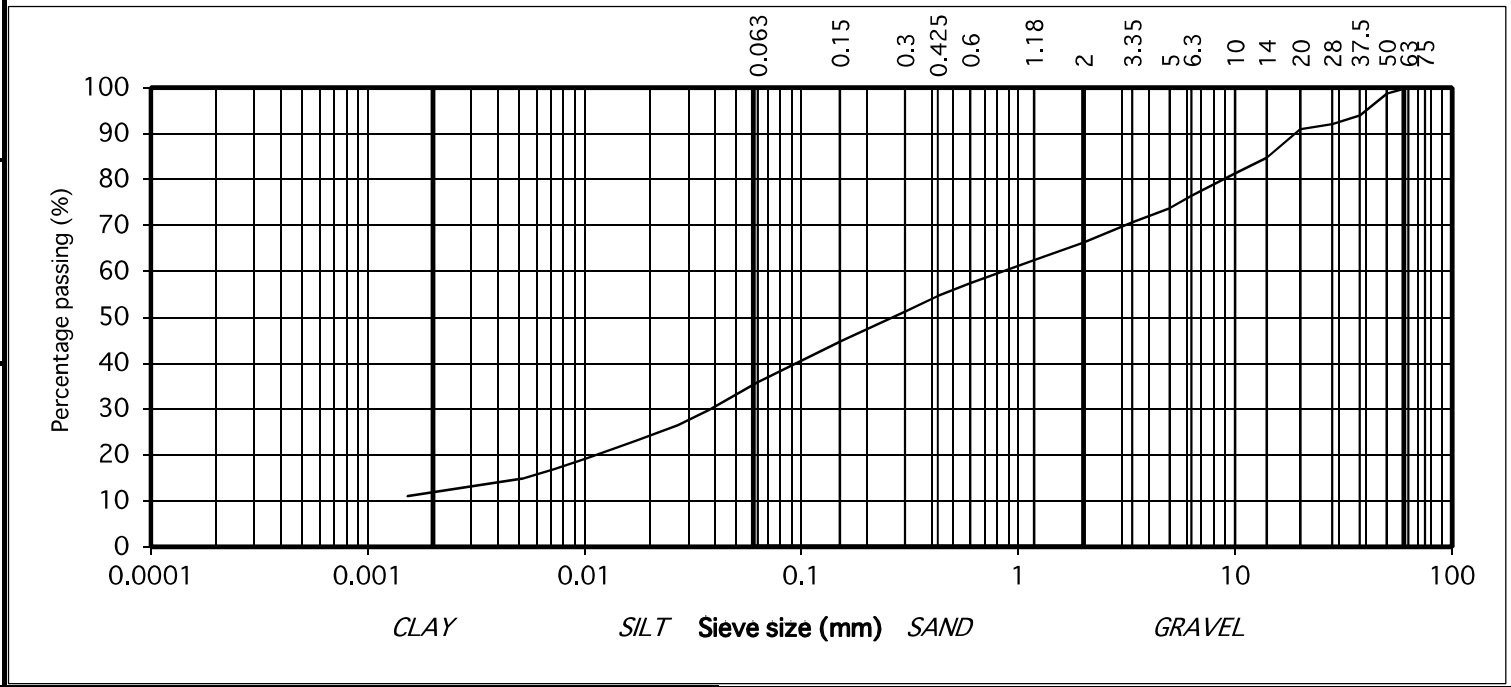
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	99	GRAVEL
37.5	94	
28	92	
20	91	
14	85	
10	81	
6.3	77	
5	74	
3.35	71	
2	66	
1.18	63	SAND
0.6	57	
0.425	55	
0.3	51	
0.15	45	
0.063	36	SILT/CLAY
0.037	30	
0.027	26	
0.017	23	
0.010	19	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R134294	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119389			
Sample No.*	AA178577	Lab. Sample No.		A22/2586
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

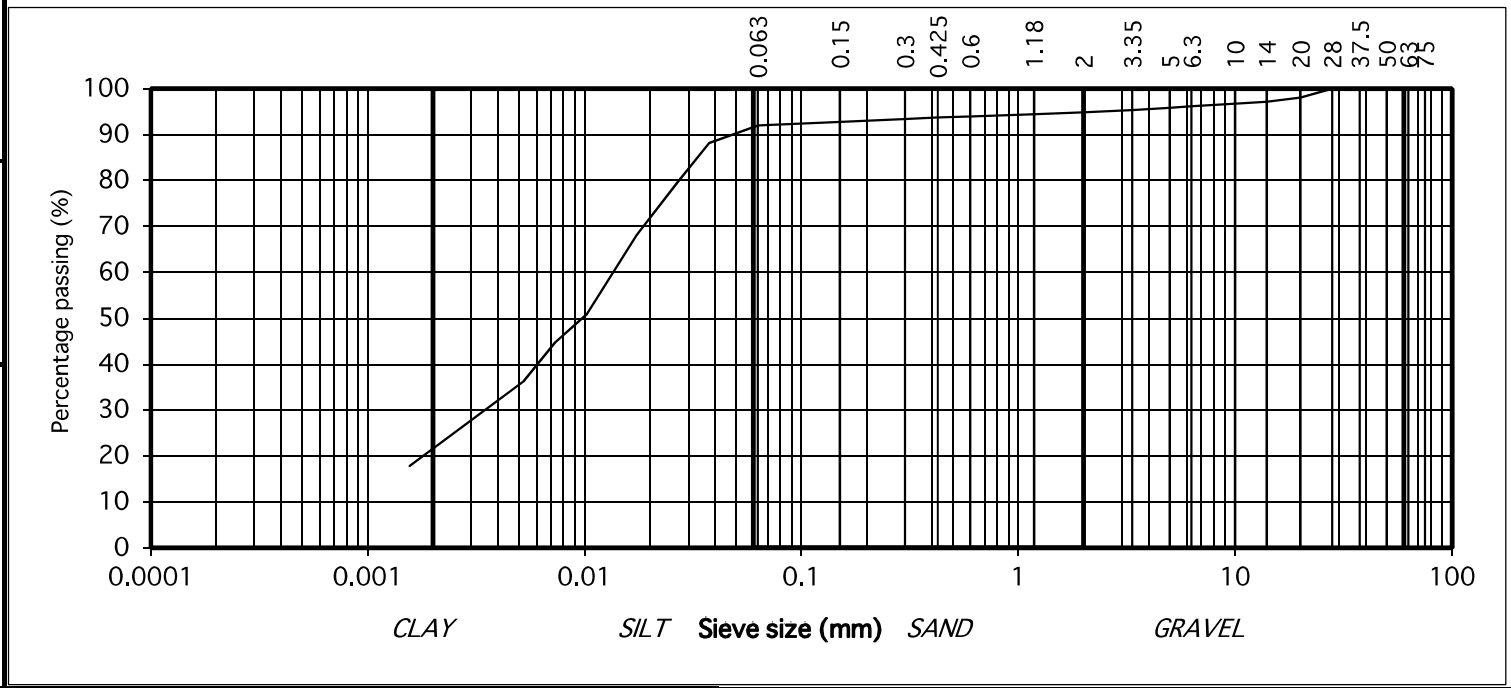
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	98	
14	97	
10	97	
6.3	96	
5	96	
3.35	95	
2	95	
1.18	94	SAND
0.6	94	
0.425	94	
0.3	93	
0.15	93	
0.063	92	SILT/CLAY
0.037	88	
0.027	80	
0.017	68	
0.010	51	
0.007	45	
0.005	36	
0.002	18	

Contract No.	23560	Report No.	R135025	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119389			
Sample No.*	AA178578	Lab. Sample No.		A22/2587
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		16/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	30/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

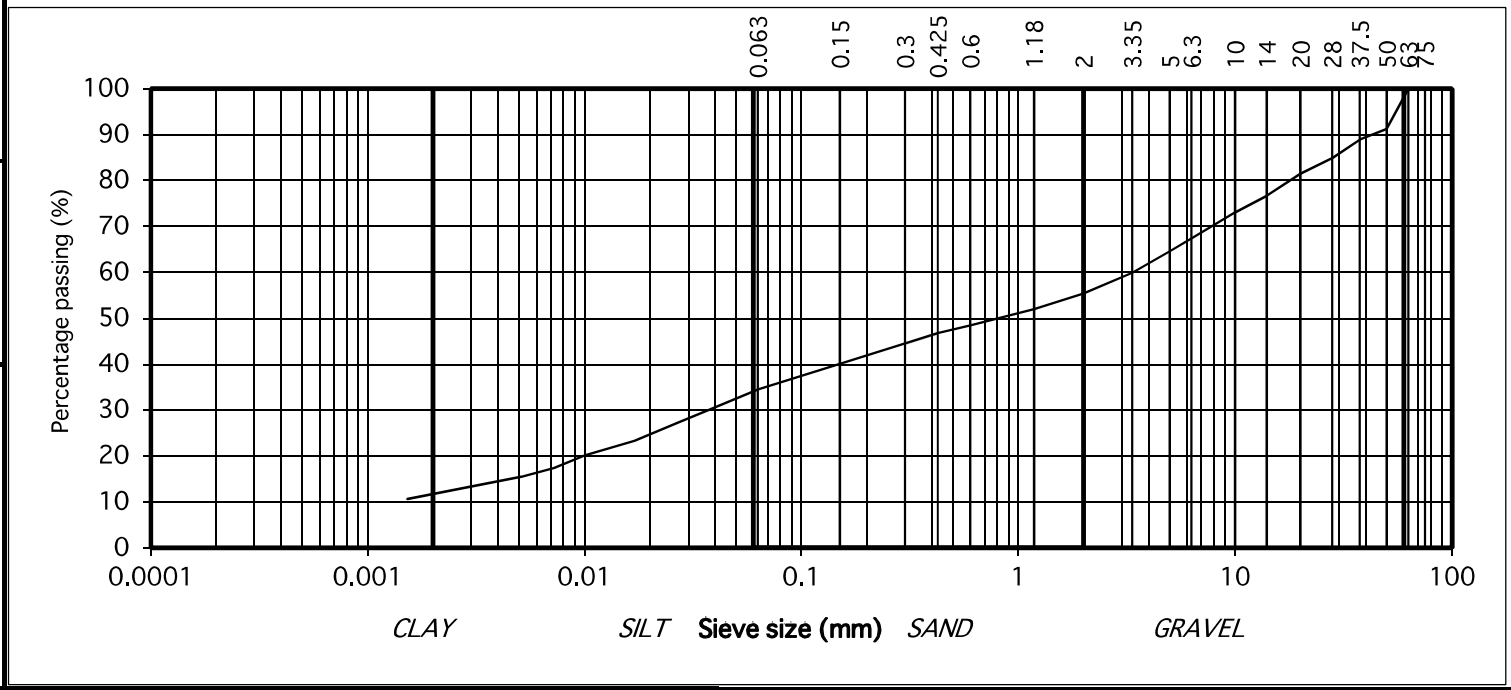
particle size	% passing	
75	100	COBBLES
63	100	
50	91	GRAVEL
37.5	89	
28	85	
20	81	
14	77	
10	73	
6.3	67	
5	65	
3.35	60	
2	55	
1.18	52	SAND
0.6	48	
0.425	47	
0.3	45	
0.15	40	
0.063	34	SILT/CLAY
0.037	30	
0.026	27	
0.017	23	
0.010	20	
0.007	17	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R134296	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119389			
Sample No.*	AA178579	Lab. Sample No.		A22/2588
Sample Type:	B			
Depth* (m)	3.10	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

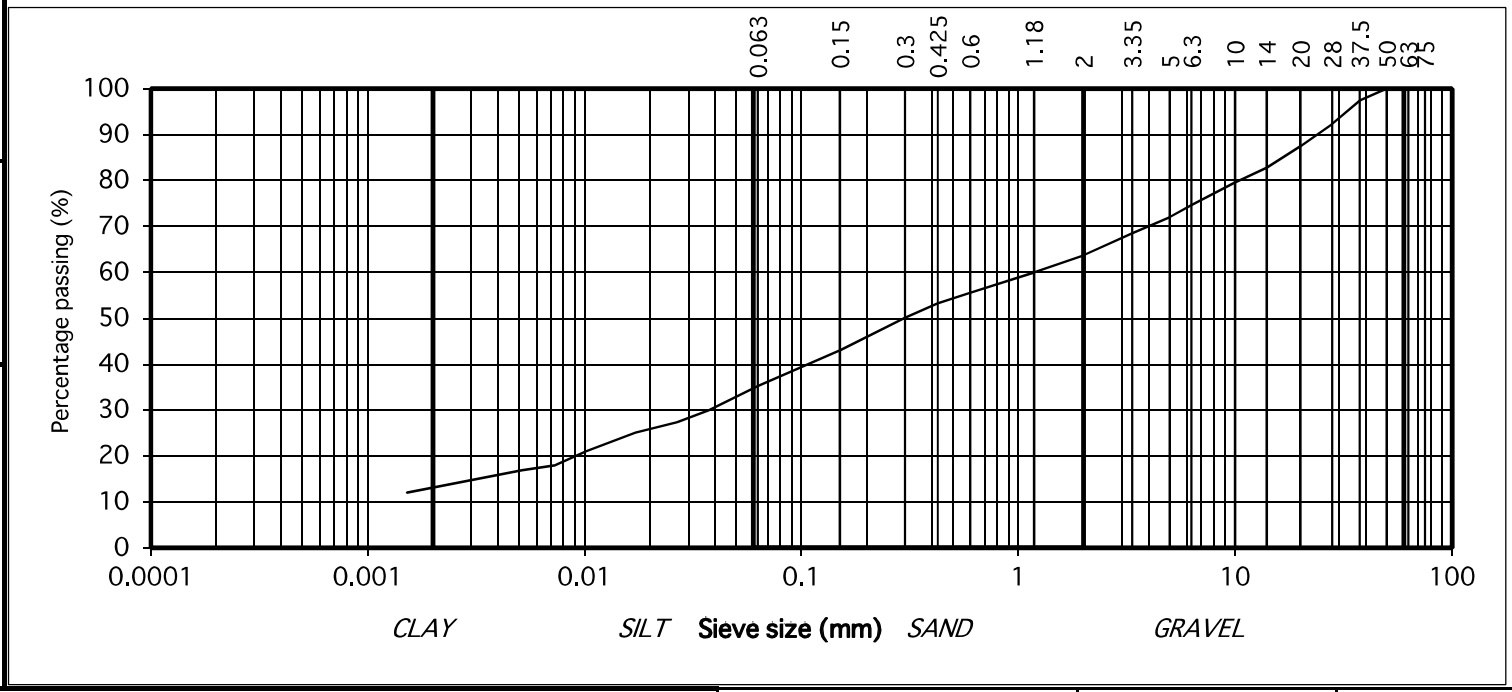
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	92	
20	88	
14	83	
10	80	
6.3	75	
5	72	
3.35	69	
2	64	
1.18	60	SAND
0.6	56	
0.425	53	
0.3	50	
0.15	43	
0.063	35	SILT/CLAY
0.037	30	
0.027	27	
0.017	25	
0.010	21	
0.007	18	
0.005	17	
0.002	12	

Contract No.	23560	Report No.	R134781	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP1119502			
Sample No.*	AA178580	Lab. Sample No.		A22/2589
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		10/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

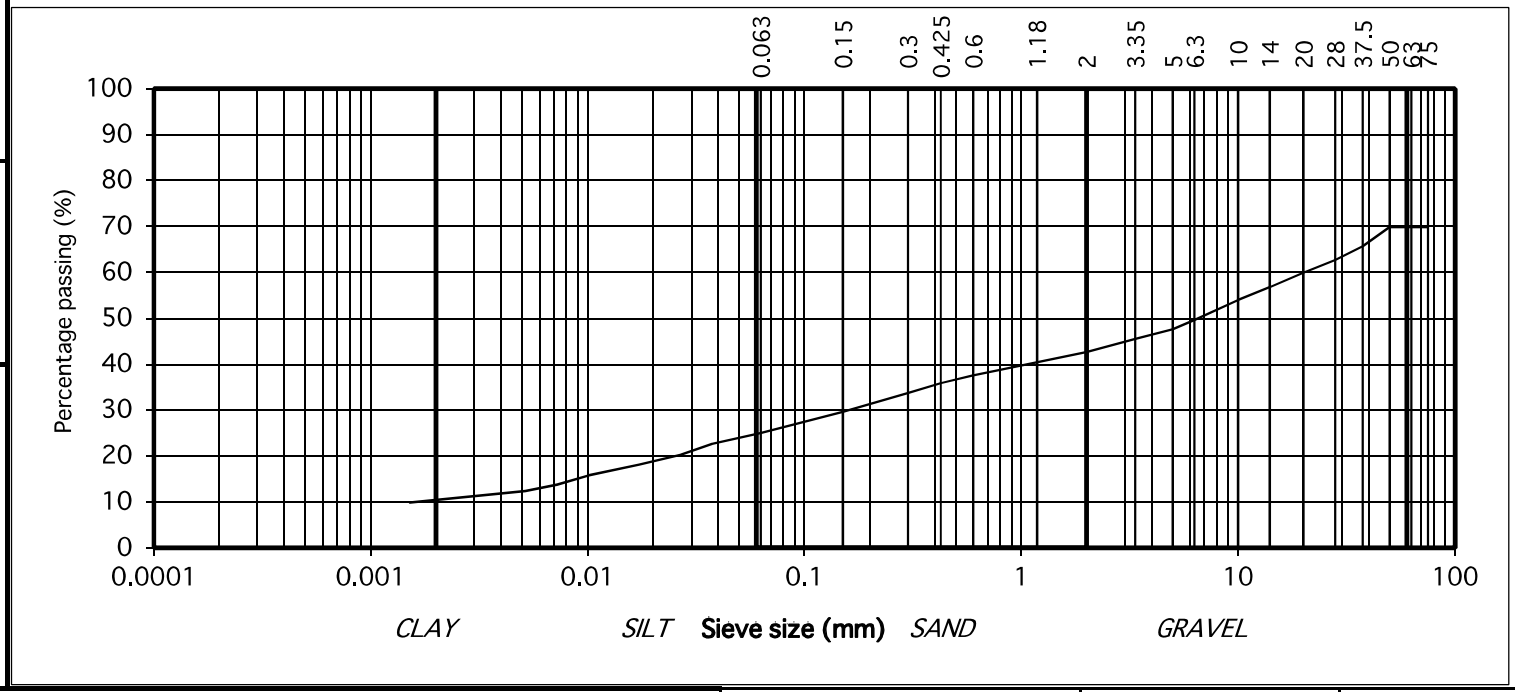
particle size	% passing	
75	70	COBBLES
63	70	
50	70	GRAVEL
37.5	66	
28	63	
20	60	
14	57	
10	54	
6.3	50	
5	48	
3.35	46	
2	43	
1.18	40	SAND
0.6	38	
0.425	36	
0.3	34	
0.15	30	
0.063	25	SILT/CLAY
0.037	23	
0.027	20	
0.017	18	
0.010	16	
0.007	14	
0.005	12	
0.002	10	

Contract No.	23560	Report No.	R134786	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119586			
Sample No.*	AA178580	Lab. Sample No.		A22/2591
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

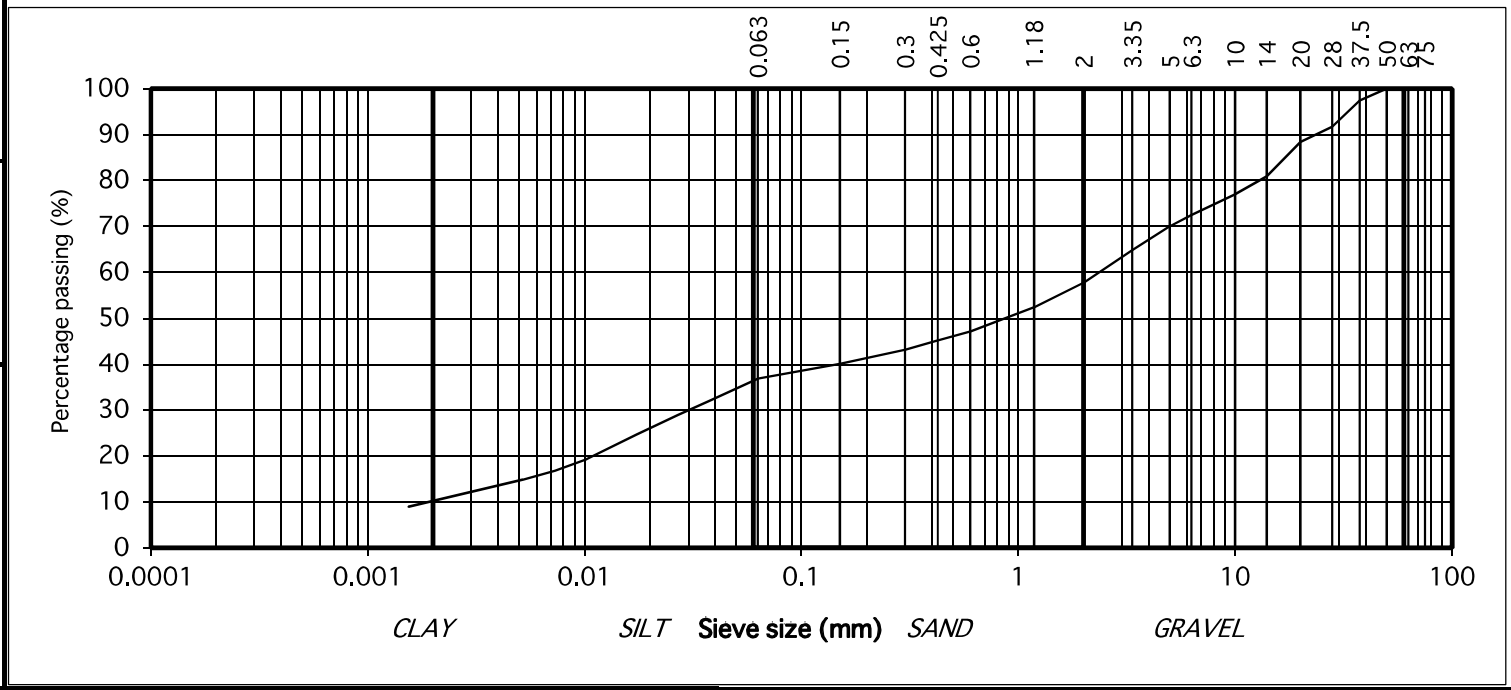
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	92	
20	88	
14	81	
10	77	
6.3	73	
5	70	
3.35	65	
2	58	
1.18	52	SAND
0.6	47	
0.425	45	
0.3	43	
0.15	40	
0.063	37	SILT/CLAY
0.037	32	
0.027	29	
0.017	25	
0.010	19	
0.007	17	
0.005	15	
0.002	9	

Contract No.	23560	Report No.	R135026	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119502			
Sample No.*	AA178582	Lab. Sample No.		A22/2590
Sample Type:	B			
Depth* (m)	3.40	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		16/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	30/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

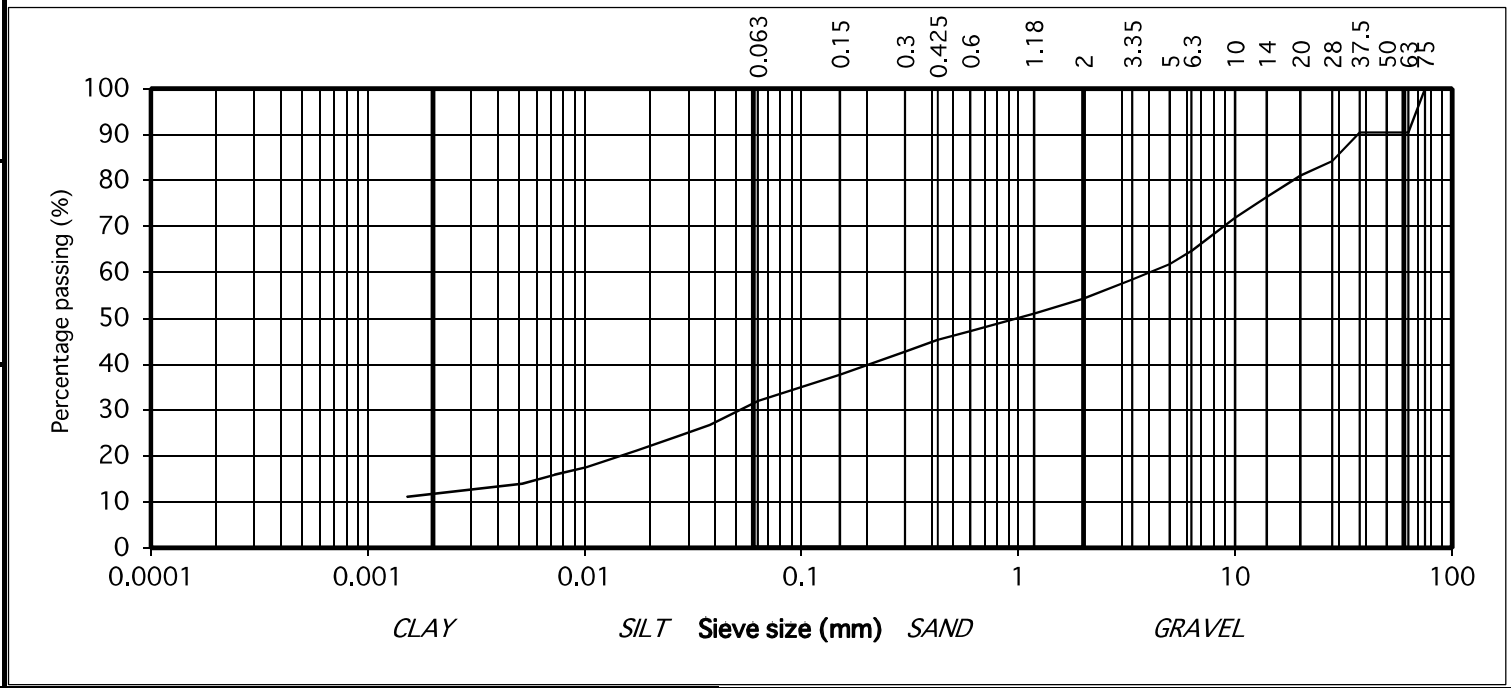
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	90	
50	90	GRAVEL
37.5	90	
28	84	
20	81	
14	76	
10	72	
6.3	65	
5	62	
3.35	58	
2	54	
1.18	51	SAND
0.6	47	
0.425	45	
0.3	43	
0.15	38	
0.063	32	SILT/CLAY
0.038	27	
0.027	24	
0.017	21	
0.010	18	
0.007	16	
0.005	14	
0.002	11	

Contract No. 23560 Report No. R134775
Contract Name: WSP - Lot 3
BH/TP* : TP119586
Sample No.* AA178584 Lab. Sample No. A22/2592
Sample Type: B
Depth* (m) 1.50 Customer: Ervia
Date Received 04/05/2022 Date Testing started 10/05/2022
Description: Brown slightly sandy, gravelly, SILT/CLAY with some cobbles

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

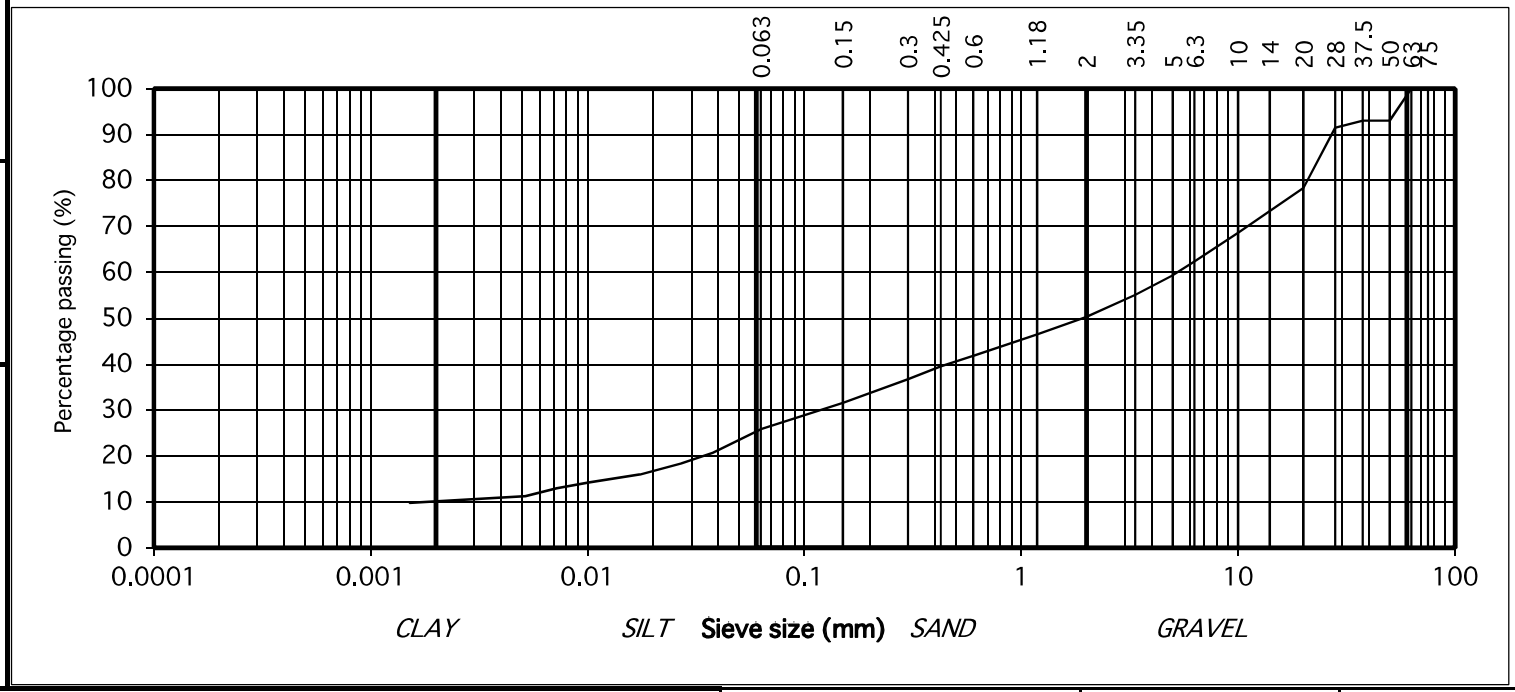
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	93	GRAVEL
37.5	93	
28	92	
20	78	
14	73	
10	69	
6.3	62	
5	59	
3.35	55	
2	50	
1.18	47	SAND
0.6	42	
0.425	40	
0.3	37	
0.15	32	
0.063	26	SILT/CLAY
0.038	21	
0.027	18	
0.017	16	
0.010	14	
0.007	13	
0.005	11	
0.002	10	

Contract No.	23560	Report No.	R137403	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP119700			
Sample No.*	AA178587	Lab. Sample No.		A22/2593
Sample Type:	B			
Depth* (m)	1.40	Customer:	Ervia	
Date Received	15/07/2022	Date Testing started		15/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	08/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

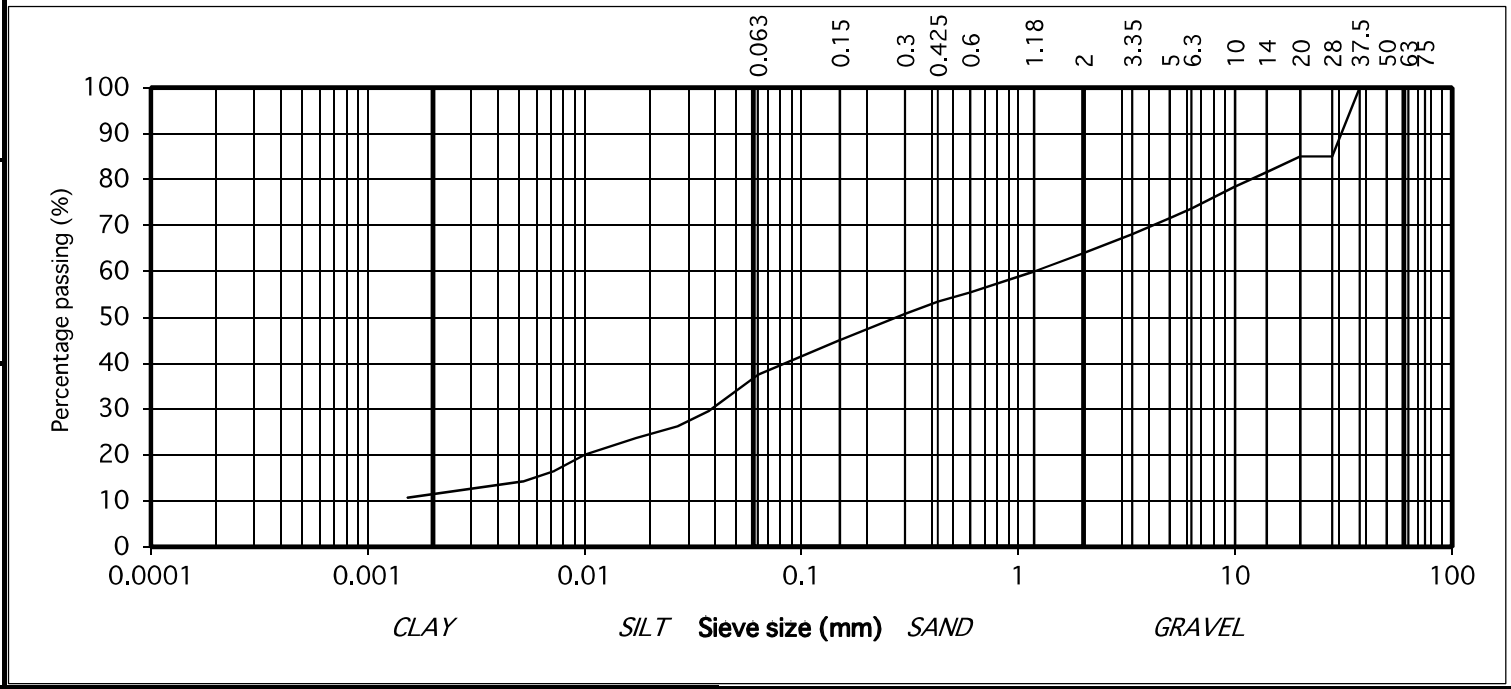
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	85	
20	85	
14	82	
10	78	
6.3	74	
5	72	
3.35	68	
2	64	
1.18	60	SAND
0.6	55	
0.425	53	
0.3	51	
0.15	45	
0.063	38	SILT/CLAY
0.037	30	
0.027	26	
0.017	24	
0.010	20	
0.007	17	
0.005	14	
0.002	11	

Contract No.	23560	Report No.	R134930	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP125902			
Sample No.*	AA178590	Lab. Sample No.		A22/2595
Sample Type:	B			
Depth* (m)	3.10	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		16/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

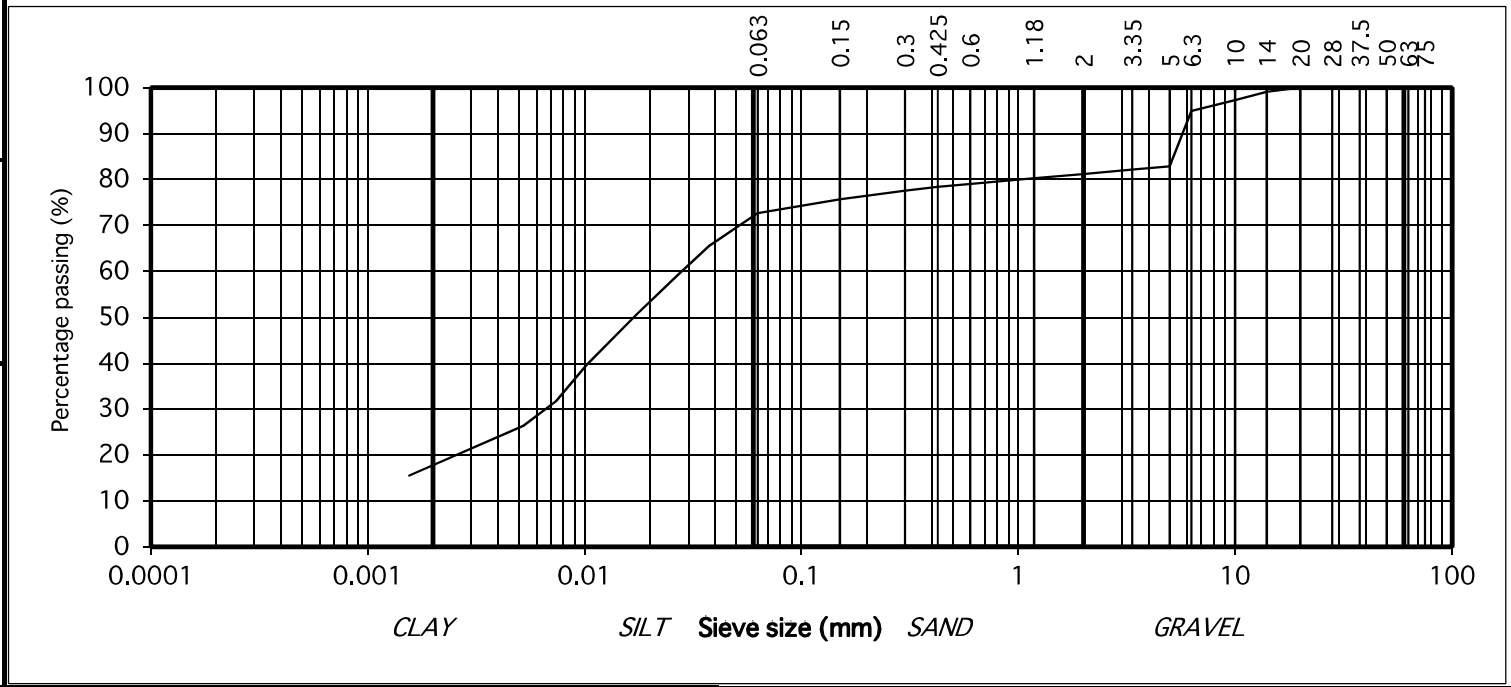
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	99	
10	97	
6.3	95	
5	83	
3.35	82	
2	81	
1.18	80	SAND
0.6	79	
0.425	78	
0.3	78	
0.15	76	
0.063	73	SILT/CLAY
0.037	66	
0.027	59	
0.017	51	
0.010	40	
0.007	32	
0.005	26	
0.002	16	

Contract No.	23560	Report No.	R135027	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP125701			
Sample No.*	AA178595	Lab. Sample No.		A22/2598
Sample Type:	B			
Depth* (m)	3.90	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		16/05/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	30/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

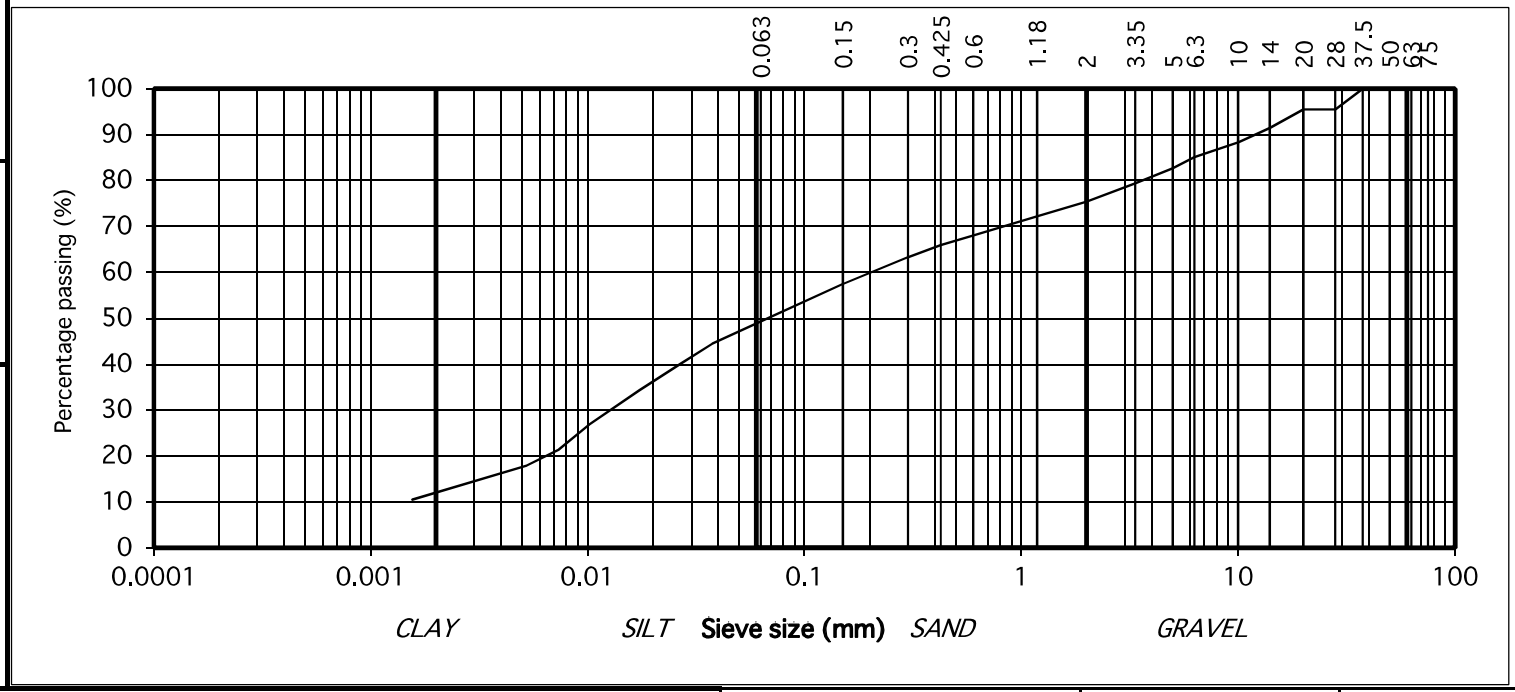
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	96	
14	91	
10	88	
6.3	85	
5	83	
3.35	79	
2	75	
1.18	72	SAND
0.6	68	
0.425	66	
0.3	63	
0.15	57	
0.063	49	SILT/CLAY
0.037	45	
0.027	40	
0.017	34	
0.010	27	
0.007	21	
0.005	18	
0.002	11	

Contract No.	23560	Report No.	R135028	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP125800			
Sample No.*	AA178595	Lab. Sample No.		A22/2597
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		16/05/2022
Description:	Grey/brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	30/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

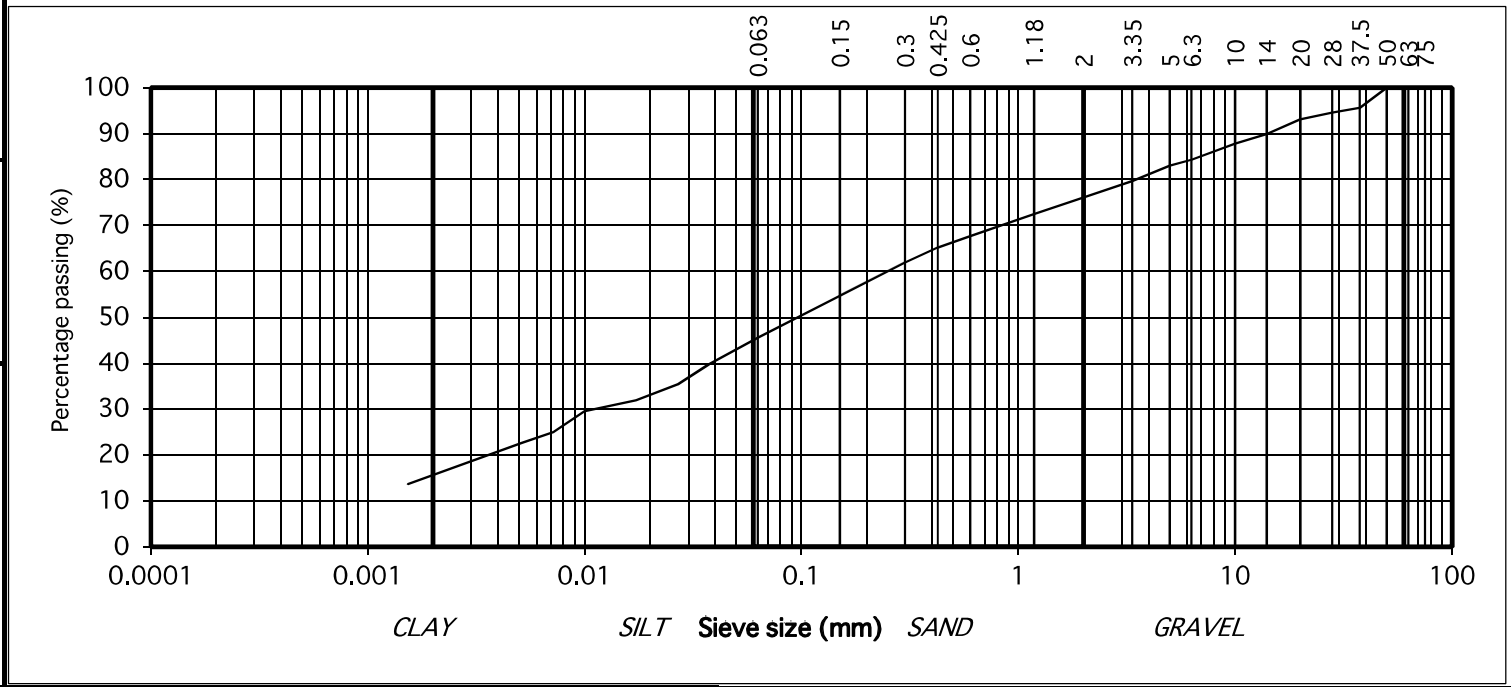
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	95	
20	93	
14	90	
10	88	
6.3	84	
5	83	
3.35	80	
2	76	
1.18	73	SAND
0.6	68	
0.425	65	
0.3	62	
0.15	55	
0.063	46	SILT/CLAY
0.037	40	
0.027	35	
0.017	32	
0.010	30	
0.007	25	
0.005	23	
0.002	14	

Contract No.	23560	Report No.	R134923	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP126004			
Sample No.*	AA178592	Lab. Sample No.		A22/2596
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		13/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

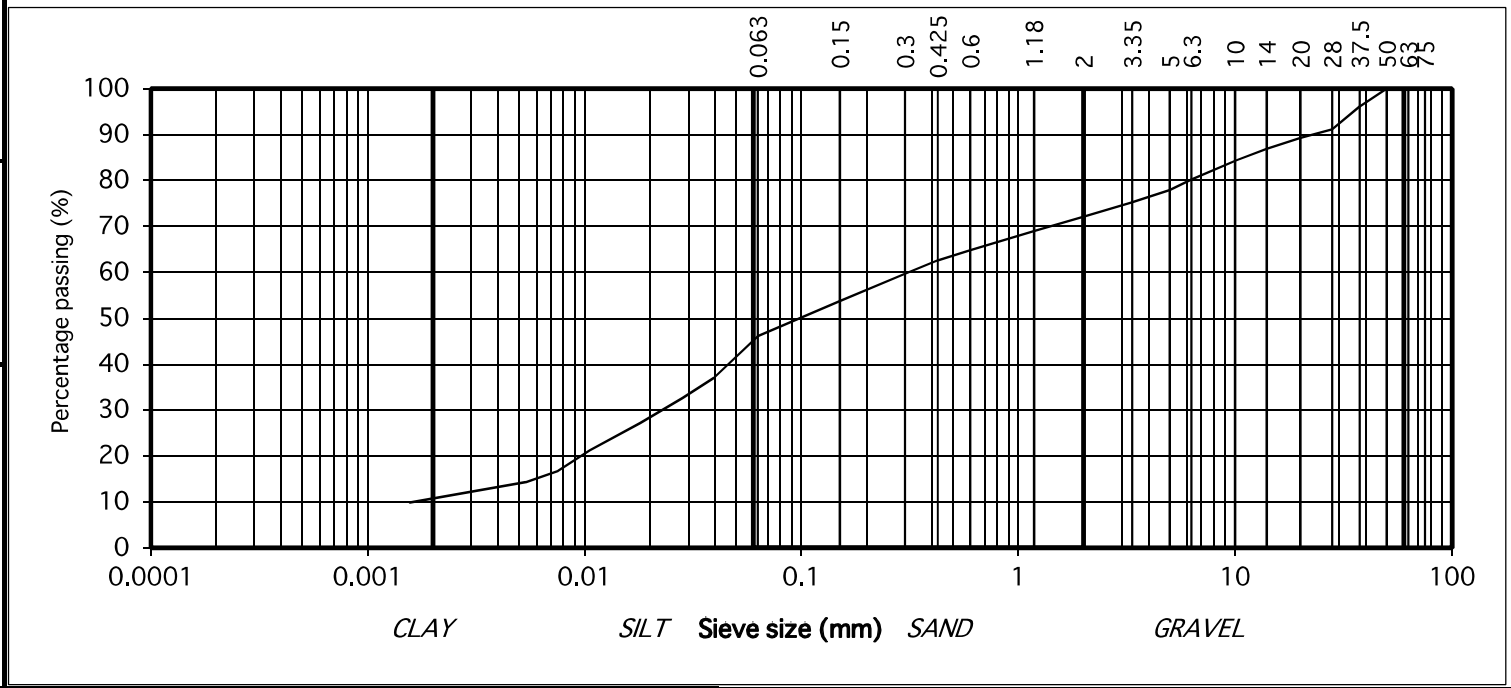
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	91	
20	89	
14	87	
10	84	
6.3	80	
5	78	
3.35	75	
2	72	
1.18	69	SAND
0.6	65	
0.425	63	
0.3	60	
0.15	54	
0.063	46	SILT/CLAY
0.039	37	
0.028	33	
0.018	27	
0.011	21	
0.008	17	
0.005	14	
0.002	10	

Contract No.	23560	Report No.	R137029	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP132838			
Sample No.*	AA152180	Lab. Sample No.		A22/3233
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

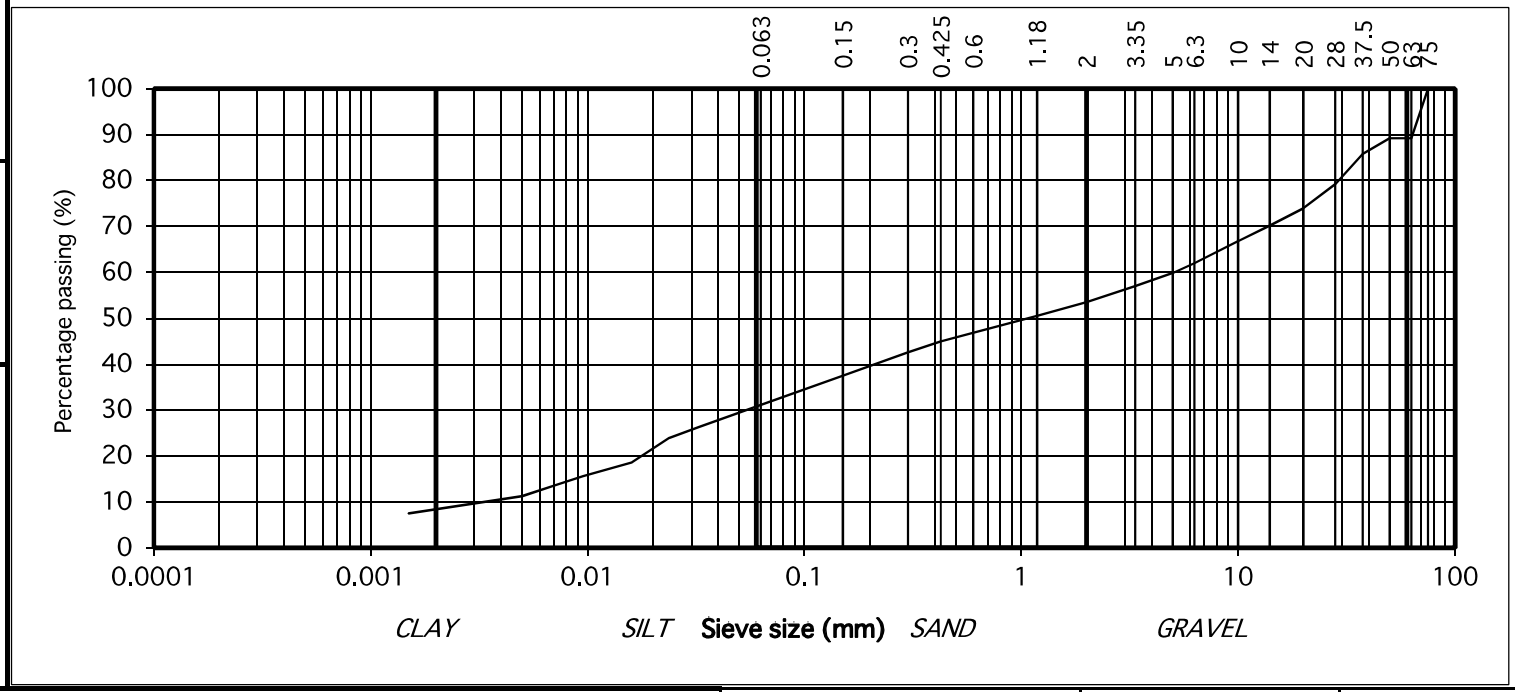
particle size	% passing	
75	100	COBBLES
63	89	
50	89	GRAVEL
37.5	86	
28	79	
20	74	
14	70	
10	67	
6.3	62	
5	60	
3.35	57	
2	54	
1.18	51	SAND
0.6	47	
0.425	45	
0.3	43	
0.15	38	
0.063	31	SILT/CLAY
0.032	26	
0.024	24	
0.016	19	
0.010	16	
0.007	14	
0.005	11	
0.001	8	

Contract No.	23560	Report No.	R137030	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP132838			
Sample No.*	AA152181	Lab. Sample No.		A22/3234
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

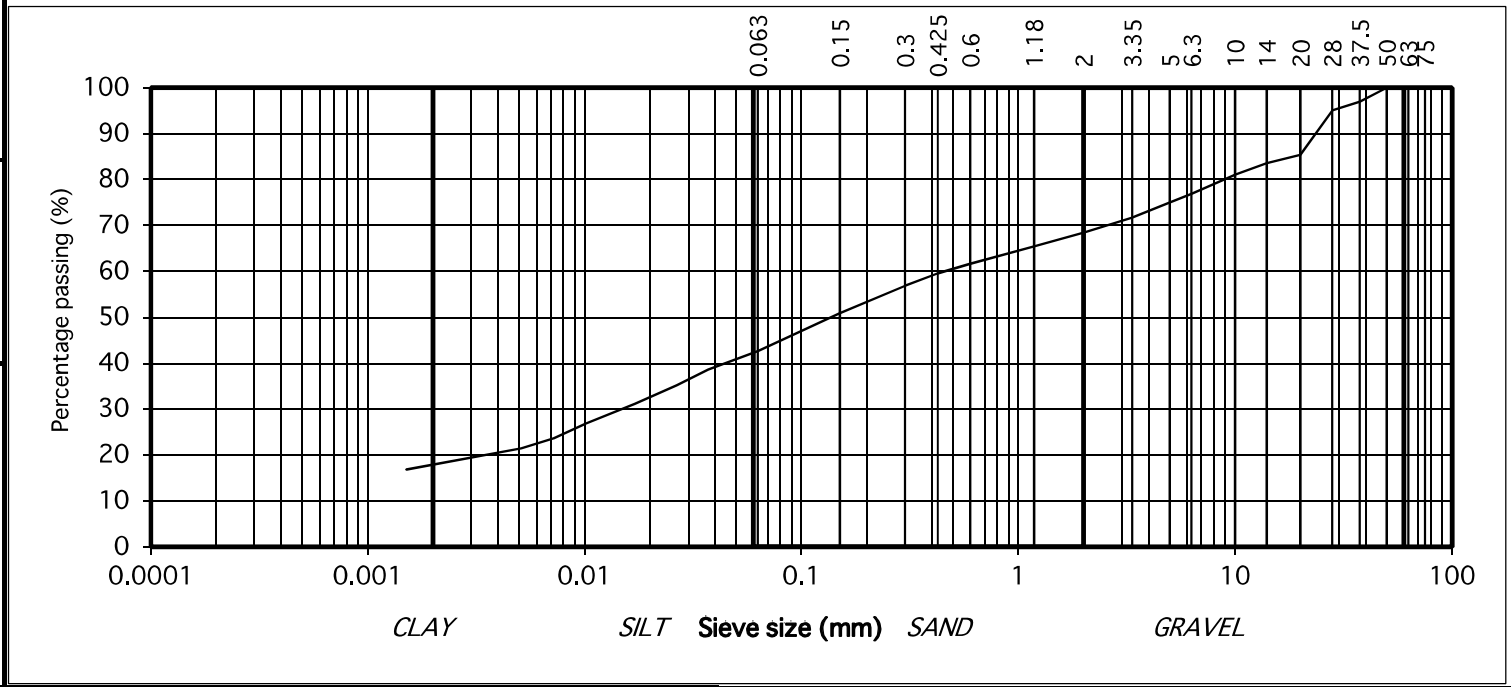
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	95	
20	85	
14	84	
10	81	
6.3	77	
5	75	
3.35	72	
2	69	
1.18	65	SAND
0.6	62	
0.425	60	
0.3	57	
0.15	51	
0.063	43	SILT/CLAY
0.037	39	
0.027	35	
0.017	31	
0.010	27	
0.007	24	
0.005	22	
0.002	17	

Contract No.	23560	Report No.	R137031	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP132908			
Sample No.*	AA152177	Lab. Sample No.		A22/3235
Sample Type:	B			
Depth* (m)	5.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

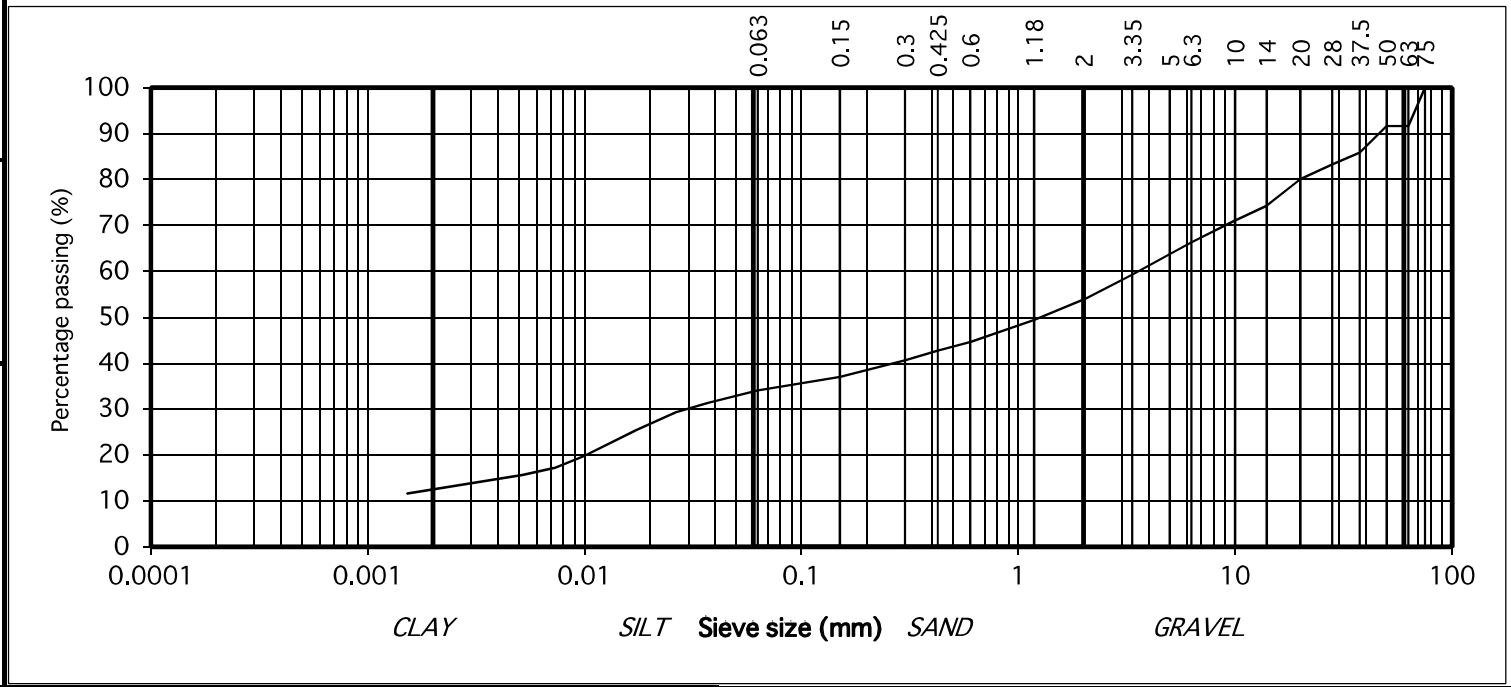
particle size	% passing	
75	100	COBBLES
63	92	
50	92	GRAVEL
37.5	86	
28	83	
20	80	
14	74	
10	71	
6.3	66	
5	64	
3.35	59	
2	54	
1.18	49	SAND
0.6	45	
0.425	43	
0.3	41	
0.15	37	
0.063	34	SILT/CLAY
0.037	31	
0.026	29	
0.017	25	
0.010	20	
0.007	17	
0.005	16	
0.002	12	

Contract No.	23560	Report No.	R143969	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP132838			
Sample No.*	AA152179	Lab. Sample No.		A22/3236
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY with some cobbles			

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

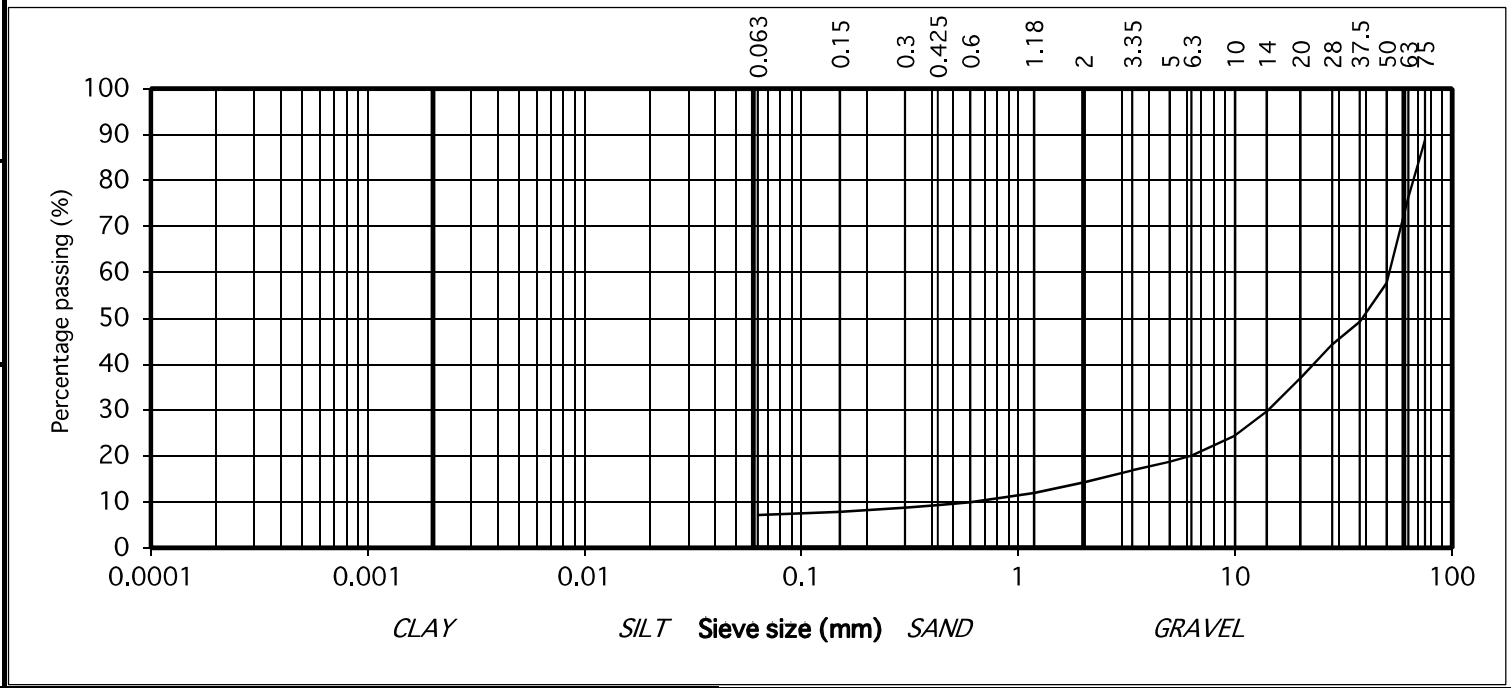
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	89	COBBLES
63	76	
50	58	GRAVEL
37.5	49	
28	44	
20	37	
14	30	
10	25	
6.3	20	
5	19	
3.35	17	
2	14	
1.18	12	SAND
0.6	10	
0.425	9	
0.3	9	
0.15	8	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R143970	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133012			
Sample No.*	AA152176	Lab. Sample No.		A22/3239
Sample Type:	B			
Depth* (m)	3.50	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Grey clayey/silty, sandy, GRAVEL with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

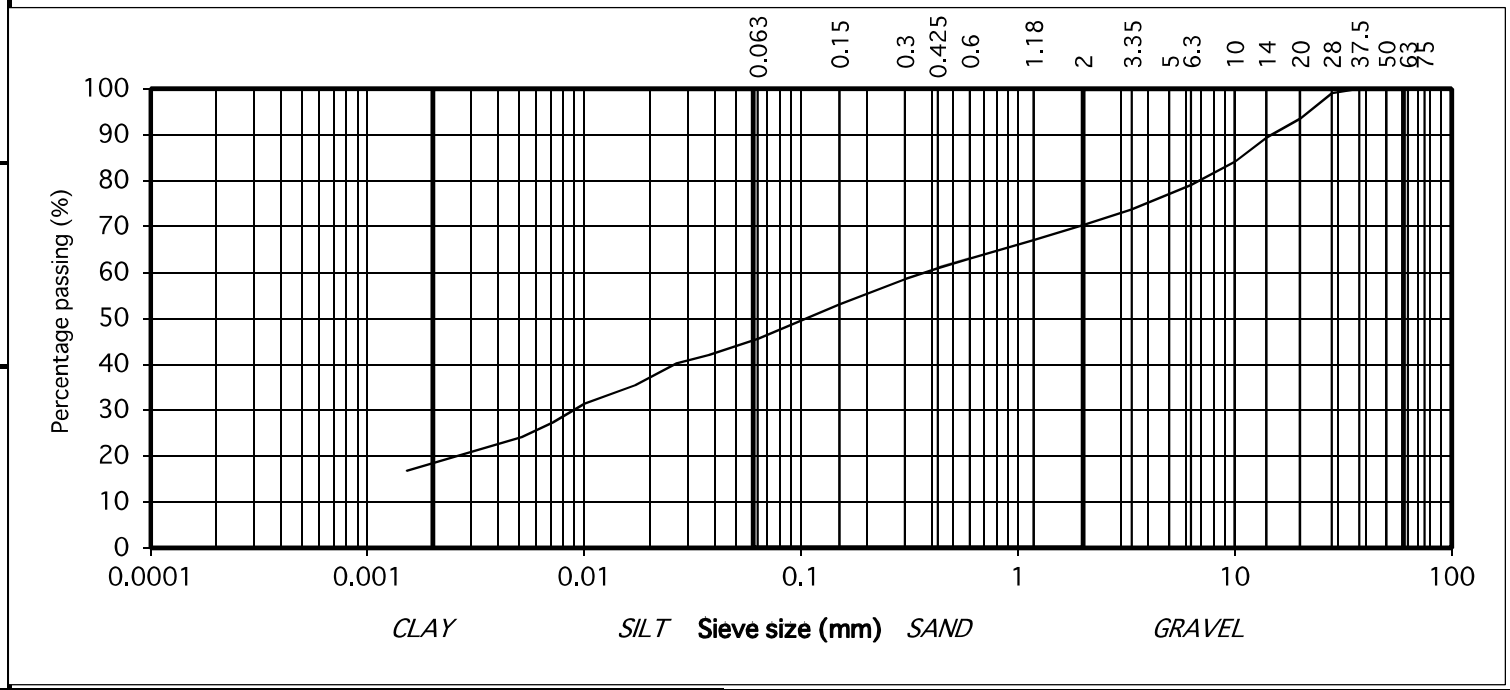
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	94	
14	89	
10	84	
6.3	79	
5	77	
3.35	74	
2	70	
1.18	67	SAND
0.6	63	
0.425	61	
0.3	59	
0.15	53	
0.063	46	SILT/CLAY
0.037	42	
0.027	40	
0.017	35	
0.010	31	
0.007	27	
0.005	24	
0.002	17	

Contract No.	23560	Report No.	R136487	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133108			
Sample No.*	AA174488	Lab. Sample No.		A22/3240
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	06/07/2022	Date Testing started		06/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

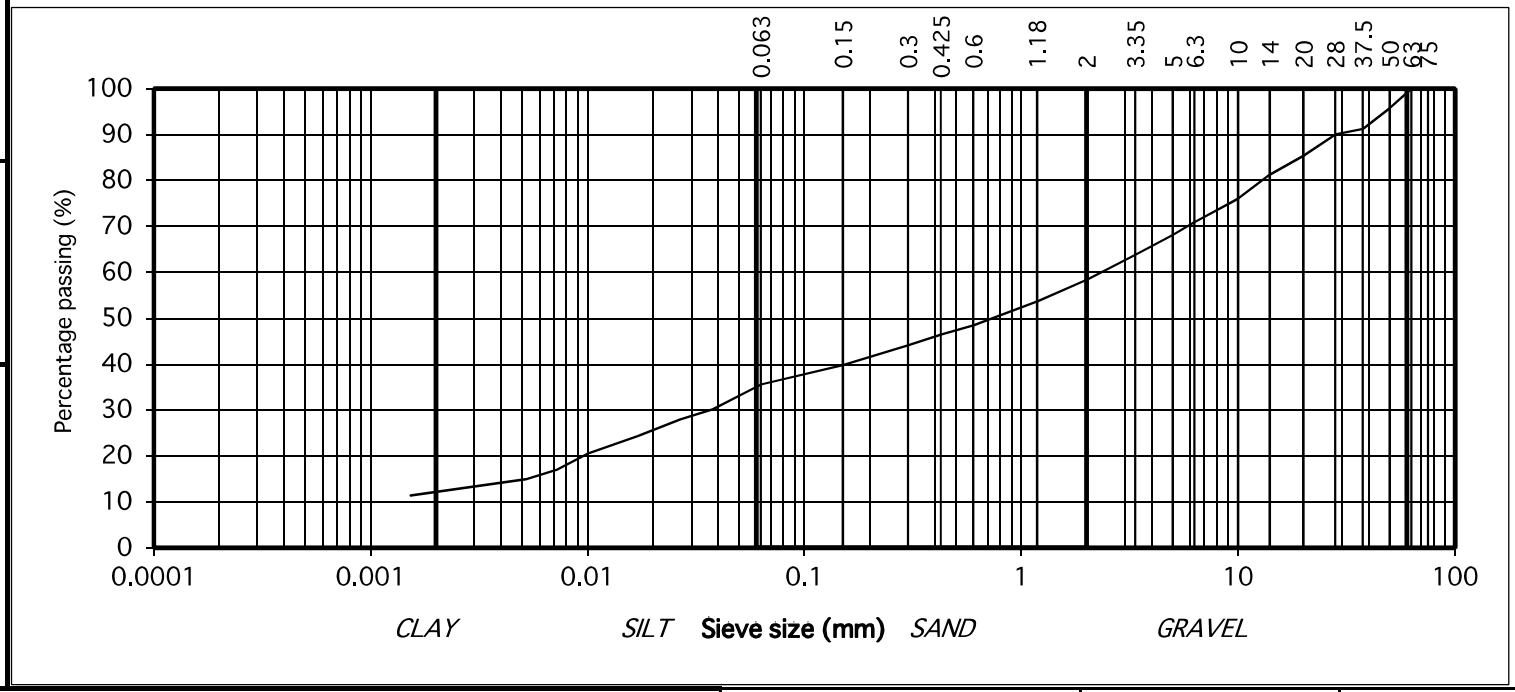
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	91	
28	90	
20	85	
14	81	
10	76	
6.3	71	
5	68	
3.35	64	
2	58	
1.18	54	SAND
0.6	48	
0.425	46	
0.3	44	
0.15	40	
0.063	36	SILT/CLAY
0.038	30	
0.027	28	
0.017	24	
0.010	21	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R143971	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133108			
Sample No.*	AA174490	Lab. Sample No.		A22/3242
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

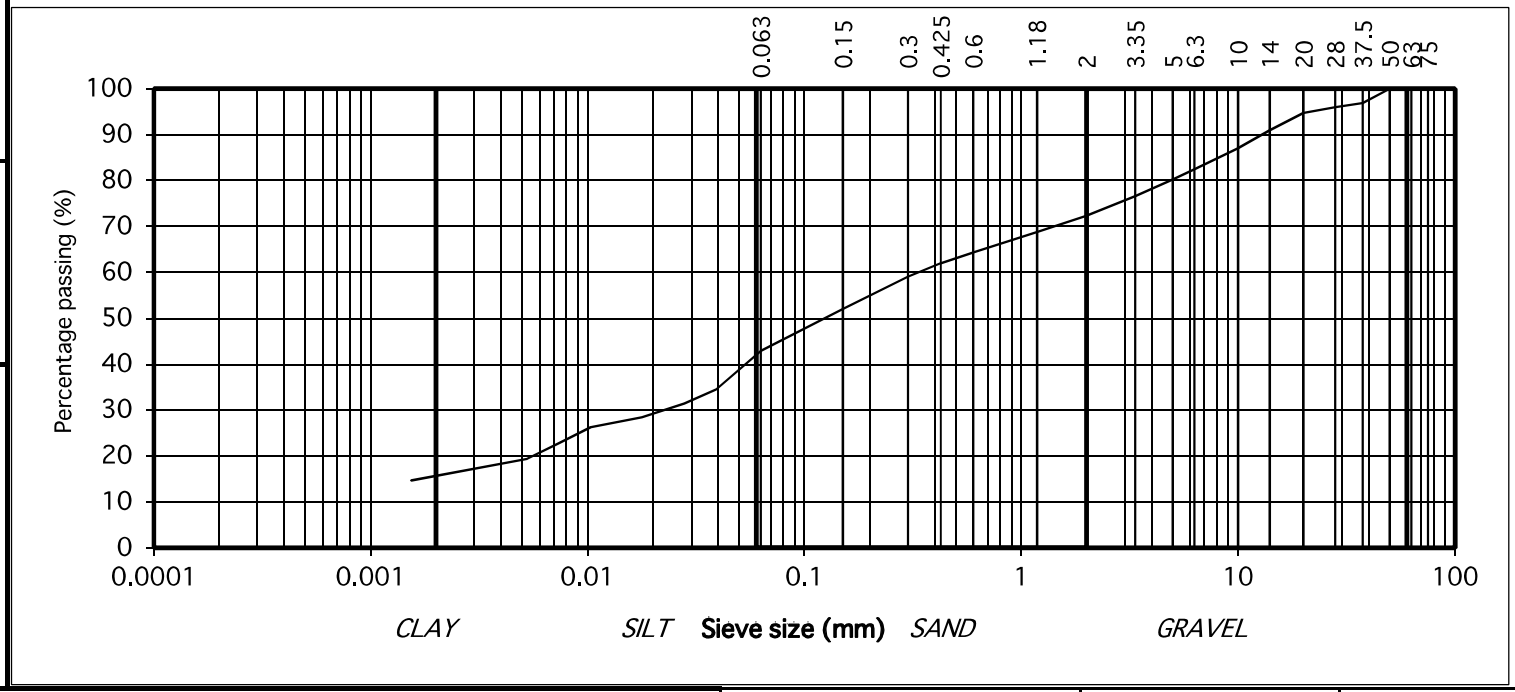
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	96	
20	95	
14	91	
10	87	
6.3	82	
5	80	
3.35	77	
2	72	
1.18	69	SAND
0.6	64	
0.425	62	
0.3	59	
0.15	52	
0.063	43	SILT/CLAY
0.039	34	
0.028	31	
0.018	28	
0.010	26	
0.007	23	
0.005	19	
0.002	15	

Contract No.	23560	Report No.	R137032	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133227			
Sample No.*	AA174485	Lab. Sample No.		A22/3243
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

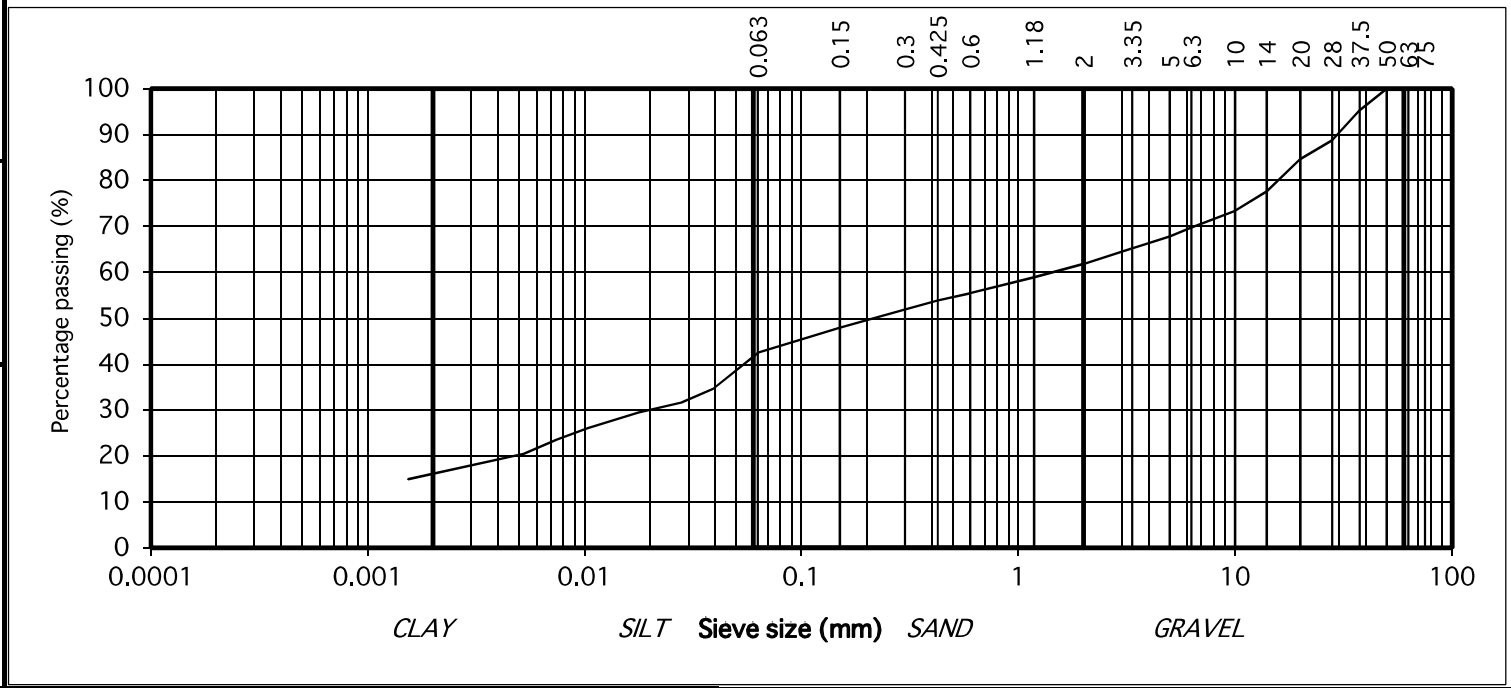
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	89	
20	85	
14	78	
10	73	
6.3	70	
5	68	
3.35	65	
2	62	
1.18	59	SAND
0.6	55	
0.425	54	
0.3	52	
0.15	48	
0.063	43	SILT/CLAY
0.039	35	
0.028	32	
0.018	29	
0.010	26	
0.007	24	
0.005	21	
0.002	15	

Contract No.	23560	Report No.	R137033	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133227			
Sample No.*	AA174487	Lab. Sample No.		A22/3244
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	06/07/2022	Date Testing started		06/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

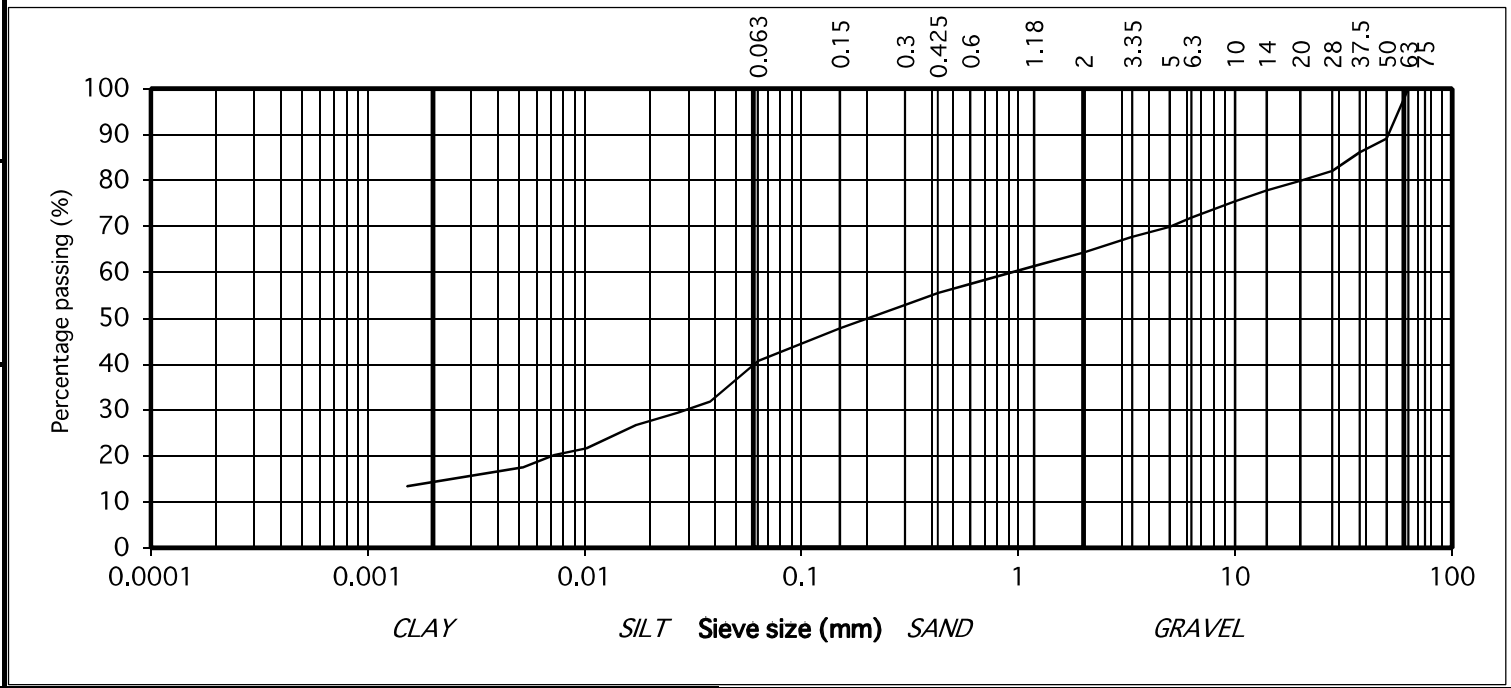
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	89	GRAVEL
37.5	86	
28	82	
20	80	
14	78	
10	76	
6.3	72	
5	70	
3.35	68	
2	64	
1.18	61	SAND
0.6	57	
0.425	55	
0.3	53	
0.15	48	
0.063	41	SILT/CLAY
0.038	32	
0.027	29	
0.017	27	
0.010	22	
0.007	20	
0.005	18	
0.002	13	

Contract No.	23560	Report No.	R137027	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133308			
Sample No.*	AA174482	Lab. Sample No.		A22/3245
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	06/07/2022	Date Testing started		06/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

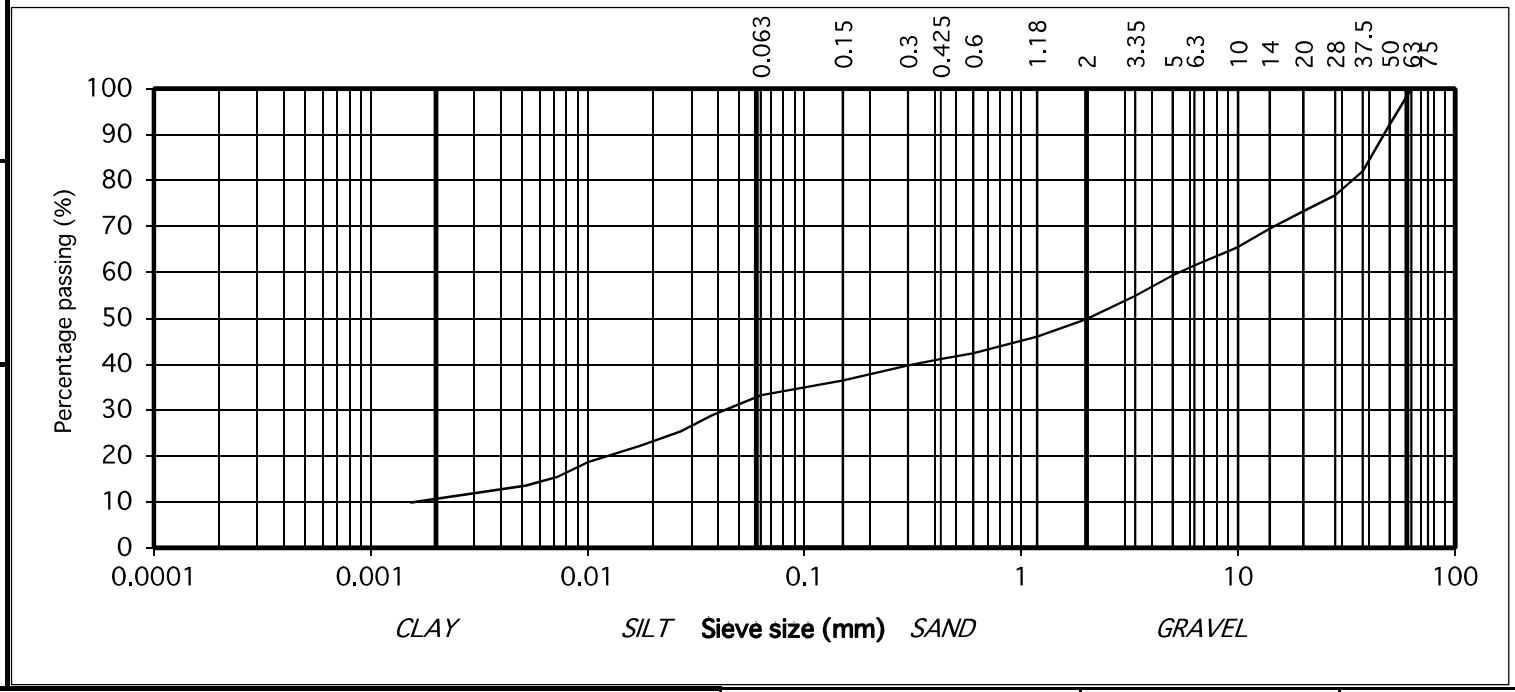
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	92	GRAVEL
37.5	82	
28	77	
20	73	
14	70	
10	66	
6.3	61	
5	59	
3.35	55	
2	50	
1.18	46	SAND
0.6	42	
0.425	41	
0.3	40	
0.15	37	
0.063	33	SILT/CLAY
0.037	29	
0.027	25	
0.017	22	
0.010	19	
0.007	16	
0.005	14	
0.002	10	

Contract No.	23560	Report No.	R143972	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133308			
Sample No.*	AA174484	Lab. Sample No.		A22/3246
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

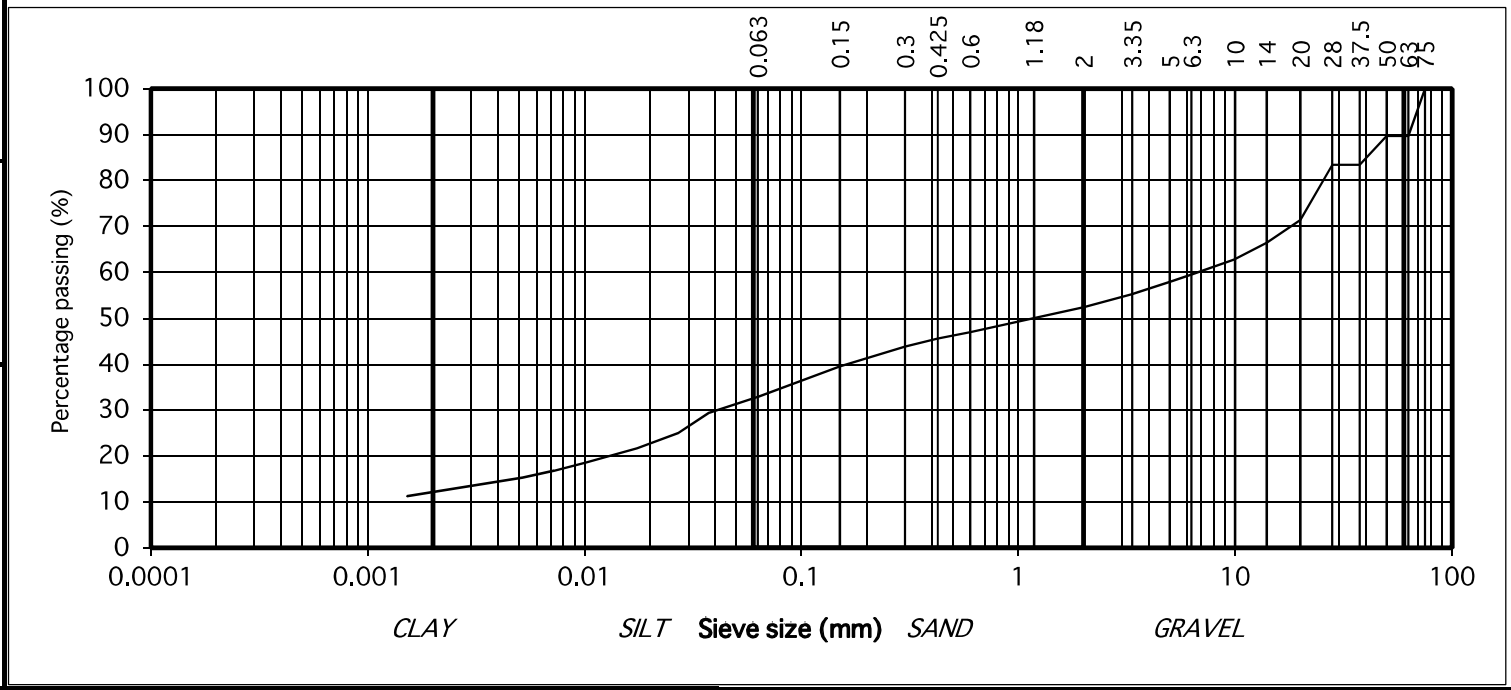
particle size	% passing	
75	100	COBBLES
63	90	
50	90	GRAVEL
37.5	83	
28	83	
20	71	
14	66	
10	63	
6.3	60	
5	58	
3.35	55	
2	52	
1.18	50	SAND
0.6	47	
0.425	46	
0.3	44	
0.15	40	
0.063	33	SILT/CLAY
0.037	29	
0.027	25	
0.017	22	
0.010	19	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R137161	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133780			
Sample No.*	AA152168	Lab. Sample No.		A22/3248
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		04/05/2022
Description:	Mottled brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

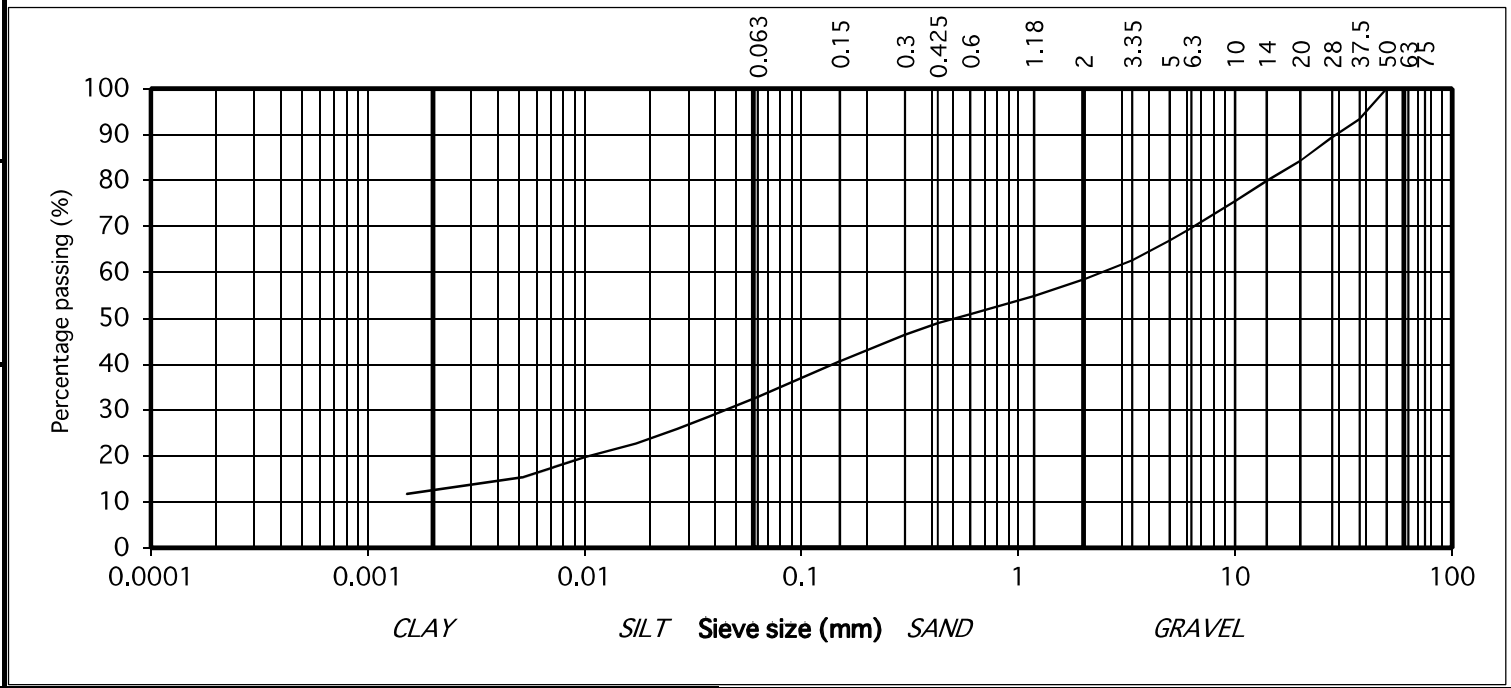
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	94	
28	90	
20	84	
14	80	
10	75	
6.3	70	
5	67	
3.35	63	
2	58	
1.18	55	SAND
0.6	51	
0.425	49	
0.3	46	
0.15	41	
0.063	33	SILT/CLAY
0.037	29	
0.027	26	
0.017	23	
0.010	20	
0.007	18	
0.005	15	
0.002	12	

Contract No.	23560	Report No.	R137162	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133904			
Sample No.*	AA152166	Lab. Sample No.		A22/3250
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

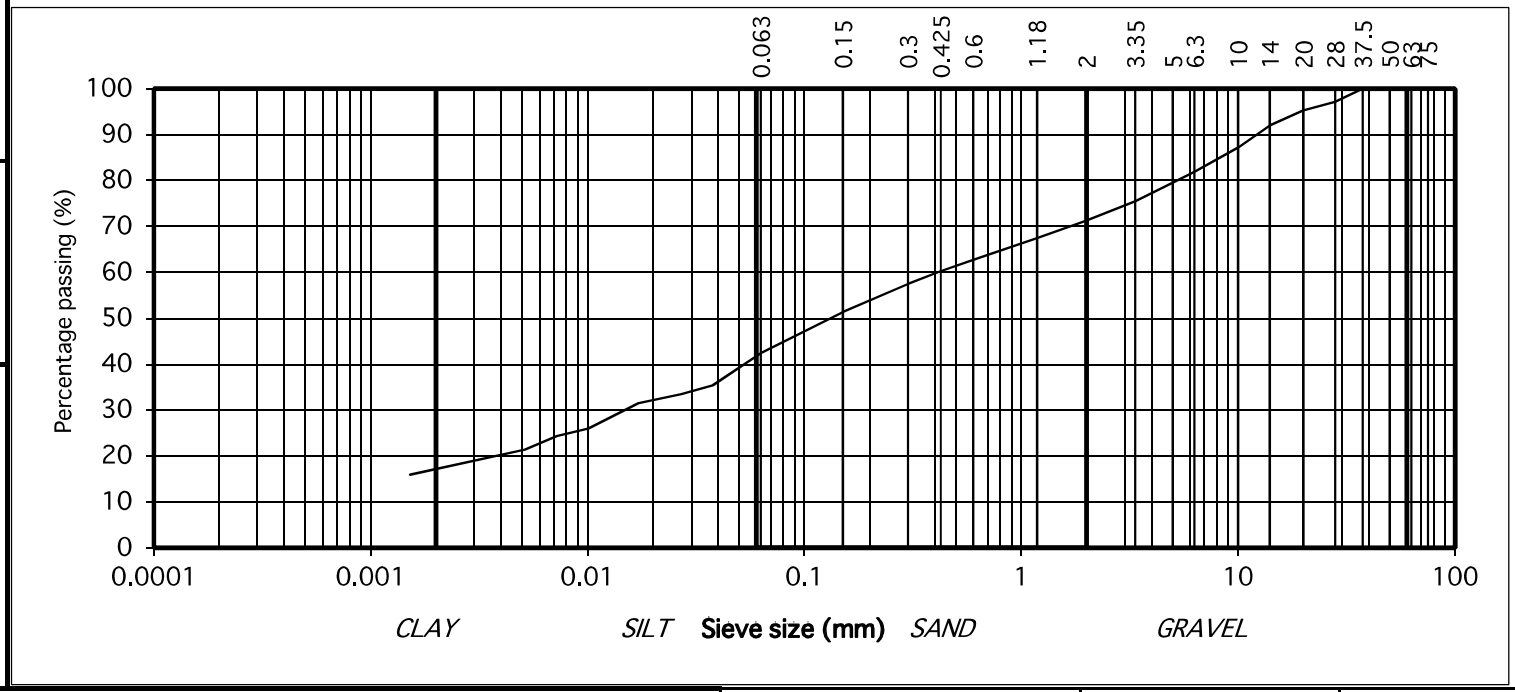
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	95	
14	92	
10	87	
6.3	82	
5	80	
3.35	76	
2	71	
1.18	68	SAND
0.6	63	
0.425	60	
0.3	57	
0.15	51	
0.063	42	SILT/CLAY
0.038	35	
0.027	33	
0.017	32	
0.010	26	
0.007	24	
0.005	21	
0.002	16	

Contract No.	23560	Report No.	R137165	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133989			
Sample No.*	AA152146	Lab. Sample No.		A22/3252
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	13/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

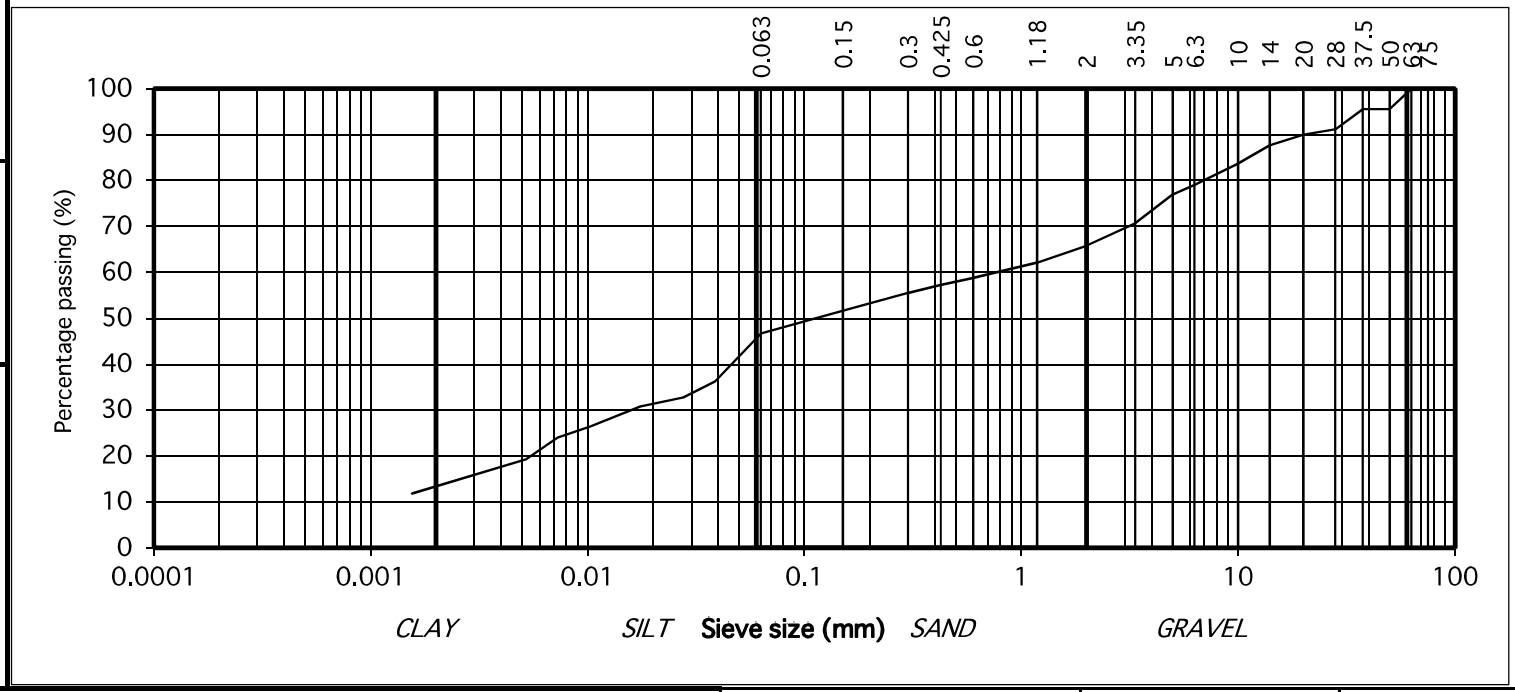
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	96	
28	91	
20	90	
14	88	
10	84	
6.3	79	
5	77	
3.35	71	
2	66	
1.18	62	SAND
0.6	59	
0.425	57	
0.3	56	
0.15	52	
0.063	47	SILT/CLAY
0.039	36	
0.028	33	
0.018	31	
0.010	26	
0.007	24	
0.005	19	
0.002	12	

Contract No.	23560	Report No.	R137166	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133999			
Sample No.*	AA152155	Lab. Sample No.		A22/3253
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

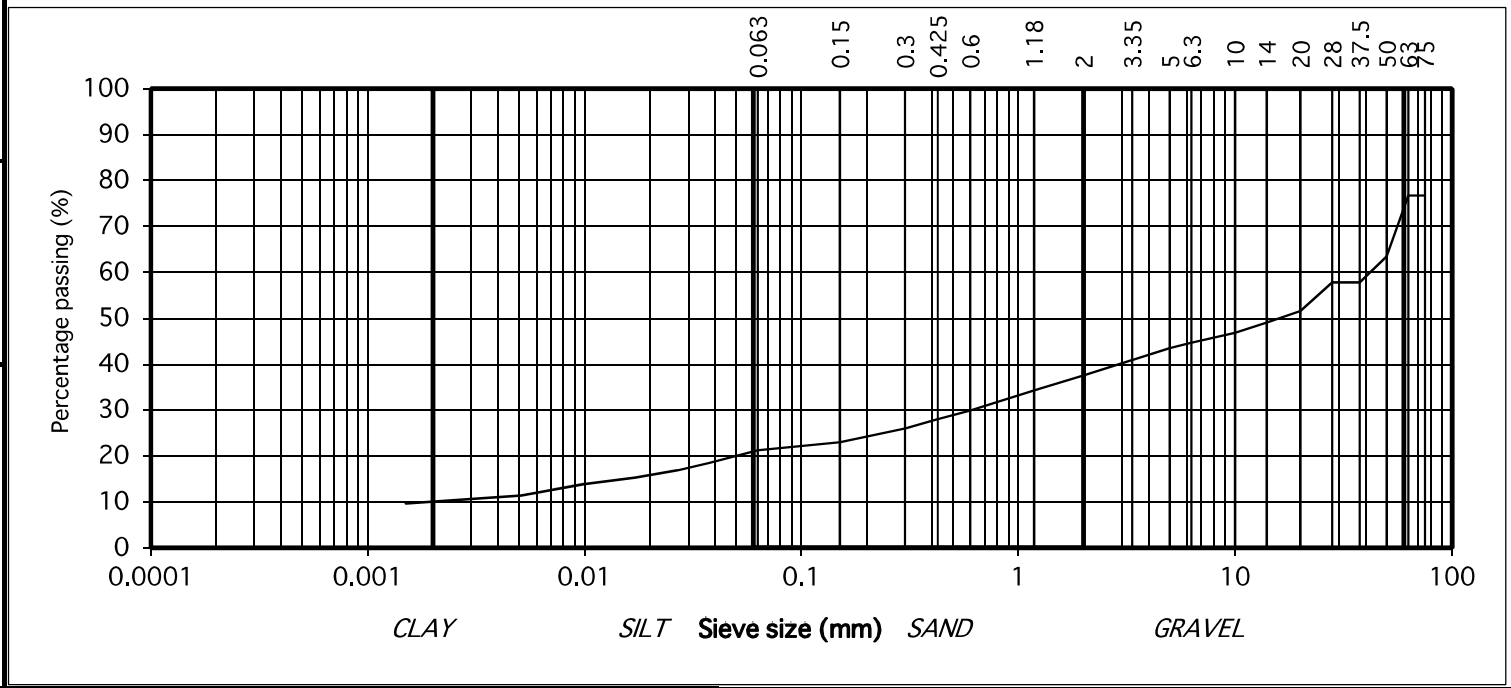
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	77	COBBLES
63	77	
50	63	GRAVEL
37.5	58	
28	58	
20	52	
14	49	
10	47	
6.3	45	
5	44	
3.35	41	
2	38	
1.18	34	SAND
0.6	30	
0.425	28	
0.3	26	
0.15	23	
0.063	21	SILT/CLAY
0.037	19	
0.027	17	
0.017	15	
0.010	14	
0.007	13	
0.005	11	
0.001	10	

Contract No.	23560	Report No.	R143973	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP133989			
Sample No.*	AA152145	Lab. Sample No.		A22/3251
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

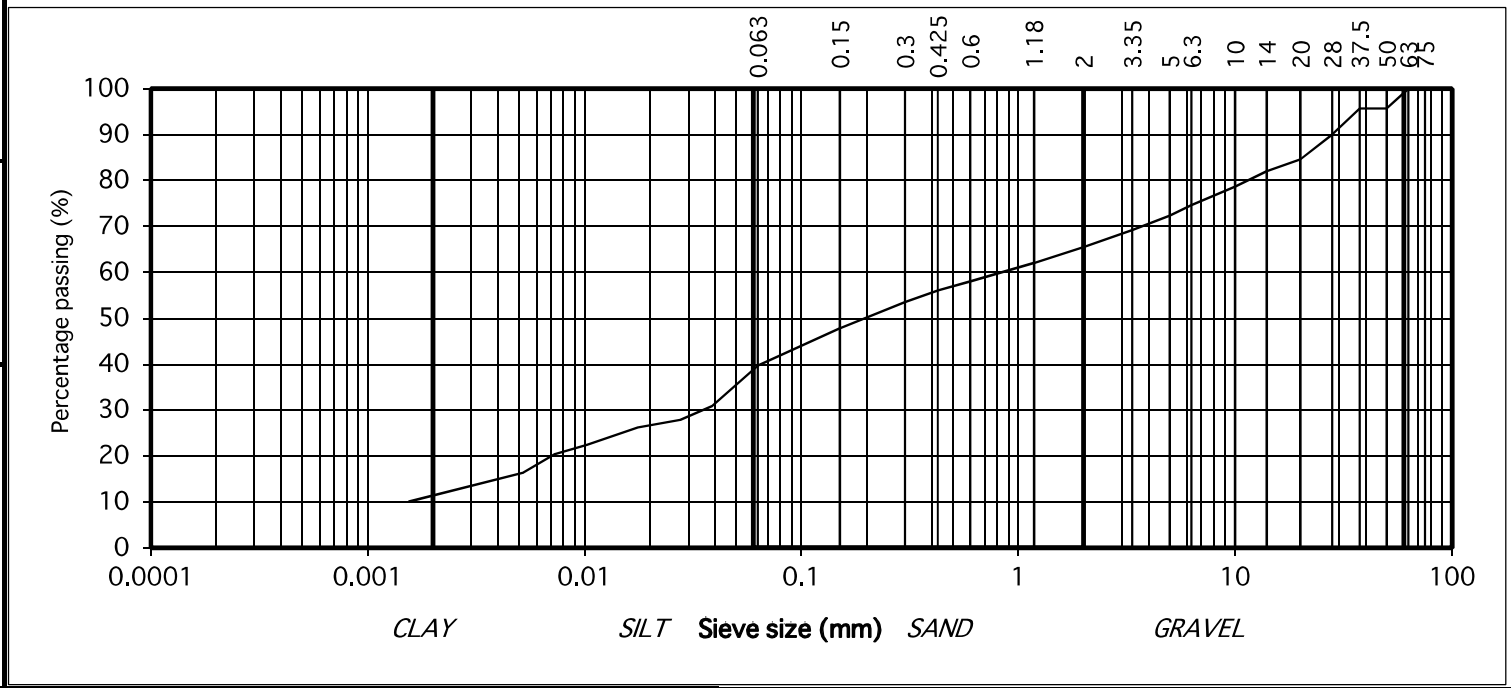
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	96	
28	90	
20	85	
14	82	
10	79	
6.3	75	
5	72	
3.35	69	
2	66	
1.18	62	SAND
0.6	58	
0.425	56	
0.3	54	
0.15	48	
0.063	40	SILT/CLAY
0.039	31	
0.028	28	
0.018	26	
0.010	23	
0.007	20	
0.005	16	
0.002	10	

Contract No.	23560	Report No.	R137167	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134001			
Sample No.*	AA152143	Lab. Sample No.		A22/3255
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

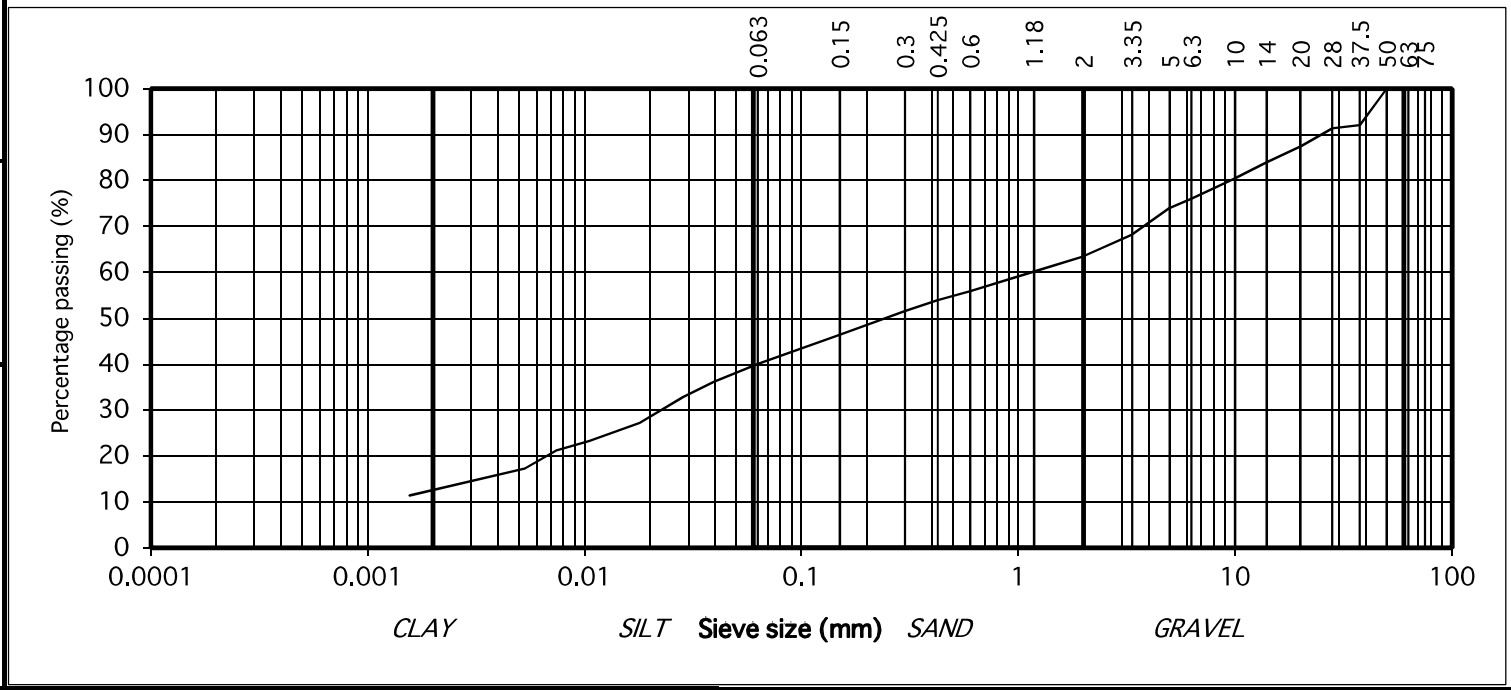
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	92	
28	91	
20	87	
14	84	
10	80	
6.3	76	
5	74	
3.35	68	
2	64	
1.18	60	SAND
0.6	56	
0.425	54	
0.3	52	
0.15	46	
0.063	40	SILT/CLAY
0.039	36	
0.028	33	
0.018	27	
0.010	23	
0.007	21	
0.005	17	
0.002	11	

Contract No.	23560	Report No.	R137169	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134040			
Sample No.*	AA152153	Lab. Sample No.		A22/3257
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

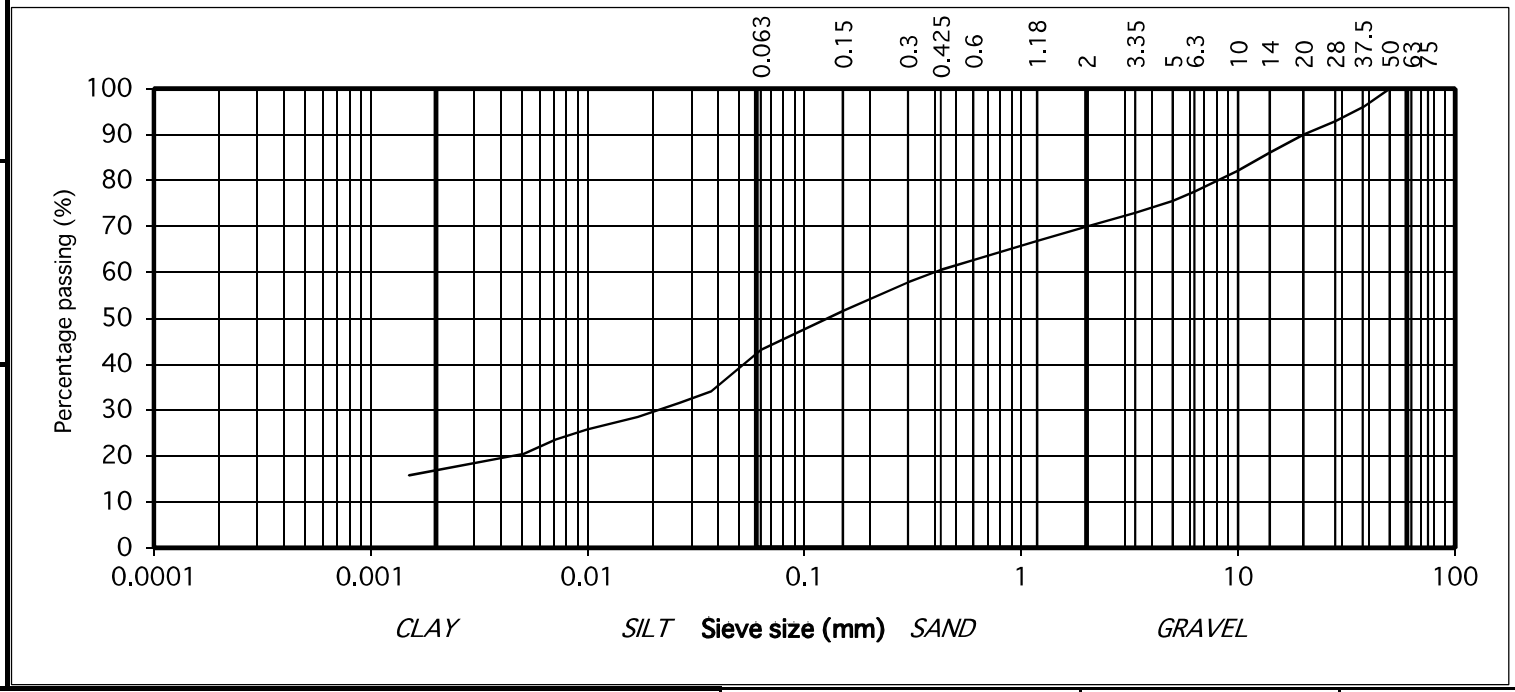
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	93	
20	90	
14	86	
10	82	
6.3	78	
5	76	
3.35	73	
2	70	
1.18	67	SAND
0.6	63	
0.425	61	
0.3	58	
0.15	52	
0.063	43	SILT/CLAY
0.037	34	
0.027	32	
0.017	29	
0.010	26	
0.007	24	
0.005	21	
0.001	16	

Contract No.	23560	Report No.	R137168	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134040			
Sample No.*	AA152152	Lab. Sample No.		A22/3256
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

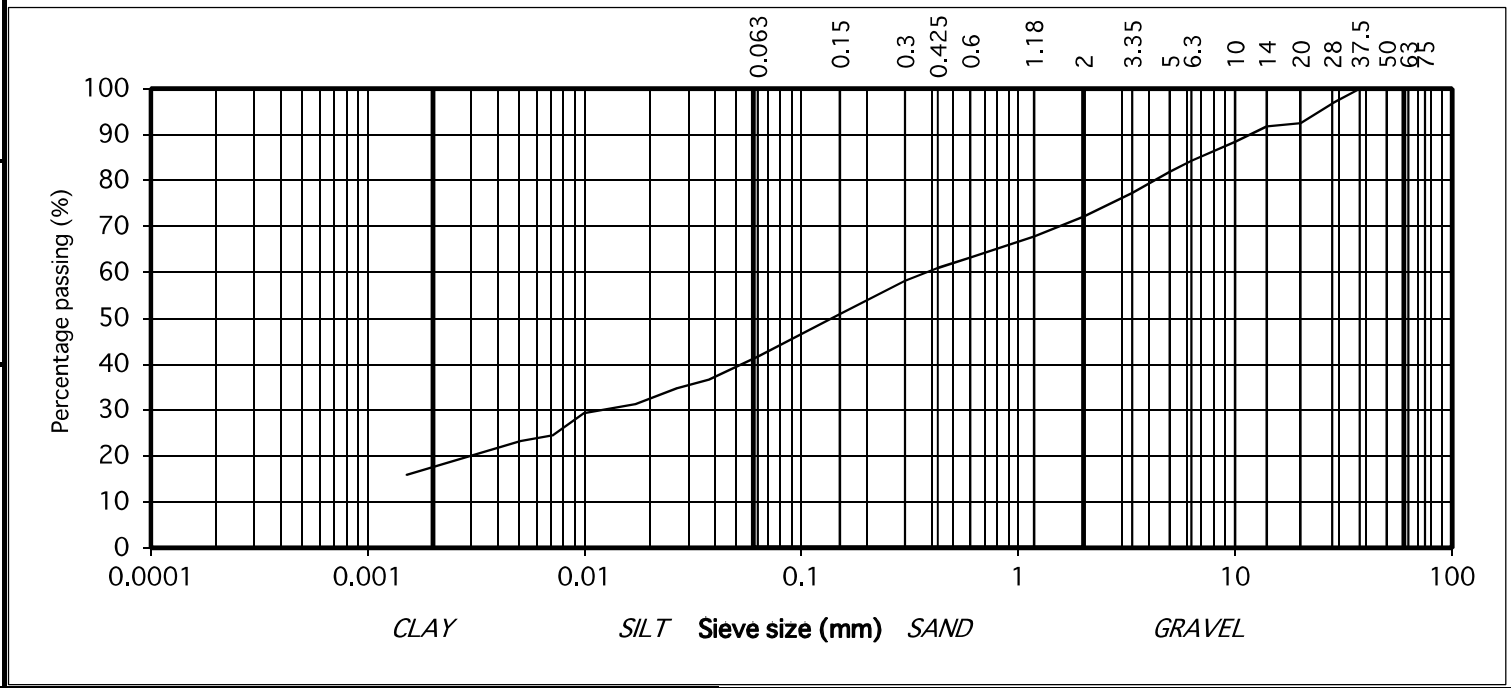
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	92	
14	92	
10	88	
6.3	84	
5	82	
3.35	77	
2	72	
1.18	68	SAND
0.6	63	
0.425	61	
0.3	58	
0.15	51	
0.063	42	SILT/CLAY
0.037	37	
0.027	35	
0.017	31	
0.010	29	
0.007	25	
0.005	23	
0.002	16	

Contract No.	23560	Report No.	R137170	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134082			
Sample No.*	AA152138	Lab. Sample No.		A22/3258
Sample Type:	B			
Depth* (m)	0.60	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

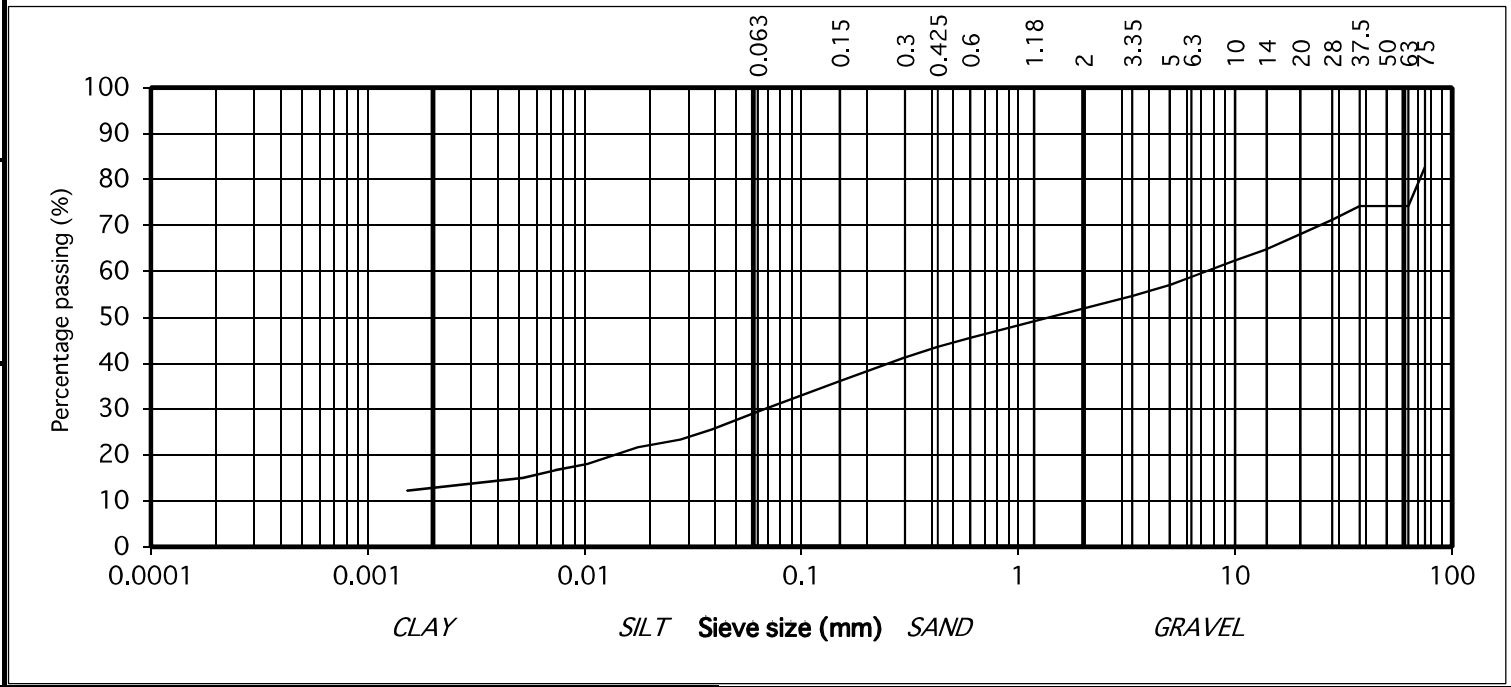
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	83	COBBLES
63	74	
50	74	GRAVEL
37.5	74	
28	71	
20	68	
14	65	
10	62	
6.3	59	
5	57	
3.35	55	
2	52	
1.18	49	SAND
0.6	46	
0.425	44	
0.3	41	
0.15	36	
0.063	29	SILT/CLAY
0.039	26	
0.028	23	
0.018	22	
0.010	18	
0.007	17	
0.005	15	
0.002	12	

Contract No.	23560	Report No.	R137172	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134096			
Sample No.*	AA152156	Lab. Sample No.		A22/3260
Sample Type:	B			
Depth* (m)	0.60	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

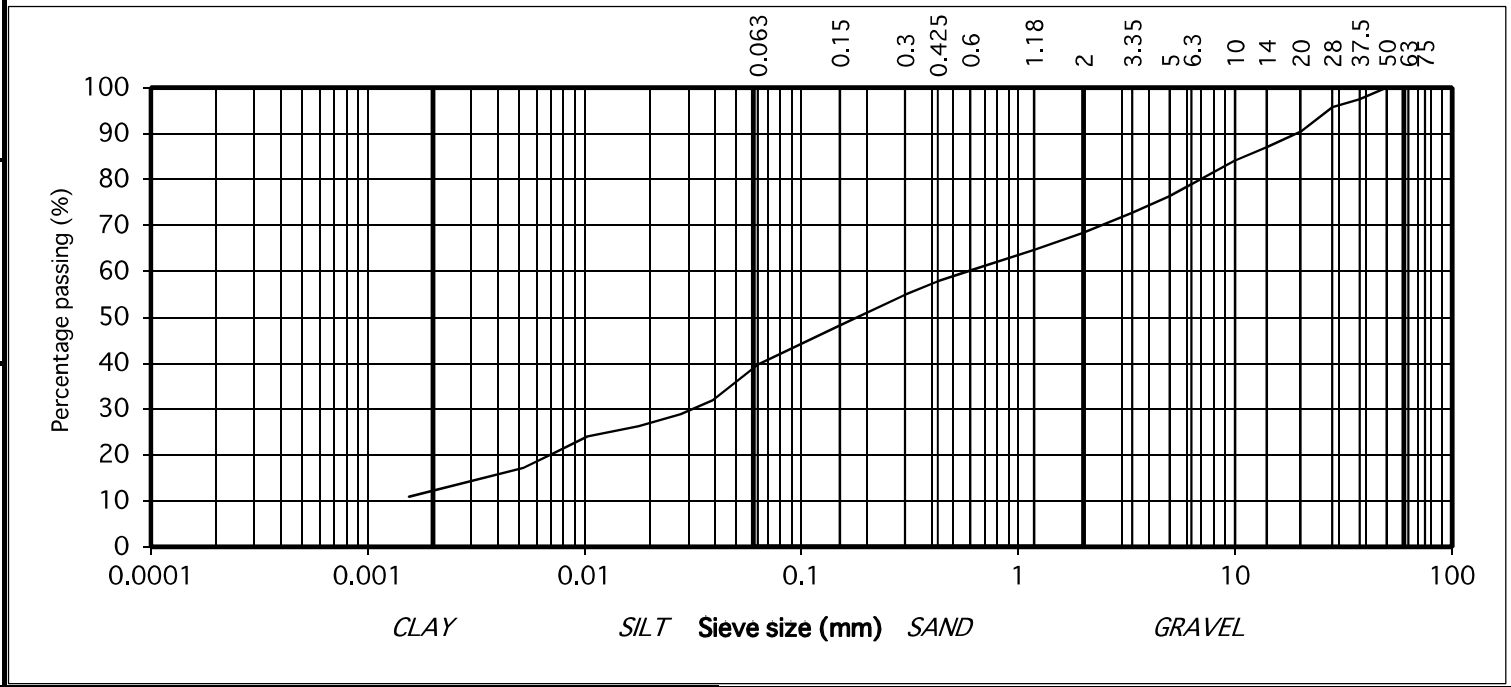
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	96	
20	90	
14	87	
10	84	
6.3	79	
5	76	
3.35	73	
2	68	
1.18	65	SAND
0.6	60	
0.425	58	
0.3	55	
0.15	48	
0.063	40	SILT/CLAY
0.039	32	
0.028	29	
0.018	26	
0.010	24	
0.007	21	
0.005	17	
0.002	11	

Contract No.	23560	Report No.	R137171	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134082			
Sample No.*	AA152140	Lab. Sample No.		A22/3259
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

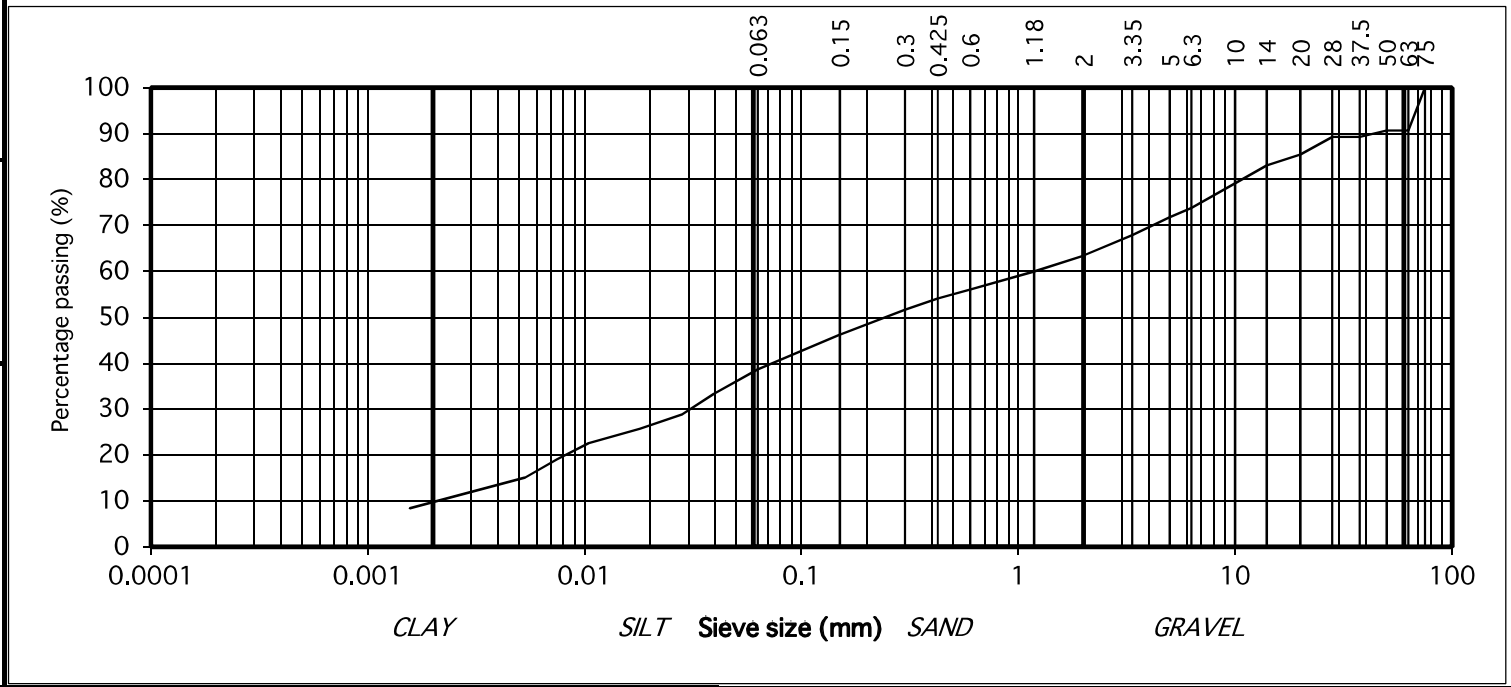
particle size	% passing	
75	100	COBBLES
63	91	
50	91	GRAVEL
37.5	89	
28	89	
20	86	
14	83	
10	79	
6.3	74	
5	72	
3.35	68	
2	63	
1.18	60	SAND
0.6	56	
0.425	54	
0.3	52	
0.15	46	
0.063	39	SILT/CLAY
0.039	33	
0.028	29	
0.018	26	
0.010	23	
0.007	19	
0.005	15	
0.002	8	

Contract No.	23560	Report No.	R137173	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134096			
Sample No.*	AA152159	Lab. Sample No.		A22/3261
Sample Type:	B			
Depth* (m)	3.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

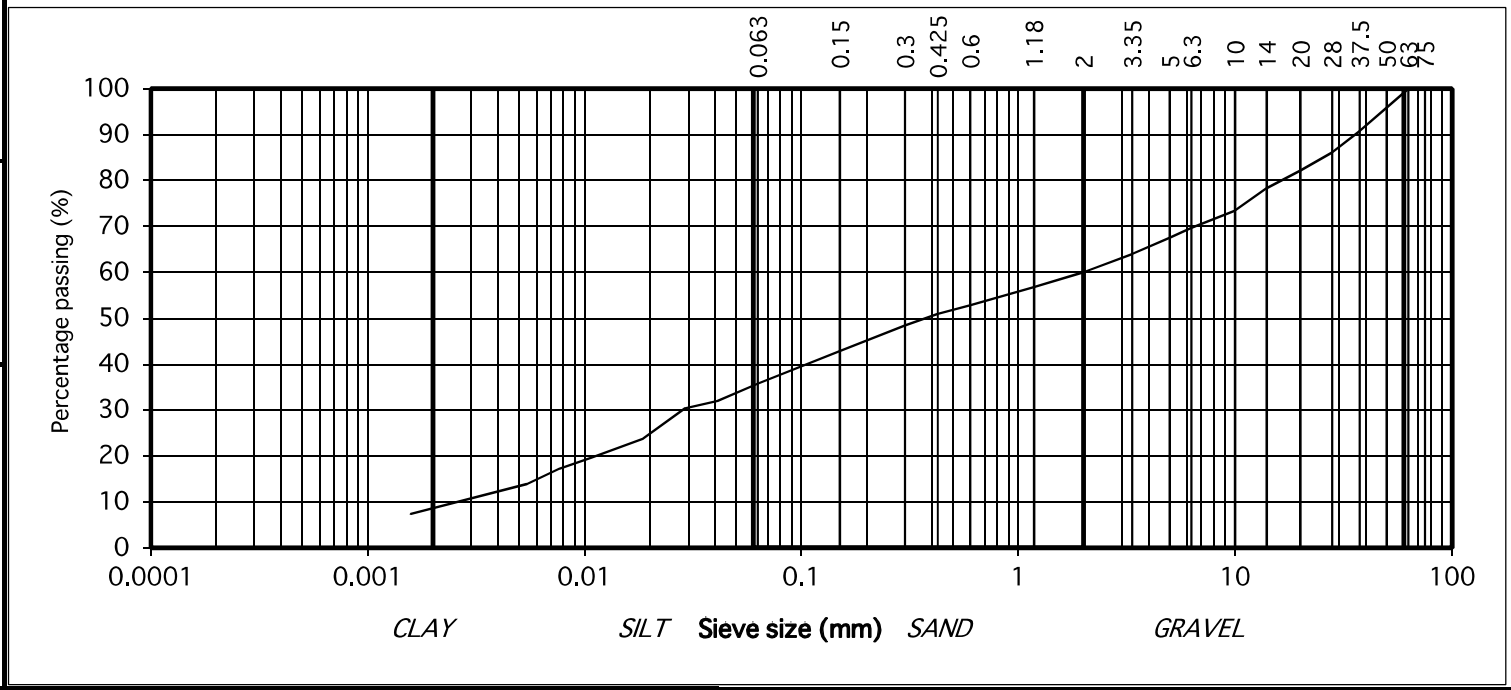
particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	91	
28	86	
20	82	
14	78	
10	73	
6.3	70	
5	68	
3.35	64	
2	60	
1.18	57	SAND
0.6	53	
0.425	51	
0.3	48	
0.15	43	
0.063	36	SILT/CLAY
0.041	32	
0.029	30	
0.019	24	
0.011	20	
0.008	17	
0.005	14	
0.002	7	

Contract No.	23560	Report No.	R137174	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134139			
Sample No.*	AA179498	Lab. Sample No.		A22/3262
Sample Type:	B			
Depth* (m)	0.60	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

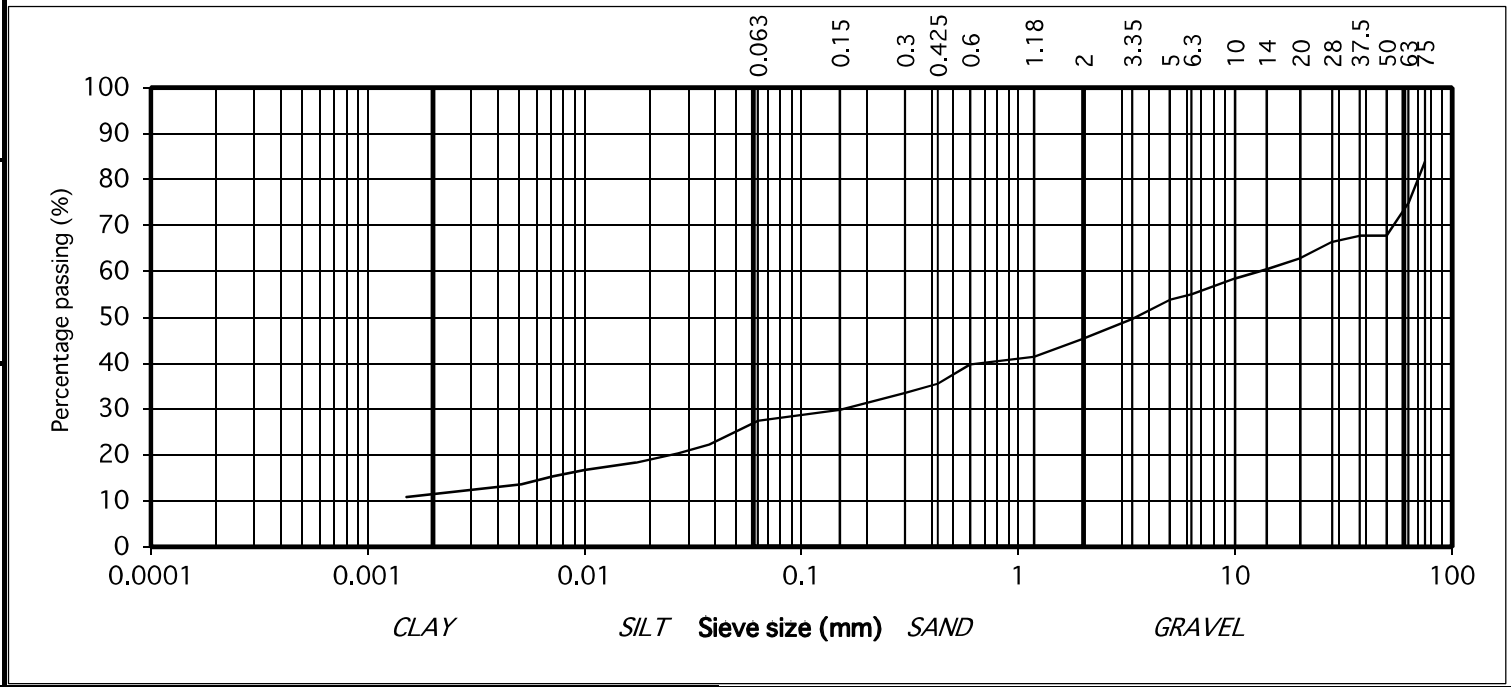
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	84	COBBLES
63	75	
50	68	GRAVEL
37.5	68	
28	66	
20	63	
14	60	
10	58	
6.3	55	
5	54	
3.35	50	
2	45	
1.18	41	SAND
0.6	40	
0.425	36	
0.3	34	
0.15	30	
0.063	27	SILT/CLAY
0.038	22	
0.027	20	
0.017	18	
0.010	17	
0.007	15	
0.005	14	
0.002	11	

Contract No.	23560	Report No.	R143974	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134139			
Sample No.*	AA152145	Lab. Sample No.		A22/3264
Sample Type:	B			
Depth* (m)	3.50	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

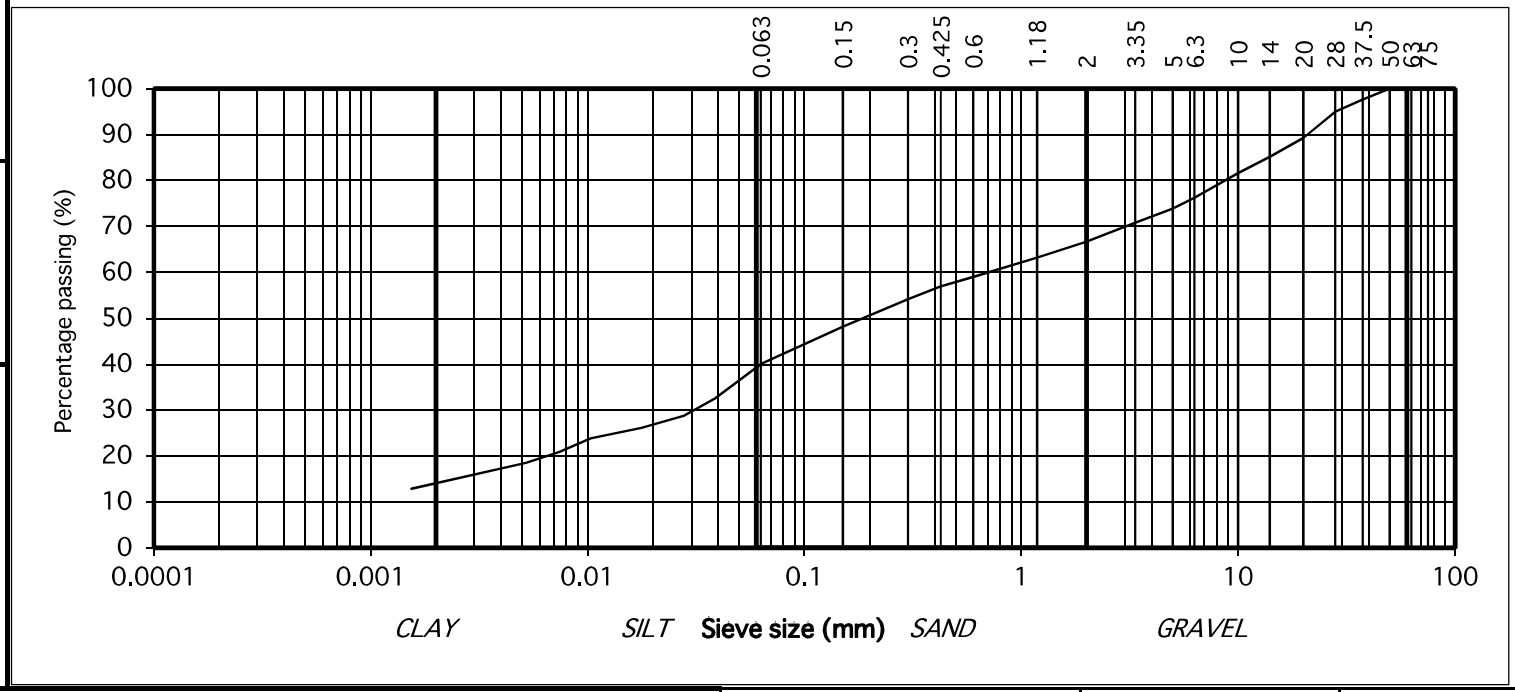
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	95	
20	89	
14	85	
10	82	
6.3	76	
5	74	
3.35	71	
2	67	
1.18	63	SAND
0.6	59	
0.425	57	
0.3	54	
0.15	48	
0.063	40	SILT/CLAY
0.039	33	
0.028	29	
0.018	26	
0.010	24	
0.007	21	
0.005	19	
0.002	13	

Contract No.	23560	Report No.	R137175	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134181			
Sample No.*	AA179496	Lab. Sample No.		A22/3265
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

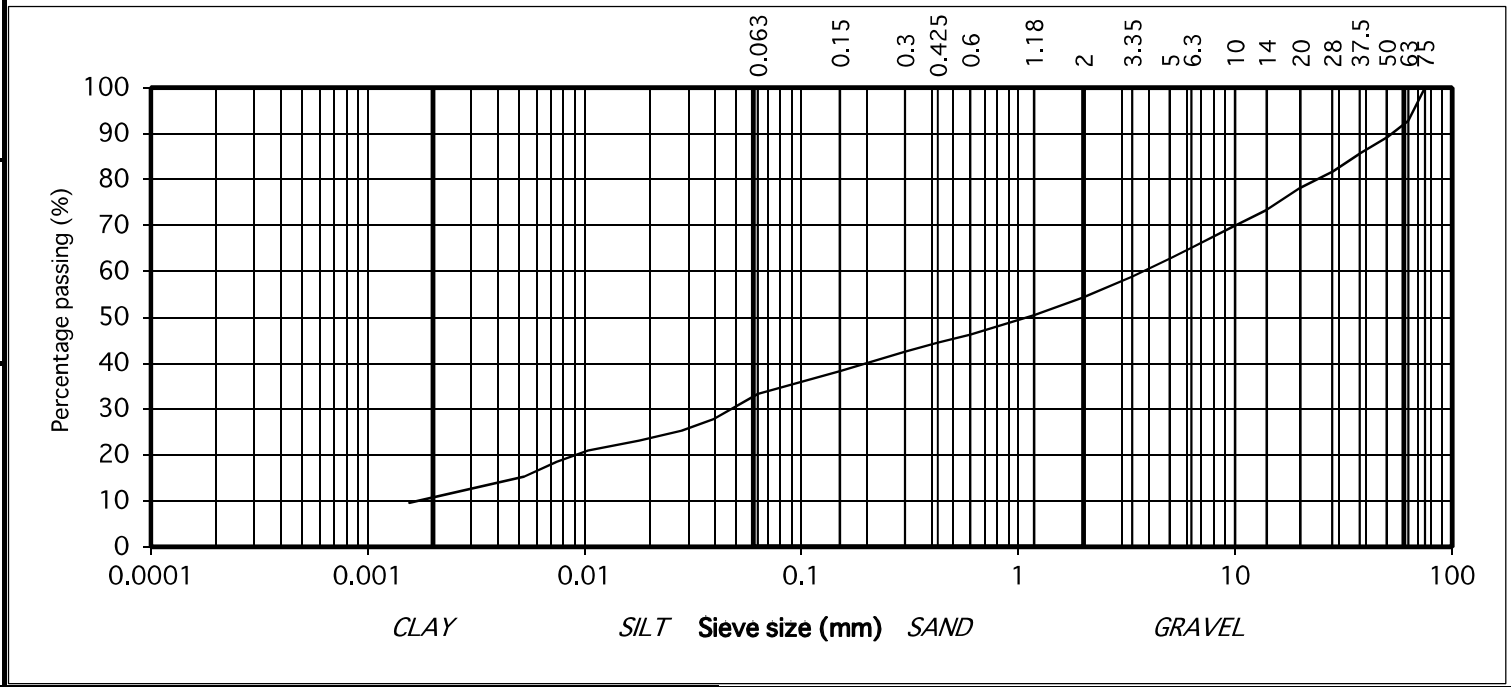
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	93	
50	89	GRAVEL
37.5	86	
28	82	
20	78	
14	73	
10	70	
6.3	65	
5	63	
3.35	59	
2	54	
1.18	50	SAND
0.6	46	
0.425	45	
0.3	43	
0.15	38	
0.063	33	SILT/CLAY
0.039	28	
0.028	25	
0.018	23	
0.010	21	
0.007	19	
0.005	15	
0.002	10	

Contract No.	23560	Report No.	R137176	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134181			
Sample No.*	AA179497	Lab. Sample No.		A22/3266
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

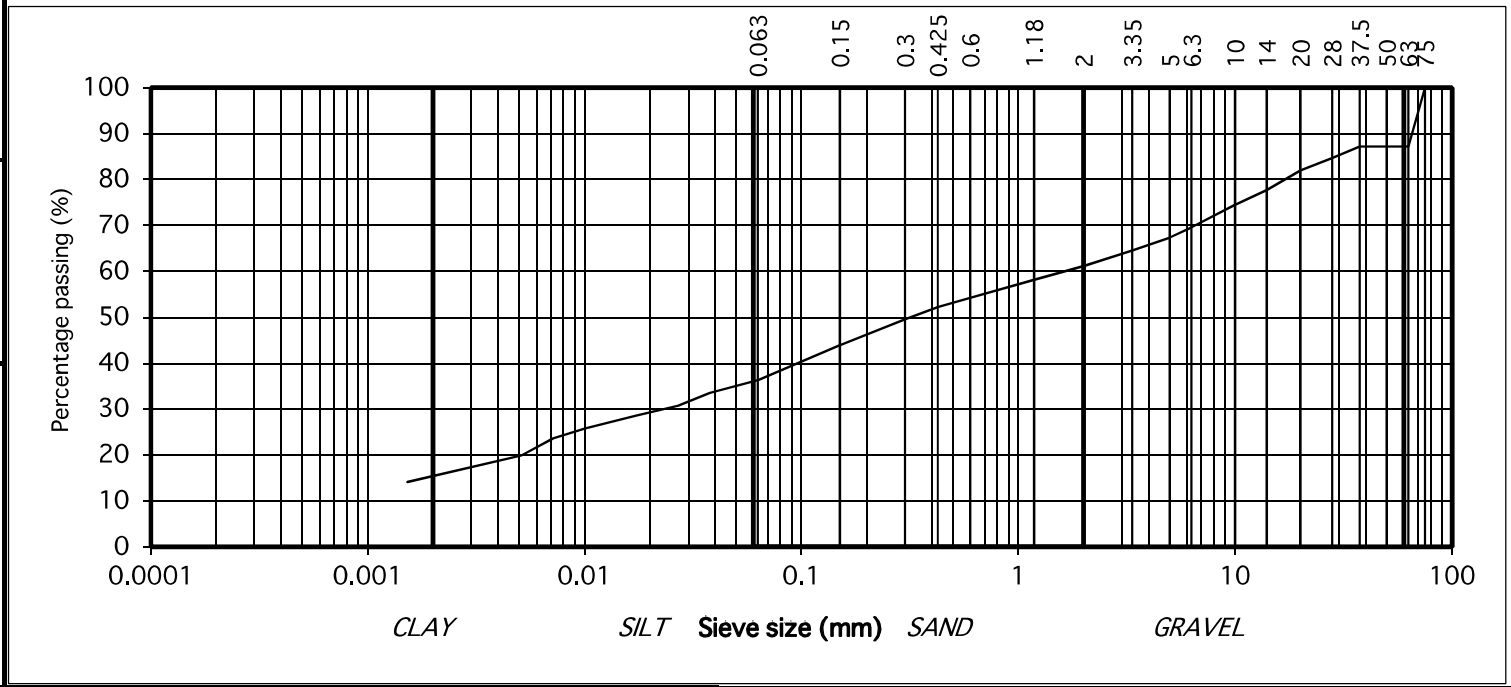
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	87	
50	87	GRAVEL
37.5	87	
28	85	
20	82	
14	78	
10	75	
6.3	70	
5	67	
3.35	65	
2	61	
1.18	58	SAND
0.6	54	
0.425	52	
0.3	50	
0.15	44	
0.063	36	SILT/CLAY
0.038	34	
0.027	31	
0.017	29	
0.010	26	
0.007	24	
0.005	20	
0.002	14	

Contract No.	23560	Report No.	R137177	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134196			
Sample No.*	AA152160	Lab. Sample No.		A22/3267
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

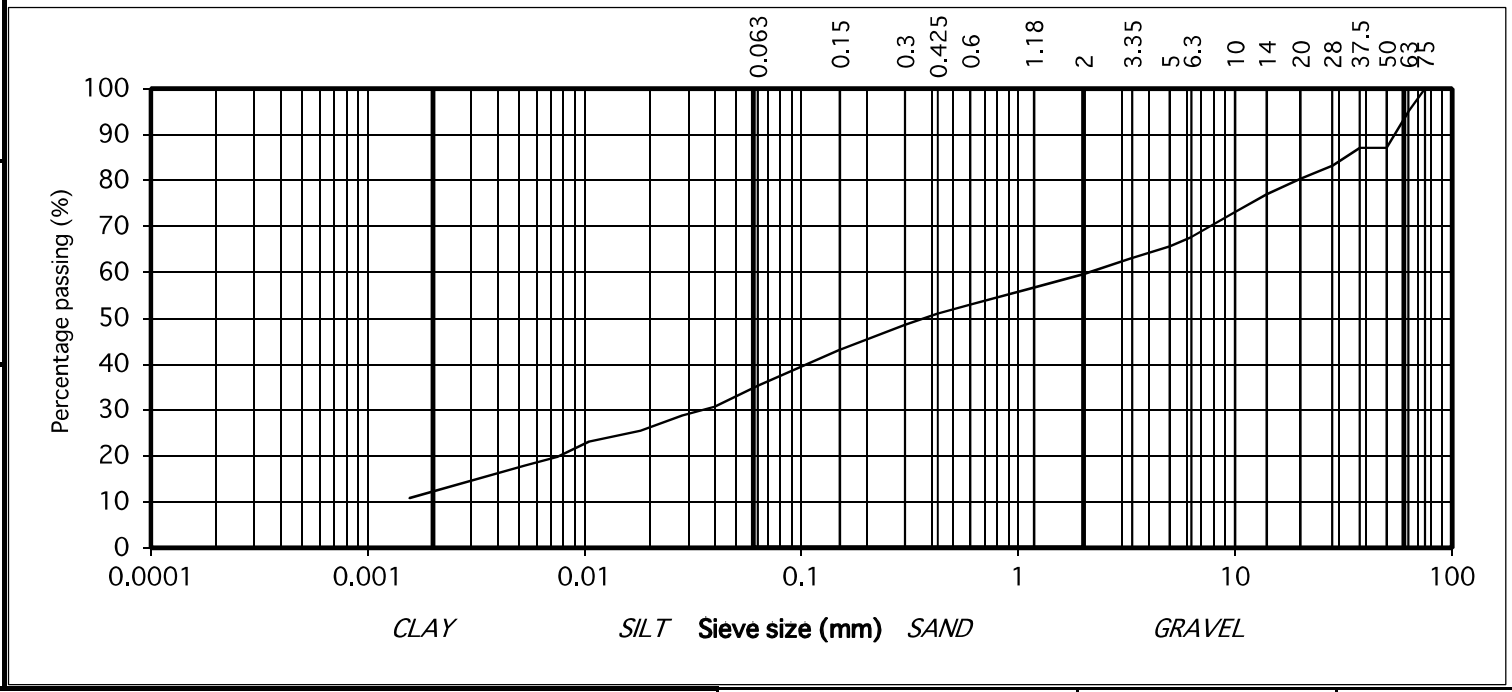
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	95	
50	87	GRAVEL
37.5	87	
28	83	
20	80	
14	77	
10	73	
6.3	68	
5	66	
3.35	63	
2	60	
1.18	57	SAND
0.6	53	
0.425	51	
0.3	49	
0.15	43	
0.063	35	SILT/CLAY
0.040	31	
0.028	29	
0.018	26	
0.010	23	
0.007	20	
0.005	18	
0.002	11	

Contract No.	23560	Report No.	R137444	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134196			
Sample No.*	AA152162	Lab. Sample No.		A22/3628
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	28/06/2022	Date Testing started		28/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with occasional cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

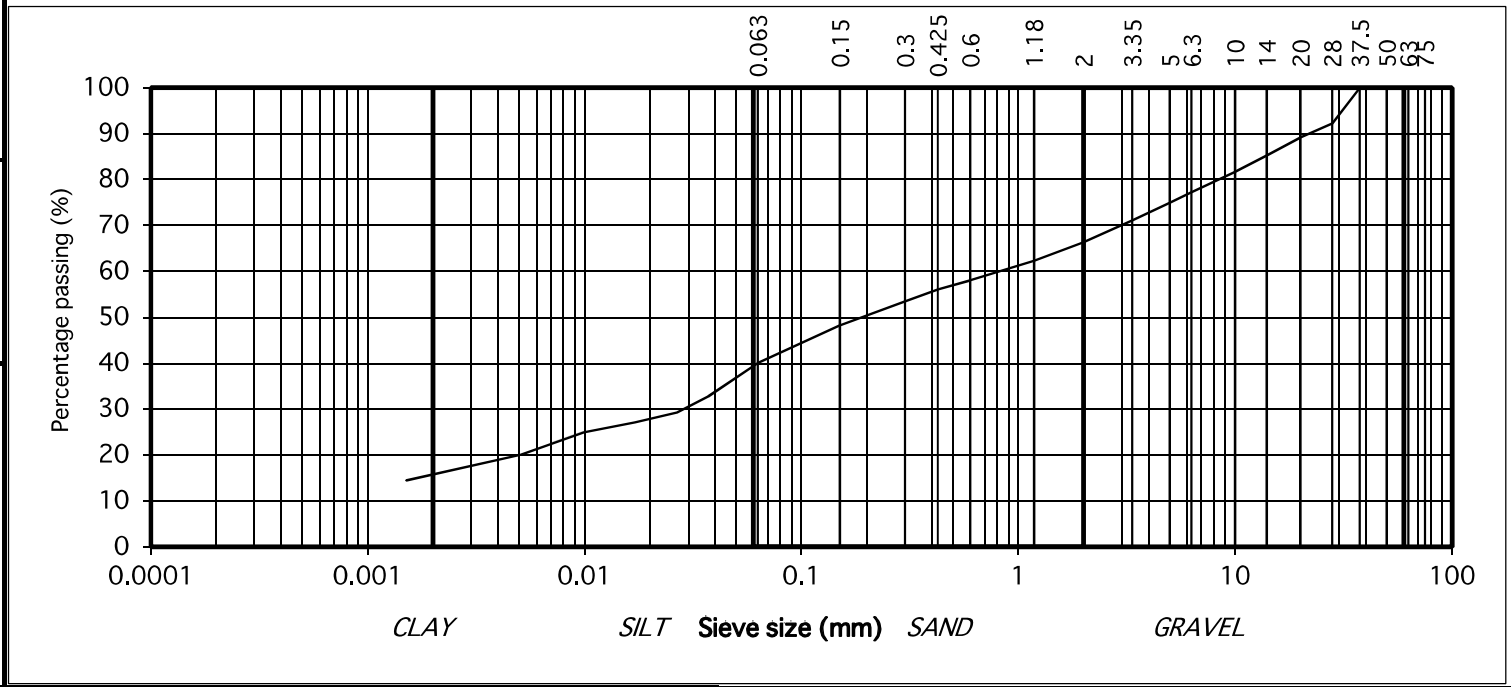
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	92	
20	89	
14	85	
10	82	
6.3	77	
5	75	
3.35	71	
2	66	
1.18	62	SAND
0.6	58	
0.425	56	
0.3	53	
0.15	48	
0.063	40	SILT/CLAY
0.037	33	
0.027	29	
0.017	27	
0.010	25	
0.007	23	
0.005	20	
0.002	15	

Contract No.	23560	Report No.	R137179	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134239			
Sample No.*	AA152148	Lab. Sample No.		A22/3269
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

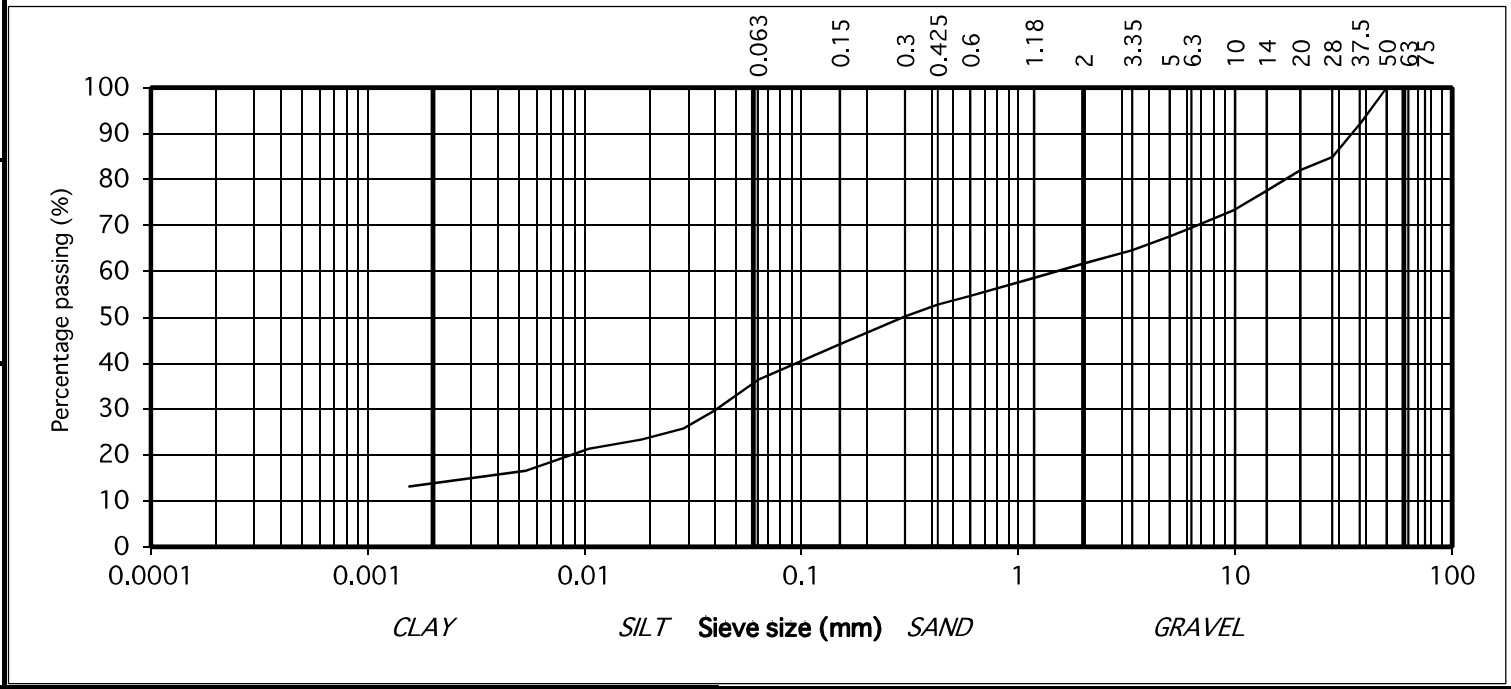
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	92	
28	85	
20	82	
14	78	
10	73	
6.3	70	
5	68	
3.35	65	
2	62	
1.18	59	SAND
0.6	55	
0.425	53	
0.3	50	
0.15	44	
0.063	36	SILT/CLAY
0.040	30	
0.029	26	
0.018	23	
0.011	21	
0.007	19	
0.005	17	
0.002	13	

Contract No.	23560	Report No.	R137180	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134239			
Sample No.*	AA152150	Lab. Sample No.		A22/3270
Sample Type:	B			
Depth* (m)	3.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

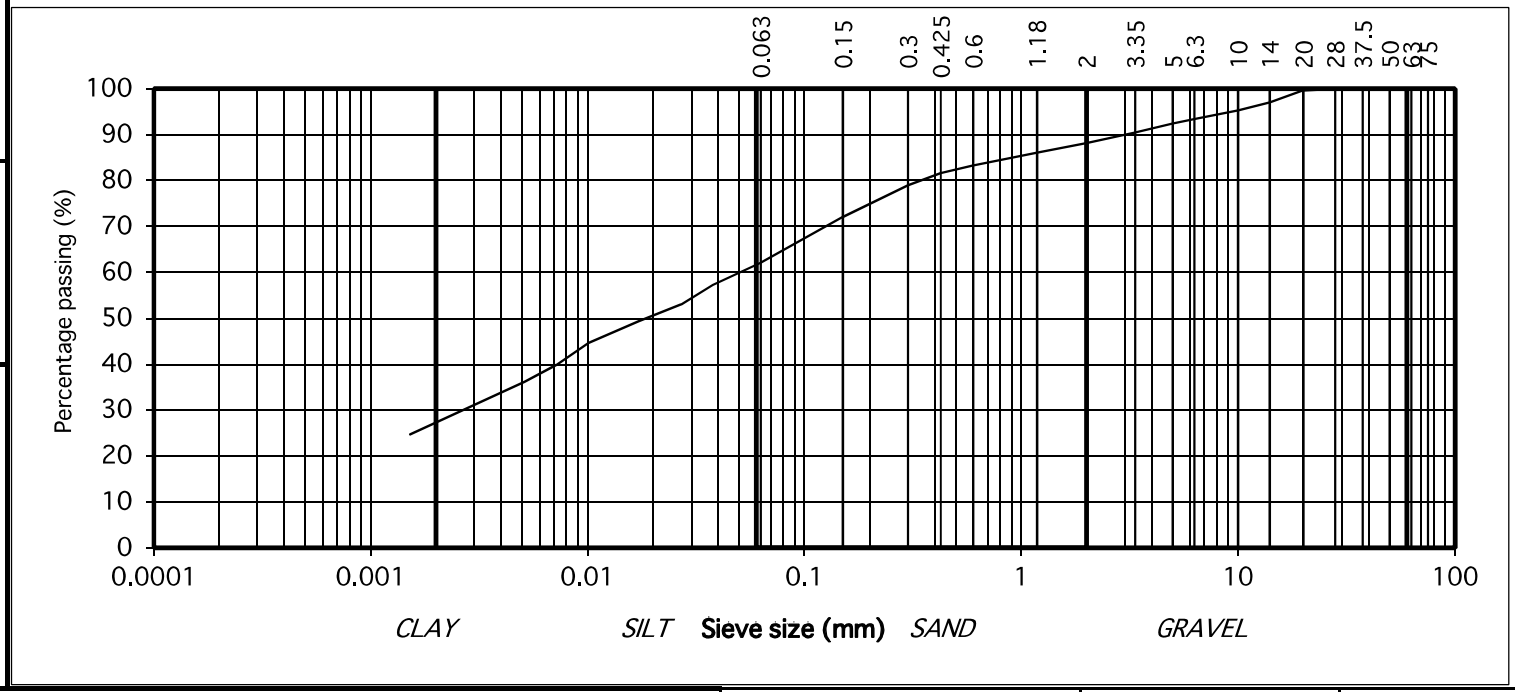
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	97	
10	95	
6.3	93	
5	92	
3.35	90	
2	88	
1.18	86	SAND
0.6	83	
0.425	82	
0.3	79	
0.15	72	
0.063	62	SILT/CLAY
0.038	57	
0.027	53	
0.017	49	
0.010	45	
0.007	40	
0.005	36	
0.002	25	

Contract No.	23560	Report No.	R137181	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134281			
Sample No.*	AA179491	Lab. Sample No.		A22/3271
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

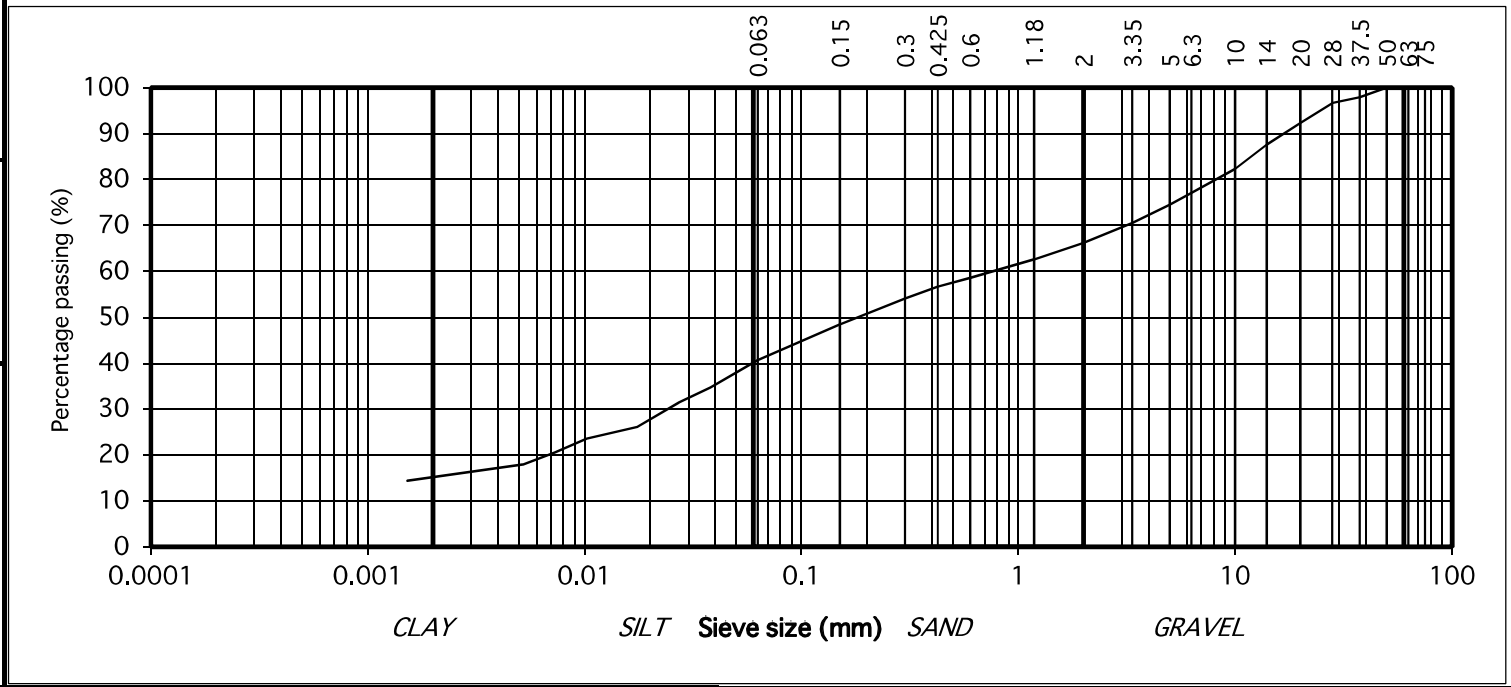
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	97	
20	92	
14	88	
10	82	
6.3	77	
5	75	
3.35	71	
2	66	
1.18	63	SAND
0.6	59	
0.425	57	
0.3	54	
0.15	48	
0.063	41	SILT/CLAY
0.038	35	
0.027	31	
0.018	26	
0.010	24	
0.007	21	
0.005	18	
0.002	14	

Contract No.	23560	Report No.	R137182	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134281			
Sample No.*	AA179492	Lab. Sample No.		A22/3272
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

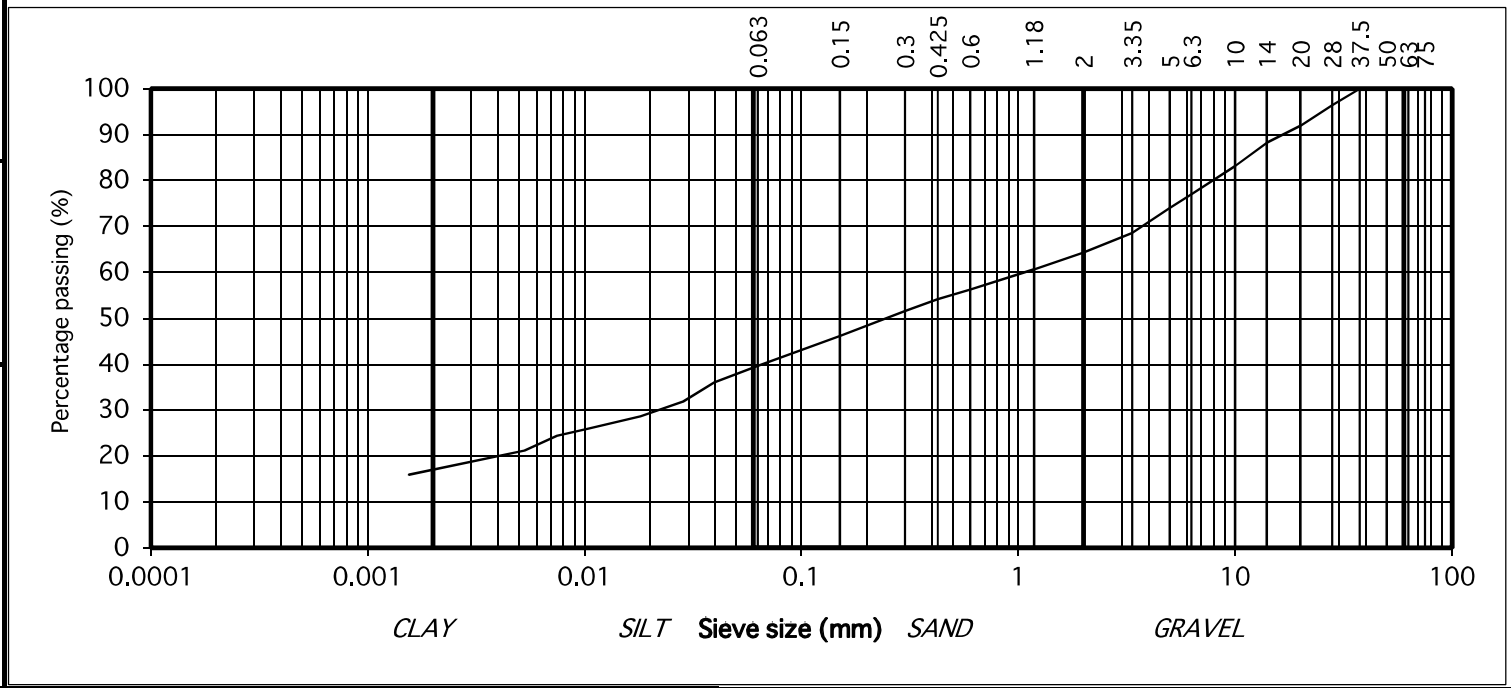
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	92	
14	88	
10	83	
6.3	77	
5	74	
3.35	69	
2	64	
1.18	61	SAND
0.6	56	
0.425	54	
0.3	52	
0.15	46	
0.063	40	SILT/CLAY
0.040	36	
0.028	32	
0.018	29	
0.010	26	
0.007	24	
0.005	21	
0.002	16	

Contract No.	23560	Report No.	R137183	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134281			
Sample No.*	AA179494	Lab. Sample No.		A22/3273
Sample Type:	B			
Depth* (m)	3.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

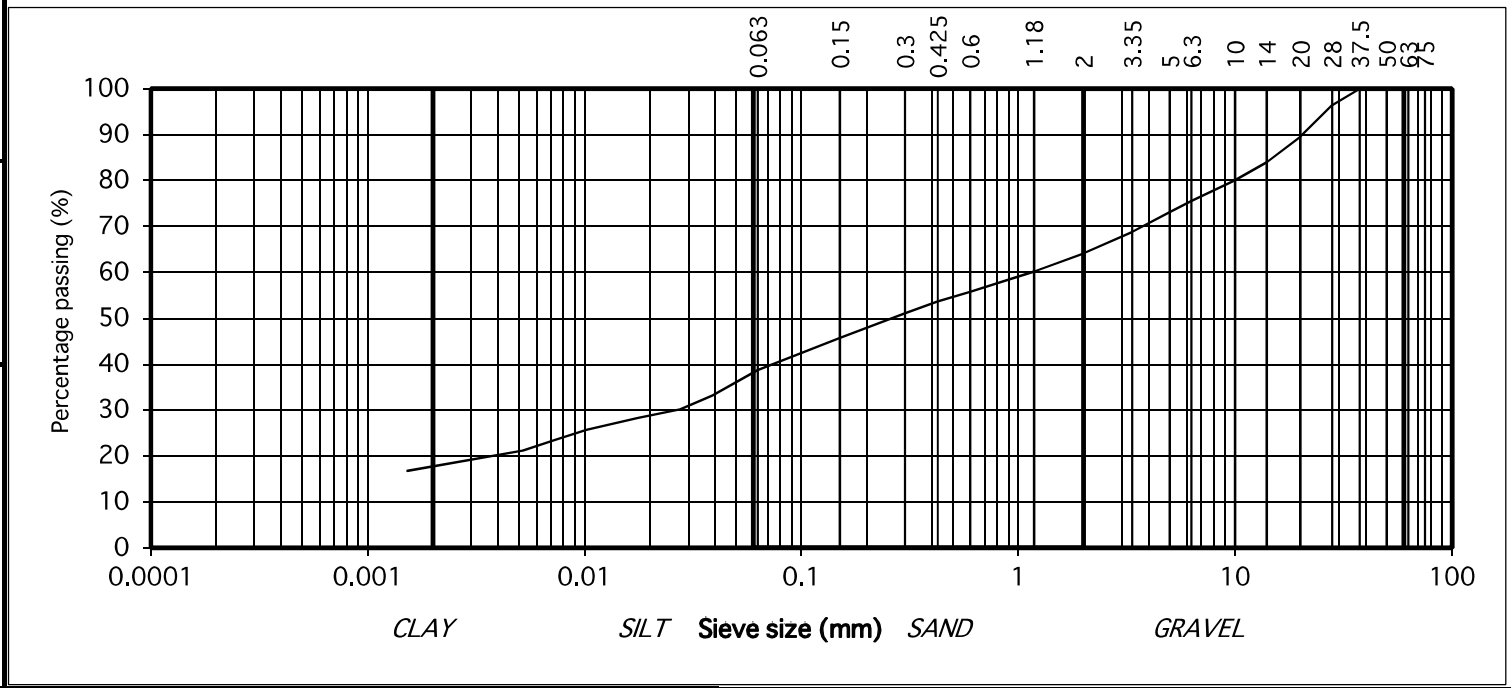
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	90	
14	84	
10	80	
6.3	76	
5	73	
3.35	69	
2	64	
1.18	60	SAND
0.6	56	
0.425	54	
0.3	51	
0.15	46	
0.063	39	SILT/CLAY
0.039	33	
0.028	30	
0.018	28	
0.010	26	
0.007	23	
0.005	21	
0.002	17	

Contract No.	23560	Report No.	R137022	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134296			
Sample No.*	AA174480	Lab. Sample No.		A22/2539
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

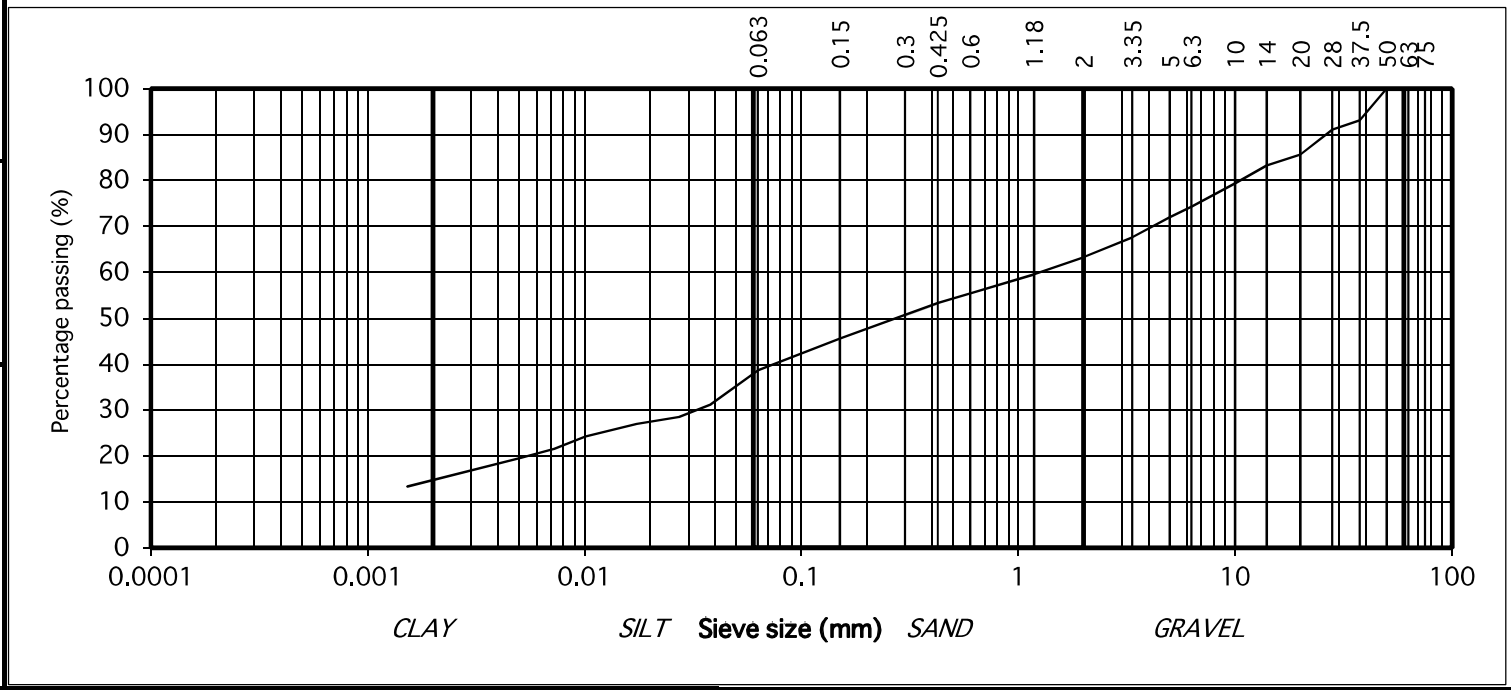
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	93	
28	91	
20	86	
14	83	
10	79	
6.3	74	
5	72	
3.35	68	
2	63	
1.18	60	SAND
0.6	55	
0.425	53	
0.3	51	
0.15	46	
0.063	39	SILT/CLAY
0.038	31	
0.027	29	
0.017	27	
0.010	24	
0.007	22	
0.005	20	
0.002	13	

Contract No.	23560	Report No.	R137021	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134340			
Sample No.*	AA174476	Lab. Sample No.		A22/2537
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

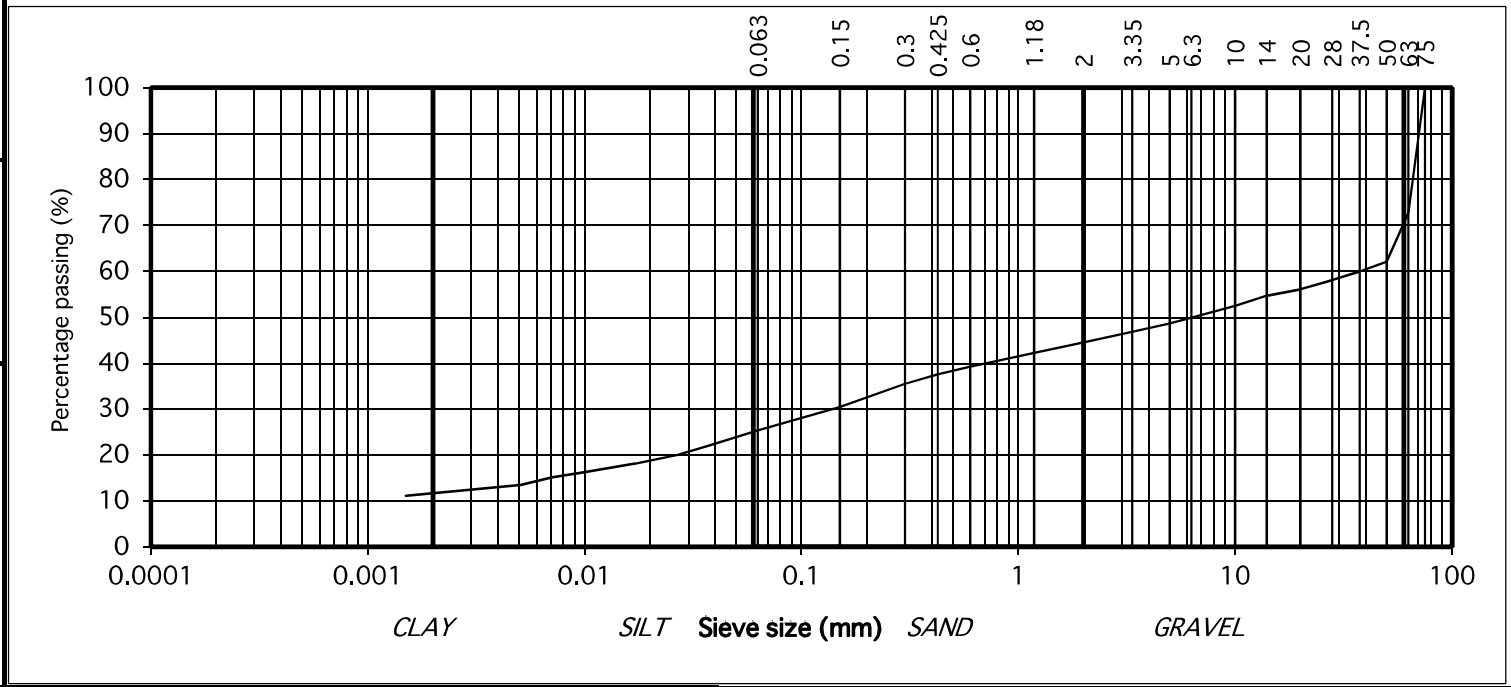
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	73	
50	62	GRAVEL
37.5	60	
28	58	
20	56	
14	55	
10	53	
6.3	50	
5	49	
3.35	47	
2	45	
1.18	42	SAND
0.6	39	
0.425	38	
0.3	36	
0.15	30	
0.063	25	SILT/CLAY
0.037	22	
0.027	20	
0.017	18	
0.010	16	
0.007	15	
0.005	14	
0.001	11	

Contract No.	23560	Report No.	R134290	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134396			
Sample No.*	AA174464	Lab. Sample No.		A22/2529
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

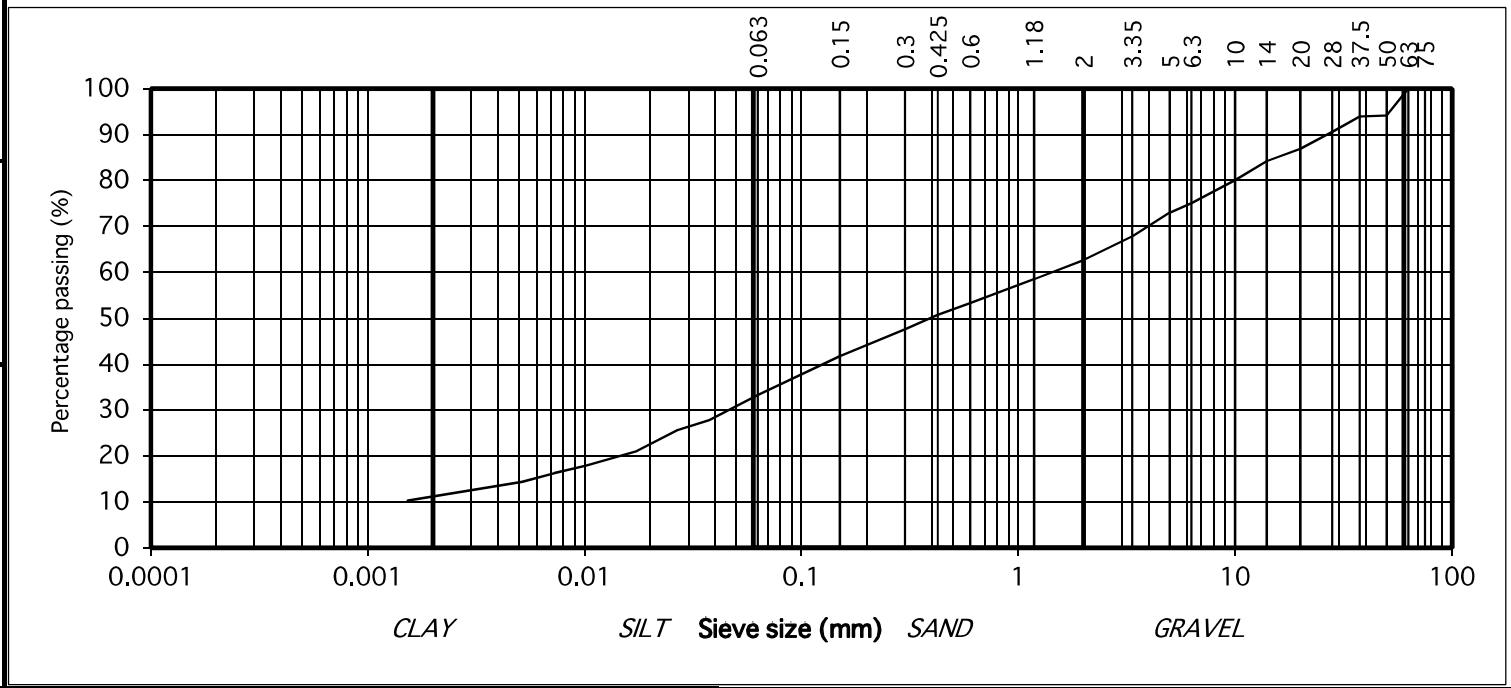
particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	94	
28	91	
20	87	
14	84	
10	80	
6.3	75	
5	73	
3.35	68	
2	63	
1.18	59	SAND
0.6	53	
0.425	51	
0.3	48	
0.15	42	
0.063	33	SILT/CLAY
0.037	28	
0.027	26	
0.017	21	
0.010	18	
0.007	16	
0.005	14	
0.002	10	

Contract No.	23560	Report No.	R143955	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134396			
Sample No.*	AA174465	Lab. Sample No.		A22/2530
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Grey brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

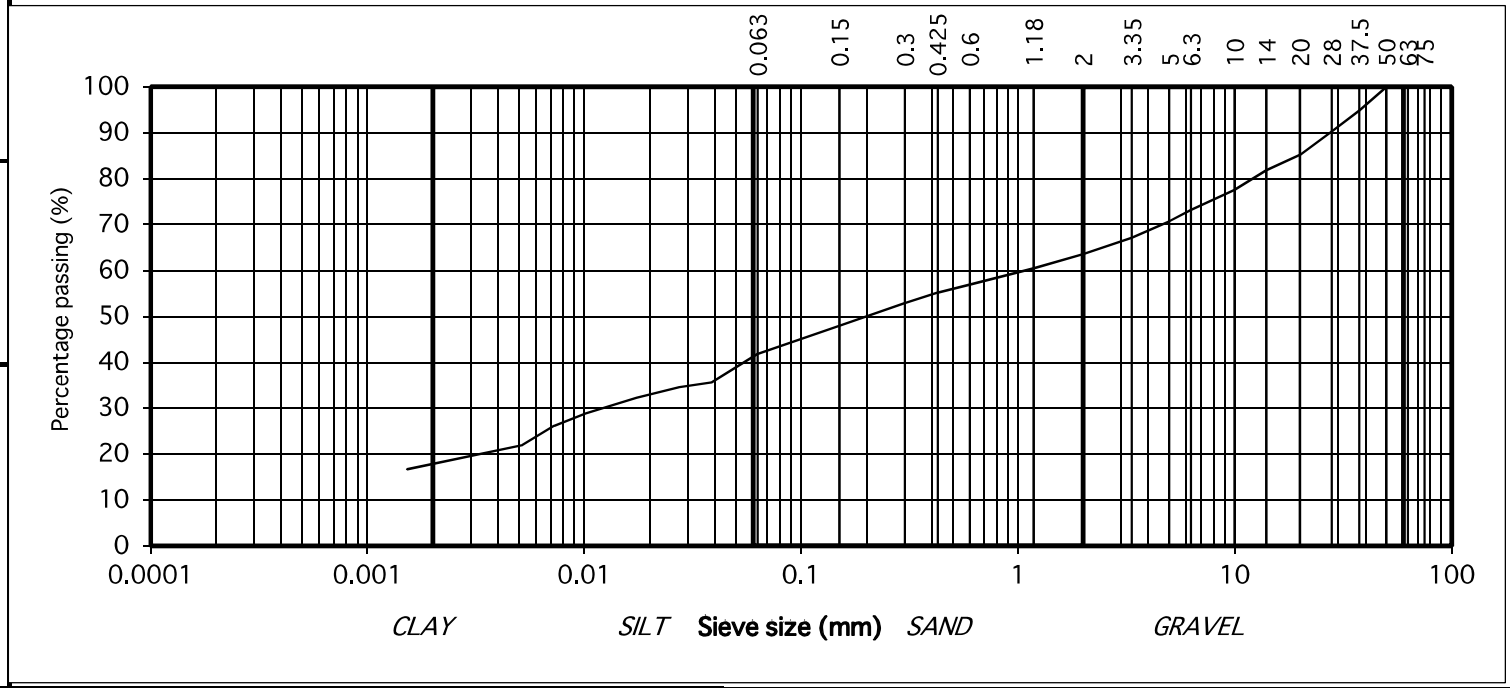
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	90	
20	85	
14	82	
10	78	
6.3	73	
5	71	
3.35	67	
2	64	
1.18	61	SAND
0.6	57	
0.425	55	
0.3	53	
0.15	48	
0.063	42	SILT/CLAY
0.038	36	
0.027	35	
0.017	32	
0.010	29	
0.007	26	
0.005	22	
0.002	17	

Contract No.	23560	Report No.	R136485	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134406			
Sample No.*	AA174471	Lab. Sample No.		A22/2535
Sample Type:	B			
Depth* (m)	1.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

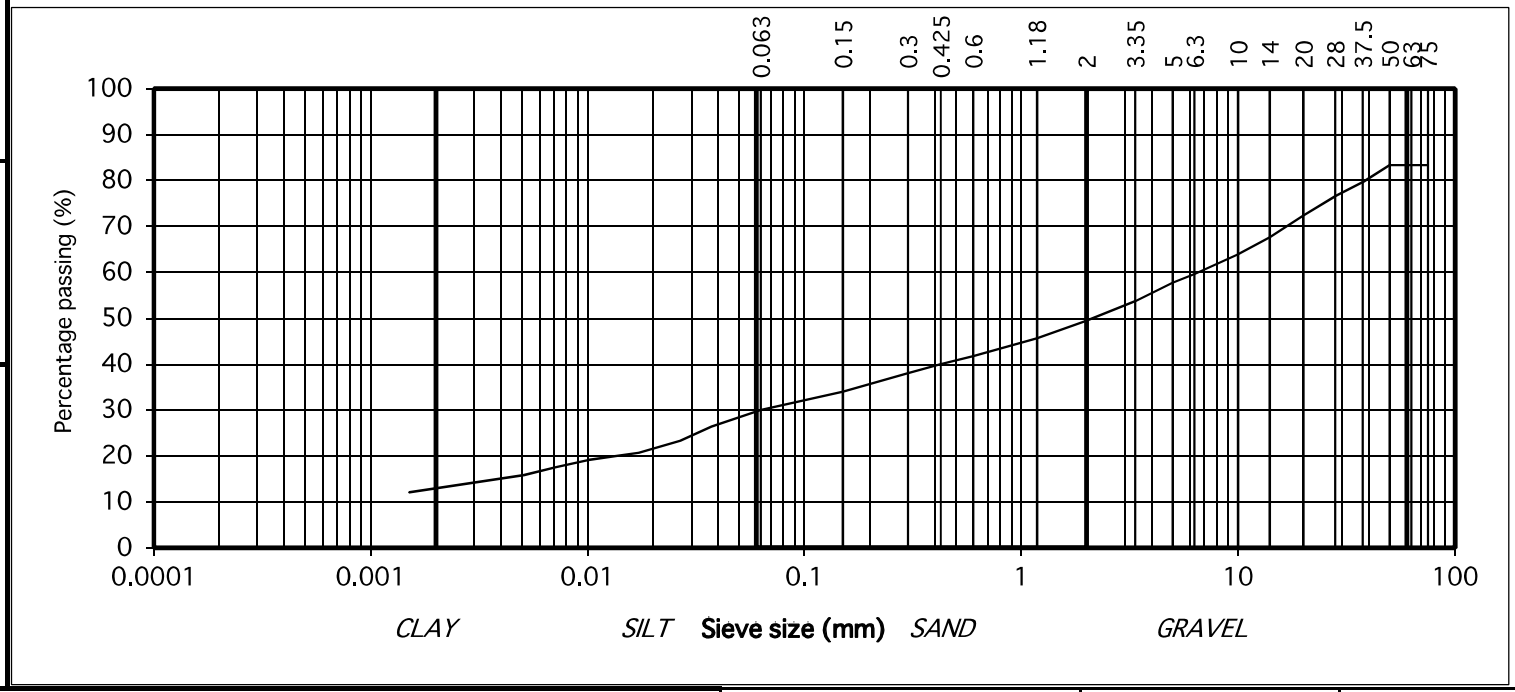
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	83	COBBLES
63	83	
50	83	GRAVEL
37.5	80	
28	77	
20	72	
14	68	
10	64	
6.3	60	
5	58	
3.35	54	
2	50	
1.18	46	SAND
0.6	42	
0.425	40	
0.3	38	
0.15	34	
0.063	30	SILT/CLAY
0.037	26	
0.027	23	
0.017	21	
0.010	19	
0.007	18	
0.005	16	
0.002	12	

Contract No.	23560	Report No.	R134291	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134396			
Sample No.*	AA174463	Lab. Sample No.		A22/2531
Sample Type:	B			
Depth* (m)	2.10	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		05/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	19/05/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

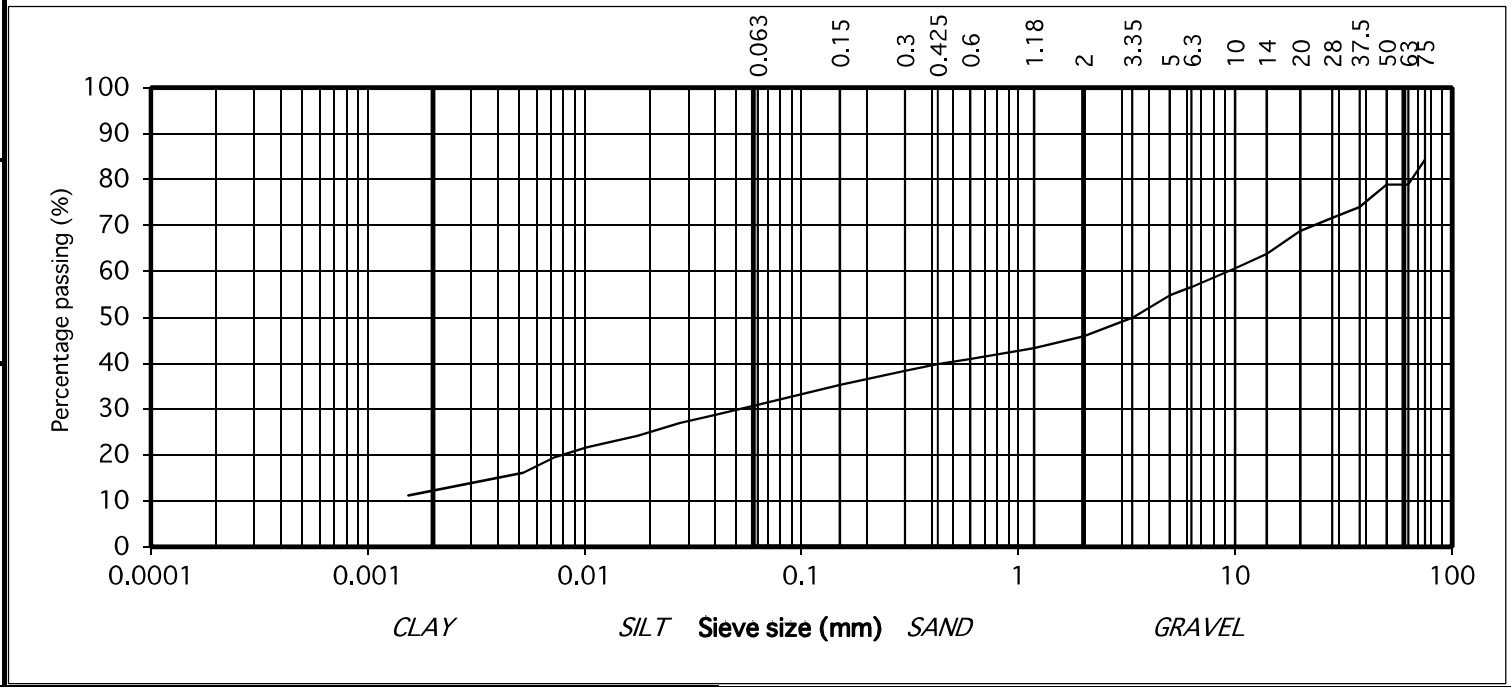
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	84	COBBLES
63	79	
50	79	GRAVEL
37.5	74	
28	72	
20	69	
14	64	
10	61	
6.3	57	
5	55	
3.35	50	
2	46	
1.18	43	SAND
0.6	41	
0.425	40	
0.3	38	
0.15	35	
0.063	31	SILT/CLAY
0.039	29	
0.027	27	
0.018	24	
0.010	22	
0.007	20	
0.005	16	
0.002	11	

Contract No.	23560	Report No.	R137020	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134406			
Sample No.*	AA174472	Lab. Sample No.		A22/2536
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with many cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

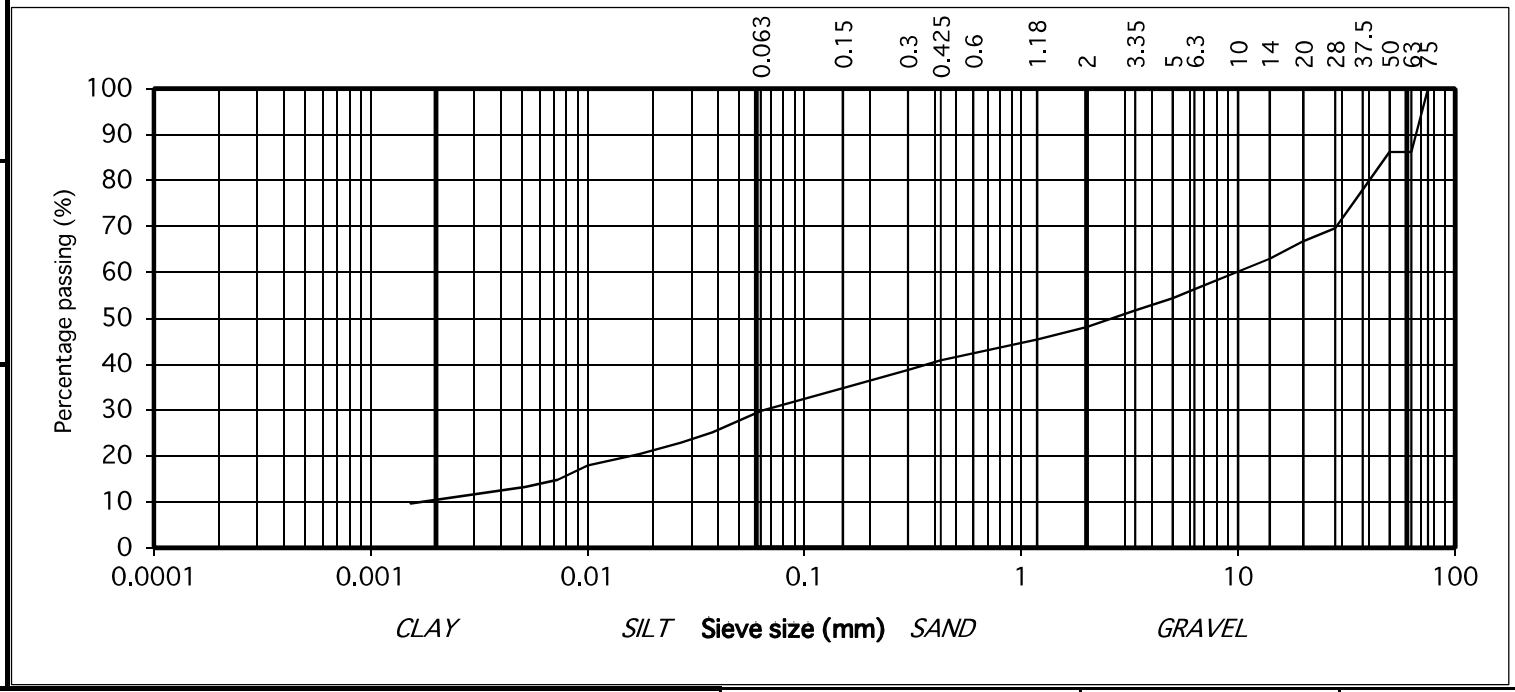
particle size	% passing	
75	100	COBBLES
63	86	
50	86	GRAVEL
37.5	78	
28	70	
20	67	
14	63	
10	60	
6.3	56	
5	54	
3.35	52	
2	48	
1.18	45	SAND
0.6	42	
0.425	41	
0.3	39	
0.15	35	
0.063	30	SILT/CLAY
0.038	25	
0.027	23	
0.017	20	
0.010	18	
0.007	15	
0.005	13	
0.002	10	

Contract No.	23560	Report No.	R134955	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134439			
Sample No.*	AA174469	Lab. Sample No.		A22/2534
Sample Type:	B			
Depth* (m)	2.30	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

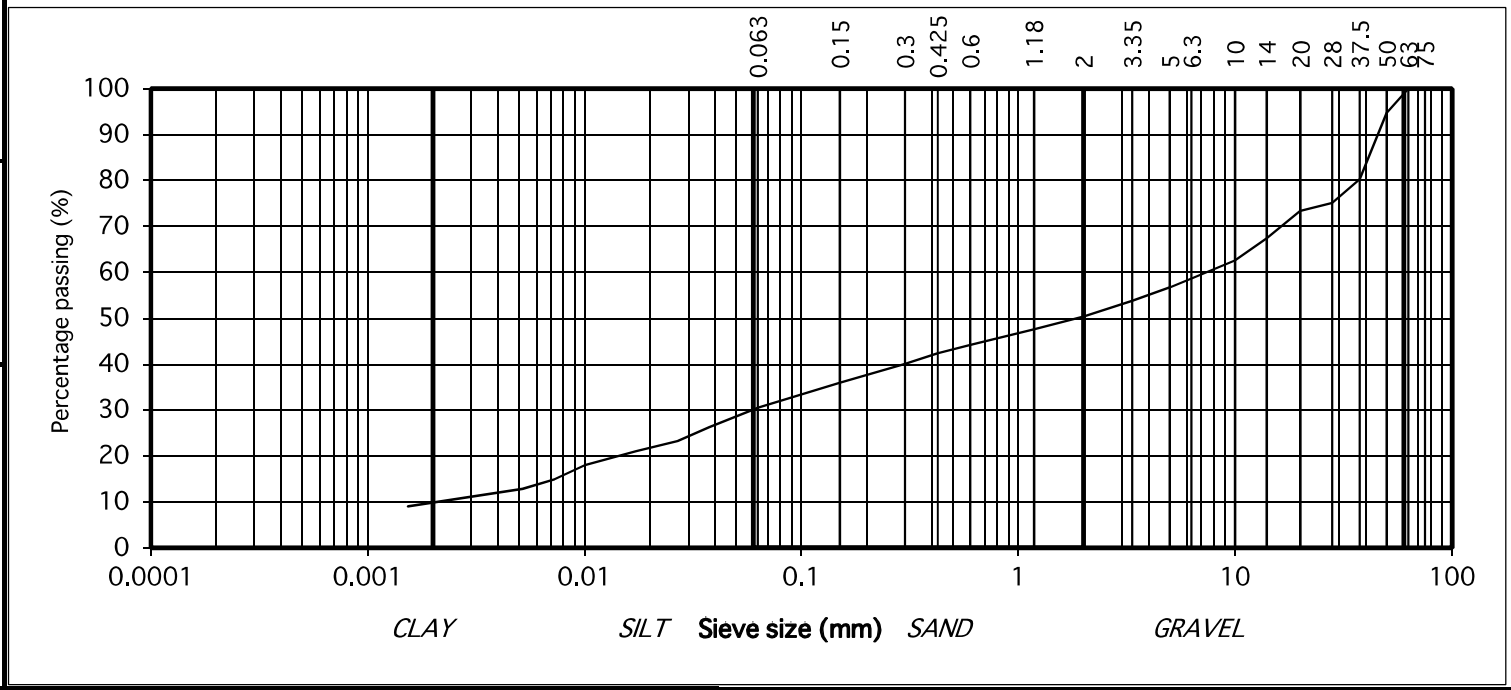
particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	80	
28	75	
20	73	
14	67	
10	63	
6.3	59	
5	57	
3.35	54	
2	50	
1.18	48	SAND
0.6	44	
0.425	42	
0.3	40	
0.15	36	
0.063	31	SILT/CLAY
0.037	26	
0.027	23	
0.017	21	
0.010	18	
0.007	15	
0.005	13	
0.002	9	

Contract No.	23560	Report No.	R134938	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134439			
Sample No.*	AA174468	Lab. Sample No.		A22/2533
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		06/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

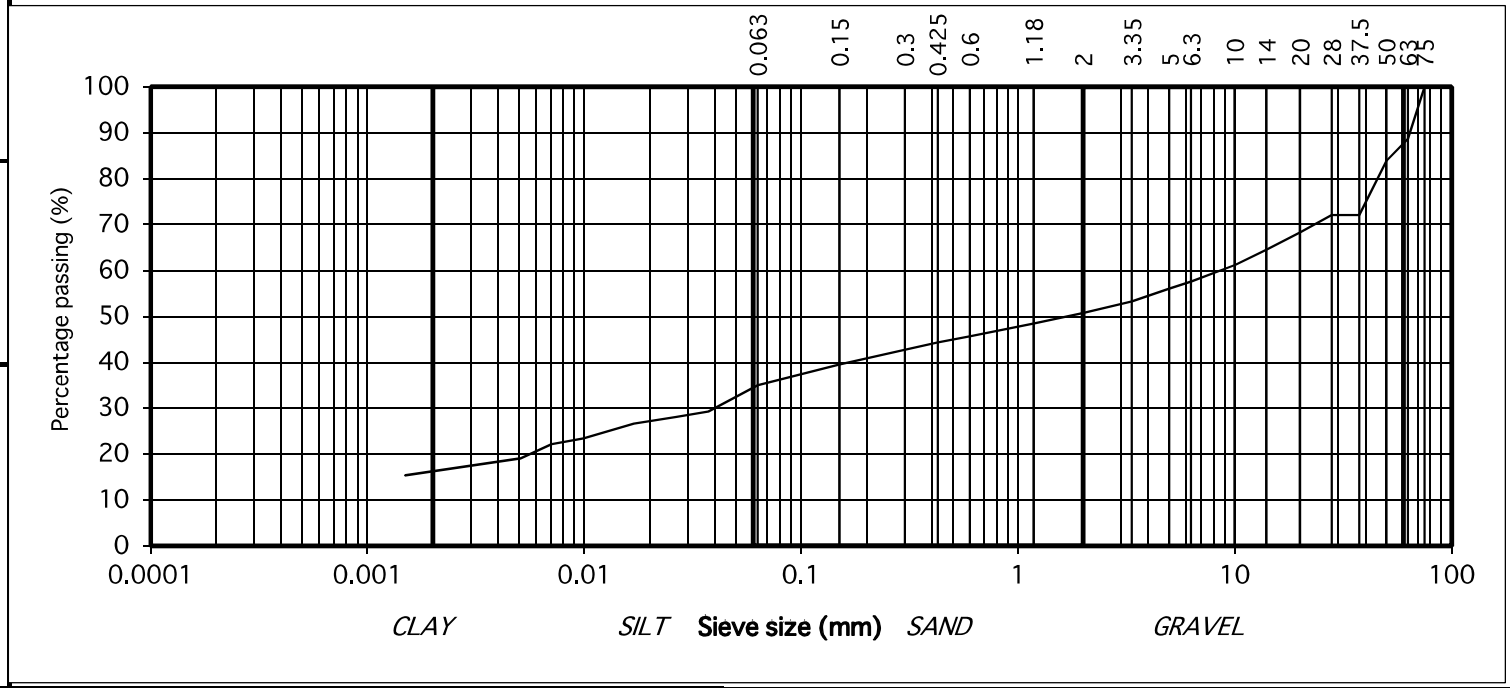
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	89	
50	84	GRAVEL
37.5	72	
28	72	
20	68	
14	65	
10	61	
6.3	58	
5	56	
3.35	53	
2	51	
1.18	48	SAND
0.6	46	
0.425	44	
0.3	43	
0.15	40	
0.063	35	SILT/CLAY
0.037	29	
0.026	28	
0.017	27	
0.010	23	
0.007	22	
0.005	19	
0.001	15	

Contract No.	23560	Report No.	R136484	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134490			
Sample No.*	AA174462	Lab. Sample No.		A22/2527
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

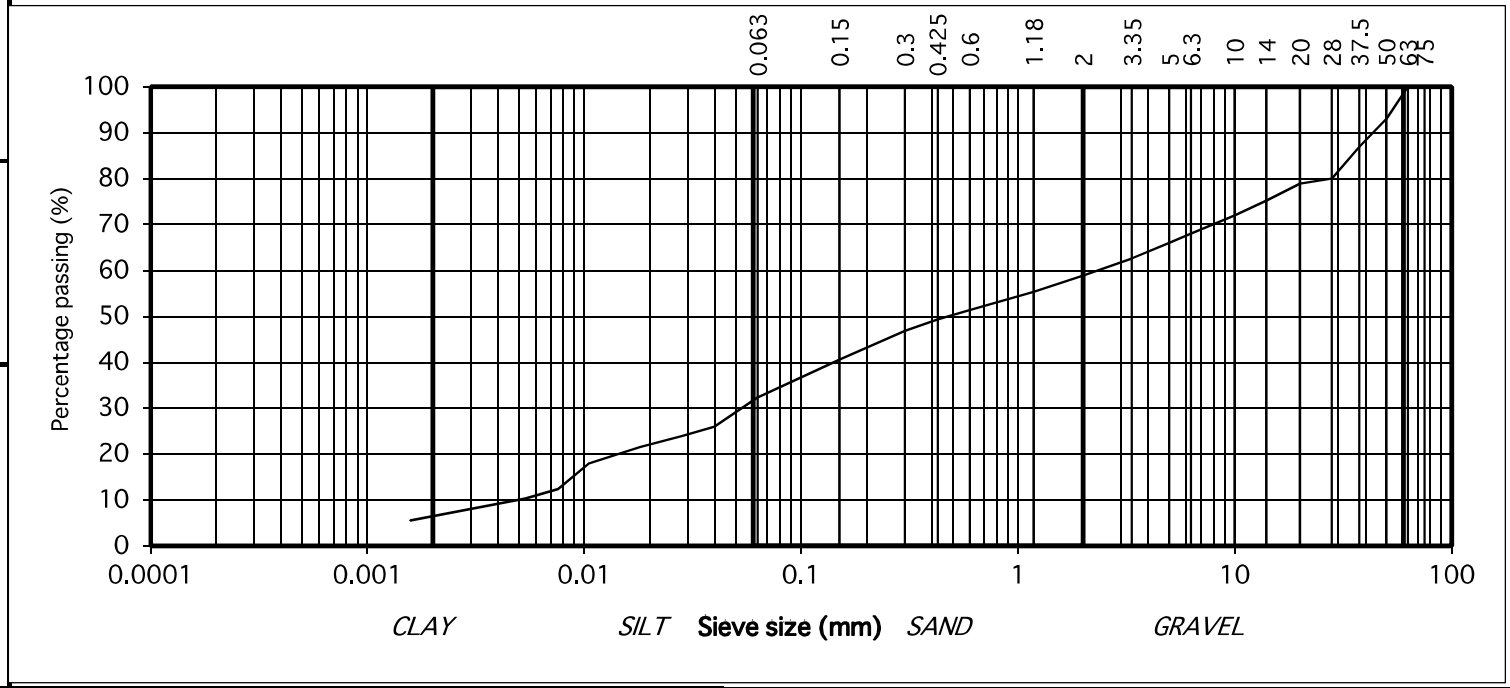
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	93	GRAVEL
37.5	87	
28	80	
20	79	
14	75	
10	72	
6.3	68	
5	66	
3.35	63	
2	59	
1.18	55	SAND
0.6	51	
0.425	49	
0.3	47	
0.15	41	
0.063	32	SILT/CLAY
0.040	26	
0.028	24	
0.018	22	
0.011	18	
0.008	12	
0.005	10	
0.002	6	

Contract No.	23560	Report No.	R136483	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP135009			
Sample No.*	AA174460	Lab. Sample No.		A22/2526
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown/grey slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

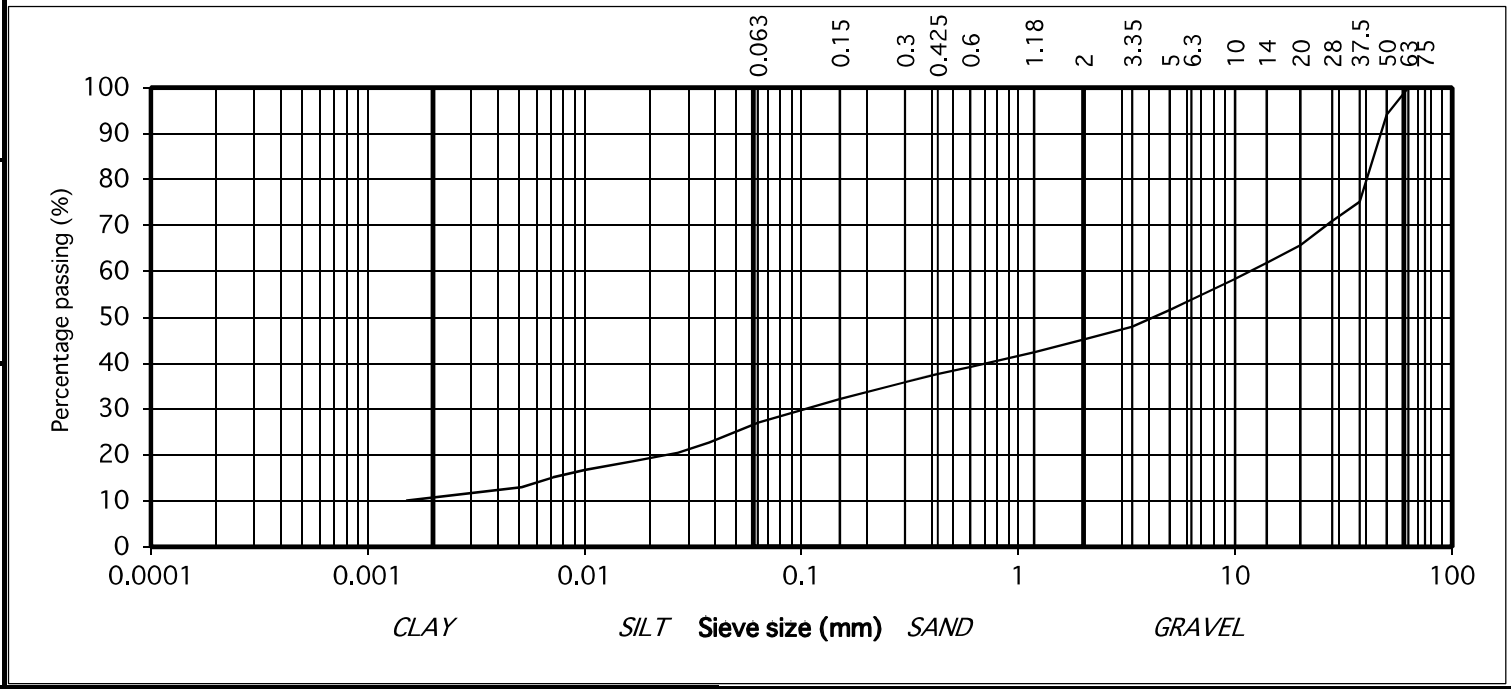
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	75	
28	71	
20	66	
14	62	
10	58	
6.3	54	
5	52	
3.35	48	
2	45	
1.18	42	SAND
0.6	39	
0.425	38	
0.3	36	
0.15	32	
0.063	27	SILT/CLAY
0.037	23	
0.027	21	
0.017	19	
0.010	17	
0.007	15	
0.005	13	
0.002	10	

Contract No.	23560	Report No.	R137019	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134490			
Sample No.*	AA174463	Lab. Sample No.		A22/2528
Sample Type:	B			
Depth* (m)	2.20	Customer:	Ervia	
Date Received	14/07/2022	Date Testing started		14/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY with occasional cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	27/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

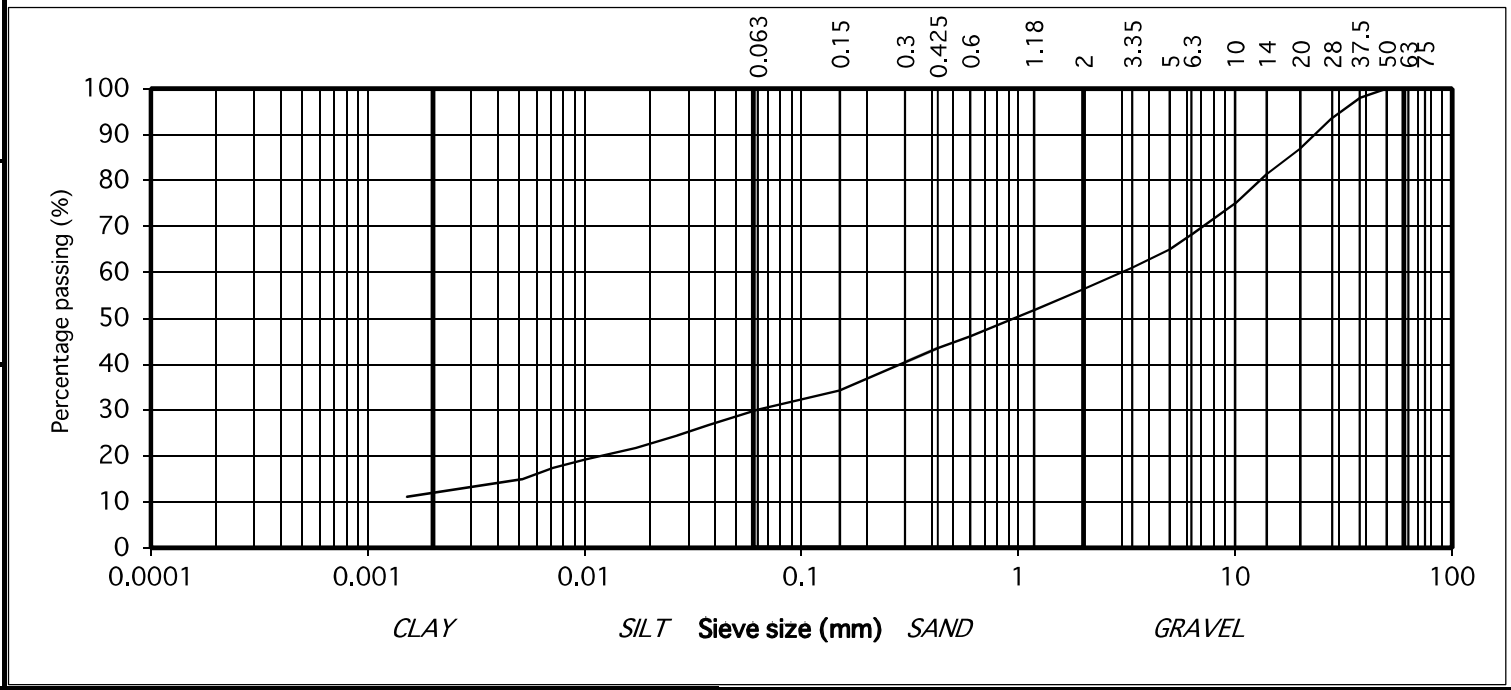
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	98	
28	94	
20	87	
14	81	
10	75	
6.3	68	
5	65	
3.35	61	
2	56	
1.18	52	SAND
0.6	46	
0.425	44	
0.3	41	
0.15	34	
0.063	30	SILT/CLAY
0.037	27	
0.027	25	
0.017	22	
0.010	19	
0.007	17	
0.005	15	
0.002	11	

Contract No.	23560	Report No.	R143953	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP135503			
Sample No.*	AA174452	Lab. Sample No.		A22/2522
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

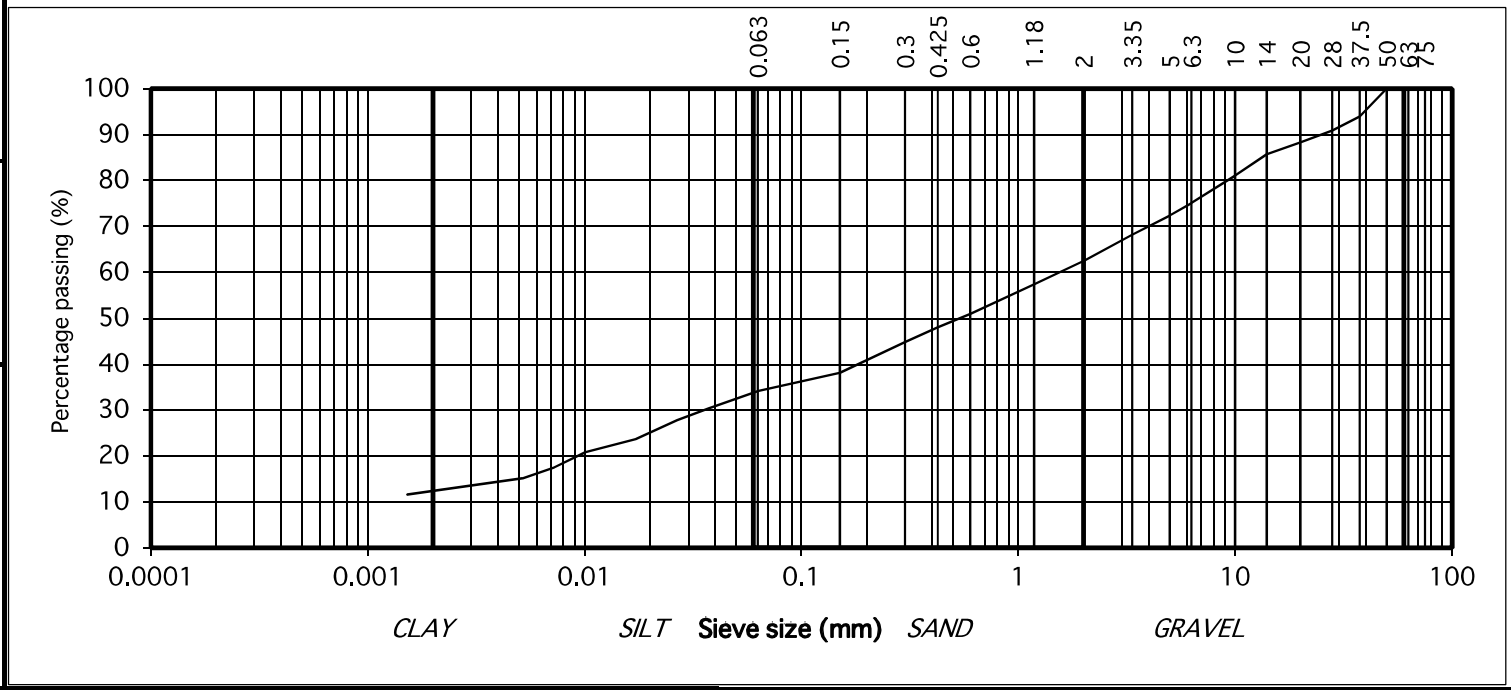
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	94	
28	91	
20	88	
14	86	
10	81	
6.3	75	
5	72	
3.35	68	
2	63	
1.18	57	SAND
0.6	51	
0.425	48	
0.3	45	
0.15	38	
0.063	34	SILT/CLAY
0.037	30	
0.027	28	
0.017	24	
0.010	21	
0.007	18	
0.005	15	
0.002	12	

Contract No.	23560	Report No.	R143953	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP135503			
Sample No.*	AA174453	Lab. Sample No.		A22/2523
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Grey slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

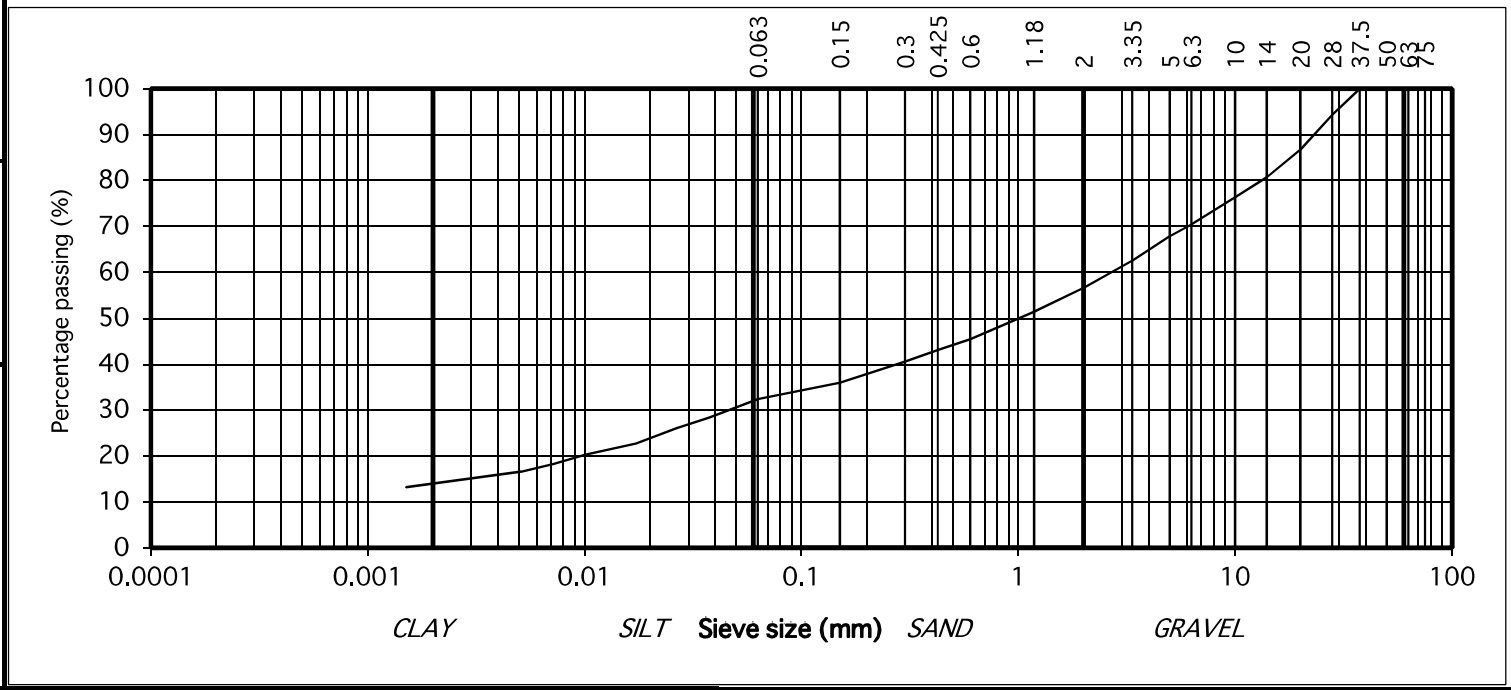
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	94	
20	87	
14	81	
10	76	
6.3	70	
5	68	
3.35	63	
2	57	
1.18	51	SAND
0.6	45	
0.425	43	
0.3	41	
0.15	36	
0.063	32	SILT/CLAY
0.037	28	
0.027	26	
0.017	23	
0.010	20	
0.007	18	
0.005	17	
0.002	13	

Contract No.	23560	Report No.	R143954	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP135708			
Sample No.*	AA174456	Lab. Sample No.		A22/2524
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Grey brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

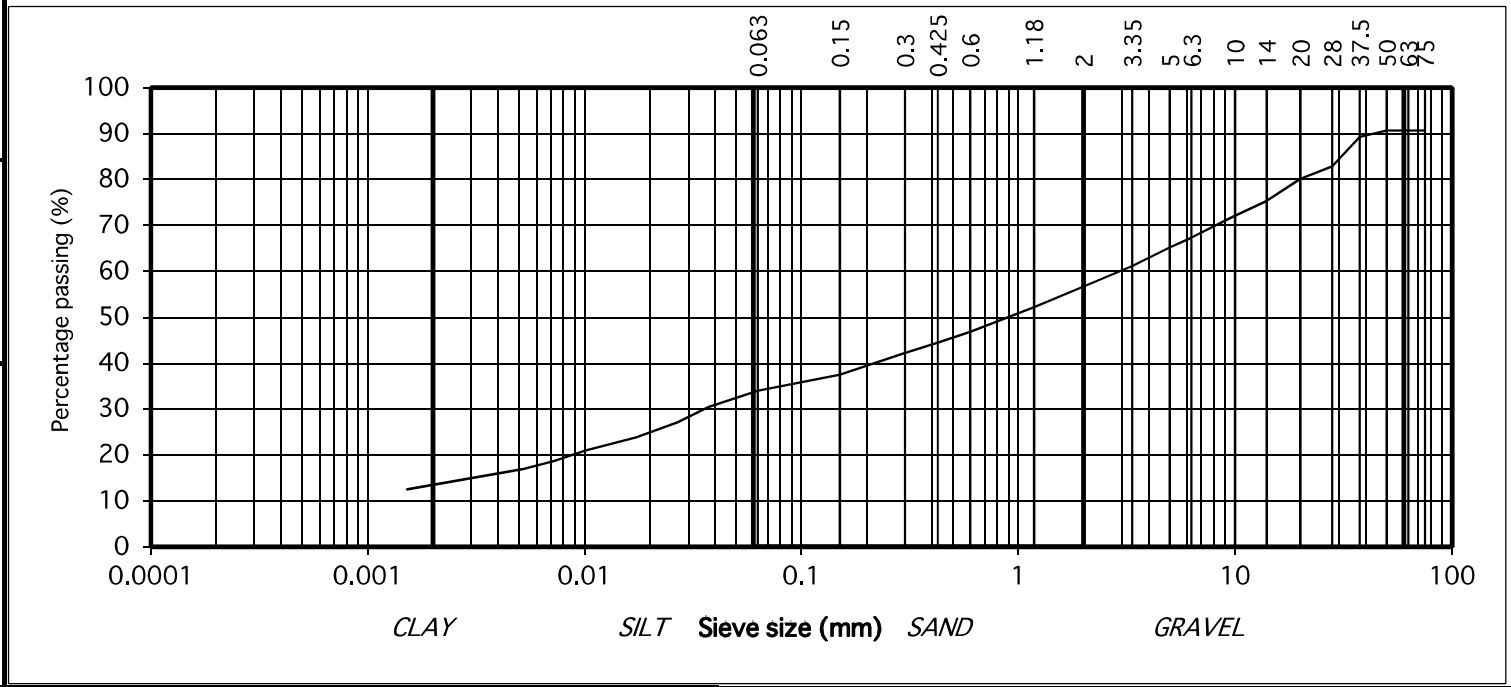
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	91	COBBLES
63	91	
50	91	GRAVEL
37.5	89	
28	83	
20	80	
14	75	
10	72	
6.3	67	
5	65	
3.35	61	
2	57	
1.18	52	SAND
0.6	47	
0.425	44	
0.3	42	
0.15	38	
0.063	34	SILT/CLAY
0.037	30	
0.027	27	
0.017	24	
0.010	21	
0.007	19	
0.005	17	
0.002	13	

Contract No.	23560	Report No.	R143951	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP135607			
Sample No.*	AA174451	Lab. Sample No.		A22/2521
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	04/05/2022	Date Testing started		07/05/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	02/06/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

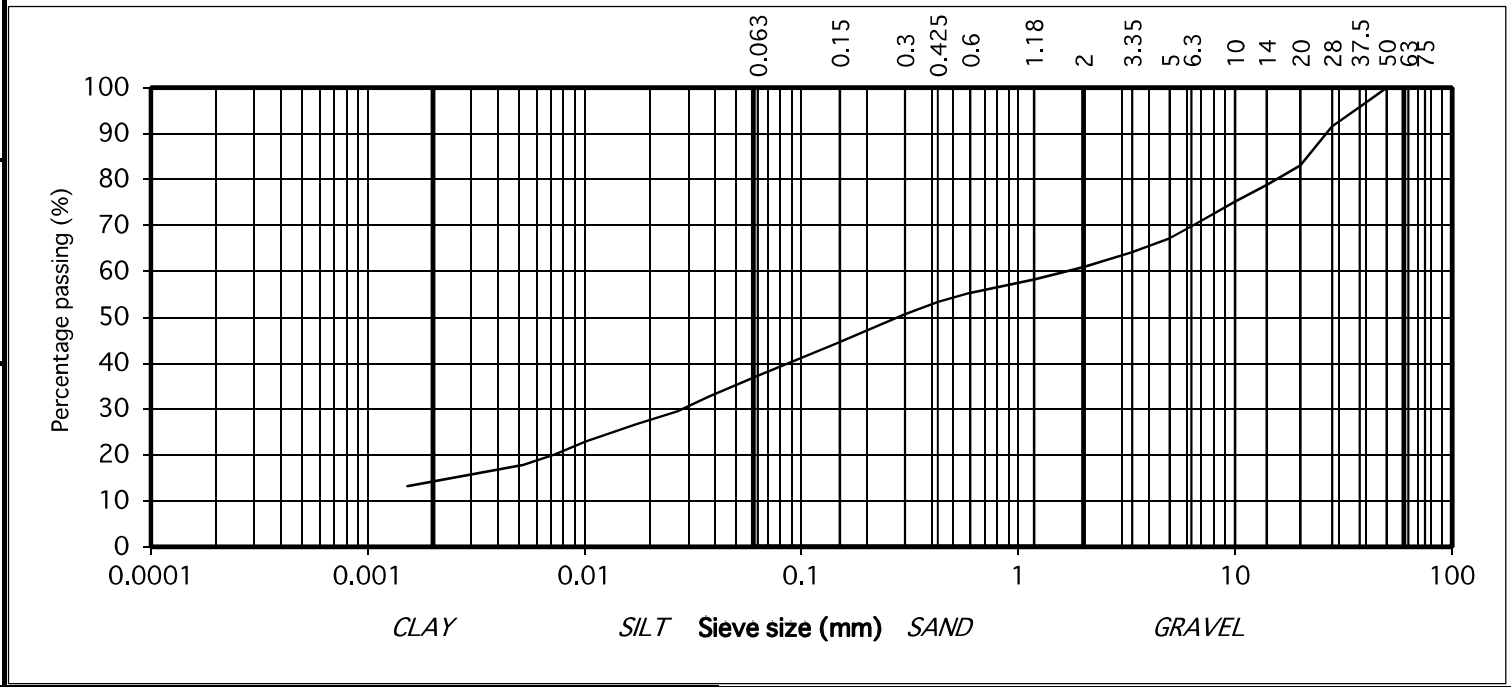
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	92	
20	83	
14	79	
10	75	
6.3	70	
5	67	
3.35	64	
2	61	
1.18	58	SAND
0.6	55	
0.425	53	
0.3	51	
0.15	45	
0.063	37	SILT/CLAY
0.037	33	
0.027	30	
0.017	27	
0.010	23	
0.007	20	
0.005	18	
0.002	13	

Contract No.	23560	Report No.	R137405	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP135904			
Sample No.*	AA152170	Lab. Sample No.		A22/3274
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	08/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

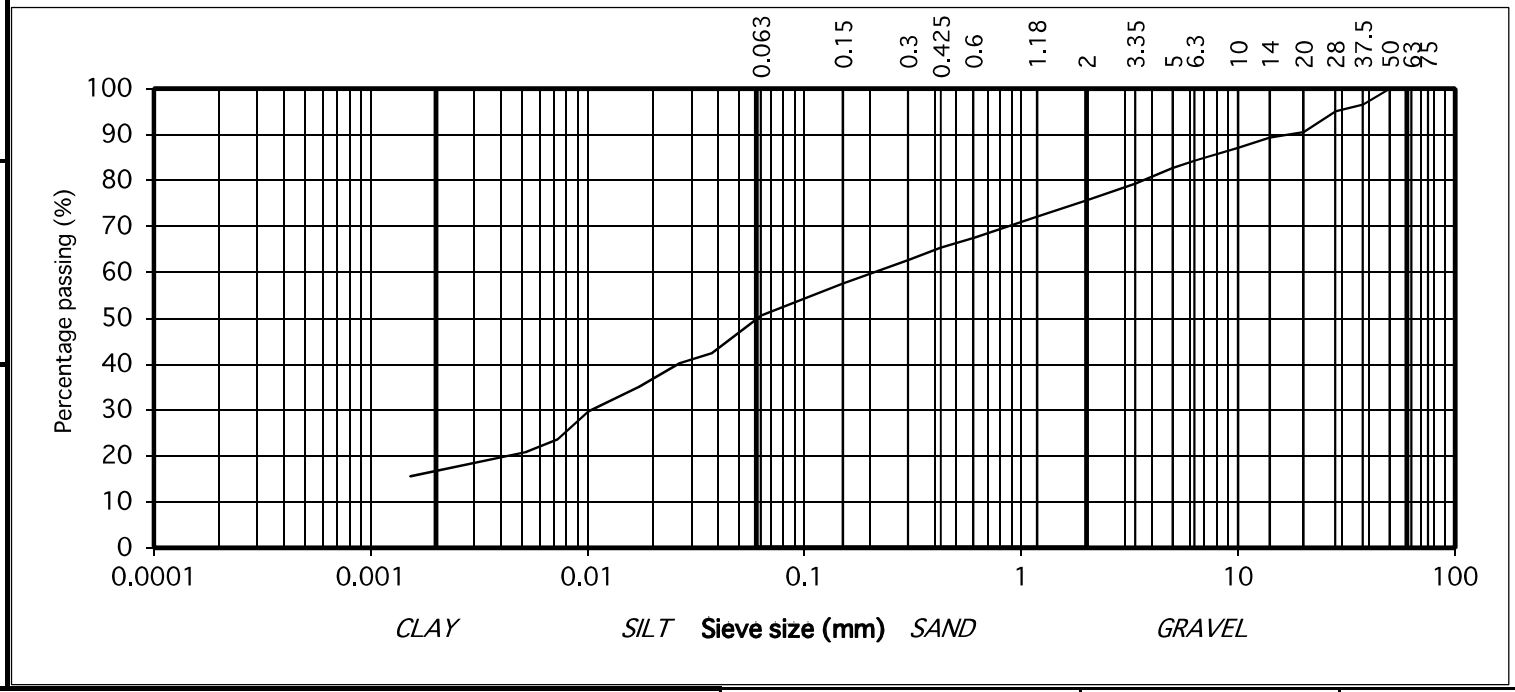
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	95	
20	91	
14	89	
10	87	
6.3	84	
5	83	
3.35	79	
2	76	
1.18	72	SAND
0.6	68	
0.425	65	
0.3	63	
0.15	58	
0.063	51	SILT/CLAY
0.037	42	
0.027	40	
0.017	35	
0.010	30	
0.007	24	
0.005	21	
0.002	16	

Contract No.	23560	Report No.	R135219	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP136007			
Sample No.*	AA156007	Lab. Sample No.		A22/3276
Sample Type:	B			
Depth* (m)	0.60	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

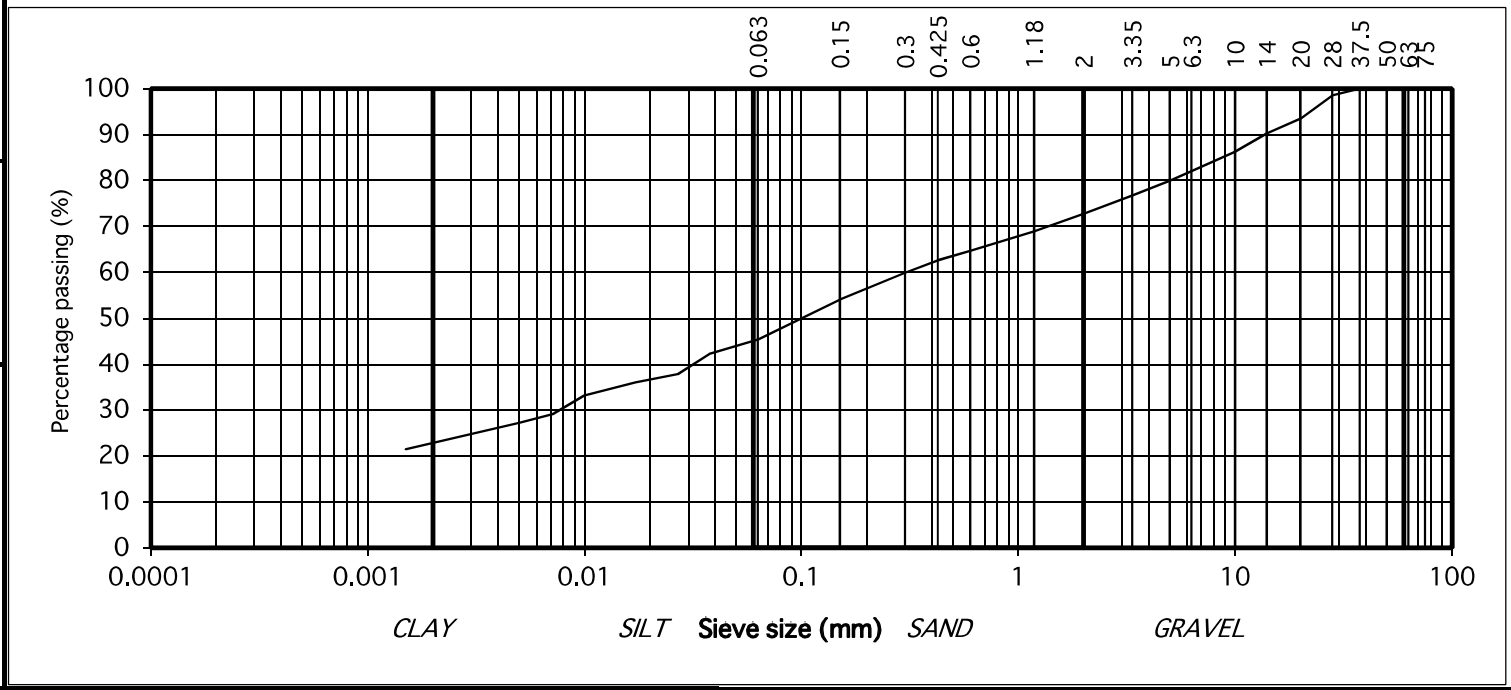
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	93	
14	90	
10	86	
6.3	82	
5	80	
3.35	77	
2	73	
1.18	69	SAND
0.6	65	
0.425	63	
0.3	60	
0.15	54	
0.063	45	SILT/CLAY
0.037	42	
0.027	38	
0.017	36	
0.010	33	
0.007	29	
0.005	27	
0.001	22	

Contract No.	23560	Report No.	R137184	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP135904			
Sample No.*	AA152171	Lab. Sample No.		A22/3275
Sample Type:	B			
Depth* (m)	2.50	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Grey Brown slightly sandy, slightly gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

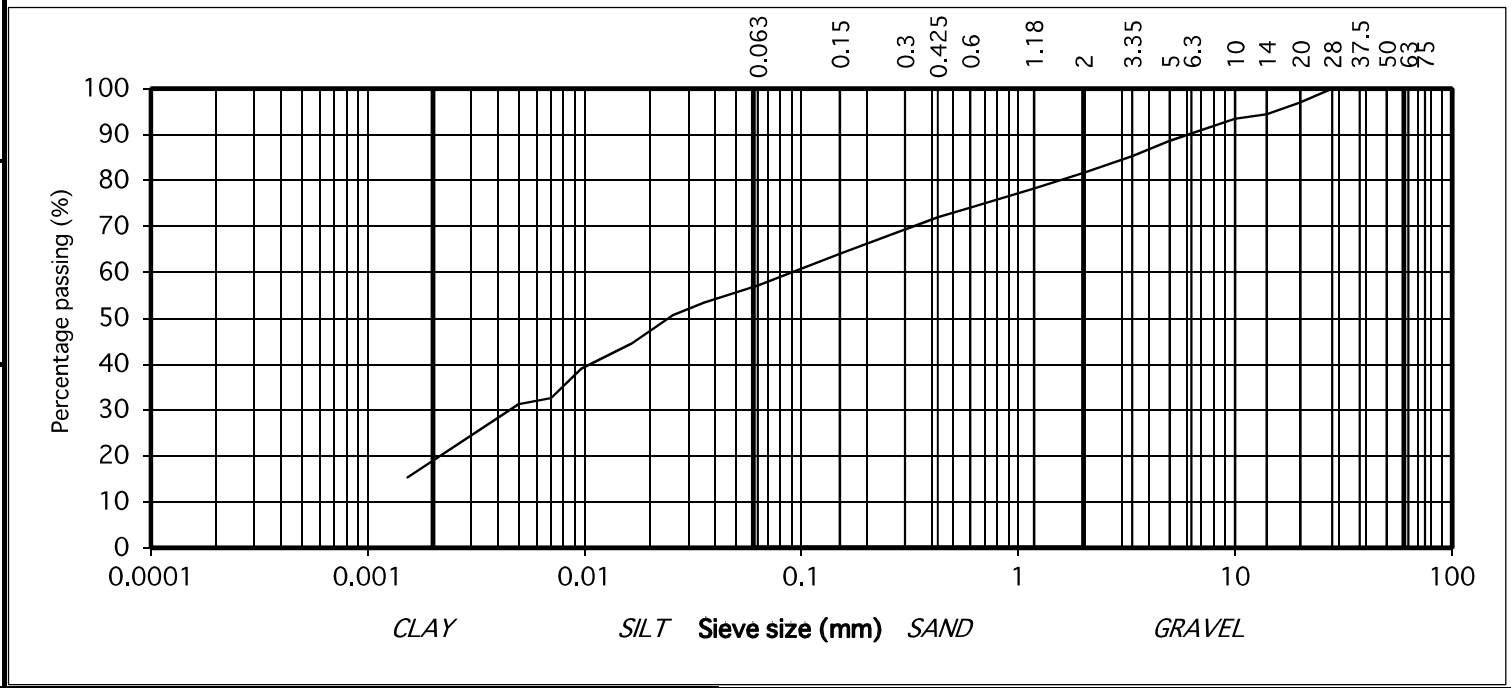
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	97	
14	94	
10	93	
6.3	90	
5	89	
3.35	85	
2	82	
1.18	78	SAND
0.6	74	
0.425	72	
0.3	69	
0.15	64	
0.063	57	SILT/CLAY
0.035	53	
0.025	51	
0.016	45	
0.010	39	
0.007	33	
0.005	31	
0.002	15	

Contract No.	23560	Report No.	R135220	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP136007			
Sample No.*	AA156008	Lab. Sample No.		A22/3277
Sample Type:	B			
Depth* (m)	1.90	Customer:	Ervia	
Date Received	15/06/2022	Date Testing started		15/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

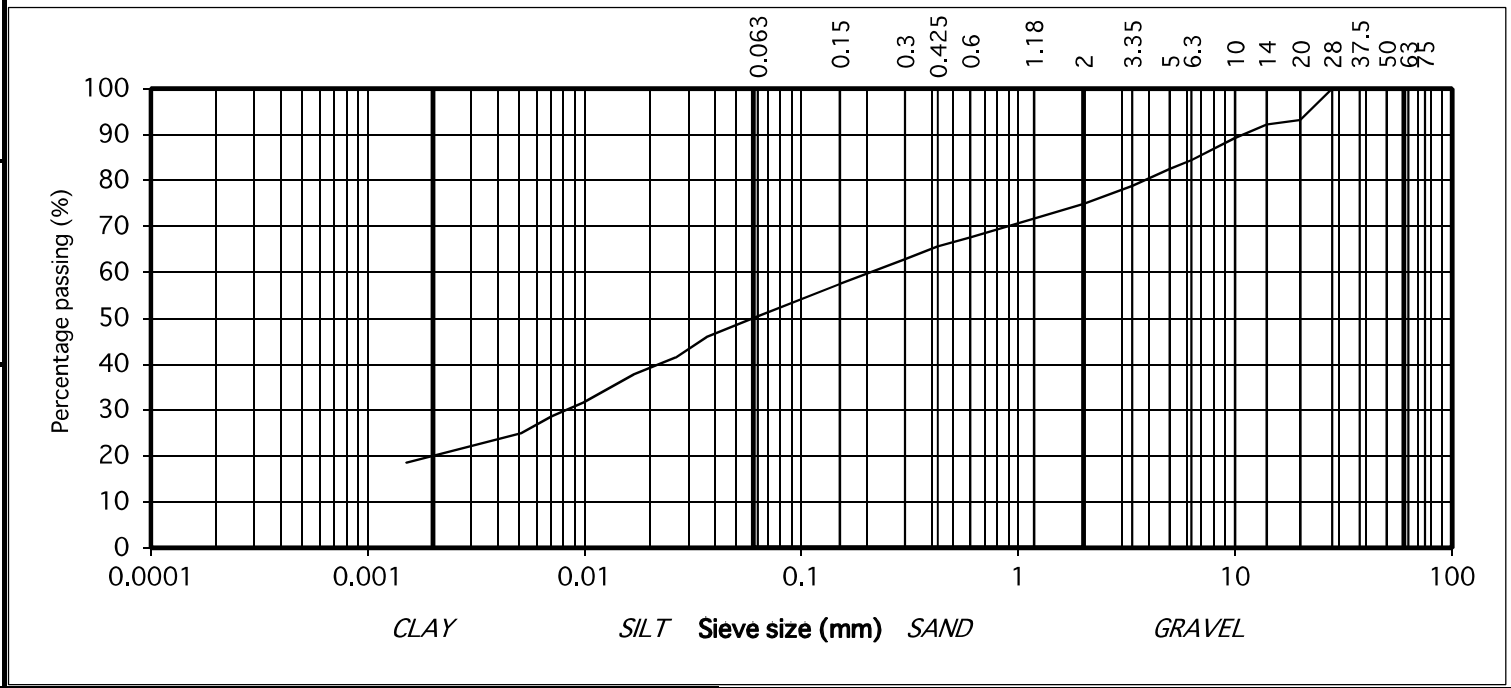
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	93	
14	92	
10	89	
6.3	84	
5	83	
3.35	79	
2	75	
1.18	72	SAND
0.6	68	
0.425	66	
0.3	63	
0.15	58	
0.063	50	SILT/CLAY
0.036	46	
0.026	42	
0.017	38	
0.010	32	
0.007	29	
0.005	25	
0.002	19	

Contract No.	23560	Report No.	R137185	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP136108			
Sample No.*	AA156009	Lab. Sample No.		A22/3278
Sample Type:	B			
Depth* (m)	0.60	Customer:	Ervia	
Date Received	16/06/2022	Date Testing started		16/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

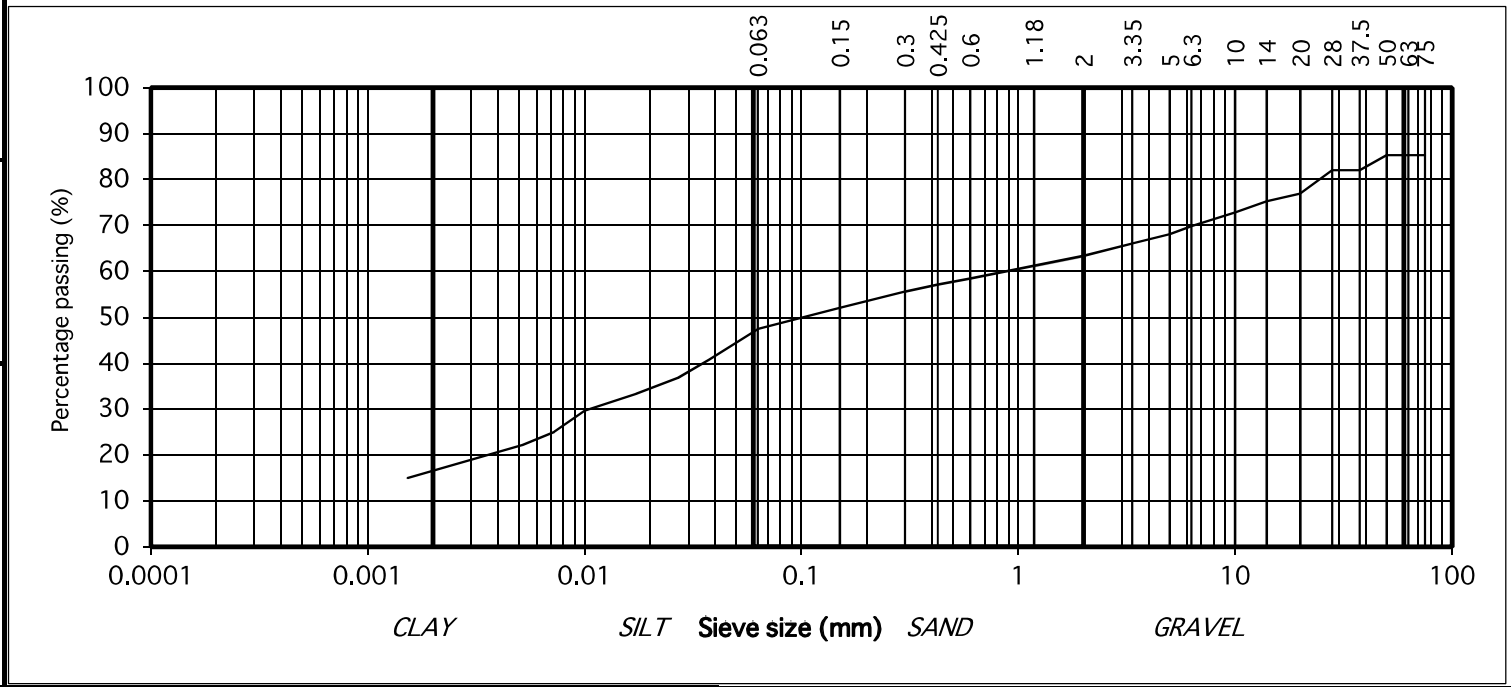
particle size	% passing	
75	85	COBBLES
63	85	
50	85	GRAVEL
37.5	82	
28	82	
20	77	
14	75	
10	73	
6.3	70	
5	68	
3.35	66	
2	63	
1.18	61	SAND
0.6	58	
0.425	57	
0.3	56	
0.15	52	
0.063	47	SILT/CLAY
0.037	41	
0.027	37	
0.017	33	
0.010	30	
0.007	25	
0.005	22	
0.002	15	

Contract No. 23560 Report No. R141685
Contract Name: WSP - Lot 3
BH/TP* : TP139902
Sample No.* N/A Lab. Sample No. A22/6486
Sample Type: B
Depth* (m) 3.50 Customer: Ervia
Date Received 18/11/2022 Date Testing started 18/11/2022
Description: Brown slightly sandy, slightly gravelly, SILT/CLAY with some cobbles

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/12/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

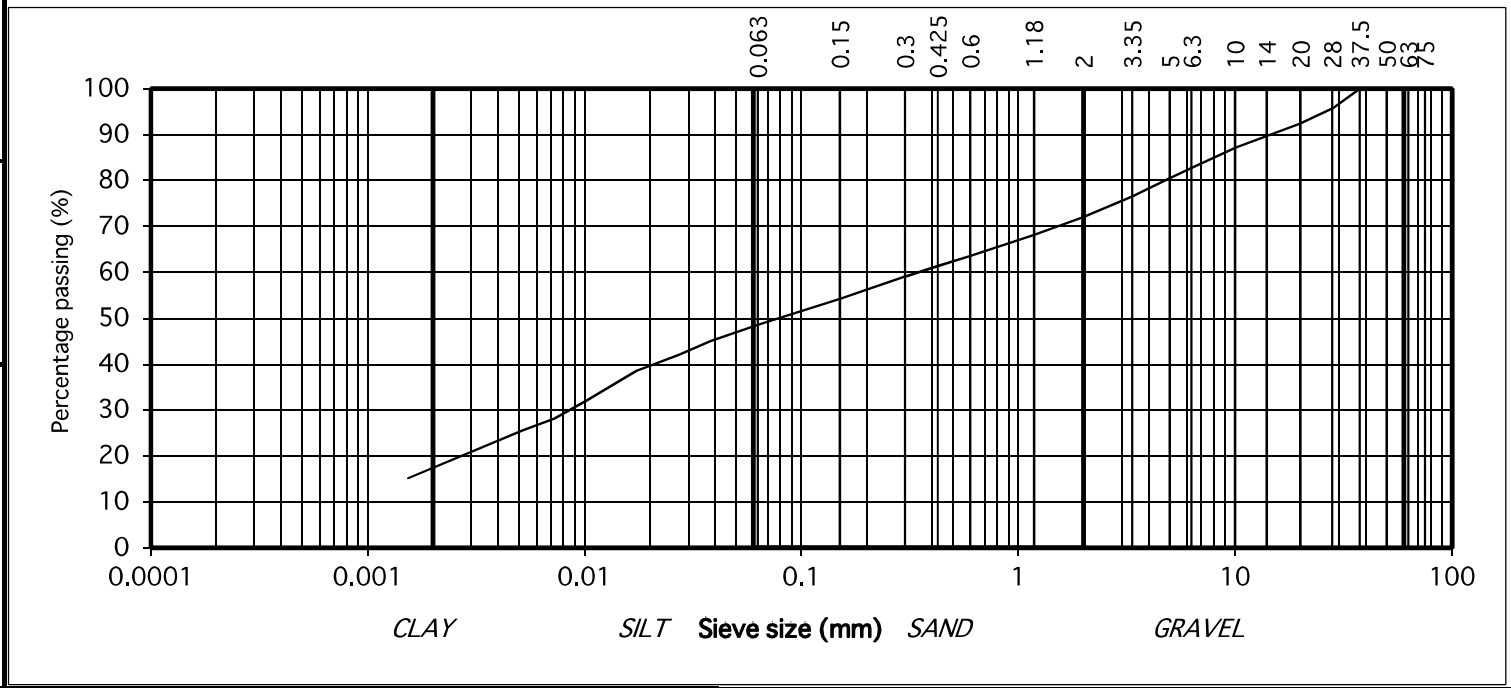
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	92	
14	90	
10	87	
6.3	83	
5	80	
3.35	77	
2	72	
1.18	68	SAND
0.6	64	
0.425	61	
0.3	59	
0.15	54	
0.063	49	SILT/CLAY
0.038	45	
0.027	42	
0.017	39	
0.010	32	
0.007	28	
0.005	26	
0.002	15	

Contract No.	23560	Report No.	R137186	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP136108			
Sample No.*	AA156010	Lab. Sample No.		A22/3279
Sample Type:	B			
Depth* (m)	1.80	Customer:	Ervia	
Date Received	16/06/2022	Date Testing started		16/06/2022
Description:	Brown slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

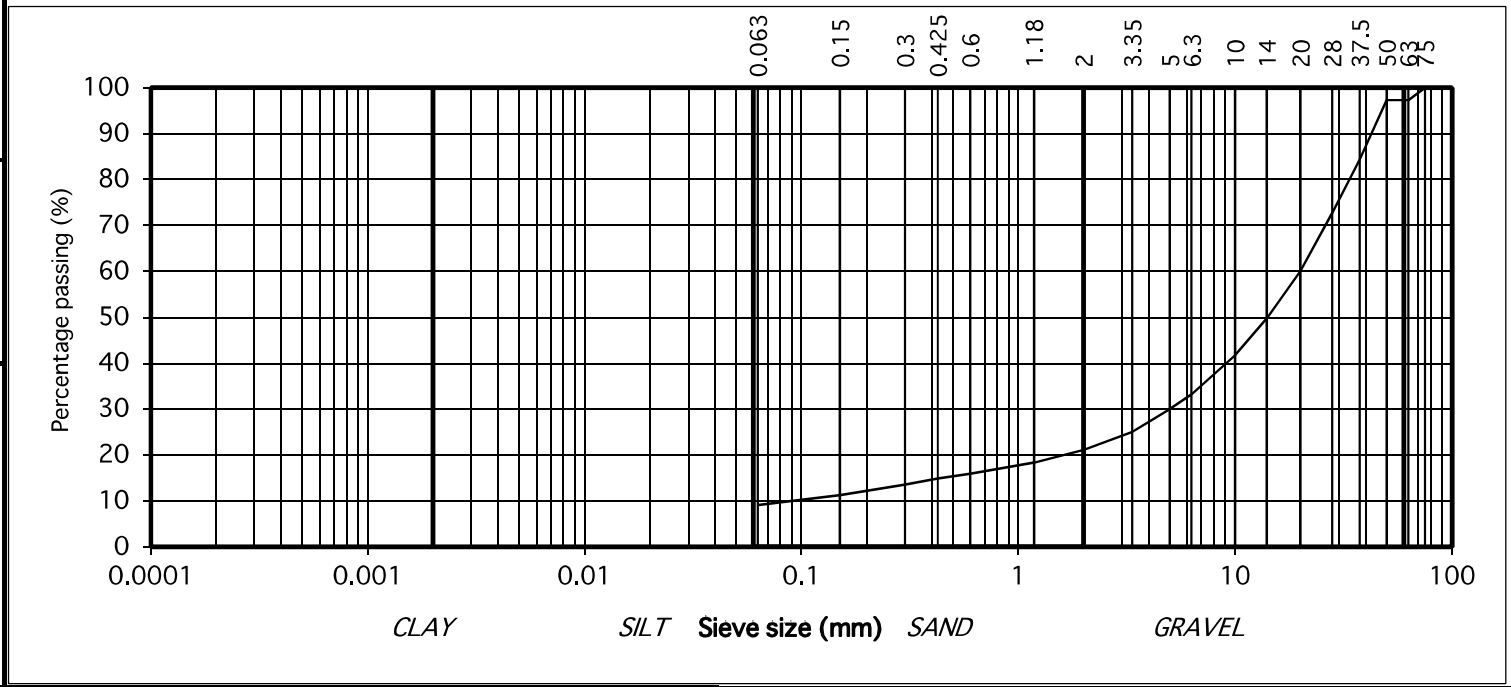
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	97	
50	97	GRAVEL
37.5	84	
28	73	
20	60	
14	50	
10	42	
6.3	33	
5	30	
3.35	25	
2	21	
1.18	18	SAND
0.6	16	
0.425	15	
0.3	14	
0.15	11	
0.063	9	SILT/CLAY

Contract No.	23560	Report No.	R137372	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP142904			
Sample No.*	AA152182	Lab. Sample No.		A22/3280
Sample Type:	B			
Depth* (m)	0.50	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown clayey/silty, sandy, GRAVEL with occasional cobbles			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

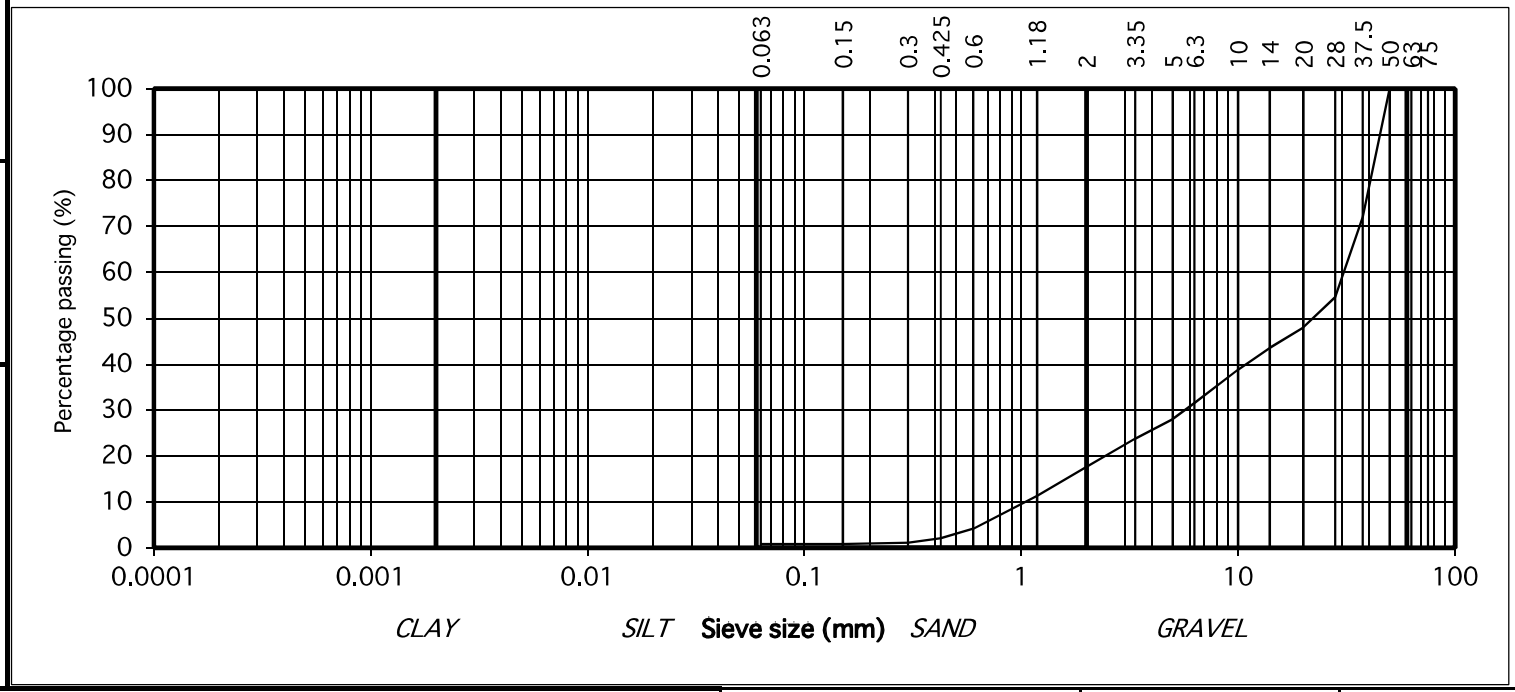
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	72	
28	55	
20	48	
14	44	
10	39	
6.3	32	
5	28	
3.35	24	
2	18	
1.18	11	SAND
0.6	4	
0.425	2	
0.3	1	
0.15	1	
0.063	1	SILT/CLAY

Contract No.	23560	Report No.	R143975	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP142904			
Sample No.*	AA152184	Lab. Sample No.		A22/3281
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Brown slightly clayey/silty, sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

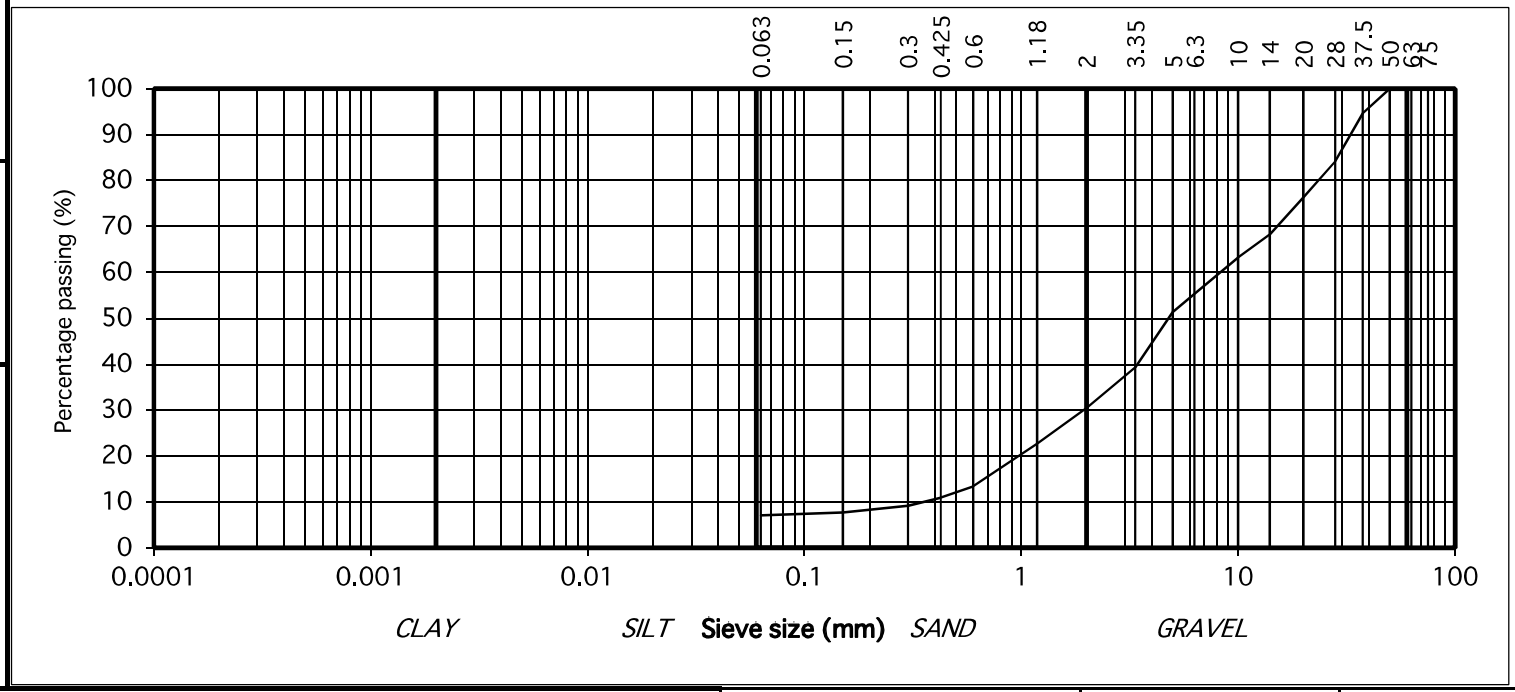
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	84	
20	76	
14	68	
10	63	
6.3	55	
5	51	
3.35	39	
2	30	
1.18	23	SAND
0.6	13	
0.425	11	
0.3	9	
0.15	8	
0.063	7	SILT/CLAY

Contract No.	23560	Report No.	R137374	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP143006			
Sample No.*	AA152188	Lab. Sample No.		A22/3282
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown clayey/silty, very sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requieements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

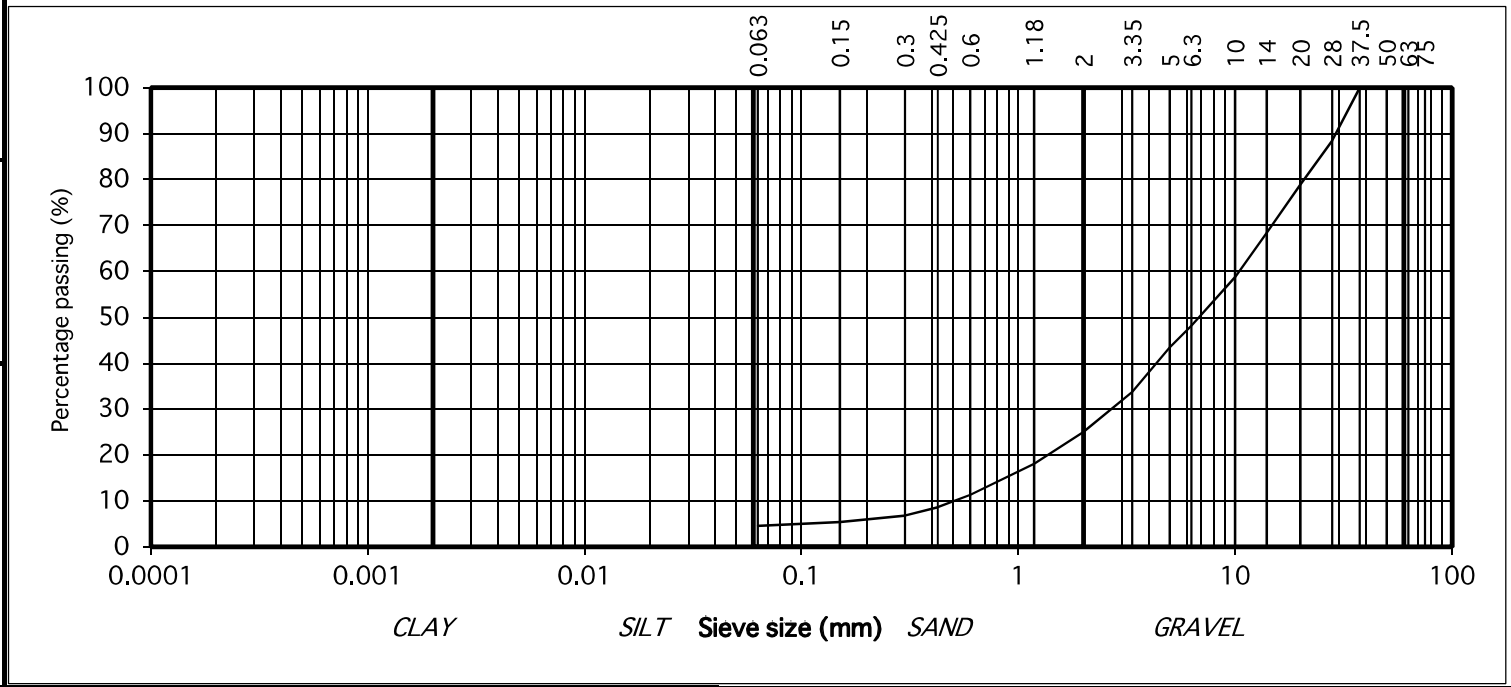
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	89	
20	79	
14	68	
10	59	
6.3	48	
5	43	
3.35	34	
2	25	
1.18	18	SAND
0.6	11	
0.425	9	
0.3	7	
0.15	5	
0.063	5	SILT/CLAY

Contract No.	23560	Report No.	R137375	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP143104			
Sample No.*	AA152188	Lab. Sample No.		A22/3283
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown slightly clayey/silty, very sandy, GRAVEL			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4 Sample size did not meet the requieements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

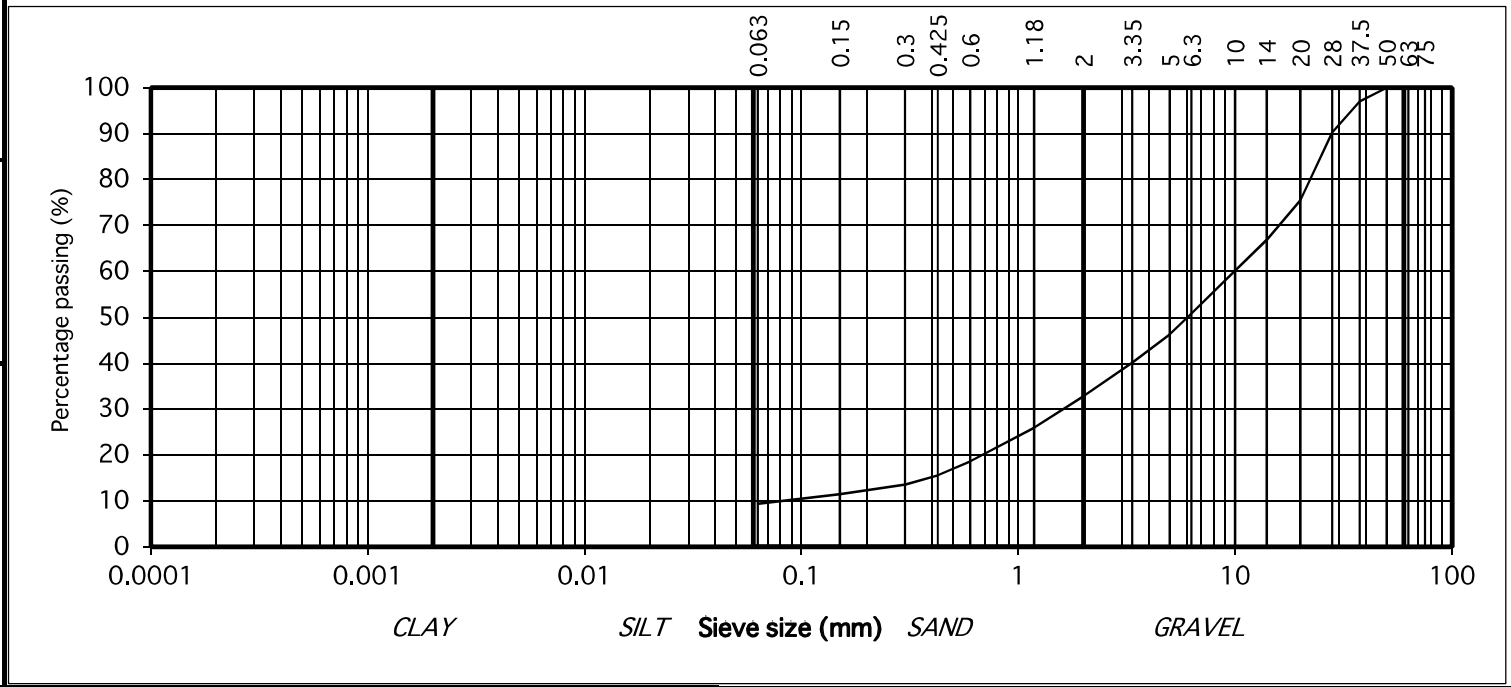
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	90	
20	76	
14	67	
10	60	
6.3	51	
5	46	
3.35	40	
2	33	
1.18	26	SAND
0.6	19	
0.425	16	
0.3	14	
0.15	11	
0.063	9	SILT/CLAY

Contract No.	23560	Report No.	R137376	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP143303			
Sample No.*	AA156005	Lab. Sample No.		A22/3284
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown/Black clayey/silty, very sandy, GRAVEL			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

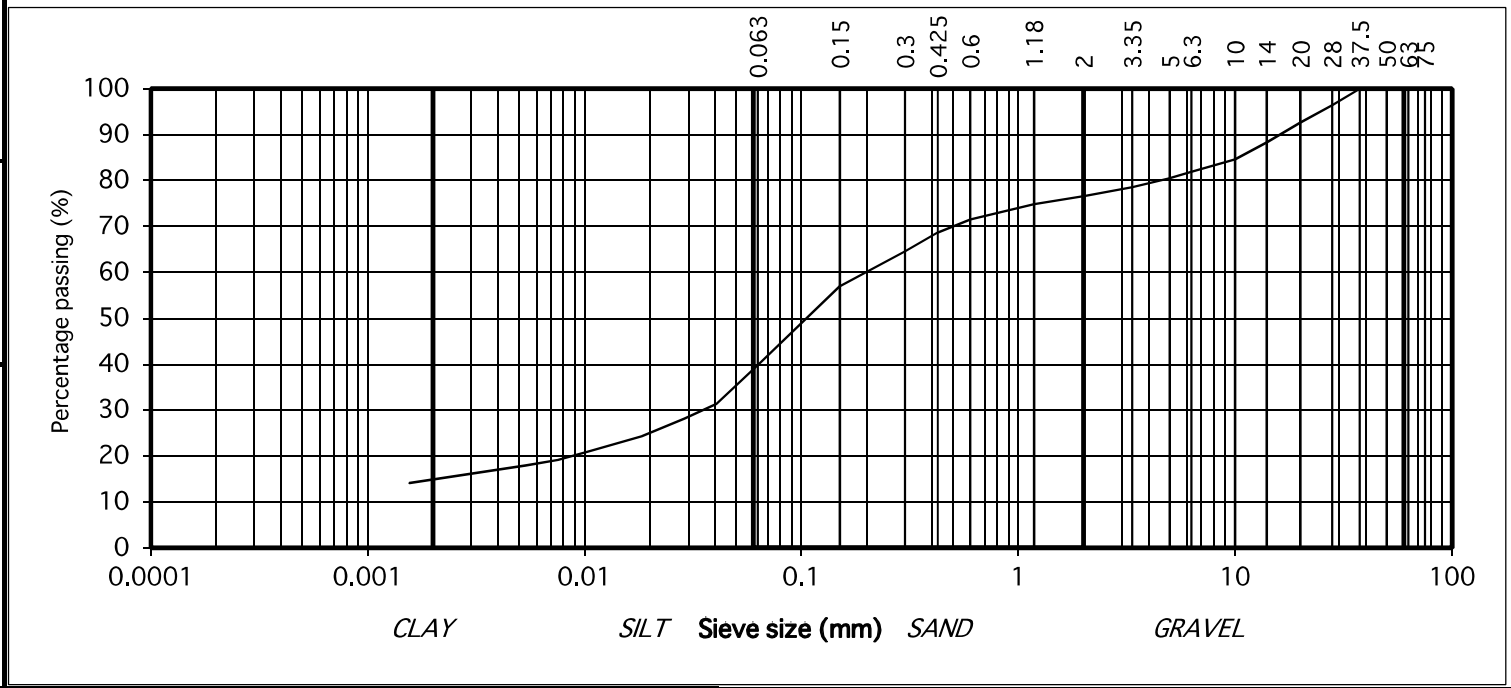
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	93	
14	88	
10	85	
6.3	82	
5	80	
3.35	79	
2	77	
1.18	75	SAND
0.6	72	
0.425	69	
0.3	65	
0.15	57	
0.063	40	SILT/CLAY
0.041	31	
0.029	28	
0.018	24	
0.011	21	
0.008	19	
0.005	18	
0.002	14	

Contract No.	23560	Report No.	R137377	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP143502			
Sample No.*	AA173647	Lab. Sample No.		A22/3285
Sample Type:	B			
Depth* (m)	3.00	Customer:	Ervia	
Date Received	12/07/2022	Date Testing started		12/07/2022
Description:	Brown/Black sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

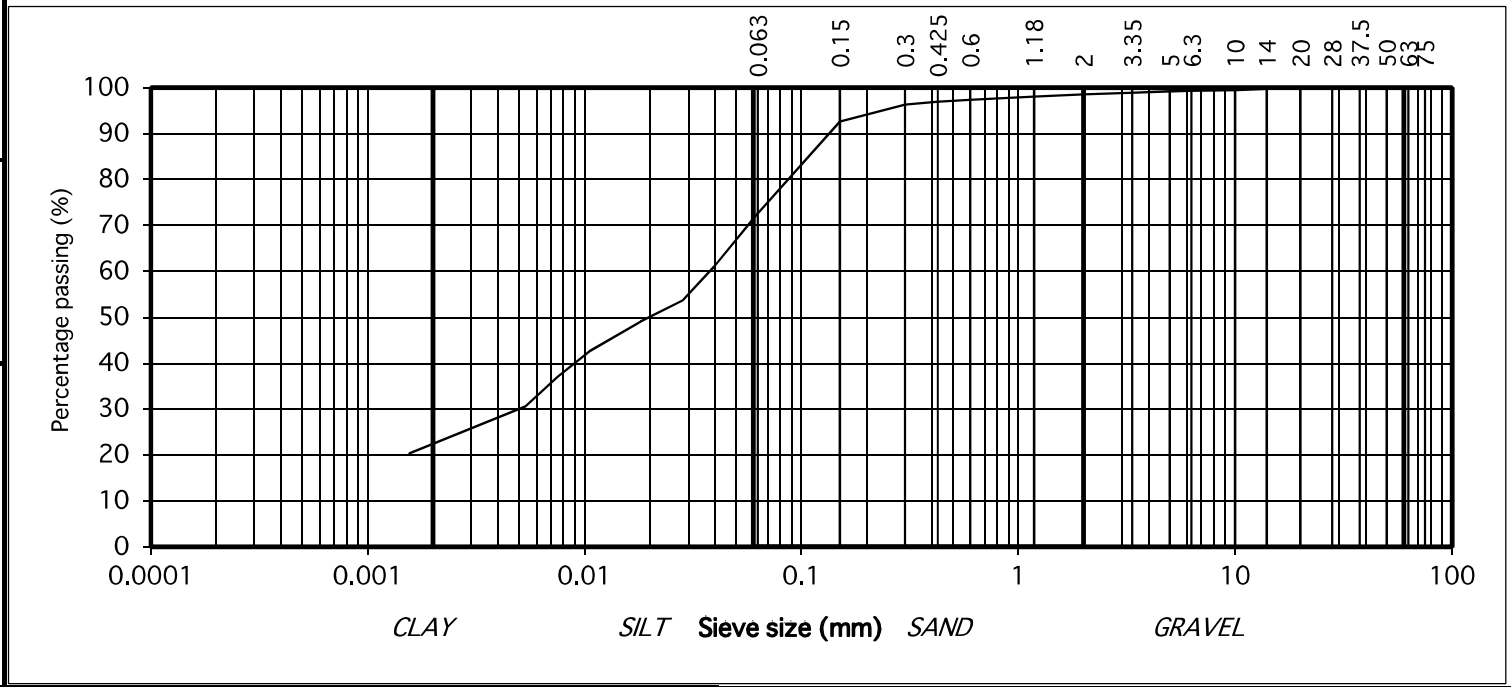
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	99	
5	99	
3.35	99	
2	99	
1.18	98	SAND
0.6	97	
0.425	97	
0.3	96	
0.15	93	
0.063	73	SILT/CLAY
0.040	61	
0.028	54	
0.018	49	
0.011	43	
0.007	37	
0.005	31	
0.002	20	

Contract No.	23560	Report No.	R137378	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP144592			
Sample No.*	AA173649	Lab. Sample No.		A22/3286
Sample Type:	B			
Depth* (m)	1.00	Customer:	Ervia	
Date Received	13/07/2022	Date Testing started		13/07/2022
Description:	Brown/Black slightly sandy, slightly gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	20/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

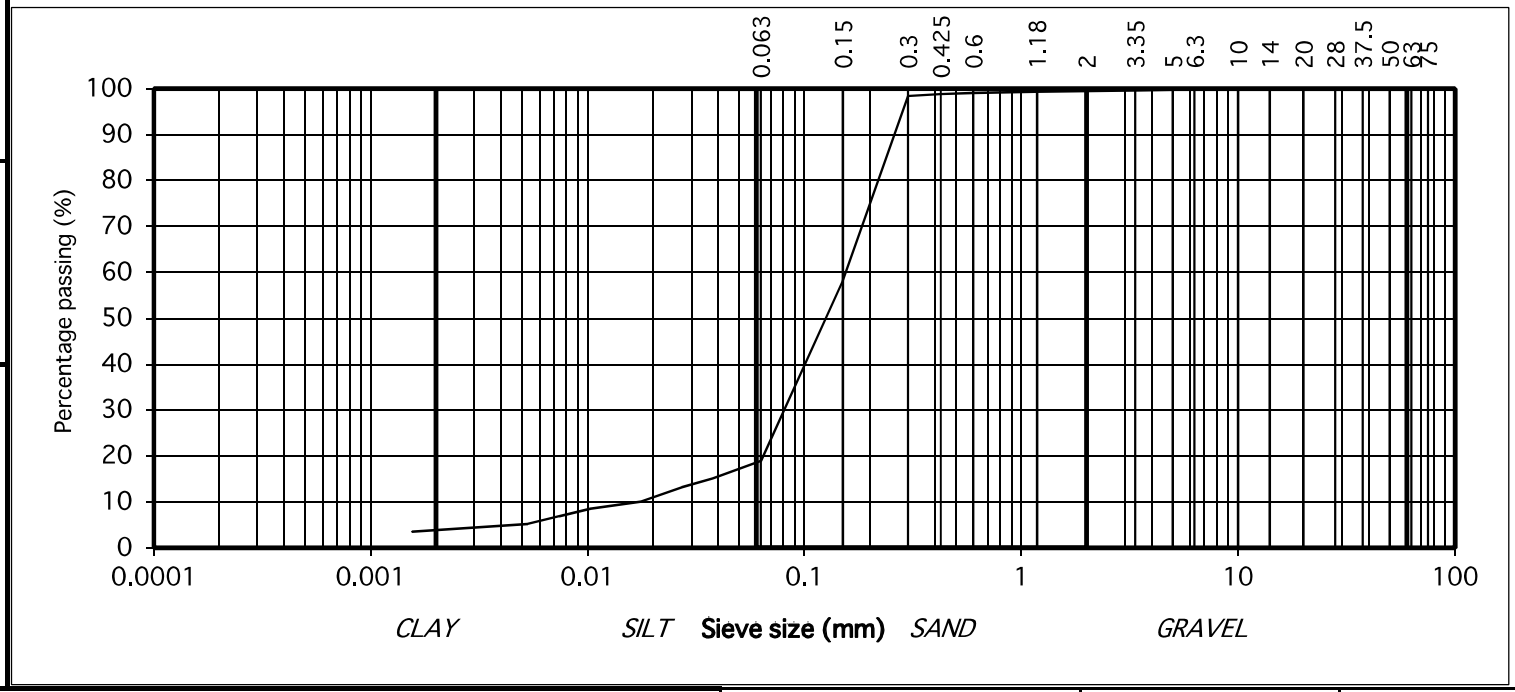
ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	100	
1.18	99	SAND
0.6	99	
0.425	99	
0.3	98	
0.15	58	
0.063	19	SILT/CLAY
0.038	15	
0.027	13	
0.018	10	
0.010	9	
0.007	7	
0.005	5	
0.002	4	

Contract No.	23560	Report No.	R144024	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP144592			
Sample No.*	AA173650	Lab. Sample No.		A22/3287
Sample Type:	B			
Depth* (m)	2.00	Customer:	Ervia	
Date Received	08/08/2022	Date Testing started		08/08/2022
Description:	Grey clayey/silty, SAND			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	29/09/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

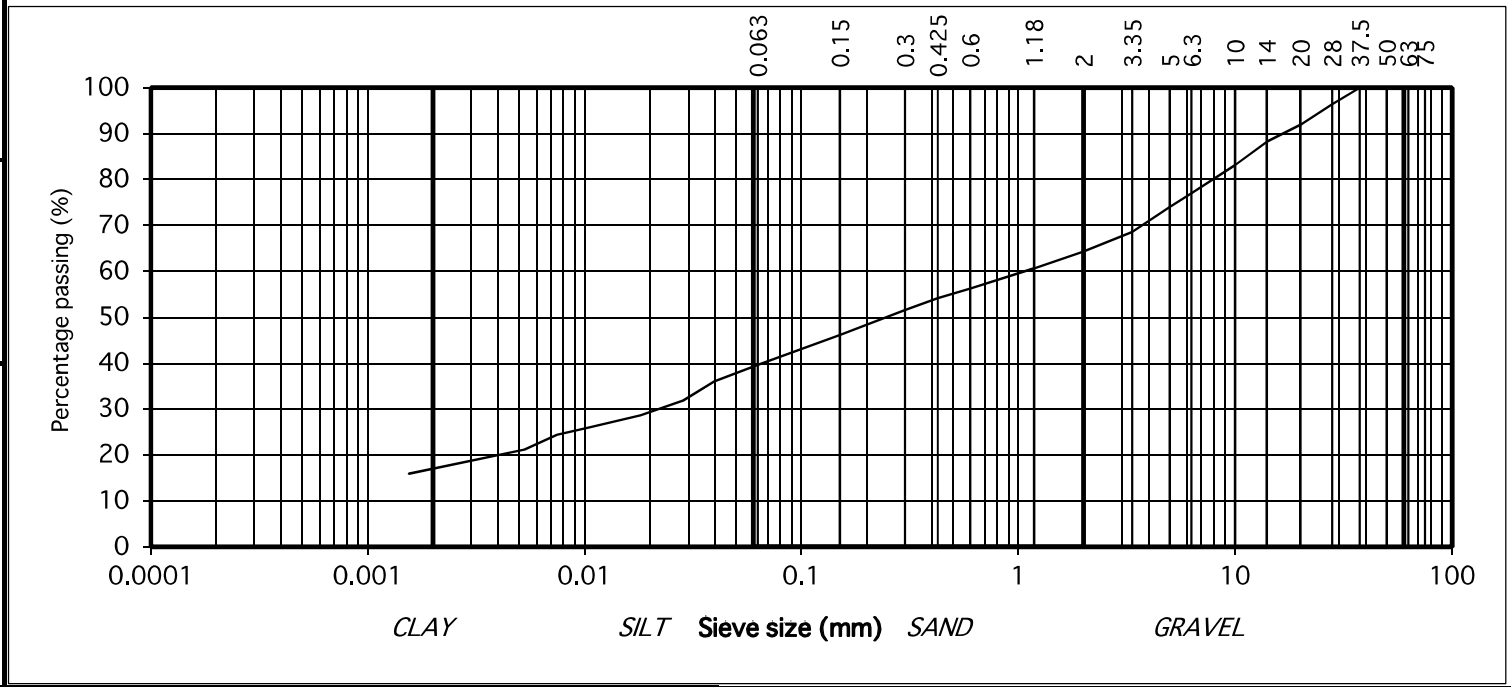
particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	92	
14	88	
10	83	
6.3	77	
5	74	
3.35	69	
2	64	
1.18	61	SAND
0.6	56	
0.425	54	
0.3	52	
0.15	46	
0.063	40	SILT/CLAY
0.040	36	
0.028	32	
0.018	29	
0.010	26	
0.007	24	
0.005	21	
0.002	16	

Contract No.	23560	Report No.	R137183	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134281			
Sample No.*	AA179494	Lab. Sample No.		A22/3273
Sample Type:	B			
Depth* (m)	3.50	Customer:	Ervia	
Date Received	01/07/2022	Date Testing started		01/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Remarks: Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	12/08/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

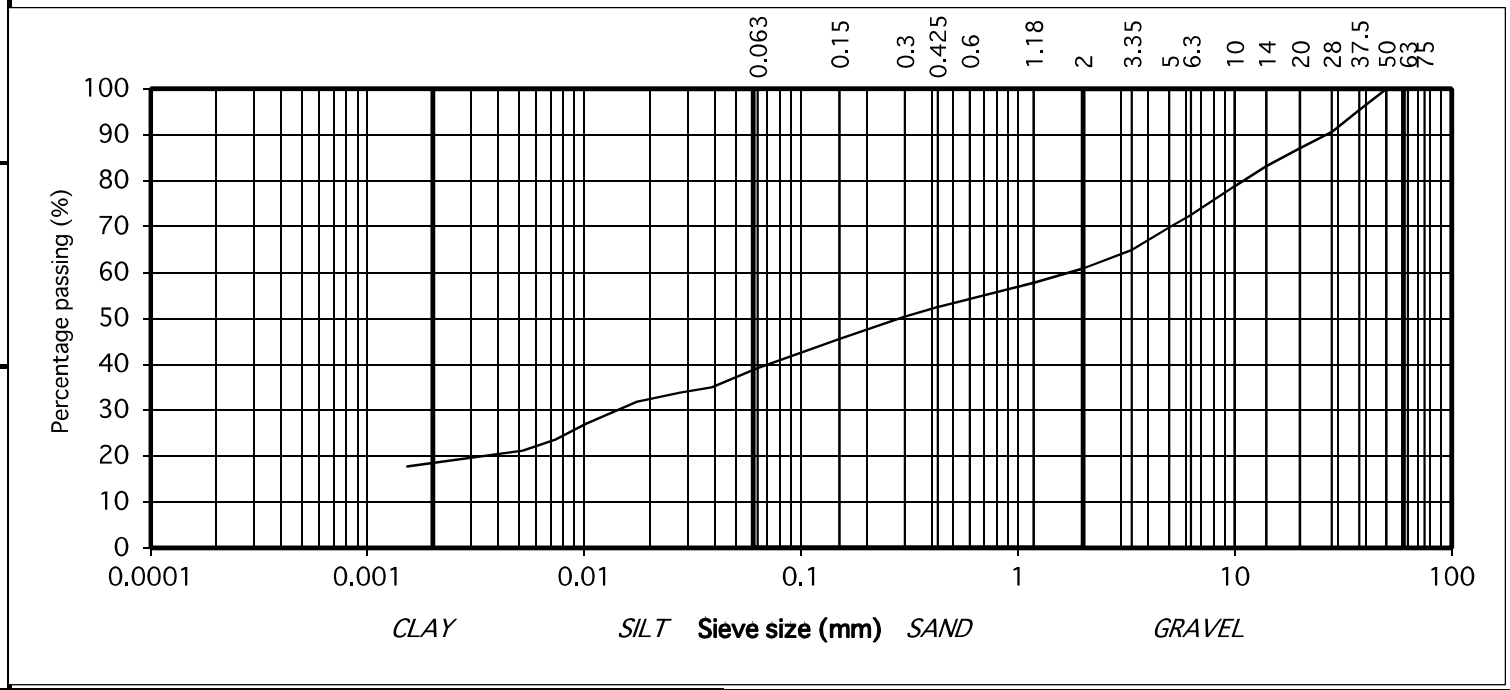
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	91	
20	87	
14	83	
10	79	
6.3	73	
5	70	
3.35	65	
2	61	
1.18	58	SAND
0.6	54	
0.425	53	
0.3	50	
0.15	46	
0.063	39	SILT/CLAY
0.039	35	
0.027	34	
0.017	32	
0.010	27	
0.007	24	
0.005	21	
0.002	18	

Contract No.	23560	Report No.	R136486	
Contract Name:	WSP - Lot 3			
BH/TP* :	TP134296			
Sample No.*	AA174479	Lab. Sample No.		A22/2538
Sample Type:	B			
Depth* (m)	1.50	Customer:	Ervia	
Date Received	06/07/2022	Date Testing started		06/07/2022
Description:	Brown slightly sandy, gravelly, SILT/CLAY			
Remarks	Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .			

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
	22/07/22	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Dry Density/Moisture Content Relationship

Tested in accordance with BS1377:Part 4:1990

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

Report No. R143944 Contract No. 23560

Contract Name: WSP - Lot 3

Location*: BH108988

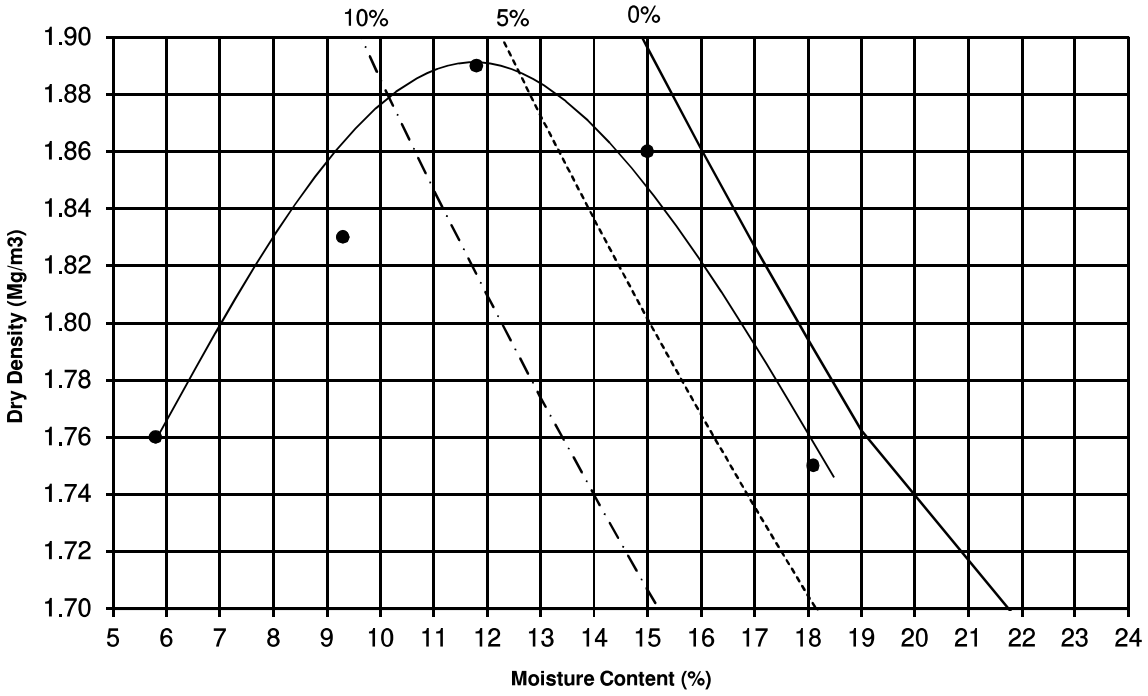
Sample No*. AA179125 Depth* (m) 2 Material Type B

Lab sample no. A22/6621 Customer: Ervia

Date Received: 21/12/2022 Test Method: 2.5 KG Rammer

Date Tested: 21/12//22 BS1377:Part 4:1990 3.3

Dry Density (Mg/m^3)	1.86	1.75	1.89	1.83	1.76		
Moisture Content (%)	15	18	12	9.3	5.8		



Maximum Dry Density (Mg/m^3): 1.89 Optimum Moisture Content (%): 12

Description: Brown sandy gravelly SILT/CLAY

Sample Preparation: Material passing 20mm ~~Single~~ / Separate samples used

Particle Density (Mg/m^3): 2.65 Particle Density: Assumed

% retained on 20/37.5mm sieve: 16

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information
This report shall not be reproduced except in full without the written approval of the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
	H Byrne	23/12/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Dry Density/Moisture Content Relationship

Tested in accordance with BS1377:Part 4:1990

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

Report No. R143943 Contract No. 23560

Contract Name: WSP - Lot 3

Location*: BH126725

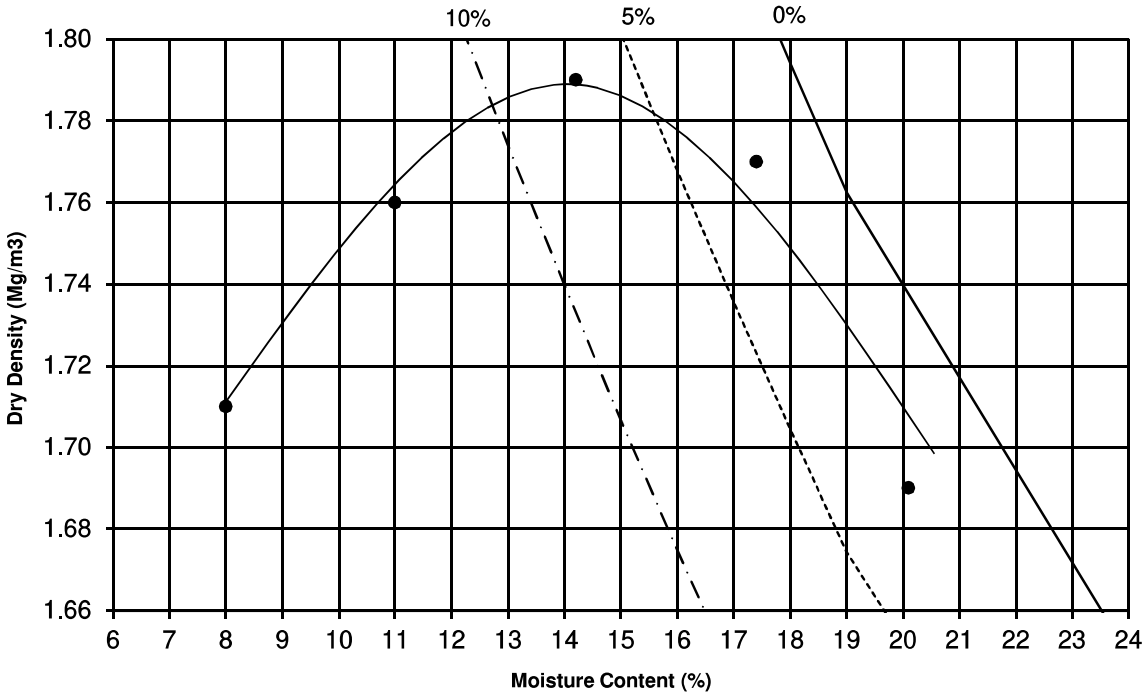
Sample No*. AA173395 Depth* (m) 3 Material Type B

Lab sample no. A22/6634 Customer: Ervia

Date Received: 21/12/2022 Test Method: 2.5 KG Rammer

Date Tested: 21/12//22 BS1377:Part 4:1990 3.3

Dry Density (Mg/m^3)	1.77	1.71	1.76	1.79	1.69		
Moisture Content (%)	17	8.0	11	14	20		



Maximum Dry Density (Mg/m^3): 1.79 Optimum Moisture Content (%): 14

Description: Grey slightly gravelly sandy SILT

Sample Preparation: Material passing 20mm ~~Single~~ / Separate samples used

Particle Density (Mg/m^3): 2.65 Particle Density: Assumed

% retained on 20/37.5mm sieve: 3

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information
This report shall not be reproduced except in full without the written approval of the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
	H Byrne	23/12/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R134158**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	BH104020
Sample No.*	N/A
Depth* (m)	0.50
Sample Type:	B
Lab Sample No.	A22/2290
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	04/05/22
Date Tested:	09/05/22
Sample Cert:	Not Provided
Moisture Content (%):	18
% Particles > 20mm (By dry mass):	4
MCV:	3
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	13/05/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R144031**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	BH105990
Sample No.*	151448
Depth* (m)	2.00
Sample Type:	B
Lab Sample No.	A22/2389
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	01/06/22
Date Tested:	01/06/22
Sample Cert:	Not Provided
Moisture Content (%):	23
% Particles > 20mm (By dry mass):	4
MCV:	1.6
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/09/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

Report No.	**R139498**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	BH109609
Sample No.*	N/A
Depth* (m)	2.00
Sample Type:	B
Lab Sample No.	A22/2427
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	22/06/22
Date Tested:	22/06/22
Sample Cert:	Not Provided
Moisture Content (%):	10
% Particles > 20mm (By dry mass):	36
MCV:	5.8
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/09/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R141734**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	BH112619A
Sample No.*	175323
Depth* (m)	1.20
Sample Type:	B
Lab Sample No.	A22/6410
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	01/12/22
Date Tested:	01/12/22
Sample Cert:	Not Provided
Moisture Content (%):	27
% Particles > 20mm (By dry mass):	4
MCV:	2.8
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy gravelly CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	21/12/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

Report No.	**R143966**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	BH123993
Sample No.*	AA173003
Depth* (m)	2.00
Sample Type:	B
Lab Sample No.	A22/3999
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	18/07/22
Date Tested:	18/07/22
Sample Cert:	Not Provided
Moisture Content (%):	22
% Particles > 20mm (By dry mass):	3
MCV:	1.6
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	27/07/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

Report No.	**R139503**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	Bh133258
Sample No.*	N/A
Depth* (m)	2.00
Sample Type:	B
Lab Sample No.	A22/2463
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	01/06/22
Date Tested:	01/06/22
Sample Cert:	Not Provided
Moisture Content (%):	12
% Particles > 20mm (By dry mass):	26
MCV:	1.2
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/09/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R139500**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	BH134610
Sample No.*	N/A
Depth* (m)	3.00
Sample Type:	B
Lab Sample No.	A22/2464
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	21/06/22
Date Tested:	21/06/22
Sample Cert:	Not Provided
Moisture Content (%):	15
% Particles > 20mm (By dry mass):	5
MCV:	1.5
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Grey sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/09/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R141740**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	BH138802
Sample No.*	N/A
Depth* (m)	2.00
Sample Type:	B
Lab Sample No.	A22/6649
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	01/12/22
Date Tested:	01/12/22
Sample Cert:	Not Provided
Moisture Content (%):	33
% Particles > 20mm (By dry mass):	1
MCV:	<1
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Grey sandy gravelly SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	21/12/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R134946**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP104425
Sample No.*	AA153558
Depth* (m)	2.00
Sample Type:	B
Lab Sample No.	A22/2546
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	04/05/22
Date Tested:	09/05/22
Sample Cert:	Not Provided
Moisture Content (%):	13
% Particles > 20mm (By dry mass):	6
MCV:	2
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	02/06/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R134945**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP104908
Sample No.*	AA173573
Depth* (m)	1.20
Sample Type:	B
Lab Sample No.	A22/2556
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	04/05/22
Date Tested:	09/05/22
Sample Cert:	Not Provided
Moisture Content (%):	16
% Particles > 20mm (By dry mass):	5
MCV:	3.2
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	02/06/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R143959**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP1116615
Sample No.*	AA162193
Depth* (m)	0.50
Sample Type:	B
Lab Sample No.	A22/2517
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	04/05/22
Date Tested:	09/05/22
Sample Cert:	Not Provided
Moisture Content (%):	15
% Particles > 20mm (By dry mass):	11
MCV:	3.7
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	02/06/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R134943**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP117703
Sample No.*	AA173584
Depth* (m)	0.50
Sample Type:	B
Lab Sample No.	A22/2563
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	04/05/22
Date Tested:	09/05/22
Sample Cert:	Not Provided
Moisture Content (%):	10
% Particles > 20mm (By dry mass):	30
MCV:	9
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	02/06/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

Report No.	**R139502**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP119502
Sample No.*	N/A
Depth* (m)	0.50
Sample Type:	B
Lab Sample No.	A22/2283
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	16/05/22
Date Tested:	16/05/22
Sample Cert:	Not Provided
Moisture Content (%):	20
% Particles > 20mm (By dry mass):	9
MCV:	0.9
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/09/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R137051**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP133108
Sample No.*	AA174489
Depth* (m)	1.50
Sample Type:	B
Lab Sample No.	A22/3241
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	15/07/22
Date Tested:	15/07/22
Sample Cert:	Not Provided
Moisture Content (%):	10
% Particles > 20mm (By dry mass):	42
MCV:	4.4
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	27/07/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R137055**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP133904
Sample No.*	AA152165
Depth* (m)	1.50
Sample Type:	B
Lab Sample No.	A22/3249
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	12/07/22
Date Tested:	12/07/22
Sample Cert:	Not Provided
Moisture Content (%):	14
% Particles > 20mm (By dry mass):	31
MCV:	3
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	27/07/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R137054**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP134001
Sample No.*	AA152142
Depth* (m)	1.50
Sample Type:	B
Lab Sample No.	A22/3254
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	12/07/22
Date Tested:	12/07/22
Sample Cert:	Not Provided
Moisture Content (%):	13
% Particles > 20mm (By dry mass):	16
MCV:	3.2
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	27/07/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Determination of Moisture Condition Value at Natural Moisture Content

Tested in accordance with BS1377:Part 4:1990, clause 5.4

Report No.	**R134944**
Contract No.	23560
Contract Name:	WSP Lot3
Customer:	Ervia
BH/TP*	TP134439
Sample No.*	AA174467
Depth* (m)	0.50
Sample Type:	B
Lab Sample No.	A22/2532
Source* (if applicable)	N/A
Material Type* (if applicable):	B
Sample Received:	04/05/22
Date Tested:	09/05/22
Sample Cert:	Not Provided
Moisture Content (%):	13
% Particles > 20mm (By dry mass):	11
MCV:	5
Interpretation of Plot:	Steepest Straight Line
Description of Soil:	Brown sandy, gravelly, SILT/CLAY

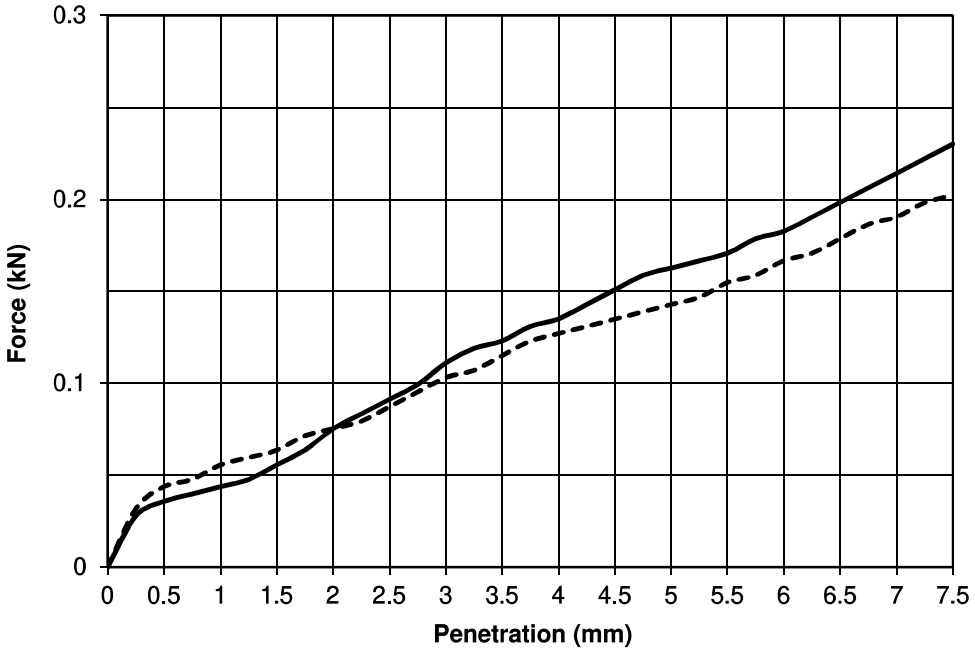
Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	02/06/22	1 of 1

IGSL Ltd Materials Laboratory Unit J5,M7 Business Park Naas Co.Kildare 045 899324	TEST REPORT Determination of California Bearing Ratio (CBR) Tested in accordance with BS1377:Part 4:1990, clause 7	ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R139494	Contract	WSP Lot3		
Contract No.	23560	Customer		Ervia	
Date received	27/05/22	Date Tested	27/05/22		
BH/TP No.*	BH133229	Sample No.*	N/A	Type:	B
Depth* (m)	0.50	Lab sample No.		A22/2458	



Key: ———— Top ---------- Base

Description:	Brown sandy gravelly SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	13	Bulk Density (Mg/m^3):	2.24
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.99
% Material >20mm:	6		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**0.8**	**0.7**
Moisture Content %	13	13

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

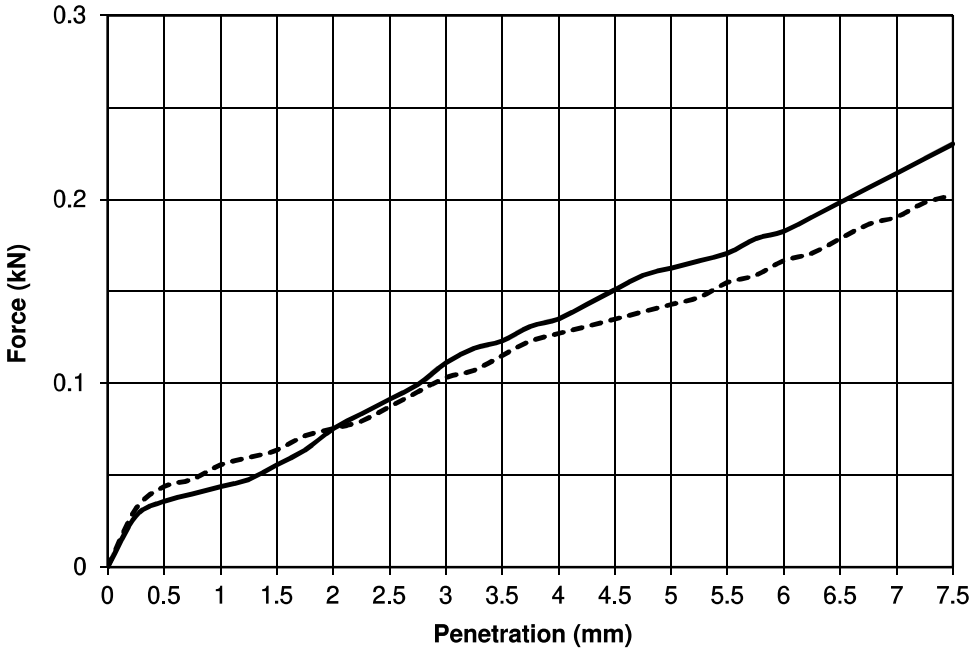
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	12/10/22	1 of 1

IGSL Ltd Materials Laboratory Unit J5,M7 Business Park Naas Co.Kildare 045 899324	TEST REPORT Determination of California Bearing Ratio (CBR) Tested in accordance with BS1377:Part 4:1990, clause 7	ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R139494	Contract	WSP Lot3		
Contract No.	23560	Customer		Ervia	
Date received	27/05/22	Date Tested	27/05/22		
BH/TP No.*	BH133229	Sample No.*	N/A	Type:	B
Depth* (m)	0.50	Lab sample No.		A22/2458	



Key: ———— Top ---------- Base

Description:	Brown sandy gravelly SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	13	Bulk Density (Mg/m^3):	2.24
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.99
% Material >20mm:	6		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**0.8**	**0.7**
Moisture Content %	13	13

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

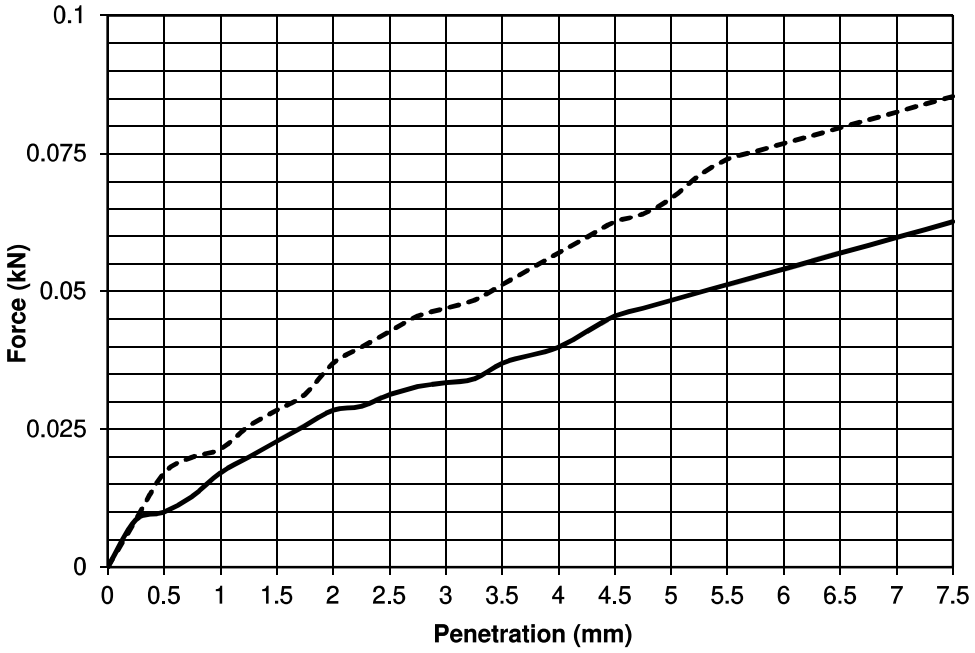
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	12/10/22	1 of 1

IGSL Ltd Materials Laboratory Unit J5,M7 Business Park Naas Co.Kildare 045 899324	TEST REPORT Determination of California Bearing Ratio (CBR) Tested in accordance with BS1377:Part 4:1990, clause 7	ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R137058	Contract	WSP Lot3		
Contract No.	23560	Customer	Ervia		
Date received	21/06/22	Date Tested	21/06/22		
BH/TP No.*	BH135516	Sample No.*	AA174102	Type:	B
Depth* (m)	1.20	Lab sample No.	A22/2473		



Key: ———— Top ---------- Base

Description:	Brown slightly sandy, gravelly, SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	16	Bulk Density (Mg/m^3):	2.16
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.87
% Material >20mm:	43.2		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**0.2**	**0.3**
Moisture Content %	16	15

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	27/07/22	1 of 1

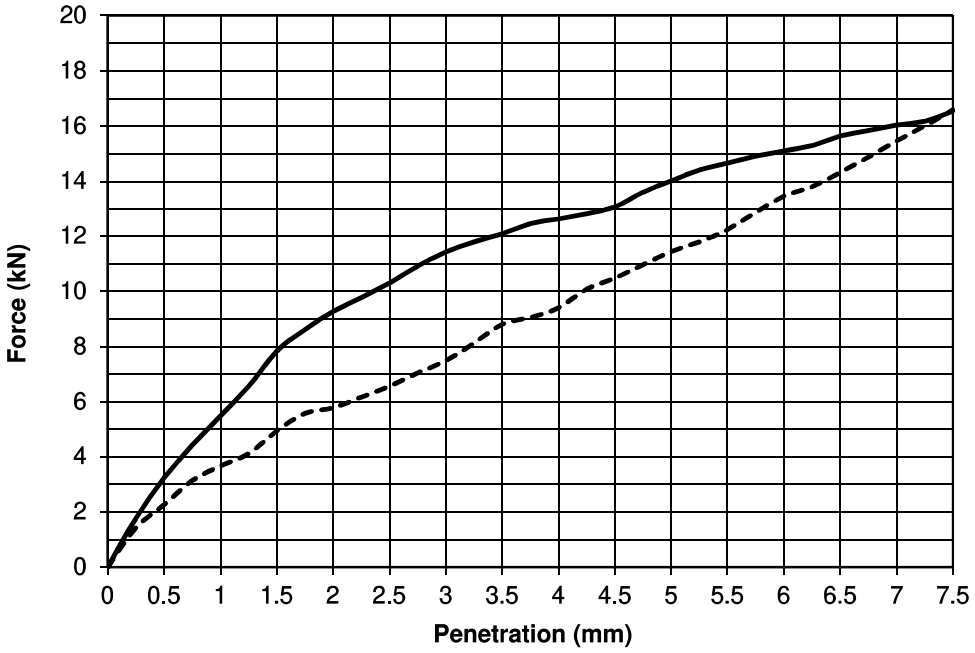
IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas Co.Kildare
045 899324

TEST REPORT
Determination of California Bearing Ratio (CBR)

Tested in accordance with BS1377:Part 4:1990, clause 7

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R139490	Contract	WSP Lot3		
Contract No.	23560	Customer	Ervia		
Date received	09/05/22	Date Tested	09/05/22		
BH/TP No.*	TP111704	Sample No.*	N/A	Type:	B
Depth* (m)	1.70	Lab sample No.	A22/2515		



Key: ———— Top ---------- Base

Description:	Brown silty/clayey sandy, GRAVEL		
Initial Condition:	Unsoaked		
Moisture Content (%):	6	Bulk Density (Mg/m^3):	2.11
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.99
% Material >20mm:	0		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**78**	**57**
Moisture Content %	6	6

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory.

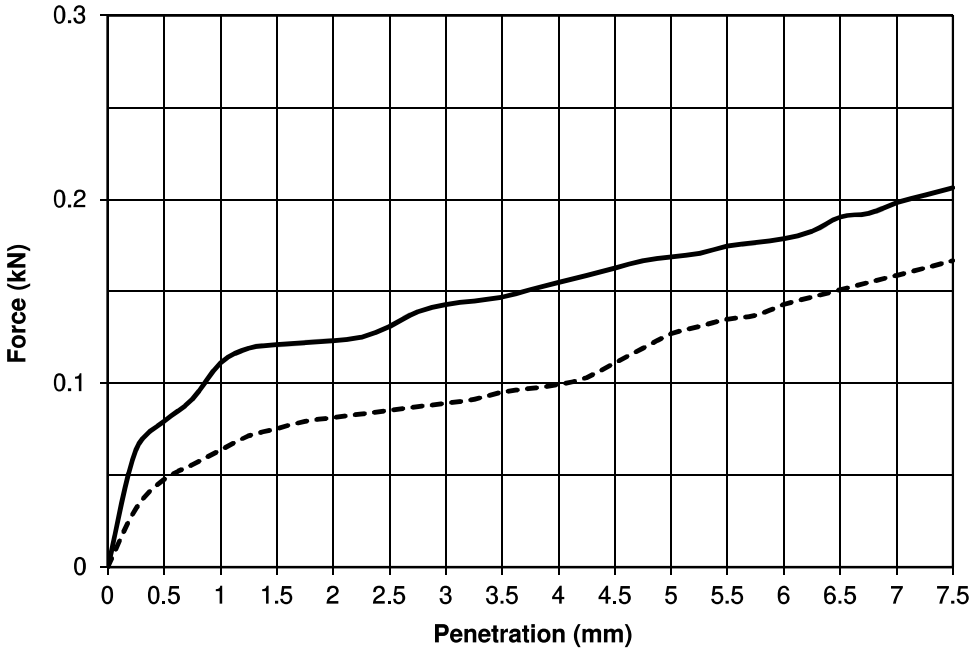
Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory

Approved by	Date	Page No.
H Byrne	12/10/22	1 of 1

IGSL Ltd Materials Laboratory Unit J5,M7 Business Park Naas Co.Kildare 045 899324	TEST REPORT Determination of California Bearing Ratio (CBR) Tested in accordance with BS1377:Part 4:1990, clause 7	ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R139491	Contract	WSP Lot3		
Contract No.	23560	Customer		Ervia	
Date received	09/05/22	Date Tested	09/05/22		
BH/TP No.*	TP1118605	Sample No.*	N/A	Type:	B
Depth* (m)	0.50	Lab sample No.		A22/2573	



Key: ———— Top ---------- Base

Description:	brown sandy gravelly SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	14	Bulk Density (Mg/m^3):	2.19
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.92
% Material >20mm:	0		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**1.0**	**0.6**
Moisture Content %	14	14

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

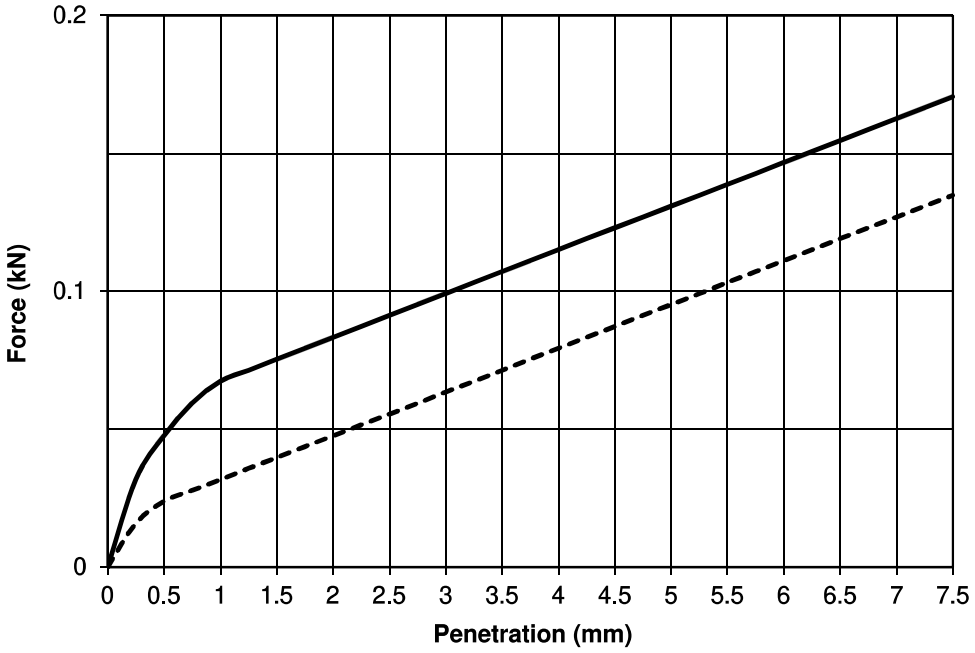
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	12/10/22	1 of 1

IGSL Ltd Materials Laboratory Unit J5,M7 Business Park Naas Co.Kildare 045 899324	TEST REPORT Determination of California Bearing Ratio (CBR) Tested in accordance with BS1377:Part 4:1990, clause 7	ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R139493	Contract	WSP Lot3		
Contract No.	23560	Customer	Ervia		
Date received	16/05/22	Date Tested	16/05/22		
BH/TP No.*	TP125902	Sample No.*	N/A	Type:	B
Depth* (m)	1.40	Lab sample No.		A22/2594	



Key: ———— Top ---------- Base

Description:	Brown sandy gravelly SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	11	Bulk Density (Mg/m^3):	2.28
Surcharge (kg):	4	Dry Density (Mg/m^3):	2.05
% Material >20mm:	12		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**0.7**	**0.5**
Moisture Content %	11	12

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

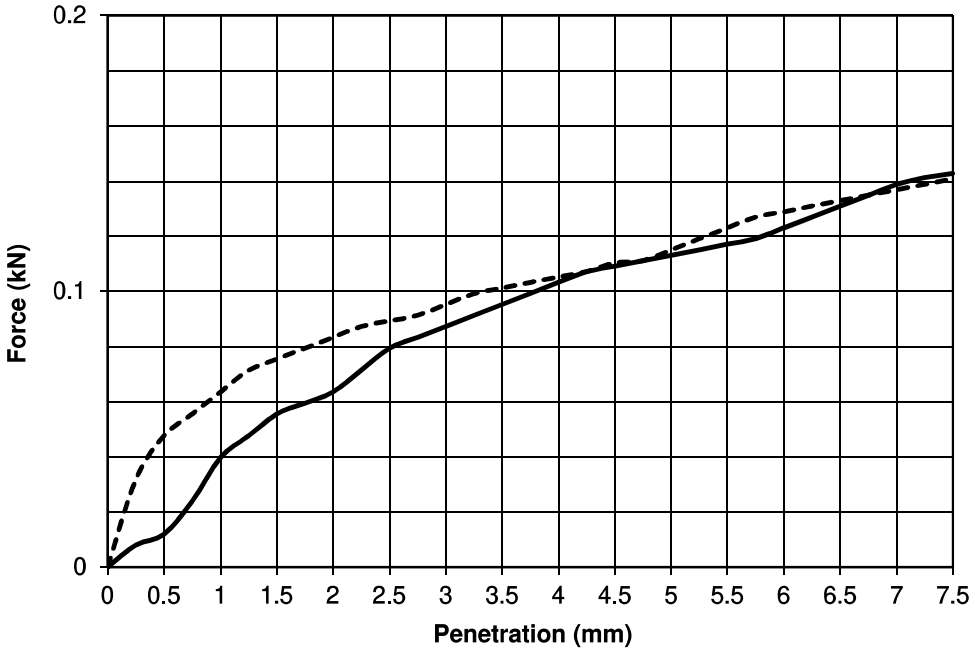
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	12/10/22	1 of 1

IGSL Ltd Materials Laboratory Unit J5,M7 Business Park Naas Co.Kildare 045 899324	TEST REPORT Determination of California Bearing Ratio (CBR) Tested in accordance with BS1377:Part 4:1990, clause 7	ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R137059	Contract	WSP Lot3		
Contract No.	23560	Customer	Ervia		
Date received	18/07/22	Date Tested	18/07/22		
BH/TP No.*	TP133012	Sample No.*	AA152174	Type:	B
Depth* (m)	1.50	Lab sample No.	A22/3237		



Key: ———— Top ---------- Base

Description:	Brown slightly sandy, gravelly, SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	13	Bulk Density (Mg/m^3):	2.24
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.98
% Material >20mm:	8.2		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**0.6**	**0.7**
Moisture Content %	13	13

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

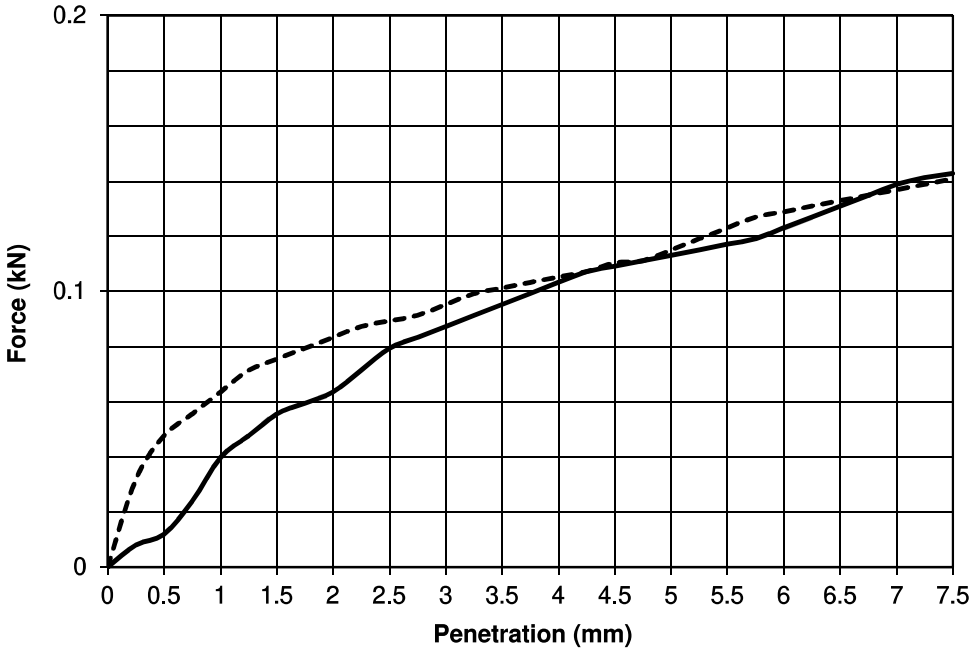
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	27/07/22	1 of 1

IGSL Ltd Materials Laboratory Unit J5,M7 Business Park Naas Co.Kildare 045 899324	TEST REPORT Determination of California Bearing Ratio (CBR) Tested in accordance with BS1377:Part 4:1990, clause 7	ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R137060	Contract	WSP Lot3		
Contract No.	23560	Customer		Ervia	
Date received	13/07/22	Date Tested	13/07/22		
BH/TP No.*	TP133780	Sample No.*	AA152167	Type:	B
Depth* (m)	1.50	Lab sample No.		A22/3247	



Key: ———— Top ---------- Base

Description:	Brown slightly sandy, gravelly, SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	13	Bulk Density (Mg/m^3):	2.24
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.98
% Material >20mm:	8.2		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**0.6**	**0.7**
Moisture Content %	13	13

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	27/07/22	1 of 1

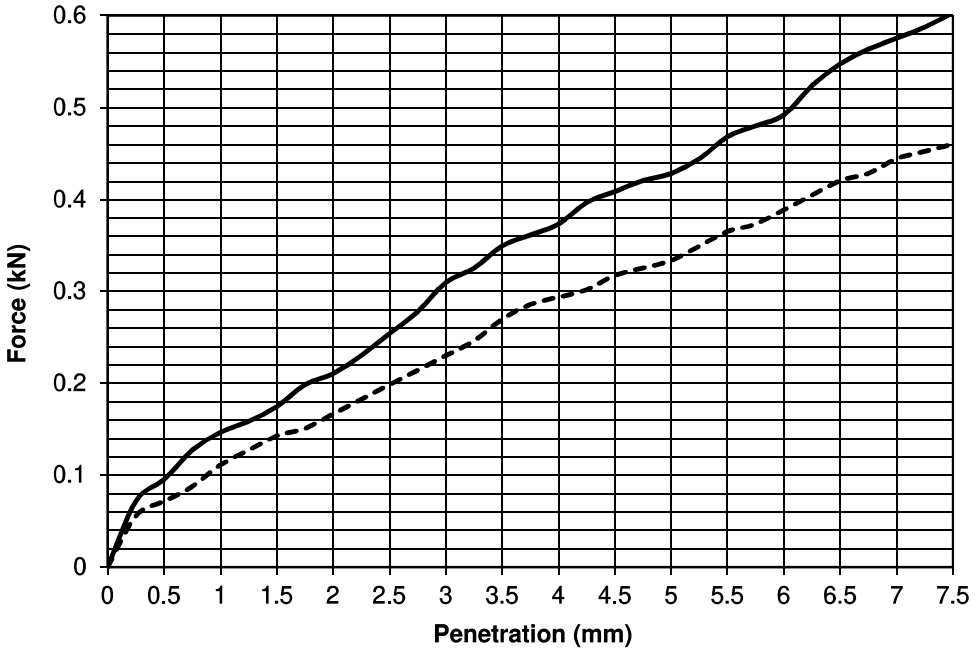
IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas Co.Kildare
045 899324

TEST REPORT
Determination of California Bearing Ratio (CBR)

Tested in accordance with BS1377:Part 4:1990, clause 7

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R137061	Contract	WSP Lot3		
Contract No.	23560	Customer	Ervia		
Date received	04/07/22	Date Tested	04/07/22		
BH/TP No.*	TH133989	Sample No.*	AA152145	Type:	B
Depth* (m)	1.50	Lab sample No.	A22/3251		



Key: ———— Top ---------- Base

Description:	Brown slightly sandy, gravelly, SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	11	Bulk Density (Mg/m^3):	2.28
Surcharge (kg):	4	Dry Density (Mg/m^3):	2.06
% Material >20mm:	16.5		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**2.2**	**1.7**
Moisture Content %	11	11

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory

Approved by	Date	Page No.
H Byrne	27/07/22	1 of 1

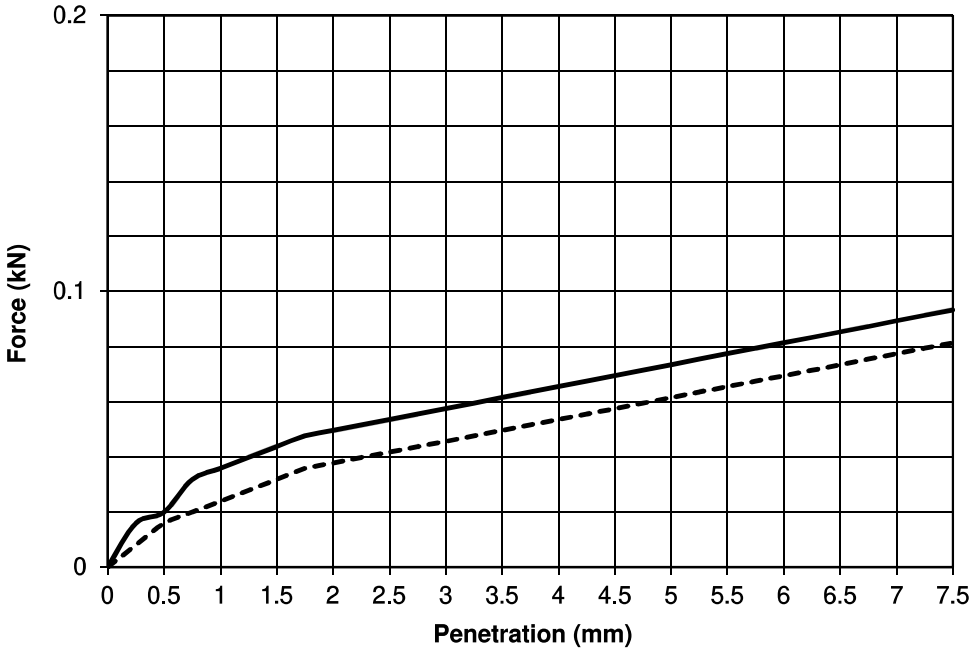
IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas Co.Kildare
045 899324

TEST REPORT
Determination of California Bearing Ratio (CBR)

Tested in accordance with BS1377:Part 4:1990, clause 7

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	R137062	Contract	WSP Lot3		
Contract No.	23560	Customer	Ervia		
Date received	04/07/22	Date Tested	04/07/22		
BH/TP No.*	TP134139	Sample No.*	AA179499	Type:	B
Depth* (m)	1.50	Lab sample No.	A22/3263		



Key: ———— Top ---------- Base

Description:	Brown slightly sandy, gravelly, SILT/CLAY		
Initial Condition:	Unsoaked		
Moisture Content (%):	13	Bulk Density (Mg/m^3):	2.24
Surcharge (kg):	4	Dry Density (Mg/m^3):	1.98
% Material >20mm:	9.2		
Method of compaction:	Static Compaction Method 2		

Test Result	Top	Base
CBR %	**0.4**	**0.3**
Moisture Content %	13	13

Results relate only to the specimen tested, in as received condition unless otherwise noted

Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorized to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

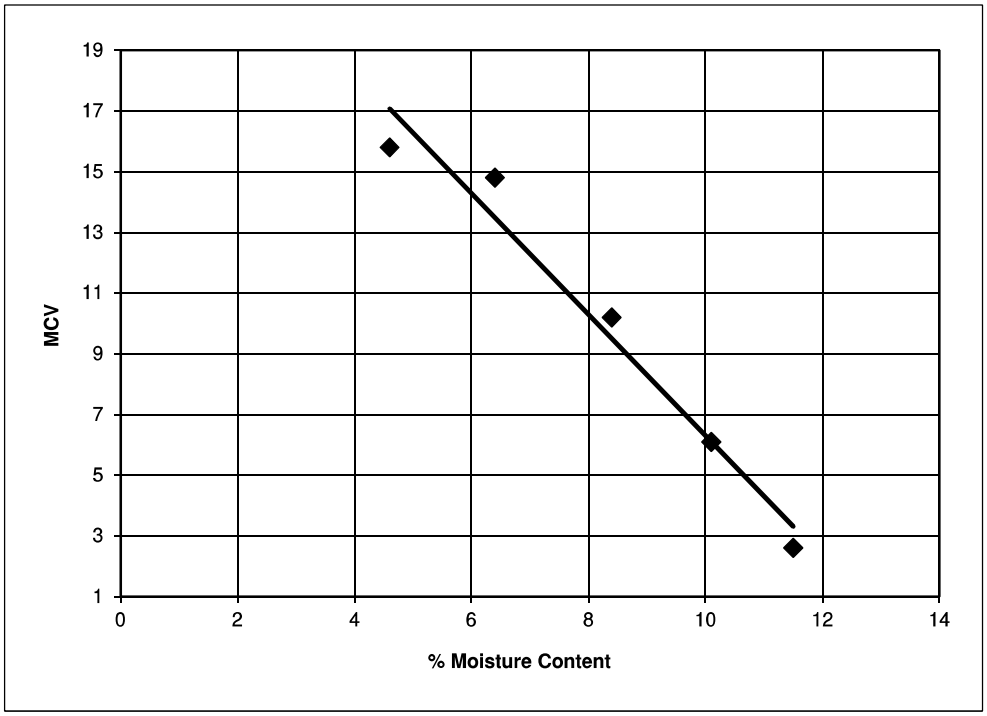
IGSL Ltd Materials Laboratory

Approved by	Date	Page No.
H Byrne	27/07/22	1 of 1

IGSL Ltd Materials Laboratory M7 Business Park Naas Co.Kildare 045 846176	TEST REPORT Determination of MCV / moisture content Relation of a soil Tested in accordance with BS1377-4:1990, clause 5.5	

Report No.	R134159	Contract	WSP - Lot 3
Contract No.	23560	Customer	Ervia
Date received	04/05/22	Date Tested	04/05/22
BH/TP No.	BH104405	Sample No. AA161831	Type: B
Depth (m)	3.0-3.5	Lab sample No.	A22/2306

MC%	12	10	8.4	6.4	4.6
MCV	2.6	6.1	10.2	14.8	15.8



% material >20mm 29

Persons authorized to approve reports

J Barrett (Quality Manager)

H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page No.
	H Byrne	13/05/22	1 of 1

One dimensional Consolidation

BS1377:Part 5:1990

Report No. R140183

Contract: WSP Lot 3 Contract number: 23560

BH: BH104020 Sample number: - Depth (m): 5.0

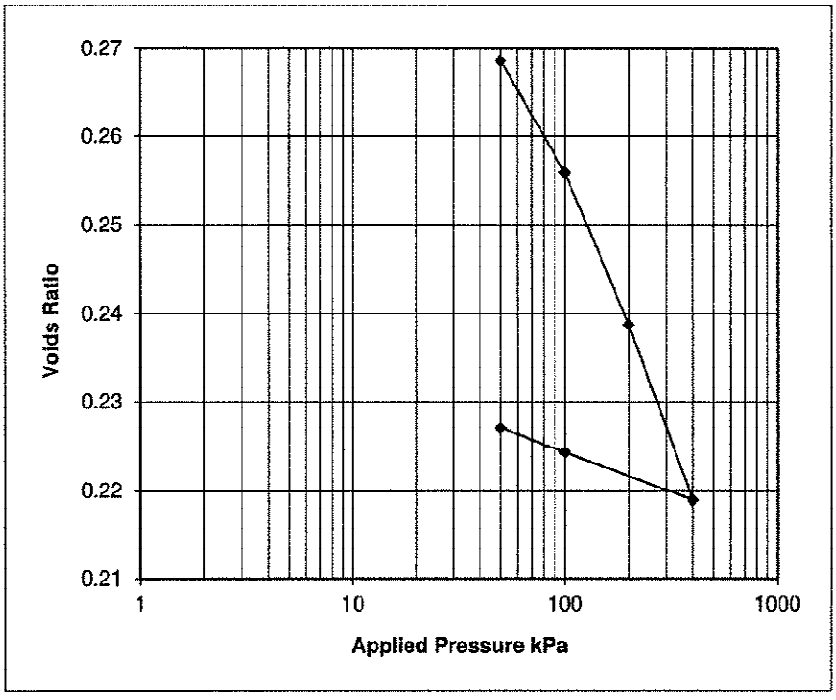
Description Grey slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.0 Specimen diameter (mm) 75.0

	Initial	Final
Moisture content %	12	14.9
Bulk density Mg/m^3	2.24	2.36
Dry density Mg/m^3	2.00	2.06
Void ratio	0.323	0.227

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 50	0.818	4.738	0.26864
50 - 100	0.200	4.497	0.25595
100 - 200	0.137	4.392	0.23876
200 - 400	0.080	3.992	0.21893
400 - 100	0.015	1.872	0.22435
100 - 50	0.043	0.678	0.22700



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R136367

Contract: WSP Lot 3 Contract number: 23560

BH: BH104135 Sample number: - Depth (m): 1.2

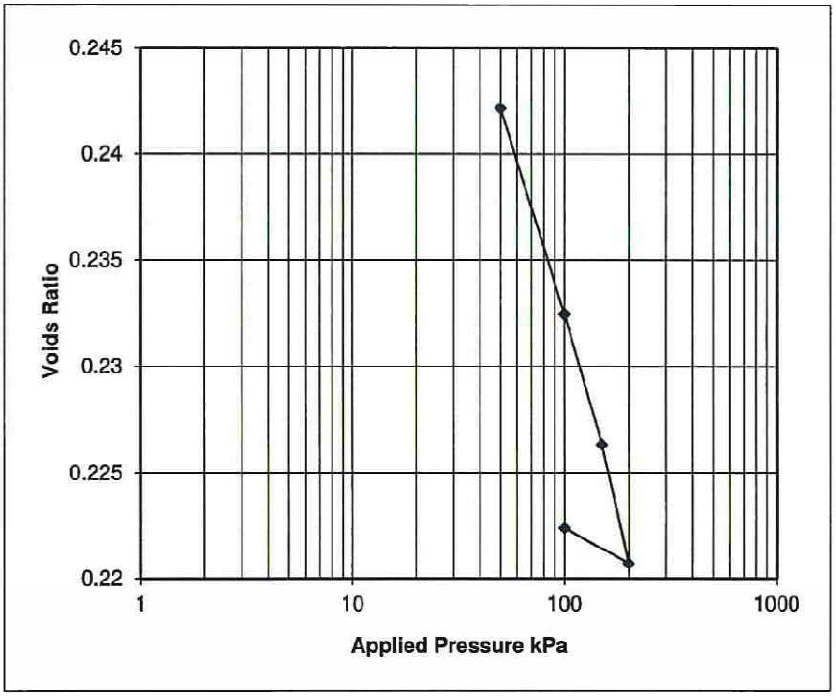
Description Greyish brown slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.0 Specimen diameter (mm) 75.0

	Initial	Final
Moisture content %	7.8	9.2
Bulk density Mg/m^3	2.24	2.36
Dry density Mg/m^3	2.07	2.16
Void ratio	0.278	0.222

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 50	0.556	43.218	0.24217
50 - 100	0.156	24.663	0.23247
100 - 150	0.099	20.575	0.22634
150 - 200	0.092	18.114	0.22072
200 - 100	0.014	1.393	0.22238



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R136368

Contract: WSP Lot 3 Contract number: 23560

BH: BH104405 Sample number: - Depth (m): 2.5

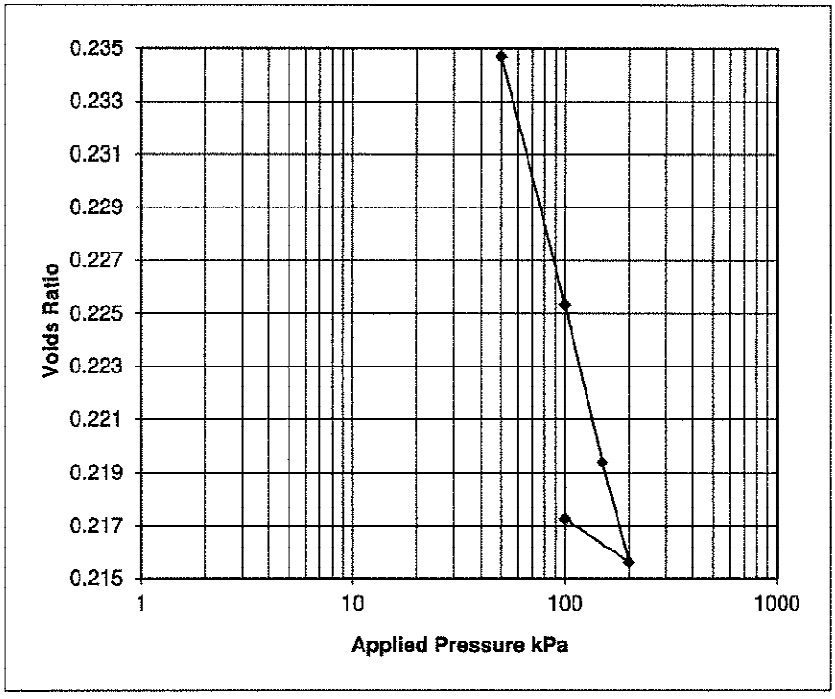
Description Greyish brown slightly sandy slightly gravelly SILT/CLAY with cobbles

Specimen Height (mm) 20.0 Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	12	13
Bulk density Mg/m^3	2.34	2.43
Dry density Mg/m^3	2.10	2.15
Void ratio	0.265	0.217

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 50	0.472	43.402	0.23470
50 - 100	0.151	42.052	0.22534
100 - 150	0.097	41.531	0.21940
150 - 200	0.062	29.429	0.21561
200 - 100	0.014	1.521	0.21726



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R137274

Contract: WSP Lot 3 Contract number: 23560

BH: BH104946 Sample number: - Depth (m): 3.0

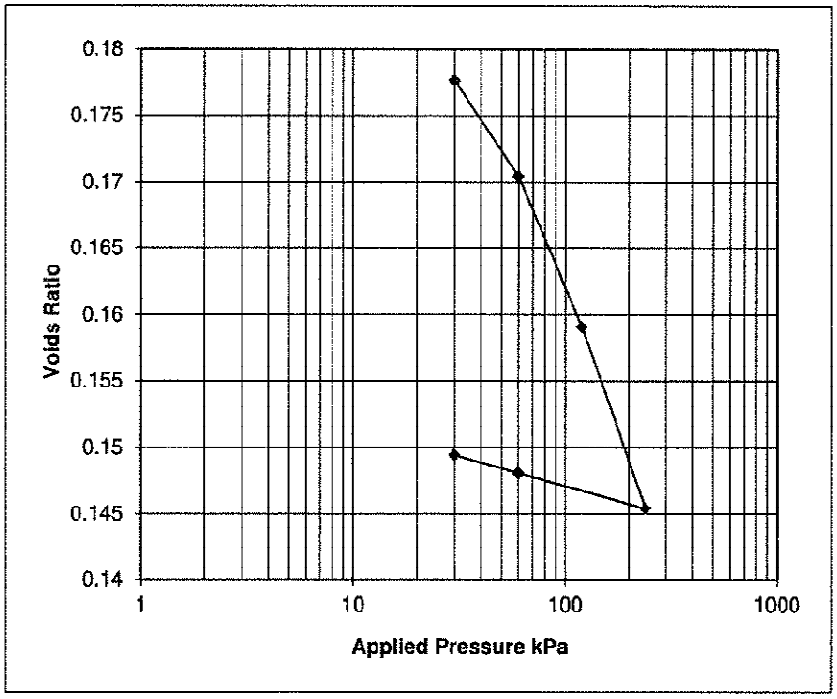
Description Brown slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.0 Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	9.6	9.2
Bulk density Mg/m^3	2.38	2.61
Dry density Mg/m^3	2.17	2.39
Void ratio	0.221	0.149

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 30	1.196	6.858	0.17763
30 - 60	0.204	5.632	0.17043
60 - 120	0.162	4.805	0.15907
120 - 240	0.098	4.703	0.14540
240 - 60	0.013	1.019	0.14808
60 - 30	0.039	0.902	0.14943



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R140184

Contract: WSP Lot 3 Contract number: 23560

BH: BH124210 Sample number: - Depth (m): 4.0

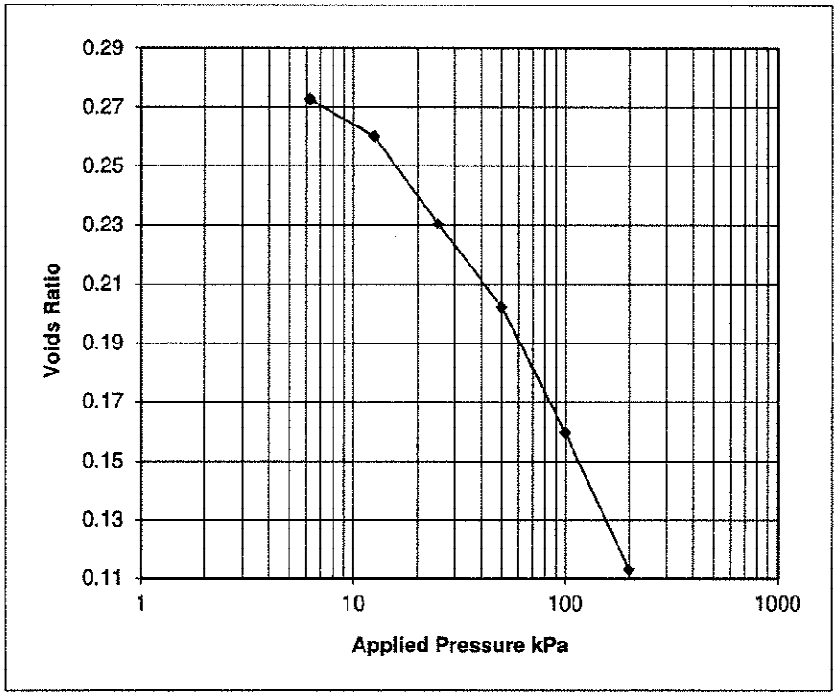
Description Grey sandy SILT/CLAY

Specimen Height (mm) 20.0 Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	12	11
Bulk density Mg/m^3	2.25	2.77
Dry density Mg/m^3	2.01	2.50
Void ratio	0.319	0.113

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 6.25	5.661	19.060	0.27259
6.25 - 12.5	1.592	10.236	0.25993
12.5 - 25	1.884	5.049	0.23026
25 - 50	0.913	4.197	0.20218
50 - 100	0.711	2.747	0.15945
100 - 200	0.403	2.543	0.11278



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R132726

Contract: WSP Lot 3 Contract number: 23560

BH: BH133311 Sample number: - Depth (m): 2.5

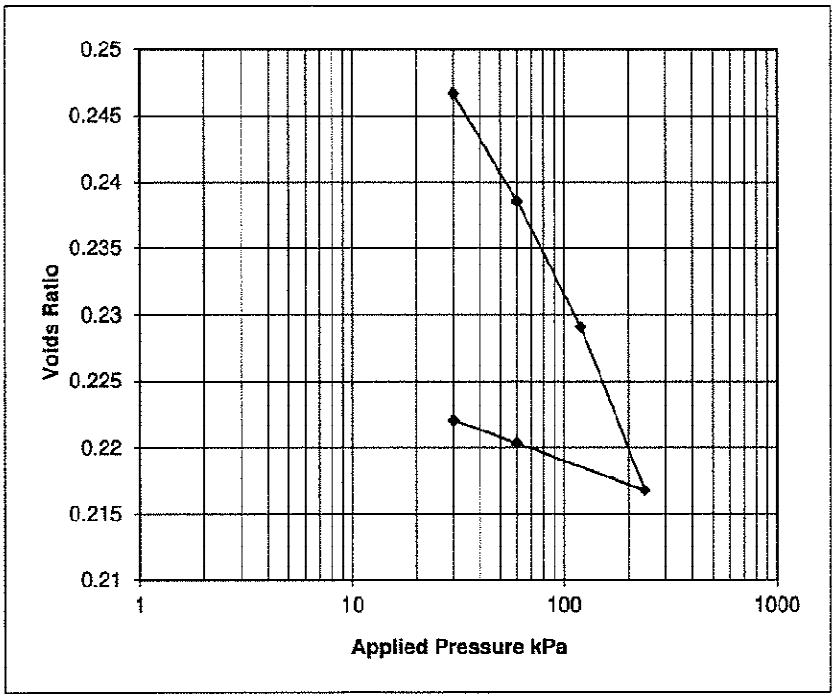
Description Greyish brown slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.0 Specimen diameter (mm) 75.0

	Initial	Final
Moisture content %	11	12
Bulk density Mg/m^3	2.29	2.41
Dry density Mg/m^3	2.07	2.15
Void ratio	0.283	0.222

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 30	0.946	29.994	0.24664
30 - 60	0.216	12.866	0.23856
60 - 120	0.128	12.685	0.22907
120 - 240	0.083	10.094	0.21676
240 - 60	0.016	0.713	0.22035
60 - 30	0.046	0.983	0.22202



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R140191

Contract: WSP Lot 3 Contract number: 23560

BH: BHRC133986 Sample number: - Depth (m): 5.5

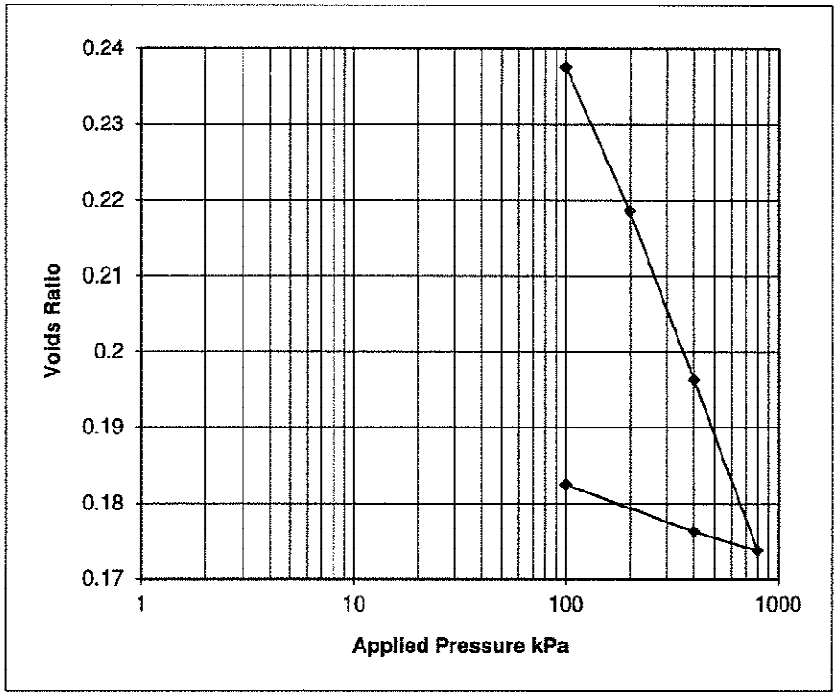
Description Brown slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 18.6 Specimen diameter (mm) 76.1

	Initial	Final
Moisture content %	8.5	11
Bulk density Mg/m^3	2.23	2.43
Dry density Mg/m^3	2.06	2.18
Void ratio	0.289	0.162

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 100	0.402	57.550	0.23754
100 - 200	0.154	20.589	0.21853
200 - 400	0.091	14.950	0.19633
400 - 800	0.047	12.656	0.17372
800 - 400	0.005	1.895	0.17622
400 - 100	0.018	0.737	0.18246



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R140186

Contract: WSP Lot 3 Contract number: 23560

BH: BH135965 Sample number: - Depth (m): 2.0

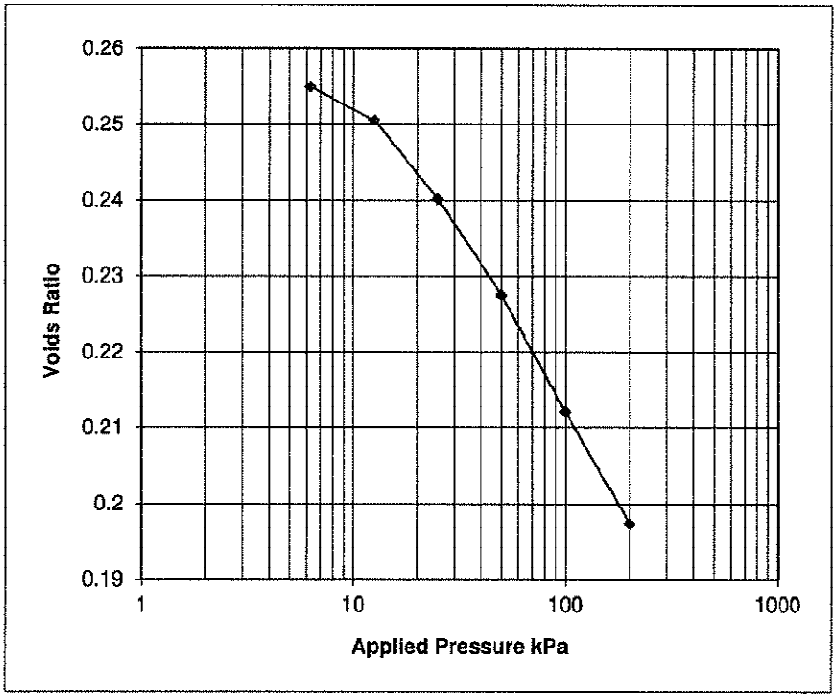
Description Brown slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.1 Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	11	12
Bulk density Mg/m^3	2.29	2.41
Dry density Mg/m^3	2.07	2.15
Void ratio	0.282	0.197

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 6.25	3.428	30.388	0.25489
6.25 - 12.5	0.554	29.630	0.25055
12.5 - 25	0.662	10.542	0.24020
25 - 50	0.408	5.280	0.22755
50 - 100	0.252	4.495	0.21208
100 - 200	0.121	3.854	0.19739



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R136369

Contract: WSP Lot 3 Contract number: 23560

BH: BH135695 Sample number: - Depth (m): 4.0

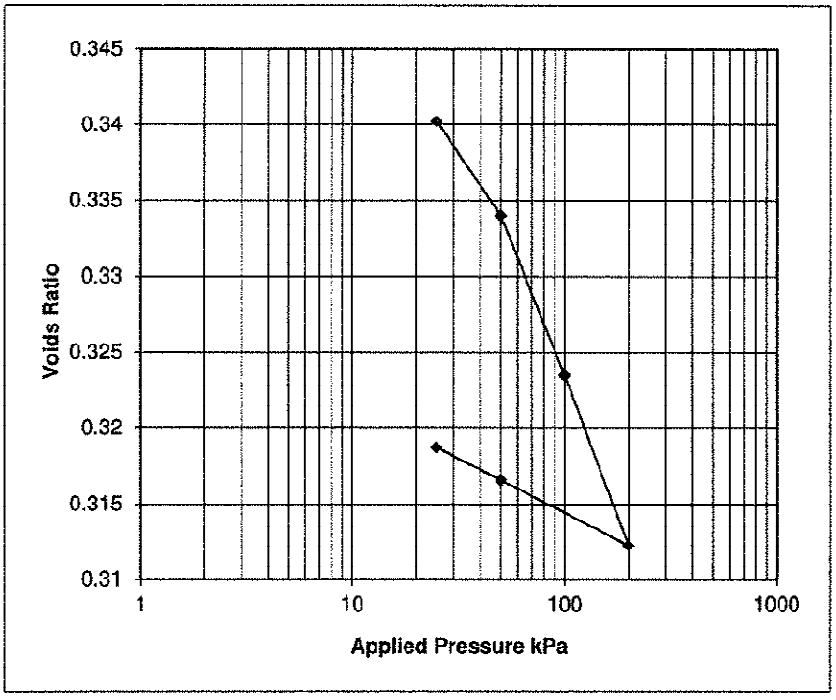
Description Greyish brown slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.1 Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	12	13
Bulk density Mg/m^3	2.19	2.26
Dry density Mg/m^3	1.96	2.01
Void ratio	0.355	0.319

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 25	0.442	19.653	0.34021
25 - 50	0.185	17.002	0.33399
50 - 100	0.158	11.906	0.32346
100 - 200	0.085	11.712	0.31225
200 - 50	0.022	1.988	0.31657
50 - 25	0.066	0.970	0.31873



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R136370

Contract: WSP Lot 3 Contract number: 23560

BH: BH139202 Sample number: - Depth (m): 6.0

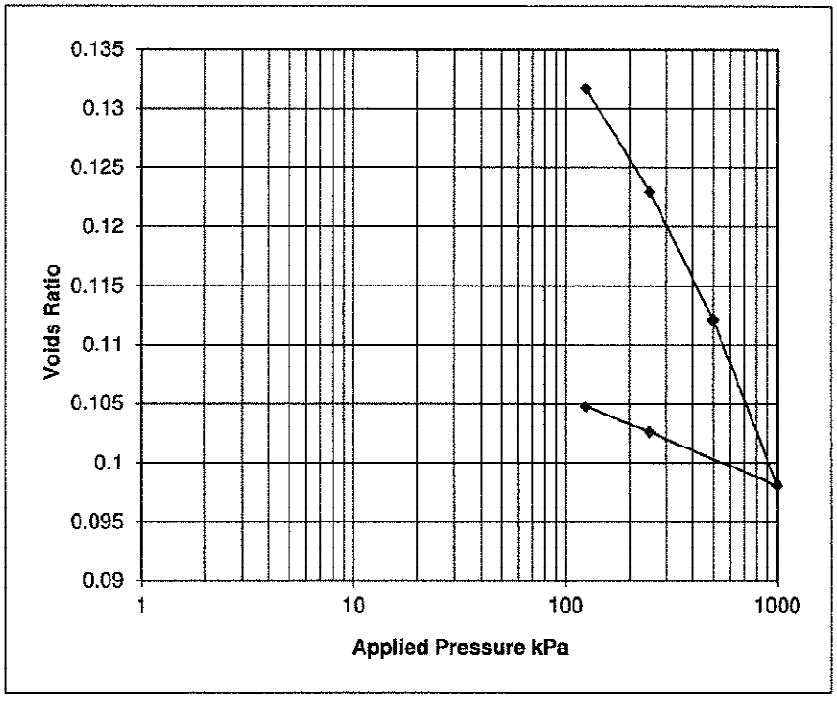
Description Greyish brown slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.0 Specimen diameter (mm) 75.0

	Initial	Final
Moisture content %	11	10
Bulk density Mg/m^3	2.49	2.64
Dry density Mg/m^3	2.25	2.40
Void ratio	0.178	0.105

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 125	0.313	52.746	0.13166
125 - 250	0.062	33.656	0.12295
250 - 500	0.039	17.787	0.11212
500 - 1000	0.025	17.394	0.09811
1000 - 250	0.005	4.311	0.10258
250 - 125	0.015	2.213	0.10470



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R137275

Contract: WSP Lot 3 Contract number: 23560

BH: BH139941 Sample number: - Depth (m): 4.0

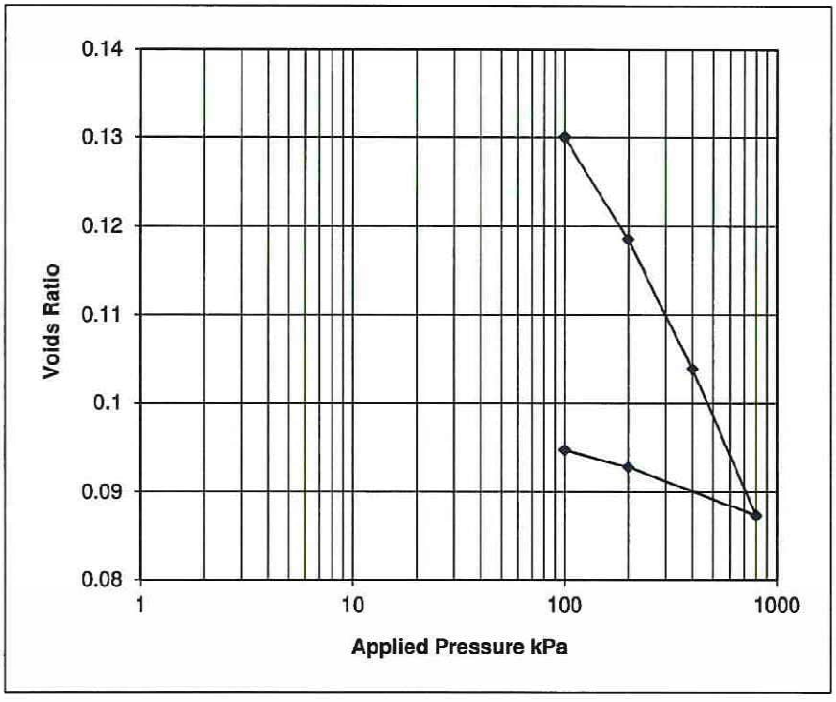
Description Grey slightly sandy slightly gravelly SILT/CLAY

Specimen Height (mm) 20.1 Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	11	9.9
Bulk density Mg/m^3	2.45	2.63
Dry density Mg/m^3	2.20	2.39
Void ratio	0.203	0.095

Assumed Particle density Mg/m^3 2.65

Applied Pressure (kPa)	m_v (m^2/MN)	c_v (m^2/year)	Voids Ratio
0 - 100	0.610	18.678	0.13001
100 - 200	0.102	9.756	0.11850
200 - 400	0.065	6.099	0.10387
400 - 800	0.037	5.482	0.08732
800 - 200	0.008	2.293	0.09283
200 - 100	0.018	1.026	0.09475



Determination of Shear Strength by Direct Shear

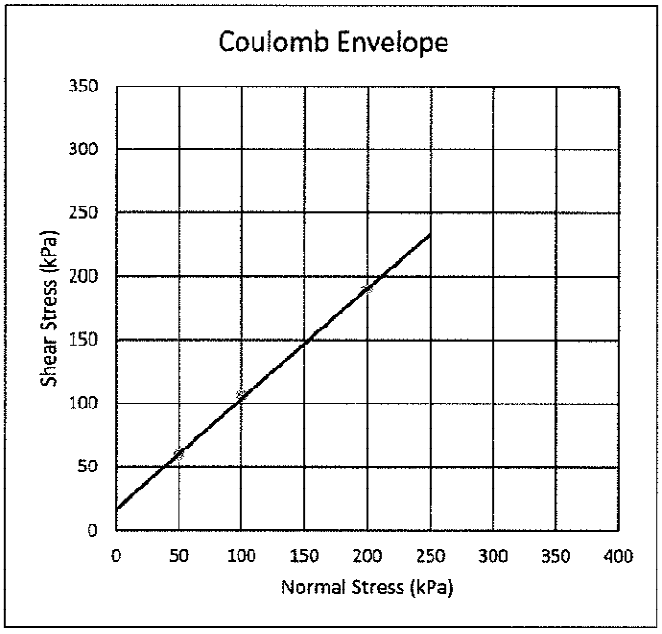
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH110055	Depth (m)	4.0	Sample No.*	173278
Report No.	R138820			Customer:	Irish Water
Sample Received:				Testing started:	13/10/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	28	28	27
Initial Moisture Content (%)	7.4	7.4	7.4
Initial Bulk Density (Mg/m^3)	1.82	1.82	1.82
Initial Dry Density (Mg/m^3)	1.70	1.70	1.70
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	58.8	105.5	189.8
Horizontal displacement at failure (mm)	4.36	2.52	4.19
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	15
φ' (degrees)	41

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

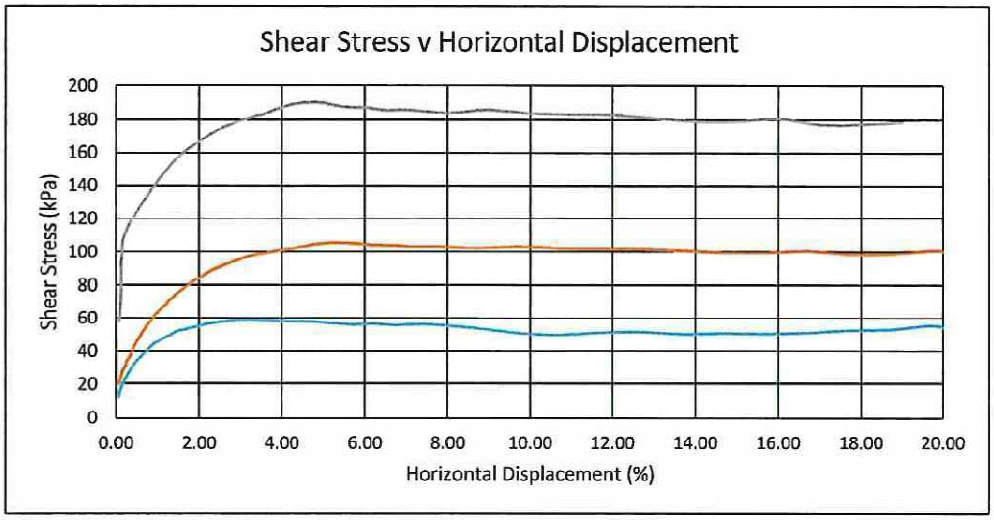
This report shall not be reproduced except in full without the written approval of the Laboratory.

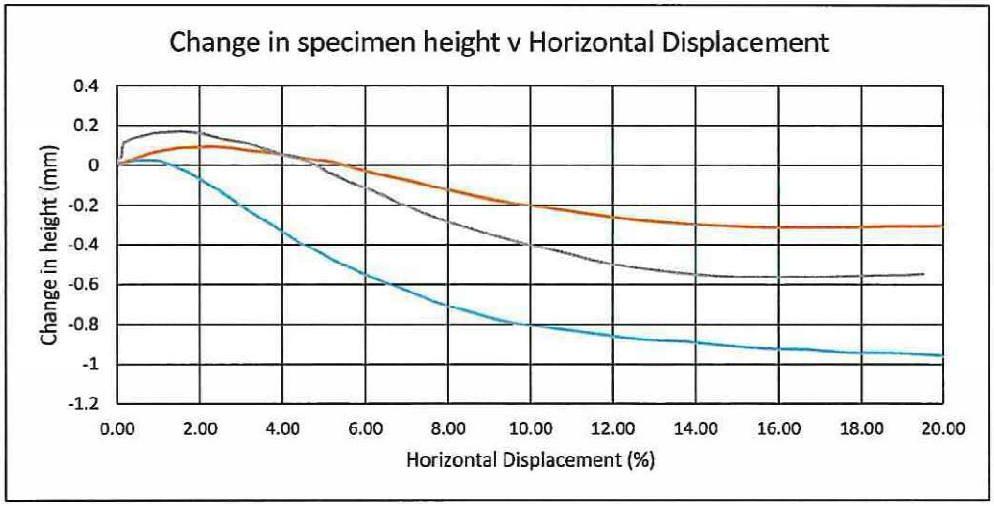
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH110055	Depth (m)	4.0	Sample No.	173278
Report No.	R138820				





Results relate to the specimen tested.
Approved signatories
- ☐ J Barrett (Quality Manager)
- ☐ H Byrne (Laboratory Manager)

Approved by	Date
	14/10/22

Determination of Shear Strength by Direct Shear

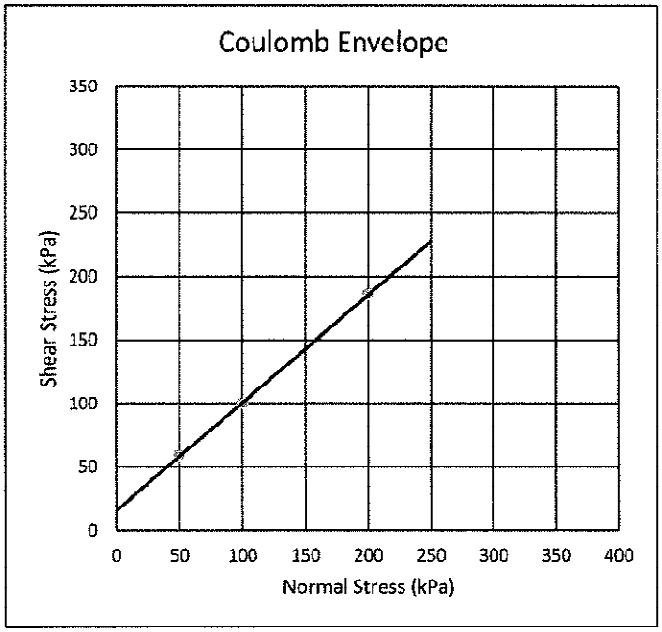
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH111960	Depth (m)	3.0	Sample No.*	175346
Report No.	R138885			Customer:	Irish Water
Sample Received:				Testing started:	03/11/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Brown slightly silty sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	34	34	34
Initial Moisture Content (%)	13	13	13
Initial Bulk Density (Mg/m^3)	1.65	1.65	1.65
Initial Dry Density (Mg/m^3)	1.46	1.47	1.47
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	58.7	99.8	185.6
Horizontal displacement at failure (mm)	3.38	2.8	3.55
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	13
φ' (degrees)	41

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

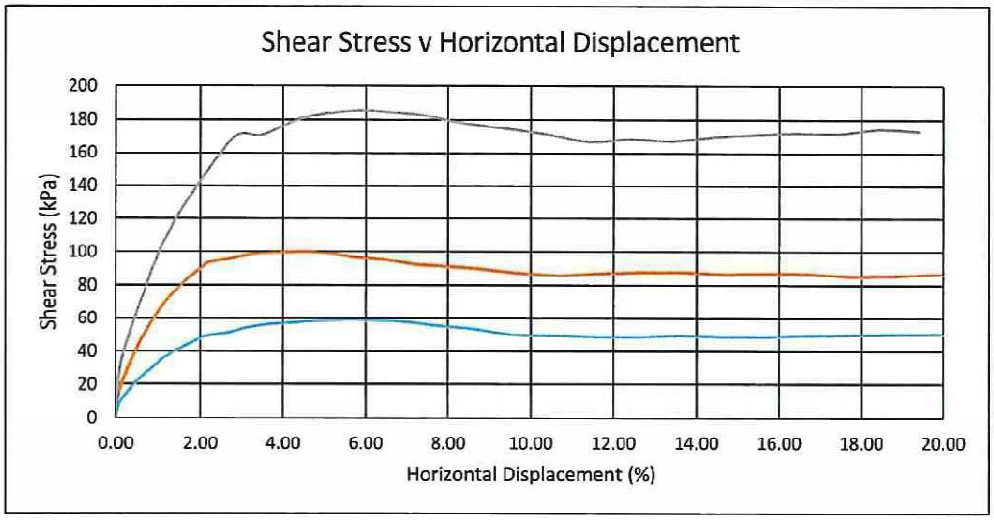
This report shall not be reproduced except in full without the written approval of the Laboratory.

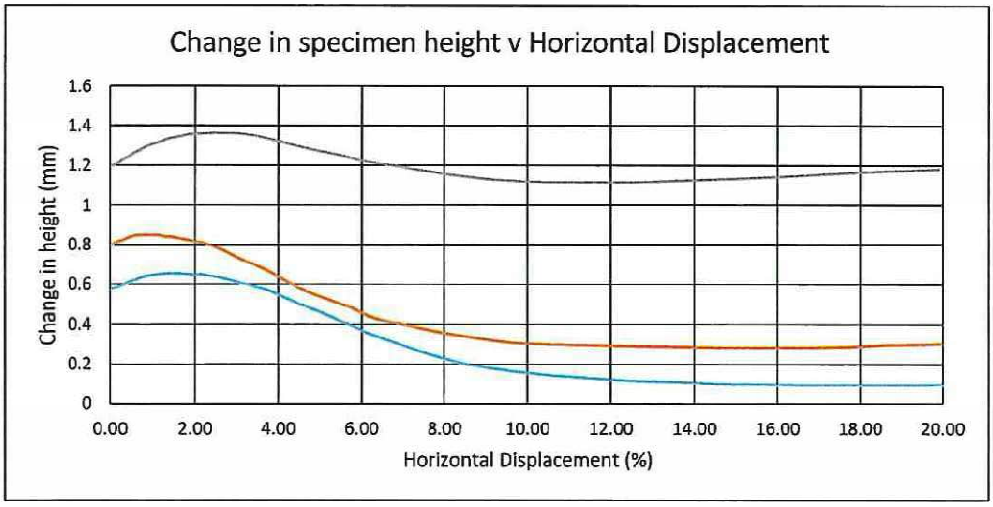
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH111960	Depth (m)	3.0	Sample No.	175346
Report No.	R138885				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		07/11/22	Page 2 of 2

Determination of Shear Strength by Direct Shear

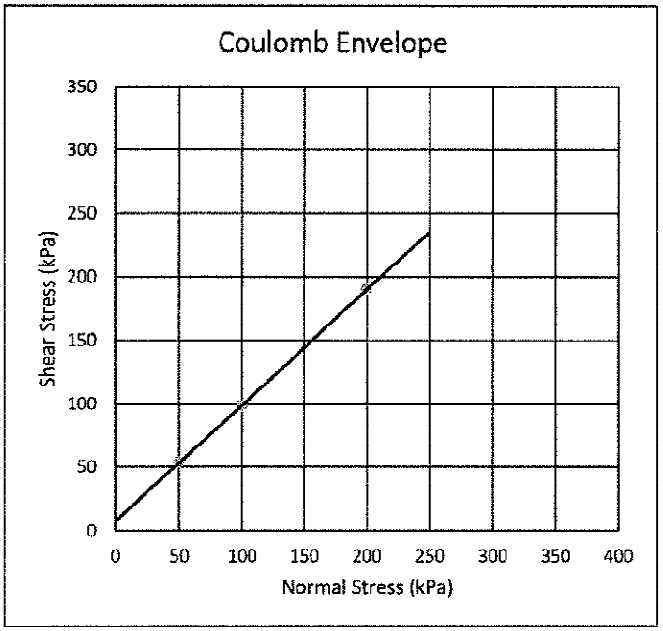
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH112180	Depth (m)	3.0	Sample No.*	179131
Report No.	R140180			Customer:	Irish Water
Sample Received:				Testing started:	17/11/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	33	33	33
Initial Moisture Content (%)	8.1	8.1	8.1
Initial Bulk Density (Mg/m^3)	1.48	1.48	1.48
Initial Dry Density (Mg/m^3)	1.37	1.37	1.37
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	53.5	98.3	190.1
Horizontal displacement at failure (mm)	11.8	6.97	6.9
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	5
ϕ' (degrees)	43

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

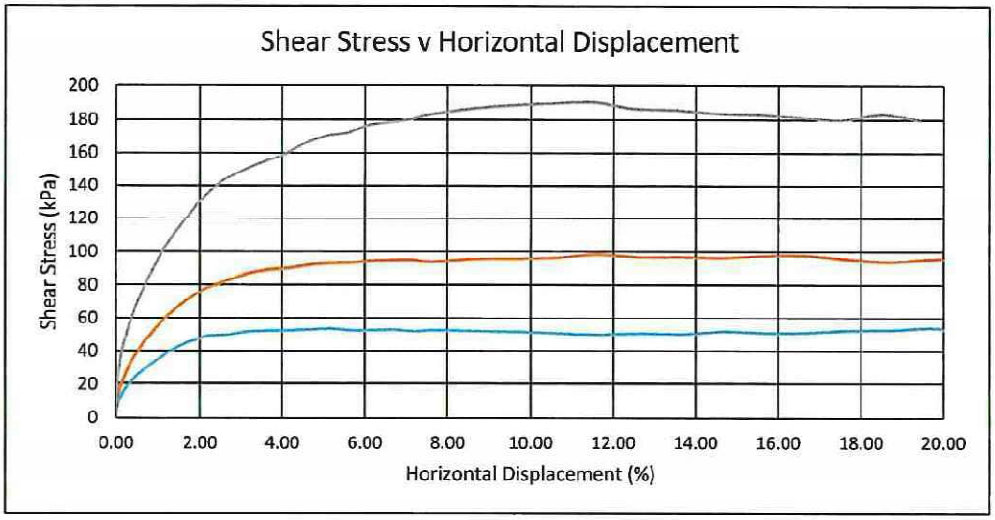
This report shall not be reproduced except in full without the written approval of the Laboratory.

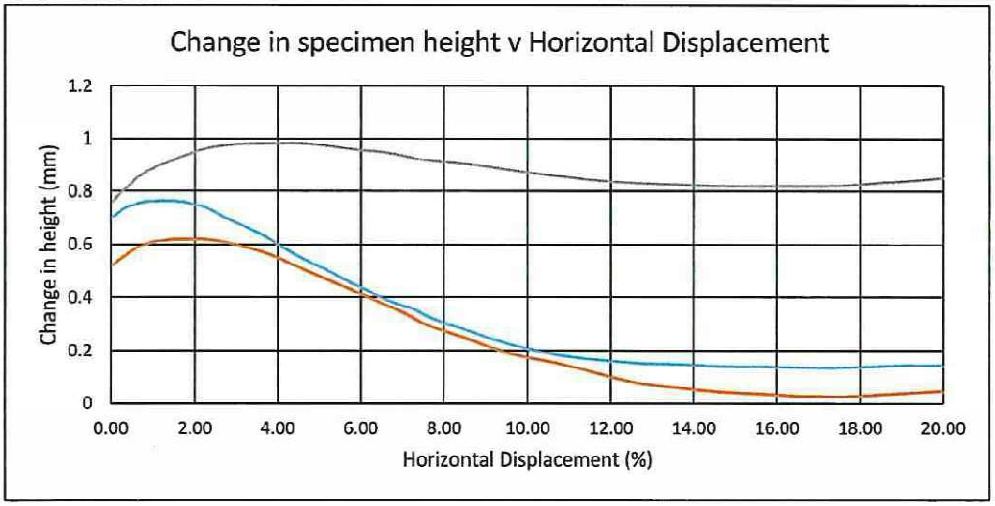
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH112180	Depth (m)	3.0	Sample No.	179131
Report No.	R140180				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		21/11/22	Page 2 of 2

Determination of Shear Strength by Direct Shear

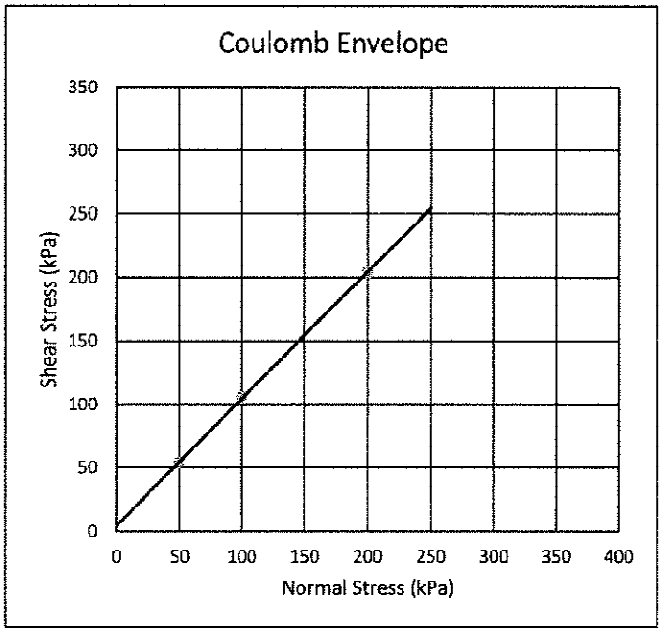
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH114149	Depth (m)	3.0	Sample No.*	179144
Report No.	R140189			Customer:	Irish Water
Sample Received:				Testing started:	21/11/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey slightly silty SAND/GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	34	34	34
Initial Moisture Content (%)	17.0	17.0	17.0
Initial Bulk Density (Mg/m^3)	1.65	1.66	1.66
Initial Dry Density (Mg/m^3)	1.41	1.41	1.41
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	53.8	105.8	204.0
Horizontal displacement at failure (mm)	2.48	2.23	2.53
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	3
ϕ' (degrees)	45

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

**Superceded by EN 17892-10:2018

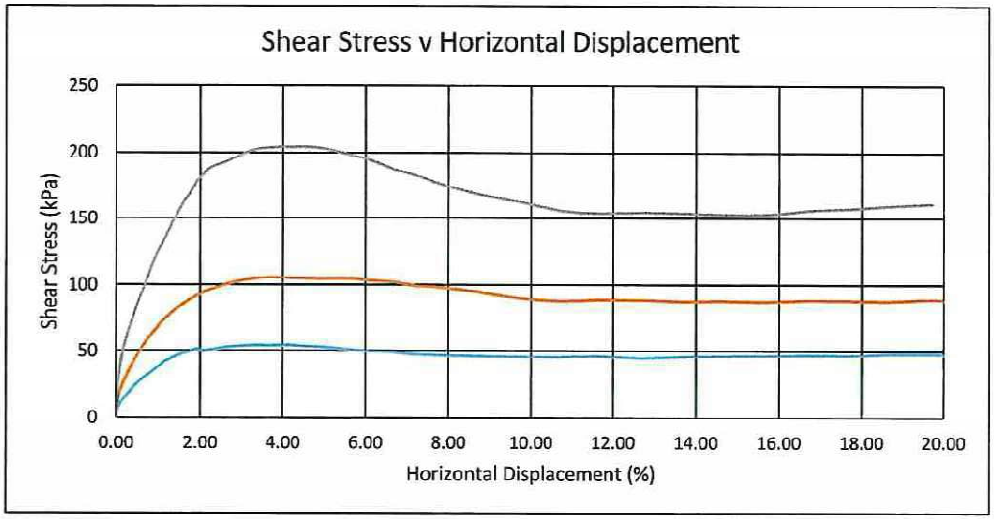
Determination of Shear Strength by Direct Shear

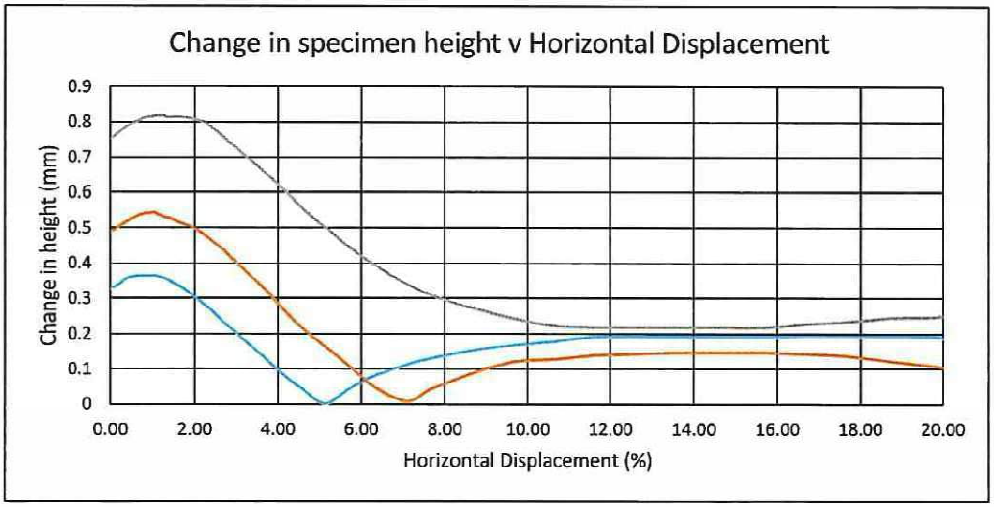
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract: WSP Lot 3 Contract No. 23560

Location: BH114149 Depth (m) 3.0 Sample No. 179144

Report No. R140189





Results relate to the specimen tested. Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)	Approved by	Date	Page 2 of 2
	JBarrett	22/11/22	

Determination of Shear Strength by Direct Shear

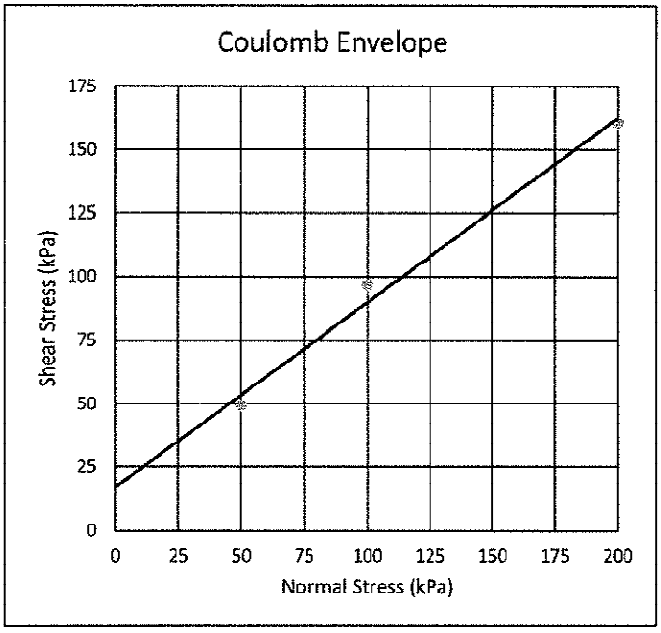
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH122408	Depth (m)*	5	Sample No.*	-
Report No.	R137335			Customer:	Irish Water
Sample Received:	-			Testing started:	29/09/22

Method of Preparation: <2mm material compacted into cutter at as received Moisture content

Description: Grey SILT/CLAY

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	23.0	23.0	23.0
Initial Moisture Content (%)	13	13	13
Initial Bulk Density (Mg/m^3)	1.98	1.98	1.99
Initial Dry Density (Mg/m^3)	1.75	1.75	1.76
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	49.01	96.25	160.423
Horizontal displacement at failure (mm)	11.84	11.43	11.56
Rate Horizontal displacement (mm/min)	0.098	0.196	0.18
Condition (Dry (D) / Submerged (S))	S	S	S



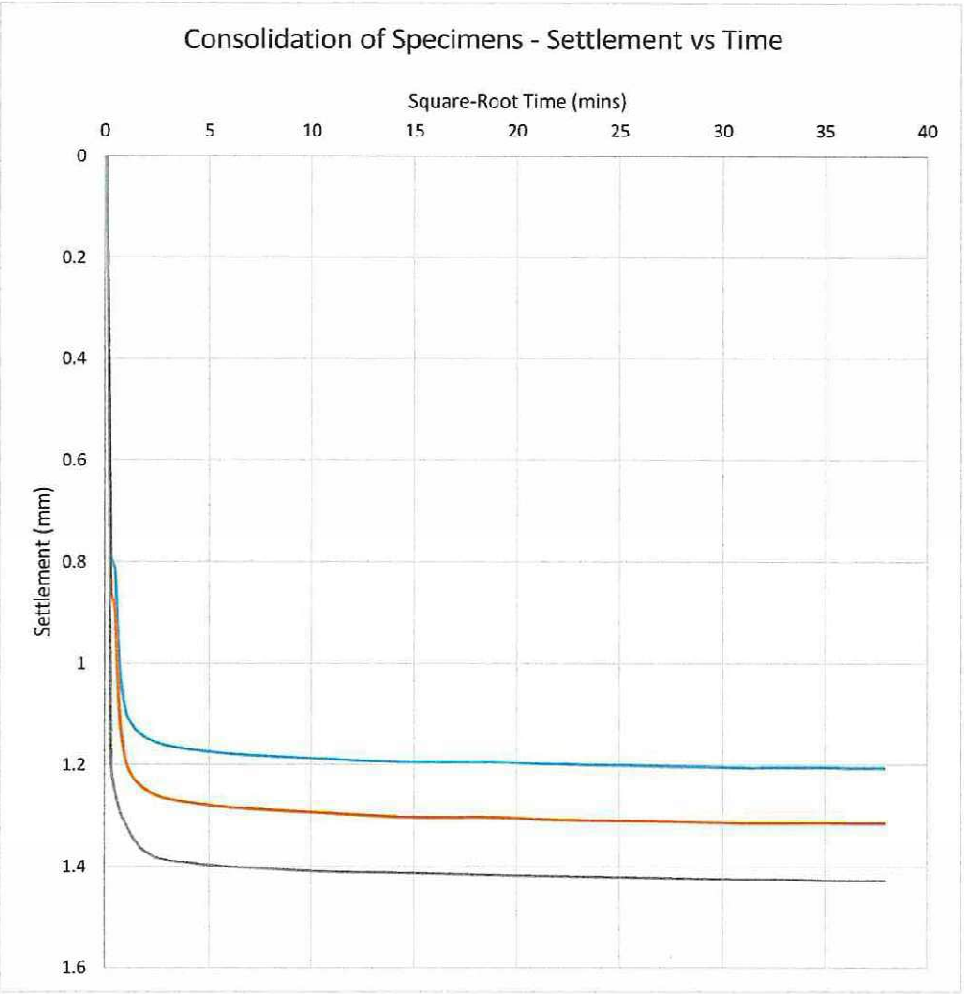
c' (kPa)	15
ϕ' (degrees)	36

This report shall not be reproduced except in full without the written permission of the Laboratory
* denotes customer supplied information
Opinions and Interpretations are outside the scope of accreditation
The results relate to the specimen in as received condition unless otherwise stated.

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH122408	Depth (m)	5	Sample No.	-



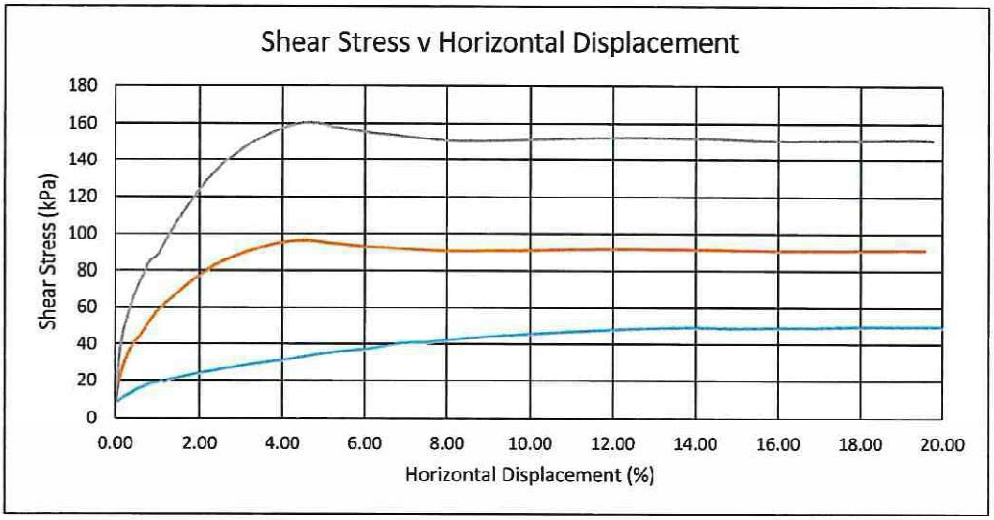
Determination of Shear Strength by Direct Shear

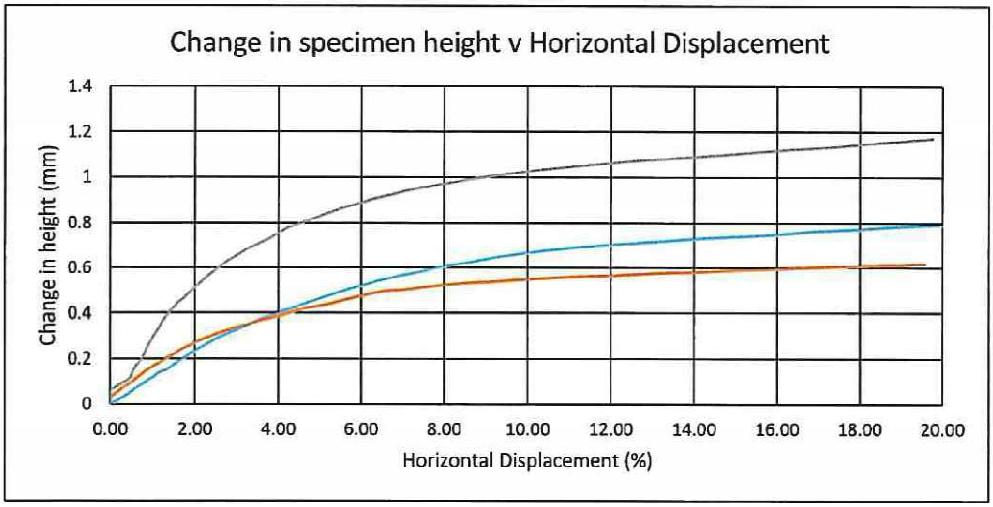
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract: WSP Lot 3 Contract No. 23560

Location: BH122408 Depth (m) 5 Sample No. -

Report No. R137335





Results relate to the specimen tested. Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)	Approved by	Date	Page 3 of 3
		06/10/22	

Determination of Shear Strength by Direct Shear

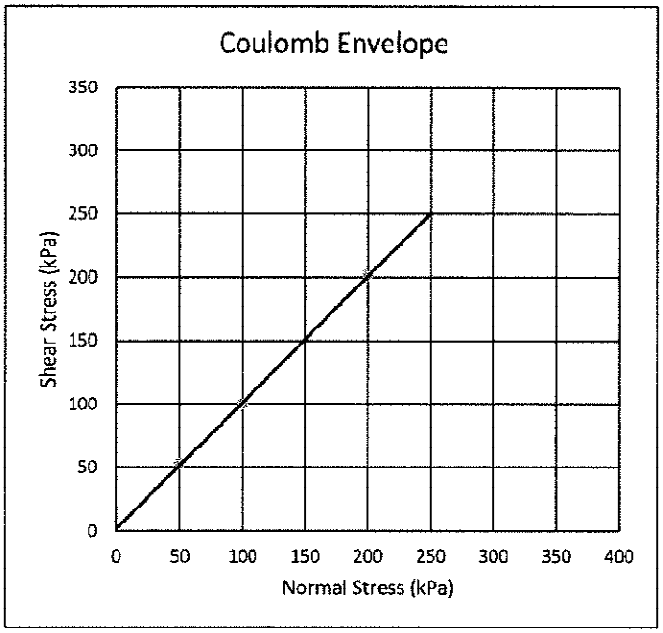
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH123774	Depth (m)*	6	Sample No.*	178294
Report No.	R136365			Customer:	Irish Water
Sample Received:	-			Testing started:	07/07/22

Method of Preparation: <2mm material compacted into cutter at as received Moisture content

Description: Grey silty gravelly SAND

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	23.0	23.0	23.0
Initial Moisture Content (%)	13	13	13
Initial Bulk Density (Mg/m^3)	1.98	1.97	1.98
Initial Dry Density (Mg/m^3)	1.75	1.75	1.76
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	52.52	99.91	201.445
Horizontal displacement at failure (mm)	10.63	10.64	9.58
Rate Horizontal displacement (mm/min)	0.52	0.218	0.197
Condition (Dry (D) / Submerged (S))	S	S	S



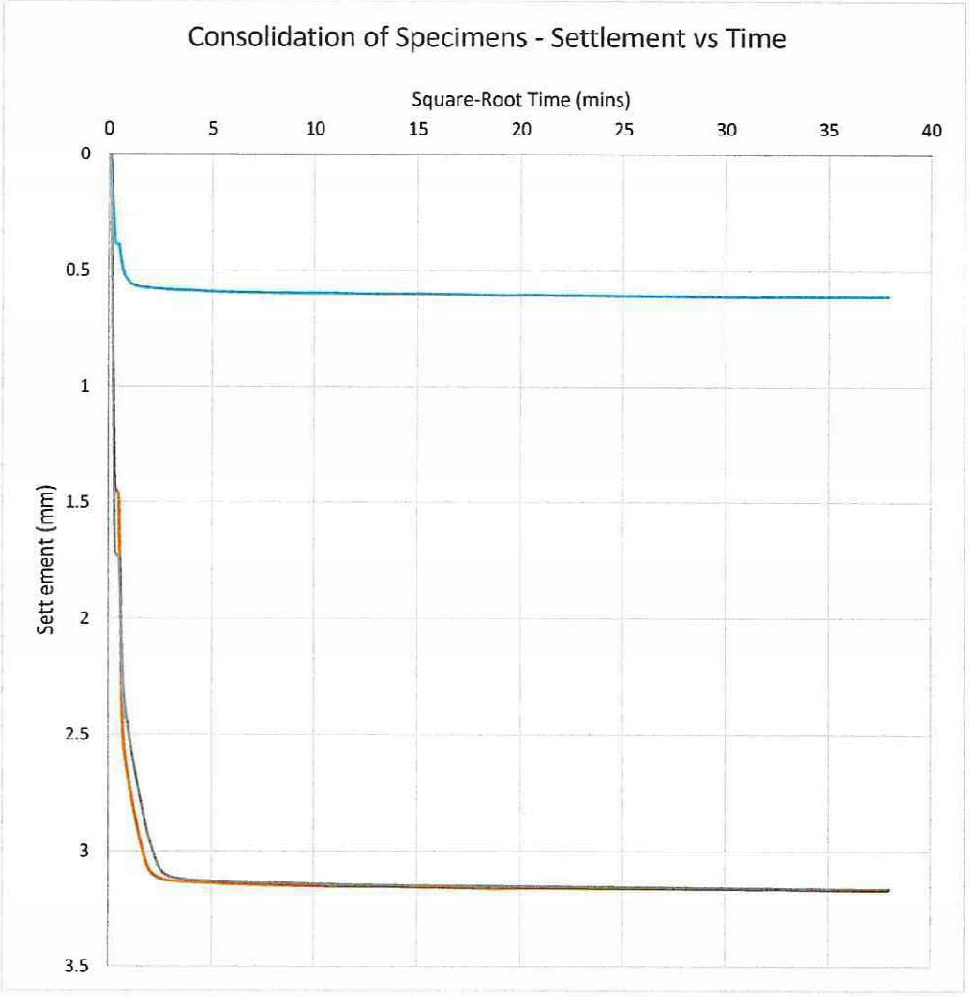
c' (kPa)	2
φ' (degrees)	45

This report shall not be reproduced except in full without the written permission of the Laboratory
* denotes customer supplied information
Opinions and interpretations are outside the scope of accreditation
The results relate to the specimen in as received condition unless otherwise stated.

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH123774	Depth (m)	6	Sample No.	178294



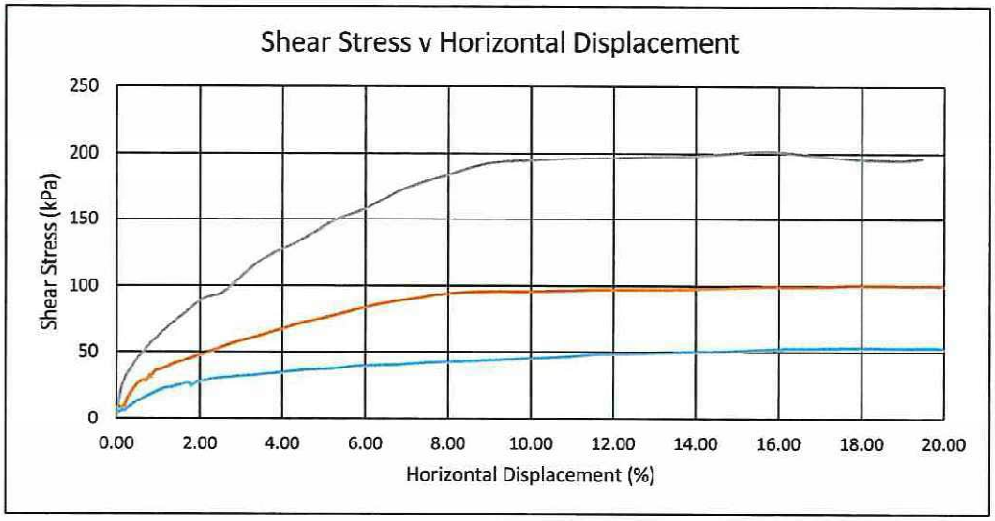
Determination of Shear Strength by Direct Shear

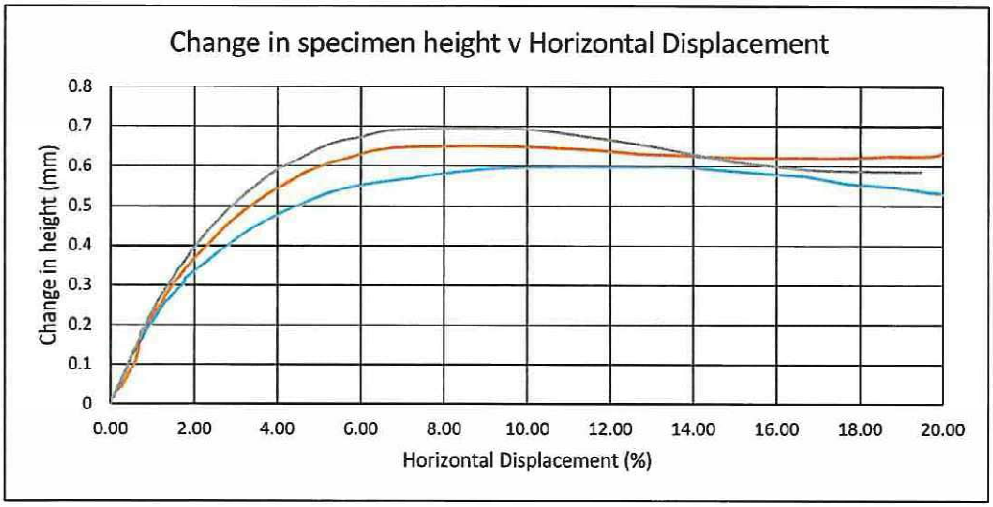
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract: WSP Lot 3 Contract No. 23560

Location: BH123774 Depth (m) 6 Sample No. 178294

Report No. R136365





Results relate to the specimen tested. Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)	Approved by	Date	Page 3 of 3
		21/07/22	

Determination of Shear Strength by Direct Shear

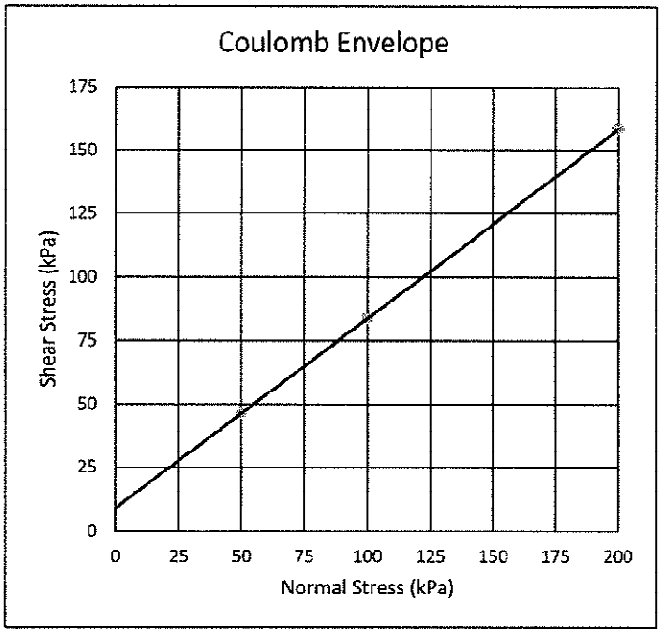
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH125582	Depth (m)*	4	Sample No.*	179193
Report No.	R137319			Customer:	Irish Water
Sample Received:	-			Testing started:	13/09/22

Method of Preparation: <2mm material compacted into cutter at as received Moisture content

Description: Grey SILT/CLAY

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	23.0	23.0	23.0
Initial Moisture Content (%)	38	38	38
Initial Bulk Density (Mg/m^3)	1.92	1.92	1.92
Initial Dry Density (Mg/m^3)	1.39	1.39	1.39
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	46.40	83.58	158.449
Horizontal displacement at failure (mm)	11.84	11.43	11.56
Rate Horizontal displacement (mm/min)	0.017	0.025	0.05
Condition (Dry (D) / Submerged (S))	S	S	S



c' (kPa)	8
ϕ' (degrees)	37

This report shall not be reproduced except in full without the written permission of the Laboratory

* denotes customer supplied information

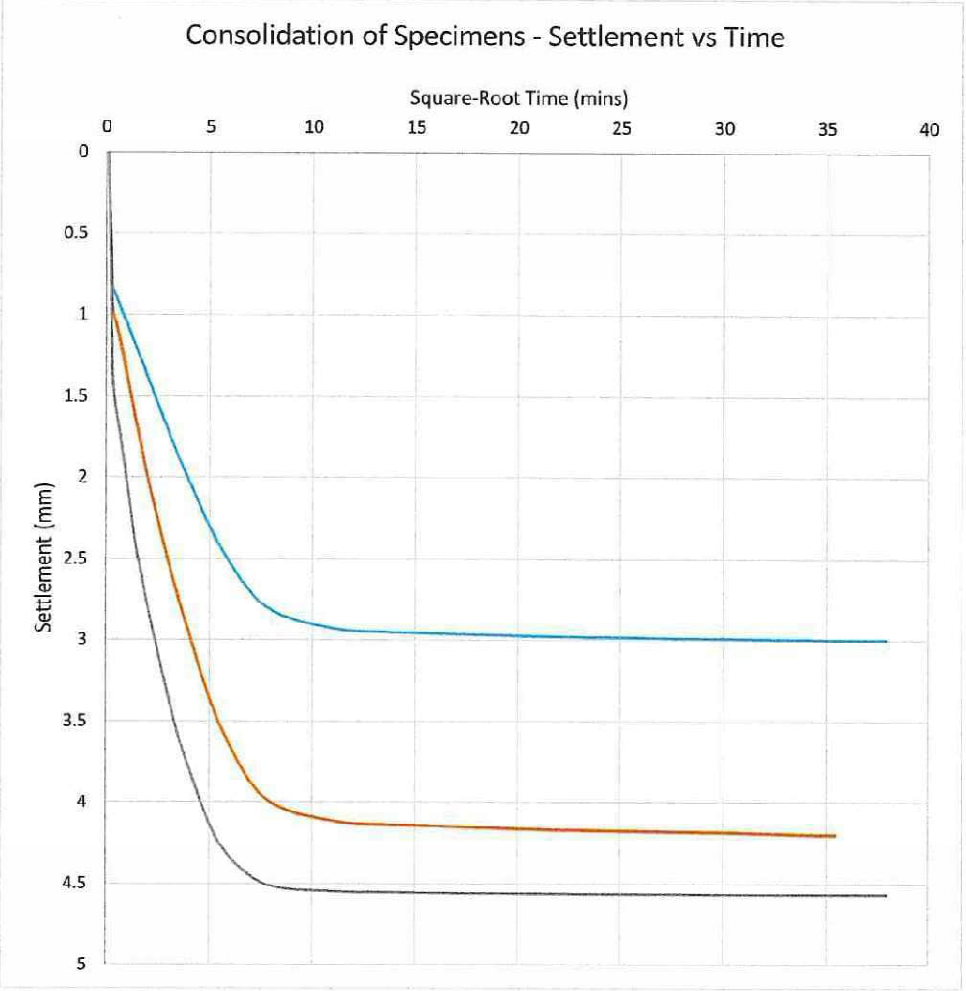
Opinions and Interpretations are outside the scope of accreditation

The results relate to the specimen in as received condition unless otherwise stated.

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH125582	Depth (m)	4	Sample No.	179193



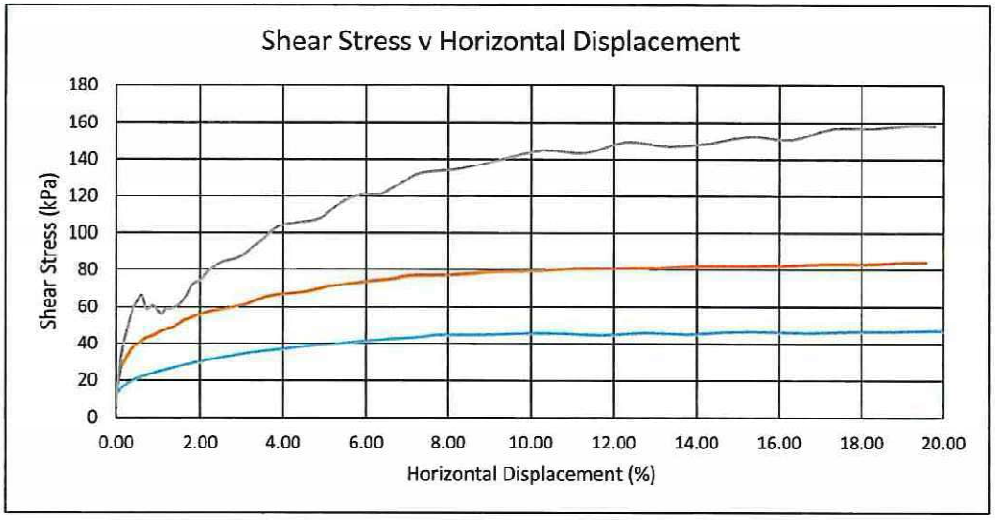
Determination of Shear Strength by Direct Shear

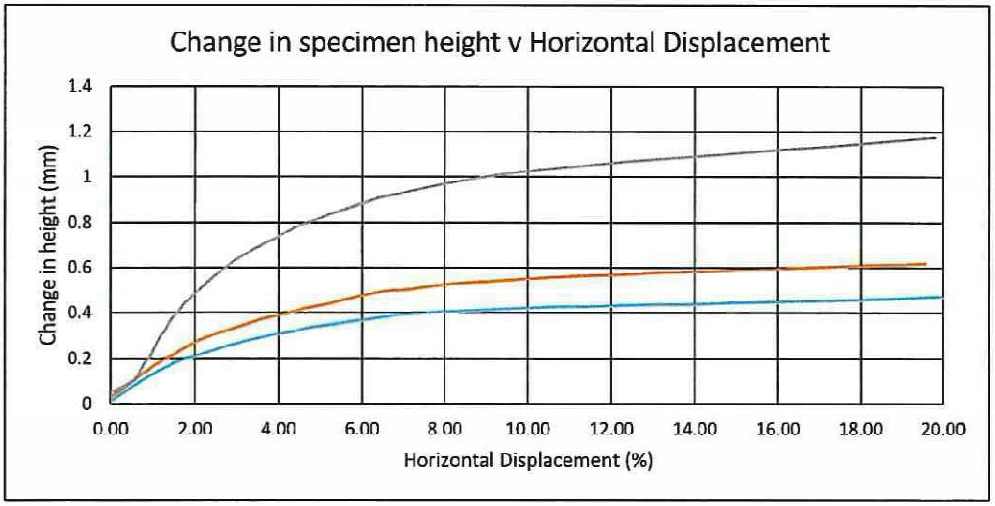
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract: WSP Lot 3 Contract No. 23560

Location: BH125582 Depth (m) 4 Sample No. 179193

Report No. R137319





Results relate to the specimen tested. Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)	Approved by	Date	Page 3 of 3
		22/09/22	

Determination of Shear Strength by Direct Shear

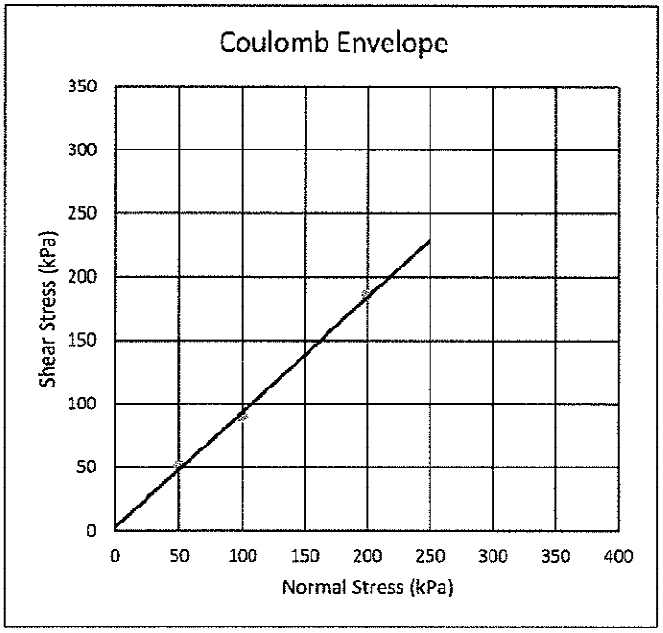
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH130005	Depth (m)	4.0	Sample No.*	174227
Report No.	R138868			Customer:	Irish Water
Sample Received:				Testing started:	21/10/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey slightly silty sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	26	26	26
Initial Moisture Content (%)	7.6	7.6	7.6
Initial Bulk Density (Mg/m^3)	1.73	1.73	1.73
Initial Dry Density (Mg/m^3)	1.61	1.61	1.61
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	50.9	89.3	185.2
Horizontal displacement at failure (mm)	10.71	10.58	3.72
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	2
ϕ' (degrees)	43

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

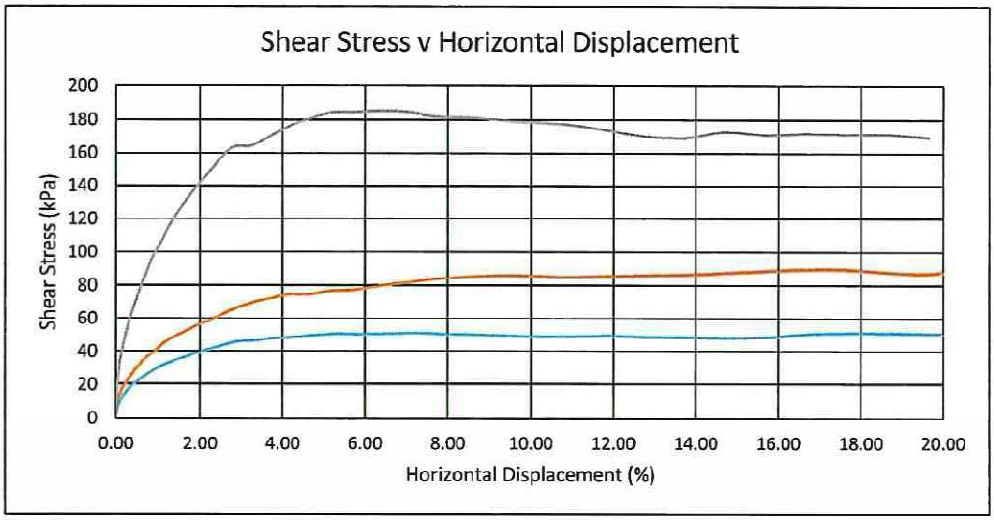
This report shall not be reproduced except in full without the written approval of the Laboratory.

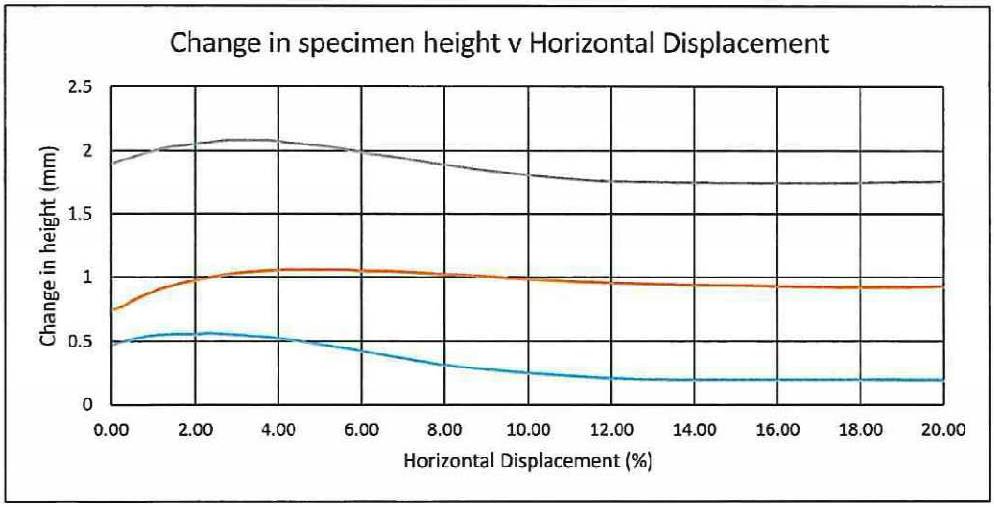
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH130005	Depth (m)	4.0	Sample No.	174227
Report No.	R138868				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		21/10/22	Page 2 of 2

Determination of Shear Strength by Direct Shear

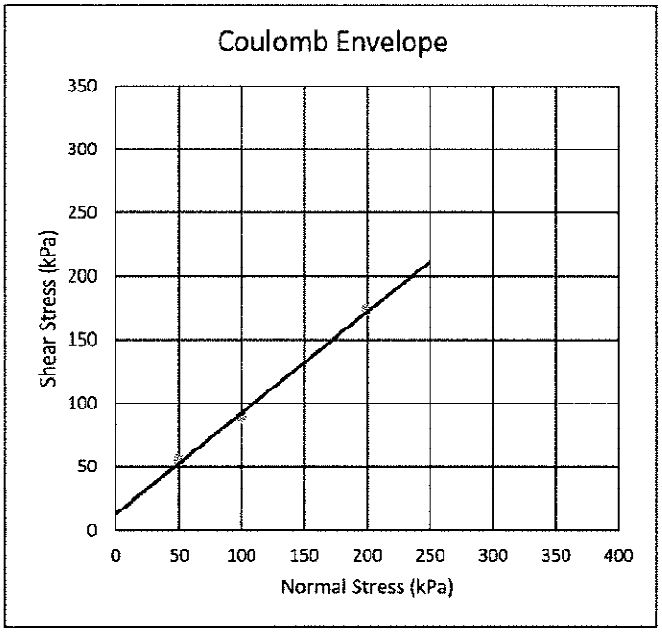
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH131836	Depth (m)	4.0	Sample No.*	174120
Report No.	R138869			Customer:	Irish Water
Sample Received:				Testing started:	21/10/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey slightly silty SAND (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	28	28	27
Initial Moisture Content (%)	8.3	8.3	8.3
Initial Bulk Density (Mg/m^3)	1.82	1.82	1.82
Initial Dry Density (Mg/m^3)	1.68	1.68	1.68
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	55.1	88.7	173.1
Horizontal displacement at failure (mm)	2.99	7.11	5.14
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	7
ϕ' (degrees)	39

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

This report shall not be reproduced except in full without the written approval of the Laboratory.

**Superceded by EN 17892-10:2018

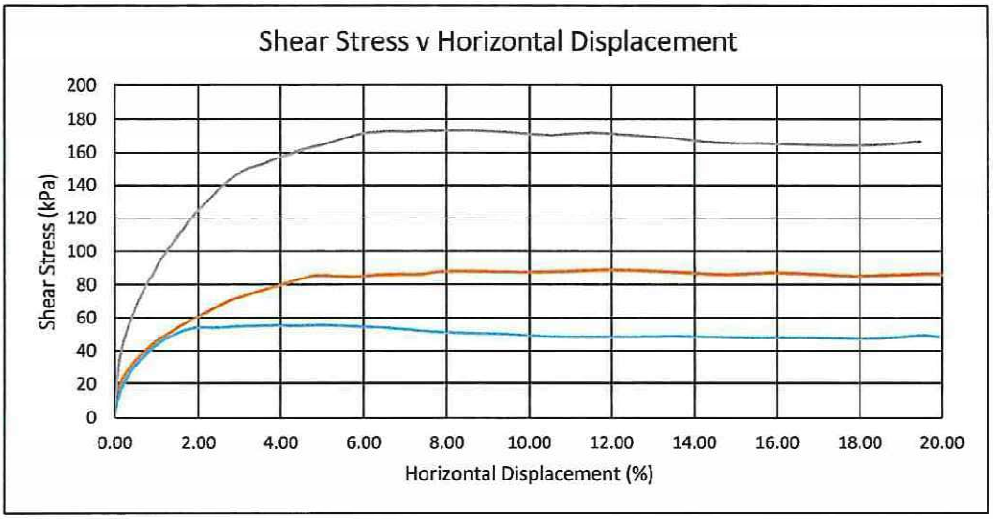
Determination of Shear Strength by Direct Shear

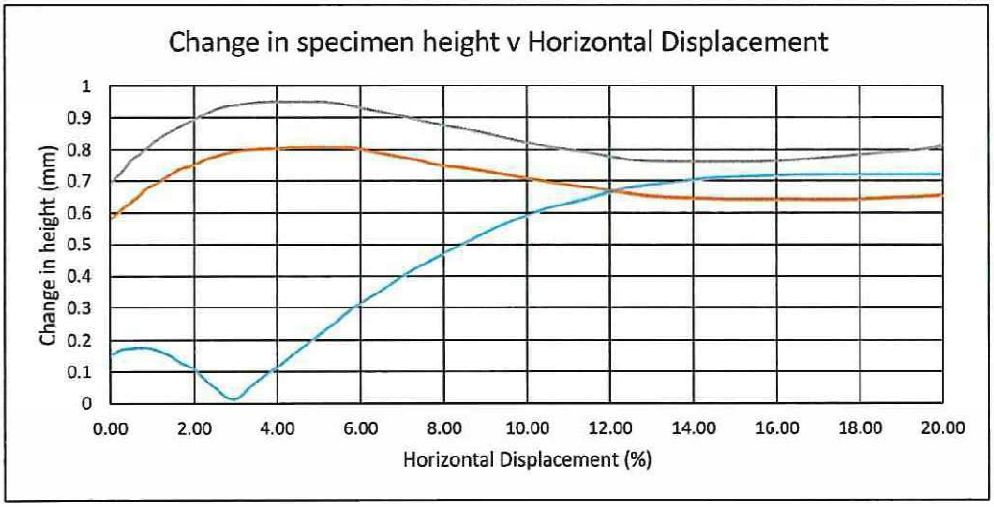
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract: WSP Lot 3 Contract No. 23560

Location: BH131836 Depth (m) 4.0 Sample No. 174120

Report No. R138869





Results relate to the specimen tested. Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)	Approved by	Date	Page 2 of 2
		25/10/22	

Determination of Shear Strength by Direct Shear

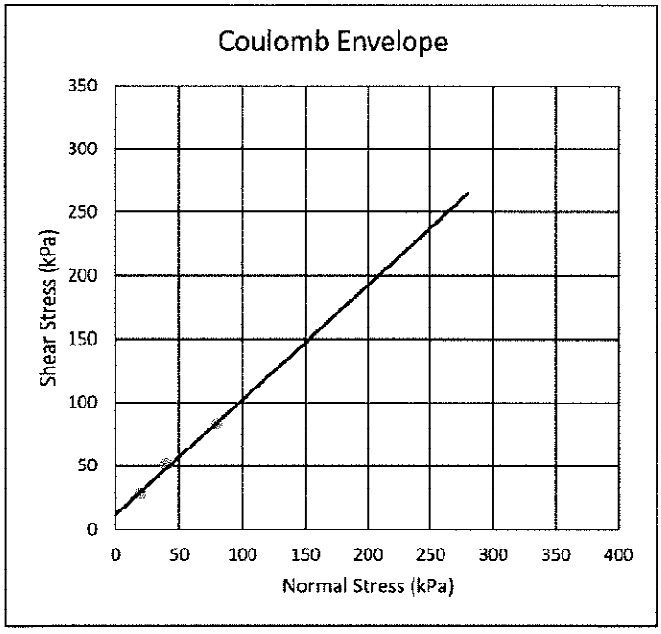
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH135163	Depth (m)	2.0	Sample No.*	-
Report No.	R140193			Customer:	Irish Water
Sample Received:				Testing started:	22/11/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	20	40	80
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	34	34	34
Initial Moisture Content (%)	8.9	8.9	8.9
Initial Bulk Density (Mg/m^3)	1.54	1.54	1.54
Initial Dry Density (Mg/m^3)	1.42	1.41	1.41
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	27.7	51.1	82.9
Horizontal displacement at failure (mm)	1.41	1.96	4.04
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	10
ϕ' (degrees)	43

Note: First two points are outside accredited normal stress range.

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

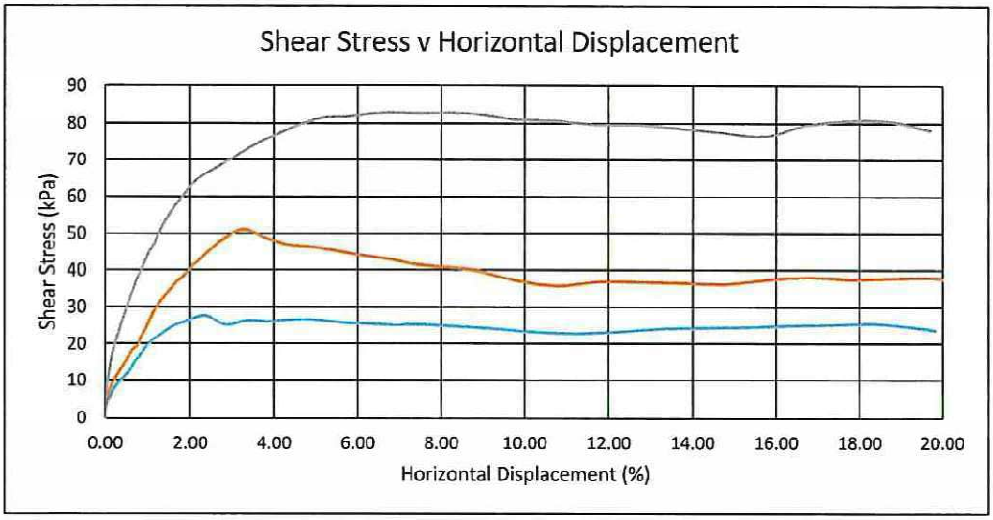
This report shall not be reproduced except in full without the written approval of the Laboratory.

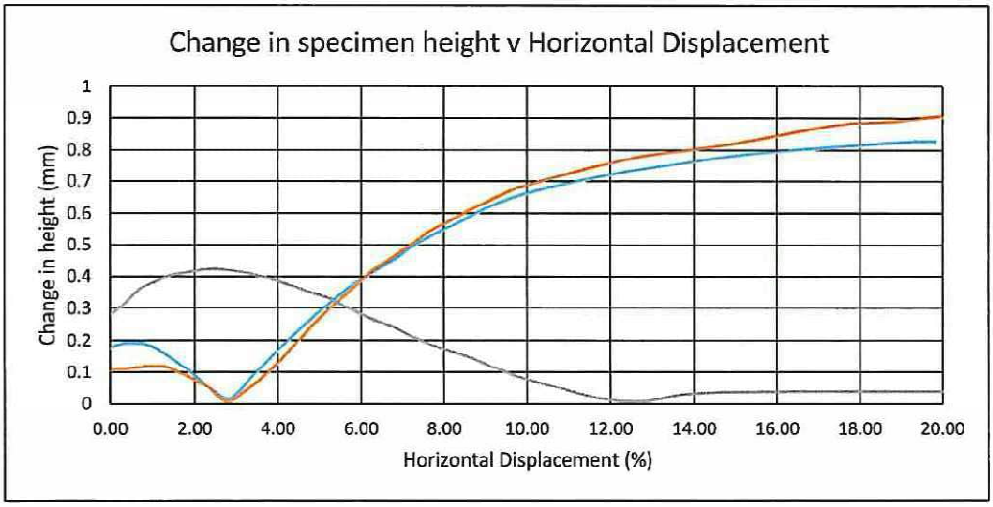
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH135163	Depth (m)	2.0	Sample No.	-
Report No.	R140193				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		24/11/22	Page 2 of 2

Determination of Shear Strength by Direct Shear

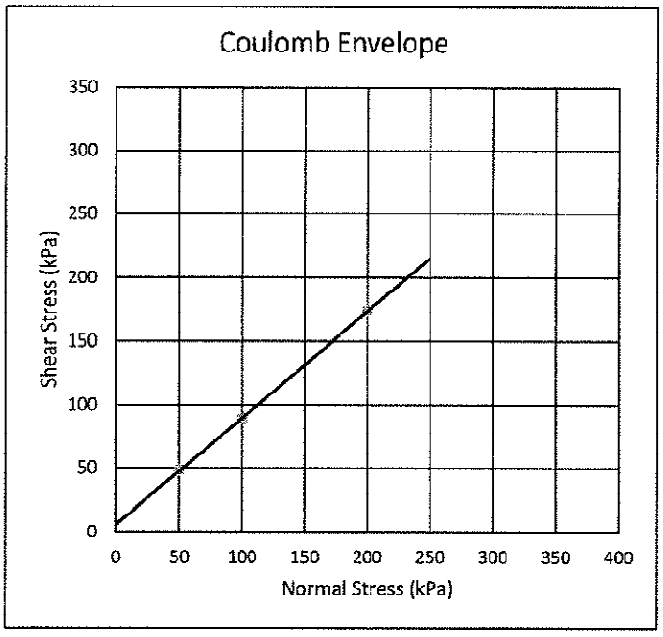
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH141906	Depth (m)	4.0	Sample No.*	174146
Report No.	R138879			Customer:	Irish Water
Sample Received:				Testing started:	27/10/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	26	26	26
Initial Moisture Content (%)	8.1	8.1	8.1
Initial Bulk Density (Mg/m^3)	1.67	1.67	1.68
Initial Dry Density (Mg/m^3)	1.55	1.55	1.55
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	48.1	88.3	173.6
Horizontal displacement at failure (mm)	4.36	11.98	9.25
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



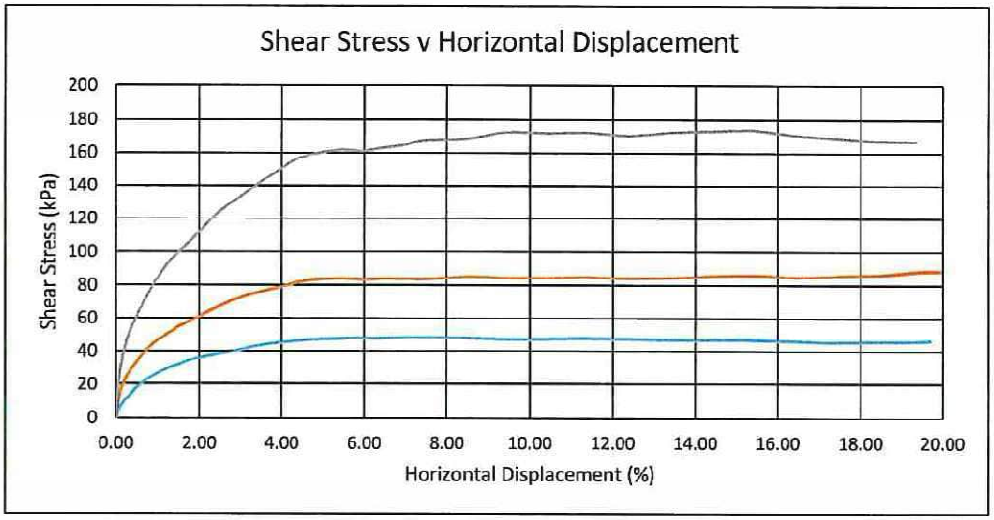
c' (kPa)	5
ϕ' (degrees)	40

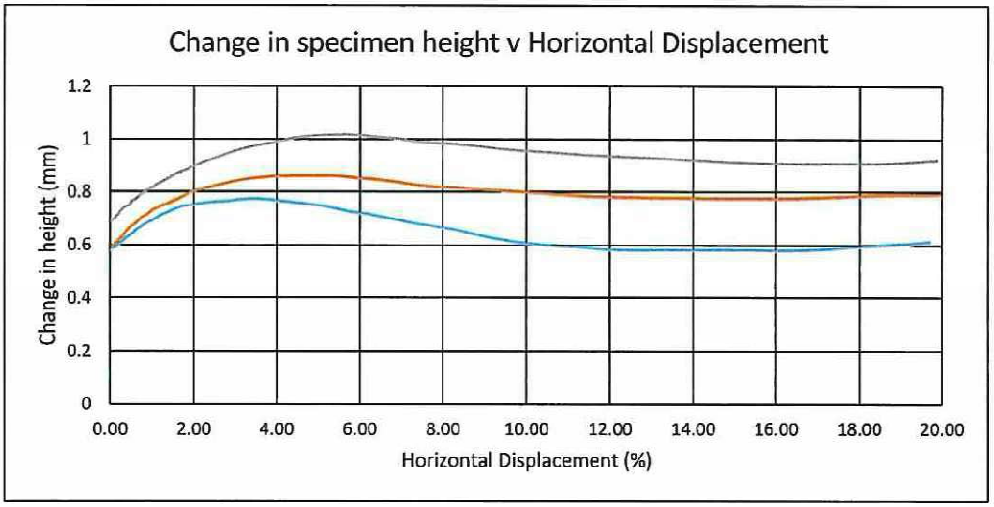
* denotes Cutomer supplied information.
Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full wihout the written approval of the Laboratory.
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH141906	Depth (m)	4.0	Sample No.	174146
Report No.	R138879				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		27/10/22	Page 2 of 2

Determination of Shear Strength by Direct Shear

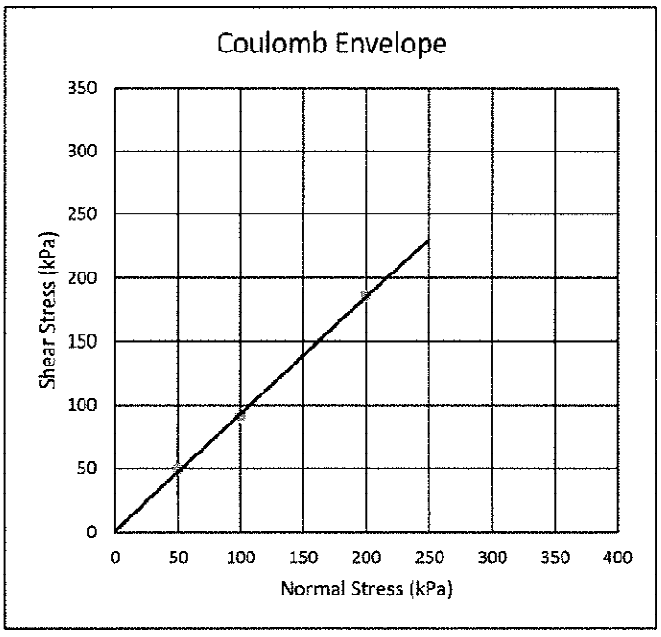
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH142295A	Depth (m)	4.0	Sample No.*	170333
Report No.	R138803			Customer:	Irish Water
Sample Received:				Testing started:	12/10/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	26	26	26
Initial Moisture Content (%)	8.9	8.9	8.9
Initial Bulk Density (Mg/m^3)	1.67	1.67	1.67
Initial Dry Density (Mg/m^3)	1.53	1.53	1.53
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	49.1	90.3	185.9
Horizontal displacement at failure (mm)	4.36	2.52	4.19
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	2
ϕ' (degrees)	43

* denotes Cutomer supplied information.
Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation
This report shall not be reproduced except in full without the written approval of the Laboratory.
**Superceded by EN 17892-10:2018

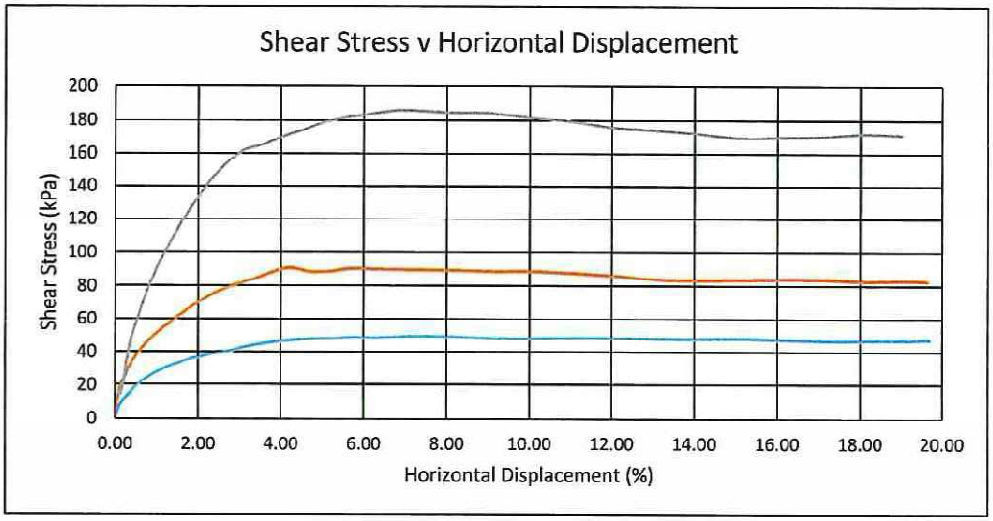
Determination of Shear Strength by Direct Shear

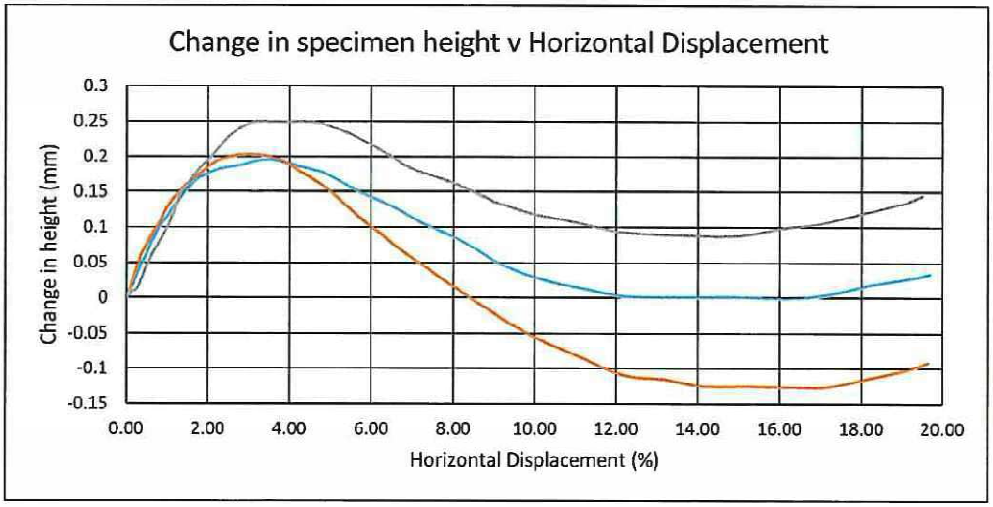
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract: WSP Lot 3 Contract No. 23560

Location: BH142295A Depth (m) 4.0 Sample No. 170333

Report No. R138803





Results relate to the specimen tested. Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)	Approved by	Date	Page 2 of 2
	JBarrett	18/10/22	

Determination of Shear Strength by Direct Shear

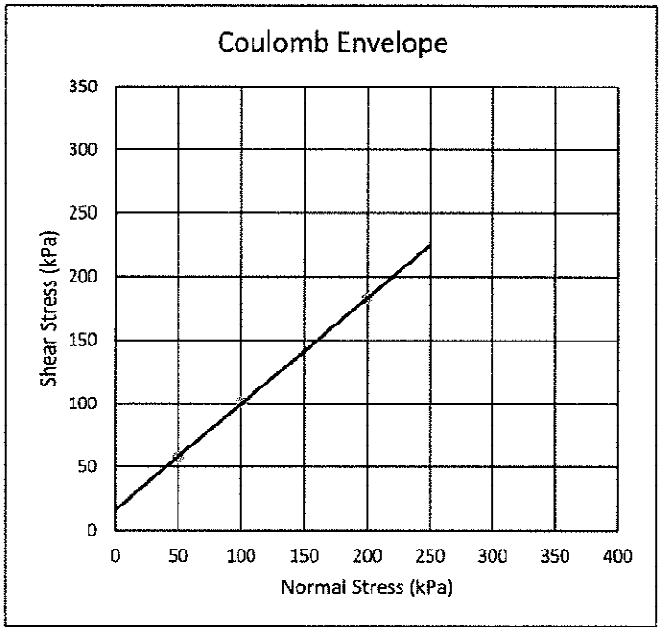
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH143004	Depth (m)	3.0	Sample No.*	173335
Report No.	R140190			Customer:	Irish Water
Sample Received:				Testing started:	21/11/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	33	33	33
Initial Moisture Content (%)	8.8	8.8	8.8
Initial Bulk Density (Mg/m^3)	1.55	1.55	1.55
Initial Dry Density (Mg/m^3)	1.42	1.43	1.42
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	57.1	101.2	182.7
Horizontal displacement at failure (mm)	4.62	2.99	8.59
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	15
ϕ' (degrees)	41

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

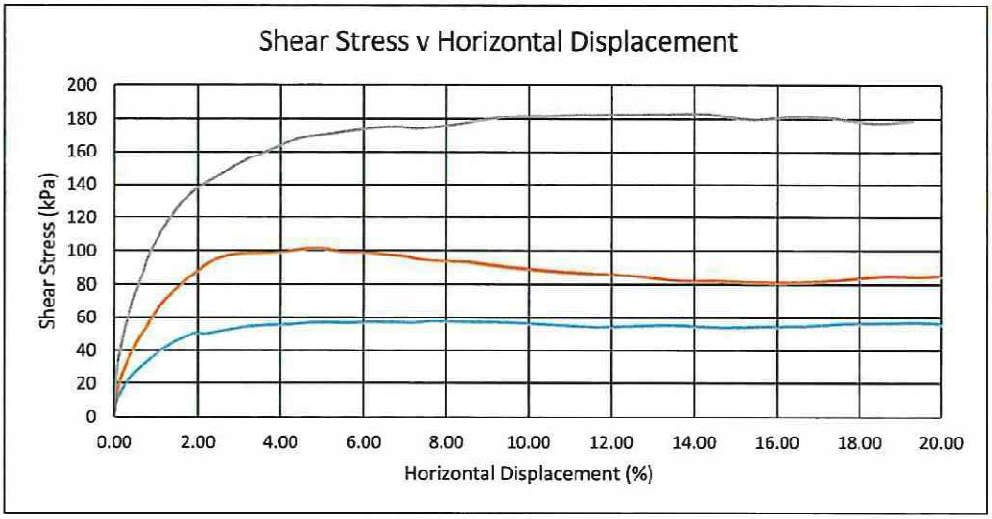
This report shall not be reproduced except in full without the written approval of the Laboratory.

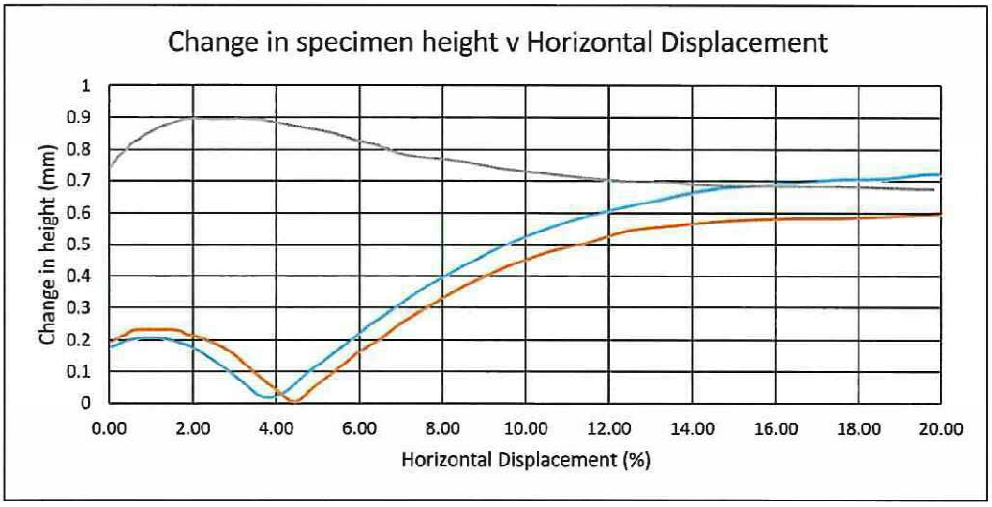
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH143004	Depth (m)	3.0	Sample No.	173335
Report No.	R140190				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		22/11/22	Page 2 of 2

Determination of Shear Strength by Direct Shear

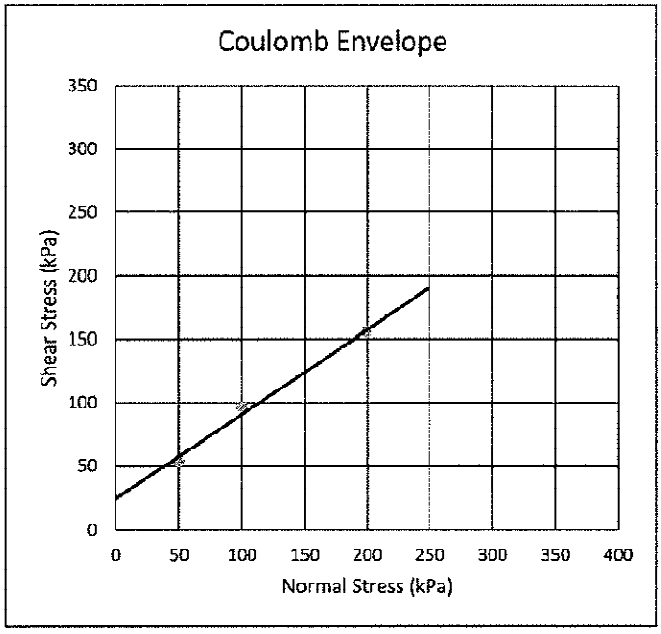
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH143363	Depth (m)	3.0	Sample No.*	178302
Report No.	R140194			Customer:	Irish Water
Sample Received:				Testing started:	22/11/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to sub-rounded)

	Specimen		
	1	2	3
Normal Stress (kPa)	50	100	200
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	34	34	34
Initial Moisture Content (%)	6.5	6.5	6.5
Initial Bulk Density (Mg/m^3)	1.38	1.38	1.38
Initial Dry Density (Mg/m^3)	1.30	1.29	1.29
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	53.5	96.6	155.3
Horizontal displacement at failure (mm)	3.99	5.73	9.87
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	20
ϕ' (degrees)	35

* denotes Cutomer supplied information.

Results relate only to the specimen tested, in as received condition unless otherwise noted.

Opinions and interpretations are outside the scope of accreditation.

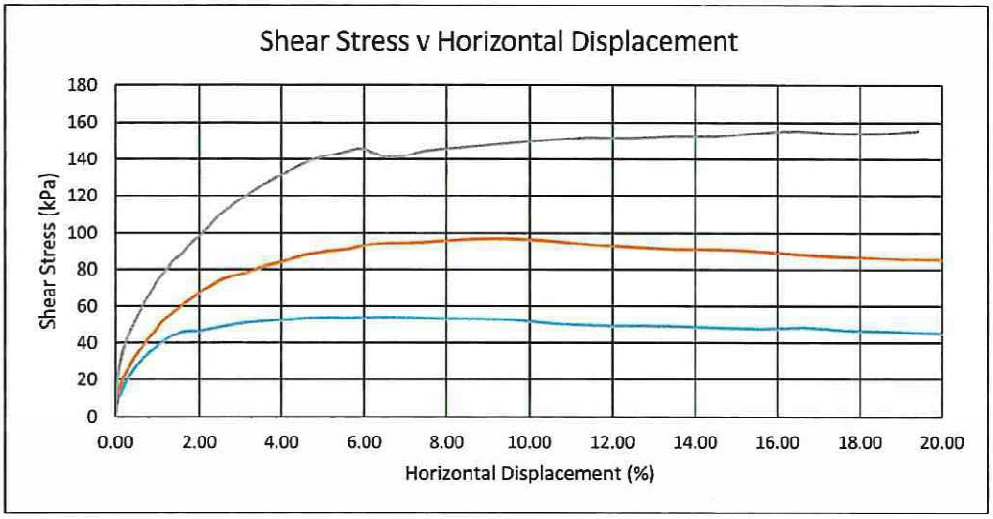
This report shall not be reproduced except in full without the written approval of the Laboratory.

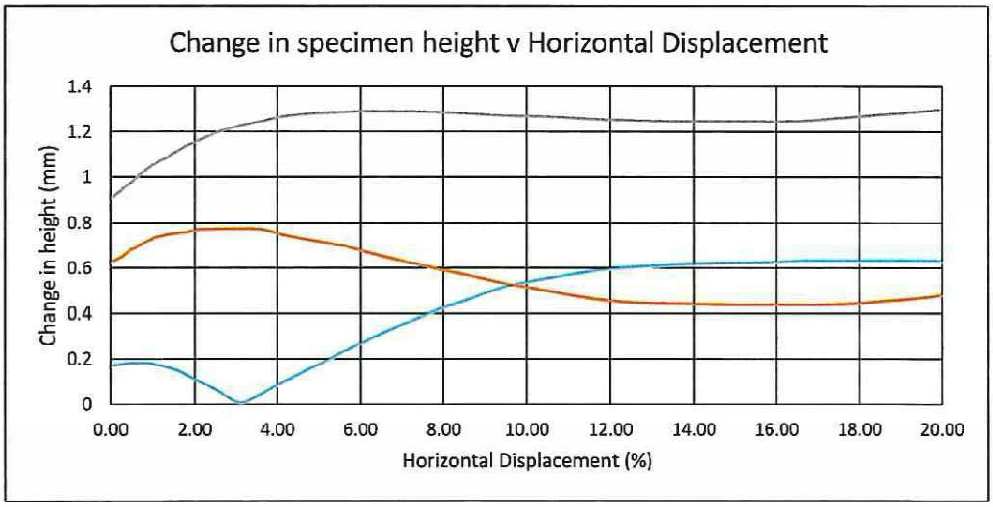
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH143383	Depth (m)	3.0	Sample No.	178302
Report No.	R140194				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		24/11/22	Page 2 of 2

Determination of Shear Strength by Direct Shear

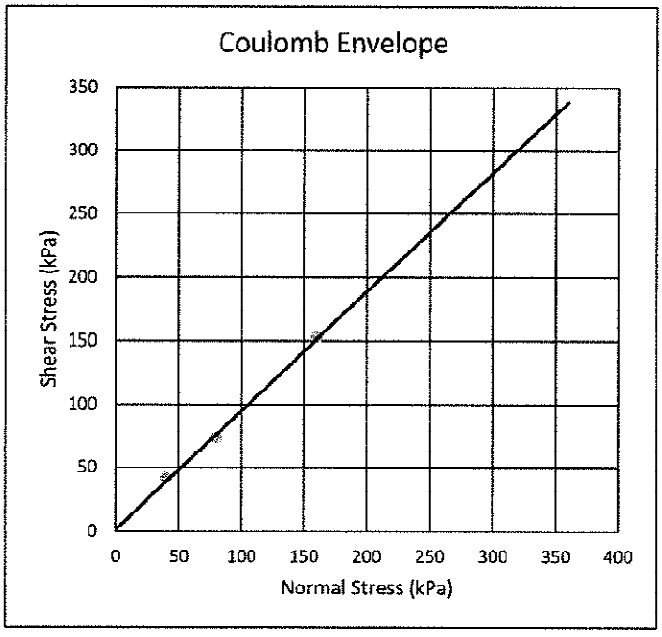
Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4**

Contract:	WSP Lot 3			Contract No.	23560
Location*:	BH143407	Depth (m)	4.0	Sample No.*	178314
Report No.	R140195			Customer:	Irish Water
Sample Received:				Testing started:	23/11/22

Method of Preparation: <2mm material tamped into the box at as received moisture content

Description: Grey sandy GRAVEL (sand is sub-angular to angular)

	Specimen		
	1	2	3
Normal Stress (kPa)	40	80	160
Length/Width (mm)	60.0 x 60.0	60.0 x 60.0	60.0 x 60.0
Height (mm)	31	34	31
Initial Moisture Content (%)	9.2	9.2	9.2
Initial Bulk Density (Mg/m^3)	1.53	1.55	1.53
Initial Dry Density (Mg/m^3)	1.40	1.42	1.41
Particle Density (Mg/m^3) (Assumed)	2.65	2.65	2.65
Maximum Shear Stress (kPa)	41.0	72.9	152.3
Horizontal displacement at failure (mm)	3.73	5.26	4.03
Rate Horizontal displacement (mm/min)	1	1	1
Condition: Dry (D) / Submerged (S) / Unsubmerged (U)	U	U	U



c' (kPa)	2
φ' (degrees)	44

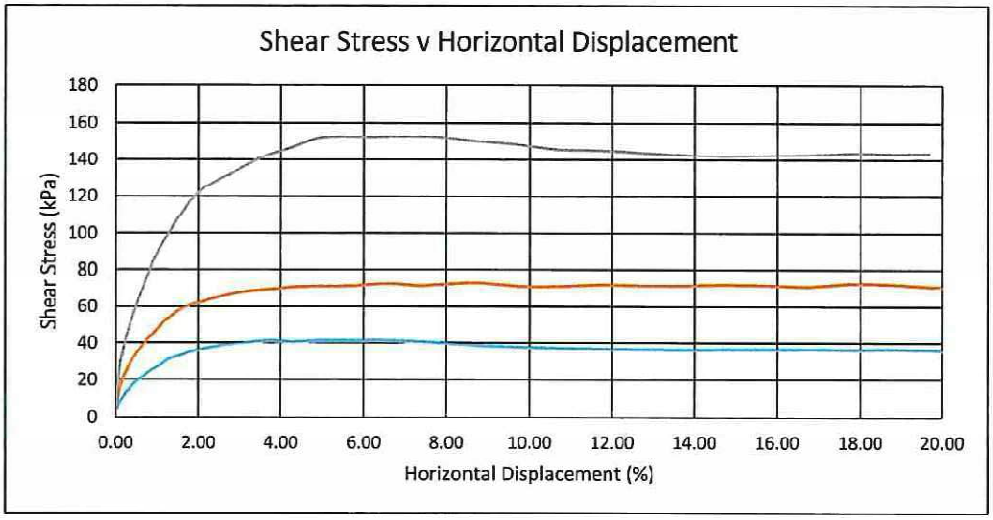
Note: First point is outside accredited normal stress range.

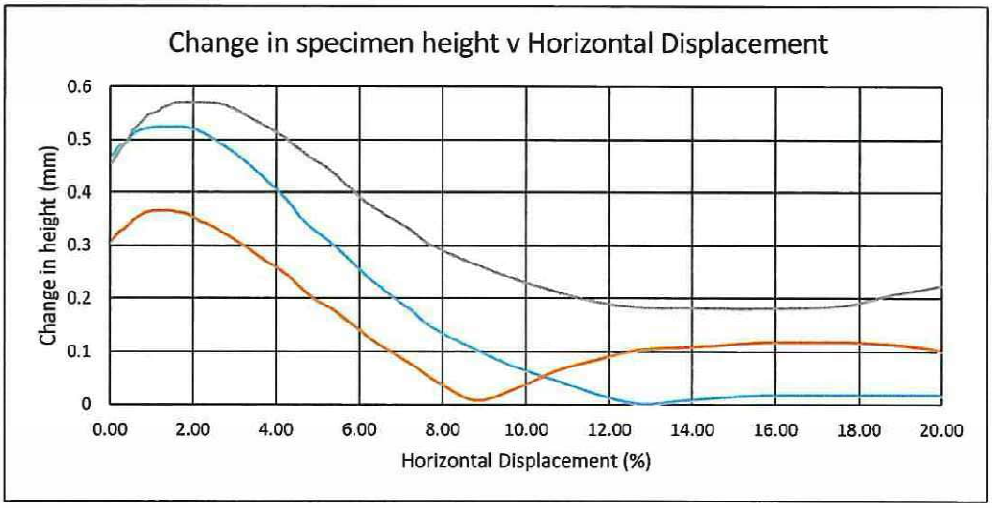
* denotes Cutomer supplied information.
Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.
**Superceded by EN 17892-10:2018

Determination of Shear Strength by Direct Shear

Small Shearbox Apparatus BS1377:Part 7:1990, Clause 4

Contract:	WSP Lot 3			Contract No.	23560
Location:	BH143407	Depth (m)	4.0	Sample No.	178314
Report No.	R140195				





Results relate to the specimen tested.	Approved by	Date	
Approved signatories ☐ J Barrett (Quality Manager) ☐ H Byrne (Laboratory Manager)		24/11/22	Page 2 of 2

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R138827

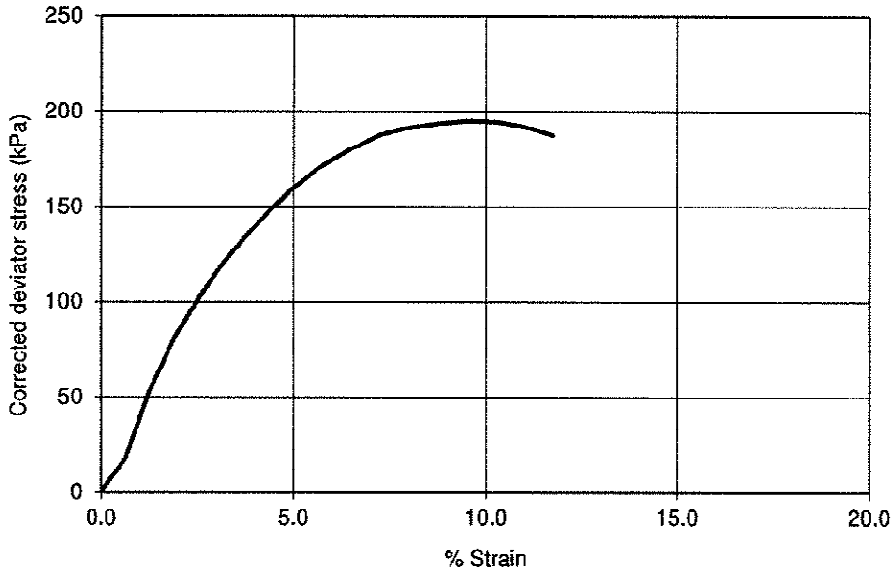
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH104020 1.2m Sample No*. -

Description: Greyish brown slightly sandy gravelly SILT/CLAY

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	9.7	Bulk density (Mg/m^3)	2.15	Dry density (Mg/m^3)	1.96



Strain at failure %	9.5	Cohesion C_u (kPa) (Undrained shear strength kPa)	98
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.41
Date received	-	Date tested	30/09/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

	IGSL Materials Laboratory	Approved by	Date	Page
IGSL Ltd.			18/10/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R138828

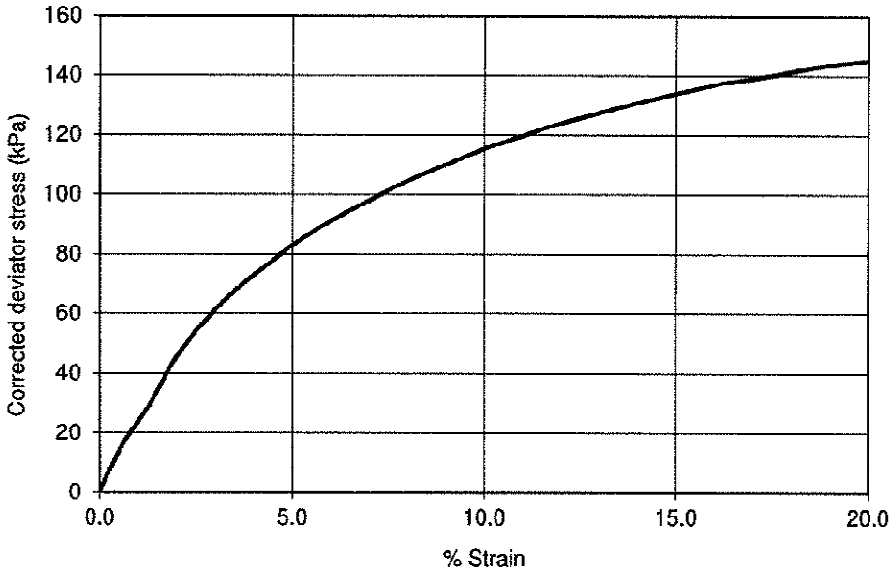
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH104020 2.5m Sample No*. -

Description: Greyish brown slightly sandy gravelly SILT/CLAY with some cobbles

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	13	Bulk density (Mg/m^3)	2.21	Dry density (Mg/m^3)	1.96



Strain at failure %	20	Cohesion C_u (kPa) (Undrained shear strength kPa)	73
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.75
Date received	-	Date tested	30/09/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-6:2018

Person authorised to approve report: J Barrett (Quality Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		18/10/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

Contract Name: WSP Lot 3 Report No. R138829

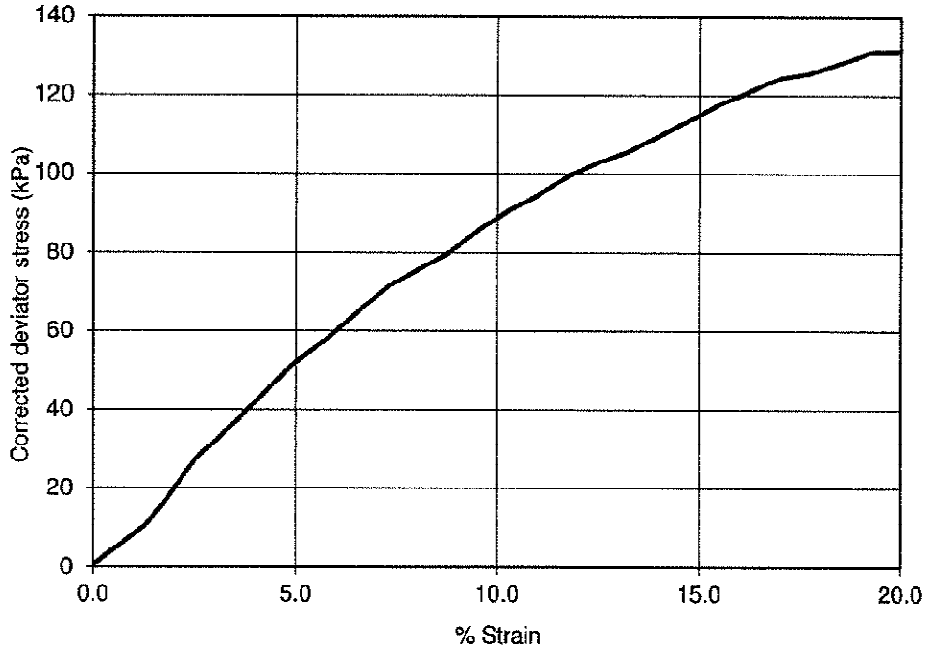
Customer: Irish Water Contract No: 23560

Location: BH104020 5.0m Sample No. -

Description: Grey sandy gravelly SILT/CLAY

Height (mm) 200 Diameter 102 Rate of strain (%/min) 2

Moisture Content % 12 Bulk density (Mg/m^3) 2.23 Dry density (Mg/m^3) 1.99



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	9.5	43
2	100	14.8	57
3	200	20.0	66

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

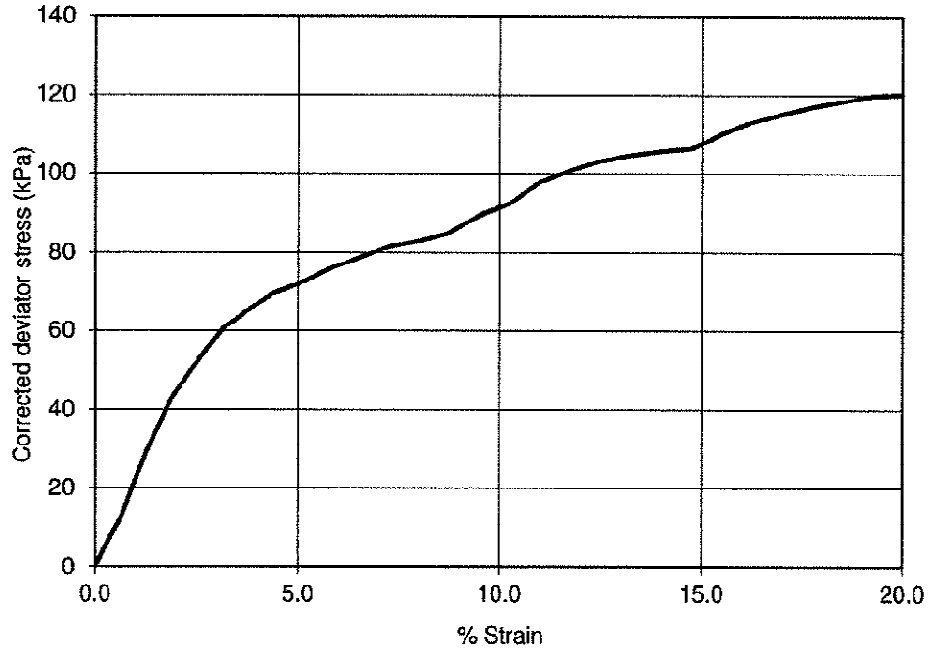
Contract Name: WSP Lot 3 | Report No. R132725

Customer: Irish Water | Contract No: 23560

Location: BH104135 1.2m | Sample No. -

Description: Greyish brown slightly sandy slightly gravelly SILT/CLAY

Height (mm)	200	Diameter	102	Rate of strain (%/min)	2
Moisture Content %	16	Bulk density (Mg/m^3)	2.10	Dry density (Mg/m^3)	1.81



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	100	9.5	45
2	200	14.8	53
3	400	20.0	60

Reason for not undertaking definitive method BS1377-7 cl 8
Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		23/06/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare
045-699324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R132706

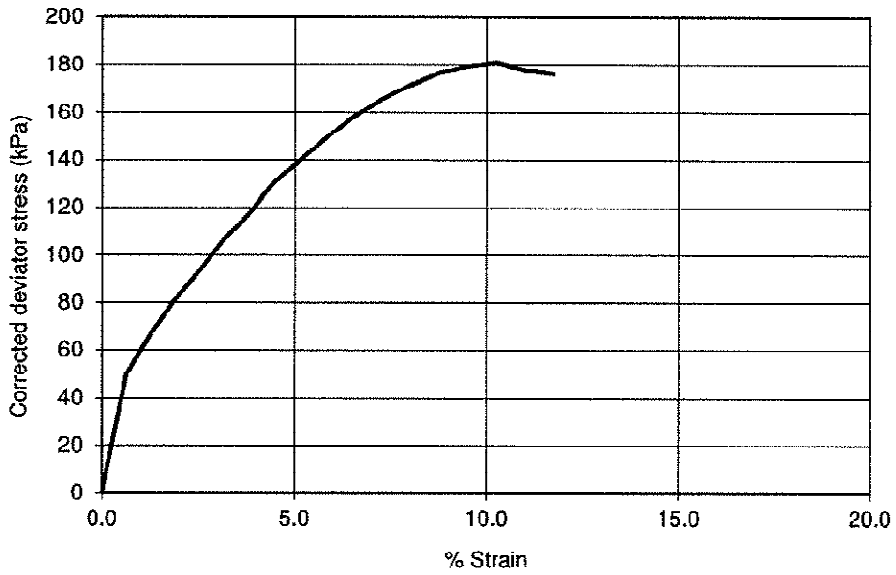
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH104405 1.2m Sample No*. -

Description: Greyish brown slightly slightly sandy gravelly SILT/CLAY

Customer: Irish Water

Height (mm)	200	Diameter	100	Cell pressure(kPa)	100
Moisture Content %	8.4	Bulk density (Mg/m^3)	2.25	Dry density (Mg/m^3)	2.08



Strain at failure %	10.3	Cohesion C_u (kPa) (Undrained shear strength kPa)	90
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.46
Date received	-	Date tested	18/05/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

	IGSL Materials Laboratory	Approved by	Date	Page
IGSL			03/06/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare
045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R138881

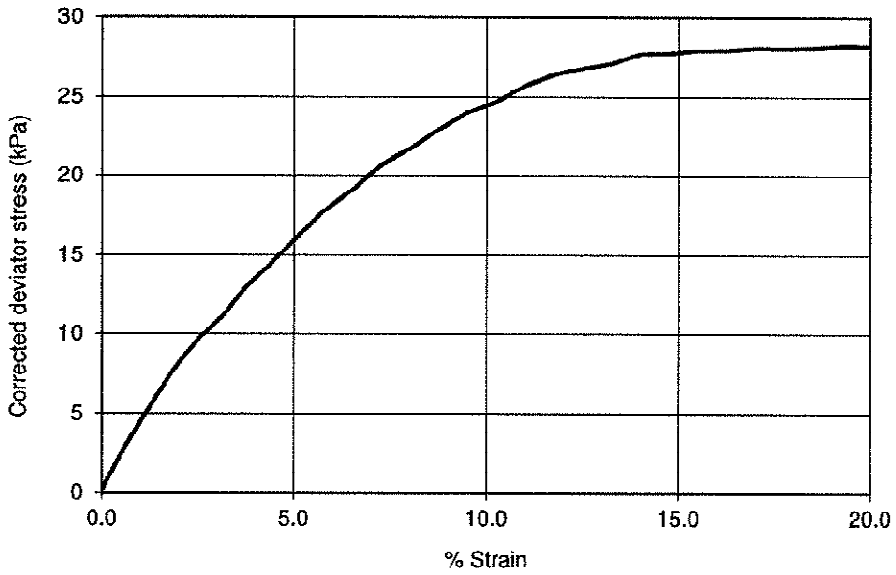
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH104405 3.5m Sample No*. -

Description: Grey slightly sandy SILT/CLAY

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	21	Bulk density (Mg/m^3)	2.00	Dry density (Mg/m^3)	1.65



Strain at failure %	19.3	Cohesion C_u (kPa) (Undrained shear strength kPa)	14
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.72
Date received	-	Date tested	03/10/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		01/11/22	1 of 1

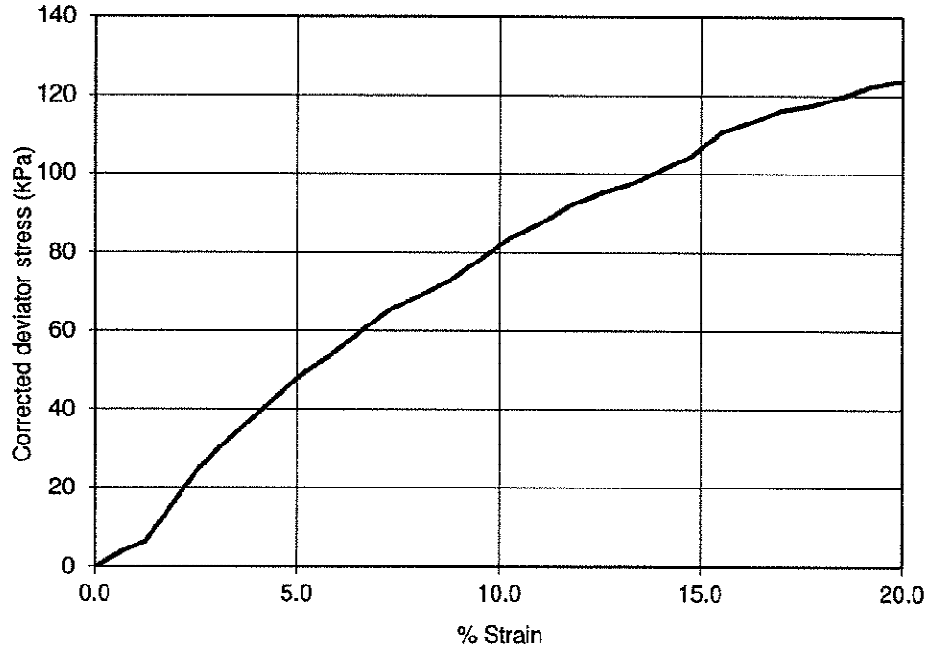
IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

Contract Name:	WSP Lot 3	Report No.	R137276
Customer:	Irish Water	Contract No:	23560
Location:	BH104946 3.5m	Sample No.	162960
Description:	Grey slightly sandy slightly gravelly SILT/CLAY		
Height (mm)	200	Diameter	102
Rate of strain (%/min)	2		
Moisture Content %	9.7	Bulk density (Mg/m^3)	2.36
Dry density (Mg/m^3)	2.15		



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	9.5	39
2	100	14.8	52
3	200	20.0	62

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

	Approved by	Date	Page
IGSL Materials Laboratory		07/09/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R136366

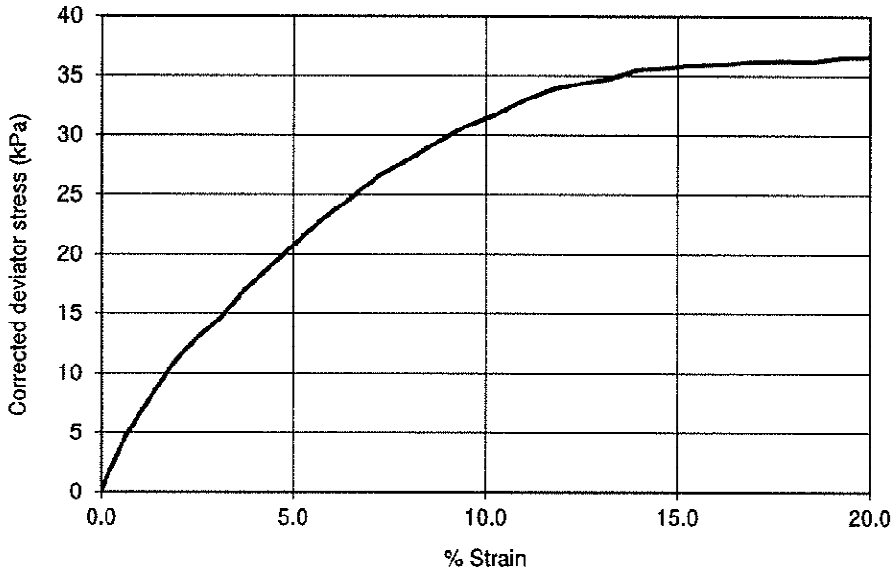
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH105990 2.5m Sample No*. 151449

Description: Grey slightly sandy slightly gravelly SILT/CLAY

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	17	Bulk density (Mg/m^3)	1.90	Dry density (Mg/m^3)	1.62



Strain at failure %	20	Cohesion C_u (kPa) (Undrained shear strength kPa)	18
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.75
Date received	-	Date tested	06/07/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

		Approved by	Date	Page
IGSL	IGSL Materials Laboratory		21/07/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R132707

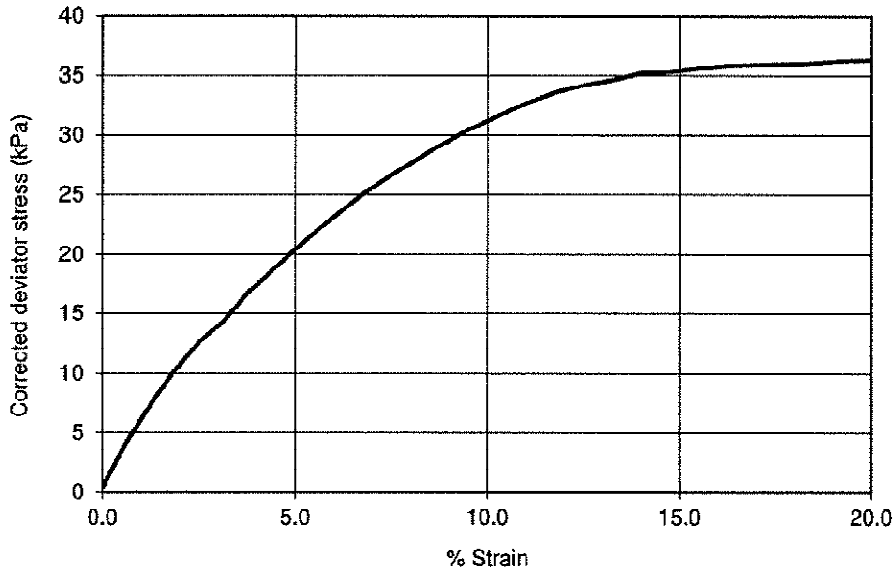
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH106893 2.5m Sample No*. -

Description: Grey slightly sandy gravelly SILT with some peat

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	23	Bulk density (Mg/m^3)	1.84	Dry density (Mg/m^3)	1.50



Strain at failure %	20	Cohesion C_u (kPa) (Undrained shear strength kPa)	18
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.75
Date received	-	Date tested	18/05/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

		Approved by	Date	Page
IGSL	IGSL Materials Laboratory		03/06/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R132744

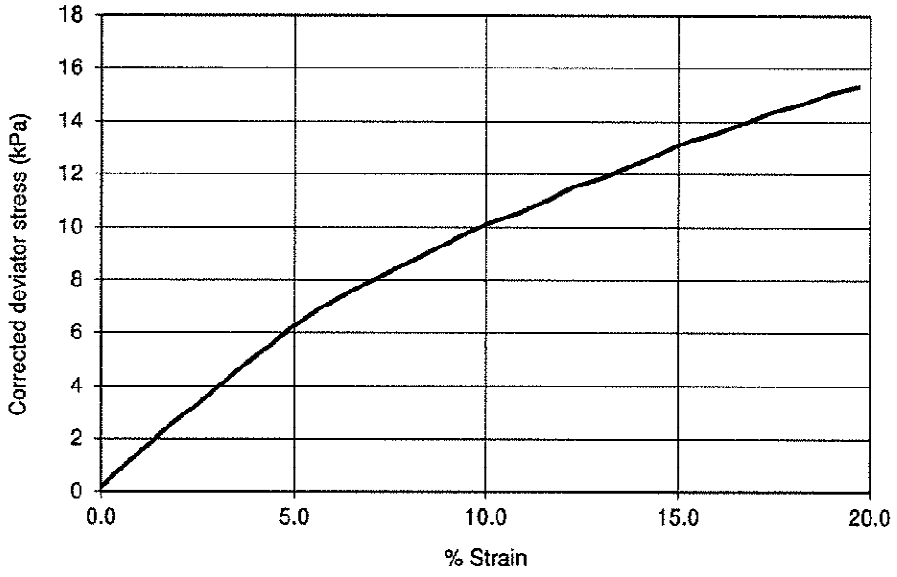
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH107272 1.5m Sample No*. 161427

Description: Grey SILT with some peat

Customer: Irish Water

Height (mm)	203	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	50	Bulk density (Mg/m^3)	1.86	Dry density (Mg/m^3)	1.24



Strain at failure %	19.7	Cohesion C_u (kPa) (Undrained shear strength kPa)	8
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.75
Date received	-	Date tested	30/06/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

	IGSL Materials Laboratory	Approved by	Date	Page
IGSL Ltd			21/07/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

Contract Name: WSP Lot 3 | Report No. R140182

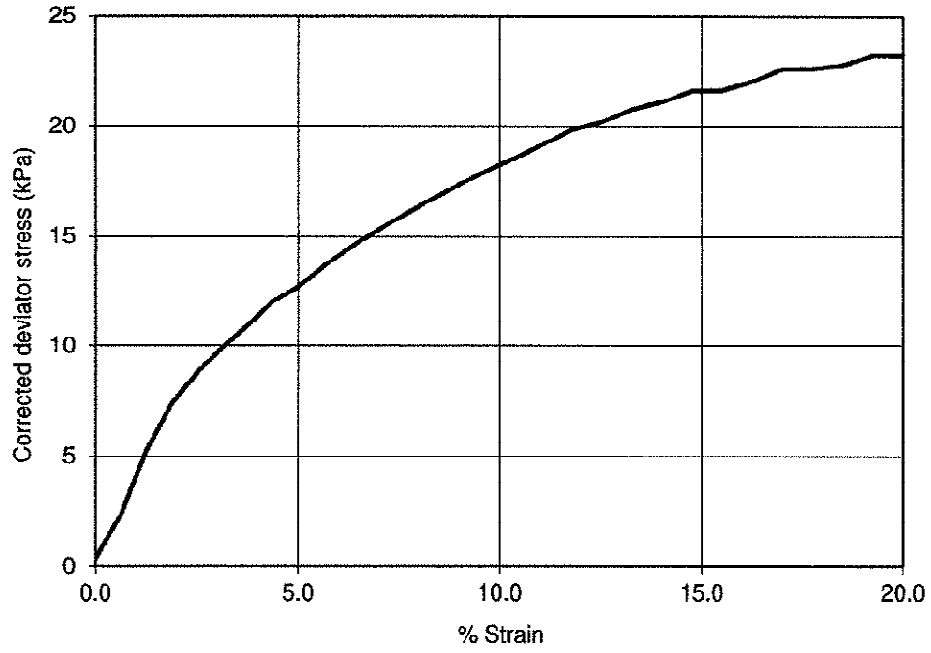
Customer: Irish Water | Contract No: 23560

Location: BH113800 4.0m | Sample No. -

Description: Grey SILT/CLAY

Height (mm) 200 | Diameter 102 | Rate of strain (%/min) 2

Moisture Content % 25 | Bulk density (Mg/m^3) 2.14 | Dry density (Mg/m^3) 1.71



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	100	9.5	9
2	200	14.8	11
3	400	19.3	12

Reason for not undertaking definitive method BS1377-7 cl 8
Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

	IGSL Materials Laboratory	Approved by	Date	Page
IGSL			21/11/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

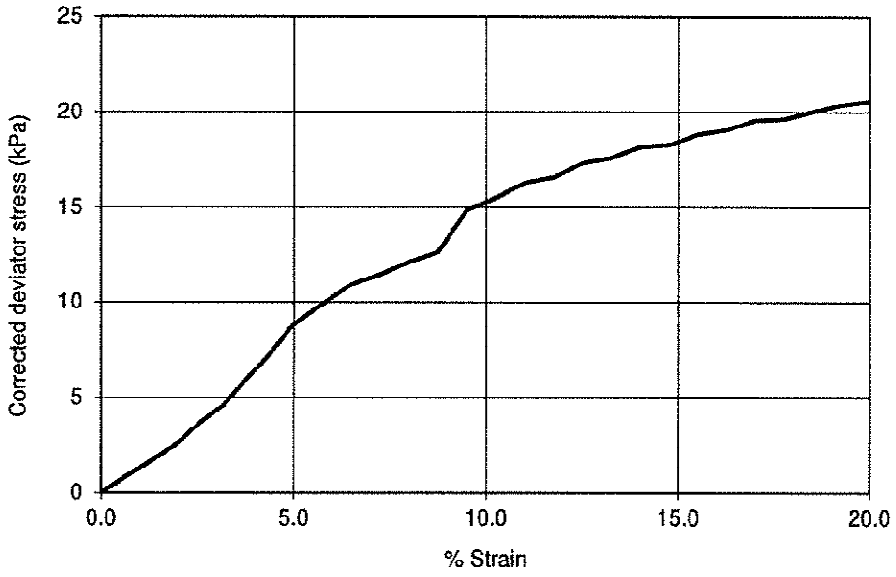
Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R132741

Contract Name:	WSP Lot 3	Contract No:	23560
Location*:	BH122408 1.5m	Sample No*.	-
Description:	Grey SILT/CLAY		
Customer:	Irish Water		

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	47	Bulk density (Mg/m^3)	1.71	Dry density (Mg/m^3)	1.16



Strain at failure %	20	Cohesion C_u (kPa) (Undrained shear strength kPa)	10
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.75
Date received	-	Date tested	29/06/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-6:2018

Person authorised to approve report: J Barrett (Quality Manager)

		Approved by	Date	Page
IGSL	IGSL Materials Laboratory		30/06/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

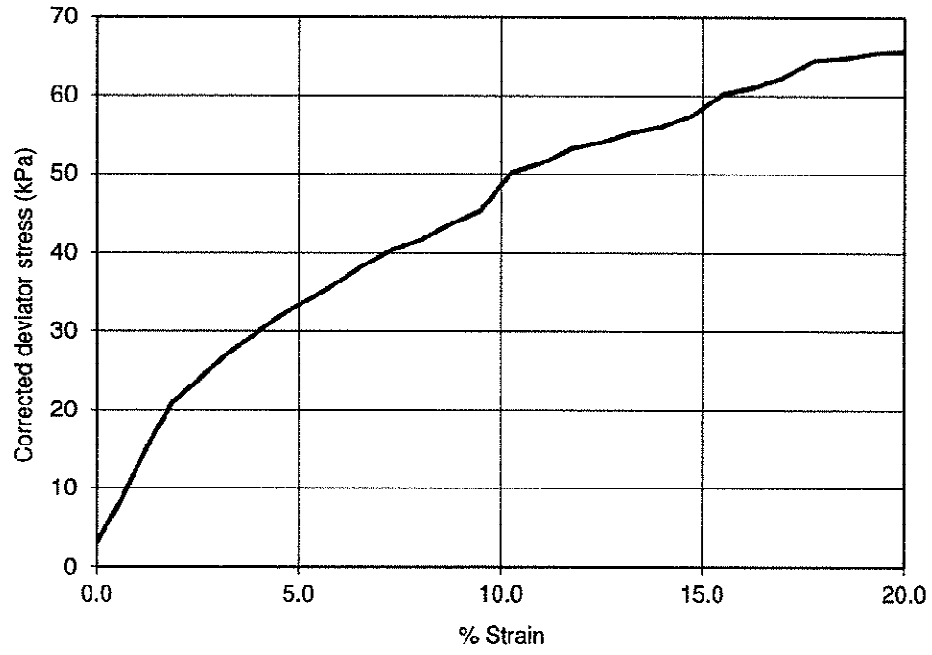
Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

Contract Name:	WSP Lot 3	Report No.	R138882
Customer:	Irish Water	Contract No:	23560
Location:	BH123774 2.5m	Sample No.	178290
Description:	Grey slightly sandy slightly gravelly SILT/CLAY		

Height (mm)	200	Diameter	102	Rate of strain (%/min)	2
Moisture Content %	11	Bulk density (Mg/m^3)	2.21	Dry density (Mg/m^3)	1.99



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	9.5	23
2	100	14.8	29
3	200	20.0	33

Reason for not undertaking definitive method BS1377-7 cl 8
Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

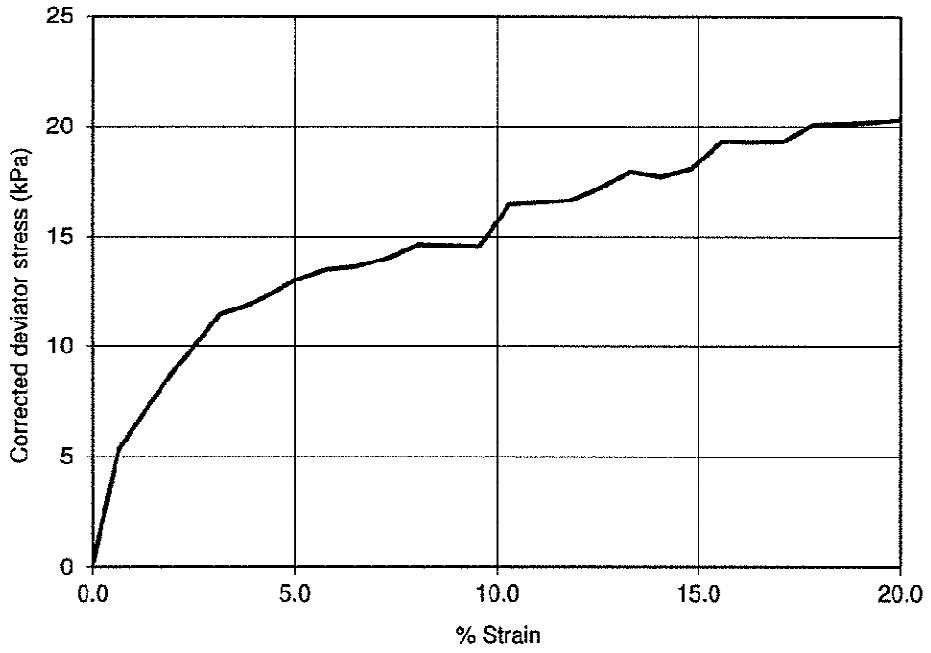
Contract Name: WSP Lot 3 | Report No. R136361

Customer: Irish Water | Contract No: 23560

Location: BH123993 1.5m | Sample No. 173002

Description: Grey brown slightly sandy SILT/CLAY with some peat

Height (mm)	199	Diameter	102	Rate of strain (%/min)	2
Moisture Content %	31	Bulk density (Mg/m^3)	1.51	Dry density (Mg/m^3)	1.15



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	8.0	7
2	100	13.3	9
3	200	20.0	10

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		21/07/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R138806

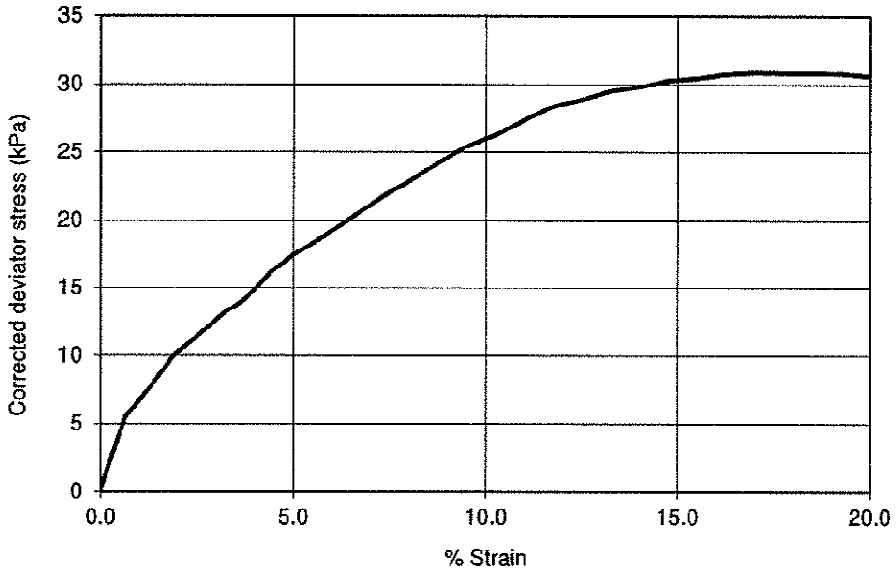
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH124210 1.5m Sample No*. 179163

Description: Grey slightly sandy SILT (remoulded)

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	50
Moisture Content %	30	Bulk density (Mg/m^3)	1.76	Dry density (Mg/m^3)	1.36



Strain at failure %	17	Cohesion C_u (kPa) (Undrained shear strength kPa)	15
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.66
Date received	-	Date tested	03/10/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

	IGSL Materials Laboratory	Approved by	Date	Page
IGSL			04/10/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R132742

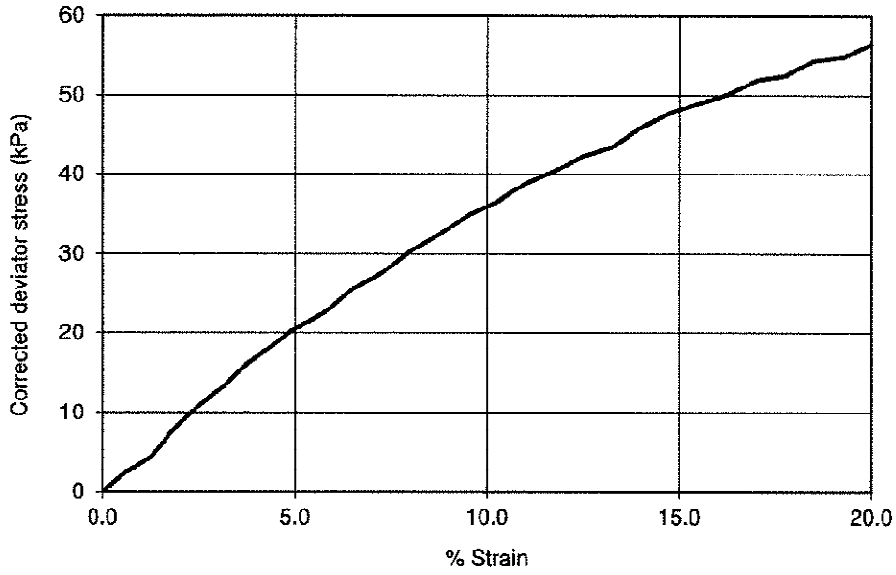
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH124210 4.0m Sample No*. -

Description: Grey SILT/CLAY

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	22	Bulk density (Mg/m^3)	2.12	Dry density (Mg/m^3)	1.73



Strain at failure %	20	Cohesion C_u (kPa) (Undrained shear strength kPa)	28
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.75
Date received	-	Date tested	30/06/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)

	IGSL Materials Laboratory	Approved by	Date	Page
IGSL			01/07/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare

045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R132743

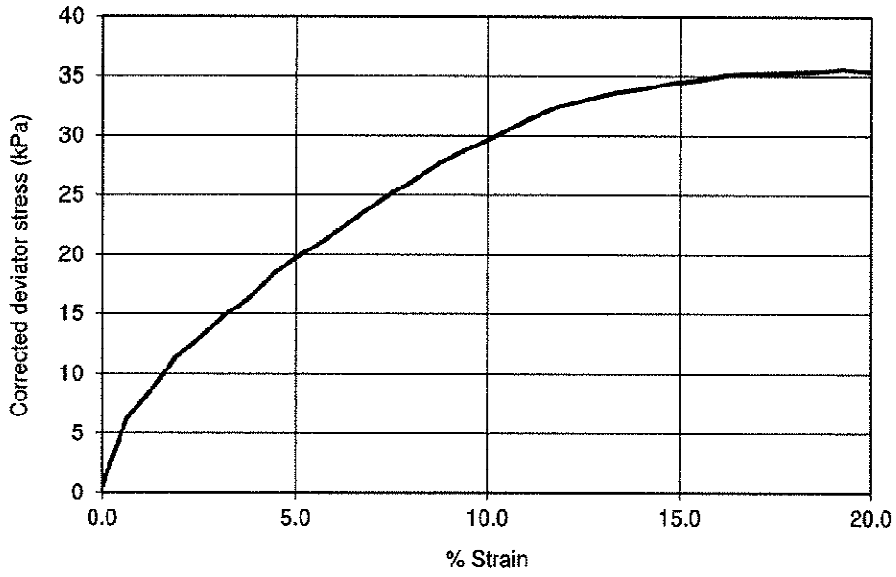
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH125177 2.5m Sample No*. -

Description: Grey SILT/CLAY with some dark brown peat

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	50
Moisture Content %	61	Bulk density (Mg/m^3)	1.58	Dry density (Mg/m^3)	0.98



Strain at failure %	19.3	Cohesion C_u (kPa) (Undrained shear strength kPa)	18
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.72
Date received	-	Date tested	30/06/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-6:2018

Person authorised to approve report: J Barrett (Quality Manager)

		Approved by	Date	Page
IGSL	IGSL Materials Laboratory		01/07/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

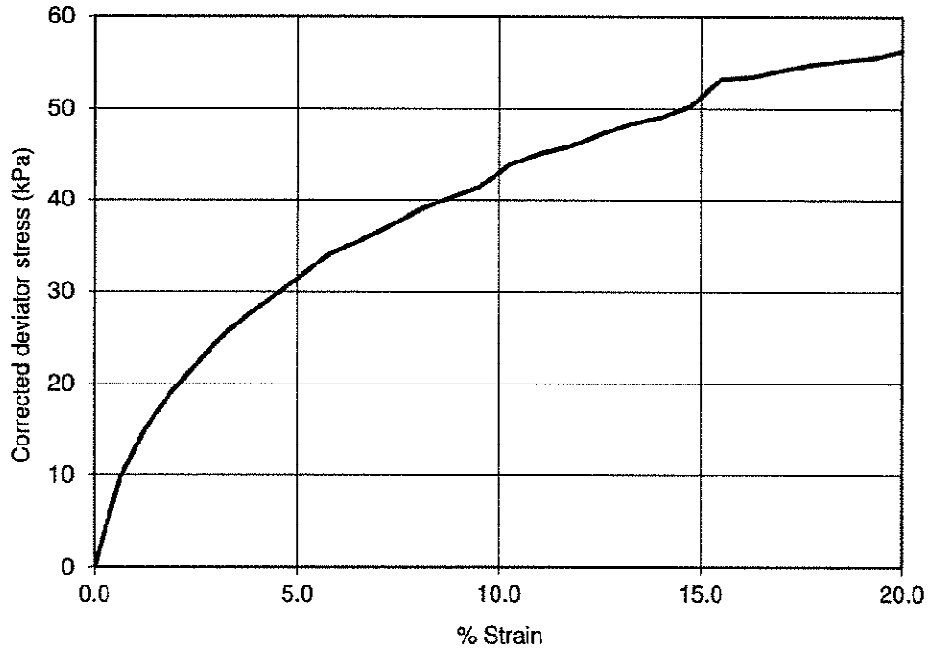
Contract Name: WSP Lot 3 | Report No. R136362

Customer: Irish Water | Contract No: 23560

Location: BH130451 3.0m | Sample No. -

Description: Grey slightly sandy slightly gravelly SILT/CLAY

Height (mm)	200	Diameter	102	Rate of strain (%/min)	2
Moisture Content %	11	Bulk density (Mg/m^3)	2.31	Dry density (Mg/m^3)	2.08



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	9.5	21
2	100	14.8	25
3	200	20.0	28

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		21/07/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

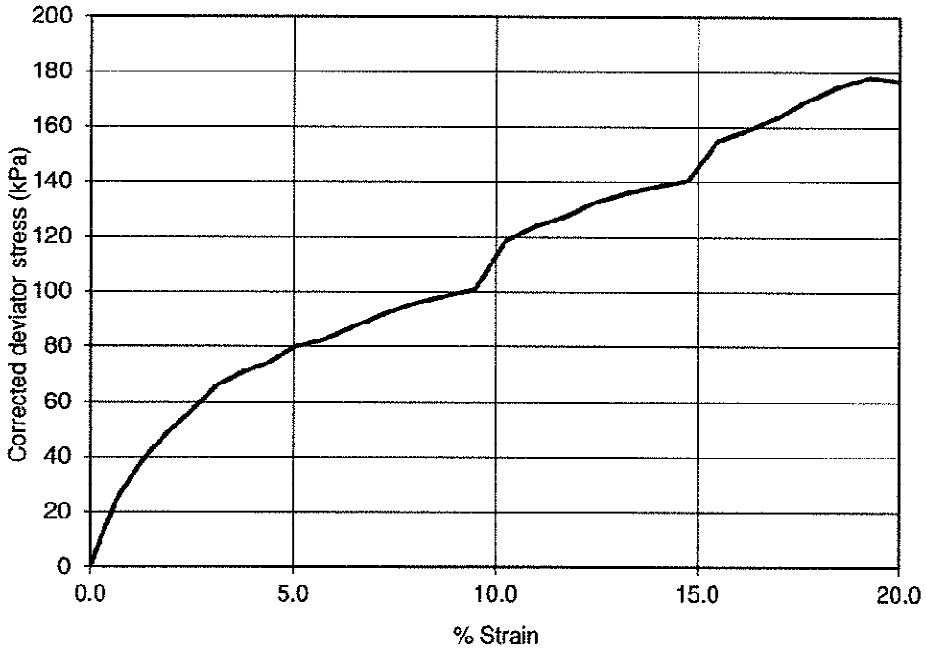
Contract Name: WSP Lot 3 | Report No. R132709

Customer: Irish Water | Contract No: 23560

Location: BH133229 2.0m | Sample No. -

Description: Brown slightly sandy slightly gravelly SILT/CLAY

Height (mm)	200	Diameter	102	Rate of strain (%/min)	2
Moisture Content %	9.1	Bulk density (Mg/m^3)	2.34	Dry density (Mg/m^3)	2.15



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	9.5	51
2	100	14.8	70
3	200	19.3	89

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		09/06/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

Contract Name: WSP Lot 3 Report No. R132708

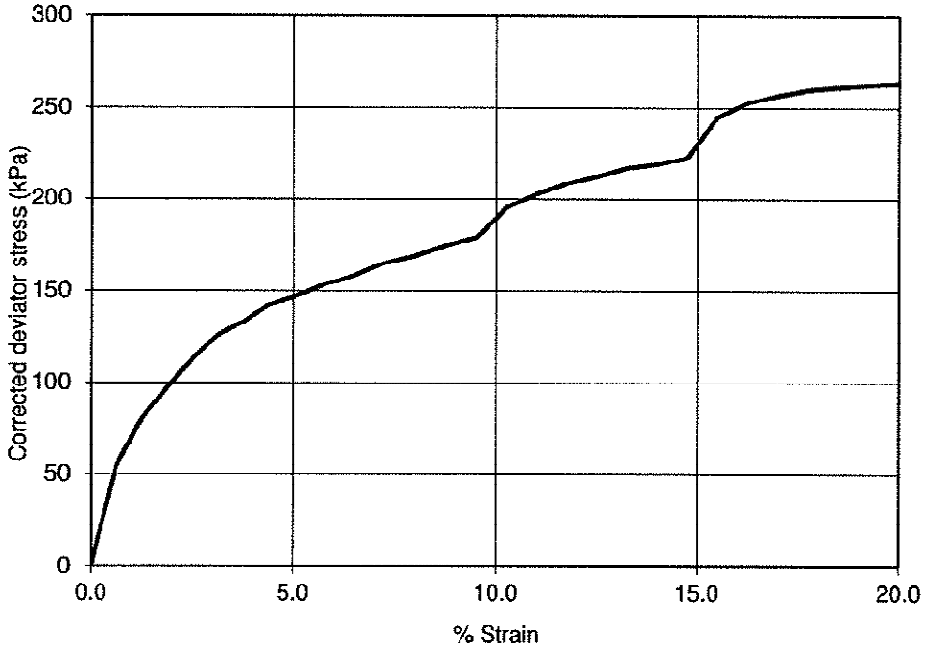
Customer: Irish Water Contract No: 23560

Location: BH133311 2.5m Sample No. -

Description: Grey brown slightly sandy slightly gravelly SILT/CLAY

Height (mm) 200 Diameter 102 Rate of strain (%/min) 2

Moisture Content % 10 Bulk density (Mg/m^3) 2.29 Dry density (Mg/m^3) 2.07



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	9.5	90
2	100	14.8	111
3	200	20.0	131

Reason for not undertaking definitive method BS1377-7 cl 8
Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

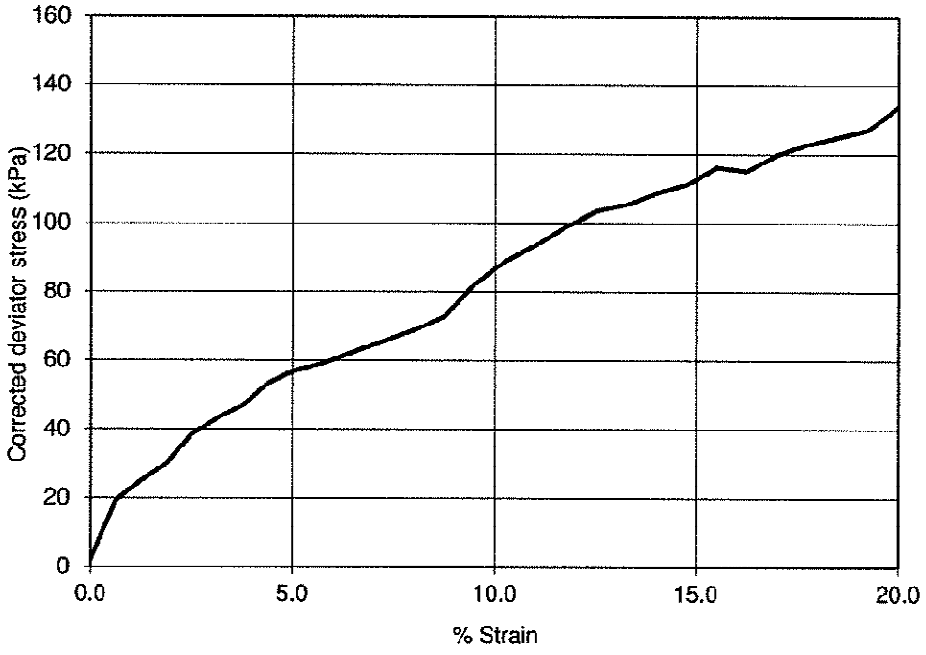
Contract Name: WSP Lot 3 | Report No. R140181

Customer: Irish Water | Contract No: 23560

Location: BHRC133986 5.5m | Sample No. -

Description: Brown slightly sandy slightly gravelly SILT/CLAY

Height (mm)	200	Diameter	100	Rate of strain (%/min)	2
Moisture Content %	12	Bulk density (Mg/m^3)	2.43	Dry density (Mg/m^3)	2.18



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	50	9.5	41
2	100	14.8	56
3	200	20.0	67

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		21/11/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

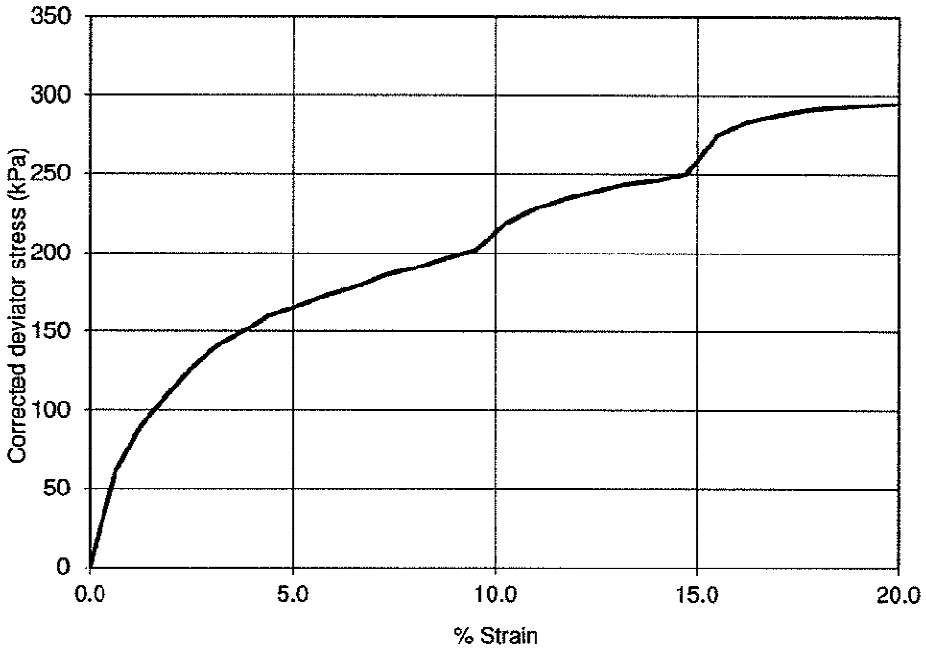
Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

Contract Name:	WSP Lot 3	Report No.	R140192
Customer:	Irish Water	Contract No:	23560
Location:	BH135695 4.5m	Sample No.	-

Description: Brown slightly sandy slightly gravelly SILT/CLAY

Height (mm)	200	Diameter	102	Rate of strain (%/min)	2
Moisture Content %	15	Bulk density (Mg/m^3)	2.26	Dry density (Mg/m^3)	1.96



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	125	9.5	101
2	250	14.8	125
3	500	20.0	148

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.

This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd
Materials Laboratory
Unit F, M7 Business Park
Naas
Co. Kildare
045-899324

Test Report

Undrained shear strength in triaxial compression
(without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 8
(definitive method)**

Report no: R132705

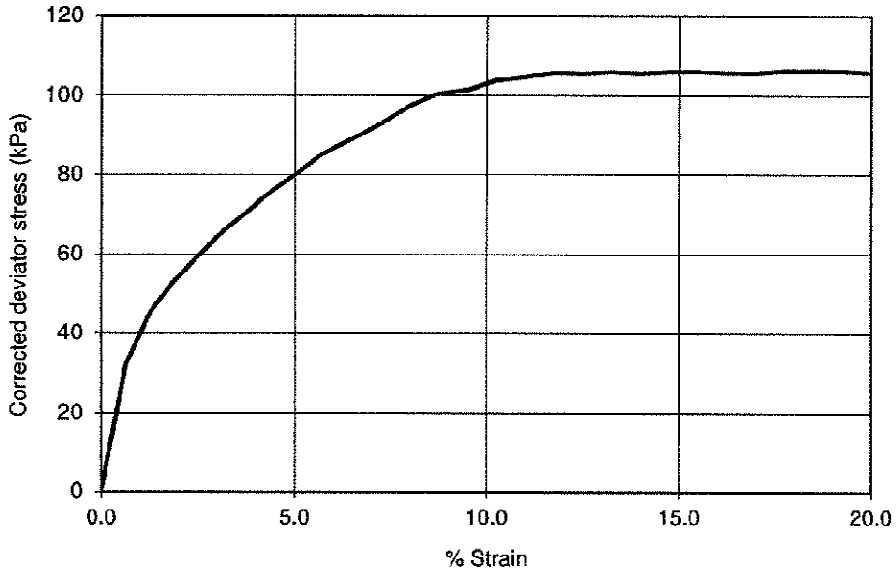
Contract Name: WSP Lot 3 Contract No: 23560

Location*: BH134500 2.0m Sample No*. -

Description: Grey slightly sandy gravelly SILT/CLAY

Customer: Irish Water

Height (mm)	200	Diameter	102	Cell pressure(kPa)	100
Moisture Content %	8.3	Bulk density (Mg/m^3)	2.27	Dry density (Mg/m^3)	2.10



Strain at failure %	17.8	Cohesion C_u (kPa) (Undrained shear strength kPa)	53
Rate of strain (%/minute)	2.0		
Thickness of membrane	0.2	Membrane correction (at failure)	0.7
Date received	-	Date tested	30/05/22

Results relate only to the specimen tested, in as received condition unless otherwise noted. Opinions and interpretations are outside the scope of accreditation.

* denotes Customer supplied information

This report shall not be reproduced except in full without written approval from the Laboratory

**This Standard has been superceded by ISO17892-6:2018

Person authorised to approve report: J Barrett (Quality Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		03/06/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

Undrained shear strength in triaxial compression with multistage loading (without pore pressure measurement)

Tested in accordance with BS1377:Part 7:1990 clause 9

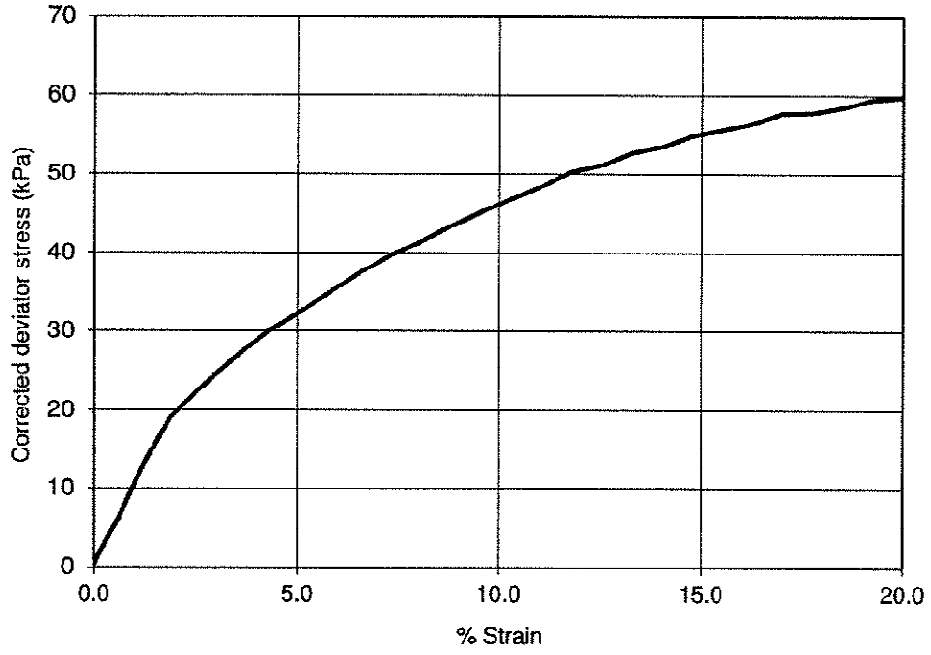
Contract Name: WSP Lot 3 Report No. R136363

Customer: Irish Water Contract No: 23560

Location: BH139941 4.5m Sample No. -

Description: Grey slightly sandy slightly gravelly SILT/CLAY

Height (mm)	200	Diameter	102	Rate of strain (%/min)	2
Moisture Content %	11	Bulk density (Mg/m^3)	2.34	Dry density (Mg/m^3)	2.10



Stage	Cell pressure (kPa)	Strain %	Undrained Shear strength (kPa)
1	100	9.5	22
2	200	14.8	27
3	400	20.0	30

Reason for not undertaking definitive method BS1377-7 cl 8

Customer instruction to undertake multistage

The result relates to the specimen in as received condition unless otherwise stated.
This report shall not be reproduced except in full without the written approval of the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
		21/07/22	1 of 1

Appendix 8H.2

Geo-environmental & Chemical Testing – Soil

Chemtest Report Numbers

22-30198 - Peatlands
22-35401 – Peatlands
22-37985 - Peatlands
22-39337 – Peatlands
22-40422 - Peatlands
22-43721 – Peatlands
22-44551 - Peatlands

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

UKAS TESTING
2183

Amended Report

Report No.:	22-30198-2		
Initial Date of Issue:	18-Aug-2022	**Date of Re-Issue:**	20-Oct-2022
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	WSP (IGSL)		
Quotation No.:	Q21-25399	**Date Received:**	09-Aug-2022
Order No.:		**Date Instructed:**	09-Aug-2022
No. of Samples:	88		
Turnaround (Wkdays):	7	**Results Due:**	17-Aug-2022
Date Approved:	18-Aug-2022		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Soil

Project: WSP (IGSL)

Client: IGSL				**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399				**Chemtest Sample ID.:**	1484023	1484024	1484025	1484026	1484027	1484028	1484029	1484030	1484031	1484033	1484034
				Sample Location:	BH125177	BH125582	BH127452	BH127452	BH128127	BH129405	BH130005	BH130005	BH130451	BH131203	BH131836
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.5	3.0	1.2	3.0	1.2	0.5	0.5	2.0	1.2	1.2	2.5
				Bottom Depth (m):	1.0	3.5	1.7	3.5	1.7	1.0	1.0		1.7	1.7	3.0
				Asbestos Lab:											
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
ACM Type	U	2192		N/A											
Asbestos Identification	U	2192		N/A											
Moisture	N	2030	%	0.020	45	45	50	9.7	48	50	64	16	51	53	43
pH	U	2010		4.0											
pH (2.5:1)	N	2010		4.0								[A] 8.5			
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40											
Magnesium (Water Soluble)	N	2120	g/l	0.010								[A] < 0.010			
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010								[A] 0.12			
Total Sulphur	U	2175	%	0.010								[A] 0.11			
Chloride (Water Soluble)	U	2220	g/l	0.010								[A] < 0.010			
Nitrate (Water Soluble)	N	2220	g/l	0.010								< 0.010			
Cyanide (Total)	U	2300	mg/kg	0.50											
Ammonium (Water Soluble)	U	2220	g/l	0.01								< 0.01			
Sulphate (Acid Soluble)	U	2430	%	0.010								[A] 0.043			
Arsenic	U	2455	mg/kg	0.5											
Cadmium	U	2455	mg/kg	0.10											
Chromium	U	2455	mg/kg	0.5											
Copper	U	2455	mg/kg	0.50											
Mercury	U	2455	mg/kg	0.05											
Nickel	U	2455	mg/kg	0.50											
Lead	U	2455	mg/kg	0.50											
Zinc	U	2455	mg/kg	0.50											
LOI	U	2610	%	0.10	89	94	87	2.3	58	94	91		75	52	63
Organic Matter	U	2625	%	0.40	[A] 33	[A] 22	[A] 47	[A] 1.1	[A] 26	[A] 21	[A] 21		[A] 17	[A] 21	[A] 24
Total TPH >C6-C40	U	2670	mg/kg	10											
Naphthalene	U	2800	mg/kg	0.10											
Acenaphthylene	N	2800	mg/kg	0.10											
Acenaphthene	U	2800	mg/kg	0.10											
Fluorene	U	2800	mg/kg	0.10											
Phenanthrene	U	2800	mg/kg	0.10											
Anthracene	U	2800	mg/kg	0.10											
Fluoranthene	U	2800	mg/kg	0.10											
Pyrene	U	2800	mg/kg	0.10											
Benzo[a]anthracene	U	2800	mg/kg	0.10											
Chrysene	U	2800	mg/kg	0.10											
Benzo[b]fluoranthene	U	2800	mg/kg	0.10											
Benzo[k]fluoranthene	U	2800	mg/kg	0.10											
Benzo[a]pyrene	U	2800	mg/kg	0.10											

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484023	1484024	1484025	1484026	1484027	1484028	1484029	1484030	1484031	1484033	1484034
					Sample Location:	BH125177	BH125582	BH127452	BH127452	BH128127	BH129405	BH130005	BH130005	BH130451	BH131203	BH131836
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.5	3.0	1.2	3.0	1.2	0.5	0.5	2.0	1.2	1.2	2.5
					Bottom Depth (m):	1.0	3.5	1.7	3.5	1.7	1.0	1.0		1.7	1.7	3.0
					Asbestos Lab:											
Determinand	**Accred.**	**SOP**	**Units**	**LOD**												
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10												
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10												
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10												
Coronene	N	2800	mg/kg	0.10												
Total Of 16 PAH's	N	2800	mg/kg	2.0												
Total Of 17 PAH's	N	2800	mg/kg	2.0												
Total Phenols	U	2920	mg/kg	0.10												

Results - Soil

Project: WSP (IGSL)

Client: IGSL				**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399				**Chemtest Sample ID.:**	1484035	1484036	1484037	1484038	1484039	1484040	1484041	1484042	1484043	1484044	1484045
				Sample Location:	BH139202	BH139752	BH139892	BH139892	BH139912	BH139912	BH139941	BH139941	BH140469	BH140745	BH140745
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	2.5	3.5	0.2	3.5	2.5	3.5	2.0	0.5	2.5	0.2	3.5
				Bottom Depth (m):	3.0	4.0	1.0	4.0	3.0	4.0	2.5	1.0	3.0	4.0	4.0
				Asbestos Lab:											
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
ACM Type	U	2192		N/A											
Asbestos Identification	U	2192		N/A											
Moisture	N	2030	%	0.020	55	54	59	59	58	15	12	52	52	53	60
pH	U	2010		4.0											
pH (2.5:1)	N	2010		4.0						[A] 8.5	[A] 8.5				
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40											
Magnesium (Water Soluble)	N	2120	g/l	0.010						[A] < 0.010	[A] < 0.010				
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010						[A] < 0.010	[A] < 0.010				
Total Sulphur	U	2175	%	0.010						[A] 0.039	[A] 0.026				
Chloride (Water Soluble)	U	2220	g/l	0.010						[A] < 0.010	[A] < 0.010				
Nitrate (Water Soluble)	N	2220	g/l	0.010						< 0.010	< 0.010				
Cyanide (Total)	U	2300	mg/kg	0.50											
Ammonium (Water Soluble)	U	2220	g/l	0.01						< 0.01	< 0.01				
Sulphate (Acid Soluble)	U	2430	%	0.010						[A] 0.015	[A] 0.013				
Arsenic	U	2455	mg/kg	0.5											
Cadmium	U	2455	mg/kg	0.10											
Chromium	U	2455	mg/kg	0.5											
Copper	U	2455	mg/kg	0.50											
Mercury	U	2455	mg/kg	0.05											
Nickel	U	2455	mg/kg	0.50											
Lead	U	2455	mg/kg	0.50											
Zinc	U	2455	mg/kg	0.50											
LOI	U	2610	%	0.10	33	90	95	71	U/S			U/S	U/S	U/S	U/S
Organic Matter	U	2625	%	0.40	[A] 67	[A] 34	[A] 17	[A] 24	[A] 26			[A] 84	[A] 21	[A] 24	[A] 34
Total TPH >C6-C40	U	2670	mg/kg	10											
Naphthalene	U	2800	mg/kg	0.10											
Acenaphthylene	N	2800	mg/kg	0.10											
Acenaphthene	U	2800	mg/kg	0.10											
Fluorene	U	2800	mg/kg	0.10											
Phenanthrene	U	2800	mg/kg	0.10											
Anthracene	U	2800	mg/kg	0.10											
Fluoranthene	U	2800	mg/kg	0.10											
Pyrene	U	2800	mg/kg	0.10											
Benzo[a]anthracene	U	2800	mg/kg	0.10											
Chrysene	U	2800	mg/kg	0.10											
Benzo[b]fluoranthene	U	2800	mg/kg	0.10											
Benzo[k]fluoranthene	U	2800	mg/kg	0.10											
Benzo[a]pyrene	U	2800	mg/kg	0.10											

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484035	1484036	1484037	1484038	1484039	1484040	1484041	1484042	1484043	1484044	1484045
					Sample Location:	BH139202	BH139752	BH139892	BH139892	BH139912	BH139912	BH139941	BH139941	BH140469	BH140745	BH140745
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	2.5	3.5	0.2	3.5	2.5	3.5	2.0	0.5	2.5	0.2	3.5
					Bottom Depth (m):	3.0	4.0	1.0	4.0	3.0	4.0	2.5	1.0	3.0	4.0	4.0
					Asbestos Lab:											
Determinand	**Accred.**	**SOP**	**Units**	**LOD**												
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10												
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10												
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10												
Coronene	N	2800	mg/kg	0.10												
Total Of 16 PAH's	N	2800	mg/kg	2.0												
Total Of 17 PAH's	N	2800	mg/kg	2.0												
Total Phenols	U	2920	mg/kg	0.10												

Results - Soil

Project: WSP (IGSL)

Client: IGSL				**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399				**Chemtest Sample ID.:**	1484046	1484047	1484048	1484049	1484050	1484051	1484052	1484054	1484055	1484056
				Sample Location:	BH142795	BH123219	BH123774	BH123993	BH133311	BH124677	BH124677	TP133012	TP135904	TP136108
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	3.0	2.0	1.0	1.0	2.5	0.5	1.2	2.5	2.5	1.8
				Bottom Depth (m):	3.5	2.5	1.5	1.5	3.0	1.0	1.7			
				Asbestos Lab:										
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A										
Asbestos Identification	U	2192		N/A										
Moisture	N	2030	%	0.020	0.38	3.9	66	64	9.0	50	49	7.0	7.6	9.5
pH	U	2010		4.0										
pH (2.5:1)	N	2010		4.0	[A] 9.1	[A] 9.0			[A] 8.8			[A] 8.9	[A] 8.9	[A] 8.8
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40										
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010	[A] < 0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010	[A] 0.026			[A] < 0.010			[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Sulphur	U	2175	%	0.010	[A] 0.17	[A] 0.10			[A] 0.016			[A] 0.015	[A] 0.017	[A] 0.020
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010	[A] < 0.010	[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010			< 0.010			< 0.010	< 0.010	< 0.010
Cyanide (Total)	U	2300	mg/kg	0.50										
Ammonium (Water Soluble)	U	2220	g/l	0.01	< 0.01	< 0.01			< 0.01			< 0.01	< 0.01	< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.034	[A] 0.026			[A] 0.015			[A] 0.012	[A] 0.014	[A] 0.015
Arsenic	U	2455	mg/kg	0.5										
Cadmium	U	2455	mg/kg	0.10										
Chromium	U	2455	mg/kg	0.5										
Copper	U	2455	mg/kg	0.50										
Mercury	U	2455	mg/kg	0.05										
Nickel	U	2455	mg/kg	0.50										
Lead	U	2455	mg/kg	0.50										
Zinc	U	2455	mg/kg	0.50										
LOI	U	2610	%	0.10			U/S	U/S		U/S	10			
Organic Matter	U	2625	%	0.40			[A] 78	[A] 41		[A] 24	[A] 10			
Total TPH >C6-C40	U	2670	mg/kg	10										
Naphthalene	U	2800	mg/kg	0.10										
Acenaphthylene	N	2800	mg/kg	0.10										
Acenaphthene	U	2800	mg/kg	0.10										
Fluorene	U	2800	mg/kg	0.10										
Phenanthrene	U	2800	mg/kg	0.10										
Anthracene	U	2800	mg/kg	0.10										
Fluoranthene	U	2800	mg/kg	0.10										
Pyrene	U	2800	mg/kg	0.10										
Benzo[a]anthracene	U	2800	mg/kg	0.10										
Chrysene	U	2800	mg/kg	0.10										
Benzo[b]fluoranthene	U	2800	mg/kg	0.10										
Benzo[k]fluoranthene	U	2800	mg/kg	0.10										
Benzo[a]pyrene	U	2800	mg/kg	0.10										

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484046	1484047	1484048	1484049	1484050	1484051	1484052	1484054	1484055	1484056
					Sample Location:	BH142795	BH123219	BH123774	BH123993	BH133311	BH124677	BH124677	TP133012	TP135904	TP136108
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	3.0	2.0	1.0	1.0	2.5	0.5	1.2	2.5	2.5	1.8
					Bottom Depth (m):	3.5	2.5	1.5	1.5	3.0	1.0	1.7			
					Asbestos Lab:										
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10											
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10											
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10											
Coronene	N	2800	mg/kg	0.10											
Total Of 16 PAH's	N	2800	mg/kg	2.0											
Total Of 17 PAH's	N	2800	mg/kg	2.0											
Total Phenols	U	2920	mg/kg	0.10											

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484057	1484058	1484070	1484071	1484072	1484073	1484074	1484075	1484076	1484077
					Sample Location:	TP143502	TP143502	BH107807	BH107807	BH109609	BH109609	BH109085	TP103304	TP117901	TP119700
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	3.0	0.5	2.0	3.0	1.0	3.0	1.0	0.5	2.2	0.1
					Bottom Depth (m):			2.5	3.5	1.5	3.5	1.5	0.6	2.3	0.2
					Asbestos Lab:				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			
Moisture	N	2030	%	0.020	11	68	11	7.7	57	5.3	8.5	6.4	7.6	31	
pH	U	2010		4.0				[A] 8.5		[A] 8.6	[A] 8.6				
pH (2.5:1)	N	2010		4.0	[A] 8.3			[A] 8.6	[A] 7.2	[A] 8.6	[A] 8.6		[A] 8.6		
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40				[A] < 0.40		[A] < 0.40	[A] < 0.40				
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] < 0.010			[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010		
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] 0.19			[A] 0.014	[A] 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010		
Total Sulphur	U	2175	%	0.010	[A] 0.22			[A] 0.14	[A] 0.31	[A] 0.10	[A] 0.024		[A] 0.031		
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010			[A] < 0.010	[A] 0.012	[A] < 0.010	[A] < 0.010		[A] < 0.010		
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010			< 0.010	0.067	< 0.010	< 0.010		< 0.010		
Cyanide (Total)	U	2300	mg/kg	0.50				[A] < 0.50		[A] < 0.50	[A] < 0.50				
Ammonium (Water Soluble)	U	2220	g/l	0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01		< 0.01		
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.090			[A] 0.021	[A] 0.076	[A] 0.019	[A] 0.015		[A] 0.014		
Arsenic	U	2455	mg/kg	0.5				3.6		3.6	2.0				
Cadmium	U	2455	mg/kg	0.10				0.62		0.78	0.45				
Chromium	U	2455	mg/kg	0.5				5.6		6.6	6.7				
Copper	U	2455	mg/kg	0.50				8.2		9.6	6.9				
Mercury	U	2455	mg/kg	0.05				< 0.05		< 0.05	< 0.05				
Nickel	U	2455	mg/kg	0.50				17		21	17				
Lead	U	2455	mg/kg	0.50				7.6		8.7	6.0				
Zinc	U	2455	mg/kg	0.50				42		51	31				
LOI	U	2610	%	0.10		U/S	U/S					6.4		27	
Organic Matter	U	2625	%	0.40		[A] 38	[A] 91	[A] 0.88		[A] 0.71	[A] 1.1	[A] 0.84		[A] 19	
Total TPH >C6-C40	U	2670	mg/kg	10				[A] < 10		[A] < 10	[A] < 10				
Naphthalene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Acenaphthylene	N	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Acenaphthene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Fluorene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Phenanthrene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Anthracene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Fluoranthene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Pyrene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Benzo[a]anthracene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Chrysene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Benzo[b]fluoranthene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Benzo[k]fluoranthene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Benzo[a]pyrene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484057	1484058	1484070	1484071	1484072	1484073	1484074	1484075	1484076	1484077
					Sample Location:	TP143502	TP143502	BH107807	BH107807	BH109609	BH109609	BH109085	TP103304	TP117901	TP119700
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	3.0	0.5	2.0	3.0	1.0	3.0	1.0	0.5	2.2	0.1
					Bottom Depth (m):			2.5	3.5	1.5	3.5	1.5	0.6	2.3	0.2
					Asbestos Lab:				DURHAM		DURHAM	DURHAM			
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10				< 0.10		< 0.10	< 0.10				
Coronene	N	2800	mg/kg	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				
Total Of 17 PAH's	N	2800	mg/kg	2.0				< 2.0		< 2.0	< 2.0				
Total Phenols	U	2920	mg/kg	0.10				< 0.10		< 0.10	< 0.10				

Results - Soil

Project: WSP (IGSL)

Client: IGSL				**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399				**Chemtest Sample ID.:**	1484078	1484079	1484080	1484081	1484082	1484083	1484084	1484085	1484086	1484087	1484088
				Sample Location:	TP125902	TP126004	TP112408	BH106421	BH106421	BH106893	BH106893	BH105486	BH105486	BH105486	BH105990
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.2	0.5	1.0	1.0	3.0	1.0	2.0	1.0	3.0	4.0	1.0
				Bottom Depth (m):	0.6	0.6	1.5								
				Asbestos Lab:											
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
ACM Type	U	2192		N/A											
Asbestos Identification	U	2192		N/A											
Moisture	N	2030	%	0.020	54	53	49	56	67	61	11	69	54	9.2	22
pH	U	2010		4.0											
pH (2.5:1)	N	2010		4.0							[A] 8.5			[A] 8.5	
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40											
Magnesium (Water Soluble)	N	2120	g/l	0.010							[A] < 0.010			[A] < 0.010	
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010							[A] < 0.010			[A] < 0.010	
Total Sulphur	U	2175	%	0.010							[A] 0.021			[A] 0.025	
Chloride (Water Soluble)	U	2220	g/l	0.010							[A] < 0.010			[A] < 0.010	
Nitrate (Water Soluble)	N	2220	g/l	0.010							< 0.010			< 0.010	
Cyanide (Total)	U	2300	mg/kg	0.50											
Ammonium (Water Soluble)	U	2220	g/l	0.01							< 0.01			< 0.01	
Sulphate (Acid Soluble)	U	2430	%	0.010							[A] 0.013			[A] 0.011	
Arsenic	U	2455	mg/kg	0.5											
Cadmium	U	2455	mg/kg	0.10											
Chromium	U	2455	mg/kg	0.5											
Copper	U	2455	mg/kg	0.50											
Mercury	U	2455	mg/kg	0.05											
Nickel	U	2455	mg/kg	0.50											
Lead	U	2455	mg/kg	0.50											
Zinc	U	2455	mg/kg	0.50											
LOI	U	2610	%	0.10	U/S	U/S	U/S	U/S	U/S	U/S		U/S	U/S		
Organic Matter	U	2625	%	0.40	[A] 26	[A] 52	[A] 31	[A] 67	[A] 59			[A] 47	[A] 38		[A] 17
Total TPH >C6-C40	U	2670	mg/kg	10											
Naphthalene	U	2800	mg/kg	0.10											
Acenaphthylene	N	2800	mg/kg	0.10											
Acenaphthene	U	2800	mg/kg	0.10											
Fluorene	U	2800	mg/kg	0.10											
Phenanthrene	U	2800	mg/kg	0.10											
Anthracene	U	2800	mg/kg	0.10											
Fluoranthene	U	2800	mg/kg	0.10											
Pyrene	U	2800	mg/kg	0.10											
Benzo[a]anthracene	U	2800	mg/kg	0.10											
Chrysene	U	2800	mg/kg	0.10											
Benzo[b]fluoranthene	U	2800	mg/kg	0.10											
Benzo[k]fluoranthene	U	2800	mg/kg	0.10											
Benzo[a]pyrene	U	2800	mg/kg	0.10											

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484078	1484079	1484080	1484081	1484082	1484083	1484084	1484085	1484086	1484087	1484088
					Sample Location:	TP125902	TP126004	TP112408	BH106421	BH106421	BH106893	BH106893	BH105486	BH105486	BH105486	BH105990
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.2	0.5	1.0	1.0	3.0	1.0	2.0	1.0	3.0	4.0	1.0
					Bottom Depth (m):	0.6	0.6	1.5								
					Asbestos Lab:											
Determinand	**Accred.**	**SOP**	**Units**	**LOD**												
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10												
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10												
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10												
Coronene	N	2800	mg/kg	0.10												
Total Of 16 PAH's	N	2800	mg/kg	2.0												
Total Of 17 PAH's	N	2800	mg/kg	2.0												
Total Phenols	U	2920	mg/kg	0.10												

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484089	1484090	1484091	1484092	1484093	1484094	1484095	1484096	1484097	1484098
					Sample Location:	BH107272	BH107272	BH108409	BH133229	BH133258	BH134610	BH110055	BH110606	BH110606	BH110606
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.0	3.0	1.0	2.5	3.0	0.5	1.0	3.0	1.0	1.0
					Bottom Depth (m):						1.0				1.5
					Asbestos Lab:				DURHAM	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		
Moisture	N	2030	%	0.020	71	8.6	55	9.5	8.1	49	54	11	64	53	
pH	U	2010		4.0				[A] 8.7	[A] 8.8			[A] 9.0			
pH (2.5:1)	N	2010		4.0		[A] 8.6		[A] 8.9	[A] 9.0			[A] 8.9			
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40				[A] < 0.40	[A] < 0.40			[A] 1.0			
Magnesium (Water Soluble)	N	2120	g/l	0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010			[A] < 0.010			
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010			[A] 0.021			
Total Sulphur	U	2175	%	0.010		[A] 0.031		[A] 0.023	[A] 0.015			[A] 0.054			
Chloride (Water Soluble)	U	2220	g/l	0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010			[A] < 0.010			
Nitrate (Water Soluble)	N	2220	g/l	0.010		< 0.010		< 0.010	< 0.010			< 0.010			
Cyanide (Total)	U	2300	mg/kg	0.50				[A] < 0.50	[A] < 0.50			[A] < 0.50			
Ammonium (Water Soluble)	U	2220	g/l	0.01		< 0.01		< 0.01	< 0.01			< 0.01			
Sulphate (Acid Soluble)	U	2430	%	0.010		[A] 0.013		[A] 0.017	[A] 0.014			[A] 0.011			
Arsenic	U	2455	mg/kg	0.5				3.2	2.5			1.4			
Cadmium	U	2455	mg/kg	0.10				0.75	1.2			0.18			
Chromium	U	2455	mg/kg	0.5				9.8	12			2.9			
Copper	U	2455	mg/kg	0.50				9.9	9.6			2.0			
Mercury	U	2455	mg/kg	0.05				< 0.05	< 0.05			< 0.05			
Nickel	U	2455	mg/kg	0.50				31	26			7.2			
Lead	U	2455	mg/kg	0.50				13	9.2			2.2			
Zinc	U	2455	mg/kg	0.50				54	50			11			
LOI	U	2610	%	0.10											
Organic Matter	U	2625	%	0.40	[A] 38		[A] 34	[A] < 0.40	[A] < 0.40	[A] 43	[A] 33	[A] < 0.40	[A] 57	[A] 67	
Total TPH >C6-C40	U	2670	mg/kg	10				[AC] < 10	[AC] < 10			[A] < 10			
Naphthalene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Acenaphthylene	N	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Acenaphthene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Fluorene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Phenanthrene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Anthracene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Fluoranthene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Pyrene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Benzo[a]anthracene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Chrysene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Benzo[b]fluoranthene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Benzo[k]fluoranthene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			
Benzo[a]pyrene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10			

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484089	1484090	1484091	1484092	1484093	1484094	1484095	1484096	1484097	1484098
					Sample Location:	BH107272	BH107272	BH108409	BH133229	BH133258	BH134610	BH110055	BH110606	BH110606	BH110606
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.0	3.0	1.0	2.5	3.0	0.5	1.0	3.0	1.0	1.0
					Bottom Depth (m):						1.0				1.5
					Asbestos Lab:				DURHAM	NEW-ASB			NEW-ASB		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10		
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10		
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10				< 0.10	< 0.10			< 0.10		
Coronene	N	2800	mg/kg	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		
Total Of 17 PAH's	N	2800	mg/kg	2.0				< 2.0	< 2.0			< 2.0		
Total Phenols	U	2920	mg/kg	0.10				< 0.10	< 0.10			< 0.10		

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484099	1484100	1484101	1484102	1484103	1484104	1484105
					Sample Location:	BH110606	BH120739	BH120739	BH110738	BH139159	BH139159	BH139159
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	3.0	1.0	3.0	2.0	0.5	3.5	5.0
					Bottom Depth (m):	3.5	1.5	3.5	2.5	1.0	4.0	5.5
					Asbestos Lab:	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			
Moisture	N	2030	%	0.020		4.9	53	62	4.4	39	42	10
pH	U	2010		4.0		[A] 8.8			[A] 9.0			
pH (2.5:1)	N	2010		4.0		[A] 8.7			[A] 8.8			[A] 10.2
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40		[A] < 0.40			[A] < 0.40			
Magnesium (Water Soluble)	N	2120	g/l	0.010		[A] < 0.010			[A] < 0.010			[A] 0.026
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010		[A] 0.017			[A] < 0.010			[A] < 0.010
Total Sulphur	U	2175	%	0.010		[A] 0.058			[A] 0.065			[A] 0.032
Chloride (Water Soluble)	U	2220	g/l	0.010		[A] < 0.010			[A] < 0.010			[A] 0.54
Nitrate (Water Soluble)	N	2220	g/l	0.010		< 0.010			< 0.010			0.040
Cyanide (Total)	U	2300	mg/kg	0.50		[A] < 0.50			[A] < 0.50			
Ammonium (Water Soluble)	U	2220	g/l	0.01		< 0.01			< 0.01			< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010		[A] 0.020			[A] 0.014			[A] 0.022
Arsenic	U	2455	mg/kg	0.5		1.0			1.4			
Cadmium	U	2455	mg/kg	0.10		0.38			0.73			
Chromium	U	2455	mg/kg	0.5		5.7			5.6			
Copper	U	2455	mg/kg	0.50		4.4			4.1			
Mercury	U	2455	mg/kg	0.05		< 0.05			< 0.05			
Nickel	U	2455	mg/kg	0.50		14			13			
Lead	U	2455	mg/kg	0.50		4.8			4.1			
Zinc	U	2455	mg/kg	0.50		28			37			
LOI	U	2610	%	0.10						U/S	U/S	
Organic Matter	U	2625	%	0.40		[A] 1.4	[A] 21	[A] < 0.40	[A] 1.1	[A] 19	[A] 19	
Total TPH >C6-C40	U	2670	mg/kg	10		[A] < 10			[A] < 10			
Naphthalene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10			< 0.10			
Acenaphthene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Fluorene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Phenanthrene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Anthracene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Fluoranthene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Pyrene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Benzo[a]anthracene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Chrysene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Benzo[b]fluoranthene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Benzo[k]fluoranthene	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Benzo[a]pyrene	U	2800	mg/kg	0.10		< 0.10			< 0.10			

Results - Soil

Project: WSP (IGSL)

Client: IGSL					**Chemtest Job No.:**	22-30198	22-30198	22-30198	22-30198	22-30198	22-30198
Quotation No.: Q21-25399					**Chemtest Sample ID.:**	1484099	1484100	1484101	1484102	1484103	1484104	1484105
					Sample Location:	BH110606	BH120739	BH120739	BH110738	BH139159	BH139159	BH139159
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	3.0	1.0	3.0	2.0	0.5	3.5	5.0
					Bottom Depth (m):	3.5	1.5	3.5	2.5	1.0	4.0	5.5
					Asbestos Lab:	NEW-ASB			NEW-ASB			
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Indeno(1,2,3-c,d)Pyrene	U	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	U	2800	mg/kg	0.10		< 0.10			< 0.10			
Coronene	N	2800	mg/kg	0.10		< 0.10			< 0.10			
Total Of 16 PAH's	N	2800	mg/kg	2.0		< 2.0			< 2.0			
Total Of 17 PAH's	N	2800	mg/kg	2.0		< 2.0			< 2.0			
Total Phenols	U	2920	mg/kg	0.10		< 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:
1484023			BH125177		A	Amber Glass 250ml
1484023			BH125177		A	Plastic Tub 500g
1484024			BH125582		A	Amber Glass 250ml
1484024			BH125582		A	Plastic Tub 500g
1484025			BH127452		A	Amber Glass 250ml
1484025			BH127452		A	Plastic Tub 500g
1484026			BH127452		A	Amber Glass 250ml
1484026			BH127452		A	Plastic Tub 500g
1484027			BH128127		A	Amber Glass 250ml
1484027			BH128127		A	Plastic Tub 500g
1484028			BH129405		A	Amber Glass 250ml
1484028			BH129405		A	Plastic Tub 500g
1484029			BH130005		A	Amber Glass 250ml
1484029			BH130005		A	Plastic Tub 500g
1484030			BH130005		A	Amber Glass 250ml
1484030			BH130005		A	Plastic Tub 500g
1484031			BH130451		A	Amber Glass 250ml
1484031			BH130451		A	Plastic Tub 500g
1484033			BH131203		A	Amber Glass 250ml
1484033			BH131203		A	Plastic Tub 500g
1484034			BH131836		A	Amber Glass 250ml
1484034			BH131836		A	Plastic Tub 500g

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:
1484035			BH139202		A	Amber Glass 250ml
1484035			BH139202		A	Plastic Tub 500g
1484036			BH139752		A	Amber Glass 250ml
1484036			BH139752		A	Plastic Tub 500g
1484037			BH139892		A	Amber Glass 250ml
1484037			BH139892		A	Plastic Tub 500g
1484038			BH139892		A	Amber Glass 250ml
1484038			BH139892		A	Plastic Tub 500g
1484039			BH139912		A	Amber Glass 250ml
1484039			BH139912		A	Plastic Tub 500g
1484040			BH139912		A	Amber Glass 250ml
1484040			BH139912		A	Plastic Tub 500g
1484041			BH139941		A	Amber Glass 250ml
1484041			BH139941		A	Plastic Tub 500g
1484042			BH139941		A	Amber Glass 250ml
1484043			BH140469		A	Amber Glass 250ml
1484043			BH140469		A	Plastic Tub 500g
1484044			BH140745		A	Amber Glass 250ml
1484044			BH140745		A	Plastic Tub 500g
1484045			BH140745		A	Amber Glass 250ml
1484045			BH140745		A	Plastic Tub 500g
1484046			BH142795		A	Amber Glass 250ml

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:
1484046			BH142795		A	Plastic Tub 500g
1484047			BH123219		A	Amber Glass 250ml
1484047			BH123219		A	Plastic Tub 500g
1484048			BH123774		A	Amber Glass 250ml
1484048			BH123774		A	Plastic Tub 500g
1484049			BH123993		A	Amber Glass 250ml
1484049			BH123993		A	Plastic Tub 500g
1484050			BH133311		A	Plastic Tub 500g
1484051			BH124677		A	Amber Glass 250ml
1484051			BH124677		A	Plastic Tub 500g
1484052			BH124677		A	Amber Glass 250ml
1484052			BH124677		A	Plastic Tub 500g
1484054			TP133012		A	Amber Glass 250ml
1484054			TP133012		A	Plastic Tub 500g
1484055			TP135904		A	Amber Glass 250ml
1484055			TP135904		A	Plastic Tub 500g
1484056			TP136108		A	Amber Glass 250ml
1484056			TP136108		A	Plastic Tub 500g
1484057			TP143502		A	Amber Glass 250ml
1484057			TP143502		A	Plastic Tub 500g
1484058			TP143502		A	Amber Glass 250ml
1484058			TP143502		A	Plastic Tub 500g
1484070			BH107807		A	Amber Glass 250ml

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:
1484070			BH107807		A	Plastic Tub 500g
1484071			BH107807		A	Amber Glass 250ml
1484071			BH107807		A	Plastic Tub 500g
1484072			BH109609		A	Amber Glass 250ml
1484072			BH109609		A	Plastic Tub 500g
1484073			BH109609		A	Amber Glass 250ml
1484073			BH109609		A	Plastic Tub 500g
1484074			BH109085		A	Amber Glass 250ml
1484074			BH109085		A	Plastic Tub 500g
1484075			TP103304		A	Amber Glass 250ml
1484075			TP103304		A	Plastic Tub 500g
1484076			TP117901		A	Amber Glass 250ml
1484076			TP117901		A	Plastic Tub 500g
1484077			TP119700		A	Amber Glass 250ml
1484077			TP119700		A	Plastic Tub 500g
1484078			TP125902		A	Amber Glass 250ml
1484078			TP125902		A	Plastic Tub 500g
1484079			TP126004		A	Amber Glass 250ml
1484079			TP126004		A	Plastic Tub 500g
1484080			TP112408		A	Amber Glass 250ml
1484080			TP112408		A	Plastic Tub 500g
1484081			BH106421		A	Amber Glass 250ml
1484081			BH106421		A	Plastic Tub 500g

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:
1484082			BH106421		A	Amber Glass 250ml
1484082			BH106421		A	Plastic Tub 500g
1484084			BH106893		A	Amber Glass 250ml
1484084			BH106893		A	Plastic Tub 500g
1484085			BH105486		A	Amber Glass 250ml
1484085			BH105486		A	Plastic Tub 500g
1484086			BH105486		A	Amber Glass 250ml
1484086			BH105486		A	Plastic Tub 500g
1484087			BH105486		A	Amber Glass 250ml
1484087			BH105486		A	Plastic Tub 500g
1484088			BH105990		A	Amber Glass 250ml
1484088			BH105990		A	Plastic Tub 500g
1484089			BH107272		A	Amber Glass 250ml
1484089			BH107272		A	Plastic Tub 500g
1484090			BH107272		A	Amber Glass 250ml
1484090			BH107272		A	Plastic Tub 500g
1484091			BH108409		A	Amber Glass 250ml
1484091			BH108409		A	Plastic Tub 500g
1484092			BH133229		AC	Plastic Tub 500g
1484093			BH133258		AC	Plastic Tub 500g
1484094			BH134610		A	Amber Glass 250ml
1484094			BH134610		A	Plastic Tub 500g
1484095			BH110055		A	Amber Glass 250ml

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:
1484095			BH110055		A	Plastic Tub 500g
1484096			BH110606		A	Amber Glass 250ml
1484096			BH110606		A	Plastic Tub 500g
1484097			BH110606		A	Amber Glass 250ml
1484097			BH110606		A	Plastic Tub 500g
1484098			BH110606		A	Amber Glass 250ml
1484098			BH110606		A	Plastic Tub 500g
1484099			BH110606		A	Amber Glass 250ml
1484099			BH110606		A	Plastic Tub 500g
1484100			BH120739		A	Amber Glass 250ml
1484100			BH120739		A	Plastic Tub 500g
1484101			BH120739		A	Amber Glass 250ml
1484101			BH120739		A	Plastic Tub 500g
1484102			BH110738		A	Amber Glass 250ml
1484102			BH110738		A	Plastic Tub 500g
1484103			BH139159		A	Amber Glass 250ml
1484103			BH139159		A	Plastic Tub 500g
1484104			BH139159		A	Amber Glass 250ml
1484104			BH139159		A	Plastic Tub 500g
1484105			BH139159		A	Amber Glass 250ml
1484105			BH139159		A	Plastic Tub 500g

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
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
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.
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.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
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.:	22-35401-2		
Initial Date of Issue:	22-Sep-2022	**Date of Re-Issue:**	20-Oct-2022
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	WSP		
Quotation No.:	Q20-21693	**Date Received:**	15-Sep-2022
Order No.:		**Date Instructed:**	15-Sep-2022
No. of Samples:	18		
Turnaround (Wkdays):	7	**Results Due:**	26-Sep-2022
Date Approved:	22-Sep-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: WSP

Client: IGSL					22-35401	22-35401	22-35401	22-35401	22-35401	22-35401	22-35401	22-35401	22-35401	22-35401
Quotation No.: Q20-21693					1507325	1507326	1507329	1507330	1507331	1507332	1507334	1507335	1507336	1507337
Order No.:					TP125800	TP133308	BH123219	BH108960	BH108690	BH121933	BH104807	TP125800	TP143502	TP134439
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					1.5	2.5	2.0	1.0	2.0	3	1	0.5	1.5	2.0
					1.6					3.5	1.5	0.6		3.0
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Moisture	N	2030	%	0.020	34	23	17	11	11	9.2	20	8.7	32	12
pH (2.5:1)	N	2010		4.0	[A] 8.0	[A] 8.8	[A] 8.8		[A] 9.0	[A] 8.8				[A] 9.1
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010				[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] 0.034	[A] < 0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010				[A] < 0.010
Total Sulphur	U	2175	%	0.010	[A] 0.21	[A] 0.049	[A] 0.056		[A] 0.056	[A] 0.055				[A] 0.036
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010				[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010	0.066	< 0.010	< 0.010		< 0.010	< 0.010				< 0.010
Ammonium (Water Soluble)	U	2220	g/l	0.01	< 0.01	< 0.01	< 0.01		< 0.01	< 0.01				< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.14	[A] 0.021	[A] 0.016		[A] 0.020	[A] < 0.010				[A] 0.026
LOI	U	2610	%	0.10				1.9			3.5	1.0	33	

Results - Soil

Project: WSP

Client: IGSL			**Chemtest Job No.:**		22-35401	22-35401	22-35401
Quotation No.: Q20-21693			**Chemtest Sample ID.:**		1507339	1507340	1507341
Order No.:			Client Sample Ref.:		BH104405	BH104020	TP104908
			Sample Type:		SOIL	SOIL	SOIL
			Top Depth (m):		5.0	4.0	0.3
			Bottom Depth (m):				0.4
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
Moisture	N	2030	%	0.020	19	13	34
pH (2.5:1)	N	2010		4.0	[A] 9.1	[A] 8.8	
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] < 0.010	[A] < 0.010	
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010	[A] < 0.010	
Total Sulphur	U	2175	%	0.010	[A] 0.045	[A] 0.038	
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010	[A] < 0.010	
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010	
Ammonium (Water Soluble)	U	2220	g/l	0.01	< 0.01	< 0.01	
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.012	[A] 0.014	
LOI	U	2610	%	0.10			24

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:
1507325	TP125800				A	Amber Glass 250ml
1507325	TP125800				A	Plastic Tub 500g
1507326	TP133308				A	Amber Glass 250ml
1507326	TP133308				A	Plastic Tub 500g
1507329	BH123219				A	Amber Glass 250ml
1507329	BH123219				A	Plastic Tub 500g
1507331	BH108690				A	Amber Glass 250ml
1507331	BH108690				A	Plastic Tub 500g
1507332	BH121933				A	Amber Glass 250ml
1507332	BH121933				A	Plastic Tub 500g
1507337	TP134439				A	Amber Glass 250ml
1507337	TP134439				A	Plastic Tub 500g
1507339	BH104405				A	Amber Glass 250ml
1507339	BH104405				A	Plastic Tub 500g
1507340	BH104020				A	Amber Glass 250ml
1507340	BH104020				A	Plastic Tub 500g

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
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.

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.:	22-37985-2		
Initial Date of Issue:	10-Oct-2022	**Date of Re-Issue:**	20-Oct-2022
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	WSP		
Quotation No.:	Q20-21693	**Date Received:**	05-Oct-2022
Order No.:		**Date Instructed:**	05-Oct-2022
No. of Samples:	3		
Turnaround (Wkdays):	7	**Results Due:**	13-Oct-2022
Date Approved:	10-Oct-2022		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Soil

Project: WSP

Client: IGSL			**Chemtest Job No.:**		22-37985
Quotation No.: Q20-21693			**Chemtest Sample ID.:**		1518835
Order No.:			Client Sample Ref.:		TP117582
			Sample Type:		SOIL
			Top Depth (m):		2.5
			Bottom Depth (m):		2.6
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Moisture	N	2030	%	0.020	13
pH (2.5:1)	N	2010		4.0	[A] 8.8
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010
Total Sulphur	U	2175	%	0.010	[A] 0.022
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010
Ammonium (Water Soluble)	U	2220	g/l	0.01	< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] < 0.010

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:
1518835	TP117582				A	Amber Glass 250ml
1518835	TP117582				A	Plastic Tub 500g

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
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.

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.:	22-39337-2		
Initial Date of Issue:	25-Oct-2022	**Date of Re-Issue:**	30-Mar-2023
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	WSP		
Quotation No.:	Q20-21693	**Date Received:**	14-Oct-2022
Order No.:		**Date Instructed:**	14-Oct-2022
No. of Samples:	39		
Turnaround (Wkdays):	5	**Results Due:**	20-Oct-2022
Date Approved:	25-Oct-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: WSP

Client: IGSL					22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337
Quotation No.: Q20-21693					1525067	1525068	1525069	1525070	1525071	1525072	1525073	1525077	1525078	1525079
Order No.:														
					TP 125701	BH 140795	BH 140795	BH 122408	BH 139912	BH 107807	BH 120200	TP 119389	TP 104707	BH 141402A
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					0.5	0.5	3.5	1.0	0.5	1.0	1.0	1.5	2.9	2.0
					0.6	1.0	4.0		1.0			1.6		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Moisture	N	2030	%	0.020	75	75	75	7.6	72	74	47	12	11	11
pH (2.5:1)	N	2010		4.0								[A] 8.9	[A] 8.9	[A] 8.9
Magnesium (Water Soluble)	N	2120	g/l	0.010								[A] < 0.010	[A] < 0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010								[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Sulphur	U	2175	%	0.010								[A] < 0.010	[A] < 0.010	[A] 0.016
Chloride (Water Soluble)	U	2220	g/l	0.010								[A] < 0.010	[A] < 0.010	[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010								< 0.010	< 0.010	< 0.010
Ammonium (Water Soluble)	U	2220	g/l	0.01								< 0.01	< 0.01	< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010								[A] 0.010	[A] 0.011	[A] 0.016
LOI	U	2610	%	0.10	13	8.2	6.3	6.5	4.0	13	2.2			
Organic Matter	U	2625	%	0.40	[A] 87	[A] 84	[A] 81	[A] < 0.40	[A] 85	[A] 93	[A] 89			

Results - Soil

Project: WSP

Client: IGSL					**Chemtest Job No.:**	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1525080	1525081	1525082	1525084	1525086	1525087	1525088	1525090	1525092	1525093
Order No.:					Client Sample Ref.:				Gravel	Gravel		Gravel			Gravel
					Sample Location:	TP 125701	BH 134610	BH 134500	TP 119700	BH 135006	BH 123993	BH 142202	BH 122408	TP 132828	TP 118902
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.9	3.0	2.0			3.0		3.0	1.5	
					Bottom Depth (m):	2.0		2.1							
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Moisture	N	2030	%	0.020		55	7.1	15	4.0	7.6	14	5.2	15	12	9.8
pH (2.5:1)	N	2010		4.0		[A] 6.8	[A] 9.1	[A] 8.5	[A] 8.6	[A] 9.5	[A] 8.7	[A] 8.4	[A] 8.5	[A] 9.1	[A] 9.4
Magnesium (Water Soluble)	N	2120	g/l	0.010		[A] 0.015	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.013	[A] < 0.010	[A] < 0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010		[A] 0.028	[A] < 0.010	[A] 0.31	[A] 0.12	[A] < 0.010	[A] 0.048	[A] 0.055	[A] 0.045	[A] < 0.010	[A] < 0.010
Total Sulphur	U	2175	%	0.010		[A] 0.26	[A] < 0.010	[A] 0.43	[A] 0.36	[A] 0.041	[A] 0.072	[A] 0.051	[A] 0.070	[A] < 0.010	[A] 0.042
Chloride (Water Soluble)	U	2220	g/l	0.010		[A] 0.018	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010		0.53	< 0.010	0.019	0.016	< 0.010	< 0.010	0.036	0.036	< 0.010	< 0.010
Ammonium (Water Soluble)	U	2220	g/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010		[A] 0.15	[A] 0.017	[A] 0.095	[A] 0.096	[A] 0.017	[A] 0.013	[A] 0.031	[A] 0.020	[A] 0.013	[A] 0.017
LOI	U	2610	%	0.10											
Organic Matter	U	2625	%	0.40											

Results - Soil

Project: WSP

Client: IGSL				**Chemtest Job No.:**	22-39337	22-39337	22-39337	22-39337	22-39337	22-39337
Quotation No.: Q20-21693				**Chemtest Sample ID.:**	1525094	1525095	1525097	1525100	1525101	1525102
Order No.:				Client Sample Ref.:						
				Sample Location:	BH 104135	TP 103504	TP 108804	TP 104425	TP 133227	BH 135516
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	2.0		2.4	3.1	2.0	3.0
				Bottom Depth (m):						
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Moisture	N	2030	%	0.020	7.7	8.2	12	9.6	11	9.5
pH (2.5:1)	N	2010		4.0	[A] 9.1	[A] 5.6	[A] 9.0	[A] 8.6	[A] 8.9	[A] 10.3
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] < 0.010	[A] 0.022	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010	[A] 0.21	[A] < 0.010	[A] 0.087	[A] 0.059	[A] 0.80
Total Sulphur	U	2175	%	0.010	[A] 0.012	[A] 1.6	[A] 0.018	[A] 0.032	[A] 0.025	[A] 0.15
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010	[A] 0.038	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.020
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Ammonium (Water Soluble)	U	2220	g/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.010	[A] 0.67	[A] < 0.010	[A] 0.026	[A] 0.031	[A] 0.23
LOI	U	2610	%	0.10						
Organic Matter	U	2625	%	0.40						

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:
1525067			TP 125701		A	Amber Glass 250ml
1525067			TP 125701		A	Plastic Tub 500g
1525068			BH 140795		A	Amber Glass 250ml
1525068			BH 140795		A	Plastic Tub 500g
1525069			BH 140795		A	Amber Glass 250ml
1525069			BH 140795		A	Plastic Tub 500g
1525070			BH 122408		A	Amber Glass 250ml
1525070			BH 122408		A	Plastic Tub 500g
1525071			BH 139912		A	Amber Glass 250ml
1525071			BH 139912		A	Plastic Tub 500g
1525072			BH 107807		A	Amber Glass 250ml
1525072			BH 107807		A	Plastic Tub 500g
1525073			BH 120200		A	Amber Glass 250ml
1525073			BH 120200		A	Plastic Tub 500g
1525077			TP 119389		A	Amber Glass 250ml
1525077			TP 119389		A	Plastic Tub 500g
1525078			TP 104707		A	Amber Glass 250ml
1525078			TP 104707		A	Plastic Tub 500g
1525079			BH 141402A		A	Amber Glass 250ml
1525079			BH 141402A		A	Plastic Tub 500g
1525080			TP 125701		A	Amber Glass 250ml
1525080			TP 125701		A	Plastic Tub 500g

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:
1525081			BH 134610		A	Amber Glass 250ml
1525081			BH 134610		A	Plastic Tub 500g
1525082			BH 134500		A	Amber Glass 250ml
1525082			BH 134500		A	Plastic Tub 500g
1525084	Gravel		TP 119700		A	Amber Glass 250ml
1525084	Gravel		TP 119700		A	Plastic Tub 500g
1525086	Gravel		BH 135006		A	Amber Glass 250ml
1525086	Gravel		BH 135006		A	Plastic Tub 500g
1525087			BH 123993		A	Amber Glass 250ml
1525087			BH 123993		A	Plastic Tub 500g
1525088	Gravel		BH 142202		A	Amber Glass 250ml
1525088	Gravel		BH 142202		A	Plastic Tub 500g
1525090			BH 122408		A	Amber Glass 250ml
1525090			BH 122408		A	Plastic Tub 500g
1525092			TP 132828		A	Amber Glass 250ml
1525092			TP 132828		A	Plastic Tub 500g
1525093	Gravel		TP 118902		A	Amber Glass 250ml
1525093	Gravel		TP 118902		A	Plastic Tub 500g
1525094			BH 104135		A	Amber Glass 250ml
1525094			BH 104135		A	Plastic Tub 500g
1525095			TP 103504		A	Amber Glass 250ml
1525095			TP 103504		A	Plastic Tub 500g

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:
1525097			TP 108804		A	Amber Glass 250ml
1525097			TP 108804		A	Plastic Tub 500g
1525100			TP 104425		A	Amber Glass 250ml
1525100			TP 104425		A	Plastic Tub 500g
1525101			TP 133227		A	Amber Glass 250ml
1525101			TP 133227		A	Plastic Tub 500g
1525102			BH 135516		A	Amber Glass 250ml
1525102			BH 135516		A	Plastic Tub 500g

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
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.

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

Amended Report

Report No.:	22-40422-2		
Initial Date of Issue:	04-Jan-2023	**Date of Re-Issue:**	30-Mar-2023
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	23560 WSP Lot 3 - GI		
Quotation No.:	Q22-27648	**Date Received:**	21-Oct-2022
Order No.:		**Date Instructed:**	21-Oct-2022
No. of Samples:	39		
Turnaround (Wkdays):	27	**Results Due:**	28-Nov-2022
Date Approved:	04-Jan-2023		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Soil

Project: 23560 WSP Lot 3 - GI

Client: IGSL					**Chemtest Job No.:**	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422
Quotation No.: Q22-27648					**Chemtest Sample ID.:**	1530122	1530123	1530124	1530125	1530126	1530127	1530128	1530129	1530130	1530131
Order No.:					Client Sample Ref.:	179139	175324					175215	171083	171085	
					Sample Location:	BH112404	BH112619A	BH113399	BH113399	BH113800	BH113800	BH114689	BH116189	BH116189	BH116213
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	3.00	2.00	0.50	4.00	0.50	2.50	2.00	1.20	3.00	1.20
					Bottom Depth (m):	3.50	2.50	1.00	4.50	1.00	3.00	2.50	1.70	3.50	1.70
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Moisture	N	2030	%	0.020		8.5	18	21	67	18	74	6.7	79	43	74
pH (2.5:1)	N	2010		4.0		[A] 8.5	[A] 8.1					[A] 8.0			
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010		[A] < 0.010	[A] < 0.010					[A] < 0.010			
Total Sulphur	M	2175	%	0.010		[A] 0.014	[A] 0.029					[A] 0.044			
Sulphate (Acid Soluble)	U	2430	%	0.010		[A] 0.011	[A] 0.018					[A] 0.018			
LOI	M	2610	%	0.10				66	50	55	79		45	U/S	U/S
Organic Matter	M	2625	%	0.40				[A] 52	[A] 38	[A] 57	[A] 28		[A] 43	[A] 4.8	[A] 94

Results - Soil

Project: 23560 WSP Lot 3 - GI

Client: IGSL					**Chemtest Job No.:**	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422
Quotation No.: Q22-27648					**Chemtest Sample ID.:**	1530132	1530133	1530134	1530135	1530136	1530137	1530138	1530139	1530140	1530141	1530142
Order No.:					Client Sample Ref.:						173355	173358				173387
					Sample Location:	BH122408	BH123219	BH123774	BH124677	BH124677	BH125717	BH125870	BH126200	BH126602	BH126602	BH126900
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	3.00	1.00	0.50	1.50	5.00	1.00	1.00	1.00	2.00	1.00
					Bottom Depth (m):	1.50	3.50	1.50	1.00	1.70						
Determinand	**Accred.**	**SOP**	**Units**	**LOD**												
Moisture	N	2030	%	0.020		74	10	23	70	29	11	62	73	71	8.8	14
pH (2.5:1)	N	2010		4.0			[A] 7.9								[A] 8.1	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010			[A] 0.25								[A] 0.12	
Total Sulphur	M	2175	%	0.010			[A] 0.13								[A] 0.070	
Sulphate (Acid Soluble)	U	2430	%	0.010			[A] 0.054								[A] 0.029	
LOI	M	2610	%	0.10		U/S		U/S	U/S	U/S	U/S	U/S	U/S	U/S		U/S
Organic Matter	M	2625	%	0.40		[A] 89	[A] 3.4	[A] 56	[A] 67	[A] 3.3	[A] 4.2	[A] 64	[A] 5.0	[A] 90	[A] 1.9	[A] 84

Results - Soil

Project: 23560 WSP Lot 3 - GI

Client: IGSL					**Chemtest Job No.:**	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422	22-40422
Quotation No.: Q22-27648					**Chemtest Sample ID.:**	1530143	1530144	1530145	1530146	1530147	1530148	1530149	1530150	1530151	1530152
Order No.:					Client Sample Ref.:	173380	173342								173341
					Sample Location:	BH127002	BH127002	BH133311	BH139159	BH139159	BH139159	BH139912	BH139912	BH141906	BH143203
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	2.00	3.00	0.50	3.50	5.00	0.50	2.50	2.00	1.00
					Bottom Depth (m):			3.50	1.00	4.00	5.50	1.00	3.00	2.50	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Moisture	N	2030	%	0.020	63	12	17	13	90	10	9.8	80	7.7	31	
pH (2.5:1)	N	2010		4.0		[A] 8.3	[A] 8.3			[A] 8.1			[A] 7.9		
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010		[A] < 0.010	[A] < 0.010			[A] < 0.010			[A] 0.65		
Total Sulphur	M	2175	%	0.010		[A] 0.021	[A] 0.025			[A] 0.070			[A] 0.32		
Sulphate (Acid Soluble)	U	2430	%	0.010		[A] 0.010	[A] 0.017			[A] 0.012			[A] 0.15		
LOI	M	2610	%	0.10	U/S			U/S	U/S		U/S	U/S		U/S	
Organic Matter	M	2625	%	0.40	[A] 72	[A] 0.42	[A] 0.62	[A] 67	[A] 82	[A] < 0.40	[A] 15	[A] 38	[A] 1.1	[A] 16	

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:
1530122	179139		BH112404		A	Amber Glass 250ml
1530122	179139		BH112404		A	Plastic Tub 500g
1530123	175324		BH112619A		A	Amber Glass 250ml
1530123	175324		BH112619A		A	Plastic Tub 500g
1530124			BH113399		A	Plastic Tub 500g
1530125			BH113399		A	Plastic Tub 500g
1530126			BH113800		A	Amber Glass 250ml
1530126			BH113800		A	Plastic Tub 500g
1530127			BH113800		A	Amber Glass 250ml
1530127			BH113800		A	Plastic Tub 500g
1530128	175215		BH114689		A	Amber Glass 250ml
1530128	175215		BH114689		A	Plastic Tub 500g
1530129	171083		BH116189		A	Amber Glass 250ml
1530129	171083		BH116189		A	Plastic Tub 500g
1530130	171085		BH116189		A	Amber Glass 250ml
1530130	171085		BH116189		A	Plastic Tub 500g
1530131			BH116213		A	Amber Glass 250ml
1530131			BH116213		A	Plastic Tub 500g
1530132			BH122408		A	Amber Glass 250ml
1530132			BH122408		A	Plastic Tub 500g
1530133			BH123219		A	Amber Glass 250ml
1530133			BH123219		A	Plastic Tub 500g
1530134			BH123774		A	Amber Glass 250ml

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:
1530134			BH123774		A	Plastic Tub 500g
1530135			BH124677		A	Amber Glass 250ml
1530135			BH124677		A	Plastic Tub 500g
1530136			BH124677		A	Amber Glass 250ml
1530136			BH124677		A	Plastic Tub 500g
1530137	173355		BH125717		A	Amber Glass 250ml
1530137	173355		BH125717		A	Plastic Tub 500g
1530138	173358		BH125870		A	Amber Glass 250ml
1530138	173358		BH125870		A	Plastic Tub 500g
1530139			BH126200		A	Amber Glass 250ml
1530139			BH126200		A	Plastic Tub 500g
1530140			BH126602		A	Amber Glass 250ml
1530140			BH126602		A	Plastic Tub 500g
1530141			BH126602		A	Amber Glass 250ml
1530141			BH126602		A	Plastic Tub 500g
1530142	173387		BH126900		A	Amber Glass 250ml
1530142	173387		BH126900		A	Plastic Tub 500g
1530143	173380		BH127002		A	Amber Glass 250ml
1530143	173380		BH127002		A	Plastic Tub 500g
1530144	173342		BH127002		A	Amber Glass 250ml
1530144	173342		BH127002		A	Plastic Tub 500g
1530145			BH133311		A	Amber Glass 250ml
1530145			BH133311		A	Plastic Tub 500g

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:
1530146			BH139159		A	Amber Glass 250ml
1530146			BH139159		A	Plastic Tub 500g
1530147			BH139159		A	Amber Glass 250ml
1530147			BH139159		A	Plastic Tub 500g
1530148			BH139159		A	Amber Glass 250ml
1530148			BH139159		A	Plastic Tub 500g
1530149			BH139912		A	Amber Glass 250ml
1530149			BH139912		A	Plastic Tub 500g
1530150			BH139912		A	Amber Glass 250ml
1530150			BH139912		A	Plastic Tub 500g
1530151			BH141906		A	Amber Glass 250ml
1530151			BH141906		A	Plastic Tub 500g
1530152	173341		BH143203		A	Amber Glass 250ml
1530152	173341		BH143203		A	Plastic Tub 500g

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
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.

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.:	22-43721-2		
Initial Date of Issue:	22-Nov-2022	**Date of Re-Issue:**	30-Mar-2023
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	23560 - WSP Lot 3		
Quotation No.:	Q20-21693	**Date Received:**	14-Nov-2022
Order No.:		**Date Instructed:**	14-Nov-2022
No. of Samples:	17		
Turnaround (Wkdays):	5	**Results Due:**	18-Nov-2022
Date Approved:	22-Nov-2022		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Soil

Project: 23560 - WSP Lot 3

Client: IGSL			**Chemtest Job No.:**		22-43721	22-43721	22-43721	22-43721	22-43721	22-43721	22-43721	22-43721
Quotation No.: Q20-21693			**Chemtest Sample ID.:**		1545084	1545085	1545086	1545087	1545088	1545089	1545090	1545091
			Sample Location:		BH/RC108690	BH/RC108988	BH/RC109085	BH/RC110738	BH/RC111204	BH/RC111604	BH/RC112619	BH/RC115413
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		6.00	4.30	3.40	4.10	4.70	4.40	4.60	3.00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Moisture	N	2030	%	0.020	5.7	0.48	1.1	0.57	2.1	0.75	5.3	2.6
pH	U	2010		4.0	[A] 8.1	[A] 8.1	[A] 8.1	[A] 8.2	[A] 8.6	[A] 8.5	[A] 8.2	[A] 8.5
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010	[A] 0.24	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Chloride (Water Soluble)	U	2220	g/l	0.010								[A] < 0.010
Sulphate (Total)	U	2430	%	0.010	[A] 0.040	[A] 0.023	[A] 0.043	[A] 0.030	[A] 0.036	[A] 0.011	[A] 0.043	
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.018	[A] 0.054	[A] 0.010	[A] 0.017	[A] 0.17	[A] < 0.010	[A] 0.015	

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:
1545084			BH/RC108690		A	Plastic Tub 500g
1545085			BH/RC108988		A	Plastic Tub 500g
1545086			BH/RC109085		A	Plastic Tub 500g
1545087			BH/RC110738		A	Plastic Tub 500g
1545088			BH/RC111204		A	Plastic Tub 500g
1545089			BH/RC111604		A	Plastic Tub 500g
1545090			BH/RC112619		A	Plastic Tub 500g
1545091			BH/RC115413		A	Plastic Tub 500g

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
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.

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

UKAS TESTING 2183

Amended Report

Report No.:	22-44551-2		
Initial Date of Issue:	24-Nov-2022	**Date of Re-Issue:**	30-Mar-2023
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	23560 WSP Lot 3-GI		
Quotation No.:		**Date Received:**	20-Nov-2022
Order No.:		**Date Instructed:**	20-Nov-2022
No. of Samples:	4		
Turnaround (Wkdays):	7	**Results Due:**	28-Nov-2022
Date Approved:	24-Nov-2022		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Soil

Project: 23560 WSP Lot 3-GI

Client: IGSL			**Chemtest Job No.:**		22-44551
Quotation No.:			**Chemtest Sample ID.:**		1549172
			Client Sample ID.:		DS135782
			Sample Type:		SOIL
			Top Depth (m):		1.00
			Bottom Depth (m):		2.00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Moisture	N	2030	%	0.020	15
pH	U	2010		4.0	[A] 8.4
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010

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:
1549172		DS135782			A	Plastic Tub 500g

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
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.

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 8H.3

Rock Strength Testing

Point Load Axial - Test Results

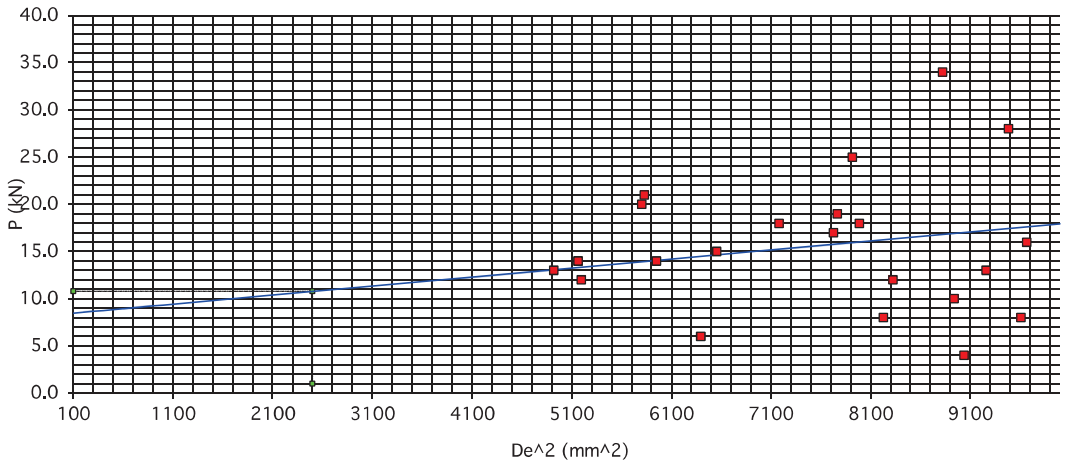
Contract: WSP Ground Investigation Contract Lot 3

Sample Type: Core

Contract No.: 23560

Date of Test: Nov 2022 Tested by: D.O'S

RC Hole No.	Depth	W1 mm	W2 mm	D mm	P kN	De^2 mm^2	De mm	Is MN/m^2
BH/RC108409	9.0	78.0	78.0	91.0	4.0	9038	95	0.44
	10.1	82.0	61.0	64.0	21.0	5827	76	3.60
BH/RC108690	8.1	82.0	80.0	108.0	12.0	11139	106	1.08
BH/RC108988	4.9	78.0	56.0	91.0	19.0	7763	88	2.45
	6.0	45.0	78.0	102.0	18.0	7987	89	2.25
	7.8	74.0	78.0	98.0	28.0	9483	97	2.95
BH/RC109085	3.7	62.0	72.0	68.0	20.0	5801	76	3.45
	6.2	78.0	74.0	86.0	12.0	8322	91	1.44
	8.0	84.0	96.0	78.0	10.0	8938	95	1.12
BH/RC109609	5.9	78.0	68.0	104.0	16.0	9667	98	1.66
	6.5	78.0	76.0	98.0	8.0	9608	98	0.83
	7.5	63.0	78.0	80.0	18.0	7181	85	2.51
	8.0	80.0	81.0	98.0	4.0	10045	100	0.40
BH/RC110738	4.3	78.0	76.0	90.0	34.0	8824	94	3.85
	6.4	78.0	78.0	132.0	38.0	13110	114	2.90
	7.1	78.0	78.0	52.0	14.0	5164	72	2.71
	8.2	72.0	76.0	82.0	17.0	7726	88	2.20
BH/RC111204	4.6	98.0	64.0	62.0	6.0	6394	80	0.94
	7.4	62.0	80.0	91.0	8.0	8227	91	0.97
	9.9	80.0	65.0	71.0	15.0	6554	81	2.29
BH/RC111604	5.3	78.0	90.0	74.0	25.0	7915	89	3.16
	6.4	68.0	70.0	56.0	13.0	4920	70	2.64
	7.9	76.0	70.0	64.0	14.0	5949	77	2.35
BH/RC112180	9.9	92.0	86.0	94.0	16.0	10652	103	1.50
BH/RC112619	5.3	78.0	78.0	101.0	21.0	10031	100	2.09
	6.2	62.0	42.0	78.0	14.0	5164	72	2.71
	7.4	84.0	60.0	101.0	13.0	9259	96	1.40
	8.4	48.0	72.0	68.0	12.0	5195	72	2.31



Calculation of Is(50)

Equation of Best Fit P = 0.00095 De^2 + 8.375180212

P(50) at D(50) from graph = 10.76 kN

Is(50) = (P(50)/2500) x 1000 = 4.3 MN/m^2

IS(50) X 20 = UCS approximately = 86.0816 MPa

Point Load Axial - Test Results

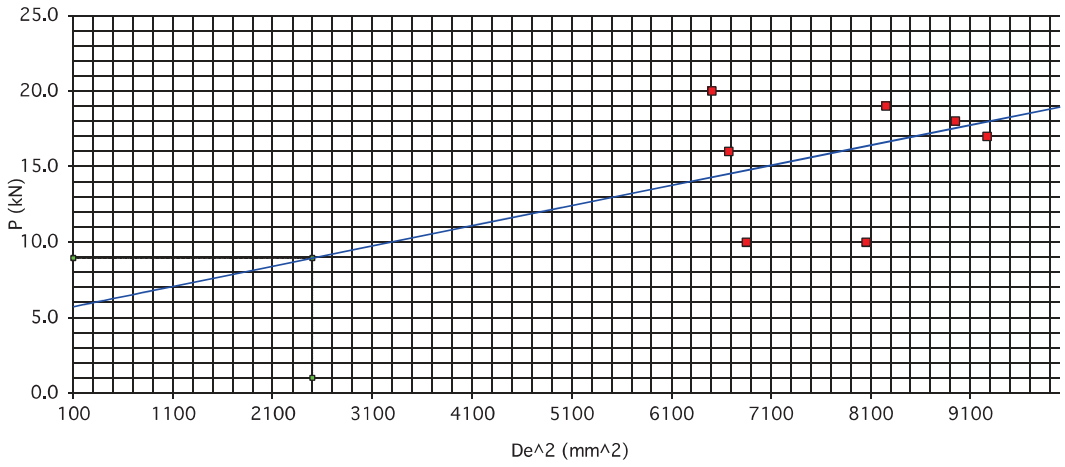
Contract: WSP Ground Investigation Contract Lot 3

Sample Type: Core

Contract No.: 23560

Date of Test: Nov 2022 Tested by: D.O'S

RC Hole No.	Depth	W1 mm	W2 mm	D mm	P kN	De^2 mm^2	De mm	Is MN/m^2
BH/RC112801	7.0	74.0	68.0	72.0	20.0	6509	81	3.07
	7.8	78.0	76.0	110.0	22.0	10785	104	2.04
BH/RC134610	10.4	68.0	70.0	78.0	10.0	6853	83	1.46
BH/RC135163	8.9	98.0	87.0	76.0	18.0	8951	95	2.01
BH/RC136995	6.2	78.0	61.0	91.0	10.0	8053	90	1.24
	8.5	84.0	78.0	80.0	19.0	8251	91	2.30
BH/RC137604	8.8	92.0	90.0	80.0	17.0	9269	96	1.83
	9.5	80.0	72.0	69.0	16.0	6677	82	2.40



Calculation of Is(50)

Equation of Best Fit P = 0.00134 De^2 + 5.593224687

P(50) at D(50) from graph = 8.93 kN

Is(50) = (P(50)/2500) x 1000 = 3.6 MN/m^2

IS(50) X 20 = UCS approximately = 71.45037 MPa

(Diametrial) POINT LOAD STRENGTH INDEX TEST DATA

Contract: WSP Ground Investigation
Lot 3
Date of test: 03/11/2022

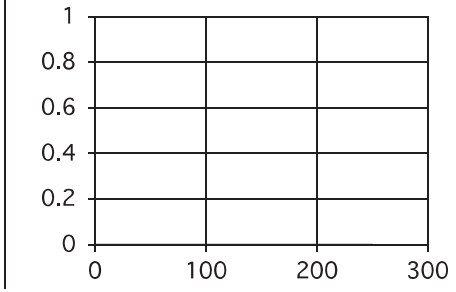
Sample Type: Core
Contract no. 23560

RC No.	Depth m	D (Diameter) mm	P (failure load) kN	F	Is (index strength) Mpa	Is(50) (index strength) Mpa	*UCS MPa	Type	Orienation
BH/RC109085	3.7	78	19.0	1.222	3.12	3.81	76	d	//

Statistical Summary Data	Is(50)	UCS*
Number of Samples Tested	1	1
Minimum	3.81	76
Average	3.81	76
Maximum	3.81	76
Standard Dev.	#DIV/0!	#DIV/0!
Upper 95% Confidence Limit	#DIV/0!	#DIV/0!
Lower 95% Confidence Limit	#DIV/0!	#DIV/0!

Comments:
*UCS taken as k x Point Load Is(50): k= 20

*UCS Normal Distribution Curve



Abbreviations	
i	irregular
a	axial
b	block
d	diametral

approx. orientation to planes of weakness/bedding

U	unknown
P	perpendicular

(Diametrial) POINT LOAD STRENGTH INDEX TEST DATA

Contract: WSP Ground Investigation Lot 3 Date of test: 03/11/2022	Sample Type: Core Contract no. 23560

RC No.	Depth m	D (Diameter) mm	P (failure load) kN	F	Is (index strength) Mpa	Is(50) (index strength) Mpa	*UCS MPa	Type	Orienation
								//	parallel

Uniaxial Compression Test Report Sheet | I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC108409
Depth (m):	10.00m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

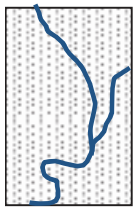
Sample Measurements

Length	198	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	46	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{46000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 9.63 (Mpa)

Bulk Density = 2.60 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC108690
Depth (m):	8.40m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

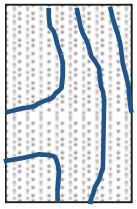
Sample Measurements

Length	200	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	209	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{209000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 43.74 (Mpa)

Bulk Density = 2.66 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC108988
Depth (m):	4.30m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

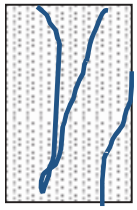
Sample Measurements

Length	202	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	240	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{240000}{4775.94}$

= $\frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 50.23 (Mpa)

Bulk Density = 2.61 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC109085
Depth (m):	4.00m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

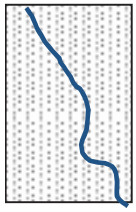
Sample Measurements

Length	201	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	193	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{193000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 40.39 (Mpa)

Bulk Density = 2.63 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet | I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC109609
Depth (m):	6.00m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

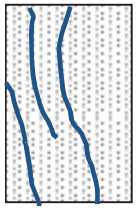
Sample Measurements

Length	202	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	189	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{189000}{4775.94}$

= $\frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 39.55 (Mpa)

Bulk Density = 2.63 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC137604
Depth (m):	9.50m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

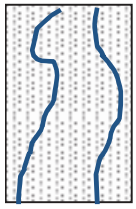
Sample Measurements

Length	194	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	162	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{162000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 33.90 (Mpa)

Bulk Density = 2.63 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet | I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC110738
Depth (m):	4.40m

Sample Description

Colour:	Dark blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

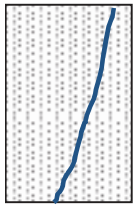
Sample Measurements

Length	199	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	194	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{194000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 40.60 (Mpa)

Bulk Density = 2.67 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet | I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC111604
Depth (m):	5.30m

Sample Description

Colour:	Brownish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

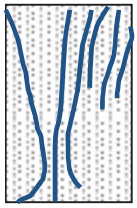
Sample Measurements

Length	200	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	268	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{268000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 56.09 (Mpa)

Bulk Density = 2.69 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC112180
Depth (m):	9.90m

Sample Description

Colour:	Brownish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

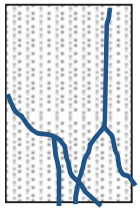
Sample Measurements

Length	171	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	149	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{149000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 31.18 (Mpa)

Bulk Density = 2.69 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC112619
Depth (m):	5.30m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

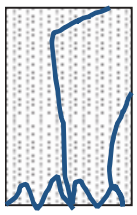
Sample Measurements

Length	202	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	317	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{317000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 66.34 (Mpa)

Bulk Density = 2.64 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet | I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC112801
Depth (m):	7.00m

Sample Description

Colour:	Pale blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

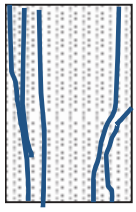
Sample Measurements

Length	204	
Diameter (Ø)	78.1	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	338	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{338000}{4788.19385}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 70.55 (Mpa)

Bulk Density = 2.64 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet | I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC134610
Depth (m):	10.70m

Sample Description

Colour:	Pale brownish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

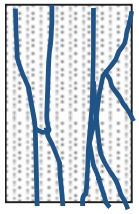
Sample Measurements

Length	199	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	278	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{278000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 58.18 (Mpa)

Bulk Density = 2.63 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC135163
Depth (m):	10.10m

Sample Description

Colour:	Pale brownish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

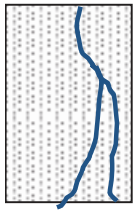
Sample Measurements

Length	203	
Diameter (Ø)	78.1	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	211	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{211000}{4788.19385}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 44.04 (Mpa)

Bulk Density = 2.64 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet | I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC136995
Depth (m):	6.20m

Sample Description

Colour:	Pale brownish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

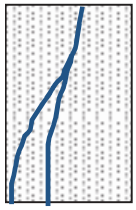
Sample Measurements

Length	200	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	147	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{147000}{4775.94}$

= $\frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 30.76 (Mpa)

Bulk Density = 2.63 (Mg/m^3)

Notes:

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name:	WSP Ground Investigation Contract Lot 3
Job Number:	23560
Hole No:	BH/RC111204
Depth (m):	6.30m

Sample Description

Colour:	Blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	LIMESTONE

Weathering Grade Criteria

I. Fresh:	Unchanged from original state
II. Slightly weathered:	Slight discolouration, slight weakening
III. Moderately weathered:	Considerable weakening, penetrative discolouration
IV. Highly weathered:	Considerable weakening, penetrative discolouration, breaks in hand

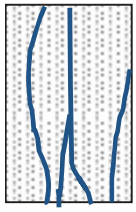
Sample Measurements

Length	199	
Diameter (Ø)	78	mm

Testing

Load Rate	4.3	kN/min
Load at Failure (P)	258	kN

Sketch of Failure Surfaces



Strength Calculations

Uniaxial Compressive Strength = $\frac{258000}{4775.94}$

$= \frac{1000 \times P}{\prod \times (Ø/2)^2}$

= 53.99 (Mpa)

Bulk Density = 2.71 (Mg/m^3)

Notes:

SUMMARY OF INDIRECT TENSILE STRENGTH BY THE BRAZIL TEST

In accordance with ISRM Suggested Methods

Borehole: **BH/RC109085** Sample Type: **C** Depth (m): **4.00**

Bulk Density (Mg/m^3): **2.68** Dry Density (Mg/m^3): **2.67** Moisture Content (%): **0.19**

Sample Diameter (mm): **54.20** Sample Thickness (mm): **26.83** Thickness/Diameter Ratio: **0.50**

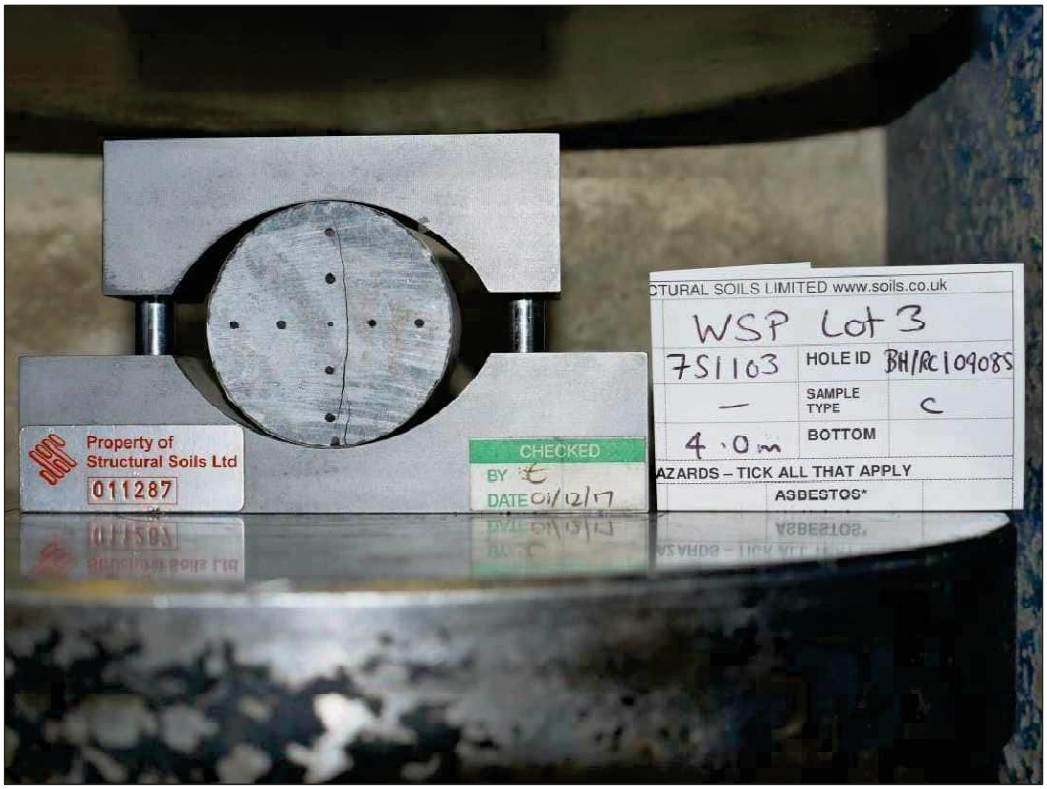
Orientation of loading: **Diametral** Load Rate (kN/s): **0.30** Test duration (secs): **94**

Load at Failure (kN): **26.2** Tensile Strength (MPa): **11.5**

Description: **Grey LIMESTONE**

Loading / Foliation relationship: **NA**

Remarks: **Sample was re-cored**



Post-test photo

STRUCTURAL SOILS 1a Princess Street Bedminster Bristol BS3 4AG	Compiled By		Date
	D. Richards	DAISY RICHARDS	02/12/22
	Contract: **WSP Lot 3**	Job No: **751103**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | GrfcText L - BRAZILIAN ROCK TEST - A4P | 751103-WSP-LOT3-23560.GPJ - v10_01.
Structural Soils Ltd, Branch Office - Bristol Lab: 1a Princess Street, Bedminster, Bristol, BS3 4AG. Tel: 0117-947-1000, Fax: 0117-947-1004, Web: www.soils.co.uk, Email: ask@soils.co.uk. | 02/12/22 - 12:16 | AF3 |

Appendix 8H.4

Rock Reusability Testing

IGSL Ltd
Unit J5, Materials Laboratory
M7 Business Park
Naas
Co. Kildare
045-899324

Test Report

Resistance to Fragmentation - Los Angeles Test

Tested in accordance with BS EN1097-2:2020

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.		**R141752**
Client:		Ervia
Contract:		WSP - Lot 3
Contract No:		23560
Sample No.		A22/6196
Client Ref*:		BH/RC109085 3.2-3.6m
Location*:		BH/RC109085 3.2-3.6m
Source*:		N/A
Material Type*:		Roce Core
Sample Received:		06/12/2022
Date tested:		06/12/2022
Sample Cert:		~~Attached~~ /Not Provided
Size of Material:	1	<14mm >12.5mm
	2	<12.5mm >10mm
Los Angeles Coefficient:		22

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve report

J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/12/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park.
Newhall, Naas.
Co. Kildare

Test Report

Magnesium Sulfate Test

Tested in accordance with EN1367-2:2009

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

Report No.	**R141752A**
Client:	Ervia
Contract No.	23560
Contract Name:	WSP Lot 3
Sample No.	A22/6196
Client Ref.	BH/RC10985
Material Type:	Rock Core
Date Received:	15/11/2022
Date testing started	08/12/2022
Location:	BH/RC10985
Sample Certificate:	Not Provided
Size Range	10-14mm
Magnesium Sulfate Value (MS_1) Portion 1	10.9
Magnesium Sulfate Value (MS_2) Portion 2	9.8
Mean Magnesium Sulfate Value	10.4

The result relates to the specimens tested.
Any remaining material will be retained for one month.
Sampling and opinions and interpretations are outside the scope of accreditation.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL	Approved by	Date	Page
	H Byrne	23/12/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5, M7 Business Park
Newhall, Naas
Co. Kildare
045 846176

Test Report

Slake Durability

Tested in accordance with ISRM Part 2 (1981)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1331

Report No.	**R141758**
Contract No.	23560
Contract Name:	WSP - Lot 3
Client:	Ervia
Sample No.	A22/6196
Client Ref	BH/RC109085 @ 3.2-3.6m
Location	BH/RC109085 @ 3.2-3.6m
Sample Certificate	~~Approved~~ /Not Provided
Date Received	21/11/22
Date Tested	21/11/22
Slake Durability	
Cycle 1	99.9
Cycle 2	98.9

Description of the rock

Pre Test: Grey Limestone

Post Test: Grey Limestone

The slaking fluid is tap water at 20°C unless otherwise stated in this report.

The results relate to the specimens tested.
Any remaining material will be retained for one month.
Opinions and interpretations are outside the scope of accreditation.

Persons authorised to approve report

J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory	Approved by	Date	Page
	H Byrne	23/12/22	1 of 1

IGSL Ltd
Materials Laboratory
Unit J5,M7 Business Park
Naas
Co. Kildare
045 899324

Test Report

Particle Shape - Flakiness

Tested in accordance with BS EN933-3:2012

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.1331

Report No.	**R141744**
Contract No.	23560
Contract Name:	WSP - Lot 3
Customer:	Ervia
Sample No.	A22/6196
Customer Ref*:	BH/RC109085 @ 3.2-3.6m
Location*:	BH/RC109085 @ 3.2-3.6m
Material Type*:	Rock Core
Sample Received:	23/11/2022
Date tested:	21/11/2022
Sample Cert:	~~Attached~~ /Not Provided
Mass of Test Portion (g):	3415
Flakiness Index:	9

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/12/22	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park.
Newhall, Naas.
Co. Kildare

Test Report

Particle Density/Water Absorption

Tested in accordance with EN1097-6:2013

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No.	**R141765**
Client:	Evria
Contract No.	23560
Contract Name:	WSP - Lot 3
Sample No.	A22/6196
Client Ref.*	BH/RC109085 @ 3.2-3.6
Material Type*:	Rock Core
Date Received:	21/11/2022
Date testing started	21/11/2022
Location*:	N/A
Sample Certificate:	Not Provided
Test Method:	Pyknometer method,
Condition of material:	As received
Oven dried particle density (Mg/m^3)	2.67
Saturated surface dried particle density (Mg/m^3)	2.69
Apparent particle density (Mg/m^3)	2.72
Water Absorption (%)	0.6

Results relate only to the specimen tested, in as received condition unless otherwise noted.
Opinions and interpretations are outside the scope of accreditation.
* denotes Customer supplied information.
This report shall not be reproduced except in full without written approval from the Laboratory.

Approved signatories
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory	Approved by	Date	Page
	H Byrne	23/12/22	1 of 1

I.G.S.L. Ltd
Unit J5, M7 Business Park
Newhall, NAAS
Co Kildare
Rep of Ireland
Vat No. IE9795751O

Date: 11 January 2023
Test Report Ref: TR 927827

Order No: 20963

Contract: WSP Lot 3 - 23560

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Aggregate Abrasion Value (AAV) of aggregate sample, in accordance with **BS EN 1097-8 : 2020 Annex A**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107413**
Client Ref. No:	**A22/6196**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**15/12/2022**
Date of Start of Test:	**11/01/2023**
Sampling Location:	**BH/RC109085 @ 3.2-3.6m**
Name of Source:	**WSP Lot 3**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MP**
Material Description:	**Crushed Rock Core**
Target Specification:	**N/A**

RESULTS:

Aggregate Abrasion Value (Test 1) =	**3.35**
Aggregate Abrasion Value (Test 2) =	**3.35**

Mean Aggregate Abrasion Value = **3.4**

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	N. Hughes Neil Hughes Assistant Aggregate Team Manager

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

I.G.S.L. Ltd
Unit J5, M7 Business Park
Newhall, NAAS
Co Kildare
Rep of Ireland
Vat No. IE9795751O

Date: 12 January 2023
Test Report Ref: TR 929042

Order No: 20969

Contract: WSP Lot 3 - 23560

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Mohs Hardness of aggregate sample in accordance with **In House Methods**.

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107466**
Client Ref. :	**A22/6196**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**19/12/2022**
Date of Start of Test:	**12/01/2023**
Sampling Location:	**BH/RC109085 @ 3.2-3.6m**
Name of Source:	**WSP Lot 3**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KG**
Material Description:	**Crushed Rock Core**
Target Specification:	**N/A**

RESULTS:

Mohs Hardness = **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:
N. Hughes
Neil Hughes
Assistant Aggregate Team Manager

Appendix 8H.7

Geological Classification

GEOLOGICAL CLASSIFICATION / SIMPLIFIED PETROLOGY ©

Project No.	23560	**Sample Ref No.**	BH/RC109085 - 3.20-3.60m
Project Location:	WSP - Lot 3	**Sample Location:**	BH/RC109085
Client:	Irish Water	**Date Logged:**	20/10/2022

Notes on sample preparation & examination: Sample reduced (riffled & quartered) in accordance with IS EN 932-2:1999. Sample examined and classified by IGSL Professional Geologist in accordance with IS EN 14689-1:2004, IS EN 932-3:1997 and IS 398;2013 Part 1, Testing & Categorization Protocol. Sample examined with hand lens and bionocular microscope.

Bulk Sample

Sample Description

Aggregate consists of calci-siltite limestone with fine grained grey coatings. No evidence of mineralogical changes, encrustations (e.g. gypsum) in the sample provided. Sample in a dry state.

Riffled & Quartered Sub-Sample

Washed Fragments Sub-Sample Characteristics

Particle Sizes Estimation (mm):

Max	Mean	Min.
80	15	10

Particle Shape:
Angular to subrounded

Nature of Fines:
Grey, silt or clay size

Nature of Coatings:
Grey, fine sand & silt / clay size

Image of Washed Fragments

Assessed Rock Types (lithologies) in Bulk Sample

Rock Types	% Present
Type 1: Calci-Siltite Limestone	100%

Note: *Rock types and proportions assesed by examining bulk sample and washing the fragments and examining by naked eye, hand lens and binocular microscope.*

Project No. 23560	GEOLOGICAL CLASSIFICATION / SIMPLIFIED PETROLOGY ©	Sheet 2 of 2

ROCK Type 1 Calci-Siltite Limestone

Dominant Particle size:		10-80mm			
Colour:		Grey to pale grey			
Strength:		Strong			
Apparent Porosity / Water Absorption:		Low			
Reaction to dilute HCL (Dry Sample):		Strong			
Presence of Laminations in hand specimen	YES	☐	NO	☑	If YES, Laminar Spacing
Surface Coatings	YES	☑	NO	☐	Clay/silt
Staining	YES	☑	NO	☐	Local medium iron-oxide
Secondary Mineral Present	YES	☐	NO	☑	
Carbonate Mineralisation	YES	☑	NO	☐	Sparite
Sulphate Mineralisation	YES	☐	NO	☑	

ROCK Type 2

Dominant Particle size:					
Colour:					
Strength:					
Apparent Porosity / Water Absorption:					
Reaction to dilute HCL (Dry Sample):					
Presence of Laminations in hand specimen	YES	☐	NO	☐	If YES, Laminar Spacing
Surface Coatings	YES	☐	NO	☐	
Staining	YES	☐	NO	☐	
Secondary Mineral Present	YES	☐	NO	☐	
Carbonate Mineralisation	YES	☐	NO	☐	
Sulphate Mineralisation	YES	☐	NO	☐	

ROCK Type 3

Dominant Particle size:					
Colour:					
Strength:					
Apparent Porosity / Water Absorption:					
Reaction to dilute HCL (Dry Sample):					
Presence of Laminations in hand specimen	YES	☐	NO	☐	If YES, Laminar Spacing
Surface Coatings	YES	☐	NO	☐	
Staining	YES	☐	NO	☐	
Secondary Mineral Present	YES	☐	NO	☐	
Carbonate Mineralisation	YES	☐	NO	☐	
Sulphate Mineralisation	YES	☐	NO	☐	

Selected Microscopy Images

Appendix 8I

Photographs

Appendix 8I.1

Trial Pit Photographs

Excavation

Figure 1TP103304

Figure 2: TP103304

Figure 3: TP103304

Figure 4: TPO103304

Figure 5: TP103504

Figure 6: TP103504

Figure 7: TP103504

Figure 8: TP103504

Figure 3: TP104425

Figure 4: TP104425

Figure 5: TP104425

Figure 6: TP104425

Figure 7: TP104507

Figure 8: TP104507

Figure 9: TP104507

Figure 10: TP104610 - TP Photos - TP Photos file corrupt

Figure 11: TP104707 - TP Photos file corrupt

Figure 12: TP104800- TP Photos file corrupt

Figure 13: TP104908

Figure 14: TP104908

Figure 15: TP104908

Figure 16: TP 104908

Figure 17: TP104908

Figure 18: TP108804

Figure 19: TP108804

Figure 20: TP108804

Figure 21: TP108804

Figure 22: TP108905

Figure 23: TP108905

Figure 24: TP108905

Figure 25: TP108905

Figure 26: TP108905

Figure 27: TP110906

Figure 28: TP110906

Figure 29: TP110906

Figure 30: TP111007

Figure 31: TP111007

Figure 32: TP111007

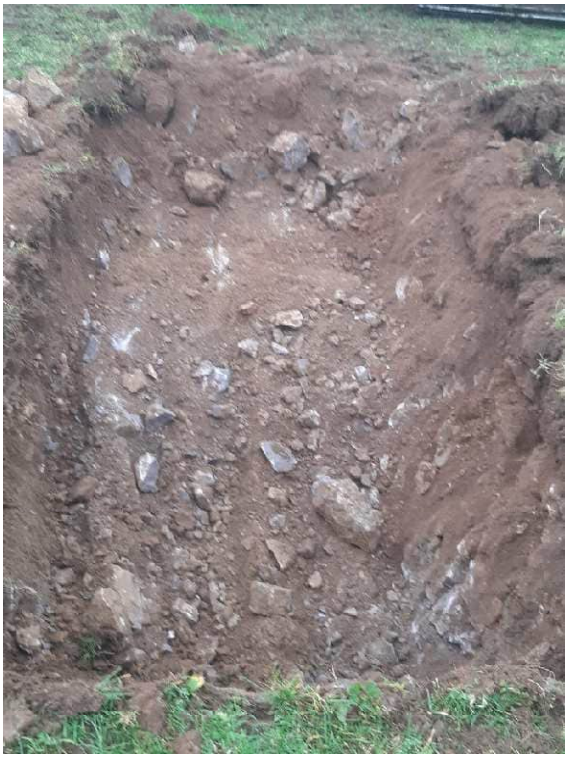


Figure 33: TP111105

Figure 34: TP111105

Figure 35: TP111105

Figure 36: TP111202

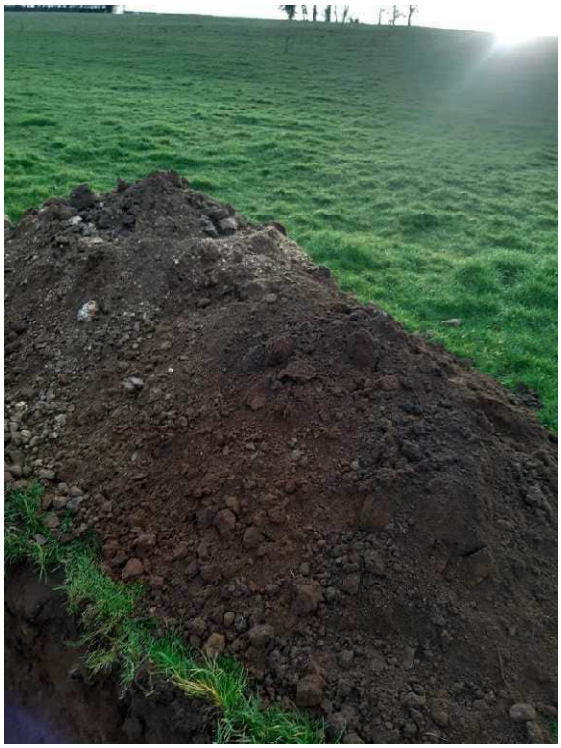


Figure 37: TP111202

Figure 38: TP111202

Figure 39: TP111305

Figure 40: TP111305

Figure 41: TP111305

Figure 42: TP111389

Figure 43: TP111389

Figure 44: TP111389

Figure 45: TP111505

Figure 46: TP111505

Figure 47: TP111505

Figure 48: TP 111615

Figure 49: TP111615

Figure 50: TP111615

Figure 51: TP111704

Figure 52: TP111704

Figure 53: TP111704

Figure 54: TP111803

Figure 55: TP111803

Figure 56: TP111803

Figure 57: TP117582

Figure 58: TP117582

Figure 59: TP117582

Figure 60: TP117703

Figure 61: TP117703

Figure 62: TP117703

Figure 63: TP117780

Figure 64: TP117780

Figure 65: TP117780

Figure 66: TP117901

Figure 67: TP117901

Figure 68: TP117901

Figure 69: TP118385

Figure 70: TP118385

Figure 71: TP118385

Figure 72: TP118502

Figure 73: TP118502

Figure 74: TP118502

Figure 75: TP118605

Figure 76TP118605

Figure 77: TP118605

Figure 78: TP118801

Figure 79: TP118801

Figure 80: TP118801

Figure 81: TP118902

Figure 82: TP118902

Figure 83: TP118902

Figure 84: TP118987

Figure 85: TP118987

Figure 86: TP118987

Figure 87: TP119102

Figure 88: TP119102

Figure 89: TP119102

Figure 90: TP119201

Figure 91: TP119201

Figure 92: TP119201

Figure 93: TP119302

Figure 94: TP119302

Figure 95: TP119302

Figure 96: TP119389

Figure 97: TP119389

Figure 98: TP119389

Figure 99: TP119502

Figure 100: TP119502

Figure 101: TP119502

Figure 102: TP119586

Figure 103: TP119586

Figure 104: TP119586

Figure 105: TP119700

Figure 106: TP119700

Figure 107: TP119700

Figure 108: TP125701

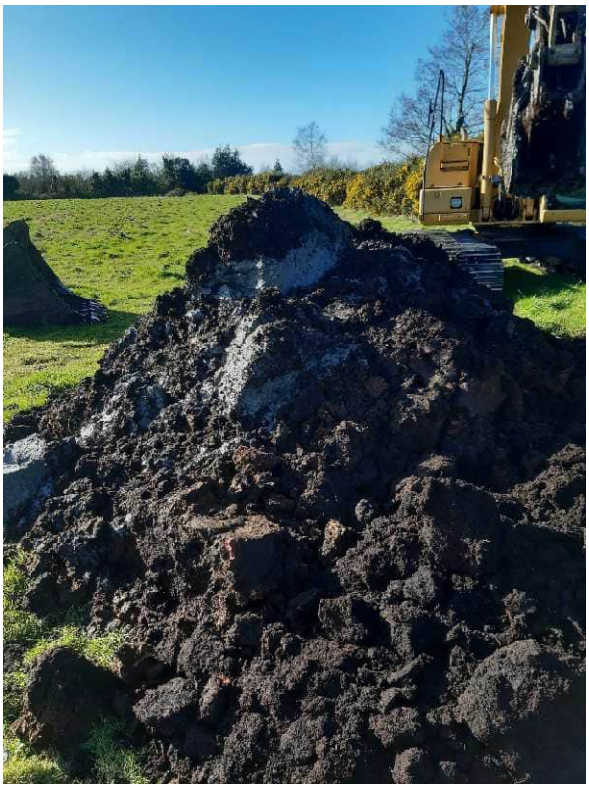


Figure 109: TP125701

Figure 110: TP125701

Figure 111: TP125800

Figure 112: TP125800

Figure 113: TP125902

Figure 114: TP125902

Figure 115: TP125902

Figure 116: TP125902

Figure 117: TP126004

Figure 118: TP126004

Figure 119: TP126004

WSP Lot 3 Trial Pits TP132838 – TP133999

TP132838

TP132838

TP132838

TP132838

TP132838

TP132838

TP132908

TP132908

TP132908

TP132908

TP132908

TP132908

TP133012

TP133012

TP133012

TP133012

TP133012

TP133012

TP133108

TP133108

TP133108

TP133108

TP133227

TP133108

TP133108

TP133108

TP133108

TP133308

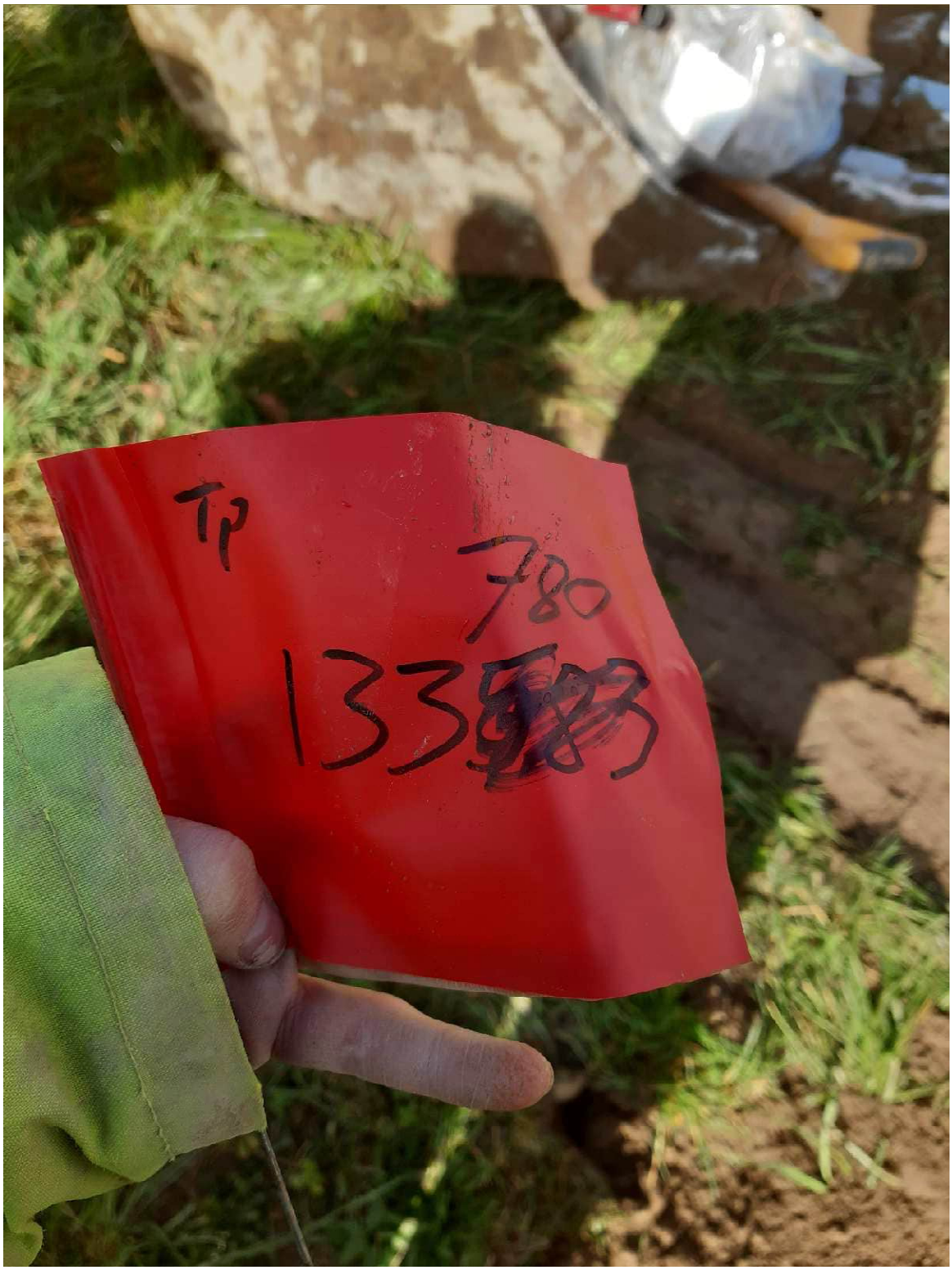
TP133308

TP133308

TP133308

TP133780

TP133780

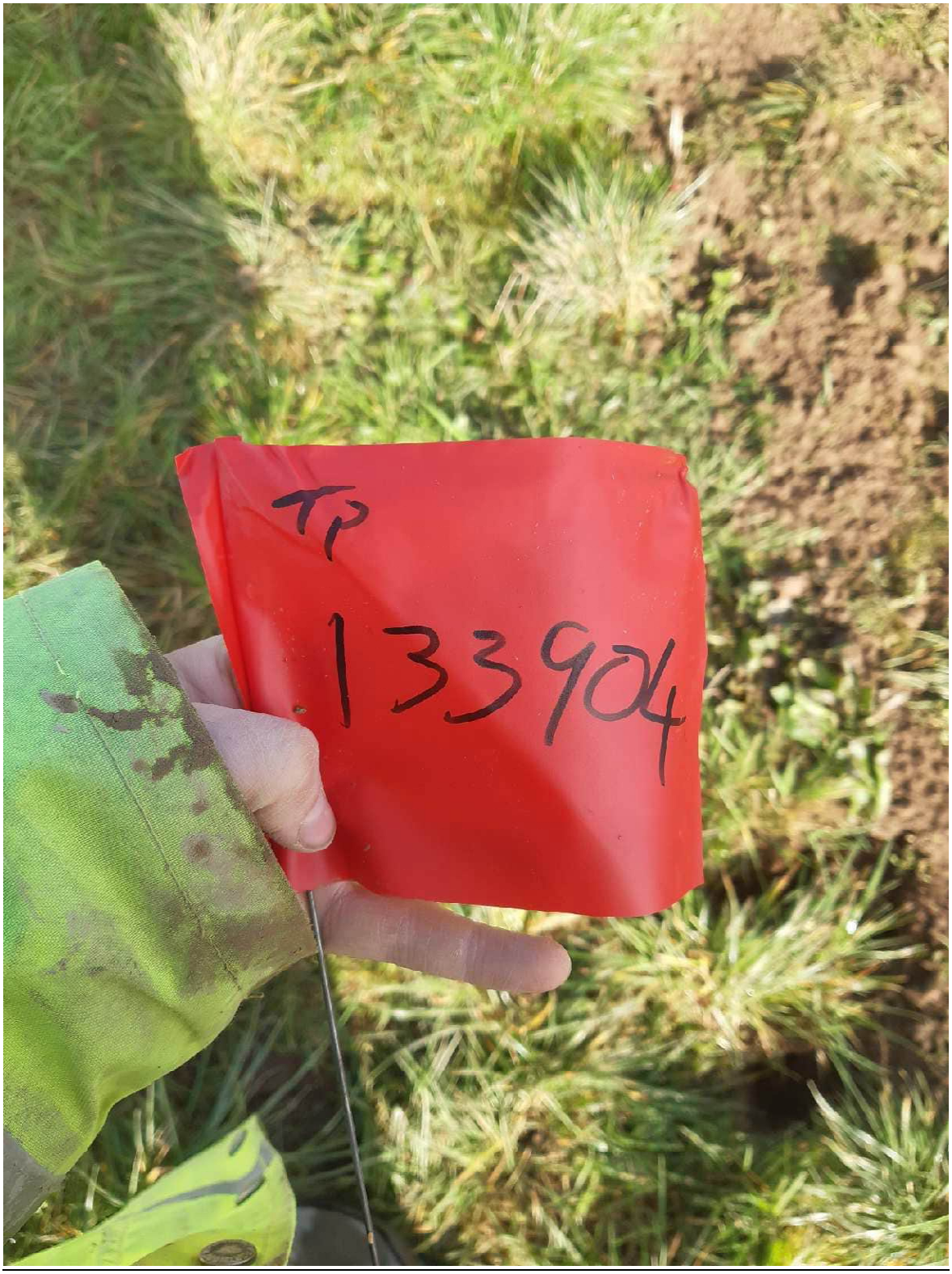


TP133780

TP133780

TP133780

TP133904



TP133904

TP133904

TP133904

TP133904

TP133989

TP133989

TP133989

TP133989

TP133989

TP133999

TP133999

TP133999

TP133999

WSP Lot 3

TP134001

TP134001

TP134001

TP134001

TP134040

TP134040

TP134040

TP134040

TP134040

TP134082

TP134082

TP134082

TP134082

TP134082

TP134096

TP134096

TP134096

TP134096

TP134139

TP134139

TP134139

TP134139

TP134181

TP134181

TP134181

TP134181

TP134196

TP134196

TP134196

TP134196

TP134239

TP134239

TP134239

TP134239

TP134281

TP134281

TP134281

TP134281

TP134296

TP134296

TP134296

TP134296

WSP Lot 3 TP134340 – TP135904

TP134340

TP134340

TP134340

TP134340

TP 134396

TP 134396

TP 134396

TP 134396

TP134406

TP134406

TP134406

TP134406

TP134439

TP134439

TP134439

TP134439

TP134490

TP134490

TP134490

TP134490

TP135009

TP135009

TP135009

TP135009

TP135503

TP135503

TP135503

TP135503

TP135607

TP135607

TP135607

TP135607

TP135607

TP135708

TP135708

TP135708

TP135708

TP135904

TP135904

TP135904

TP135904

TP135904

WSP Lot 3

TP136007

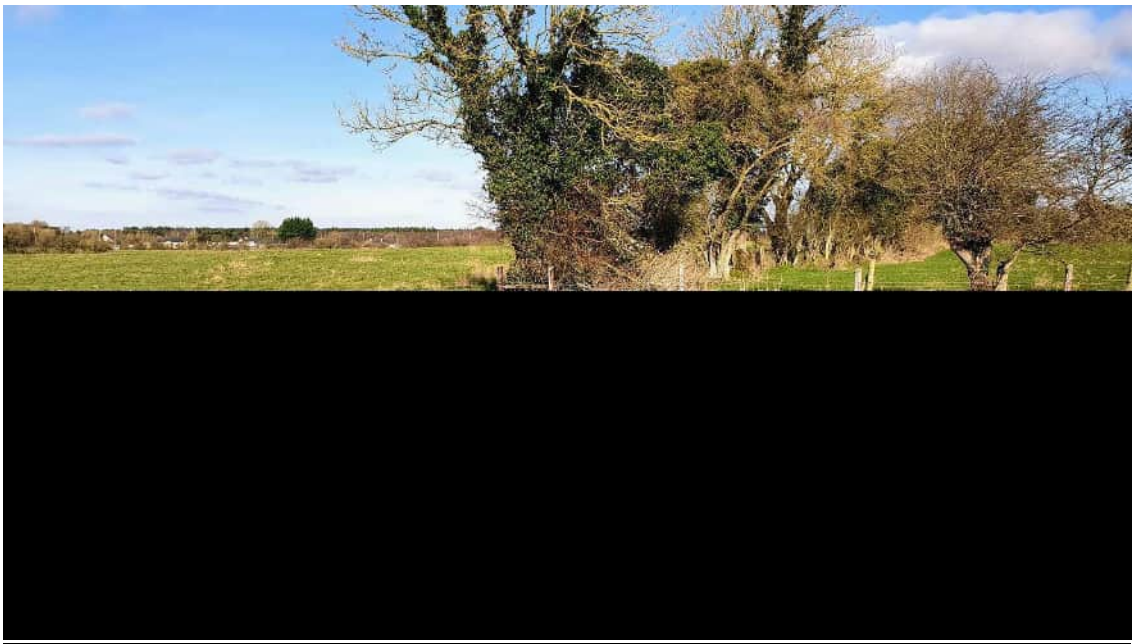
TP136007

TP136108

TP136108

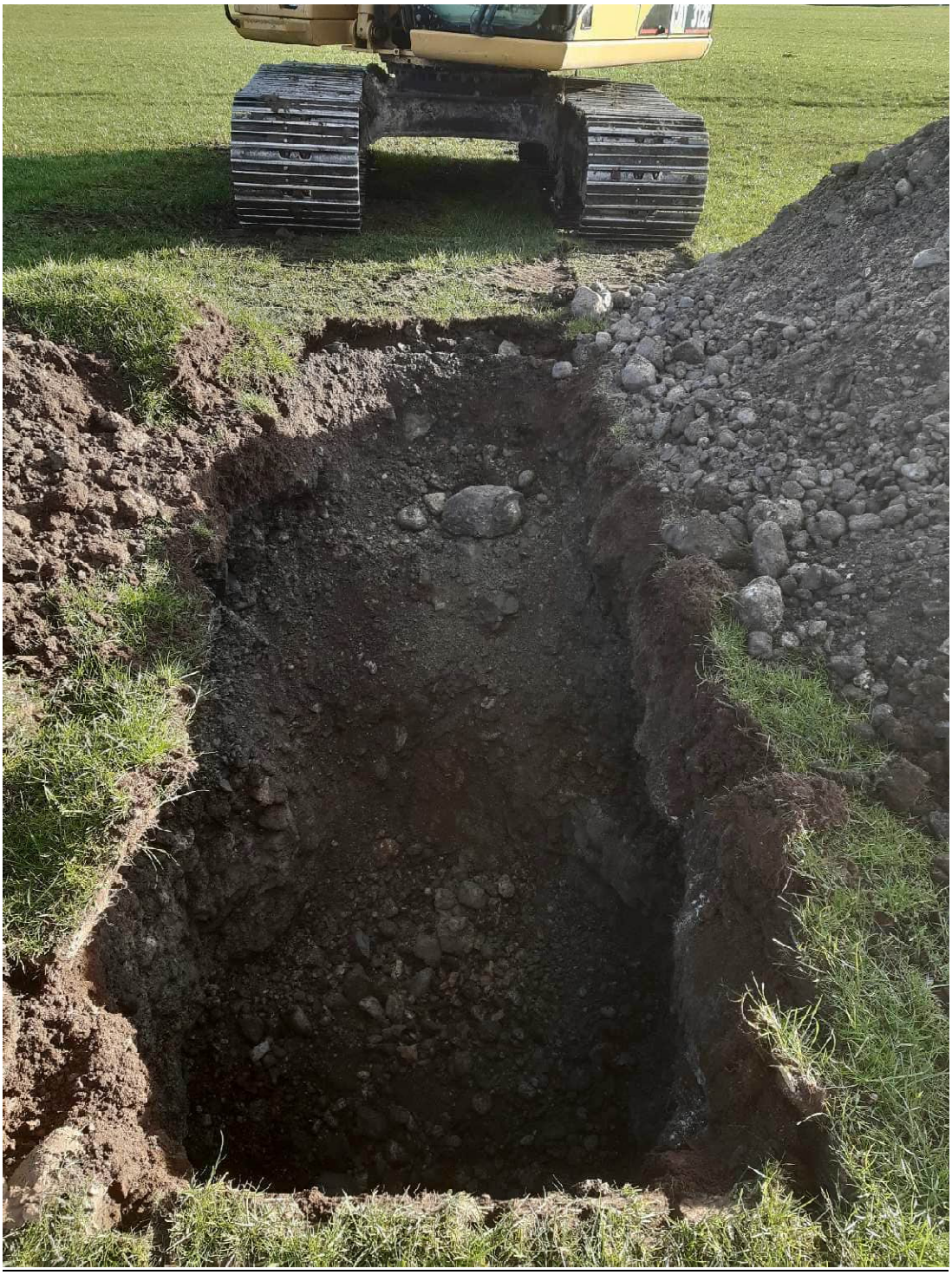
TP139902

TP139902



TP142792

TP142904



TP142904

TP142904

TP142904

TP142904

TP143006

TP143006

TP143006

TP143006

TP143006

TP143104

TP143104

TP143104

TP143104

TP143104

TP143502

TP143502

TP143502

TP143502

TP143502

TP144592

TP144592

TP144592

TP144592

TP144592

Appendix 8I.3

Core Photographs

Borehole Core Photographs

BH108409
BH108690
BH108988
BH109085
BH109609
BH110738
BH111204
BH111604
BH111960
BH112180
BH112619
BH112801
BH134610
BH135163
BH136995
BH137604

BH108409 – Box 1 of 2 – 6.00-8.90m

BH108409 – Box 2 of 2 – 8.90-11.00m

BH108690 – Box 1 of 2 – 4.50-9.00m

BH108690 – Box 2 of 2 – 9.00-10.65m

BH108988 – Box 1 of 2 – 4.20-7.20m

BH108988 – Box 2 of 2 – 7.20-10.00m

BH109085 – Box 1 of 3 – 3.20-5.87m

BH109085 – Box 2 of 3 – 5.87-8.35m

BH109085 – Box 3 of 3 – 8.35-10.25m

BH109609 – Box 1 of 2 – 5.88-8.43m

BH109609 – Box 2 of 2 – 8.43-10.35m

BH110738 – Box 1 of 3 – 4.00-6.75m

BH110738 – Box 2 of 3 – 6.75-9.30m

BH110738 – Box 3 of 3 – 9.30-10.65m

BH111204 – Box 1 of 2 – 4.50-7.50m

BH111204 – Box 2 of 2 – 7.50-10.00m

BH111604 – Box 1 of 2 – 4.00-7.00m

BH111604 – Box 2 of 2 – 7.00-10.00m

BH111960 – Box 1 of 1 – 7.50-9.00m

BH112180 – Box 1 of 1 – 9.00-10.80m

BH112619 – Box 1 of 4 – 4.50-7.50m

BH112619 – Box 2 of 4 – 7.50-10.50m

BH112619 – Box 3 of 4 – 10.50-13.50m

BH112619 – Box 4 of 4 – 13.50-15.00m

BH112801 – Box 1 of 2 – 6.40-9.20m

BH112801 – Box 2 of 2 – 9.20-10.60m

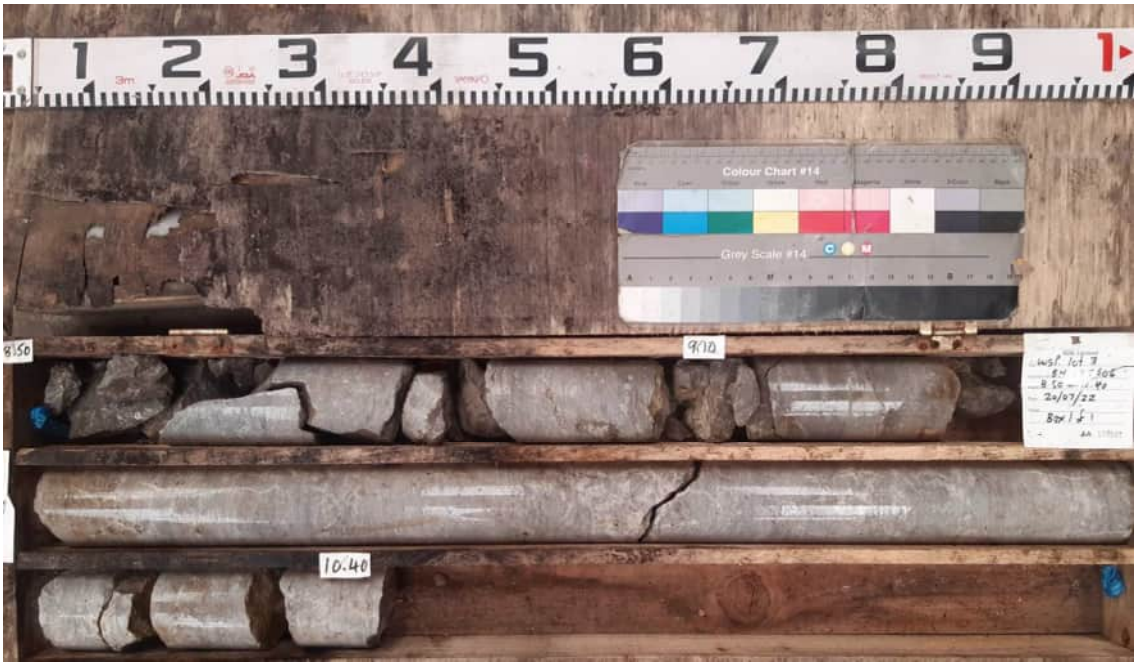
BH134610 – Box 1 of 1 – 10.00-11.60m

BH135163 – Box 1 of 1 – 8.70-10.90m

BH136995 – Box 1 of 2 – 6.20-8.63m

BH136995 – Box 2 of 2 – 8.63-9.75m

BH137604 – Box 1 of 1 – 8.50-10.40m



Appendix 8I.3

Core Photographs

Geobore S Core Photographs

BH104533
BH133986

BH104533 – Box 1 of 5 – 0.00-2.20m

BH104533 – Box 2 of 5 – 2.20-6.00m

BH104533 – Box 3 of 5 – 6.00-7.80m

BH104533 – Box 4 of 5 – 7.80-9.90m

BH104533 – Box 5 of 5 – 9.90-10.40m

BH133986 – Box 1 of 5 – 0.00-2.00m

BH133986 – Box 2 of 5 – 2.00-4.50m

BH133986 – Box 3 of 5 – 4.50-6.55m

BH133986 – Box 4 of 5 – 6.55-8.85m

BH133986 – Box 5 of 5 – 8.85-10.30m

Appendix 8J

Groundwater Level Data

Appendix 8J.1

Field Measurements

08-Feb-23 to 15-Feb-23

Groundwater Monitoring

Site Location	WSP Lot 3 Peatlands
Project No.	23560
Engineer	Mott MacDonald

		Date of Monitoring						
		07/02/2023	08/02/2023	09/02/2023	10/02/2023	13/02/2023	14/02/2023	15/02/2023
Exploratory Hole No.	SP 50mm	(m bgl)	(m bgl)	(m bgl)	(m bgl)	(m bgl)	(m bgl)	(m bgl)
BH104135			0.55m					
BH104946			0.47m					
BH105486							1.18m	
BH105990							1.75m	
BH106421			1.25m					
BH106893							1.07m	
BH107272							3.44m	
BH107807								3.12m
BH108409								Dry
BH109609								GL
BH110055								0.38m
BH110738			0.45m					
BH111204			9.94m					
BH111960			0.94m					
BH112801			1.19m					
BH113399							2.30m	
BH114149							1.23m	
BH115403			0.5m					
BH116189							0.9m	
BH120200						0.7m		
BH120739						2.05m		
BH124210						1.0m		
BH125177						1.3m		
BH125582						2.6m		
BH125870						0.75m		
BH127452						1.19m		
BH128127						0.5m		
BH130005					0.81m			
BH131203					1.3m			
BH131836					GL			
BH133986					Dry			
BH134500							0.96m	
BH135006				1.07m				
BH135404				0.98m				
BH135695				0.48m				
BH136995					1.5m			
BH137604					2.3m			
BH138802					2.6m			
BH139202					1.5m			
BH139753					2.0m			
BH139892					3.44m			
BH140795				0.46m				
BH142295				0.4m				
BH142795				3.25m				
BH143383				3.01m				
BH144153				0.76m				

Appendix 8J.2

Data Logger Records

Field Measurements

Location	Date of Data Logger commencement	Location	Date of Data Logger commencement
BH104135	22-12-22	BH125582	04-01-23
BH104946	06-01-23	BH125870	22-12-22
BH105486	06-01-23	BH127452	04-01-23
BH105990	06-01-23	BH128127	04-01-23
BH106421	06-01-23	BH130005	04-01-23
BH106893	06-01-23	BH131836	04-01-23
BH107272	06-01-23	BH133986 (GB)	22-12-22
BH107807	06-01-23	BH134500	06-01-23
BH108409	06-01-23	BH135006	22-12-22
BH109609	06-01-23	BH135404A	22-12-22
BH110055	06-01-23	BH135695	22-12-22
BH110738	22-12-22	BH137604	03-01-23
BH111204	22-12-22	BH138802	03-01-23
BH111960	22-12-22	BH139202	03-01-23
BH112801	22-12-22	BH139752	04-01-23
BH113399	06-01-23	BH139892	03-01-23
BH114149	06-01-23	BH140469	03-01-23
BH115403	05-01-23	BH140795	03-01-23
BH116189	06-01-23	BH142295	21-12-22
BH120200	05-01-23	BH142795	21-12-22
BH120739	04-01-23	BH143383	21-12-22
BH124210	04-01-23	BH144453	22-12-22
BH125177	04-01-23		

IGSL Groundwater Monitoring Schedule

CONTRACT NO:	23560
CONTRACT NAME:	WSP Lot 3 - GI Peatlands Section

Monitoring Schedule

Location	Folio Number	December/January 2023	Feb-23	Mar-23	Jun-23	Sep-23	January 2024 Completion
BH-104135	WL281	✓	✓	✓			
BH-104946	WL286a	✓	✓	✓			
BH-105486	WL286a	✓	✓	✓			
BH-105990	WL286a	✓	✓	✓			
BH-106421	WL286a	✓	✓	✓			
BH-106893	WL286a	✓	✓	✓			
BH-107272	WL289	✓	✓	✓			
BH-107807	WL289	✓	✓	✓			
BH-108409	WL289	✓	✓	✓			
BH-109609	WL289	✓	✓	✓			
BH-110055	WL289	✓	✓	✓			
BH-110738	WL294	✓	✓	✓			
BH-111204	WL295	✓	✓	✓			
BH-111604	WL296	✓	✓	✓			
BH-111960	WL297	✓	✓	✓			
BH-112801	WL302	✓	✓	✓			
BH-113399	WL303	✓	✓	✓			
BH-114149	WL303	✓	✓	✓			
BH-115403	WL305	✓	✓	✓			
BH-116189	WL309	✓	✓	✓			
BH-120200	WL327	✓	✓	✓			
BH-120739	WL327	✓	✓	✓			
BH-122408	WL333	✓	✓	✓			
BH-123774	WL333	✓	✓	✓			
BH-124210	WL335	✓	✓	✓			
BH-125177	WL335	✓	✓	✓			
BH-125582	WL335	✓	✓	✓			
BH-125870	WL336	✓	✓	✓			

IGSL Groundwater Monitoring Schedule

CONTRACT NO:	23560
CONTRACT NAME:	WSP Lot 3 - GI Peatlands Section

Monitoring Schedule

BH-127452	WL339	✓	✓	✓			
BH-128127	WL339	✓	✓	✓			
BH-130005	WL341	✓	✓	✓			
BH-131203	WL341	✓	✓	✓			
BH-131836	WL341	✓	✓	✓			
BH-133986	WL345	✓	✓	✓			
BH-134500	WL346	✓	✓	✓			
BH-135006	WL346	✓	✓	✓			
BH-135404	WL346	✓	✓	✓			
BH-135695	WL346	✓	✓	✓			
BH-136995	WL349	✓	✓	✓			
BH-138802	WL349	✓	✓	✓			
BH-139202	WL349	✓	✓	✓			
BH-139752	WL349	✓	✓	✓			
BH-139892	WL349	✓	✓	✓			
BH-140469	WL349	✓	✓	✓			
BH-140795	WL349	✓	✓	✓			
BH-137604	WL350	✓	✓	✓			
BH-142295	WL354	✓	✓	✓			
BH-142795	WL354	✓	✓	✓			
BH-143383	WL356	✓	✓	✓			
BH-144153	WL360	✓	✓	✓			

Appendix 8K

Drawings

TP103504
PP103459
PP103471
PP103490
BX103480
PP103359
PP103369
DS103405
PP103377
TP103304
PP103853
BX103369
PP103872
PP103873

23560-PL-100

North

Site Location

Datum
• Malin Hd
Grid System
• ITM

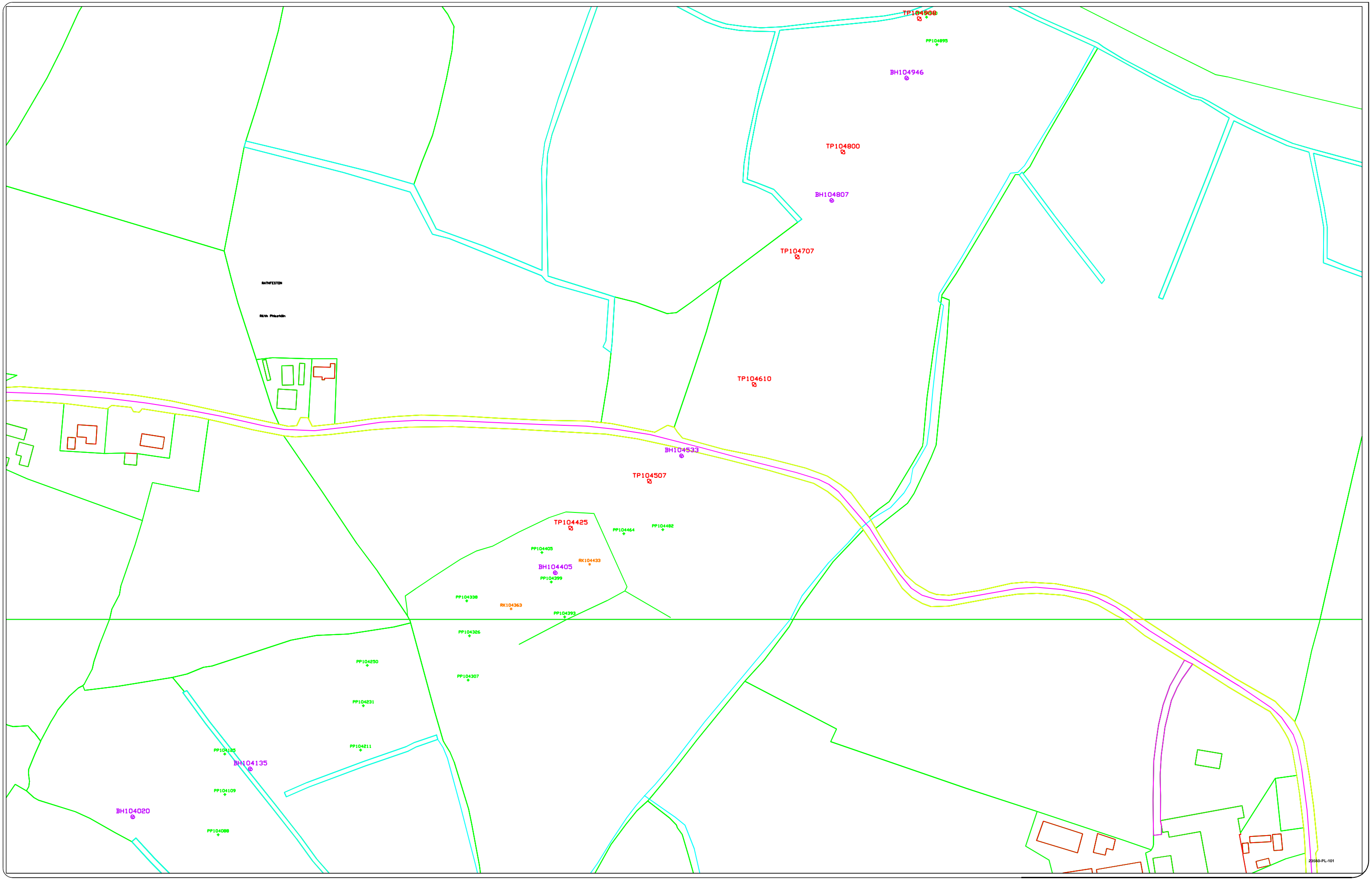
Borehole Location
Peat Probe Location
Dynamic Sample Borehole Location
Russian Sample Location
Trial Pit Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date: 19/10	File Name: 23560	Drawing No:	
Drawn:	CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-100	
Checked:	JL	Date: 19/10	Date: 19/10/2022		



North

Site Location

Datum: - Malin Hd
Grid System: - ITM

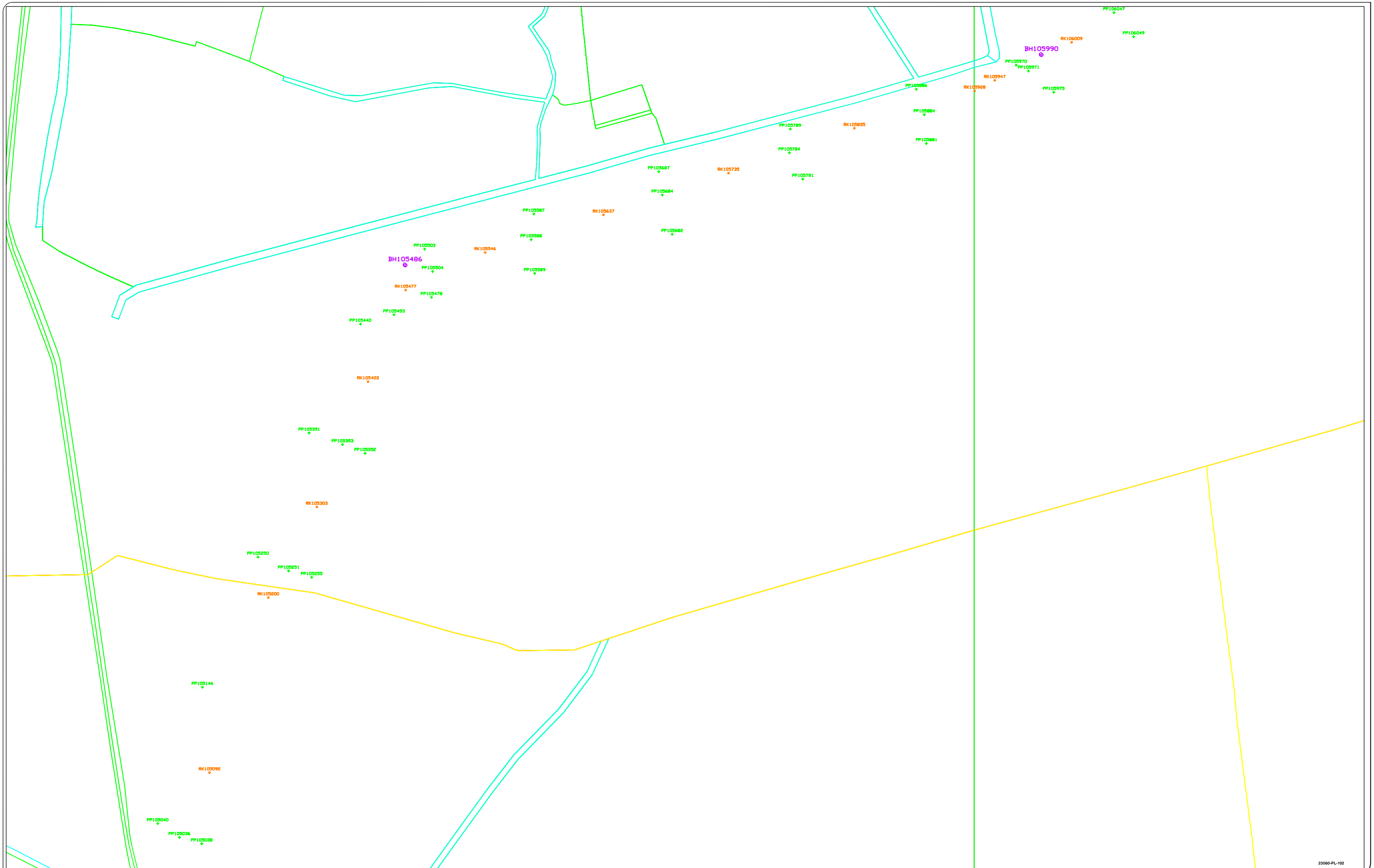
- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION & GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No:		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-101		
Checked: JL	Date: 19/10	Date: 19/10/2022			



North

Site Location

Datum
- Malin Hd
Grid System
- ITM

- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

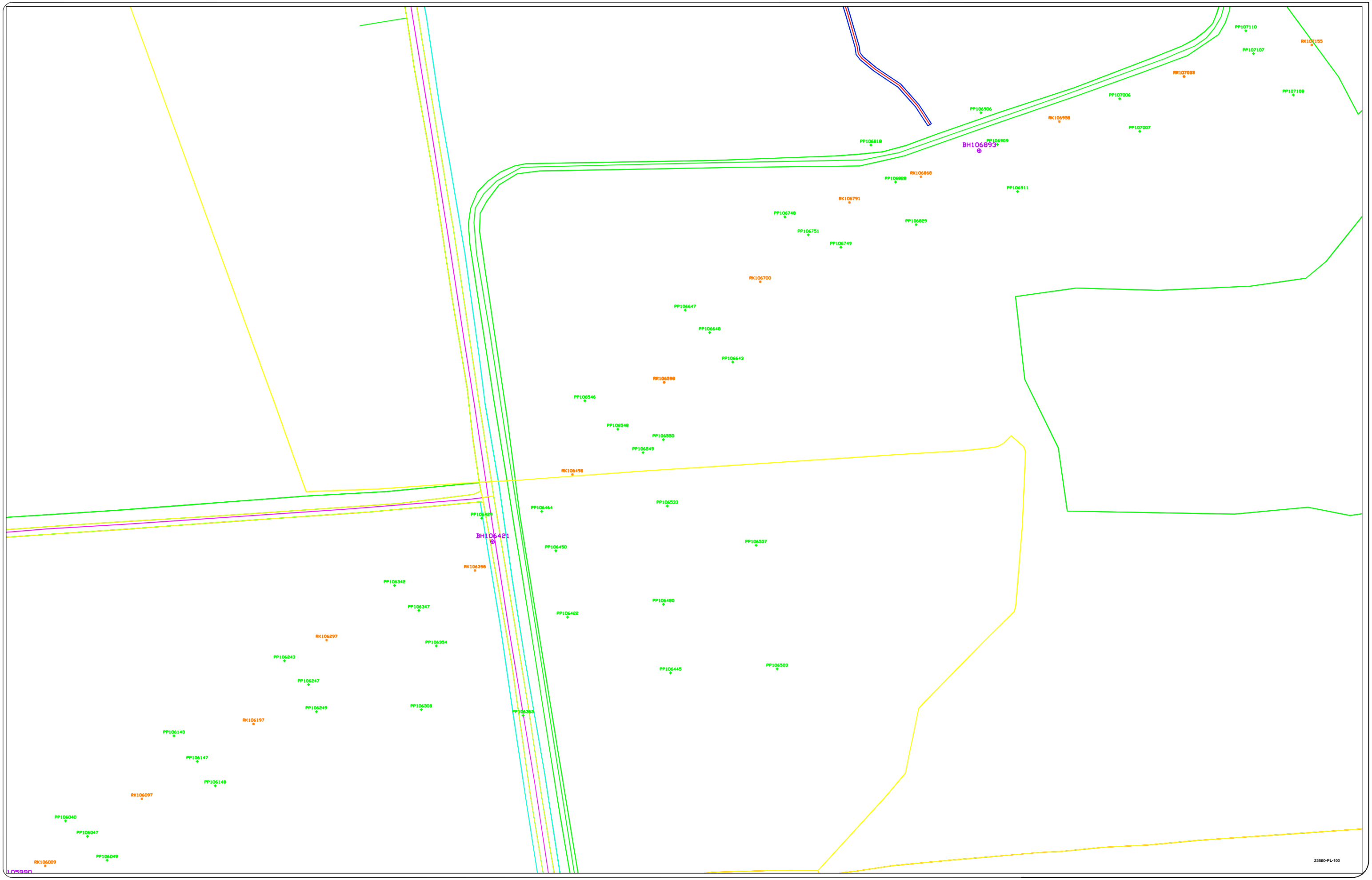
Project: **WSP Lot 3 - Peatlands**

Component: **Preliminary Ground Investigation**

Title: **Location Plan**

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-102**



North

Datum
- Malin Hd
Grid system
- ITM

Site Location

Borehole Location

Peat Probe Location

Dynamic Sample Borehole Location

Russian Sample Location

Trial Pit Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

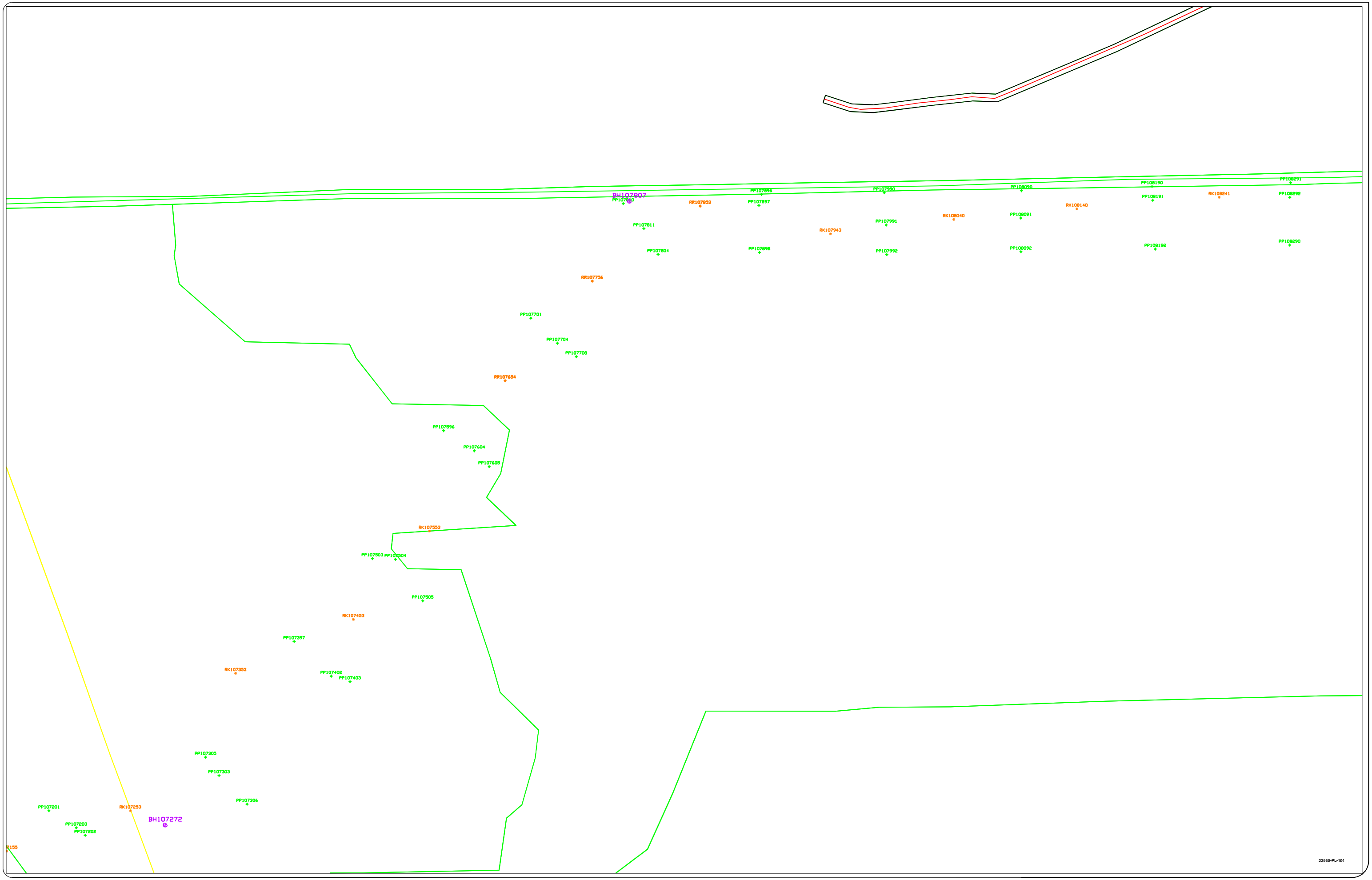
Project: **WSP Lot 3 - Peatlands**

Component: **Preliminary Ground Investigation**

Title: **Location Plan**

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-103**



North

Site Location

Datum
- Malin Hd
Coordinates
- ITM

Borehole Location

Dynamic Sample Borehole Location

Trial Pit Location

Peat Probe Location

Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date: 19/10	File Name: 23560	Drawing No:	
Drawn:	CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-104	
Checked:	JL	Date: 19/10	Date: 19/10/2022		

RK109399
PP109347
PP109349
PP109350
RK109298
PP109246
PP109247
PP109248
RK109196
PP109147
RR109146
PP109148
RK109106
PP109052
BH109085
PP109054
PP109056
PP108944
BH108988
PP108948
CLOGHARROV or RIVERLYONS
Cluain Arbhach
TP108905
PP108952
TP108804
PP108780
PP108791
PP108597
PP108700
PP108498
PP108690
PP108399
BH108409
PP108598
BH108690
PP108691
PP108400
PP108600
PP108501
PP108401
23560-PL-105

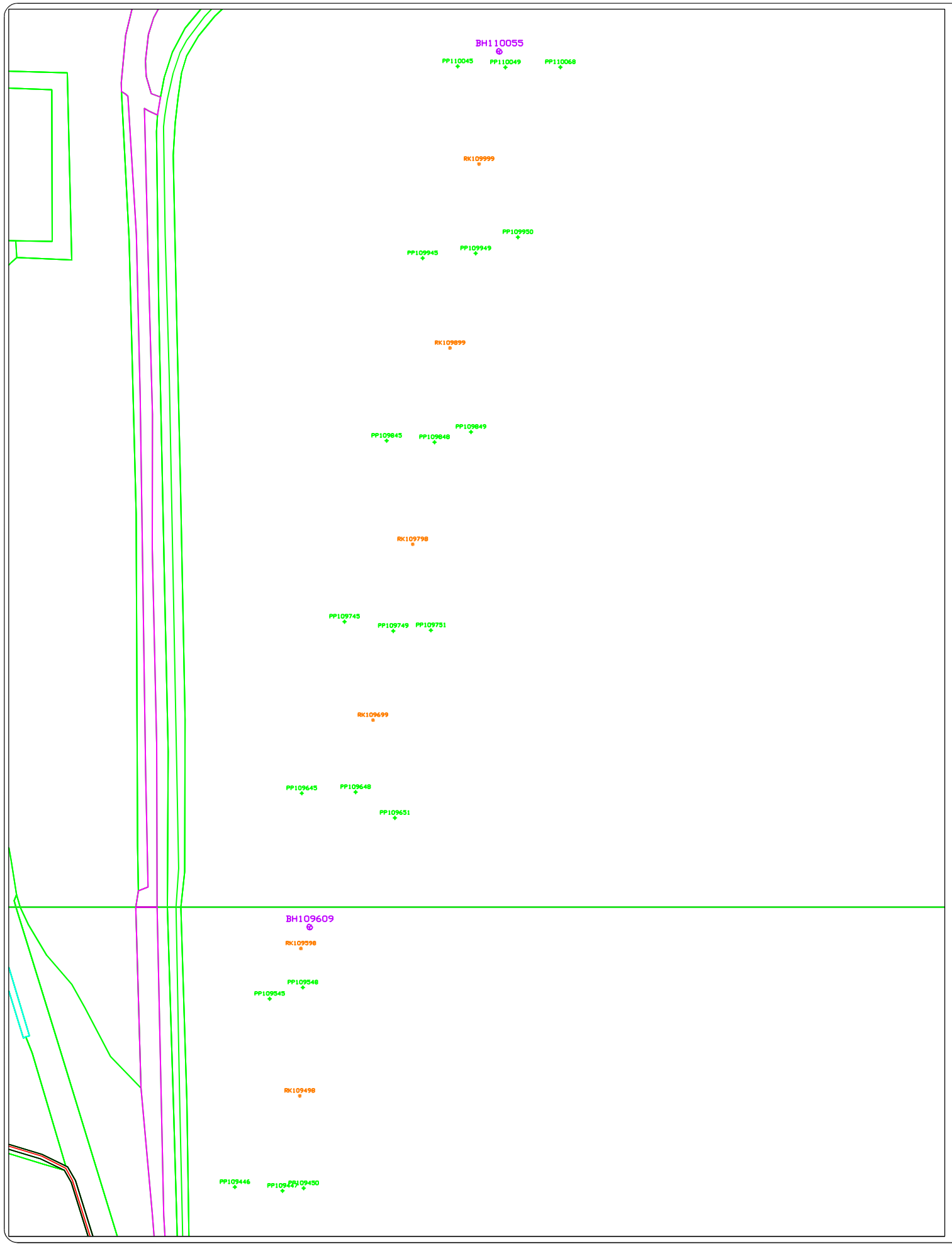
North
Datum
• Malin Hd
Grid System
• ITM
Site Location

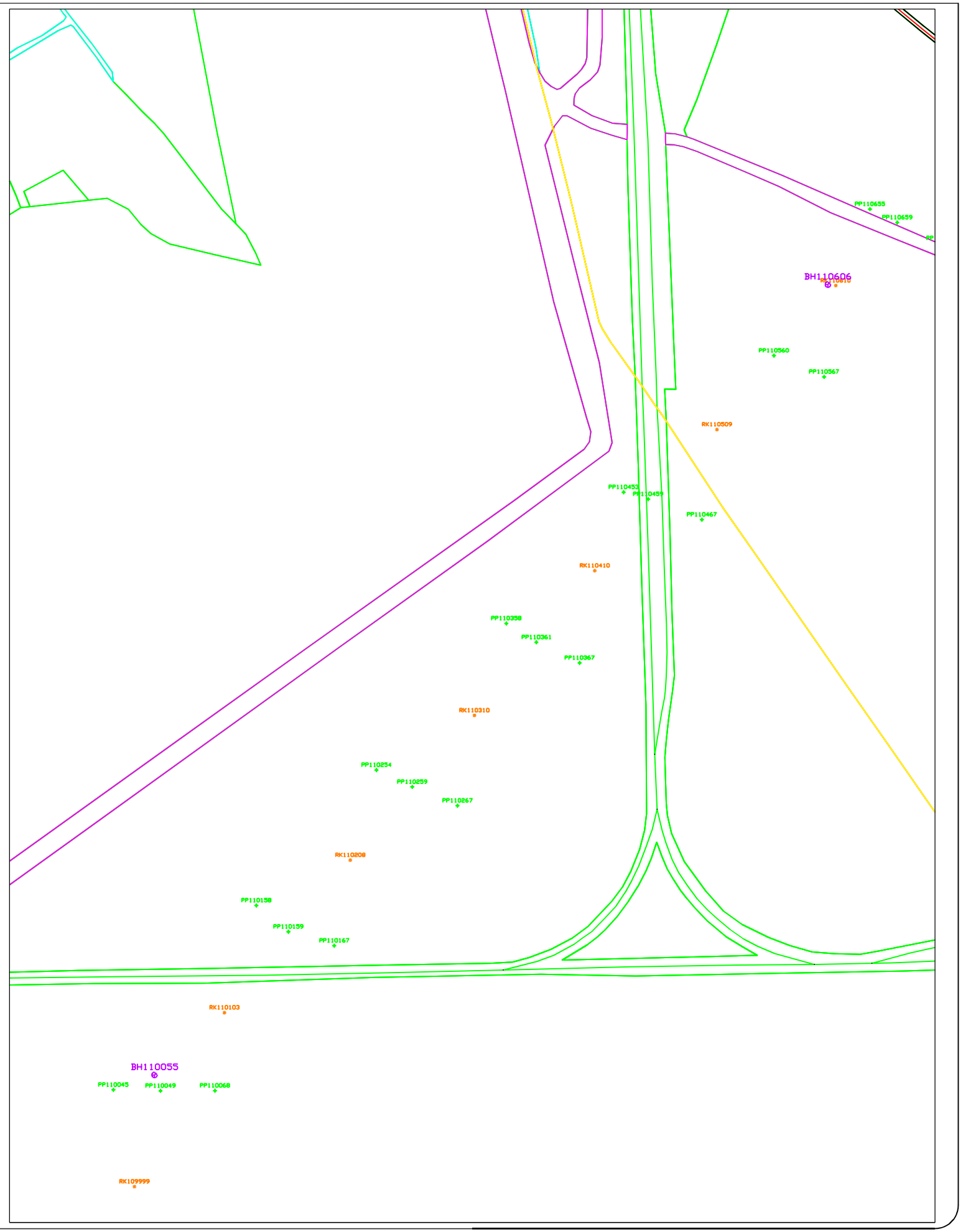
Borehole Location
Peat Probe Location
Dynamic Sample Borehole Location
Russian Sample Location
Trial Pit Location

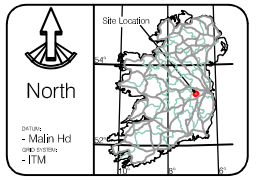
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date: 19/10	File Name: 23560	Drawing No:	
Drawn:	CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-105	
Checked:	JL	Date: 19/10	Date: 19/10/2022		







Borehole Location
Peat Probe Location
Dynamic Sample Borehole Location
Russian Sample Location
Trial Pit Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

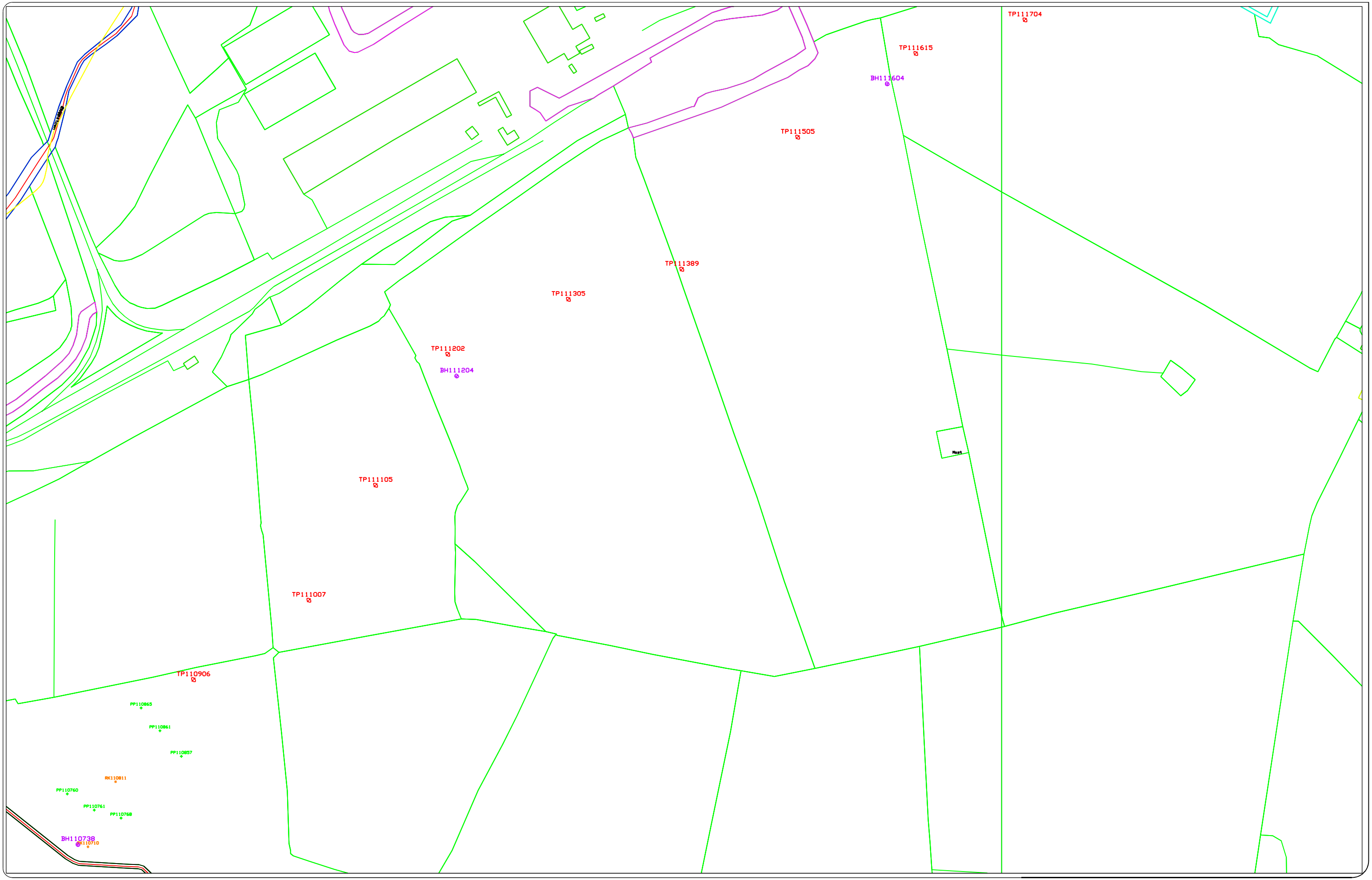
Project: **WSP Lot 3 - Peatlands**

Component: **Preliminary Ground Investigation**

Title: **Location Plan**

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-106**



North

Site Location

Datum
- Malin Hd
- ITM

Borehole Location	Peat Probe Location
Dynamic Sample Borehole Location	Russian Sample Location
Trial Pit Location	

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

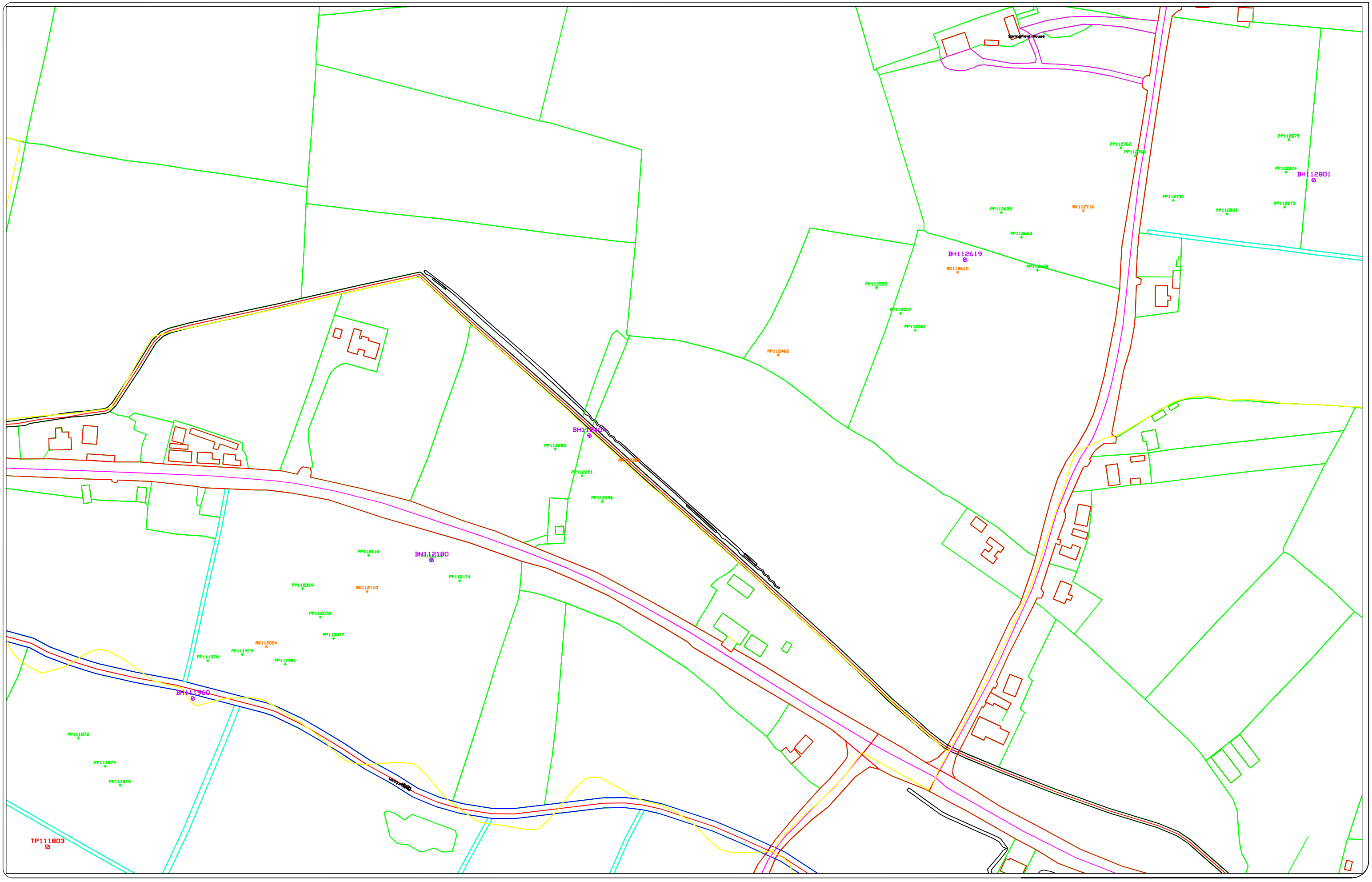
Project: **WSP Lot 3 - Peatlands**

Component: **Preliminary Ground Investigation**

Title: **Location Plan**

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-107**



North

Site Location

DATUM
- Malin Hd
CONVERTING
- ITM

- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846 176 Fax: 045 846 187
E-mail: info@igsl.ie

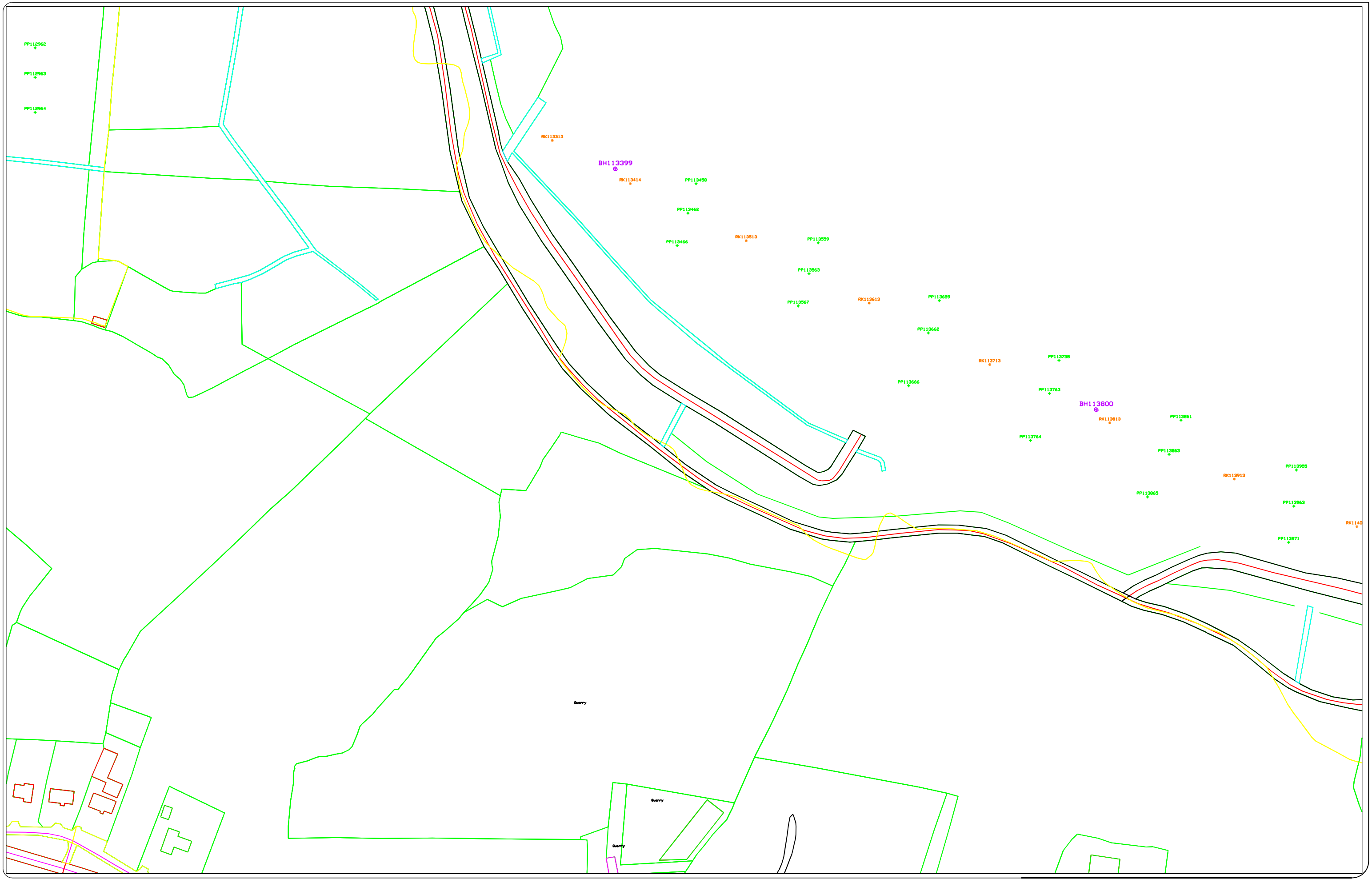
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands
Component:	Preliminary Ground Investigation
Title:	Location Plan

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No:
23560-PL-108



North

Datum
- Malin Hd
Grid System
- ITM

Site Location

Borehole Location

Dynamic Sample Borehole Location

Trial Pit Location

Peat Probe Location

Russian Sample Location

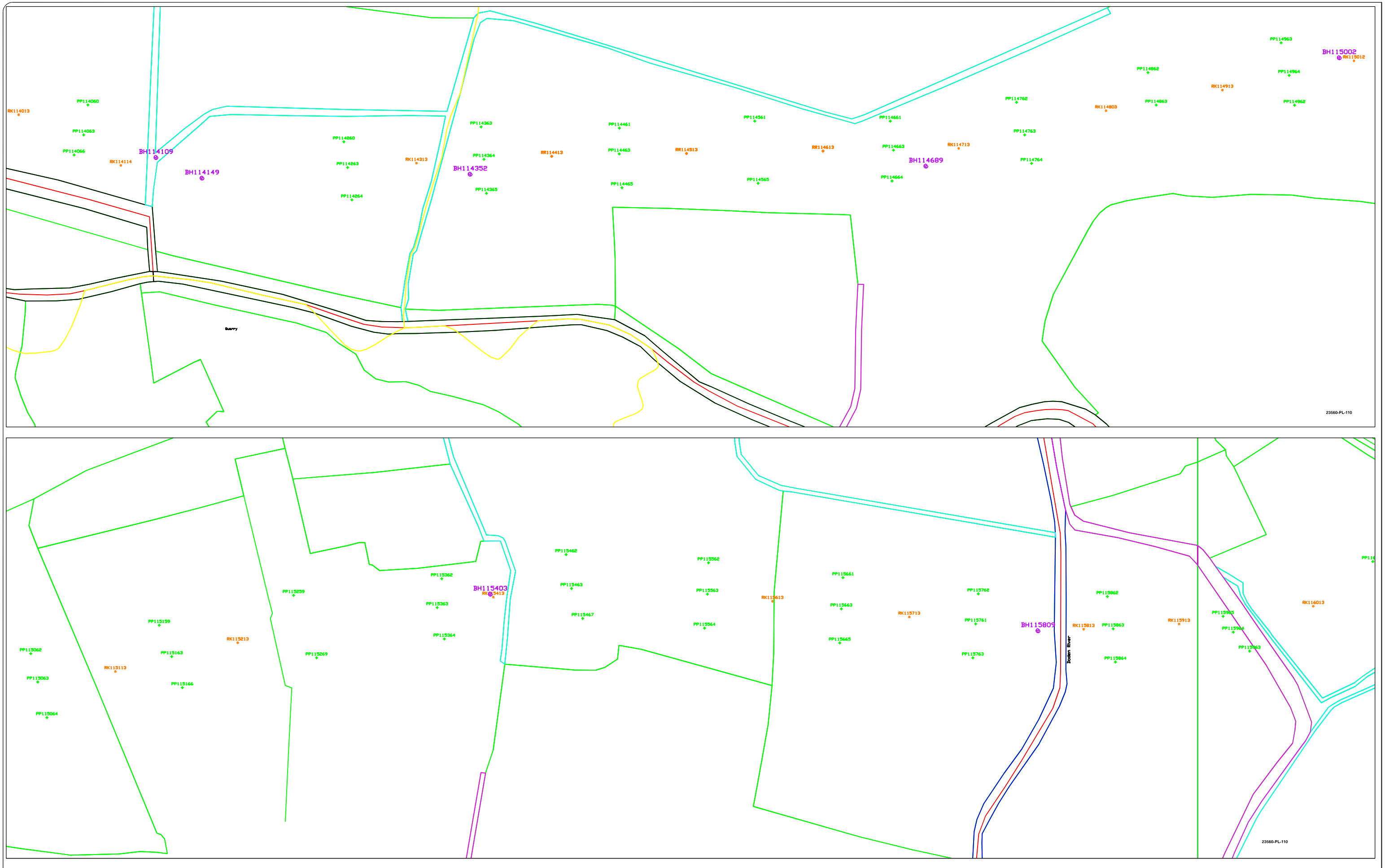
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	**WSP Lot 3 - Peatlands**
Component:	**Preliminary Ground Investigation**
Title:	**Location Plan**

Designed:	CK	Date: 19/10	File Name: 23560	Drawing No:	
Drawn:	CK	Date: 19/10	Original Scale: 1:2500 @A3		**23560-PL-109**
Checked:	JL	Date: 19/10	Date: 19/10/2022		



North

Site Location

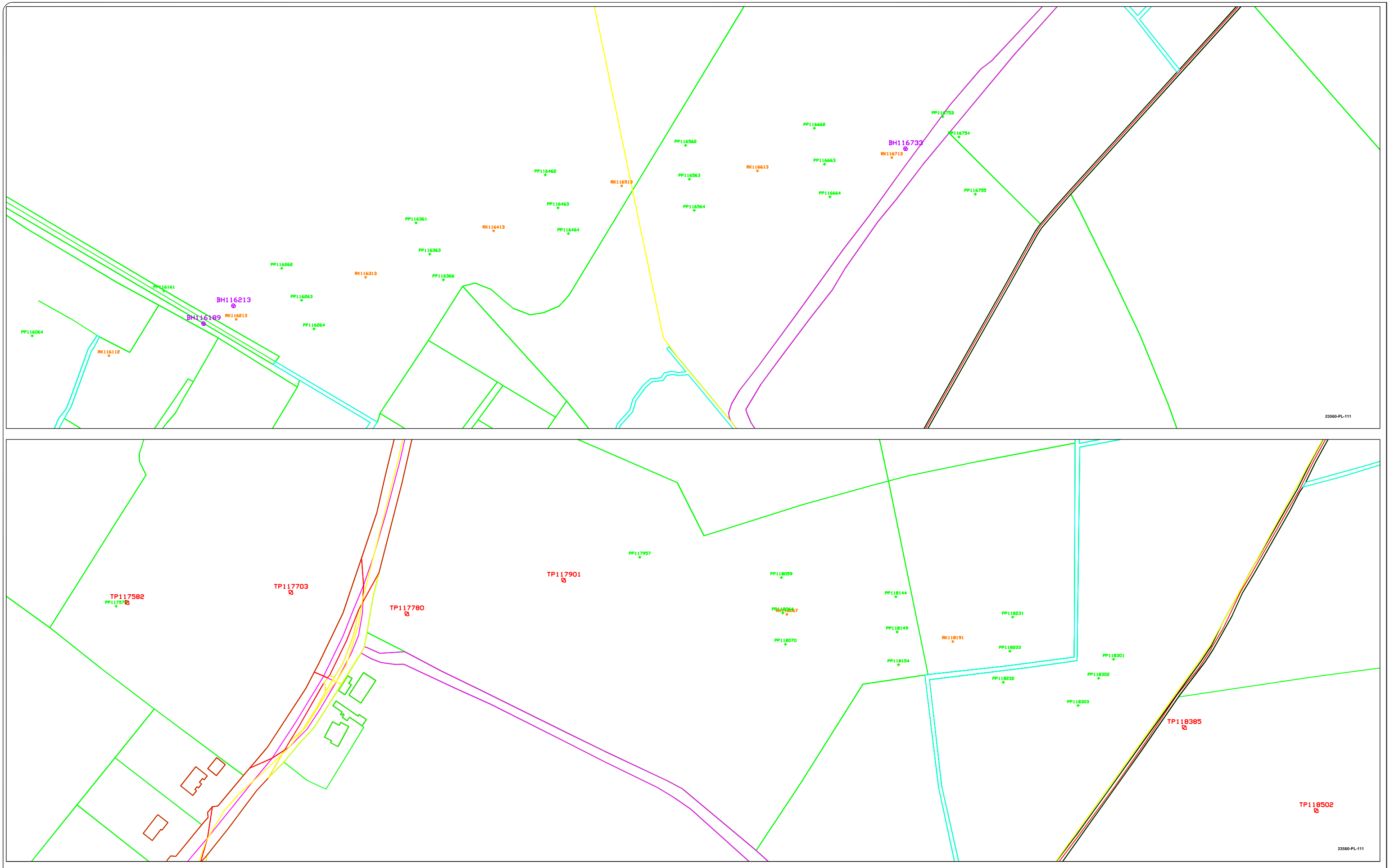
Datum
- Malin Hd
Coordinate System
- ITM

- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No: 23560-PL-110		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3			
Checked: JL	Date: 19/10	Date: 19/10/2022			



North

Datum
- Malin Hd
Grid System
- ITM

Borehole Location
Peat Probe Location
Dynamic Sample Borehole Location
Russian Sample Location
Trial Pit Location

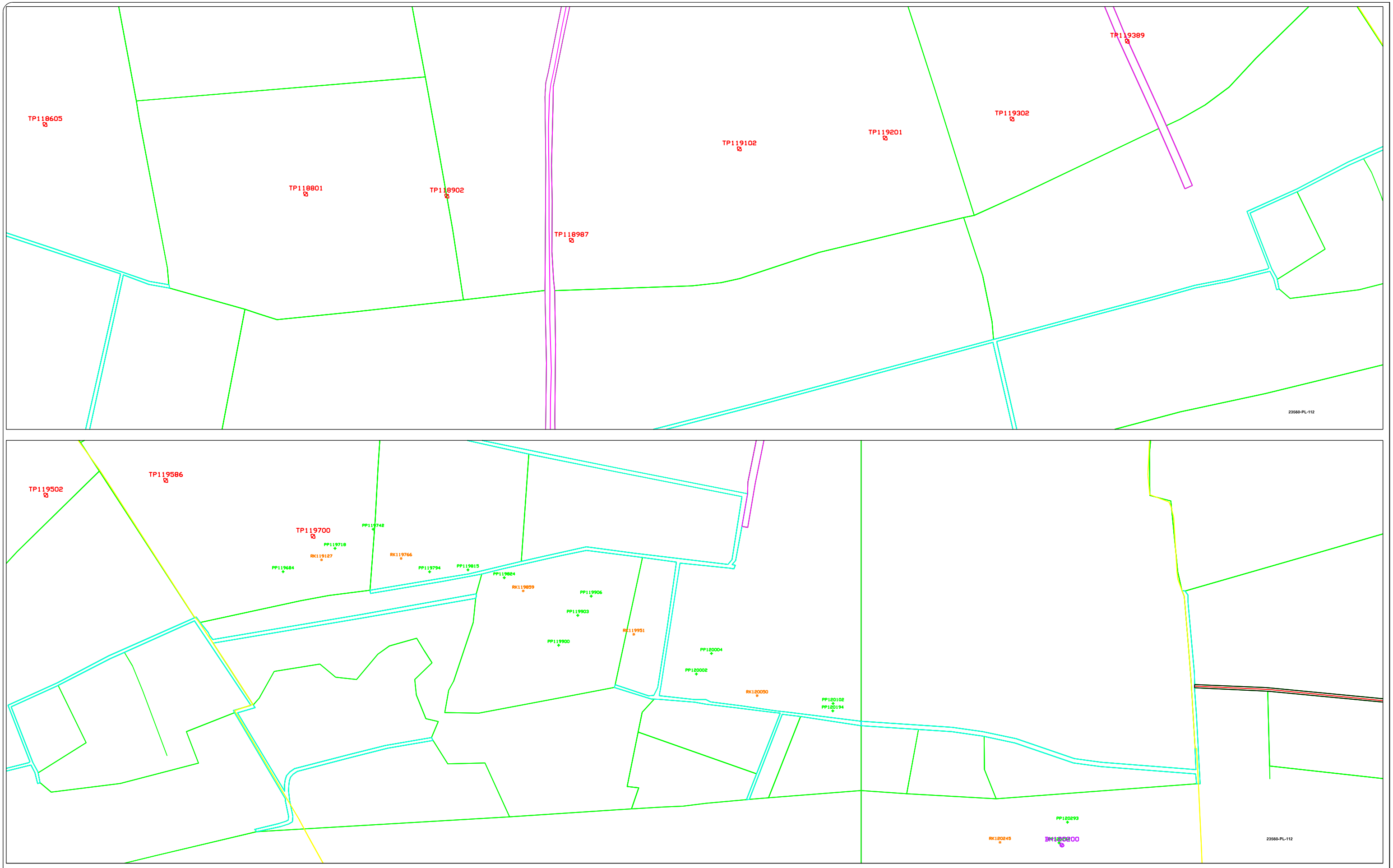
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project: **WSP Lot 3 - Peatlands**
Component: **Preliminary Ground Investigation**
Title: **Location Plan**

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-111**



North

Site Location

Datum
- Malin Hd
Coordinates
- ITM

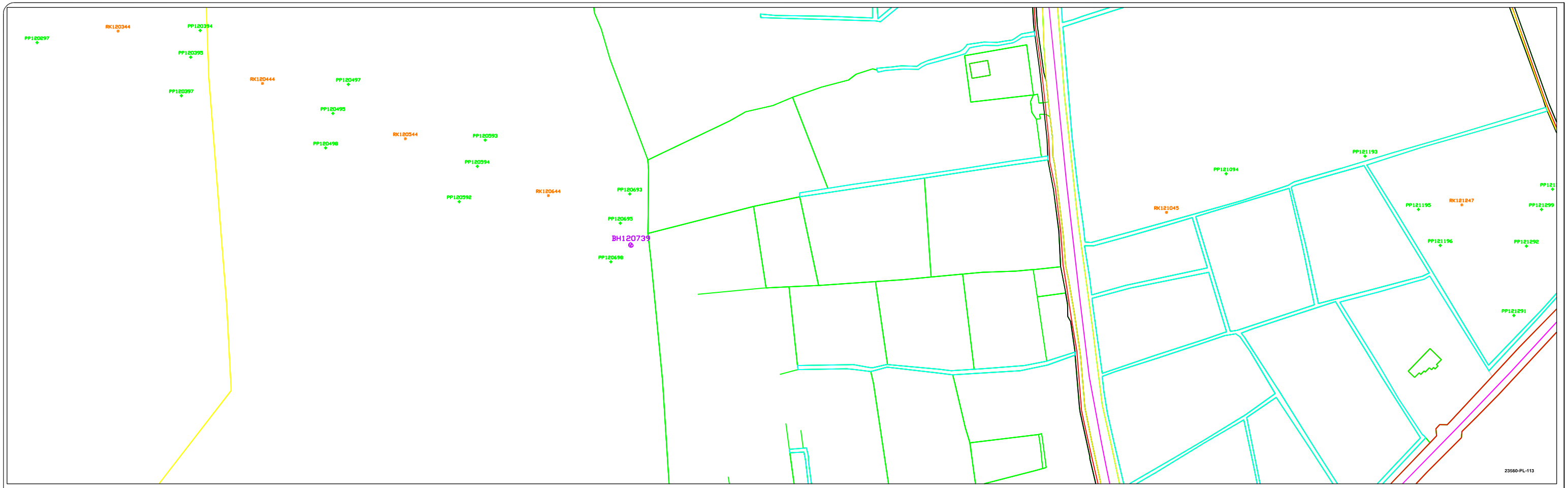
- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

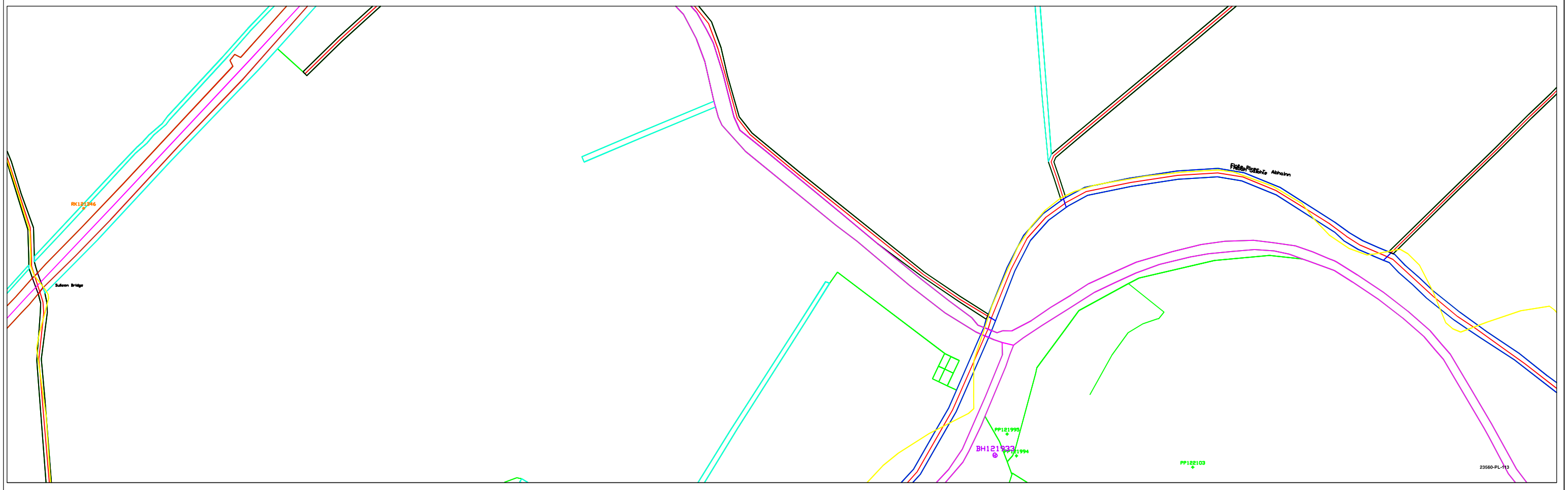
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176/ Fax: 045 846187
E-mail: info@igsl.ie

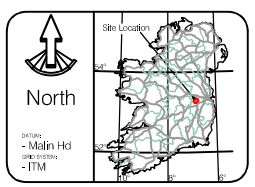
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No:		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-112		
Checked: JL	Date: 19/10	Date: 19/10/2022			







Borehole Location
Dynamic Sample Borehole Location
Trial Pit Location
Peat Probe Location
Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION & GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-113**

North

Site Location

Datum
• Malin Hd
Grid System
• ITM

Borehole Location

Dynamic Sample Borehole Location

Trial Pit Location

Peat Probe Location

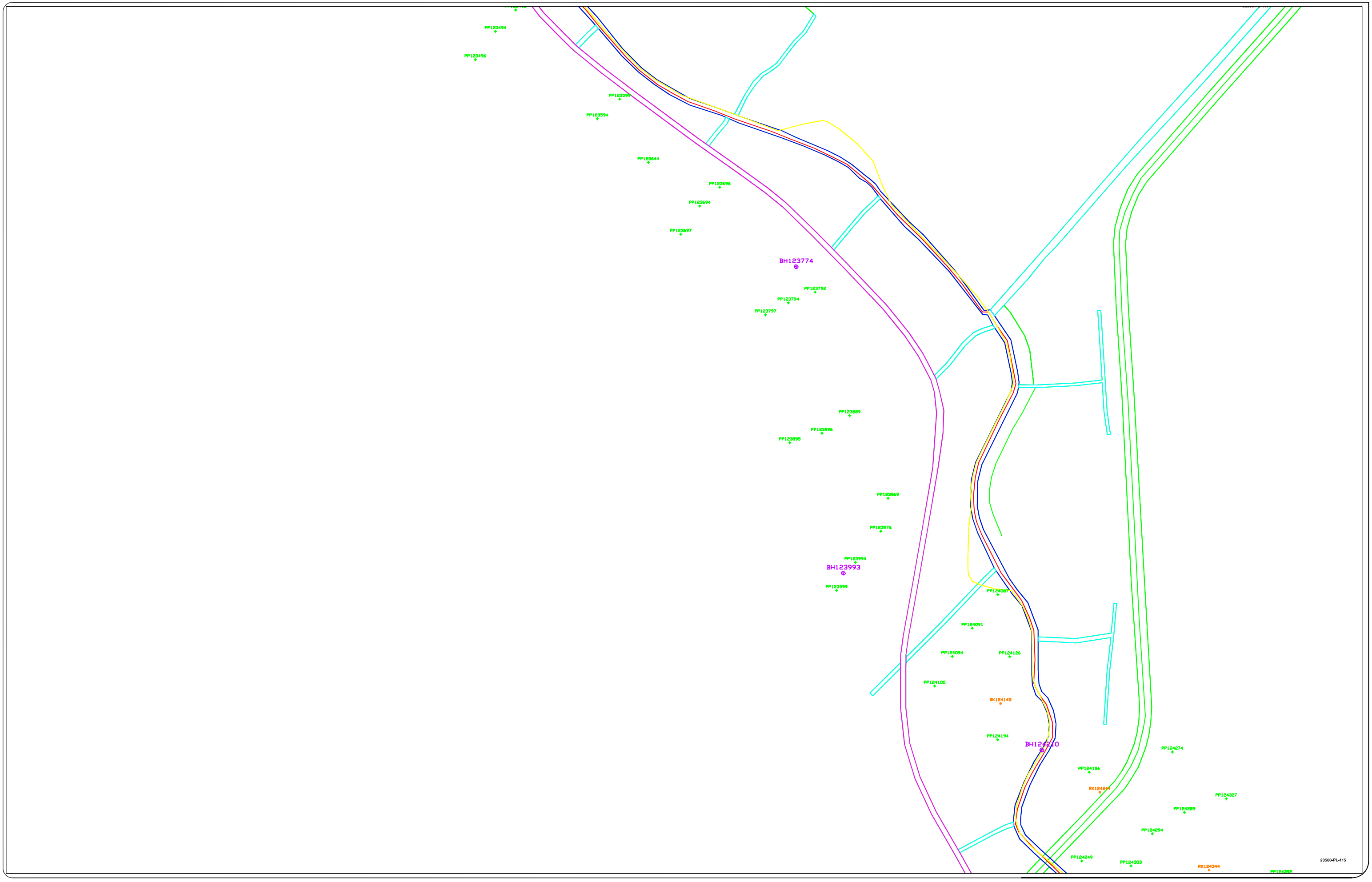
Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No:		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-114		
Checked: JL	Date: 19/10	Date: 19/10/2022			



North

Datum
- Malin Hd
- ITM

Site Location

Borehole Location

Peat Probe Location

Dynamic Sample Borehole Location

Russian Sample Location

Trial Pit Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846 176 Fax: 045 846 187
E-mail: info@igsl.ie

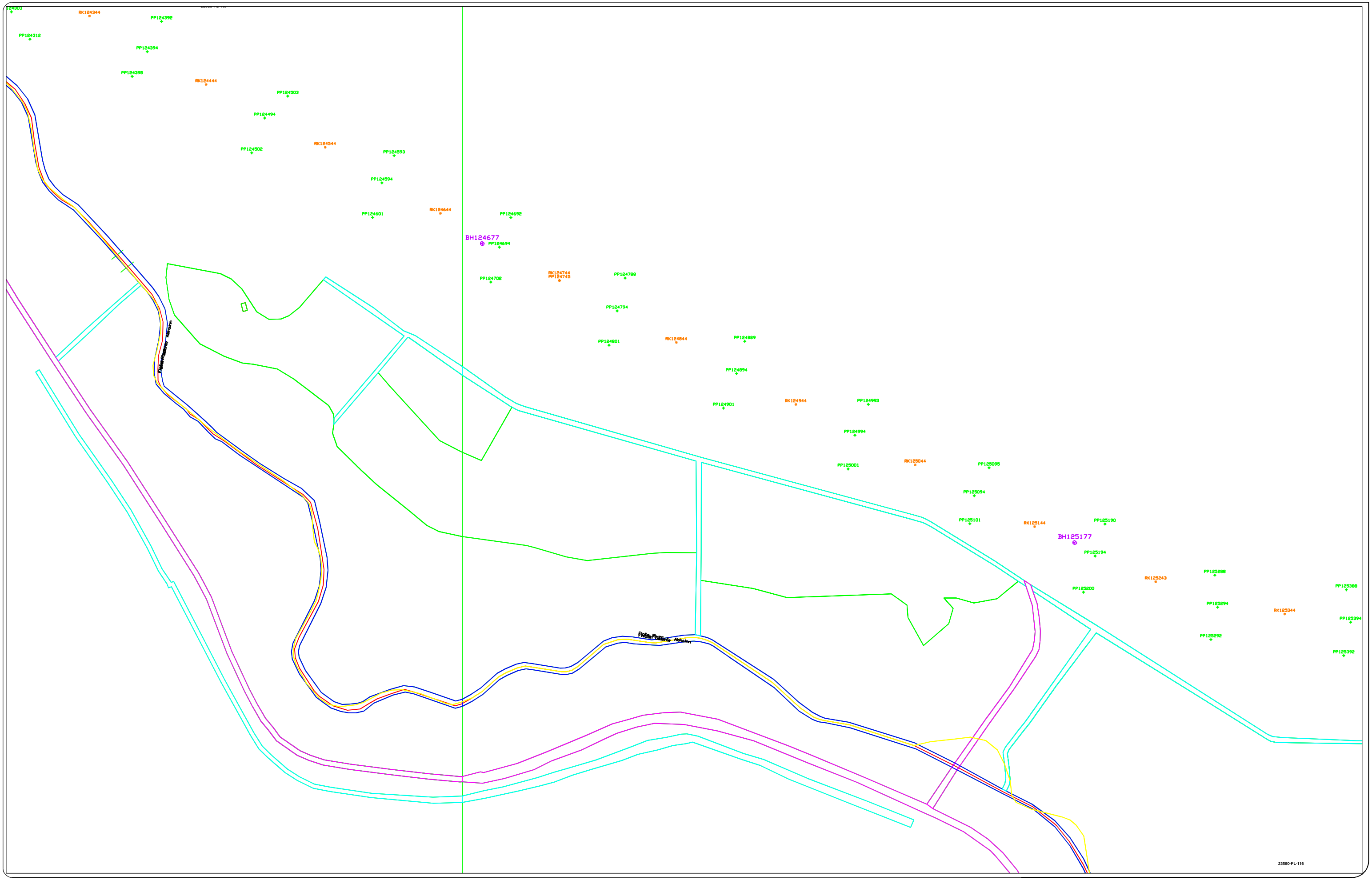
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands
Component:	Preliminary Ground Investigation
Title:	Location Plan

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-115**



North

Site Location

Borehole Location

Dynamic Sample Borehole Location

Trial Pit Location

Peat Probe Location

Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

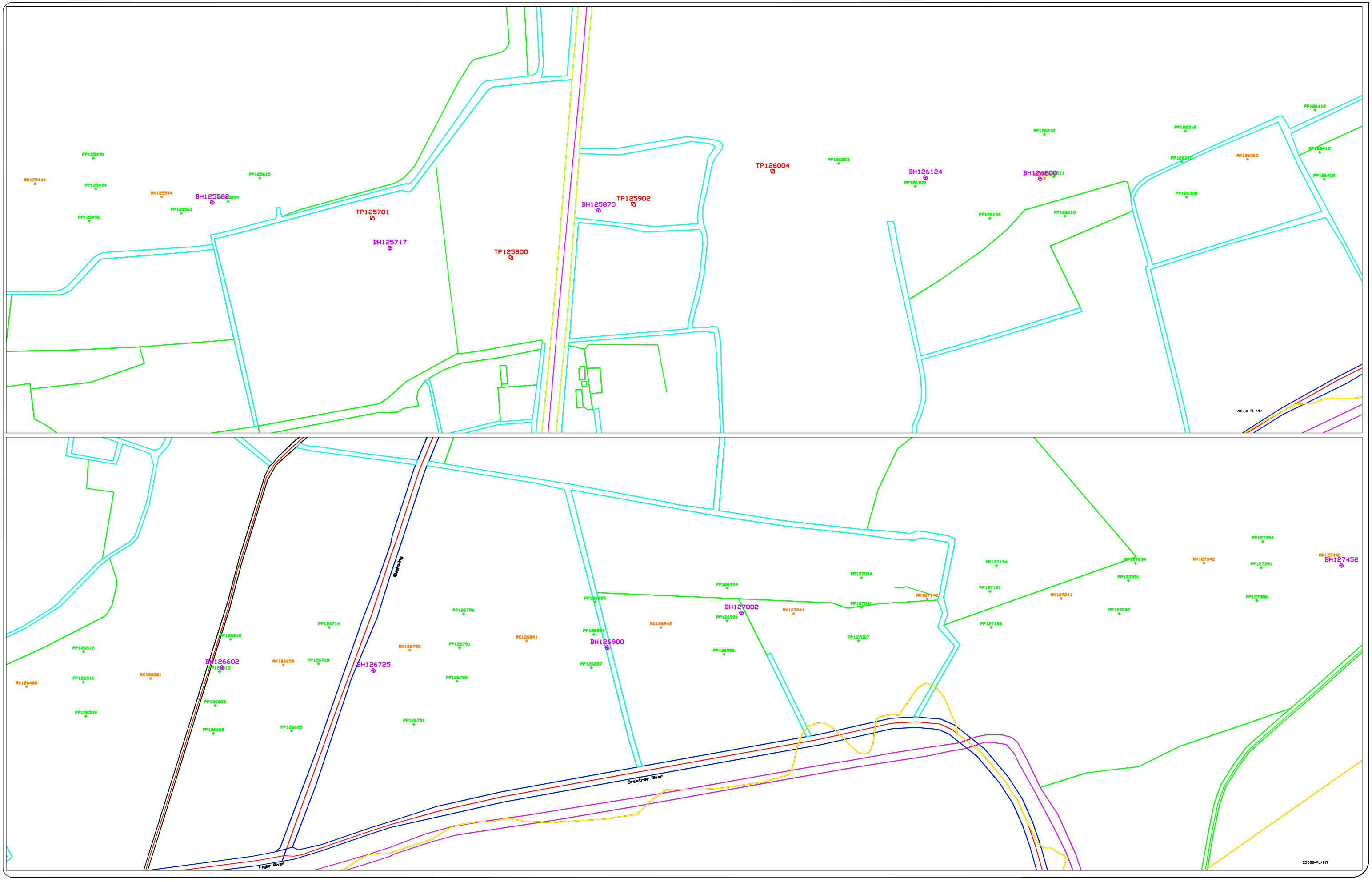
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands
Component:	Preliminary Ground Investigation
Title:	Location Plan

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-116**



North

Site Location

Datum
- Malin Hd
Grid System
- ITM

Borehole Location
Dynamic Sample Borehole Location
Trial Pit Location
Peat Probe Location
Russian Sample Location

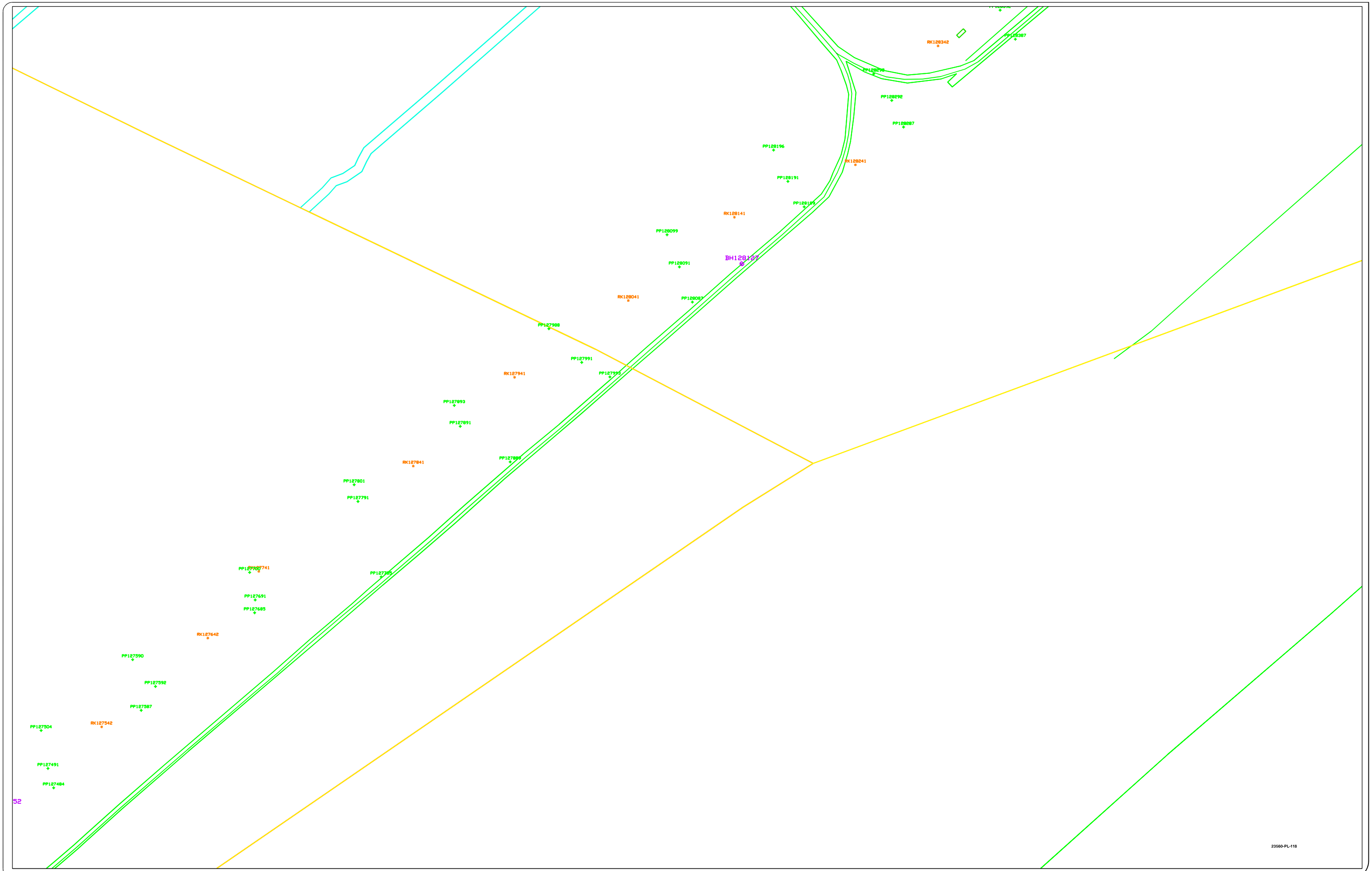
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands
Component:	Preliminary Ground Investigation
Title:	Location Plan

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No:
23560-PL-117



North

Site Location

Datum
- Malin Hd
Coordinate
- ITM

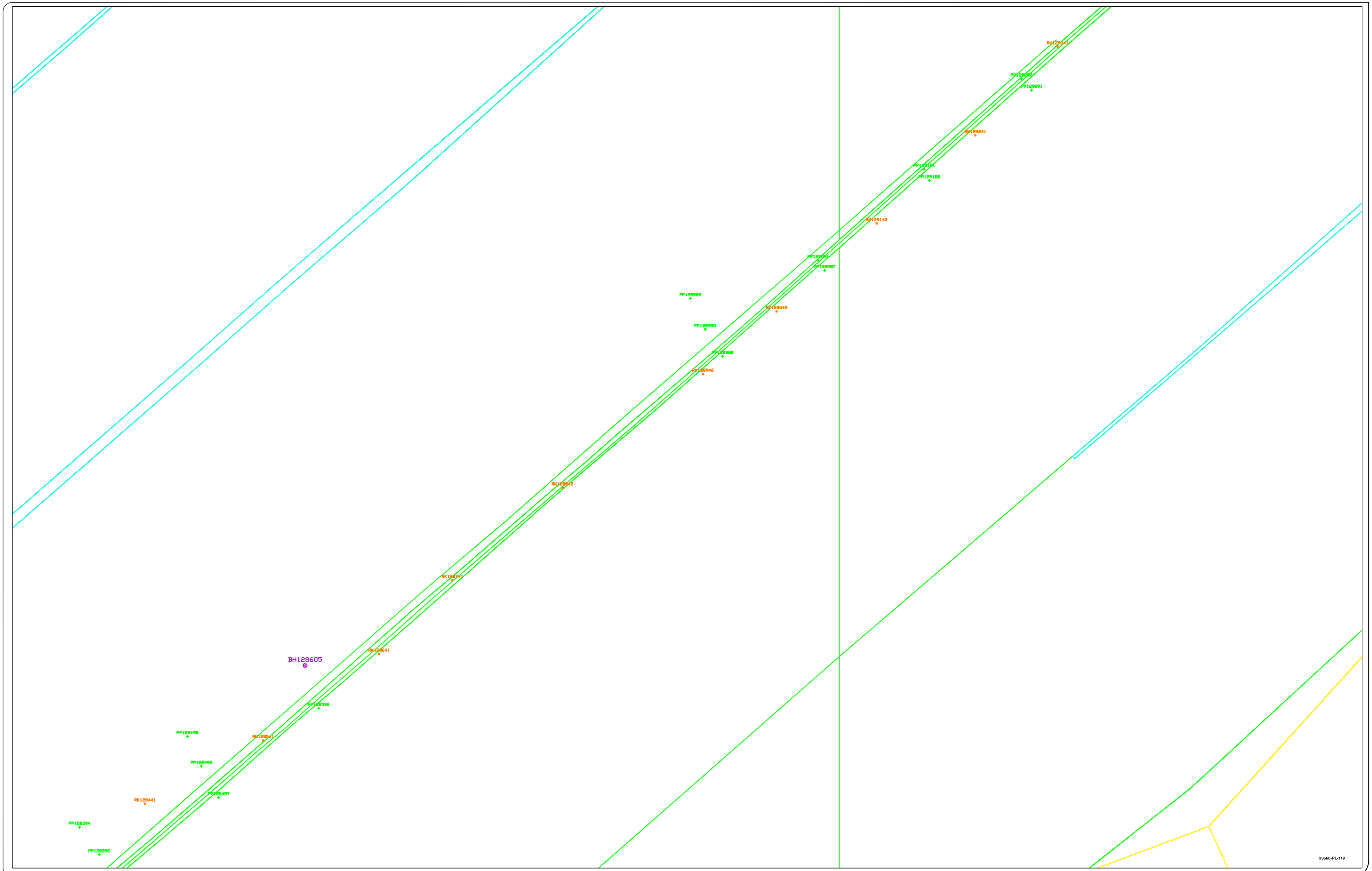
- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846 176 Fax: 045 846 187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No:		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-118		
Checked: JL	Date: 19/10	Date: 19/10/2022			



North

Datum: - Malin Hd - ITM

Borehole Location

Peat Probe Location

Dynamic Sample Borehole Location

Russian Sample Location

Trial Pit Location

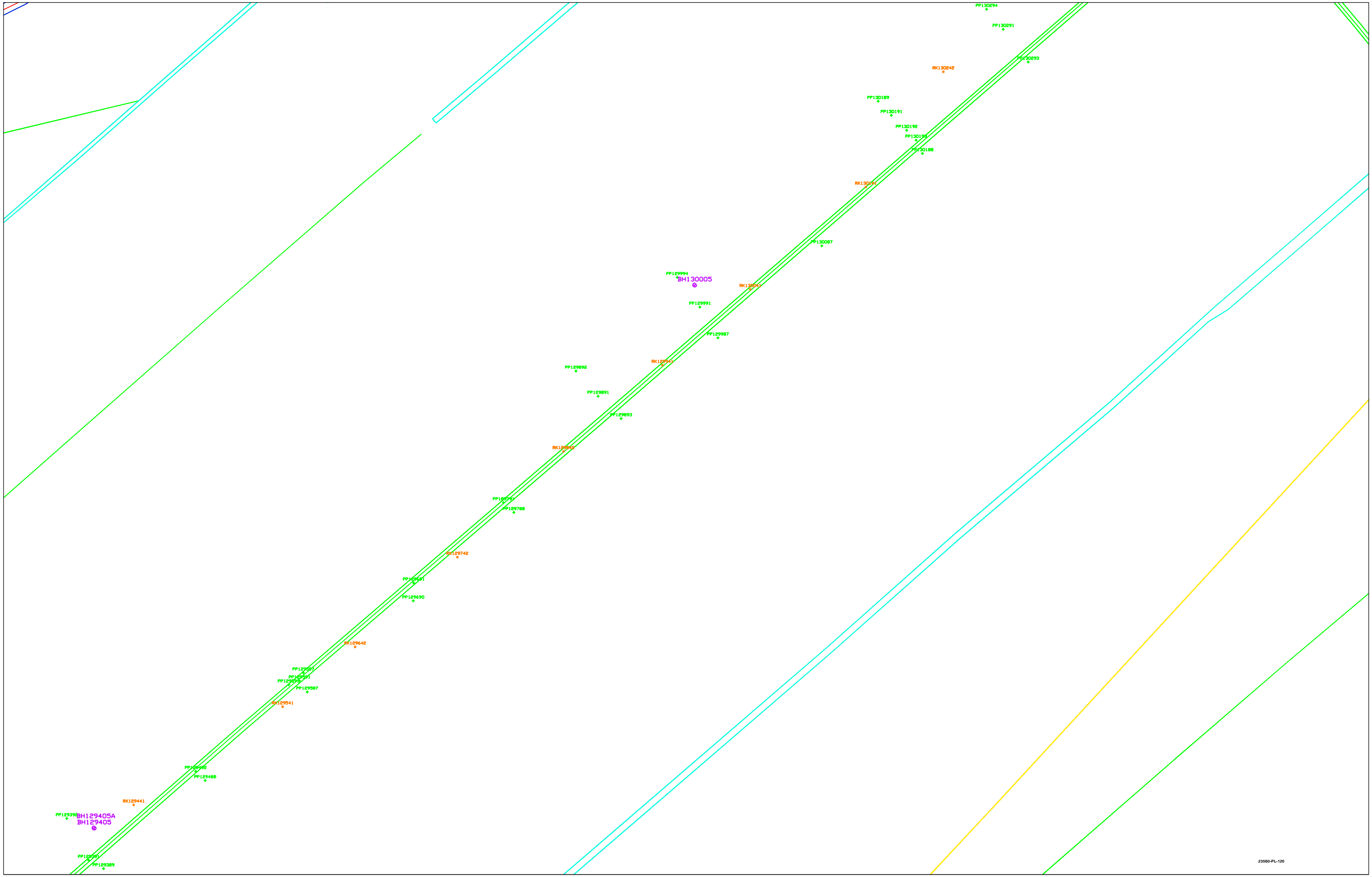
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION & GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-119**



North

Site Location

Datum
- Malin Hd
Grid System
- ITM

Borehole Location

Peat Probe Location

Dynamic Sample Borehole Location

Russian Sample Location

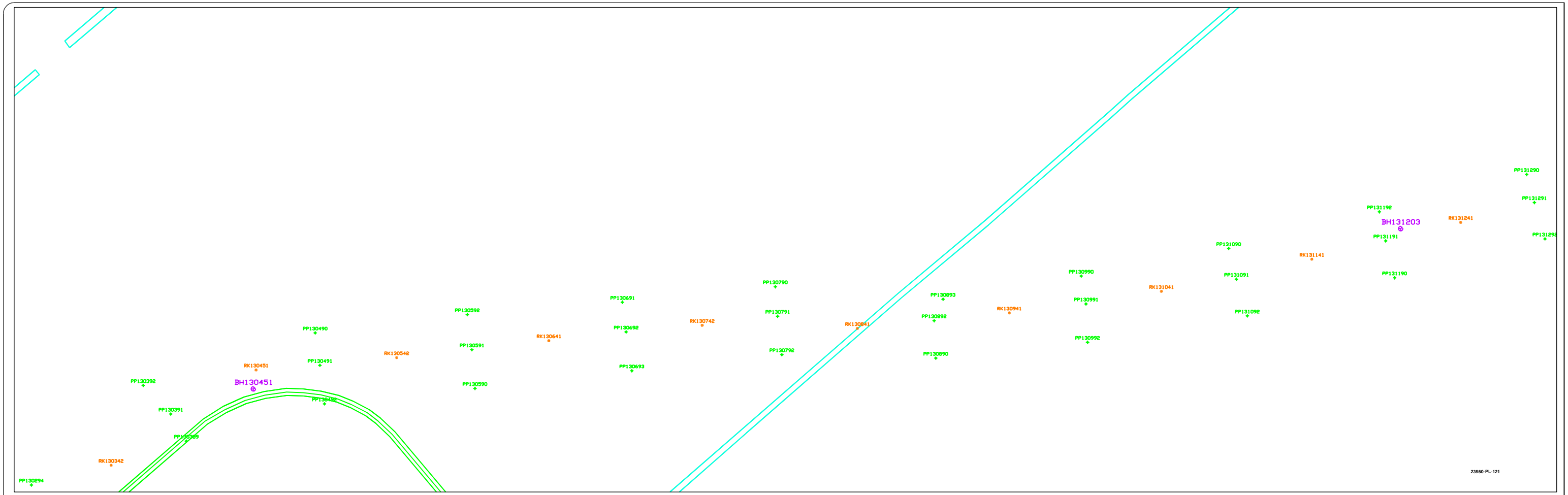
Trial Pit Location

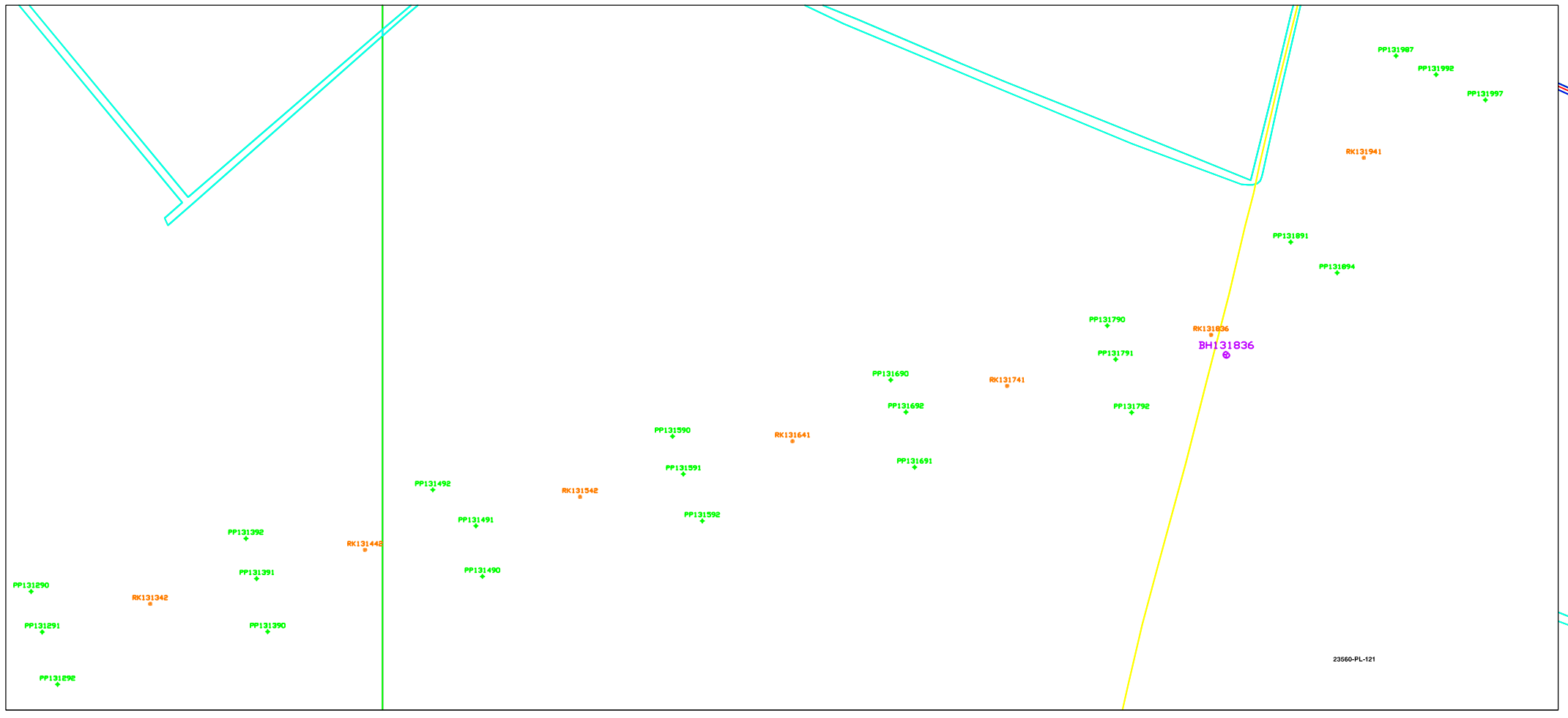
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

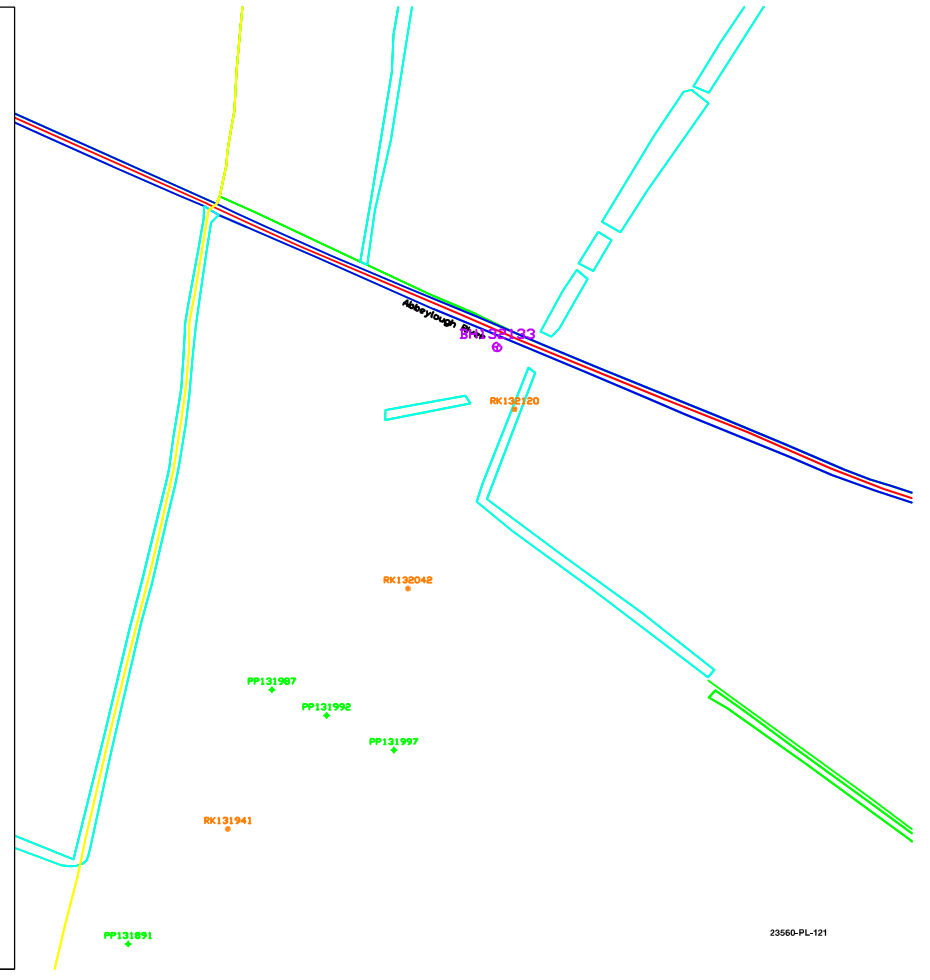
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

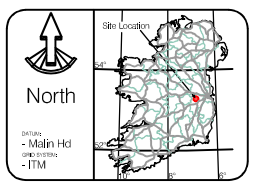
Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date: 19/10	File Name: 23560	Drawing No:	
Drawn:	CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-120	
Checked:	JL	Date: 19/10	Date: 19/10/2022		









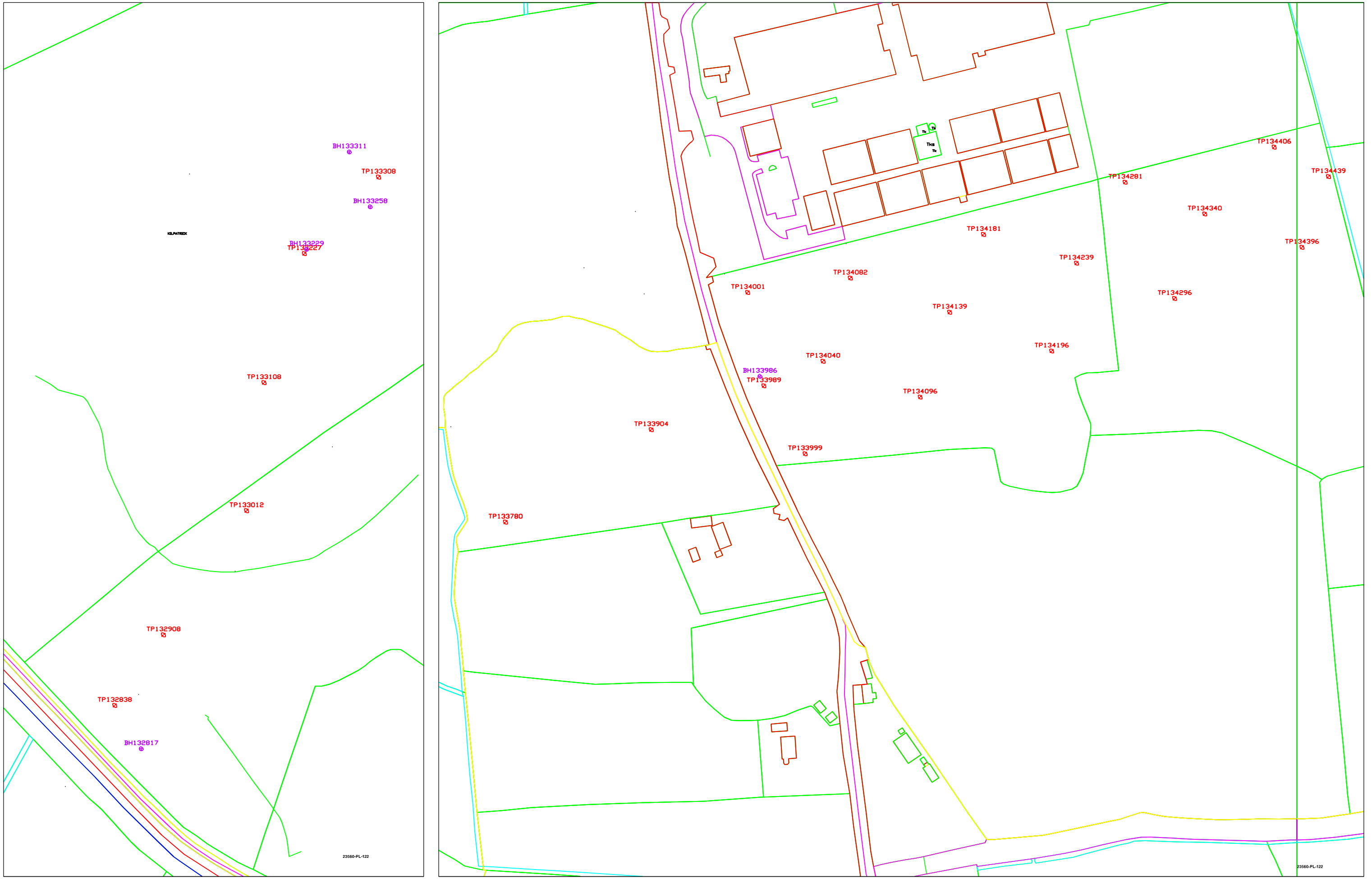
- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-121**



North

Site Location

Datum: Irish Grid
Grid System: ITM

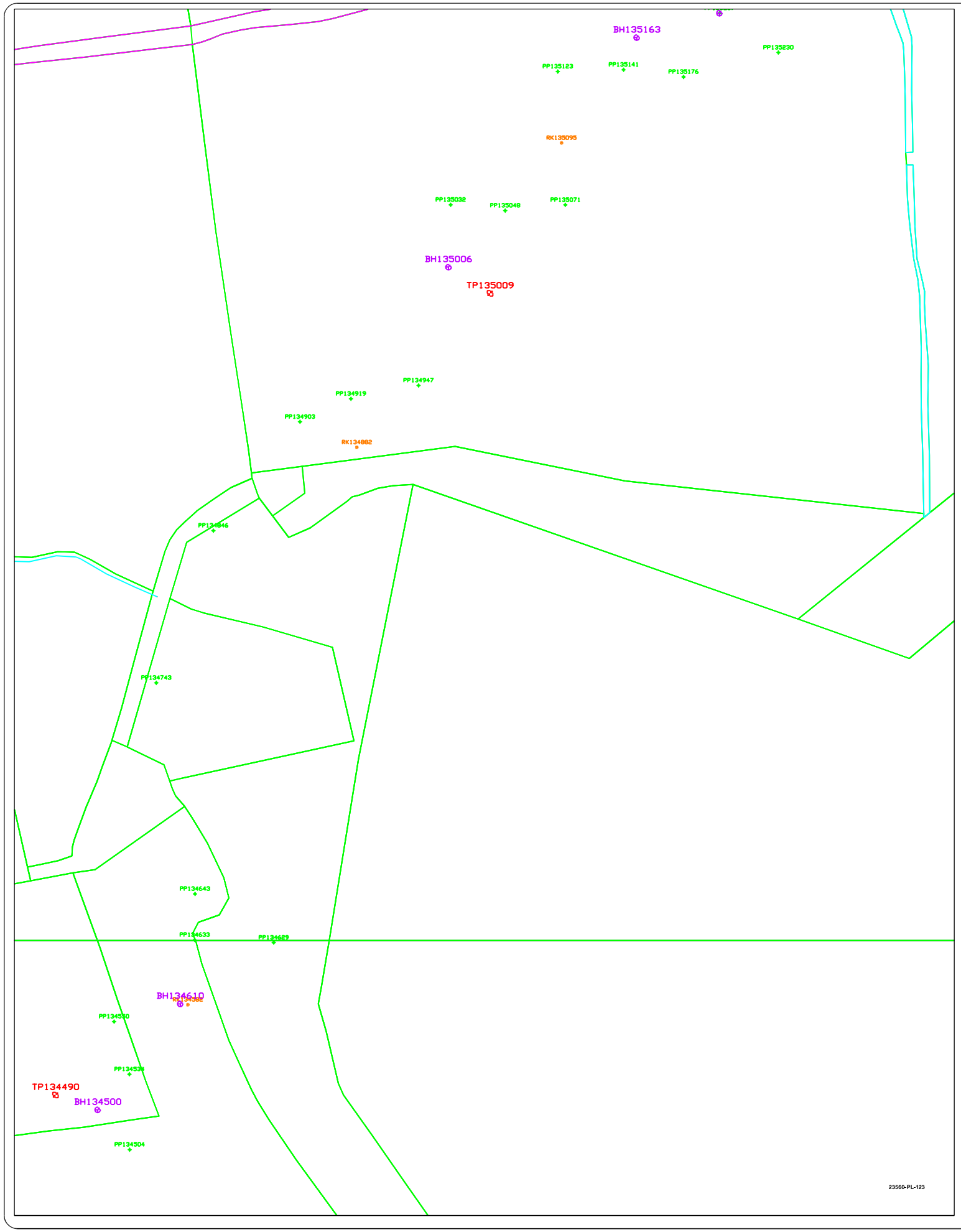
- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

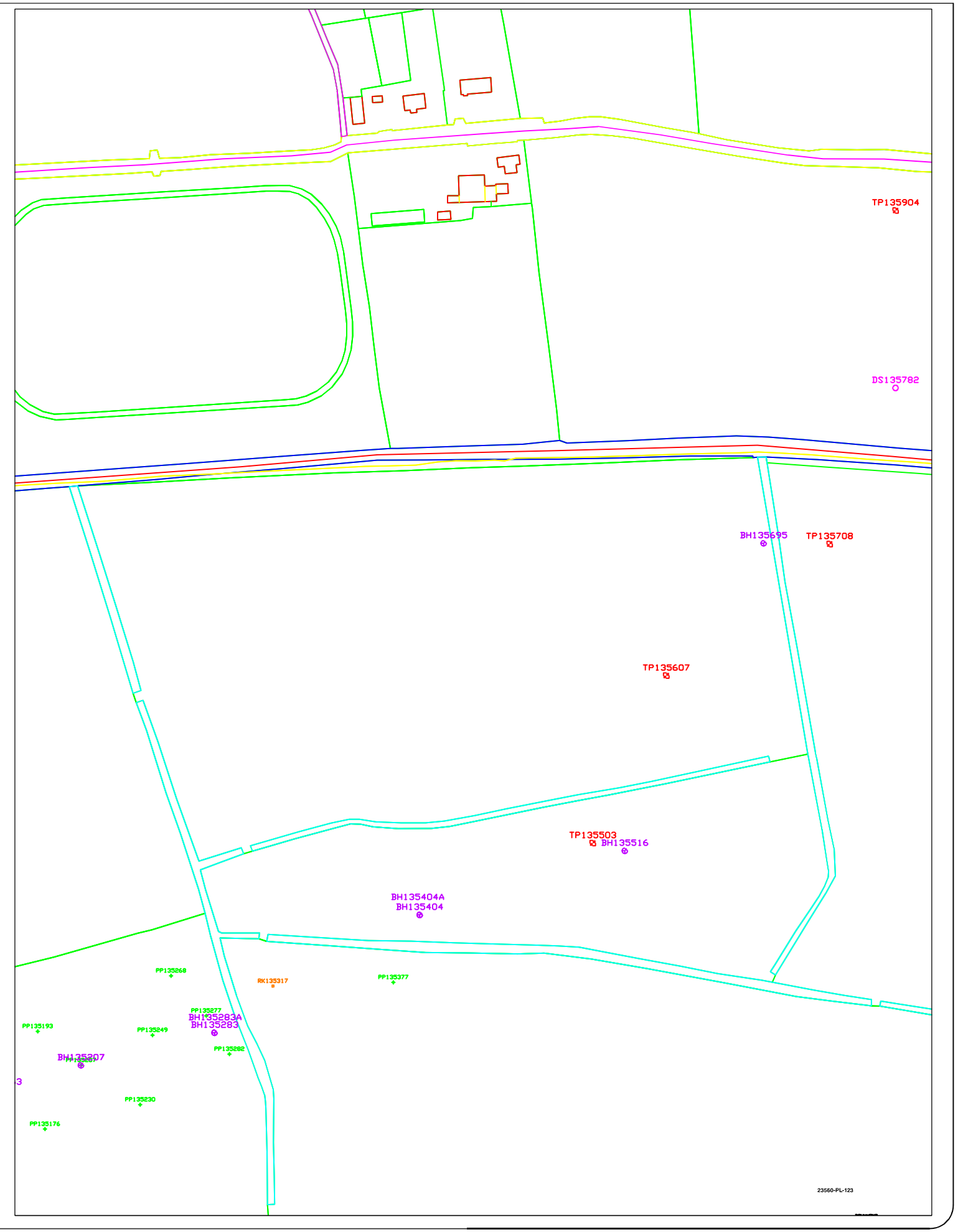
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

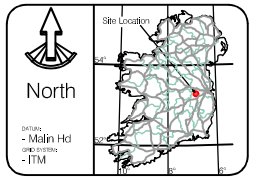
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No: 23560-PL-122		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3			
Checked: JL	Date: 19/10	Date: 19/10/2022			





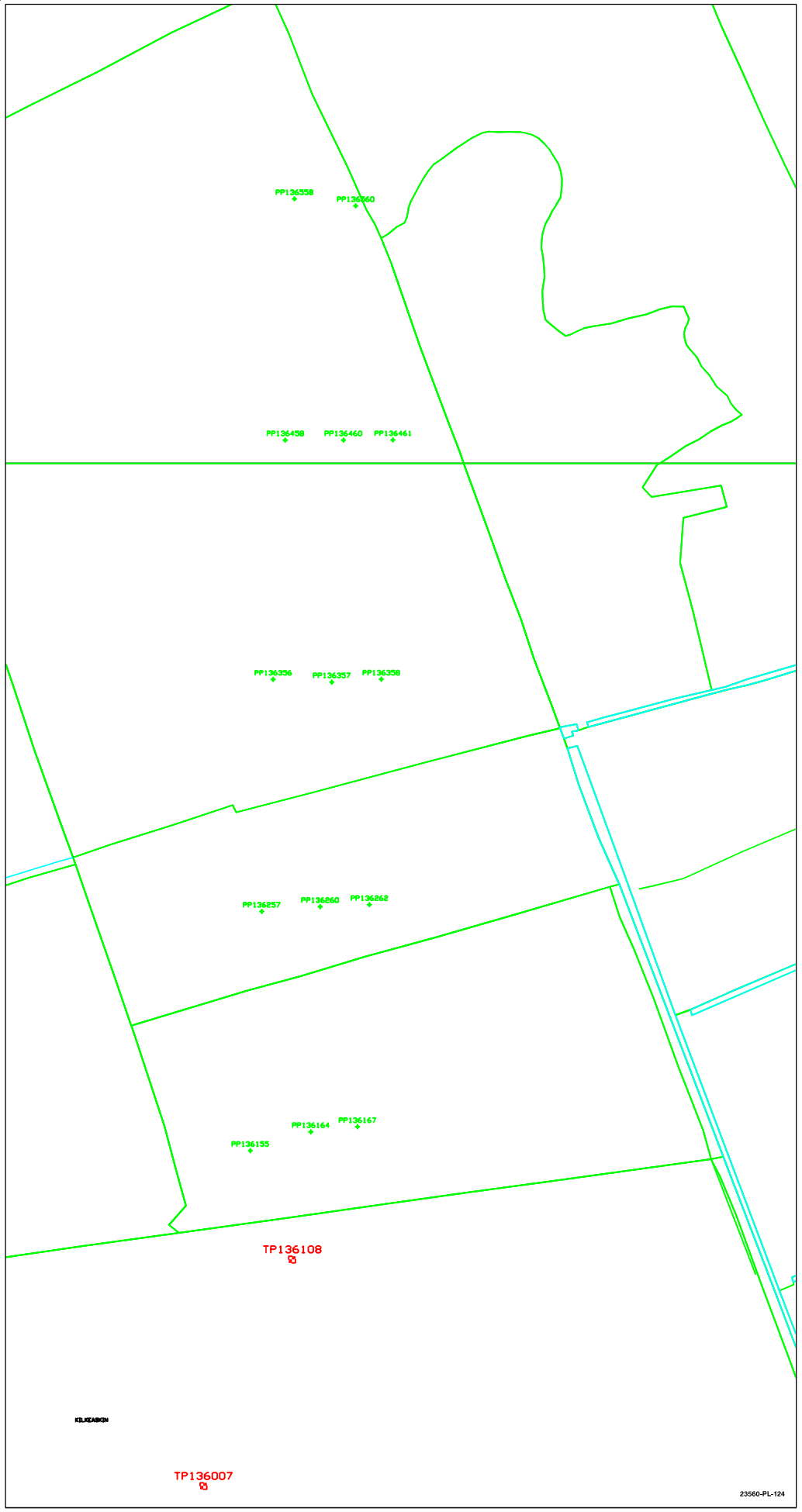


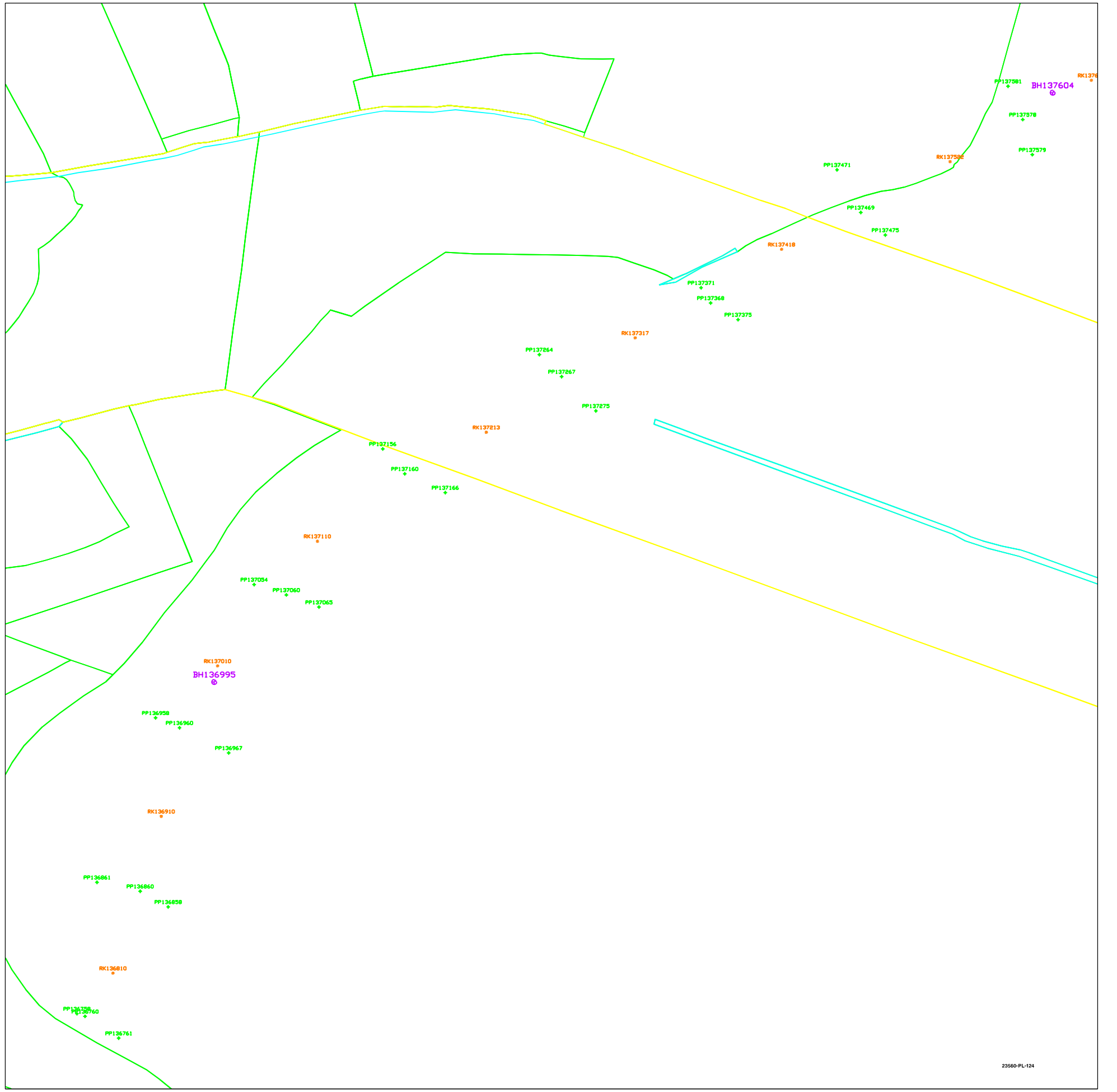
Borehole Location
Peat Probe Location
Dynamic Sample Borehole Location
Russian Sample Location
Trial Pit Location

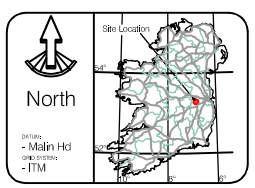
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No:		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-123		
Checked: JL	Date: 19/10	Date: 19/10/2022			







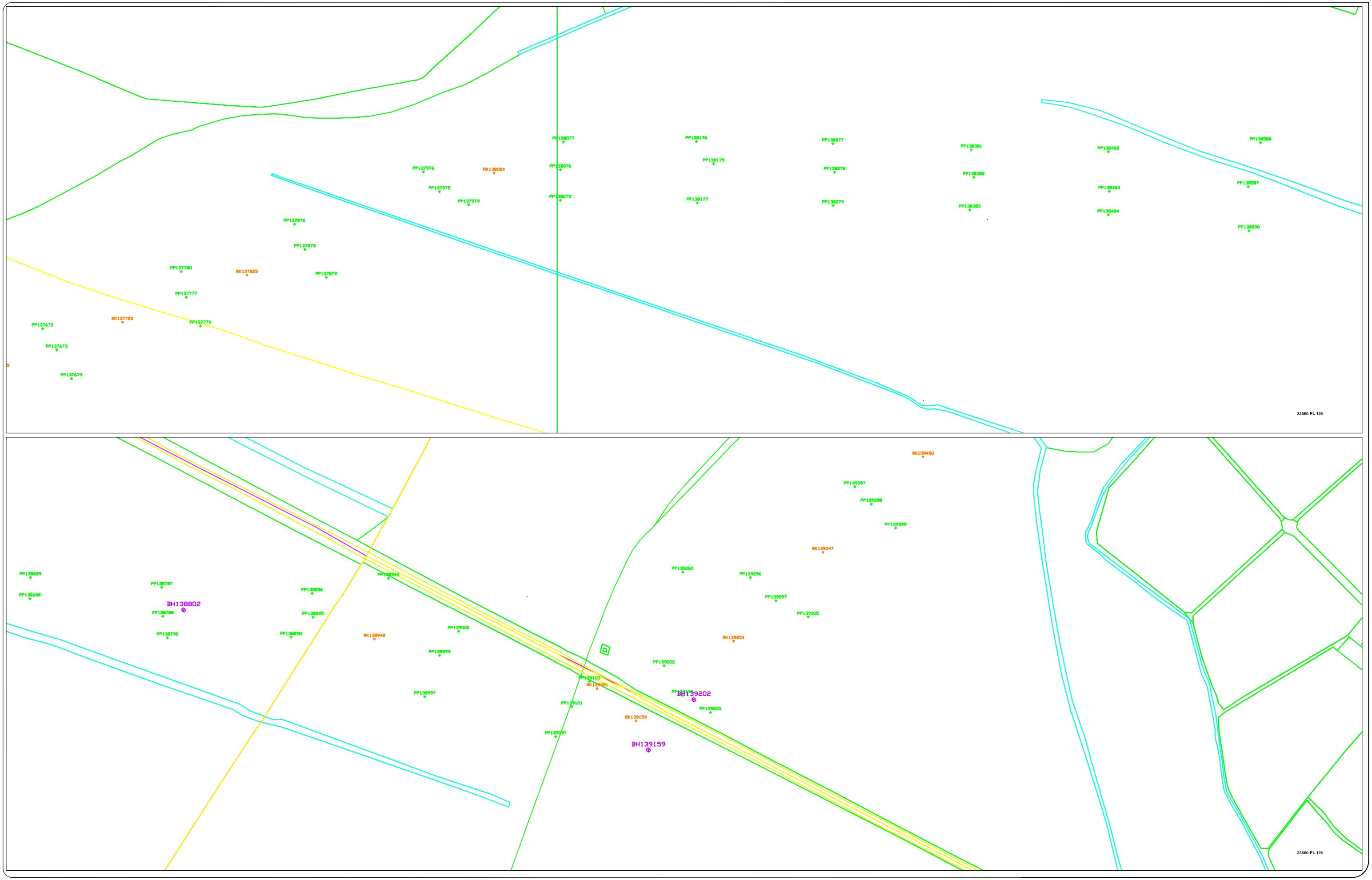
Borehole Location
Dynamic Sample Borehole Location
Trial Pit Location
Peat Probe Location
Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-124**



North

Site Location

Datum
- Malin Hd
Grid System
- ITM

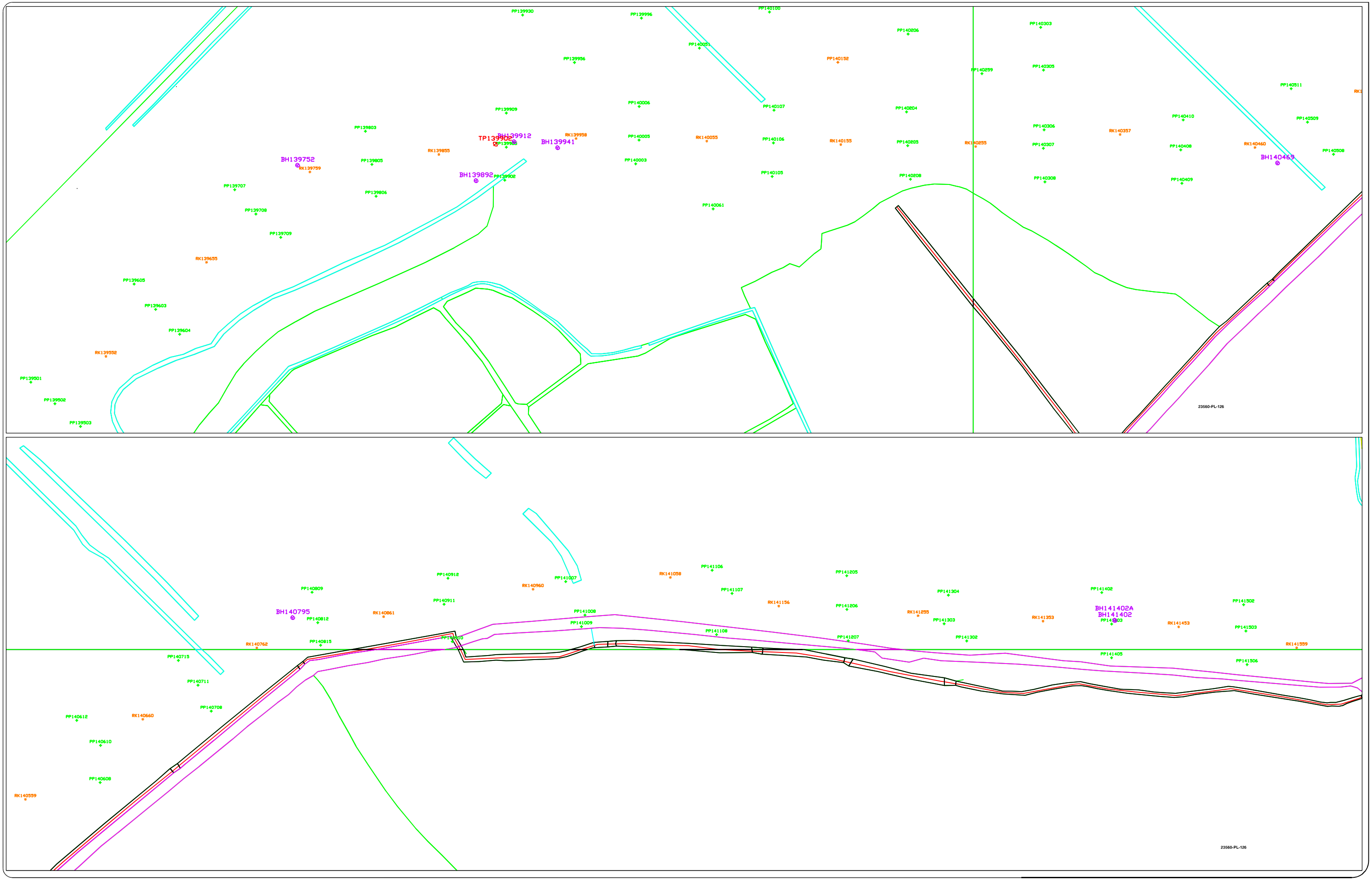
Borehole Location
Dynamic Sample Borehole Location
Trial Pit Location
Peat Probe Location
Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION & GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-125**



North

Datum: - Malin Hd
Grid System: - ITM

Site Location

Borehole Location

Peat Probe Location

Dynamic Sample Borehole Location

Russian Sample Location

Trial Pit Location

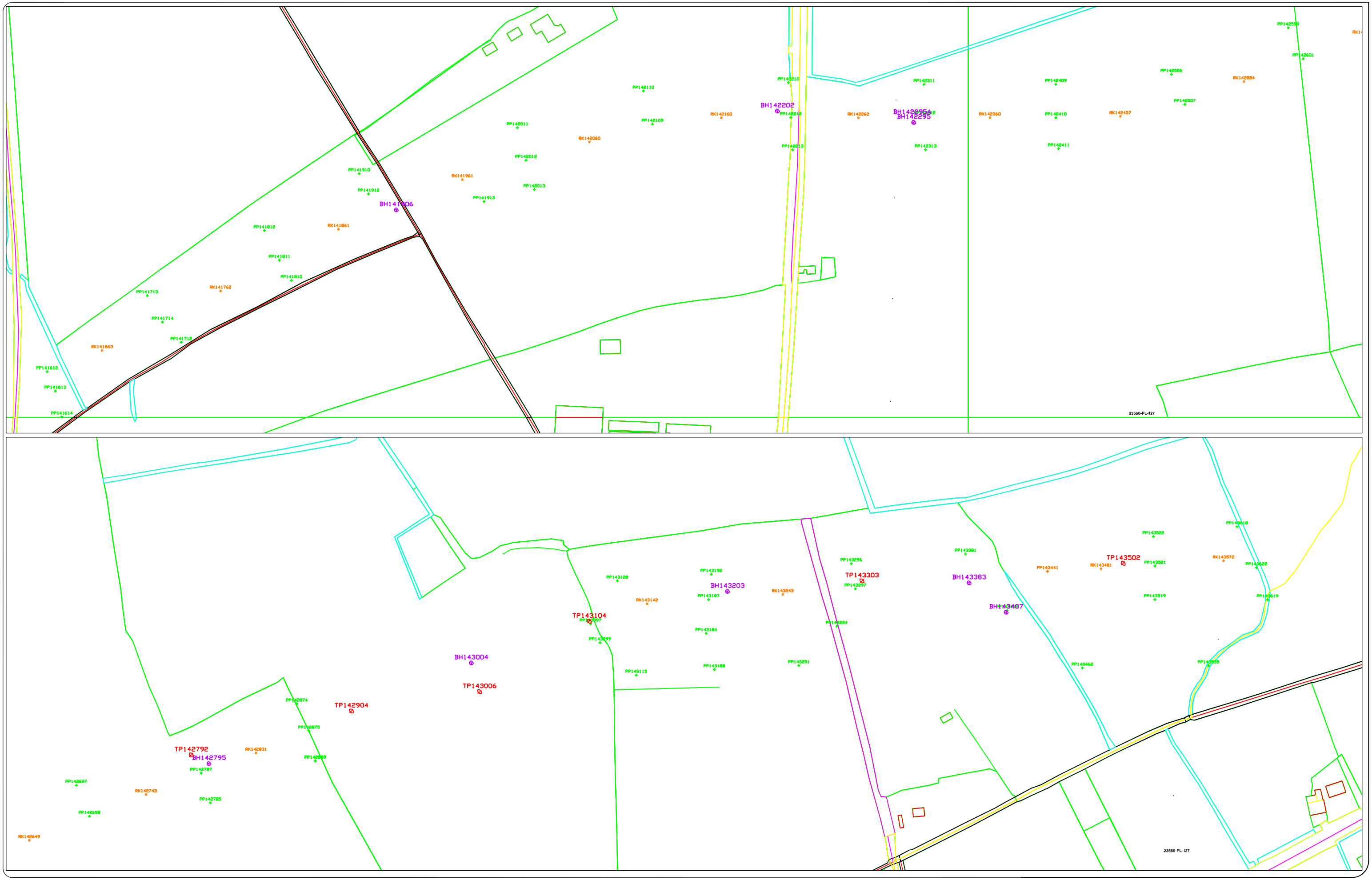
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION & GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	**WSP Lot 3 - Peatlands**
Component:	**Preliminary Ground Investigation**
Title:	**Location Plan**

Designed:	CK	Date: 19/10	File Name: 23560	Drawing No:	
Drawn:	CK	Date: 19/10	Original Scale: 1:2500 @A3		**23560-PL-126**
Checked:	JL	Date: 19/10	Date: 19/10/2022		



North

Site Location

Datum:
- Malin Hd
- ITM

Borehole Location

Dynamic Sample Borehole Location

Trial Pit Location

Peat Probe Location

Russian Sample Location

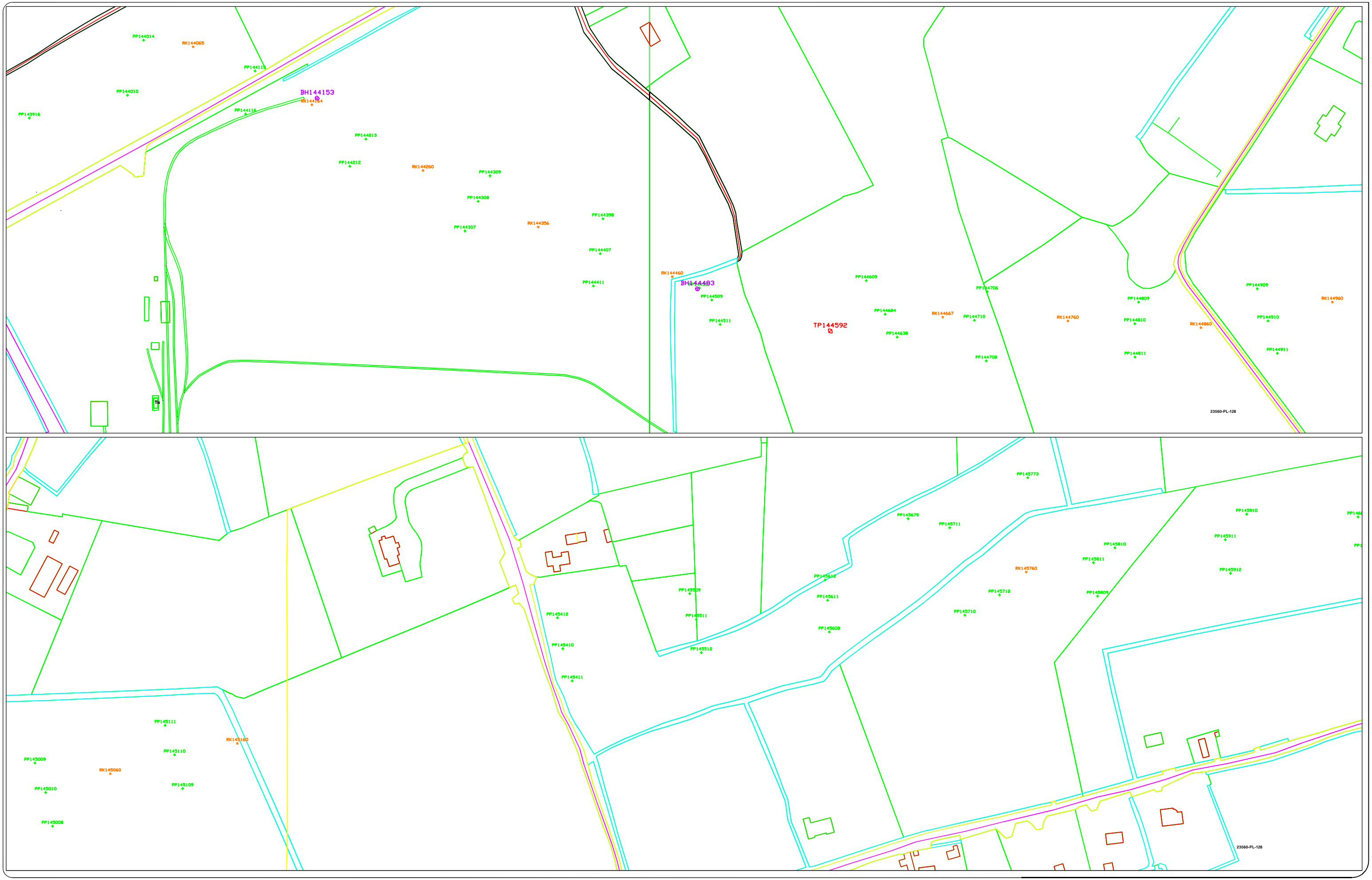
IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-127**



North

Site Location

Datum: Irish Grid
Grid System: ITM

- Borehole Location
- Dynamic Sample Borehole Location
- Trial Pit Location
- Peat Probe Location
- Russian Sample Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie

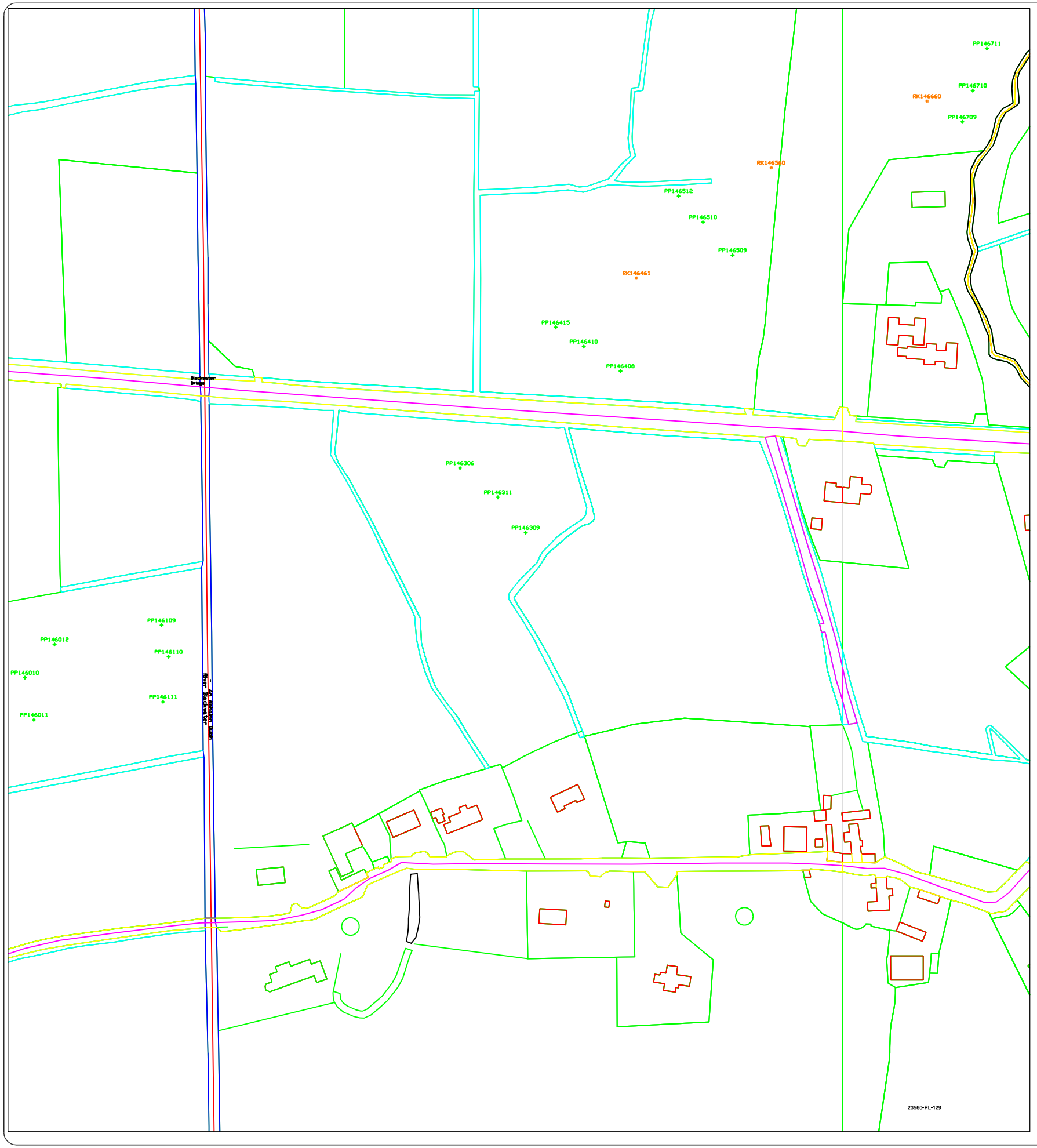
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

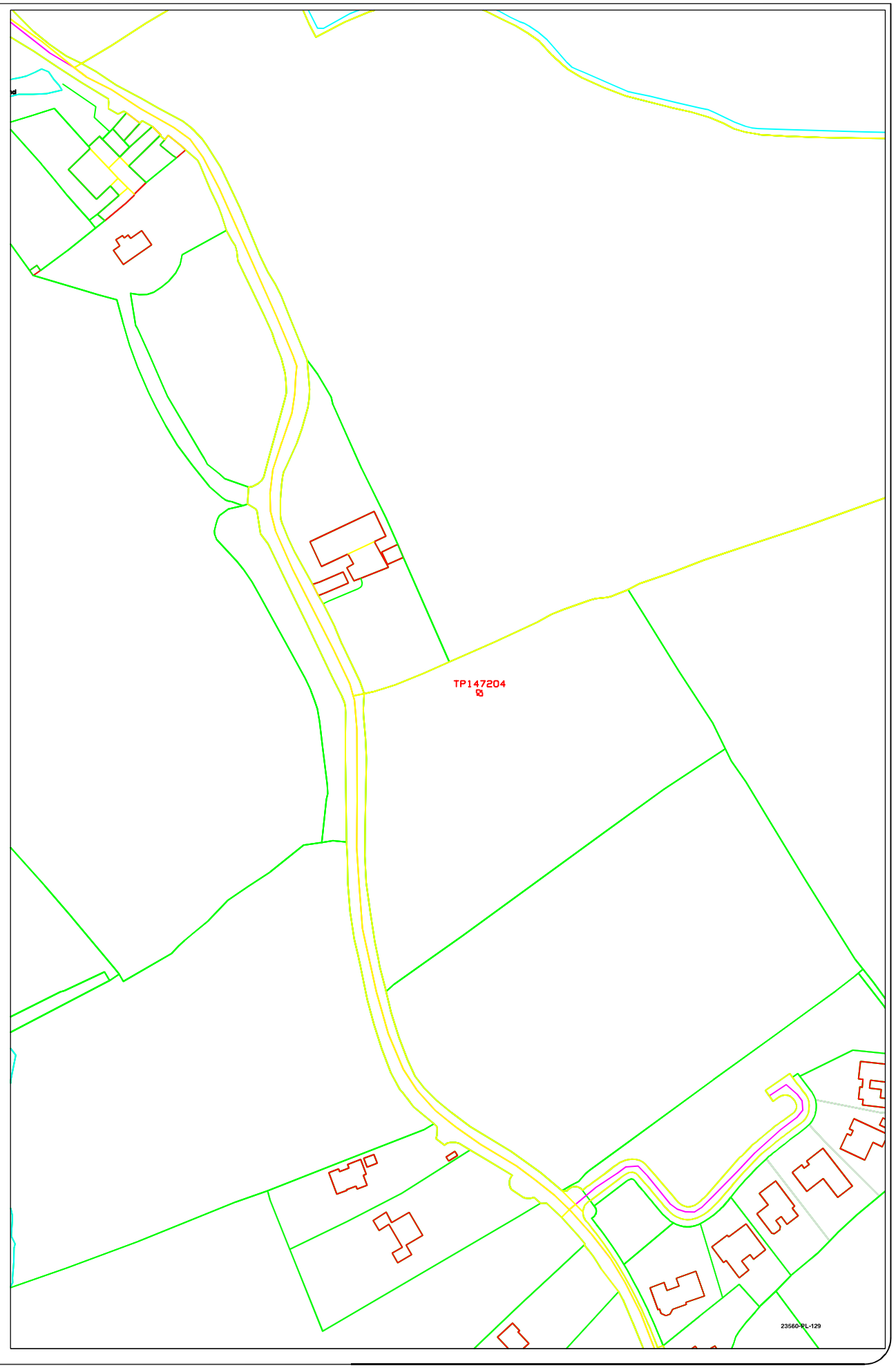
Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands
Component:	Preliminary Ground Investigation
Title:	Location Plan

Designed:	CK	Date:	19/10	File Name:	23560
Drawn:	CK	Date:	19/10	Original Scale:	1:2500 @A3
Checked:	JL	Date:	19/10	Date:	19/10/2022

Drawing No: **23560-PL-128**





North

Datum
- Malin Hd
Grid System
- ITM

Site Location

Borehole Location
Peat Probe Location
Dynamic Sample Borehole Location
Russian Sample Location
Trial Pit Location

IGSL Limited
Unit F M7 Business Park, Naas, Co.Kildare
Tel: 045 846176 Fax: 045 846187
E-mail: info@igsl.ie
SITE INVESTIGATION
&
GEOTECHNICAL SPECIALISTS

Rev	By	Date	Description
0	CK	19/10	Layout Plan

Project:	WSP Lot 3 - Peatlands				
Component:	Preliminary Ground Investigation				
Title:	Location Plan				
Designed: CK	Date: 19/10	File Name: 23560	Drawing No:		
Drawn: CK	Date: 19/10	Original Scale: 1:2500 @A3	23560-PL-129		
Checked: JL	Date: 19/10	Date: 19/10/2022			