

Our reference: 079657-CUR-XX-XX-RP-GE-00001-P02

29 July 2021

Mr S Garth
Technical Manager
Barratt Homes Manchester
4 Brindley Road,
City Park
Manchester
M16 9HQ

Dear Steve

Re: Former Tetrosyl Site Bury – Culvert Diversion

Further to our e-mail correspondence of 21 July 2021 and site visit of 12 May 2021 we have pleasure in presenting our report below. The report describes the soil types that will be revealed in cut areas and also those proposed to be used as fill in relation to the construction of an open channel water course that is to replace the existing culverted water course.

1.0 Introduction and Background

The former Tetrosyl works is being redeveloped for a residential end use largely comprising detached and semi-detached units with private gardens and associated infrastructure. Ordnance Survey mapping from around 1845 records that the site was occupied by two cotton mills known as Bentley Mill and Lumn Mill with associated reservoirs and water courses.



The site was extensively redeveloped between 1845 and 1893 for a large cotton mill and large reservoir occupying the southern part of the site. Apart from infilling of a smaller reservoir/mill lodge and the creation of a small shallow quarry the site remained largely unaltered until 1963. Subsequently the large reservoir in the south was infilled and utilised as car parking and two sheds were constructed over the infilled quarry in the north west. The site area before recent demolition is shown in Figure 1.1.

Considering the current alignment of the culverted water course, it can be seen from Figure 1.1 that a stream enters the site at the north east and feeds the reservoir, very little has changed since the 1890's. The reservoir has a sluice and overflow channel at the southern end located adjacent to the earth dam. Although there were other feeds taken into the works at various times the remaining culverted section runs from the overflow to the southern boundary.

Figure 1.1 – Site Location Plan
(Approximate site boundary shown in red).



In the lower section of the site below the earth dam the culverted section runs alongside various sub-surface water storage tanks/cisterns which probably predate the construction of the culvert as currently positioned.

The development proposals submitted and approved by the Local Authority Planning Department require the partial draining and reclaiming of the reservoir area; an area of the former reservoir to the east is to be retained as an attenuation pond. Additionally, it is proposed to replace the culverted section south of the attenuation pond with an open channel water course. The open channel water course has been designed by Cole Easdon Consultants (CEC). The alignment of the open channel is close to the sites eastern boundary as shown in Figure 1.2.

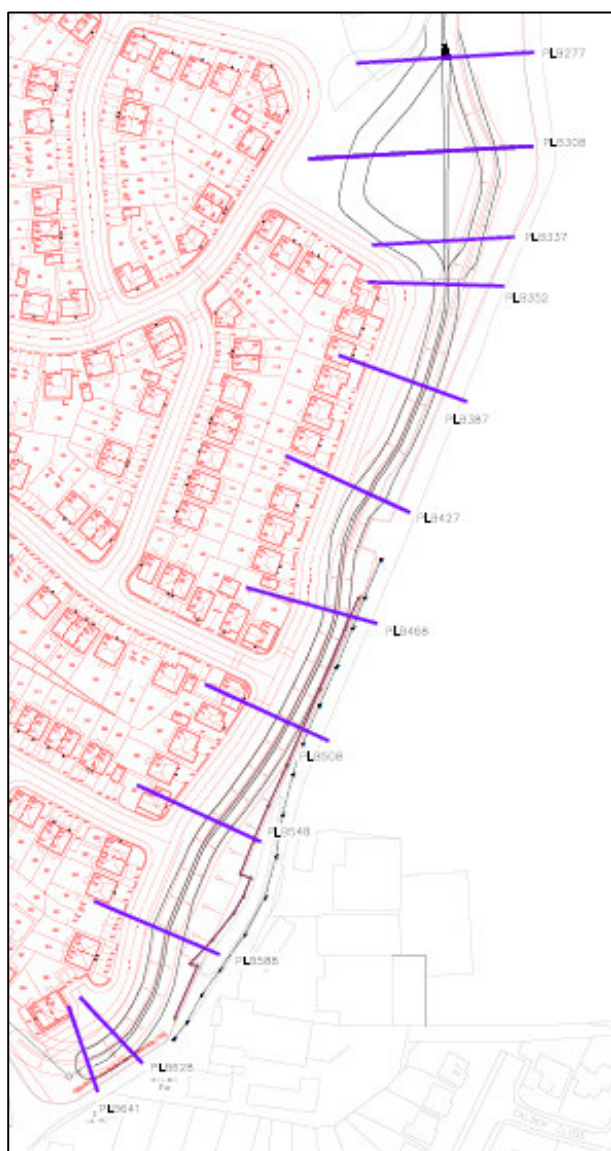


Figure 1.2 – Open Channel Water Course alignment

The bed of the new open channel will be constructed as close to the existing ground levels as possible but there will be areas along the alignment where the bed and the banks of the open channel will be constructed on cut material and on fill material.

Across the site, soils at shallow depth have largely been disturbed due to the cycles of construction and most of the shallow soils comprise made ground. Consequently, as part of the approval process for the open channel the Environment Agency has queried the nature of the soils that will underlie the bed and banks of the open channel.

This report presents an assessment of the soils to be revealed in cut areas of the open channel alignment along with a description and likely materials classification for the site won natural materials currently identified for fill areas of the open channel.

This report considers sub-grade soils only; those revealed at formation of the open channel construction by cut and those to be used as general fill. Construction materials above this level are the design responsibility of CEC.



The following sections of this report provide a general description of the works to be undertaken by the Contractor responsible for the earthworks, along with a description of the general fill soils and were required a commentary on testing undertaken on them with the likely Specification for Highways Works (SHW) material classifications.

Existing made ground soils likely to be revealed in cut areas have also been described with reference to historical and recent ground investigation reporting and or their classification after the scheduled remedial treatment undertaken on the site.

2.0 Information Provided

The information provided by the Client and Contractor and considered in this report is recorded below;

- 1) Cole Easdon Consultants drawings, no. 6155/502 revision I, no. 6155/508 revision C, no. 6155/507/02 revision D, no. 6155/507/01 revision D and no. 6155/519 revision C;
- 2) Urban Regen Ltd drawing no. 333-20-001-02;
- 3) Borehole extracts from ground investigation by Curtins.

3.0 General Description - Works to be undertaken on the proposed Water Course Alignment

Urban Regen Ltd drawing no. 333-20-001-02 provides a diagrammatic informative summary of the work to be undertaken across the site. For the purposes of this report only the alignment of the proposed open channel water course will be discussed.

Additionally, Cole Easdon Consultants drawings no. 6155/502 revision I, no. 6155/508 revision C, no. 6155/507/02 revision D, no. 6155/507/01 revision D and no. 6155/519 revision C provide long sections and cross sections along and across the proposed alignment.

Table 3.1 below provides a summary of the various stages of the water course alignment and whether in cut or fill with reference to the CEC drawings.

Table 3.1 Summary of Proposed Open Channel Water Course

Section Ref.	Location	Formation Material
PLB277	Head of former works reservoir	Bed and banks generally at original ground level
PLB308	Body of former works reservoir	Bed and banks generally at original ground level
PLB337	Body of former works reservoir	Fill to western bank (site side)
PLB352	Flow Control in new attenuation pond	Fill to western bank (site side)
PLB387	Body of former works reservoir	Fill to western bank (site side)
PLB427	Downstream former works reservoir	All cut in original earth dam
PLB468	Former mill buildings – Low Level	Through demolished buildings, likely all cut or at original ground level
PLB508	Former mill buildings – Low Level	Through demolished buildings, likely all cut or at original ground level
PLB548	Former mill buildings – Low Level	Through demolished buildings, likely all fill due to basements
PLB588	Former yard area – Low Level	All fill
PLB628	Former yard area – Low Level	All fill
PLB641	Former yard area – Low Level	Fill to western bank (site side)

Specific sections of the proposed water course are discussed below.



3.1 Section PLB277 to PLB352 – Attenuation Pond

As recorded in Table 3.1 above this length of open channel water course is to be constructed at or around existing ground level. Historically the works reservoir was created on undisturbed land so the natural strata will be at the reservoir bed subject to any silt being deposited over time.

There is little if any ground investigation on the extreme eastern part of the site at this higher level although Curtins undertook a borehole adjacent to the western edge of the reservoir in 2021. Figure 3.1.1 shows an extract from the log.

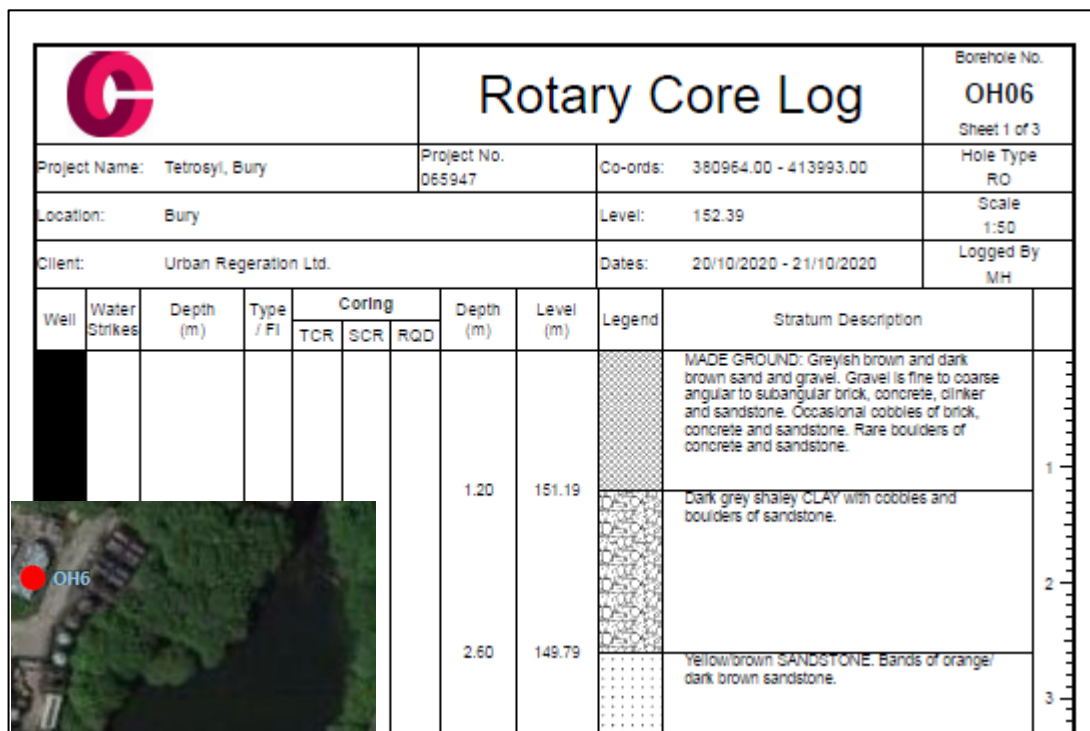


Figure 3.1.1 – Curtins Borehole OH6 Extract

Dark grey shaley clay was recorded at 151.9m AOD and sandstone at 149.79m AOD. These strata horizons are above the proposed bed level of the water course of 146.0m AOD. The geological dip is shallow toward the south west so the bed of the original reservoir will be the shaley clay if not sandstone. Any silt excavated is to be stabilised and if reused in this area will be suitable as the formation for the new water course in this location.

3.2 Section PLB352 to PLB427 – From the Attenuation Pond to the original Earth Dam

The ground conditions and construction proposals would be similar to those discussed in 3.1 above as this section of the water course is still within the former reservoir in which all the fill, being silt, would be stabilised.

3.3 Section PLB427 – Original Earth Dam

In the location of the original earth dam the proposed water course is shown to be in cut on the long section. Review of historical ordnance survey mapping shows that the original earth dam was constructed with the toe of the embankment meeting undisturbed land.

Subsequent historical mapping suggests that the building construction undertaken between 1847 and 1893 modified the toe level of the embankment and as such the buildings were cut into the natural strata and the earth dam and the building walls in front of the dam would be of retaining construction; refer to Figure 3.3.1 below.

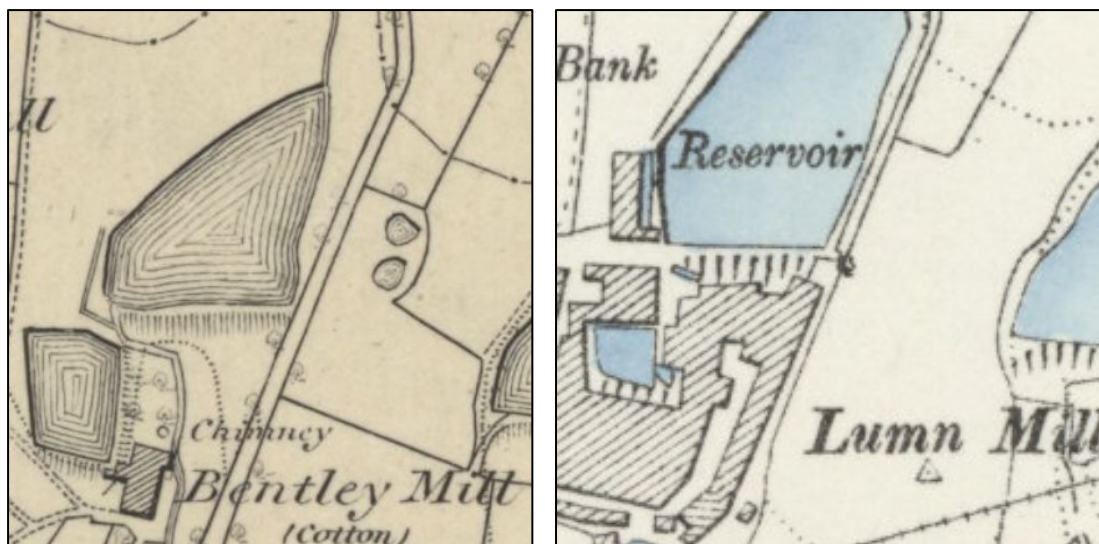


Figure 3.3.1 – Extract from 1844-1847 and 1889-1891 Survey

Historical information indicates that the earth dam is around 4.5m deep as recorded in ENSR borehole 5 shown in Figure 3.3.2 below. The ENSR borehole description records made ground of clayey coarse sand fill with brick fragments and a layer of clay. The SPT results indicate a good standard of compaction belying the description of loose.

It is considered that the clay layer is either the underlying natural strata or possibly part of an impermeable seal in the dam constructed above the sandstone. If the made ground is not completely 'bottomed' by the new construction, the material in the earth dam structure with the stated SPT values indicates it would be suitable as the formation for the new water course in this location.

Additionally, the borehole information indicates that the made ground material in the earth dam, if excavated, placed and compacted to an engineering specification would be suitable fill elsewhere in the water course alignment.

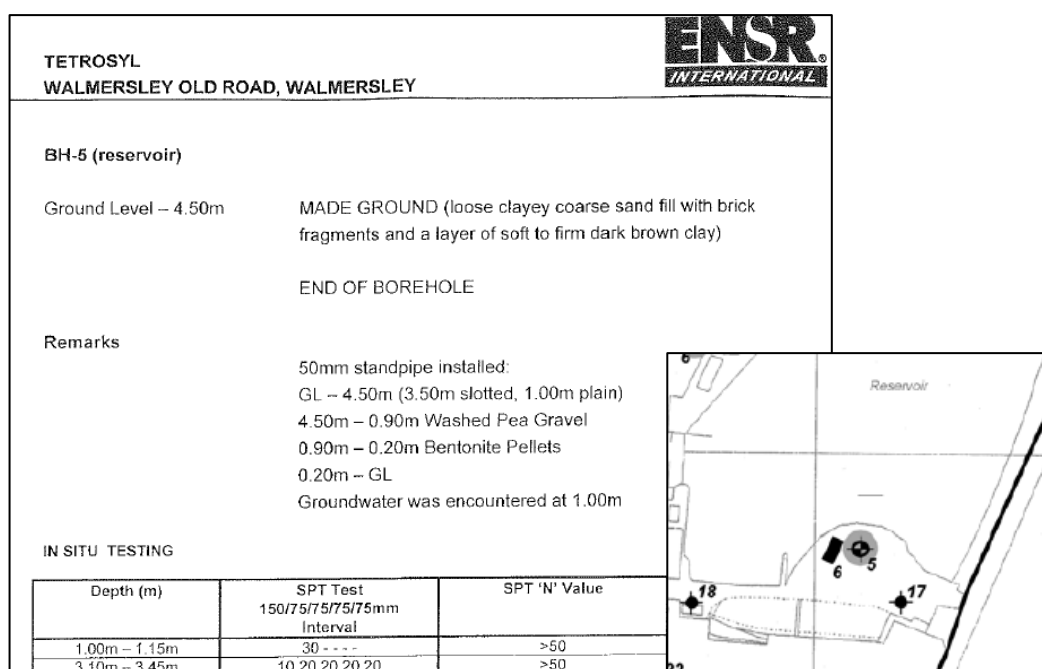


Figure 3.3.2 – ENSR Borehole 5 Extract

3.4 Section PLB427 to PLB641 – From original Earth Dam to Closed Piped System

The proposed open channel bed is at a relatively low gradient until the location of the original earth dam after which the gradient increases until the lower site area as identified by the water course run between PLB468 to PLB588. Table 3.1 records that from PLB468 to PLB548 the alignment of the proposed water course runs through an area of buildings to be demolished. From PLB588 to PLB641 the water course runs through a yard area.

The ground floor level of these buildings and the lower yard area is around 139m AOD, although it is known that some of the buildings had basements; the buildings in this location have been cut into the undisturbed site to maximise development area in the lower level. In this lower level further to demolition the Contractor is going to undertake a turnover to;

- Remove all obstructions,
- Remove all foundations and floor slabs,
- Grub out existing drainage,
- Locate and remove/or fill any historical water storage tanks.

The resulting material including the existing made ground being granular will be processed to SHW Series 600 Class 6F2 material. The majority will be used elsewhere on the development site but the processed made ground will be used as general fill in lower layers within the water course alignment.

From PLB548 to PLB641 the water course will be constructed entirely on fill; all fill to the water course will be 6F2 at greater depths with stockpiled natural soils to be used in upper layers immediately under the water course construction. The fill will be placed on proof rolled natural soils following the turnover in this area.



The description of the natural soils to be used and the testing undertaken to date is contained within section 4.0 of this report.

4.0 Site Won Stockpiled Soils – Fill to the Open Channel Water Course

The previous sections of this report describe soils to be reused as fill in the formation of the open channel water course. On the upper level, this includes reservoirs silts that will be excavated, stabilised and replaced to an appropriate specification.

In the lower level it has been advised that natural soils previously excavated and stockpiled by the Contractor will be used as General Fill to form the bed and banks of the water course above the turned over and replaced 6F2 material.

The Contractor has undertaken sampling and testing of this stockpiled material along with some trial pitting and sampling in areas of cut excavations yet to be completed.

Thirty-five samples were obtained, nine from trial pits and twenty-six from stockpiles. The samples were sent to i2 Analytical Ltd and tested for Aggregates Particle Size Distribution - Sieving method; Tested in Accordance with: BS EN 933-1: 2012.

The testing was undertaken to obtain a likely classification for the fill material with reference to Series 600 Earthworks of the MCDHW Volume 1 Specification for Highway Works (SHW).

With reference to the SHW document and specifically Table 6/1 and Table 6/2, a review of the test results, Attachment A of this report, indicates the following;

- Twenty-seven samples comply with the grading of a Class 2C General Fill - Stoney Cohesive material;
- Six samples comply with the grading of a Class 2A/2B General Fill - Wet/Dry Cohesive material (two samples only marginal from Class 2C);
- Two samples comply with the grading of a Class 1A General Fill - Well graded granular material.

The Class 2 soils were typically described as grey and or brown clays with varying additional sub-description of sandy and or gravelly.

The Class 1A samples from TP4 B1 and TP6 B2 were mistakenly described as gravelly sandy CLAY; they would be better described as slightly clayey sandy GRAVEL.

The natural soils will be suitable general fill material in relation to construction of the open channel water course with appropriate management of the soils on site and the adoption of a suitable Earthworks Specification.

5.0 Conclusion

With reference to the information provided and referenced in Section 2.0 and discussed further in Sections 3.0 and Section 4.0 of this report the following conclusions can be summarised with respect to open channel water course.



- In the upper level of the site, the former works reservoir, the base silts will be excavated and stabilised to form a suitable fill material;
- In the upper level of the site, the former works reservoir, the stabilised base silts will be placed and compacted to a suitable specification on existing naturally occurring soils;
- At the location of the earth dam the water course is wholly in cut likely to the base of the earth dam materials; in the event residual earth dam materials are left in situ they will be suitably compact to act as subgrade to the bed and banks of the water course;
- In the lower level of the site the area in which the water course is to be constructed will be subject to a turnover to natural soils; all arising will be brick, flag, concrete, stone crushed to SHW 6F2 grading;
- The 6F2 will be placed and compacted to a suitable specification for the lower layers of fill;
- Site won natural soils to be used as the upper layers of fill will generally satisfy the SHW grading requirements for Class 2C material with some localised Class 2A/B and Class 1A material;
- The site won natural soils will be suitable general fill material with appropriate management of the soils on site and the adoption of a suitable Earthworks Specification.

6.0 Closure

We hope the foregoing report satisfies your requirements but if you have any comments or queries, please do not hesitate to contact us.

Yours faithfully

Director

For and on behalf of
Curtins Consulting Ltd



Attachment A - i2 Analytical Ltd Test Reports

Aggregates Particle Size Distribution; Tested in Accordance with: BS EN 933-1: 2012.

- i) Certificate no. 1899639 to 1899665
- ii) Certificate no. 1907545, 1907547, 1907549 to 1907552



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899639

Hole No.: TP1 B1

Sample Reference: Not Given

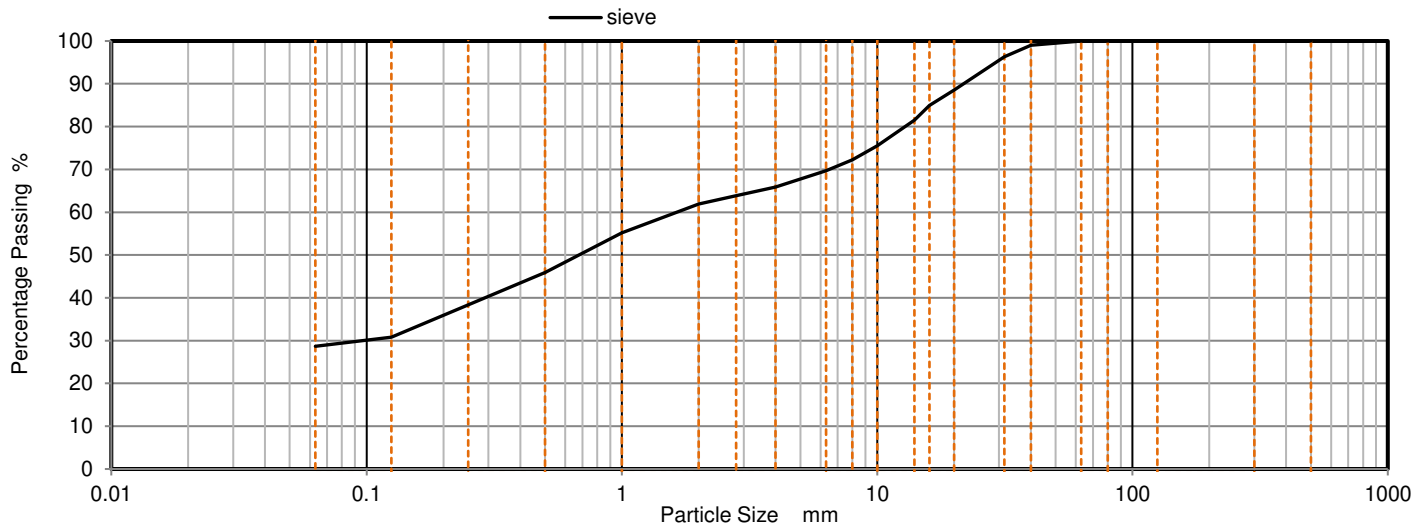
Sample Description: Brown clayey sandy GRAVEL

Sample Preparation: Sample was quartered, oven dried at 107.5 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	99		
31.5	96		
20	89		
16	85		
14	81		
10	76		
8	72		
6.3	70		
4	66		
2.8	64		
2	62		
1	55		
0.5	46		
0.25	38		
0.125	31		
0.063	28.7		

Uniformity Coefficient [Cu]		> 26
D60	mm	1.65
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing. This report includes a statement of conformity to an industry standard specification, as such risks associated with uncertainty in relation to the decision rules applied do not need to be considered.

Signed:

Monika Janoszek

Page 1 of 1

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

GF 469.1



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

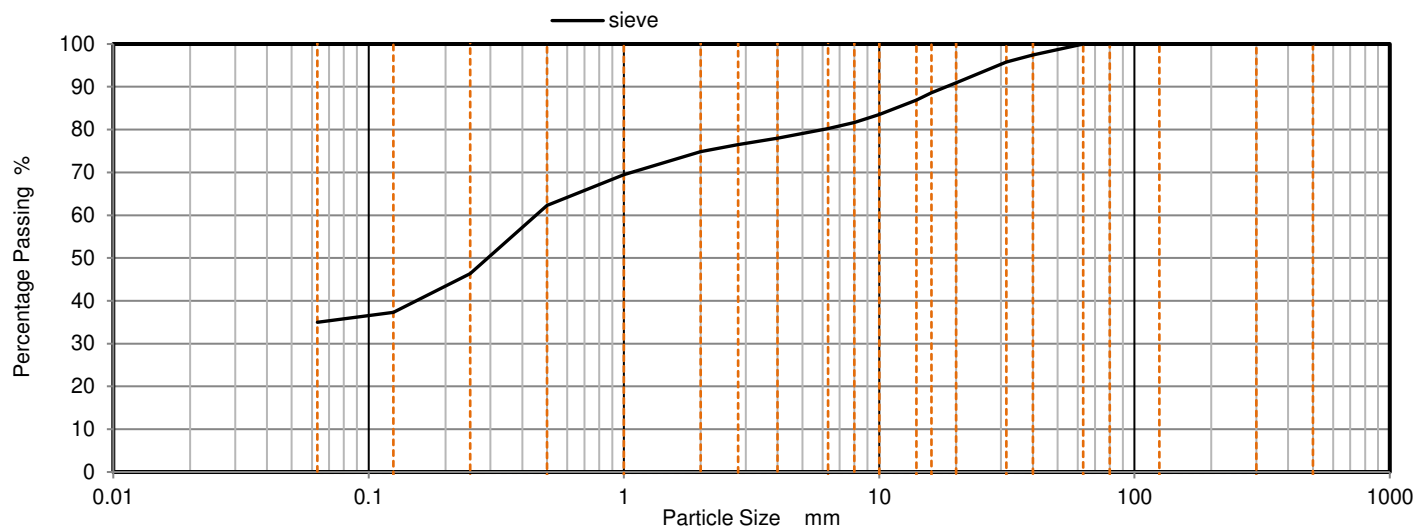
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899640
Hole No.: TP2 B1
Sample Reference: Not Given
Sample Description: Greyish brown sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 106°C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	97		
31.5	96		
20	91		
16	89		
14	87		
10	84		
8	82		
6.3	80		
4	78		
2.8	76		
2	75		
1	69		
0.5	62		
0.25	46		
0.125	37		
0.063	35.0		

Uniformity Coefficient [Cu]		> 7.2
D60	mm	0.453
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

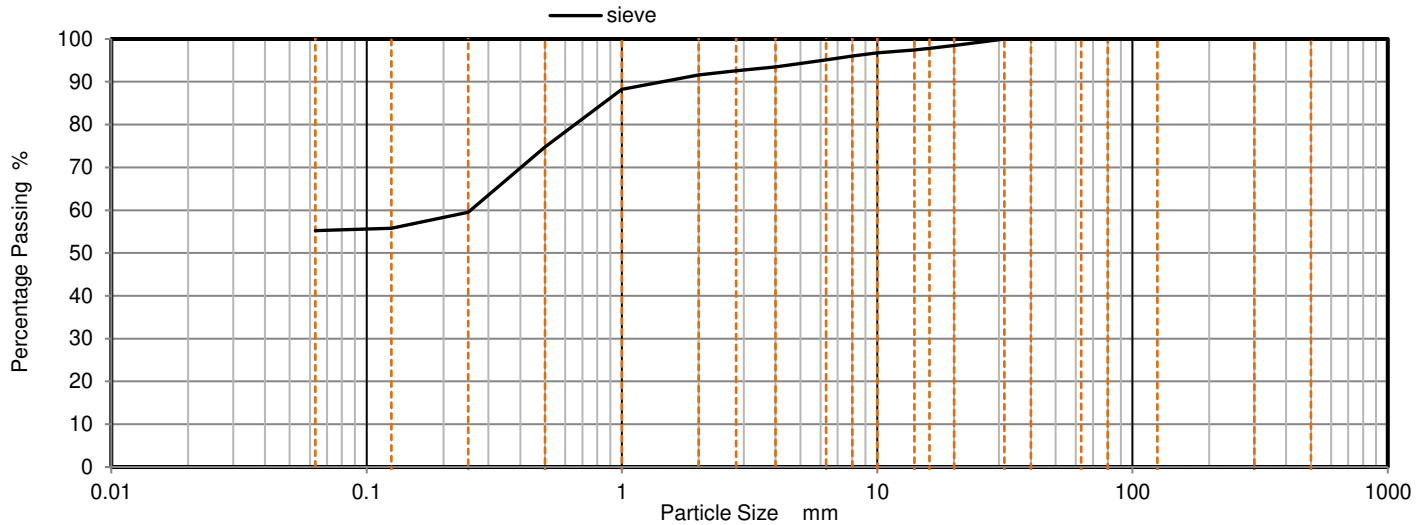
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899641
Hole No.: TP3 B1
Sample Reference: Not Given
Sample Description: Greyish brown slightly gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 109 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	100		
20	98		
16	98		
14	97		
10	97		
8	96		
6.3	95		
4	93		
2.8	93		
2	92		
1	88		
0.5	75		
0.25	59		
0.125	56		
0.063	55.2		

Uniformity Coefficient [Cu]		> 4.1
D60	mm	0.256
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Page 1 of 1

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

GF 469.1



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899642

Hole No.: TP4 B1

Sample Reference: Not Given

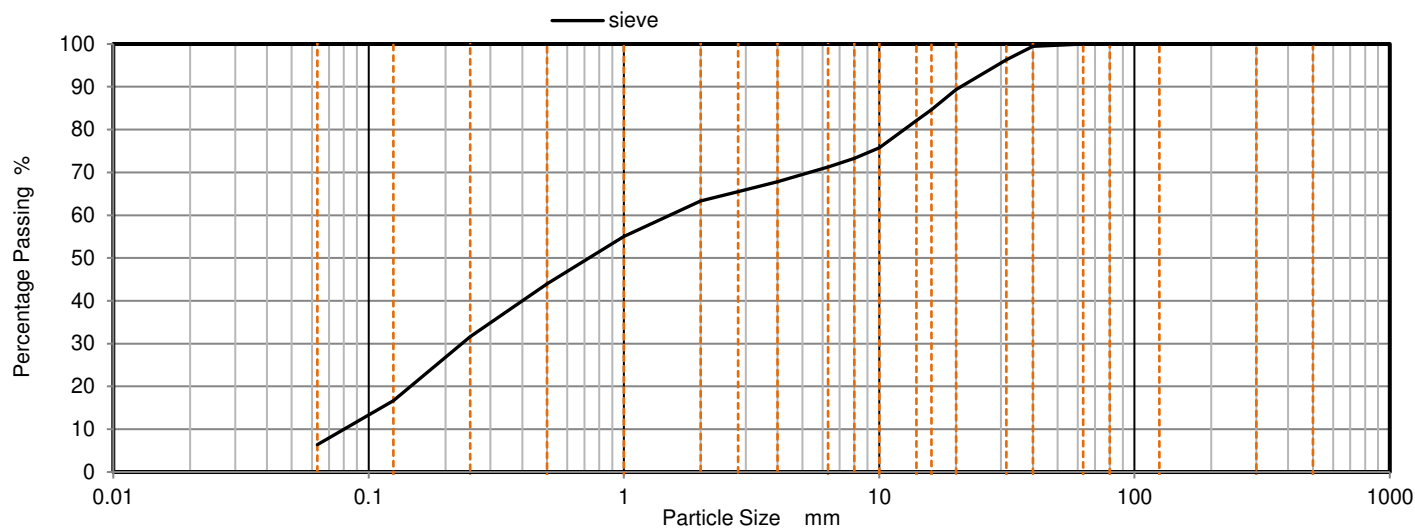
Sample Description: Brownish grey gravelly sandy CLAY

Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	99		
31.5	96		
20	89		
16	85		
14	82		
10	76		
8	73		
6.3	71		
4	68		
2.8	66		
2	63		
1	55		
0.5	44		
0.25	32		
0.125	17		
0.063	6.4		

Uniformity Coefficient [Cu]		19
D60	mm	1.51
D10	mm	0.0801

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



4041

TEST CERTIFICATE

Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899643

Hole No.: TP5 B1

Sample Reference: Not Given

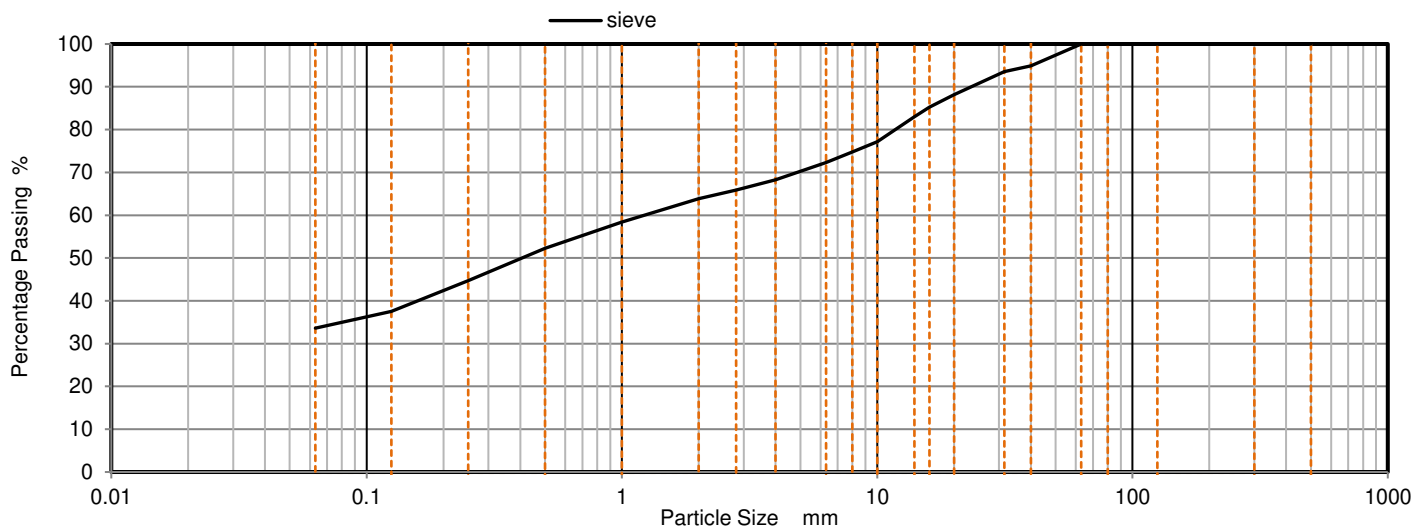
Sample Description: Brown gravelly sandy CLAY

Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	95		
31.5	94		
20	88		
16	85		
14	83		
10	77		
8	75		
6.3	72		
4	68		
2.8	66		
2	64		
1	58		
0.5	52		
0.25	45		
0.125	38		
0.063	33.6		

Uniformity Coefficient [Cu]		> 19
D60	mm	1.23
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Page 1 of 1

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

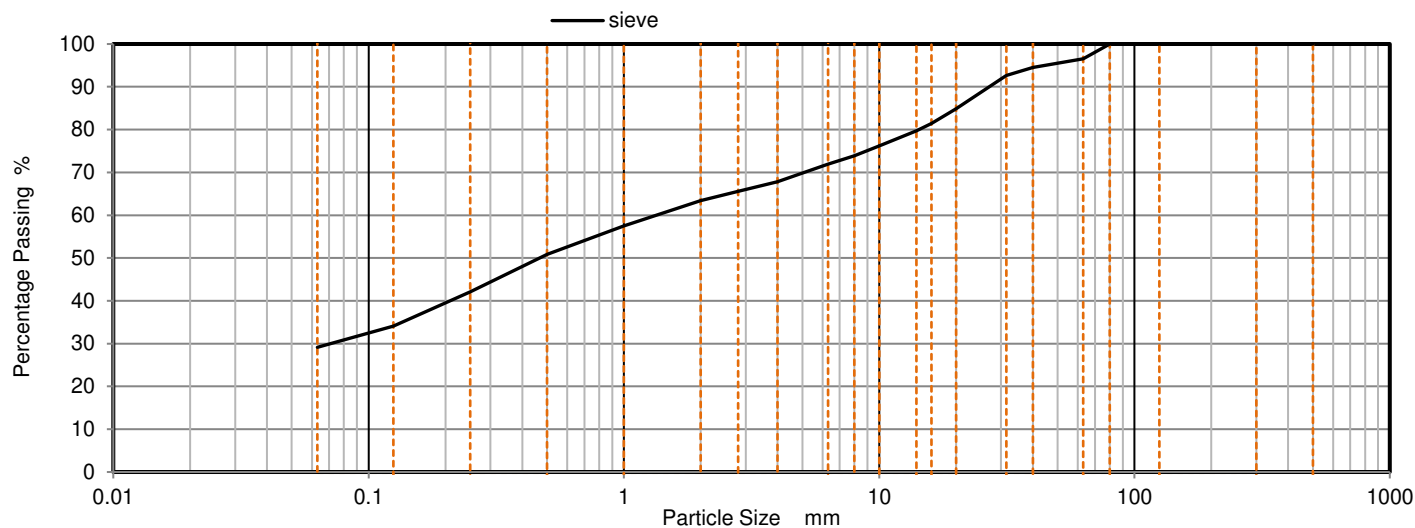
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899644
Hole No.: TP5 B3
Sample Reference: Not Given
Sample Description: Greyish brown slightly sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 109 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	97		
40	95		
31.5	93		
20	85		
16	81		
14	80		
10	76		
8	74		
6.3	72		
4	68		
2.8	66		
2	63		
1	58		
0.5	51		
0.25	42		
0.125	34		
0.063	29.1		

Uniformity Coefficient [Cu]		> 21
D60	mm	1.34
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

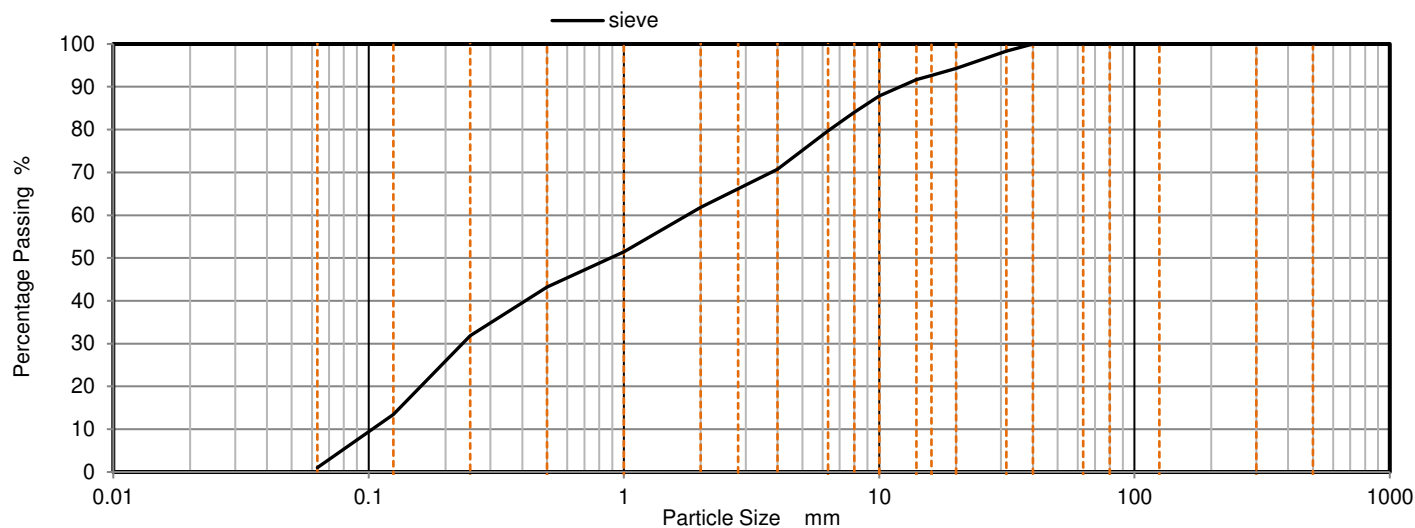
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899645
Hole No.: TP6 B2
Sample Reference: Not Given
Sample Description: Brown gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 109 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	98		
20	94		
16	93		
14	92		
10	88		
8	84		
6.3	80		
4	71		
2.8	66		
2	62		
1	51		
0.5	43		
0.25	32		
0.125	13		
0.063	1.0		

Uniformity Coefficient [Cu]		17
D60	mm	1.77
D10	mm	0.103

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

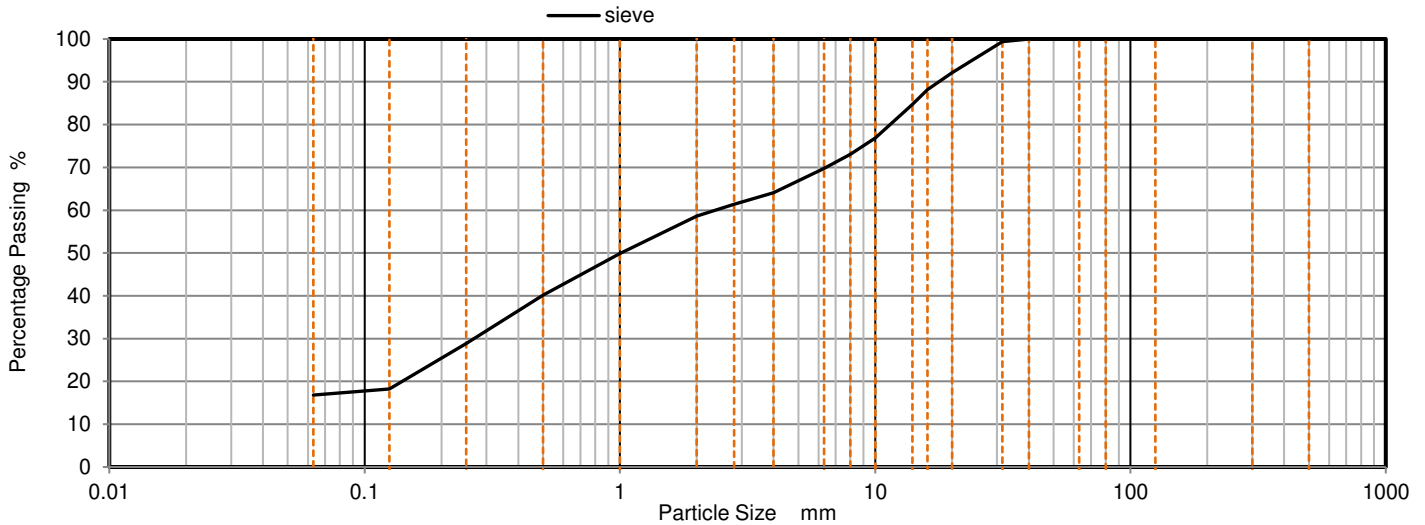
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899646
Hole No.: SP1 B1
Sample Reference: Not Given
Sample Description: Brown slightly clayey gravelly SAND
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	99		
20	92		
16	88		
14	85		
10	77		
8	73		
6.3	70		
4	64		
2.8	61		
2	59		
1	50		
0.5	40		
0.25	29		
0.125	18		
0.063	16.8		

Uniformity Coefficient [Cu]		> 38
D60	mm	2.36
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek

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Monika Janoszek
PL Deputy Head of Geotechnical Section
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Date Reported: 02/07/2021

GF 469.1



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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

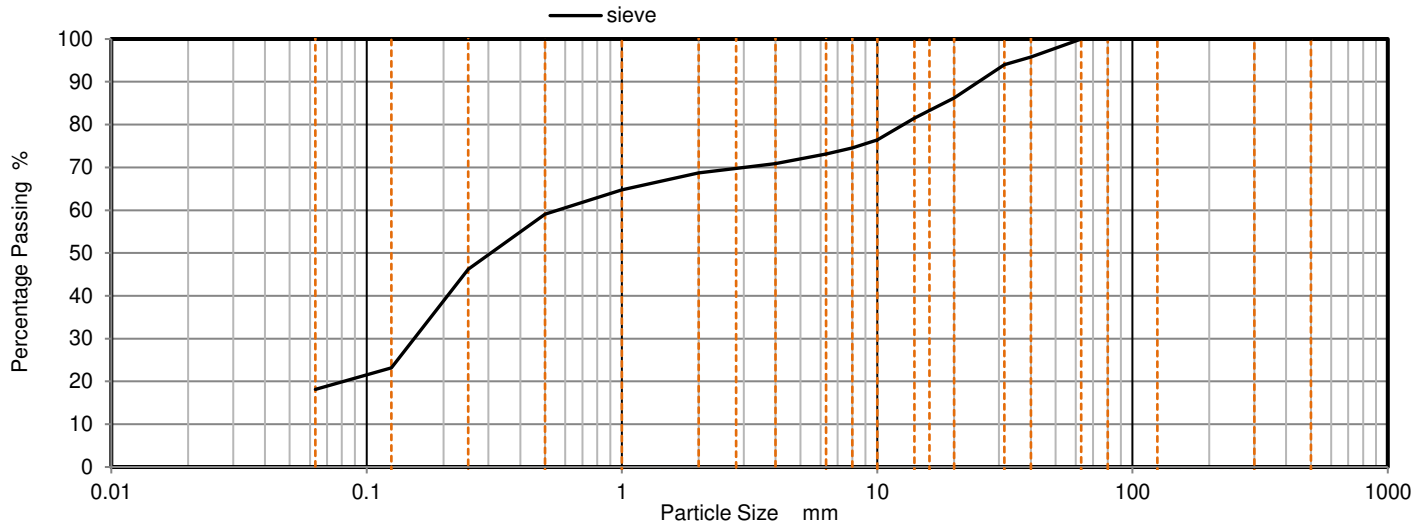
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899647
Hole No.: SP1 B2
Sample Reference: Not Given
Sample Description: Brown slightly clayey gravelly SAND
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	96		
31.5	94		
20	86		
16	83		
14	81		
10	76		
8	75		
6.3	73		
4	71		
2.8	70		
2	69		
1	65		
0.5	59		
0.25	46		
0.125	23		
0.063	18.1		

Uniformity Coefficient [Cu]		> 8.9
D60	mm	0.559
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

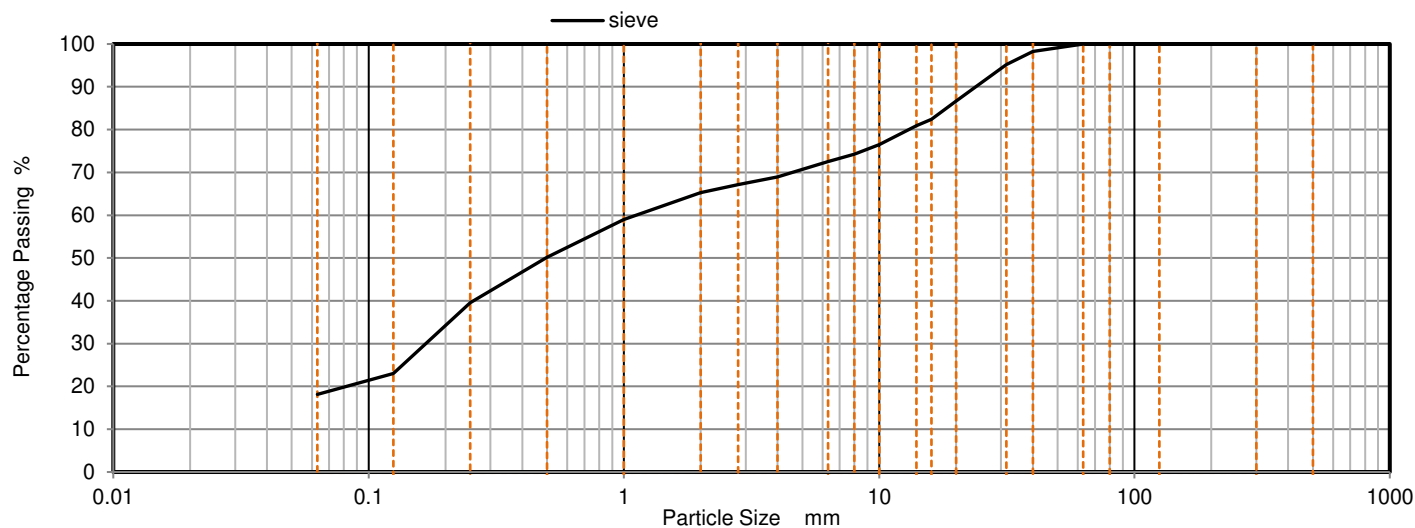
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899648
Hole No.: SP1 B3
Sample Reference: Not Given
Sample Description: Brown clayey gravelly SAND
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	98		
31.5	95		
20	87		
16	82		
14	81		
10	76		
8	74		
6.3	73		
4	69		
2.8	67		
2	65		
1	59		
0.5	50		
0.25	40		
0.125	23		
0.063	18.1		

Uniformity Coefficient [Cu]		> 18
D60	mm	1.11
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

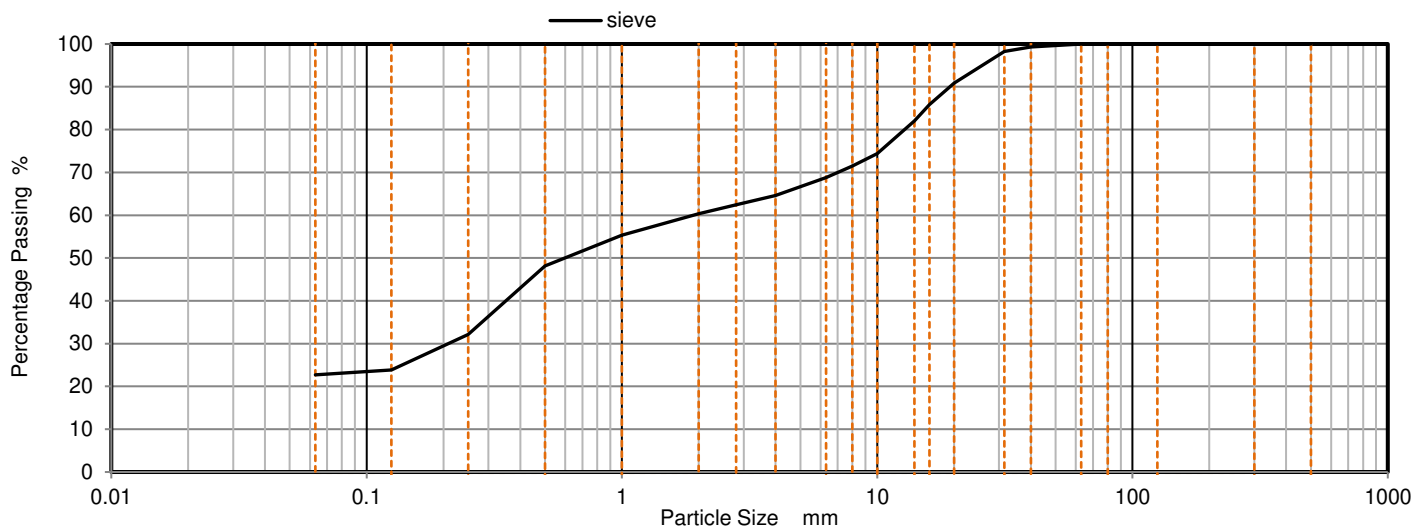
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899649
Hole No.: SP1 B4
Sample Reference: Not Given
Sample Description: Brown sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	99		
31.5	98		
20	91		
16	86		
14	82		
10	74		
8	72		
6.3	69		
4	65		
2.8	62		
2	60		
1	55		
0.5	48		
0.25	32		
0.125	24		
0.063	22.7		

Uniformity Coefficient [Cu]		> 30
D60	mm	1.91
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

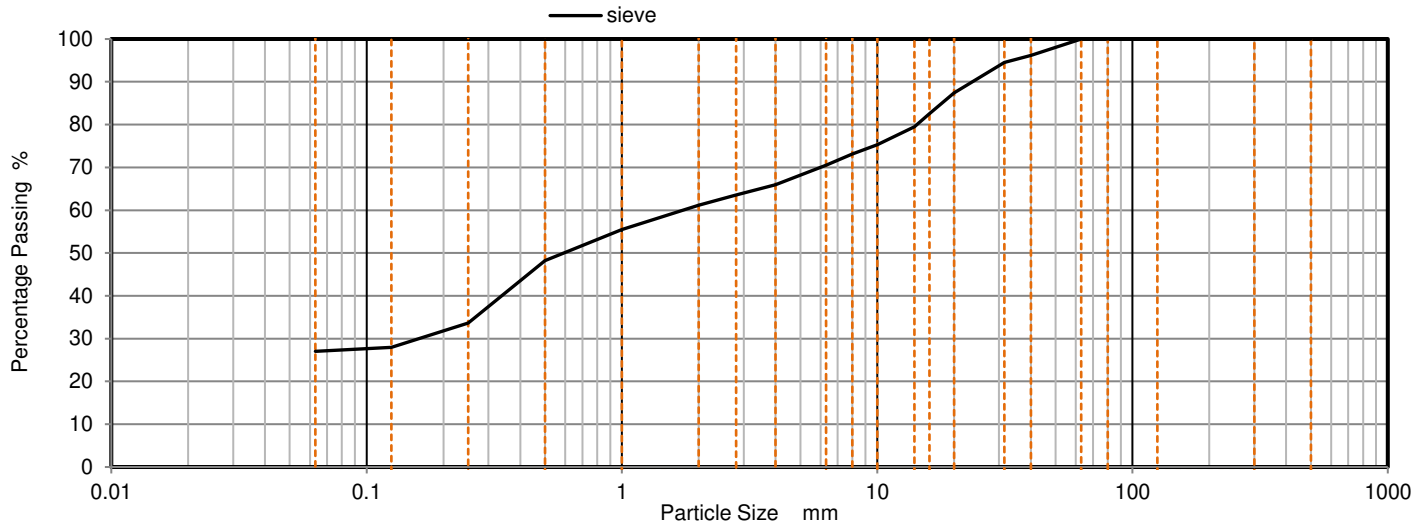
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899650
Hole No.: SP1 B5
Sample Reference: Not Given
Sample Description: Greyish brown gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	96		
31.5	94		
20	87		
16	83		
14	80		
10	75		
8	73		
6.3	71		
4	66		
2.8	64		
2	61		
1	55		
0.5	48		
0.25	34		
0.125	28		
0.063	27.0		

Uniformity Coefficient [Cu]		> 27
D60	mm	1.73
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek

Page 1 of 1

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

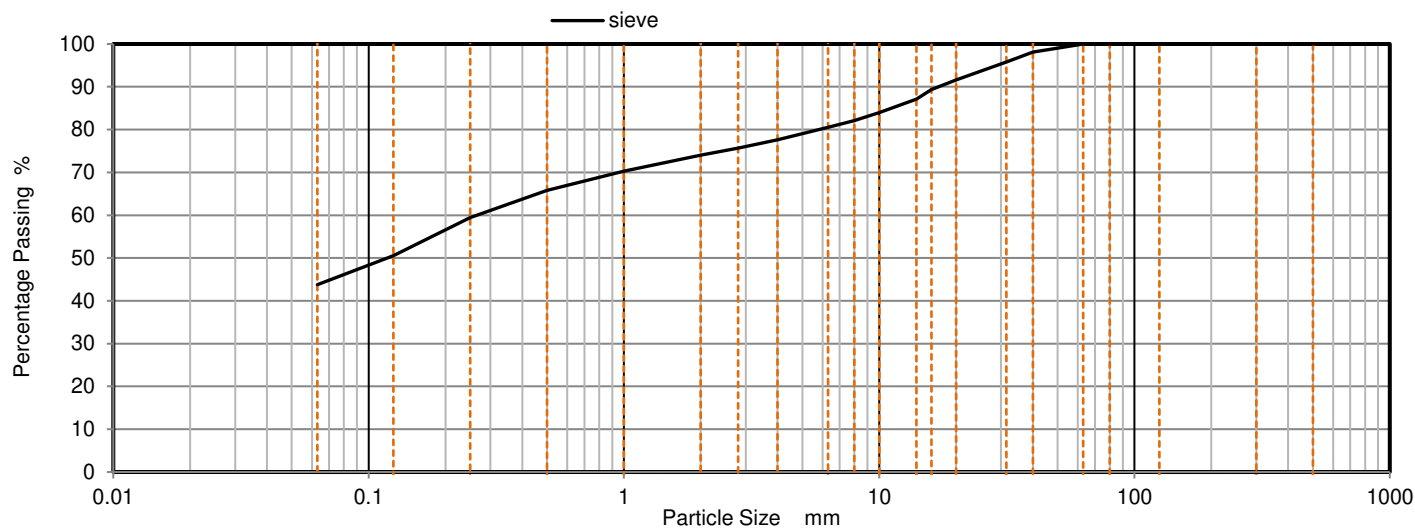
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899651
Hole No.: SP1 B7
Sample Reference: Not Given
Sample Description: Greyish brown slightly sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	98		
31.5	96		
20	92		
16	89		
14	87		
10	84		
8	82		
6.3	81		
4	78		
2.8	76		
2	74		
1	70		
0.5	66		
0.25	59		
0.125	51		
0.063	43.8		

Uniformity Coefficient [Cu]		> 4.2
D60	mm	0.266
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

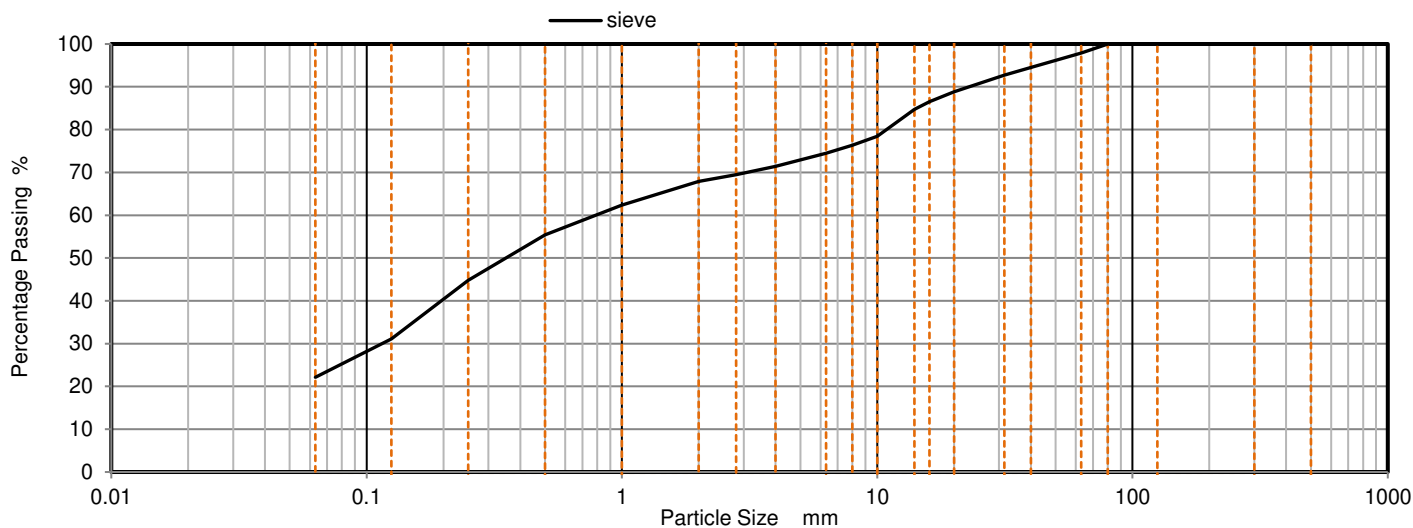
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899652
Hole No.: SP1 B8
Sample Reference: Not Given
Sample Description: Brown gravelly sandy CLAY with rare roots
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	98		
40	95		
31.5	93		
20	89		
16	87		
14	85		
10	78		
8	76		
6.3	74		
4	71		
2.8	69		
2	68		
1	62		
0.5	55		
0.25	45		
0.125	31		
0.063	22.1		

Uniformity Coefficient [Cu]		> 13
D60	mm	0.791
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



4041

TEST CERTIFICATE

Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 30/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899653

Hole No.: SP1 B9

Sample Reference: Not Given

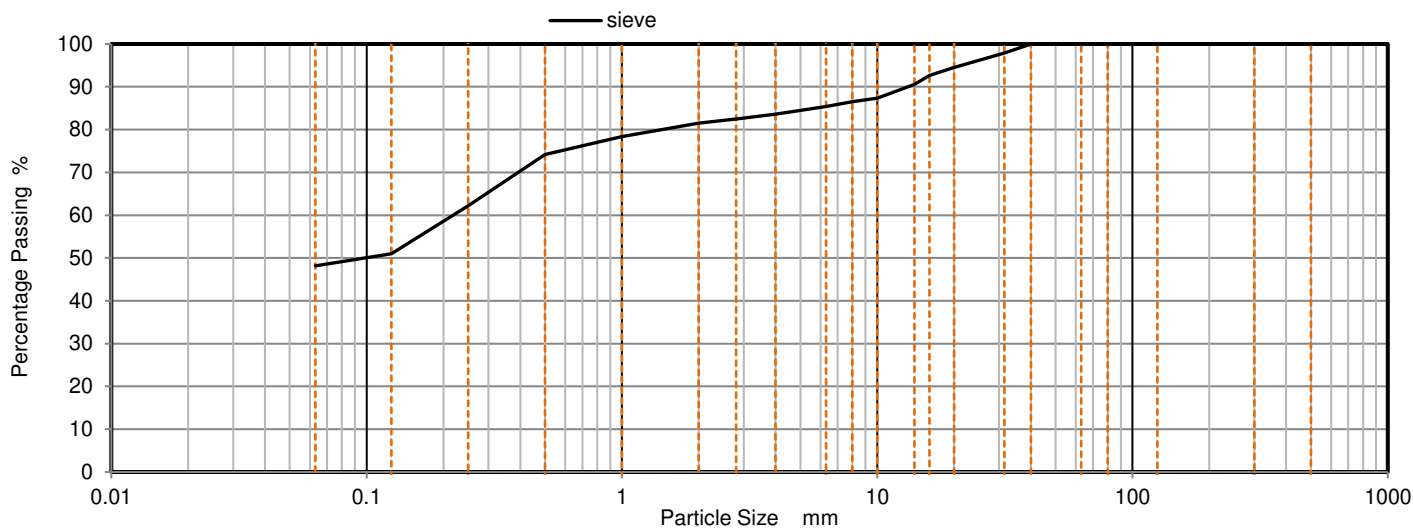
Sample Description: Brown gravelly CLAY

Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	98		
20	95		
16	93		
14	91		
10	87		
8	86		
6.3	85		
4	84		
2.8	83		
2	81		
1	78		
0.5	74		
0.25	62		
0.125	51		
0.063	48.2		

Uniformity Coefficient [Cu]		> 3.5
D60	mm	0.218
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Page 1 of 1

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

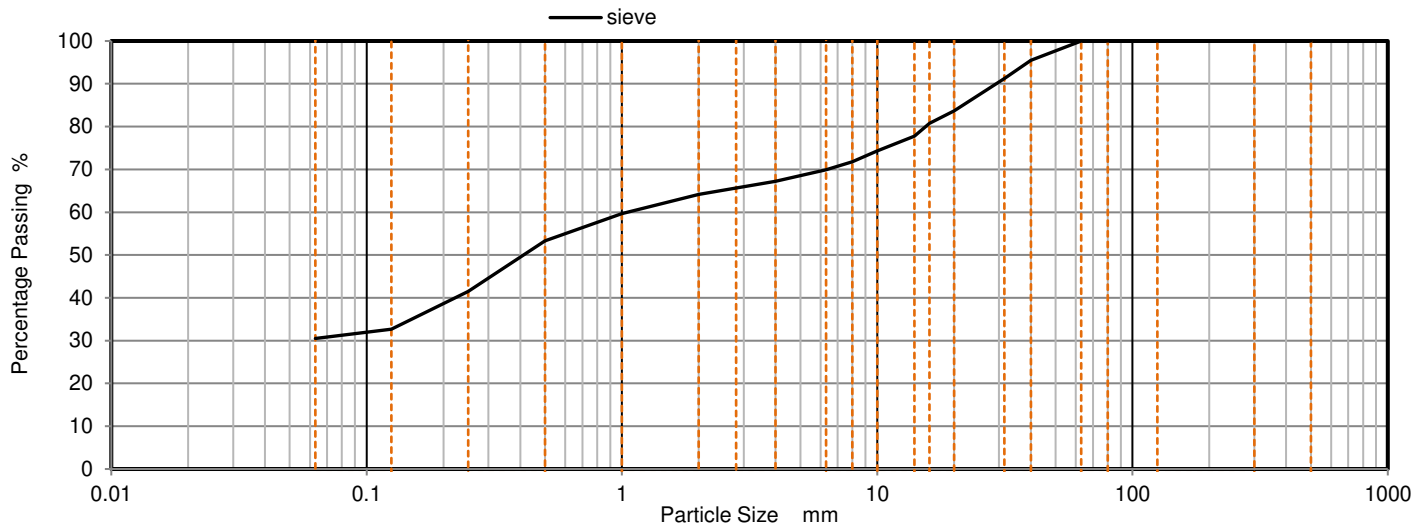
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899654
Hole No.: SP1 B11
Sample Reference: Not Given
Sample Description: Brown gravelly CLAY with fragments of root
Sample Preparation: Sample was quartered, oven dried at 108.7 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	96		
31.5	91		
20	84		
16	81		
14	78		
10	74		
8	72		
6.3	70		
4	67		
2.8	66		
2	64		
1	60		
0.5	53		
0.25	42		
0.125	33		
0.063	30.5		

Uniformity Coefficient [Cu]		> 17
D60	mm	1.06
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

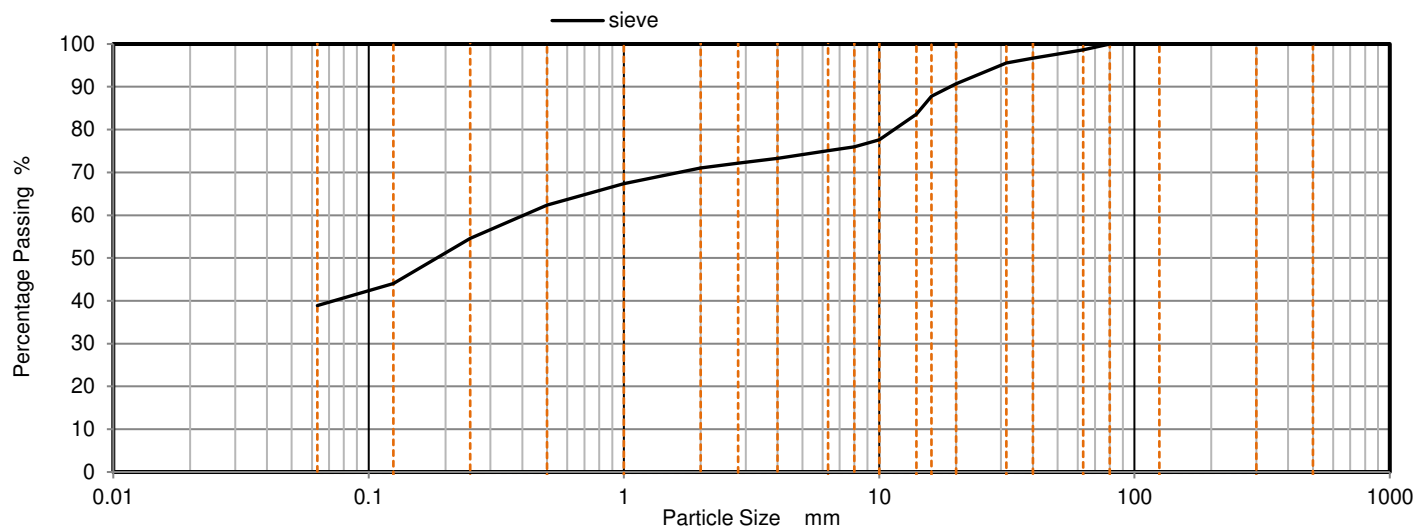
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899655
Hole No.: SP1 B13
Sample Reference: Not Given
Sample Description: Greyish brown slightly sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 108.7 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	99		
40	97		
31.5	96		
20	91		
16	88		
14	84		
10	78		
8	76		
6.3	75		
4	73		
2.8	72		
2	71		
1	67		
0.5	62		
0.25	55		
0.125	44		
0.063	38.9		

Uniformity Coefficient [Cu]		> 6.4
D60	mm	0.405
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899656

Hole No.: SP1 B14

Sample Reference: Not Given

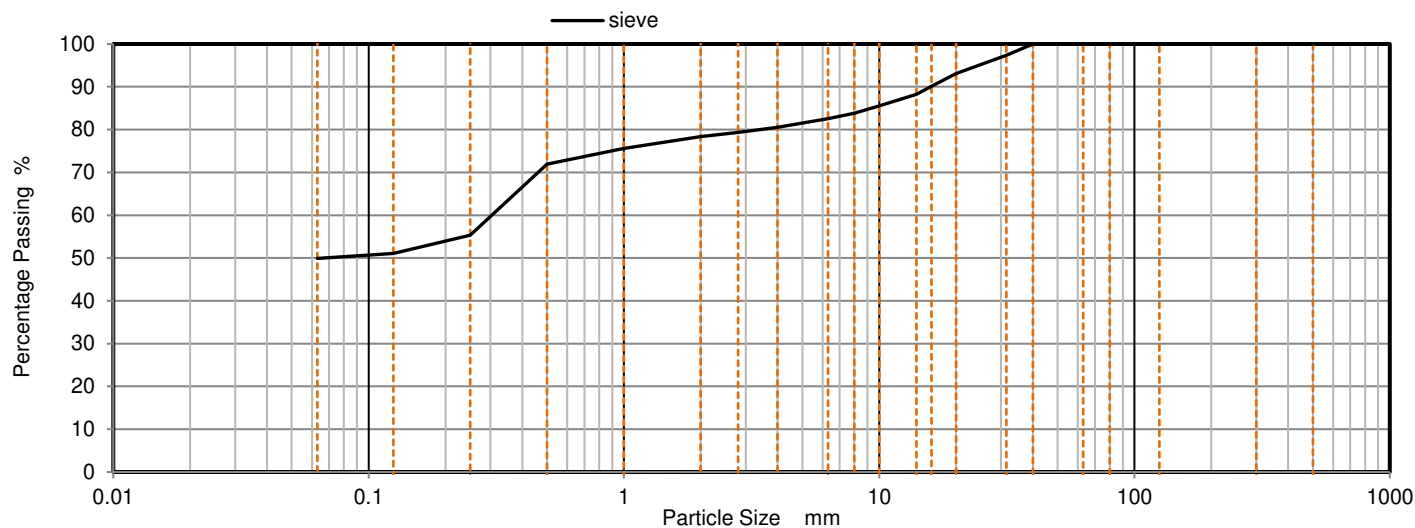
Sample Description: Brown gravelly sandy CLAY

Sample Preparation: Sample was quartered, oven dried at 108.7 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	97		
20	93		
16	90		
14	88		
10	86		
8	84		
6.3	83		
4	81		
2.8	79		
2	78		
1	76		
0.5	72		
0.25	55		
0.125	51		
0.063	49.9		

Uniformity Coefficient [Cu]		> 4.8
D60	mm	0.303
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899657

Hole No.: SP1 B15

Sample Reference: Not Given

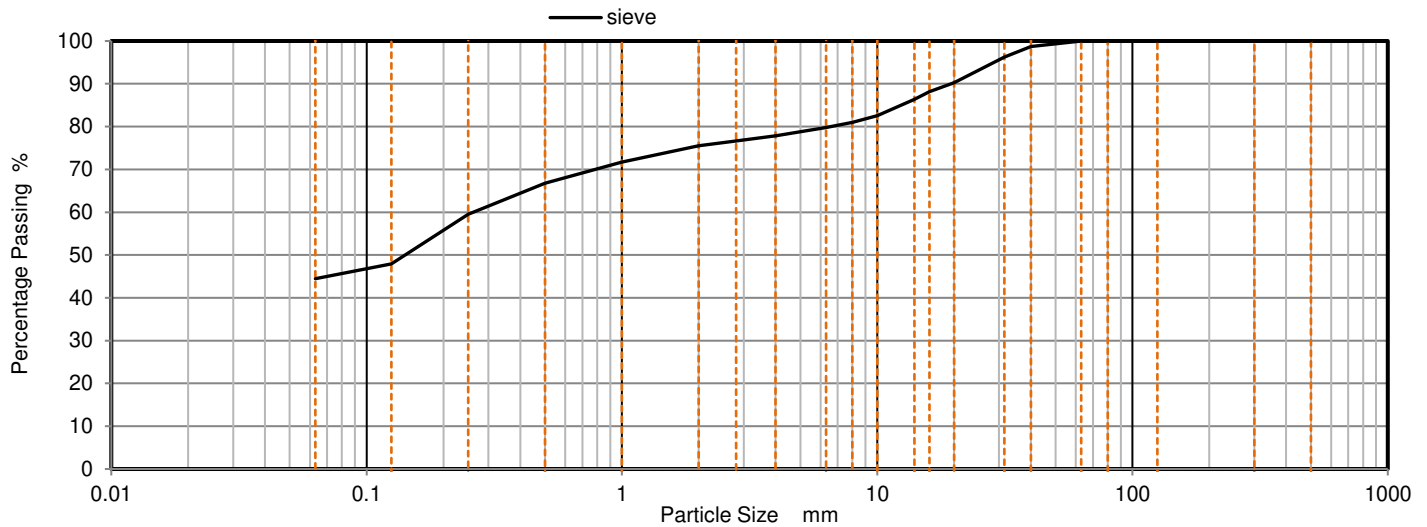
Sample Description: Greyish brown sandy gravelly CLAY

Sample Preparation: Sample was quartered, oven dried at 108.7 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	99		
31.5	96		
20	90		
16	88		
14	86		
10	83		
8	81		
6.3	80		
4	78		
2.8	77		
2	76		
1	72		
0.5	67		
0.25	60		
0.125	48		
0.063	44.5		

Uniformity Coefficient [Cu]		> 4.1
D60	mm	0.261
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

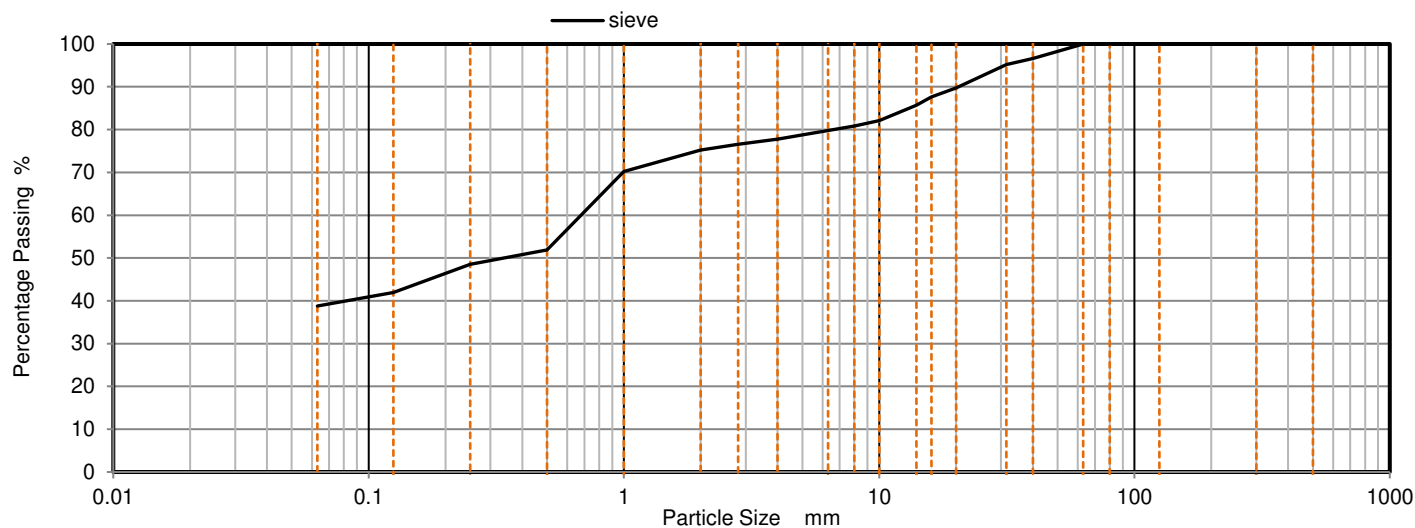
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899658
Hole No.: SP1 B17
Sample Reference: Not Given
Sample Description: Brown sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 108.7 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	97		
31.5	95		
20	90		
16	88		
14	86		
10	82		
8	81		
6.3	80		
4	78		
2.8	77		
2	75		
1	70		
0.5	52		
0.25	49		
0.125	42		
0.063	38.8		

Uniformity Coefficient [Cu]		> 11
D60	mm	0.679
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Monika Janoszek
PL Deputy Head of Geotechnical Section
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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899659

Hole No.: SP1 B18

Sample Reference: Not Given

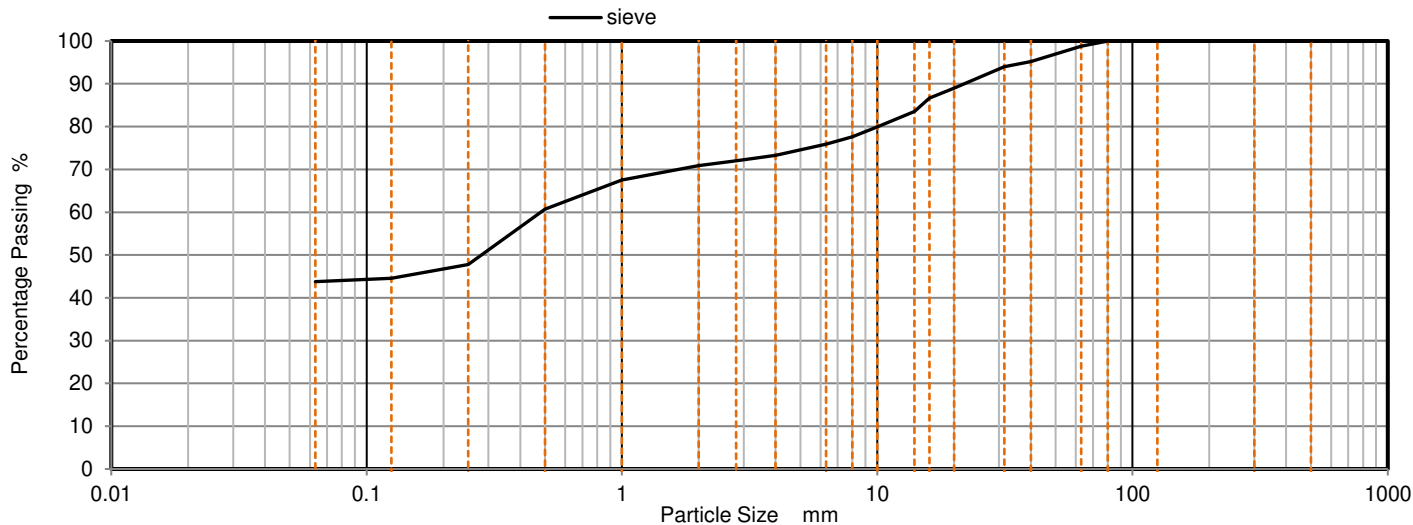
Sample Description: Greyish brown sandy gravelly CLAY

Sample Preparation: Sample was quartered, oven dried at 106.1 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	99		
40	95		
31.5	94		
20	89		
16	87		
14	84		
10	80		
8	78		
6.3	76		
4	73		
2.8	72		
2	71		
1	68		
0.5	61		
0.25	48		
0.125	45		
0.063	43.8		

Uniformity Coefficient [Cu]		> 7.6
D60	mm	0.481
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Monika Janoszek

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Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

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TEST CERTIFICATE

Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899660

Hole No.: SP1 B20

Sample Reference: Not Given

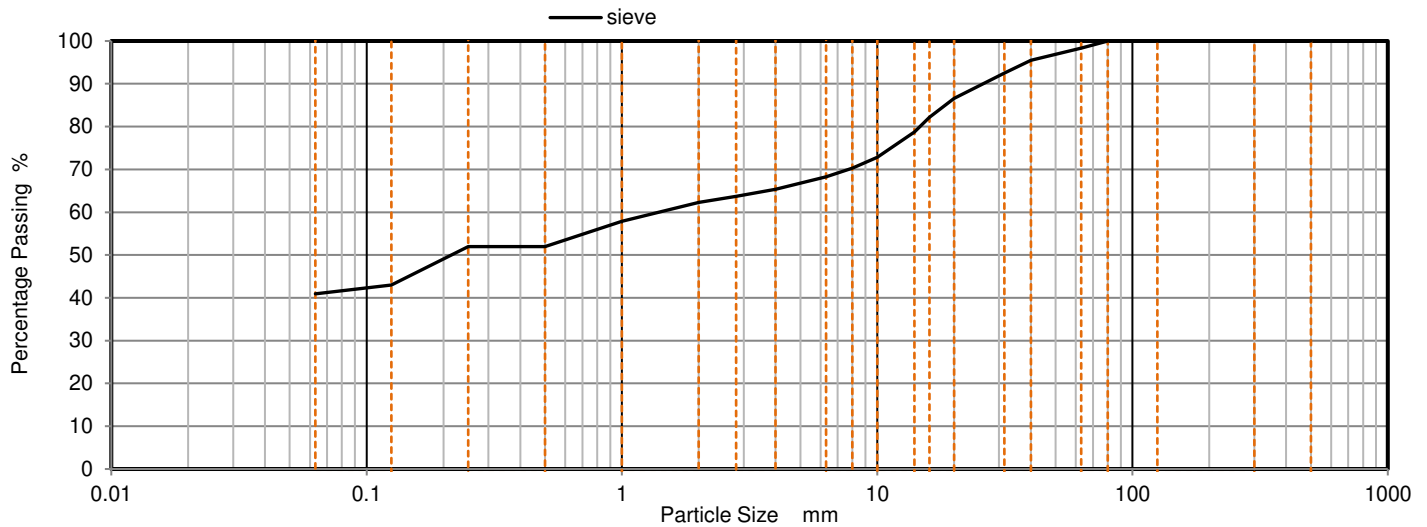
Sample Description: Brown CLAY

Sample Preparation: Sample was quartered, oven dried at 106.1 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	98		
40	95		
31.5	93		
20	87		
16	82		
14	79		
10	73		
8	70		
6.3	68		
4	65		
2.8	64		
2	62		
1	58		
0.5	52		
0.25	52		
0.125	43		
0.063	40.9		

Uniformity Coefficient [Cu]		> 22
D60	mm	1.4
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Page 1 of 1

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Date Reported: 02/07/2021

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Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL14 6DL

Contact: Cezary Salwa
Site Address: Tetrosyl

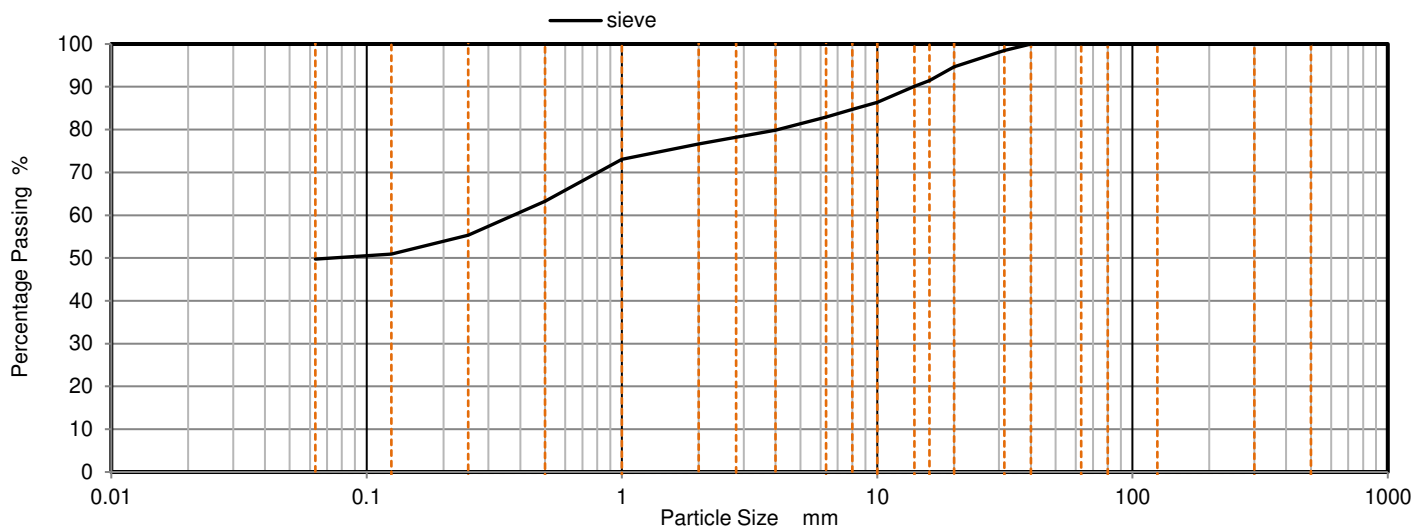
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 30/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899661
Hole No.: SP1 B21
Sample Reference: Not Given
Sample Description: Greyish brown slightly sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 106°C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	98		
20	95		
16	91		
14	90		
10	86		
8	85		
6.3	83		
4	80		
2.8	78		
2	77		
1	73		
0.5	63		
0.25	55		
0.125	51		
0.063	49.7		

Uniformity Coefficient [Cu]		> 6
D60	mm	0.376
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

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Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 30/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899663

Hole No.: SP1 B23

Sample Reference: Not Given

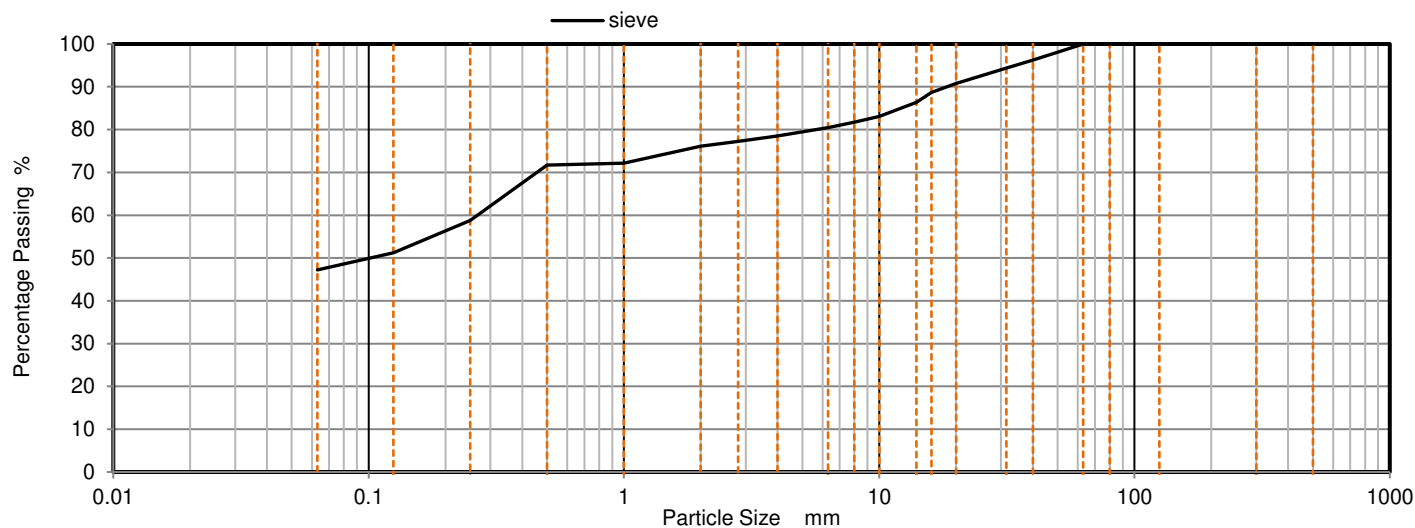
Sample Description: Brown gravelly CLAY

Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	96		
31.5	94		
20	91		
16	89		
14	86		
10	83		
8	82		
6.3	80		
4	78		
2.8	77		
2	76		
1	72		
0.5	72		
0.25	59		
0.125	51		
0.063	47.2		

Uniformity Coefficient [Cu]		> 4.2
D60	mm	0.267
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Page 1 of 1

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PL Deputy Head of Geotechnical Section
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Date Reported: 02/07/2021

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL14 6DL

Contact: Cezary Salwa
Site Address: Tetrosyl

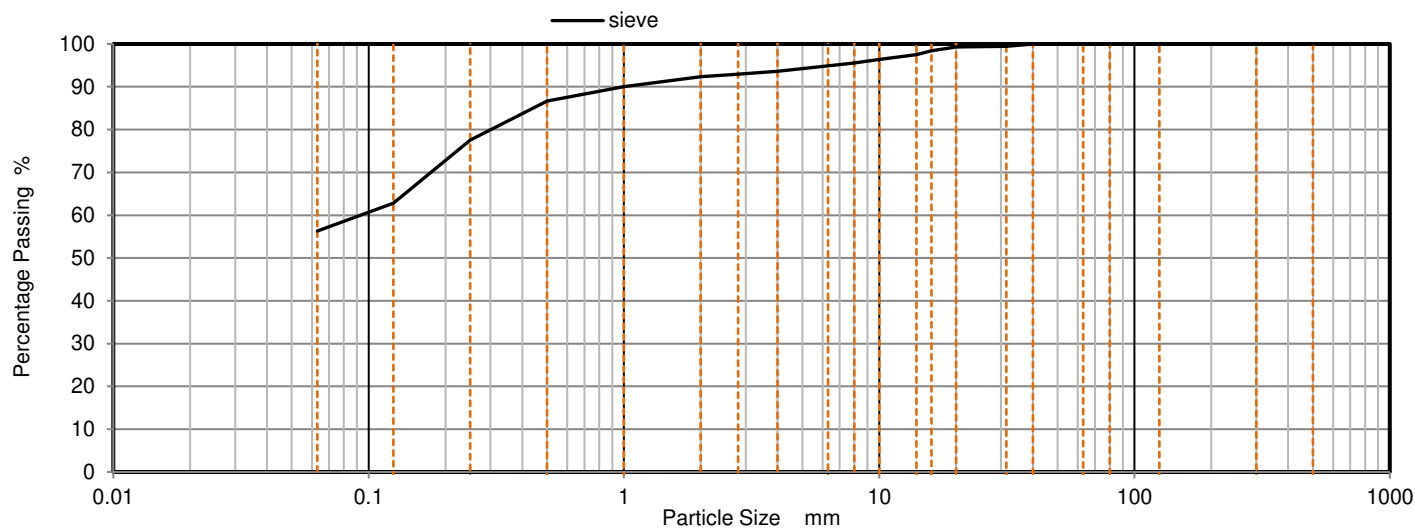
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 30/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899664
Hole No.: SP1 B24
Sample Reference: Not Given
Sample Description: Brown mottled grey gravelly slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	99		
20	99		
16	98		
14	98		
10	96		
8	96		
6.3	95		
4	94		
2.8	93		
2	92		
1	90		
0.5	87		
0.25	78		
0.125	63		
0.063	56.3		

Uniformity Coefficient [Cu]		> 1.5
D60	mm	0.093
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Date Reported: 02/07/2021

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

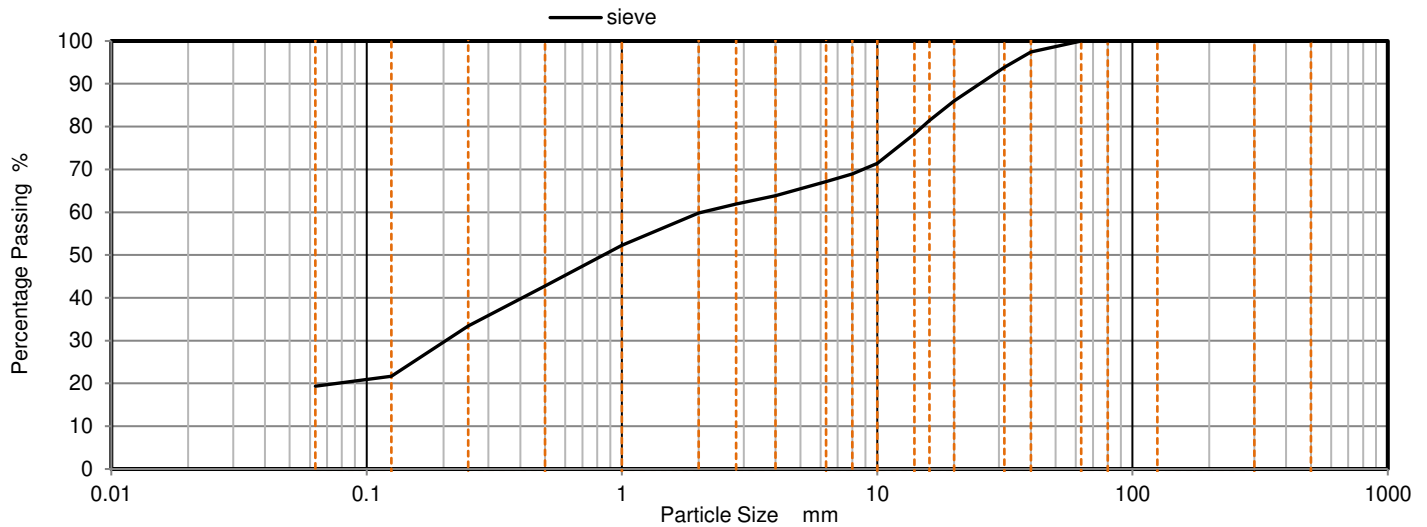
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1899665
Hole No.: SP1 B26
Sample Reference: Not Given
Sample Description: Brown gravelly clayey SAND
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	97		
31.5	94		
20	86		
16	81		
14	78		
10	71		
8	69		
6.3	67		
4	64		
2.8	62		
2	60		
1	52		
0.5	43		
0.25	33		
0.125	22		
0.063	19.4		

Uniformity Coefficient [Cu]		> 33
D60	mm	2.07
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

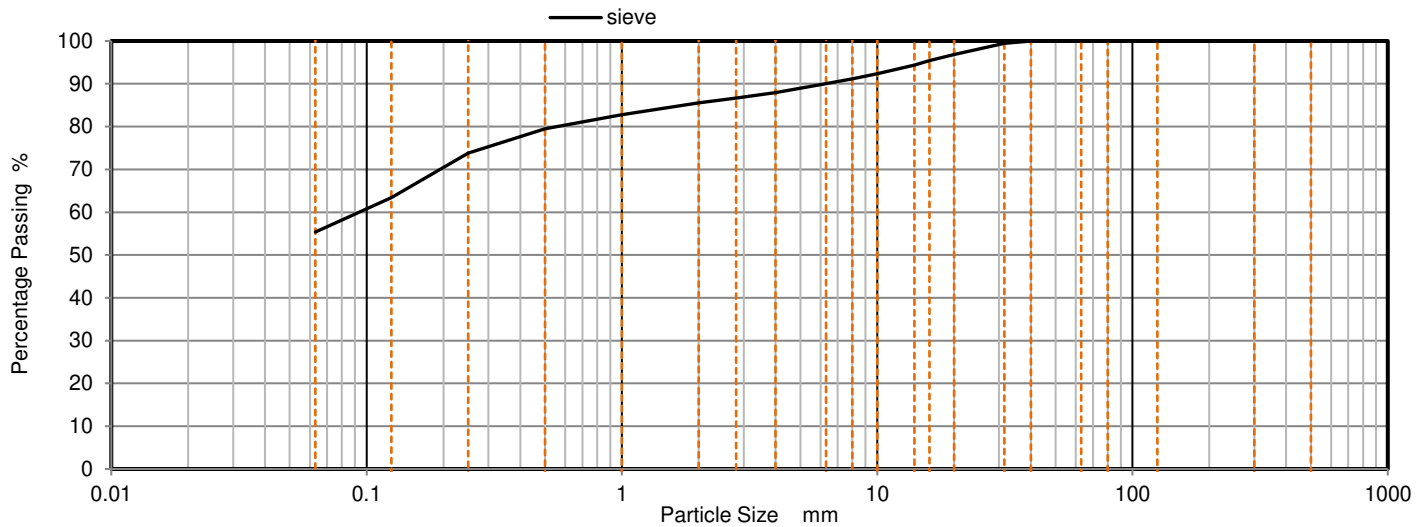
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 30/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1907545
Hole No.: TP6 B1
Sample Reference: Not Given
Sample Description: Brown gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	99		
20	97		
16	95		
14	94		
10	92		
8	91		
6.3	90		
4	88		
2.8	87		
2	86		
1	83		
0.5	80		
0.25	74		
0.125	63		
0.063	55.4		

Uniformity Coefficient [Cu]		> 1.5
D60	mm	0.0936
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 02/07/2021

GF 469.1



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

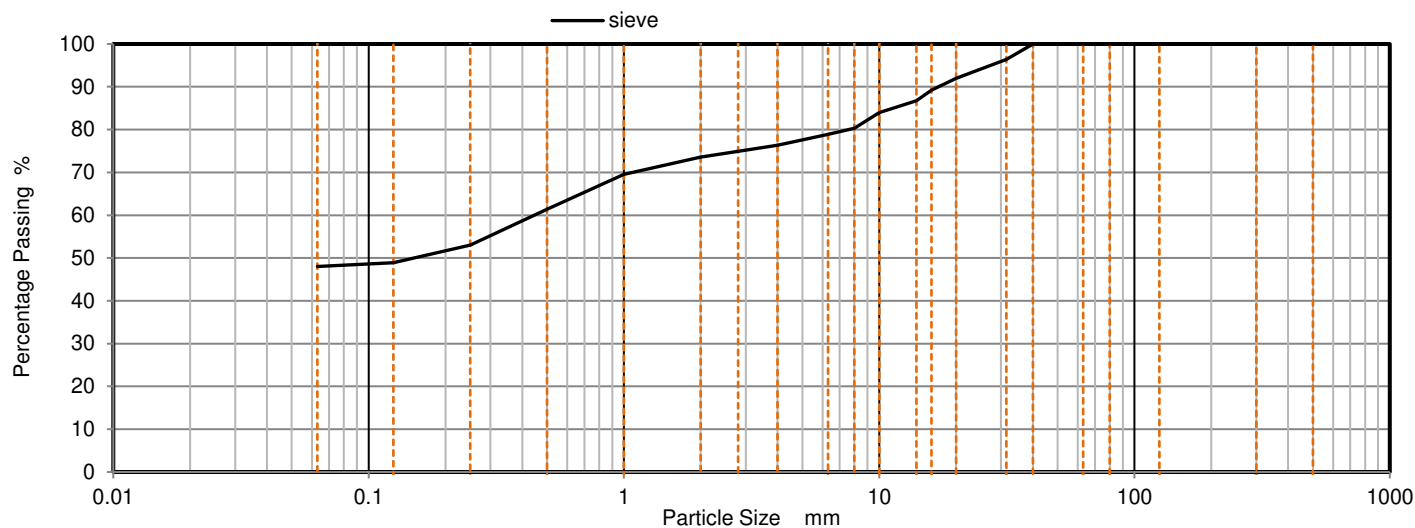
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 30/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1907546
Hole No.: TP6 B3
Sample Reference: Not Given
Sample Description: Mottled brown gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	96		
20	92		
16	89		
14	87		
10	84		
8	80		
6.3	79		
4	76		
2.8	75		
2	74		
1	70		
0.5	61		
0.25	53		
0.125	49		
0.063	48.0		

Uniformity Coefficient [Cu]		> 7.1
D60	mm	0.445
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

Remarks: Preliminary report

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

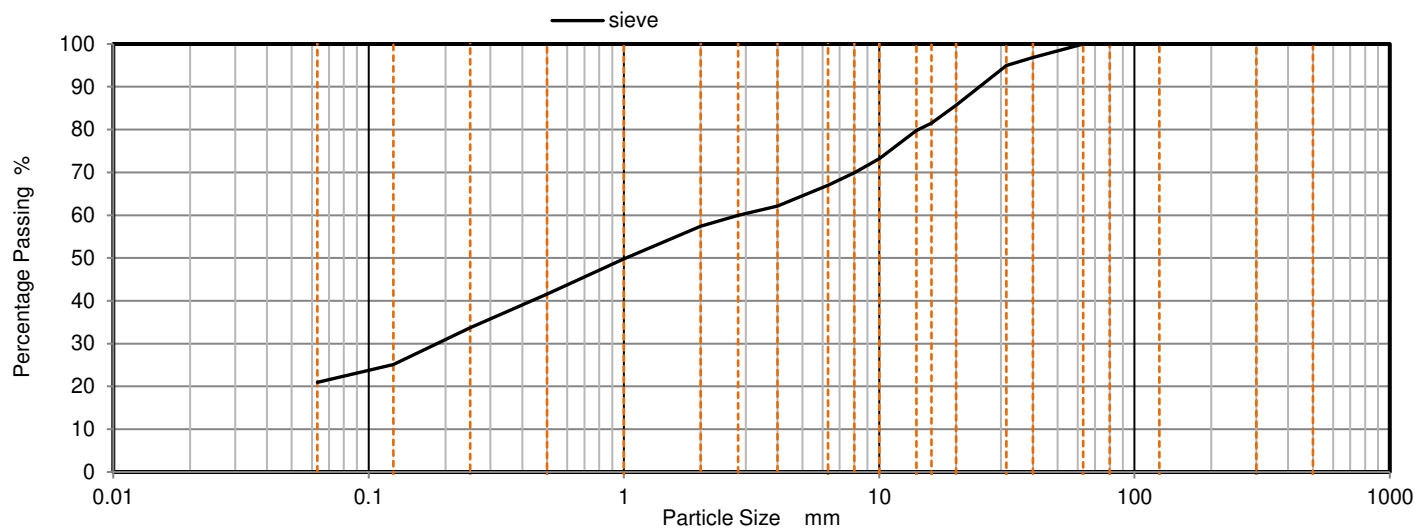
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1907547
Hole No.: SP1 B6
Sample Reference: Not Given
Sample Description: Brown clayey sandy GRAVEL
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	97		
31.5	95		
20	86		
16	81		
14	80		
10	73		
8	70		
6.3	67		
4	62		
2.8	60		
2	57		
1	50		
0.5	42		
0.25	34		
0.125	25		
0.063	20.9		

Uniformity Coefficient [Cu]		> 44
D60	mm	2.8
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

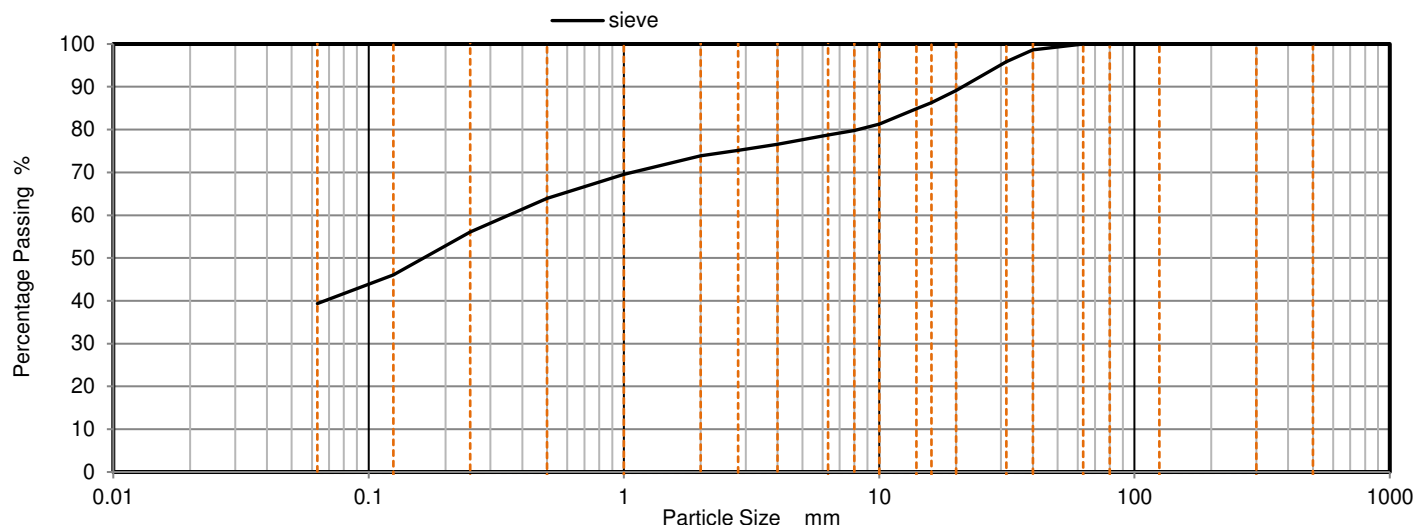
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1907548
Hole No.: SP1 B10
Sample Reference: Not Given
Sample Description: Brown gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.1 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	99		
31.5	96		
20	89		
16	86		
14	85		
10	81		
8	80		
6.3	79		
4	77		
2.8	75		
2	74		
1	70		
0.5	64		
0.25	56		
0.125	46		
0.063	39.4		

Uniformity Coefficient [Cu]		> 5.6
D60	mm	0.354
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL
Contact: Cezary Salwa
Site Address: Tetrosyl

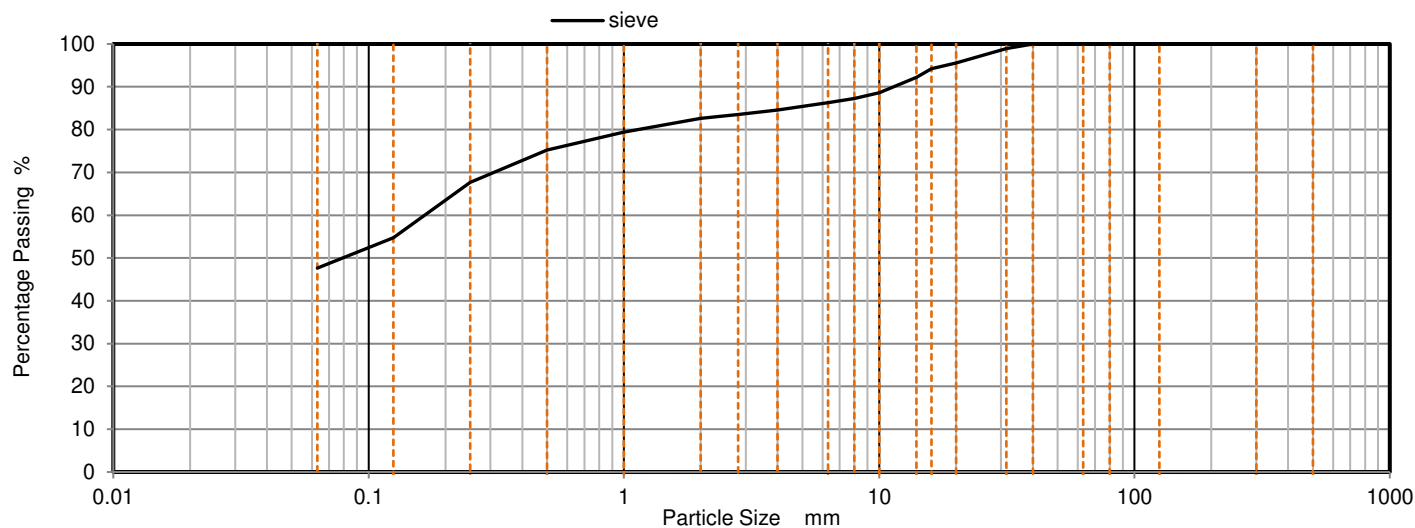
Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1907549
Hole No.: SP1 B12
Sample Reference: Not Given
Sample Description: Mottled gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	100		
31.5	99		
20	96		
16	94		
14	92		
10	89		
8	87		
6.3	86		
4	85		
2.8	84		
2	83		
1	79		
0.5	75		
0.25	68		
0.125	55		
0.063	47.6		

Uniformity Coefficient [Cu]		> 2.6
D60	mm	0.166
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1907550

Hole No.: SP1 B16

Sample Reference: Not Given

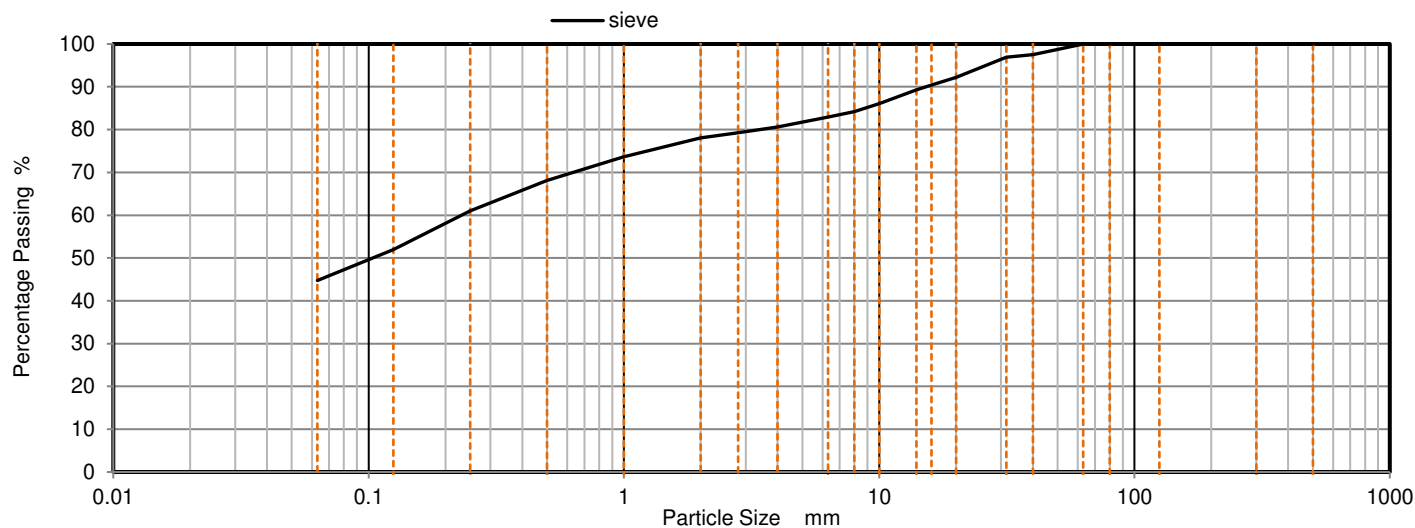
Sample Description: Mottled brown gravelly sandy CLAY

Sample Preparation: Sample was quartered, oven dried at 106.2 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given

Depth Base [m]: Not Given

Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	98		
31.5	97		
20	92		
16	90		
14	89		
10	86		
8	84		
6.3	83		
4	81		
2.8	79		
2	78		
1	74		
0.5	68		
0.25	61		
0.125	52		
0.063	44.7		

Uniformity Coefficient [Cu]		> 3.7
D60	mm	0.232
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Page 1 of 1

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PL Deputy Head of Geotechnical Section
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Date Reported: 02/07/2021

GF 469.1



4041

TEST CERTIFICATE

Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

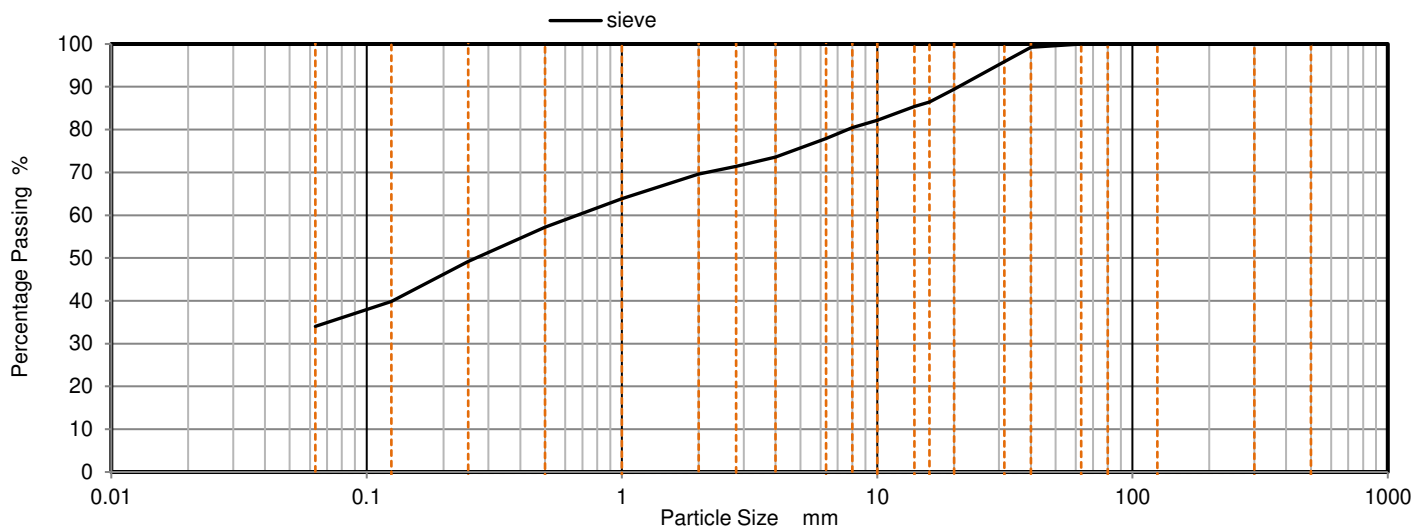
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1907551
Hole No.: SP1 B19
Sample Reference: Not Given
Sample Description: Brown gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	99		
31.5	96		
20	89		
16	86		
14	85		
10	82		
8	80		
6.3	78		
4	74		
2.8	71		
2	70		
1	64		
0.5	57		
0.25	49		
0.125	40		
0.063	34.0		

Uniformity Coefficient [Cu]		> 11
D60	mm	0.668
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Aggregates Particle Size Distribution -

Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL146DL

Contact: Cezary Salwa
Site Address: Tetrosyl

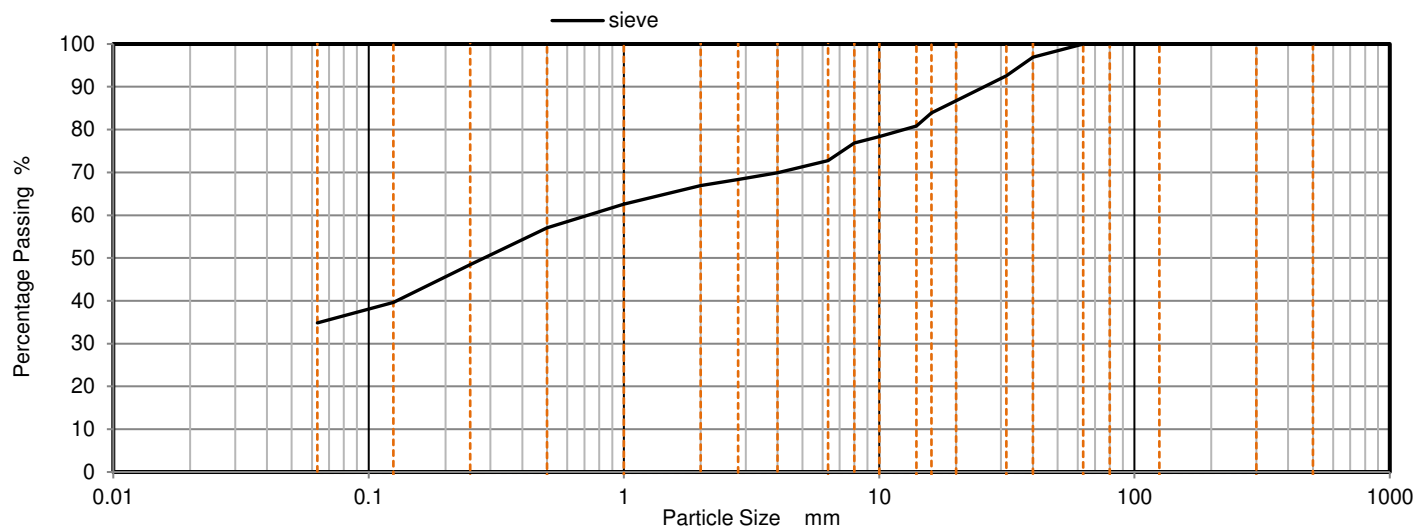
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: Not Given
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1907552
Hole No.: SP1 B25
Sample Reference: Not Given
Sample Description: Mottled brown gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: B



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	97		
31.5	93		
20	87		
16	84		
14	81		
10	78		
8	77		
6.3	73		
4	70		
2.8	68		
2	67		
1	63		
0.5	57		
0.25	48		
0.125	40		
0.063	34.8		

Uniformity Coefficient [Cu]		> 11
D60	mm	0.723
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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Northampton NN4 7EB



Aggregates Particle Size Distribution - Sieving method

Tested in Accordance with: BS EN 933-1: 2012

Client: Smith Grant LLP
Client Address: Station House, Station Road,
Ruabon, Wrexham,
LL14 6DL

Contact: Cezary Salwa
Site Address: Tetrosyl

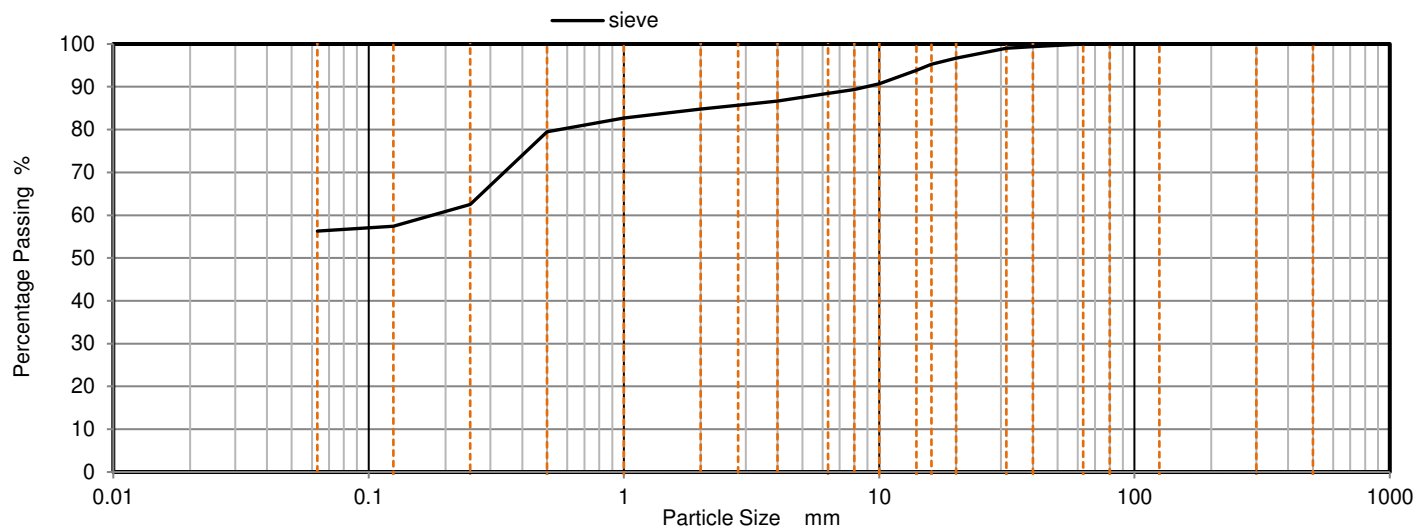
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: R2174C
Job Number: 21-80449
Date Sampled: 10/05/2021
Date Received: 20/05/2021
Date Tested: 23/06/2021
Sampled By: Client

Test Results:

Laboratory Reference: 1899662
Hole No.: SP1 B22
Sample Reference: Not Given
Sample Description: Greyish brown slightly sandy gravelly CLAY
Sample Preparation: Sample was quartered, oven dried at 106 °C and broken down by hand. Sample dried and washed.

Depth Top [m]: Not Given
Depth Base [m]: Not Given
Sample Type: D



Sieving		Material Type	
Particle Size mm	Passing %	Material Specification	Pass or Fail
500	100		
300	100		
125	100		
80	100		
63	100		
40	99		
31.5	99		
20	97		
16	95		
14	94		
10	91		
8	89		
6.3	88		
4	87		
2.8	86		
2	85		
1	83		
0.5	80		
0.25	63		
0.125	57		
0.063	56.3		

Uniformity Coefficient [Cu]		> 2.8
D60	mm	0.178
D10	mm	

Uniformity Coefficient calculated in accordance with
BS EN ISO 14688-2: 2004 + A1: 2013

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