



Coastal Quarter SHD 2

Stormwater Impact Assessment Report

Shankill Property Investments Limited

Sept 2022



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1. Introduction

The purpose of this Stormwater Impact Assessment report is to provide details of the Storm Water elements associated with the proposed development at Lands at the former Bray Golf Course lands.

The applicant intends to apply to An Bord Pleanála for permission for a Strategic Housing Development (SHD) comprising 586 no. residential units in a mix of apartments, duplexes and houses. In addition, a childcare facility, café, retail unit and 1 no. commercial unit (incorporating a gym and a juice bar) are proposed along with all associated and ancillary development and infrastructural works, hard and soft landscaping, open spaces, boundary treatment works, ancillary car and bicycle parking spaces at surface, undercroft and basement levels. The proposed houses and duplexes range in height from 2 – 3 storeys with the proposed 4 no. apartment blocks ranging in height from 3 – 12 storeys. Block A will accommodate 162 no. Build-to-Rent (BTR) units. It is proposed that 274 no. units will be located within the administrative area of Dun Laoghaire-Rathdown County Council and 312 no. units will be located within the administrative area of Wicklow County Council. The childcare facility, retail, café and commercial unit will all be located in the administrative area of Wicklow County Council.

Planning permission was granted on part of the subject site for 234 no. residential units, a childcare facility, café and retail unit subject to compliance with the terms of conditions attached to reference ABP-311181-21. The current proposed development includes the development as previously permitted under ABP-311181-21 including minor revisions chiefly addressing conditions and new proposals for Blocks A and B which were previously refused.

The site is generally bounded to the north by existing public open space at Corke Abbey Valley Park, to the east by the Irish Rail Dublin-Rosslare main rail line, to the south by the River Dargle and to the west by the remains of the former golf course lands and the existing Ravenswell school campus.

Figure 1-1 – Site Location



This report deals with the following aspects associated with this development:

- Existing Site
- Site Investigations
- Soil Type Classification
- Storm Water Drainage Design
- Sustainable urban Drainage Systems (SuDS)
- Flood Risk Assessment and Exceedance Flows
- SuDS Maintenance

1.1. Site Location

The proposed development site is located on the former Bray Golf Course lands. The total planning application area is 8.81ha.

The site location is indicated on Atkins drawing 5214419-ATK-01-ZZ-DR-CE-0001.

1.2. Existing Site Description

The proposed residential site and surrounding lands are moderate sloping from the highest point located to the North West of the site and falls gradually to the South East. The existing site elevations range from 11.50mOD to 1.50mOD. The site is currently accessed via the Ravenwell Primary school access road.

1.3. Principle Design Considerations

During the design of the storm water drainage for the proposed site, including SuDS, the following key documents / standards were taken into consideration;

- Bray Municipal District Local Area Plan (LAP)
- CIRIA report C753 The SuDS Manual-v6
- Dún Laoghaire Rathdown County Development Plan, 2022-2028
- Dún Laoghaire Rathdown Stormwater Management Policy
- Greater Dublin Strategic Drainage Study (GDSDS)
- Wicklow County Development Plan, 2016 – 2022

The proposed stormwater drainage has been developed in consultation with the relevant authorities including both Dún Laoghaire Rathdown County Council (DLRCC) & Wicklow County Council (WCC) Municipal services departments.

2. Surface Water Design

The storm drainage system has been designed in accordance with the key documents and standards listed in Section 1.3 above.

Surface water generated from the proposed residential development will be conveyed through a proposed surface water network including SuDS and attenuated / managed on site prior to final discharge at Qbar greenfield run-off rates. The restricted discharge from the proposed site will be conveyed via a new surface water sewer within the site before discharge to the receiving Dargle River. The proposed storm drainage network for the development is as indicated on the planning drawings 5214419-ATK-01-ZZ-DR-CE-0501 / 0502.

There has been minimal change to the surface water drainage design for the site submitted as part of this planning application to what was previously submitted under the partially granted planning application reference ABP-311181-21. The minimal changes relate only to the extents of green roofs across the scheme.

The responses to the comments received from ABP, DLRCC and WCC discussed within this report and included within the appendices are in respect to the pre-application consultation ref ABP-308291-20 on part of the subject site for the permitted development for 234 no. residential units, a childcare facility, café and retail unit ref ABP-311181-21. These responses in respect to this new planning application remain relevant and have been fully addressed as part of this planning submission comprising of 586 no. residential units in a mix of apartments, duplexes and houses within the same site boundary.

In accordance with the DLRCC Development Plan, a Stage 1 Stormwater Audit was carried out by Punch Consulting Engineers in May 2021 to support the previous planning application (ABP-311181-21). In advance of the previous application being submitted a full copy of the Audit was issued by Punch Consulting Engineering to DLRCC and WCC on May 10th, 2021.

Following the Stage 1 Stormwater Audit issued by Punch Consulting Engineering to DLRCC and WCC on May 10th 2021, further consultations between Atkins and both DLRCC and WCC had taken place. A number of additional observations received from DLRCC on the June 16th, 2021 (as outlined in appendix H) had been incorporated within the storm drainage design for the previous planning application which has now been carried over to this planning application.

Refer to Appendix A for a copy of the Stage 1 Stormwater Audit report received from Punch Consulting Engineers including comments and feedback.

The requirement for another Stage 1 Stormwater Audit was discussed with DLRCC in advance of submitting this application and it was agreed that a letter from Punch Consulting Engineering confirming that there was no significant change to the storm water drainage design would suffice. This letter was issued by Punch Consulting Engineering on September 6th, 2022 and is included within Appendix J of this report. In accordance with the DLRCC Development Plan 2022 – 2028 - Storm Water Management Policy, the Stormwater Audit Procedure Table has also been completed by both Atkins in coordination with the project Landscape Architects and reviewed as part of the Punch Consulting Engineering Audit. Refer to appendix I of this report for the Stormwater Audit Procedure Table.

The proposed measures included within the design are as follows:

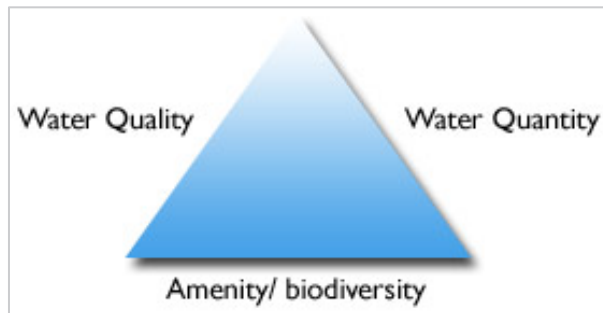
- Swales within Open Space / Park areas adjacent to roads
- Permeable paving in light traffic areas (parking bays)
- Green roofs to suitable apartment blocks
- Green courtyards to suitable apartment blocks
- Underground modular system within green corridors / park areas

- Sealed underground concrete attenuation tank
- Filter drains in rear gardens
- Tree pits
- Vortex flow control devices

2.1. Proposed Sustainable Urban Drainage (SuDS) Strategy

For the proposed development a “SuDS triangle” was utilised to ensure all three functions are provided for within the SuDS strategy.

Figure 2-1 - SuDS Triangle

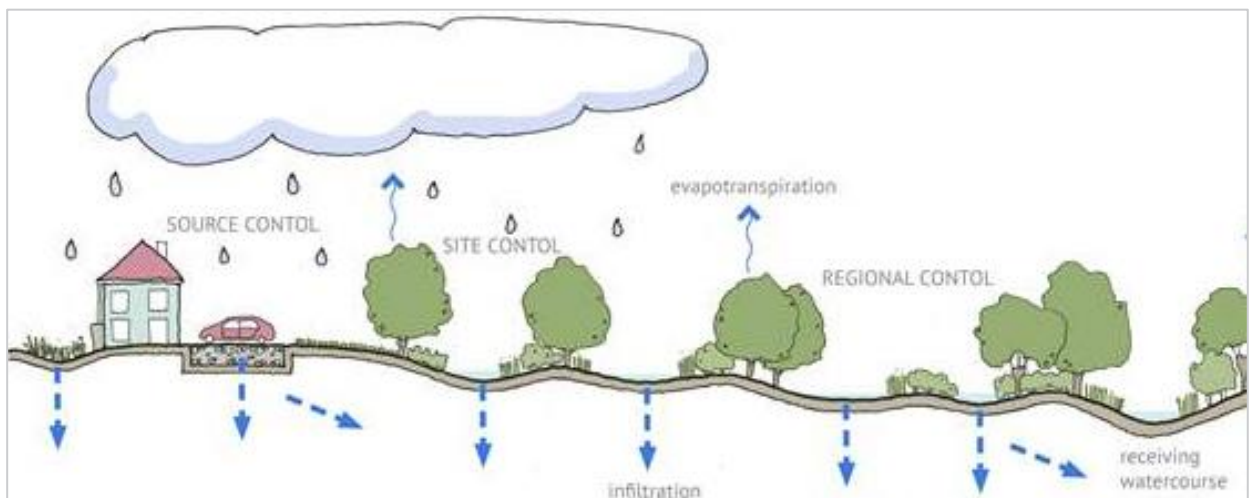


By considering the three functions of the triangle, a SuDS system will allow for water quality treatment through natural processes by;

- Encouraging infiltration (where appropriate) and attenuating peak flows
- Improving water quality by providing treatment to storm water prior to discharge
- Providing habitat and function where possible for those using the area (including wildlife)

The principles of a SuDS treatment train were used during the design of the surface water drainage system. The treatment train as illustrated in the image below provides an understanding of prevention and source control to reduced water run-off from a site and improve water quality.

Figure 2-2 - SuDS Treatment Train



The treatment train principles include;

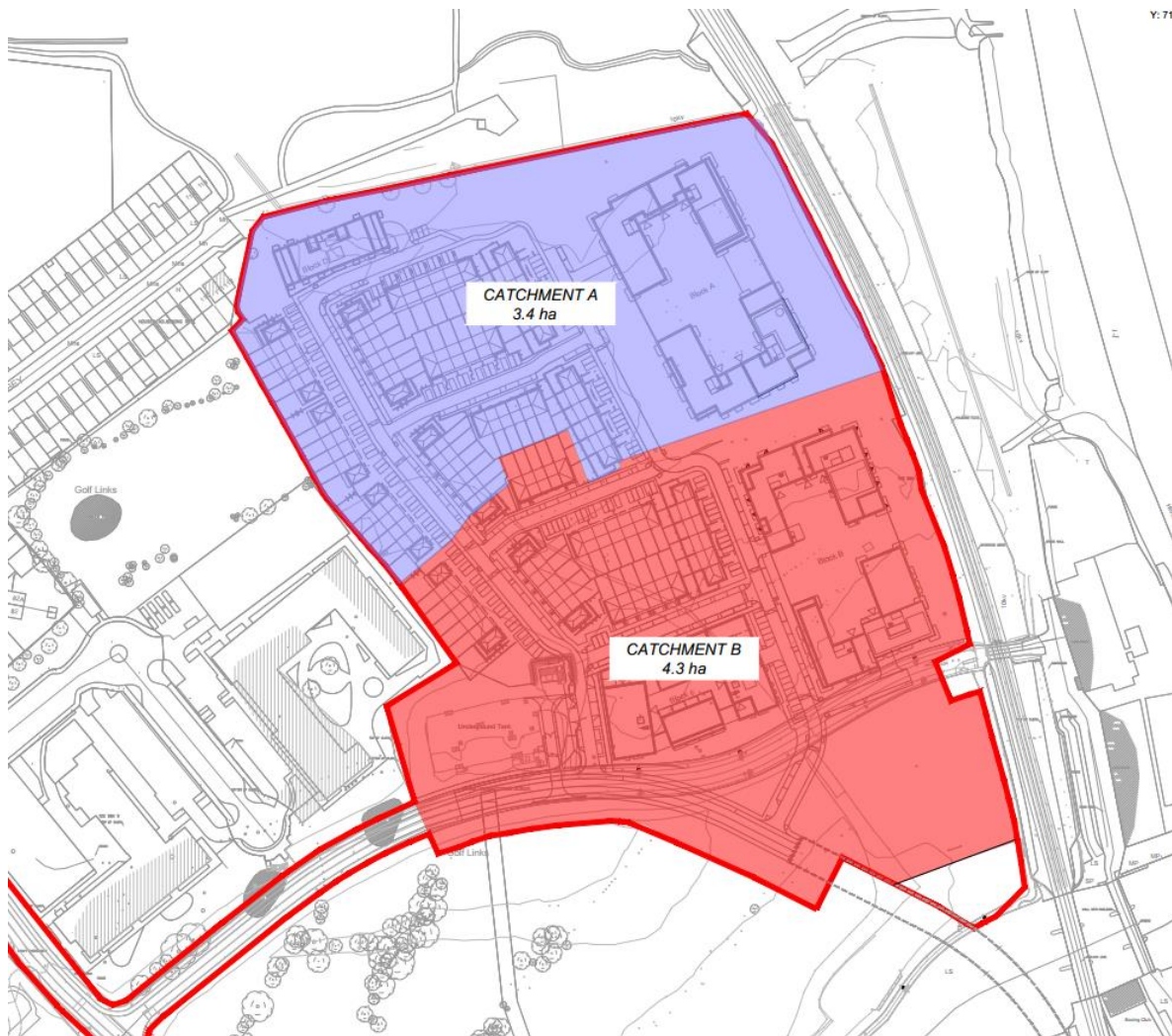
- Prevention of surface water run-off from the proposed site by use of filter drains, swales, permeable paving, tree pits, extensive green roofs, intensive green courtyards and modular attenuation systems with a permeable base (where appropriate)
- Minimising impermeable paved areas using permeable paving, extensive green roofs, intensive green courtyards and modular grass road proprietary product.
- Infiltration by use of filter drains, swales, permeable paving and tree pits.
- Site control using underground modular attenuation storage and vortex flow control devices to manage flows and agreed final Qbar runoff rate.
- Storm water runoff from the site will be treated through the use of a Bypass Interceptor prior to discharge to the receiving watercourse.

Each of the items outlined above will help to improve water quality, reduce storm water runoff quantity from the proposed site and ensure that there is no increased risk to downstream flooding where discharging to the Dargle River.

Drawings 5214419-ATK-01-ZZ-DR-CE-0501 / 0502 & 5214419-ATK-01-ZZ-DR-CE-0510 / 0511 inclusive outline the proposed details of the storm-water network and longitudinal sections for the proposed development.

For the purposes of designing the storm water network for the entire development and including associated Qbar calculations a total overall catchment area of circa 7.7ha has been calculated as indicated below in Figure 2-3.

Figure 2-3 - Drainage Catchment Areas



There are 2 No. proposed drainage sub-catchment areas (Catchments A & B) within the proposed development for the purpose of site control as outlined on planning drawing 5214419-ATK-01-ZZ-DR-CE-0503. The catchments are segregated by use of a vortex control device to limit / manage discharge from each catchment. Section 7 of this report provides further details on catchment areas.

The SuDS techniques proposed within the development are as outlined below:

- Swales are to be used within the site as conveyance systems for surface water runoff from sections of road, footpaths or shared surfaces. Discharge into the swale will be via drop kerbs / side inlet gully's or over edge flows.
- Permeable paving will be used in light traffic areas to the front of residential units. The permeable paving will allow for attenuation, infiltration to ground, reduction of peak flow rates and improved water quality. Roof run-off from the front roof area of residential housing units will discharge directly into the subbase below each permeable paving area allowing for reduced runoff from these roof areas.
- Extensive green roof and intensive green courtyards will be provided on suitable buildings as indicated on drawing 5193890-ATK-01-ZZ-DR-CE-0601 in accordance with DLRCC Development Plan, 2022 – 2028 Appendix 7.2 Green Roof Policy. The green roofs / courtyards will provide reduced peak flow rates, attenuation, evaporation and improved water quality.
- Underground modular system will be used within the public green corridor in catchment A. The modular system will allow for storm water attenuation underground for storm events up to 1 in 100-year events. The modular systems will also allow for infiltration to ground. In coordination with the project Landscape Architects, some trees have been located above in local mounded areas and adjacent to the underground modular system. The proposed underground modular

system is enclosed with crushed angular rock which is then wrapped whole with a non-woven geotextile. This geotextile is similar to that used when growing trees to prevent root invasion. The manufacture of the notes that the chamber and stone bed is dry over 95% of the time and roots tree roots would follow the path of water in the naturally mineral rich soil above and sides of the tank. Similar underground modular system with some trees have been located above in local mounded areas and adjacent to the underground modular system have been deemed acceptable in DLRCC area. It is noted that in the unlikely event of repairs works required to the underground tank, it is possible that a number of tree would need to be removed.

- Concrete underground attenuation tank will be used within the public park area in catchment B. The tank will allow for storm water attenuation underground for storm events up to 1 in 100-year events. Due to the location of the tank within an existing flood zone, the tank and access chambers / manholes will be sealed to ensure the attenuation volume is available during storm events if flooding of the area was to occur, this approach has been agreed in discussions with WCC. The concrete tank will not allow for infiltration to ground. The tank location was previously justified and permitted under planning application ref ABP-311181-21 following the justification of Item 'Water Services 5' of An Bord Pleanála Opinion ABP-308291-20, Items 5.4 & 5.5 of the Inspector's Report and Item WCC 11 of the WCC Inspector's Report. Refer to Appendix G to view the comments received, Atkins' responses and where other Items have been incorporated into our design.
- Filter drains within rear gardens of the housing units will allow for infiltration to ground, reduced peak flow rates and improved water quality. Only roof run-off from the rear roof of the residential unit will discharge into the filter drain. The filter drain will allow for infiltration to ground and reduce the overall site runoff.
- Vortex flow control devices will be used throughout the site to allow for storm water control and reduce peak runoff.

The storm water drainage network will be assessed for compliance with the key design parameters as set out in Table 2-1 below.

Table 2-1 – Key Design Parameters

Parameter	Value/Requirement
Minimum depth	1.2m cover under highways 0.9m elsewhere*
Maximum depth	5.0m
Minimum sewer size for main drainage	225mm
DLRCC Municipal services agreed coefficient runoff factors for pipe sizing and storage requirements	100% - Roads / Cycle tracks / Footpaths / Roofs (when discharging directly to storm drainage network) 75% - Roads / Cycle tracks / Footpaths / Roofs when discharging directly swales, tree pits and filter drains 60% - Roads / Cycle tracks / Footpaths / Roofs when discharging directly to permeable paving 85% - Extensive Green Roof (> 150mm thk.) 70% - Intensive Green Courtyard (landscape courtyard areas with soil > 500mm thk.)
Max. velocity at pipe full	3.0 m/s
Min. velocity in	0.75 m/s (1.0 m/s used where achievable)
Roughness	0.6mm
Agreed maximum discharge rate	45.87 l/s at final discharge location (45.87 l/s/7.7ha** = 7.63 l/s/ha)
Level of Service Critical Storm 1 in 2 yr return period	No surcharge within the pipe network, no flooding

Level of Service Critical Storm 1 in 30 yr return period	Surcharge allowed, no flooding
Level of Service Critical Storm 1 in 100 yr return period	No flooding unless planned and contained on site.

**Without recourse to concrete. Absolute minimum cover in roads is 0.9m. Pipes with cover between 0.9m and 1.2m shall be bedded and surrounded in concrete, 150mm thick, Class E, in accordance with Clause 1502 of the Specification for Roadworks.*

***Overall catchment area for storm water design purposes is 7.7ha as discussed in Section 2.1 above.*

“Micro Drainage”, which is an industry standard tool for the design and assessment of gravity sewer drainage networks, has been used to simulate the proposed storm drainage network including flow controls and attenuation requirements. Outputs from the model for the proposed storm network are contained in Appendix B of this report.

3. Site Investigations

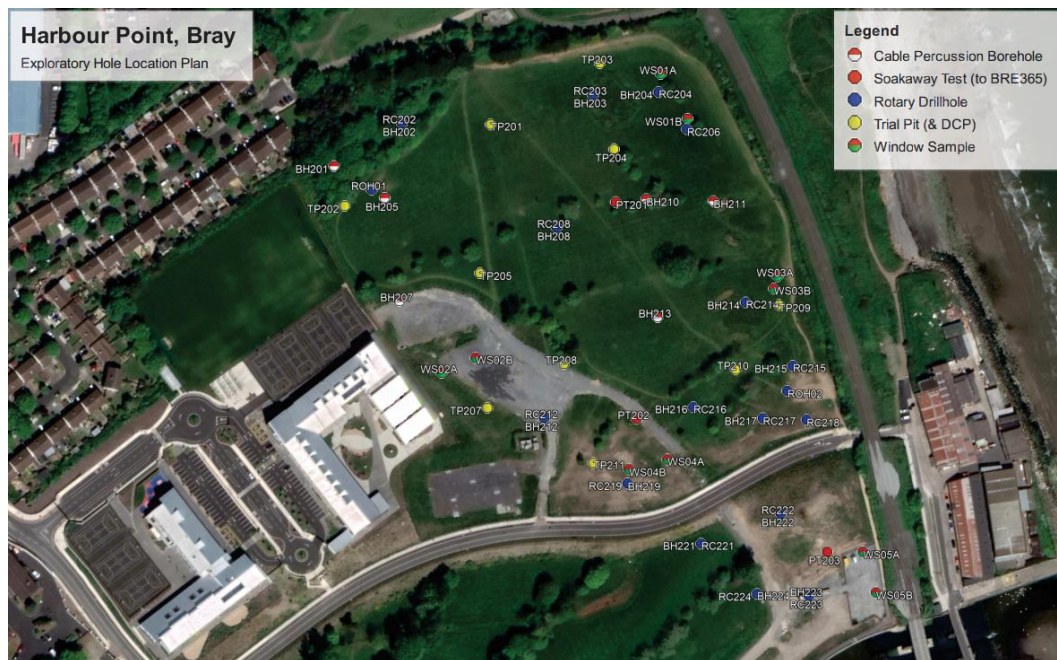
Site Investigations were carried out by IGSL in September 2020 with final factual report issued in February 2021. Full details of the ground investigation are presented in the 'Harbour Point Bray Ground Investigation Report – Factual' prepared by IGSL (2021) and presented in Appendix 9.1, Volume 3 of the EIAR (Atkins, 2022).

The purpose of the site investigation was to investigate subsurface conditions utilising a variety of investigative methods. The scope of the site investigation works undertaken for this project included the following:

- 10 No. Trial Pits to a maximum depth of 3.0m BGL
- 23 No. Cable Percussion Boreholes to a maximum depth of 14.5m BGL
- 19 No. Rotary Core Drill holes
- 10 No. Window Sampling / Driven Sampling to a depth of 3.90m BGL
- 3 No. Soakaways to determine a soil infiltration value to BRE digest 365
- 10 No. Dynamic Cone Penetrometer to a depth of 0.60m BGL
- Groundwater monitoring
- Gas monitoring
- Surveying of Exploratory Hole Locations

Ground water levels are indicted in the Trial Pits records in Appendix 1 and Soakaway Test Records in Appendix 5 of the IGSL factual report, included within Appendix C.

Figure 3-1 - SI Testing Locations



Review of the SI results including Cable Percussion Boreholes (BH) logs and Trial Pits (TP) indicated no ground water was encountered.

The location of trial pits, ground levels and ground water levels are indicated on the storm water layout drawing 5214419-ATK-01-ZZ-DR-CE-0501 / 0502.

Based on the information contained within the IGSL report, there will be no perceptible impacts from groundwater levels on proposed SuDS throughout the site.

4. Existing Site Hydrology

No existing waterbodies traverse the site as indicated in Figure 4-1 below. A review of Historical Ordnance Survey Ireland information (www.osi.ie) was then carried out to determine if the OSI 6-inch Maps indicated historic water courses / surface water features within the site. The maps do not indicate any record of a water course onsite.

The Crinken \ Rathmichael Stream is located to the North of the proposed development. The stream flows under the existing Irish Rail railway line and discharges into the Irish Sea.

The Dargle River is located to the Southern boundary of the proposed development. The River flows into Bray Harbour. The River Dargle Flood Defence scheme is in place along the river and is discussed further in the Atkins Flood Risk Assessment.

Lands within the proposed development have been designed to discharge into the Dargle River at a restricted rate as discussed further later in this report.

Figure 4-1 - Site Hydrology Overview



5. Soil Type Classification

To determine the allowable Qbar discharge rate from the proposed site, the SOIL value for the existing site was classified using the 'Winter Rain Acceptance Potential classification' Table 2.1 from the Institute of Hydrology Report No. 126, see Figure 5-1 below.

Figure 5-1 - WRAP Table

Water regime class	Depth to Impermeable horizon (cm)	Slope Classes									
		< 2°			2-8°			> 8°			
		Permeability class (above impermeable horizon)									
		Rapid	Medium	Slow	Rapid	Medium	Slow	Rapid	Medium	Slow	
1	> 80	1			1			2	1	2	3
	80-40	1			2			3			4
	< 40	-			-			-			
2	> 80	2	3			-			-		
	80-40	3			4			-			
	< 40	3	-			-			-		
3	> 80	-			5			-			
	80-40	-			5			-			
	< 40	-			-			-			

Winter Rain Acceptance Class	Winter Run-off Potential
1 Very high	1 Very Low
2 High	2 Low
3 Moderate	3 Moderate
4 Low	4 High
5 Very low	5 Very high

The table considers four main soil and site properties which include:

- Soil water regime
- Depth to an impermeable layer
- Slope class
- Permeability of the soil horizons above the impermeable layer

5.1. Soil Water Regime

The water regime class is taken from the Soil Survey Field Handbook (Hodgson 1974). The classes are identified as:

Figure 5-2 - Water Regime Classes

- 1) soils rarely waterlogged within 40 cm depth, and for less than 90 days within 70 cm in most years,
- 2) soils commonly waterlogged within 40 cm, but for less than 335 days within 70 cm in most years, and
- 3) soils waterlogged within 40 cm for more than 180 days, and for more than 335 days within 70 cm in most years.

Following a review of the site Investigations Bore Hole Logs a ranging depth of topsoil was found to be between 100mm and 300mm with the average depth of 200mm.

Due to the maximum depth of the topsoil (200mm thick.) and the depth to impermeable layer discussed in Section 5.2 below, it was determined that water regime Class 2 “soils commonly waterlogged within 40cm, but for less than 335 days within the 70mm in most years” is the most suitable selection for this site.

5.2. Depth to an Impermeable Layer

Below the topsoil the existing strata was classified as sandy gravelly SILT/CLAY.

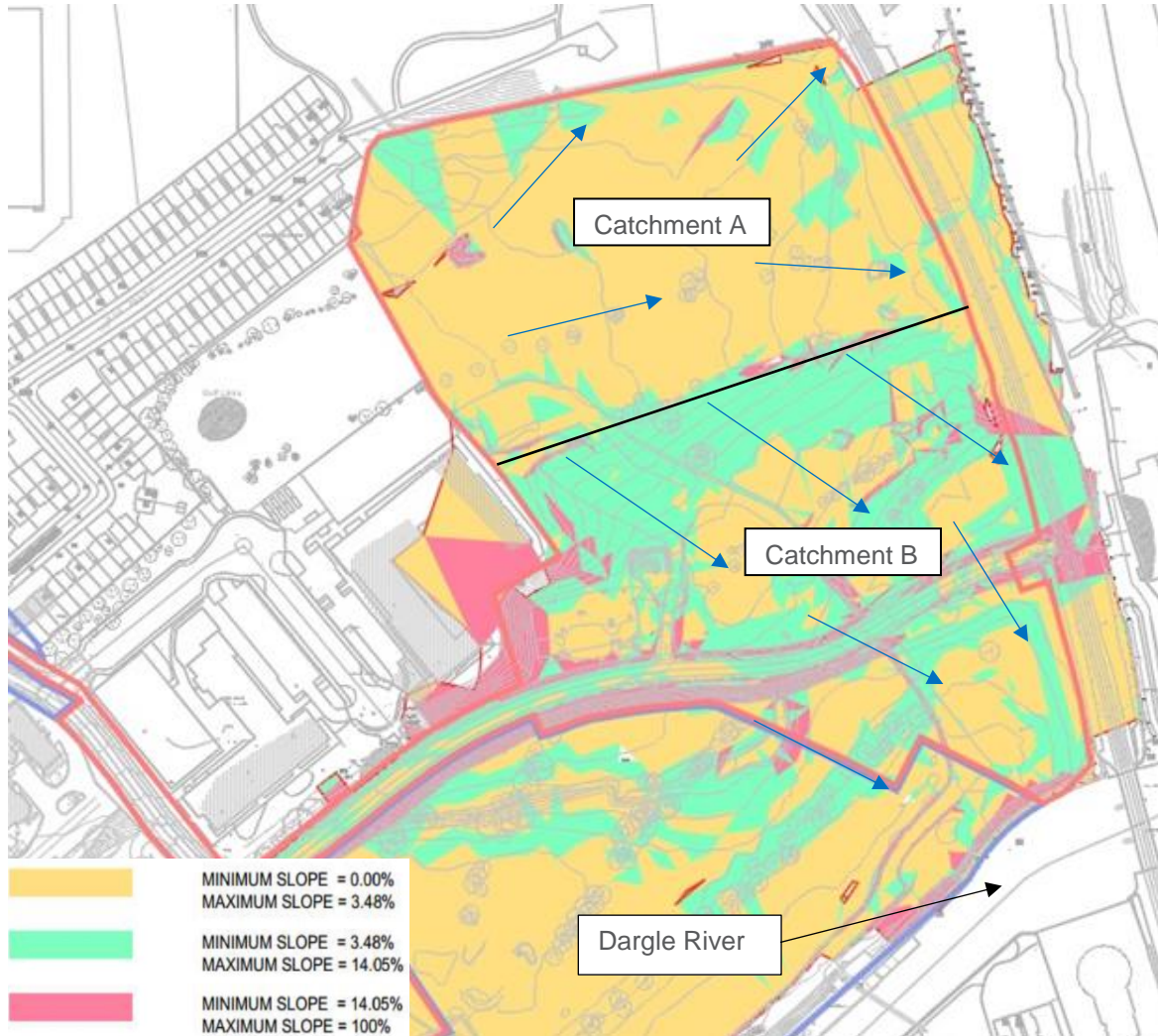
The Institute of Hydrology Report No. 126 outlines that “an impermeable layer is defined as a layer with a hydraulic conductivity of less than 0.1 m/day”.

Based on this information with predominant soil type for each of the soakaway tests being SILT/CLAY, the depth to an impermeable layer is determined to be located circa 200mm below surface level or at the underside of the topsoil or, accordance with the WRAP table a depth to impermeable horizon of <40cm.

5.3. Slope Class

Following a review of the topographical survey a 3D heatmap model of the existing site gradients was generated. The 3D model allowed for identification of the slopes on site between the ranges set out in the 'Winter Rain Acceptance Potential classification', see Figure 5-3 below for slope classifications.

Figure 5-3 – Site Slope Classification



The site will be split into two catchments, one to the north (A) and a second to the south (B). The majority of the Catchment A has a slope below 2 degrees, as indicated in yellow, with some areas having a slope of between 2 – 8 degrees. For this assessment based on the predominate, a slope of below 2 degrees slope will therefore be used for Catchment A.

Meanwhile, Catchment B has a slope between 2 – 8 degrees as indicated in green. It is noted however that parts of the site have a slope of < 2 degrees indicated in yellow with some minor areas having a slope of > 8 degrees indicated in red. For this assessment based on the predominate, a slope of between 2 - 8 degrees slope will therefore be used for Catchment B.

It is noted that the approximate location of the split between the 2 catchments is similar to that of the county boundary line between DLRCC and WCC.

5.4. Permeability Class

The Handbook of Soils for Landscape Architects by Robert F. Keeler Table 6.1 provides a soil characterisation for permeability from slow to rapid as outlined in Figure 5-4 below:

Figure 5-4 - Permeability Classifications

Permeability Class	Rate of Flow (inches per hour)
Very slow	Less than 0.06
Slow	0.06–0.2
Moderately slow	0.2–0.6
Moderate	0.6–2.0
Moderately rapid	2.0–6.0
Rapid	6.0–20.0
Very rapid	More than 20

From review of the site investigations report, the strata are identified as SILT/CLAY. As indicated below and set out in table 25.1 of the CIRIA SuDS Manual, the expected Infiltration coefficients would be between 1×10^{-8} & 1×10^{-6} m/s. These rates are equivalent to 0.0014 & 0.141 inch / hour.

Figure 5-5 – Typical Infiltration Coefficients

Soil type/texture	ISO 14688-1 description (after Blake, 2010)	Typical infiltration coefficients (m/s)
Good infiltration media		
• gravel	Sandy GRAVEL	$3 \times 10^{-4} - 3 \times 10^{-2}$
• sand	Slightly silty slightly clayey SAND	$1 \times 10^{-5} - 5 \times 10^{-5}$
• loamy sand	Silty slightly clayey SAND	$1 \times 10^{-4} - 3 \times 10^{-5}$
• sandy loam	Silty clayey SAND	$1 \times 10^{-7} - 1 \times 10^{-5}$
Poor infiltration media		
• loam	Very silty clayey SAND	$1 \times 10^{-7} - 5 \times 10^{-6}$
• silt loam	Very sandy clayey SILT	$1 \times 10^{-7} - 1 \times 10^{-5}$
• chalk (structureless)	N/A	$3 \times 10^{-8} - 3 \times 10^{-6}$
• sandy clay loam	Very clayey silty SAND	$3 \times 10^{-10} - 3 \times 10^{-7}$
Very poor infiltration media		
• silty clay loam	–	$1 \times 10^{-8} - 1 \times 10^{-6}$
• clay	Can be any texture of soil described above	$< 3 \times 10^{-8}$
• till		$3 \times 10^{-9} - 3 \times 10^{-6}$
Other		
• rock* (note mass infiltration capacity will depend on the type of rock and the extent and nature of discontinuities and any infill)	N/A	$3 \times 10^{-9} - 3 \times 10^{-5}$

Based on the more onerous values above it is determined that permeability class is 'Slow'.

5.5. Soil Type Classification

Figure 5-6 - Catchment A Soil Type Classification

Water regime class	Depth to Impermeable horizon (cm)	Slope Classes									
		< 2°			2-8°			> 8°			
		Permeability class (above impermeable horizon)									
	Rapid	Medium	Slow	Rapid	Medium	Slow	Rapid	Medium	Slow		
1	> 80	1			1			2	1	2	3
	80-40	1			2			3			
	< 40	-			-			-			
2	> 80	2			3			-			
	80-40	2			4			-			
	< 40	3			4			-			
3	> 80	-			5			-			
	80-40	-			5			-			
	< 40	-			5			-			

Winter Rain Acceptance Class		Winter Run-off Potential	
1	Very high	1	Very Low
2	High	2	Low
3	Moderate	3	Moderate
4	Low	4	High
5	Very low	5	Very high

Figure 5-7 - Catchment B Soil Type Classification

Water regime class	Depth to Impermeable horizon (cm)	Slope Classes									
		< 2°			2-8°			> 8°			
		Permeability class (above impermeable horizon)									
	Rapid	Medium	Slow	Rapid	Medium	Slow	Rapid	Medium	Slow		
1	> 80	1			1			2	1	2	3
	80-40	1			2			3			
	< 40	-			-			-			
2	> 80	2			3			-			
	80-40	2			4			-			
	< 40	3			4			-			
3	> 80	-			5			-			
	80-40	-			5			-			
	< 40	-			5			-			

Winter Rain Acceptance Class		Winter Run-off Potential	
1	Very high	1	Very Low
2	High	2	Low
3	Moderate	3	Moderate
4	Low	4	High
5	Very low	5	Very high

Based on the above Figure 2.5 & Figure 2.6, catchments A & B have been classified as Soil Type 4 for the purpose of Qbar discharge rate calculations.

6. Surface Water Storage Requirements

The www.uksuds.com surface water storage volume estimation tool was used to determine the maximum Qbar discharge rate from the site for a 1 in 100-year storm event. Site specific data was confirmed using Met Eireann rainfall data as indicated below;

Figure 6-1 – Met Eireann Rainfall Data

Met Eireann
Return Period Rainfall Depths for sliding Durations
Irish Grid: Easting: 326619, Northing: 219487,

DURATION	Interval 6months, 1year,	Years														
		2,	3,	4,	5,	10,	20,	30,	50,	75,	100,	150,	200,	250,	500,	
5 mins	2.8, 3.9,	4.4,	5.3,	5.9,	6.3,	7.7,	9.3,	10.4,	11.8,	13.1,	14.1,	15.6,	16.8,	17.8,	N/A,	
10 mins	3.9, 5.4,	6.2,	7.4,	8.2,	8.8,	10.8,	13.0,	14.4,	16.5,	18.3,	19.6,	21.8,	23.4,	24.8,	N/A,	
15 mins	4.6, 6.4,	7.3,	8.7,	9.6,	10.3,	12.7,	15.3,	17.0,	19.4,	21.5,	23.1,	25.6,	27.5,	29.1,	N/A,	
30 mins	6.1, 8.3,	9.5,	11.2,	12.3,	13.2,	16.0,	19.2,	21.3,	24.1,	26.6,	28.6,	31.5,	33.8,	35.7,	N/A,	
1 hours	8.0, 10.8,	12.3,	14.4,	15.8,	16.9,	20.3,	24.2,	26.6,	30.0,	33.0,	35.3,	38.8,	41.5,	43.7,	N/A,	
2 hours	10.6, 14.1,	15.9,	18.5,	20.3,	21.6,	25.8,	30.4,	33.3,	37.4,	41.0,	43.7,	47.8,	50.9,	53.5,	N/A,	
3 hours	12.5, 16.5,	18.5,	21.5,	23.4,	24.9,	29.6,	34.7,	38.0,	42.5,	46.5,	49.4,	53.9,	57.4,	60.2,	N/A,	
4 hours	14.1, 18.4,	20.6,	23.9,	26.0,	27.6,	32.7,	38.2,	41.7,	46.6,	50.8,	54.0,	58.8,	62.5,	65.5,	N/A,	
6 hours	16.5, 21.5,	24.0,	27.7,	30.0,	31.8,	37.5,	43.7,	47.6,	53.0,	57.6,	61.1,	66.4,	70.4,	73.7,	N/A,	
9 hours	19.5, 25.1,	28.0,	32.1,	34.7,	36.8,	43.1,	50.0,	54.3,	60.2,	65.3,	69.2,	75.0,	79.4,	83.0,	N/A,	
12 hours	21.9, 28.0,	31.1,	35.6,	38.5,	40.7,	47.6,	55.0,	59.6,	66.0,	71.4,	75.6,	81.8,	86.4,	90.3,	N/A,	
18 hours	25.8, 32.8,	36.3,	41.3,	44.5,	47.0,	54.7,	62.8,	68.0,	75.0,	81.0,	85.5,	92.3,	97.5,	101.6,	N/A,	
24 hours	28.9, 36.6,	40.4,	45.8,	49.4,	50.0,	60.3,	69.1,	74.7,	82.2,	88.6,	93.4,	100.7,	106.1,	110.5,	125.5,	
2 days	36.5, 45.4,	49.7,	55.9,	59.8,	62.8,	72.0,	81.6,	87.6,	95.7,	102.6,	107.8,	115.5,	121.2,	125.9,	141.5,	
3 days	42.7, 52.5,	57.3,	64.0,	68.3,	71.5,	81.4,	91.7,	98.2,	106.8,	114.1,	119.5,	127.6,	133.7,	138.5,	154.9,	
4 days	48.1, 58.7,	63.8,	71.0,	75.6,	79.1,	89.6,	100.6,	107.3,	116.4,	124.0,	129.7,	138.2,	144.5,	149.6,	166.5,	
6 days	57.7, 69.6,	75.4,	83.4,	88.5,	92.3,	103.9,	115.9,	123.3,	133.1,	141.3,	147.5,	156.6,	163.3,	168.8,	186.8,	
8 days	66.1, 79.2,	85.5,	94.3,	99.8,	103.9,	116.4,	129.3,	137.2,	147.6,	156.4,	162.9,	172.6,	179.7,	185.5,	204.4,	
10 days	74.0, 88.1,	94.8,	104.2,	110.1,	114.5,	127.8,	141.4,	149.8,	160.8,	170.1,	176.9,	187.0,	194.5,	200.5,	220.4,	
12 days	81.3, 96.3,	103.5,	113.4,	119.7,	124.3,	138.4,	152.7,	161.5,	173.0,	182.7,	189.9,	200.4,	208.2,	214.5,	235.1,	
16 days	94.9, 111.6,	119.6,	130.5,	137.4,	142.4,	157.8,	173.4,	182.9,	195.4,	205.8,	213.5,	224.8,	233.2,	239.9,	261.9,	
20 days	107.5, 125.8,	134.4,	146.2,	153.6,	159.1,	175.6,	192.3,	202.4,	215.8,	226.9,	235.1,	247.0,	255.9,	263.0,	286.2,	
25 days	122.4, 142.3,	151.7,	164.6,	172.6,	178.5,	196.3,	214.2,	225.1,	239.3,	251.2,	259.9,	272.6,	282.0,	289.5,	314.1,	

NOTES:
N/A Data not available
These values are derived from a Depth Duration Frequency (DDF) Model
For details refer to:
'Fitzgerald D. L. (2007), Estimates of Point Rainfall Frequencies, Technical Note No. 61, Met Eireann, Dublin',
Available for download at www.met.ie/climate/dataproducts/Estimation-of-Point-Rainfall-Frequencies_TN61.pdf

A SAAR Value of 1028mm was utilised to calculate the green field runoff rate as confirmed by WCC Municipal service, see Figure 6-2 below.

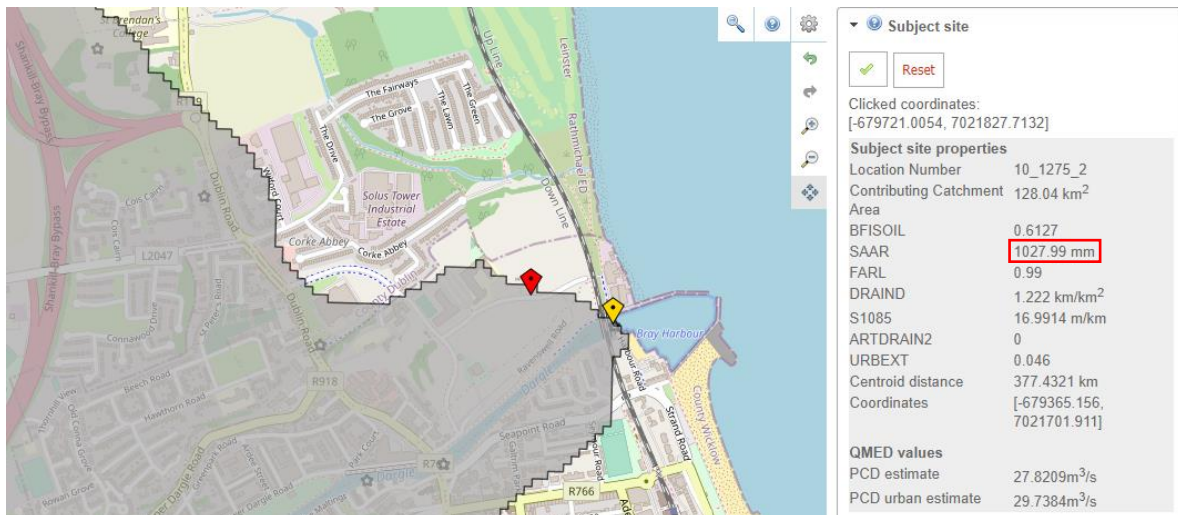
Item 2 & 3 of the DLRCC review, see Appendix H, recommend a SAAR Value of 825mm for catchment A.

As a result, the SAAR Values used for each Catchment are as follows:

Table 6-1 – SAAR Values by Catchment

Catchment	SAAR Value
A	825mm
B	1028mm

Figure 6-2 – Extract from OPW Rainfall and Flood Estimation Tool



Refer to Appendix D for the output from the www.uksuds.com surface water storage volume estimation tool and maximum Qbar discharge rate.

A summary of the calculations is outlined below (see Table 7-3 for further breakdown of areas)

- Total site (overall catchment) area; 7.7ha
- Total area drained; 4.485ha (58.2% of Total Site Area)
- Total impermeable area based on reduced coefficient runoff rate; 3.591ha (80.1% of Total Area Drained)

As discussed in Section 5.5 above and displayed on planning drawing 5214419-ATK-01-ZZ-DR-CE-0503, the overall catchment area has been divided into two areas based on the corresponding soil types. These figures have been utilised to calculate the Qbar runoff rate (including 20% allowance for climate change and 10% for urban creep) as summarised in Table 6-2 below and displayed in the UK SuDS output included within Appendix D.

Table 6-2 - Qbar Calculation Summary

Area Ref.	Soil Type	Area Size (ha)	Total Drained Area (ha)	% of Total Area (7.7ha)	Resulting Qbar (l/s)
A	4	3.4	2.228	44	13.04
A + B	4	(3.4+4.3) = 7.7	(2.228 + 2.257) = 4.485	100	45.87

Item 3 of the DLRCC review, see Appendix H, advises the use of the positively drained area when calculating the greenfield runoff from the site. This method has been incorporated into the northern catchment design which falls into the DLRCC jurisdiction.

WCC had indicated at preplanning stage that an option free discharge to the Dargle River may be acceptable, however it was agreed that to be in accordance with the GSDS that a restriction would be applied at Qbar runoff rate.

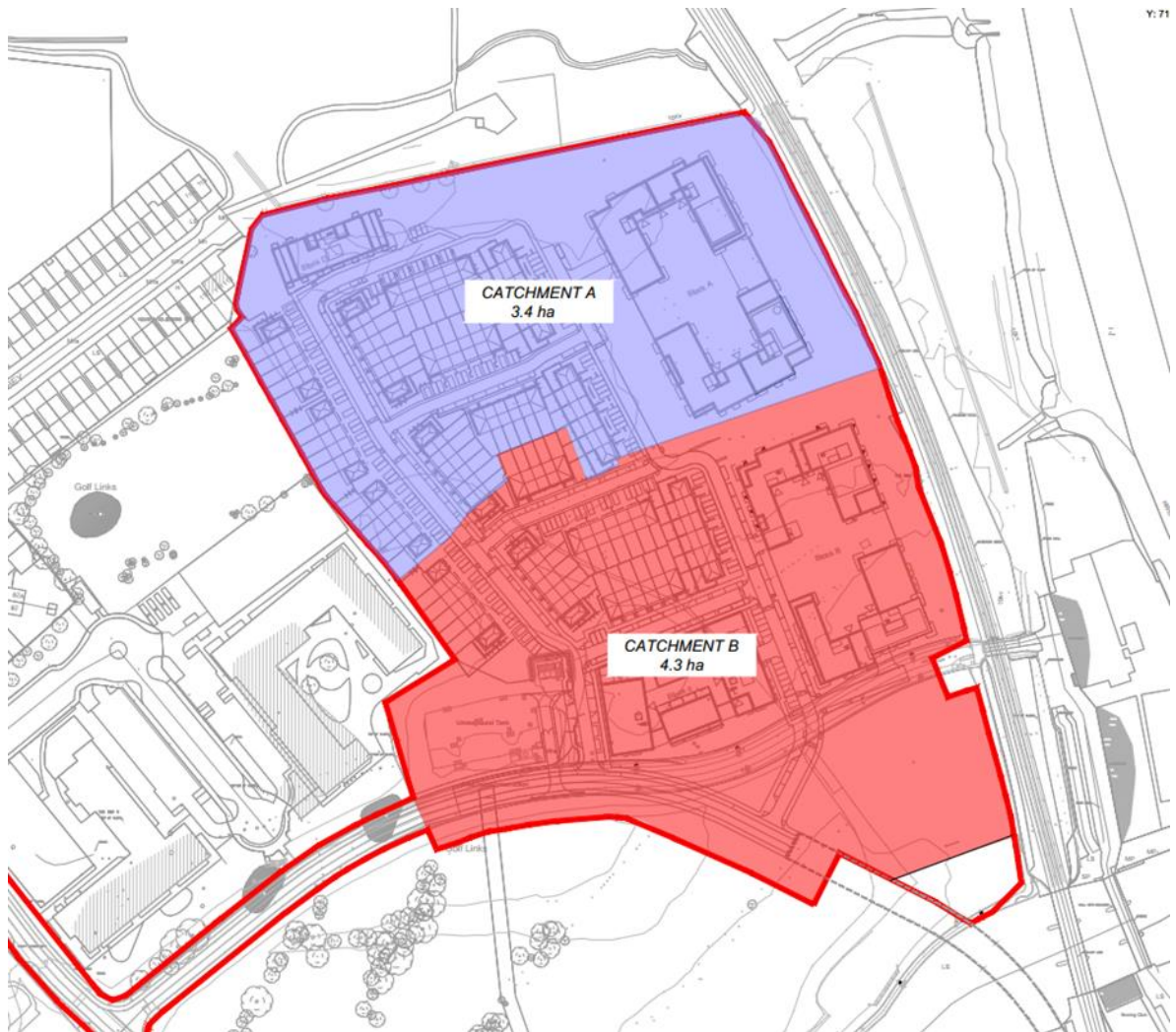
The calculated Qbar rate of 45.87l/s has been discussed and agreed with WCC & DLRCC Municipal services. The figure is the final permissible discharge from the site.

7. Proposed Site Characteristics

7.1. Catchment Design Details

The proposed overall catchment area of 7.7ha has been split into 2No. catchment areas (catchment A & B) as indicated in Figure 7-1 below and on planning drawing 5214419-ATK-01-ZZ-DR-CE-0503. All catchments have incorporated multiple SuDS features as outlined in Section 2 above. Each catchment will have a flow control device to limit discharge rates to the maximum allowable Qbar runoff rate from the site (45.87l/s) and attenuation storage.

Figure 7-1 – Drainage Catchment Areas



Based on a maximum allowable Qbar final runoff rate from the site of 45.87l/s over a 7.7ha area, the runoff per hectare has been calculated as 5.95l/s/ha. In the first instance, the maximum discharge rates for each catchment were calculated based on the equivalent runoff per hectare, see Table 7-1 below for a summary of the results.

Table 7-1 – Catchment Area Discharge Rates

Catchment	Area	% of Total Site Area	Total Drained Area	Maximum Discharge rates per catchment based on Qbar	Maximum Cumulative Discharge rates
A	3.4ha	44.2%	2.228ha	13.04l/s	13.04l/s (A only)
B	4.3ha	55.8%	2.257ha	32.83l/s	45.87l/s (A+B)
Total	7.7ha	100	4.485ha	45.87l/s	45.87l/s (final discharge from site)

The total Site Impermeable Areas and reduced Impermeable Areas based on coefficient runoff factors are indicated below in **Table 7-2**.

Table 7-2 – Site Impermeable Areas

	Total Impermeable Area	Impermeable Area based on co-efficient runoff factors (Table 2-1)
Roads / Cycle tracks / Footpaths / Roofs (when discharging directly to storm drainage network)	1.391ha	1.391ha
Roads / Cycle tracks / Footpaths / Roofs when discharging directly swales, tree pits and filter drains	0.384ha	0.290ha
Roads / Cycle tracks / Footpaths / Roofs when discharging directly to permeable paving	1.381ha	0.829ha
Extensive Green Roof (> 150mm thk.)	0.652ha	0.554ha
Intensive Green Courtyard (landscape courtyard areas with soil > 500mm thk.).	0.327ha	0.229ha
Total	4.485ha	3.591ha

It is noted to allow for use of reduced co-efficient runoff factors, Summer and Winter Cv values within the Micro drainage storm modelling has been increased to 1 in accordance with DLRCC requirements.

Attenuation is proposed in each catchment using both modular and concrete underground attenuation systems. Refer to drawing 5214419-ATKZZ-ZZ-SK-SD-0021 / 0022 for details.

A controlled discharge from each catchment will be via a vortex flow control device downstream of the underground attenuation systems. Each flow control device has been designed based on the maximum head of water within the underground attenuation systems. The design head has been calculated for each catchment to ensure the flows rates indicated in Table 7-2 are not exceeded for the 1 in 100-year 6-hour storm event. It is noted that penstock will be installed within the hydro break chambers to allow maintenance when required. The flow control device from catchment A will not have a high-level overflow as required by DLRCC. The flow control device downstream of the underground attenuation tank in catchment B will have a high-level overflow.

A catch pit manhole will be provided at all inlets to the underground attenuation systems to reduce the levels of silts entering the system.

Where swales are provided, they are used for the conveyance of surface water runoff from the adjoining roads / footpaths. Discharge into the swale will be via drop kerbs / side inlet gullies. Discharge from the swales to the storm water network will be via a perforated manhole cover. The manhole cover has been designed to be 50mm above the base on the swale to provide for interception volumes. Refer to Appendix E for further details on the swale design.

Porous paving provided will cater for runoff from the porous paving surface, adjacent roads / footpaths and roof runoff from the front of residential units. The subbase below the porous paving will allow for infiltration, reduced peak flows and 30% storage capacity within the subbase voids. An orifice plate / flow control will be used in the outfall chamber from each porous paving area to reduce the flow and increase the overall storage capacity of the subbase.

Filter Drains with a perforated pipe will be provided in private rear gardens to drain storm water from roof runoff from the rear of the proposed associated dwellings.

A suitably sized Bypass Interceptor (Klargester NSBE075 or similar) will be fitted to the storm network downstream of Catchment B's hydrobrake to provide a final treatment for the storm runoff before being discharged to the receiving Dargle River.

Tree pits will be used at locations as indicated. Runoff from adjacent roads / footpaths and excess runoff from adjoining impermeable surface will discharge into the pit via a dropped kerb. The tree pit will allow for interception and percolation to ground. An overflow pipe with a raised level of 50mm above the finished surface level will allow for overflow into the storm drainage network during high intensity rainfall events. It is noted that tree pit interception volumes have not been included within the interception calculations below however, a minimum interception volume of 0.1m³ will be provided with each tree pit.

Extensive green roofs and Intensive green courtyards will be provided to suitable apartment blocks and retail units. A run-off factor of 80% has been used within the calculations.

7.2. Catchment A - Design Details

Attenuation is proposed in Catchment A using an underground modular attenuation system. It was determined during modelling of the network that based a maximum discharge rate of 13.0l/s via a vortex flow control device that a volume of 918m³ is required for 1 in 100-year 6-hour storm event including 20% for climate change and 10% for urban creep.

Note, as outlined below in section 8.0 of this report, the proposed attenuation system in catchment A has been increased in size to 988.9m³ to remove surface level flooding during a 50% blockage scenario.

Refer to Appendix F for further details on the design of the modular attenuation system.

Table 7-3 – Design Summary – Catchment A

Catchment Reference	Maximum Design Flow from Vortex Flow Control	Resulting Maximum Design Flow for 1 in 100 yr	Resulting Maximum Design Flow for 1 in 30 yr	Minimum Tank Volume
Catchment A	13.04 l/s	13.0 l/s	13.0 l/s	988.9 m ³

The need for attenuation within catchment A has been justified and hence Item 5.5 of the Inspector's Report and Item DLR 11 of the DLR Inspector's Report are deemed addressed. Refer to Appendix G to view the comments received, Atkins' responses and where other Items have been incorporated into our design.

Table 7-4 – Site Impermeable Areas – Catchment A

	Total Impermeable Area (m²)	Impermeable Area based on coefficient runoff factors (Table 2-1) (m²)
Roads / Cycle tracks / Footpaths / Roofs (when discharging directly to storm drainage network)	5,720	5,720
Roads / Cycle tracks / Footpaths / Roofs when discharging directly swales, tree pits and filter drains	2,780	2,110
Roads / Cycle tracks / Footpaths / Roofs when discharging directly to permeable paving	7,750	4,650
Extensive Green Roof (> 150mm thk.)	3,130	2,660
Intensive Green Courtyard (landscape courtyard areas with soil > 500mm thk.)	1,522	1,065
Total	20,902	16,205

Note the total Impermeable Areas for Catchment A have been reduced when compared to the previous planning submission, thus achieving less runoff. No change is proposed to pipe sizes, attenuation volumes or flow controls.

7.3. Catchment B - Design Details

Attenuation is proposed in catchment B using an underground attenuation system. It was determined during modelling of the network and based a maximum discharge rate of 45.87l/s via a vortex flow control device that a volume of 1100m³ is required for 1 in 100-year 6-hour storm event including 20% for climate change and 10% for urban creep.

Table 7-5 – Design Summary – Catchment B

Catchment Reference	Maximum Design Flow from Vortex Flow Control	Resulting Maximum Design Flow for 1 in 100 yr	Resulting Maximum Design Flow for 1 in 30 yr	Minimum Tank Volume
Catchment B	45.87 l/s	45.7 l/s	45.7 l/s	1100.0 m ³

The need for attenuation within catchment B has been justified and hence Item 5.5 of the Inspector's Report and Item DLR 11 of the DLR Inspector's Report are deemed addressed. Refer to Appendix G to view the comments received, Atkins' responses and where other Items have been incorporated into our design.

Table 7-6 – Site Impermeable Areas – Catchment B

	Total Impermeable Area (m ²)	Impermeable Area based on coefficient runoff factors (Table 2-1) (m ²)
Roads / Cycle tracks / Footpaths / Roofs (when discharging directly to storm drainage network)	8,190	8,190
Roads / Cycle tracks / Footpaths / Roofs when discharging directly swales, tree pits and filter drains	1,060	790
Roads / Cycle tracks / Footpaths / Roofs when discharging directly to permeable paving	6,060	3,640
Extensive Green Roof (> 150mm thk.)	3,390	2,881
Intensive Green Courtyard (landscape courtyard areas with soil > 500mm thk.)	1,755	1,229
Total	22,455	16,730

Note the total Impermeable Areas for Catchment B have been reduced when compared to the previous planning submission, thus achieving less runoff. No change is proposed to pipe sizes, attenuation volumes or flow controls.

7.4. Compliance with GSDS Design Criteria

Outfall Section 6.3.4 of the GSDS Volume 2 New Development sets out four design criterion which are required to be met by the proposed drainage system. Compliance with these criteria are outlined below:

7.4.1. Interception Volume – Criterion 1.1

Interception storage volume is based on 80% runoff from paved areas and 0% runoff from pervious surfaces for the first 5mm of rainfall.

As set out in Table 24.6 - Interception Mechanisms of the CIRIA report C753 The SuDS Manual-v6, hard standing areas discharging into SuDS area deemed to be compliant for interception. As a result, the impermeable areas draining to these SuDS features can be subtracted from the total hardstanding area when calculating the interception volume requirement. The new hardstanding areas requiring interception storage for both catchments is as described in Table 7-7 & Table 7-10 below.

7.4.1.1. Catchment A

Table 7-7 – Total Hardstanding Area Requiring Interception Storage– Catchment A

		Total Paved Site
Total Hardstanding Area		2.228ha
Impermeable Areas deemed to be compliant as per Table 24.6 of the SuDS Manual	Extensive Green Roof (> 150mm thk.)	0.313ha
	Intensive Green Courtyard (landscape courtyard areas with soil > 500mm thk.)	0.152ha
	Total Permeable Paving Area (plus additional hardstanding area draining to permeable paving that is no greater than total area of permeable paving)	0.0725ha (+ 0.0725ha) = 0.15ha
	Swales	0.0940ha
	Tree Pits	0.0022ha
	Area draining to rear garden filter drains	0.1148ha
Total Area deemed to be compliant		0.826ha
Total Remaining Hardstanding Area requiring interception storage		2.228 – 0.826 = 1.402ha

Table 7-8 – Interception Storage Volume Requirement – Catchment A

	Total
Total Hardstanding Area Not Discharging to SuDS Features	1.402ha
Volume of Interception Required	$14020\text{m}^2 \times 0.005\text{m} \times 0.8 = 56.08\text{m}^3$

Table 7-9 – Interception Volume Provided – Catchment A

SuDS	Volume
Underground modular attenuation system	$12.18(\text{W}) \times 62.78(\text{L}) = 764.7\text{m}^2$ $0.4(\text{D}) \times 754.7\text{m}^2 = 305.9\text{m}^3$ $305.9 \times 30\% \text{ Voids} = \mathbf{91.8\text{m}^3}$
Total	91.8m ³ provided > 56.08m ³ required (OK)

Interception Volume in catchment A has been provided using a series of SuDS. The overall volume being provide is 91.8m³ which is greater than the 56.08m³ required. Interception volume has been provided on the proposed site using the SuDS features noted below.

- Filter Drains
- Permeable pavement to parking bays
- Conveyance Swales
- Green roofs (to apartment buildings only)
- Green courtyards (to apartment buildings only)
- Tree pits
- Underground modular system (within green open space)

As advised in Item 4 of the DLRCC review, see Appendix H, the area used for the interception storage calculation has been calculated on the gross, positively drained, impermeable area. This item has been fully addressed as set out above.

7.4.1.2. Catchment B

Table 7-10 – Total Hardstanding Area Requiring Interception Storage– Catchment B

		Total Paved Site
Total Hardstanding Area		2.257ha
Impermeable Areas deemed to be compliant as per Table 24.6 of the SuDS Manual	Extensive Green Roof (> 150mm thk.)	0.339ha
	Intensive Green Courtyard (landscape courtyard areas with soil > 500mm thk.)	0.176ha
	Total Permeable Paving Area (plus additional hardstanding area draining to permeable paving that is no greater than total area of permeable paving)	0.1188ha (+ 0.1188ha) = 0.2376ha
	Swales	0.0186ha
	Tree Pits	0.0036ha
	Area draining to rear garden filter drains	0.0568ha
Total Area deemed to be compliant		0.832 ha
Total Remaining Hardstanding Area		1.425ha

Table 7-11 – Interception Volume Requirement– Catchment B

	Total
Total Hardstanding Area Not Discharging to SuDS Features	1.425ha
Volume of Interception Required	$14,250\text{m}^2 \times 0.005\text{m} \times 0.8 = 57.00\text{m}^3$

Interception Volume in catchment B has been provided using a series of SuDS features noted below.

- Filter Drains
- Permeable pavement to parking bays
- Conveyance Swales
- Green roofs (to apartment buildings only)
- Green courtyards (to apartment buildings only)
- Tree pits

As previously noted, Catchment B will have a concrete attenuation system prior to the outfall (as required by WCC) which is not capable of providing interception storage. As a result, the required interception volume of 57.00m³ see Table 7-11 above, cannot be met within this catchment.

7.4.2. Treatment Volume – Criterion 1.2

Treatment volume is based on 80% runoff from paved areas and 0% runoff from pervious surfaces for the first 15mm of rainfall.

Table 7-12 – Treatment Volume

	Total Paved Site
Paved surfaces (roads, footpaths, permeable paving & roof areas)	4.485ha
Volume of Treatment Storage Required	$44,850 \times 0.015 \times 0.8 = 538.2\text{m}^3$

Due to site constraints including open space requirements, existing flood extents and density requirements there is insufficient area on site to provide the Treatment Volume (retention pond or wetland) and therefore Criterion 1.2 cannot be successfully met for this site.

In accordance with Table 6.3 of the Regional Drainage Policies – Volume 2 New Development, as Criterion 1.1 is being achieved, Criterion 1.2 is therefore not required for Catchment A.

For Catchment B, due to the possible flood extents and the requirement for a concrete attenuation tank by WCC both the Criterion 1.1 and Criterion 1.2 has not been achieved for Catchment B.

7.4.3. River Regime Protection – Criterion 2

River Regime Protection by limiting discharge to receiving waters

An allowable outflow rate for Qbar of 48.87l/s has been calculated for the site and agreed with DLRCC & WCC drainage departments.

The overall site attenuation volume is > 2,089m³ as outlined in the table below which is provided for the appropriate throttle rate.

Table 7-13 - Attenuation Tanks

Catchment Reference	Maximum Design Flow from Vortex Flow Control	Minimum Tank Volume	Dimensions W x L x D
Catchment A	13.04 l/s	988.9m ³	12.18 x 62.78 x 1.2m
Catchment B	45.87 l/s	1100 m ³	23.95 x 49.25 x 1.0m
Total	45.87l/s (final discharge from site)	2,089m³	

7.4.4. Levels of Service – Criterion 3

The four criteria for levels of service are as follows:

- Criterion 3.1: No external flooding (30 year high intensity rainfall event)
- Criterion 3.2: No internal flooding (100 year high intensity rainfall event)
- Criterion 3.3: No internal flooding (100 year river event and critical duration for site storage)
- Criterion 3.4: No flood routing off site except where specifically planned (100 year high intensity rainfall event)

Criteria 3.1, 3.2, 3.3 & 3.4: All potential flooding has been reviewed and modelled using micro drainage for up to the required 1 in 100 year storm event including 20% for climate change and 10% for urban creep. Outputs from the model for the proposed storm network are contained in Appendix B of this report.

7.4.5. River Flood Protection – Criterion 4

Of the three methods referred to in the GDSDS for establishing River Flood Protection, by comparison of the pre and post development runoff volumes, (Criteria 4.1, 4.2 and 4.3 respectively), Criterion 4.3 has been selected most suitable for use on this proposed site. An extract from the GDSDS for Criterion 4 is indicated in Figure 7-2 below.

Figure 7-2 - GDSDS River Flood Protection

Criterion 4 River flood protection (Criterion 4.1, or 4.2 or 4.3 to be applied)	4.1	100	"Long-term" floodwater accommodated on site for development runoff volume which is in excess of the greenfield runoff volume. Temporary flood storage drained by infiltration on a designated flooding area brought into operation by extreme events only. 100 year, 6 hour duration storm to be used for assessment of the additional volume of runoff.
	4.2	100	Infiltration storage provided equal in volume to "long term" storage. Usually designed to operate for all events. 100year, 6-hour duration storm to be used for assessment of the additional volume of runoff.
	4.3	100	Maximum discharge rate of QBAR or 2 l/s/ha, whichever is the greater, for all attenuation storage where separate "long term" storage cannot be provided.

Criterion 4.3 has been satisfied for the proposed site by providing an agreed Maximum discharge rate of Qbar (45.87l/s) and on-site attenuation for up to the 1 in 100 year storm event including 20% for climate change and 10% for urban creep.

8. Flooding & Exceedance Flows

8.1. Flood Risk Assessment

A Flood Risk Assessment (FRA) Atkins Document No. 5214419DG0019 has been undertaken for the site to satisfy the requirements of the Planning System and Flood Risk Management Guidelines. The report aimed at scoping sources of flooding, assessing whether any significant flood risk issues exist and proposing appropriate flood risk management measures as required.

The FRA conclusion identifies that there is potential flood risk identified in the vicinity of the proposed residential development site. All 'highly vulnerable' infrastructure within the development are located outside of the existing flood zone.

It was been agreed with WCC that the proposed underground attenuation system will be a sealed concrete tank to ensure that in the event flooding there will be no impact on the availability of attenuation volume within the tank. The outfall from the storm drainage network to the Dargle River will be fitting with a non-return flap valve and high-level overflow to ensure that in the event of high water levels in the Dargle river, the storm water outfall from the proposed development will not be impacted by external water from the river.

8.2. Exceedance Flows

Surface Water exceedance flows from the site have been considered as part of the drainage design. As required by DLRCC, a modelling exercise was carried out with a 50% blockage within vortex flow control units at one location (catchment A). The location selected is based on importance / likelihood of blockage.

The table below outlines the catchment and Vortex flow control that had a restriction applied.

Table 8-1 – Exceedance Flows

Catchment	Vortex Flow Control Restriction	Storm Event	Maximum Flood Volume
Catchment A	50%	1 in 100-year 6-hour event	9.4m ³

Catchment A

From a review of the model output a flood volume of 9.4m³ was indicated for a 1 in 100-year storm event at pipe number S7.000. Manhole S7.000 is located within a proposed open space area.

To cater for this flood volume, the SuDS attenuation tank in catchment A has been increased in size, as stated above. This increase removes any surface level flooding occurring for the 50% blockage scenario.

9. SuDS Maintenance

Regular checks and maintenance of the SuDS systems is required and have been considered as part of the overall drainage design for the proposed development. This will ensure both the design life of the SuDS systems, ongoing improved water quality, reduced water runoff and reduce the risk of onsite flooding and exceedance flows.

9.1. Permeable Paving

Paving should be inspected regularly, preferable during and after heavy rainfall to ensure effective operation.

Vacuum brushing or jetting of the permeable paving should be carried out once a year. Cleaning is generally carried out after Autumn leaf fall to remove silts and sediments.

9.2. Green Roofs / Green Courtyards

All components (soil substrate, vegetation, drains, membranes and rood structure) should be inspected annually and after severe storms.

Underside of roof should also be inspected annually and after severe storms for evidence of leakage.

Debris, fallen leaves and litter should be regularly removed to prevent clogging of inlet drains.

9.3. Underground modular attenuation systems

Inspection of the system should be carried out monthly for the first 3 months and then annually to ensure the system is working correctly.

Debris should be removed monthly from the catchment surface where is may cause risk to the performance of the underground attenuation system

As required sediment from pre-treatment (catch pit) manholes prior to the attenuation system should be removed to ensure on going performance of the system.

The inside of the tank should be surveyed every 5 years or as required if performance is reduced. Sediment build up removed if necessary.

9.4. Tree Pits

Maintenance of trees will be greatest in the first few years, which will include regular inspection of tree condition including inlets and outlets, removal of invasive vegetation and possibly irrigation during long dry periods.

9.5. Swales

Mowing in the first year is critical to eliminate competition from weeds. Lawn-mowing to an ideal height of 100mm should be maintained as grasses tend to flatten down when water is flowing over them, reducing sedimentation. Maintenance of the swale should include:

- Periodic litter removal with the swale and self-clearing inlet grid.
- Occasional stabilisation of eroded side slopes and base.
- Check and Removal of Sediment build up.
- Ongoing maintenance should form part of the site landscaping proposals.

9.6. Filter Drains

Inspection of the system should be carried out monthly on the inlet / outlet pipework and any control systems for blockages.

Inspection of pre-treatment systems including should be carried out every 6 months for catch pits manholes prior to the filter drain with removal of silt or other build-ups. Removal of silt build-up may be required more frequent.

Annual cleaning of roof runoff gutters etc should be part of the generally maintenance of the drainage system to ensure debris is removed prior to entering the network.

Perforated pipework should be cleared of blockage if required.

Table 9-1 – Post-construction maintenance specification and schedule

SuDS component	Maintenance requirements	Specification	Schedule
Permeable Paving	Vacuum brushing or jetting of the permeable paving	In accordance with manufactures product requirements.	Minor Inspection Periodic Litter picking Major Inspection Yearly, typically at the end of Autumn.
Green Roof / Courtyards	Inspection of soil substrate, vegetation, drains, membranes and roof structure Underside of roof to be inspected for evidence of leakage. Debris, fallen leaves and litter should be regularly removed to prevent clogging of inlet drains.	In accordance with manufactures product requirements.	Minor Inspection Periodic Litter picking Major Inspection annually and after severe storms. <i>(Note severe storms can be considered to those classified by Met Eireann as Orange or Red storm warnings. Refer to Storm Centre - Met Éireann - The Irish Meteorological Service for further information on storm classifications)</i>
Underground Modular Attenuation System	Debris should be removed monthly from the catchment surface where is may cause risk to the performance of the underground attenuation system As required sediment from pre-treatment (catch pit) manholes prior to the attenuation system should be removed to ensure on going performance of the system.	In accordance with manufactures product requirements.	Minor Inspection of the system should be carried out monthly for the first 3 months and then annually to ensure the system is working correctly. Major Inspection on the inside of the tank should be surveyed every 5 years or as required if performance is reduced. Sediment build up removed if necessary.

SuDS component	Maintenance requirements	Specification	Schedule
Tree Pit	Inspection of including inlets and outlets, removal of invasive vegetation and possibly irrigation during long dry periods.	In accordance with Landscape requirements	<p>Minor Inspection Periodic Litter picking</p> <p>Major inspection of trees twice yearly for the first 3 years including possible requirements for irrigation</p>
Swales	Mowing in the first year is critical to eliminate competition from weeds. Lawn-mowing to an ideal height of 100mm should be maintained as grasses tend to flatten down when water is flowing over them, reducing sedimentation.	In accordance with Landscape requirements	<p>Minor Inspection Periodic Litter picking.</p> <p>Occasional stabilisation of eroded side slopes and base.</p> <p>Check and Removal of Sediment build up.</p> <p>Major inspection yearly including lifting of manhole and cleaning of any silts within the catch pit.</p>
Filter Drain	<p>Removal of silt build-up may be required more frequent.</p> <p>Cleaning of roof runoff gutters etc should be part of the generally maintenance of the drainage system.</p> <p>Perforated pipework should be cleared of blockage if required.</p>	As set out in the Safety File for residential dwellings	<p>Minor Inspection of the system should be carried out monthly on the inlet / outlet pipework and any control systems for blockages.</p> <p>Minor Inspection of pre-treatment systems including should be carried out every 6 months for catch pits manholes prior to the filter drain with removal of silt or other build-ups.</p> <p>Major Annual cleaning of roof runoff gutters etc should be part of the generally maintenance of the drainage system to ensure debris is removed prior to entering the network.</p>

10. SuDS Audit Overview

In accordance with the DLRCC Development Plan, a Stage 1 Stormwater Audit was carried out by Punch Consulting Engineers in May 2021 to support the previous planning application (ABP-311181-21). In advance of the previous application being submitted a full copy of the Audit was issued by Punch Consulting Engineering to DLRCC and WCC on May 10th, 2021.

The Audit noted 13No. recommendations / measures to be reviewed. It is noted that each item highlighted has been fully considered and addressed as part of the previous planning application.

Atkins carried out amendments to the storm drainage design where required, in a number of circumstances alternative measure were proposed and accepted by the Auditors.

The Audit was completed and signed off by Atkins and Punches on the 6th of May 2021.

Refer to Appendix A for a copy of the final report including comments and feedback.

DLRCC noted at pre-planning meeting with ABP that a new full Stage 1 Stormwater Audit was not required due to the minimal impact of changes with the proposed scheme when compared to the permitted scheme granted under ABP-311181-21. DLRCC requested that a letter from the Auditor be submitted as part of the current application indicating that a review had been carried out. Atkins has re-engaged with Punch Consulting Engineering to review this current application. Refer to Atkins Stormwater Impact Assessment Report Appendix J for cover letter from Punch Consulting Engineering.

11. Compliance with Stormwater Management Policy

Table 11-1 – Compliance with Stormwater Management Policy

Policy Requirement	Application Response
<p>Climate Change: All developments must apply a minimum factor of 1.2 to their drainage design and attenuation volumes to accommodate climate change.</p>	<p>20% climate change has been allowed as part of the storm drainage design and attenuation volumes. Note there is no change from the permitted scheme granted under ABP-311181-21.</p>
<p>Urban Creep: All developments must apply a factor of 1.1 to their drainage design and attenuation volumes to accommodate urban creep</p>	<p>10% Urban Creep has been allowed as part of the storm drainage design and attenuation volumes. This is noted within the storm drainage model by increasing rainfall intensities by 30% (20% cc and 10% urban creep). Note there is no change from the permitted scheme granted under ABP-311181-21.</p>
<p>Assessment of Flood Risk: All developments require an assessment of flood risk.</p>	<p>Flood Risk Assessment included as part of the planning submission. Refer to Atkins Document No. 5214419DG0019 Note there is no change from the permitted scheme granted under ABP-311181-21.</p>
<p>Utility Clash Check: The applicant must undertake a utilities clash check to ensure all utilities' vertical and horizontal separation distances can be provided throughout the scheme.</p>	<p>A clash check has been carried out using combined storm and foul modelling software (micro-drainage). The clash check also took into consideration the proposed diversion works of existing IW infrastructure and IW Local Network Reinforcement Project. Note there is no change from the permitted scheme granted under ABP-311181-21.</p>
<p>Private Drains: Where an applicant's land is crossed by a private drain, the applicant is responsible for acquiring any rights or permissions necessary.</p>	<p>N/A for this site Note there is no change from the permitted scheme granted under ABP-311181-21.</p>
<p>Pumping of Surface Water: The pumping of surface water will be considered only on an exceptional basis.</p>	<p>N/A for this site Note there is no change from the permitted scheme granted under ABP-311181-21.</p>
<p>Sustainable Drainage Systems (SuDS): In accordance with County Development Plan 2022-2028 Section 10.2.2.6 Policy Objective E14: Sustainable Drainage Systems, the proposal must demonstrate that they meet the requirements of the Greater Dublin Strategic Drainage Study (GDSDS) policies in relation to Sustainable Drainage Systems (SuDS). The design must incorporate SuDS measures appropriate to the scale of the proposed development such as green roofs,</p>	<p>The proposed development meets the requirements of the Greater Dublin Strategic Drainage Study (GDSDS) policies in relation to Sustainable Drainage Systems to minimise flows to the public drainage system and maximises local infiltration potential. Refer to Section 7.4 of this report Note there is no change from the permitted scheme granted under ABP-311181-21</p>

Policy Requirement	Application Response
bioretention areas, permeable paving, rainwater harvesting, swales, etc. that minimise flows to the public drainage system and maximises local infiltration potential.	
Infiltration: The applicant should submit Site Investigation Report and results, including Infiltration tests, and a plan showing the trial pits/soakaway test locations across the site. The report should address instances where groundwater, if any, was encountered during testing and its impact.	Noted, refer to section 3 of this report.
Hardstanding/Parking Areas: All proposed parking and hardstanding areas should maximise local infiltration before discharge to the surface water drainage system, via a specifically designed permeable paving/porous asphalt system, in accordance with the requirements of Section 12.4.8 of the County Development Plan 2022-2028.	Noted, refer section 7 and Appendix I - indicating extents of proposed parking and hardstanding areas. Extents of permeable paving is also indicated on the proposed Storm Water Layout drawings 5214419-ATK-01-ZZ-DR-CE-501 / 502
Basement: If basement carparking is provided, then all incidental run-off from the basement should be shown to drain to the foul system and not the surface water system.	Noted.
Run-off Factors: Where applicants propose to use reduced run-off factors (or reduced impermeable contributing areas) for areas of their site that drain to SuDS measures these factors must be agreed with Municipal Services, preferable during the pre-planning process.	Noted. Refer to table 2.1 of this report for Run-off Factors. There is no change from the permitted scheme granted under ABP-311181-21.
Hydrological Parameters: Applicants must use site specific or local data in their Qbar, attenuation volume and surface water system design	Noted, refer to Section 5 and 6 of this report. Note there is no change from the permitted scheme granted under ABP-311181-21.
Discharge Rate: Surface Water discharge from a development must be restricted to 2 l/s/ha or the calculated Qbar, whichever is greater. The Qbar should be calculated using the net area drained and not the gross area of the site (i.e. red line boundary).	Noted, refer to Section 5 and 6 of this report. Note there is no change from the permitted scheme granted under ABP-311181-21.
Attenuation: If an attenuation system is proposed it should, where possible, not be located under the internal roads but in/under open space or parking areas. Attenuation systems must be inline. The preference is for attenuation systems that allow for infiltration and/or treatment within the site.	Noted, underground modular attenuation systems are provided within open space, refer to Atkins Stormwater Impact Assessment Report for further information. The location of the proposed underground attenuation systems is indicated on the proposed Storm Water Layout drawings 5214419-ATK-01-ZZ-DR-CE-501 / 502 Note there is no change from the permitted scheme granted under ABP-311181-21.
Green Roof: The proposal must meet the requirements of Appendix 7.2: Green Roof Policy of the County Development Plan 2022-2028	Noted, refer to proposed Green Intensive Courtyard and Extensive Roof Layout drawings 5214419-ATK-01-ZZ-DR-CE-601. The Green roof layout has been updated from the permitted scheme granted under ABP-311181-21 to allow

Policy Requirement	Application Response
	for increased minimum requirements set out the Appendix 7.2: Green Roof Policy of the County Development Plan 2022-2028.
<p>Interception and Treatment: The applicant must demonstrate that required interception and/or treatment of surface water run-off is achieved in accordance with GDSDS policy. To be in compliance with GDSDS Volume 2 Section 6.3.3 Table 6.3 Criterion 1, interception of the first 5-10mm is required. If interception of first 5-10mm can't be achieved, then treatment of first 15mm is required.</p>	<p>Noted, refer to section 7.4 of this report for compliance with GDSDS policy. Note there is no change from the permitted scheme granted under ABP-311181-21.</p>
<p>Stormwater Audit: A Stage 1 Stormwater Audit should be submitted as part of the planning submission.</p>	<p>DLRCC noted at pre-planning meeting with ABP that a new full Stage 1 Stormwater Audit was not required due to the minimal impact of changes with the proposed scheme when compared to the permitted scheme granted under ABP-311181-21. DLRCC requested that a letter from the Auditor be submitted as part of the current application indicating that a review had been carried out. Atkins has re-engaged with Punch Consulting Engineering to review this current application. Refer to Appendix J for cover letter from Punch Consulting Engineering.</p>
<p>Maintenance: Applicants must submit a post-construction maintenance specification and schedule for the drainage system, including SuDS measures and attenuation system to dlr for approval. This maintenance specification and schedule must be included in the Safety File</p>	<p>Noted, refer table 9-1 of this report for post-construction maintenance specification and schedule.</p>
<p>New Connections: Prior to submission of the planning application, the applicant must obtain the sewer network records from dlr and assess if a new connection to the public sewer is technically feasible. Slit trenches may be required the determine the exact location and invert levels. The applicant may wish to consult with Municipal Services if a new connection is not self-evident.</p>	<p>The controlled storm water discharge from catchment A (DLRCC jurisdiction) is proposed to outfall into the proposed storm water network within catchment B (WCC jurisdiction) prior to the final control discharge outfall to the Dargle River. Note there is no change from the permitted scheme granted under ABP-311181-21.</p>

Appendices

Appendix A. Stage 1 - Stormwater Audit Report

**Proposed Strategic Housing Development
at Bray Coastal Quarter**

Stage 1 Surface Water Audit

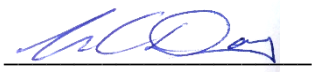
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Report by:  Date: 6th May 2021
Joshua Martin
Engineer MEng (Hons) MIEI
PUNCH Consulting Engineers

Checked by:  Date: 6th May 2021
Marie-Claire Daly
Senior Engineer (BEng (Hons) HDSDA CEng MIEI)
PUNCH Consulting Engineers


Approved by:  Date: 6th May 2021
Leonard Brennan
Technical Director (BE Dip Hy&Geo Eng PGDipHSC CEng MIEI)
PUNCH Consulting Engineers

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1 Introduction

1.1 Purpose of Report

This report presents a Stage 1 Surface Water Audit carried out for a proposed residential development and associated infrastructure at the former Bray Golf Club lands.

1.2 Site Details

The site area is approximately 8.6 hectares. The residential site is bound to the North by the Woodbrook Glenn residential estate, to the West by Revenswell Primary School, to the South by the old golf course lands and the Dargle River, and to the East by an active railway line.

The proposed residential site and surrounding lands are moderate sloping from the highest point located to the North West of the site and falls gradually to the South East. The existing site elevations range from 11.50mOD to 2.12mOD. The site is currently accessed via the Ravenwell Primary school access road.

This stage 1 surface water audit report details the surface water drainage system for this development only.

1.3 Report Details

The audit was carried out by Joshua Martin, Marie-Claire Daly and Leonard Brennan between the dates of the 1st - 18th of March 2021.

This Stage 1 Audit has been carried out in accordance with the Dún Laoghaire-Rathdown County Council (DLRCC) Stormwater Audit Procedure Rev 0 January 2012. The auditor has examined only those issues within the design relating to surface water drainage implications of the scheme and has therefore not examined or verified the compliance of the design to any other criteria.

Appendix A contains copies of drawings and documents examined by the auditor. The drawings in Appendix B correspond to the Stage 1 Audit findings outlined in Section 2 of this report. Appendix C contains the Surface Water Audit Feedback form.

All of the findings outlined in Section 2 of this report are considered by the auditor to require action in order to improve the stormwater credentials of the scheme.

1.4 Drawings & Documents Reviewed

1. 5193890-ATK-01-ZZ-DR-CE-0501 Storm Water Layout Sheet 1
2. 5193890-ATK-01-ZZ-DR-CE-0502 Storm Water Layout Sheet 2
3. 5193890-ATK-01-ZZ-DR-CE-0503 Storm Water Drainage Sub Catchment Areas.
4. 5193890-ATK-01-ZZ-DR-CE-0504 Storm Water Flow Path Diagram.
5. 5193890-ATK-01-ZZ-DR-CE-0510 Storm Water Long Sections Sheet 1
6. 5193890-ATK-01-ZZ-DR-CE-0511 Storm Water Long Sections Sheet 2
7. 5193890-ATK-01-ZZ-DR-CE-0601 Proposed Green and Intensive Courtyard and Extensive Roof Layout.
8. 5193890-ATK-ZZ-ZZ-DR-SD-0001 Harbour Point Masterplan Site Area.
9. 5193890-ATK-ZZ-ZZ-DR-SD-0002 Standard Construction Details 2
10. 5193890-ATK-ZZ-ZZ-DR-SD-0003 Standard Construction Details 3
11. 5193890-ATK-ZZ-ZZ-DR-SD-0021 Underground Modular Attenuation Tanks Sheet 1
12. 5193890-ATK-ZZ-ZZ-DR-SD-0022 Underground Modular Attenuation Tanks Sheet 2
13. 5193890DG0072 rev 1 Stormwater Impact Assessment Report

1.5 Additional Drawings and Documents Reviewed with Feedback Form

1. 5193890-ATK-01-ZZ-DR-CE-0501_STAT_I-REV E
2. 5193890-ATK-01-ZZ-DR-CE-0502_STAT_I-REV E
3. 5193890-ATK-ZZ-ZZ-DR-SD-0021_STAT_I-REV A
4. 5193890-ATK-ZZ-ZZ-DR-SD-0022_STAT_I-REV -
5. 5193890-ATK-DRAWING REGISTER

2 Stage 1 Audit Findings

2.1 Bray Coastal Quarter SHD

2.1.1 Additional Swales

Problem: The proposed landscaped areas to the north and east of the development could be utilised as additional swale systems.

Recommendation: Consider incorporating additional swales with water compatible planting in green areas to take the additional runoff in extreme rainfall events.

2.1.2 Proposed Attenuation Tank B - Structure

Problem: Attenuation tank B is proposed as a concrete structure however there is no supporting structure shown within the tank on the plan view. This will be necessary due to the dimension of the tank. Currently the volume shown is for an empty tank with no consideration for the loss in volume due to the required additional structure.

Recommendation: Review the structural elements for the tank and add where necessary. Calculate the volume of storage lost and ensure that adequate storage is still provided.

2.1.3 Use of Detention Basins/Ponds

Problem: Detention Basins/Ponds have not been utilised within the development despite the large extent of landscaping to the south.

Recommendation: Considering the extent of landscaping, it may be feasible to adopt detention basins in these areas, which would promote greater amenity and biodiversity within the development and encourage infiltration of surface water. These also have the potential to reduce the size of the underground storage required.

2.1.4 Bypass Interceptors

Problem: A Bypass Interceptor has not been incorporated within the surface water network, despite the development discharging directly to the River Dargle

Recommendation: Consider incorporating a bypass interceptor downstream of attenuation tank B to reduce the risk of pollutants entering the River Dargle. Details of bypass interceptor are to be provided to ensure appropriate sizing.

2.1.5 Exceedance Flows, Labels

Problem: The report states in section 8.2: *a flood volume of 34m³ was indicated for a 1 in 100-year storm event at pipe number S7.000. Manhole S7.000 is located within a proposed open space area.* However, the pipe number S7.000 is located directly adjacent to apartment Block 1A (5193890-ATK-01-ZZ-DR-CE-0501).

Recommendation: Please confirm how flooding would be prevented from entering Block 1A. Please confirm flood levels are not within 500mm of the FFL in accordance with the GSDSDS.

2.1.6 Floor Levels

Problem: GSDSDS requires floor levels to be at least 500mm above adjacent onsite storage.

Recommendation: Please confirm water levels within attenuation tanks are not within 500mm of the FFL in accordance with the GSDSDS.

2.1.7 Exceedance Flows, Levels

Problem: Assuming the flooding occurs at pipe S7.000 (SMH 18 on drawing 5193890-ATK-01-ZZ-DR-CE-0501) it would be beneficial to produce level drawings to determine the flow path and volume provided.

Recommendation: Consider producing level drawings and a cross section drawing at this location.

2.1.8 Gradients and ground modelling

Problem: As per Chapter 29.2, Section E of The SuDS Manual, successfully integrating SuDS measures including swales, infiltration trenches and infiltration blankets require areas of ground modelling to ensure proposed SuDS measures are located in appropriate areas to ensure adequate drainage of the site.

Recommendation: It is recommended that the integration of each SuDS component be considered, and its contouring adjusted to allow the levels to flow towards to SuDS measure, in a naturalistic manner that is visually attractive, and accords with the local surrounding landscape.

2.1.9 Utility Survey

Problem: As per Chapter 29.3.6, Section E of The SuDS Manual, the location of all existing utilities and other site infrastructure should be confirmed before locating proposed SuDS measures.

Recommendation: Existing underground services are particularly challenging to locate in construction projects. Asset databases of buried infrastructure should not be considered as definite and should be checked with appropriate utility surveys and on-site checks.

2.1.10 Existing Foul pipes

Problem: Existing foul pipes are shown to cross over storm water pipe S1.005. There is a possibility that these will clash.

Recommendation: Provide levels or cross sections to show that there is no risk of a clash between existing foul pipes and proposed surface water pipes. Please confirm whether it is proposed to divert these foul pipes and confirm the proposed storm drainage and SuDS have been coordinated to suit the diverted route.

2.1.11 Existing Natural Features on Site

Problem: Existing natural features on site include trees, hedgerows, and habitats of ecological value. For this proposed development, some of these features may potentially be affected.

Recommendation: Existing trees, hedgerows and habitats should be subject to pre-development surveys in accordance with relevant standards and undertaken by a qualified and competent person. If required, based on the relevant pre-development surveys, the construction of SuDS measures are to be coordinated with the existing features of the site.

2.1.12 Rainwater Harvesting Tanks

Problem: Along with utilising green roofs, there is potential to install a rainwater harvesting facilities for the proposed apartment units. The rainwater collected can be used for toilet flushing within the new units.

Recommendation: Consider incorporating rainwater harvesting tanks.

2.1.13 Roof Discharge for individual residential properties

Problem: There is scope for additional interception features

Recommendation: Consider using water butts or rainwater harvesting systems within the individual properties.

STORM WATER AUDIT FEEDBACK FORMScheme: Proposed Residential Development at: The former Bray Golf Club landsArea: Residential DevelopmentAudit Stage: 1 Date Audit Completed: 18/03/2021 Our Ref : 202273

Paragraph No. in Audit Report	Problem Accepted (Yes/No)	Recommended Measure Accepted (Yes/No)	Alternative Measures (described) [or reason problem not accepted]	Alternative Measures Accepted by Auditors (Yes/No)
2.1.1	YES	NO	Due to proposed site topography, the majority of storm water runoff drains away from this area making additional SuDS measures ineffective in capturing the storm runoff. Also, the North and eastern boundaries for the site has extensive existing Irish Water services including associated wayleaves that would be considered incompatible with SuDS systems. This area also has a proposed fire access road (reinforced grass) to allow for fire tender route to the rear of the apartment block.	Yes
2.1.2	YES	YES	Accepted. Further details of the concrete tank structural elements are now included on drawing 5193890-ATK-ZZ-ZZ-DR-SD-0021.	
2.1.3	YES	NO	The large extent of landscaping to the South of the site is in an existing flood zone and has also been considered as part of the flood compensatory storage area. This area to the south and south-eastern boundary of the site has extensive existing Irish Water, Gas & ESB services. Therefore, no surface level SuDS system has been proposed within this area. The use of a sealed underground attenuation concrete tank has been discussed with Wicklow County Council and deemed to be the most appropriate solution for attenuation in this area.	Yes
2.1.4	YES	YES	Accepted. A Bypass Interceptor has been incorporated into the storm drainage network down stream of Attenuation tank B prior to the outfall to the Dargle River.	

STORM WATER AUDIT FEEDBACK FORM

Paragraph No. in Audit Report	Problem Accepted (Yes/No)	Recommended Measure Accepted (Yes/No)	Alternative Measures (described) [or reason problem not accepted]	Alternative Measures Accepted by Auditors (Yes/No)
2.1.5	YES	NO	Attenuation Tank A has been increased in size to remove predicted flooding of pipe S7.000.	Yes
2.1.6	YES	YES	Accepted. This has been incorporated into our designs. As shown below, the top water levels of attenuation tanks A & B a greater than the minimum 500mm requirement. Refer to table below: Tank A <ul style="list-style-type: none"> - Top Water Level: 7.717m - Closest & Lowest FFL: 9.07m - Level Difference: 1.353m Tank B <ul style="list-style-type: none"> - Top Water Level: 4.021m - Closest & Lowest FFL: 6.10m - Level Difference: 2.079m 	
2.1.7	YES	NO	As per 2.1.5 above the attenuation Tank A has been increased in size to remove predicted flooding of pipe S7.000.	Yes
2.1.8	NO	NO	Noted. The road gradient has been designed to incorporated gradients to allow runoff to discharge to swale adjacent to road, this ensures ensuring adequate drainage from the road to the swale.	Yes
2.1.9	NO	NO	A GPR survey was carried out on site. This was used in conjunction with available existing services records received from utilities/services providers. The location of storm water network and SuDS features have taken into account the location of existing known services. Several elements of the existing foul infrastructure will also need to be relocated to accommodate the development and has been fully considered as part of the storm drainage design. As referred in Section 2.1.3, we have considered underground services when designing SuDS systems and have avoided the heavily congested areas.	Yes

STORM WATER AUDIT FEEDBACK FORM

Paragraph No. in Audit Report	Problem Accepted (Yes/No)	Recommended Measure Accepted (Yes/No)	Alternative Measures (described) [or reason problem not accepted]	Alternative Measures Accepted by Auditors (Yes/No)
2.1.10	NO	NO	This existing foul pipe is to be demolished and relocated away from Block C hence eliminating the possible clash. A diversion application which encapsulates these changes has been submitted to Irish Water and will be agreed prior to planning application.	Yes
2.1.11	YES	YES	Accepted. The application is subject to and EIAR which has taken account of trees, hedgerows & habitats including their ecological value. The proposed SuDS features have no impact on existing trees, hedgerows & habitats.	
2.1.12	YES	NO	<p>There is no proposed rainwater harvesting system as part of this development.</p> <p>Chapter 11.3 of the CIRIA SuDS Manual notes that runoff coefficients suggested for green roofs are likely to be higher than those observed and <i>"its is unlikely that green roofing would be used together with rain water harvesting as natural losses from green roofs are large and demand would be significantly greater than the available supply"</i></p> <p>Water saving features such as low-flush toilets, aerator taps etc will be used throughout the building to ensure reduced water usage.</p>	Yes
2.1.13	YES	NO	<p>There is no proposed rainwater harvesting system as discussed above in section 2.1.12.</p> <p>All discharge from the rear of proposed residential properties runs into a SuDS filter drain.</p> <p>Water saving features such as low-flush toilets, aerator taps etc will be used throughout the building to ensure reduced water usage.</p>	Yes

STORM WATER AUDIT FEEDBACK FORM

Signed: 

Design Team Project Manager

Date:
20/04/21

Please complete and return to the auditor


Auditor Signed Off:



Date:
06/05/2021

Appendix B. Storm Drainage Model

B.1. Simulation Criteria

Atkins (Epsom)		Page 1
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
Date 21/06/2021 18:21 File Storm & Foul Network.MDX	Designed by PE Checked by GH	
Innovyze	Network 2019.1	

Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	2	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0


Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Winter
Return Period (years)	30	Cv (Summer)	1.000
Region	Scotland and Ireland	Cv (Winter)	1.000
M5-60 (mm)	16.900	Storm Duration (mins)	30
Ratio R	0.269		

as per DL RCC requirements

M5-60 and Ratio 'R' as per Met Eireann Return Period Rainfall Depths for sliding Duration Data

B.2. Outfall Details


Atkins (Epsom)		Page 1
Woodcoste Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
Date 21/06/2021 18:23 File Storm & Foul Network.MDX	Designed by PE Checked by GH	
Innovyze	Network 2019.1	

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.009	S	4.290	1.980	-0.070	0	0

Invert Level of Outfall
to Dargle River

B.3. Pipeline Schedule

Atkins (Epsom)		Page 1
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
Date 21/06/2021 18:25 File Storm & Foul Network.MDX	Designed by PE Checked by GH	
Innovyze	Network 2019.1	

PIPELINE SCHEDULES for Storm


Upstream Manhole

- Indicates pipe length does not match coordinates

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	o	225	S1	10.473	9.048	1.200	Open Manhole	1200
S1.001	o	300	S2	10.131	8.545	1.286	Open Manhole	1200
S1.002	o	375	S3	9.930	7.500	2.055	Open Manhole	1350
S2.000	o	300	S4	11.203	9.778	1.125	Open Manhole	1200
S2.001	o	375	S5	11.044	9.265	1.404	Open Manhole	1350
S3.000	o	300	S6	10.140	8.715	1.125	Open Manhole	1200
S3.001	o	375	S7	10.520	8.120	2.025	Open Manhole	1350
S3.002	o	375	S8	10.600	8.028	2.197	Open Manhole	1350
S3.003	o	375	S9	10.815	7.892	2.548	Open Manhole	1350
S3.004	o	450	S10	11.015	7.713	2.852	Open Manhole	1350
S2.002	o	450	S11	10.827	7.683	2.694	Open Manhole	1350
S2.003	o	450	S12	10.827	7.600	2.777	Open Manhole	1350
S2.004	o	450	S13	10.387	7.411	2.526	Open Manhole	1350
S4.000	o	225	S14	9.795	8.186	1.384	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	47.125	110.0	S2	10.131	8.620	1.286	Open Manhole	1200
S1.001	30.936	110.1	S3	9.930	8.264	1.366	Open Manhole	1350
S1.002	9.316	40.0	S23	9.727	7.267	2.085	Open Manhole	1350
S2.000	52.580	120.0	S5	11.044	9.340	1.404	Open Manhole	1350
S2.001	4.530	119.2	S11	10.827	9.227	1.225	Open Manhole	1350
S3.000	51.972	99.9	S7	10.520	8.195	2.025	Open Manhole	1350
S3.001	11.086	120.5	S8	10.600	8.028	2.197	Open Manhole	1350
S3.002	31.209	229.5	S9	10.815	7.892	2.548	Open Manhole	1350
S3.003	23.816	229.0	S10	11.015	7.788	2.852	Open Manhole	1350
S3.004	6.814	227.1	S11	10.827	7.683	2.694	Open Manhole	1350
S2.002	19.018	229.1	S12	10.827	7.600	2.777	Open Manhole	1350
S2.003	43.463	230.0	S13	10.387	7.411	2.526	Open Manhole	1350
S2.004	39.790	230.0	S16	9.875	7.238	2.187	Open Manhole	1350
S4.000	39.447	124.4	S16	9.875	7.869	1.781	Open Manhole	1350

Atkins (Epsom)		Page 2
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
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Innovyze	Network 2019.1	


PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S5.000	o	225	S15	10.027	8.602	1.200	Open Manhole	1200
S2.005	o	450	S16	9.875	7.238	2.187	Open Manhole	1350
S6.000	o	375	S17	9.272	7.847	1.050	Open Manhole	1350
S7.000	o	300	S18	9.075	7.500	1.275	Open Manhole	1200
S6.001	o	450	S19	9.695	7.049	2.196	Open Manhole	1350
S2.006	o	600	S20	9.990	6.866	2.524	Open Manhole	1500
S2.007	o	600	S21	9.925	6.862	2.463	Open Manhole	1500
S2.008	o	225	S22	9.820	6.735	2.860	Open Manhole	1500
S1.003	o	450	S23	9.727	6.496	2.781	Open Manhole	1350
S8.000	o	225	S24	8.584	7.159	1.200	Open Manhole	1200
S8.001	o	225	S25	8.986	6.957	1.804	Open Manhole	1200
S1.004	o	375	S26	9.427	5.819	3.233	Open Manhole	1350

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S5.000	60.422	250.0	S16	9.875	8.360	1.290	Open Manhole	1350
S2.005	11.147	50.3	S20	9.990	7.016	2.524	Open Manhole	1500
S6.000	49.559	181.5	S19	9.695	7.574	1.746	Open Manhole	1350
S7.000	44.478	147.8	S19	9.695	7.199	2.196	Open Manhole	1350
S6.001	8.089	250.5	S20	9.990	7.017	2.523	Open Manhole	1500
S2.006	2.465	500.0	S21	9.925	6.862	2.463	Open Manhole	1500
S2.007	63.397	500.0	S22	9.820	6.735	2.485	Open Manhole	1500
S2.008	6.806	486.1	S23	9.727	6.721	2.781	Open Manhole	1350
S1.003	10.802	73.0	S26	9.427	6.348	2.629	Open Manhole	1350
S8.000	40.451	200.0	S25	8.986	6.957	1.804	Open Manhole	1200
S8.001	17.646	200.0	S26	9.427	6.869	2.333	Open Manhole	1350
S1.004	60.931	80.0	S36	6.881	5.057	1.449	Open Manhole	1500

Atkins (Epsom)		Page 3
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
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Innovyze	Network 2019.1	


PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S9.000	o	225	S27	10.227	7.502	2.500	Open Manhole	1200
S9.001	o	225	S28	8.227	6.408	1.594	Open Manhole	1200
S9.002	o	225	S29	8.227	6.004	1.998	Open Manhole	1200
S9.003	o	225	S30	7.290	5.863	1.202	Open Manhole	1200
S10.000	o	300	S31	7.051	5.476	1.275	Open Manhole	1200
S11.000	o	225	S32	7.300	5.725	1.350	Open Manhole	1200
S10.001	o	375	S33	7.115	5.253	1.487	Open Manhole	1350
S9.004	o	450	S34	7.290	4.997	1.843	Open Manhole	1350
S9.005	o	525	S35	7.054	4.699	1.830	Open Manhole	1500
S1.005	o	525	S36	6.881	4.487	1.869	Open Manhole	1500
S1.006	o	600	S37	4.764	3.235	0.929	Open Manhole	1500
S1.007	o	600	S38	5.228	3.168	1.460	Open Manhole	1500
S12.000	o	225	S39	7.230	5.805	1.200	Open Manhole	1200
S12.001	o	225	S40	7.056	5.596	1.235	Open Manhole	1200
S12.002	o	225	S41	6.848	5.418	1.205	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S9.000	30.619	28.0	S28	8.227	6.408	1.594	Open Manhole	1200
S9.001	20.208	50.0	S29	8.227	6.004	1.998	Open Manhole	1200
S9.002	9.199	65.0	S30	7.290	5.863	1.202	Open Manhole	1200
S9.003	10.390	80.0	S34	7.290	5.733	1.332	Open Manhole	1350
S10.000	14.767	99.8	S33	7.115	5.328	1.487	Open Manhole	1350
S11.000	8.154	44.1	S33	7.115	5.540	1.350	Open Manhole	1350
S10.001	15.358	84.9	S34	7.290	5.072	1.843	Open Manhole	1350
S9.004	47.347	212.3	S35	7.054	4.774	1.830	Open Manhole	1500
S9.005	42.347	199.8	S36	6.881	4.487	1.869	Open Manhole	1500
S1.005	60.027	51.0	S37	4.764	3.310	0.929	Open Manhole	1500
S1.006	13.433	200.5	S38	5.228	3.168	1.460	Open Manhole	1500
S1.007	32.647	200.3	S44	6.250	3.005	2.645	Open Manhole	1500
S12.000	25.057	120.0	S40	7.056	5.596	1.235	Open Manhole	1200
S12.001	29.839	167.6	S41	6.848	5.418	1.205	Open Manhole	1200
S12.002	35.766	150.0	S42	6.606	5.180	1.201	Open Manhole	1200

Atkins (Epsom)		Page 4
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
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Innovyze	Network 2019.1	

PIPELINE SCHEDULES for Storm


Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S12.003	o	225	S42	6.606	5.180	1.201	Open Manhole	1200
S12.004	o	225	S43	6.300	4.913	1.162	Open Manhole	1200
S1.008	o	675	S44	6.250	2.108	3.467	Open Manhole	1500
S1.009	o	375	S45	3.500	2.100	1.025	Open Manhole	1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S12.003	38.698	145.0	S43	6.300	4.913	1.162	Open Manhole	1200
S12.004	12.353	100.0	S44	6.250	4.789	1.236	Open Manhole	1500
S1.008	16.900#	2000.0	S45	3.500	2.100	0.725	Open Manhole	1500
S1.009	36.003	300.0	S	4.290	1.980	1.935	Open Manhole	0

B.4. Storage Structures

Atkins (Epsom)		Page 1
Woodcoste Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
Date 21/06/2021 18:25 File Storm & Foul Network.MDX	Designed by PE Checked by GH	
Innovyze	Network 2019.1	

Storage Structures for Storm

Tank or Pond Manhole: S22, DS/PN: S2.008

Tank A (Catchment A)

Invert Level (m) 6.735

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	988.9	1.000	988.9	1.001	0.0


Tank or Pond Manhole: S45, DS/PN: S1.009

Tank B (Catchment B)

Invert Level (m) 2.100

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	1110.0	1.000	1110.0	1.001	0.0

B.5. Online Controls

Atkins (Epsom)		Page 1
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
Date 21/06/2021 18:27 File Storm & Foul Network.MDX	Designed by PE Checked by GH	
Innovyze	Network 2019.1	

Online Controls for Storm

Hydro-Brake® Optimum Manhole: S22, DS/PN: S2.008, Volume (m³): 23.0
Downstream of Tank A (Catchment A)

Unit Reference	MD-SHE-0164-1300-1000-1300
Design Head (m)	1.000
Design Flow (l/s)	13.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	164
Invert Level (m)	6.735
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1200


Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	13.0
Flush-Flo™	0.312	13.0
Kick-Flo®	0.691	10.9
Mean Flow over Head Range	-	11.1

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	5.9	1.200	14.2	3.000	21.9	7.000	33.0
0.200	12.6	1.400	15.2	3.500	23.6	7.500	34.1
0.300	13.0	1.600	16.2	4.000	25.2	8.000	35.2
0.400	12.9	1.800	17.2	4.500	26.6	8.500	36.2
0.500	12.6	2.000	18.1	5.000	28.0	9.000	37.2
0.600	12.1	2.200	18.9	5.500	29.3	9.500	38.2
0.800	11.7	2.400	19.7	6.000	30.6		
1.000	13.0	2.600	20.5	6.500	31.8		

Hydro-Brake® Optimum Manhole: S45, DS/PN: S1.009, Volume (m³): 8.0
Downstream of Tank B (Catchment B)

Unit Reference	MD-SHE-0284-4590-1000-4590
Design Head (m)	1.000
Design Flow (l/s)	45.9
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	284
Invert Level (m)	2.100
Minimum Outlet Pipe Diameter (mm)	300
Suggested Manhole Diameter (mm)	1800

Atkins (Epsom)		Page 2
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
Date 21/06/2021 18:27 File Storm & Foul Network.MDX	Designed by PE Checked by GH	
Innovyze	Network 2019.1	

Hydro-Brake® Optimum Manhole: S45, DS/PN: S1.009, Volume (m³): 8.0
Downstream of Tank B (Catchment B)

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	45.9
Flush-Flo™	0.434	45.9
Kick-Flo®	0.777	40.7
Mean Flow over Head Range	-	37.1

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	8.8	1.200	50.1	3.000	78.1	7.000	118.0
0.200	29.2	1.400	54.0	3.500	84.2	7.500	122.0
0.300	44.7	1.600	57.6	4.000	89.8	8.000	125.9
0.400	45.8	1.800	60.9	4.500	95.1	8.500	129.7
0.500	45.7	2.000	64.1	5.000	100.1	9.000	133.4
0.600	44.8	2.200	67.2	5.500	104.9	9.500	137.0
0.800	41.2	2.400	70.1	6.000	109.4		
1.000	45.9	2.600	72.8	6.500	113.8		


B.6. Critical Storm Simulation Results

OK when the maximum water level is lower than the pipe's soffit.

SURCHARGED when the maximum water level is above the pipe's soffit and to within 300mm of the manhole cover level. (Allowable for 1 in 30 year storm events and greater in accordance with the GDSDS, refer to table 2-1)

FLOOD RISK when the maximum water level is above the pipe's soffit but below the manhole cover by the depth specified in the Preferences.

FLOOD when the maximum water level is above the manhole cover (No Flooding has been indicated within Summary of Results for up to the 1 in 100 year storm event)

Atkins (Epsom)		Page 1
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
Date 21/06/2021 18:06 File Storm & Foul Network.MDX	Designed by PE Checked by GH	
Innovyze	Network 2019.1	

Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coefficient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Storage Structures 2
Number of Online Controls 2 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.269
Region Scotland and Ireland Cv (Summer) 1.000
M5-60 (mm) 16.900 Cv (Winter) 1.000

as per DLRCC requirements

as per Met Eireann data


Margin for Flood Risk Warning (mm) 150.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360
Return Period(s) (years) 2, 30, 100
Climate Change (%) 30, 30, 30

up to 6 hour event


including for 20% climate change and 10% urban creep as per DLRCC requirements

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S1	15 Summer	100	+30%	30/15	Summer			10.349
S1.001	S2	15 Summer	100	+30%					8.767
S1.002	S3	15 Summer	100	+30%					7.684
S2.000	S4	15 Summer	100	+30%	100/15	Summer			10.235
S2.001	S5	15 Summer	100	+30%	100/15	Summer			9.683
S3.000	S6	30 Summer	100	+30%	30/15	Summer			10.101
S3.001	S7	30 Summer	100	+30%	30/15	Summer			9.944
S3.002	S8	30 Summer	100	+30%	30/15	Summer			9.850
S3.003	S9	30 Summer	100	+30%	30/15	Summer			9.731
S3.004	S10	15 Summer	100	+30%	30/15	Summer			9.598
S2.002	S11	15 Summer	100	+30%	30/15	Summer			9.569
S2.003	S12	15 Summer	100	+30%	30/15	Summer			9.416
S2.004	S13	15 Summer	100	+30%	30/15	Summer			9.045
S4.000	S14	15 Summer	100	+30%	30/15	Summer			8.880
S5.000	S15	15 Summer	100	+30%	2/15	Summer			9.805
S2.005	S16	15 Summer	100	+30%	30/15	Summer			8.683
S6.000	S17	15 Summer	100	+30%	30/15	Summer			8.720
S7.000	S18	15 Summer	100	+30%	30/15	Summer			8.927
S6.001	S19	15 Summer	100	+30%	2/15	Summer			8.411
S2.006	S20	15 Summer	100	+30%	2/15	Summer			8.243

Atkins (Epsom)		Page 2
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
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Innovyze	Network 2019.1	

Summary of Critical Results by Maximum Level (Rank 1) for Storm


PN	US/MH Name	Surcharged Flooded		Flow / Cap.	Overflow (l/s)	Pipe	Status	Level Exceeded
		Depth (m)	Volume (m ³)			Flow (l/s)		
S1.000	S1	1.076	0.000	1.82		86.1	FLOOD RISK	
S1.001	S2	-0.077	0.000	0.90		86.9	OK	
S1.002	S3	-0.191	0.000	0.48		90.0	OK	
S2.000	S4	0.157	0.000	1.09		104.5	SURCHARGED	
S2.001	S5	0.043	0.000	1.13		121.3	SURCHARGED	
S3.000	S6	1.086	0.000	0.73		76.2	FLOOD RISK	
S3.001	S7	1.449	0.000	0.59		69.5	SURCHARGED	
S3.002	S8	1.447	0.000	0.92		107.8	SURCHARGED	
S3.003	S9	1.464	0.000	1.22		138.1	SURCHARGED	
S3.004	S10	1.435	0.000	0.99		132.6	SURCHARGED	
S2.002	S11	1.436	0.000	1.42		239.6	SURCHARGED	
S2.003	S12	1.366	0.000	1.43		271.8	SURCHARGED	
S2.004	S13	1.183	0.000	1.42		267.8	SURCHARGED	
S4.000	S14	0.469	0.000	1.30		57.5	SURCHARGED	
S5.000	S15	0.978	0.000	2.16		68.0	SURCHARGED	
S2.005	S16	0.995	0.000	1.40		372.6	SURCHARGED	
S6.000	S17	0.498	0.000	1.28		175.1	SURCHARGED	
S7.000	S18	1.127	0.000	1.37		116.7	FLOOD RISK	
S6.001	S19	0.912	0.000	1.96		262.4	SURCHARGED	
S2.006	S20	0.777	0.000	2.57		592.1	SURCHARGED	

Atkins (Epsom)		Page 3
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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) SurchARGE	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S2.007	S21	15 Summer	100	+30%	30/15 Summer				7.898
S2.008	S22	360 Winter	100	+30%	2/60 Summer				7.672
S1.003	S23	15 Summer	100	+30%	100/15 Summer				7.485
S8.000	S24	15 Summer	100	+30%	2/15 Summer				8.466
S8.001	S25	15 Summer	100	+30%	30/15 Summer				7.756
S1.004	S26	15 Summer	100	+30%	30/15 Summer				7.417
S9.000	S27	15 Summer	100	+30%	100/15 Summer				8.131
S9.001	S28	15 Summer	100	+30%	30/15 Summer				7.597
S9.002	S29	15 Summer	100	+30%	30/15 Summer				7.276
S9.003	S30	15 Summer	100	+30%	30/15 Summer				7.029
S10.000	S31	15 Summer	100	+30%	30/15 Summer				7.004
S11.000	S32	15 Summer	100	+30%	30/15 Summer				7.097
S10.001	S33	15 Summer	100	+30%	30/15 Summer				6.922
S9.004	S34	15 Summer	100	+30%	30/15 Summer				6.796
S9.005	S35	15 Summer	100	+30%	30/15 Summer				6.377
S1.005	S36	15 Summer	100	+30%	30/15 Summer				6.200
S1.006	S37	15 Summer	100	+30%	2/15 Summer				4.609
S1.007	S38	15 Summer	100	+30%	30/15 Summer				4.099
S12.000	S39	15 Summer	100	+30%	30/15 Summer				6.661
S12.001	S40	15 Summer	100	+30%	30/15 Summer				6.626
S12.002	S41	15 Summer	100	+30%	30/15 Summer				6.495
S12.003	S42	15 Summer	100	+30%	30/15 Summer				6.138
S12.004	S43	15 Summer	100	+30%	30/15 Summer				5.404
S1.008	S44	30 Summer	100	+30%	2/15 Summer				3.130
S1.009	S45	360 Summer	100	+30%	2/240 Summer				3.088


PN	US/MH Name	Surcharged		Flooded		Pipe		Level Exceeded
		Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	
S2.007	S21	0.436	0.000	2.07		568.2	SURCHARGED	
S2.008	S22	0.712	0.000	0.63		13.0	SURCHARGED	CATCHMENT A Max Flow Rate
S1.003	S23	0.539	0.000	0.39		85.3	SURCHARGED	
S8.000	S24	1.082	0.000	2.06		71.7	FLOOD RISK	
S8.001	S25	0.574	0.000	2.11		69.1	SURCHARGED	
S1.004	S26	1.223	0.000	1.27		266.6	SURCHARGED	
S9.000	S27	0.404	0.000	0.84		77.1	SURCHARGED	
S9.001	S28	0.964	0.000	1.01		67.3	SURCHARGED	
S9.002	S29	1.047	0.000	1.45		77.1	SURCHARGED	
S9.003	S30	0.941	0.000	1.62		79.0	SURCHARGED	
S10.000	S31	1.228	0.000	0.50		46.5	FLOOD RISK	
S11.000	S32	1.147	0.000	1.22		73.7	SURCHARGED	
S10.001	S33	1.294	0.000	0.64		106.5	SURCHARGED	
S9.004	S34	1.349	0.000	1.49		299.0	SURCHARGED	
S9.005	S35	1.153	0.000	0.94		281.4	SURCHARGED	
S1.005	S36	1.188	0.000	1.14		701.6	SURCHARGED	
S1.006	S37	0.774	0.000	2.15		713.7	SURCHARGED	
S1.007	S38	0.331	0.000	1.78		713.0	SURCHARGED	

Atkins (Epsom)		Page 4
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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged		Flooded	Pipe		Status	Level Exceeded
		Depth (m)	Volume (m ³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)		
S12.000	S39	0.631	0.000	0.44	19.4		SURCHARGED	
S12.001	S40	0.805	0.000	0.85	31.9		SURCHARGED	
S12.002	S41	0.852	0.000	1.21	48.3		SURCHARGED	
S12.003	S42	0.733	0.000	1.62	66.1		SURCHARGED	
S12.004	S43	0.266	0.000	1.75	78.0		SURCHARGED	
S1.008	S44	0.347	0.000	5.56	787.9		SURCHARGED	
S1.009	S45	0.613	0.000	0.44	45.7		SURCHARGED	

CATCHMENT B Max Flow
Rate - Final Discharge to
Dargle River

Atkins (Epsom)		Page 1
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Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coefficient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Storage Structures 2
Number of Online Controls 2 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.269
Region Scotland and Ireland Cv (Summer) 1.000
M5-60 (mm) 16.900 Cv (Winter) 1.000


as per DLRCC requirements
as per Met Eireann data

Margin for Flood Risk Warning (mm) 150.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
720, 960, 1440
Return Period(s) (years) 2, 30
Climate Change (%) 30, 30


up to 24 hours
including for 20% climate
change and 10% urban
creep as per DLRCC
requirements

Water									
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Level (m)
S1.000	S1	15 Summer	30	+30%	30/15 Summer				9.828
S1.001	S2	15 Summer	30	+30%					8.735
S1.002	S3	15 Summer	30	+30%					7.662
S2.000	S4	15 Summer	30	+30%					10.001
S2.001	S5	15 Summer	30	+30%					9.552
S3.000	S6	15 Summer	30	+30%	30/15 Summer				9.284
S3.001	S7	15 Summer	30	+30%	30/15 Summer				9.141
S3.002	S8	15 Summer	30	+30%	30/15 Summer				9.038
S3.003	S9	15 Summer	30	+30%	30/15 Summer				8.939
S3.004	S10	15 Summer	30	+30%	30/15 Summer				8.828
S2.002	S11	15 Summer	30	+30%	30/15 Summer				8.808
S2.003	S12	15 Summer	30	+30%	30/15 Summer				8.703
S2.004	S13	15 Summer	30	+30%	30/15 Summer				8.470
S4.000	S14	15 Summer	30	+30%	30/15 Summer				8.445
S5.000	S15	15 Summer	30	+30%	2/15 Summer				9.364
S2.005	S16	15 Summer	30	+30%	30/15 Summer				8.236
S6.000	S17	15 Summer	30	+30%	30/15 Summer				8.242
S7.000	S18	15 Summer	30	+30%	30/15 Summer				8.299
S6.001	S19	15 Summer	30	+30%	2/15 Summer				8.023

Atkins (Epsom)		Page 2
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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Flooded		Flow / Cap.	Overflow (l/s)	Pipe	Status	Level Exceeded
		Depth (m)	Volume (m ³)			Flow (l/s)		
S1.000	S1	0.555	0.000	1.47		69.8	SURCHARGED	
S1.001	S2	-0.109	0.000	0.72		69.6	OK	
S1.002	S3	-0.213	0.000	0.38		72.3	OK	
S2.000	S4	-0.077	0.000	0.88		84.0	OK	
S2.001	S5	-0.088	0.000	0.91		97.3	OK	
S3.000	S6	0.269	0.000	0.72		75.6	SURCHARGED	
S3.001	S7	0.646	0.000	0.58		69.1	SURCHARGED	
S3.002	S8	0.635	0.000	0.89		104.1	SURCHARGED	
S3.003	S9	0.672	0.000	1.14		129.4	SURCHARGED	
S3.004	S10	0.665	0.000	0.81		108.5	SURCHARGED	
S2.002	S11	0.675	0.000	1.19		200.9	SURCHARGED	
S2.003	S12	0.653	0.000	1.18		225.3	SURCHARGED	
S2.004	S13	0.609	0.000	1.15		218.0	SURCHARGED	
S4.000	S14	0.034	0.000	1.03		45.5	SURCHARGED	
S5.000	S15	0.537	0.000	1.78		56.1	SURCHARGED	
S2.005	S16	0.548	0.000	1.15		306.4	SURCHARGED	
S6.000	S17	0.020	0.000	1.01		138.6	SURCHARGED	
S7.000	S18	0.499	0.000	1.11		95.2	SURCHARGED	
S6.001	S19	0.524	0.000	1.48		198.5	SURCHARGED	


Atkins (Epsom)		Page 3
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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surchage	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S2.006	S20	15 Summer	30	+30%	2/15 Summer				7.936
S2.007	S21	15 Summer	30	+30%	30/15 Summer				7.704
S2.008	S22	960 Summer	30	+30%	2/60 Summer				7.506
S1.003	S23	30 Summer	30	+30%					6.686
S8.000	S24	15 Summer	30	+30%	2/15 Summer				7.942
S8.001	S25	15 Summer	30	+30%	30/15 Summer				7.360
S1.004	S26	15 Summer	30	+30%	30/15 Summer				6.513
S9.000	S27	15 Summer	30	+30%					7.644
S9.001	S28	15 Summer	30	+30%	30/15 Summer				6.893
S9.002	S29	15 Summer	30	+30%	30/15 Summer				6.528
S9.003	S30	15 Summer	30	+30%	30/15 Summer				6.249
S10.000	S31	15 Summer	30	+30%	30/15 Summer				6.171
S11.000	S32	15 Summer	30	+30%	30/15 Summer				6.194
S10.001	S33	15 Summer	30	+30%	30/15 Summer				6.082
S9.004	S34	15 Summer	30	+30%	30/15 Summer				5.960
S9.005	S35	15 Summer	30	+30%	30/15 Summer				5.624
S1.005	S36	15 Summer	30	+30%	30/15 Summer				5.473
S1.006	S37	15 Summer	30	+30%	2/15 Summer				4.342
S1.007	S38	15 Summer	30	+30%	30/15 Summer				3.961
S12.000	S39	15 Summer	30	+30%	30/15 Summer				6.123
S12.001	S40	15 Summer	30	+30%	30/15 Summer				6.095
S12.002	S41	15 Summer	30	+30%	30/15 Summer				6.005
S12.003	S42	15 Summer	30	+30%	30/15 Summer				5.762
S12.004	S43	15 Summer	30	+30%	30/15 Summer				5.261
S1.008	S44	15 Summer	30	+30%	2/15 Summer				3.024
S1.009	S45	600 Summer	30	+30%	2/240 Summer				2.863

PN	US/MH Name	Surcharged		Flooded	Pipe		Status	Level Exceeded
		Depth (m)	Volume (m ³)	Flow / Cap.	Flow (l/s)	Flow (l/s)		
S2.006	S20	0.470	0.000	2.09	480.4	SURCHARGED		
S2.007	S21	0.242	0.000	1.69	463.3	SURCHARGED		
S2.008	S22	0.546	0.000	0.63	13.0	SURCHARGED		
S1.003	S23	-0.260	0.000	0.37	79.2	OK		
S8.000	S24	0.558	0.000	1.69	58.7	SURCHARGED		
S8.001	S25	0.178	0.000	1.77	57.9	SURCHARGED		
S1.004	S26	0.319	0.000	1.18	247.3	SURCHARGED		
S9.000	S27	-0.083	0.000	0.72	66.6	OK		
S9.001	S28	0.260	0.000	0.93	61.8	SURCHARGED		
S9.002	S29	0.298	0.000	1.40	74.1	SURCHARGED		
S9.003	S30	0.162	0.000	1.51	73.6	SURCHARGED		
S10.000	S31	0.395	0.000	0.48	44.8	SURCHARGED		
S11.000	S32	0.244	0.000	1.10	66.5	SURCHARGED		
S10.001	S33	0.454	0.000	0.63	105.2	SURCHARGED		
S9.004	S34	0.513	0.000	1.36	272.7	SURCHARGED		
S9.005	S35	0.400	0.000	0.84	253.0	SURCHARGED		
S1.005	S36	0.461	0.000	0.98	604.5	SURCHARGED		


CATCHMENT A Max Flow Rate

Atkins (Epsom)		Page 4
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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged		Flooded	Pipe		Status	Level Exceeded
		Depth (m)	Volume (m ³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)		
S1.006	S37	0.507	0.000	1.84	610.3		SURCHARGED	
S1.007	S38	0.193	0.000	1.53	615.0		SURCHARGED	
S12.000	S39	0.093	0.000	0.39	17.0		SURCHARGED	
S12.001	S40	0.274	0.000	0.78	29.2		SURCHARGED	
S12.002	S41	0.362	0.000	0.99	39.7		SURCHARGED	
S12.003	S42	0.357	0.000	1.33	54.3		SURCHARGED	
S12.004	S43	0.123	0.000	1.42	63.4		SURCHARGED	
S1.008	S44	0.241	0.000	4.75	673.3		SURCHARGED	
S1.009	S45	0.388	0.000	0.44	45.7		SURCHARGED	

CATCHMENT B Max Flow
Rate - Final Discharge to
Dargle River

Atkins (Epsom)		Page 1
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Innovyze	Network 2019.1	

Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coefficient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Storage Structures 2
Number of Online Controls 2 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.269
Region Scotland and Ireland Cv (Summer) 1.000
M5-60 (mm) 16.900 Cv (Winter) 1.000

as per DLRC requirements


as per Met Eireann data

Margin for Flood Risk Warning (mm) 150.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter up to 6 hour event
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360
Return Period(s) (years) 100
Climate Change (%) 30


including for 20% climate change and 10% urban creep as per DLRC requirements

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S1	15 Summer	100	+30%	100/15	Summer			10.349
S1.001	S2	15 Summer	100	+30%					8.767
S1.002	S3	15 Summer	100	+30%					7.684
S2.000	S4	15 Summer	100	+30%	100/15	Summer			10.235
S2.001	S5	15 Summer	100	+30%	100/15	Summer			9.683
S3.000	S6	30 Summer	100	+30%	100/15	Summer			10.101
S3.001	S7	30 Summer	100	+30%	100/15	Summer			9.944
S3.002	S8	30 Summer	100	+30%	100/15	Summer			9.850
S3.003	S9	30 Summer	100	+30%	100/15	Summer			9.731
S3.004	S10	15 Summer	100	+30%	100/15	Summer			9.598
S2.002	S11	15 Summer	100	+30%	100/15	Summer			9.569
S2.003	S12	15 Summer	100	+30%	100/15	Summer			9.416
S2.004	S13	15 Summer	100	+30%	100/15	Summer			9.045
S4.000	S14	15 Summer	100	+30%	100/15	Summer			8.880
S5.000	S15	15 Summer	100	+30%	100/15	Summer			9.805
S2.005	S16	15 Summer	100	+30%	100/15	Summer			8.683
S6.000	S17	15 Summer	100	+30%	100/15	Summer			8.720
S7.000	S18	15 Summer	100	+30%	100/15	Summer			8.927
S6.001	S19	15 Summer	100	+30%	100/15	Summer			8.411
S2.006	S20	15 Summer	100	+30%	100/15	Summer			8.243

Atkins (Epsom)		Page 2
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Innovyze	Network 2019.1	

Summary of Critical Results by Maximum Level (Rank 1) for Storm


PN	US/MH Name	Surcharged Flooded		Flow / Cap.	Overflow (l/s)	Pipe	Status	Level Exceeded
		Depth (m)	Volume (m ³)			Flow (l/s)		
S1.000	S1	1.076	0.000	1.82		86.1	FLOOD RISK	
S1.001	S2	-0.077	0.000	0.90		86.9	OK	
S1.002	S3	-0.191	0.000	0.48		90.0	OK	
S2.000	S4	0.157	0.000	1.09		104.5	SURCHARGED	
S2.001	S5	0.043	0.000	1.13		121.3	SURCHARGED	
S3.000	S6	1.086	0.000	0.73		76.2	FLOOD RISK	
S3.001	S7	1.449	0.000	0.59		69.5	SURCHARGED	
S3.002	S8	1.447	0.000	0.92		107.8	SURCHARGED	
S3.003	S9	1.464	0.000	1.22		138.1	SURCHARGED	
S3.004	S10	1.435	0.000	0.99		132.6	SURCHARGED	
S2.002	S11	1.436	0.000	1.42		239.6	SURCHARGED	
S2.003	S12	1.366	0.000	1.43		271.8	SURCHARGED	
S2.004	S13	1.183	0.000	1.42		267.8	SURCHARGED	
S4.000	S14	0.469	0.000	1.30		57.5	SURCHARGED	
S5.000	S15	0.978	0.000	2.16		68.0	SURCHARGED	
S2.005	S16	0.995	0.000	1.40		372.6	SURCHARGED	
S6.000	S17	0.498	0.000	1.28		175.1	SURCHARGED	
S7.000	S18	1.127	0.000	1.37		116.7	FLOOD RISK	
S6.001	S19	0.912	0.000	1.96		262.4	SURCHARGED	
S2.006	S20	0.777	0.000	2.57		592.1	SURCHARGED	

Atkins (Epsom)		Page 3
Woodcote Grove Ashley Road, Epsom Surrey, KT18 5BW	Coastal Quarter Ballymore Bray, Co. Wicklow	
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Innovyze	Network 2019.1	

Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) SurchARGE	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S2.007	S21	15 Summer	100	+30%	100/15 Summer				7.898
S2.008	S22	360 Winter	100	+30%	100/15 Summer				7.672
S1.003	S23	15 Summer	100	+30%	100/15 Summer				7.485
S8.000	S24	15 Summer	100	+30%	100/15 Summer				8.466
S8.001	S25	15 Summer	100	+30%	100/15 Summer				7.756
S1.004	S26	15 Summer	100	+30%	100/15 Summer				7.417
S9.000	S27	15 Summer	100	+30%	100/15 Summer				8.131
S9.001	S28	15 Summer	100	+30%	100/15 Summer				7.597
S9.002	S29	15 Summer	100	+30%	100/15 Summer				7.276
S9.003	S30	15 Summer	100	+30%	100/15 Summer				7.029
S10.000	S31	15 Summer	100	+30%	100/15 Summer				7.004
S11.000	S32	15 Summer	100	+30%	100/15 Summer				7.097
S10.001	S33	15 Summer	100	+30%	100/15 Summer				6.922
S9.004	S34	15 Summer	100	+30%	100/15 Summer				6.796
S9.005	S35	15 Summer	100	+30%	100/15 Summer				6.377
S1.005	S36	15 Summer	100	+30%	100/15 Summer				6.200
S1.006	S37	15 Summer	100	+30%	100/15 Summer				4.609
S1.007	S38	15 Summer	100	+30%	100/15 Summer				4.099
S12.000	S39	15 Summer	100	+30%	100/15 Summer				6.661
S12.001	S40	15 Summer	100	+30%	100/15 Summer				6.626
S12.002	S41	15 Summer	100	+30%	100/15 Summer				6.495
S12.003	S42	15 Summer	100	+30%	100/15 Summer				6.138
S12.004	S43	15 Summer	100	+30%	100/15 Summer				5.404
S1.008	S44	30 Summer	100	+30%	100/15 Summer				3.130
S1.009	S45	360 Summer	100	+30%	100/15 Summer				3.088

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
S2.007	S21	0.436	0.000	2.07		568.2	SURCHARGED	
S2.008	S22	0.712	0.000	0.63		13.0	SURCHARGED	CATCHMENT A Max Flow Rate
S1.003	S23	0.539	0.000	0.39		85.3	SURCHARGED	
S8.000	S24	1.082	0.000	2.06		71.7	FLOOD RISK	
S8.001	S25	0.574	0.000	2.11		69.1	SURCHARGED	
S1.004	S26	1.223	0.000	1.27		266.6	SURCHARGED	
S9.000	S27	0.404	0.000	0.84		77.1	SURCHARGED	
S9.001	S28	0.964	0.000	1.01		67.3	SURCHARGED	
S9.002	S29	1.047	0.000	1.45		77.1	SURCHARGED	
S9.003	S30	0.941	0.000	1.62		79.0	SURCHARGED	
S10.000	S31	1.228	0.000	0.50		46.5	FLOOD RISK	
S11.000	S32	1.147	0.000	1.22		73.7	SURCHARGED	
S10.001	S33	1.294	0.000	0.64		106.5	SURCHARGED	
S9.004	S34	1.349	0.000	1.49		299.0	SURCHARGED	
S9.005	S35	1.153	0.000	0.94		281.4	SURCHARGED	
S1.005	S36	1.188	0.000	1.14		701.6	SURCHARGED	
S1.006	S37	0.774	0.000	2.15		713.7	SURCHARGED	
S1.007	S38	0.331	0.000	1.78		713.0	SURCHARGED	

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Innovyze	Network 2019.1	

Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged		Flooded	Pipe		Status	Level Exceeded
		Depth (m)	Volume (m ³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)		
S12.000	S39	0.631	0.000	0.44	19.4		SURCHARGED	
S12.001	S40	0.805	0.000	0.85	31.9		SURCHARGED	
S12.002	S41	0.852	0.000	1.21	48.3		SURCHARGED	
S12.003	S42	0.733	0.000	1.62	66.1		SURCHARGED	
S12.004	S43	0.266	0.000	1.75	78.0		SURCHARGED	
S1.008	S44	0.347	0.000	5.56	787.9		SURCHARGED	
S1.009	S45	0.613	0.000	0.44	45.7		SURCHARGED	

CATCHMENT B Max Flow
Rate - Final Discharge to
Dargle River

Appendix C. Site Investigation Report

IGSL Ltd

Harbour Point, Bray

Ground Investigation
Report
FACTUAL

Project No. 22734

February 2021



M7 Business Park
Naas
Co. Kildare
Ireland

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

DOCUMENT ISSUE REGISTER

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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 (**Harbour Point, Bray**) 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) 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
- 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

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 Ballymore and Atkins and the information should not be used without their prior written permission. 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.

1. INTRODUCTION

IGSL has undertaken a programme of geotechnical site investigation works at the Old Bray Golf Course, Bray, County Wicklow. The works were sited on both greenfield and brownfield lands to the east of the main town centre. The site itself straddles the county boundary between Dublin to the north and Wicklow to the south in a townland known as Corke Great. The west of the site is bound by the newly constructed Coláiste Ráithín second level school with the Dublin-Rosslare railline forming the eastern boundary. The site investigative works extended to the south towards the Dargle River (See Figure 1). It is understood that a mixed-use development of 571 residential houses and apartments, commercial and amenity space and infrastructure is proposed for the site.

Figure 1 – Site Location Plan



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The investigation comprised cable percussion boring, rotary drilling, machine-dug trial pits incorporating dynamic cone penetrometer testing, window sampling and soakaway testing to BRE365. The investigations were executed in accordance with BS 5930, Code of Practice for Site Investigations (2015) and EN 1997-2 Eurocode 7 Part 2 Ground Investigation & Testing and supervised by an IGSL geotechnical engineer.

Geotechnical and chemical laboratory testing was scheduled on a range of soil and water samples. The geotechnical testing included moisture contents, Atterberg Limits, particle size distribution [PSD] testing, permeability testing in triaxial cell, undrained triaxial, MCV, consolidation and dry density / moisture content relationship testing. Rock testing was also undertaken on a number of selected rock core samples (PLSI & UCS). Environmental testing was undertaken on soils in accordance with the specified suites listed in the specification namely Suite E1 and E2 in addition to the *Rilla* waste

acceptance parameters. This report presents the factual geotechnical data acquired from the 2020 investigation.

2. FIELDWORK

2.1 General

The IGSL Limited fieldworks were undertaken in August and September 2020. The works which form this report comprise the following:

- Trial Pit (10 No.)
- Cable Percussion Boreholes (23 No.)
- Rotary Core Drillholes (19 No.)
- Window Sampling (10 No.)
- Soakaway Tests (to BRE 365) (3 No.)
- Dynamic Cone Penetrometer (10 No.)
- Groundwater Monitoring / Data Logger installation
- Gas Monitoring
- Surveying of Exploratory Hole Locations

ⁱA re-setup was carried out at BH222 after encountering a shallow obstruction at 0.90m

2.2 Trial Pits

Trial pitting was undertaken at ten locations across the site c. 16 acre site. The locations were set out as per the Ground Investigation Schedule issued by Atkins. The trial pits were excavated, logged and sampled under the direction of an IGSL geotechnical engineer in accordance with BS 5930 (1999+A2:2010). Bulk disturbed samples (typically 20 to 30kg) were taken as the pits progressed.

The bulk 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 and photos are presented in Appendix 1 and include descriptions of the soils encountered, groundwater conditions and stability of the pit sidewalls.

2.3 Cable Percussion Boreholes

Cable percussive boring (200mm diameter) was undertaken at twenty-three locations using a Dando 2000 rig. The twenty-three locations included an additional borehole drilled after encountering an obstruction at shallow depth in BH222. The re-bore was called BH222A. The boreholes extended to depths of between 0.90m and 14.50m. At all locations, boring commenced through hand-dug service inspection pits. Disturbed bulk samples were recovered at 1m intervals or change of strata during boring and these are denoted 'B' on the engineering logs. Thin-walled undisturbed driven samples were also recovered where soil properties permitted. These are annotated 'U' on the logs. Where taken, environmental samples are noted as 'ENV' on the records.

Standard Penetration Tests (SPT's) were performed in the boreholes and given the nature of the soils, a solid cone was used. It is noted that the SPT N-Values reported are the number of blows for 300mm increment penetration (e.g. BH212 at 2.50m where N=29). 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. BH205 at 3.0m where N=50/225mm). 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.

A groundwater monitoring standpipe was installed in borehole BH207. The standpipe consisted of 50mm diameter HDPE pipework with proprietary 1mm slots and incorporated a pea gravel filter pack and cement / bentonite grout seal. A headwork cover was concreted in place.

Descriptions of the soils encountered, in-situ tests undertaken and samples recovered are presented on the borehole records in Appendix 2. Details of groundwater strikes and hard strata boring (i.e. chiselling) are also presented on the aforementioned records.

2.4 Rotary Core Drillholes

Rotary core drilling was carried out (holes denoted RC_ & ROH_) using a rubber-tracked Comacchio GEO 305. Symmetrex drilling was utilised within the overlying superficial deposits with coring techniques used in both the cohesive over-consolidated soils and underlying bedrock when encountered. As with cable percussion boreholes, Standard Penetration Tests (SPT's) were performed in the overburden strata with the resulting blowcounts presented on the logs. The rotary drilling in soils and bedrock produced 78mm diameter cores. Coring attempted in the overburden generally returned stiff brown slightly sandy gravelly CLAY. Where bedrock was recovered (RC221 – RC224), it was described as a medium strong to locally weak dark bluish grey metamorphosed MUDSTONE/SILTSTONE.

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.

Groundwater monitoring standpipes were installed in a number of coreholes. The standpipes consisted of 50mm diameter HDPE pipework with proprietary 1mm slots and incorporated a pea gravel filter pack and cement / bentonite grout seal. Headwork covers were concreted in place. Gas taps were placed atop selected wells to facilitate post-works gas monitoring. In the case of seven of the coreholes, data loggers were later installed to allow for monitoring through the period October to December 2020.

The core log records are presented in Appendix 3 and this includes engineering geological descriptions, details of the bedding / discontinuities and mechanical indices (TCR, SCR and RQD's) for each core run. Core photographs are also presented in Appendix 3 and these illustrate the structure and fracture state of the bedrock.

2.5 Window Sampling / Driven Sampling

Window sampling was carried out at ten locations using a Dando Terrier rig. The Terrier rig uses a 63.5kg weight to drive the window sampler and the material is retrieved in a semi-rigid plastic core liner. The window sample records are presented in Appendix 4 and include descriptions of the soils encountered and the total recovery per run. Images of sample recovery also feature in Appendix 4. 50mm diameter HDPE water monitoring standpipes were installed in nine of the ten sample holes. In addition, gas taps were fixed to the standpipes. Data loggers were later placed in a number of the wells to permit water level reading on a continuous basis throughout October, November and December 2020.

In the case of WS05B, a foul sewer was struck at a depth of 3.90m bgl. Given the location of the window sampling hole being adjacent to a railway embankment, coupled with its depth, careful consideration had to be given during subsequent excavation and repair. The temporary works which allowed for the repair were designed and implemented by IGSL with assistance ultimately from Irish Water.

2.6 Soakaway Tests (to BRE 365)

Three number infiltration tests were performed to assess the suitability of the sub-soils for dispersion of storm water through a soakaway system. The infiltration tests were each performed in accordance with BRE Digest 365 'Soakaway Design'. To obtain a measure of the infiltration rate of

the sub-soils, water was poured into each test pit, with records taken of the fall in water level against time. Following the first soak cycle, the procedure was repeated to ensure saturation of the sub-soils. The infiltration rate is the volume of water dispersed per unit of exposed area per unit of time, and is generally expressed as metres / minute or metres / second. Designs are based on the slowest infiltration rate, which is generally calculated from the final soak cycle. The soakaway design logs are presented in Appendix 5.

2.7 In-situ Dynamic Cone Penetrometer [DCP] Testing

An in-situ dynamic cone penetrometer test was carried out at each trial pit location in accordance with TRL recommended procedure* to estimate CBR values* of the indigenous deposits. Testing was carried out at depths ranging 0.30m to 0.60m below ground level. The test results complete with extrapolated CBR value are presented in Appendix 6 of this report.

**CBR values are estimated using the correlation derived by Kleyn and Van Heerden (1983), which is preferred by TRL.*

2.8 Groundwater Monitoring / Data Logger installation

Groundwater monitoring was undertaken manually six times following the fieldworks period. Levels were measured using an electric dipmeter. The recordings feature in Appendix 7. In addition, data loggers were inserted into seven rotary drillholes with continuous hourly monitoring from October 6th through to December 12th, 2020. The resulting information gleaned from the data loggers is presented in Appendix 8.

2.9 Gas Monitoring

Following installation of 50mm diameter standpipes, as mentioned previously, a gas tap was fitted to each well. This enabled gas monitoring following the fieldworks period. Gas level measurements, taken in accordance with CIRIA C665:2007, were performed using a calibrated GA5000 gas monitor. Both steady state and peak gas results are presented in Appendix 7 accompanied by groundwater measurements. The flow rate measurements recorded by the GA5000 were logged after the initial gas quantification readings were taken. The unit does not allow for simultaneous monitoring of gas quantities and gas flow. At all times the Geotech GA5000 portable gas analyser was used as per the guidelines whilst conforming to the on-screen notifications.

2.10 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 with locations shown on the exploratory hole plan in Appendix 13.

3. LABORATORY TESTING

Geotechnical laboratory testing was performed at IGSL's INAB-accredited laboratory in accordance with the methods set out in BS1377; British Standard Methods of Test for Soils for Civil Engineering Purposes; British Standards Institute:1990. The geotechnical testing included moisture contents, Atterberg Limits, particle size distribution [PSD] testing, permeability testing in triaxial cell, undrained triaxial, MCV, consolidation and dry density / moisture content relationship testing. The results from geotechnical testing on selected trial pit and borehole soils are presented in Appendix 9.

Chemical analysis incorporating pH levels, acid-soluble sulphate (%), total sulphur and water-soluble sulphate as SO_4 (g/l) in addition to organic matter contents were also undertaken on recovered soils. The chemical results are presented in Appendix 10.

Soil samples were selected from window sample holes, trial pits and boreholes for specialist Waste Acceptance Criteria (WAC) analysis. The results can be used to classify the material with regard to its potential for disposal to landfill. These results are also presented in the Chemtest reports in Appendix 10.

Environmental testing was also conducted on water samples bailed from existing wells on site. The resultant Chemtest reports feature in Appendix 11.

Geotechnical laboratory testing was carried out on selected rock cores. Point load strength index (PLSI) and uniaxial compressive strength (UCS) tests were conducted with the results presented in Appendix 12.

REFERENCES

- 1.0 BS 5930 (1999 + A2:2010) Code of Practice for Site Investigation, British Standards Institution (BSI).
- 2.0 BS 1377 (1990) Methods of Testing of Soils for Civil Engineering Purposes, BSI.
- 3.0 Eurocode 7, Part 2: Ground Investigation & Testing (EN 1997-2:2007)
- 4.0 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.
- 5.0 Site Investigation Practice: Assessing BS 5930 (1986), Geological Society Special Publication, No. 2.

Appendix 1

Trial Pit Records and Photographs



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP201
LOGGED BY F. Afonso		SHEET Sheet 1 of 1
CO-ORDINATES 726,445.94 E 719,561.56 N		DATE STARTED 25/09/2020
GROUND LEVEL (m) 10.17		DATE COMPLETED 25/09/2020
CLIENT ENGINEER Ballymore Atkins	EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm brown gravelly very sandy CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies.		0.10	10.07						
			0.80	9.37		AA137966	Env B	0.50-0.50 0.50-0.50		
1.0	(Medium dense) Greyish brown slightly clayey very gravelly medium to coarse SAND with medium cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.									
						AA137967	B	1.50-1.50		
2.0										
	End of Trial Pit at 2.50m		2.50	7.67		AA137968	B	2.50-2.50		
3.0										

Groundwater Conditions
Dry

Stability
Unstable from 0.80m

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP202
LOGGED BY F. Afonso		SHEET Sheet 1 of 1
CO-ORDINATES 726,364.49 E 719,512.96 N		DATE STARTED 24/09/2020
GROUND LEVEL (m) 11.08		DATE COMPLETED 24/09/2020
CLIENT ENGINEER Ballymore Atkins	EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm to stiff brown sandy gravelly CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies.		0.10	10.98		AA137963	Env B	0.50-0.50 0.50-0.50	20	
1.0	Medium dense greyish brown slightly clayey very gravelly medium to coarse SAND with medium cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.		0.90	10.18		AA137964	B	1.50-1.50		
2.0						AA137965	B	2.50-2.50		
3.0	End of Trial Pit at 2.90m		2.90	8.18						

Groundwater Conditions
Dry

Stability
Unstable from 0.80m

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP203
LOGGED BY F. Afonso		SHEET Sheet 1 of 1
CO-ORDINATES 726,507.10 E 719,598.03 N		DATE STARTED 25/09/2020
GROUND LEVEL (m) 9.61		DATE COMPLETED 25/09/2020
CLIENT ENGINEER Ballymore Atkins	EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm brown gravelly very sandy CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies.		0.10	9.51						
			0.80	8.81		AA137972	Env B	0.50-0.50 0.50-0.50		
1.0	(Medium dense) Greyish brown slightly clayey very gravelly medium to coarse SAND with medium cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.									
						AA137973	B	1.50-1.50		
2.0										
	End of Trial Pit at 2.50m		2.50	7.11		AA137974	B	2.50-2.50		
3.0										

Groundwater Conditions
Dry

Stability
Unstable from 0.80m

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP204	
LOGGED BY F. Afonso		SHEET Sheet 1 of 1	
CO-ORDINATES 726,516.51 E 719,549.49 N		DATE STARTED 25/09/2020	
GROUND LEVEL (m) 9.84		DATE COMPLETED 25/09/2020	
CLIENT ENGINEER Ballymore Atkins		EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm brown gravelly very sandy CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies.		0.10	9.74						
	(Medium dense) Greyish brown slightly clayey very gravelly medium to coarse SAND with medium cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.		0.70	9.14		AA137969	Env B	0.50-0.50 0.50-0.50		
1.0						AA137970	B	1.50-1.50		
2.0						AA137971	B	2.50-2.50		
3.0	End of Trial Pit at 3.00m		3.00	6.84						

Groundwater Conditions
Dry

Stability
Unstable from 0.80m

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP205	
LOGGED BY F. Afonso		SHEET Sheet 1 of 1	
CO-ORDINATES 726,442.09 E 719,477.12 N		DATE STARTED 24/09/2020	
GROUND LEVEL (m) 10.73		DATE COMPLETED 24/09/2020	
CLIENT ENGINEER Ballymore Atkins		EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm orangish brown gravelly very sandy CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies.		0.10	10.63						
						AA137960	Env B	0.50-0.50 0.50-0.50	22	
1.0	(Medium dense) Greyish brown slightly clayey gravelly medium to coarse SAND with low cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.		0.80	9.93						
						AA137961	B	1.50-1.50		
2.0	(Medium dense) Greyish brown slightly clayey very gravelly medium to coarse SAND with medium cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.		1.90	8.83						
						AA137962	B	2.50-2.50		
3.0	End of Trial Pit at 3.00m		3.00	7.73						

Groundwater Conditions
Dry

Stability
Unstable from 0.80m

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP207
LOGGED BY F. Afonso		SHEET Sheet 1 of 1
CO-ORDINATES 726,448.36 E 719,400.85 N		DATE STARTED 24/09/2020
GROUND LEVEL (m) 9.55		DATE COMPLETED 24/09/2020
CLIENT ENGINEER Ballymore Atkins	EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm brown gravelly very sandy CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies.		0.10	9.45		AA137957	Env B	0.50-0.50 0.50-0.50		
1.0	(Medium dense) Greyish brown slightly clayey gravelly medium to coarse SAND. Gravel is fine to coarse subrounded.		0.90	8.65		AA137958	B	1.50-1.50		
2.0	(Medium dense) Greyish brown slightly clayey very gravelly medium to coarse SAND with medium cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.		1.90	7.65		AA137959	B	2.50-2.50		
3.0	End of Trial Pit at 3.00m		3.00	6.55						

Groundwater Conditions
Dry

Stability
Unstable from 1.60m

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP208
LOGGED BY F. Afonso		SHEET Sheet 1 of 1
CO-ORDINATES 726,491.25 E 719,426.98 N		DATE STARTED 24/09/2020
GROUND LEVEL (m) 8.73		DATE COMPLETED 24/09/2020
CLIENT ENGINEER Ballymore Atkins	EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm brown slightly gravelly very sandy CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies.		0.10	8.63		AA137954	Env B	0.50-0.50 0.50-0.50	26	
1.0									30	
	(Medium dense) Greyish brown slightly clayey very gravelly medium to coarse SAND with high cobble content. Gravel is fine to coarse subrounded. Cobbles are subrounded of multiple lithologies.		1.40	7.33		AA137955	B	1.50-1.50		
2.0										
	End of Trial Pit at 2.30m		2.30	6.43		AA137956	B	2.30-2.30		
3.0										

Groundwater Conditions
Dry

Stability
Unstable from 1.10m

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP209
LOGGED BY F. Afonso		SHEET Sheet 1 of 1
CO-ORDINATES 726,613.14 E 719,463.80 N		DATE STARTED 25/09/2020
GROUND LEVEL (m) 7.15		DATE COMPLETED 25/09/2020
CLIENT ENGINEER Ballymore Atkins	EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm brown sandy very gravelly CLAY with low cobble content and frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies. (Possible MADE GROUND)		0.10	7.05						
	Firm orangish brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. (Possible MADE GROUND)		0.60	6.55		AA137975	Env B	0.50-0.50 0.50-0.50	28	
1.0			1.40	5.75		AA137976	B	1.00-1.00		
	Stiff light brown slightly sandy slightly gravelly CLAY with occasional organic matter. Sand is fine to coarse. Gravel is fine to medium.		1.40	5.75		AA137977	B	1.50-1.50	86	
2.0			2.90	4.25		AA137978	B	2.50-2.50		
3.0	End of Trial Pit at 2.90m									

Groundwater Conditions
Dry

Stability
Good

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool



TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP210	
LOGGED BY D. Newell		SHEET Sheet 1 of 1	
CO-ORDINATES 726,589.65 E 719,426.43 N		DATE STARTED 25/09/2020	
GROUND LEVEL (m) 6.66		DATE COMPLETED 25/09/2020	
CLIENT ENGINEER Ballymore Atkins		EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm brown sandy gravelly CLAY with low cobble content and occasional rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies. (Possible MADE GROUND)		0.10	6.56						
	Firm to stiff brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded.		0.50	6.16		AA148851	Env B	0.50-0.50 0.50-0.50	22	
1.0										
	Stiff brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded.		1.50	5.16		AA148852	B	1.50-1.50		
2.0										
	End of Trial Pit at 2.50m		2.50	4.16		AA148853	B	2.50-2.50	28	
3.0										

Groundwater Conditions
Dry

Stability
Good

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool

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TRIAL PIT RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		TRIAL PIT NO. TP211
LOGGED BY F. Afonso		SHEET Sheet 1 of 1
CO-ORDINATES 726,509.56 E 719,370.93 N		DATE STARTED 24/09/2020
GROUND LEVEL (m) 7.69		DATE COMPLETED 24/09/2020
CLIENT ENGINEER Ballymore Atkins	EXCAVATION METHOD JCB	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	MADE GROUND comprising firm greyish brown sandy very gravelly CLAY with middle cobble content, frequent rootlets and occasional red bricks and plastics. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies		1.20	6.49		AA137951	Env B	0.50-0.50 0.50-0.50	26	
1.0						AA137952	B	1.50-1.50		
2.0	MADE GROUND comprising firm brownish grey sandy gravelly CLAY with low cobble content, frequent rootlets and occasional red bricks and plastics. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded. Cobbles are subangular to subrounded of multiple lithologies		2.30	5.39		AA137953	B	2.30-2.30		
3.0	2.30m Black PVC pipe with gravel surround End of Trial Pit at 2.30m									

Groundwater Conditions
Dry

Stability
Good

General Remarks
Pit commenced after scanning ground with CAT cable avoidance tool

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TP201 – 1 of 2



TP201 – 2 of 2



TP202 – 1 of 3



TP202 – 2 of 3



TP202 – 3 of 3



TP203 – 1 of 3



TP203 – 2 of 3



TP203 – 3 of 3



TP204 – 1 of 3



TP204 – 2 of 3



TP204 – 3 of 3



TP205 – 1 of 3



TP205 – 2 of 3



TP205 – 3 of 3



TP207 – 1 of 2



TP207 – 2 of 2



TP208 – 1 of 3



TP208 – 2 of 3



TP208 – 3 of 3



TP209 – 1 of 3



TP209 – 2 of 3



TP209 – 3 of 3



TP210 – 1 of 3



TP210 – 2 of 3



TP210 – 3 of 3



TP211 – 1 of 4



TP211 – 2 of 4



TP211 – 3 of 4



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Appendix 2

Cable Percussion Borehole Records



GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH201	
CO-ORDINATES 726,357.88 E 719,535.30 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 13.74		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 20/08/2020	
		BOREHOLE DEPTH (m) 9.50		DATE COMPLETED 21/08/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Light brown slightly clayey gravelly SAND with occasional roots		13.14	0.60						
1	Firm to stiff light brown very sandy gravelly CLAY				AA134066	B	1.00		N = 19 (3, 3, 4, 4, 5, 6)	
2	Dense grey fine to coarse silty sandy GRAVEL with occasional cobbles and boulders		12.04	1.70	AA134067	B	2.00		N = 32 (6, 6, 6, 7, 9, 10)	
3					AA134068	B	3.00		N = 35 (5, 7, 7, 9, 9, 10)	
4					AA134069	B	4.00		N = 37 (7, 6, 8, 8, 10, 11)	
5					AA134070	B	5.00		N = 39 (5, 6, 8, 9, 9, 13)	
6	Dense grey fine to coarse very sandy GRAVEL with some cobbles		8.14	5.60	AA134071	B	6.00		N = 36 (6, 7, 7, 9, 10, 10)	
7	Stiff to very stiff light brown sandy SILT		7.04	6.70	AA134072	U	7.00	100%rec 30 blows		
8					AA134073	B	8.00		N = 40 (6, 7, 9, 9, 10, 12)	
9					AA134074	B	9.00		N = 50/150 mm (11, 14, 37, 13)	
	Obstruction End of Borehole at 9.50 m		4.24	9.50						

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
9.3	9.5	1							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
24-08-20					24-08-20	9.50	Nil	5.80	End of BH

REMARKS 1he Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 22734.GPJ IGSL.GDT 29/1/21



GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH202	
CO-ORDINATES 726,395.82 E 719,560.58 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 10.58		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 24/08/2020	
		BOREHOLE DEPTH (m) 2.80		DATE COMPLETED 24/08/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		10.38	0.20						
1	Firm light brown very sandy gravelly SILT/CLAY with occasional roots									
1	Stiff to very stiff mottled dark brown sandy gravelly CLAY with occasional cobbles and boulders		9.48	1.10	AA134475	B	1.00		N = 23 (2, 2, 4, 6, 6, 7)	
2					AA134476	B	2.00		N = 39 (6, 8, 9, 9, 10, 11)	
3	Obstruction End of Borehole at 2.80 m		7.78	2.80					N = 50/150 mm (12, 18, 21, 29)	
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.6	2.8	1							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1he Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .

Sample Legend
 D - Small Disturbed (tub)
 B - Bulk Disturbed
 LB - Large Bulk Disturbed
 Env - Environmental Sample (Jar + Vial + Tub)
 UT - Undisturbed 100mm Diameter Sample
 P - Undisturbed Piston Sample
 W - Water Sample

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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH203	
CO-ORDINATES 726,503.72 E 719,580.04 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 10.31		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 28/08/2020	
		BOREHOLE DEPTH (m) 8.50		DATE COMPLETED 31/08/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		10.11	0.20						
	Firm dark brown sandy SILT/CLAY									
1	Firm to stiff dark brown very sandy gravelly SILT/CLAY with some cobbles		9.41	0.90	AA139451	B	1.00		N = 15 (2, 2, 3, 3, 4, 5)	
2					AA139452	B	2.00		N = 22 (3, 4, 4, 5, 6, 7)	
3					AA139453	B	3.00		N = 29 (6, 6, 5, 6, 8, 10)	
4	Very stiff dark brown sandy gravelly SILT/CLAY with some cobbles		6.11	4.20	AA139454	B	4.00		N = 41 (10, 12, 14, 10, 9, 8)	
5	Stiff mottled brown gravelly SILT		5.21	5.10	AA139455	B	5.00		N = 27 (5, 5, 6, 8, 6, 7)	
6					AA139456	B	6.00		N = 33 (6, 6, 7, 8, 8, 10)	
7	Very stiff mottled brown gravelly SILT with some cobbles and occasional boulders		3.21	7.10	AA139457 Fail	B U	7.00 7.00			
8					AA139458	B	8.00		N = 50/245 mm (9, 11, 11, 14, 15, 10)	
9	Obstruction End of Borehole at 8.50 m		1.81	8.50						

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.9	4.1	1							No water strike
8.3	8.5	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 22734.GPJ IGSL.GDT 29/1/21



GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH204	
CO-ORDINATES 726,541.05 E 719,582.59 N		RIG TYPE Dando 1500		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 9.66		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 10/09/2020	
		BOREHOLE DEPTH (m) 1.80		DATE COMPLETED 11/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY DT	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		9.56	0.10						
	Soft to firm brown sandy gravelly SILT/CLAY		9.16	0.50						
	Firm to stiff brown sandy gravelly SILT/CLAY with occasional cobbles				AA146494	B	0.80		N = 25 (5, 6, 6, 5, 7, 7)	
1	Dense grey coarse sandy angular GRAVEL		8.46	1.20	AA146495	B	1.00			
					AA146496	B	1.50			
2	Obstruction - Probable boulder End of Borehole at 1.80 m		7.86	1.80						
3										
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.7	1.8	1.75							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH205	
CO-ORDINATES 726,386.96 E 719,518.14 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 10.75		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 24/08/2020	
		BOREHOLE DEPTH (m) 10.50		DATE COMPLETED 25/08/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		10.45	0.30						
1	Stiff to very stiff light brown very sandy gravelly SILT/CLAY with occasional roots				AA134477	B	1.00		N = 35 (6, 6, 8, 9, 8, 10)	
2					AA134478	B	2.00		N = 49 (7, 9, 11, 11, 14, 13)	
3	Very stiff dark brown very sandy gravelly CLAY with some cobbles and occasional boulders		8.35	2.40	AA134479	B	3.00		N = 50/185 mm (12, 13, 23, 17, 10)	
4					AA134480	B	4.00		N = 50/190 mm (16, 9, 18, 19, 13)	
5					AA134481	B	5.00		N = 50/255 mm (9, 11, 11, 14, 15, 10)	
6	Medium dense to dense very silty gravelly SAND. Gravel is fine to medium.		5.05	5.70	AA134482	U	6.00	100%rec 35 blows		
7					AA134483	B	7.00		N = 30 (5, 6, 7, 7, 8, 8)	
8	Very stiff light brown sandy SILT		3.55	7.20	AA134484	U	8.00	90%rec 40 blows		
9					AA134485	B	9.00		N = 40 (7, 9, 9, 10, 10, 11)	

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.1	3.3	0.75							No water strike
4.2	4.5	0.75							
10.3	10.5	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					25-08-20			5.80	Start 2nd day

REMARKS 1he Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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CONTRACT Harbour Point Bray				BOREHOLE NO. BH205	
CO-ORDINATES 726,386.96 E 719,518.14 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 10.75		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 24/08/2020	
		BOREHOLE DEPTH (m) 10.50		DATE COMPLETED 25/08/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very stiff light brown sandy SILT (<i>continued</i>)	x . x . x . x . x . x . x . x .	0.25	10.50	AA134486	U	10.00	90%rec 45 blows		
11	Obstruction End of Borehole at 10.50 m									
12										
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.1	3.3	0.75							No water strike
4.2	4.5	0.75							
10.3	10.5	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1he Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH206	
				SHEET Sheet 1 of 1	
CO-ORDINATES 726,557.76 E 719,562.15 N		RIG TYPE Dando 1500		DATE COMMENCED 09/09/2020	
GROUND LEVEL (m AOD) 9.10		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 10/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY DT	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		9.00	0.10						
	Soft to firm brown sandy gravelly SILT/CLAY		8.50	0.60	AA146485	B	0.50			
	Firm brown sandy gravelly SILT/CLAY with occasional cobbles		8.20	0.90	AA146486	B	1.00			
1	Firm brown very sandy very gravelly CLAY with occasional cobbles		7.90	1.20	AA146487	B	2.00			N = 24 (5, 5, 6, 5, 6, 7)
2	Dense grey fine to coarse sandy GRAVEL with occasional cobbles				AA146488	B	3.00			N = 50/225 mm (25, 17, 16, 17)
3			5.60	3.50	AA146488	B	3.00			N = 50/60 mm (18, 7, 50)
4	Stiff to very stiff orange/brown sandy gravelly silty CLAY				AA146489	B	3.50			
5					AA146490	U	4.00	100%rec		
6					AA146491	B	4.50			
7					AA146492	B	5.00			N = 35 (5, 5, 8, 8, 9, 10)
8					AA146493	B	6.00			N = 49/285 mm (4, 4, 7, 9, 12, 21)
9	Obstruction End of Borehole at 6.50 m		2.60	6.50						

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.2	3.5	1							No water strike
6.3	6.5	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .

Sample Legend
 D - Small Disturbed (tub)
 B - Bulk Disturbed
 LB - Large Bulk Disturbed
 Env - Environmental Sample (Jar + Vial + Tub)
 UT - Undisturbed 100mm Diameter Sample
 P - Undisturbed Piston Sample
 W - Water Sample

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REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH207	
CO-ORDINATES 726,396.97 E 719,459.97 N				SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 11.07		RIG TYPE Dando 2000		DATE COMMENCED 26/08/2020	
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 27/08/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		10.87	0.20						
0	Stiff to very stiff dark brown very sandy gravelly SILT/CLAY				AA134487	B	1.00		N = 31 (4, 6, 8, 8, 8, 7)	
1					AA134488	B	2.00		N = 28 (6, 7, 7, 6, 7, 8)	
2					AA134489	B	3.00		N = 50/210 mm (10, 14, 15, 17, 18)	
3					AA134490	B	4.00		N = 44 (6, 8, 10, 10, 11, 13)	
4					AA134491	B	5.00		N = 34 (7, 8, 9, 9, 8, 8)	
5	Very stiff mottled brown sandy SILT		5.67	5.40	AA134492	B	6.00		N = 54/275 mm (3, 7, 9, 15, 17, 13)	
6	Very stiff dark brown sandy gravelly SILT/CLAY with occasional cobbles and boulders		4.97	6.10	AA134493	B	7.00		N = 50/225 mm (10, 12, 14, 14, 16, 6)	
7					AA134494	B	8.00		N = 50/265 mm (8, 11, 13, 13, 14, 10)	
8					AA134495	B	9.00		N = 50/225 mm (7, 8, 11, 15, 17, 7)	
9										
	Obstruction			1.27	9.80					

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.3	3.6	1		9.80	9.80	No	5.80	20	Rapid
9.6	9.8	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
27-08-00	9.80	1.00	9.80	50mm SP					

REMARKS 1he Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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CONTRACT Harbour Point Bray				BOREHOLE NO. BH207	
CO-ORDINATES 726,396.97 E 719,459.97 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 11.07		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 26/08/2020	
		BOREHOLE DEPTH (m) 9.80		DATE COMPLETED 27/08/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	End of Borehole at 9.80 m									
11										
12										
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.3	3.6	1							
9.6	9.8	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
27-08-00	9.80	1.00	9.80	50mm SP					

<p>REMARKS 1he Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .</p>	<p>Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample</p>
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CONTRACT Harbour Point Bray				BOREHOLE NO. BH208	
CO-ORDINATES 726,485.04 E 719,504.09 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 10.11		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 01/09/2020	
		BOREHOLE DEPTH (m) 3.90		DATE COMPLETED 01/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		9.81	0.30						
1	Stiff to very stiff dark brown very sandy gravelly SILT/CLAY with occasional cobbles				AA139451	B	1.00		N = 24 (3, 3, 4, 5, 7, 8)	
2					AA139452	B	2.00		N = 49/255 mm (8, 17, 18, 10, 10, 11)	
3					AA139453	B	3.00		N = 50/220 mm (10, 14, 16, 17, 17)	
4	Obstruction End of Borehole at 3.90 m		6.21	3.90						
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.6	3.9	2							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Standing on access 5hrs. 1hr erecting Covid 19 Safe Working Area. CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH210	
CO-ORDINATES 726,535.60 E 719,521.76 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 9.36		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 02/09/2020	
		BOREHOLE DEPTH (m) 12.80		DATE COMPLETED 03/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		9.16	0.20						
	Light brown sandy gravelly SILT/CLAY		8.56	0.80						
1	Medium dense to dense light brown very sandy GRAVEL with some cobbles (Possibly very gravelly sand)				AA141603	B	1.50		N = 25 (4, 5, 5, 6, 6, 8)	
2					AA141604	B	2.50		N = 50/85 mm (9, 16, 36, 14)	
3					AA141605	B	3.50		N = 49/255 mm (8, 10, 11, 14, 15, 9)	
4	Stiff dark brown sandy gravelly SILT/CLAY		5.16	4.20	AA141606	B	4.50		N = 37 (5, 18, 10, 10, 8, 9)	
5	Dense dark brown sandy silty/clayey GRAVEL with some cobbles (Possibly very gravelly clay)		4.06	5.30	AA141607	B	5.50		N = 39 (4, 6, 9, 10, 9, 11)	
6	Stiff to very stiff light brown sandy gravelly silty CLAY with some cobbles and occasional boulders		3.16	6.20	AA141608	B	6.50		N = 32 (5, 5, 6, 8, 8, 10)	
7					AA141609	B	7.50		N = 43 (6, 8, 10, 10, 11, 12)	
8					AA141610	B	8.50		N = 40 (5, 8, 8, 11, 11, 10)	
9	Very stiff light brown SILT		0.56	8.80	AA141611	B	9.50		N = 41 (8, 8, 9, 10, 11, 11)	
			-0.54	9.90						

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.7	2.9	1							
11.7	11.9	0.75							
12.6	12.8	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Standing on access 2hrs. 1hr erecting Covid 19 Safe Working Area. CAT scanned location and hand dug inspection pit carried out .

Sample Legend
 D - Small Disturbed (tub)
 B - Bulk Disturbed
 LB - Large Bulk Disturbed
 Env - Environmental Sample (Jar + Vial + Tub)

UT - Undisturbed 100mm Diameter Sample
 P - Undisturbed Piston Sample
 W - Water Sample

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CONTRACT Harbour Point Bray				BOREHOLE NO. BH210	
CO-ORDINATES 726,535.60 E 719,521.76 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 9.36		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 02/09/2020	
		BOREHOLE DEPTH (m) 12.80		DATE COMPLETED 03/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very stiff dark brown sandy gravelly silty CLAY with cobbles <i>(continued)</i>		-3.44	12.80	AA141612	U	10.50	100%rec 50 blows	N = 50/105 mm (14, 11, 21, 29)	
11					AA141613	B	11.50			
12					AA141614	B	12.50			
13	Obstruction End of Borehole at 12.80 m									
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.7	2.9	1		12.80	12.80	No	10.00	20	Rapid
11.7	11.9	0.75							
12.6	12.8	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Standing on access 2hrs. 1hr erecting Covid 19 Safe Working Area. CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH211	
CO-ORDINATES 726,574.08 E 719,521.79 N		RIG TYPE Dando 1500		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 8.72		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 07/09/2020	
		BOREHOLE DEPTH (m) 13.80		DATE COMPLETED 09/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY DT	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		8.62	0.10						
	Brown very sandy gravelly SILT/CLAY		8.22	0.50						
	Light brown/orange sandy gravelly SILT/CLAY with occasional cobbles		7.92	0.80						
1	Firm mottled brown/black sandy gravelly CLAY with some cobbles		7.82	0.90						
	Stiff brown very sandy very gravelly CLAY		7.52	1.20	AA146464	B	1.20		N = 21 (3, 3, 5, 5, 5, 6)	
2	Medium dense grey/brown fine to coarse very sandy silty GRAVEL with some cobbles				AA146465	B	2.00		N = 50/205 mm (25, 18, 19, 13)	
3					AA146466	B	3.00		N = 50/225 mm (25, 16, 17, 17)	
4					AA146467	B	4.00		N = 31 (5, 5, 4, 4, 6, 17)	
			3.92	4.80	AA146468	B	4.50			
5	Stiff pink/brown sandy gravelly SILT/CLAY				AA146469	U	5.00	100%rec		
			3.12	5.60	AA146470	B	6.00		N = 31 (2, 4, 6, 6, 8, 11)	
6	Stiff brown sandy gravelly silty CLAY				AA146471	B	6.50			
			1.92	6.80	AA146472	B	7.00		N = 43 (8, 10, 9, 10, 11, 13)	
7	Very stiff brown very sandy very gravelly CLAY with cobbles				AA146473	B	7.50			
8					AA146474	U	8.00	100%rec		
					AA146475	B	8.50			
9					AA146476	U	9.00	100%rec		
					AA146477	B	9.50			

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.8	2	0.75							
3.5	3.9	1							
10	10.3	0.5							
13.6	13.8	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					08-09-20			8.50	End of 2nd day

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH211	
CO-ORDINATES 726,574.08 E 719,521.79 N		RIG TYPE Dando 1500		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 8.72		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 07/09/2020	
		BOREHOLE DEPTH (m) 13.80		DATE COMPLETED 09/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY DT	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very stiff brown very sandy very gravelly CLAY with cobbles (<i>continued</i>)		-1.88	10.60	AA146478 AA146479	B B	10.00 10.00		N = 50/75 mm (16, 9, 50)	
11				10.50	AA146480	B	10.50			
11	Dense grey fine to coarse sandy GRAVEL with some cobbles				AA146481	B	11.00		N = 50/170 mm (6, 10, 16, 24, 10)	
12					AA146482	B	12.00		N = 50/195 mm (5, 11, 15, 20, 15)	
13					AA146483	B	13.00		N = 50/150 mm (5, 20, 25, 25)	
13					AA146484	B	13.50		N = 50/125 mm (4, 21, 28, 22)	
14	Obstruction End of Borehole at 13.80 m		-5.08	13.80						
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.8	2	0.75		10.60	10.60	No	8.80	20	Rapid
3.5	3.9	1							
10	10.3	0.5							
13.6	13.8	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					09-09-20	13.80	Nil	8.70	End of BH

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH212	
CO-ORDINATES 726,480.85 E 719,395.92 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 7.95		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 28/09/2020	
		BOREHOLE DEPTH (m) 4.70		DATE COMPLETED 29/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	MADE GROUND comprised of sandy gravelly CLAY with Cl.804 type granular FILL				AA141643	ENV	0.50			
1	Stiff to very stiff dark brown gravelly SILT/CLAY with occasional cobbles		6.75	1.20	AA141644	ENV	1.50		N = 50/285 mm (4, 7, 9, 11, 16, 14)	
					AA141645	B	1.50			
2	Stiff to very stiff light brown sandy gravelly SILT/CLAY with some cobbles		5.05	2.90	AA141646	ENV	2.50		N = 29 (5, 5, 6, 6, 8, 9)	
					AA141647	B	2.50			
3	Stiff to very stiff light brown sandy gravelly SILT/CLAY with some cobbles				AA141648	ENV	3.50		N = 30 (4, 5, 6, 7, 8, 9)	
					AA141649	B	3.50			
4	Obstruction End of Borehole at 4.70 m		3.25	4.70	AA141650	ENV	4.50		N = 38/105 mm (6, 12, 18, 20)	
					AA141651	B	4.50			

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.5	2.7	0.5							No water strike
4.5	4.7	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH213	
CO-ORDINATES 726,544.05 E 719,454.95 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 8.32		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 10/09/2020	
		BOREHOLE DEPTH (m) 11.10		DATE COMPLETED 14/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		8.07	0.25						
1	Medium dense to dense light brown fine to coarse sandy GRAVEL with occasional cobbles				AA146601	B	1.50		N = 50/225 mm (8, 10, 14, 14, 15, 7)	
2					AA146602	B	2.50		N = 50/220 mm (10, 13, 14, 17, 19)	
3					AA146603	B	3.50		N = 47 (8, 9, 11, 11, 12, 13)	
4	Stiff to very stiff dark brown gravelly SILT/CLAY with occasional cobbles		4.42	3.90	AA146604	B	4.50		N = 30 (6, 6, 7, 8, 7, 8)	
5					AA146605	B	5.50		N = 28 (4, 5, 7, 6, 8, 7)	
6					AA146606	B	6.50		N = 47 (3, 6, 12, 12, 12, 11)	
7					AA146607	B	7.50		N = 43 (5, 8, 10, 10, 11, 12)	
8					AA146608	B	8.50		N = 43 (9, 9, 11, 10, 11, 11)	
9					AA146609	B	9.50		N = 50/225 mm (2, 7, 10, 14, 20, 6)	

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.2	2.5	0.75							No water strike
10.8	11.1	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					14-09-20			3.30	Start of 3rd Day

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH213	
CO-ORDINATES 726,544.05 E 719,454.95 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 8.32		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 10/09/2020	
		BOREHOLE DEPTH (m) 11.10		DATE COMPLETED 14/09/2020	
CLIENT Ballymore ENGINEER Atkins			SPT HAMMER REF. NO. ENERGY RATIO (%)		BORED BY WC PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Stiff to very stiff dark brown gravelly SILT/CLAY with occasional cobbles <i>(continued)</i>				AA146610	B	10.50		N = 50/255 mm (9, 11, 11, 13, 16, 10)	
	Very stiff light brown very sandy gravelly silty CLAY		-2.48	10.80						
11	Obstruction End of Borehole at 11.10 m		-2.78	11.10						
12										
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.2	2.5	0.75							No water strike
10.8	11.1	2							

INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments
Date	Tip Depth	RZ Top	RZ Base	Type					

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH214	
CO-ORDINATES 726,594.19 E 719,464.75 N				SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 7.41		RIG TYPE Dando 2000		DATE COMMENCED 15/09/2020	
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 15/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details		
					Ref. Number	Sample Type	Depth (m)	Recovery				
0	TOPSOIL		7.11	0.30								
0.5	Very stiff light brown very sandy gravelly SILT/CLAY with occasional cobbles				AA001709	ENV	0.50		N = 44 (6, 8, 10, 10, 11, 13)			
1.5					AA001710 AA146611	ENV B	1.50 1.50					
2.2	Stiff mottled brown sandy gravelly SILT/CLAY with occasional cobbles		5.21	2.20	AA001711	ENV	2.50				N = 23 (4, 5, 6, 6, 5, 6)	
2.5					AA146612	ENV B	2.50 2.50					
3.3	Stiff to very stiff light brown gravelly CLAY with cobbles		4.11	3.30	AA001712	ENV	3.50		100%rec 35 blows			
3.5					AA146613	U	3.50 3.50					
4.5	Obstruction End of Borehole at 4.80 m		2.61	4.80	AA001713	ENV	4.50				N = 34 (6, 6, 6, 7, 8, 13)	
4.5					AA146614	B	4.50 4.50					

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.6	4.6	1		2.20	2.20	3.30	1.90	20	Moderate

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH215	
CO-ORDINATES 726,622.65 E 719,429.37 N				SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 4.67		RIG TYPE Dando 2000		DATE COMMENCED 17/09/2020	
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 28/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		4.47	0.20						
	Dark brown sandy gravelly SILT/CLAY		4.07	0.60	AA141651	ENV	0.50			
1	Stiff light brown sandy gravelly SILT/CLAY with occasional cobbles				AA141652	ENV	1.50		N = 25 (4, 4, 6, 6, 7, 6)	
					AA141653	B	1.50			
2					AA141654	ENV	2.50			
					AA141655	B	2.50			
3	Stiff dark brown sandy gravelly CLAY with cobbles			0.77	AA141656	ENV	3.50		N = 27 (4, 5, 6, 6, 7, 8)	
					AA141657	B	3.50			
4					AA141658	ENV	4.50			
					AA141659	B	4.50			
5					AA141660	ENV	5.50		N = 26 (3, 5, 6, 6, 6, 8)	
					AA141661	B	5.50			
6					AA141662	ENV	6.50			
					AA141663	B	6.50			
7					AA141664	ENV	7.50		N = 30 (5, 6, 6, 7, 8, 9)	
					AA141665	B	7.50			
8					AA141666	ENV	8.50			
					AA141667	B	8.50			
9	Stiff to very stiff dark brown gravelly silty CLAY with cobbles		-3.63	8.30	AA141668	ENV	9.50		N = 29 (4, 6, 7, 7, 7, 8)	
					AA141669	B	9.50			
					AA141668	ENV	9.50		N = 31 (6, 7, 5, 8, 6, 12)	
					AA141669	B	9.50			

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
13	13.3	1							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH215	
CO-ORDINATES 726,622.65 E 719,429.37 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 4.67		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 17/09/2020	
		BOREHOLE DEPTH (m) 13.30		DATE COMPLETED 28/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Stiff to very stiff dark brown gravelly silty CLAY with cobbles (continued)				AA141670	ENV	10.50		N = 50/225 mm (11, 14, 14, 15, 17, 4)	
AA141671					B	10.50				
AA141672					ENV	11.50				
AA141673					B	11.50				
12					AA141674	ENV	12.50		N = 60/265 mm (12, 13, 16, 17, 17, 10)	
AA141675					B	12.50				
13	Obstruction End of Borehole at 13.30 m		-8.63	13.30	AA141676	B	13.30		N = 50/225 mm (16, 9, 16, 16, 18)	
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
13	13.3	1							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH216	
CO-ORDINATES 726,565.98 E 719,404.25 N				SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 6.63		RIG TYPE Dando 2000		DATE COMMENCED 16/09/2020	
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 17/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		6.43	0.20						
	Light brown sandy gravelly SILT/CLAY		6.13	0.50	AA146631	ENV	0.50			
	Firm dark brown sandy gravelly SILT/CLAY with occasional cobbles		5.23	1.40	AA146620	B	1.50			N = 16 (2, 3, 3, 3, 4, 6)
	Firm light brown sandy gravelly SILT/CLAY with occasional cobbles		4.73	1.90	AA146632	ENV	1.50			
	Stiff light brown/grey SILT/CLAY				AA146621	B	2.50			N = 28 (3, 3, 6, 7, 7, 8)
					AA146633	ENV	2.50			
			2.83	3.80	AA146622	B	3.50			N = 29 (5, 6, 6, 7, 8, 8)
					AA146634	ENV	3.50			
	Very stiff light brown very sandy SILT/CLAY				AA146623	B	4.50			N = 50/275 mm (7, 8, 10, 13, 14, 13)
					AA146635	ENV	4.50			
					AA146636	ENV	4.50			
					AA146624	B	5.50			N = 50/225 mm (13, 12, 19, 13, 18)
					AA146625	B	6.50			N = 50/245 mm (11, 11, 12, 13, 16, 9)
					AA146637	ENV	6.50			
			-0.57	7.20	AA146626	B	7.50			N = 30 (8, 9, 8, 8, 7, 7)
					AA146638	ENV	7.50			
	Stiff light brown very sandy gravelly SILT/CLAY				AA146627	B	8.50			N = 33 (6, 8, 8, 9, 8, 8)
	Dense grey and grey/brown fine to coarse silty sandy GRAVEL with cobbles				AA146639	ENV	8.50			
			-2.87	9.50	AA146628	B	9.50			N = 45 (8, 8, 10, 10, 12, 13)
					AA146640	ENV	9.50			

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
9.1	9.3	1		7.20	7.20	9.50	6.80	20	Rapid
12	12.2	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH216	
CO-ORDINATES 726,565.98 E 719,404.25 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 6.63		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 16/09/2020	
		BOREHOLE DEPTH (m) 12.20		DATE COMPLETED 17/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very stiff mottled dark/light brown sandy gravelly silty CLAY (<i>continued</i>) Very stiff dark brown sandy gravelly silty CLAY				AA146629	B	10.50		N = 48 (11, 11, 12, 12, 11, 13)	
					AA146641	ENV	10.50			
11					AA146630	B	11.50		N = 46 (9, 10, 10, 12, 11, 13)	
					AA146642	ENV	11.50			
12	Obstruction End of Borehole at 12.20 m		-5.57	12.20						
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
9.1	9.3	1							
12	12.2	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH217	
CO-ORDINATES 726,606.34 E 719,398.97 N				SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 4.37		RIG TYPE Dando 2000		DATE COMMENCED 22/09/2020	
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 23/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		4.17	0.20						
	Light brown very sandy gravelly SILT/CLAY with occasional cobbles		3.47	0.90	AA146651 AA146655	ENV B	0.50 0.50			
1	Soft to firm dark brown sandy SILT/CLAY				AA146652 AA146653	ENV U	1.50 1.50	90%rec 10 blows		
2					AA146654	ENV	2.50			
3					AA146656 AA146657	ENV B U	3.50 3.50 3.50			N = 10 (2, 2, 3, 2, 3, 2)
4					AA146658 AA146659	ENV U	4.50 4.50	30%rec 7 blows		
5	Firm to stiff light brown sandy gravelly SILT/CLAY		-0.43	4.80	AA146660 AA146661	ENV B	5.50 5.50			N = 13 (2, 2, 3, 3, 3, 4)
6					AA146662 AA146663	ENV B	6.50 6.50			N = 39 (6, 8, 8, 10, 10, 11)
7	Soft to firm light brown sandy gravelly SILT/CLAY		-2.33	6.70	AA146664 AA146665	ENV B	7.50 7.50			N = 9 (2, 3, 2, 3, 2, 2)
8	Stiff light brown sandy gravelly SILT/CLAY		-3.63	8.00	AA146666 AA146667	ENV B	8.50 8.50			N = 29 (4, 5, 6, 6, 8, 9)
9					AA146668 AA146669	ENV B	9.50 9.50			N = 30 (5, 6, 6, 6, 8, 10)

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.3	6.5	1		6.20	6.20	11.40	4.80	20	Moderate
11.2	11.4	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH217	
CO-ORDINATES 726,606.34 E 719,398.97 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 4.37		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 22/09/2020	
		BOREHOLE DEPTH (m) 11.40		DATE COMPLETED 23/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Stiff light brown sandy gravelly SILT/CLAY <i>(continued)</i>		-6.03	10.40	AA146670 AA146671	ENV B	10.50 10.50		N = 21 (8, 8, 6, 6, 5, 4)	
	Firm to stiff dark brown sandy gravelly SILT/CLAY with occasional cobbles									
11										
	Obstruction End of Borehole at 11.40 m		-7.03	11.40						
12										
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.3	6.5	1							
11.2	11.4	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH218	
CO-ORDINATES 726,631.70 E 719,398.74 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 3.98		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 21/09/2020	
		BOREHOLE DEPTH (m) 13.30		DATE COMPLETED 23/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		3.73	0.25						
	Light brown sandy gravelly SILT/CLAY		3.08	0.90	AA141676	ENV	0.50			
1	Stiff dark brown very sandy gravelly SILT/CLAY with occasional cobbles		2.58	1.40	AA141677 AA141678	ENV B	1.50 1.50			N = 27 (4, 5, 6, 6, 7, 8)
2	Stiff dark grey very sandy gravelly SILT/CLAY with some wood fragments		1.28	2.70	AA141679 AA141680	ENV B	2.50 2.50			N = 13 (3, 3, 3, 4, 3, 3)
3	Firm dark brown sandy gravelly SILT/CLAY with occasional cobbles				AA141681 AA141682	ENV U	3.50 3.50	100%rec 16 blows		
4	Loose to medium dense grey fine to coarse sandy silty GRAVEL		-0.12	4.10	AA141683 AA141684	ENV B	4.50 4.50			N = 11 (2, 2, 3, 2, 3, 3)
5					AA141685 AA141686	ENV B	5.50 5.50			N = 13 (2, 3, 3, 4, 3, 3)
6					AA141687 AA141688	ENV B	6.50 6.50			N = 12 (3, 2, 3, 3, 3, 3)
7	Loose grey/brown silty/clayey gravelly SAND with some shells		-2.92	6.90	AA141689 AA141690	ENV B	7.50 7.50			N = 7 (3, 2, 2, 2, 1)
8	Soft dark brown peaty SILT		-3.72	7.70	AA141691 AA141692	ENV U	8.50 8.50	100%rec 8 blows		
9	Soft becoming firm dark brown SILT/CLAY with occasional shell fragments		-5.22	9.20	AA141693 AA141694	ENV B	9.50 9.50			N = 6 (1, 2, 2, 1, 2, 1)

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
13.1	13.3	2		4.70	4.70	7.70	3.80	20	Slow

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH218	
CO-ORDINATES 726,631.70 E 719,398.74 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 3.98		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 21/09/2020	
		BOREHOLE DEPTH (m) 13.30		DATE COMPLETED 23/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Soft becoming firm dark brown SILT/CLAY with occasional shell fragments (<i>continued</i>)				AA141695	ENV U	10.50	100%rec 8 blows	N = 15 (2, 3, 4, 4, 3, 4)	
AA141696					10.50					
11					AA141697	ENV U	11.50	100%rec 12 blows		
AA141698					11.50					
12				AA141699	ENV B	12.50				
13	Firm dark brown peaty SILT/CLAY		-8.82	12.80		AA141700		12.50		
13	Obstruction End of Borehole at 13.30 m		-9.32	13.30						
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
13.1	13.3	2		10.40	10.40	11.00	7.00	20	Moderate

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH219	
CO-ORDINATES 726,529.46 E 719,359.87 N				SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 7.29		RIG TYPE Dando 2000		DATE COMMENCED 29/09/2020	
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 30/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stanchpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		7.14	0.15						
0	MADE GROUND comprised of stiff dark brown sandy gravelly SILT/CLAY with some cobbles and large boulders		5.29	2.00	AA146674	B	0.50		N = 28 (6, 6, 6, 7, 8, 7)	
AA146675					ENV	1.50				
AA146676					B	1.50				
1	MADE GROUND comprised of firm to stiff sandy SILT/CLAY with wire, wood and plastic fragments		4.29	3.00	AA146677	ENV	2.50		N = 19 (3, 4, 4, 5, 4, 6)	
AA146678					B	2.50				
2	Stiff dark brown sandy gravelly SILT/CLAY		3.49	3.80	AA146679	ENV	3.50		N = 23 (3, 5, 5, 6, 5, 7)	
AA146680					B	3.50				
3	Firm light brown very sandy gravelly SILT/CLAY with occasional cobbles		0.29	7.00	AA146681	ENV	4.50		N = 17 (3, 3, 4, 4, 4, 5)	
AA146682					B	4.50				
AA146683					ENV	5.50				
AA146684					B	5.50				
4	Soft dark brown/black PEAT		0.09	7.20	AA146685	ENV	6.50		N = 14 (2, 3, 3, 3, 4, 4)	
AA146686					B	6.50				
5	Firm dark brown very gravelly sandy silty CLAY		-1.01	8.30	AA146687	ENV	7.50		N = 8 (2, 2, 2, 2, 2, 2)	
AA146688					B	7.50				
6	Stiff mottled brown sandy gravelly silty CLAY with some cobbles				AA146689	ENV	8.50		N = 16 (2, 5, 5, 4, 4, 3)	
AA146690					B	8.50				
AA146691					ENV	9.50				
7					AA146692	B	9.50		N = 23 (4, 4, 5, 5, 6, 7)	
8									N = 30 (6, 6, 7, 7, 8, 8)	
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
9.7	9.9	1							No water strike
10.5	10.7	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH219	
CO-ORDINATES 726,529.46 E 719,359.87 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 7.29		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 29/09/2020	
		BOREHOLE DEPTH (m) 10.70		DATE COMPLETED 30/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Stiff mottled brown sandy gravelly silty CLAY with some cobbles <i>(continued)</i>		-3.41	10.70	AA146694	B	10.50			
11	Obstruction End of Borehole at 10.70 m									
12										
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
9.7	9.9	1							No water strike
10.5	10.7	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH221	
CO-ORDINATES 726,573.03 E 719,326.03 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 3.00		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 08/09/2020	
		BOREHOLE DEPTH (m) 14.50		DATE COMPLETED 09/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		2.80	0.20						
0	Very soft light brown sandy slightly silty CLAY				AA141627	U	1.50	90%rec		
2	Soft dark brown SILT/CLAY		0.70	2.30	AA141628	B	2.50		N = 5 (1, 2, 1, 1, 2, 1)	
3	Very soft dark grey slightly peaty SILT		-0.30	3.30	AA141629	U	3.50	100%rec		
4					AA141630	B	4.50		N = 4 (1, 1, 0, 1, 1, 2)	
5					AA141631	U	5.50	90%rec		
6	Very soft dark brown SILT with shells		-3.10	6.10	AA141632	B	6.50		N = 2 (0, 0, 1, 0, 1, 0)	
7	Very soft light brown SILT		-4.20	7.20	AA141633	U	7.50	100%rec		
8					AA141634	B	8.50		N = 3 (0, 1, 1, 0, 1, 1)	
9					AA141635	B	9.50			

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
14.1	14.2	1		5.30	5.30	No	No	20	Seepage
14.3	14.5	1							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .

Sample Legend
 D - Small Disturbed (tub)
 B - Bulk Disturbed
 LB - Large Bulk Disturbed
 Env - Environmental Sample (Jar + Vial + Tub)
 UT - Undisturbed 100mm Diameter Sample
 P - Undisturbed Piston Sample
 W - Water Sample

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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray			BOREHOLE NO. BH221	
CO-ORDINATES 726,573.03 E 719,326.03 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2
GROUND LEVEL (m AOD) 3.00		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 08/09/2020
		BOREHOLE DEPTH (m) 14.50		DATE COMPLETED 09/09/2020
CLIENT ENGINEER Ballymore Atkins		SPT HAMMER REF. NO.		BORED BY WC
		ENERGY RATIO (%)		PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Soft to firm dark brown sandy peaty SILT	X	-7.20	10.20	AA141636	U	10.50	80%rec	N = 11 (2, 2, 3, 3, 3, 2)	
11	Medium dense grey silty sandy fine to medium GRAVEL	G	-8.30	11.30		AA141637	B	11.50		
12					AA141638	B	12.50	N = 15 (3, 3, 4, 4, 3, 4)		
13					AA141639	B	13.50		N = 46 (4, 4, 6, 8, 13, 19)	
14	Stiff dark brown sandy gravelly CLAY with occasional cobbles	C	-10.60	13.60						
14.50	Obstruction End of Borehole at 14.50 m		-11.50	14.50	AA141640	B	14.50			

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
14.1	14.2	1		11.80	11.80	14.00	3.20	20	Rapid
14.3	14.5	1							

INSTALLATION DETAILS				GROUNDWATER PROGRESS					
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH222	
CO-ORDINATES 726,618.23 E 719,344.48 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 3.40		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 04/09/2020	
		BOREHOLE DEPTH (m) 0.90		DATE COMPLETED 04/09/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		3.20	0.20						
	Light brown sandy clayey GRAVEL with some cobbles and occasional boulders				AA141709	B	0.70			
1	Obstruction End of Borehole at 0.90 m		2.50	0.90						
2										
3										
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
									No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area. CAT scanned location and hand dug inspection pit carried out. Obstruction encountered at 0.90m. Relocated to BH222A and attempted rebore as instructed.

Sample Legend
 D - Small Disturbed (tub)
 B - Bulk Disturbed
 LB - Large Bulk Disturbed
 Env - Environmental Sample (Jar + Vial + Tub)
 UT - Undisturbed 100mm Diameter Sample
 P - Undisturbed Piston Sample
 W - Water Sample

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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray			BOREHOLE NO. BH222A	
CO-ORDINATES			SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD)		RIG TYPE Dando 2000		DATE COMMENCED 04/09/2020
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 07/09/2020
		BOREHOLE DEPTH (m) 12.90		
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL			0.20						
	Light brown sandy clayey GRAVEL with occasional cobbles			0.60						
	Loose dark brown sandy clayey GRAVEL (Possibly very gravelly clay)			1.10						
1	Very soft light brown slightly clayey sandy SILT				AA141615	U	1.50	75%rec 8 blows	N = 5 (1, 1, 2, 1, 1, 1)	
2					AA141616	B	2.50			
3	Very soft dark grey SILT			3.10	AA141617	U	3.50	100%rec 6 blows		
4					AA141618	B	4.50			
5					AA141619	U	5.50	90%rec 8 blows		
6					AA141620	B	6.50		N = 5 (0, 1, 1, 2, 1, 1)	
7					AA141621	U	7.50	Fail%rec 9 blows		
8				8.30						
	Very soft dark brown sandy SILT with shells				AA141622	B	8.50		N = 4 (0, 0, 1, 1, 1, 1)	
9					AA141623	U	9.50	100%rec 10 blows		

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
12.7	12.9	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					07-09-20			2.60	Start 2nd day

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .Standing 2hrs to gain readmittance to site after lunch break.	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH222A	
CO-ORDINATES				SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD)		RIG TYPE Dando 2000		DATE COMMENCED 04/09/2020	
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 07/09/2020	
		BOREHOLE DEPTH (m) 12.90			
CLIENT Ballymore			SPT HAMMER REF. NO.		
ENGINEER Atkins			ENERGY RATIO (%)		
			BORED BY WC		
			PROCESSED BY F.C		

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very soft dark brown sandy SILT with shells <i>(continued)</i>	[Symbol]			AA141624	B	10.50		N = 4 (1, 1, 1, 1, 1, 1)	
11				11.50						
12	Medium dense grey fine to coarse silty sandy GRAVEL	[Symbol]			AA141625	B	11.50		N = 28 (3, 4, 4, 6, 8, 10)	
13				12.90						
13	Obstruction End of Borehole at 12.90 m									
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
12.7	12.9	2		11.50	11.50	No	3.20	20	Rapid

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

<p>REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .Standing 2hrs to gain readmittance to site after lunch break.</p>	<p>Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample</p>
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		BOREHOLE NO. BH223	
CO-ORDINATES 726,635.90 E 719,297.75 N		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 2.39		DATE COMMENCED 05/10/2029	
RIG TYPE Dando 2000		DATE COMPLETED 06/10/2020	
BOREHOLE DIAMETER (mm) 200			
BOREHOLE DEPTH (m) 12.30			
CLIENT Ballymore		SPT HAMMER REF. NO.	
ENGINEER Atkins		ENERGY RATIO (%)	
		BORED BY WC	
		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Stone FILL (Placed Hardcore)	XXXXXX	2.19	0.20						
	Dark brown sandy gravelly SILT/CLAY	XG			AA183901	ENV	0.50			
1		XG	1.29	1.10						
	Soft to firm dark brown very sandy gravelly SILT/CLAY	XG			AA183902 AA183903	ENV B	1.50 1.50			N = 10 (1, 2, 2, 2, 3, 3)
2		XG								
		XG			AA183904 AA183905	ENV B	2.50 2.50			N = 20 (3, 4, 4, 5, 5, 6)
3		XG								
		XG			AA183906 AA183907	ENV B	3.50 3.50			N = 3 (0, 1, 1, 1, 0, 1)
4		XG	-1.71	4.10						
	Very soft dark grey sandy SILT with occasional shell fragments	XG			AA183908 AA183909	ENV U	4.50 4.50	90%rec 60 blows		
5		XG								
	Soft dark brown peaty SILT	XG	-3.01	5.40	AA183910 AA183911	ENV B	5.50 5.50			N = 5 (1, 2, 1, 1, 1, 2)
6		XG								
	Very soft light brown SILT	XG	-3.81	6.20	AA183912 AA183913	ENV U	6.50 6.50	90%rec 7 blows		
7		XG								
		XG			AA183914 AA183915	ENV B	7.50 7.50			N = 4 (0, 1, 1, 1, 1, 1)
8		XG								
		XG			AA183916 AA183917	ENV B	8.50 8.50			N = 2 (0, 1, 1, 0, 1, 0)
9		XG	-6.51	8.90						
	Very soft dark brown SILT with shell fragments	XG			AA183918 AA183919	ENV B	9.50 9.50			N = 3 (1, 1, 0, 1, 1, 1)

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS						
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments	
12.1	12.3	2		3.70	3.70	6.00	1.70	20	Rapid	
INSTALLATION DETAILS				GROUNDWATER PROGRESS						
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments	
					06-10-20			2.40	Start of 2nd day	
REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .					Sample Legend					
					D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)			UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample		

IGSL BH LOG 22734.GPJ IGSL.GDT 29/11/21



GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH223	
CO-ORDINATES 726,635.90 E 719,297.75 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 2.39		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 05/10/2029	
		BOREHOLE DEPTH (m) 12.30		DATE COMPLETED 06/10/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Loose grey fine to coarse GRAVEL with shell fragments	x x	-7.81	10.20	AA183920 AA183921	ENV B	10.50		N = 12 (2, 3, 3, 3, 3, 3)	
	Firm dark brown peaty SILT with shell fragments	x x x x	-8.21	10.60			10.50			
11	Firm to stiff dark grey sandy SILT with occasional shell fragments	x x x x	-8.91	11.30	AA183922 AA183923	ENV B	11.50		N = 24 (4, 5, 5, 6, 6, 7)	
	Medium dense grey fine to coarse GRAVEL with some cobbles and occasional boulders	x x x x	-9.21	11.60			11.50			
12	Obstruction End of Borehole at 12.30 m		-9.91	12.30						
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
12.1	12.3	2							
INSTALLATION DETAILS				GROUNDWATER PROGRESS					
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 22734.GPJ IGSL.GDT 29/11/21



GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH224	
CO-ORDINATES 726,606.14 E 719,297.94 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 2	
GROUND LEVEL (m AOD) 1.56		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 01/10/2020	
		BOREHOLE DEPTH (m) 12.20		DATE COMPLETED 02/10/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		1.41	0.15						
	Dark brown sandy SILT/CLAY		0.76	0.80	AA139459	ENV	0.50			
	Very soft light grey sandy SILT/CLAY		0.06	1.50	AA139460 AA139461	ENV U	1.50 1.50	75%rec 12 blows		
	Very soft dark grey SILT with shell fragments				AA139462 AA139463	ENV B	2.50 2.50		N = 3 (0, 1, 1, 0, 1, 1)	
					AA139464 AA139465	ENV U	3.50 3.50	FAIL%rec		
					AA139466 AA139467	ENV B	4.50 4.50		N = 3 (0, 1, 0, 1, 1, 1)	
			-4.24	5.80	AA139468 AA139469	ENV U	5.50 5.50	100%rec 6 blows		
	Very soft dark brown SILT with shell fragments				AA139470 AA139471	ENV B	6.50 6.50		N = 2 (0, 1, 1, 0, 1, 0)	
					AA139472 AA139473	ENV U	7.50 7.50	100%rec 8 blows		
			-7.24	8.80	AA139474 AA139475	ENV B	8.50 8.50		N = 2 (1, 0, 1, 0, 1, 0)	
	Very soft dark brown gravelly SILT				AA139476 AA139477	ENV U	9.50 9.50			

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
12.1	12.2	1.5		0.50	0.50		8.50	20	Moderate

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 22734.GPJ IGSL.GDT 29/1/21



GEOTECHNICAL BORING RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray				BOREHOLE NO. BH224	
CO-ORDINATES 726,606.14 E 719,297.94 N		RIG TYPE Dando 2000		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD) 1.56		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 01/10/2020	
		BOREHOLE DEPTH (m) 12.20		DATE COMPLETED 02/10/2020	
CLIENT Ballymore		SPT HAMMER REF. NO.		BORED BY WC	
ENGINEER Atkins		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Stacpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very soft dark brown gravelly SILT (<i>continued</i>)	x o x x o	-8.74	10.30						
	Loose grey fine to coarse GRAVEL	o o o o o			AA139478 AA139479	ENV B	10.50 10.50			N = 3 (1, 0, 1, 1, 0, 1)
11	Dense grey fine to coarse sandy GRAVEL	o o o o o	-9.64	11.20						
		o o o o o			AA139480 AA139481	ENV B	11.50 11.50			N = 36 (6, 4, 8, 9, 9, 10)
12	Obstruction End of Borehole at 12.20 m		-10.64	12.20						
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
12.1	12.2	1.5							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS 1hr Erecting Covid 19 Safe Working Area . CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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Appendix 3

Rotary Core Drillhole Records & Photographs



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC202
CO-ORDINATES 726,395.82 E 719,560.58 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 10.58		DATE COMMENCED 04/09/2020
CLIENT Ballymore		DATE COMPLETED 04/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	1.00	9.58	/ / / / /	
1	1.50	0	0	0			○ ○ ○ ○ ○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY			○ ○ ○ ○ ○	
2		0	0	0			○ ○ ○ ○ ○		3.00	7.58	○ ○ ○ ○ ○	
3	3.00						○ ○ ○ ○ ○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy CLAY	3.60	6.98	○ ○ ○ ○ ○	
4		0	0	0			○ ○ ○ ○ ○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly SAND			○ ○ ○ ○ ○	
5	4.50						○ ○ ○ ○ ○		6.00	4.58	○ ○ ○ ○ ○	N = 56 (8, 12, 15, 17, 12, 12)
6	6.00						○ ○ ○ ○ ○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY			○ ○ ○ ○ ○	N = 18 (2, 3, 5, 4, 3, 6)
7		0	0	0			○ ○ ○ ○ ○		7.50		○ ○ ○ ○ ○	N = 57 (1, 3, 8, 15, 16, 18)
8	7.50						○ ○ ○ ○ ○		9.00	1.58	○ ○ ○ ○ ○	
9	9.00						○ ○ ○ ○ ○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL	9.60	0.98	○ ○ ○ ○ ○	N = 68 (5, 8, 12, 15, 16, 25)
		0	0	0			○ ○ ○ ○ ○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL			○ ○ ○ ○ ○	

REMARKS Hole cased 0.00-10.20m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					9.60	9.60	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
04-09-20	10.20	1.20	10.20	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC202
		SHEET Sheet 2 of 2
CO-ORDINATES 726,395.82 E 719,560.58 N	RIG TYPE Geo305	DATE COMMENCED 04/09/2020
GROUND LEVEL (mOD) 10.58	FLUSH Air/Mist	DATE COMPLETED 04/09/2020
CLIENT Ballymore	INCLINATION (deg) -90	DRILLED BY IGSL
ENGINEER Atkins	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.20				0 250 500			End of Borehole at 10.20 m	10.20	0.38		
11												
12												
13												
14												
15												
16												
17												
18												
19												

REMARKS Hole cased 0.00-10.20m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					9.60	9.60	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	04-09-20	10.20	10.20	6.70	Water level recorded at end of drilling.	
04-09-20	10.20	1.20	10.20	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC203
CO-ORDINATES 726,503.72 E 719,580.04 N		SHEET Sheet 1 of 3
GROUND LEVEL (mOD) 10.31	RIG TYPE Geo305	DATE COMMENCED 08/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 09/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0								
2		0	0	0								
3	3.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL				
4		0	0	0								
4.50									4.50	5.81		
5	6.00	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
6		0	0	0								
7	7.50											
8		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
9	9.00								9.00	1.31		
		0	0	0								

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.20	10.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
09-09-20	19.50	9.80	19.50	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC203
CO-ORDINATES 726,503.72 E 719,580.04 N		SHEET Sheet 2 of 3
GROUND LEVEL (mOD) 10.31		DATE COMMENCED 08/09/2020
CLIENT Ballymore		DATE COMPLETED 09/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)		
10	10.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL (<i>continued</i>)				N = 38 (2, 6, 8, 8, 10, 12)		
11		0	0	0										
12	12.00													N = 36 (6, 11, 13, 6, 7, 10)
13		0	0	0										
14	13.50								SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly SAND	13.50		-3.19		N = 58/200 mm (5, 8, 15, 18, 25)
15		0	0	0										
16	15.00								SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	15.00	-4.69		N = 54/250 mm (1, 1, 3, 9, 26, 16)	
17		0	0	0										
18	16.50												N = 60 (4, 7, 12, 13, 18, 17)	
19		0	0	0										
	18.00													
		0	0	0										
	19.50							End of Borehole at 19.50 m	19.50	-9.19		N = 56/225 mm (7, 12, 17, 18, 21)		
												N = 51/245 mm (1, 5, 8, 12)		

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.20	10.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
09-09-20	19.50	9.80	19.50	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC203
CO-ORDINATES 726,503.72 E 719,580.04 N		SHEET Sheet 3 of 3
GROUND LEVEL (mOD) 10.31	RIG TYPE Geo305	DATE COMMENCED 08/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 09/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
20												23, 8)
21												
22												
23												
24												
25												
26												
27												
28												
29												

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.20	10.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
09-09-20	19.50	9.80	19.50	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC204
CO-ORDINATES 726,541.05 E 719,582.59 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 9.66	RIG TYPE Geo305	DATE COMMENCED 15/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 16/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0					1.70	7.96		
2		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
3	3.00								3.70	5.96		N = 22/70 mm (6, 22)
4	4.20							SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	4.20	5.46		
5	5.60	86	0	0				Returns of stiff reddish brown slightly sandy gravelly CLAY. Sand is fine. Gravel is angular to subrounded fine to medium of various lithologies.				N = 45 (5, 6, 8, 11, 13, 13)
6	6.50	78	0	0					6.50	3.16		
7	7.50	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	7.00	2.66		N = 51/210 mm (9, 15, 17, 21, 13)
8		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
9	9.00											N = 51/250 mm (6, 9, 11, 13, 17, 10)

REMARKS Hole cased 0.00-15.00m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.20	10.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray**DRILLHOLE NO** RC204**SHEET** Sheet 2 of 2**CO-ORDINATES** 726,541.05 E
719,582.59 N**GROUND LEVEL (mOD)** 9.66**RIG TYPE** Geo305**FLUSH** Air/Mist**DATE COMMENCED** 15/09/2020**DATE COMPLETED** 16/09/2020**CLIENT** Ballymore**ENGINEER** Atkins**INCLINATION (deg)** -90**CORE DIAMETER (mm)** 78**DRILLED BY** IGSL**LOGGED BY** D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500		X	SYMMETRIX DRILLING: No recovery, observed by driller as returns of SILT	10.20	-0.54		N = 17 (2, 4, 5, 5, 3, 4)
11		0	0	0			X	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	11.00	-1.34		N = 52 (5, 8, 12, 12, 15, 13)
12							O					N = 55 (5, 7, 11, 12, 18, 14)
13		0	0	0			O					
14		0	0	0			O					
15	15.00							End of Borehole at 15.00 m	15.00	-5.34		N = 19 (3, 3, 4, 5, 4, 6)
16												
17												
18												
19												

REMARKS
Hole cased 0.00-15.00m. Erect Covid 19 Safe Zone - 1hr.**WATER STRIKE DETAILS**

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
10.20	10.20	N/S			Slow

GROUNDWATER DETAILS**INSTALLATION DETAILS**

Date	Hole Depth	Casing Depth	Depth to Water	Comments

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC206
CO-ORDINATES 726,557.76 E 719,562.15 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 9.10	RIG TYPE Geo305	DATE COMMENCED 14/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 15/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0								SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	1.50	7.60		
2		0	0	0								
3	3.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	3.00	6.10		
4		0	0	0								
5	4.50											
6		0	0	0								
7	7.00								7.00	2.10		
		50	0	0				Returns of cobbly GRAVEL. Gravel is angular to subrounded fine to medium of various lithologies.				N = 25/37 mm (20, 25)
8	8.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL	8.00	1.10		
		0	0	0					8.70	0.40		
9	9.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of GRAVEL				N = 22/35 mm (9, 22)
									9.80	-0.70		

REMARKS Hole cased 0.00-15.00m. Erect Covid 19 Safe Zone - 1hr.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
											No water strike recorded
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type							

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CONTRACT Harbour Point Bray	DRILLHOLE NO RC206
CO-ORDINATES 726,557.76 E 719,562.15 N	SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 9.10	DATE COMMENCED 14/09/2020
CLIENT Ballymore	DATE COMPLETED 15/09/2020
ENGINEER Atkins	DRILLED BY IGSL
RIG TYPE Geo305	LOGGED BY D.O'Shea
FLUSH Air/Mist	
INCLINATION (deg) -90	
CORE DIAMETER (mm) 78	

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY (<i>continued</i>)	10.20	-1.10		N = 29 (3, 5, 5, 7, 8, 9)
11	11.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				
12		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	11.70	-2.60		N = 50/175 mm (5, 9, 17, 23, 10)
13	12.50											
14		0	0	0								N = 51/265 mm (5, 8, 12, 16, 17, 6)
15	14.00											
15	15.00	0	0	0				End of Borehole at 15.00 m	15.00	-5.90		N = 52/212 mm (10, 14, 17, 13, 22)
16												
17												
18												
19												

REMARKS Hole cased 0.00-15.00m. Erect Covid 19 Safe Zone - 1hr.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
											No water strike recorded
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	15-09-20	15.00	15.00	11.70	Water level recorded at end of drilling.		

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GEOTECHNICAL CORE LOG RECORD

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22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC208
CO-ORDINATES 726,485.04 E 719,504.09 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 10.11	RIG TYPE Geo305	DATE COMMENCED 06/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 06/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0					1.50	8.61		
2		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL				
3	3.00											
4		0	0	0								
5	4.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	4.50	5.61		N = 38 (4, 10, 15, 6, 8, 9)
6		0	0	0								N = 42 (2, 5, 7, 11, 11, 13)
7	7.50											N = 34 (3, 5, 5, 8, 10, 11)
8		0	0	0								
9	9.00											N = 32 (3, 4, 6, 7, 8, 11)
10	10.00	0	0	0					10.00	0.11		

REMARKS End of Borehole at 10.00 m					WATER STRIKE DETAILS					
Hole cased 0.00-10.00m. Erect Covid 19 Safe Zone - 1hr.					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
										No water strike recorded
					GROUNDWATER DETAILS					
INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	07-09-20	10.00	10.00	6.90	Water level recorded at end of drilling.	
07-09-20	9.00	0.80	9.00	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC208
CO-ORDINATES 726,485.04 E 719,504.09 N		SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 10.11		DATE COMMENCED 06/09/2020
CLIENT Ballymore		DATE COMPLETED 06/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10												N = 51/125 mm (4, 6, 16, 35)
11												
12												
13												
14												
15												
16												
17												
18												
19												

REMARKS Hole cased 0.00-10.00m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
										No water strike recorded
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
07-09-20	9.00	0.80	9.00	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC212
CO-ORDINATES 726,480.85 E 719,395.92 N		SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 7.95		DATE COMMENCED 30/09/2020
CLIENT Ballymore		DATE COMPLETED 01/10/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL				
1	1.50	0	0	0								
2												
3	3.00											
4	4.50	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	3.80	4.15		
5								Returns of stiff reddish brown slightly sandy gravelly CLAY with a cobble. Sand is fine. Gravel is angular to subrounded fine to medium of various lithologies.	4.50	3.45		
6	6.00	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	5.50	2.45		N = 40 (7, 7, 8, 10, 11, 11)
7	7.50											N = 39 (4, 5, 7, 9, 12, 11)
8												
9	9.00	0	0	0								N = 43 (5, 7, 10, 11, 11, 11)
10	10.00	0	0	0					10.00	-2.05		

REMARKS End of Borehole at 10.00 m					WATER STRIKE DETAILS					
Hole cased 0.00-10.00m. Erect Covid 19 Safe Zone - 1hr.					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
										No water strike recorded
					GROUNDWATER DETAILS					
INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

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22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC214
CO-ORDINATES 726,594.19 E 719,464.75 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 7.41	RIG TYPE Geo305	DATE COMMENCED 16/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 17/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0								
2		0	0	0								
3	3.00											
4		0	0	0								
5	4.50											
6	5.70								5.70	1.71		
7	7.20	33	0	0				Returns of stiff brown slightly sandy gravelly CLAY with a cobble. Sand is fine. Gravel is angular to subrounded fine to medium of various lithologies.				N = 43 (5, 6, 10, 9, 12, 12)
8		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly SAND	7.20	0.21		N = 49 (6, 11, 10, 11, 13, 15)
9	8.70								8.70	-1.29		
10	10.00	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey cobbly GRAVEL				N = 18/65 mm (8, 18)

REMARKS Hole cased 0.00-10.00m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS				
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)
					No water strike recorded				
INSTALLATION DETAILS					GROUNDWATER DETAILS				
					Date	Hole Depth	Casing Depth	Depth to Water	Comments
Date	Tip Depth	RZ Top	RZ Base	Type					

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC214
CO-ORDINATES 726,594.19 E 719,464.75 N		SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 7.41	RIG TYPE Geo305	DATE COMMENCED 16/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 17/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)		
10		93	0	0				Returns of stiff brown slightly sandy gravelly CLAY with occasional cobbles. Sand is fine. Gravel is angular to subrounded fine to medium of various lithologies.				N = 25/35 mm (10, 25)		
11	11.50													N = 25/28 mm (5, 25)
12		94	0	0										
13	13.10													
14		100	0	0										
14.70	14.70							End of Borehole at 14.70 m	14.70	-7.29		N = 51/107 mm (13, 12, 25, 26)		
15														
16														
17														
18														
19														

REMARKS Hole cased 0.00-10.00m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
										No water strike recorded
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

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22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC215
CO-ORDINATES 726,622.65 E 719,429.37 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 4.67	RIG TYPE Geo305	DATE COMMENCED 21/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 22/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0								
2		0	0	0								
3	3.00	0	0	0								
4		0	0	0								
5	4.50	0	0	0								
6	6.00	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	5.70	-1.03		
7		0	0	0								
8	7.50	0	0	0								
9	9.00	0	0	0								

REMARKS Hole cased 0.00-17.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					13.20	13.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
22-09-20	18.50	13.50	18.50	50mm SP						

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC215
CO-ORDINATES 726,622.65 E 719,429.37 N		SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 4.67		DATE COMMENCED 21/09/2020
CLIENT Ballymore		DATE COMPLETED 22/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY (<i>continued</i>)				
11		0	0	0								
12												
13		0	0	0					13.20	-8.53		
14	13.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
15		0	0	0								N = 53 (7, 8, 18, 12, 13, 10)
16												
17	16.50	0	0	0								N = 52/168 mm (9, 11, 13, 21, 18)
18												N = 25/50 mm (5, 25)
18.56		0	0	0					18.50	-13.83		N = 52/117 mm (6, 8, 20, 32)
19								End of Borehole at 18.50 m				

REMARKS Hole cased 0.00-17.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					13.20	13.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	22-09-20	18.50	17.50	5.60	Water level recorded at end of drilling.	
22-09-20	18.50	13.50	18.50	50mm SP						

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC216
CO-ORDINATES 726,565.98 E 719,404.25 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 6.63	RIG TYPE Geo305	DATE COMMENCED 18/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 21/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50											
2		0	0	0					2.70	3.93		
3	3.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				
4		0	0	0								
5	4.50											
6		0	0	0								
7	6.00											
8	7.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly SAND	7.20	-0.57		
9	9.00											
		0	0	0								

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					8.20	8.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC216
CO-ORDINATES 726,565.98 E 719,404.25 N		SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 6.63	RIG TYPE Geo305	DATE COMMENCED 18/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 21/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500		○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	10.20	-3.57		
11		0	0	0			○					
12	12.00						○	Returns of stiff brown slightly sandy gravelly CLAY. Sand is fine. Gravel is angular to subrounded fine to medium of various lithologies.	12.20	-5.57		
13		0	0	0			○					
14	13.50						○					N = 26/48 mm (25, 26)
15		0	0	0			○					
16	15.00						○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly SAND	15.50	-8.87		N = 52/267 mm (3, 4, 6, 8, 13, 25)
17		0	0	0			○					N = 51/182 mm (4, 7, 12, 17, 22)
18	16.50						○					
19		0	0	0			○					N = 45/139 mm (7, 12, 13, 32)
19	18.00						○					
19		0	0	0			○					
19	19.50						○	End of Borehole at 19.50 m	19.50	-12.87		N = 50/114 mm (8, 18, 23, 27)

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
						8.20	8.20	N/S			Slow
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	21-09-20	19.50	19.50	6.10	Water level recorded at end of drilling.		

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC217
		SHEET Sheet 1 of 2
CO-ORDINATES 726,606.34 E 719,398.97 N	RIG TYPE Geo305	DATE COMMENCED 28/09/2020
GROUND LEVEL (mOD) 4.37	FLUSH Air/Mist	DATE COMPLETED 29/09/2020
CLIENT Ballymore	INCLINATION (deg) -90	DRILLED BY IGSL
ENGINEER Atkins	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0								
2								SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				
3	3.00	0	0	0								
4												
5	4.50	0	0	0								
6												
7	6.00	0	0	0								
7.50										7.20	-2.83	
8												
9	9.00	0	0	0								

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS							
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments		
										No water strike recorded		
INSTALLATION DETAILS					GROUNDWATER DETAILS							
					Date	Hole Depth	Casing Depth	Depth to Water	Comments			
Date	Tip Depth	RZ Top	RZ Base	Type								

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC217
CO-ORDINATES 726,606.34 E 719,398.97 N		SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 4.37	RIG TYPE Geo305	DATE COMMENCED 28/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 29/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY (<i>continued</i>)				
11	11.70	0	0	0								
12	13.20	80	0	0								
13	14.70	100	0	0								N = 51/182 mm (6, 11, 14, 21, 16)
14	16.20	53	0	0				Returns of stiff brown slightly sandy gravelly CLAY with a cobble. Sand is fine. Gravel is angular to subrounded fine to medium of various lithologies.	16.20	-11.83		N = 27/45 mm (25, 27)
15	17.00	0	0	0								N = 52/130 mm (12, 18, 26, 26)
16	18.00	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL	17.70	-13.33		N = 26/58 mm (25, 26)
17	18.50	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	18.00	-13.63		
18	19.00	0	0	0								
19	19.50	0	0	0				End of Borehole at 19.50 m	19.50	-15.13		N = 49 (10, 11, 11, 13, 15, 10)

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
											No water strike recorded
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments		
					29-09-20	19.50	19.50	6.40	Water level recorded at end of drilling.		

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC218
		SHEET Sheet 1 of 2
CO-ORDINATES 726,631.70 E 719,398.74 N	RIG TYPE Geo305	DATE COMMENCED 23/09/2020
GROUND LEVEL (mOD) 3.98	FLUSH Air/Mist	DATE COMPLETED 24/09/2020
CLIENT Ballymore	INCLINATION (deg) -90	DRILLED BY IGSL
ENGINEER Atkins	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
1	1.50	0	0	0								
2		0	0	0								
3	3.00	0	0	0								
4		0	0	0								
5	4.50	0	0	0								
6		0	0	0								
7	6.00	0	0	0								
8		0	0	0								
9	7.50	0	0	0								
	9.00	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	8.70	-4.72		

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					15.20	15.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC218
		SHEET Sheet 2 of 2
CO-ORDINATES 726,631.70 E 719,398.74 N	RIG TYPE Geo305	DATE COMMENCED 23/09/2020
GROUND LEVEL (mOD) 3.98	FLUSH Air/Mist	DATE COMPLETED 24/09/2020
CLIENT Ballymore	INCLINATION (deg) -90	DRILLED BY IGSL
ENGINEER Atkins	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY (<i>continued</i>)				
11		0	0	0								
12	12.00											
13		0	0	0								
14	13.50											
15		0	0	0								N = 15 (1, 2, 3, 3, 4, 5)
16	15.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	15.20	-11.22		N = 53/178 mm (12, 13, 15, 16, 22)
17		0	0	0								
18	16.50											N = 53 (8, 7, 12, 15, 9, 17)
19		0	0	0					18.80	-14.82		
19	18.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY				
19									19.50	-15.52		N = 35 (4, 5, 8, 8, 10, 9)
19	19.50							End of Borehole at 19.50 m				

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					15.20	15.20	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	24-09-20	19.50	19.50	13.10	Water level recorded at end of drilling.	

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC219
CO-ORDINATES 726,529.46 E 719,359.87 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 7.29		DATE COMMENCED 29/09/2020
CLIENT Ballymore		DATE COMPLETED 29/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				
1	1.50	0	0	0								N = 24 (4, 3, 5, 7, 6, 6)
2		0	0	0					2.70	4.59		
3	3.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey GRAVEL				N = 19 (3, 2, 3, 6, 5, 5)
4		0	0	0					4.20	3.09		
5	4.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				N = 10 (3, 5, 4, 2, 2, 2)
6		0	0	0					5.70	1.59		
7	6.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of silty CLAY				N = 18 (2, 5, 7, 4, 4, 3)
8		0	0	0								N = 12 (1, 2, 3, 3, 2, 4)
9	7.50											N = 13 (1, 2, 2, 4, 3, 4)
	9.00	0	0	0								

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					13.20	13.20	N/S			Slow
					17.00	17.00	N/S			Slow
					GROUNDWATER DETAILS					
INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
26-09-20	18.50	16.80	18.50	50mm SP						

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC219	
CO-ORDINATES 726,529.46 E 719,359.87 N		SHEET Sheet 2 of 2	
GROUND LEVEL (mOD) 7.29		DATE COMMENCED 29/09/2020	
CLIENT Ballymore		DATE COMPLETED 29/09/2020	
ENGINEER Atkins		DRILLED BY IGSL	
		LOGGED BY D.O'Shea	
		RIG TYPE Geo305	
		FLUSH Air/Mist	
		INCLINATION (deg) -90	
		CORE DIAMETER (mm) 78	

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	10.20	-2.91		N = 63 (4, 6, 5, 5, 22, 31)
11	11.70	0	0	0				Returns of stiff brown slightly sandy gravelly CLAY. Sand is fine. Gravel is angular to subrounded fine to medium of various lithologies.	11.70	-4.41		N = 71 (6, 10, 10, 14, 21, 26)
12	13.20	40	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	13.20	-5.91		N = 38/100 mm (7, 11, 15, 23)
13	14.70	0	0	0								N = 25/50 mm (12, 25)
14	16.20	0	0	0								
15	17.70	0	0	0								
16	18.50	0	0	0				End of Borehole at 18.50 m	18.50	-11.21		
17												
18												
19												

REMARKS Hole cased 0.00-19.50m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					13.20	13.20	N/S			Slow
					17.00	17.00	N/S			Slow
					GROUNDWATER DETAILS					
INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	26-09-20	18.50	18.50	3.80	Water level recorded at end of drilling.	
26-09-20	18.50	16.80	18.50	50mm SP						

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC221
CO-ORDINATES 726,573.03 E 719,326.03 N		SHEET Sheet 1 of 3
GROUND LEVEL (mOD) 3.00		DATE COMMENCED 15/09/2020
CLIENT Ballymore		DATE COMPLETED 15/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo405		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500		x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of TOPSOIL	0.20	2.80		
							o	SYMMETRIX DRILLING: No recovery, observed by driller as returns of brown sandy SILT/CLAY with occasional gravel	0.70	2.30		
1							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown sandy SILT/CLAY				
2							x		2.30	0.70		
3							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown SILT/CLAY				
4							x		3.30	-0.30		
5							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey slightly peaty SILT				
6							x		6.10	-3.10		
7							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown SILT with shells				
8							x		7.20	-4.20		
9							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of light brown SILT				

REMARKS Hole cased 0.00-23.80m. Erect Covid 19 Safe Zone - 1hr.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
						15.40	15.40	N/S			Slow
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type							

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC221
		SHEET Sheet 2 of 3
CO-ORDINATES 726,573.03 E 719,326.03 N	RIG TYPE Geo405	DATE COMMENCED 15/09/2020
GROUND LEVEL (mOD) 3.00	FLUSH Air/Mist	DATE COMPLETED 15/09/2020
CLIENT Ballymore	INCLINATION (deg) -90	DRILLED BY IGSL
ENGINEER Atkins	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10					0 250 500		x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown sandy peaty SILT	10.20	-7.20		
11							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of medium dense grey fine to medium silty sandy GRAVEL	11.30	-8.30		
12							x					
13							x					
14							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown sandy gravelly CLAY with occasional cobbles	13.60	-10.60		
15							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown cobbly CLAY	14.50	-11.50		
16							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of cobbly GRAVEL	15.00	-12.00		
17							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	16.50	-13.50		N = 56 (4, 7, 9, 12, 17, 18)
18							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of cobbly GRAVEL	18.00	-15.00		N = 35 (5, 6, 6, 9, 10, 10)
19							x	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown cobbly CLAY	19.50	-16.50		N = 66 (4, 7, 11, 19, 18, 18)

REMARKS Hole cased 0.00-23.80m. Erect Covid 19 Safe Zone - 1hr.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
						15.40	15.40	N/S			Slow
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type							

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC221
		SHEET Sheet 3 of 3
CO-ORDINATES 726,573.03 E 719,326.03 N	RIG TYPE Geo405	DATE COMMENCED 15/09/2020
GROUND LEVEL (mOD) 3.00	FLUSH Air/Mist	DATE COMPLETED 15/09/2020
CLIENT Ballymore	INCLINATION (deg) -90	DRILLED BY IGSL
ENGINEER Atkins	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
20								SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown cobbly CLAY (<i>continued</i>)				
21.00								Returns of firm, very dark brown slightly gravelly CLAY. Gravel is angular to subrounded fine to medium of various lithologies.	21.00	-18.00		N = 25/10 mm (25, 25)
22	67	0	0									
22.50								SYMMETRIX DRILLING: No recovery, observed by driller as returns of cobbly GRAVEL	22.50	-19.50		N = 62 (19, 11, 14, 17, 15, 16)
23	0	0	0									
23.80								Medium strong to locally weak, medium to thinly bedded (foliated), dark blueish grey, fine-grained, interbedded and interlaminated MUDSTONE/SILTSTONE (metamorphosed), slightly weathered. Rock quality increases with depth.	23.80	-20.80		
24	80	12	0									
24.80								Discontinuities are medium to closely spaced, smooth to locally rough, planar to locally stepped/curviplanar. Apertures are tight to locally open, locally clay-smeared & filled (at 27.13-27.20m), locally quartz-veined (1-8mm thick). Dips are 45-50°, 80° & irregular.				
25	100	21	13									
25.80												
26	100	51	21									
27												
27.30												
28	100	25	11									
28.80								End of Borehole at 28.80 m	28.80	-25.80		
29												

REMARKS Hole cased 0.00-23.80m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					15.40	15.40	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	15-09-20	28.80	23.80	19.30	Water level recorded at end of drilling.	

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC222
		SHEET Sheet 1 of 3
CO-ORDINATES 726,618.23 E 719,344.48 N		RIG TYPE Geo405
GROUND LEVEL (mOD) 3.40		FLUSH Air/Mist
CLIENT Ballymore		INCLINATION (deg) -90
ENGINEER Atkins		CORE DIAMETER (mm) 78
		DATE COMMENCED 17/09/2020
		DATE COMPLETED 17/09/2020
		DRILLED BY IGSL
		LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of TOPSOIL SYMMETRIX DRILLING: No recovery, observed by driller as returns of light brown sandy clayey GRAVEL with occasional cobbles SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown sandy clayey GRAVEL (Possibly very gravelly clay) SYMMETRIX DRILLING: No recovery, observed by driller as returns of light brown slightly clayey sandy SILT SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey SILT SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown sandy SILT with shells	0.20 0.60 1.10 3.10 8.30	3.20 2.80 2.30 0.30 -4.90		

REMARKS Hole cased 0.00-24.000m. Erect Covid 19 Safe Zone - 1hr.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
						14.90	14.90	N/S			Slow
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type							

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC222	
CO-ORDINATES 726,618.23 E 719,344.48 N		SHEET Sheet 2 of 3	
GROUND LEVEL (mOD) 3.40		DATE COMMENCED 17/09/2020	
CLIENT Ballymore		DATE COMPLETED 17/09/2020	
ENGINEER Atkins		DRILLED BY IGSL	
		LOGGED BY D.O'Shea	
		RIG TYPE Geo405	
		FLUSH Air/Mist	
		INCLINATION (deg) -90	
		CORE DIAMETER (mm) 78	

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10								SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown sandy SILT with shells <i>(continued)</i>				
11									11.50	-8.10		
12								SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey fine to coarse silty sandy GRAVEL				
13								SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	12.90	-9.50		
14								SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	13.50	-10.10		N = 40 (4, 7, 6, 9, 11, 14)
15												N = 25 (3, 5, 5, 6, 7, 7)
16									16.50	-13.10		N = 39 (4, 6, 7, 9, 11, 12)
17								SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey sandy GRAVEL				
18	18.00							Returns of firm, very dark brown slightly gravelly CLAY. Gravel is angular to subrounded fine to medium of various lithologies.	18.00	-14.60		N = 61 (6, 9, 11, 14, 17, 19)
19		27	0	0								
	19.50											N = 64 (6, 11, 12, 16, 17, 19)

REMARKS
Hole cased 0.00-24.000m. Erect Covid 19 Safe Zone - 1hr.

WATER STRIKE DETAILS					
Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
14.90	14.90	N/S			Slow

GROUNDWATER DETAILS				
INSTALLATION DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments
Date	Tip Depth	RZ Top	RZ Base	Type

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GEOTECHNICAL CORE LOG RECORD

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC222
CO-ORDINATES 726,618.23 E 719,344.48 N		SHEET Sheet 3 of 3
GROUND LEVEL (mOD) 3.40		DATE COMMENCED 17/09/2020
CLIENT Ballymore		DATE COMPLETED 17/09/2020
ENGINEER Atkins		DRILLED BY IGSL
		LOGGED BY D.O'Shea
		RIG TYPE Geo405
		FLUSH Air/Mist
		INCLINATION (deg) -90
		CORE DIAMETER (mm) 78

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
20		87	0	0				Returns of firm, very dark brown slightly gravelly CLAY. Gravel is angular to subrounded fine to medium of various lithologies. <i>(continued)</i>				
21.00												N = 23 (3, 4, 5, 5, 6, 7)
22		20	0	0								
22.50												N = 51 (5, 7, 9, 11, 14, 17)
23		47	0	0					23.50	-20.10		
24.00								Returns of firm, very dark brown gravelly CLAY. Gravel is angular to subrounded fine to medium of various lithologies.	24.00	-20.60		
25		100	17	11				Probable weathered ROCK - recovered as angular tabular gravel of MUDSTONE/SILTSTONE				N = 25/10 mm (25, 25)
25.50								Medium strong to locally weak, medium to thinly bedded (foliated), dark blueish grey, fine-grained, interbedded and interlaminated MUDSTONE/SILTSTONE (metamorphosed), slightly weathered. Rock quality increases with depth.	25.20	-21.80		
26		100	47	29				Discontinuities are medium to closely spaced, smooth to locally rough, planar to locally stepped/curvilinear. Apertures are tight to locally open, locally clay-smeared, locally quartz-veined (1-4mm thick). Dips are 45-50°, 80° & irregular.				
27.00												
28		100	74	21								
28.50												
29.00		100	62	34					29.00	-25.60		
29								End of Borehole at 29.00 m				

REMARKS Hole cased 0.00-24.00m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					14.90	14.90	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	17-09-20	29.00	24.00	7.90	Water level recorded at end of drilling.	

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC223	
		SHEET Sheet 1 of 3	
CO-ORDINATES 726,635.90 E 719,297.75 N		DATE COMMENCED 24/09/2020	
GROUND LEVEL (mOD) 2.39		DATE COMPLETED 25/09/2020	
CLIENT Ballymore		DRILLED BY IGSL	
ENGINEER Atkins		LOGGED BY D.O'Shea	
		RIG TYPE Geo405	
		FLUSH Air/Mist	
		INCLINATION (deg) -90	
		CORE DIAMETER (mm) 78	

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500		○	HAND-DUG INSPECTION PIT: No recovery, observed by driller as returns of gravelly CLAY				
1							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark brown cobbly CLAY	1.20	1.19		N = 3 (1, 0, 0, 1, 1, 1)
							○		1.50	0.89		
2							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of SAND				
3							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy CLAY	3.00	-0.61		N = 16 (1, 1, 1, 4, 5, 6)
4							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of SILT	4.50	-2.11		N = 3 (1, 0, 0, 1, 1, 1)
5							○					N = 3 (1, 0, 1, 0, 1, 1)
6							○				N = 15 (1, 2, 3, 3, 4, 5)	
7							○				N = 9 (1, 0, 1, 2, 3, 3)	
8							○					
9							○					

REMARKS Hole cased 0.00-24.000m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					2.40	2.40	N/S			Slow
					18.30	18.30	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
25-09-20	29.00	24.00	29.00	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER**22734****CONTRACT** Harbour Point Bray**DRILLHOLE NO** RC223**SHEET** Sheet 2 of 3**CO-ORDINATES** 726,635.90 E
719,297.75 N**RIG TYPE** Geo405
FLUSH Air/Mist**DATE COMMENCED** 24/09/2020**DATE COMPLETED** 25/09/2020**GROUND LEVEL (mOD)** 2.39**INCLINATION (deg)** -90
CORE DIAMETER (mm) 78**DRILLED BY** IGSL**LOGGED BY** D.O'Shea**CLIENT** Ballymore
ENGINEER Atkins

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10								SYMMETRIX DRILLING: No recovery, observed by driller as returns of SILT (<i>continued</i>)				N = 15 (1, 2, 2, 3, 4, 6)
11												
12								SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	12.00	-9.61		N = 41 (3, 4, 6, 9, 14, 12)
13												N = 49 (4, 7, 9, 10, 14, 16)
14												
15								SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	15.00	-12.61		N = 39 (3, 5, 8, 10, 10, 11)
16												
17												N = 80 (4, 19, 21, 20, 19, 20)
18	18.00							Returns of firm, very dark brown slightly gravelly CLAY. Gravel is angular to subrounded fine to medium of various lithologies.	18.00	-15.61		N = 72 (3, 14, 16, 17, 19, 20)
19		20	0	0								
	19.50								19.50	-17.11		N = 19 (2, 4, 3, 5, 6)

REMARKSHole cased 0.00-24.000m. Erect Covid 19 Safe Zone - 1hr.
Hand-dug Inspection Pit 0.00-1.20m**WATER STRIKE DETAILS**

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.40	2.40	N/S			Slow
18.30	18.30	N/S			Slow

GROUNDWATER DETAILS**INSTALLATION DETAILS**

Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
25-09-20	29.00	24.00	29.00	50mm SP					

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC223	
		SHEET Sheet 3 of 3	
CO-ORDINATES 726,635.90 E 719,297.75 N		DATE COMMENCED 24/09/2020	
GROUND LEVEL (mOD) 2.39		DATE COMPLETED 25/09/2020	
CLIENT Ballymore		DRILLED BY IGSL	
ENGINEER Atkins		LOGGED BY D.O'Shea	
		RIG TYPE Geo405	
		FLUSH Air/Mist	
		INCLINATION (deg) -90	
		CORE DIAMETER (mm) 78	

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
20	20	0	0	0				Returns of clayey angular GRAVEL. Gravel is tabular, angular to subrounded fine to medium of metamorphosed mudstone. Possible Weathered ROCK (continued)				
21	20	0	0	0					22.50	20.11		N = 25/30 mm (19, 25, 25)
22	20	0	0	0				Returns of angular purple GRAVEL. Gravel is tabular, angular to subrounded fine to medium of metamorphosed mudstone. Possible Weathered ROCK				
23	27	0	0	0					24.00	21.61		N = 25/10 mm (25, 25)
24	80	6	0	0				Probable weathered ROCK - recovered as angular tabular gravel of MUDSTONE/SILTSTONE	25.70	23.31		N = 25/20 mm (25, 25)
25	100	40	22	22				Medium strong to locally weak, medium to thinly bedded (foliated), dark blueish grey, fine-grained, interbedded and interlaminated MUDSTONE/SILTSTONE (metamorphosed), slightly weathered. Rock quality increases with depth.				
26	100	59	25	25				Discontinuities are medium to closely spaced, smooth to locally rough, planar to locally stepped/curvilinear. Apertures are tight to locally open, locally clay-smeared, locally quartz-veined (1-7mm thick). Dips are 45-50°, 80° & irregular.				
27	100	54	9	9					29.00	26.61		
28								End of Borehole at 29.00 m				
29												

REMARKS Hole cased 0.00-24.00m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					2.40	2.40	N/S			Slow
					18.30	18.30	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	25-09-20	29.00	24.00	6.30	Water level recorded at end of drilling.	
25-09-20	29.00	24.00	29.00	50mm SP						

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC224
CO-ORDINATES 726,606.14 E 719,297.94 N		SHEET Sheet 1 of 3
GROUND LEVEL (mOD) 1.56	RIG TYPE Geo405	DATE COMMENCED 22/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 22/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500		○	HAND-DUG INSPECTION PIT: No recovery, observed by driller as returns of gravelly CLAY				
1							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of SAND	1.20	0.36		N = 1 (1, 0, 0, 1, 0, 0)
							○		1.50	0.06		
2							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey SAND				
3							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of SAND	3.00	-1.44		N = 4 (1, 0, 1, 1, 1, 1)
4							○					
5							○					N = 8/225 mm (1, 1, 2, 3, 3)
6							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey SAND	6.00	-4.44		N = 6 (1, 0, 1, 1, 1, 2, 2)
7							○					
8							○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY	7.50	-5.94		N = 5 (1, 0, 1, 1, 1, 2)
9							○					N = 20 (2, 3, 3, 3, 5, 6, 6)

REMARKS Hole cased 0.00-21.000m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
						1.70	1.70	N/S			Slow
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type							

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REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO RC224
CO-ORDINATES 726,606.14 E 719,297.94 N		SHEET Sheet 2 of 3
GROUND LEVEL (mOD) 1.56		DATE COMMENCED 22/09/2020
CLIENT Ballymore		DATE COMPLETED 22/09/2020
ENGINEER Atkins		DRILLED BY IGSL
		LOGGED BY D.O'Shea
		RIG TYPE Geo405
		FLUSH Air/Mist
		INCLINATION (deg) -90
		CORE DIAMETER (mm) 78

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10								SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY (<i>continued</i>)	10.50	-8.94		N = 24 (3, 4, 5, 5, 7, 7)
11								SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy CLAY				
12								SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	12.00	-10.44		N = 32 (2, 4, 6, 6, 9, 11)
13												N = 29 (4, 6, 7, 7, 7, 8)
14												
15								SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey sandy GRAVEL	15.00	-13.44		N = 64 (6, 11, 12, 16, 17, 19)
16												
17								SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	16.50	-14.94		N = 52 (7, 9, 11, 12, 14, 15)
18	18.00											
19		27	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of cobbly CLAY	18.00	-16.44		N = 56 (5, 10, 12, 14, 14, 16)
	19.50											
								Probable weathered ROCK - recovered as angular tabular gravel of MUDSTONE/SILTSTONE	19.50	-17.94		N = 50/70 mm (19, 21, 25, 25)

REMARKS Hole cased 0.00-21.000m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
						1.70	1.70	N/S			Slow
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type							

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CONTRACT Harbour Point Bray		DRILLHOLE NO RC224
CO-ORDINATES 726,606.14 E 719,297.94 N		SHEET Sheet 3 of 3
GROUND LEVEL (mOD) 1.56		DATE COMMENCED 22/09/2020
CLIENT Ballymore		DATE COMPLETED 22/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo405		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
20		47	0	0				Probable weathered ROCK - recovered as angular tabular gravel of MUDSTONE/SILTSTONE <i>(continued)</i>				
21	21.00							Medium strong to locally weak, medium to thinly bedded (foliated), dark blueish grey, fine-grained, interbedded and interlaminated MUDSTONE/SILTSTONE (metamorphosed), slightly weathered. Rock quality increases with depth.	21.00	-19.44		N = 25/10 mm (25, 25)
22		100	0	0				Discontinuities are medium to closely spaced, smooth to locally rough, planar to locally stepped/curvilinear. Apertures are tight to locally open, locally clay-smearred, locally quartz-veined (1-10mm thick). Dips are 45-50°, 80° & irregular.				
23		100	56	23								
24	24.00											
25		100	81	66								
26	26.50	100	82	64				End of Borehole at 26.50 m	26.50	-24.94		
27												
28												
29												

REMARKS Hole cased 0.00-21.000m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					1.70	1.70	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	23-09-20	26.50	21.00	1.20	Water level recorded at end of drilling.	

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CONTRACT Harbour Point Bray		DRILLHOLE NO ROH01
CO-ORDINATES 726,379.55 E 719,522.56 N		SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 10.81	RIG TYPE Geo305	DATE COMMENCED 02/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 02/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				
1	1.50	0	0	0					2.00	8.81		
2		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of clayey sandy GRAVEL				
3	3.00											
4		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of cobbly CLAY	4.00	6.81		
5	4.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	4.60	6.21		
6	6.00											
7		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of SAND	7.00	3.81		
8	7.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	7.50	3.31		
9	9.00	0	0	0				End of Borehole at 8.00 m	9.00	1.81		

REMARKS Hole cased 0.00-9.00m. Erect Covid 19 Safe Zone - 1hr.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
										No water strike recorded
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	02-09-20	9.00	9.00	6.50	Water level recorded at end of drilling.	
02-09-20	9.00	6.00	9.00	50mm SP						

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GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO ROH02
CO-ORDINATES 726,620.02 E 719,414.97 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 4.47		DATE COMMENCED 03/09/2020
CLIENT Ballymore		DATE COMPLETED 03/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0		0	0	0				HAND-DUG INSPECTION PIT: No recovery, observed by driller as returns of CLAY	1.00	3.47		
1	1.50							HAND-DUG INSPECTION PIT: No recovery, observed by driller as returns of gravelly CLAY	1.20	3.27		
2		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				
3	3.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy CLAY	3.00	1.47		
4	4.50	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of SAND	3.80	0.67		
5		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	4.50	-0.03		
6	6.00											
7	7.50	0	0	0								
8		0	0	0								
9	9.00	0	0	0								

REMARKS Hole cased 0.00-11.60m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.90	10.90	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
03-09-20	11.60	7.60	11.60	50mm SP						

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CONTRACT Harbour Point Bray		DRILLHOLE NO ROH02
CO-ORDINATES 726,620.02 E 719,414.97 N		SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 4.47	RIG TYPE Geo305	DATE COMMENCED 03/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 03/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY (<i>continued</i>)	10.90	-6.43		
11		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL	11.40	-6.93		
11.60								SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	11.60	-7.13		
12								End of Borehole at 11.60 m				
13												
14												
15												
16												
17												
18												
19												

REMARKS Hole cased 0.00-11.60m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.90	10.90	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	03-09-20	11.60	11.60	4.10	Water level recorded at end of drilling.	
03-09-20	11.60	7.60	11.60	50mm SP						

IGSL RC Fl 10M 22734.GPJ IGSL_GDT 4/11/20



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO ROH04
CO-ORDINATES 726,574.13 E 719,229.08 N		SHEET Sheet 1 of 2
GROUND LEVEL (mOD) 1.43		DATE COMMENCED 10/09/2020
CLIENT Ballymore		DATE COMPLETED 10/09/2020
ENGINEER Atkins		DRILLED BY IGSL
RIG TYPE Geo305		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			HAND-DUG INSPECTION PIT: No recovery, observed by driller as returns of CLAY				
1		0	0	0					1.20	0.23		
1.50								SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	1.50	-0.07		
2		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly CLAY				
3									3.00	-1.57		
4		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of SILT				
4.50												
5		0	0	0								
6												
7		0	0	0								
7.50												
8		0	0	0								
9												
9.00												
		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly SILT	9.50	-8.07		

REMARKS Hole cased 0.00-13.00m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					9.50	9.50	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
10-09-20	12.70	8.00	12.70	50mm SP						

IGSL RC Fl 10M 22734.GPJ IGSL_GDT 4/11/20



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

22734

CONTRACT Harbour Point Bray		DRILLHOLE NO ROH04
CO-ORDINATES 726,574.13 E 719,229.08 N		SHEET Sheet 2 of 2
GROUND LEVEL (mOD) 1.43	RIG TYPE Geo305	DATE COMMENCED 10/09/2020
CLIENT Ballymore	FLUSH Air/Mist	DATE COMPLETED 10/09/2020
ENGINEER Atkins	INCLINATION (deg) -90	DRILLED BY IGSL
	CORE DIAMETER (mm) 78	LOGGED BY D.O'Shea

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500		x o	SYMMETRIX DRILLING: No recovery, observed by driller as returns of gravelly SILT (<i>continued</i>)			o	
11		0	0	0			x o					o
12	12.00						x o	SYMMETRIX DRILLING: No recovery, observed by driller as returns of CLAY	12.70	-11.27	o	
13	13.00	0	0	0			x o		13.00	-11.57	o	
End of Borehole at 13.00 m											o	
14											o	
15											o	
16											o	
17											o	
18											o	
19											o	

REMARKS Hole cased 0.00-13.00m. Erect Covid 19 Safe Zone - 1hr. Hand-dug Inspection Pit 0.00-1.20m					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					9.50	9.50	N/S			Slow
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	10-09-20	13.00	13.00	1.20	Water level recorded at end of drilling.	
10-09-20	12.70	8.00	12.70	50mm SP						

IGSL PC FI 10M 22734.GPJ IGSL_GDT 4/11/20

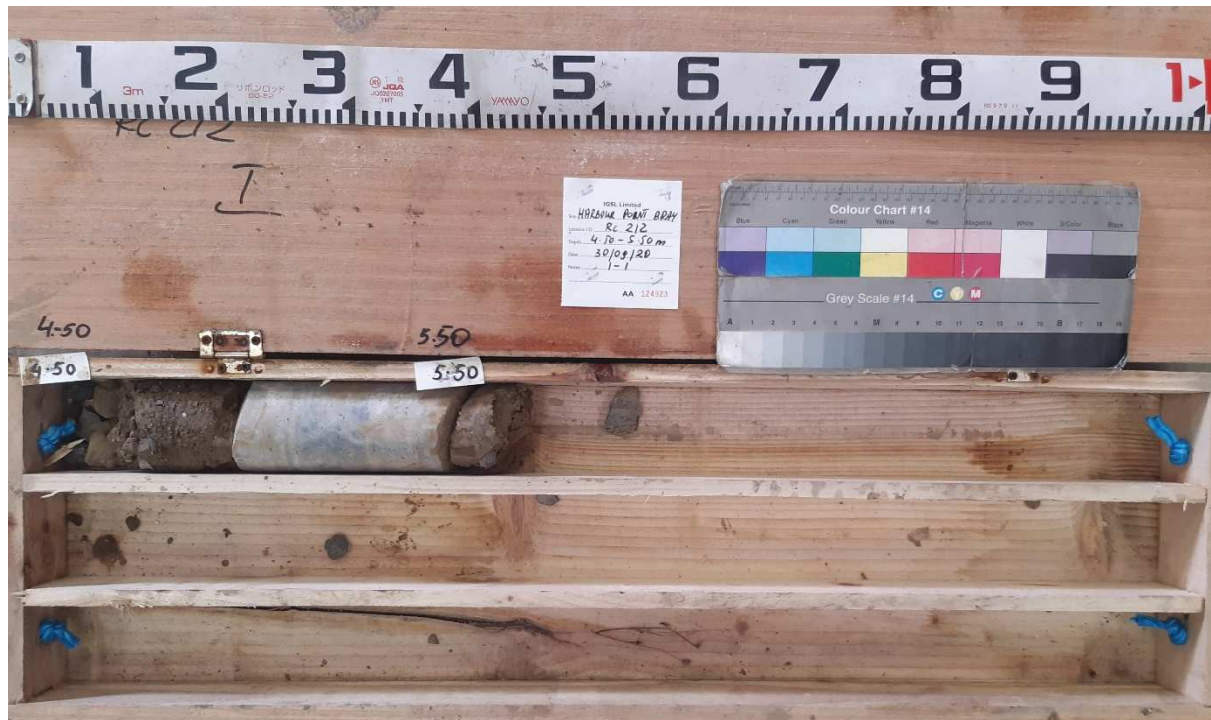
RC204 Box 1 of 1 – 4.20-6.50m



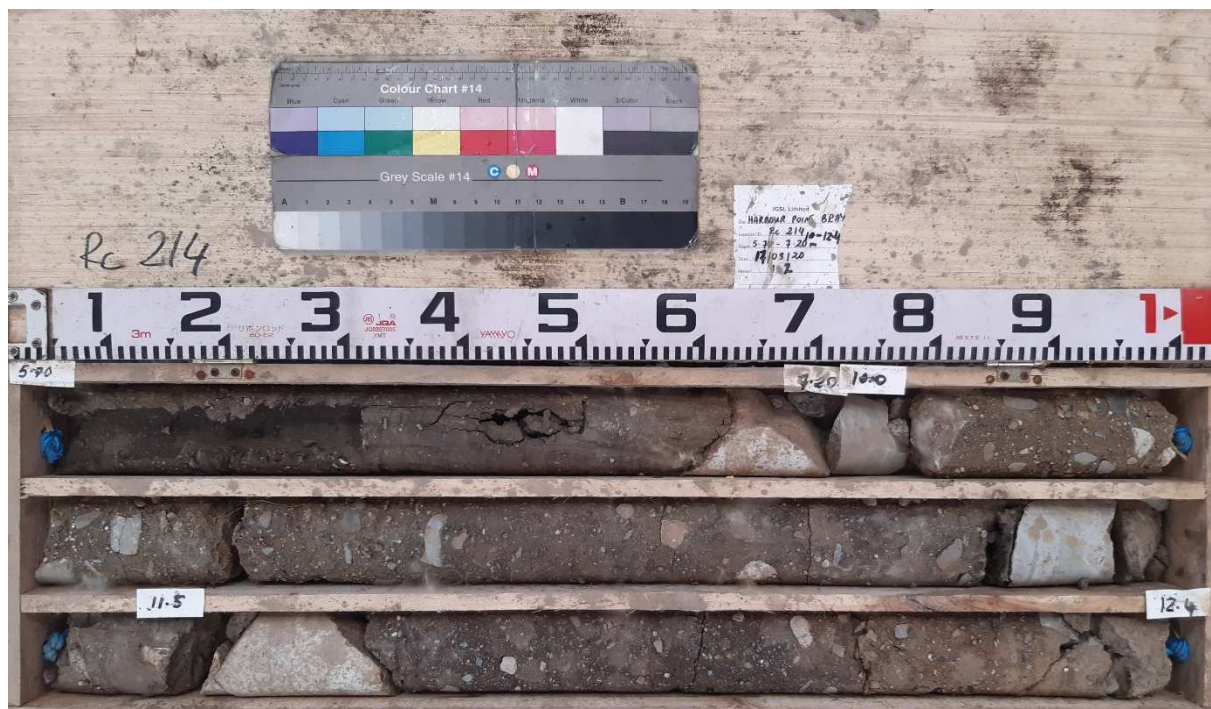
RC206 Box 1 of 1 – 7.00-8.00m



RC212 Box 1 of 1 – 4.50-5.50m



RC214 Box 1 of 2 – 5.70-12.40m



RC214 Box 2 of 2 – 12.40-14.70m



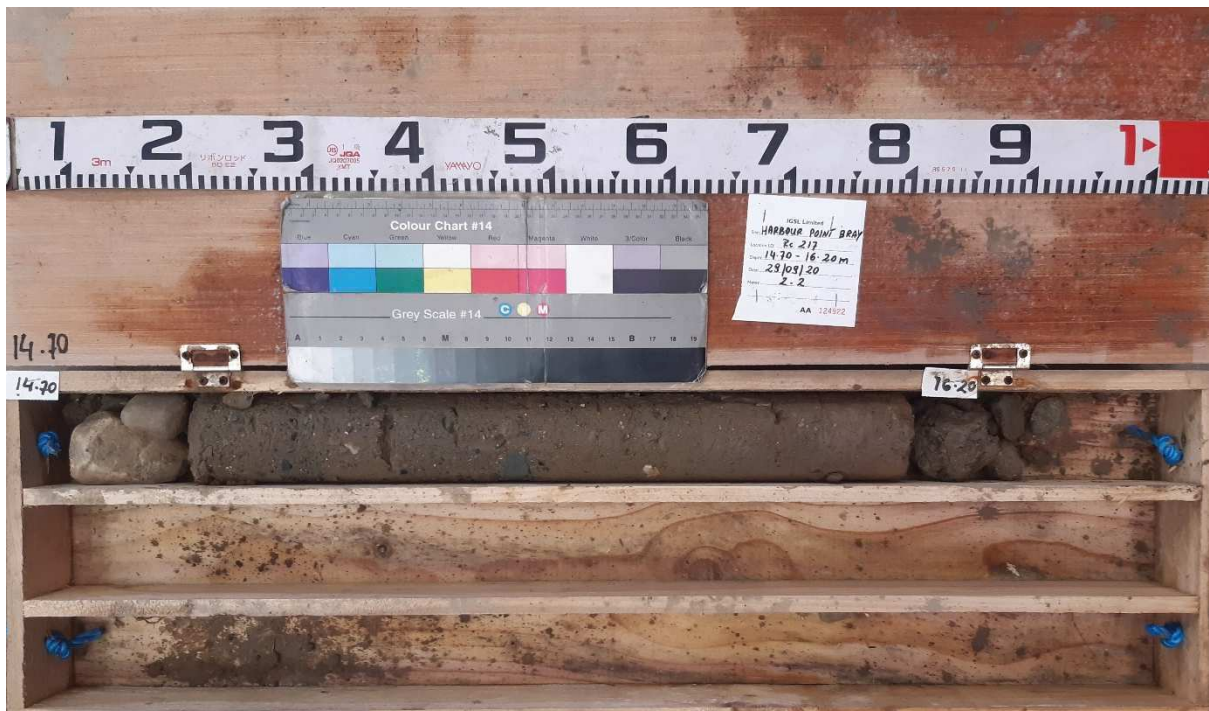
RC216 Box 1 of 1 – 12.20-15.50m



RC217 Box 1 of 2 – 11.70-14.70m



RC217 Box 2 of 2 – 14.70-16.20m



22734 - Harbour Point Bray – Core Photography

RC219 Box 1 of 1 – 11.70-13.20m



RC221 Box 1 of 2 – 15.00-25.80m



RC221 Box 2 of 2 – 25.80-28.80m



RC222 Box 1 of 3 – 18.00-24.00m



RC222 Box 2 of 3 – 24.00-27.00m



RC222 Box 3 of 3 – 27.00-29.00m



RC223 Box 1 of 2 – 18.00-26.00m



RC223 Box 2 of 2 – 26.00-29.00m



RC224 Box 1 of 3 – 16.50-22.50m



RC224 Box 2 of 3 – 22.50-25.50m



RC224 Box 3 of 3 – 25.50-26.50m



Appendix 4

Window Sample Logs and Photographs



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray

BOREHOLE NO. **WS01A**

CO-ORDINATES 726,542.02 E
719,593.03 N

SHEET Sheet 1 of 1

GROUND LEVEL (mOD) 9.45

DATE DRILLED 24/08/2020

DATE LOGGED 24/08/2020

CLIENT Ballymore
ENGINEER Atkins

DRILLED BY CK
LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	TOPSOIL										
	Firm brown very sandy gravelly CLAY (recovered moist)		0.30	9.15				134855	ENV	0.30-0.90	
	(Loose) Grey brown slightly very gravelly SAND (recovered moist)		0.90	8.55	0.00-1.00	80	120	134856	ENV	0.90-2.50	
1.0					1.00-2.00	100	280				
2.0					2.00-2.50	100					
2.50	Final Depth 2.50m		2.50	6.95							

General Remarks
Refusal in sample drive at 2.50m. Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
24-08-20	0.90	0.30	0.90	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray	BOREHOLE NO. WS01B
CO-ORDINATES 726,558.02 E 719,568.02 N	SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 9.09	DATE DRILLED 24/08/2020
CLIENT Ballymore	DATE LOGGED 24/08/2020
ENGINEER Atkins	DRILLED BY CK
	LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	TOPSOIL										
	Firm brown very sandy gravelly CLAY (recovered moist)		0.30	8.79				134857	ENV	0.30-0.70	
	Soft to firm dark brown very sandy gravelly CLAY (recovered moist)		0.50	8.59							
	(Loose to medium dense) Grey/brown very gravelly SAND (recovered damp)		0.70	8.39	0.00-1.00	100	200	134858	ENV	0.70-2.00	
1.0											
	(Medium dense) Brown moist very gravelly SAND		1.70	7.39	1.00-2.00	100	400				
2.0					2.00-2.20	0					
	Final Depth 2.20m		2.20	6.89							

General Remarks
Refusal in sample drive at 2.20m. Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
24-08-20	2.20	0.90	2.20	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray

BOREHOLE NO. **WS02A**

CO-ORDINATES 726,421.96 E
719,420.03 N

SHEET Sheet 1 of 1

GROUND LEVEL (mOD) 10.81

DATE DRILLED 25/08/2020

DATE LOGGED 25/08/2020

CLIENT Ballymore
ENGINEER Atkins

DRILLED BY CK

LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	TOPSOIL		0.25	10.56				134870	ENV	0.25-0.55	
	Firm brown sandy slightly gravelly CLAY with rare styrofoam (MADE GROUND) (recovered moist)		0.55	10.26				134871	ENV	0.55-1.80	
	(Loose to medium dense) Grey/brown very gravelly SAND (recovered damp)				0.00-1.00	100	250				
1.0											
					1.00-1.80	100					
2.0	Final Depth 1.80m		1.80	9.01							
3.0											
4.0											
5.0											

General Remarks
Refusal in sample drive at 1.80m. Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
25-08-20	1.80	0.70	1.80	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray		BOREHOLE NO. WS02B
CO-ORDINATES 726,440.99 E 719,429.04 N		SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 10.49		DATE DRILLED 26/08/2020
CLIENT Ballymore		DATE LOGGED 26/08/2020
ENGINEER Atkins		DRILLED BY CK
		LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	(Loose to medium dense) Grey clayey very sandy GRAVEL (recovered moist)							134872	ENV	0.20-0.75	
	Firm to stiff brown very sandy gravelly CLAY (recovered moist)		0.50	9.99							
	(Medium dense) Brown very gravelly SAND (recovered moist)		0.75	9.74	0.00-1.00	80	180	134873	ENV	0.75-1.90	
1.0											
2.0	Final Depth 1.90m		1.90	8.59	1.00-1.90	100					
3.0											
4.0											
5.0											

General Remarks
Refusal in sample drive at 1.90m. Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
26-08-20	1.90	0.60	1.90	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray		BOREHOLE NO. WS03A
CO-ORDINATES 726,611.94 E 719,480.01 N		SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 8.00		DATE DRILLED 24/08/2020
CLIENT Ballymore		DATE LOGGED 24/08/2020
ENGINEER Atkins		DRILLED BY CK
		LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	TOPSOIL		0.25	7.75				134859	ENV	0.25-0.65	
	Firm to stiff brown sandy gravelly CLAY with occasional red brick fragment (MADE GROUND) (recovered moist)		0.65	7.35				134860	ENV	0.65-1.55	
	(Loose to medium dense) Grey brown very gravelly SAND (recovered damp)				0.00-1.00	100	200				
1.0	Final Depth 1.55m		1.55	6.45	1.00-1.55	100					
2.0											
3.0											
4.0											
5.0											

General Remarks
Refusal in sample drive at 1.55m. Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
24-08-20	1.60	0.30	0.65	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray	BOREHOLE NO. WS03B
CO-ORDINATES 726,610.00 E 719,473.02 N	SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 7.51	DATE DRILLED 25/08/2020
CLIENT Ballymore	DATE LOGGED 25/08/2020
ENGINEER Atkins	DRILLED BY CK
	LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details	
								Ref. Number	Sample Type	Depth (m)		
0.0	TOPSOIL											
	Soft to firm brown sandy gravelly CLAY (recovered moist)		0.30	7.21								
	(Loose to medium dense) Grey brown very gravelly SAND		0.45	7.06								
1.0					0.00-1.00	100	220					
					1.00-1.60	100						
	Final Depth 1.60m		1.60	5.91								

General Remarks
Refusal in sample drive at 1.60m.

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
25-08-20	1.60	0.60	1.60	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray	BOREHOLE NO. WS04A
CO-ORDINATES 726,551.99 E 719,374.04 N	SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 6.86	DATE DRILLED 25/08/2020
CLIENT Ballymore	DATE LOGGED 25/08/2020
ENGINEER Atkins	DRILLED BY CK
	LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details	
								Ref. Number	Sample Type	Depth (m)		
0.0	Soft brown very sandy gravelly CLAY (MADE GROUND) (recovered moist)											
	Firm brown sandy gravelly CLAY (MADE GROUND) (recovered moist)		0.40	6.46					134863	ENV	0.25-0.85	
	(Loose) Light brown gravelly SAND (MADE GROUND) (recovered moist)		0.50	6.36								
	Firm to stiff brown sandy gravelly CLAY (MADE GROUND) (recovered moist)		0.60	6.26								
1.0			0.85	6.01	0.00-1.00	60	159	134864	ENV	0.85-1.70		
	COBBLE with occasional glass fragments (MADE GROUND)		1.00	5.86								
	Firm to stiff grey/brown very sandy very gravelly CLAY (recovered moist)		1.45	5.41								
	Firm to stiff grey/brown sandy gravelly CLAY (recovered moist)		1.70	5.16				134865	ENV	1.70-3.00		
2.0			2.00	4.86	1.00-2.00	100	200					
	Stiff brown mottled grey silty slightly sandy gravelly CLAY (recovered moist)		2.20	4.66								
	Firm to stiff brown very sandy very gravelly CLAY (recovered very moist)		2.45	4.41								
	Firm to stiff brown slightly sandy gravelly CLAY (recovered moist)		2.80	4.06								
3.0			3.00	3.86	2.00-3.00	100	162					
	(Loose to medium dense) Grey very gravelly SAND - hydrocarbons odour (recovered damp)											
	Firm to stiff brown very slightly sandy slightly gravelly CLAY (recovered moist)											
	Final Depth 3.00m											

General Remarks
Hydrocarbon odour from 2.45m - 2.80m. Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
25-08-20	3.00	0.45	1.45	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray		BOREHOLE NO. WS04B
CO-ORDINATES 726,530.02 E 719,367.99 N		SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 7.46		DATE DRILLED 25/08/2020
CLIENT Ballymore		DATE LOGGED 25/08/2020
ENGINEER Atkins		DRILLED BY CK
		LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	TOPSOIL		0.20	7.26				134866	ENV	0.20-1.50	
	Soft to firm brown moist very sandy very gravelly CLAY (MADE GROUND) (recovered moist)		0.50	6.96							
	Soft to firm grey/brown very sandy very gravelly CLAY with rare red brick fragments (MADE GROUND) (recovered moist)				0.00-1.00	80	131				
1.0	(Loose to medium dense) Grey/brown clayey very gravelly SAND with rare granite cobble (MADE GROUND) (recovered very moist)		1.30	6.16							
	Stiff dark grey very sandy gravelly CLAY with rare plastic (MADE GROUND) (recovered moist)		1.60	5.86				134867	ENV	1.50-2.35	
2.0	Stiff dark grey very sandy gravelly CLAY with rare plastic (MADE GROUND) (recovered moist)				1.00-2.00	60	167				
	Soft to firm dark grey/black sandy gravelly CLAY (MADE GROUND) (recovered moist)		2.35	5.11							
	Stiff dark grey slightly sandy slightly gravelly CLAY (MADE GROUND) (recovered moist)		2.65	4.81							
	Stiff dark grey/black sandy gravelly CLAY with rare plastic (MADE GROUND) (recovered moist)		2.85	4.61	2.00-3.00	80	115				
3.0	Stiff dark grey/black sandy gravelly CLAY with rare plastic (MADE GROUND) (recovered moist)							134869	ENV	3.00-5.00	
	Firm to stiff dark brown sandy gravelly CLAY (recovered moist)	3.40	4.06								
	Firm to stiff light brown slightly silty very sandy slightly gravelly CLAY (recovered moist)	3.55	3.91								
4.0	Firm to stiff light brown slightly silty very sandy slightly gravelly CLAY (recovered moist)			3.00-4.00	80						
	Stiff light brown slightly slightly sandy slightly gravelly CLAY (recovered moist)	4.60	2.86								
5.0	Final Depth 5.00m		5.00	2.46	4.00-5.00	60					

General Remarks
Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
25-08-20	5.00	0.50	2.80	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray		BOREHOLE NO. WS05A
CO-ORDINATES 726,665.96 E 719,323.97 N		SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 3.73		DATE DRILLED 26/08/2020
CLIENT Ballymore ENGINEER Atkins		DATE LOGGED 26/08/2020
		DRILLED BY CK
		LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	(Loose) Grey angular coarse GRAVEL (MADE GROUND)		0.30	3.43				134874	ENV	0.20-1.00	
	Firm to stiff brown very sandy gravelly CLAY (MADE GROUND) (recovered damp)		0.40	3.33							
	Firm to stiff dark grey very sandy gravelly CLAY with rare granite cobble (MADE GROUND) (recovered moist)		0.65	3.08							
1.0	Stiff dark brown sandy gravelly CLAY with rare glass fragment (MADE GROUND) (recovered moist)		1.00	2.73	0.00-1.00	80		134875	ENV	1.80-3.00	
	(Loose) Grey very sandy GRAVEL (Poor Recovery - damp)										
2.0	(Loose) grey moist sandy GRAVEL.		2.00	1.73	1.00-2.00	15					
	Soft brown mottled grey sandy gravelly CLAY (recovered very moist)		2.50	1.23							
3.0	Final Depth 3.00m		3.00	0.73	2.00-3.00	60					

General Remarks
Standpipe installed.

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
26-08-20	3.00	0.40	1.00	50mm SP

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21



Window Sample Record

REPORT NUMBER

22734

CONTRACT Harbour Point, Bray		BOREHOLE NO. WS05B
CO-ORDINATES 726,673.95 E 719,300.98 N		SHEET Sheet 1 of 1
GROUND LEVEL (mOD) 3.85		DATE DRILLED 26/08/2020
CLIENT Ballymore		DATE LOGGED 26/08/2020
ENGINEER Atkins		DRILLED BY CK
		LOGGED BY DN

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Depth of Sample Run (m)	Recovery (%)	Blowcount	Discrete Samples			Standpipe Details
								Ref. Number	Sample Type	Depth (m)	
0.0	(Medium dense) Grey very clayey gravelly SAND (MADE GROUND) (recovered moist)	[Cross-hatched pattern]	0.10	3.75							
	Firm to stiff brown very sandy very gravelly CLAY (MADE GROUND) (recovered moist)			0.55	3.30						
	(Dense) Black clayey very gravelly SAND (MADE GROUND) (recovered moist)			0.75	3.10						
	(Medium dense) Grey/brown clayey gravelly SAND (MADE GROUND) (recovered moist)			0.95	2.90	0.00-1.00	100		134877	ENV	0.95-1.75
1.0	Firm grey/brown sandy gravelly CLAY with rare red brick. (MADE GROUND) (recovered moist)										
	Soft to firm brown sandy gravelly CLAY (MADE GROUND) (recovered moist)			1.75	2.10						
	Soft grey very sandy gravelly CLAY (MADE GROUND) (recovered moist)			2.00	1.85	1.00-2.00	100		134878	ENV	2.00-3.00
	Soft brown very sandy gravelly CLAY (MADE GROUND) (recovered moist)			2.30	1.55						
	(Loose) Grey gravelly SAND (MADE GROUND) (recovered moist)			3.00	0.85	2.00-3.00	100		134879	ENV	3.00-3.90
	(Loose to medium dense) Grey rounded GRAVEL (MADE GROUND - pipe surround)			3.40	0.45						
	Final Depth 3.90m			3.90	-0.05	3.00-3.90	100				
4.0											
5.0											

General Remarks
600mm steel foul sewer damaged at 3.90m

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

WS SAMPLES PIEZO WS RUN 22734.GPJ IGSL GDT 28/1/21

WS01A



WS01B



WS03A



WS04A



WS04B



WS05A



Appendix 5

Soakaway Test Records (to BRE365)

Soakaway Design f -value from field tests (F2C) IGSL

Contract: Harbour Point Bray	Contract No. 22734
Test No. PT201 - Cycle1	Easting 726518.341
Client Ballymore/ATKINS	Northing 719519.558
Date: 28/09/2020	Elevation 9.593

Summary of ground conditions

from	to	Description	Ground water
0.00	0.10	TOPSOIL	Dry
0.10	1.00	Firm brown gravelly very sandy CLAY with low cobble content.	
1.00	1.84	Medium dense greyish brown slightly clayey very gravelly medium to coarse SAND with a medium cobble content	

Field Data

Field Test

Depth to Water (m)	Elapsed Time (min)
1.45	0.00
1.47	1.00
1.49	2.00
1.51	3.00
1.53	4.00
1.55	5.00
1.57	6.00
1.59	7.00
1.60	8.00
1.61	9.00
1.62	10.00
1.64	12.00
1.66	14.00
1.68	16.00
1.70	18.00
1.73	20.00
1.79	25.00
1.84	29.00

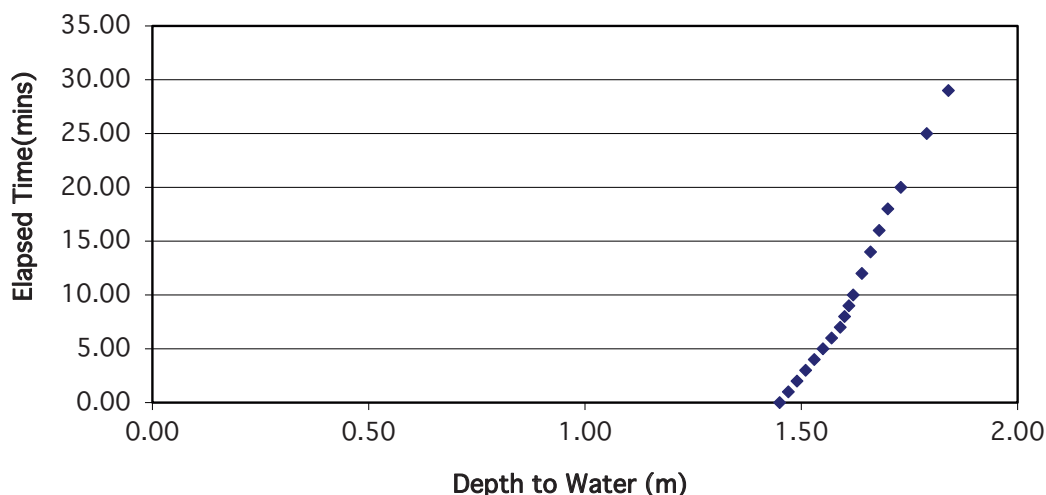
Depth of Pit (D)	1.84	m
Width of Pit (B)	0.70	m
Length of Pit (L)	2.10	m
Initial depth to Water =	1.45	m
Final depth to water =	1.84	m
Elapsed time (mins)=	29.00	
Top of permeable soil		m
Base of permeable soil		m

Base area=	1.47	m ²
*Av. side area of permeable stratum over test period	1.092	m ²
Total Exposed area =	2.562	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.00772 m/min or 0.0001286 m/sec

Depth of water vs Elapsed Time (mins)



Soakaway Design f -value from field tests (F2C) IGSL

Contract: Harbour Point Bray	Contract No. 22734
Test No. PT201 - Cycle2	Easting 726518.341
Client Ballymore/ATKINS	Northing 719519.558
Date: 28/09/2020	Elevation 9.593

Summary of ground conditions

from	to	Description	Ground water
0.00	0.10	TOPSOIL	Dry
0.10	1.00	Firm brown gavrelly very sandy CLAY with low cobble content.	
1.00	1.84	Medium dense greyish brown slightly clayey very gravelly medium to coarse SAND with a medium cobble content	

Field Data

Field Test

Depth to Water (m)	Elapsed Time (min)
1.50	0.00
1.52	1.00
1.54	2.00
1.55	3.00
1.57	4.00
1.59	5.00
1.61	6.00
1.62	7.00
1.63	8.00
1.64	9.00
1.65	10.00
1.67	12.00
1.69	14.00
1.71	16.00
1.73	18.00
1.75	20.00
1.79	25.00
1.84	30.00

Depth of Pit (D)	1.84	m
Width of Pit (B)	0.70	m
Length of Pit (L)	2.10	m

Initial depth to Water =	1.50	m
Final depth to water =	1.84	m
Elapsed time (mins)=	30.00	

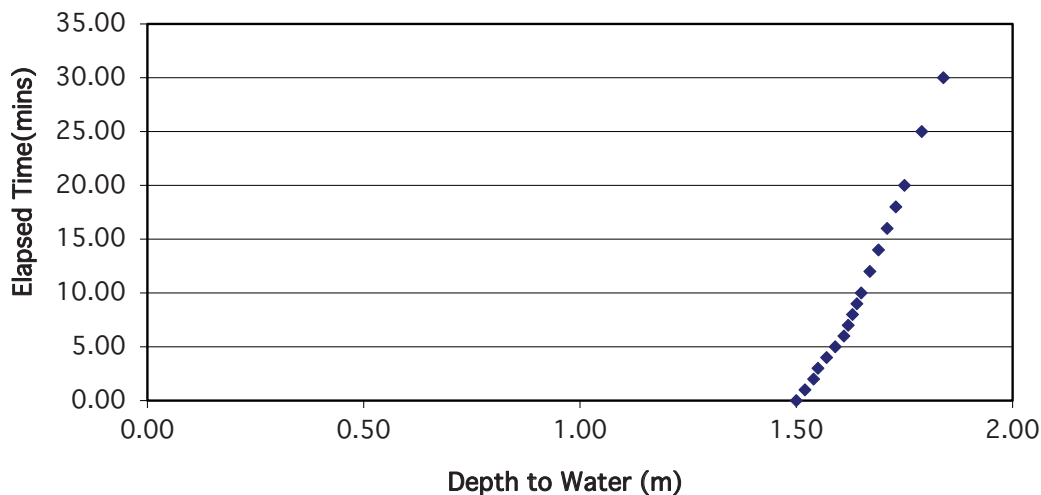
Top of permeable soil		m
Base of permeable soil		m

Base area=	1.47	m ²
*Av. side area of permeable stratum over test period	0.952	m ²
Total Exposed area =	2.422	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.00688 m/min or 0.0001146 m/sec

Depth of water vs Elapsed Time (mins)



Soakaway Design f -value from field tests (F2C) IGSL

Contract: Harbour Point Bray	Contract No. 22734
Test No. PT201 - Cycle3	Easting 726518.341
Client Ballymore/ATKINS	Northing 719519.558
Date: 28/09/2020	Elevation 9.593

Summary of ground conditions

from	to	Description	Ground water
0.00	0.10	TOPSOIL	Dry
0.10	1.00	Firm brown gravelly very sandy CLAY with low cobble content.	
1.00	1.84	Medium dense greyish brown slightly clayey very gravelly medium to coarse SAND with a medium cobble content	

Field Data

Field Test

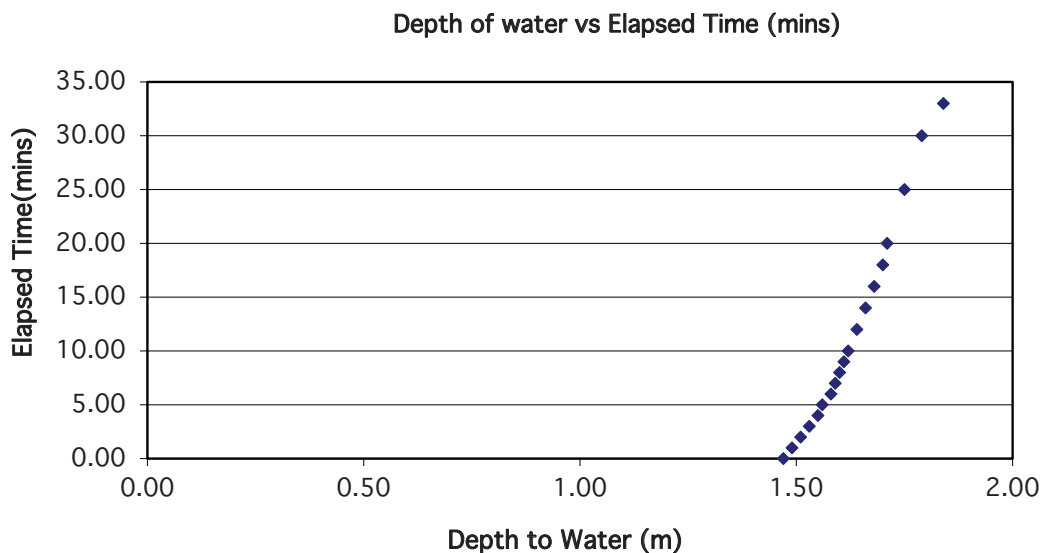
Depth to Water (m)	Elapsed Time (min)
1.47	0.00
1.49	1.00
1.51	2.00
1.53	3.00
1.55	4.00
1.56	5.00
1.58	6.00
1.59	7.00
1.60	8.00
1.61	9.00
1.62	10.00
1.64	12.00
1.66	14.00
1.68	16.00
1.70	18.00
1.71	20.00
1.75	25.00
1.79	30.00
1.84	33.00

Depth of Pit (D)	1.84	m
Width of Pit (B)	0.70	m
Length of Pit (L)	2.10	m
Initial depth to Water =	1.47	m
Final depth to water =	1.84	m
Elapsed time (mins)=	33.00	
Top of permeable soil		m
Base of permeable soil		m

Base area=	1.47	m ²
*Av. side area of permeable stratum over test period	1.036	m ²
Total Exposed area =	2.506	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.00658 m/min or 0.0001096 m/sec



Soakaway Design f -value from field tests (F2C) IGSL

Contract: Harbour Point Bray	Contract No. 22734
Test No. PT202 - Cycle2	Easting 726533.451
Client Ballymore/ATKINS	Northing 719396.769
Date: 28/09/2020	Elevation 7.59

Summary of ground conditions

from	to	Description	Ground water
0.00	0.20	Grey GRAVEL (MADE GROUND)	Dry
0.20	1.00	Brown gravelly very sandy CLAY with a medium cobble content (MG)	
1.00	1.70	Medium dense greyish brown slightly clayey very gravelly medium to coarse SAND with a medium cobble content and occasional boulders	

Field Data

Field Test

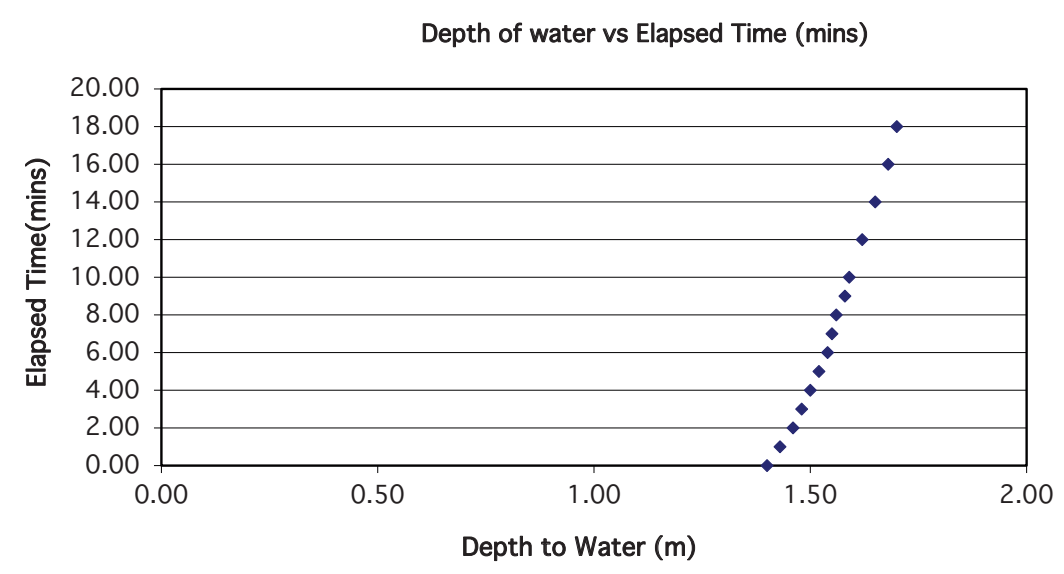
Depth to Water (m)	Elapsed Time (min)
1.40	0.00
1.43	1.00
1.46	2.00
1.48	3.00
1.50	4.00
1.52	5.00
1.54	6.00
1.55	7.00
1.56	8.00
1.58	9.00
1.59	10.00
1.62	12.00
1.65	14.00
1.68	16.00
1.70	18.00

Depth of Pit (D)	1.70	m
Width of Pit (B)	0.70	m
Length of Pit (L)	2.30	m
Initial depth to Water =	1.40	m
Final depth to water =	1.70	m
Elapsed time (mins)=	18.00	
Top of permeable soil		m
Base of permeable soil		m

Base area=	1.61	m ²
*Av. side area of permeable stratum over test period	0.9	m ²
Total Exposed area =	2.51	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.01069 m/min or 0.0001782 m/sec



Soakaway Design f -value from field tests (F2C) IGSL

Contract: Harbour Point Bray	Contract No. 22734
Test No. PT203 - Cycle1	Easting 726645.516
Client Ballymore/ATKINS	Northing 719323.364
Date: 28/09/2020	Elevation 3.113

Summary of ground conditions

from	to	Description	Ground water
0.00	0.10	TOPSOIL	Dry
0.10	0.50	Greyish brown sandy very gravelly CLAY with cobbles (MADE GROUND)	
0.50	1.70	Stiff grey sandy very gravelly CLAY with medium cobble content	

Field Data

Field Test

Depth to Water (m)	Elapsed Time (min)
1.36	0.00
1.37	1.00
1.38	2.00
1.385	3.00
1.39	4.00
1.40	5.00
1.41	6.00
1.42	7.00
1.43	8.00
1.435	9.00
1.44	10.00
1.45	12.00
1.46	14.00
1.47	16.00
1.48	18.00
1.49	20.00
1.53	25.00
1.57	30.00
1.65	40.00
1.70	50.00

Depth of Pit (D)	1.70	m
Width of Pit (B)	0.70	m
Length of Pit (L)	2.20	m

Initial depth to Water =	1.36	m
Final depth to water =	1.70	m
Elapsed time (mins)=	50.00	

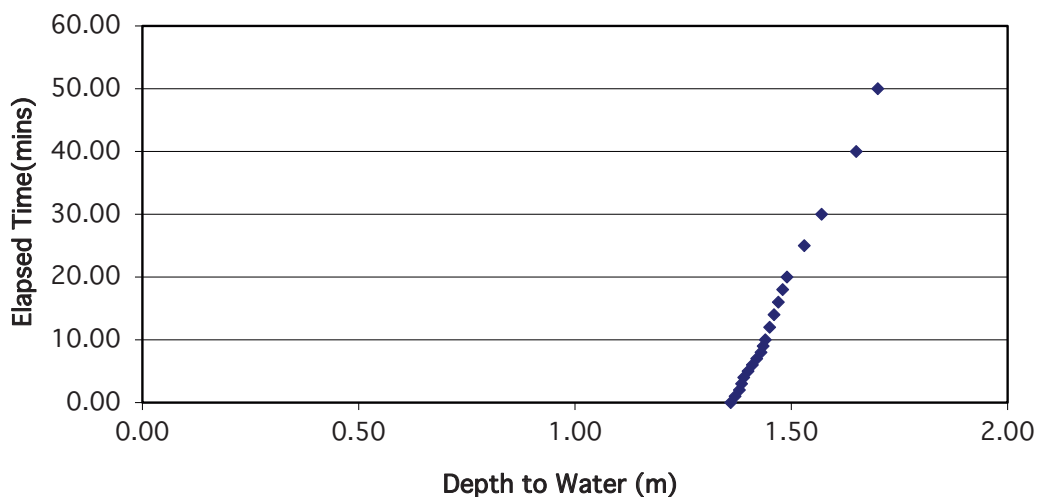
Top of permeable soil		m
Base of permeable soil		m

Base area=	1.54	m ²
*Av. side area of permeable stratum over test period	0.986	m ²
Total Exposed area =	2.526	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.00415 m/min or 6.909E-05 m/sec

Depth of water vs Elapsed Time (mins)



Soakaway Design f -value from field tests (F2C) IGSL

Contract: Harbour Point Bray	Contract No. 22734
Test No. PT203 - Cycle2	Easting 726645.516
Client Ballymore/ATKINS	Northing 719323.364
Date: 28/09/2020	Elevation 3.113

Summary of ground conditions

from	to	Description	Ground water
0.00	0.10	TOPSOIL	Dry
0.10	0.50	Greyish brown sandy very gravelly CLAY with cobbles (MADE GROUND)	
0.50	1.70	Stiff grey sandy very gravelly CLAY with medium cobble content	

Field Data

Field Test

Depth to Water (m)	Elapsed Time (min)
1.38	0.00
1.39	1.00
1.40	2.00
1.405	3.00
1.41	4.00
1.42	5.00
1.43	6.00
1.44	7.00
1.45	8.00
1.46	9.00
1.465	10.00
1.48	12.00
1.49	14.00
1.505	16.00
1.51	18.00
1.52	20.00
1.55	25.00
1.59	30.00
1.65	40.00
1.70	50.00

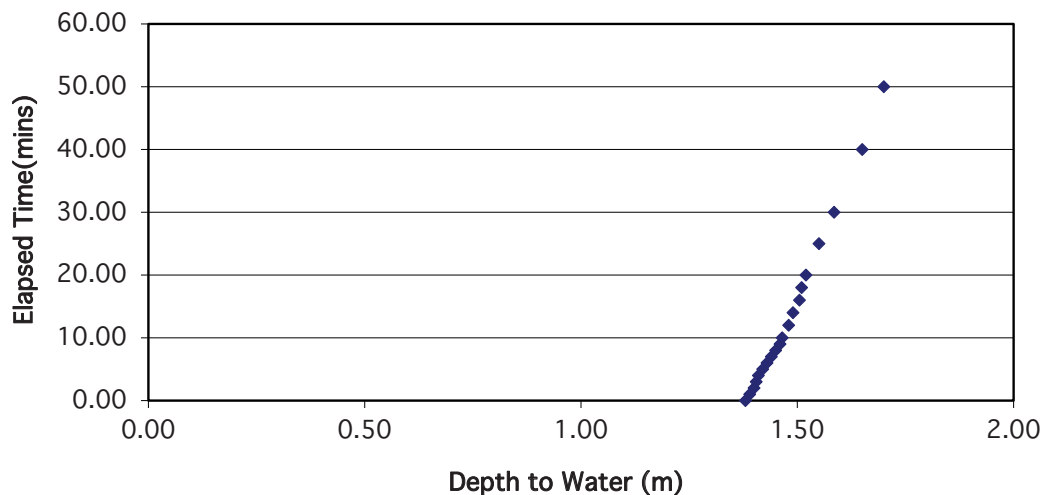
Depth of Pit (D)	1.70	m
Width of Pit (B)	0.70	m
Length of Pit (L)	2.20	m
Initial depth to Water =	1.38	m
Final depth to water =	1.70	m
Elapsed time (mins)=	50.00	
Top of permeable soil		m
Base of permeable soil		m

Base area=	1.54	m ²
*Av. side area of permeable stratum over test period	0.928	m ²
Total Exposed area =	2.468	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.00399 m/min or 6.656E-05 m/sec

Depth of water vs Elapsed Time (mins)



PT201 – 1 of 2



PT201 – 2 of 2



PT202 – 1 of 3



PT202 – 2 of 3



PT202 – 3 of 3



PT203 – 1 of 2



PT203 – 2 of 2

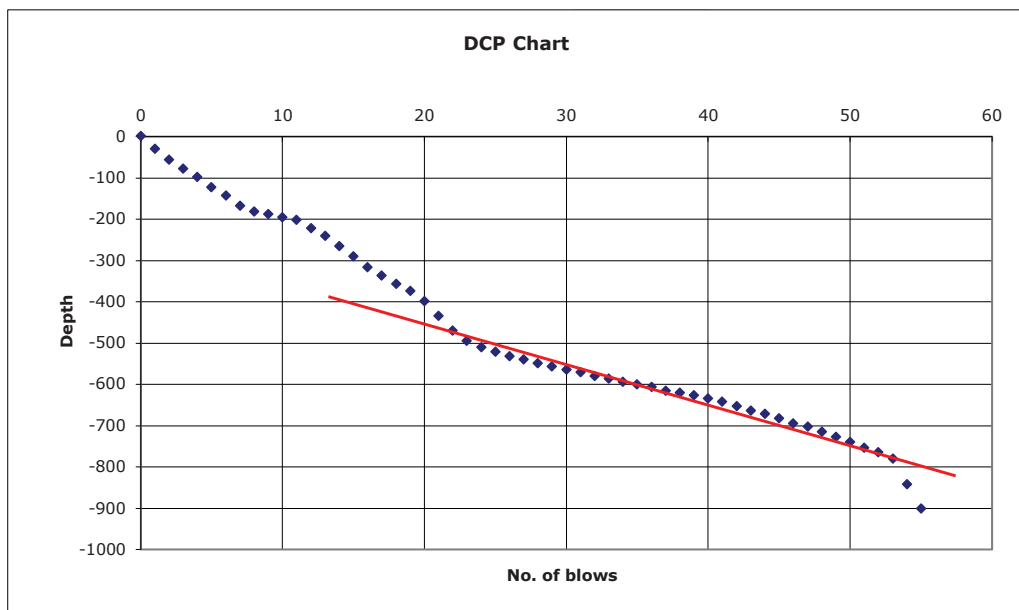


Appendix 6
DCP Test Records

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 25/09/2020		Test No. DCP209			
Location TP209 Direction			DCP Zero Reading 54 mm					
Soil Description Firm, brown, gravelly very sandy CLAY with low cobble content.			Start of Test at: 0.5m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	54	1	21	489	1	42	708
1	1	85	1	22	524	1	43	719
1	2	110	1	23	550	1	44	726
1	3	132	1	24	565	1	45	737
1	4	153	1	25	576	1	46	750
1	5	177	1	26	587	1	47	757
1	6	198	1	27	595	1	48	770
1	7	222	1	28	604	1	49	782
1	8	236	1	29	612	1	50	794
1	9	242	1	30	620	1	51	808
1	10	250	1	31	626	1	52	820
1	11	257	1	32	635	1	53	835
1	12	277	1	33	641	1	54	896
1	13	296	1	34	649	1	55	956
1	14	320	1	35	655	1	56	
1	15	345	1	36	661	1	57	
1	16	371	1	37	670	1	58	
1	17	391	1	38	675	1	59	
1	18	411	1	39	682	1	60	
1	19	429	1	40	689	1	61	
1	20	453	1	41	697	1	62	



	From	to	Penetration	mm / blow
Depth range (mm)	550	835	285	9.5000
Blows	23	53	30	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

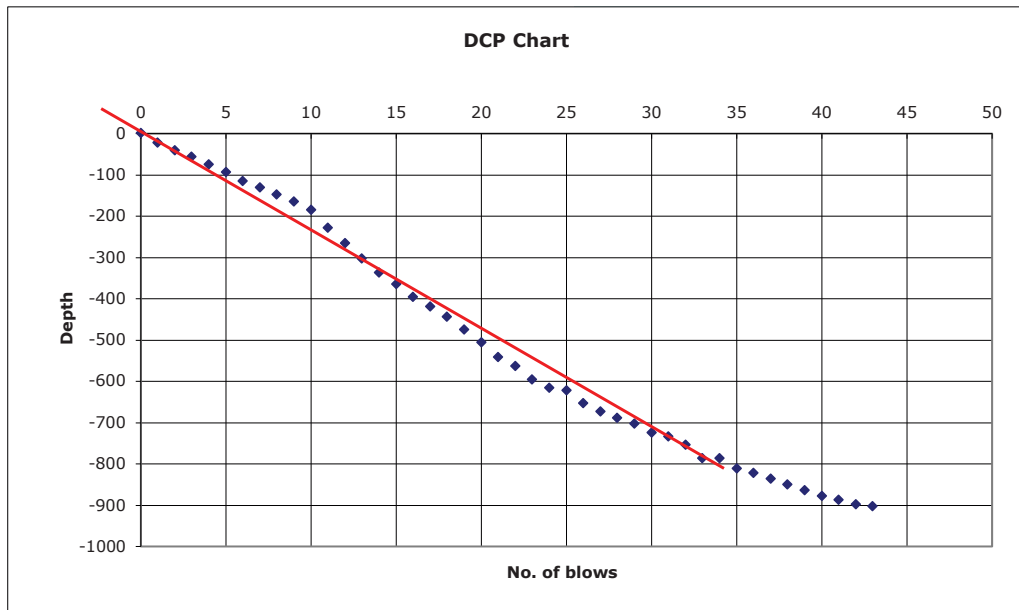
$\text{Log}_{10}(\text{CBR}) = 1.447$

CBR = 27.961

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 25/09/2020		Test No. DCP210			
Location TP210 Direction			DCP Zero Reading 46 mm					
Soil Description Firm, brown, sandy gravelly CLAY with low cobble content.			Start of Test at: 0.5m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	46	1	21	588	1	42	945
1	1	69	1	22	609	1	43	950
1	2	87	1	23	643	1	44	
1	3	103	1	24	663	1	45	
1	4	122	1	25	669	1	46	
1	5	140	1	26	699	1	47	
1	6	162	1	27	720	1	48	
1	7	177	1	28	736	1	49	
1	8	194	1	29	750	1	50	
1	9	211	1	30	771	1	51	
1	10	232	1	31	781	1	52	
1	11	275	1	32	800	1	53	
1	12	312	1	33	833	1	54	
1	13	350	1	34	833	1	55	
1	14	383	1	35	857	1	56	
1	15	412	1	36	868	1	57	
1	16	442	1	37	882	1	58	
1	17	465	1	38	896	1	59	
1	18	490	1	39	911	1	60	
1	19	521	1	40	924	1	61	
1	20	552	1	41	933	1	62	



	From	to	Penetration	mm / blow
Depth range (mm)	69	833	764	23.1515
Blows	1	34	33	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

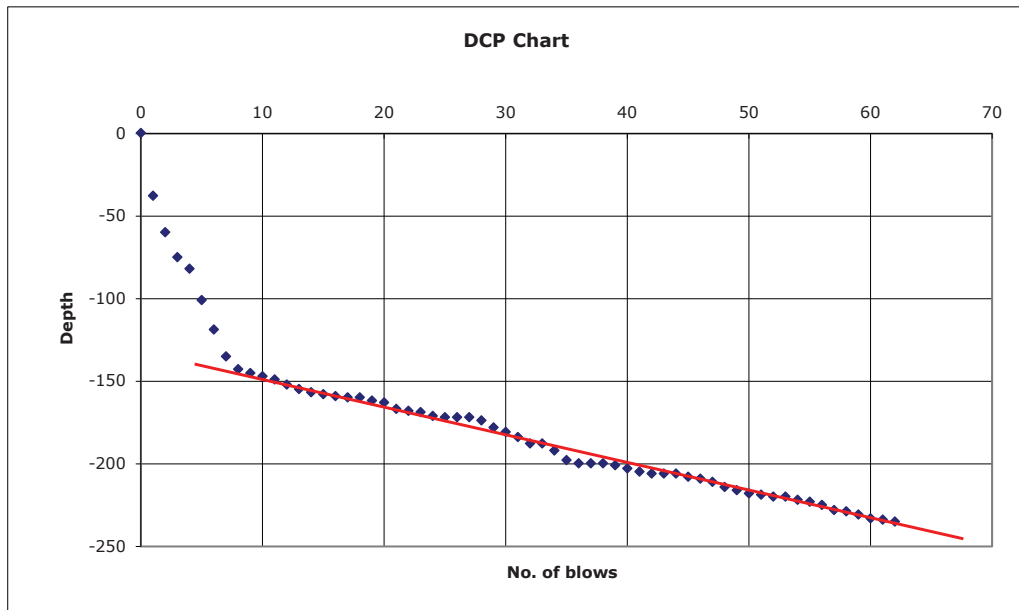
$\text{Log}_{10}(\text{CBR}) = 1.038$

CBR = 10.905

Dynamic Cone Penetrometer



Contract Harbour Point Bray				Date: 24/09/2020		Test No. DCP211		
Ref No. 22734								
Client Ballymore				DCP Zero Reading 60 mm				
Location TP211				Start of Test at: 0.3m below GL				
Direction				Approximate Chainage				
Soil Description Firm, greyish brown, sandy very gravelly CLAY with medium cobble content.								
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	60	1	21	227	1	42	266
1	1	98	1	22	228	1	43	266
1	2	120	1	23	229	1	44	266
1	3	135	1	24	231	1	45	268
1	4	142	1	25	232	1	46	269
1	5	161	1	26	232	1	47	271
1	6	179	1	27	232	1	48	274
1	7	195	1	28	234	1	49	276
1	8	203	1	29	238	1	50	278
1	9	205	1	30	241	1	51	279
1	10	207	1	31	244	1	52	280
1	11	209	1	32	248	1	53	280
1	12	212	1	33	248	1	54	282
1	13	215	1	34	252	1	55	283
1	14	217	1	35	258	1	56	285
1	15	218	1	36	260	1	57	288
1	16	219	1	37	260	1	58	289
1	17	220	1	38	260	1	59	291
1	18	220	1	39	261	1	60	293
1	19	222	1	40	263	1	61	294
1	20	223	1	41	265	1	62	295



	From	to	Penetration	mm / blow
Depth range (mm)	203	295	92	1.7037
Blows	8	62	54	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

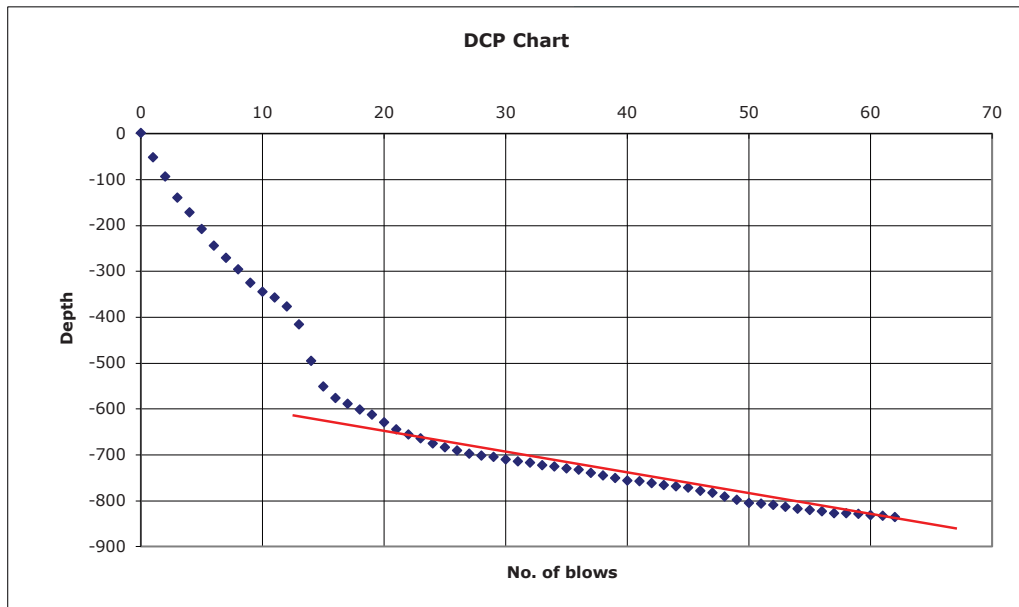
$\text{Log}_{10}(\text{CBR}) = 2.235$

CBR = 171.956

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 25/09/2020		Test No. DCP201			
Location TP201 Direction			DCP Zero Reading 63 mm					
Soil Description Firm, brown, gravelly very sandy CLAY with low cobble content.			Start of Test at: 0.5m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	63	1	21	708	1	42	826
1	1	115	1	22	719	1	43	830
1	2	158	1	23	728	1	44	832
1	3	203	1	24	739	1	45	835
1	4	235	1	25	748	1	46	842
1	5	272	1	26	755	1	47	847
1	6	308	1	27	761	1	48	855
1	7	335	1	28	765	1	49	862
1	8	360	1	29	769	1	50	869
1	9	389	1	30	774	1	51	870
1	10	409	1	31	778	1	52	873
1	11	421	1	32	781	1	53	877
1	12	440	1	33	786	1	54	882
1	13	480	1	34	790	1	55	884
1	14	559	1	35	793	1	56	887
1	15	615	1	36	797	1	57	891
1	16	640	1	37	804	1	58	891
1	17	652	1	38	809	1	59	893
1	18	665	1	39	814	1	60	895
1	19	677	1	40	820	1	61	897
1	20	693	1	41	822	1	62	899



	From	to	Penetration	mm / blow
Depth range (mm)	693	899	206	4.9048
Blows	20	62	42	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

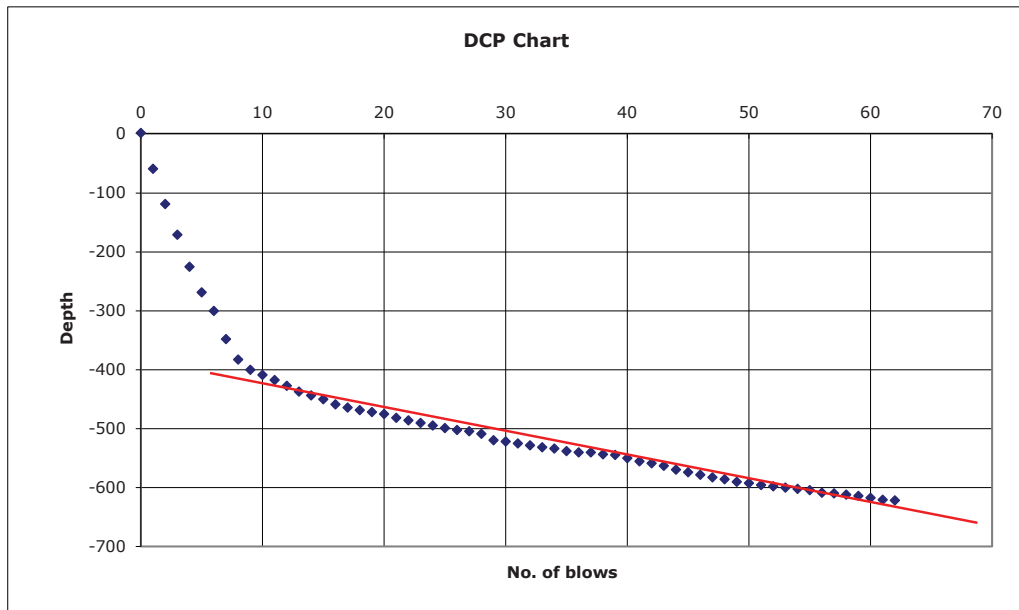
$\text{Log}_{10}(\text{CBR}) = 1.750$

CBR = 56.236

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 24/09/2020		Test No. DCP202			
Location TP202 Direction			DCP Zero Reading 70 mm					
Soil Description Firm, brown, sandy gravelly CLAY with low cobble content.			Start of Test at: 0.6m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	70	1	21	553	1	42	630
1	1	130	1	22	557	1	43	634
1	2	190	1	23	561	1	44	640
1	3	242	1	24	565	1	45	645
1	4	296	1	25	570	1	46	649
1	5	340	1	26	573	1	47	653
1	6	371	1	27	575	1	48	657
1	7	419	1	28	580	1	49	661
1	8	454	1	29	590	1	50	663
1	9	471	1	30	593	1	51	666
1	10	480	1	31	596	1	52	669
1	11	489	1	32	599	1	53	671
1	12	498	1	33	602	1	54	673
1	13	508	1	34	605	1	55	675
1	14	514	1	35	609	1	56	680
1	15	521	1	36	611	1	57	681
1	16	530	1	37	611	1	58	683
1	17	535	1	38	614	1	59	685
1	18	539	1	39	615	1	60	688
1	19	543	1	40	621	1	61	691
1	20	546	1	41	626	1	62	693



Depth range (mm)	From 471	to 693	Penetration	222	mm / blow
Blows	9	62		53	4.1887

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

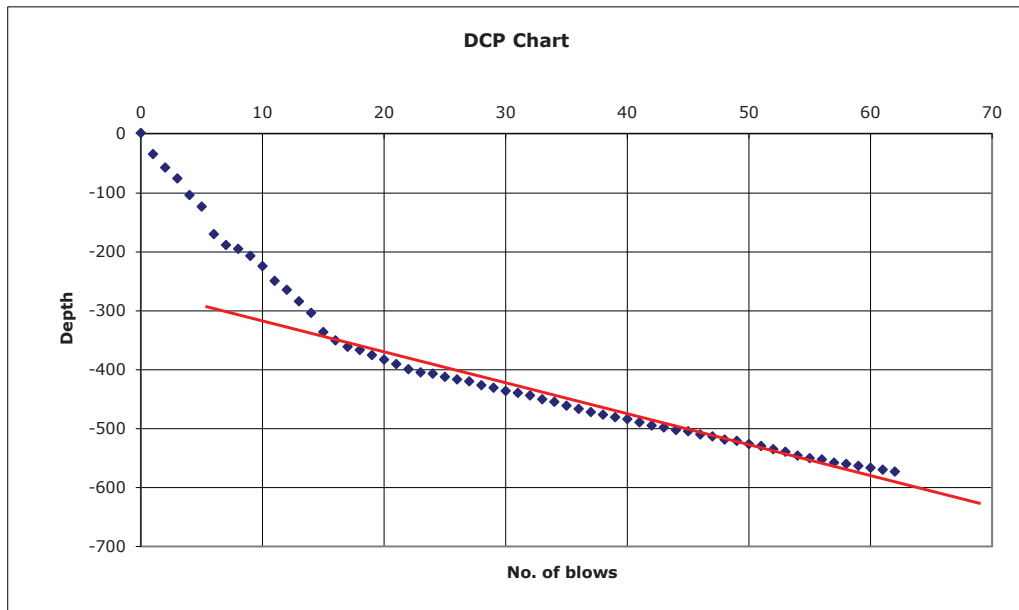
$\text{Log}_{10}(\text{CBR}) = 1.822$

CBR = 66.445

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 25/09/2020		Test No. DCP203			
Location TP203 Direction			DCP Zero Reading 65 mm					
Soil Description Firm, brown, gravelly very sandy CLAY with low cobble content.			Start of Test at: 0.5m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	65	1	21	456	1	42	561
1	1	100	1	22	465	1	43	564
1	2	123	1	23	470	1	44	568
1	3	142	1	24	473	1	45	570
1	4	170	1	25	478	1	46	576
1	5	189	1	26	482	1	47	579
1	6	236	1	27	486	1	48	584
1	7	254	1	28	492	1	49	587
1	8	261	1	29	497	1	50	592
1	9	273	1	30	502	1	51	595
1	10	290	1	31	505	1	52	601
1	11	315	1	32	510	1	53	605
1	12	330	1	33	516	1	54	611
1	13	350	1	34	520	1	55	616
1	14	369	1	35	527	1	56	618
1	15	402	1	36	532	1	57	623
1	16	416	1	37	538	1	58	626
1	17	427	1	38	542	1	59	629
1	18	432	1	39	546	1	60	632
1	19	441	1	40	550	1	61	635
1	20	449	1	41	555	1	62	639



Depth range (mm)	From 402	to 639	Penetration	mm / blow
Blows	15	62	237	5.0426
			47	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

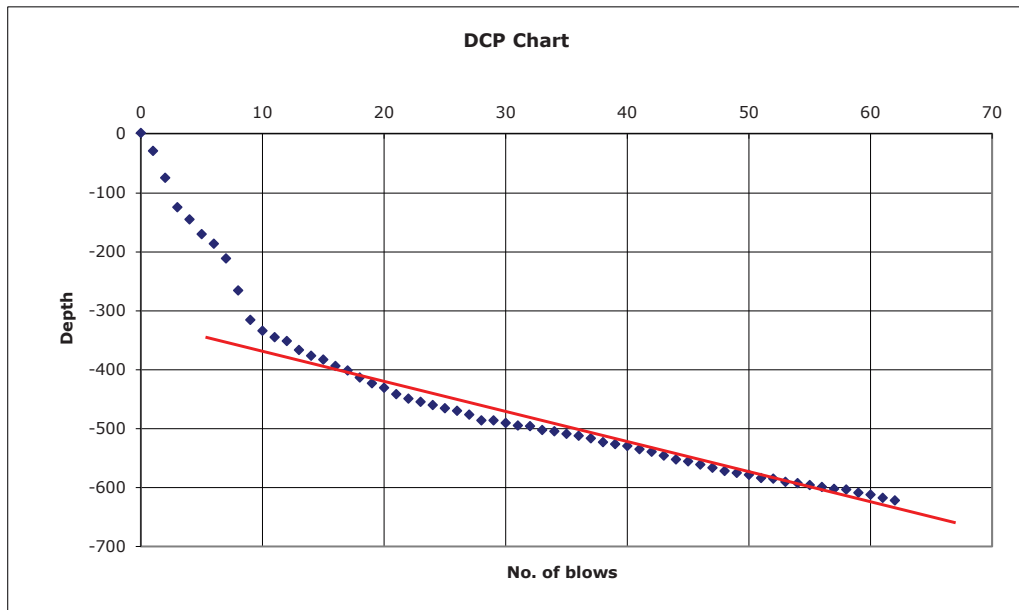
$\text{Log}_{10}(\text{CBR}) = 1.737$

CBR = 54.613

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 25/09/2020		Test No. DCP204			
Location TP204 Direction			DCP Zero Reading 60 mm					
Soil Description Firm, brown, gravelly very sandy CLAY with low cobble content.			Start of Test at: 0.5m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	60	1	21	502	1	42	600
1	1	90	1	22	510	1	43	606
1	2	135	1	23	515	1	44	613
1	3	185	1	24	521	1	45	616
1	4	206	1	25	526	1	46	622
1	5	231	1	26	531	1	47	627
1	6	247	1	27	537	1	48	633
1	7	272	1	28	547	1	49	636
1	8	326	1	29	547	1	50	639
1	9	376	1	30	551	1	51	645
1	10	395	1	31	555	1	52	646
1	11	406	1	32	557	1	53	651
1	12	412	1	33	563	1	54	653
1	13	427	1	34	565	1	55	656
1	14	437	1	35	570	1	56	660
1	15	444	1	36	573	1	57	663
1	16	455	1	37	577	1	58	664
1	17	462	1	38	584	1	59	670
1	18	474	1	39	587	1	60	673
1	19	484	1	40	590	1	61	678
1	20	492	1	41	596	1	62	682



	From	to	Penetration	mm / blow
Depth range (mm)	437	682	245	5.1042
Blows	14	62	48	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

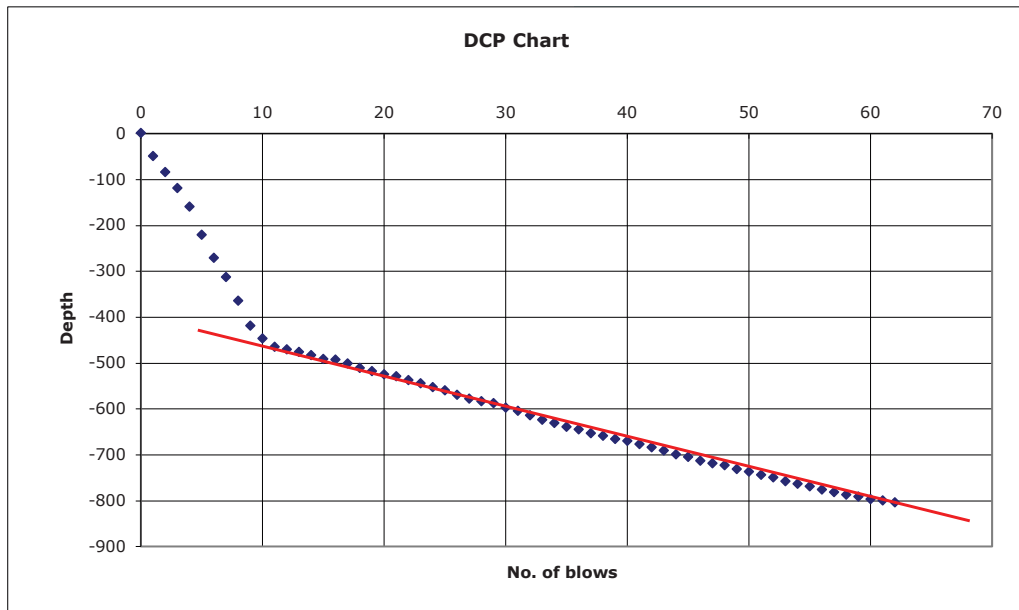
$\text{Log}_{10}(\text{CBR}) = 1.732$

CBR = 53.917

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 24/09/2020		Test No. DCP205			
Location TP205 Direction			DCP Zero Reading 40 mm					
Soil Description Firm, brown, gravelly very sandy CLAY with low cobble content.			Start of Test at: 0.6m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	40	1	21	570	1	42	724
1	1	89	1	22	578	1	43	732
1	2	125	1	23	585	1	44	740
1	3	160	1	24	594	1	45	746
1	4	200	1	25	601	1	46	754
1	5	261	1	26	610	1	47	759
1	6	312	1	27	619	1	48	763
1	7	354	1	28	624	1	49	772
1	8	405	1	29	628	1	50	778
1	9	460	1	30	638	1	51	785
1	10	487	1	31	645	1	52	790
1	11	506	1	32	655	1	53	798
1	12	511	1	33	664	1	54	804
1	13	516	1	34	671	1	55	810
1	14	523	1	35	680	1	56	817
1	15	532	1	36	686	1	57	822
1	16	534	1	37	694	1	58	828
1	17	542	1	38	699	1	59	832
1	18	551	1	39	706	1	60	837
1	19	559	1	40	711	1	61	841
1	20	566	1	41	718	1	62	845



Depth range (mm)	From 506	to 845	Penetration	mm / blow
Blows	11	62	339	6.6471
			51	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

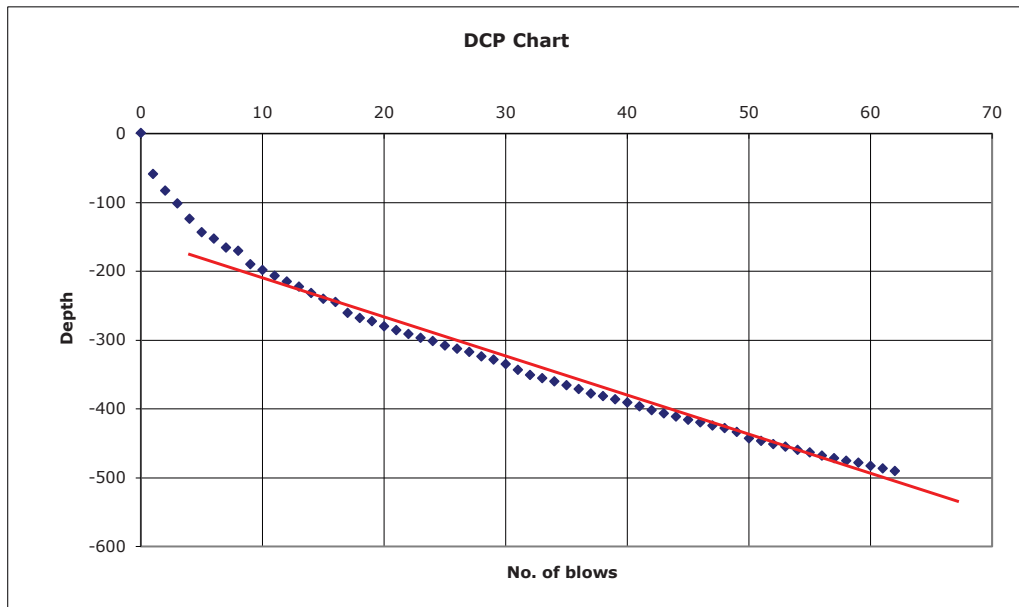
$\text{Log}_{10}(\text{CBR}) = 1.610$

CBR = 40.783

Dynamic Cone Penetrometer



Contract Harbour Point Bray Ref No. 22734 Client Ballymore			Date: 24/09/2020		Test No. DCP207			
Location TP207 Direction			DCP Zero Reading 89 mm					
Soil Description Firm, brown, gravelly very sandy CLAY with low cobble content.			Start of Test at: 0.6m below GL		Approximate Chainage			
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	89	1	21	375	1	42	491
1	1	148	1	22	381	1	43	496
1	2	172	1	23	386	1	44	501
1	3	191	1	24	391	1	45	505
1	4	213	1	25	397	1	46	509
1	5	233	1	26	402	1	47	514
1	6	242	1	27	407	1	48	517
1	7	255	1	28	413	1	49	523
1	8	260	1	29	418	1	50	532
1	9	279	1	30	424	1	51	536
1	10	288	1	31	433	1	52	541
1	11	296	1	32	440	1	53	544
1	12	304	1	33	445	1	54	549
1	13	312	1	34	450	1	55	553
1	14	321	1	35	455	1	56	557
1	15	330	1	36	461	1	57	561
1	16	334	1	37	467	1	58	565
1	17	350	1	38	471	1	59	568
1	18	357	1	39	476	1	60	572
1	19	362	1	40	480	1	61	576
1	20	370	1	41	486	1	62	580



	From	to	Penetration	mm / blow
Depth range (mm)	288	580	292	5.6154
Blows	10	62	52	

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

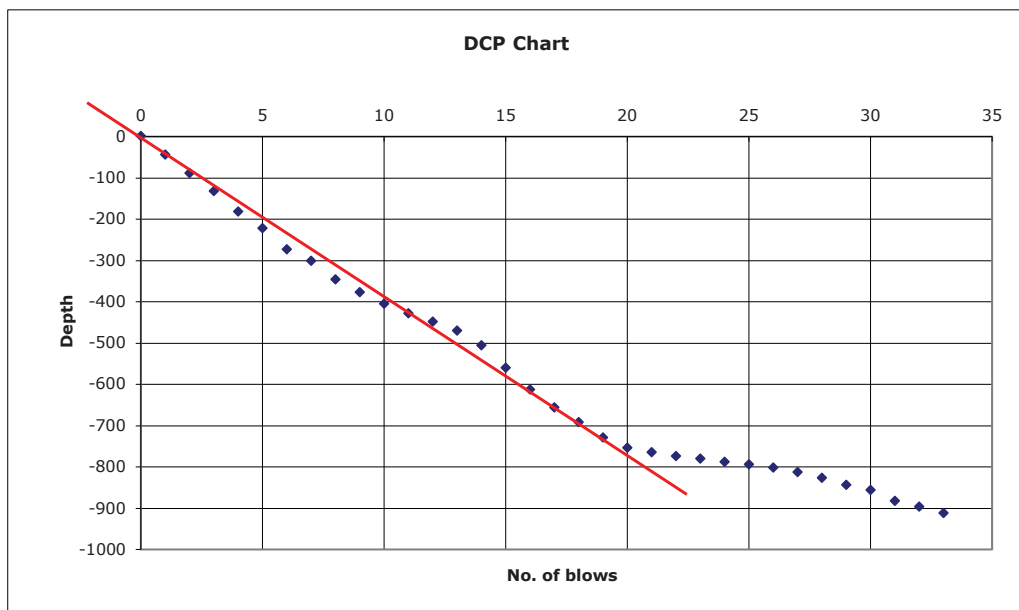
$\text{Log}_{10}(\text{CBR}) = 1.688$

CBR = 48.742

Dynamic Cone Penetrometer



Contract Harbour Point Bray				Date: 24/09/2020		Test No. DCP208		
Ref No. 22734								
Client Ballymore				DCP Zero Reading 45 mm				
Location TP208				Start of Test at: 0.5m below GL				
Direction				Approximate Chainage				
Soil Description Firm, orangish brown, gravelly very sandy CLAY.								
No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm	No of Blows	Total Blows	Reading mm
0	0	45	1	21	811	1	42	
1	1	89	1	22	819	1	43	
1	2	134	1	23	826	1	44	
1	3	178	1	24	834	1	45	
1	4	227	1	25	840	1	46	
1	5	268	1	26	848	1	47	
1	6	319	1	27	859	1	48	
1	7	347	1	28	873	1	49	
1	8	391	1	29	890	1	50	
1	9	422	1	30	901	1	51	
1	10	450	1	31	928	1	52	
1	11	474	1	32	942	1	53	
1	12	494	1	33	958	1	54	
1	13	516	1	34		1	55	
1	14	551	1	35		1	56	
1	15	606	1	36		1	57	
1	16	659	1	37		1	58	
1	17	701	1	38		1	59	
1	18	737	1	39		1	60	
1	19	774	1	40		1	61	
1	20	800	1	41		1	62	



Depth range (mm)	From 89	to 800	Penetration	711	mm / blow
Blows	1	20		19	37.4211

TRRL RN8 $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$

$\text{Log}_{10}(\text{CBR}) = 0.817$


CBR = 6.565

Appendix 7**Groundwater & Gas Monitoring**

RC202
RC203
BH207
RC208
RC215
RC219
RC223
ROH01
ROH02
ROH04
WS01A
WS01B
WS02A
WS02B
WS03A
WS03B
WS04A
WS04B
WS05A

Gas & Groundwater Monitoring



Gas & Groundwater Monitoring								
Site Location	Harbour View, Bray							
Project No.	22734							
Client	Ballymore Group							
Borehole Number	BH202							
Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020		
WATER LEVEL (m bgl)	5.89	5.79	5.82	5.58	5.5	5.61		
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0		
CO2(%)	0.0	1.9	1.3	1.0	1.1	1.1		
O2(%)	21.0	19.3	19.9	20.1	19.2	19.4		
CO(%)	1.0	1.0	0.0	0.0	0	0		
H2S(%)	0.0	0.0	0.0	0.0	0	0		
Balance(%)	78.9	78.9	78.8	78.9	79.7	79.5		
BAROMETRIC PRESURE (mb)	998	986	1016.0	1008	1012	1001		
GAS FLOW	0	0	0.0	0	0	0		
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good		
COMMENTS								

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Borehole Number BH203

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	9.28	9.25	9.44	9.29	9.31	9.26	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.5	0.8	0.1	0.2	0.2	0.3	
O2(%)	20.2	20.0	20.4	20.3	20.1	20.1	
CO(%)	1.0	1.0	1.0	1.0	1.0	1	
H2S(%)	0.0	0.0	0.0	0.0	0.0	0	
Balance(%)	78.3	79.2	79.5	78.5	78.7	78.6	
BAROMETRIC PRESURE (mb)	998	986	1016.0	1008	1012	1001	
GAS FLOW	0.0	-0.1	0.0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Borehole Number | BH207

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	5.58	5.32	5.25	5.52	5.39	5.36	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.2	1.2	2.4	2.2	1.9	2	
O2(%)	20.6	19.6	18.9	18.5	18.4	18.5	
CO(%)	1.0	0.0	0.0	1.0	0	0	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.3	79.2	78.7	79.5	79.7	80	
BAROMETRIC PRESURE (mb)	998	986	1016.0	1008	1012	1001	
GAS FLOW	0.0	0	0.0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Borehole Number BH208

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	5.91	5.86	5.77	5.68	5.51	5.58	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.5	0.7	0.0	0.2	0.3	0.2	
O2(%)	20.1	19.9	20.9	20.0	20.1	20	
CO(%)	1.0	1.0	1.0	1.0	1	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	78.4	79.4	79.1	78.8	78.6	78.8	
BAROMETRIC PRESURE (mb)	998	986	1016	1008	1012	1001	
GAS FLOW	0.0	0.0	0.0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Borehole Number BH215

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	3.77	3.37	3.54	4.02	3.99	4	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.1	0.3	0.7	0.1	0.1	0.3	
O2(%)	20.0	18.0	14.7	18.3	19	18.7	
CO(%)	1.0	1.0	1.0	1.0	0	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	78.6	81.7	84.6	81.6	80.9	80	
BAROMETRIC PRESURE (mb)	998	986	1018	1008	1012	1001	
GAS FLOW	0.0	-0.4	-1.5	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Borehole Number BH219

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	6.54	6.13	6.25	6.42	6.5	6.4	
CH4(%)	0.0	0.2	0.0	0.0	0.0	0.0	
CO2(%)	0.1	0.3	0.1	0.1	0.1	0.1	
O2(%)	20.3	20.5	20.2	20.1	19.8	19.9	
CO(%)	1.0	1.0	0.0	1.0	1	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.6	79.0	79.7	79.8	79.1	79	
BAROMETRIC PRESURE (mb)	998	986	1018	1008	1012	1001	
GAS FLOW	0.0	-0.7	-0.6	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Borehole Number BH223

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	1.69	1.08	1.36	1.49	1.82	1.65	
CH4(%)	0.5	0.0	0.0	0.0	0.1	0.1	
CO2(%)	0.0	0.0	0.0	0.1	0.1	0.1	
O2(%)	19.9	18.8	19.5	20.1	19.5	19.7	
CO(%)	1.0	2.0	1.0	0.0	1	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.5	79.2	79.5	79.8	80.3	80.1	
BAROMETRIC PRESURE (mb)	999	987	1018	1008	1012	1001	
GAS FLOW	0.0	0.0	0.0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray
Project No. 22734
Client Ballymore Group
Borehole Number ROH01

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	4.81	4.79	4.86	4.98	4.49	4.69	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.0	0.0	0.0	0.0	0	0	
O2(%)	20.9	20.8	21.0	21.0	20.9	20.7	
CO(%)	0.0	0.0	0.0	0.0	0	0	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.1	79.2	78.9	78.8	79.1	79.3	
BAROMETRIC PRESURE (mb)	998	986	1016	1008	1012	1001	
GAS FLOW	0.0	0.0	0.0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Borehole Number ROH02

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	3.3	3.31	3.29	3.15	3.33	3.16	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.0	0.0	0.0	0.0	0	0	
O2(%)	20.4	20.5	20.6	20.4	20.2	20.1	
CO(%)	0.0	0.0	0.0	0.0	0	0	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.6	79.5	79.4	79.6	79.8	79.9	
BAROMETRIC PRESURE (mb)	998	986	1018	1008	1012	1001	
GAS FLOW	-0.2	-0.5	-1.2	-0.3	-0.1	-0.1	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Borehole Number ROH04

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	0.3	0.2	0.35	0.48	0.87	0.54	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.0	0.1	0.0	0.0	0	0	
O2(%)	20.4	20.7	20.5	20.4	20.3	20.4	
CO(%)	0.0	0.0	0.0	0.0	0	0	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.6	79.2	79.5	79.6	79.7	79.6	
BAROMETRIC PRESURE (mb)	998	987	1018	1008	1012	1001	
GAS FLOW	0.0	0.0	-0.4	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Window Sample Number | WS01A

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	DRY	DRY	DRY	DRY	DRY	Dry	
CH4(%)	0.0	0.0	0.0	0	0.0	0.0	
CO2(%)	1.5	1.7	2.1	1.6	1.8	1.6	
O2(%)	19.2	19	18.5	19.1	19.2	19	
CO(%)	1.0	1.0	0.0	0	0	0	
H2S(%)	0.0	0.0	0.0	0	0	0	
Balance(%)	79.3	79.3	79.4	79.3	79	78.4	
BAROMETRIC PRESURE (mb)	999	986	1016	1008	1012	1001	
GAS FLOW	0	0	0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Window Sample Number | WS02A

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	DRY	DRY	DRY	DRY	DRY	DRY	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	3.0	3.5	3.5	3.6	3.8	3.5	
O2(%)	17.8	17.8	17.6	17.0	17.3	17.5	
CO(%)	1.0	1.0	0.0	0.0	0	0	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.1	78.6	78.9	79.4	78.9	79	
BAROMETRIC PRESURE (mb)	1001	986	1016	1008	1012	1001	
GAS FLOW	0	-0.1	-0.1	0	-0.1	-0.1	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Window Sample Number | WS02B

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	DRY	DRY	DRY	DRY	DRY	DRY	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	0.7	0.6	0.5	0.4	0.5	0.6	
O2(%)	19.0	19.6	20.0	19.1	19.5	19.3	
CO(%)	1.0	1.0	0.0	1.0	0	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	80.3	79.9	79.5	80.5	80	79.1	
BAROMETRIC PRESURE (mb)	999	986	1016	1008	1012	1001	
GAS FLOW	0	0	-0.1	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Window Sample Number | WS03A

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	DRY	DRY	DRY	DRY	DRY	DRY	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	3.9	4.2	4.9	5.4	4.6	5.1	
O2(%)	16.6	16.6	15.1	13.2	16	15.3	
CO(%)	1.0	1.0	0.0	1.0	1	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.5	79.2	80.0	81.4	78.6	79.6	
BAROMETRIC PRESURE (mb)	999	986	1016	1008	1012	1001	
GAS FLOW	0	0	0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Window Sample Number | WS03B

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	DRY	DRY	DRY	DRY	DRY	DRY	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	1.7	0.9	2.1	2.3	2.3	2.2	
O2(%)	19.1	19.7	19.3	17.0	18	17.6	
CO(%)	1.0	1.0	0.0	1.0	0	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	79.2	79.5	78.6	80.7	79.7	80.2	
BAROMETRIC PRESURE (mb)	999	986	1016	1008	1012	1001	
GAS FLOW	0	0	0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Window Sample Number | WS04A

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	DRY	1.3	1.17	1	1.15	1.13	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	15.5	13.9	11.5	12.0	11.1	11.8	
O2(%)	4.2	6.5	7.5	6.0	6.6	6.3	
CO(%)	1.0	1.0	0.0	1.0	0	1	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	80.3	79.6	81.0	81.0	82.3	80.9	
BAROMETRIC PRESURE (mb)	999	986	1018	1008	1012	1001	
GAS FLOW	0	0	0	0	-0.2	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location | Harbour View, Bray

Project No. | 22734

Client | Ballymore Group

Window Sample Number | WS04B

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020	
WATER LEVEL (m bgl)	DRY	1.44	1.32	1.5	1.15	1.21	
CH4(%)	0.0	0.0	0.0	0.0	0.0	0.0	
CO2(%)	6.6	6.4	7.8	2.8	7.3	7.1	
O2(%)	8.6	7.7	4.2	16.2	3.3	5.3	
CO(%)	1.0	1.0	0.0	0.0	0	0	
H2S(%)	0.0	0.0	0.0	0.0	0	0	
Balance(%)	84.8	85.9	87.9	81.0	89.4	87.6	
BAROMETRIC PRESURE (mb)	999	986	1018	1008	1012	1001	
GAS FLOW	0	0	0	0	0	0	
WEATHER	Good	Rainy/Windy	Good	Good	Good	Good	
COMMENTS							

Gas & Groundwater Monitoring



Site Location Harbour View, Bray

Project No. 22734

Client Ballymore Group

Window Sample Number WS05A

Date	02/10/2020	20/10/2020	03/11/2020	12/11/2020	25/11/2020	17/12/2020		
WATER LEVEL (m bgl)	DRY	DRY	/	/	/	DRY		
CH4(%)	0.0	0.0	/	/	/	0.0		
CO2(%)	0.4	0.5	/	/	/	0.0		
O2(%)	18.5	18.9	/	/	/	18.6		
CO(%)	0.0	0.0	/	/	/	0.0		
H2S(%)	0.0	0.0	/	/	/	0.0		
Balance(%)	81.1	80.6	/	/	/	81.4		
BAROMETRIC PRESURE (mb)	999	987	/	/	/	1001		
GAS FLOW	0	0	/	/	/	0.0		
WEATHER	Good	Rainy/Windy	/	/	/	Good		
COMMENTS			Access gate locked	Access gate locked	Access gate locked			

Appendix 8**Data Logger Reports**

RC203	06-10-20 to 04-11-20
	04-11-20 to 03-12-20
	03-12-20 to 16-12-20
RC208	06-10-20 to 04-11-20
	04-11-20 to 03-12-20
	03-12-20 to 16-12-20
RC219	06-10-20 to 04-11-20
	04-11-20 to 03-12-20
	03-12-20 to 16-12-20
RC223	06-10-20 to 04-11-20
	04-11-20 to 03-12-20
	03-12-20 to 16-12-20
ROH01	06-10-20 to 04-11-20
	04-11-20 to 03-12-20
	03-12-20 to 16-12-20
ROH02	06-10-20 to 04-11-20
	04-11-20 to 03-12-20
	03-12-20 to 16-12-20
ROH04	06-10-20 to 04-11-20
	04-11-20 to 03-12-20
	03-12-20 to 16-12-20

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Client. Ballymore
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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	06/10/2020 14:00	11.688	9.685	
2	06/10/2020 15:00	11.688	9.525	
3	06/10/2020 16:00	11.688	9.415	
4	06/10/2020 17:00	11.740	9.408	
5	06/10/2020 18:00	11.688	9.514	
6	06/10/2020 19:00	11.637	9.709	
7	06/10/2020 20:00	11.585	9.933	
8	06/10/2020 21:00	11.637	10.104	
9	06/10/2020 22:00	11.688	10.190	
10	06/10/2020 23:00	11.688	10.200	
11	07/10/2020 00:00	11.688	10.105	
12	07/10/2020 01:00	11.688	9.960	
13	07/10/2020 02:00	11.688	9.800	
14	07/10/2020 03:00	11.688	9.642	
15	07/10/2020 04:00	11.688	9.528	
16	07/10/2020 05:00	11.740	9.481	
17	07/10/2020 06:00	11.688	9.544	
18	07/10/2020 07:00	11.688	9.694	
19	07/10/2020 08:00	11.585	9.911	
20	07/10/2020 09:00	11.585	10.085	
21	07/10/2020 10:00	11.637	10.191	
22	07/10/2020 11:00	11.637	10.207	
23	07/10/2020 12:00	11.688	10.143	
24	07/10/2020 13:00	11.740	10.007	
25	07/10/2020 14:00	11.740	9.849	
26	07/10/2020 15:00	11.688	9.694	
27	07/10/2020 16:00	11.637	9.575	
28	07/10/2020 17:00	11.740	9.503	
29	07/10/2020 18:00	11.740	9.528	
30	07/10/2020 19:00	11.637	9.651	
31	07/10/2020 20:00	11.688	9.829	
32	07/10/2020 21:00	11.481	9.997	
33	07/10/2020 22:00	11.481	10.119	
34	07/10/2020 23:00	11.533	10.148	
35	08/10/2020 00:00	11.637	10.108	
36	08/10/2020 01:00	11.637	9.985	
37	08/10/2020 02:00	11.740	9.833	
38	08/10/2020 03:00	11.688	9.657	
39	08/10/2020 04:00	11.637	9.516	
40	08/10/2020 05:00	11.637	9.428	
41	08/10/2020 06:00	11.637	9.399	
42	08/10/2020 07:00	11.688	9.478	
43	08/10/2020 08:00	11.688	9.639	
44	08/10/2020 09:00	11.637	9.824	
45	08/10/2020 10:00	11.533	9.970	
46	08/10/2020 11:00	11.688	10.050	
47	08/10/2020 12:00	11.637	10.046	
48	08/10/2020 13:00	11.688	9.983	
49	08/10/2020 14:00	11.740	9.859	
50	08/10/2020 15:00	11.740	9.746	
51	08/10/2020 16:00	11.740	9.615	
52	08/10/2020 17:00	11.637	9.528	
53	08/10/2020 18:00	11.740	9.484	
54	08/10/2020 19:00	11.688	9.529	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	08/10/2020 20:00	11.637	9.638	
56	08/10/2020 21:00	11.637	9.819	
57	08/10/2020 22:00	11.637	9.972	
58	08/10/2020 23:00	11.637	10.063	
59	09/10/2020 00:00	11.533	10.105	
60	09/10/2020 01:00	11.585	10.054	
61	09/10/2020 02:00	11.792	9.947	
62	09/10/2020 03:00	11.688	9.826	
63	09/10/2020 04:00	11.740	9.698	
64	09/10/2020 05:00	11.792	9.587	
65	09/10/2020 06:00	11.637	9.517	
66	09/10/2020 07:00	11.637	9.514	
67	09/10/2020 08:00	11.740	9.612	
68	09/10/2020 09:00	11.637	9.757	
69	09/10/2020 10:00	11.637	9.902	
70	09/10/2020 11:00	11.533	10.007	
71	09/10/2020 12:00	11.533	10.051	
72	09/10/2020 13:00	11.585	10.036	
73	09/10/2020 14:00	11.740	9.950	
74	09/10/2020 15:00	11.792	9.853	
75	09/10/2020 16:00	11.740	9.744	
76	09/10/2020 17:00	11.688	9.635	
77	09/10/2020 18:00	11.740	9.567	
78	09/10/2020 19:00	11.740	9.528	
79	09/10/2020 20:00	11.585	9.589	
80	09/10/2020 21:00	11.637	9.706	
81	09/10/2020 22:00	11.585	9.861	
82	09/10/2020 23:00	11.585	10.019	
83	10/10/2020 00:00	11.585	10.108	
84	10/10/2020 01:00	11.585	10.143	
85	10/10/2020 02:00	11.688	10.114	
86	10/10/2020 03:00	11.740	10.056	
87	10/10/2020 04:00	11.637	9.946	
88	10/10/2020 05:00	11.740	9.833	
89	10/10/2020 06:00	11.688	9.746	
90	10/10/2020 07:00	11.688	9.674	
91	10/10/2020 08:00	11.688	9.667	
92	10/10/2020 09:00	11.688	9.725	
93	10/10/2020 10:00	11.637	9.838	
94	10/10/2020 11:00	11.637	9.959	
95	10/10/2020 12:00	11.637	10.042	
96	10/10/2020 13:00	11.585	10.089	
97	10/10/2020 14:00	11.637	10.063	
98	10/10/2020 15:00	11.637	10.006	
99	10/10/2020 16:00	11.688	9.939	
100	10/10/2020 17:00	11.688	9.844	
101	10/10/2020 18:00	11.740	9.748	
102	10/10/2020 19:00	11.740	9.676	
103	10/10/2020 20:00	11.740	9.633	
104	10/10/2020 21:00	11.637	9.664	
105	10/10/2020 22:00	11.637	9.776	
106	10/10/2020 23:00	11.585	9.914	
107	11/10/2020 00:00	11.533	10.049	
108	11/10/2020 01:00	11.533	10.157	
109	11/10/2020 02:00	11.585	10.202	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	11/10/2020 03:00	11.637	10.193	
111	11/10/2020 04:00	11.637	10.140	
112	11/10/2020 05:00	11.637	10.059	
113	11/10/2020 06:00	11.740	9.954	
114	11/10/2020 07:00	11.740	9.854	
115	11/10/2020 08:00	11.740	9.774	
116	11/10/2020 09:00	11.688	9.742	
117	11/10/2020 10:00	11.637	9.780	
118	11/10/2020 11:00	11.637	9.863	
119	11/10/2020 12:00	11.585	9.980	
120	11/10/2020 13:00	11.585	10.078	
121	11/10/2020 14:00	11.585	10.140	
122	11/10/2020 15:00	11.637	10.153	
123	11/10/2020 16:00	11.637	10.115	
124	11/10/2020 17:00	11.637	10.058	
125	11/10/2020 18:00	11.740	9.960	
126	11/10/2020 19:00	11.740	9.872	
127	11/10/2020 20:00	11.740	9.757	
128	11/10/2020 21:00	11.688	9.679	
129	11/10/2020 22:00	11.740	9.667	
130	11/10/2020 23:00	11.637	9.742	
131	12/10/2020 00:00	11.585	9.866	
132	12/10/2020 01:00	11.585	9.996	
133	12/10/2020 02:00	11.585	10.118	
134	12/10/2020 03:00	11.585	10.187	
135	12/10/2020 04:00	11.585	10.200	
136	12/10/2020 05:00	11.688	10.162	
137	12/10/2020 06:00	11.688	10.084	
138	12/10/2020 07:00	11.637	9.963	
139	12/10/2020 08:00	11.688	9.847	
140	12/10/2020 09:00	11.740	9.725	
141	12/10/2020 10:00	11.740	9.660	
142	12/10/2020 11:00	11.740	9.639	
143	12/10/2020 12:00	11.637	9.715	
144	12/10/2020 13:00	11.637	9.825	
145	12/10/2020 14:00	11.585	9.940	
146	12/10/2020 15:00	11.585	10.049	
147	12/10/2020 16:00	11.585	10.098	
148	12/10/2020 17:00	11.637	10.085	
149	12/10/2020 18:00	11.637	10.049	
150	12/10/2020 19:00	11.688	9.956	
151	12/10/2020 20:00	11.740	9.849	
152	12/10/2020 21:00	11.688	9.722	
153	12/10/2020 22:00	11.740	9.648	
154	12/10/2020 23:00	11.740	9.634	
155	13/10/2020 00:00	11.637	9.707	
156	13/10/2020 01:00	11.637	9.842	
157	13/10/2020 02:00	11.533	10.013	
158	13/10/2020 03:00	11.585	10.173	
159	13/10/2020 04:00	11.533	10.260	
160	13/10/2020 05:00	11.637	10.277	
161	13/10/2020 06:00	11.637	10.252	
162	13/10/2020 07:00	11.688	10.147	
163	13/10/2020 08:00	11.740	10.005	
164	13/10/2020 09:00	11.740	9.855	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	13/10/2020 10:00	11.688	9.720	
166	13/10/2020 11:00	11.740	9.637	
167	13/10/2020 12:00	11.688	9.639	
168	13/10/2020 13:00	11.637	9.745	
169	13/10/2020 14:00	11.585	9.906	
170	13/10/2020 15:00	11.533	10.087	
171	13/10/2020 16:00	11.585	10.202	
172	13/10/2020 17:00	11.637	10.261	
173	13/10/2020 18:00	11.637	10.244	
174	13/10/2020 19:00	11.688	10.157	
175	13/10/2020 20:00	11.740	10.028	
176	13/10/2020 21:00	11.688	9.882	
177	13/10/2020 22:00	11.637	9.738	
178	13/10/2020 23:00	11.688	9.639	
179	14/10/2020 00:00	11.688	9.616	
180	14/10/2020 01:00	11.688	9.696	
181	14/10/2020 02:00	11.585	9.881	
182	14/10/2020 03:00	11.585	10.086	
183	14/10/2020 04:00	11.533	10.248	
184	14/10/2020 05:00	11.533	10.338	
185	14/10/2020 06:00	11.637	10.368	
186	14/10/2020 07:00	11.688	10.313	
187	14/10/2020 08:00	11.688	10.197	
188	14/10/2020 09:00	11.688	10.037	
189	14/10/2020 10:00	11.688	9.873	
190	14/10/2020 11:00	11.688	9.729	
191	14/10/2020 12:00	11.688	9.642	
192	14/10/2020 13:00	11.740	9.670	
193	14/10/2020 14:00	11.637	9.798	
194	14/10/2020 15:00	11.533	10.017	
195	14/10/2020 16:00	11.585	10.212	
196	14/10/2020 17:00	11.585	10.325	
197	14/10/2020 18:00	11.637	10.373	
198	14/10/2020 19:00	11.637	10.321	
199	14/10/2020 20:00	11.688	10.203	
200	14/10/2020 21:00	11.688	10.015	
201	14/10/2020 22:00	11.637	9.838	
202	14/10/2020 23:00	11.688	9.676	
203	15/10/2020 00:00	11.637	9.573	
204	15/10/2020 01:00	11.740	9.597	
205	15/10/2020 02:00	11.637	9.735	
206	15/10/2020 03:00	11.585	9.971	
207	15/10/2020 04:00	11.585	10.211	
208	15/10/2020 05:00	11.585	10.366	
209	15/10/2020 06:00	11.533	10.439	
210	15/10/2020 07:00	11.637	10.434	
211	15/10/2020 08:00	11.637	10.340	
212	15/10/2020 09:00	11.688	10.155	
213	15/10/2020 10:00	11.637	9.943	
214	15/10/2020 11:00	11.637	9.758	
215	15/10/2020 12:00	11.688	9.608	
216	15/10/2020 13:00	11.688	9.553	
217	15/10/2020 14:00	11.688	9.618	
218	15/10/2020 15:00	11.585	9.822	
219	15/10/2020 16:00	11.533	10.078	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	15/10/2020 17:00	11.585	10.263	
221	15/10/2020 18:00	11.585	10.363	
222	15/10/2020 19:00	11.637	10.376	
223	15/10/2020 20:00	11.637	10.288	
224	15/10/2020 21:00	11.688	10.104	
225	15/10/2020 22:00	11.637	9.884	
226	15/10/2020 23:00	11.637	9.688	
227	16/10/2020 00:00	11.637	9.527	
228	16/10/2020 01:00	11.688	9.440	
229	16/10/2020 02:00	11.740	9.509	
230	16/10/2020 03:00	11.637	9.702	
231	16/10/2020 04:00	11.637	9.994	
232	16/10/2020 05:00	11.585	10.240	
233	16/10/2020 06:00	11.533	10.380	
234	16/10/2020 07:00	11.637	10.437	
235	16/10/2020 08:00	11.637	10.402	
236	16/10/2020 09:00	11.688	10.258	
237	16/10/2020 10:00	11.688	10.025	
238	16/10/2020 11:00	11.688	9.808	
239	16/10/2020 12:00	11.637	9.599	
240	16/10/2020 13:00	11.637	9.477	
241	16/10/2020 14:00	11.688	9.471	
242	16/10/2020 15:00	11.688	9.604	
243	16/10/2020 16:00	11.585	9.869	
244	16/10/2020 17:00	11.585	10.147	
245	16/10/2020 18:00	11.585	10.314	
246	16/10/2020 19:00	11.585	10.387	
247	16/10/2020 20:00	11.585	10.358	
248	16/10/2020 21:00	11.637	10.200	
249	16/10/2020 22:00	11.637	9.964	
250	16/10/2020 23:00	11.688	9.733	
251	17/10/2020 00:00	11.637	9.520	
252	17/10/2020 01:00	11.637	9.371	
253	17/10/2020 02:00	11.688	9.337	
254	17/10/2020 03:00	11.637	9.451	
255	17/10/2020 04:00	11.585	9.710	
256	17/10/2020 05:00	11.585	10.036	
257	17/10/2020 06:00	11.585	10.267	
258	17/10/2020 07:00	11.585	10.383	
259	17/10/2020 08:00	11.585	10.416	
260	17/10/2020 09:00	11.585	10.337	
261	17/10/2020 10:00	11.688	10.131	
262	17/10/2020 11:00	11.637	9.878	
263	17/10/2020 12:00	11.637	9.646	
264	17/10/2020 13:00	11.637	9.461	
265	17/10/2020 14:00	11.637	9.367	
266	17/10/2020 15:00	11.688	9.411	
267	17/10/2020 16:00	11.637	9.613	
268	17/10/2020 17:00	11.585	9.926	
269	17/10/2020 18:00	11.585	10.180	
270	17/10/2020 19:00	11.533	10.318	
271	17/10/2020 20:00	11.585	10.374	
272	17/10/2020 21:00	11.637	10.305	
273	17/10/2020 22:00	11.688	10.106	
274	17/10/2020 23:00	11.637	9.856	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	18/10/2020 00:00	11.688	9.607	
276	18/10/2020 01:00	11.637	9.411	
277	18/10/2020 02:00	11.688	9.283	
278	18/10/2020 03:00	11.688	9.285	
279	18/10/2020 04:00	11.637	9.450	
280	18/10/2020 05:00	11.585	9.755	
281	18/10/2020 06:00	11.585	10.090	
282	18/10/2020 07:00	11.585	10.294	
283	18/10/2020 08:00	11.585	10.376	
284	18/10/2020 09:00	11.585	10.391	
285	18/10/2020 10:00	11.637	10.268	
286	18/10/2020 11:00	11.688	10.029	
287	18/10/2020 12:00	11.585	9.778	
288	18/10/2020 13:00	11.637	9.553	
289	18/10/2020 14:00	11.688	9.380	
290	18/10/2020 15:00	11.688	9.318	
291	18/10/2020 16:00	11.637	9.411	
292	18/10/2020 17:00	11.585	9.660	
293	18/10/2020 18:00	11.585	9.986	
294	18/10/2020 19:00	11.585	10.220	
295	18/10/2020 20:00	11.637	10.332	
296	18/10/2020 21:00	11.585	10.347	
297	18/10/2020 22:00	11.637	10.236	
298	18/10/2020 23:00	11.637	10.011	
299	19/10/2020 00:00	11.637	9.735	
300	19/10/2020 01:00	11.637	9.509	
301	19/10/2020 02:00	11.688	9.320	
302	19/10/2020 03:00	11.688	9.204	
303	19/10/2020 04:00	11.637	9.236	
304	19/10/2020 05:00	11.637	9.439	
305	19/10/2020 06:00	11.585	9.765	
306	19/10/2020 07:00	11.533	10.077	
307	19/10/2020 08:00	11.585	10.236	
308	19/10/2020 09:00	11.585	10.318	
309	19/10/2020 10:00	11.637	10.284	
310	19/10/2020 11:00	11.637	10.110	
311	19/10/2020 12:00	11.585	9.857	
312	19/10/2020 13:00	11.637	9.630	
313	19/10/2020 14:00	11.637	9.418	
314	19/10/2020 15:00	11.637	9.262	
315	19/10/2020 16:00	11.688	9.249	
316	19/10/2020 17:00	11.637	9.368	
317	19/10/2020 18:00	11.585	9.658	
318	19/10/2020 19:00	11.585	9.944	
319	19/10/2020 20:00	11.585	10.154	
320	19/10/2020 21:00	11.533	10.242	
321	19/10/2020 22:00	11.637	10.229	
322	19/10/2020 23:00	11.688	10.069	
323	20/10/2020 00:00	11.637	9.815	
324	20/10/2020 01:00	11.637	9.567	
325	20/10/2020 02:00	11.637	9.347	
326	20/10/2020 03:00	11.688	9.162	
327	20/10/2020 04:00	11.688	9.078	
328	20/10/2020 05:00	11.688	9.133	
329	20/10/2020 06:00	11.585	9.360	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	20/10/2020 07:00	11.585	9.666	
331	20/10/2020 08:00	11.585	9.949	
332	20/10/2020 09:00	11.585	10.105	
333	20/10/2020 10:00	11.585	10.146	
334	20/10/2020 11:00	11.688	10.068	
335	20/10/2020 12:00	11.688	9.881	
336	20/10/2020 13:00	11.637	9.639	
337	20/10/2020 14:00	11.688	9.416	
338	20/10/2020 15:00	11.637	9.207	
339	20/10/2020 16:00	11.688	9.094	
340	20/10/2020 17:00	11.637	9.098	
341	20/10/2020 18:00	11.688	9.265	
342	20/10/2020 19:00	11.585	9.557	
343	20/10/2020 20:00	11.585	9.856	
344	20/10/2020 21:00	11.585	10.049	
345	20/10/2020 22:00	11.585	10.142	
346	20/10/2020 23:00	11.585	10.138	
347	21/10/2020 00:00	11.637	9.997	
348	21/10/2020 01:00	11.740	9.807	
349	21/10/2020 02:00	11.688	9.594	
350	21/10/2020 03:00	11.585	9.418	
351	21/10/2020 04:00	11.688	9.252	
352	21/10/2020 05:00	11.637	9.193	
353	21/10/2020 06:00	11.637	9.253	
354	21/10/2020 07:00	11.585	9.470	
355	21/10/2020 08:00	11.585	9.748	
356	21/10/2020 09:00	11.585	9.997	
357	21/10/2020 10:00	11.637	10.114	
358	21/10/2020 11:00	11.585	10.155	
359	21/10/2020 12:00	11.637	10.079	
360	21/10/2020 13:00	11.688	9.904	
361	21/10/2020 14:00	11.688	9.702	
362	21/10/2020 15:00	11.688	9.516	
363	21/10/2020 16:00	11.688	9.345	
364	21/10/2020 17:00	11.637	9.247	
365	21/10/2020 18:00	11.688	9.266	
366	21/10/2020 19:00	11.585	9.419	
367	21/10/2020 20:00	11.585	9.680	
368	21/10/2020 21:00	11.585	9.926	
369	21/10/2020 22:00	11.585	10.101	
370	21/10/2020 23:00	11.585	10.180	
371	22/10/2020 00:00	11.637	10.161	
372	22/10/2020 01:00	11.637	10.054	
373	22/10/2020 02:00	11.688	9.899	
374	22/10/2020 03:00	11.688	9.728	
375	22/10/2020 04:00	11.637	9.568	
376	22/10/2020 05:00	11.637	9.431	
377	22/10/2020 06:00	11.688	9.382	
378	22/10/2020 07:00	11.688	9.438	
379	22/10/2020 08:00	11.585	9.604	
380	22/10/2020 09:00	11.585	9.832	
381	22/10/2020 10:00	11.585	10.030	
382	22/10/2020 11:00	11.585	10.129	
383	22/10/2020 12:00	11.585	10.146	
384	22/10/2020 13:00	11.585	10.077	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	22/10/2020 14:00	11.637	9.934	
386	22/10/2020 15:00	11.637	9.766	
387	22/10/2020 16:00	11.637	9.594	
388	22/10/2020 17:00	11.637	9.445	
389	22/10/2020 18:00	11.688	9.375	
390	22/10/2020 19:00	11.688	9.394	
391	22/10/2020 20:00	11.637	9.522	
392	22/10/2020 21:00	11.585	9.738	
393	22/10/2020 22:00	11.585	9.948	
394	22/10/2020 23:00	11.585	10.105	
395	23/10/2020 00:00	11.585	10.172	
396	23/10/2020 01:00	11.585	10.159	
397	23/10/2020 02:00	11.585	10.079	
398	23/10/2020 03:00	11.585	9.948	
399	23/10/2020 04:00	11.637	9.804	
400	23/10/2020 05:00	11.637	9.637	
401	23/10/2020 06:00	11.637	9.493	
402	23/10/2020 07:00	11.637	9.429	
403	23/10/2020 08:00	11.688	9.448	
404	23/10/2020 09:00	11.585	9.573	
405	23/10/2020 10:00	11.585	9.737	
406	23/10/2020 11:00	11.585	9.904	
407	23/10/2020 12:00	11.585	10.010	
408	23/10/2020 13:00	11.585	10.024	
409	23/10/2020 14:00	11.585	9.962	
410	23/10/2020 15:00	11.688	9.864	
411	23/10/2020 16:00	11.740	9.745	
412	23/10/2020 17:00	11.688	9.609	
413	23/10/2020 18:00	11.688	9.487	
414	23/10/2020 19:00	11.637	9.403	
415	23/10/2020 20:00	11.688	9.397	
416	23/10/2020 21:00	11.585	9.491	
417	23/10/2020 22:00	11.637	9.673	
418	23/10/2020 23:00	11.585	9.866	
419	24/10/2020 00:00	11.585	10.005	
420	24/10/2020 01:00	11.585	10.087	
421	24/10/2020 02:00	11.585	10.107	
422	24/10/2020 03:00	11.585	10.039	
423	24/10/2020 04:00	11.637	9.955	
424	24/10/2020 05:00	11.585	9.832	
425	24/10/2020 06:00	11.740	9.693	
426	24/10/2020 07:00	11.637	9.572	
427	24/10/2020 08:00	11.637	9.475	
428	24/10/2020 09:00	11.740	9.430	
429	24/10/2020 10:00	11.637	9.475	
430	24/10/2020 11:00	11.637	9.553	
431	24/10/2020 12:00	11.637	9.668	
432	24/10/2020 13:00	11.585	9.744	
433	24/10/2020 14:00	11.637	9.783	
434	24/10/2020 15:00	11.637	9.780	
435	24/10/2020 16:00	11.637	9.708	
436	24/10/2020 17:00	11.688	9.601	
437	24/10/2020 18:00	11.688	9.492	
438	24/10/2020 19:00	11.637	9.381	
439	24/10/2020 20:00	11.688	9.315	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	24/10/2020 21:00	11.688	9.308	
441	24/10/2020 22:00	11.637	9.378	
442	24/10/2020 23:00	11.585	9.518	
443	25/10/2020 00:00	11.585	9.712	
444	25/10/2020 01:00	11.585	9.851	
445	25/10/2020 02:00	11.585	9.965	
446	25/10/2020 02:00	11.585	10.000	
447	25/10/2020 03:00	11.585	9.987	
448	25/10/2020 04:00	11.637	9.925	
449	25/10/2020 05:00	11.637	9.813	
450	25/10/2020 06:00	11.688	9.683	
451	25/10/2020 07:00	11.585	9.546	
452	25/10/2020 08:00	11.637	9.446	
453	25/10/2020 09:00	11.688	9.394	
454	25/10/2020 10:00	11.688	9.440	
455	25/10/2020 11:00	11.585	9.546	
456	25/10/2020 12:00	11.585	9.680	
457	25/10/2020 13:00	11.585	9.787	
458	25/10/2020 14:00	11.585	9.873	
459	25/10/2020 15:00	11.585	9.877	
460	25/10/2020 16:00	11.637	9.829	
461	25/10/2020 17:00	11.637	9.730	
462	25/10/2020 18:00	11.637	9.604	
463	25/10/2020 19:00	11.637	9.481	
464	25/10/2020 20:00	11.585	9.358	
465	25/10/2020 21:00	11.688	9.321	
466	25/10/2020 22:00	11.637	9.339	
467	25/10/2020 23:00	11.585	9.457	
468	26/10/2020 00:00	11.585	9.630	
469	26/10/2020 01:00	11.585	9.808	
470	26/10/2020 02:00	11.533	9.946	
471	26/10/2020 03:00	11.585	10.035	
472	26/10/2020 04:00	11.585	10.038	
473	26/10/2020 05:00	11.585	10.003	
474	26/10/2020 06:00	11.585	9.916	
475	26/10/2020 07:00	11.585	9.783	
476	26/10/2020 08:00	11.637	9.643	
477	26/10/2020 09:00	11.637	9.526	
478	26/10/2020 10:00	11.740	9.461	
479	26/10/2020 11:00	11.585	9.486	
480	26/10/2020 12:00	11.637	9.597	
481	26/10/2020 13:00	11.585	9.744	
482	26/10/2020 14:00	11.585	9.895	
483	26/10/2020 15:00	11.585	9.989	
484	26/10/2020 16:00	11.637	10.016	
485	26/10/2020 17:00	11.637	9.962	
486	26/10/2020 18:00	11.637	9.857	
487	26/10/2020 19:00	11.688	9.737	
488	26/10/2020 20:00	11.688	9.598	
489	26/10/2020 21:00	11.688	9.495	
490	26/10/2020 22:00	11.688	9.440	
491	26/10/2020 23:00	11.585	9.474	
492	27/10/2020 00:00	11.585	9.584	
493	27/10/2020 01:00	11.585	9.761	
494	27/10/2020 02:00	11.585	9.945	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	27/10/2020 03:00	11.585	10.083	
496	27/10/2020 04:00	11.585	10.143	
497	27/10/2020 05:00	11.637	10.137	
498	27/10/2020 06:00	11.585	10.073	
499	27/10/2020 07:00	11.585	9.932	
500	27/10/2020 08:00	11.637	9.773	
501	27/10/2020 09:00	11.637	9.607	
502	27/10/2020 10:00	11.637	9.486	
503	27/10/2020 11:00	11.688	9.408	
504	27/10/2020 12:00	11.637	9.461	
505	27/10/2020 13:00	11.637	9.596	
506	27/10/2020 14:00	11.585	9.762	
507	27/10/2020 15:00	11.585	9.910	
508	27/10/2020 16:00	11.585	9.987	
509	27/10/2020 17:00	11.637	9.977	
510	27/10/2020 18:00	11.688	9.880	
511	27/10/2020 19:00	11.688	9.751	
512	27/10/2020 20:00	11.637	9.579	
513	27/10/2020 21:00	11.688	9.440	
514	27/10/2020 22:00	11.637	9.324	
515	27/10/2020 23:00	11.637	9.273	
516	28/10/2020 00:00	11.637	9.327	
517	28/10/2020 01:00	11.637	9.479	
518	28/10/2020 02:00	11.585	9.677	
519	28/10/2020 03:00	11.585	9.899	
520	28/10/2020 04:00	11.585	10.023	
521	28/10/2020 05:00	11.585	10.092	
522	28/10/2020 06:00	11.585	10.058	
523	28/10/2020 07:00	11.637	9.965	
524	28/10/2020 08:00	11.688	9.815	
525	28/10/2020 09:00	11.637	9.642	
526	28/10/2020 10:00	11.637	9.482	
527	28/10/2020 11:00	11.688	9.378	
528	28/10/2020 12:00	11.688	9.362	
529	28/10/2020 13:00	11.637	9.451	
530	28/10/2020 14:00	11.585	9.638	
531	28/10/2020 15:00	11.585	9.837	
532	28/10/2020 16:00	11.585	9.986	
533	28/10/2020 17:00	11.585	10.040	
534	28/10/2020 18:00	11.585	10.013	
535	28/10/2020 19:00	11.637	9.900	
536	28/10/2020 20:00	11.688	9.745	
537	28/10/2020 21:00	11.637	9.568	
538	28/10/2020 22:00	11.688	9.426	
539	28/10/2020 23:00	11.688	9.317	
540	29/10/2020 00:00	11.688	9.306	
541	29/10/2020 01:00	11.585	9.399	
542	29/10/2020 02:00	11.585	9.605	
543	29/10/2020 03:00	11.585	9.834	
544	29/10/2020 04:00	11.585	10.020	
545	29/10/2020 05:00	11.585	10.137	
546	29/10/2020 06:00	11.585	10.139	
547	29/10/2020 07:00	11.637	10.067	
548	29/10/2020 08:00	11.637	9.944	
549	29/10/2020 09:00	11.637	9.768	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	29/10/2020 10:00	11.637	9.604	
551	29/10/2020 11:00	11.637	9.459	
552	29/10/2020 12:00	11.637	9.377	
553	29/10/2020 13:00	11.637	9.409	
554	29/10/2020 14:00	11.533	9.549	
555	29/10/2020 15:00	11.585	9.758	
556	29/10/2020 16:00	11.585	9.953	
557	29/10/2020 17:00	11.585	10.045	
558	29/10/2020 18:00	11.637	10.063	
559	29/10/2020 19:00	11.637	9.980	
560	29/10/2020 20:00	11.688	9.822	
561	29/10/2020 21:00	11.637	9.626	
562	29/10/2020 22:00	11.637	9.452	
563	29/10/2020 23:00	11.688	9.292	
564	30/10/2020 00:00	11.637	9.227	
565	30/10/2020 01:00	11.637	9.243	
566	30/10/2020 02:00	11.585	9.400	
567	30/10/2020 03:00	11.585	9.634	
568	30/10/2020 04:00	11.585	9.878	
569	30/10/2020 05:00	11.585	10.028	
570	30/10/2020 06:00	11.585	10.115	
571	30/10/2020 07:00	11.585	10.074	
572	30/10/2020 08:00	11.637	9.966	
573	30/10/2020 09:00	11.637	9.802	
574	30/10/2020 10:00	11.688	9.636	
575	30/10/2020 11:00	11.637	9.482	
576	30/10/2020 12:00	11.637	9.359	
577	30/10/2020 13:00	11.688	9.346	
578	30/10/2020 14:00	11.637	9.444	
579	30/10/2020 15:00	11.585	9.677	
580	30/10/2020 16:00	11.585	9.933	
581	30/10/2020 17:00	11.585	10.097	
582	30/10/2020 18:00	11.637	10.186	
583	30/10/2020 19:00	11.585	10.161	
584	30/10/2020 20:00	11.637	10.033	
585	30/10/2020 21:00	11.637	9.852	
586	30/10/2020 22:00	11.637	9.648	
587	30/10/2020 23:00	11.637	9.471	
588	31/10/2020 00:00	11.637	9.320	
589	31/10/2020 01:00	11.688	9.265	
590	31/10/2020 02:00	11.585	9.348	
591	31/10/2020 03:00	11.637	9.551	
592	31/10/2020 04:00	11.533	9.780	
593	31/10/2020 05:00	11.585	9.981	
594	31/10/2020 06:00	11.533	10.077	
595	31/10/2020 07:00	11.585	10.099	
596	31/10/2020 08:00	11.585	10.003	
597	31/10/2020 09:00	11.637	9.831	
598	31/10/2020 10:00	11.637	9.635	
599	31/10/2020 11:00	11.637	9.467	
600	31/10/2020 12:00	11.637	9.285	
601	31/10/2020 13:00	11.637	9.230	
602	31/10/2020 14:00	11.688	9.269	
603	31/10/2020 15:00	11.637	9.432	
604	31/10/2020 16:00	11.637	9.663	

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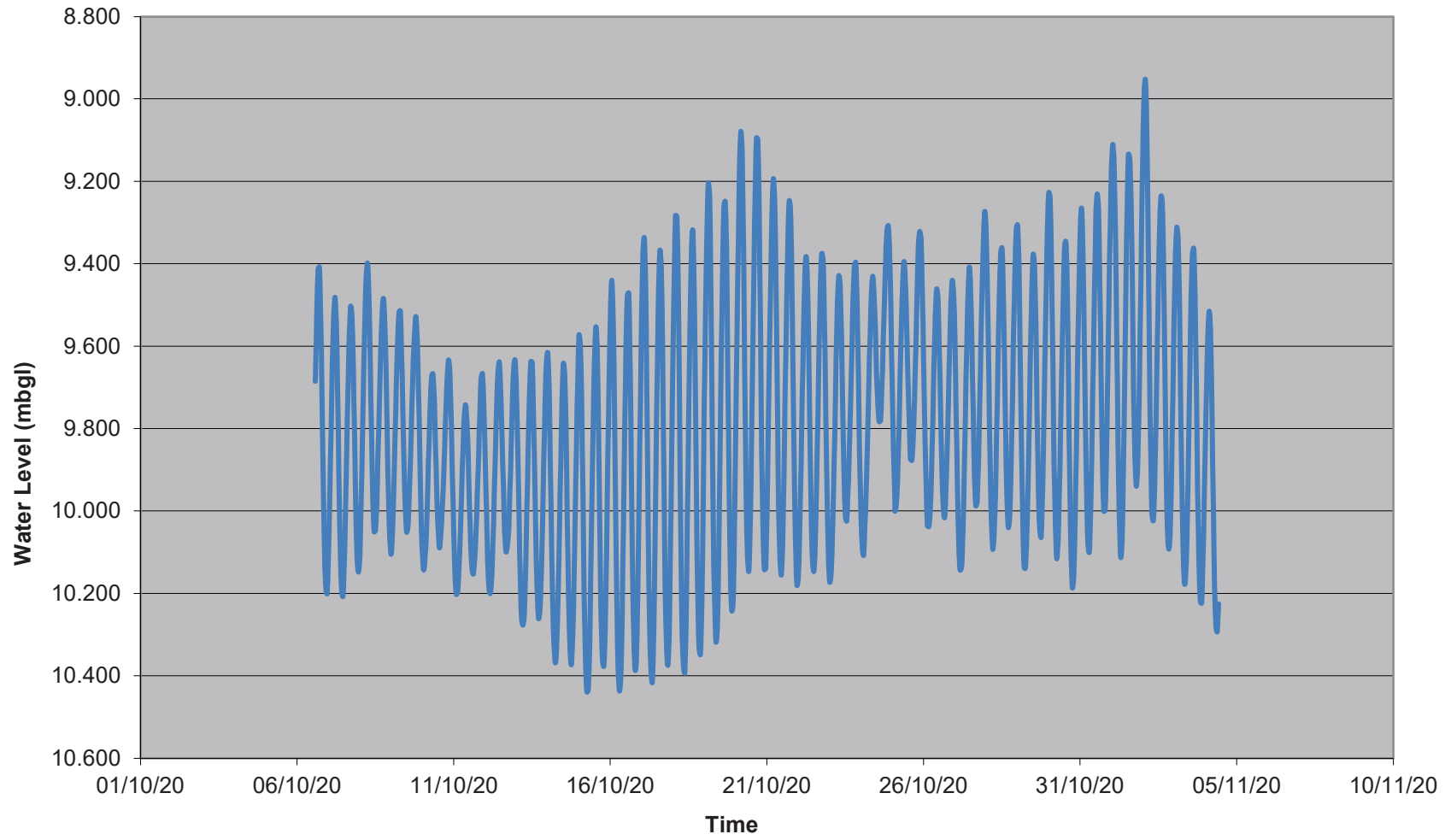
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	31/10/2020 17:00	11.637	9.874	
606	31/10/2020 18:00	11.533	10.000	
607	31/10/2020 19:00	11.585	9.998	
608	31/10/2020 20:00	11.637	9.899	
609	31/10/2020 21:00	11.637	9.692	
610	31/10/2020 22:00	11.637	9.488	
611	31/10/2020 23:00	11.637	9.307	
612	01/11/2020 00:00	11.688	9.167	
613	01/11/2020 01:00	11.637	9.110	
614	01/11/2020 02:00	11.688	9.161	
615	01/11/2020 03:00	11.637	9.327	
616	01/11/2020 04:00	11.637	9.561	
617	01/11/2020 05:00	11.585	9.828	
618	01/11/2020 06:00	11.533	10.018	
619	01/11/2020 07:00	11.585	10.112	
620	01/11/2020 08:00	11.637	10.074	
621	01/11/2020 09:00	11.585	9.932	
622	01/11/2020 10:00	11.637	9.710	
623	01/11/2020 11:00	11.637	9.466	
624	01/11/2020 12:00	11.637	9.255	
625	01/11/2020 13:00	11.637	9.135	
626	01/11/2020 14:00	11.688	9.145	
627	01/11/2020 15:00	11.585	9.250	
628	01/11/2020 16:00	11.637	9.461	
629	01/11/2020 17:00	11.585	9.717	
630	01/11/2020 18:00	11.585	9.871	
631	01/11/2020 19:00	11.585	9.940	
632	01/11/2020 20:00	11.585	9.889	
633	01/11/2020 21:00	11.637	9.751	
634	01/11/2020 22:00	11.637	9.559	
635	01/11/2020 23:00	11.637	9.326	
636	02/11/2020 00:00	11.637	9.122	
637	02/11/2020 01:00	11.637	8.982	
638	02/11/2020 02:00	11.637	8.953	
639	02/11/2020 03:00	11.688	9.063	
640	02/11/2020 04:00	11.585	9.309	
641	02/11/2020 05:00	11.585	9.613	
642	02/11/2020 06:00	11.637	9.863	
643	02/11/2020 07:00	11.585	10.004	
644	02/11/2020 08:00	11.585	10.023	
645	02/11/2020 09:00	11.585	9.946	
646	02/11/2020 10:00	11.585	9.788	
647	02/11/2020 11:00	11.637	9.616	
648	02/11/2020 12:00	11.637	9.433	
649	02/11/2020 13:00	11.637	9.296	
650	02/11/2020 14:00	11.637	9.235	
651	02/11/2020 15:00	11.637	9.254	
652	02/11/2020 16:00	11.637	9.428	
653	02/11/2020 17:00	11.585	9.676	
654	02/11/2020 18:00	11.533	9.924	
655	02/11/2020 19:00	11.533	10.065	
656	02/11/2020 20:00	11.533	10.092	
657	02/11/2020 21:00	11.533	10.047	
658	02/11/2020 22:00	11.585	9.907	
659	02/11/2020 23:00	11.637	9.716	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	03/11/2020 00:00	11.637	9.533	
661	03/11/2020 01:00	11.637	9.378	
662	03/11/2020 02:00	11.688	9.311	
663	03/11/2020 03:00	11.637	9.342	
664	03/11/2020 04:00	11.585	9.487	
665	03/11/2020 05:00	11.637	9.734	
666	03/11/2020 06:00	11.585	9.948	
667	03/11/2020 07:00	11.585	10.113	
668	03/11/2020 08:00	11.637	10.177	
669	03/11/2020 09:00	11.637	10.148	
670	03/11/2020 10:00	11.585	10.034	
671	03/11/2020 11:00	11.637	9.852	
672	03/11/2020 12:00	11.585	9.657	
673	03/11/2020 13:00	11.637	9.488	
674	03/11/2020 14:00	11.637	9.376	
675	03/11/2020 15:00	11.688	9.363	
676	03/11/2020 16:00	11.637	9.481	
677	03/11/2020 17:00	11.533	9.702	
678	03/11/2020 18:00	11.533	9.946	
679	03/11/2020 19:00	11.637	10.124	
680	03/11/2020 20:00	11.533	10.218	
681	03/11/2020 21:00	11.585	10.223	
682	03/11/2020 22:00	11.637	10.133	
683	03/11/2020 23:00	11.585	9.982	
684	04/11/2020 00:00	11.637	9.817	
685	04/11/2020 01:00	11.637	9.671	
686	04/11/2020 02:00	11.637	9.551	
687	04/11/2020 03:00	11.688	9.515	
688	04/11/2020 04:00	11.637	9.582	
689	04/11/2020 05:00	11.585	9.768	
690	04/11/2020 06:00	11.585	9.993	
691	04/11/2020 07:00	11.585	10.181	
692	04/11/2020 08:00	11.585	10.280	
693	04/11/2020 09:00	11.533	10.293	
694	04/11/2020 10:00	11.585	10.225	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	04/11/2020 13:00	11.643	10.003	
2	04/11/2020 14:00	11.637	9.883	
3	04/11/2020 15:00	11.585	9.804	
4	04/11/2020 16:00	11.688	9.841	
5	04/11/2020 17:00	11.688	9.972	
6	04/11/2020 18:00	11.585	10.188	
7	04/11/2020 19:00	11.637	10.401	
8	04/11/2020 20:00	11.533	10.538	
9	04/11/2020 21:00	11.585	10.596	
10	04/11/2020 22:00	11.533	10.580	
11	04/11/2020 23:00	11.585	10.481	
12	05/11/2020 00:00	11.585	10.333	
13	05/11/2020 01:00	11.637	10.176	
14	05/11/2020 02:00	11.637	10.030	
15	05/11/2020 03:00	11.637	9.931	
16	05/11/2020 04:00	11.688	9.913	
17	05/11/2020 05:00	11.637	10.003	
18	05/11/2020 06:00	11.585	10.179	
19	05/11/2020 07:00	11.637	10.361	
20	05/11/2020 08:00	11.533	10.504	
21	05/11/2020 09:00	11.585	10.560	
22	05/11/2020 10:00	11.585	10.548	
23	05/11/2020 11:00	11.585	10.434	
24	05/11/2020 12:00	11.637	10.284	
25	05/11/2020 13:00	11.585	10.128	
26	05/11/2020 14:00	11.637	9.991	
27	05/11/2020 15:00	11.585	9.880	
28	05/11/2020 16:00	11.637	9.853	
29	05/11/2020 17:00	11.637	9.916	
30	05/11/2020 18:00	11.637	10.083	
31	05/11/2020 19:00	11.637	10.291	
32	05/11/2020 20:00	11.533	10.458	
33	05/11/2020 21:00	11.585	10.563	
34	05/11/2020 22:00	11.533	10.580	
35	05/11/2020 23:00	11.585	10.532	
36	06/11/2020 00:00	11.533	10.404	
37	06/11/2020 01:00	11.637	10.249	
38	06/11/2020 02:00	11.637	10.086	
39	06/11/2020 03:00	11.637	9.962	
40	06/11/2020 04:00	11.585	9.883	
41	06/11/2020 05:00	11.740	9.901	
42	06/11/2020 06:00	11.637	10.001	
43	06/11/2020 07:00	11.637	10.175	
44	06/11/2020 08:00	11.533	10.346	
45	06/11/2020 09:00	11.637	10.452	
46	06/11/2020 10:00	11.637	10.495	
47	06/11/2020 11:00	11.585	10.471	
48	06/11/2020 12:00	11.533	10.368	
49	06/11/2020 13:00	11.637	10.230	
50	06/11/2020 14:00	11.637	10.085	
51	06/11/2020 15:00	11.637	9.951	
52	06/11/2020 16:00	11.637	9.854	
53	06/11/2020 17:00	11.688	9.848	
54	06/11/2020 18:00	11.637	9.924	

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55	06/11/2020 19:00	11.637	10.072	
56	06/11/2020 20:00	11.585	10.260	
57	06/11/2020 21:00	11.585	10.395	
58	06/11/2020 22:00	11.637	10.471	
59	06/11/2020 23:00	11.637	10.480	
60	07/11/2020 00:00	11.637	10.403	
61	07/11/2020 01:00	11.585	10.290	
62	07/11/2020 02:00	11.637	10.165	
63	07/11/2020 03:00	11.637	10.028	
64	07/11/2020 04:00	11.637	9.917	
65	07/11/2020 05:00	11.637	9.871	
66	07/11/2020 06:00	11.688	9.895	
67	07/11/2020 07:00	11.585	9.998	
68	07/11/2020 08:00	11.637	10.158	
69	07/11/2020 09:00	11.637	10.318	
70	07/11/2020 10:00	11.637	10.399	
71	07/11/2020 11:00	11.637	10.431	
72	07/11/2020 12:00	11.585	10.372	
73	07/11/2020 13:00	11.637	10.279	
74	07/11/2020 14:00	11.585	10.140	
75	07/11/2020 15:00	11.637	10.017	
76	07/11/2020 16:00	11.637	9.898	
77	07/11/2020 17:00	11.637	9.812	
78	07/11/2020 18:00	11.688	9.790	
79	07/11/2020 19:00	11.688	9.882	
80	07/11/2020 20:00	11.688	10.031	
81	07/11/2020 21:00	11.533	10.208	
82	07/11/2020 22:00	11.585	10.350	
83	07/11/2020 23:00	11.585	10.432	
84	08/11/2020 00:00	11.637	10.442	
85	08/11/2020 01:00	11.637	10.403	
86	08/11/2020 02:00	11.637	10.319	
87	08/11/2020 03:00	11.637	10.204	
88	08/11/2020 04:00	11.533	10.089	
89	08/11/2020 05:00	11.637	9.975	
90	08/11/2020 06:00	11.688	9.917	
91	08/11/2020 07:00	11.688	9.919	
92	08/11/2020 08:00	11.637	10.011	
93	08/11/2020 09:00	11.585	10.141	
94	08/11/2020 10:00	11.637	10.275	
95	08/11/2020 11:00	11.637	10.354	
96	08/11/2020 12:00	11.585	10.374	
97	08/11/2020 13:00	11.533	10.333	
98	08/11/2020 14:00	11.585	10.248	
99	08/11/2020 15:00	11.585	10.130	
100	08/11/2020 16:00	11.637	10.030	
101	08/11/2020 17:00	11.637	9.915	
102	08/11/2020 18:00	11.637	9.838	
103	08/11/2020 19:00	11.740	9.822	
104	08/11/2020 20:00	11.637	9.894	
105	08/11/2020 21:00	11.585	10.034	
106	08/11/2020 22:00	11.533	10.208	
107	08/11/2020 23:00	11.637	10.341	
108	09/11/2020 00:00	11.533	10.429	
109	09/11/2020 01:00	11.533	10.453	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	09/11/2020 02:00	11.637	10.423	
111	09/11/2020 03:00	11.585	10.347	
112	09/11/2020 04:00	11.637	10.226	
113	09/11/2020 05:00	11.585	10.104	
114	09/11/2020 06:00	11.688	9.976	
115	09/11/2020 07:00	11.688	9.898	
116	09/11/2020 08:00	11.637	9.887	
117	09/11/2020 09:00	11.637	9.965	
118	09/11/2020 10:00	11.533	10.082	
119	09/11/2020 11:00	11.585	10.212	
120	09/11/2020 12:00	11.585	10.303	
121	09/11/2020 13:00	11.637	10.344	
122	09/11/2020 14:00	11.585	10.331	
123	09/11/2020 15:00	11.585	10.276	
124	09/11/2020 16:00	11.533	10.173	
125	09/11/2020 17:00	11.585	10.070	
126	09/11/2020 18:00	11.688	9.944	
127	09/11/2020 19:00	11.637	9.841	
128	09/11/2020 20:00	11.688	9.809	
129	09/11/2020 21:00	11.740	9.854	
130	09/11/2020 22:00	11.585	9.980	
131	09/11/2020 23:00	11.637	10.157	
132	10/11/2020 00:00	11.585	10.317	
133	10/11/2020 01:00	11.533	10.428	
134	10/11/2020 02:00	11.637	10.473	
135	10/11/2020 03:00	11.637	10.461	
136	10/11/2020 04:00	11.533	10.389	
137	10/11/2020 05:00	11.585	10.296	
138	10/11/2020 06:00	11.585	10.163	
139	10/11/2020 07:00	11.637	10.024	
140	10/11/2020 08:00	11.688	9.925	
141	10/11/2020 09:00	11.637	9.882	
142	10/11/2020 10:00	11.637	9.938	
143	10/11/2020 11:00	11.533	10.059	
144	10/11/2020 12:00	11.585	10.197	
145	10/11/2020 13:00	11.585	10.324	
146	10/11/2020 14:00	11.585	10.387	
147	10/11/2020 15:00	11.585	10.402	
148	10/11/2020 16:00	11.585	10.346	
149	10/11/2020 17:00	11.637	10.242	
150	10/11/2020 18:00	11.585	10.116	
151	10/11/2020 19:00	11.637	9.983	
152	10/11/2020 20:00	11.637	9.861	
153	10/11/2020 21:00	11.637	9.789	
154	10/11/2020 22:00	11.740	9.830	
155	10/11/2020 23:00	11.688	9.960	
156	11/11/2020 00:00	11.585	10.136	
157	11/11/2020 01:00	11.637	10.314	
158	11/11/2020 02:00	11.533	10.439	
159	11/11/2020 03:00	11.637	10.496	
160	11/11/2020 04:00	11.637	10.478	
161	11/11/2020 05:00	11.533	10.389	
162	11/11/2020 06:00	11.585	10.247	
163	11/11/2020 07:00	11.585	10.095	
164	11/11/2020 08:00	11.637	9.931	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	11/11/2020 09:00	11.585	9.807	
166	11/11/2020 10:00	11.637	9.760	
167	11/11/2020 11:00	11.637	9.810	
168	11/11/2020 12:00	11.637	9.956	
169	11/11/2020 13:00	11.533	10.127	
170	11/11/2020 14:00	11.533	10.258	
171	11/11/2020 15:00	11.533	10.315	
172	11/11/2020 16:00	11.533	10.321	
173	11/11/2020 17:00	11.637	10.224	
174	11/11/2020 18:00	11.637	10.092	
175	11/11/2020 19:00	11.637	9.917	
176	11/11/2020 20:00	11.585	9.724	
177	11/11/2020 21:00	11.585	9.584	
178	11/11/2020 22:00	11.637	9.530	
179	11/11/2020 23:00	11.688	9.572	
180	12/11/2020 00:00	11.740	9.756	
181	12/11/2020 01:00	11.688	9.981	
182	12/11/2020 02:00	11.533	10.197	
183	12/11/2020 03:00	11.585	10.339	
184	12/11/2020 04:00	11.585	10.399	
185	12/11/2020 05:00	11.585	10.365	
186	12/11/2020 06:00	11.637	10.259	
187	12/11/2020 07:00	11.637	10.087	
188	12/11/2020 08:00	11.637	9.900	
189	12/11/2020 09:00	11.637	9.738	
190	12/11/2020 10:00	11.740	9.620	
191	12/11/2020 11:00	11.688	9.600	
192	12/11/2020 12:00	11.740	9.691	
193	12/11/2020 13:00	11.688	9.873	
194	12/11/2020 14:00	11.585	10.101	
195	12/11/2020 15:00	11.533	10.265	
196	12/11/2020 16:00	11.533	10.351	
197	12/11/2020 17:00	11.585	10.337	
198	12/11/2020 18:00	11.585	10.223	
199	12/11/2020 19:00	11.637	10.058	
200	12/11/2020 20:00	11.637	9.851	
201	12/11/2020 21:00	11.585	9.670	
202	12/11/2020 22:00	11.585	9.518	
203	12/11/2020 23:00	11.585	9.472	
204	13/11/2020 00:00	11.688	9.544	
205	13/11/2020 01:00	11.688	9.736	
206	13/11/2020 02:00	11.585	9.991	
207	13/11/2020 03:00	11.585	10.225	
208	13/11/2020 04:00	11.533	10.356	
209	13/11/2020 05:00	11.585	10.399	
210	13/11/2020 06:00	11.637	10.318	
211	13/11/2020 07:00	11.585	10.156	
212	13/11/2020 08:00	11.585	9.954	
213	13/11/2020 09:00	11.740	9.747	
214	13/11/2020 10:00	11.585	9.582	
215	13/11/2020 11:00	11.637	9.472	
216	13/11/2020 12:00	11.585	9.502	
217	13/11/2020 13:00	11.637	9.654	
218	13/11/2020 14:00	11.637	9.900	
219	13/11/2020 15:00	11.585	10.169	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	13/11/2020 16:00	11.585	10.326	
221	13/11/2020 17:00	11.585	10.395	
222	13/11/2020 18:00	11.585	10.342	
223	13/11/2020 19:00	11.637	10.188	
224	13/11/2020 20:00	11.585	9.976	
225	13/11/2020 21:00	11.585	9.758	
226	13/11/2020 22:00	11.637	9.560	
227	13/11/2020 23:00	11.585	9.429	
228	14/11/2020 00:00	11.637	9.420	
229	14/11/2020 01:00	11.688	9.547	
230	14/11/2020 02:00	11.585	9.809	
231	14/11/2020 03:00	11.585	10.107	
232	14/11/2020 04:00	11.585	10.334	
233	14/11/2020 05:00	11.585	10.451	
234	14/11/2020 06:00	11.533	10.465	
235	14/11/2020 07:00	11.585	10.348	
236	14/11/2020 08:00	11.585	10.149	
237	14/11/2020 09:00	11.585	9.905	
238	14/11/2020 10:00	11.637	9.673	
239	14/11/2020 11:00	11.688	9.483	
240	14/11/2020 12:00	11.688	9.378	
241	14/11/2020 13:00	11.585	9.428	
242	14/11/2020 14:00	11.585	9.599	
243	14/11/2020 15:00	11.585	9.871	
244	14/11/2020 16:00	11.533	10.124	
245	14/11/2020 17:00	11.585	10.259	
246	14/11/2020 18:00	11.585	10.296	
247	14/11/2020 19:00	11.585	10.211	
248	14/11/2020 20:00	11.637	10.018	
249	14/11/2020 21:00	11.740	9.772	
250	14/11/2020 22:00	11.637	9.547	
251	14/11/2020 23:00	11.585	9.333	
252	15/11/2020 00:00	11.585	9.198	
253	15/11/2020 01:00	11.637	9.213	
254	15/11/2020 02:00	11.585	9.387	
255	15/11/2020 03:00	11.740	9.696	
256	15/11/2020 04:00	11.585	10.021	
257	15/11/2020 05:00	11.585	10.234	
258	15/11/2020 06:00	11.585	10.332	
259	15/11/2020 07:00	11.533	10.289	
260	15/11/2020 08:00	11.585	10.114	
261	15/11/2020 09:00	11.637	9.877	
262	15/11/2020 10:00	11.637	9.629	
263	15/11/2020 11:00	11.585	9.420	
264	15/11/2020 12:00	11.533	9.262	
265	15/11/2020 13:00	11.688	9.216	
266	15/11/2020 14:00	11.688	9.327	
267	15/11/2020 15:00	11.637	9.591	
268	15/11/2020 16:00	11.637	9.910	
269	15/11/2020 17:00	11.585	10.177	
270	15/11/2020 18:00	11.585	10.313	
271	15/11/2020 19:00	11.585	10.333	
272	15/11/2020 20:00	11.637	10.222	
273	15/11/2020 21:00	11.585	10.006	
274	15/11/2020 22:00	11.688	9.754	

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275	15/11/2020 23:00	11.585	9.545	
276	16/11/2020 00:00	11.585	9.377	
277	16/11/2020 01:00	11.637	9.283	
278	16/11/2020 02:00	11.637	9.346	
279	16/11/2020 03:00	11.637	9.569	
280	16/11/2020 04:00	11.637	9.894	
281	16/11/2020 05:00	11.585	10.204	
282	16/11/2020 06:00	11.585	10.383	
283	16/11/2020 07:00	11.533	10.450	
284	16/11/2020 08:00	11.585	10.398	
285	16/11/2020 09:00	11.585	10.206	
286	16/11/2020 10:00	11.688	9.967	
287	16/11/2020 11:00	11.637	9.734	
288	16/11/2020 12:00	11.637	9.552	
289	16/11/2020 13:00	11.585	9.408	
290	16/11/2020 14:00	11.585	9.405	
291	16/11/2020 15:00	11.585	9.549	
292	16/11/2020 16:00	11.585	9.832	
293	16/11/2020 17:00	11.585	10.139	
294	16/11/2020 18:00	11.533	10.358	
295	16/11/2020 19:00	11.585	10.445	
296	16/11/2020 20:00	11.637	10.435	
297	16/11/2020 21:00	11.585	10.289	
298	16/11/2020 22:00	11.637	10.059	
299	16/11/2020 23:00	11.688	9.814	
300	17/11/2020 00:00	11.688	9.583	
301	17/11/2020 01:00	11.637	9.401	
302	17/11/2020 02:00	11.688	9.325	
303	17/11/2020 03:00	11.533	9.390	
304	17/11/2020 04:00	11.688	9.624	
305	17/11/2020 05:00	11.533	9.940	
306	17/11/2020 06:00	11.585	10.213	
307	17/11/2020 07:00	11.585	10.362	
308	17/11/2020 08:00	11.533	10.403	
309	17/11/2020 09:00	11.637	10.305	
310	17/11/2020 10:00	11.585	10.106	
311	17/11/2020 11:00	11.585	9.859	
312	17/11/2020 12:00	11.585	9.641	
313	17/11/2020 13:00	11.637	9.450	
314	17/11/2020 14:00	11.585	9.338	
315	17/11/2020 15:00	11.688	9.359	
316	17/11/2020 16:00	11.637	9.533	
317	17/11/2020 17:00	11.585	9.830	
318	17/11/2020 18:00	11.585	10.137	
319	17/11/2020 19:00	11.533	10.320	
320	17/11/2020 20:00	11.533	10.412	
321	17/11/2020 21:00	11.533	10.385	
322	17/11/2020 22:00	11.585	10.235	
323	17/11/2020 23:00	11.585	10.011	
324	18/11/2020 00:00	11.688	9.780	
325	18/11/2020 01:00	11.688	9.573	
326	18/11/2020 02:00	11.585	9.425	
327	18/11/2020 03:00	11.637	9.362	
328	18/11/2020 04:00	11.637	9.456	
329	18/11/2020 05:00	11.688	9.685	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	18/11/2020 06:00	11.585	9.966	
331	18/11/2020 07:00	11.637	10.196	
332	18/11/2020 08:00	11.585	10.323	
333	18/11/2020 09:00	11.533	10.336	
334	18/11/2020 10:00	11.585	10.227	
335	18/11/2020 11:00	11.585	10.024	
336	18/11/2020 12:00	11.585	9.791	
337	18/11/2020 13:00	11.533	9.570	
338	18/11/2020 14:00	11.637	9.404	
339	18/11/2020 15:00	11.585	9.314	
340	18/11/2020 16:00	11.688	9.364	
341	18/11/2020 17:00	11.585	9.567	
342	18/11/2020 18:00	11.585	9.877	
343	18/11/2020 19:00	11.585	10.135	
344	18/11/2020 20:00	11.585	10.304	
345	18/11/2020 21:00	11.585	10.379	
346	18/11/2020 22:00	11.585	10.340	
347	18/11/2020 23:00	11.585	10.212	
348	19/11/2020 00:00	11.637	10.021	
349	19/11/2020 01:00	11.637	9.814	
350	19/11/2020 02:00	11.637	9.632	
351	19/11/2020 03:00	11.688	9.500	
352	19/11/2020 04:00	11.585	9.475	
353	19/11/2020 05:00	11.740	9.577	
354	19/11/2020 06:00	11.585	9.811	
355	19/11/2020 07:00	11.585	10.089	
356	19/11/2020 08:00	11.637	10.307	
357	19/11/2020 09:00	11.533	10.416	
358	19/11/2020 10:00	11.585	10.439	
359	19/11/2020 11:00	11.585	10.366	
360	19/11/2020 12:00	11.585	10.213	
361	19/11/2020 13:00	11.637	10.034	
362	19/11/2020 14:00	11.585	9.879	
363	19/11/2020 15:00	11.740	9.762	
364	19/11/2020 16:00	11.740	9.702	
365	19/11/2020 17:00	11.740	9.744	
366	19/11/2020 18:00	11.637	9.910	
367	19/11/2020 19:00	11.585	10.155	
368	19/11/2020 20:00	11.585	10.363	
369	19/11/2020 21:00	11.585	10.486	
370	19/11/2020 22:00	11.585	10.542	
371	19/11/2020 23:00	11.585	10.501	
372	20/11/2020 00:00	11.637	10.372	
373	20/11/2020 01:00	11.585	10.209	
374	20/11/2020 02:00	11.688	10.020	
375	20/11/2020 03:00	11.585	9.864	
376	20/11/2020 04:00	11.637	9.733	
377	20/11/2020 05:00	11.688	9.690	
378	20/11/2020 06:00	11.740	9.753	
379	20/11/2020 07:00	11.637	9.933	
380	20/11/2020 08:00	11.585	10.125	
381	20/11/2020 09:00	11.585	10.281	
382	20/11/2020 10:00	11.585	10.360	
383	20/11/2020 11:00	11.585	10.349	
384	20/11/2020 12:00	11.585	10.247	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	20/11/2020 13:00	11.585	10.093	
386	20/11/2020 14:00	11.688	9.919	
387	20/11/2020 15:00	11.533	9.754	
388	20/11/2020 16:00	11.533	9.619	
389	20/11/2020 17:00	11.688	9.568	
390	20/11/2020 18:00	11.740	9.615	
391	20/11/2020 19:00	11.585	9.785	
392	20/11/2020 20:00	11.585	10.011	
393	20/11/2020 21:00	11.585	10.224	
394	20/11/2020 22:00	11.585	10.352	
395	20/11/2020 23:00	11.585	10.407	
396	21/11/2020 00:00	11.585	10.378	
397	21/11/2020 01:00	11.585	10.284	
398	21/11/2020 02:00	11.637	10.156	
399	21/11/2020 03:00	11.585	10.014	
400	21/11/2020 04:00	11.585	9.876	
401	21/11/2020 05:00	11.585	9.758	
402	21/11/2020 06:00	11.637	9.711	
403	21/11/2020 07:00	11.585	9.769	
404	21/11/2020 08:00	11.585	9.907	
405	21/11/2020 09:00	11.533	10.080	
406	21/11/2020 10:00	11.585	10.212	
407	21/11/2020 11:00	11.585	10.287	
408	21/11/2020 12:00	11.533	10.278	
409	21/11/2020 13:00	11.585	10.194	
410	21/11/2020 14:00	11.585	10.058	
411	21/11/2020 15:00	11.585	9.905	
412	21/11/2020 16:00	11.688	9.762	
413	21/11/2020 17:00	11.585	9.666	
414	21/11/2020 18:00	11.688	9.620	
415	21/11/2020 19:00	11.740	9.663	
416	21/11/2020 20:00	11.585	9.815	
417	21/11/2020 21:00	11.585	10.013	
418	21/11/2020 22:00	11.585	10.200	
419	21/11/2020 23:00	11.585	10.327	
420	22/11/2020 00:00	11.585	10.388	
421	22/11/2020 01:00	11.585	10.378	
422	22/11/2020 02:00	11.585	10.303	
423	22/11/2020 03:00	11.637	10.203	
424	22/11/2020 04:00	11.585	10.073	
425	22/11/2020 05:00	11.637	9.951	
426	22/11/2020 06:00	11.637	9.826	
427	22/11/2020 07:00	11.688	9.778	
428	22/11/2020 08:00	11.637	9.813	
429	22/11/2020 09:00	11.585	9.929	
430	22/11/2020 10:00	11.533	10.085	
431	22/11/2020 11:00	11.585	10.217	
432	22/11/2020 12:00	11.585	10.284	
433	22/11/2020 13:00	11.585	10.289	
434	22/11/2020 14:00	11.585	10.234	
435	22/11/2020 15:00	11.585	10.133	
436	22/11/2020 16:00	11.585	10.013	
437	22/11/2020 17:00	11.585	9.889	
438	22/11/2020 18:00	11.637	9.774	
439	22/11/2020 19:00	11.637	9.705	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	22/11/2020 20:00	11.688	9.713	
441	22/11/2020 21:00	11.585	9.830	
442	22/11/2020 22:00	11.533	9.983	
443	22/11/2020 23:00	11.585	10.161	
444	23/11/2020 00:00	11.585	10.303	
445	23/11/2020 01:00	11.585	10.367	
446	23/11/2020 02:00	11.585	10.378	
447	23/11/2020 03:00	11.637	10.339	
448	23/11/2020 04:00	11.585	10.258	
449	23/11/2020 05:00	11.533	10.147	
450	23/11/2020 06:00	11.585	10.019	
451	23/11/2020 07:00	11.637	9.904	
452	23/11/2020 08:00	11.637	9.827	
453	23/11/2020 09:00	11.585	9.828	
454	23/11/2020 10:00	11.533	9.915	
455	23/11/2020 11:00	11.585	10.027	
456	23/11/2020 12:00	11.585	10.155	
457	23/11/2020 13:00	11.585	10.225	
458	23/11/2020 14:00	11.585	10.231	
459	23/11/2020 15:00	11.585	10.189	
460	23/11/2020 16:00	11.533	10.078	
461	23/11/2020 17:00	11.585	9.959	
462	23/11/2020 18:00	11.533	9.820	
463	23/11/2020 19:00	11.637	9.696	
464	23/11/2020 20:00	11.637	9.642	
465	23/11/2020 21:00	11.533	9.654	
466	23/11/2020 22:00	11.585	9.730	
467	23/11/2020 23:00	11.585	9.878	
468	24/11/2020 00:00	11.585	10.055	
469	24/11/2020 01:00	11.585	10.201	
470	24/11/2020 02:00	11.533	10.283	
471	24/11/2020 03:00	11.585	10.304	
472	24/11/2020 04:00	11.585	10.277	
473	24/11/2020 05:00	11.585	10.191	
474	24/11/2020 06:00	11.585	10.073	
475	24/11/2020 07:00	11.585	9.946	
476	24/11/2020 08:00	11.585	9.821	
477	24/11/2020 09:00	11.585	9.746	
478	24/11/2020 10:00	11.585	9.738	
479	24/11/2020 11:00	11.533	9.822	
480	24/11/2020 12:00	11.585	9.953	
481	24/11/2020 13:00	11.585	10.071	
482	24/11/2020 14:00	11.585	10.158	
483	24/11/2020 15:00	11.585	10.194	
484	24/11/2020 16:00	11.533	10.147	
485	24/11/2020 17:00	11.585	10.055	
486	24/11/2020 18:00	11.585	9.938	
487	24/11/2020 19:00	11.637	9.806	
488	24/11/2020 20:00	11.585	9.679	
489	24/11/2020 21:00	11.637	9.601	
490	24/11/2020 22:00	11.533	9.600	
491	24/11/2020 23:00	11.585	9.698	
492	25/11/2020 00:00	11.533	9.861	
493	25/11/2020 01:00	11.585	10.053	
494	25/11/2020 02:00	11.585	10.213	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	25/11/2020 03:00	11.533	10.301	
496	25/11/2020 04:00	11.585	10.336	
497	25/11/2020 05:00	11.585	10.300	
498	25/11/2020 06:00	11.533	10.219	
499	25/11/2020 07:00	11.585	10.096	
500	25/11/2020 08:00	11.585	9.968	
501	25/11/2020 09:00	11.533	9.827	
502	25/11/2020 10:00	11.533	9.745	
503	25/11/2020 11:00	11.533	9.754	
504	25/11/2020 12:00	11.585	9.851	
505	25/11/2020 13:00	11.481	9.996	
506	25/11/2020 14:00	11.533	10.144	
507	25/11/2020 15:00	11.533	10.249	
508	25/11/2020 16:00	11.585	10.277	
509	25/11/2020 17:00	11.585	10.249	
510	25/11/2020 18:00	11.585	10.165	
511	25/11/2020 19:00	11.585	10.036	
512	25/11/2020 20:00	11.585	9.907	
513	25/11/2020 21:00	11.637	9.792	
514	25/11/2020 22:00	11.585	9.714	
515	25/11/2020 23:00	11.585	9.714	
516	26/11/2020 00:00	11.533	9.819	
517	26/11/2020 01:00	11.533	9.997	
518	26/11/2020 02:00	11.585	10.187	
519	26/11/2020 03:00	11.533	10.343	
520	26/11/2020 04:00	11.585	10.409	
521	26/11/2020 05:00	11.585	10.424	
522	26/11/2020 06:00	11.533	10.364	
523	26/11/2020 07:00	11.533	10.251	
524	26/11/2020 08:00	11.533	10.113	
525	26/11/2020 09:00	11.585	9.974	
526	26/11/2020 10:00	11.585	9.850	
527	26/11/2020 11:00	11.585	9.784	
528	26/11/2020 12:00	11.585	9.808	
529	26/11/2020 13:00	11.533	9.937	
530	26/11/2020 14:00	11.585	10.115	
531	26/11/2020 15:00	11.585	10.255	
532	26/11/2020 16:00	11.533	10.305	
533	26/11/2020 17:00	11.533	10.346	
534	26/11/2020 18:00	11.585	10.296	
535	26/11/2020 19:00	11.585	10.176	
536	26/11/2020 20:00	11.585	10.019	
537	26/11/2020 21:00	11.585	9.888	
538	26/11/2020 22:00	11.585	9.766	
539	26/11/2020 23:00	11.533	9.705	
540	27/11/2020 00:00	11.585	9.743	
541	27/11/2020 01:00	11.533	9.868	
542	27/11/2020 02:00	11.533	10.057	
543	27/11/2020 03:00	11.533	10.236	
544	27/11/2020 04:00	11.533	10.372	
545	27/11/2020 05:00	11.585	10.433	
546	27/11/2020 06:00	11.585	10.418	
547	27/11/2020 07:00	11.585	10.322	
548	27/11/2020 08:00	11.585	10.198	
549	27/11/2020 09:00	11.585	10.046	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	27/11/2020 10:00	11.533	9.894	
551	27/11/2020 11:00	11.585	9.776	
552	27/11/2020 12:00	11.585	9.753	
553	27/11/2020 13:00	11.533	9.836	
554	27/11/2020 14:00	11.533	9.969	
555	27/11/2020 15:00	11.533	10.153	
556	27/11/2020 16:00	11.533	10.295	
557	27/11/2020 17:00	11.533	10.359	
558	27/11/2020 18:00	11.533	10.336	
559	27/11/2020 19:00	11.481	10.250	
560	27/11/2020 20:00	11.585	10.094	
561	27/11/2020 21:00	11.585	9.942	
562	27/11/2020 22:00	11.533	9.796	
563	27/11/2020 23:00	11.585	9.684	
564	28/11/2020 00:00	11.637	9.651	
565	28/11/2020 01:00	11.533	9.724	
566	28/11/2020 02:00	11.533	9.893	
567	28/11/2020 03:00	11.533	10.105	
568	28/11/2020 04:00	11.533	10.275	
569	28/11/2020 05:00	11.533	10.366	
570	28/11/2020 06:00	11.533	10.385	
571	28/11/2020 07:00	11.533	10.333	
572	28/11/2020 08:00	11.585	10.200	
573	28/11/2020 09:00	11.481	10.047	
574	28/11/2020 10:00	11.585	9.879	
575	28/11/2020 11:00	11.585	9.749	
576	28/11/2020 12:00	11.585	9.670	
577	28/11/2020 13:00	11.585	9.694	
578	28/11/2020 14:00	11.533	9.832	
579	28/11/2020 15:00	11.533	10.031	
580	28/11/2020 16:00	11.533	10.215	
581	28/11/2020 17:00	11.533	10.343	
582	28/11/2020 18:00	11.533	10.383	
583	28/11/2020 19:00	11.533	10.327	
584	28/11/2020 20:00	11.533	10.214	
585	28/11/2020 21:00	11.533	10.058	
586	28/11/2020 22:00	11.585	9.898	
587	28/11/2020 23:00	11.585	9.754	
588	29/11/2020 00:00	11.637	9.676	
589	29/11/2020 01:00	11.533	9.684	
590	29/11/2020 02:00	11.533	9.810	
591	29/11/2020 03:00	11.533	10.002	
592	29/11/2020 04:00	11.533	10.213	
593	29/11/2020 05:00	11.585	10.356	
594	29/11/2020 06:00	11.533	10.429	
595	29/11/2020 07:00	11.481	10.407	
596	29/11/2020 08:00	11.585	10.308	
597	29/11/2020 09:00	11.533	10.153	
598	29/11/2020 10:00	11.585	9.998	
599	29/11/2020 11:00	11.585	9.844	
600	29/11/2020 12:00	11.637	9.722	
601	29/11/2020 13:00	11.585	9.687	
602	29/11/2020 14:00	11.585	9.770	
603	29/11/2020 15:00	11.533	9.939	
604	29/11/2020 16:00	11.533	10.154	

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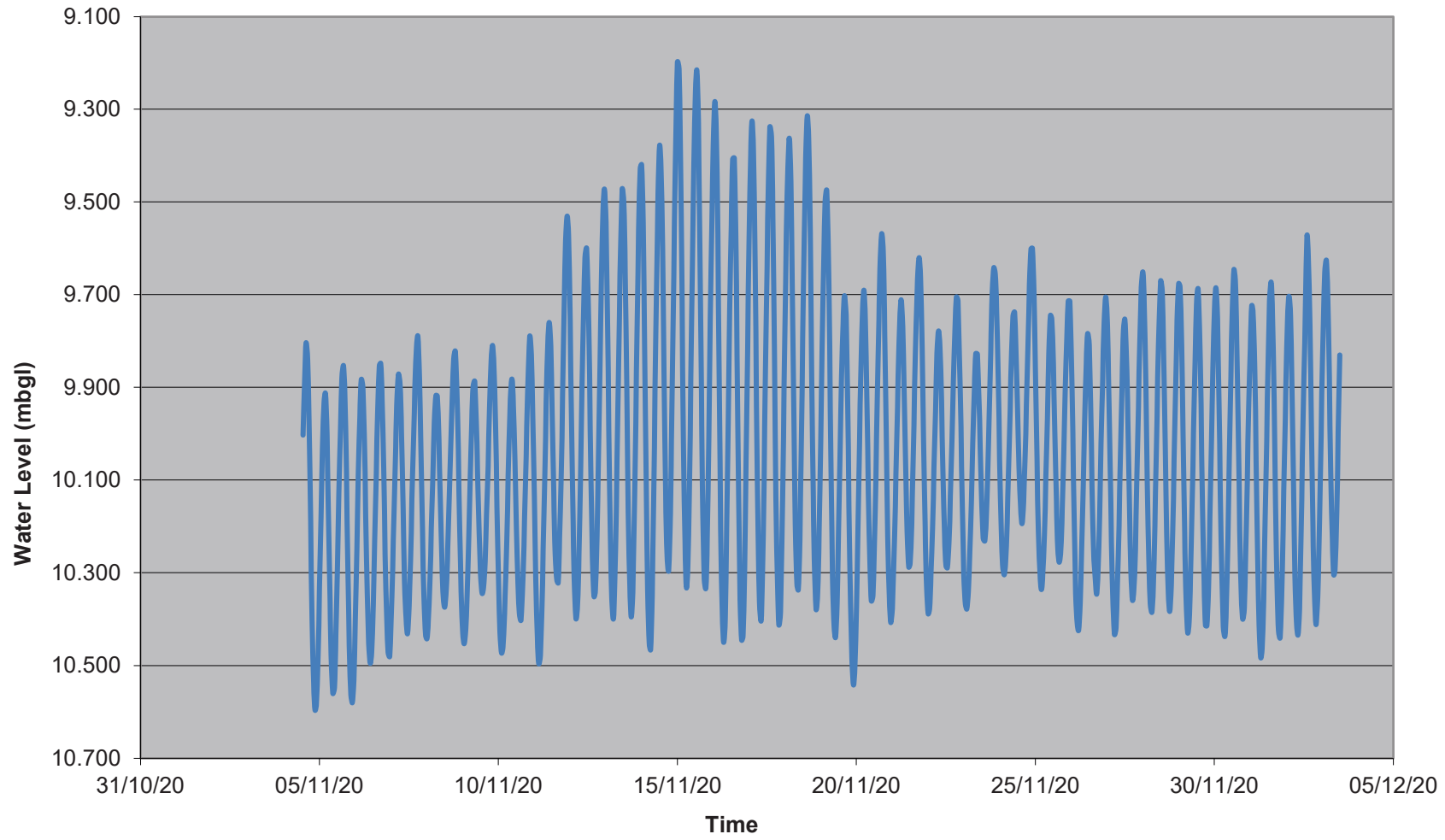
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	29/11/2020 17:00	11.533	10.319	
606	29/11/2020 18:00	11.585	10.413	
607	29/11/2020 19:00	11.533	10.414	
608	29/11/2020 20:00	11.533	10.335	
609	29/11/2020 21:00	11.585	10.180	
610	29/11/2020 22:00	11.533	10.013	
611	29/11/2020 23:00	11.585	9.860	
612	30/11/2020 00:00	11.533	9.729	
613	30/11/2020 01:00	11.533	9.685	
614	30/11/2020 02:00	11.481	9.751	
615	30/11/2020 03:00	11.533	9.918	
616	30/11/2020 04:00	11.585	10.127	
617	30/11/2020 05:00	11.533	10.309	
618	30/11/2020 06:00	11.533	10.416	
619	30/11/2020 07:00	11.533	10.437	
620	30/11/2020 08:00	11.481	10.372	
621	30/11/2020 09:00	11.585	10.227	
622	30/11/2020 10:00	11.585	10.053	
623	30/11/2020 11:00	11.533	9.876	
624	30/11/2020 12:00	11.585	9.733	
625	30/11/2020 13:00	11.585	9.646	
626	30/11/2020 14:00	11.533	9.668	
627	30/11/2020 15:00	11.533	9.797	
628	30/11/2020 16:00	11.533	9.998	
629	30/11/2020 17:00	11.585	10.207	
630	30/11/2020 18:00	11.533	10.350	
631	30/11/2020 19:00	11.533	10.400	
632	30/11/2020 20:00	11.585	10.377	
633	30/11/2020 21:00	11.533	10.257	
634	30/11/2020 22:00	11.533	10.100	
635	30/11/2020 23:00	11.533	9.940	
636	01/12/2020 00:00	11.585	9.816	
637	01/12/2020 01:00	11.585	9.724	
638	01/12/2020 02:00	11.533	9.742	
639	01/12/2020 03:00	11.533	9.856	
640	01/12/2020 04:00	11.533	10.059	
641	01/12/2020 05:00	11.533	10.275	
642	01/12/2020 06:00	11.533	10.414	
643	01/12/2020 07:00	11.533	10.483	
644	01/12/2020 08:00	11.585	10.464	
645	01/12/2020 09:00	11.585	10.356	
646	01/12/2020 10:00	11.533	10.185	
647	01/12/2020 11:00	11.585	10.015	
648	01/12/2020 12:00	11.585	9.844	
649	01/12/2020 13:00	11.585	9.712	
650	01/12/2020 14:00	11.585	9.673	
651	01/12/2020 15:00	11.585	9.746	
652	01/12/2020 16:00	11.533	9.924	
653	01/12/2020 17:00	11.585	10.149	
654	01/12/2020 18:00	11.585	10.335	
655	01/12/2020 19:00	11.533	10.425	
656	01/12/2020 20:00	11.585	10.440	
657	01/12/2020 21:00	11.481	10.363	
658	01/12/2020 22:00	11.585	10.207	
659	01/12/2020 23:00	11.585	10.044	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	02/12/2020 00:00	11.533	9.891	
661	02/12/2020 01:00	11.585	9.753	
662	02/12/2020 02:00	11.533	9.703	
663	02/12/2020 03:00	11.533	9.746	
664	02/12/2020 04:00	11.533	9.895	
665	02/12/2020 05:00	11.585	10.112	
666	02/12/2020 06:00	11.585	10.307	
667	02/12/2020 07:00	11.533	10.409	
668	02/12/2020 08:00	11.533	10.434	
669	02/12/2020 09:00	11.585	10.378	
670	02/12/2020 10:00	11.585	10.231	
671	02/12/2020 11:00	11.533	10.054	
672	02/12/2020 12:00	11.585	9.876	
673	02/12/2020 13:00	11.585	9.735	
674	02/12/2020 14:00	11.533	9.574	
675	02/12/2020 15:00	11.481	9.621	
676	02/12/2020 16:00	11.533	9.765	
677	02/12/2020 17:00	11.533	9.971	
678	02/12/2020 18:00	11.533	10.199	
679	02/12/2020 19:00	11.533	10.337	
680	02/12/2020 20:00	11.637	10.411	
681	02/12/2020 21:00	11.585	10.371	
682	02/12/2020 22:00	11.533	10.267	
683	02/12/2020 23:00	11.533	10.094	
684	03/12/2020 00:00	11.533	9.915	
685	03/12/2020 01:00	11.585	9.763	
686	03/12/2020 02:00	11.533	9.653	
687	03/12/2020 03:00	11.637	9.626	
688	03/12/2020 04:00	11.637	9.701	
689	03/12/2020 05:00	11.585	9.878	
690	03/12/2020 06:00	11.585	10.086	
691	03/12/2020 07:00	11.585	10.227	
692	03/12/2020 08:00	11.585	10.304	
693	03/12/2020 09:00	11.585	10.287	
694	03/12/2020 10:00	11.637	10.170	
695	03/12/2020 11:00	11.533	9.996	
696	03/12/2020 12:00	11.533	9.830	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	03/12/2020 15:00	11.533	9.693	
2	03/12/2020 16:00	11.533	9.852	
3	03/12/2020 17:00	11.585	10.069	
4	03/12/2020 18:00	11.585	10.276	
5	03/12/2020 19:00	11.533	10.412	
6	03/12/2020 20:00	11.585	10.452	
7	03/12/2020 21:00	11.585	10.393	
8	03/12/2020 22:00	11.585	10.269	
9	03/12/2020 23:00	11.533	10.113	
10	04/12/2020 00:00	11.533	9.973	
11	04/12/2020 01:00	11.637	9.828	
12	04/12/2020 02:00	11.585	9.762	
13	04/12/2020 03:00	11.585	9.773	
14	04/12/2020 04:00	11.533	9.896	
15	04/12/2020 05:00	11.533	10.088	
16	04/12/2020 06:00	11.533	10.280	
17	04/12/2020 07:00	11.533	10.392	
18	04/12/2020 08:00	11.585	10.442	
19	04/12/2020 09:00	11.533	10.399	
20	04/12/2020 10:00	11.533	10.285	
21	04/12/2020 11:00	11.533	10.141	
22	04/12/2020 12:00	11.533	9.979	
23	04/12/2020 13:00	11.585	9.829	
24	04/12/2020 14:00	11.533	9.723	
25	04/12/2020 15:00	11.585	9.697	
26	04/12/2020 16:00	11.533	9.787	
27	04/12/2020 17:00	11.585	9.973	
28	04/12/2020 18:00	11.585	10.170	
29	04/12/2020 19:00	11.533	10.347	
30	04/12/2020 20:00	11.533	10.421	
31	04/12/2020 21:00	11.533	10.435	
32	04/12/2020 22:00	11.481	10.368	
33	04/12/2020 23:00	11.533	10.241	
34	05/12/2020 00:00	11.533	10.116	
35	05/12/2020 01:00	11.533	9.998	
36	05/12/2020 02:00	11.533	9.895	
37	05/12/2020 03:00	11.533	9.871	
38	05/12/2020 04:00	11.585	9.935	
39	05/12/2020 05:00	11.533	10.081	
40	05/12/2020 06:00	11.585	10.262	
41	05/12/2020 07:00	11.585	10.408	
42	05/12/2020 08:00	11.481	10.493	
43	05/12/2020 09:00	11.533	10.503	
44	05/12/2020 10:00	11.585	10.439	
45	05/12/2020 11:00	11.585	10.325	
46	05/12/2020 12:00	11.533	10.188	
47	05/12/2020 13:00	11.533	10.055	
48	05/12/2020 14:00	11.533	9.925	
49	05/12/2020 15:00	11.533	9.857	
50	05/12/2020 16:00	11.637	9.869	
51	05/12/2020 17:00	11.637	9.979	
52	05/12/2020 18:00	11.533	10.188	
53	05/12/2020 19:00	11.585	10.363	
54	05/12/2020 20:00	11.481	10.517	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	05/12/2020 21:00	11.637	10.555	
56	05/12/2020 22:00	11.637	10.576	
57	05/12/2020 23:00	11.585	10.507	
58	06/12/2020 00:00	11.585	10.401	
59	06/12/2020 01:00	11.533	10.262	
60	06/12/2020 02:00	11.637	10.109	
61	06/12/2020 03:00	11.533	9.977	
62	06/12/2020 04:00	11.585	9.921	
63	06/12/2020 05:00	11.585	9.970	
64	06/12/2020 06:00	11.585	10.107	
65	06/12/2020 07:00	11.533	10.271	
66	06/12/2020 08:00	11.533	10.420	
67	06/12/2020 09:00	11.637	10.492	
68	06/12/2020 10:00	11.585	10.495	
69	06/12/2020 11:00	11.637	10.431	
70	06/12/2020 12:00	11.533	10.326	
71	06/12/2020 13:00	11.533	10.201	
72	06/12/2020 14:00	11.481	10.052	
73	06/12/2020 15:00	11.481	9.924	
74	06/12/2020 16:00	11.637	9.846	
75	06/12/2020 17:00	11.533	9.881	
76	06/12/2020 18:00	11.585	9.986	
77	06/12/2020 19:00	11.585	10.165	
78	06/12/2020 20:00	11.585	10.353	
79	06/12/2020 21:00	11.533	10.476	
80	06/12/2020 22:00	11.637	10.532	
81	06/12/2020 23:00	11.533	10.517	
82	07/12/2020 00:00	11.481	10.443	
83	07/12/2020 01:00	11.533	10.322	
84	07/12/2020 02:00	11.585	10.187	
85	07/12/2020 03:00	11.533	10.044	
86	07/12/2020 04:00	11.637	9.933	
87	07/12/2020 05:00	11.585	9.884	
88	07/12/2020 06:00	11.585	9.929	
89	07/12/2020 07:00	11.637	10.061	
90	07/12/2020 08:00	11.533	10.205	
91	07/12/2020 09:00	11.637	10.330	
92	07/12/2020 10:00	11.533	10.402	
93	07/12/2020 11:00	11.585	10.412	
94	07/12/2020 12:00	11.585	10.344	
95	07/12/2020 13:00	11.533	10.230	
96	07/12/2020 14:00	11.481	10.094	
97	07/12/2020 15:00	11.533	9.954	
98	07/12/2020 16:00	11.533	9.834	
99	07/12/2020 17:00	11.637	9.763	
100	07/12/2020 18:00	11.481	9.780	
101	07/12/2020 19:00	11.533	9.896	
102	07/12/2020 20:00	11.533	10.066	
103	07/12/2020 21:00	11.533	10.256	
104	07/12/2020 22:00	11.585	10.392	
105	07/12/2020 23:00	11.533	10.450	
106	08/12/2020 00:00	11.585	10.460	
107	08/12/2020 01:00	11.533	10.401	
108	08/12/2020 02:00	11.637	10.302	
109	08/12/2020 03:00	11.585	10.175	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	08/12/2020 04:00	11.533	10.040	
111	08/12/2020 05:00	11.637	9.924	
112	08/12/2020 06:00	11.533	9.868	
113	08/12/2020 07:00	11.585	9.912	
114	08/12/2020 08:00	11.585	10.021	
115	08/12/2020 09:00	11.585	10.154	
116	08/12/2020 10:00	11.533	10.293	
117	08/12/2020 11:00	11.481	10.359	
118	08/12/2020 12:00	11.533	10.375	
119	08/12/2020 13:00	11.637	10.310	
120	08/12/2020 14:00	11.481	10.210	
121	08/12/2020 15:00	11.533	10.084	
122	08/12/2020 16:00	11.637	9.962	
123	08/12/2020 17:00	11.585	9.858	
124	08/12/2020 18:00	11.585	9.805	
125	08/12/2020 19:00	11.585	9.827	
126	08/12/2020 20:00	11.481	9.940	
127	08/12/2020 21:00	11.637	10.120	
128	08/12/2020 22:00	11.481	10.309	
129	08/12/2020 23:00	11.533	10.446	
130	09/12/2020 00:00	11.481	10.524	
131	09/12/2020 01:00	11.637	10.532	
132	09/12/2020 02:00	11.585	10.482	
133	09/12/2020 03:00	11.533	10.384	
134	09/12/2020 04:00	11.637	10.253	
135	09/12/2020 05:00	11.585	10.103	
136	09/12/2020 06:00	11.481	9.985	
137	09/12/2020 07:00	11.585	9.920	
138	09/12/2020 08:00	11.585	9.935	
139	09/12/2020 09:00	11.533	10.037	
140	09/12/2020 10:00	11.533	10.182	
141	09/12/2020 11:00	11.481	10.313	
142	09/12/2020 12:00	11.533	10.403	
143	09/12/2020 13:00	11.481	10.415	
144	09/12/2020 14:00	11.637	10.374	
145	09/12/2020 15:00	11.481	10.288	
146	09/12/2020 16:00	11.533	10.157	
147	09/12/2020 17:00	11.585	10.006	
148	09/12/2020 18:00	11.585	9.851	
149	09/12/2020 19:00	11.481	9.746	
150	09/12/2020 20:00	11.637	9.727	
151	09/12/2020 21:00	11.533	9.804	
152	09/12/2020 22:00	11.585	9.969	
153	09/12/2020 23:00	11.585	10.161	
154	10/12/2020 00:00	11.585	10.335	
155	10/12/2020 01:00	11.585	10.422	
156	10/12/2020 02:00	11.585	10.439	
157	10/12/2020 03:00	11.637	10.381	
158	10/12/2020 04:00	11.637	10.288	
159	10/12/2020 05:00	11.585	10.156	
160	10/12/2020 06:00	11.585	10.022	
161	10/12/2020 07:00	11.637	9.909	
162	10/12/2020 08:00	11.637	9.827	
163	10/12/2020 09:00	11.637	9.845	
164	10/12/2020 10:00	11.585	9.965	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	10/12/2020 11:00	11.585	10.121	
166	10/12/2020 12:00	11.533	10.288	
167	10/12/2020 13:00	11.585	10.387	
168	10/12/2020 14:00	11.637	10.416	
169	10/12/2020 15:00	11.585	10.372	
170	10/12/2020 16:00	11.481	10.288	
171	10/12/2020 17:00	11.481	10.133	
172	10/12/2020 18:00	11.585	9.939	
173	10/12/2020 19:00	11.533	9.793	
174	10/12/2020 20:00	11.585	9.664	
175	10/12/2020 21:00	11.533	9.642	
176	10/12/2020 22:00	11.533	9.749	
177	10/12/2020 23:00	11.637	9.944	
178	11/12/2020 00:00	11.533	10.149	
179	11/12/2020 01:00	11.585	10.324	
180	11/12/2020 02:00	11.533	10.424	
181	11/12/2020 03:00	11.637	10.431	
182	11/12/2020 04:00	11.637	10.363	
183	11/12/2020 05:00	11.637	10.244	
184	11/12/2020 06:00	11.637	10.068	
185	11/12/2020 07:00	11.637	9.893	
186	11/12/2020 08:00	11.533	9.743	
187	11/12/2020 09:00	11.585	9.640	
188	11/12/2020 10:00	11.688	9.673	
189	11/12/2020 11:00	11.481	9.822	
190	11/12/2020 12:00	11.533	10.007	
191	11/12/2020 13:00	11.637	10.215	
192	11/12/2020 14:00	11.585	10.327	
193	11/12/2020 15:00	11.637	10.361	
194	11/12/2020 16:00	11.637	10.318	
195	11/12/2020 17:00	11.688	10.200	
196	11/12/2020 18:00	11.533	10.063	
197	11/12/2020 19:00	11.637	9.903	
198	11/12/2020 20:00	11.585	9.758	
199	11/12/2020 21:00	11.481	9.651	
200	11/12/2020 22:00	11.585	9.658	
201	11/12/2020 23:00	11.585	9.785	
202	12/12/2020 00:00	11.637	10.011	
203	12/12/2020 01:00	11.688	10.254	
204	12/12/2020 02:00	11.533	10.435	
205	12/12/2020 03:00	11.481	10.515	
206	12/12/2020 04:00	11.533	10.541	
207	12/12/2020 05:00	11.585	10.454	
208	12/12/2020 06:00	11.637	10.308	
209	12/12/2020 07:00	11.585	10.130	
210	12/12/2020 08:00	11.637	9.951	
211	12/12/2020 09:00	11.688	9.802	
212	12/12/2020 10:00	11.637	9.744	
213	12/12/2020 11:00	11.585	9.789	
214	12/12/2020 12:00	11.585	9.956	
215	12/12/2020 13:00	11.533	10.186	
216	12/12/2020 14:00	11.533	10.393	
217	12/12/2020 15:00	11.585	10.504	
218	12/12/2020 16:00	11.585	10.529	
219	12/12/2020 17:00	11.585	10.481	

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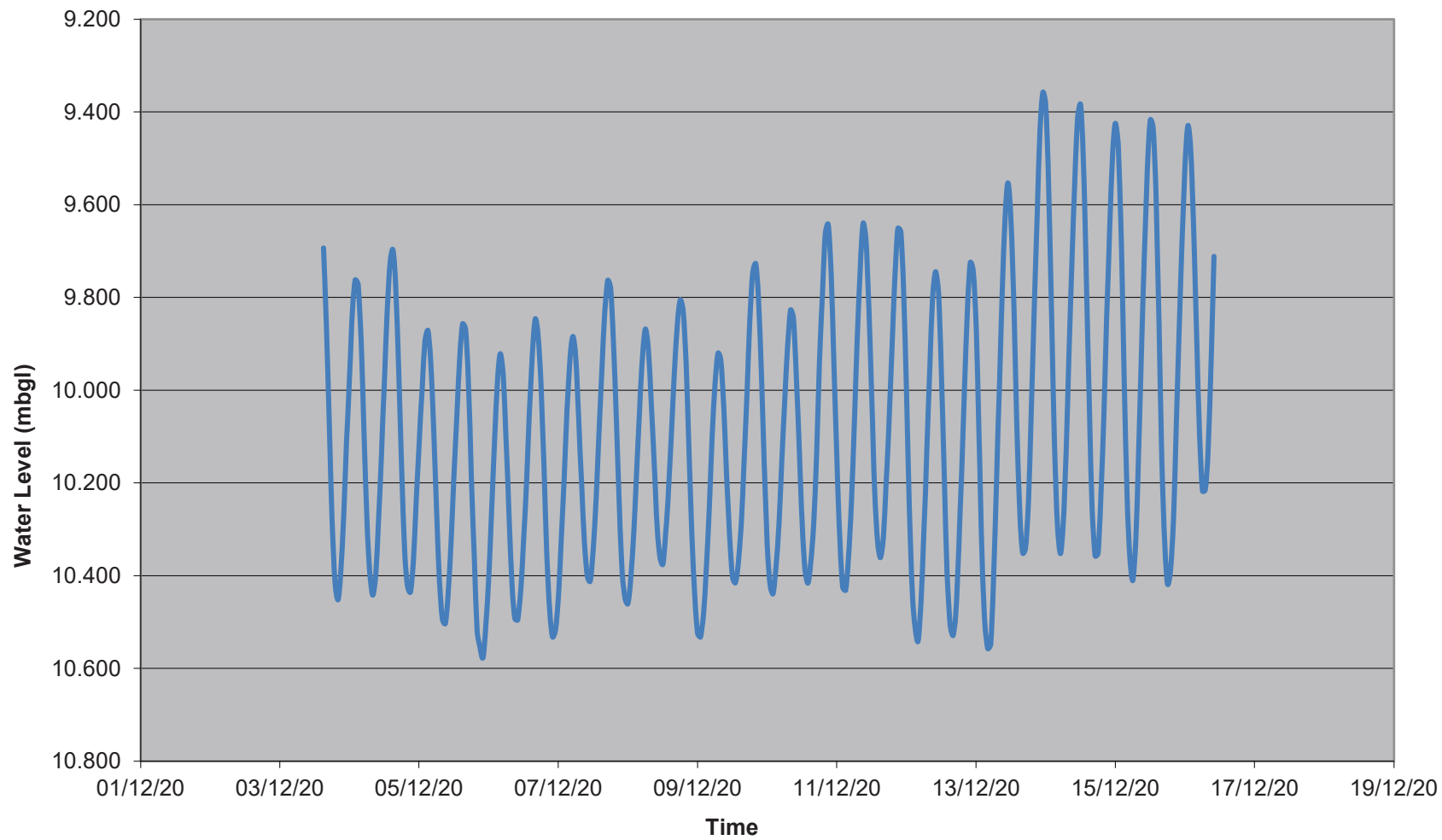
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	12/12/2020 18:00	11.481	10.342	
221	12/12/2020 19:00	11.481	10.170	
222	12/12/2020 20:00	11.533	9.993	
223	12/12/2020 21:00	11.688	9.821	
224	12/12/2020 22:00	11.688	9.725	
225	12/12/2020 23:00	11.533	9.744	
226	13/12/2020 00:00	11.688	9.867	
227	13/12/2020 01:00	11.481	10.097	
228	13/12/2020 02:00	11.637	10.355	
229	13/12/2020 03:00	11.585	10.500	
230	13/12/2020 04:00	11.637	10.557	
231	13/12/2020 05:00	11.533	10.547	
232	13/12/2020 06:00	11.533	10.410	
233	13/12/2020 07:00	11.585	10.200	
234	13/12/2020 08:00	11.585	9.988	
235	13/12/2020 09:00	11.585	9.788	
236	13/12/2020 10:00	11.688	9.621	
237	13/12/2020 11:00	11.585	9.553	
238	13/12/2020 12:00	11.688	9.635	
239	13/12/2020 13:00	11.688	9.821	
240	13/12/2020 14:00	11.533	10.067	
241	13/12/2020 15:00	11.688	10.258	
242	13/12/2020 16:00	11.637	10.351	
243	13/12/2020 17:00	11.533	10.341	
244	13/12/2020 18:00	11.585	10.241	
245	13/12/2020 19:00	11.637	10.050	
246	13/12/2020 20:00	11.585	9.826	
247	13/12/2020 21:00	11.533	9.622	
248	13/12/2020 22:00	11.637	9.440	
249	13/12/2020 23:00	11.637	9.357	
250	14/12/2020 00:00	11.533	9.384	
251	14/12/2020 01:00	11.688	9.565	
252	14/12/2020 02:00	11.585	9.846	
253	14/12/2020 03:00	11.637	10.111	
254	14/12/2020 04:00	11.481	10.290	
255	14/12/2020 05:00	11.637	10.352	
256	14/12/2020 06:00	11.585	10.290	
257	14/12/2020 07:00	11.637	10.132	
258	14/12/2020 08:00	11.585	9.927	
259	14/12/2020 09:00	11.637	9.724	
260	14/12/2020 10:00	11.533	9.542	
261	14/12/2020 11:00	11.688	9.412	
262	14/12/2020 12:00	11.637	9.384	
263	14/12/2020 13:00	11.637	9.507	
264	14/12/2020 14:00	11.585	9.763	
265	14/12/2020 15:00	11.637	10.036	
266	14/12/2020 16:00	11.585	10.257	
267	14/12/2020 17:00	11.688	10.357	
268	14/12/2020 18:00	11.585	10.351	
269	14/12/2020 19:00	11.688	10.229	
270	14/12/2020 20:00	11.688	10.056	
271	14/12/2020 21:00	11.637	9.845	
272	14/12/2020 22:00	11.637	9.656	
273	14/12/2020 23:00	11.637	9.491	
274	15/12/2020 00:00	11.533	9.424	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/12/2020 01:00	11.533	9.476	
276	15/12/2020 02:00	11.533	9.679	
277	15/12/2020 03:00	11.637	9.967	
278	15/12/2020 04:00	11.637	10.226	
279	15/12/2020 05:00	11.637	10.360	
280	15/12/2020 06:00	11.533	10.410	
281	15/12/2020 07:00	11.637	10.322	
282	15/12/2020 08:00	11.688	10.137	
283	15/12/2020 09:00	11.585	9.909	
284	15/12/2020 10:00	11.585	9.710	
285	15/12/2020 11:00	11.533	9.524	
286	15/12/2020 12:00	11.533	9.417	
287	15/12/2020 13:00	11.637	9.433	
288	15/12/2020 14:00	11.637	9.579	
289	15/12/2020 15:00	11.585	9.858	
290	15/12/2020 16:00	11.688	10.149	
291	15/12/2020 17:00	11.637	10.332	
292	15/12/2020 18:00	11.585	10.418	
293	15/12/2020 19:00	11.637	10.387	
294	15/12/2020 20:00	11.637	10.277	
295	15/12/2020 21:00	11.533	10.076	
296	15/12/2020 22:00	11.585	9.862	
297	15/12/2020 23:00	11.533	9.680	
298	16/12/2020 00:00	11.585	9.513	
299	16/12/2020 01:00	11.585	9.429	
300	16/12/2020 02:00	11.533	9.484	
301	16/12/2020 03:00	11.585	9.658	
302	16/12/2020 04:00	11.481	9.894	
303	16/12/2020 05:00	11.585	10.093	
304	16/12/2020 06:00	11.585	10.217	
305	16/12/2020 07:00	11.585	10.215	
306	16/12/2020 08:00	11.637	10.122	
307	16/12/2020 09:00	11.585	9.929	
308	16/12/2020 10:00	12.566	9.711	

22734-BH 203 Harbour Point Bray



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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	06/10/2020 14:00	11.783	5.997	
2	06/10/2020 15:00	11.368	5.991	
3	06/10/2020 16:00	11.265	5.993	
4	06/10/2020 17:00	11.316	5.993	
5	06/10/2020 18:00	11.316	6.000	
6	06/10/2020 19:00	11.368	5.989	
7	06/10/2020 20:00	11.265	5.995	
8	06/10/2020 21:00	11.316	5.992	
9	06/10/2020 22:00	11.316	5.988	
10	06/10/2020 23:00	11.316	5.992	
11	07/10/2020 00:00	11.316	6.001	
12	07/10/2020 01:00	11.265	5.988	
13	07/10/2020 02:00	11.316	5.992	
14	07/10/2020 03:00	11.265	5.999	
15	07/10/2020 04:00	11.316	5.991	
16	07/10/2020 05:00	11.316	5.994	
17	07/10/2020 06:00	11.316	5.992	
18	07/10/2020 07:00	11.316	5.994	
19	07/10/2020 08:00	11.316	5.987	
20	07/10/2020 09:00	11.265	5.997	
21	07/10/2020 10:00	11.316	5.991	
22	07/10/2020 11:00	11.316	5.999	
23	07/10/2020 12:00	11.368	5.995	
24	07/10/2020 13:00	11.316	5.998	
25	07/10/2020 14:00	11.316	5.998	
26	07/10/2020 15:00	11.316	5.995	
27	07/10/2020 16:00	11.316	5.989	
28	07/10/2020 17:00	11.368	5.993	
29	07/10/2020 18:00	11.316	5.984	
30	07/10/2020 19:00	11.316	5.994	
31	07/10/2020 20:00	11.316	5.996	
32	07/10/2020 21:00	11.316	5.992	
33	07/10/2020 22:00	11.316	5.985	
34	07/10/2020 23:00	11.316	5.990	
35	08/10/2020 00:00	11.316	5.987	
36	08/10/2020 01:00	11.265	5.985	
37	08/10/2020 02:00	11.316	5.992	
38	08/10/2020 03:00	11.265	5.996	
39	08/10/2020 04:00	11.316	5.985	
40	08/10/2020 05:00	11.316	5.983	
41	08/10/2020 06:00	11.316	5.987	
42	08/10/2020 07:00	11.316	5.991	
43	08/10/2020 08:00	11.316	5.980	
44	08/10/2020 09:00	11.265	5.993	
45	08/10/2020 10:00	11.316	5.986	
46	08/10/2020 11:00	11.316	5.985	
47	08/10/2020 12:00	11.316	5.985	
48	08/10/2020 13:00	11.316	5.986	
49	08/10/2020 14:00	11.316	5.989	
50	08/10/2020 15:00	11.316	5.983	
51	08/10/2020 16:00	11.316	5.987	
52	08/10/2020 17:00	11.316	5.981	
53	08/10/2020 18:00	11.316	5.985	
54	08/10/2020 19:00	11.316	5.983	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	08/10/2020 20:00	11.316	5.983	
56	08/10/2020 21:00	11.316	5.982	
57	08/10/2020 22:00	11.316	5.984	
58	08/10/2020 23:00	11.316	5.986	
59	09/10/2020 00:00	11.316	5.977	
60	09/10/2020 01:00	11.316	5.980	
61	09/10/2020 02:00	11.265	5.978	
62	09/10/2020 03:00	11.316	5.979	
63	09/10/2020 04:00	11.316	5.979	
64	09/10/2020 05:00	11.316	5.978	
65	09/10/2020 06:00	11.316	5.973	
66	09/10/2020 07:00	11.316	5.975	
67	09/10/2020 08:00	11.316	5.970	
68	09/10/2020 09:00	11.316	5.975	
69	09/10/2020 10:00	11.316	5.979	
70	09/10/2020 11:00	11.316	5.976	
71	09/10/2020 12:00	11.316	5.973	
72	09/10/2020 13:00	11.316	5.974	
73	09/10/2020 14:00	11.316	5.977	
74	09/10/2020 15:00	11.316	5.970	
75	09/10/2020 16:00	11.316	5.977	
76	09/10/2020 17:00	11.316	5.978	
77	09/10/2020 18:00	11.316	5.976	
78	09/10/2020 19:00	11.316	5.975	
79	09/10/2020 20:00	11.316	5.969	
80	09/10/2020 21:00	11.316	5.975	
81	09/10/2020 22:00	11.316	5.973	
82	09/10/2020 23:00	11.316	5.968	
83	10/10/2020 00:00	11.316	5.975	
84	10/10/2020 01:00	11.316	5.971	
85	10/10/2020 02:00	11.316	5.969	
86	10/10/2020 03:00	11.316	5.967	
87	10/10/2020 04:00	11.316	5.978	
88	10/10/2020 05:00	11.316	5.970	
89	10/10/2020 06:00	11.316	5.974	
90	10/10/2020 07:00	11.316	5.974	
91	10/10/2020 08:00	11.316	5.971	
92	10/10/2020 09:00	11.316	5.969	
93	10/10/2020 10:00	11.316	5.968	
94	10/10/2020 11:00	11.316	5.964	
95	10/10/2020 12:00	11.316	5.965	
96	10/10/2020 13:00	11.316	5.960	
97	10/10/2020 14:00	11.316	5.975	
98	10/10/2020 15:00	11.368	5.964	
99	10/10/2020 16:00	11.316	5.965	
100	10/10/2020 17:00	11.316	5.973	
101	10/10/2020 18:00	11.316	5.971	
102	10/10/2020 19:00	11.316	5.966	
103	10/10/2020 20:00	11.316	5.971	
104	10/10/2020 21:00	11.316	5.964	
105	10/10/2020 22:00	11.316	5.960	
106	10/10/2020 23:00	11.316	5.967	
107	11/10/2020 00:00	11.316	5.963	
108	11/10/2020 01:00	11.316	5.964	
109	11/10/2020 02:00	11.316	5.971	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	11/10/2020 03:00	11.316	5.973	
111	11/10/2020 04:00	11.316	5.971	
112	11/10/2020 05:00	11.316	5.968	
113	11/10/2020 06:00	11.316	5.968	
114	11/10/2020 07:00	11.316	5.962	
115	11/10/2020 08:00	11.316	5.970	
116	11/10/2020 09:00	11.316	5.965	
117	11/10/2020 10:00	11.316	5.965	
118	11/10/2020 11:00	11.316	5.960	
119	11/10/2020 12:00	11.316	5.964	
120	11/10/2020 13:00	11.316	5.958	
121	11/10/2020 14:00	11.316	5.963	
122	11/10/2020 15:00	11.316	5.968	
123	11/10/2020 16:00	11.316	5.970	
124	11/10/2020 17:00	11.316	5.967	
125	11/10/2020 18:00	11.316	5.966	
126	11/10/2020 19:00	11.316	5.959	
127	11/10/2020 20:00	11.316	5.971	
128	11/10/2020 21:00	11.316	5.967	
129	11/10/2020 22:00	11.316	5.967	
130	11/10/2020 23:00	11.316	5.962	
131	12/10/2020 00:00	11.316	5.965	
132	12/10/2020 01:00	11.316	5.961	
133	12/10/2020 02:00	11.316	5.956	
134	12/10/2020 03:00	11.316	5.957	
135	12/10/2020 04:00	11.316	5.961	
136	12/10/2020 05:00	11.316	5.954	
137	12/10/2020 06:00	11.316	5.962	
138	12/10/2020 07:00	11.316	5.957	
139	12/10/2020 08:00	11.316	5.956	
140	12/10/2020 09:00	11.316	5.962	
141	12/10/2020 10:00	11.316	5.967	
142	12/10/2020 11:00	11.316	5.963	
143	12/10/2020 12:00	11.316	5.954	
144	12/10/2020 13:00	11.316	5.961	
145	12/10/2020 14:00	11.316	5.962	
146	12/10/2020 15:00	11.316	5.956	
147	12/10/2020 16:00	11.316	5.963	
148	12/10/2020 17:00	11.316	5.964	
149	12/10/2020 18:00	11.316	5.957	
150	12/10/2020 19:00	11.316	5.963	
151	12/10/2020 20:00	11.316	5.962	
152	12/10/2020 21:00	11.316	5.960	
153	12/10/2020 22:00	11.316	5.956	
154	12/10/2020 23:00	11.316	5.957	
155	13/10/2020 00:00	11.316	5.958	
156	13/10/2020 01:00	11.316	5.964	
157	13/10/2020 02:00	11.316	5.954	
158	13/10/2020 03:00	11.316	5.951	
159	13/10/2020 04:00	11.316	5.961	
160	13/10/2020 05:00	11.316	5.956	
161	13/10/2020 06:00	11.316	5.951	
162	13/10/2020 07:00	11.316	5.956	
163	13/10/2020 08:00	11.316	5.960	
164	13/10/2020 09:00	11.316	5.956	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	13/10/2020 10:00	11.316	5.950	
166	13/10/2020 11:00	11.316	5.955	
167	13/10/2020 12:00	11.316	5.957	
168	13/10/2020 13:00	11.316	5.946	
169	13/10/2020 14:00	11.316	5.951	
170	13/10/2020 15:00	11.316	5.952	
171	13/10/2020 16:00	11.316	5.953	
172	13/10/2020 17:00	11.316	5.948	
173	13/10/2020 18:00	11.316	5.955	
174	13/10/2020 19:00	11.316	5.951	
175	13/10/2020 20:00	11.316	5.944	
176	13/10/2020 21:00	11.316	5.945	
177	13/10/2020 22:00	11.316	5.953	
178	13/10/2020 23:00	11.368	5.946	
179	14/10/2020 00:00	11.316	5.955	
180	14/10/2020 01:00	11.316	5.946	
181	14/10/2020 02:00	11.316	5.946	
182	14/10/2020 03:00	11.316	5.957	
183	14/10/2020 04:00	11.316	5.952	
184	14/10/2020 05:00	11.316	5.952	
185	14/10/2020 06:00	11.316	5.950	
186	14/10/2020 07:00	11.316	5.952	
187	14/10/2020 08:00	11.316	5.948	
188	14/10/2020 09:00	11.316	5.951	
189	14/10/2020 10:00	11.316	5.949	
190	14/10/2020 11:00	11.316	5.951	
191	14/10/2020 12:00	11.316	5.952	
192	14/10/2020 13:00	11.316	5.947	
193	14/10/2020 14:00	11.316	5.959	
194	14/10/2020 15:00	11.316	5.945	
195	14/10/2020 16:00	11.368	5.952	
196	14/10/2020 17:00	11.316	5.956	
197	14/10/2020 18:00	11.316	5.953	
198	14/10/2020 19:00	11.316	5.961	
199	14/10/2020 20:00	11.316	5.952	
200	14/10/2020 21:00	11.316	5.953	
201	14/10/2020 22:00	11.316	5.945	
202	14/10/2020 23:00	11.316	5.947	
203	15/10/2020 00:00	11.316	5.942	
204	15/10/2020 01:00	11.316	5.948	
205	15/10/2020 02:00	11.316	5.954	
206	15/10/2020 03:00	11.316	5.953	
207	15/10/2020 04:00	11.316	5.951	
208	15/10/2020 05:00	11.316	5.955	
209	15/10/2020 06:00	11.316	5.954	
210	15/10/2020 07:00	11.316	5.954	
211	15/10/2020 08:00	11.316	5.954	
212	15/10/2020 09:00	11.316	5.954	
213	15/10/2020 10:00	11.316	5.951	
214	15/10/2020 11:00	11.316	5.949	
215	15/10/2020 12:00	11.316	5.953	
216	15/10/2020 13:00	11.316	5.951	
217	15/10/2020 14:00	11.316	5.953	
218	15/10/2020 15:00	11.316	5.942	
219	15/10/2020 16:00	11.316	5.945	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	15/10/2020 17:00	11.316	5.948	
221	15/10/2020 18:00	11.316	5.951	
222	15/10/2020 19:00	11.316	5.954	
223	15/10/2020 20:00	11.316	5.953	
224	15/10/2020 21:00	11.316	5.950	
225	15/10/2020 22:00	11.316	5.950	
226	15/10/2020 23:00	11.316	5.949	
227	16/10/2020 00:00	11.368	5.947	
228	16/10/2020 01:00	11.368	5.952	
229	16/10/2020 02:00	11.316	5.942	
230	16/10/2020 03:00	11.368	5.952	
231	16/10/2020 04:00	11.316	5.947	
232	16/10/2020 05:00	11.316	5.945	
233	16/10/2020 06:00	11.316	5.946	
234	16/10/2020 07:00	11.368	5.945	
235	16/10/2020 08:00	11.316	5.949	
236	16/10/2020 09:00	11.316	5.948	
237	16/10/2020 10:00	11.316	5.946	
238	16/10/2020 11:00	11.316	5.944	
239	16/10/2020 12:00	11.316	5.952	
240	16/10/2020 13:00	11.316	5.940	
241	16/10/2020 14:00	11.316	5.951	
242	16/10/2020 15:00	11.316	5.950	
243	16/10/2020 16:00	11.316	5.944	
244	16/10/2020 17:00	11.316	5.946	
245	16/10/2020 18:00	11.316	5.947	
246	16/10/2020 19:00	11.316	5.946	
247	16/10/2020 20:00	11.316	5.947	
248	16/10/2020 21:00	11.316	5.942	
249	16/10/2020 22:00	11.316	5.936	
250	16/10/2020 23:00	11.316	5.936	
251	17/10/2020 00:00	11.368	5.948	
252	17/10/2020 01:00	11.316	5.943	
253	17/10/2020 02:00	11.316	5.941	
254	17/10/2020 03:00	11.316	5.943	
255	17/10/2020 04:00	11.316	5.945	
256	17/10/2020 05:00	11.368	5.938	
257	17/10/2020 06:00	11.316	5.941	
258	17/10/2020 07:00	11.316	5.941	
259	17/10/2020 08:00	11.368	5.939	
260	17/10/2020 09:00	11.316	5.938	
261	17/10/2020 10:00	11.316	5.936	
262	17/10/2020 11:00	11.316	5.936	
263	17/10/2020 12:00	11.316	5.936	
264	17/10/2020 13:00	11.316	5.930	
265	17/10/2020 14:00	11.368	5.934	
266	17/10/2020 15:00	11.316	5.934	
267	17/10/2020 16:00	11.316	5.936	
268	17/10/2020 17:00	11.316	5.935	
269	17/10/2020 18:00	11.316	5.939	
270	17/10/2020 19:00	11.368	5.929	
271	17/10/2020 20:00	11.316	5.929	
272	17/10/2020 21:00	11.316	5.933	
273	17/10/2020 22:00	11.316	5.930	
274	17/10/2020 23:00	11.316	5.933	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	18/10/2020 00:00	11.316	5.941	
276	18/10/2020 01:00	11.368	5.934	
277	18/10/2020 02:00	11.316	5.929	
278	18/10/2020 03:00	11.316	5.931	
279	18/10/2020 04:00	11.368	5.930	
280	18/10/2020 05:00	11.316	5.931	
281	18/10/2020 06:00	11.316	5.922	
282	18/10/2020 07:00	11.316	5.934	
283	18/10/2020 08:00	11.368	5.930	
284	18/10/2020 09:00	11.316	5.920	
285	18/10/2020 10:00	11.316	5.927	
286	18/10/2020 11:00	11.368	5.926	
287	18/10/2020 12:00	11.316	5.929	
288	18/10/2020 13:00	11.316	5.929	
289	18/10/2020 14:00	11.368	5.926	
290	18/10/2020 15:00	11.316	5.925	
291	18/10/2020 16:00	11.316	5.924	
292	18/10/2020 17:00	11.368	5.928	
293	18/10/2020 18:00	11.316	5.920	
294	18/10/2020 19:00	11.316	5.920	
295	18/10/2020 20:00	11.368	5.924	
296	18/10/2020 21:00	11.316	5.928	
297	18/10/2020 22:00	11.316	5.925	
298	18/10/2020 23:00	11.316	5.927	
299	19/10/2020 00:00	11.316	5.925	
300	19/10/2020 01:00	11.368	5.922	
301	19/10/2020 02:00	11.316	5.918	
302	19/10/2020 03:00	11.368	5.918	
303	19/10/2020 04:00	11.316	5.926	
304	19/10/2020 05:00	11.368	5.927	
305	19/10/2020 06:00	11.316	5.923	
306	19/10/2020 07:00	11.368	5.920	
307	19/10/2020 08:00	11.316	5.924	
308	19/10/2020 09:00	11.316	5.916	
309	19/10/2020 10:00	11.316	5.921	
310	19/10/2020 11:00	11.316	5.915	
311	19/10/2020 12:00	11.316	5.917	
312	19/10/2020 13:00	11.316	5.916	
313	19/10/2020 14:00	11.316	5.917	
314	19/10/2020 15:00	11.368	5.916	
315	19/10/2020 16:00	11.368	5.908	
316	19/10/2020 17:00	11.316	5.915	
317	19/10/2020 18:00	11.316	5.911	
318	19/10/2020 19:00	11.316	5.917	
319	19/10/2020 20:00	11.368	5.907	
320	19/10/2020 21:00	11.316	5.906	
321	19/10/2020 22:00	11.316	5.909	
322	19/10/2020 23:00	11.316	5.906	
323	20/10/2020 00:00	11.368	5.910	
324	20/10/2020 01:00	11.316	5.904	
325	20/10/2020 02:00	11.316	5.905	
326	20/10/2020 03:00	11.316	5.914	
327	20/10/2020 04:00	11.368	5.905	
328	20/10/2020 05:00	11.368	5.898	
329	20/10/2020 06:00	11.368	5.902	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	20/10/2020 07:00	11.316	5.904	
331	20/10/2020 08:00	11.316	5.898	
332	20/10/2020 09:00	11.316	5.902	
333	20/10/2020 10:00	11.368	5.901	
334	20/10/2020 11:00	11.368	5.898	
335	20/10/2020 12:00	11.368	5.901	
336	20/10/2020 13:00	11.316	5.902	
337	20/10/2020 14:00	11.316	5.906	
338	20/10/2020 15:00	11.316	5.903	
339	20/10/2020 16:00	11.368	5.895	
340	20/10/2020 17:00	11.316	5.903	
341	20/10/2020 18:00	11.368	5.895	
342	20/10/2020 19:00	11.316	5.897	
343	20/10/2020 20:00	11.316	5.898	
344	20/10/2020 21:00	11.316	5.896	
345	20/10/2020 22:00	11.368	5.883	
346	20/10/2020 23:00	11.316	5.887	
347	21/10/2020 00:00	11.316	5.888	
348	21/10/2020 01:00	11.316	5.887	
349	21/10/2020 02:00	11.368	5.885	
350	21/10/2020 03:00	11.368	5.882	
351	21/10/2020 04:00	11.368	5.890	
352	21/10/2020 05:00	11.368	5.887	
353	21/10/2020 06:00	11.316	5.888	
354	21/10/2020 07:00	11.316	5.885	
355	21/10/2020 08:00	11.316	5.886	
356	21/10/2020 09:00	11.316	5.879	
357	21/10/2020 10:00	11.368	5.886	
358	21/10/2020 11:00	11.368	5.874	
359	21/10/2020 12:00	11.316	5.880	
360	21/10/2020 13:00	11.368	5.882	
361	21/10/2020 14:00	11.316	5.879	
362	21/10/2020 15:00	11.316	5.876	
363	21/10/2020 16:00	11.368	5.880	
364	21/10/2020 17:00	11.316	5.874	
365	21/10/2020 18:00	11.316	5.871	
366	21/10/2020 19:00	11.316	5.872	
367	21/10/2020 20:00	11.368	5.879	
368	21/10/2020 21:00	11.316	5.882	
369	21/10/2020 22:00	11.316	5.876	
370	21/10/2020 23:00	11.316	5.878	
371	22/10/2020 00:00	11.316	5.879	
372	22/10/2020 01:00	11.316	5.878	
373	22/10/2020 02:00	11.368	5.873	
374	22/10/2020 03:00	11.316	5.873	
375	22/10/2020 04:00	11.316	5.866	
376	22/10/2020 05:00	11.316	5.872	
377	22/10/2020 06:00	11.368	5.872	
378	22/10/2020 07:00	11.368	5.872	
379	22/10/2020 08:00	11.368	5.875	
380	22/10/2020 09:00	11.368	5.866	
381	22/10/2020 10:00	11.368	5.869	
382	22/10/2020 11:00	11.316	5.870	
383	22/10/2020 12:00	11.316	5.871	
384	22/10/2020 13:00	11.316	5.867	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	22/10/2020 14:00	11.316	5.877	
386	22/10/2020 15:00	11.316	5.877	
387	22/10/2020 16:00	11.316	5.874	
388	22/10/2020 17:00	11.316	5.866	
389	22/10/2020 18:00	11.316	5.862	
390	22/10/2020 19:00	11.368	5.871	
391	22/10/2020 20:00	11.368	5.870	
392	22/10/2020 21:00	11.368	5.865	
393	22/10/2020 22:00	11.368	5.873	
394	22/10/2020 23:00	11.368	5.865	
395	23/10/2020 00:00	11.368	5.873	
396	23/10/2020 01:00	11.316	5.868	
397	23/10/2020 02:00	11.316	5.867	
398	23/10/2020 03:00	11.368	5.866	
399	23/10/2020 04:00	11.368	5.862	
400	23/10/2020 05:00	11.368	5.876	
401	23/10/2020 06:00	11.368	5.870	
402	23/10/2020 07:00	11.368	5.860	
403	23/10/2020 08:00	11.368	5.867	
404	23/10/2020 09:00	11.368	5.862	
405	23/10/2020 10:00	11.368	5.870	
406	23/10/2020 11:00	11.368	5.868	
407	23/10/2020 12:00	11.316	5.866	
408	23/10/2020 13:00	11.316	5.867	
409	23/10/2020 14:00	11.316	5.867	
410	23/10/2020 15:00	11.368	5.862	
411	23/10/2020 16:00	11.316	5.861	
412	23/10/2020 17:00	11.368	5.859	
413	23/10/2020 18:00	11.368	5.857	
414	23/10/2020 19:00	11.368	5.862	
415	23/10/2020 20:00	11.368	5.859	
416	23/10/2020 21:00	11.368	5.856	
417	23/10/2020 22:00	11.368	5.858	
418	23/10/2020 23:00	11.316	5.867	
419	24/10/2020 00:00	11.316	5.865	
420	24/10/2020 01:00	11.368	5.862	
421	24/10/2020 02:00	11.368	5.863	
422	24/10/2020 03:00	11.368	5.867	
423	24/10/2020 04:00	11.316	5.855	
424	24/10/2020 05:00	11.316	5.862	
425	24/10/2020 06:00	11.368	5.854	
426	24/10/2020 07:00	11.368	5.853	
427	24/10/2020 08:00	11.368	5.863	
428	24/10/2020 09:00	11.368	5.855	
429	24/10/2020 10:00	11.368	5.861	
430	24/10/2020 11:00	11.368	5.850	
431	24/10/2020 12:00	11.368	5.853	
432	24/10/2020 13:00	11.368	5.856	
433	24/10/2020 14:00	11.316	5.852	
434	24/10/2020 15:00	11.368	5.849	
435	24/10/2020 16:00	11.368	5.853	
436	24/10/2020 17:00	11.368	5.850	
437	24/10/2020 18:00	11.368	5.851	
438	24/10/2020 19:00	11.368	5.848	
439	24/10/2020 20:00	11.368	5.851	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	24/10/2020 21:00	11.368	5.849	
441	24/10/2020 22:00	11.368	5.847	
442	24/10/2020 23:00	11.368	5.849	
443	25/10/2020 00:00	11.316	5.842	
444	25/10/2020 01:00	11.368	5.856	
445	25/10/2020 02:00	11.368	5.847	
446	25/10/2020 02:00	11.316	5.854	
447	25/10/2020 03:00	11.368	5.848	
448	25/10/2020 04:00	11.316	5.846	
449	25/10/2020 05:00	11.316	5.844	
450	25/10/2020 06:00	11.316	5.846	
451	25/10/2020 07:00	11.368	5.841	
452	25/10/2020 08:00	11.368	5.843	
453	25/10/2020 09:00	11.368	5.848	
454	25/10/2020 10:00	11.368	5.843	
455	25/10/2020 11:00	11.368	5.847	
456	25/10/2020 12:00	11.368	5.840	
457	25/10/2020 13:00	11.368	5.845	
458	25/10/2020 14:00	11.368	5.839	
459	25/10/2020 15:00	11.316	5.844	
460	25/10/2020 16:00	11.368	5.847	
461	25/10/2020 17:00	11.316	5.847	
462	25/10/2020 18:00	11.368	5.843	
463	25/10/2020 19:00	11.368	5.839	
464	25/10/2020 20:00	11.368	5.847	
465	25/10/2020 21:00	11.368	5.835	
466	25/10/2020 22:00	11.316	5.843	
467	25/10/2020 23:00	11.368	5.834	
468	26/10/2020 00:00	11.368	5.835	
469	26/10/2020 01:00	11.316	5.839	
470	26/10/2020 02:00	11.368	5.838	
471	26/10/2020 03:00	11.316	5.836	
472	26/10/2020 04:00	11.368	5.844	
473	26/10/2020 05:00	11.368	5.841	
474	26/10/2020 06:00	11.368	5.839	
475	26/10/2020 07:00	11.368	5.844	
476	26/10/2020 08:00	11.368	5.833	
477	26/10/2020 09:00	11.368	5.834	
478	26/10/2020 10:00	11.368	5.839	
479	26/10/2020 11:00	11.368	5.840	
480	26/10/2020 12:00	11.368	5.829	
481	26/10/2020 13:00	11.368	5.840	
482	26/10/2020 14:00	11.316	5.832	
483	26/10/2020 15:00	11.368	5.842	
484	26/10/2020 16:00	11.368	5.837	
485	26/10/2020 17:00	11.368	5.843	
486	26/10/2020 18:00	11.368	5.838	
487	26/10/2020 19:00	11.368	5.833	
488	26/10/2020 20:00	11.368	5.840	
489	26/10/2020 21:00	11.368	5.831	
490	26/10/2020 22:00	11.368	5.830	
491	26/10/2020 23:00	11.368	5.834	
492	27/10/2020 00:00	11.368	5.838	
493	27/10/2020 01:00	11.368	5.830	
494	27/10/2020 02:00	11.368	5.831	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	27/10/2020 03:00	11.368	5.834	
496	27/10/2020 04:00	11.368	5.833	
497	27/10/2020 05:00	11.368	5.834	
498	27/10/2020 06:00	11.368	5.829	
499	27/10/2020 07:00	11.368	5.836	
500	27/10/2020 08:00	11.368	5.829	
501	27/10/2020 09:00	11.368	5.828	
502	27/10/2020 10:00	11.368	5.832	
503	27/10/2020 11:00	11.368	5.837	
504	27/10/2020 12:00	11.316	5.824	
505	27/10/2020 13:00	11.368	5.836	
506	27/10/2020 14:00	11.368	5.832	
507	27/10/2020 15:00	11.368	5.835	
508	27/10/2020 16:00	11.368	5.835	
509	27/10/2020 17:00	11.368	5.828	
510	27/10/2020 18:00	11.368	5.831	
511	27/10/2020 19:00	11.368	5.826	
512	27/10/2020 20:00	11.368	5.825	
513	27/10/2020 21:00	11.368	5.822	
514	27/10/2020 22:00	11.368	5.832	
515	27/10/2020 23:00	11.368	5.830	
516	28/10/2020 00:00	11.368	5.833	
517	28/10/2020 01:00	11.368	5.832	
518	28/10/2020 02:00	11.368	5.833	
519	28/10/2020 03:00	11.368	5.824	
520	28/10/2020 04:00	11.368	5.829	
521	28/10/2020 05:00	11.368	5.818	
522	28/10/2020 06:00	11.368	5.822	
523	28/10/2020 07:00	11.368	5.822	
524	28/10/2020 08:00	11.368	5.830	
525	28/10/2020 09:00	11.368	5.829	
526	28/10/2020 10:00	11.368	5.832	
527	28/10/2020 11:00	11.316	5.822	
528	28/10/2020 12:00	11.368	5.825	
529	28/10/2020 13:00	11.368	5.826	
530	28/10/2020 14:00	11.368	5.822	
531	28/10/2020 15:00	11.368	5.832	
532	28/10/2020 16:00	11.368	5.832	
533	28/10/2020 17:00	11.368	5.835	
534	28/10/2020 18:00	11.368	5.827	
535	28/10/2020 19:00	11.368	5.831	
536	28/10/2020 20:00	11.368	5.827	
537	28/10/2020 21:00	11.368	5.828	
538	28/10/2020 22:00	11.316	5.829	
539	28/10/2020 23:00	11.368	5.829	
540	29/10/2020 00:00	11.368	5.829	
541	29/10/2020 01:00	11.368	5.830	
542	29/10/2020 02:00	11.368	5.825	
543	29/10/2020 03:00	11.368	5.819	
544	29/10/2020 04:00	11.368	5.828	
545	29/10/2020 05:00	11.368	5.824	
546	29/10/2020 06:00	11.368	5.824	
547	29/10/2020 07:00	11.368	5.821	
548	29/10/2020 08:00	11.316	5.825	
549	29/10/2020 09:00	11.368	5.829	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	29/10/2020 10:00	11.368	5.825	
551	29/10/2020 11:00	11.316	5.835	
552	29/10/2020 12:00	11.368	5.832	
553	29/10/2020 13:00	11.368	5.831	
554	29/10/2020 14:00	11.368	5.827	
555	29/10/2020 15:00	11.316	5.832	
556	29/10/2020 16:00	11.368	5.827	
557	29/10/2020 17:00	11.368	5.830	
558	29/10/2020 18:00	11.368	5.823	
559	29/10/2020 19:00	11.316	5.831	
560	29/10/2020 20:00	11.368	5.827	
561	29/10/2020 21:00	11.316	5.827	
562	29/10/2020 22:00	11.368	5.825	
563	29/10/2020 23:00	11.368	5.829	
564	30/10/2020 00:00	11.368	5.823	
565	30/10/2020 01:00	11.368	5.830	
566	30/10/2020 02:00	11.368	5.817	
567	30/10/2020 03:00	11.368	5.821	
568	30/10/2020 04:00	11.316	5.832	
569	30/10/2020 05:00	11.368	5.831	
570	30/10/2020 06:00	11.368	5.822	
571	30/10/2020 07:00	11.316	5.826	
572	30/10/2020 08:00	11.368	5.828	
573	30/10/2020 09:00	11.368	5.825	
574	30/10/2020 10:00	11.368	5.819	
575	30/10/2020 11:00	11.368	5.823	
576	30/10/2020 12:00	11.368	5.832	
577	30/10/2020 13:00	11.368	5.825	
578	30/10/2020 14:00	11.368	5.836	
579	30/10/2020 15:00	11.316	5.824	
580	30/10/2020 16:00	11.368	5.828	
581	30/10/2020 17:00	11.368	5.832	
582	30/10/2020 18:00	11.368	5.823	
583	30/10/2020 19:00	11.368	5.827	
584	30/10/2020 20:00	11.368	5.825	
585	30/10/2020 21:00	11.368	5.822	
586	30/10/2020 22:00	11.368	5.832	
587	30/10/2020 23:00	11.368	5.825	
588	31/10/2020 00:00	11.368	5.828	
589	31/10/2020 01:00	11.368	5.829	
590	31/10/2020 02:00	11.368	5.824	
591	31/10/2020 03:00	11.368	5.824	
592	31/10/2020 04:00	11.368	5.830	
593	31/10/2020 05:00	11.368	5.815	
594	31/10/2020 06:00	11.368	5.821	
595	31/10/2020 07:00	11.368	5.823	
596	31/10/2020 08:00	11.368	5.829	
597	31/10/2020 09:00	11.368	5.824	
598	31/10/2020 10:00	11.368	5.821	
599	31/10/2020 11:00	11.368	5.816	
600	31/10/2020 12:00	11.368	5.829	
601	31/10/2020 13:00	11.368	5.820	
602	31/10/2020 14:00	11.368	5.822	
603	31/10/2020 15:00	11.368	5.821	
604	31/10/2020 16:00	11.368	5.815	

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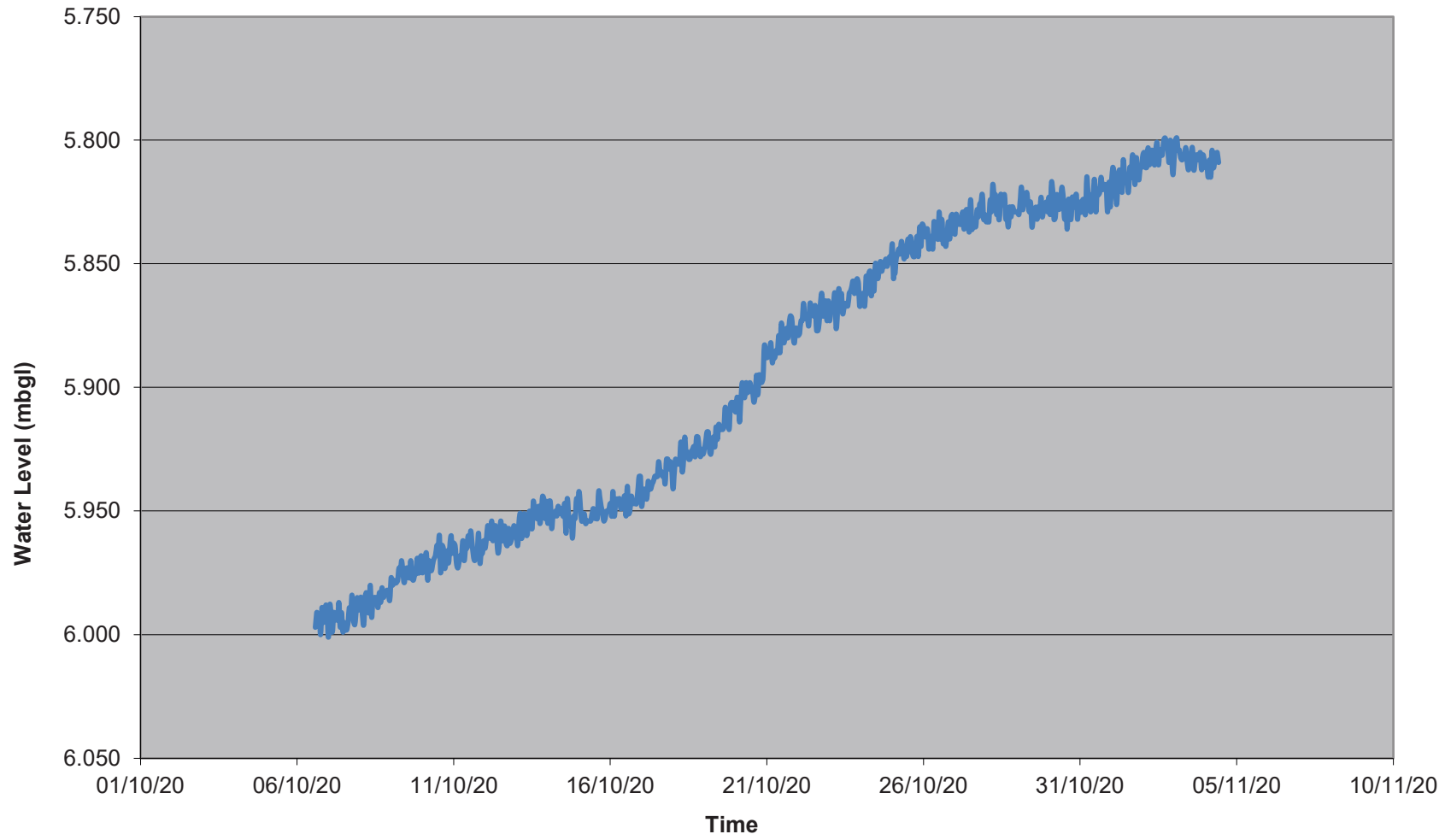
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	31/10/2020 17:00	11.368	5.820	
606	31/10/2020 18:00	11.368	5.818	
607	31/10/2020 19:00	11.368	5.818	
608	31/10/2020 20:00	11.368	5.819	
609	31/10/2020 21:00	11.368	5.829	
610	31/10/2020 22:00	11.368	5.817	
611	31/10/2020 23:00	11.368	5.827	
612	01/11/2020 00:00	11.368	5.817	
613	01/11/2020 01:00	11.368	5.811	
614	01/11/2020 02:00	11.316	5.814	
615	01/11/2020 03:00	11.368	5.819	
616	01/11/2020 04:00	11.368	5.826	
617	01/11/2020 05:00	11.368	5.815	
618	01/11/2020 06:00	11.368	5.812	
619	01/11/2020 07:00	11.368	5.813	
620	01/11/2020 08:00	11.368	5.821	
621	01/11/2020 09:00	11.368	5.808	
622	01/11/2020 10:00	11.368	5.814	
623	01/11/2020 11:00	11.368	5.817	
624	01/11/2020 12:00	11.368	5.817	
625	01/11/2020 13:00	11.368	5.821	
626	01/11/2020 14:00	11.368	5.811	
627	01/11/2020 15:00	11.368	5.815	
628	01/11/2020 16:00	11.368	5.806	
629	01/11/2020 17:00	11.368	5.809	
630	01/11/2020 18:00	11.368	5.818	
631	01/11/2020 19:00	11.368	5.807	
632	01/11/2020 20:00	11.368	5.815	
633	01/11/2020 21:00	11.368	5.816	
634	01/11/2020 22:00	11.368	5.811	
635	01/11/2020 23:00	11.368	5.811	
636	02/11/2020 00:00	11.368	5.806	
637	02/11/2020 01:00	11.368	5.805	
638	02/11/2020 02:00	11.368	5.811	
639	02/11/2020 03:00	11.368	5.811	
640	02/11/2020 04:00	11.368	5.803	
641	02/11/2020 05:00	11.368	5.810	
642	02/11/2020 06:00	11.368	5.805	
643	02/11/2020 07:00	11.368	5.804	
644	02/11/2020 08:00	11.368	5.806	
645	02/11/2020 09:00	11.368	5.810	
646	02/11/2020 10:00	11.368	5.803	
647	02/11/2020 11:00	11.368	5.801	
648	02/11/2020 12:00	11.368	5.810	
649	02/11/2020 13:00	11.368	5.804	
650	02/11/2020 14:00	11.368	5.806	
651	02/11/2020 15:00	11.368	5.806	
652	02/11/2020 16:00	11.368	5.800	
653	02/11/2020 17:00	11.368	5.799	
654	02/11/2020 18:00	11.368	5.801	
655	02/11/2020 19:00	11.368	5.802	
656	02/11/2020 20:00	11.368	5.809	
657	02/11/2020 21:00	11.368	5.800	
658	02/11/2020 22:00	11.368	5.806	
659	02/11/2020 23:00	11.368	5.814	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	03/11/2020 00:00	11.368	5.808	
661	03/11/2020 01:00	11.316	5.800	
662	03/11/2020 02:00	11.368	5.799	
663	03/11/2020 03:00	11.368	5.804	
664	03/11/2020 04:00	11.368	5.804	
665	03/11/2020 05:00	11.368	5.807	
666	03/11/2020 06:00	11.368	5.808	
667	03/11/2020 07:00	11.368	5.807	
668	03/11/2020 08:00	11.368	5.806	
669	03/11/2020 09:00	11.368	5.803	
670	03/11/2020 10:00	11.368	5.809	
671	03/11/2020 11:00	11.368	5.812	
672	03/11/2020 12:00	11.368	5.808	
673	03/11/2020 13:00	11.368	5.806	
674	03/11/2020 14:00	11.368	5.803	
675	03/11/2020 15:00	11.368	5.812	
676	03/11/2020 16:00	11.368	5.809	
677	03/11/2020 17:00	11.368	5.806	
678	03/11/2020 18:00	11.368	5.806	
679	03/11/2020 19:00	11.368	5.808	
680	03/11/2020 20:00	11.368	5.805	
681	03/11/2020 21:00	11.368	5.812	
682	03/11/2020 22:00	11.368	5.806	
683	03/11/2020 23:00	11.368	5.808	
684	04/11/2020 00:00	11.368	5.811	
685	04/11/2020 01:00	11.368	5.809	
686	04/11/2020 02:00	11.368	5.815	
687	04/11/2020 03:00	11.368	5.808	
688	04/11/2020 04:00	11.368	5.815	
689	04/11/2020 05:00	11.368	5.804	
690	04/11/2020 06:00	11.368	5.811	
691	04/11/2020 07:00	11.368	5.809	
692	04/11/2020 08:00	11.368	5.806	
693	04/11/2020 09:00	11.368	5.805	
694	04/11/2020 10:00	11.368	5.809	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	04/11/2020 13:00	11.420	5.802	
2	04/11/2020 14:00	11.420	5.790	
3	04/11/2020 15:00	11.368	5.786	
4	04/11/2020 16:00	11.368	5.798	
5	04/11/2020 17:00	11.368	5.796	
6	04/11/2020 18:00	11.368	5.787	
7	04/11/2020 19:00	11.368	5.797	
8	04/11/2020 20:00	11.368	5.786	
9	04/11/2020 21:00	11.368	5.796	
10	04/11/2020 22:00	11.368	5.789	
11	04/11/2020 23:00	11.368	5.799	
12	05/11/2020 00:00	11.368	5.803	
13	05/11/2020 01:00	11.368	5.808	
14	05/11/2020 02:00	11.368	5.796	
15	05/11/2020 03:00	11.368	5.798	
16	05/11/2020 04:00	11.368	5.797	
17	05/11/2020 05:00	11.368	5.797	
18	05/11/2020 06:00	11.368	5.805	
19	05/11/2020 07:00	11.368	5.788	
20	05/11/2020 08:00	11.368	5.798	
21	05/11/2020 09:00	11.368	5.790	
22	05/11/2020 10:00	11.368	5.804	
23	05/11/2020 11:00	11.368	5.798	
24	05/11/2020 12:00	11.368	5.798	
25	05/11/2020 13:00	11.368	5.803	
26	05/11/2020 14:00	11.368	5.809	
27	05/11/2020 15:00	11.368	5.804	
28	05/11/2020 16:00	11.368	5.802	
29	05/11/2020 17:00	11.420	5.802	
30	05/11/2020 18:00	11.368	5.803	
31	05/11/2020 19:00	11.368	5.808	
32	05/11/2020 20:00	11.368	5.803	
33	05/11/2020 21:00	11.368	5.806	
34	05/11/2020 22:00	11.368	5.805	
35	05/11/2020 23:00	11.368	5.808	
36	06/11/2020 00:00	11.368	5.802	
37	06/11/2020 01:00	11.368	5.806	
38	06/11/2020 02:00	11.368	5.805	
39	06/11/2020 03:00	11.368	5.811	
40	06/11/2020 04:00	11.368	5.808	
41	06/11/2020 05:00	11.368	5.811	
42	06/11/2020 06:00	11.368	5.803	
43	06/11/2020 07:00	11.368	5.813	
44	06/11/2020 08:00	11.368	5.798	
45	06/11/2020 09:00	11.368	5.808	
46	06/11/2020 10:00	11.368	5.803	
47	06/11/2020 11:00	11.420	5.812	
48	06/11/2020 12:00	11.368	5.807	
49	06/11/2020 13:00	11.368	5.811	
50	06/11/2020 14:00	11.420	5.812	
51	06/11/2020 15:00	11.368	5.810	
52	06/11/2020 16:00	11.368	5.809	
53	06/11/2020 17:00	11.368	5.811	
54	06/11/2020 18:00	11.368	5.807	

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55	06/11/2020 19:00	11.368	5.805	
56	06/11/2020 20:00	11.368	5.804	
57	06/11/2020 21:00	11.420	5.801	
58	06/11/2020 22:00	11.368	5.807	
59	06/11/2020 23:00	11.420	5.808	
60	07/11/2020 00:00	11.368	5.806	
61	07/11/2020 01:00	11.368	5.808	
62	07/11/2020 02:00	11.368	5.806	
63	07/11/2020 03:00	11.420	5.802	
64	07/11/2020 04:00	11.420	5.808	
65	07/11/2020 05:00	11.368	5.806	
66	07/11/2020 06:00	11.368	5.806	
67	07/11/2020 07:00	11.368	5.795	
68	07/11/2020 08:00	11.368	5.794	
69	07/11/2020 09:00	11.368	5.805	
70	07/11/2020 10:00	11.368	5.793	
71	07/11/2020 11:00	11.368	5.814	
72	07/11/2020 12:00	11.368	5.807	
73	07/11/2020 13:00	11.368	5.811	
74	07/11/2020 14:00	11.368	5.794	
75	07/11/2020 15:00	11.420	5.811	
76	07/11/2020 16:00	11.368	5.802	
77	07/11/2020 17:00	11.420	5.802	
78	07/11/2020 18:00	11.368	5.790	
79	07/11/2020 19:00	11.368	5.803	
80	07/11/2020 20:00	11.368	5.806	
81	07/11/2020 21:00	11.368	5.804	
82	07/11/2020 22:00	11.368	5.800	
83	07/11/2020 23:00	11.420	5.802	
84	08/11/2020 00:00	11.420	5.805	
85	08/11/2020 01:00	11.368	5.807	
86	08/11/2020 02:00	11.368	5.813	
87	08/11/2020 03:00	11.368	5.802	
88	08/11/2020 04:00	11.420	5.808	
89	08/11/2020 05:00	11.368	5.795	
90	08/11/2020 06:00	11.368	5.807	
91	08/11/2020 07:00	11.368	5.802	
92	08/11/2020 08:00	11.368	5.798	
93	08/11/2020 09:00	11.368	5.796	
94	08/11/2020 10:00	11.368	5.803	
95	08/11/2020 11:00	11.368	5.802	
96	08/11/2020 12:00	11.420	5.807	
97	08/11/2020 13:00	11.368	5.808	
98	08/11/2020 14:00	11.368	5.806	
99	08/11/2020 15:00	11.368	5.800	
100	08/11/2020 16:00	11.420	5.803	
101	08/11/2020 17:00	11.368	5.804	
102	08/11/2020 18:00	11.368	5.799	
103	08/11/2020 19:00	11.420	5.794	
104	08/11/2020 20:00	11.420	5.798	
105	08/11/2020 21:00	11.420	5.799	
106	08/11/2020 22:00	11.368	5.808	
107	08/11/2020 23:00	11.420	5.799	
108	09/11/2020 00:00	11.368	5.802	
109	09/11/2020 01:00	11.420	5.805	

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110	09/11/2020 02:00	11.420	5.807	
111	09/11/2020 03:00	11.368	5.808	
112	09/11/2020 04:00	11.368	5.802	
113	09/11/2020 05:00	11.368	5.801	
114	09/11/2020 06:00	11.420	5.803	
115	09/11/2020 07:00	11.420	5.799	
116	09/11/2020 08:00	11.368	5.799	
117	09/11/2020 09:00	11.368	5.809	
118	09/11/2020 10:00	11.368	5.809	
119	09/11/2020 11:00	11.368	5.805	
120	09/11/2020 12:00	11.368	5.809	
121	09/11/2020 13:00	11.420	5.807	
122	09/11/2020 14:00	11.420	5.810	
123	09/11/2020 15:00	11.368	5.810	
124	09/11/2020 16:00	11.368	5.799	
125	09/11/2020 17:00	11.368	5.805	
126	09/11/2020 18:00	11.368	5.802	
127	09/11/2020 19:00	11.368	5.797	
128	09/11/2020 20:00	11.420	5.798	
129	09/11/2020 21:00	11.368	5.799	
130	09/11/2020 22:00	11.368	5.798	
131	09/11/2020 23:00	11.368	5.807	
132	10/11/2020 00:00	11.420	5.804	
133	10/11/2020 01:00	11.420	5.805	
134	10/11/2020 02:00	11.420	5.806	
135	10/11/2020 03:00	11.420	5.801	
136	10/11/2020 04:00	11.368	5.800	
137	10/11/2020 05:00	11.368	5.806	
138	10/11/2020 06:00	11.368	5.806	
139	10/11/2020 07:00	11.420	5.803	
140	10/11/2020 08:00	11.368	5.812	
141	10/11/2020 09:00	11.420	5.796	
142	10/11/2020 10:00	11.420	5.807	
143	10/11/2020 11:00	11.368	5.805	
144	10/11/2020 12:00	11.420	5.804	
145	10/11/2020 13:00	11.420	5.807	
146	10/11/2020 14:00	11.420	5.809	
147	10/11/2020 15:00	11.420	5.807	
148	10/11/2020 16:00	11.368	5.812	
149	10/11/2020 17:00	11.368	5.808	
150	10/11/2020 18:00	11.420	5.803	
151	10/11/2020 19:00	11.420	5.808	
152	10/11/2020 20:00	11.368	5.811	
153	10/11/2020 21:00	11.420	5.802	
154	10/11/2020 22:00	11.368	5.809	
155	10/11/2020 23:00	11.420	5.815	
156	11/11/2020 00:00	11.420	5.814	
157	11/11/2020 01:00	11.420	5.812	
158	11/11/2020 02:00	11.368	5.807	
159	11/11/2020 03:00	11.368	5.809	
160	11/11/2020 04:00	11.368	5.808	
161	11/11/2020 05:00	11.420	5.807	
162	11/11/2020 06:00	11.420	5.804	
163	11/11/2020 07:00	11.420	5.816	
164	11/11/2020 08:00	11.368	5.816	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	11/11/2020 09:00	11.368	5.817	
166	11/11/2020 10:00	11.420	5.811	
167	11/11/2020 11:00	11.420	5.804	
168	11/11/2020 12:00	11.420	5.816	
169	11/11/2020 13:00	11.368	5.817	
170	11/11/2020 14:00	11.420	5.814	
171	11/11/2020 15:00	11.420	5.810	
172	11/11/2020 16:00	11.420	5.814	
173	11/11/2020 17:00	11.420	5.805	
174	11/11/2020 18:00	11.420	5.810	
175	11/11/2020 19:00	11.420	5.805	
176	11/11/2020 20:00	11.368	5.795	
177	11/11/2020 21:00	11.420	5.782	
178	11/11/2020 22:00	11.368	5.789	
179	11/11/2020 23:00	11.420	5.778	
180	12/11/2020 00:00	11.420	5.786	
181	12/11/2020 01:00	11.420	5.782	
182	12/11/2020 02:00	11.420	5.780	
183	12/11/2020 03:00	11.420	5.786	
184	12/11/2020 04:00	11.420	5.790	
185	12/11/2020 05:00	11.368	5.792	
186	12/11/2020 06:00	11.420	5.795	
187	12/11/2020 07:00	11.368	5.789	
188	12/11/2020 08:00	11.420	5.788	
189	12/11/2020 09:00	11.368	5.784	
190	12/11/2020 10:00	11.420	5.795	
191	12/11/2020 11:00	11.420	5.800	
192	12/11/2020 12:00	11.368	5.811	
193	12/11/2020 13:00	11.420	5.799	
194	12/11/2020 14:00	11.420	5.805	
195	12/11/2020 15:00	11.420	5.796	
196	12/11/2020 16:00	11.420	5.800	
197	12/11/2020 17:00	11.420	5.799	
198	12/11/2020 18:00	11.368	5.798	
199	12/11/2020 19:00	11.420	5.803	
200	12/11/2020 20:00	11.420	5.791	
201	12/11/2020 21:00	11.368	5.799	
202	12/11/2020 22:00	11.420	5.795	
203	12/11/2020 23:00	11.420	5.800	
204	13/11/2020 00:00	11.420	5.792	
205	13/11/2020 01:00	11.420	5.780	
206	13/11/2020 02:00	11.420	5.779	
207	13/11/2020 03:00	11.420	5.781	
208	13/11/2020 04:00	11.420	5.791	
209	13/11/2020 05:00	11.420	5.783	
210	13/11/2020 06:00	11.420	5.784	
211	13/11/2020 07:00	11.420	5.777	
212	13/11/2020 08:00	11.368	5.784	
213	13/11/2020 09:00	11.420	5.780	
214	13/11/2020 10:00	11.420	5.784	
215	13/11/2020 11:00	11.420	5.773	
216	13/11/2020 12:00	11.420	5.778	
217	13/11/2020 13:00	11.420	5.782	
218	13/11/2020 14:00	11.420	5.777	
219	13/11/2020 15:00	11.420	5.784	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	13/11/2020 16:00	11.420	5.787	
221	13/11/2020 17:00	11.420	5.785	
222	13/11/2020 18:00	11.420	5.787	
223	13/11/2020 19:00	11.420	5.789	
224	13/11/2020 20:00	11.420	5.785	
225	13/11/2020 21:00	11.420	5.785	
226	13/11/2020 22:00	11.420	5.776	
227	13/11/2020 23:00	11.420	5.780	
228	14/11/2020 00:00	11.368	5.784	
229	14/11/2020 01:00	11.420	5.796	
230	14/11/2020 02:00	11.420	5.791	
231	14/11/2020 03:00	11.420	5.791	
232	14/11/2020 04:00	11.420	5.789	
233	14/11/2020 05:00	11.420	5.789	
234	14/11/2020 06:00	11.368	5.789	
235	14/11/2020 07:00	11.420	5.774	
236	14/11/2020 08:00	11.420	5.786	
237	14/11/2020 09:00	11.368	5.787	
238	14/11/2020 10:00	11.420	5.794	
239	14/11/2020 11:00	11.420	5.792	
240	14/11/2020 12:00	11.420	5.787	
241	14/11/2020 13:00	11.420	5.798	
242	14/11/2020 14:00	11.368	5.786	
243	14/11/2020 15:00	11.420	5.778	
244	14/11/2020 16:00	11.420	5.776	
245	14/11/2020 17:00	11.420	5.760	
246	14/11/2020 18:00	11.420	5.764	
247	14/11/2020 19:00	11.368	5.761	
248	14/11/2020 20:00	11.420	5.761	
249	14/11/2020 21:00	11.420	5.763	
250	14/11/2020 22:00	11.368	5.770	
251	14/11/2020 23:00	11.420	5.775	
252	15/11/2020 00:00	11.420	5.771	
253	15/11/2020 01:00	11.420	5.774	
254	15/11/2020 02:00	11.420	5.767	
255	15/11/2020 03:00	11.420	5.774	
256	15/11/2020 04:00	11.420	5.780	
257	15/11/2020 05:00	11.420	5.770	
258	15/11/2020 06:00	11.420	5.774	
259	15/11/2020 07:00	11.420	5.763	
260	15/11/2020 08:00	11.420	5.743	
261	15/11/2020 09:00	11.420	5.745	
262	15/11/2020 10:00	11.368	5.754	
263	15/11/2020 11:00	11.420	5.744	
264	15/11/2020 12:00	11.420	5.753	
265	15/11/2020 13:00	11.420	5.749	
266	15/11/2020 14:00	11.420	5.751	
267	15/11/2020 15:00	11.420	5.744	
268	15/11/2020 16:00	11.368	5.740	
269	15/11/2020 17:00	11.420	5.739	
270	15/11/2020 18:00	11.420	5.729	
271	15/11/2020 19:00	11.368	5.735	
272	15/11/2020 20:00	11.420	5.740	
273	15/11/2020 21:00	11.420	5.738	
274	15/11/2020 22:00	11.420	5.728	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/11/2020 23:00	11.368	5.731	
276	16/11/2020 00:00	11.420	5.735	
277	16/11/2020 01:00	11.420	5.732	
278	16/11/2020 02:00	11.420	5.714	
279	16/11/2020 03:00	11.420	5.729	
280	16/11/2020 04:00	11.420	5.728	
281	16/11/2020 05:00	11.420	5.740	
282	16/11/2020 06:00	11.420	5.739	
283	16/11/2020 07:00	11.420	5.733	
284	16/11/2020 08:00	11.420	5.743	
285	16/11/2020 09:00	11.420	5.736	
286	16/11/2020 10:00	11.420	5.747	
287	16/11/2020 11:00	11.420	5.745	
288	16/11/2020 12:00	11.420	5.755	
289	16/11/2020 13:00	11.420	5.748	
290	16/11/2020 14:00	11.420	5.743	
291	16/11/2020 15:00	11.420	5.747	
292	16/11/2020 16:00	11.420	5.739	
293	16/11/2020 17:00	11.420	5.733	
294	16/11/2020 18:00	11.420	5.737	
295	16/11/2020 19:00	11.420	5.737	
296	16/11/2020 20:00	11.420	5.729	
297	16/11/2020 21:00	11.420	5.729	
298	16/11/2020 22:00	11.420	5.724	
299	16/11/2020 23:00	11.420	5.728	
300	17/11/2020 00:00	11.420	5.727	
301	17/11/2020 01:00	11.420	5.739	
302	17/11/2020 02:00	11.420	5.741	
303	17/11/2020 03:00	11.420	5.733	
304	17/11/2020 04:00	11.420	5.731	
305	17/11/2020 05:00	11.420	5.730	
306	17/11/2020 06:00	11.420	5.727	
307	17/11/2020 07:00	11.420	5.726	
308	17/11/2020 08:00	11.420	5.723	
309	17/11/2020 09:00	11.420	5.720	
310	17/11/2020 10:00	11.420	5.725	
311	17/11/2020 11:00	11.420	5.719	
312	17/11/2020 12:00	11.420	5.730	
313	17/11/2020 13:00	11.420	5.726	
314	17/11/2020 14:00	11.420	5.725	
315	17/11/2020 15:00	11.420	5.725	
316	17/11/2020 16:00	11.420	5.724	
317	17/11/2020 17:00	11.420	5.716	
318	17/11/2020 18:00	11.420	5.729	
319	17/11/2020 19:00	11.420	5.724	
320	17/11/2020 20:00	11.420	5.716	
321	17/11/2020 21:00	11.420	5.719	
322	17/11/2020 22:00	11.420	5.722	
323	17/11/2020 23:00	11.420	5.730	
324	18/11/2020 00:00	11.420	5.725	
325	18/11/2020 01:00	11.420	5.720	
326	18/11/2020 02:00	11.420	5.738	
327	18/11/2020 03:00	11.420	5.727	
328	18/11/2020 04:00	11.420	5.722	
329	18/11/2020 05:00	11.420	5.721	

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330	18/11/2020 06:00	11.420	5.722	
331	18/11/2020 07:00	11.420	5.726	
332	18/11/2020 08:00	11.420	5.713	
333	18/11/2020 09:00	11.420	5.691	
334	18/11/2020 10:00	11.420	5.702	
335	18/11/2020 11:00	11.420	5.704	
336	18/11/2020 12:00	11.420	5.706	
337	18/11/2020 13:00	11.420	5.701	
338	18/11/2020 14:00	11.420	5.707	
339	18/11/2020 15:00	11.420	5.704	
340	18/11/2020 16:00	11.420	5.701	
341	18/11/2020 17:00	11.420	5.700	
342	18/11/2020 18:00	11.420	5.709	
343	18/11/2020 19:00	11.420	5.705	
344	18/11/2020 20:00	11.420	5.700	
345	18/11/2020 21:00	11.420	5.702	
346	18/11/2020 22:00	11.420	5.677	
347	18/11/2020 23:00	11.420	5.685	
348	19/11/2020 00:00	11.420	5.682	
349	19/11/2020 01:00	11.420	5.687	
350	19/11/2020 02:00	11.420	5.667	
351	19/11/2020 03:00	11.420	5.659	
352	19/11/2020 04:00	11.420	5.672	
353	19/11/2020 05:00	11.420	5.672	
354	19/11/2020 06:00	11.420	5.673	
355	19/11/2020 07:00	11.420	5.679	
356	19/11/2020 08:00	11.420	5.685	
357	19/11/2020 09:00	11.420	5.684	
358	19/11/2020 10:00	11.420	5.673	
359	19/11/2020 11:00	11.420	5.676	
360	19/11/2020 12:00	11.420	5.693	
361	19/11/2020 13:00	11.420	5.678	
362	19/11/2020 14:00	11.420	5.682	
363	19/11/2020 15:00	11.420	5.690	
364	19/11/2020 16:00	11.420	5.692	
365	19/11/2020 17:00	11.420	5.697	
366	19/11/2020 18:00	11.420	5.683	
367	19/11/2020 19:00	11.420	5.683	
368	19/11/2020 20:00	11.420	5.690	
369	19/11/2020 21:00	11.420	5.685	
370	19/11/2020 22:00	11.420	5.698	
371	19/11/2020 23:00	11.420	5.697	
372	20/11/2020 00:00	11.420	5.696	
373	20/11/2020 01:00	11.420	5.699	
374	20/11/2020 02:00	11.420	5.686	
375	20/11/2020 03:00	11.420	5.694	
376	20/11/2020 04:00	11.420	5.690	
377	20/11/2020 05:00	11.420	5.693	
378	20/11/2020 06:00	11.420	5.688	
379	20/11/2020 07:00	11.420	5.687	
380	20/11/2020 08:00	11.420	5.677	
381	20/11/2020 09:00	11.420	5.676	
382	20/11/2020 10:00	11.420	5.678	
383	20/11/2020 11:00	11.420	5.669	
384	20/11/2020 12:00	11.420	5.680	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	20/11/2020 13:00	11.420	5.685	
386	20/11/2020 14:00	11.420	5.679	
387	20/11/2020 15:00	11.420	5.674	
388	20/11/2020 16:00	11.420	5.674	
389	20/11/2020 17:00	11.420	5.669	
390	20/11/2020 18:00	11.472	5.669	
391	20/11/2020 19:00	11.420	5.675	
392	20/11/2020 20:00	11.420	5.676	
393	20/11/2020 21:00	11.420	5.677	
394	20/11/2020 22:00	11.420	5.673	
395	20/11/2020 23:00	11.420	5.679	
396	21/11/2020 00:00	11.420	5.684	
397	21/11/2020 01:00	11.420	5.668	
398	21/11/2020 02:00	11.420	5.672	
399	21/11/2020 03:00	11.420	5.670	
400	21/11/2020 04:00	11.420	5.673	
401	21/11/2020 05:00	11.420	5.666	
402	21/11/2020 06:00	11.420	5.665	
403	21/11/2020 07:00	11.420	5.670	
404	21/11/2020 08:00	11.420	5.664	
405	21/11/2020 09:00	11.420	5.659	
406	21/11/2020 10:00	11.420	5.651	
407	21/11/2020 11:00	11.420	5.653	
408	21/11/2020 12:00	11.420	5.660	
409	21/11/2020 13:00	11.420	5.663	
410	21/11/2020 14:00	11.420	5.664	
411	21/11/2020 15:00	11.420	5.649	
412	21/11/2020 16:00	11.420	5.651	
413	21/11/2020 17:00	11.420	5.654	
414	21/11/2020 18:00	11.420	5.652	
415	21/11/2020 19:00	11.420	5.646	
416	21/11/2020 20:00	11.420	5.654	
417	21/11/2020 21:00	11.420	5.655	
418	21/11/2020 22:00	11.420	5.652	
419	21/11/2020 23:00	11.420	5.651	
420	22/11/2020 00:00	11.420	5.648	
421	22/11/2020 01:00	11.420	5.652	
422	22/11/2020 02:00	11.420	5.653	
423	22/11/2020 03:00	11.420	5.647	
424	22/11/2020 04:00	11.420	5.648	
425	22/11/2020 05:00	11.420	5.654	
426	22/11/2020 06:00	11.420	5.641	
427	22/11/2020 07:00	11.420	5.645	
428	22/11/2020 08:00	11.472	5.640	
429	22/11/2020 09:00	11.420	5.640	
430	22/11/2020 10:00	11.420	5.639	
431	22/11/2020 11:00	11.420	5.640	
432	22/11/2020 12:00	11.420	5.637	
433	22/11/2020 13:00	11.420	5.642	
434	22/11/2020 14:00	11.420	5.640	
435	22/11/2020 15:00	11.420	5.643	
436	22/11/2020 16:00	11.420	5.643	
437	22/11/2020 17:00	11.420	5.639	
438	22/11/2020 18:00	11.420	5.632	
439	22/11/2020 19:00	11.420	5.634	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	22/11/2020 20:00	11.420	5.625	
441	22/11/2020 21:00	11.420	5.639	
442	22/11/2020 22:00	11.420	5.629	
443	22/11/2020 23:00	11.420	5.628	
444	23/11/2020 00:00	11.420	5.640	
445	23/11/2020 01:00	11.420	5.634	
446	23/11/2020 02:00	11.420	5.634	
447	23/11/2020 03:00	11.420	5.642	
448	23/11/2020 04:00	11.420	5.640	
449	23/11/2020 05:00	11.420	5.638	
450	23/11/2020 06:00	11.472	5.634	
451	23/11/2020 07:00	11.420	5.642	
452	23/11/2020 08:00	11.420	5.637	
453	23/11/2020 09:00	11.472	5.632	
454	23/11/2020 10:00	11.420	5.639	
455	23/11/2020 11:00	11.420	5.623	
456	23/11/2020 12:00	11.472	5.630	
457	23/11/2020 13:00	11.420	5.630	
458	23/11/2020 14:00	11.420	5.630	
459	23/11/2020 15:00	11.420	5.635	
460	23/11/2020 16:00	11.420	5.618	
461	23/11/2020 17:00	11.420	5.630	
462	23/11/2020 18:00	11.420	5.623	
463	23/11/2020 19:00	11.420	5.607	
464	23/11/2020 20:00	11.420	5.619	
465	23/11/2020 21:00	11.420	5.623	
466	23/11/2020 22:00	11.472	5.615	
467	23/11/2020 23:00	11.472	5.610	
468	24/11/2020 00:00	11.420	5.610	
469	24/11/2020 01:00	11.420	5.617	
470	24/11/2020 02:00	11.420	5.612	
471	24/11/2020 03:00	11.420	5.614	
472	24/11/2020 04:00	11.420	5.619	
473	24/11/2020 05:00	11.420	5.615	
474	24/11/2020 06:00	11.420	5.607	
475	24/11/2020 07:00	11.420	5.615	
476	24/11/2020 08:00	11.420	5.612	
477	24/11/2020 09:00	11.472	5.608	
478	24/11/2020 10:00	11.420	5.601	
479	24/11/2020 11:00	11.420	5.608	
480	24/11/2020 12:00	11.420	5.620	
481	24/11/2020 13:00	11.472	5.608	
482	24/11/2020 14:00	11.420	5.603	
483	24/11/2020 15:00	11.420	5.607	
484	24/11/2020 16:00	11.420	5.598	
485	24/11/2020 17:00	11.472	5.584	
486	24/11/2020 18:00	11.420	5.589	
487	24/11/2020 19:00	11.420	5.589	
488	24/11/2020 20:00	11.420	5.583	
489	24/11/2020 21:00	11.420	5.585	
490	24/11/2020 22:00	11.420	5.583	
491	24/11/2020 23:00	11.420	5.588	
492	25/11/2020 00:00	11.420	5.575	
493	25/11/2020 01:00	11.420	5.590	
494	25/11/2020 02:00	11.472	5.583	

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495	25/11/2020 03:00	11.420	5.584	
496	25/11/2020 04:00	11.420	5.588	
497	25/11/2020 05:00	11.420	5.579	
498	25/11/2020 06:00	11.472	5.584	
499	25/11/2020 07:00	11.420	5.579	
500	25/11/2020 08:00	11.420	5.579	
501	25/11/2020 09:00	11.420	5.565	
502	25/11/2020 10:00	11.472	5.569	
503	25/11/2020 11:00	11.420	5.574	
504	25/11/2020 12:00	11.420	5.584	
505	25/11/2020 13:00	11.420	5.578	
506	25/11/2020 14:00	11.420	5.572	
507	25/11/2020 15:00	11.472	5.574	
508	25/11/2020 16:00	11.420	5.565	
509	25/11/2020 17:00	11.420	5.567	
510	25/11/2020 18:00	11.420	5.576	
511	25/11/2020 19:00	11.472	5.563	
512	25/11/2020 20:00	11.472	5.567	
513	25/11/2020 21:00	11.420	5.568	
514	25/11/2020 22:00	11.472	5.569	
515	25/11/2020 23:00	11.472	5.566	
516	26/11/2020 00:00	11.420	5.559	
517	26/11/2020 01:00	11.420	5.566	
518	26/11/2020 02:00	11.420	5.566	
519	26/11/2020 03:00	11.472	5.570	
520	26/11/2020 04:00	11.420	5.558	
521	26/11/2020 05:00	11.420	5.568	
522	26/11/2020 06:00	11.472	5.567	
523	26/11/2020 07:00	11.420	5.560	
524	26/11/2020 08:00	11.472	5.555	
525	26/11/2020 09:00	11.472	5.562	
526	26/11/2020 10:00	11.420	5.561	
527	26/11/2020 11:00	11.420	5.562	
528	26/11/2020 12:00	11.420	5.561	
529	26/11/2020 13:00	11.420	5.563	
530	26/11/2020 14:00	11.420	5.558	
531	26/11/2020 15:00	11.420	5.560	
532	26/11/2020 16:00	11.420	5.556	
533	26/11/2020 17:00	11.472	5.556	
534	26/11/2020 18:00	11.420	5.553	
535	26/11/2020 19:00	11.472	5.554	
536	26/11/2020 20:00	11.420	5.554	
537	26/11/2020 21:00	11.472	5.559	
538	26/11/2020 22:00	11.420	5.556	
539	26/11/2020 23:00	11.472	5.554	
540	27/11/2020 00:00	11.420	5.557	
541	27/11/2020 01:00	11.420	5.566	
542	27/11/2020 02:00	11.472	5.551	
543	27/11/2020 03:00	11.472	5.542	
544	27/11/2020 04:00	11.420	5.548	
545	27/11/2020 05:00	11.472	5.554	
546	27/11/2020 06:00	11.420	5.556	
547	27/11/2020 07:00	11.472	5.544	
548	27/11/2020 08:00	11.420	5.554	
549	27/11/2020 09:00	11.472	5.556	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	27/11/2020 10:00	11.420	5.555	
551	27/11/2020 11:00	11.472	5.541	
552	27/11/2020 12:00	11.420	5.546	
553	27/11/2020 13:00	11.472	5.555	
554	27/11/2020 14:00	11.472	5.543	
555	27/11/2020 15:00	11.472	5.544	
556	27/11/2020 16:00	11.420	5.544	
557	27/11/2020 17:00	11.472	5.547	
558	27/11/2020 18:00	11.420	5.540	
559	27/11/2020 19:00	11.472	5.547	
560	27/11/2020 20:00	11.472	5.540	
561	27/11/2020 21:00	11.420	5.544	
562	27/11/2020 22:00	11.472	5.544	
563	27/11/2020 23:00	11.420	5.533	
564	28/11/2020 00:00	11.420	5.538	
565	28/11/2020 01:00	11.420	5.539	
566	28/11/2020 02:00	11.420	5.536	
567	28/11/2020 03:00	11.472	5.537	
568	28/11/2020 04:00	11.472	5.543	
569	28/11/2020 05:00	11.472	5.532	
570	28/11/2020 06:00	11.420	5.529	
571	28/11/2020 07:00	11.472	5.535	
572	28/11/2020 08:00	11.472	5.527	
573	28/11/2020 09:00	11.420	5.528	
574	28/11/2020 10:00	11.472	5.521	
575	28/11/2020 11:00	11.472	5.532	
576	28/11/2020 12:00	11.472	5.530	
577	28/11/2020 13:00	11.472	5.526	
578	28/11/2020 14:00	11.420	5.534	
579	28/11/2020 15:00	11.472	5.525	
580	28/11/2020 16:00	11.472	5.524	
581	28/11/2020 17:00	11.420	5.525	
582	28/11/2020 18:00	11.472	5.526	
583	28/11/2020 19:00	11.472	5.518	
584	28/11/2020 20:00	11.472	5.521	
585	28/11/2020 21:00	11.472	5.525	
586	28/11/2020 22:00	11.420	5.523	
587	28/11/2020 23:00	11.420	5.512	
588	29/11/2020 00:00	11.472	5.522	
589	29/11/2020 01:00	11.472	5.518	
590	29/11/2020 02:00	11.472	5.527	
591	29/11/2020 03:00	11.472	5.525	
592	29/11/2020 04:00	11.420	5.524	
593	29/11/2020 05:00	11.472	5.519	
594	29/11/2020 06:00	11.420	5.524	
595	29/11/2020 07:00	11.420	5.522	
596	29/11/2020 08:00	11.472	5.516	
597	29/11/2020 09:00	11.472	5.513	
598	29/11/2020 10:00	11.420	5.516	
599	29/11/2020 11:00	11.472	5.523	
600	29/11/2020 12:00	11.472	5.521	
601	29/11/2020 13:00	11.472	5.523	
602	29/11/2020 14:00	11.420	5.525	
603	29/11/2020 15:00	11.472	5.513	
604	29/11/2020 16:00	11.420	5.510	

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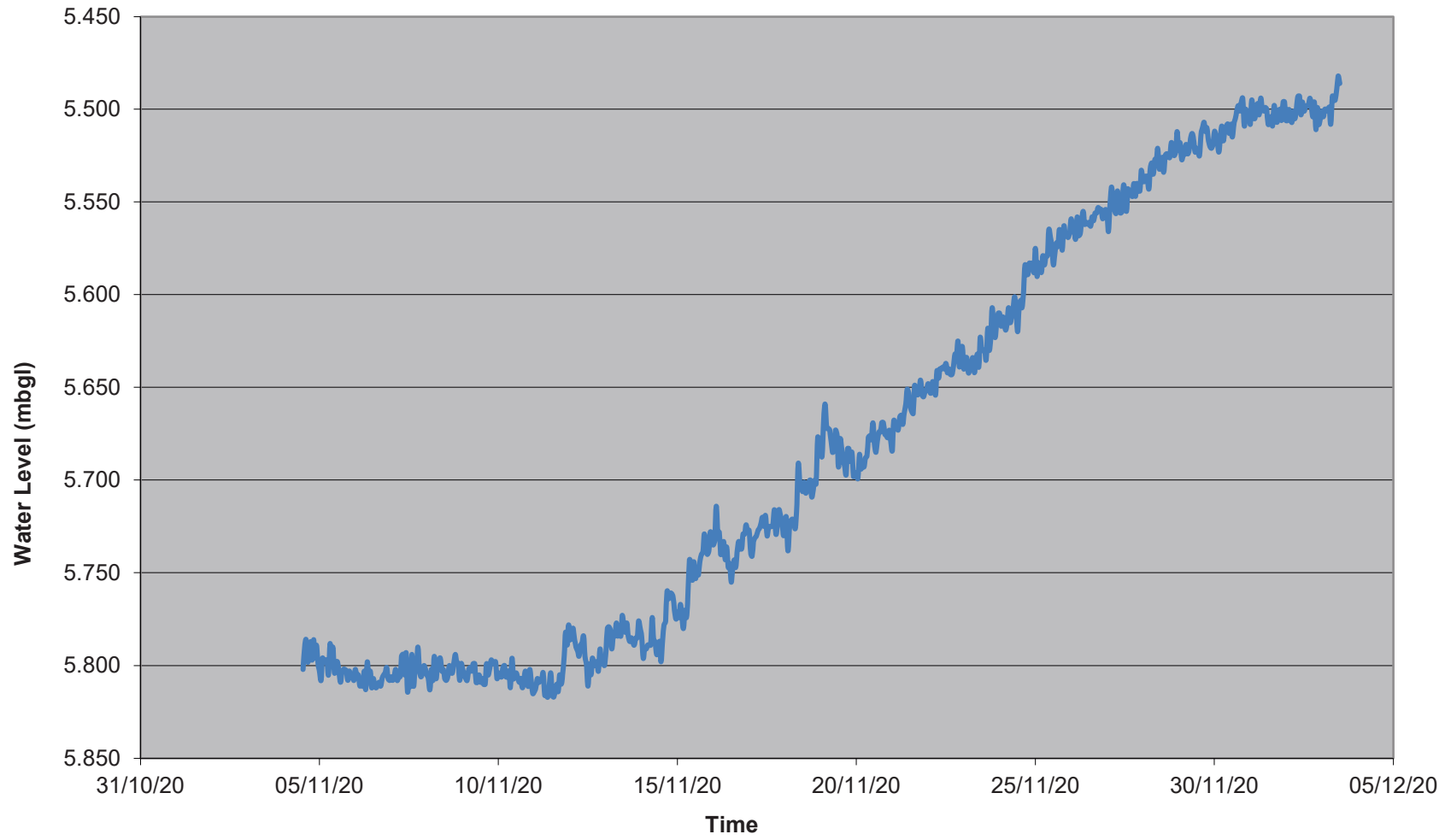
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	29/11/2020 17:00	11.472	5.507	
606	29/11/2020 18:00	11.472	5.512	
607	29/11/2020 19:00	11.472	5.510	
608	29/11/2020 20:00	11.420	5.517	
609	29/11/2020 21:00	11.472	5.520	
610	29/11/2020 22:00	11.472	5.521	
611	29/11/2020 23:00	11.472	5.519	
612	30/11/2020 00:00	11.472	5.512	
613	30/11/2020 01:00	11.420	5.514	
614	30/11/2020 02:00	11.472	5.518	
615	30/11/2020 03:00	11.420	5.523	
616	30/11/2020 04:00	11.420	5.515	
617	30/11/2020 05:00	11.472	5.509	
618	30/11/2020 06:00	11.472	5.517	
619	30/11/2020 07:00	11.472	5.511	
620	30/11/2020 08:00	11.472	5.509	
621	30/11/2020 09:00	11.420	5.508	
622	30/11/2020 10:00	11.472	5.513	
623	30/11/2020 11:00	11.472	5.508	
624	30/11/2020 12:00	11.472	5.515	
625	30/11/2020 13:00	11.472	5.508	
626	30/11/2020 14:00	11.472	5.505	
627	30/11/2020 15:00	11.472	5.501	
628	30/11/2020 16:00	11.472	5.498	
629	30/11/2020 17:00	11.420	5.501	
630	30/11/2020 18:00	11.472	5.496	
631	30/11/2020 19:00	11.472	5.494	
632	30/11/2020 20:00	11.472	5.509	
633	30/11/2020 21:00	11.472	5.500	
634	30/11/2020 22:00	11.472	5.504	
635	30/11/2020 23:00	11.472	5.502	
636	01/12/2020 00:00	11.472	5.508	
637	01/12/2020 01:00	11.420	5.495	
638	01/12/2020 02:00	11.472	5.502	
639	01/12/2020 03:00	11.420	5.505	
640	01/12/2020 04:00	11.472	5.500	
641	01/12/2020 05:00	11.472	5.497	
642	01/12/2020 06:00	11.472	5.503	
643	01/12/2020 07:00	11.472	5.494	
644	01/12/2020 08:00	11.420	5.499	
645	01/12/2020 09:00	11.472	5.501	
646	01/12/2020 10:00	11.472	5.499	
647	01/12/2020 11:00	11.472	5.500	
648	01/12/2020 12:00	11.420	5.508	
649	01/12/2020 13:00	11.472	5.506	
650	01/12/2020 14:00	11.420	5.504	
651	01/12/2020 15:00	11.472	5.509	
652	01/12/2020 16:00	11.420	5.498	
653	01/12/2020 17:00	11.472	5.504	
654	01/12/2020 18:00	11.472	5.507	
655	01/12/2020 19:00	11.420	5.501	
656	01/12/2020 20:00	11.472	5.500	
657	01/12/2020 21:00	11.472	5.506	
658	01/12/2020 22:00	11.472	5.496	
659	01/12/2020 23:00	11.420	5.496	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	02/12/2020 00:00	11.420	5.506	
661	02/12/2020 01:00	11.472	5.506	
662	02/12/2020 02:00	11.472	5.500	
663	02/12/2020 03:00	11.472	5.505	
664	02/12/2020 04:00	11.472	5.507	
665	02/12/2020 05:00	11.472	5.501	
666	02/12/2020 06:00	11.472	5.505	
667	02/12/2020 07:00	11.420	5.499	
668	02/12/2020 08:00	11.420	5.493	
669	02/12/2020 09:00	11.472	5.493	
670	02/12/2020 10:00	11.472	5.503	
671	02/12/2020 11:00	11.472	5.496	
672	02/12/2020 12:00	11.420	5.501	
673	02/12/2020 13:00	11.472	5.499	
674	02/12/2020 14:00	11.472	5.498	
675	02/12/2020 15:00	11.472	5.498	
676	02/12/2020 16:00	11.472	5.494	
677	02/12/2020 17:00	11.472	5.499	
678	02/12/2020 18:00	11.472	5.504	
679	02/12/2020 19:00	11.472	5.496	
680	02/12/2020 20:00	11.472	5.511	
681	02/12/2020 21:00	11.472	5.499	
682	02/12/2020 22:00	11.472	5.508	
683	02/12/2020 23:00	11.420	5.505	
684	03/12/2020 00:00	11.472	5.501	
685	03/12/2020 01:00	11.472	5.504	
686	03/12/2020 02:00	11.420	5.500	
687	03/12/2020 03:00	11.420	5.500	
688	03/12/2020 04:00	11.472	5.501	
689	03/12/2020 05:00	11.472	5.499	
690	03/12/2020 06:00	11.472	5.508	
691	03/12/2020 07:00	11.472	5.493	
692	03/12/2020 08:00	11.472	5.495	
693	03/12/2020 09:00	11.472	5.495	
694	03/12/2020 10:00	11.472	5.489	
695	03/12/2020 11:00	11.420	5.482	
696	03/12/2020 12:00	11.472	5.486	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	03/12/2020 15:00	11.472	5.488	
2	03/12/2020 16:00	11.472	5.488	
3	03/12/2020 17:00	11.472	5.492	
4	03/12/2020 18:00	11.472	5.505	
5	03/12/2020 19:00	11.472	5.498	
6	03/12/2020 20:00	11.472	5.485	
7	03/12/2020 21:00	11.472	5.493	
8	03/12/2020 22:00	11.472	5.492	
9	03/12/2020 23:00	11.472	5.499	
10	04/12/2020 00:00	11.472	5.494	
11	04/12/2020 01:00	11.472	5.504	
12	04/12/2020 02:00	11.472	5.496	
13	04/12/2020 03:00	11.472	5.495	
14	04/12/2020 04:00	11.472	5.493	
15	04/12/2020 05:00	11.472	5.489	
16	04/12/2020 06:00	11.472	5.481	
17	04/12/2020 07:00	11.472	5.490	
18	04/12/2020 08:00	11.472	5.495	
19	04/12/2020 09:00	11.472	5.491	
20	04/12/2020 10:00	11.472	5.494	
21	04/12/2020 11:00	11.472	5.493	
22	04/12/2020 12:00	11.472	5.489	
23	04/12/2020 13:00	11.472	5.493	
24	04/12/2020 14:00	11.472	5.491	
25	04/12/2020 15:00	11.472	5.487	
26	04/12/2020 16:00	11.472	5.493	
27	04/12/2020 17:00	11.472	5.485	
28	04/12/2020 18:00	11.472	5.493	
29	04/12/2020 19:00	11.472	5.485	
30	04/12/2020 20:00	11.472	5.486	
31	04/12/2020 21:00	11.420	5.491	
32	04/12/2020 22:00	11.472	5.493	
33	04/12/2020 23:00	11.472	5.496	
34	05/12/2020 00:00	11.472	5.497	
35	05/12/2020 01:00	11.472	5.487	
36	05/12/2020 02:00	11.472	5.492	
37	05/12/2020 03:00	11.472	5.494	
38	05/12/2020 04:00	11.472	5.499	
39	05/12/2020 05:00	11.472	5.497	
40	05/12/2020 06:00	11.472	5.494	
41	05/12/2020 07:00	11.472	5.497	
42	05/12/2020 08:00	11.472	5.491	
43	05/12/2020 09:00	11.472	5.491	
44	05/12/2020 10:00	11.472	5.493	
45	05/12/2020 11:00	11.472	5.492	
46	05/12/2020 12:00	11.420	5.499	
47	05/12/2020 13:00	11.472	5.489	
48	05/12/2020 14:00	11.472	5.505	
49	05/12/2020 15:00	11.472	5.494	
50	05/12/2020 16:00	11.472	5.485	
51	05/12/2020 17:00	11.472	5.511	
52	05/12/2020 18:00	11.472	5.491	
53	05/12/2020 19:00	11.472	5.509	
54	05/12/2020 20:00	11.472	5.481	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	05/12/2020 21:00	11.472	5.498	
56	05/12/2020 22:00	11.472	5.495	
57	05/12/2020 23:00	11.472	5.502	
58	06/12/2020 00:00	11.472	5.499	
59	06/12/2020 01:00	11.472	5.503	
60	06/12/2020 02:00	11.420	5.504	
61	06/12/2020 03:00	11.472	5.500	
62	06/12/2020 04:00	11.472	5.499	
63	06/12/2020 05:00	11.472	5.502	
64	06/12/2020 06:00	11.472	5.499	
65	06/12/2020 07:00	11.472	5.507	
66	06/12/2020 08:00	11.472	5.500	
67	06/12/2020 09:00	11.472	5.499	
68	06/12/2020 10:00	11.472	5.500	
69	06/12/2020 11:00	11.472	5.502	
70	06/12/2020 12:00	11.472	5.505	
71	06/12/2020 13:00	11.472	5.500	
72	06/12/2020 14:00	11.472	5.501	
73	06/12/2020 15:00	11.472	5.501	
74	06/12/2020 16:00	11.472	5.515	
75	06/12/2020 17:00	11.472	5.503	
76	06/12/2020 18:00	11.472	5.507	
77	06/12/2020 19:00	11.472	5.508	
78	06/12/2020 20:00	11.472	5.503	
79	06/12/2020 21:00	11.472	5.508	
80	06/12/2020 22:00	11.472	5.503	
81	06/12/2020 23:00	11.472	5.509	
82	07/12/2020 00:00	11.472	5.506	
83	07/12/2020 01:00	11.472	5.509	
84	07/12/2020 02:00	11.472	5.508	
85	07/12/2020 03:00	11.472	5.515	
86	07/12/2020 04:00	11.472	5.508	
87	07/12/2020 05:00	11.472	5.509	
88	07/12/2020 06:00	11.472	5.506	
89	07/12/2020 07:00	11.472	5.506	
90	07/12/2020 08:00	11.420	5.507	
91	07/12/2020 09:00	11.472	5.502	
92	07/12/2020 10:00	11.472	5.507	
93	07/12/2020 11:00	11.472	5.509	
94	07/12/2020 12:00	11.472	5.502	
95	07/12/2020 13:00	11.524	5.501	
96	07/12/2020 14:00	11.472	5.507	
97	07/12/2020 15:00	11.472	5.517	
98	07/12/2020 16:00	11.472	5.515	
99	07/12/2020 17:00	11.472	5.512	
100	07/12/2020 18:00	11.472	5.505	
101	07/12/2020 19:00	11.472	5.509	
102	07/12/2020 20:00	11.472	5.503	
103	07/12/2020 21:00	11.472	5.505	
104	07/12/2020 22:00	11.472	5.499	
105	07/12/2020 23:00	11.472	5.508	
106	08/12/2020 00:00	11.472	5.508	
107	08/12/2020 01:00	11.472	5.515	
108	08/12/2020 02:00	11.420	5.514	
109	08/12/2020 03:00	11.472	5.516	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	08/12/2020 04:00	11.472	5.514	
111	08/12/2020 05:00	11.472	5.510	
112	08/12/2020 06:00	11.472	5.516	
113	08/12/2020 07:00	11.472	5.513	
114	08/12/2020 08:00	11.472	5.513	
115	08/12/2020 09:00	11.472	5.518	
116	08/12/2020 10:00	11.472	5.517	
117	08/12/2020 11:00	11.472	5.520	
118	08/12/2020 12:00	11.472	5.516	
119	08/12/2020 13:00	11.472	5.516	
120	08/12/2020 14:00	11.472	5.513	
121	08/12/2020 15:00	11.472	5.519	
122	08/12/2020 16:00	11.472	5.520	
123	08/12/2020 17:00	11.472	5.523	
124	08/12/2020 18:00	11.472	5.516	
125	08/12/2020 19:00	11.472	5.512	
126	08/12/2020 20:00	11.472	5.523	
127	08/12/2020 21:00	11.472	5.516	
128	08/12/2020 22:00	11.472	5.514	
129	08/12/2020 23:00	11.472	5.517	
130	09/12/2020 00:00	11.472	5.519	
131	09/12/2020 01:00	11.472	5.514	
132	09/12/2020 02:00	11.472	5.512	
133	09/12/2020 03:00	11.472	5.519	
134	09/12/2020 04:00	11.472	5.520	
135	09/12/2020 05:00	11.472	5.520	
136	09/12/2020 06:00	11.472	5.525	
137	09/12/2020 07:00	11.524	5.516	
138	09/12/2020 08:00	11.472	5.525	
139	09/12/2020 09:00	11.472	5.514	
140	09/12/2020 10:00	11.524	5.517	
141	09/12/2020 11:00	11.472	5.519	
142	09/12/2020 12:00	11.472	5.516	
143	09/12/2020 13:00	11.472	5.522	
144	09/12/2020 14:00	11.472	5.525	
145	09/12/2020 15:00	11.472	5.523	
146	09/12/2020 16:00	11.472	5.527	
147	09/12/2020 17:00	11.472	5.518	
148	09/12/2020 18:00	11.472	5.517	
149	09/12/2020 19:00	11.472	5.523	
150	09/12/2020 20:00	11.472	5.518	
151	09/12/2020 21:00	11.472	5.521	
152	09/12/2020 22:00	11.472	5.521	
153	09/12/2020 23:00	11.472	5.526	
154	10/12/2020 00:00	11.524	5.527	
155	10/12/2020 01:00	11.472	5.523	
156	10/12/2020 02:00	11.472	5.516	
157	10/12/2020 03:00	11.472	5.527	
158	10/12/2020 04:00	11.472	5.518	
159	10/12/2020 05:00	11.472	5.526	
160	10/12/2020 06:00	11.472	5.534	
161	10/12/2020 07:00	11.472	5.520	
162	10/12/2020 08:00	11.472	5.519	
163	10/12/2020 09:00	11.472	5.530	
164	10/12/2020 10:00	11.472	5.517	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	10/12/2020 11:00	11.524	5.524	
166	10/12/2020 12:00	11.472	5.519	
167	10/12/2020 13:00	11.472	5.525	
168	10/12/2020 14:00	11.472	5.519	
169	10/12/2020 15:00	11.472	5.541	
170	10/12/2020 16:00	11.472	5.527	
171	10/12/2020 17:00	11.472	5.518	
172	10/12/2020 18:00	11.472	5.535	
173	10/12/2020 19:00	11.472	5.522	
174	10/12/2020 20:00	11.472	5.510	
175	10/12/2020 21:00	11.472	5.518	
176	10/12/2020 22:00	11.472	5.521	
177	10/12/2020 23:00	11.472	5.523	
178	11/12/2020 00:00	11.472	5.523	
179	11/12/2020 01:00	11.472	5.526	
180	11/12/2020 02:00	11.472	5.517	
181	11/12/2020 03:00	11.472	5.525	
182	11/12/2020 04:00	11.472	5.525	
183	11/12/2020 05:00	11.472	5.521	
184	11/12/2020 06:00	11.472	5.517	
185	11/12/2020 07:00	11.472	5.527	
186	11/12/2020 08:00	11.524	5.518	
187	11/12/2020 09:00	11.472	5.522	
188	11/12/2020 10:00	11.472	5.532	
189	11/12/2020 11:00	11.472	5.518	
190	11/12/2020 12:00	11.472	5.538	
191	11/12/2020 13:00	11.472	5.520	
192	11/12/2020 14:00	11.472	5.517	
193	11/12/2020 15:00	11.472	5.523	
194	11/12/2020 16:00	11.472	5.512	
195	11/12/2020 17:00	11.472	5.526	
196	11/12/2020 18:00	11.472	5.529	
197	11/12/2020 19:00	11.472	5.531	
198	11/12/2020 20:00	11.524	5.520	
199	11/12/2020 21:00	11.472	5.518	
200	11/12/2020 22:00	11.472	5.520	
201	11/12/2020 23:00	11.472	5.527	
202	12/12/2020 00:00	11.524	5.521	
203	12/12/2020 01:00	11.472	5.526	
204	12/12/2020 02:00	11.472	5.516	
205	12/12/2020 03:00	11.472	5.525	
206	12/12/2020 04:00	11.472	5.518	
207	12/12/2020 05:00	11.472	5.522	
208	12/12/2020 06:00	11.472	5.525	
209	12/12/2020 07:00	11.472	5.532	
210	12/12/2020 08:00	11.472	5.528	
211	12/12/2020 09:00	11.524	5.527	
212	12/12/2020 10:00	11.524	5.522	
213	12/12/2020 11:00	11.472	5.529	
214	12/12/2020 12:00	11.472	5.527	
215	12/12/2020 13:00	11.472	5.531	
216	12/12/2020 14:00	11.472	5.529	
217	12/12/2020 15:00	11.524	5.527	
218	12/12/2020 16:00	11.524	5.536	
219	12/12/2020 17:00	11.472	5.533	

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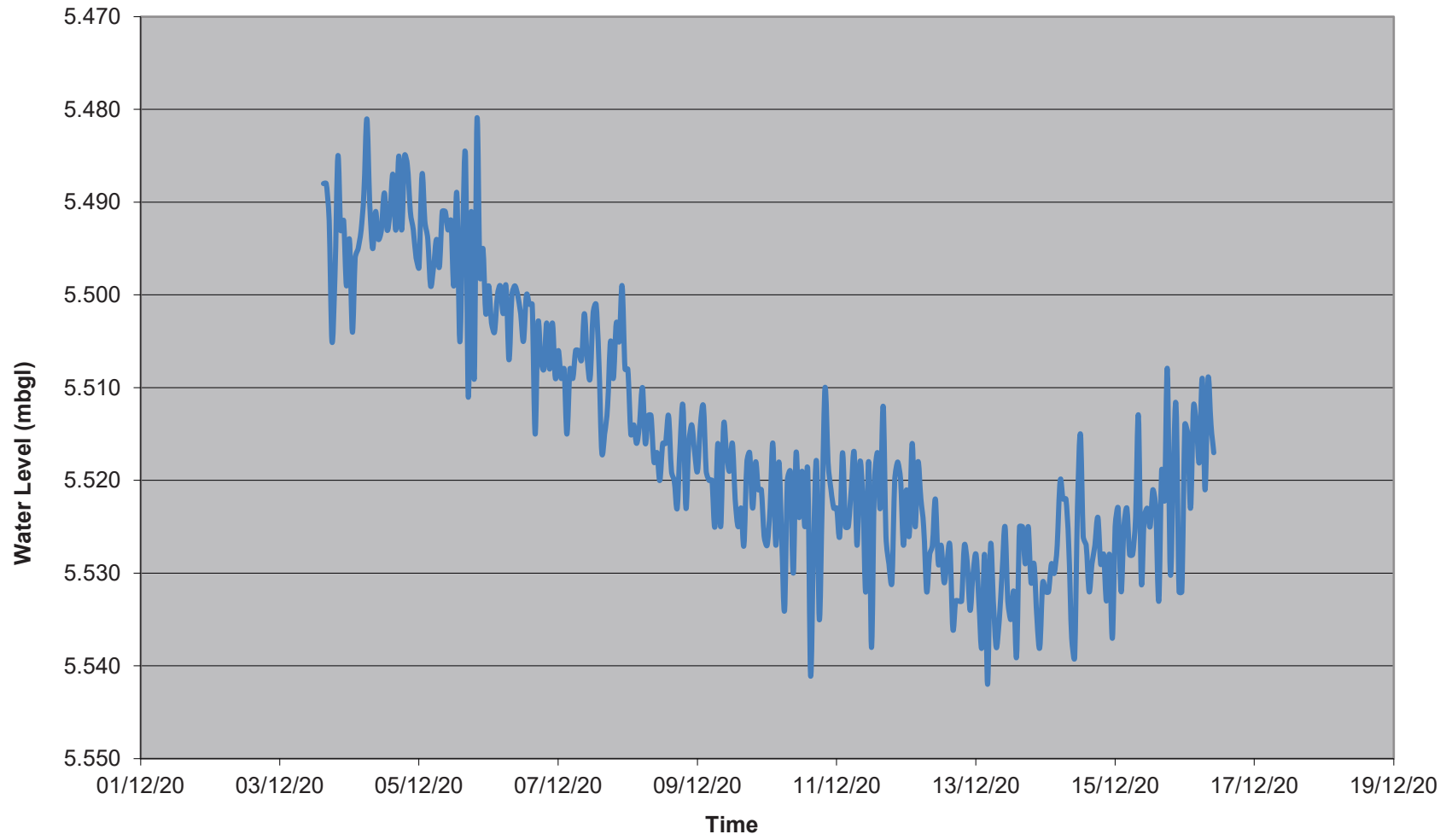
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	12/12/2020 18:00	11.472	5.533	
221	12/12/2020 19:00	11.472	5.533	
222	12/12/2020 20:00	11.524	5.527	
223	12/12/2020 21:00	11.472	5.529	
224	12/12/2020 22:00	11.472	5.534	
225	12/12/2020 23:00	11.524	5.530	
226	13/12/2020 00:00	11.472	5.528	
227	13/12/2020 01:00	11.472	5.533	
228	13/12/2020 02:00	11.472	5.538	
229	13/12/2020 03:00	11.472	5.528	
230	13/12/2020 04:00	11.472	5.542	
231	13/12/2020 05:00	11.472	5.527	
232	13/12/2020 06:00	11.524	5.533	
233	13/12/2020 07:00	11.472	5.538	
234	13/12/2020 08:00	11.472	5.535	
235	13/12/2020 09:00	11.524	5.530	
236	13/12/2020 10:00	11.472	5.525	
237	13/12/2020 11:00	11.472	5.533	
238	13/12/2020 12:00	11.472	5.535	
239	13/12/2020 13:00	11.472	5.532	
240	13/12/2020 14:00	11.472	5.539	
241	13/12/2020 15:00	11.472	5.525	
242	13/12/2020 16:00	11.472	5.525	
243	13/12/2020 17:00	11.472	5.529	
244	13/12/2020 18:00	11.524	5.525	
245	13/12/2020 19:00	11.524	5.531	
246	13/12/2020 20:00	11.472	5.529	
247	13/12/2020 21:00	11.472	5.535	
248	13/12/2020 22:00	11.524	5.538	
249	13/12/2020 23:00	11.472	5.531	
250	14/12/2020 00:00	11.524	5.532	
251	14/12/2020 01:00	11.472	5.532	
252	14/12/2020 02:00	11.472	5.529	
253	14/12/2020 03:00	11.472	5.530	
254	14/12/2020 04:00	11.472	5.527	
255	14/12/2020 05:00	11.472	5.520	
256	14/12/2020 06:00	11.472	5.522	
257	14/12/2020 07:00	11.524	5.522	
258	14/12/2020 08:00	11.472	5.527	
259	14/12/2020 09:00	11.472	5.537	
260	14/12/2020 10:00	11.472	5.539	
261	14/12/2020 11:00	11.472	5.523	
262	14/12/2020 12:00	11.472	5.515	
263	14/12/2020 13:00	11.472	5.526	
264	14/12/2020 14:00	11.472	5.527	
265	14/12/2020 15:00	11.524	5.532	
266	14/12/2020 16:00	11.524	5.529	
267	14/12/2020 17:00	11.524	5.527	
268	14/12/2020 18:00	11.472	5.524	
269	14/12/2020 19:00	11.472	5.529	
270	14/12/2020 20:00	11.472	5.528	
271	14/12/2020 21:00	11.472	5.533	
272	14/12/2020 22:00	11.524	5.528	
273	14/12/2020 23:00	11.472	5.537	
274	15/12/2020 00:00	11.524	5.525	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/12/2020 01:00	11.472	5.523	
276	15/12/2020 02:00	11.472	5.532	
277	15/12/2020 03:00	11.524	5.525	
278	15/12/2020 04:00	11.472	5.523	
279	15/12/2020 05:00	11.472	5.528	
280	15/12/2020 06:00	11.524	5.528	
281	15/12/2020 07:00	11.472	5.524	
282	15/12/2020 08:00	11.524	5.513	
283	15/12/2020 09:00	11.472	5.531	
284	15/12/2020 10:00	11.472	5.524	
285	15/12/2020 11:00	11.472	5.523	
286	15/12/2020 12:00	11.472	5.525	
287	15/12/2020 13:00	11.472	5.521	
288	15/12/2020 14:00	11.472	5.523	
289	15/12/2020 15:00	11.524	5.533	
290	15/12/2020 16:00	11.524	5.519	
291	15/12/2020 17:00	11.524	5.522	
292	15/12/2020 18:00	11.524	5.508	
293	15/12/2020 19:00	11.524	5.530	
294	15/12/2020 20:00	11.524	5.519	
295	15/12/2020 21:00	11.524	5.512	
296	15/12/2020 22:00	11.472	5.532	
297	15/12/2020 23:00	11.472	5.532	
298	16/12/2020 00:00	11.524	5.514	
299	16/12/2020 01:00	11.524	5.515	
300	16/12/2020 02:00	11.524	5.523	
301	16/12/2020 03:00	11.524	5.512	
302	16/12/2020 04:00	11.524	5.514	
303	16/12/2020 05:00	11.472	5.518	
304	16/12/2020 06:00	11.472	5.509	
305	16/12/2020 07:00	11.472	5.521	
306	16/12/2020 08:00	11.524	5.509	
307	16/12/2020 09:00	11.524	5.514	
308	16/12/2020 10:00	11.524	5.517	

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Engineer. Atkins
Client. Ballymore
Borehole No. BH 219
Serial No. 430436



	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	06/10/2020 14:00	11.865	6.651	
2	06/10/2020 15:00	11.865	6.499	
3	06/10/2020 16:00	11.865	6.454	
4	06/10/2020 17:00	11.865	6.529	
5	06/10/2020 18:00	11.813	6.719	
6	06/10/2020 19:00	11.865	6.949	
7	06/10/2020 20:00	11.865	7.134	
8	06/10/2020 21:00	11.865	7.250	
9	06/10/2020 22:00	11.865	7.278	
10	06/10/2020 23:00	11.813	7.223	
11	07/10/2020 00:00	11.813	7.111	
12	07/10/2020 01:00	11.865	6.931	
13	07/10/2020 02:00	11.865	6.765	
14	07/10/2020 03:00	11.813	6.628	
15	07/10/2020 04:00	11.813	6.549	
16	07/10/2020 05:00	11.865	6.586	
17	07/10/2020 06:00	11.813	6.726	
18	07/10/2020 07:00	11.865	6.938	
19	07/10/2020 08:00	11.813	7.133	
20	07/10/2020 09:00	11.865	7.258	
21	07/10/2020 10:00	11.865	7.300	
22	07/10/2020 11:00	11.865	7.249	
23	07/10/2020 12:00	11.865	7.141	
24	07/10/2020 13:00	11.813	7.012	
25	07/10/2020 14:00	11.813	6.854	
26	07/10/2020 15:00	11.813	6.698	
27	07/10/2020 16:00	11.813	6.599	
28	07/10/2020 17:00	11.813	6.589	
29	07/10/2020 18:00	11.865	6.684	
30	07/10/2020 19:00	11.865	6.874	
31	07/10/2020 20:00	11.865	7.074	
32	07/10/2020 21:00	11.813	7.209	
33	07/10/2020 22:00	11.865	7.265	
34	07/10/2020 23:00	11.865	7.245	
35	08/10/2020 00:00	11.865	7.140	
36	08/10/2020 01:00	11.813	6.986	
37	08/10/2020 02:00	11.865	6.812	
38	08/10/2020 03:00	11.865	6.645	
39	08/10/2020 04:00	11.813	6.504	
40	08/10/2020 05:00	11.865	6.458	
41	08/10/2020 06:00	11.865	6.524	
42	08/10/2020 07:00	11.865	6.670	
43	08/10/2020 08:00	11.865	6.870	
44	08/10/2020 09:00	11.865	7.038	
45	08/10/2020 10:00	11.865	7.145	
46	08/10/2020 11:00	11.865	7.154	
47	08/10/2020 12:00	11.865	7.109	
48	08/10/2020 13:00	11.865	7.007	
49	08/10/2020 14:00	11.813	6.897	
50	08/10/2020 15:00	11.813	6.756	
51	08/10/2020 16:00	11.865	6.649	
52	08/10/2020 17:00	11.813	6.578	
53	08/10/2020 18:00	11.865	6.601	
54	08/10/2020 19:00	11.865	6.693	

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Client. Ballymore
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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	08/10/2020 20:00	11.865	6.877	
56	08/10/2020 21:00	11.813	7.031	
57	08/10/2020 22:00	11.813	7.165	
58	08/10/2020 23:00	11.813	7.225	
59	09/10/2020 00:00	11.865	7.200	
60	09/10/2020 01:00	11.865	7.100	
61	09/10/2020 02:00	11.813	6.974	
62	09/10/2020 03:00	11.865	6.831	
63	09/10/2020 04:00	11.865	6.706	
64	09/10/2020 05:00	11.865	6.593	
65	09/10/2020 06:00	11.865	6.571	
66	09/10/2020 07:00	11.813	6.642	
67	09/10/2020 08:00	11.865	6.784	
68	09/10/2020 09:00	11.813	6.941	
69	09/10/2020 10:00	11.865	7.078	
70	09/10/2020 11:00	11.865	7.133	
71	09/10/2020 12:00	11.865	7.121	
72	09/10/2020 13:00	11.813	7.058	
73	09/10/2020 14:00	11.865	6.975	
74	09/10/2020 15:00	11.813	6.846	
75	09/10/2020 16:00	11.865	6.732	
76	09/10/2020 17:00	11.813	6.637	
77	09/10/2020 18:00	11.813	6.574	
78	09/10/2020 19:00	11.865	6.614	
79	09/10/2020 20:00	11.865	6.728	
80	09/10/2020 21:00	11.813	6.898	
81	09/10/2020 22:00	11.865	7.051	
82	09/10/2020 23:00	11.865	7.165	
83	10/10/2020 00:00	11.813	7.236	
84	10/10/2020 01:00	11.813	7.219	
85	10/10/2020 02:00	11.865	7.163	
86	10/10/2020 03:00	11.865	7.074	
87	10/10/2020 04:00	11.813	6.964	
88	10/10/2020 05:00	11.865	6.842	
89	10/10/2020 06:00	11.865	6.749	
90	10/10/2020 07:00	11.813	6.743	
91	10/10/2020 08:00	11.865	6.783	
92	10/10/2020 09:00	11.865	6.891	
93	10/10/2020 10:00	11.865	7.009	
94	10/10/2020 11:00	11.813	7.101	
95	10/10/2020 12:00	11.865	7.161	
96	10/10/2020 13:00	11.865	7.158	
97	10/10/2020 14:00	11.865	7.124	
98	10/10/2020 15:00	11.813	7.039	
99	10/10/2020 16:00	11.813	6.957	
100	10/10/2020 17:00	11.813	6.850	
101	10/10/2020 18:00	11.865	6.752	
102	10/10/2020 19:00	11.813	6.699	
103	10/10/2020 20:00	11.813	6.725	
104	10/10/2020 21:00	11.813	6.814	
105	10/10/2020 22:00	11.813	6.946	
106	10/10/2020 23:00	11.865	7.095	
107	11/10/2020 00:00	11.813	7.216	
108	11/10/2020 01:00	11.813	7.279	
109	11/10/2020 02:00	11.865	7.293	

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110	11/10/2020 03:00	11.865	7.261	
111	11/10/2020 04:00	11.865	7.181	
112	11/10/2020 05:00	11.865	7.083	
113	11/10/2020 06:00	11.865	6.966	
114	11/10/2020 07:00	11.813	6.870	
115	11/10/2020 08:00	11.813	6.831	
116	11/10/2020 09:00	11.865	6.846	
117	11/10/2020 10:00	11.865	6.938	
118	11/10/2020 11:00	11.813	7.042	
119	11/10/2020 12:00	11.813	7.144	
120	11/10/2020 13:00	11.813	7.219	
121	11/10/2020 14:00	11.865	7.245	
122	11/10/2020 15:00	11.813	7.229	
123	11/10/2020 16:00	11.865	7.173	
124	11/10/2020 17:00	11.865	7.088	
125	11/10/2020 18:00	11.813	6.988	
126	11/10/2020 19:00	11.813	6.852	
127	11/10/2020 20:00	11.865	6.770	
128	11/10/2020 21:00	11.865	6.755	
129	11/10/2020 22:00	11.865	6.806	
130	11/10/2020 23:00	11.865	6.917	
131	12/10/2020 00:00	11.813	7.084	
132	12/10/2020 01:00	11.865	7.203	
133	12/10/2020 02:00	11.813	7.274	
134	12/10/2020 03:00	11.813	7.313	
135	12/10/2020 04:00	11.813	7.283	
136	12/10/2020 05:00	11.865	7.220	
137	12/10/2020 06:00	11.865	7.100	
138	12/10/2020 07:00	11.813	6.959	
139	12/10/2020 08:00	11.813	6.828	
140	12/10/2020 09:00	11.865	6.744	
141	12/10/2020 10:00	11.813	6.706	
142	12/10/2020 11:00	11.813	6.763	
143	12/10/2020 12:00	11.865	6.864	
144	12/10/2020 13:00	11.813	6.993	
145	12/10/2020 14:00	11.813	7.117	
146	12/10/2020 15:00	11.865	7.153	
147	12/10/2020 16:00	11.865	7.182	
148	12/10/2020 17:00	11.865	7.149	
149	12/10/2020 18:00	11.865	7.051	
150	12/10/2020 19:00	11.813	6.956	
151	12/10/2020 20:00	11.813	6.835	
152	12/10/2020 21:00	11.865	6.744	
153	12/10/2020 22:00	11.865	6.691	
154	12/10/2020 23:00	11.865	6.748	
155	13/10/2020 00:00	11.865	6.893	
156	13/10/2020 01:00	11.865	7.068	
157	13/10/2020 02:00	11.865	7.236	
158	13/10/2020 03:00	11.865	7.339	
159	13/10/2020 04:00	11.813	7.388	
160	13/10/2020 05:00	11.865	7.367	
161	13/10/2020 06:00	11.865	7.268	
162	13/10/2020 07:00	11.865	7.138	
163	13/10/2020 08:00	11.865	6.976	
164	13/10/2020 09:00	11.865	6.819	

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165	13/10/2020 10:00	11.865	6.707	
166	13/10/2020 11:00	11.865	6.701	
167	13/10/2020 12:00	11.865	6.772	
168	13/10/2020 13:00	11.865	6.930	
169	13/10/2020 14:00	11.865	7.116	
170	13/10/2020 15:00	11.865	7.240	
171	13/10/2020 16:00	11.813	7.334	
172	13/10/2020 17:00	11.865	7.338	
173	13/10/2020 18:00	11.865	7.275	
174	13/10/2020 19:00	11.813	7.137	
175	13/10/2020 20:00	11.865	6.982	
176	13/10/2020 21:00	11.865	6.824	
177	13/10/2020 22:00	11.865	6.698	
178	13/10/2020 23:00	11.865	6.656	
179	14/10/2020 00:00	11.865	6.724	
180	14/10/2020 01:00	11.865	6.888	
181	14/10/2020 02:00	11.813	7.096	
182	14/10/2020 03:00	11.865	7.288	
183	14/10/2020 04:00	11.813	7.407	
184	14/10/2020 05:00	11.865	7.457	
185	14/10/2020 06:00	11.865	7.423	
186	14/10/2020 07:00	11.865	7.311	
187	14/10/2020 08:00	11.813	7.152	
188	14/10/2020 09:00	11.865	6.977	
189	14/10/2020 10:00	11.865	6.800	
190	14/10/2020 11:00	11.813	6.690	
191	14/10/2020 12:00	11.813	6.692	
192	14/10/2020 13:00	11.865	6.909	
193	14/10/2020 14:00	11.813	7.300	
194	14/10/2020 15:00	11.865	7.571	
195	14/10/2020 16:00	11.865	7.770	
196	14/10/2020 17:00	11.813	7.834	
197	14/10/2020 18:00	11.813	7.783	
198	14/10/2020 19:00	11.813	7.651	
199	14/10/2020 20:00	11.813	7.464	
200	14/10/2020 21:00	11.865	7.274	
201	14/10/2020 22:00	11.865	7.062	
202	14/10/2020 23:00	11.865	6.941	
203	15/10/2020 00:00	11.813	6.933	
204	15/10/2020 01:00	11.813	7.043	
205	15/10/2020 02:00	11.865	7.280	
206	15/10/2020 03:00	11.813	7.521	
207	15/10/2020 04:00	11.813	7.684	
208	15/10/2020 05:00	11.865	7.763	
209	15/10/2020 06:00	11.865	7.763	
210	15/10/2020 07:00	11.865	7.637	
211	15/10/2020 08:00	11.865	7.438	
212	15/10/2020 09:00	11.813	7.182	
213	15/10/2020 10:00	11.865	6.935	
214	15/10/2020 11:00	11.865	6.728	
215	15/10/2020 12:00	11.865	6.637	
216	15/10/2020 13:00	11.865	6.673	
217	15/10/2020 14:00	11.865	6.871	
218	15/10/2020 15:00	11.865	7.122	
219	15/10/2020 16:00	11.813	7.342	

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220	15/10/2020 17:00	11.865	7.464	
221	15/10/2020 18:00	11.865	7.510	
222	15/10/2020 19:00	11.865	7.437	
223	15/10/2020 20:00	11.865	7.255	
224	15/10/2020 21:00	11.865	7.012	
225	15/10/2020 22:00	11.813	6.778	
226	15/10/2020 23:00	11.813	6.567	
227	16/10/2020 00:00	11.865	6.456	
228	16/10/2020 01:00	11.865	6.485	
229	16/10/2020 02:00	11.865	6.680	
230	16/10/2020 03:00	11.813	7.012	
231	16/10/2020 04:00	11.865	7.291	
232	16/10/2020 05:00	11.865	7.455	
233	16/10/2020 06:00	11.865	7.551	
234	16/10/2020 07:00	11.865	7.541	
235	16/10/2020 08:00	11.813	7.393	
236	16/10/2020 09:00	11.813	7.148	
237	16/10/2020 10:00	11.865	6.903	
238	16/10/2020 11:00	11.865	6.655	
239	16/10/2020 12:00	11.865	6.487	
240	16/10/2020 13:00	11.865	6.428	
241	16/10/2020 14:00	11.813	6.569	
242	16/10/2020 15:00	11.813	6.847	
243	16/10/2020 16:00	11.865	7.149	
244	16/10/2020 17:00	11.813	7.363	
245	16/10/2020 18:00	11.813	7.471	
246	16/10/2020 19:00	11.813	7.472	
247	16/10/2020 20:00	11.813	7.337	
248	16/10/2020 21:00	11.865	7.080	
249	16/10/2020 22:00	11.813	6.808	
250	16/10/2020 23:00	11.813	6.550	
251	17/10/2020 00:00	11.813	6.368	
252	17/10/2020 01:00	11.865	6.275	
253	17/10/2020 02:00	11.813	6.379	
254	17/10/2020 03:00	11.865	6.649	
255	17/10/2020 04:00	11.865	7.012	
256	17/10/2020 05:00	11.865	7.284	
257	17/10/2020 06:00	11.813	7.448	
258	17/10/2020 07:00	11.813	7.504	
259	17/10/2020 08:00	11.865	7.456	
260	17/10/2020 09:00	11.813	7.254	
261	17/10/2020 10:00	11.865	6.979	
262	17/10/2020 11:00	11.865	6.721	
263	17/10/2020 12:00	11.865	6.484	
264	17/10/2020 13:00	11.865	6.334	
265	17/10/2020 14:00	11.813	6.352	
266	17/10/2020 15:00	11.865	6.549	
267	17/10/2020 16:00	11.865	6.875	
268	17/10/2020 17:00	11.813	7.186	
269	17/10/2020 18:00	11.813	7.370	
270	17/10/2020 19:00	11.813	7.446	
271	17/10/2020 20:00	11.865	7.407	
272	17/10/2020 21:00	11.813	7.228	
273	17/10/2020 22:00	11.813	6.953	
274	17/10/2020 23:00	11.865	6.665	

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275	18/10/2020 00:00	11.813	6.448	
276	18/10/2020 01:00	11.813	6.249	
277	18/10/2020 02:00	11.865	6.220	
278	18/10/2020 03:00	11.813	6.353	
279	18/10/2020 04:00	11.813	6.699	
280	18/10/2020 05:00	11.865	7.056	
281	18/10/2020 06:00	11.865	7.309	
282	18/10/2020 07:00	11.865	7.459	
283	18/10/2020 08:00	11.865	7.505	
284	18/10/2020 09:00	11.865	7.378	
285	18/10/2020 10:00	11.865	7.146	
286	18/10/2020 11:00	11.813	6.863	
287	18/10/2020 12:00	11.813	6.614	
288	18/10/2020 13:00	11.865	6.395	
289	18/10/2020 14:00	11.865	6.294	
290	18/10/2020 15:00	11.865	6.350	
291	18/10/2020 16:00	11.865	6.600	
292	18/10/2020 17:00	11.865	6.952	
293	18/10/2020 18:00	11.865	7.227	
294	18/10/2020 19:00	11.865	7.388	
295	18/10/2020 20:00	11.865	7.444	
296	18/10/2020 21:00	11.813	7.372	
297	18/10/2020 22:00	11.813	7.136	
298	18/10/2020 23:00	11.813	6.838	
299	19/10/2020 00:00	11.865	6.574	
300	19/10/2020 01:00	11.865	6.325	
301	19/10/2020 02:00	11.813	6.160	
302	19/10/2020 03:00	11.813	6.171	
303	19/10/2020 04:00	11.813	6.363	
304	19/10/2020 05:00	11.865	6.706	
305	19/10/2020 06:00	11.865	7.051	
306	19/10/2020 07:00	11.865	7.276	
307	19/10/2020 08:00	11.865	7.405	
308	19/10/2020 09:00	11.865	7.388	
309	19/10/2020 10:00	11.865	7.235	
310	19/10/2020 11:00	11.813	6.982	
311	19/10/2020 12:00	11.865	6.715	
312	19/10/2020 13:00	11.865	6.453	
313	19/10/2020 14:00	11.865	6.266	
314	19/10/2020 15:00	11.813	6.209	
315	19/10/2020 16:00	11.865	6.292	
316	19/10/2020 17:00	11.813	6.593	
317	19/10/2020 18:00	11.865	6.928	
318	19/10/2020 19:00	11.865	7.192	
319	19/10/2020 20:00	11.813	7.316	
320	19/10/2020 21:00	11.865	7.329	
321	19/10/2020 22:00	11.865	7.200	
322	19/10/2020 23:00	11.865	6.956	
323	20/10/2020 00:00	11.865	6.666	
324	20/10/2020 01:00	11.813	6.402	
325	20/10/2020 02:00	11.865	6.162	
326	20/10/2020 03:00	11.865	6.030	
327	20/10/2020 04:00	11.865	6.057	
328	20/10/2020 05:00	11.865	6.258	
329	20/10/2020 06:00	11.865	6.604	

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330	20/10/2020 07:00	11.865	6.930	
331	20/10/2020 08:00	11.813	7.141	
332	20/10/2020 09:00	11.865	7.222	
333	20/10/2020 10:00	11.865	7.161	
334	20/10/2020 11:00	11.813	6.978	
335	20/10/2020 12:00	11.865	6.732	
336	20/10/2020 13:00	11.865	6.474	
337	20/10/2020 14:00	11.865	6.241	
338	20/10/2020 15:00	11.865	6.077	
339	20/10/2020 16:00	11.865	6.027	
340	20/10/2020 17:00	11.865	6.174	
341	20/10/2020 18:00	11.813	6.463	
342	20/10/2020 19:00	11.813	6.788	
343	20/10/2020 20:00	11.865	7.036	
344	20/10/2020 21:00	11.865	7.172	
345	20/10/2020 22:00	11.865	7.197	
346	20/10/2020 23:00	11.865	7.074	
347	21/10/2020 00:00	11.865	6.903	
348	21/10/2020 01:00	11.865	6.686	
349	21/10/2020 02:00	11.865	6.457	
350	21/10/2020 03:00	11.813	6.258	
351	21/10/2020 04:00	11.865	6.172	
352	21/10/2020 05:00	11.865	6.204	
353	21/10/2020 06:00	11.865	6.415	
354	21/10/2020 07:00	11.813	6.709	
355	21/10/2020 08:00	11.865	6.980	
356	21/10/2020 09:00	11.865	7.146	
357	21/10/2020 10:00	11.865	7.225	
358	21/10/2020 11:00	11.865	7.149	
359	21/10/2020 12:00	11.865	6.999	
360	21/10/2020 13:00	11.865	6.806	
361	21/10/2020 14:00	11.813	6.575	
362	21/10/2020 15:00	11.813	6.371	
363	21/10/2020 16:00	11.865	6.228	
364	21/10/2020 17:00	11.865	6.213	
365	21/10/2020 18:00	11.865	6.356	
366	21/10/2020 19:00	11.865	6.618	
367	21/10/2020 20:00	11.865	6.905	
368	21/10/2020 21:00	11.865	7.123	
369	21/10/2020 22:00	11.865	7.222	
370	21/10/2020 23:00	11.865	7.236	
371	22/10/2020 00:00	11.865	7.166	
372	22/10/2020 01:00	11.865	7.005	
373	22/10/2020 02:00	11.865	6.833	
374	22/10/2020 03:00	11.813	6.636	
375	22/10/2020 04:00	11.865	6.469	
376	22/10/2020 05:00	11.813	6.376	
377	22/10/2020 06:00	11.865	6.399	
378	22/10/2020 07:00	11.865	6.585	
379	22/10/2020 08:00	11.813	6.818	
380	22/10/2020 09:00	11.865	7.042	
381	22/10/2020 10:00	11.865	7.174	
382	22/10/2020 11:00	11.813	7.229	
383	22/10/2020 12:00	11.865	7.168	
384	22/10/2020 13:00	11.865	7.038	

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385	22/10/2020 14:00	11.865	6.867	
386	22/10/2020 15:00	11.865	6.685	
387	22/10/2020 16:00	11.865	6.496	
388	22/10/2020 17:00	11.865	6.387	
389	22/10/2020 18:00	11.865	6.368	
390	22/10/2020 19:00	11.813	6.497	
391	22/10/2020 20:00	11.865	6.727	
392	22/10/2020 21:00	11.865	6.967	
393	22/10/2020 22:00	11.865	7.140	
394	22/10/2020 23:00	11.865	7.256	
395	23/10/2020 00:00	11.865	7.277	
396	23/10/2020 01:00	11.865	7.202	
397	23/10/2020 02:00	11.865	7.077	
398	23/10/2020 03:00	11.865	6.921	
399	23/10/2020 04:00	11.865	6.722	
400	23/10/2020 05:00	11.865	6.568	
401	23/10/2020 06:00	11.865	6.447	
402	23/10/2020 07:00	11.865	6.429	
403	23/10/2020 08:00	11.813	6.552	
404	23/10/2020 09:00	11.813	6.720	
405	23/10/2020 10:00	11.865	6.904	
406	23/10/2020 11:00	11.865	7.032	
407	23/10/2020 12:00	11.813	7.081	
408	23/10/2020 13:00	11.865	7.061	
409	23/10/2020 14:00	11.865	6.952	
410	23/10/2020 15:00	11.865	6.836	
411	23/10/2020 16:00	11.813	6.678	
412	23/10/2020 17:00	11.813	6.544	
413	23/10/2020 18:00	11.865	6.426	
414	23/10/2020 19:00	11.865	6.414	
415	23/10/2020 20:00	11.865	6.492	
416	23/10/2020 21:00	11.865	6.675	
417	23/10/2020 22:00	11.865	6.889	
418	23/10/2020 23:00	11.865	7.081	
419	24/10/2020 00:00	11.865	7.187	
420	24/10/2020 01:00	11.813	7.214	
421	24/10/2020 02:00	11.865	7.181	
422	24/10/2020 03:00	11.865	7.098	
423	24/10/2020 04:00	11.813	6.971	
424	24/10/2020 05:00	11.865	6.818	
425	24/10/2020 06:00	11.865	6.650	
426	24/10/2020 07:00	11.865	6.502	
427	24/10/2020 08:00	11.813	6.442	
428	24/10/2020 09:00	11.865	6.475	
429	24/10/2020 10:00	11.865	6.566	
430	24/10/2020 11:00	11.865	6.689	
431	24/10/2020 12:00	11.865	6.783	
432	24/10/2020 13:00	11.865	6.854	
433	24/10/2020 14:00	11.865	6.860	
434	24/10/2020 15:00	11.865	6.793	
435	24/10/2020 16:00	11.865	6.689	
436	24/10/2020 17:00	11.865	6.557	
437	24/10/2020 18:00	11.865	6.424	
438	24/10/2020 19:00	11.813	6.332	
439	24/10/2020 20:00	11.865	6.312	

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Engineer. Atkins
Client. Ballymore
Borehole No. BH 219
Serial No. 430436



	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	24/10/2020 21:00	11.865	6.361	
441	24/10/2020 22:00	11.865	6.516	
442	24/10/2020 23:00	11.813	6.714	
443	25/10/2020 00:00	11.865	6.876	
444	25/10/2020 01:00	11.865	7.028	
445	25/10/2020 02:00	11.865	7.081	
446	25/10/2020 02:00	11.865	7.098	
447	25/10/2020 03:00	11.865	7.042	
448	25/10/2020 04:00	11.813	6.922	
449	25/10/2020 05:00	11.813	6.777	
450	25/10/2020 06:00	11.865	6.607	
451	25/10/2020 07:00	11.813	6.487	
452	25/10/2020 08:00	11.865	6.414	
453	25/10/2020 09:00	11.865	6.447	
454	25/10/2020 10:00	11.813	6.553	
455	25/10/2020 11:00	11.865	6.696	
456	25/10/2020 12:00	11.865	6.828	
457	25/10/2020 13:00	11.813	6.932	
458	25/10/2020 14:00	11.865	6.938	
459	25/10/2020 15:00	11.813	6.921	
460	25/10/2020 16:00	11.865	6.825	
461	25/10/2020 17:00	11.865	6.697	
462	25/10/2020 18:00	11.813	6.551	
463	25/10/2020 19:00	11.865	6.405	
464	25/10/2020 20:00	11.865	6.349	
465	25/10/2020 21:00	11.865	6.337	
466	25/10/2020 22:00	11.865	6.460	
467	25/10/2020 23:00	11.865	6.630	
468	26/10/2020 00:00	11.865	6.824	
469	26/10/2020 01:00	11.865	6.983	
470	26/10/2020 02:00	11.865	7.085	
471	26/10/2020 03:00	11.865	7.122	
472	26/10/2020 04:00	11.865	7.099	
473	26/10/2020 05:00	11.813	7.005	
474	26/10/2020 06:00	11.865	6.882	
475	26/10/2020 07:00	11.813	6.735	
476	26/10/2020 08:00	11.865	6.567	
477	26/10/2020 09:00	11.865	6.479	
478	26/10/2020 10:00	11.865	6.505	
479	26/10/2020 11:00	11.865	6.608	
480	26/10/2020 12:00	11.865	6.761	
481	26/10/2020 13:00	11.865	6.932	
482	26/10/2020 14:00	11.813	7.044	
483	26/10/2020 15:00	11.865	7.083	
484	26/10/2020 16:00	11.813	7.046	
485	26/10/2020 17:00	11.865	6.960	
486	26/10/2020 18:00	11.813	6.828	
487	26/10/2020 19:00	11.865	6.683	
488	26/10/2020 20:00	11.865	6.561	
489	26/10/2020 21:00	11.865	6.472	
490	26/10/2020 22:00	11.865	6.489	
491	26/10/2020 23:00	11.865	6.611	
492	27/10/2020 00:00	11.865	6.789	
493	27/10/2020 01:00	11.865	6.999	
494	27/10/2020 02:00	11.813	7.163	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	27/10/2020 03:00	11.865	7.254	
496	27/10/2020 04:00	11.865	7.266	
497	27/10/2020 05:00	11.865	7.218	
498	27/10/2020 06:00	11.865	7.079	
499	27/10/2020 07:00	11.813	6.910	
500	27/10/2020 08:00	11.813	6.713	
501	27/10/2020 09:00	11.813	6.531	
502	27/10/2020 10:00	11.865	6.433	
503	27/10/2020 11:00	11.865	6.455	
504	27/10/2020 12:00	11.865	6.579	
505	27/10/2020 13:00	11.813	6.762	
506	27/10/2020 14:00	11.865	6.917	
507	27/10/2020 15:00	11.813	7.030	
508	27/10/2020 16:00	11.813	7.058	
509	27/10/2020 17:00	11.865	6.977	
510	27/10/2020 18:00	11.813	6.855	
511	27/10/2020 19:00	11.865	6.665	
512	27/10/2020 20:00	11.813	6.483	
513	27/10/2020 21:00	11.813	6.336	
514	27/10/2020 22:00	11.865	6.269	
515	27/10/2020 23:00	11.865	6.287	
516	28/10/2020 00:00	11.865	6.449	
517	28/10/2020 01:00	11.865	6.679	
518	28/10/2020 02:00	11.865	6.909	
519	28/10/2020 03:00	11.813	7.059	
520	28/10/2020 04:00	11.813	7.154	
521	28/10/2020 05:00	11.865	7.136	
522	28/10/2020 06:00	11.865	7.063	
523	28/10/2020 07:00	11.865	6.900	
524	28/10/2020 08:00	11.865	6.728	
525	28/10/2020 09:00	11.865	6.553	
526	28/10/2020 10:00	11.865	6.406	
527	28/10/2020 11:00	11.865	6.348	
528	28/10/2020 12:00	11.865	6.439	
529	28/10/2020 13:00	11.865	6.617	
530	28/10/2020 14:00	11.865	6.826	
531	28/10/2020 15:00	11.865	6.999	
532	28/10/2020 16:00	11.865	7.089	
533	28/10/2020 17:00	11.865	7.086	
534	28/10/2020 18:00	11.865	6.976	
535	28/10/2020 19:00	11.813	6.831	
536	28/10/2020 20:00	11.865	6.632	
537	28/10/2020 21:00	11.865	6.466	
538	28/10/2020 22:00	11.865	6.311	
539	28/10/2020 23:00	11.865	6.276	
540	29/10/2020 00:00	11.865	6.362	
541	29/10/2020 01:00	11.813	6.586	
542	29/10/2020 02:00	11.865	6.820	
543	29/10/2020 03:00	11.865	7.048	
544	29/10/2020 04:00	11.865	7.201	
545	29/10/2020 05:00	11.865	7.237	
546	29/10/2020 06:00	11.865	7.192	
547	29/10/2020 07:00	11.865	7.068	
548	29/10/2020 08:00	11.865	6.882	
549	29/10/2020 09:00	11.865	6.702	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	29/10/2020 10:00	11.865	6.502	
551	29/10/2020 11:00	11.865	6.398	
552	29/10/2020 12:00	11.865	6.396	
553	29/10/2020 13:00	11.865	6.536	
554	29/10/2020 14:00	11.865	6.755	
555	29/10/2020 15:00	11.865	6.955	
556	29/10/2020 16:00	11.865	7.087	
557	29/10/2020 17:00	11.865	7.148	
558	29/10/2020 18:00	11.865	7.076	
559	29/10/2020 19:00	11.813	6.917	
560	29/10/2020 20:00	11.865	6.721	
561	29/10/2020 21:00	11.865	6.509	
562	29/10/2020 22:00	11.865	6.313	
563	29/10/2020 23:00	11.865	6.209	
564	30/10/2020 00:00	11.813	6.196	
565	30/10/2020 01:00	11.865	6.343	
566	30/10/2020 02:00	11.865	6.583	
567	30/10/2020 03:00	11.865	6.857	
568	30/10/2020 04:00	11.865	7.039	
569	30/10/2020 05:00	11.865	7.152	
570	30/10/2020 06:00	11.865	7.130	
571	30/10/2020 07:00	11.865	7.047	
572	30/10/2020 08:00	11.865	6.892	
573	30/10/2020 09:00	11.865	6.710	
574	30/10/2020 10:00	11.813	6.511	
575	30/10/2020 11:00	11.865	6.371	
576	30/10/2020 12:00	11.865	6.334	
577	30/10/2020 13:00	11.865	6.422	
578	30/10/2020 14:00	11.865	6.656	
579	30/10/2020 15:00	11.813	6.917	
580	30/10/2020 16:00	11.865	7.128	
581	30/10/2020 17:00	11.865	7.255	
582	30/10/2020 18:00	11.865	7.259	
583	30/10/2020 19:00	11.813	7.156	
584	30/10/2020 20:00	11.865	6.970	
585	30/10/2020 21:00	11.865	6.760	
586	30/10/2020 22:00	11.813	6.586	
587	30/10/2020 23:00	11.865	6.404	
588	31/10/2020 00:00	11.865	6.323	
589	31/10/2020 01:00	11.865	6.365	
590	31/10/2020 02:00	11.813	6.530	
591	31/10/2020 03:00	11.813	6.809	
592	31/10/2020 04:00	11.865	7.040	
593	31/10/2020 05:00	11.865	7.174	
594	31/10/2020 06:00	11.865	7.214	
595	31/10/2020 07:00	11.813	7.135	
596	31/10/2020 08:00	11.865	6.955	
597	31/10/2020 09:00	11.865	6.719	
598	31/10/2020 10:00	11.865	6.483	
599	31/10/2020 11:00	11.813	6.291	
600	31/10/2020 12:00	11.813	6.209	
601	31/10/2020 13:00	11.813	6.230	
602	31/10/2020 14:00	11.865	6.386	
603	31/10/2020 15:00	11.813	6.619	
604	31/10/2020 16:00	11.813	6.849	

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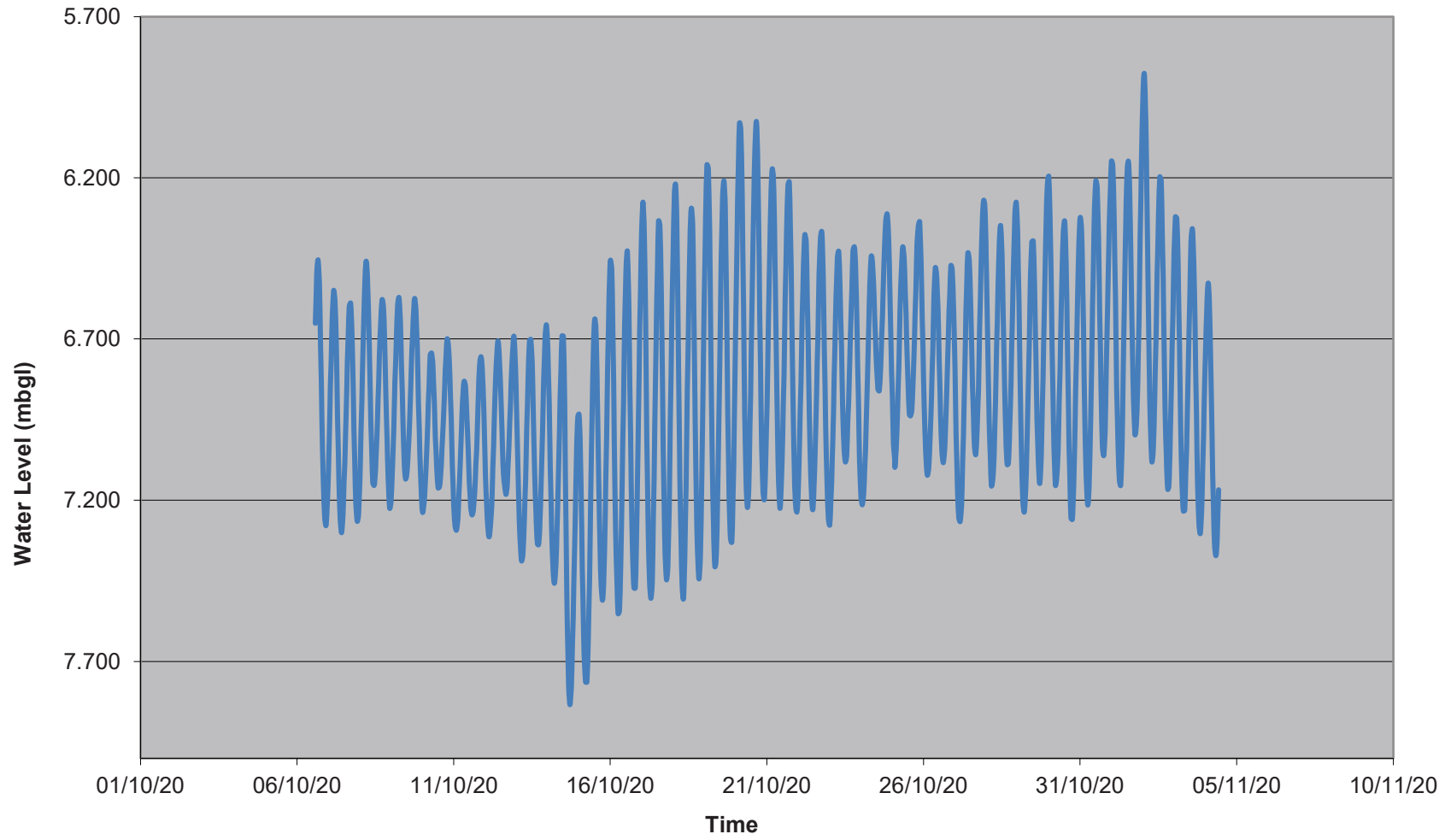
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	31/10/2020 17:00	11.865	7.032	
606	31/10/2020 18:00	11.865	7.061	
607	31/10/2020 19:00	11.865	6.990	
608	31/10/2020 20:00	11.865	6.795	
609	31/10/2020 21:00	11.865	6.600	
610	31/10/2020 22:00	11.813	6.393	
611	31/10/2020 23:00	11.813	6.245	
612	01/11/2020 00:00	11.813	6.148	
613	01/11/2020 01:00	11.865	6.165	
614	01/11/2020 02:00	11.813	6.325	
615	01/11/2020 03:00	11.813	6.575	
616	01/11/2020 04:00	11.865	6.848	
617	01/11/2020 05:00	11.865	7.023	
618	01/11/2020 06:00	11.865	7.136	
619	01/11/2020 07:00	11.865	7.153	
620	01/11/2020 08:00	11.813	7.036	
621	01/11/2020 09:00	11.865	6.804	
622	01/11/2020 10:00	11.813	6.556	
623	01/11/2020 11:00	11.813	6.323	
624	01/11/2020 12:00	11.865	6.174	
625	01/11/2020 13:00	11.865	6.149	
626	01/11/2020 14:00	11.865	6.253	
627	01/11/2020 15:00	11.813	6.492	
628	01/11/2020 16:00	11.813	6.736	
629	01/11/2020 17:00	11.865	6.896	
630	01/11/2020 18:00	11.813	6.996	
631	01/11/2020 19:00	11.865	6.967	
632	01/11/2020 20:00	11.865	6.850	
633	01/11/2020 21:00	11.813	6.642	
634	01/11/2020 22:00	11.865	6.382	
635	01/11/2020 23:00	11.813	6.139	
636	02/11/2020 00:00	11.813	5.957	
637	02/11/2020 01:00	11.865	5.876	
638	02/11/2020 02:00	11.813	5.967	
639	02/11/2020 03:00	11.865	6.213	
640	02/11/2020 04:00	11.865	6.527	
641	02/11/2020 05:00	11.865	6.823	
642	02/11/2020 06:00	11.813	7.002	
643	02/11/2020 07:00	11.865	7.081	
644	02/11/2020 08:00	11.865	7.042	
645	02/11/2020 09:00	11.865	6.895	
646	02/11/2020 10:00	11.865	6.707	
647	02/11/2020 11:00	11.865	6.501	
648	02/11/2020 12:00	11.813	6.318	
649	02/11/2020 13:00	11.865	6.197	
650	02/11/2020 14:00	11.865	6.208	
651	02/11/2020 15:00	11.813	6.378	
652	02/11/2020 16:00	11.865	6.626	
653	02/11/2020 17:00	11.865	6.910	
654	02/11/2020 18:00	11.865	7.064	
655	02/11/2020 19:00	11.865	7.166	
656	02/11/2020 20:00	11.865	7.155	
657	02/11/2020 21:00	11.813	7.006	
658	02/11/2020 22:00	11.865	6.817	
659	02/11/2020 23:00	11.865	6.625	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	03/11/2020 00:00	11.865	6.435	
661	03/11/2020 01:00	11.813	6.321	
662	03/11/2020 02:00	11.865	6.327	
663	03/11/2020 03:00	11.865	6.470	
664	03/11/2020 04:00	11.865	6.720	
665	03/11/2020 05:00	11.865	6.960	
666	03/11/2020 06:00	11.865	7.150	
667	03/11/2020 07:00	11.865	7.233	
668	03/11/2020 08:00	11.865	7.231	
669	03/11/2020 09:00	11.865	7.113	
670	03/11/2020 10:00	11.865	6.949	
671	03/11/2020 11:00	11.865	6.746	
672	03/11/2020 12:00	11.865	6.558	
673	03/11/2020 13:00	11.865	6.396	
674	03/11/2020 14:00	11.865	6.358	
675	03/11/2020 15:00	11.865	6.458	
676	03/11/2020 16:00	11.865	6.665	
677	03/11/2020 17:00	11.865	6.929	
678	03/11/2020 18:00	11.865	7.154	
679	03/11/2020 19:00	11.813	7.272	
680	03/11/2020 20:00	11.865	7.303	
681	03/11/2020 21:00	11.813	7.232	
682	03/11/2020 22:00	11.865	7.090	
683	03/11/2020 23:00	11.865	6.905	
684	04/11/2020 00:00	11.865	6.738	
685	04/11/2020 01:00	11.865	6.601	
686	04/11/2020 02:00	11.865	6.526	
687	04/11/2020 03:00	11.865	6.583	
688	04/11/2020 04:00	11.813	6.772	
689	04/11/2020 05:00	11.865	6.998	
690	04/11/2020 06:00	11.865	7.211	
691	04/11/2020 07:00	11.865	7.336	
692	04/11/2020 08:00	11.865	7.372	
693	04/11/2020 09:00	11.865	7.313	
694	04/11/2020 10:00	11.865	7.167	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	04/11/2020 13:00	11.992	6.853	
2	04/11/2020 14:00	11.865	6.622	
3	04/11/2020 15:00	11.865	6.502	
4	04/11/2020 16:00	11.813	6.516	
5	04/11/2020 17:00	11.865	6.650	
6	04/11/2020 18:00	11.813	6.877	
7	04/11/2020 19:00	11.865	7.099	
8	04/11/2020 20:00	11.865	7.279	
9	04/11/2020 21:00	11.865	7.372	
10	04/11/2020 22:00	11.865	7.367	
11	04/11/2020 23:00	11.865	7.273	
12	05/11/2020 00:00	11.865	7.127	
13	05/11/2020 01:00	11.865	6.952	
14	05/11/2020 02:00	11.865	6.796	
15	05/11/2020 03:00	11.865	6.646	
16	05/11/2020 04:00	11.865	6.623	
17	05/11/2020 05:00	11.865	6.695	
18	05/11/2020 06:00	11.865	6.871	
19	05/11/2020 07:00	11.865	7.071	
20	05/11/2020 08:00	11.865	7.244	
21	05/11/2020 09:00	11.865	7.326	
22	05/11/2020 10:00	11.813	7.327	
23	05/11/2020 11:00	11.813	7.220	
24	05/11/2020 12:00	11.865	7.064	
25	05/11/2020 13:00	11.865	6.892	
26	05/11/2020 14:00	11.865	6.741	
27	05/11/2020 15:00	11.865	6.592	
28	05/11/2020 16:00	11.865	6.538	
29	05/11/2020 17:00	11.865	6.592	
30	05/11/2020 18:00	11.813	6.768	
31	05/11/2020 19:00	11.813	6.994	
32	05/11/2020 20:00	11.865	7.180	
33	05/11/2020 21:00	11.865	7.316	
34	05/11/2020 22:00	11.865	7.355	
35	05/11/2020 23:00	11.865	7.327	
36	06/11/2020 00:00	11.813	7.193	
37	06/11/2020 01:00	11.813	7.025	
38	06/11/2020 02:00	11.865	6.857	
39	06/11/2020 03:00	11.865	6.697	
40	06/11/2020 04:00	11.813	6.593	
41	06/11/2020 05:00	11.865	6.591	
42	06/11/2020 06:00	11.865	6.681	
43	06/11/2020 07:00	11.813	6.870	
44	06/11/2020 08:00	11.865	7.057	
45	06/11/2020 09:00	11.865	7.195	
46	06/11/2020 10:00	11.865	7.253	
47	06/11/2020 11:00	11.865	7.251	
48	06/11/2020 12:00	11.865	7.150	
49	06/11/2020 13:00	11.865	7.016	
50	06/11/2020 14:00	11.865	6.855	
51	06/11/2020 15:00	11.865	6.699	
52	06/11/2020 16:00	11.865	6.564	
53	06/11/2020 17:00	11.865	6.537	
54	06/11/2020 18:00	11.865	6.600	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	06/11/2020 19:00	11.865	6.760	
56	06/11/2020 20:00	11.865	6.958	
57	06/11/2020 21:00	11.813	7.124	
58	06/11/2020 22:00	11.865	7.230	
59	06/11/2020 23:00	11.865	7.255	
60	07/11/2020 00:00	11.865	7.188	
61	07/11/2020 01:00	11.865	7.077	
62	07/11/2020 02:00	11.865	6.937	
63	07/11/2020 03:00	11.865	6.785	
64	07/11/2020 04:00	11.865	6.655	
65	07/11/2020 05:00	11.865	6.574	
66	07/11/2020 06:00	11.865	6.592	
67	07/11/2020 07:00	11.813	6.688	
68	07/11/2020 08:00	11.865	6.871	
69	07/11/2020 09:00	11.865	7.048	
70	07/11/2020 10:00	11.865	7.141	
71	07/11/2020 11:00	11.865	7.206	
72	07/11/2020 12:00	11.865	7.158	
73	07/11/2020 13:00	11.865	7.070	
74	07/11/2020 14:00	11.865	6.919	
75	07/11/2020 15:00	11.865	6.780	
76	07/11/2020 16:00	11.865	6.633	
77	07/11/2020 17:00	11.865	6.516	
78	07/11/2020 18:00	11.813	6.486	
79	07/11/2020 19:00	11.865	6.560	
80	07/11/2020 20:00	11.865	6.727	
81	07/11/2020 21:00	11.865	6.909	
82	07/11/2020 22:00	11.865	7.069	
83	07/11/2020 23:00	11.865	7.178	
84	08/11/2020 00:00	11.865	7.222	
85	08/11/2020 01:00	11.865	7.195	
86	08/11/2020 02:00	11.865	7.110	
87	08/11/2020 03:00	11.865	6.990	
88	08/11/2020 04:00	11.813	6.860	
89	08/11/2020 05:00	11.865	6.728	
90	08/11/2020 06:00	11.865	6.644	
91	08/11/2020 07:00	11.865	6.643	
92	08/11/2020 08:00	11.865	6.721	
93	08/11/2020 09:00	11.865	6.854	
94	08/11/2020 10:00	11.865	7.008	
95	08/11/2020 11:00	11.865	7.107	
96	08/11/2020 12:00	11.865	7.137	
97	08/11/2020 13:00	11.865	7.102	
98	08/11/2020 14:00	11.865	7.034	
99	08/11/2020 15:00	11.865	6.899	
100	08/11/2020 16:00	11.865	6.793	
101	08/11/2020 17:00	11.865	6.663	
102	08/11/2020 18:00	11.865	6.566	
103	08/11/2020 19:00	11.865	6.525	
104	08/11/2020 20:00	11.865	6.588	
105	08/11/2020 21:00	11.865	6.733	
106	08/11/2020 22:00	11.865	6.922	
107	08/11/2020 23:00	11.865	7.080	
108	09/11/2020 00:00	11.865	7.185	
109	09/11/2020 01:00	11.865	7.237	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	09/11/2020 02:00	11.865	7.216	
111	09/11/2020 03:00	11.865	7.133	
112	09/11/2020 04:00	11.865	7.015	
113	09/11/2020 05:00	11.865	6.894	
114	09/11/2020 06:00	11.865	6.733	
115	09/11/2020 07:00	11.865	6.636	
116	09/11/2020 08:00	11.865	6.594	
117	09/11/2020 09:00	11.865	6.670	
118	09/11/2020 10:00	11.865	6.797	
119	09/11/2020 11:00	11.865	6.935	
120	09/11/2020 12:00	11.865	7.040	
121	09/11/2020 13:00	11.865	7.102	
122	09/11/2020 14:00	11.865	7.115	
123	09/11/2020 15:00	11.865	7.054	
124	09/11/2020 16:00	11.865	6.950	
125	09/11/2020 17:00	11.865	6.838	
126	09/11/2020 18:00	11.865	6.701	
127	09/11/2020 19:00	11.865	6.569	
128	09/11/2020 20:00	11.865	6.508	
129	09/11/2020 21:00	11.865	6.537	
130	09/11/2020 22:00	11.865	6.674	
131	09/11/2020 23:00	11.865	6.859	
132	10/11/2020 00:00	11.865	7.045	
133	10/11/2020 01:00	11.865	7.173	
134	10/11/2020 02:00	11.865	7.244	
135	10/11/2020 03:00	11.813	7.241	
136	10/11/2020 04:00	11.865	7.181	
137	10/11/2020 05:00	11.865	7.083	
138	10/11/2020 06:00	11.865	6.944	
139	10/11/2020 07:00	11.813	6.792	
140	10/11/2020 08:00	11.813	6.674	
141	10/11/2020 09:00	11.865	6.598	
142	10/11/2020 10:00	11.865	6.653	
143	10/11/2020 11:00	11.865	6.770	
144	10/11/2020 12:00	11.865	6.916	
145	10/11/2020 13:00	11.865	7.059	
146	10/11/2020 14:00	11.865	7.144	
147	10/11/2020 15:00	11.865	7.166	
148	10/11/2020 16:00	11.865	7.118	
149	10/11/2020 17:00	11.865	7.028	
150	10/11/2020 18:00	11.865	6.889	
151	10/11/2020 19:00	11.865	6.753	
152	10/11/2020 20:00	11.865	6.598	
153	10/11/2020 21:00	11.865	6.499	
154	10/11/2020 22:00	11.865	6.519	
155	10/11/2020 23:00	11.865	6.654	
156	11/11/2020 00:00	11.865	6.844	
157	11/11/2020 01:00	11.865	7.031	
158	11/11/2020 02:00	11.865	7.178	
159	11/11/2020 03:00	11.865	7.265	
160	11/11/2020 04:00	11.865	7.260	
161	11/11/2020 05:00	11.865	7.185	
162	11/11/2020 06:00	11.865	7.044	
163	11/11/2020 07:00	11.865	6.875	
164	11/11/2020 08:00	11.865	6.692	

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165	11/11/2020 09:00	11.865	6.524	
166	11/11/2020 10:00	11.865	6.458	
167	11/11/2020 11:00	11.865	6.494	
168	11/11/2020 12:00	11.865	6.637	
169	11/11/2020 13:00	11.813	6.818	
170	11/11/2020 14:00	11.865	6.968	
171	11/11/2020 15:00	11.865	7.051	
172	11/11/2020 16:00	11.865	7.068	
173	11/11/2020 17:00	11.865	7.003	
174	11/11/2020 18:00	11.865	6.868	
175	11/11/2020 19:00	11.813	6.683	
176	11/11/2020 20:00	11.865	6.475	
177	11/11/2020 21:00	11.865	6.306	
178	11/11/2020 22:00	11.865	6.217	
179	11/11/2020 23:00	11.865	6.242	
180	12/11/2020 00:00	11.865	6.419	
181	12/11/2020 01:00	11.865	6.677	
182	12/11/2020 02:00	11.865	6.916	
183	12/11/2020 03:00	11.865	7.097	
184	12/11/2020 04:00	11.865	7.181	
185	12/11/2020 05:00	11.865	7.179	
186	12/11/2020 06:00	11.865	7.086	
187	12/11/2020 07:00	11.865	6.902	
188	12/11/2020 08:00	11.865	6.710	
189	12/11/2020 09:00	11.865	6.513	
190	12/11/2020 10:00	11.865	6.363	
191	12/11/2020 11:00	11.865	6.304	
192	12/11/2020 12:00	11.865	6.386	
193	12/11/2020 13:00	11.865	6.559	
194	12/11/2020 14:00	11.865	6.807	
195	12/11/2020 15:00	11.865	7.001	
196	12/11/2020 16:00	11.865	7.125	
197	12/11/2020 17:00	11.865	7.129	
198	12/11/2020 18:00	11.865	7.017	
199	12/11/2020 19:00	11.865	6.860	
200	12/11/2020 20:00	11.865	6.629	
201	12/11/2020 21:00	11.865	6.427	
202	12/11/2020 22:00	11.865	6.233	
203	12/11/2020 23:00	11.865	6.143	
204	13/11/2020 00:00	11.865	6.186	
205	13/11/2020 01:00	11.865	6.381	
206	13/11/2020 02:00	11.865	6.657	
207	13/11/2020 03:00	11.865	6.922	
208	13/11/2020 04:00	11.865	7.099	
209	13/11/2020 05:00	11.865	7.171	
210	13/11/2020 06:00	11.865	7.113	
211	13/11/2020 07:00	11.865	6.963	
212	13/11/2020 08:00	11.865	6.755	
213	13/11/2020 09:00	11.865	6.524	
214	13/11/2020 10:00	11.865	6.319	
215	13/11/2020 11:00	11.865	6.163	
216	13/11/2020 12:00	11.813	6.156	
217	13/11/2020 13:00	11.865	6.299	
218	13/11/2020 14:00	11.865	6.577	
219	13/11/2020 15:00	11.865	6.858	

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220	13/11/2020 16:00	11.865	7.053	
221	13/11/2020 17:00	11.865	7.168	
222	13/11/2020 18:00	11.865	7.128	
223	13/11/2020 19:00	11.865	6.986	
224	13/11/2020 20:00	11.865	6.769	
225	13/11/2020 21:00	11.865	6.534	
226	13/11/2020 22:00	11.865	6.289	
227	13/11/2020 23:00	11.865	6.117	
228	14/11/2020 00:00	11.865	6.068	
229	14/11/2020 01:00	11.865	6.176	
230	14/11/2020 02:00	11.865	6.441	
231	14/11/2020 03:00	11.865	6.771	
232	14/11/2020 04:00	11.865	7.041	
233	14/11/2020 05:00	11.865	7.189	
234	14/11/2020 06:00	11.917	7.242	
235	14/11/2020 07:00	11.865	7.153	
236	14/11/2020 08:00	11.865	6.959	
237	14/11/2020 09:00	11.865	6.705	
238	14/11/2020 10:00	11.865	6.436	
239	14/11/2020 11:00	11.865	6.203	
240	14/11/2020 12:00	11.865	6.038	
241	14/11/2020 13:00	11.865	6.062	
242	14/11/2020 14:00	11.865	6.227	
243	14/11/2020 15:00	11.865	6.509	
244	14/11/2020 16:00	11.865	6.805	
245	14/11/2020 17:00	11.865	6.990	
246	14/11/2020 18:00	11.865	7.062	
247	14/11/2020 19:00	11.865	7.007	
248	14/11/2020 20:00	11.865	6.835	
249	14/11/2020 21:00	11.865	6.578	
250	14/11/2020 22:00	11.865	6.310	
251	14/11/2020 23:00	11.865	6.059	
252	15/11/2020 00:00	11.865	5.876	
253	15/11/2020 01:00	11.865	5.841	
254	15/11/2020 02:00	11.865	6.002	
255	15/11/2020 03:00	11.865	6.336	
256	15/11/2020 04:00	11.865	6.684	
257	15/11/2020 05:00	11.865	6.944	
258	15/11/2020 06:00	11.865	7.070	
259	15/11/2020 07:00	11.865	7.075	
260	15/11/2020 08:00	11.865	6.927	
261	15/11/2020 09:00	11.865	6.696	
262	15/11/2020 10:00	11.865	6.422	
263	15/11/2020 11:00	11.865	6.175	
264	15/11/2020 12:00	11.865	5.978	
265	15/11/2020 13:00	11.865	5.869	
266	15/11/2020 14:00	11.865	5.955	
267	15/11/2020 15:00	11.865	6.224	
268	15/11/2020 16:00	11.865	6.575	
269	15/11/2020 17:00	11.865	6.886	
270	15/11/2020 18:00	11.865	7.050	
271	15/11/2020 19:00	11.813	7.118	
272	15/11/2020 20:00	11.865	7.029	
273	15/11/2020 21:00	11.865	6.825	
274	15/11/2020 22:00	11.865	6.560	

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275	15/11/2020 23:00	11.865	6.307	
276	16/11/2020 00:00	11.865	6.087	
277	16/11/2020 01:00	11.865	5.957	
278	16/11/2020 02:00	11.865	5.975	
279	16/11/2020 03:00	11.865	6.196	
280	16/11/2020 04:00	11.865	6.548	
281	16/11/2020 05:00	11.865	6.890	
282	16/11/2020 06:00	11.865	7.105	
283	16/11/2020 07:00	11.865	7.216	
284	16/11/2020 08:00	11.865	7.187	
285	16/11/2020 09:00	11.865	7.017	
286	16/11/2020 10:00	11.865	6.770	
287	16/11/2020 11:00	11.865	6.501	
288	16/11/2020 12:00	11.865	6.290	
289	16/11/2020 13:00	11.865	6.106	
290	16/11/2020 14:00	11.865	6.052	
291	16/11/2020 15:00	11.865	6.198	
292	16/11/2020 16:00	11.865	6.484	
293	16/11/2020 17:00	11.865	6.820	
294	16/11/2020 18:00	11.865	7.072	
295	16/11/2020 19:00	11.865	7.196	
296	16/11/2020 20:00	11.865	7.222	
297	16/11/2020 21:00	11.865	7.081	
298	16/11/2020 22:00	11.865	6.873	
299	16/11/2020 23:00	11.865	6.606	
300	17/11/2020 00:00	11.865	6.343	
301	17/11/2020 01:00	11.865	6.109	
302	17/11/2020 02:00	11.865	5.979	
303	17/11/2020 03:00	11.917	6.009	
304	17/11/2020 04:00	11.865	6.252	
305	17/11/2020 05:00	11.865	6.594	
306	17/11/2020 06:00	11.865	6.902	
307	17/11/2020 07:00	11.865	7.099	
308	17/11/2020 08:00	11.865	7.172	
309	17/11/2020 09:00	11.865	7.102	
310	17/11/2020 10:00	11.865	6.911	
311	17/11/2020 11:00	11.865	6.656	
312	17/11/2020 12:00	11.865	6.396	
313	17/11/2020 13:00	11.865	6.164	
314	17/11/2020 14:00	11.865	6.007	
315	17/11/2020 15:00	11.865	5.992	
316	17/11/2020 16:00	11.865	6.153	
317	17/11/2020 17:00	11.865	6.471	
318	17/11/2020 18:00	11.865	6.805	
319	17/11/2020 19:00	11.865	7.045	
320	17/11/2020 20:00	11.865	7.171	
321	17/11/2020 21:00	11.865	7.176	
322	17/11/2020 22:00	11.865	7.042	
323	17/11/2020 23:00	11.865	6.825	
324	18/11/2020 00:00	11.865	6.572	
325	18/11/2020 01:00	11.865	6.334	
326	18/11/2020 02:00	11.813	6.139	
327	18/11/2020 03:00	11.865	6.019	
328	18/11/2020 04:00	11.865	6.093	
329	18/11/2020 05:00	11.865	6.333	

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330	18/11/2020 06:00	11.865	6.636	
331	18/11/2020 07:00	11.865	6.905	
332	18/11/2020 08:00	11.865	7.063	
333	18/11/2020 09:00	11.865	7.110	
334	18/11/2020 10:00	11.865	7.027	
335	18/11/2020 11:00	11.865	6.831	
336	18/11/2020 12:00	11.865	6.582	
337	18/11/2020 13:00	11.865	6.323	
338	18/11/2020 14:00	11.865	6.120	
339	18/11/2020 15:00	11.865	5.985	
340	18/11/2020 16:00	11.865	6.003	
341	18/11/2020 17:00	11.865	6.202	
342	18/11/2020 18:00	11.865	6.540	
343	18/11/2020 19:00	11.865	6.829	
344	18/11/2020 20:00	11.865	7.033	
345	18/11/2020 21:00	11.865	7.150	
346	18/11/2020 22:00	11.865	7.133	
347	18/11/2020 23:00	11.865	7.022	
348	19/11/2020 00:00	11.865	6.844	
349	19/11/2020 01:00	11.865	6.617	
350	19/11/2020 02:00	11.865	6.392	
351	19/11/2020 03:00	11.865	6.234	
352	19/11/2020 04:00	11.865	6.163	
353	19/11/2020 05:00	11.865	6.240	
354	19/11/2020 06:00	11.865	6.494	
355	19/11/2020 07:00	11.865	6.782	
356	19/11/2020 08:00	11.865	7.030	
357	19/11/2020 09:00	11.865	7.178	
358	19/11/2020 10:00	11.865	7.235	
359	19/11/2020 11:00	11.865	7.177	
360	19/11/2020 12:00	11.865	7.035	
361	19/11/2020 13:00	11.865	6.838	
362	19/11/2020 14:00	11.865	6.674	
363	19/11/2020 15:00	11.865	6.522	
364	19/11/2020 16:00	11.865	6.430	
365	19/11/2020 17:00	11.865	6.470	
366	19/11/2020 18:00	11.865	6.622	
367	19/11/2020 19:00	11.865	6.881	
368	19/11/2020 20:00	11.865	7.101	
369	19/11/2020 21:00	11.865	7.261	
370	19/11/2020 22:00	11.865	7.339	
371	19/11/2020 23:00	11.865	7.306	
372	20/11/2020 00:00	11.865	7.184	
373	20/11/2020 01:00	11.865	7.026	
374	20/11/2020 02:00	11.865	6.822	
375	20/11/2020 03:00	11.865	6.664	
376	20/11/2020 04:00	11.865	6.482	
377	20/11/2020 05:00	11.865	6.412	
378	20/11/2020 06:00	11.865	6.463	
379	20/11/2020 07:00	11.865	6.632	
380	20/11/2020 08:00	11.865	6.844	
381	20/11/2020 09:00	11.865	7.027	
382	20/11/2020 10:00	11.865	7.130	
383	20/11/2020 11:00	11.865	7.138	
384	20/11/2020 12:00	11.865	7.060	

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385	20/11/2020 13:00	11.865	6.911	
386	20/11/2020 14:00	11.865	6.714	
387	20/11/2020 15:00	11.865	6.533	
388	20/11/2020 16:00	11.865	6.371	
389	20/11/2020 17:00	11.865	6.277	
390	20/11/2020 18:00	11.865	6.300	
391	20/11/2020 19:00	11.865	6.464	
392	20/11/2020 20:00	11.865	6.713	
393	20/11/2020 21:00	11.865	6.946	
394	20/11/2020 22:00	11.865	7.114	
395	20/11/2020 23:00	11.865	7.199	
396	21/11/2020 00:00	11.865	7.182	
397	21/11/2020 01:00	11.865	7.103	
398	21/11/2020 02:00	11.865	6.982	
399	21/11/2020 03:00	11.865	6.825	
400	21/11/2020 04:00	11.865	6.672	
401	21/11/2020 05:00	11.865	6.534	
402	21/11/2020 06:00	11.865	6.456	
403	21/11/2020 07:00	11.865	6.496	
404	21/11/2020 08:00	11.917	6.631	
405	21/11/2020 09:00	11.917	6.805	
406	21/11/2020 10:00	11.865	6.964	
407	21/11/2020 11:00	11.865	7.062	
408	21/11/2020 12:00	11.865	7.080	
409	21/11/2020 13:00	11.865	7.008	
410	21/11/2020 14:00	11.865	6.870	
411	21/11/2020 15:00	11.865	6.716	
412	21/11/2020 16:00	11.917	6.541	
413	21/11/2020 17:00	11.865	6.416	
414	21/11/2020 18:00	11.865	6.348	
415	21/11/2020 19:00	11.865	6.379	
416	21/11/2020 20:00	11.865	6.524	
417	21/11/2020 21:00	11.865	6.741	
418	21/11/2020 22:00	11.917	6.938	
419	21/11/2020 23:00	11.865	7.097	
420	22/11/2020 00:00	11.865	7.174	
421	22/11/2020 01:00	11.865	7.190	
422	22/11/2020 02:00	11.865	7.128	
423	22/11/2020 03:00	11.865	7.039	
424	22/11/2020 04:00	11.865	6.893	
425	22/11/2020 05:00	11.865	6.767	
426	22/11/2020 06:00	11.865	6.620	
427	22/11/2020 07:00	11.865	6.550	
428	22/11/2020 08:00	11.865	6.562	
429	22/11/2020 09:00	11.865	6.673	
430	22/11/2020 10:00	11.865	6.851	
431	22/11/2020 11:00	11.865	6.991	
432	22/11/2020 12:00	11.865	7.077	
433	22/11/2020 13:00	11.865	7.096	
434	22/11/2020 14:00	11.865	7.057	
435	22/11/2020 15:00	11.865	6.956	
436	22/11/2020 16:00	11.865	6.832	
437	22/11/2020 17:00	11.917	6.683	
438	22/11/2020 18:00	11.865	6.555	
439	22/11/2020 19:00	11.865	6.465	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	22/11/2020 20:00	11.865	6.457	
441	22/11/2020 21:00	11.865	6.566	
442	22/11/2020 22:00	11.865	6.723	
443	22/11/2020 23:00	11.865	6.922	
444	23/11/2020 00:00	11.865	7.075	
445	23/11/2020 01:00	11.865	7.166	
446	23/11/2020 02:00	11.917	7.182	
447	23/11/2020 03:00	11.865	7.158	
448	23/11/2020 04:00	11.865	7.096	
449	23/11/2020 05:00	11.865	6.972	
450	23/11/2020 06:00	11.865	6.847	
451	23/11/2020 07:00	11.865	6.720	
452	23/11/2020 08:00	11.865	6.617	
453	23/11/2020 09:00	11.865	6.596	
454	23/11/2020 10:00	11.865	6.673	
455	23/11/2020 11:00	11.865	6.797	
456	23/11/2020 12:00	11.865	6.922	
457	23/11/2020 13:00	11.865	7.019	
458	23/11/2020 14:00	11.865	7.040	
459	23/11/2020 15:00	11.917	7.006	
460	23/11/2020 16:00	11.865	6.907	
461	23/11/2020 17:00	11.865	6.785	
462	23/11/2020 18:00	11.865	6.621	
463	23/11/2020 19:00	11.865	6.482	
464	23/11/2020 20:00	11.865	6.395	
465	23/11/2020 21:00	11.865	6.380	
466	23/11/2020 22:00	11.865	6.455	
467	23/11/2020 23:00	11.865	6.621	
468	24/11/2020 00:00	11.865	6.807	
469	24/11/2020 01:00	11.865	6.978	
470	24/11/2020 02:00	11.865	7.079	
471	24/11/2020 03:00	11.865	7.118	
472	24/11/2020 04:00	11.865	7.103	
473	24/11/2020 05:00	11.865	7.027	
474	24/11/2020 06:00	11.865	6.918	
475	24/11/2020 07:00	11.865	6.770	
476	24/11/2020 08:00	11.865	6.632	
477	24/11/2020 09:00	11.865	6.536	
478	24/11/2020 10:00	11.865	6.502	
479	24/11/2020 11:00	11.865	6.573	
480	24/11/2020 12:00	11.865	6.716	
481	24/11/2020 13:00	11.917	6.846	
482	24/11/2020 14:00	11.865	6.947	
483	24/11/2020 15:00	11.865	7.007	
484	24/11/2020 16:00	11.865	6.973	
485	24/11/2020 17:00	11.917	6.884	
486	24/11/2020 18:00	11.865	6.766	
487	24/11/2020 19:00	11.865	6.629	
488	24/11/2020 20:00	11.865	6.474	
489	24/11/2020 21:00	11.865	6.378	
490	24/11/2020 22:00	11.865	6.343	
491	24/11/2020 23:00	11.865	6.429	
492	25/11/2020 00:00	11.917	6.597	
493	25/11/2020 01:00	11.865	6.813	
494	25/11/2020 02:00	11.865	6.988	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	25/11/2020 03:00	11.865	7.089	
496	25/11/2020 04:00	11.917	7.163	
497	25/11/2020 05:00	11.865	7.136	
498	25/11/2020 06:00	11.865	7.064	
499	25/11/2020 07:00	11.865	6.947	
500	25/11/2020 08:00	11.865	6.812	
501	25/11/2020 09:00	11.865	6.654	
502	25/11/2020 10:00	11.865	6.546	
503	25/11/2020 11:00	11.865	6.522	
504	25/11/2020 12:00	11.865	6.630	
505	25/11/2020 13:00	11.865	6.776	
506	25/11/2020 14:00	11.865	6.921	
507	25/11/2020 15:00	11.865	7.047	
508	25/11/2020 16:00	11.865	7.099	
509	25/11/2020 17:00	11.865	7.084	
510	25/11/2020 18:00	11.865	6.998	
511	25/11/2020 19:00	11.865	6.873	
512	25/11/2020 20:00	11.865	6.736	
513	25/11/2020 21:00	11.865	6.601	
514	25/11/2020 22:00	11.865	6.503	
515	25/11/2020 23:00	11.865	6.466	
516	26/11/2020 00:00	11.917	6.561	
517	26/11/2020 01:00	11.865	6.755	
518	26/11/2020 02:00	11.865	6.964	
519	26/11/2020 03:00	11.865	7.139	
520	26/11/2020 04:00	11.865	7.220	
521	26/11/2020 05:00	11.917	7.257	
522	26/11/2020 06:00	11.865	7.207	
523	26/11/2020 07:00	11.865	7.103	
524	26/11/2020 08:00	11.865	6.964	
525	26/11/2020 09:00	11.865	6.819	
526	26/11/2020 10:00	11.865	6.668	
527	26/11/2020 11:00	11.865	6.562	
528	26/11/2020 12:00	11.865	6.566	
529	26/11/2020 13:00	11.865	6.685	
530	26/11/2020 14:00	11.865	6.896	
531	26/11/2020 15:00	11.865	7.041	
532	26/11/2020 16:00	11.865	7.113	
533	26/11/2020 17:00	11.865	7.156	
534	26/11/2020 18:00	11.865	7.132	
535	26/11/2020 19:00	11.865	7.017	
536	26/11/2020 20:00	11.865	6.861	
537	26/11/2020 21:00	11.865	6.720	
538	26/11/2020 22:00	11.865	6.555	
539	26/11/2020 23:00	11.917	6.469	
540	27/11/2020 00:00	11.865	6.489	
541	27/11/2020 01:00	11.865	6.614	
542	27/11/2020 02:00	11.917	6.817	
543	27/11/2020 03:00	11.917	7.000	
544	27/11/2020 04:00	11.865	7.156	
545	27/11/2020 05:00	11.865	7.240	
546	27/11/2020 06:00	11.865	7.250	
547	27/11/2020 07:00	11.865	7.170	
548	27/11/2020 08:00	11.865	7.051	
549	27/11/2020 09:00	11.865	6.884	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	27/11/2020 10:00	11.865	6.716	
551	27/11/2020 11:00	11.865	6.577	
552	27/11/2020 12:00	11.865	6.517	
553	27/11/2020 13:00	11.917	6.581	
554	27/11/2020 14:00	11.865	6.735	
555	27/11/2020 15:00	11.865	6.925	
556	27/11/2020 16:00	11.865	7.064	
557	27/11/2020 17:00	11.865	7.171	
558	27/11/2020 18:00	11.865	7.159	
559	27/11/2020 19:00	11.917	7.095	
560	27/11/2020 20:00	11.917	6.933	
561	27/11/2020 21:00	11.865	6.774	
562	27/11/2020 22:00	11.917	6.601	
563	27/11/2020 23:00	11.865	6.459	
564	28/11/2020 00:00	11.865	6.406	
565	28/11/2020 01:00	11.865	6.456	
566	28/11/2020 02:00	11.865	6.632	
567	28/11/2020 03:00	11.865	6.852	
568	28/11/2020 04:00	11.917	7.032	
569	28/11/2020 05:00	11.865	7.144	
570	28/11/2020 06:00	11.865	7.193	
571	28/11/2020 07:00	11.865	7.158	
572	28/11/2020 08:00	11.865	7.047	
573	28/11/2020 09:00	11.917	6.896	
574	28/11/2020 10:00	11.865	6.707	
575	28/11/2020 11:00	11.865	6.547	
576	28/11/2020 12:00	11.865	6.439	
577	28/11/2020 13:00	11.865	6.431	
578	28/11/2020 14:00	11.865	6.568	
579	28/11/2020 15:00	11.865	6.770	
580	28/11/2020 16:00	11.865	6.970	
581	28/11/2020 17:00	11.865	7.124	
582	28/11/2020 18:00	11.865	7.184	
583	28/11/2020 19:00	11.865	7.137	
584	28/11/2020 20:00	11.865	7.053	
585	28/11/2020 21:00	11.917	6.888	
586	28/11/2020 22:00	11.865	6.721	
587	28/11/2020 23:00	11.917	6.545	
588	29/11/2020 00:00	11.865	6.439	
589	29/11/2020 01:00	11.865	6.424	
590	29/11/2020 02:00	11.865	6.540	
591	29/11/2020 03:00	11.865	6.729	
592	29/11/2020 04:00	11.917	6.962	
593	29/11/2020 05:00	11.917	7.120	
594	29/11/2020 06:00	11.917	7.222	
595	29/11/2020 07:00	11.865	7.219	
596	29/11/2020 08:00	11.917	7.145	
597	29/11/2020 09:00	11.865	6.993	
598	29/11/2020 10:00	11.865	6.828	
599	29/11/2020 11:00	11.865	6.661	
600	29/11/2020 12:00	11.865	6.502	
601	29/11/2020 13:00	11.865	6.442	
602	29/11/2020 14:00	11.865	6.508	
603	29/11/2020 15:00	11.865	6.674	
604	29/11/2020 16:00	11.917	6.892	

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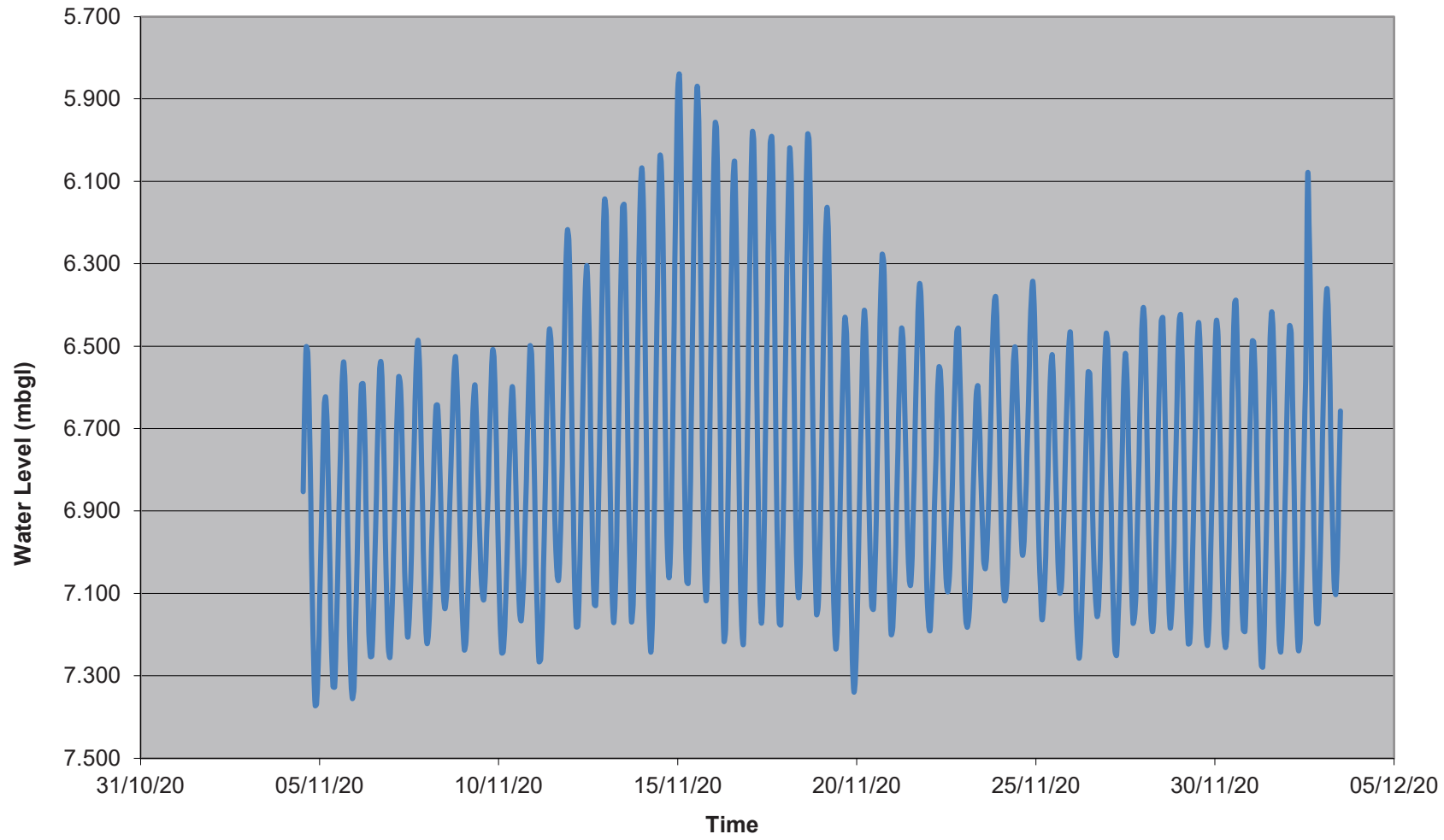
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	29/11/2020 17:00	11.865	7.083	
606	29/11/2020 18:00	11.865	7.201	
607	29/11/2020 19:00	11.865	7.226	
608	29/11/2020 20:00	11.865	7.165	
609	29/11/2020 21:00	11.865	7.021	
610	29/11/2020 22:00	11.865	6.851	
611	29/11/2020 23:00	11.865	6.675	
612	30/11/2020 00:00	11.865	6.515	
613	30/11/2020 01:00	11.865	6.437	
614	30/11/2020 02:00	11.865	6.479	
615	30/11/2020 03:00	11.865	6.655	
616	30/11/2020 04:00	11.865	6.864	
617	30/11/2020 05:00	11.865	7.072	
618	30/11/2020 06:00	11.865	7.197	
619	30/11/2020 07:00	11.865	7.231	
620	30/11/2020 08:00	11.865	7.200	
621	30/11/2020 09:00	11.865	7.066	
622	30/11/2020 10:00	11.865	6.900	
623	30/11/2020 11:00	11.865	6.702	
624	30/11/2020 12:00	11.865	6.532	
625	30/11/2020 13:00	11.865	6.397	
626	30/11/2020 14:00	11.917	6.389	
627	30/11/2020 15:00	11.865	6.514	
628	30/11/2020 16:00	11.865	6.719	
629	30/11/2020 17:00	11.865	6.950	
630	30/11/2020 18:00	11.865	7.120	
631	30/11/2020 19:00	11.865	7.188	
632	30/11/2020 20:00	11.917	7.192	
633	30/11/2020 21:00	11.865	7.100	
634	30/11/2020 22:00	11.865	6.927	
635	30/11/2020 23:00	11.865	6.766	
636	01/12/2020 00:00	11.865	6.611	
637	01/12/2020 01:00	11.865	6.487	
638	01/12/2020 02:00	11.865	6.490	
639	01/12/2020 03:00	11.865	6.591	
640	01/12/2020 04:00	11.865	6.798	
641	01/12/2020 05:00	11.917	7.025	
642	01/12/2020 06:00	11.865	7.183	
643	01/12/2020 07:00	11.865	7.274	
644	01/12/2020 08:00	11.865	7.278	
645	01/12/2020 09:00	11.917	7.177	
646	01/12/2020 10:00	11.865	7.021	
647	01/12/2020 11:00	11.917	6.835	
648	01/12/2020 12:00	11.865	6.644	
649	01/12/2020 13:00	11.865	6.481	
650	01/12/2020 14:00	11.865	6.416	
651	01/12/2020 15:00	11.865	6.467	
652	01/12/2020 16:00	11.865	6.643	
653	01/12/2020 17:00	11.865	6.892	
654	01/12/2020 18:00	11.865	7.095	
655	01/12/2020 19:00	11.865	7.214	
656	01/12/2020 20:00	11.865	7.242	
657	01/12/2020 21:00	11.865	7.180	
658	01/12/2020 22:00	11.865	7.043	
659	01/12/2020 23:00	11.865	6.871	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	02/12/2020 00:00	11.865	6.706	
661	02/12/2020 01:00	11.865	6.538	
662	02/12/2020 02:00	11.865	6.450	
663	02/12/2020 03:00	11.917	6.468	
664	02/12/2020 04:00	11.865	6.627	
665	02/12/2020 05:00	11.865	6.853	
666	02/12/2020 06:00	11.865	7.060	
667	02/12/2020 07:00	11.917	7.184	
668	02/12/2020 08:00	11.865	7.239	
669	02/12/2020 09:00	11.917	7.209	
670	02/12/2020 10:00	11.865	7.074	
671	02/12/2020 11:00	11.865	6.892	
672	02/12/2020 12:00	11.917	6.694	
673	02/12/2020 13:00	11.865	6.523	
674	02/12/2020 14:00	11.917	6.092	
675	02/12/2020 15:00	11.865	6.197	
676	02/12/2020 16:00	11.865	6.396	
677	02/12/2020 17:00	11.917	6.643	
678	02/12/2020 18:00	11.865	6.894	
679	02/12/2020 19:00	11.865	7.070	
680	02/12/2020 20:00	11.917	7.171	
681	02/12/2020 21:00	11.865	7.173	
682	02/12/2020 22:00	11.917	7.088	
683	02/12/2020 23:00	11.917	6.927	
684	03/12/2020 00:00	11.917	6.735	
685	03/12/2020 01:00	11.865	6.559	
686	03/12/2020 02:00	11.865	6.419	
687	03/12/2020 03:00	11.865	6.360	
688	03/12/2020 04:00	11.865	6.423	
689	03/12/2020 05:00	11.917	6.591	
690	03/12/2020 06:00	11.865	6.809	
691	03/12/2020 07:00	11.865	6.974	
692	03/12/2020 08:00	11.865	7.087	
693	03/12/2020 09:00	11.865	7.102	
694	03/12/2020 10:00	11.865	7.011	
695	03/12/2020 11:00	11.865	6.840	
696	03/12/2020 12:00	11.865	6.657	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	03/12/2020 15:00	11.865	6.367	
2	03/12/2020 16:00	11.865	6.402	
3	03/12/2020 17:00	11.917	6.568	
4	03/12/2020 18:00	11.917	6.803	
5	03/12/2020 19:00	11.917	7.033	
6	03/12/2020 20:00	11.917	7.192	
7	03/12/2020 21:00	11.865	7.249	
8	03/12/2020 22:00	11.865	7.236	
9	03/12/2020 23:00	11.865	7.122	
10	04/12/2020 00:00	11.917	6.985	
11	04/12/2020 01:00	11.865	6.806	
12	04/12/2020 02:00	11.917	6.657	
13	04/12/2020 03:00	11.865	6.536	
14	04/12/2020 04:00	11.865	6.531	
15	04/12/2020 05:00	11.865	6.644	
16	04/12/2020 06:00	11.865	6.840	
17	04/12/2020 07:00	11.865	7.035	
18	04/12/2020 08:00	11.917	7.188	
19	04/12/2020 09:00	11.865	7.265	
20	04/12/2020 10:00	11.917	7.233	
21	04/12/2020 11:00	11.917	7.142	
22	04/12/2020 12:00	11.917	6.976	
23	04/12/2020 13:00	11.865	6.808	
24	04/12/2020 14:00	11.865	6.642	
25	04/12/2020 15:00	11.917	6.499	
26	04/12/2020 16:00	11.917	6.449	
27	04/12/2020 17:00	11.865	6.524	
28	04/12/2020 18:00	11.865	6.706	
29	04/12/2020 19:00	11.865	6.929	
30	04/12/2020 20:00	11.865	7.109	
31	04/12/2020 21:00	11.865	7.227	
32	04/12/2020 22:00	11.865	7.269	
33	04/12/2020 23:00	11.865	7.232	
34	05/12/2020 00:00	11.865	7.103	
35	05/12/2020 01:00	11.917	6.977	
36	05/12/2020 02:00	11.865	6.821	
37	05/12/2020 03:00	11.865	6.711	
38	05/12/2020 04:00	11.865	6.655	
39	05/12/2020 05:00	11.865	6.705	
40	05/12/2020 06:00	11.865	6.848	
41	05/12/2020 07:00	11.917	7.025	
42	05/12/2020 08:00	11.917	7.180	
43	05/12/2020 09:00	11.917	7.288	
44	05/12/2020 10:00	11.917	7.327	
45	05/12/2020 11:00	11.917	7.289	
46	05/12/2020 12:00	11.917	7.179	
47	05/12/2020 13:00	11.917	7.045	
48	05/12/2020 14:00	11.865	6.889	
49	05/12/2020 15:00	11.917	6.741	
50	05/12/2020 16:00	11.865	6.642	
51	05/12/2020 17:00	11.917	6.620	
52	05/12/2020 18:00	11.865	6.754	
53	05/12/2020 19:00	11.865	6.929	
54	05/12/2020 20:00	11.917	7.150	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	05/12/2020 21:00	11.865	7.280	
56	05/12/2020 22:00	11.917	7.386	
57	05/12/2020 23:00	11.917	7.411	
58	06/12/2020 00:00	11.917	7.359	
59	06/12/2020 01:00	11.917	7.260	
60	06/12/2020 02:00	11.917	7.113	
61	06/12/2020 03:00	11.865	6.948	
62	06/12/2020 04:00	11.917	6.795	
63	06/12/2020 05:00	11.865	6.708	
64	06/12/2020 06:00	11.865	6.729	
65	06/12/2020 07:00	11.865	6.873	
66	06/12/2020 08:00	11.917	7.050	
67	06/12/2020 09:00	11.917	7.201	
68	06/12/2020 10:00	11.865	7.295	
69	06/12/2020 11:00	11.917	7.324	
70	06/12/2020 12:00	11.917	7.284	
71	06/12/2020 13:00	11.865	7.182	
72	06/12/2020 14:00	11.917	7.032	
73	06/12/2020 15:00	11.865	6.887	
74	06/12/2020 16:00	11.865	6.737	
75	06/12/2020 17:00	11.917	6.640	
76	06/12/2020 18:00	11.865	6.620	
77	06/12/2020 19:00	11.865	6.734	
78	06/12/2020 20:00	11.865	6.913	
79	06/12/2020 21:00	11.865	7.110	
80	06/12/2020 22:00	11.865	7.270	
81	06/12/2020 23:00	11.917	7.335	
82	07/12/2020 00:00	11.865	7.351	
83	07/12/2020 01:00	11.865	7.283	
84	07/12/2020 02:00	11.917	7.183	
85	07/12/2020 03:00	11.865	7.036	
86	07/12/2020 04:00	11.917	6.880	
87	07/12/2020 05:00	11.917	6.725	
88	07/12/2020 06:00	11.917	6.655	
89	07/12/2020 07:00	11.917	6.681	
90	07/12/2020 08:00	11.865	6.815	
91	07/12/2020 09:00	11.865	6.977	
92	07/12/2020 10:00	11.917	7.118	
93	07/12/2020 11:00	11.917	7.217	
94	07/12/2020 12:00	11.865	7.248	
95	07/12/2020 13:00	11.917	7.187	
96	07/12/2020 14:00	11.917	7.074	
97	07/12/2020 15:00	11.917	6.936	
98	07/12/2020 16:00	11.865	6.788	
99	07/12/2020 17:00	11.865	6.627	
100	07/12/2020 18:00	11.865	6.526	
101	07/12/2020 19:00	11.865	6.521	
102	07/12/2020 20:00	11.865	6.634	
103	07/12/2020 21:00	11.865	6.806	
104	07/12/2020 22:00	11.865	7.005	
105	07/12/2020 23:00	11.917	7.150	
106	08/12/2020 00:00	11.865	7.262	
107	08/12/2020 01:00	11.917	7.289	
108	08/12/2020 02:00	11.917	7.253	
109	08/12/2020 03:00	11.917	7.160	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	08/12/2020 04:00	11.917	7.026	
111	08/12/2020 05:00	11.917	6.869	
112	08/12/2020 06:00	11.917	6.725	
113	08/12/2020 07:00	11.865	6.648	
114	08/12/2020 08:00	11.865	6.675	
115	08/12/2020 09:00	11.865	6.783	
116	08/12/2020 10:00	11.865	6.923	
117	08/12/2020 11:00	11.917	7.076	
118	08/12/2020 12:00	11.865	7.180	
119	08/12/2020 13:00	11.917	7.211	
120	08/12/2020 14:00	11.917	7.171	
121	08/12/2020 15:00	11.865	7.066	
122	08/12/2020 16:00	11.917	6.947	
123	08/12/2020 17:00	11.917	6.808	
124	08/12/2020 18:00	11.865	6.686	
125	08/12/2020 19:00	11.917	6.598	
126	08/12/2020 20:00	11.865	6.580	
127	08/12/2020 21:00	11.865	6.708	
128	08/12/2020 22:00	11.865	6.875	
129	08/12/2020 23:00	11.865	7.076	
130	09/12/2020 00:00	11.865	7.248	
131	09/12/2020 01:00	11.917	7.342	
132	09/12/2020 02:00	11.865	7.374	
133	09/12/2020 03:00	11.917	7.336	
134	09/12/2020 04:00	11.865	7.253	
135	09/12/2020 05:00	11.865	7.129	
136	09/12/2020 06:00	11.865	6.971	
137	09/12/2020 07:00	11.865	6.826	
138	09/12/2020 08:00	11.865	6.717	
139	09/12/2020 09:00	11.865	6.712	
140	09/12/2020 10:00	11.865	6.800	
141	09/12/2020 11:00	11.917	6.947	
142	09/12/2020 12:00	11.865	7.101	
143	09/12/2020 13:00	11.917	7.194	
144	09/12/2020 14:00	11.917	7.244	
145	09/12/2020 15:00	11.917	7.221	
146	09/12/2020 16:00	11.917	7.127	
147	09/12/2020 17:00	11.917	7.001	
148	09/12/2020 18:00	11.917	6.833	
149	09/12/2020 19:00	11.865	6.670	
150	09/12/2020 20:00	11.865	6.532	
151	09/12/2020 21:00	11.865	6.465	
152	09/12/2020 22:00	11.917	6.550	
153	09/12/2020 23:00	11.865	6.713	
154	10/12/2020 00:00	11.917	6.934	
155	10/12/2020 01:00	11.917	7.116	
156	10/12/2020 02:00	11.917	7.224	
157	10/12/2020 03:00	11.865	7.276	
158	10/12/2020 04:00	11.917	7.237	
159	10/12/2020 05:00	11.865	7.156	
160	10/12/2020 06:00	11.865	7.044	
161	10/12/2020 07:00	11.917	6.908	
162	10/12/2020 08:00	11.917	6.744	
163	10/12/2020 09:00	11.917	6.649	
164	10/12/2020 10:00	11.917	6.651	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	10/12/2020 11:00	11.917	6.732	
166	10/12/2020 12:00	11.917	6.904	
167	10/12/2020 13:00	11.917	7.054	
168	10/12/2020 14:00	11.865	7.184	
169	10/12/2020 15:00	11.865	7.225	
170	10/12/2020 16:00	11.917	7.241	
171	10/12/2020 17:00	11.917	7.132	
172	10/12/2020 18:00	11.917	6.976	
173	10/12/2020 19:00	11.917	6.800	
174	10/12/2020 20:00	11.917	6.605	
175	10/12/2020 21:00	11.865	6.447	
176	10/12/2020 22:00	11.865	6.416	
177	10/12/2020 23:00	11.865	6.494	
178	11/12/2020 00:00	11.865	6.691	
179	11/12/2020 01:00	11.865	6.909	
180	11/12/2020 02:00	11.917	7.103	
181	11/12/2020 03:00	11.917	7.216	
182	11/12/2020 04:00	11.917	7.269	
183	11/12/2020 05:00	11.865	7.219	
184	11/12/2020 06:00	11.917	7.107	
185	11/12/2020 07:00	11.917	6.942	
186	11/12/2020 08:00	11.865	6.767	
187	11/12/2020 09:00	11.917	6.557	
188	11/12/2020 10:00	11.917	6.442	
189	11/12/2020 11:00	11.865	6.448	
190	11/12/2020 12:00	11.865	6.554	
191	11/12/2020 13:00	11.917	6.773	
192	11/12/2020 14:00	11.917	6.964	
193	11/12/2020 15:00	11.917	7.110	
194	11/12/2020 16:00	11.917	7.187	
195	11/12/2020 17:00	11.865	7.157	
196	11/12/2020 18:00	11.917	7.073	
197	11/12/2020 19:00	11.917	6.949	
198	11/12/2020 20:00	11.917	6.767	
199	11/12/2020 21:00	11.917	6.577	
200	11/12/2020 22:00	11.917	6.441	
201	11/12/2020 23:00	11.865	6.415	
202	12/12/2020 00:00	11.865	6.527	
203	12/12/2020 01:00	11.917	6.756	
204	12/12/2020 02:00	11.917	7.013	
205	12/12/2020 03:00	11.917	7.208	
206	12/12/2020 04:00	11.917	7.339	
207	12/12/2020 05:00	11.917	7.373	
208	12/12/2020 06:00	11.917	7.309	
209	12/12/2020 07:00	11.865	7.194	
210	12/12/2020 08:00	11.917	7.015	
211	12/12/2020 09:00	11.917	6.806	
212	12/12/2020 10:00	11.917	6.622	
213	12/12/2020 11:00	11.917	6.521	
214	12/12/2020 12:00	11.865	6.540	
215	12/12/2020 13:00	11.917	6.700	
216	12/12/2020 14:00	11.917	6.943	
217	12/12/2020 15:00	11.917	7.150	
218	12/12/2020 16:00	11.917	7.290	
219	12/12/2020 17:00	11.917	7.357	

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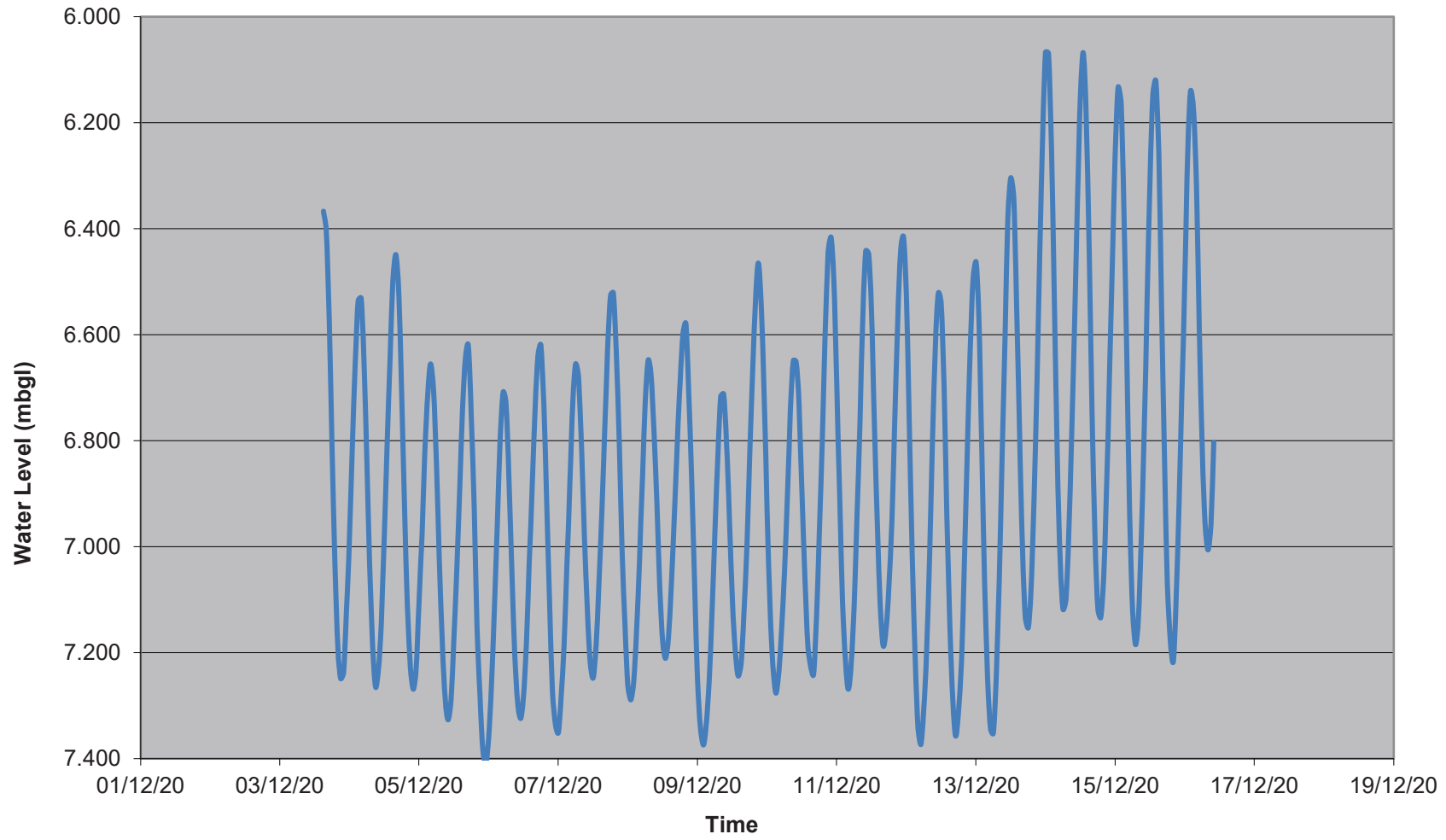
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	12/12/2020 18:00	11.917	7.309	
221	12/12/2020 19:00	11.865	7.213	
222	12/12/2020 20:00	11.917	7.032	
223	12/12/2020 21:00	11.917	6.816	
224	12/12/2020 22:00	11.865	6.635	
225	12/12/2020 23:00	11.917	6.495	
226	13/12/2020 00:00	11.917	6.463	
227	13/12/2020 01:00	11.917	6.565	
228	13/12/2020 02:00	11.865	6.818	
229	13/12/2020 03:00	11.917	7.065	
230	13/12/2020 04:00	11.917	7.248	
231	13/12/2020 05:00	11.917	7.344	
232	13/12/2020 06:00	11.917	7.352	
233	13/12/2020 07:00	11.917	7.245	
234	13/12/2020 08:00	11.917	7.059	
235	13/12/2020 09:00	11.917	6.835	
236	13/12/2020 10:00	11.917	6.605	
237	13/12/2020 11:00	11.865	6.383	
238	13/12/2020 12:00	11.865	6.304	
239	13/12/2020 13:00	11.865	6.342	
240	13/12/2020 14:00	11.917	6.537	
241	13/12/2020 15:00	11.917	6.779	
242	13/12/2020 16:00	11.865	7.004	
243	13/12/2020 17:00	11.865	7.133	
244	13/12/2020 18:00	11.917	7.153	
245	13/12/2020 19:00	11.917	7.082	
246	13/12/2020 20:00	11.917	6.913	
247	13/12/2020 21:00	11.917	6.689	
248	13/12/2020 22:00	11.917	6.448	
249	13/12/2020 23:00	11.917	6.219	
250	14/12/2020 00:00	11.917	6.067	
251	14/12/2020 01:00	11.865	6.069	
252	14/12/2020 02:00	11.917	6.246	
253	14/12/2020 03:00	11.917	6.520	
254	14/12/2020 04:00	11.865	6.823	
255	14/12/2020 05:00	11.917	7.026	
256	14/12/2020 06:00	11.917	7.118	
257	14/12/2020 07:00	11.917	7.100	
258	14/12/2020 08:00	11.865	6.979	
259	14/12/2020 09:00	11.917	6.787	
260	14/12/2020 10:00	11.917	6.569	
261	14/12/2020 11:00	11.917	6.350	
262	14/12/2020 12:00	11.917	6.147	
263	14/12/2020 13:00	11.917	6.068	
264	14/12/2020 14:00	11.917	6.189	
265	14/12/2020 15:00	11.917	6.439	
266	14/12/2020 16:00	11.917	6.736	
267	14/12/2020 17:00	11.917	6.975	
268	14/12/2020 18:00	11.917	7.118	
269	14/12/2020 19:00	11.917	7.134	
270	14/12/2020 20:00	11.917	7.059	
271	14/12/2020 21:00	11.917	6.899	
272	14/12/2020 22:00	11.917	6.680	
273	14/12/2020 23:00	11.917	6.463	
274	15/12/2020 00:00	11.917	6.260	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/12/2020 01:00	11.865	6.133	
276	15/12/2020 02:00	11.917	6.163	
277	15/12/2020 03:00	11.917	6.362	
278	15/12/2020 04:00	11.865	6.648	
279	15/12/2020 05:00	11.917	6.936	
280	15/12/2020 06:00	11.865	7.121	
281	15/12/2020 07:00	11.917	7.185	
282	15/12/2020 08:00	11.917	7.136	
283	15/12/2020 09:00	11.917	6.980	
284	15/12/2020 10:00	11.917	6.788	
285	15/12/2020 11:00	11.917	6.535	
286	15/12/2020 12:00	11.917	6.302	
287	15/12/2020 13:00	11.917	6.147	
288	15/12/2020 14:00	11.917	6.121	
289	15/12/2020 15:00	11.865	6.258	
290	15/12/2020 16:00	11.917	6.551	
291	15/12/2020 17:00	11.917	6.840	
292	15/12/2020 18:00	11.917	7.069	
293	15/12/2020 19:00	11.917	7.178	
294	15/12/2020 20:00	11.917	7.217	
295	15/12/2020 21:00	11.917	7.103	
296	15/12/2020 22:00	11.917	6.919	
297	15/12/2020 23:00	11.917	6.714	
298	16/12/2020 00:00	11.917	6.495	
299	16/12/2020 01:00	11.917	6.252	
300	16/12/2020 02:00	11.865	6.140	
301	16/12/2020 03:00	11.917	6.176	
302	16/12/2020 04:00	11.917	6.323	
303	16/12/2020 05:00	11.917	6.588	
304	16/12/2020 06:00	11.969	6.817	
305	16/12/2020 07:00	11.917	6.955	
306	16/12/2020 08:00	11.917	7.006	
307	16/12/2020 09:00	11.917	6.956	
308	16/12/2020 10:00	11.917	6.803	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	08/10/2020 10:00	11.814	2.189	
2	08/10/2020 11:00	11.814	2.183	
3	08/10/2020 12:00	11.814	2.141	
4	08/10/2020 13:00	11.814	2.022	
5	08/10/2020 14:00	11.762	1.880	
6	08/10/2020 15:00	11.814	1.740	
7	08/10/2020 16:00	11.814	1.595	
8	08/10/2020 17:00	11.867	1.538	
9	08/10/2020 18:00	11.867	1.590	
10	08/10/2020 19:00	11.867	1.722	
11	08/10/2020 20:00	11.762	1.915	
12	08/10/2020 21:00	11.867	2.085	
13	08/10/2020 22:00	11.814	2.199	
14	08/10/2020 23:00	11.762	2.241	
15	09/10/2020 00:00	11.709	2.185	
16	09/10/2020 01:00	11.867	2.070	
17	09/10/2020 02:00	11.814	1.942	
18	09/10/2020 03:00	11.709	1.766	
19	09/10/2020 04:00	11.762	1.639	
20	09/10/2020 05:00	11.814	1.527	
21	09/10/2020 06:00	11.762	1.512	
22	09/10/2020 07:00	11.762	1.612	
23	09/10/2020 08:00	11.867	1.771	
24	09/10/2020 09:00	11.709	1.938	
25	09/10/2020 10:00	11.762	2.081	
26	09/10/2020 11:00	11.814	2.141	
27	09/10/2020 12:00	11.762	2.119	
28	09/10/2020 13:00	11.867	2.056	
29	09/10/2020 14:00	11.867	1.919	
30	09/10/2020 15:00	11.657	1.795	
31	09/10/2020 16:00	11.709	1.687	
32	09/10/2020 17:00	11.709	1.565	
33	09/10/2020 18:00	11.867	1.483	
34	09/10/2020 19:00	11.762	1.583	
35	09/10/2020 20:00	11.814	1.709	
36	09/10/2020 21:00	11.867	1.888	
37	09/10/2020 22:00	11.919	2.064	
38	09/10/2020 23:00	11.867	2.185	
39	10/10/2020 00:00	11.657	2.243	
40	10/10/2020 01:00	11.919	2.219	
41	10/10/2020 02:00	11.709	2.152	
42	10/10/2020 03:00	11.709	2.027	
43	10/10/2020 04:00	11.867	1.902	
44	10/10/2020 05:00	11.709	1.784	
45	10/10/2020 06:00	11.867	1.704	
46	10/10/2020 07:00	11.657	1.692	
47	10/10/2020 08:00	11.867	1.754	
48	10/10/2020 09:00	11.867	1.874	
49	10/10/2020 10:00	11.709	2.006	
50	10/10/2020 11:00	11.657	2.109	
51	10/10/2020 12:00	11.867	2.146	
52	10/10/2020 13:00	11.867	2.159	
53	10/10/2020 14:00	11.762	2.091	
54	10/10/2020 15:00	11.814	2.007	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	10/10/2020 16:00	11.762	1.906	
56	10/10/2020 17:00	11.814	1.790	
57	10/10/2020 18:00	11.709	1.675	
58	10/10/2020 19:00	11.814	1.631	
59	10/10/2020 20:00	11.867	1.665	
60	10/10/2020 21:00	11.814	1.783	
61	10/10/2020 22:00	11.709	1.952	
62	10/10/2020 23:00	11.867	2.096	
63	11/10/2020 00:00	11.814	2.207	
64	11/10/2020 01:00	11.867	2.289	
65	11/10/2020 02:00	11.762	2.279	
66	11/10/2020 03:00	11.867	2.237	
67	11/10/2020 04:00	11.762	2.150	
68	11/10/2020 05:00	11.762	2.014	
69	11/10/2020 06:00	11.867	1.893	
70	11/10/2020 07:00	11.762	1.795	
71	11/10/2020 08:00	11.762	1.764	
72	11/10/2020 09:00	11.814	1.799	
73	11/10/2020 10:00	11.814	1.885	
74	11/10/2020 11:00	11.762	2.022	
75	11/10/2020 12:00	11.814	2.134	
76	11/10/2020 13:00	11.814	2.214	
77	11/10/2020 14:00	11.867	2.243	
78	11/10/2020 15:00	11.867	2.216	
79	11/10/2020 16:00	11.762	2.145	
80	11/10/2020 17:00	11.867	2.043	
81	11/10/2020 18:00	11.867	1.919	
82	11/10/2020 19:00	11.867	1.787	
83	11/10/2020 20:00	11.814	1.694	
84	11/10/2020 21:00	11.814	1.666	
85	11/10/2020 22:00	11.762	1.747	
86	11/10/2020 23:00	11.814	1.905	
87	12/10/2020 00:00	11.814	2.055	
88	12/10/2020 01:00	11.762	2.212	
89	12/10/2020 02:00	11.814	2.279	
90	12/10/2020 03:00	11.762	2.312	
91	12/10/2020 04:00	11.814	2.262	
92	12/10/2020 05:00	11.814	2.189	
93	12/10/2020 06:00	11.762	2.052	
94	12/10/2020 07:00	11.814	1.895	
95	12/10/2020 08:00	11.814	1.732	
96	12/10/2020 09:00	11.814	1.648	
97	12/10/2020 10:00	11.762	1.614	
98	12/10/2020 11:00	11.814	1.697	
99	12/10/2020 12:00	11.762	1.827	
100	12/10/2020 13:00	11.814	1.963	
101	12/10/2020 14:00	11.762	2.082	
102	12/10/2020 15:00	11.762	2.158	
103	12/10/2020 16:00	11.814	2.151	
104	12/10/2020 17:00	11.762	2.098	
105	12/10/2020 18:00	11.814	2.022	
106	12/10/2020 19:00	11.814	1.888	
107	12/10/2020 20:00	11.867	1.738	
108	12/10/2020 21:00	11.762	1.634	
109	12/10/2020 22:00	11.814	1.609	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	12/10/2020 23:00	11.814	1.690	
111	13/10/2020 00:00	11.814	1.858	
112	13/10/2020 01:00	11.814	2.057	
113	13/10/2020 02:00	11.762	2.233	
114	13/10/2020 03:00	11.814	2.355	
115	13/10/2020 04:00	11.814	2.393	
116	13/10/2020 05:00	11.814	2.346	
117	13/10/2020 06:00	11.814	2.239	
118	13/10/2020 07:00	11.814	2.071	
119	13/10/2020 08:00	11.762	1.890	
120	13/10/2020 09:00	11.814	1.716	
121	13/10/2020 10:00	11.814	1.610	
122	13/10/2020 11:00	11.814	1.599	
123	13/10/2020 12:00	11.814	1.714	
124	13/10/2020 13:00	11.814	1.910	
125	13/10/2020 14:00	11.814	2.109	
126	13/10/2020 15:00	11.814	2.263	
127	13/10/2020 16:00	11.814	2.324	
128	13/10/2020 17:00	11.762	2.321	
129	13/10/2020 18:00	11.814	2.239	
130	13/10/2020 19:00	11.814	2.069	
131	13/10/2020 20:00	11.814	1.880	
132	13/10/2020 21:00	11.814	1.711	
133	13/10/2020 22:00	11.814	1.578	
134	13/10/2020 23:00	11.762	1.527	
135	14/10/2020 00:00	11.814	1.637	
136	14/10/2020 01:00	11.814	1.846	
137	14/10/2020 02:00	11.814	2.094	
138	14/10/2020 03:00	11.814	2.298	
139	14/10/2020 04:00	11.814	2.416	
140	14/10/2020 05:00	11.814	2.443	
141	14/10/2020 06:00	11.814	2.412	
142	14/10/2020 07:00	11.814	2.258	
143	14/10/2020 08:00	11.814	2.058	
144	14/10/2020 09:00	11.762	1.862	
145	14/10/2020 10:00	11.814	1.659	
146	14/10/2020 11:00	11.814	1.570	
147	14/10/2020 12:00	11.814	1.584	
148	14/10/2020 13:00	11.762	1.782	
149	14/10/2020 14:00	11.814	2.052	
150	14/10/2020 15:00	11.814	2.318	
151	14/10/2020 16:00	11.762	2.488	
152	14/10/2020 17:00	11.814	2.558	
153	14/10/2020 18:00	11.814	2.512	
154	14/10/2020 19:00	11.814	2.345	
155	14/10/2020 20:00	11.814	2.138	
156	14/10/2020 21:00	11.762	1.904	
157	14/10/2020 22:00	11.814	1.682	
158	14/10/2020 23:00	11.867	1.566	
159	15/10/2020 00:00	11.814	1.585	
160	15/10/2020 01:00	11.814	1.751	
161	15/10/2020 02:00	11.762	2.034	
162	15/10/2020 03:00	11.814	2.310	
163	15/10/2020 04:00	11.814	2.509	
164	15/10/2020 05:00	11.814	2.611	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	15/10/2020 06:00	11.814	2.591	
166	15/10/2020 07:00	11.814	2.469	
167	15/10/2020 08:00	11.814	2.249	
168	15/10/2020 09:00	11.814	1.975	
169	15/10/2020 10:00	11.814	1.726	
170	15/10/2020 11:00	11.814	1.528	
171	15/10/2020 12:00	11.814	1.451	
172	15/10/2020 13:00	11.814	1.539	
173	15/10/2020 14:00	11.762	1.774	
174	15/10/2020 15:00	11.762	2.077	
175	15/10/2020 16:00	11.814	2.310	
176	15/10/2020 17:00	11.814	2.439	
177	15/10/2020 18:00	11.814	2.469	
178	15/10/2020 19:00	11.814	2.355	
179	15/10/2020 20:00	11.762	2.161	
180	15/10/2020 21:00	11.867	1.868	
181	15/10/2020 22:00	11.762	1.613	
182	15/10/2020 23:00	11.814	1.396	
183	16/10/2020 00:00	11.814	1.298	
184	16/10/2020 01:00	11.814	1.349	
185	16/10/2020 02:00	11.814	1.622	
186	16/10/2020 03:00	11.814	1.954	
187	16/10/2020 04:00	11.814	2.254	
188	16/10/2020 05:00	11.814	2.458	
189	16/10/2020 06:00	11.814	2.550	
190	16/10/2020 07:00	11.814	2.505	
191	16/10/2020 08:00	11.814	2.315	
192	16/10/2020 09:00	11.814	2.043	
193	16/10/2020 10:00	11.762	1.745	
194	16/10/2020 11:00	11.814	1.508	
195	16/10/2020 12:00	11.762	1.326	
196	16/10/2020 13:00	11.814	1.317	
197	16/10/2020 14:00	11.762	1.505	
198	16/10/2020 15:00	11.814	1.797	
199	16/10/2020 16:00	11.814	2.134	
200	16/10/2020 17:00	11.814	2.354	
201	16/10/2020 18:00	11.814	2.474	
202	16/10/2020 19:00	11.814	2.424	
203	16/10/2020 20:00	11.814	2.261	
204	16/10/2020 21:00	11.814	1.957	
205	16/10/2020 22:00	11.814	1.662	
206	16/10/2020 23:00	11.814	1.383	
207	17/10/2020 00:00	11.814	1.187	
208	17/10/2020 01:00	11.814	1.135	
209	17/10/2020 02:00	11.814	1.269	
210	17/10/2020 03:00	11.814	1.608	
211	17/10/2020 04:00	11.814	1.969	
212	17/10/2020 05:00	11.814	2.266	
213	17/10/2020 06:00	11.814	2.452	
214	17/10/2020 07:00	11.814	2.499	
215	17/10/2020 08:00	11.814	2.395	
216	17/10/2020 09:00	11.814	2.173	
217	17/10/2020 10:00	11.814	1.856	
218	17/10/2020 11:00	11.814	1.539	
219	17/10/2020 12:00	11.814	1.302	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	17/10/2020 13:00	11.814	1.173	
221	17/10/2020 14:00	11.814	1.227	
222	17/10/2020 15:00	11.814	1.485	
223	17/10/2020 16:00	11.814	1.856	
224	17/10/2020 17:00	11.814	2.187	
225	17/10/2020 18:00	11.814	2.383	
226	17/10/2020 19:00	11.814	2.437	
227	17/10/2020 20:00	11.814	2.375	
228	17/10/2020 21:00	11.814	2.139	
229	17/10/2020 22:00	11.814	1.811	
230	17/10/2020 23:00	11.814	1.529	
231	18/10/2020 00:00	11.814	1.245	
232	18/10/2020 01:00	11.814	1.064	
233	18/10/2020 02:00	11.814	1.069	
234	18/10/2020 03:00	11.814	1.272	
235	18/10/2020 04:00	11.814	1.659	
236	18/10/2020 05:00	11.814	2.034	
237	18/10/2020 06:00	11.814	2.338	
238	18/10/2020 07:00	11.814	2.458	
239	18/10/2020 08:00	11.814	2.464	
240	18/10/2020 09:00	11.814	2.327	
241	18/10/2020 10:00	11.814	2.051	
242	18/10/2020 11:00	11.814	1.720	
243	18/10/2020 12:00	11.814	1.444	
244	18/10/2020 13:00	11.814	1.224	
245	18/10/2020 14:00	11.814	1.137	
246	18/10/2020 15:00	11.814	1.228	
247	18/10/2020 16:00	11.814	1.563	
248	18/10/2020 17:00	11.814	1.924	
249	18/10/2020 18:00	11.814	2.232	
250	18/10/2020 19:00	11.814	2.383	
251	18/10/2020 20:00	11.814	2.422	
252	18/10/2020 21:00	11.814	2.308	
253	18/10/2020 22:00	11.814	2.015	
254	18/10/2020 23:00	11.814	1.693	
255	19/10/2020 00:00	11.814	1.396	
256	19/10/2020 01:00	11.814	1.138	
257	19/10/2020 02:00	11.814	0.980	
258	19/10/2020 03:00	11.814	1.042	
259	19/10/2020 04:00	11.814	1.279	
260	19/10/2020 05:00	11.814	1.674	
261	19/10/2020 06:00	11.814	2.031	
262	19/10/2020 07:00	11.814	2.262	
263	19/10/2020 08:00	11.814	2.374	
264	19/10/2020 09:00	11.814	2.363	
265	19/10/2020 10:00	11.814	2.160	
266	19/10/2020 11:00	11.814	1.865	
267	19/10/2020 12:00	11.814	1.565	
268	19/10/2020 13:00	11.814	1.274	
269	19/10/2020 14:00	11.814	1.081	
270	19/10/2020 15:00	11.814	1.030	
271	19/10/2020 16:00	11.814	1.197	
272	19/10/2020 17:00	11.814	1.536	
273	19/10/2020 18:00	11.814	1.893	
274	19/10/2020 19:00	11.814	2.153	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	19/10/2020 20:00	11.814	2.290	
276	19/10/2020 21:00	11.814	2.289	
277	19/10/2020 22:00	11.814	2.107	
278	19/10/2020 23:00	11.814	1.835	
279	20/10/2020 00:00	11.814	1.497	
280	20/10/2020 01:00	11.814	1.217	
281	20/10/2020 02:00	11.814	0.968	
282	20/10/2020 03:00	11.814	0.853	
283	20/10/2020 04:00	11.814	0.906	
284	20/10/2020 05:00	11.814	1.191	
285	20/10/2020 06:00	11.814	1.567	
286	20/10/2020 07:00	11.814	1.894	
287	20/10/2020 08:00	11.814	2.111	
288	20/10/2020 09:00	11.814	2.178	
289	20/10/2020 10:00	11.814	2.096	
290	20/10/2020 11:00	11.814	1.881	
291	20/10/2020 12:00	11.814	1.607	
292	20/10/2020 13:00	11.814	1.299	
293	20/10/2020 14:00	11.814	1.050	
294	20/10/2020 15:00	11.814	0.868	
295	20/10/2020 16:00	11.814	0.871	
296	20/10/2020 17:00	11.814	1.068	
297	20/10/2020 18:00	11.814	1.424	
298	20/10/2020 19:00	11.814	1.760	
299	20/10/2020 20:00	11.814	2.028	
300	20/10/2020 21:00	11.814	2.153	
301	20/10/2020 22:00	11.814	2.153	
302	20/10/2020 23:00	11.814	2.021	
303	21/10/2020 00:00	11.814	1.809	
304	21/10/2020 01:00	11.814	1.537	
305	21/10/2020 02:00	11.814	1.297	
306	21/10/2020 03:00	11.814	1.108	
307	21/10/2020 04:00	11.814	1.007	
308	21/10/2020 05:00	11.814	1.082	
309	21/10/2020 06:00	11.814	1.345	
310	21/10/2020 07:00	11.814	1.666	
311	21/10/2020 08:00	11.814	1.956	
312	21/10/2020 09:00	11.814	2.126	
313	21/10/2020 10:00	11.814	2.182	
314	21/10/2020 11:00	11.814	2.088	
315	21/10/2020 12:00	11.814	1.930	
316	21/10/2020 13:00	11.814	1.691	
317	21/10/2020 14:00	11.814	1.421	
318	21/10/2020 15:00	11.814	1.218	
319	21/10/2020 16:00	11.814	1.080	
320	21/10/2020 17:00	11.814	1.106	
321	21/10/2020 18:00	11.814	1.285	
322	21/10/2020 19:00	11.814	1.573	
323	21/10/2020 20:00	11.814	1.883	
324	21/10/2020 21:00	11.814	2.093	
325	21/10/2020 22:00	11.814	2.205	
326	21/10/2020 23:00	11.814	2.214	
327	22/10/2020 00:00	11.814	2.101	
328	22/10/2020 01:00	11.814	1.933	
329	22/10/2020 02:00	11.814	1.716	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	22/10/2020 03:00	11.814	1.505	
331	22/10/2020 04:00	11.814	1.316	
332	22/10/2020 05:00	11.814	1.257	
333	22/10/2020 06:00	11.814	1.322	
334	22/10/2020 07:00	11.814	1.522	
335	22/10/2020 08:00	11.814	1.791	
336	22/10/2020 09:00	11.814	2.005	
337	22/10/2020 10:00	11.814	2.140	
338	22/10/2020 11:00	11.814	2.188	
339	22/10/2020 12:00	11.814	2.097	
340	22/10/2020 13:00	11.814	1.953	
341	22/10/2020 14:00	11.814	1.754	
342	22/10/2020 15:00	11.814	1.555	
343	22/10/2020 16:00	11.814	1.348	
344	22/10/2020 17:00	11.814	1.235	
345	22/10/2020 18:00	11.814	1.274	
346	22/10/2020 19:00	11.814	1.424	
347	22/10/2020 20:00	11.814	1.673	
348	22/10/2020 21:00	11.814	1.933	
349	22/10/2020 22:00	11.762	2.111	
350	22/10/2020 23:00	11.814	2.220	
351	23/10/2020 00:00	11.814	2.231	
352	23/10/2020 01:00	11.814	2.138	
353	23/10/2020 02:00	11.814	1.994	
354	23/10/2020 03:00	11.814	1.812	
355	23/10/2020 04:00	11.814	1.613	
356	23/10/2020 05:00	11.814	1.431	
357	23/10/2020 06:00	11.762	1.318	
358	23/10/2020 07:00	11.814	1.340	
359	23/10/2020 08:00	11.814	1.481	
360	23/10/2020 09:00	11.814	1.690	
361	23/10/2020 10:00	11.867	1.864	
362	23/10/2020 11:00	11.814	2.001	
363	23/10/2020 12:00	11.814	2.054	
364	23/10/2020 13:00	11.814	2.002	
365	23/10/2020 14:00	11.814	1.875	
366	23/10/2020 15:00	11.814	1.739	
367	23/10/2020 16:00	11.814	1.556	
368	23/10/2020 17:00	11.814	1.404	
369	23/10/2020 18:00	11.814	1.296	
370	23/10/2020 19:00	11.814	1.302	
371	23/10/2020 20:00	11.814	1.415	
372	23/10/2020 21:00	11.762	1.633	
373	23/10/2020 22:00	11.814	1.855	
374	23/10/2020 23:00	11.762	2.033	
375	24/10/2020 00:00	11.814	2.134	
376	24/10/2020 01:00	11.814	2.148	
377	24/10/2020 02:00	11.814	2.129	
378	24/10/2020 03:00	11.814	2.023	
379	24/10/2020 04:00	11.814	1.877	
380	24/10/2020 05:00	11.814	1.691	
381	24/10/2020 06:00	11.814	1.525	
382	24/10/2020 07:00	11.814	1.379	
383	24/10/2020 08:00	11.814	1.317	
384	24/10/2020 09:00	11.814	1.385	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	24/10/2020 10:00	11.814	1.494	
386	24/10/2020 11:00	11.814	1.612	
387	24/10/2020 12:00	11.814	1.727	
388	24/10/2020 13:00	11.814	1.768	
389	24/10/2020 14:00	11.814	1.776	
390	24/10/2020 15:00	11.814	1.713	
391	24/10/2020 16:00	11.814	1.582	
392	24/10/2020 17:00	11.814	1.430	
393	24/10/2020 18:00	11.814	1.276	
394	24/10/2020 19:00	11.814	1.206	
395	24/10/2020 20:00	11.814	1.177	
396	24/10/2020 21:00	11.814	1.276	
397	24/10/2020 22:00	11.814	1.453	
398	24/10/2020 23:00	11.814	1.660	
399	25/10/2020 00:00	11.814	1.863	
400	25/10/2020 01:00	11.814	1.977	
401	25/10/2020 02:00	11.814	2.032	
402	25/10/2020 02:00	11.814	2.048	
403	25/10/2020 03:00	11.814	1.963	
404	25/10/2020 04:00	11.814	1.836	
405	25/10/2020 05:00	11.814	1.671	
406	25/10/2020 06:00	11.814	1.489	
407	25/10/2020 07:00	11.814	1.371	
408	25/10/2020 08:00	11.814	1.290	
409	25/10/2020 09:00	11.814	1.342	
410	25/10/2020 10:00	11.814	1.481	
411	25/10/2020 11:00	11.814	1.640	
412	25/10/2020 12:00	11.814	1.778	
413	25/10/2020 13:00	11.814	1.865	
414	25/10/2020 14:00	11.814	1.889	
415	25/10/2020 15:00	11.814	1.836	
416	25/10/2020 16:00	11.814	1.730	
417	25/10/2020 17:00	11.814	1.578	
418	25/10/2020 18:00	11.814	1.420	
419	25/10/2020 19:00	11.762	1.263	
420	25/10/2020 20:00	11.814	1.180	
421	25/10/2020 21:00	11.814	1.235	
422	25/10/2020 22:00	11.814	1.368	
423	25/10/2020 23:00	11.814	1.583	
424	26/10/2020 00:00	11.814	1.789	
425	26/10/2020 01:00	11.814	1.952	
426	26/10/2020 02:00	11.814	2.047	
427	26/10/2020 03:00	11.814	2.084	
428	26/10/2020 04:00	11.814	2.037	
429	26/10/2020 05:00	11.814	1.949	
430	26/10/2020 06:00	11.814	1.800	
431	26/10/2020 07:00	11.814	1.614	
432	26/10/2020 08:00	11.814	1.447	
433	26/10/2020 09:00	11.762	1.377	
434	26/10/2020 10:00	11.814	1.403	
435	26/10/2020 11:00	11.814	1.525	
436	26/10/2020 12:00	11.814	1.722	
437	26/10/2020 13:00	11.814	1.878	
438	26/10/2020 14:00	11.814	2.001	
439	26/10/2020 15:00	11.814	2.035	

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440	26/10/2020 16:00	11.814	1.988	
441	26/10/2020 17:00	11.814	1.882	
442	26/10/2020 18:00	11.762	1.717	
443	26/10/2020 19:00	11.814	1.557	
444	26/10/2020 20:00	11.814	1.425	
445	26/10/2020 21:00	11.814	1.354	
446	26/10/2020 22:00	11.814	1.384	
447	26/10/2020 23:00	11.814	1.536	
448	27/10/2020 00:00	11.814	1.732	
449	27/10/2020 01:00	11.814	1.950	
450	27/10/2020 02:00	11.814	2.116	
451	27/10/2020 03:00	11.814	2.201	
452	27/10/2020 04:00	11.814	2.224	
453	27/10/2020 05:00	11.814	2.137	
454	27/10/2020 06:00	11.814	1.994	
455	27/10/2020 07:00	11.814	1.792	
456	27/10/2020 08:00	11.814	1.581	
457	27/10/2020 09:00	11.814	1.404	
458	27/10/2020 10:00	11.814	1.335	
459	27/10/2020 11:00	11.814	1.359	
460	27/10/2020 12:00	11.814	1.521	
461	27/10/2020 13:00	11.814	1.723	
462	27/10/2020 14:00	11.814	1.880	
463	27/10/2020 15:00	11.814	1.992	
464	27/10/2020 16:00	11.814	1.997	
465	27/10/2020 17:00	11.814	1.904	
466	27/10/2020 18:00	11.814	1.755	
467	27/10/2020 19:00	11.814	1.528	
468	27/10/2020 20:00	11.814	1.327	
469	27/10/2020 21:00	11.814	1.197	
470	27/10/2020 22:00	11.814	1.130	
471	27/10/2020 23:00	11.814	1.168	
472	28/10/2020 00:00	11.814	1.363	
473	28/10/2020 01:00	11.814	1.616	
474	28/10/2020 02:00	11.762	1.857	
475	28/10/2020 03:00	11.814	2.042	
476	28/10/2020 04:00	11.814	2.105	
477	28/10/2020 05:00	11.814	2.087	
478	28/10/2020 06:00	11.814	1.985	
479	28/10/2020 07:00	11.814	1.810	
480	28/10/2020 08:00	11.814	1.611	
481	28/10/2020 09:00	11.814	1.410	
482	28/10/2020 10:00	11.814	1.254	
483	28/10/2020 11:00	11.814	1.232	
484	28/10/2020 12:00	11.814	1.345	
485	28/10/2020 13:00	11.814	1.553	
486	28/10/2020 14:00	11.814	1.785	
487	28/10/2020 15:00	11.762	1.960	
488	28/10/2020 16:00	11.814	2.051	
489	28/10/2020 17:00	11.814	2.014	
490	28/10/2020 18:00	11.814	1.889	
491	28/10/2020 19:00	11.814	1.715	
492	28/10/2020 20:00	11.814	1.494	
493	28/10/2020 21:00	11.814	1.315	
494	28/10/2020 22:00	11.814	1.176	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	28/10/2020 23:00	11.814	1.150	
496	29/10/2020 00:00	11.814	1.264	
497	29/10/2020 01:00	11.814	1.531	
498	29/10/2020 02:00	11.814	1.782	
499	29/10/2020 03:00	11.814	2.022	
500	29/10/2020 04:00	11.762	2.141	
501	29/10/2020 05:00	11.814	2.186	
502	29/10/2020 06:00	11.814	2.126	
503	29/10/2020 07:00	11.814	1.972	
504	29/10/2020 08:00	11.814	1.766	
505	29/10/2020 09:00	11.814	1.534	
506	29/10/2020 10:00	11.814	1.372	
507	29/10/2020 11:00	11.814	1.252	
508	29/10/2020 12:00	11.814	1.284	
509	29/10/2020 13:00	11.814	1.463	
510	29/10/2020 14:00	11.814	1.696	
511	29/10/2020 15:00	11.814	1.929	
512	29/10/2020 16:00	11.814	2.049	
513	29/10/2020 17:00	11.814	2.067	
514	29/10/2020 18:00	11.814	1.983	
515	29/10/2020 19:00	11.814	1.818	
516	29/10/2020 20:00	11.814	1.576	
517	29/10/2020 21:00	11.814	1.359	
518	29/10/2020 22:00	11.814	1.159	
519	29/10/2020 23:00	11.814	1.057	
520	30/10/2020 00:00	11.814	1.079	
521	30/10/2020 01:00	11.762	1.251	
522	30/10/2020 02:00	11.814	1.537	
523	30/10/2020 03:00	11.814	1.825	
524	30/10/2020 04:00	11.762	2.023	
525	30/10/2020 05:00	11.814	2.098	
526	30/10/2020 06:00	11.814	2.092	
527	30/10/2020 07:00	11.814	1.973	
528	30/10/2020 08:00	11.814	1.774	
529	30/10/2020 09:00	11.814	1.567	
530	30/10/2020 10:00	11.814	1.377	
531	30/10/2020 11:00	11.814	1.238	
532	30/10/2020 12:00	11.814	1.195	
533	30/10/2020 13:00	11.814	1.330	
534	30/10/2020 14:00	11.814	1.589	
535	30/10/2020 15:00	11.814	1.875	
536	30/10/2020 16:00	11.814	2.114	
537	30/10/2020 17:00	11.814	2.210	
538	30/10/2020 18:00	11.814	2.201	
539	30/10/2020 19:00	11.814	2.087	
540	30/10/2020 20:00	11.814	1.866	
541	30/10/2020 21:00	11.814	1.629	
542	30/10/2020 22:00	11.814	1.415	
543	30/10/2020 23:00	11.814	1.230	
544	31/10/2020 00:00	11.814	1.143	
545	31/10/2020 01:00	11.814	1.228	
546	31/10/2020 02:00	11.814	1.465	
547	31/10/2020 03:00	11.814	1.755	
548	31/10/2020 04:00	11.814	1.987	
549	31/10/2020 05:00	11.814	2.132	

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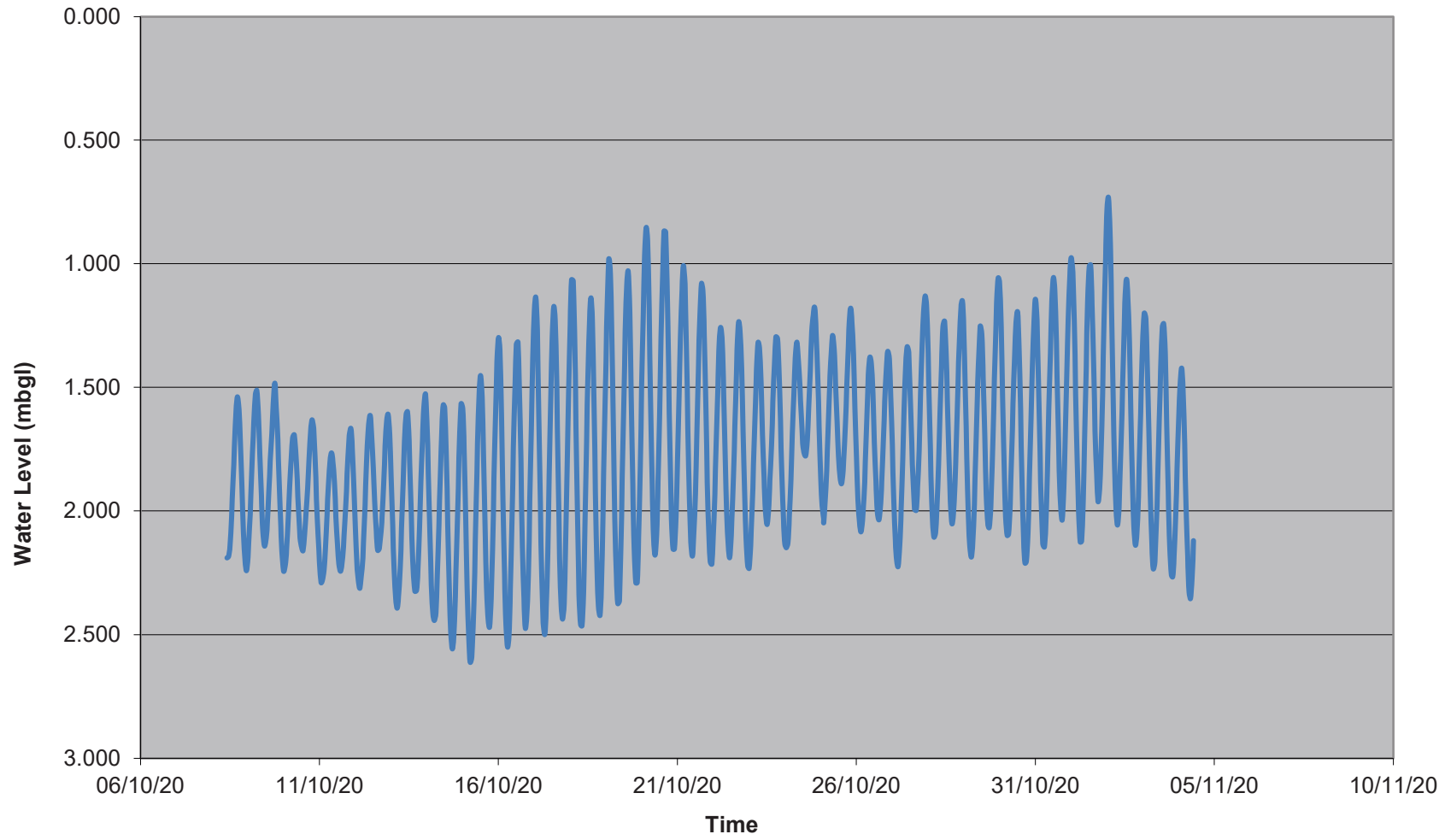
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	31/10/2020 06:00	11.814	2.145	
551	31/10/2020 07:00	11.814	2.060	
552	31/10/2020 08:00	11.814	1.837	
553	31/10/2020 09:00	11.814	1.584	
554	31/10/2020 10:00	11.814	1.363	
555	31/10/2020 11:00	11.867	1.151	
556	31/10/2020 12:00	11.814	1.056	
557	31/10/2020 13:00	11.814	1.108	
558	31/10/2020 14:00	11.814	1.317	
559	31/10/2020 15:00	11.814	1.589	
560	31/10/2020 16:00	11.814	1.837	
561	31/10/2020 17:00	11.814	1.991	
562	31/10/2020 18:00	11.814	2.035	
563	31/10/2020 19:00	11.814	1.907	
564	31/10/2020 20:00	11.814	1.702	
565	31/10/2020 21:00	11.814	1.438	
566	31/10/2020 22:00	11.814	1.223	
567	31/10/2020 23:00	11.814	1.050	
568	01/11/2020 00:00	11.814	0.975	
569	01/11/2020 01:00	11.814	1.033	
570	01/11/2020 02:00	11.814	1.223	
571	01/11/2020 03:00	11.814	1.526	
572	01/11/2020 04:00	11.814	1.802	
573	01/11/2020 05:00	11.814	2.005	
574	01/11/2020 06:00	11.814	2.125	
575	01/11/2020 07:00	11.814	2.121	
576	01/11/2020 08:00	11.814	1.956	
577	01/11/2020 09:00	11.814	1.701	
578	01/11/2020 10:00	11.814	1.419	
579	01/11/2020 11:00	11.814	1.152	
580	01/11/2020 12:00	11.814	1.011	
581	01/11/2020 13:00	11.814	1.005	
582	01/11/2020 14:00	11.814	1.163	
583	01/11/2020 15:00	11.814	1.407	
584	01/11/2020 16:00	11.814	1.677	
585	01/11/2020 17:00	11.814	1.847	
586	01/11/2020 18:00	11.814	1.961	
587	01/11/2020 19:00	11.814	1.909	
588	01/11/2020 20:00	11.814	1.766	
589	01/11/2020 21:00	11.814	1.522	
590	01/11/2020 22:00	11.814	1.230	
591	01/11/2020 23:00	11.814	0.975	
592	02/11/2020 00:00	11.814	0.775	
593	02/11/2020 01:00	11.867	0.731	
594	02/11/2020 02:00	11.814	0.872	
595	02/11/2020 03:00	11.814	1.155	
596	02/11/2020 04:00	11.762	1.517	
597	02/11/2020 05:00	11.814	1.797	
598	02/11/2020 06:00	11.814	1.993	
599	02/11/2020 07:00	11.814	2.057	
600	02/11/2020 08:00	11.814	1.986	
601	02/11/2020 09:00	11.814	1.802	
602	02/11/2020 10:00	11.814	1.594	
603	02/11/2020 11:00	11.814	1.373	
604	02/11/2020 12:00	11.814	1.158	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	02/11/2020 13:00	11.814	1.062	
606	02/11/2020 14:00	11.814	1.137	
607	02/11/2020 15:00	11.814	1.318	
608	02/11/2020 16:00	11.814	1.601	
609	02/11/2020 17:00	11.814	1.884	
610	02/11/2020 18:00	11.814	2.063	
611	02/11/2020 19:00	11.814	2.138	
612	02/11/2020 20:00	11.814	2.092	
613	02/11/2020 21:00	11.814	1.941	
614	02/11/2020 22:00	11.814	1.713	
615	02/11/2020 23:00	11.814	1.498	
616	03/11/2020 00:00	11.814	1.290	
617	03/11/2020 01:00	11.814	1.199	
618	03/11/2020 02:00	11.814	1.223	
619	03/11/2020 03:00	11.814	1.409	
620	03/11/2020 04:00	11.814	1.678	
621	03/11/2020 05:00	11.814	1.927	
622	03/11/2020 06:00	11.814	2.133	
623	03/11/2020 07:00	11.814	2.233	
624	03/11/2020 08:00	11.814	2.205	
625	03/11/2020 09:00	11.814	2.061	
626	03/11/2020 10:00	11.814	1.876	
627	03/11/2020 11:00	11.814	1.625	
628	03/11/2020 12:00	11.814	1.424	
629	03/11/2020 13:00	11.867	1.258	
630	03/11/2020 14:00	11.814	1.242	
631	03/11/2020 15:00	11.814	1.364	
632	03/11/2020 16:00	11.814	1.643	
633	03/11/2020 17:00	11.814	1.927	
634	03/11/2020 18:00	11.814	2.137	
635	03/11/2020 19:00	11.814	2.254	
636	03/11/2020 20:00	11.814	2.266	
637	03/11/2020 21:00	11.814	2.183	
638	03/11/2020 22:00	11.814	2.019	
639	03/11/2020 23:00	11.814	1.826	
640	04/11/2020 00:00	11.814	1.628	
641	04/11/2020 01:00	11.814	1.493	
642	04/11/2020 02:00	11.814	1.422	
643	04/11/2020 03:00	11.814	1.515	
644	04/11/2020 04:00	11.814	1.730	
645	04/11/2020 05:00	11.814	1.986	
646	04/11/2020 06:00	11.814	2.183	
647	04/11/2020 07:00	11.814	2.328	
648	04/11/2020 08:00	11.814	2.354	
649	04/11/2020 09:00	11.814	2.269	
650	04/11/2020 10:00	11.814	2.119	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	04/11/2020 13:00	11.867	1.845	
2	04/11/2020 14:00	11.814	1.715	
3	04/11/2020 15:00	11.814	1.602	
4	04/11/2020 16:00	11.814	1.635	
5	04/11/2020 17:00	11.814	1.830	
6	04/11/2020 18:00	11.814	2.078	
7	04/11/2020 19:00	11.867	2.317	
8	04/11/2020 20:00	11.814	2.480	
9	04/11/2020 21:00	11.814	2.572	
10	04/11/2020 22:00	11.814	2.558	
11	04/11/2020 23:00	11.814	2.448	
12	05/11/2020 00:00	11.814	2.274	
13	05/11/2020 01:00	11.814	2.097	
14	05/11/2020 02:00	11.814	1.908	
15	05/11/2020 03:00	11.814	1.775	
16	05/11/2020 04:00	11.814	1.747	
17	05/11/2020 05:00	11.814	1.855	
18	05/11/2020 06:00	11.814	2.057	
19	05/11/2020 07:00	11.814	2.262	
20	05/11/2020 08:00	11.814	2.423	
21	05/11/2020 09:00	11.814	2.512	
22	05/11/2020 10:00	11.814	2.501	
23	05/11/2020 11:00	11.814	2.394	
24	05/11/2020 12:00	11.814	2.217	
25	05/11/2020 13:00	11.814	2.032	
26	05/11/2020 14:00	11.814	1.849	
27	05/11/2020 15:00	11.814	1.710	
28	05/11/2020 16:00	11.814	1.669	
29	05/11/2020 17:00	11.814	1.747	
30	05/11/2020 18:00	11.814	1.962	
31	05/11/2020 19:00	11.814	2.193	
32	05/11/2020 20:00	11.814	2.383	
33	05/11/2020 21:00	11.867	2.521	
34	05/11/2020 22:00	11.814	2.563	
35	05/11/2020 23:00	11.814	2.509	
36	06/11/2020 00:00	11.814	2.354	
37	06/11/2020 01:00	11.814	2.178	
38	06/11/2020 02:00	11.814	1.982	
39	06/11/2020 03:00	11.814	1.822	
40	06/11/2020 04:00	11.814	1.714	
41	06/11/2020 05:00	11.814	1.719	
42	06/11/2020 06:00	11.814	1.855	
43	06/11/2020 07:00	11.814	2.054	
44	06/11/2020 08:00	11.814	2.270	
45	06/11/2020 09:00	11.814	2.386	
46	06/11/2020 10:00	11.814	2.441	
47	06/11/2020 11:00	11.814	2.430	
48	06/11/2020 12:00	11.814	2.309	
49	06/11/2020 13:00	11.814	2.148	
50	06/11/2020 14:00	11.814	1.974	
51	06/11/2020 15:00	11.814	1.816	
52	06/11/2020 16:00	11.814	1.684	
53	06/11/2020 17:00	11.814	1.659	
54	06/11/2020 18:00	11.814	1.763	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	06/11/2020 19:00	11.814	1.934	
56	06/11/2020 20:00	11.814	2.162	
57	06/11/2020 21:00	11.814	2.335	
58	06/11/2020 22:00	11.814	2.414	
59	06/11/2020 23:00	11.814	2.441	
60	07/11/2020 00:00	11.814	2.358	
61	07/11/2020 01:00	11.814	2.232	
62	07/11/2020 02:00	11.814	2.076	
63	07/11/2020 03:00	11.814	1.918	
64	07/11/2020 04:00	11.814	1.776	
65	07/11/2020 05:00	11.814	1.694	
66	07/11/2020 06:00	11.814	1.733	
67	07/11/2020 07:00	11.814	1.852	
68	07/11/2020 08:00	11.814	2.037	
69	07/11/2020 09:00	11.814	2.240	
70	07/11/2020 10:00	11.814	2.336	
71	07/11/2020 11:00	11.814	2.396	
72	07/11/2020 12:00	11.814	2.325	
73	07/11/2020 13:00	11.814	2.228	
74	07/11/2020 14:00	11.814	2.046	
75	07/11/2020 15:00	11.814	1.897	
76	07/11/2020 16:00	11.814	1.745	
77	07/11/2020 17:00	11.814	1.625	
78	07/11/2020 18:00	11.814	1.595	
79	07/11/2020 19:00	11.814	1.715	
80	07/11/2020 20:00	11.814	1.898	
81	07/11/2020 21:00	11.814	2.100	
82	07/11/2020 22:00	11.814	2.265	
83	07/11/2020 23:00	11.814	2.372	
84	08/11/2020 00:00	11.814	2.404	
85	08/11/2020 01:00	11.814	2.363	
86	08/11/2020 02:00	11.814	2.281	
87	08/11/2020 03:00	11.814	2.145	
88	08/11/2020 04:00	11.814	1.988	
89	08/11/2020 05:00	11.814	1.843	
90	08/11/2020 06:00	11.814	1.755	
91	08/11/2020 07:00	11.814	1.761	
92	08/11/2020 08:00	11.814	1.876	
93	08/11/2020 09:00	11.814	2.053	
94	08/11/2020 10:00	11.814	2.190	
95	08/11/2020 11:00	11.814	2.280	
96	08/11/2020 12:00	11.814	2.323	
97	08/11/2020 13:00	11.814	2.278	
98	08/11/2020 14:00	11.814	2.176	
99	08/11/2020 15:00	11.814	2.046	
100	08/11/2020 16:00	11.814	1.918	
101	08/11/2020 17:00	11.814	1.771	
102	08/11/2020 18:00	11.814	1.669	
103	08/11/2020 19:00	11.814	1.649	
104	08/11/2020 20:00	11.814	1.742	
105	08/11/2020 21:00	11.814	1.907	
106	08/11/2020 22:00	11.814	2.114	
107	08/11/2020 23:00	11.814	2.278	
108	09/11/2020 00:00	11.814	2.391	
109	09/11/2020 01:00	11.814	2.427	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	09/11/2020 02:00	11.814	2.398	
111	09/11/2020 03:00	11.814	2.319	
112	09/11/2020 04:00	11.814	2.157	
113	09/11/2020 05:00	11.814	2.030	
114	09/11/2020 06:00	11.814	1.861	
115	09/11/2020 07:00	11.814	1.736	
116	09/11/2020 08:00	11.814	1.732	
117	09/11/2020 09:00	11.814	1.814	
118	09/11/2020 10:00	11.814	1.972	
119	09/11/2020 11:00	11.814	2.106	
120	09/11/2020 12:00	11.814	2.224	
121	09/11/2020 13:00	11.814	2.289	
122	09/11/2020 14:00	11.814	2.274	
123	09/11/2020 15:00	11.814	2.206	
124	09/11/2020 16:00	11.814	2.094	
125	09/11/2020 17:00	11.814	1.957	
126	09/11/2020 18:00	11.814	1.821	
127	09/11/2020 19:00	11.814	1.678	
128	09/11/2020 20:00	11.814	1.627	
129	09/11/2020 21:00	11.814	1.691	
130	09/11/2020 22:00	11.814	1.844	
131	09/11/2020 23:00	11.814	2.055	
132	10/11/2020 00:00	11.814	2.233	
133	10/11/2020 01:00	11.814	2.376	
134	10/11/2020 02:00	11.814	2.444	
135	10/11/2020 03:00	11.814	2.415	
136	10/11/2020 04:00	11.814	2.353	
137	10/11/2020 05:00	11.814	2.239	
138	10/11/2020 06:00	11.814	2.083	
139	10/11/2020 07:00	11.814	1.908	
140	10/11/2020 08:00	11.814	1.774	
141	10/11/2020 09:00	11.814	1.721	
142	10/11/2020 10:00	11.814	1.783	
143	10/11/2020 11:00	11.814	1.941	
144	10/11/2020 12:00	11.814	2.086	
145	10/11/2020 13:00	11.814	2.231	
146	10/11/2020 14:00	11.814	2.321	
147	10/11/2020 15:00	11.814	2.353	
148	10/11/2020 16:00	11.814	2.301	
149	10/11/2020 17:00	11.814	2.171	
150	10/11/2020 18:00	11.814	2.037	
151	10/11/2020 19:00	11.814	1.868	
152	10/11/2020 20:00	11.814	1.698	
153	10/11/2020 21:00	11.814	1.620	
154	10/11/2020 22:00	11.814	1.640	
155	10/11/2020 23:00	11.814	1.826	
156	11/11/2020 00:00	11.814	2.028	
157	11/11/2020 01:00	11.814	2.233	
158	11/11/2020 02:00	11.814	2.374	
159	11/11/2020 03:00	11.814	2.462	
160	11/11/2020 04:00	11.814	2.445	
161	11/11/2020 05:00	11.814	2.353	
162	11/11/2020 06:00	11.814	2.189	
163	11/11/2020 07:00	11.814	2.001	
164	11/11/2020 08:00	11.814	1.794	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	11/11/2020 09:00	11.814	1.628	
166	11/11/2020 10:00	11.814	1.559	
167	11/11/2020 11:00	11.814	1.629	
168	11/11/2020 12:00	11.814	1.799	
169	11/11/2020 13:00	11.814	2.002	
170	11/11/2020 14:00	11.814	2.154	
171	11/11/2020 15:00	11.814	2.248	
172	11/11/2020 16:00	11.814	2.241	
173	11/11/2020 17:00	11.814	2.155	
174	11/11/2020 18:00	11.814	1.990	
175	11/11/2020 19:00	11.814	1.803	
176	11/11/2020 20:00	11.814	1.563	
177	11/11/2020 21:00	11.814	1.384	
178	11/11/2020 22:00	11.814	1.305	
179	11/11/2020 23:00	11.814	1.353	
180	12/11/2020 00:00	11.814	1.601	
181	12/11/2020 01:00	11.814	1.862	
182	12/11/2020 02:00	11.814	2.123	
183	12/11/2020 03:00	11.814	2.296	
184	12/11/2020 04:00	11.814	2.394	
185	12/11/2020 05:00	11.814	2.367	
186	12/11/2020 06:00	11.814	2.257	
187	12/11/2020 07:00	11.814	2.064	
188	12/11/2020 08:00	11.814	1.845	
189	12/11/2020 09:00	11.814	1.641	
190	12/11/2020 10:00	11.814	1.477	
191	12/11/2020 11:00	11.814	1.418	
192	12/11/2020 12:00	11.814	1.552	
193	12/11/2020 13:00	11.814	1.765	
194	12/11/2020 14:00	11.814	2.014	
195	12/11/2020 15:00	11.814	2.227	
196	12/11/2020 16:00	11.814	2.338	
197	12/11/2020 17:00	11.814	2.330	
198	12/11/2020 18:00	11.814	2.211	
199	12/11/2020 19:00	11.814	2.014	
200	12/11/2020 20:00	11.814	1.754	
201	12/11/2020 21:00	11.814	1.533	
202	12/11/2020 22:00	11.814	1.325	
203	12/11/2020 23:00	11.814	1.261	
204	13/11/2020 00:00	11.814	1.349	
205	13/11/2020 01:00	11.814	1.577	
206	13/11/2020 02:00	11.814	1.876	
207	13/11/2020 03:00	11.814	2.151	
208	13/11/2020 04:00	11.814	2.309	
209	13/11/2020 05:00	11.814	2.379	
210	13/11/2020 06:00	11.814	2.312	
211	13/11/2020 07:00	11.814	2.127	
212	13/11/2020 08:00	11.814	1.885	
213	13/11/2020 09:00	11.814	1.636	
214	13/11/2020 10:00	11.814	1.418	
215	13/11/2020 11:00	11.814	1.255	
216	13/11/2020 12:00	11.814	1.290	
217	13/11/2020 13:00	11.814	1.482	
218	13/11/2020 14:00	11.814	1.785	
219	13/11/2020 15:00	11.814	2.079	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	13/11/2020 16:00	11.814	2.281	
221	13/11/2020 17:00	11.814	2.380	
222	13/11/2020 18:00	11.814	2.326	
223	13/11/2020 19:00	11.814	2.159	
224	13/11/2020 20:00	11.814	1.907	
225	13/11/2020 21:00	11.814	1.640	
226	13/11/2020 22:00	11.814	1.383	
227	13/11/2020 23:00	11.814	1.199	
228	14/11/2020 00:00	11.814	1.181	
229	14/11/2020 01:00	11.814	1.353	
230	14/11/2020 02:00	11.814	1.658	
231	14/11/2020 03:00	11.814	2.003	
232	14/11/2020 04:00	11.814	2.262	
233	14/11/2020 05:00	11.814	2.425	
234	14/11/2020 06:00	11.814	2.479	
235	14/11/2020 07:00	11.814	2.350	
236	14/11/2020 08:00	11.814	2.122	
237	14/11/2020 09:00	11.814	1.833	
238	14/11/2020 10:00	11.814	1.531	
239	14/11/2020 11:00	11.814	1.271	
240	14/11/2020 12:00	11.814	1.136	
241	14/11/2020 13:00	11.814	1.183	
242	14/11/2020 14:00	11.814	1.412	
243	14/11/2020 15:00	11.814	1.736	
244	14/11/2020 16:00	11.814	2.041	
245	14/11/2020 17:00	11.814	2.215	
246	14/11/2020 18:00	11.814	2.276	
247	14/11/2020 19:00	11.814	2.189	
248	14/11/2020 20:00	11.814	1.984	
249	14/11/2020 21:00	11.814	1.677	
250	14/11/2020 22:00	11.814	1.404	
251	14/11/2020 23:00	11.814	1.114	
252	15/11/2020 00:00	11.814	0.932	
253	15/11/2020 01:00	11.814	0.949	
254	15/11/2020 02:00	11.814	1.186	
255	15/11/2020 03:00	11.814	1.545	
256	15/11/2020 04:00	11.814	1.919	
257	15/11/2020 05:00	11.814	2.175	
258	15/11/2020 06:00	11.814	2.321	
259	15/11/2020 07:00	11.814	2.275	
260	15/11/2020 08:00	11.867	2.096	
261	15/11/2020 09:00	11.814	1.822	
262	15/11/2020 10:00	11.814	1.520	
263	15/11/2020 11:00	11.814	1.257	
264	15/11/2020 12:00	11.814	1.050	
265	15/11/2020 13:00	11.814	0.982	
266	15/11/2020 14:00	11.814	1.105	
267	15/11/2020 15:00	11.814	1.442	
268	15/11/2020 16:00	11.814	1.812	
269	15/11/2020 17:00	11.814	2.112	
270	15/11/2020 18:00	11.814	2.298	
271	15/11/2020 19:00	11.867	2.341	
272	15/11/2020 20:00	11.814	2.217	
273	15/11/2020 21:00	11.814	1.976	
274	15/11/2020 22:00	11.814	1.678	

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275	15/11/2020 23:00	11.814	1.407	
276	16/11/2020 00:00	11.814	1.187	
277	16/11/2020 01:00	11.814	1.059	
278	16/11/2020 02:00	11.814	1.101	
279	16/11/2020 03:00	11.814	1.403	
280	16/11/2020 04:00	11.814	1.778	
281	16/11/2020 05:00	11.814	2.136	
282	16/11/2020 06:00	11.814	2.346	
283	16/11/2020 07:00	11.814	2.442	
284	16/11/2020 08:00	11.814	2.412	
285	16/11/2020 09:00	11.814	2.179	
286	16/11/2020 10:00	11.814	1.912	
287	16/11/2020 11:00	11.814	1.611	
288	16/11/2020 12:00	11.814	1.374	
289	16/11/2020 13:00	11.814	1.184	
290	16/11/2020 14:00	11.814	1.172	
291	16/11/2020 15:00	11.867	1.378	
292	16/11/2020 16:00	11.814	1.701	
293	16/11/2020 17:00	11.814	2.059	
294	16/11/2020 18:00	11.814	2.310	
295	16/11/2020 19:00	11.814	2.451	
296	16/11/2020 20:00	11.814	2.448	
297	16/11/2020 21:00	11.814	2.281	
298	16/11/2020 22:00	11.814	2.019	
299	16/11/2020 23:00	11.867	1.733	
300	17/11/2020 00:00	11.814	1.438	
301	17/11/2020 01:00	11.814	1.197	
302	17/11/2020 02:00	11.814	1.091	
303	17/11/2020 03:00	11.814	1.163	
304	17/11/2020 04:00	11.814	1.458	
305	17/11/2020 05:00	11.814	1.824	
306	17/11/2020 06:00	11.814	2.132	
307	17/11/2020 07:00	11.814	2.338	
308	17/11/2020 08:00	11.814	2.381	
309	17/11/2020 09:00	11.814	2.306	
310	17/11/2020 10:00	11.814	2.072	
311	17/11/2020 11:00	11.814	1.766	
312	17/11/2020 12:00	11.814	1.492	
313	17/11/2020 13:00	11.814	1.259	
314	17/11/2020 14:00	11.814	1.103	
315	17/11/2020 15:00	11.867	1.123	
316	17/11/2020 16:00	11.814	1.342	
317	17/11/2020 17:00	11.814	1.703	
318	17/11/2020 18:00	11.814	2.052	
319	17/11/2020 19:00	11.814	2.273	
320	17/11/2020 20:00	11.814	2.413	
321	17/11/2020 21:00	11.814	2.391	
322	17/11/2020 22:00	11.814	2.230	
323	17/11/2020 23:00	11.814	1.963	
324	18/11/2020 00:00	11.867	1.678	
325	18/11/2020 01:00	11.814	1.432	
326	18/11/2020 02:00	11.814	1.224	
327	18/11/2020 03:00	11.814	1.146	
328	18/11/2020 04:00	11.814	1.260	
329	18/11/2020 05:00	11.814	1.548	

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330	18/11/2020 06:00	11.814	1.866	
331	18/11/2020 07:00	11.814	2.141	
332	18/11/2020 08:00	11.814	2.294	
333	18/11/2020 09:00	11.814	2.337	
334	18/11/2020 10:00	11.814	2.208	
335	18/11/2020 11:00	11.814	1.987	
336	18/11/2020 12:00	11.814	1.688	
337	18/11/2020 13:00	11.814	1.414	
338	18/11/2020 14:00	11.814	1.209	
339	18/11/2020 15:00	11.814	1.080	
340	18/11/2020 16:00	11.814	1.152	
341	18/11/2020 17:00	11.814	1.404	
342	18/11/2020 18:00	11.814	1.767	
343	18/11/2020 19:00	11.814	2.053	
344	18/11/2020 20:00	11.814	2.279	
345	18/11/2020 21:00	11.814	2.385	
346	18/11/2020 22:00	11.814	2.349	
347	18/11/2020 23:00	11.814	2.213	
348	19/11/2020 00:00	11.814	2.007	
349	19/11/2020 01:00	11.814	1.748	
350	19/11/2020 02:00	11.814	1.518	
351	19/11/2020 03:00	11.814	1.333	
352	19/11/2020 04:00	11.814	1.292	
353	19/11/2020 05:00	11.814	1.411	
354	19/11/2020 06:00	11.814	1.695	
355	19/11/2020 07:00	11.814	2.000	
356	19/11/2020 08:00	11.814	2.261	
357	19/11/2020 09:00	11.814	2.404	
358	19/11/2020 10:00	11.814	2.450	
359	19/11/2020 11:00	11.814	2.357	
360	19/11/2020 12:00	11.814	2.205	
361	19/11/2020 13:00	11.814	1.990	
362	19/11/2020 14:00	11.814	1.869	
363	19/11/2020 15:00	11.814	1.655	
364	19/11/2020 16:00	11.814	1.594	
365	19/11/2020 17:00	11.814	1.730	
366	19/11/2020 18:00	11.814	1.851	
367	19/11/2020 19:00	11.814	2.094	
368	19/11/2020 20:00	11.814	2.345	
369	19/11/2020 21:00	11.814	2.504	
370	19/11/2020 22:00	11.814	2.593	
371	19/11/2020 23:00	11.814	2.531	
372	20/11/2020 00:00	11.814	2.392	
373	20/11/2020 01:00	11.814	2.210	
374	20/11/2020 02:00	11.814	1.987	
375	20/11/2020 03:00	11.814	1.793	
376	20/11/2020 04:00	11.814	1.615	
377	20/11/2020 05:00	11.814	1.556	
378	20/11/2020 06:00	11.814	1.641	
379	20/11/2020 07:00	11.814	1.842	
380	20/11/2020 08:00	11.814	2.071	
381	20/11/2020 09:00	11.814	2.241	
382	20/11/2020 10:00	11.814	2.349	
383	20/11/2020 11:00	11.814	2.349	
384	20/11/2020 12:00	11.814	2.243	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	20/11/2020 13:00	11.814	2.091	
386	20/11/2020 14:00	11.814	1.871	
387	20/11/2020 15:00	11.814	1.655	
388	20/11/2020 16:00	11.814	1.474	
389	20/11/2020 17:00	11.814	1.404	
390	20/11/2020 18:00	11.814	1.465	
391	20/11/2020 19:00	11.814	1.668	
392	20/11/2020 20:00	11.814	1.922	
393	20/11/2020 21:00	11.814	2.184	
394	20/11/2020 22:00	11.814	2.344	
395	20/11/2020 23:00	11.814	2.419	
396	21/11/2020 00:00	11.814	2.410	
397	21/11/2020 01:00	11.814	2.312	
398	21/11/2020 02:00	11.814	2.176	
399	21/11/2020 03:00	11.814	1.986	
400	21/11/2020 04:00	11.867	1.825	
401	21/11/2020 05:00	11.867	1.670	
402	21/11/2020 06:00	11.814	1.611	
403	21/11/2020 07:00	11.814	1.677	
404	21/11/2020 08:00	11.814	1.845	
405	21/11/2020 09:00	11.814	2.026	
406	21/11/2020 10:00	11.867	2.189	
407	21/11/2020 11:00	11.814	2.275	
408	21/11/2020 12:00	11.814	2.300	
409	21/11/2020 13:00	11.814	2.205	
410	21/11/2020 14:00	11.814	2.026	
411	21/11/2020 15:00	11.814	1.859	
412	21/11/2020 16:00	11.814	1.669	
413	21/11/2020 17:00	11.814	1.542	
414	21/11/2020 18:00	11.814	1.490	
415	21/11/2020 19:00	11.814	1.533	
416	21/11/2020 20:00	11.814	1.722	
417	21/11/2020 21:00	11.814	1.942	
418	21/11/2020 22:00	11.814	2.162	
419	21/11/2020 23:00	11.814	2.325	
420	22/11/2020 00:00	11.814	2.402	
421	22/11/2020 01:00	11.814	2.385	
422	22/11/2020 02:00	11.814	2.319	
423	22/11/2020 03:00	11.814	2.217	
424	22/11/2020 04:00	11.814	2.077	
425	22/11/2020 05:00	11.814	1.915	
426	22/11/2020 06:00	11.814	1.760	
427	22/11/2020 07:00	11.814	1.684	
428	22/11/2020 08:00	11.814	1.740	
429	22/11/2020 09:00	11.814	1.874	
430	22/11/2020 10:00	11.814	2.066	
431	22/11/2020 11:00	11.814	2.202	
432	22/11/2020 12:00	11.814	2.281	
433	22/11/2020 13:00	11.814	2.293	
434	22/11/2020 14:00	11.814	2.245	
435	22/11/2020 15:00	11.814	2.132	
436	22/11/2020 16:00	11.814	1.989	
437	22/11/2020 17:00	11.814	1.838	
438	22/11/2020 18:00	11.814	1.686	
439	22/11/2020 19:00	11.814	1.614	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	22/11/2020 20:00	11.814	1.607	
441	22/11/2020 21:00	11.814	1.738	
442	22/11/2020 22:00	11.814	1.926	
443	22/11/2020 23:00	11.867	2.127	
444	23/11/2020 00:00	11.814	2.297	
445	23/11/2020 01:00	11.814	2.372	
446	23/11/2020 02:00	11.814	2.408	
447	23/11/2020 03:00	11.814	2.379	
448	23/11/2020 04:00	11.814	2.293	
449	23/11/2020 05:00	11.814	2.151	
450	23/11/2020 06:00	11.814	2.012	
451	23/11/2020 07:00	11.814	1.872	
452	23/11/2020 08:00	11.814	1.772	
453	23/11/2020 09:00	11.814	1.759	
454	23/11/2020 10:00	11.814	1.872	
455	23/11/2020 11:00	11.814	1.994	
456	23/11/2020 12:00	11.814	2.139	
457	23/11/2020 13:00	11.814	2.229	
458	23/11/2020 14:00	11.814	2.257	
459	23/11/2020 15:00	11.814	2.194	
460	23/11/2020 16:00	11.814	2.066	
461	23/11/2020 17:00	11.814	1.930	
462	23/11/2020 18:00	11.814	1.765	
463	23/11/2020 19:00	11.814	1.595	
464	23/11/2020 20:00	11.867	1.528	
465	23/11/2020 21:00	11.814	1.536	
466	23/11/2020 22:00	11.814	1.635	
467	23/11/2020 23:00	11.814	1.809	
468	24/11/2020 00:00	11.814	2.012	
469	24/11/2020 01:00	11.814	2.175	
470	24/11/2020 02:00	11.814	2.272	
471	24/11/2020 03:00	11.814	2.327	
472	24/11/2020 04:00	11.814	2.298	
473	24/11/2020 05:00	11.814	2.217	
474	24/11/2020 06:00	11.814	2.078	
475	24/11/2020 07:00	11.814	1.912	
476	24/11/2020 08:00	11.814	1.771	
477	24/11/2020 09:00	11.814	1.675	
478	24/11/2020 10:00	11.814	1.670	
479	24/11/2020 11:00	11.814	1.762	
480	24/11/2020 12:00	11.814	1.925	
481	24/11/2020 13:00	11.814	2.054	
482	24/11/2020 14:00	11.814	2.152	
483	24/11/2020 15:00	11.814	2.207	
484	24/11/2020 16:00	11.814	2.158	
485	24/11/2020 17:00	11.814	2.066	
486	24/11/2020 18:00	11.814	1.919	
487	24/11/2020 19:00	11.814	1.760	
488	24/11/2020 20:00	11.814	1.594	
489	24/11/2020 21:00	11.814	1.496	
490	24/11/2020 22:00	11.814	1.482	
491	24/11/2020 23:00	11.814	1.604	
492	25/11/2020 00:00	11.814	1.792	
493	25/11/2020 01:00	11.814	2.021	
494	25/11/2020 02:00	11.814	2.196	

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495	25/11/2020 03:00	11.814	2.316	
496	25/11/2020 04:00	11.814	2.351	
497	25/11/2020 05:00	11.814	2.339	
498	25/11/2020 06:00	11.814	2.261	
499	25/11/2020 07:00	11.814	2.116	
500	25/11/2020 08:00	11.814	1.954	
501	25/11/2020 09:00	11.814	1.782	
502	25/11/2020 10:00	11.814	1.682	
503	25/11/2020 11:00	11.814	1.688	
504	25/11/2020 12:00	11.814	1.806	
505	25/11/2020 13:00	11.814	1.960	
506	25/11/2020 14:00	11.814	2.130	
507	25/11/2020 15:00	11.814	2.258	
508	25/11/2020 16:00	11.814	2.296	
509	25/11/2020 17:00	11.814	2.281	
510	25/11/2020 18:00	11.814	2.186	
511	25/11/2020 19:00	11.814	2.043	
512	25/11/2020 20:00	11.814	1.879	
513	25/11/2020 21:00	11.814	1.740	
514	25/11/2020 22:00	11.762	1.624	
515	25/11/2020 23:00	11.814	1.627	
516	26/11/2020 00:00	11.814	1.744	
517	26/11/2020 01:00	11.814	1.960	
518	26/11/2020 02:00	11.814	2.173	
519	26/11/2020 03:00	11.814	2.355	
520	26/11/2020 04:00	11.762	2.426	
521	26/11/2020 05:00	11.814	2.464	
522	26/11/2020 06:00	11.814	2.418	
523	26/11/2020 07:00	11.867	2.296	
524	26/11/2020 08:00	11.867	2.126	
525	26/11/2020 09:00	11.814	1.965	
526	26/11/2020 10:00	11.867	1.843	
527	26/11/2020 11:00	11.814	1.714	
528	26/11/2020 12:00	11.814	1.805	
529	26/11/2020 13:00	11.867	1.954	
530	26/11/2020 14:00	11.814	2.198	
531	26/11/2020 15:00	11.814	2.264	
532	26/11/2020 16:00	11.762	2.221	
533	26/11/2020 17:00	11.814	2.382	
534	26/11/2020 18:00	11.762	2.346	
535	26/11/2020 19:00	11.867	2.199	
536	26/11/2020 20:00	11.814	2.028	
537	26/11/2020 21:00	11.762	1.853	
538	26/11/2020 22:00	11.814	1.697	
539	26/11/2020 23:00	11.867	1.624	
540	27/11/2020 00:00	11.814	1.647	
541	27/11/2020 01:00	11.867	1.808	
542	27/11/2020 02:00	11.867	2.026	
543	27/11/2020 03:00	11.867	2.223	
544	27/11/2020 04:00	11.814	2.391	
545	27/11/2020 05:00	11.867	2.452	
546	27/11/2020 06:00	11.814	2.461	
547	27/11/2020 07:00	11.814	2.365	
548	27/11/2020 08:00	11.867	2.235	
549	27/11/2020 09:00	11.814	2.038	

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550	27/11/2020 10:00	11.814	1.854	
551	27/11/2020 11:00	11.867	1.722	
552	27/11/2020 12:00	11.867	1.671	
553	27/11/2020 13:00	11.814	1.751	
554	27/11/2020 14:00	11.814	1.923	
555	27/11/2020 15:00	11.867	2.122	
556	27/11/2020 16:00	11.867	2.292	
557	27/11/2020 17:00	11.867	2.376	
558	27/11/2020 18:00	11.814	2.356	
559	27/11/2020 19:00	11.867	2.288	
560	27/11/2020 20:00	11.762	2.107	
561	27/11/2020 21:00	11.762	1.926	
562	27/11/2020 22:00	11.814	1.752	
563	27/11/2020 23:00	11.762	1.572	
564	28/11/2020 00:00	11.814	1.538	
565	28/11/2020 01:00	11.867	1.617	
566	28/11/2020 02:00	11.867	1.836	
567	28/11/2020 03:00	11.867	2.054	
568	28/11/2020 04:00	11.867	2.257	
569	28/11/2020 05:00	11.867	2.363	
570	28/11/2020 06:00	11.762	2.392	
571	28/11/2020 07:00	11.814	2.351	
572	28/11/2020 08:00	11.867	2.219	
573	28/11/2020 09:00	11.762	2.043	
574	28/11/2020 10:00	11.762	1.822	
575	28/11/2020 11:00	11.867	1.659	
576	28/11/2020 12:00	11.814	1.554	
577	28/11/2020 13:00	11.867	1.577	
578	28/11/2020 14:00	11.814	1.752	
579	28/11/2020 15:00	11.867	1.979	
580	28/11/2020 16:00	11.867	2.168	
581	28/11/2020 17:00	11.867	2.344	
582	28/11/2020 18:00	11.867	2.401	
583	28/11/2020 19:00	11.762	2.345	
584	28/11/2020 20:00	11.814	2.233	
585	28/11/2020 21:00	11.814	2.047	
586	28/11/2020 22:00	11.762	1.848	
587	28/11/2020 23:00	11.814	1.674	
588	29/11/2020 00:00	11.814	1.561	
589	29/11/2020 01:00	11.762	1.566	
590	29/11/2020 02:00	11.814	1.703	
591	29/11/2020 03:00	11.867	1.935	
592	29/11/2020 04:00	11.762	2.166	
593	29/11/2020 05:00	11.762	2.355	
594	29/11/2020 06:00	11.814	2.446	
595	29/11/2020 07:00	11.814	2.437	
596	29/11/2020 08:00	11.762	2.323	
597	29/11/2020 09:00	11.867	2.163	
598	29/11/2020 10:00	11.867	1.955	
599	29/11/2020 11:00	11.867	1.785	
600	29/11/2020 12:00	11.867	1.604	
601	29/11/2020 13:00	11.814	1.575	
602	29/11/2020 14:00	11.867	1.665	
603	29/11/2020 15:00	11.867	1.878	
604	29/11/2020 16:00	11.814	2.104	

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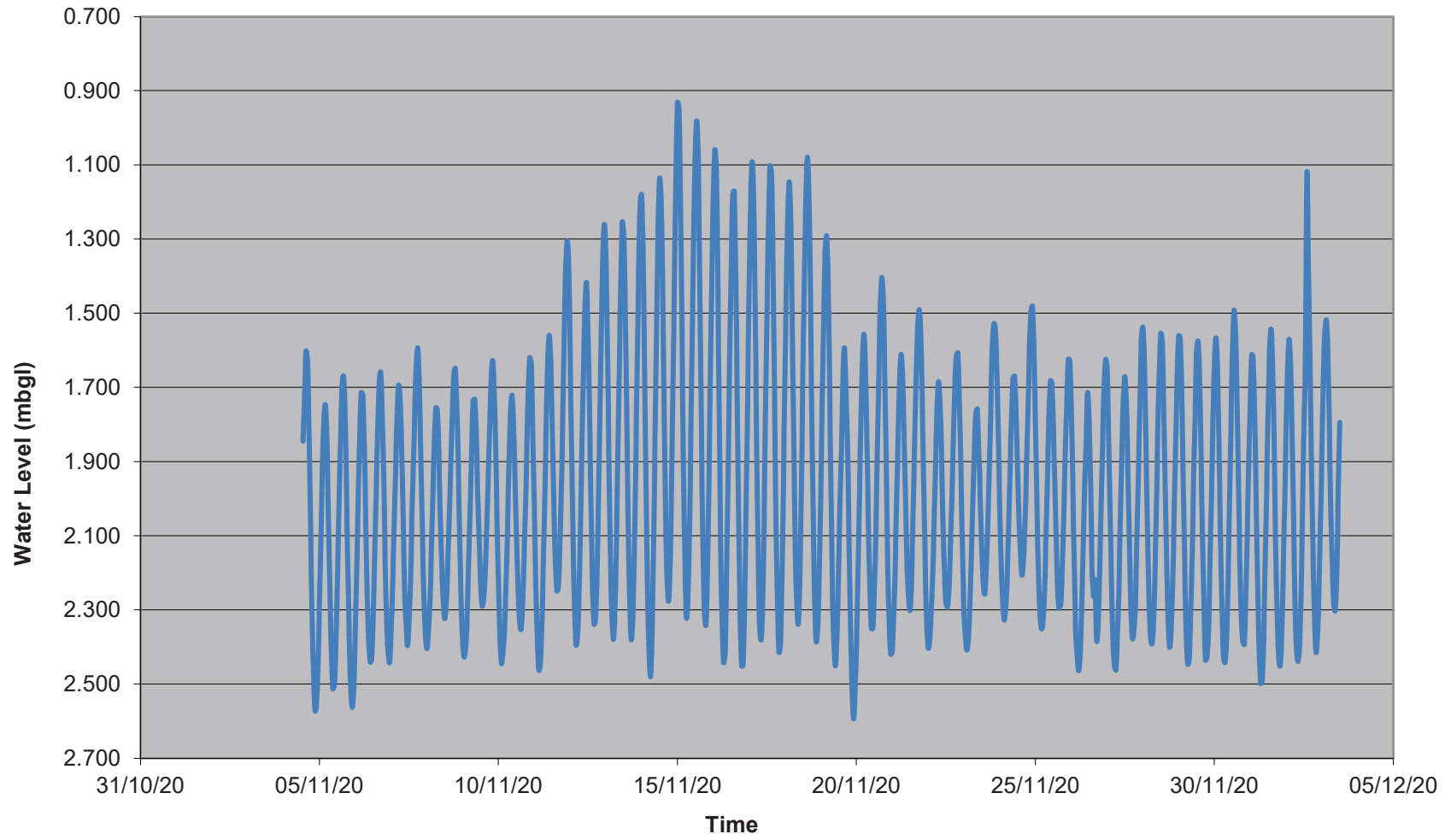
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	29/11/2020 17:00	11.762	2.297	
606	29/11/2020 18:00	11.867	2.435	
607	29/11/2020 19:00	11.814	2.428	
608	29/11/2020 20:00	11.867	2.361	
609	29/11/2020 21:00	11.814	2.178	
610	29/11/2020 22:00	11.867	1.992	
611	29/11/2020 23:00	11.814	1.795	
612	30/11/2020 00:00	11.867	1.627	
613	30/11/2020 01:00	11.814	1.566	
614	30/11/2020 02:00	11.814	1.645	
615	30/11/2020 03:00	11.762	1.842	
616	30/11/2020 04:00	11.814	2.080	
617	30/11/2020 05:00	11.814	2.287	
618	30/11/2020 06:00	11.867	2.423	
619	30/11/2020 07:00	11.814	2.442	
620	30/11/2020 08:00	11.814	2.399	
621	30/11/2020 09:00	11.814	2.248	
622	30/11/2020 10:00	11.762	2.040	
623	30/11/2020 11:00	11.814	1.820	
624	30/11/2020 12:00	11.814	1.619	
625	30/11/2020 13:00	11.762	1.493	
626	30/11/2020 14:00	11.814	1.534	
627	30/11/2020 15:00	11.762	1.688	
628	30/11/2020 16:00	11.814	1.928	
629	30/11/2020 17:00	11.814	2.162	
630	30/11/2020 18:00	11.814	2.317	
631	30/11/2020 19:00	11.762	2.382	
632	30/11/2020 20:00	11.814	2.392	
633	30/11/2020 21:00	11.814	2.270	
634	30/11/2020 22:00	11.814	2.092	
635	30/11/2020 23:00	11.867	1.904	
636	01/12/2020 00:00	11.814	1.733	
637	01/12/2020 01:00	11.762	1.612	
638	01/12/2020 02:00	11.867	1.620	
639	01/12/2020 03:00	11.867	1.782	
640	01/12/2020 04:00	11.814	2.002	
641	01/12/2020 05:00	11.814	2.238	
642	01/12/2020 06:00	11.814	2.407	
643	01/12/2020 07:00	11.867	2.498	
644	01/12/2020 08:00	11.814	2.492	
645	01/12/2020 09:00	11.814	2.379	
646	01/12/2020 10:00	11.814	2.180	
647	01/12/2020 11:00	11.814	1.969	
648	01/12/2020 12:00	11.814	1.763	
649	01/12/2020 13:00	11.814	1.597	
650	01/12/2020 14:00	11.814	1.543	
651	01/12/2020 15:00	11.814	1.638	
652	01/12/2020 16:00	11.867	1.834	
653	01/12/2020 17:00	11.814	2.114	
654	01/12/2020 18:00	11.814	2.305	
655	01/12/2020 19:00	11.814	2.419	
656	01/12/2020 20:00	11.814	2.451	
657	01/12/2020 21:00	11.867	2.383	
658	01/12/2020 22:00	11.814	2.215	
659	01/12/2020 23:00	11.814	2.032	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	02/12/2020 00:00	11.814	1.836	
661	02/12/2020 01:00	11.814	1.654	
662	02/12/2020 02:00	11.814	1.570	
663	02/12/2020 03:00	11.814	1.632	
664	02/12/2020 04:00	11.814	1.810	
665	02/12/2020 05:00	11.814	2.042	
666	02/12/2020 06:00	11.814	2.278	
667	02/12/2020 07:00	11.814	2.407	
668	02/12/2020 08:00	11.814	2.439	
669	02/12/2020 09:00	11.814	2.405	
670	02/12/2020 10:00	11.814	2.276	
671	02/12/2020 11:00	11.814	2.051	
672	02/12/2020 12:00	11.814	1.803	
673	02/12/2020 13:00	11.867	1.635	
674	02/12/2020 14:00	11.814	1.124	
675	02/12/2020 15:00	11.814	1.367	
676	02/12/2020 16:00	11.867	1.613	
677	02/12/2020 17:00	11.814	1.887	
678	02/12/2020 18:00	11.814	2.128	
679	02/12/2020 19:00	11.814	2.305	
680	02/12/2020 20:00	11.814	2.413	
681	02/12/2020 21:00	11.814	2.376	
682	02/12/2020 22:00	11.867	2.269	
683	02/12/2020 23:00	11.814	2.074	
684	03/12/2020 00:00	11.814	1.889	
685	03/12/2020 01:00	11.814	1.677	
686	03/12/2020 02:00	11.814	1.553	
687	03/12/2020 03:00	11.814	1.518	
688	03/12/2020 04:00	11.867	1.596	
689	03/12/2020 05:00	11.814	1.801	
690	03/12/2020 06:00	11.814	2.029	
691	03/12/2020 07:00	11.814	2.180	
692	03/12/2020 08:00	11.762	2.284	
693	03/12/2020 09:00	11.814	2.302	
694	03/12/2020 10:00	11.867	2.207	
695	03/12/2020 11:00	11.814	1.986	
696	03/12/2020 12:00	11.814	1.794	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	03/12/2020 15:00	11.814	1.504	
2	03/12/2020 16:00	11.814	1.704	
3	03/12/2020 17:00	11.814	1.962	
4	03/12/2020 18:00	11.867	2.176	
5	03/12/2020 19:00	11.814	2.341	
6	03/12/2020 20:00	11.814	2.395	
7	03/12/2020 21:00	11.867	2.355	
8	03/12/2020 22:00	11.867	2.242	
9	03/12/2020 23:00	11.814	2.066	
10	04/12/2020 00:00	11.867	1.872	
11	04/12/2020 01:00	11.867	1.692	
12	04/12/2020 02:00	11.867	1.614	
13	04/12/2020 03:00	11.867	1.599	
14	04/12/2020 04:00	11.814	1.753	
15	04/12/2020 05:00	11.814	1.968	
16	04/12/2020 06:00	11.814	2.188	
17	04/12/2020 07:00	11.814	2.323	
18	04/12/2020 08:00	11.814	2.396	
19	04/12/2020 09:00	11.814	2.353	
20	04/12/2020 10:00	11.814	2.249	
21	04/12/2020 11:00	11.867	2.068	
22	04/12/2020 12:00	11.867	1.890	
23	04/12/2020 13:00	11.814	1.692	
24	04/12/2020 14:00	11.762	1.546	
25	04/12/2020 15:00	11.814	1.510	
26	04/12/2020 16:00	11.814	1.611	
27	04/12/2020 17:00	11.867	1.825	
28	04/12/2020 18:00	11.762	2.050	
29	04/12/2020 19:00	11.814	2.255	
30	04/12/2020 20:00	11.814	2.352	
31	04/12/2020 21:00	11.867	2.389	
32	04/12/2020 22:00	11.814	2.341	
33	04/12/2020 23:00	11.867	2.192	
34	05/12/2020 00:00	11.867	2.023	
35	05/12/2020 01:00	11.814	1.869	
36	05/12/2020 02:00	11.814	1.740	
37	05/12/2020 03:00	11.814	1.700	
38	05/12/2020 04:00	11.814	1.776	
39	05/12/2020 05:00	11.814	1.931	
40	05/12/2020 06:00	11.867	2.149	
41	05/12/2020 07:00	11.814	2.310	
42	05/12/2020 08:00	11.762	2.423	
43	05/12/2020 09:00	11.814	2.442	
44	05/12/2020 10:00	11.814	2.381	
45	05/12/2020 11:00	11.762	2.267	
46	05/12/2020 12:00	11.867	2.114	
47	05/12/2020 13:00	11.867	1.930	
48	05/12/2020 14:00	11.867	1.780	
49	05/12/2020 15:00	11.867	1.674	
50	05/12/2020 16:00	11.867	1.699	
51	05/12/2020 17:00	11.814	1.826	
52	05/12/2020 18:00	11.814	2.067	
53	05/12/2020 19:00	11.762	2.249	
54	05/12/2020 20:00	11.867	2.446	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	05/12/2020 21:00	11.762	2.514	
56	05/12/2020 22:00	11.762	2.546	
57	05/12/2020 23:00	11.814	2.485	
58	06/12/2020 00:00	11.762	2.361	
59	06/12/2020 01:00	11.867	2.207	
60	06/12/2020 02:00	11.814	2.022	
61	06/12/2020 03:00	11.814	1.861	
62	06/12/2020 04:00	11.762	1.766	
63	06/12/2020 05:00	11.814	1.845	
64	06/12/2020 06:00	11.762	1.995	
65	06/12/2020 07:00	11.709	2.179	
66	06/12/2020 08:00	11.814	2.339	
67	06/12/2020 09:00	11.867	2.443	
68	06/12/2020 10:00	11.762	2.446	
69	06/12/2020 11:00	11.709	2.394	
70	06/12/2020 12:00	11.814	2.278	
71	06/12/2020 13:00	11.919	2.133	
72	06/12/2020 14:00	11.919	1.946	
73	06/12/2020 15:00	11.919	1.783	
74	06/12/2020 16:00	11.919	1.672	
75	06/12/2020 17:00	11.867	1.714	
76	06/12/2020 18:00	11.919	1.842	
77	06/12/2020 19:00	11.762	2.036	
78	06/12/2020 20:00	11.867	2.243	
79	06/12/2020 21:00	11.814	2.405	
80	06/12/2020 22:00	11.814	2.487	
81	06/12/2020 23:00	11.709	2.489	
82	07/12/2020 00:00	11.919	2.420	
83	07/12/2020 01:00	11.814	2.292	
84	07/12/2020 02:00	11.709	2.118	
85	07/12/2020 03:00	11.657	1.933	
86	07/12/2020 04:00	11.709	1.785	
87	07/12/2020 05:00	11.657	1.717	
88	07/12/2020 06:00	11.709	1.773	
89	07/12/2020 07:00	11.657	1.927	
90	07/12/2020 08:00	11.709	2.106	
91	07/12/2020 09:00	11.919	2.251	
92	07/12/2020 10:00	11.919	2.324	
93	07/12/2020 11:00	11.867	2.373	
94	07/12/2020 12:00	11.709	2.299	
95	07/12/2020 13:00	11.971	2.167	
96	07/12/2020 14:00	11.709	2.008	
97	07/12/2020 15:00	11.657	1.830	
98	07/12/2020 16:00	11.657	1.664	
99	07/12/2020 17:00	11.867	1.569	
100	07/12/2020 18:00	11.657	1.596	
101	07/12/2020 19:00	11.657	1.722	
102	07/12/2020 20:00	11.971	1.922	
103	07/12/2020 21:00	11.919	2.139	
104	07/12/2020 22:00	11.867	2.316	
105	07/12/2020 23:00	11.971	2.389	
106	08/12/2020 00:00	11.709	2.412	
107	08/12/2020 01:00	11.657	2.374	
108	08/12/2020 02:00	11.814	2.255	
109	08/12/2020 03:00	11.919	2.117	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	08/12/2020 04:00	11.919	1.933	
111	08/12/2020 05:00	11.657	1.786	
112	08/12/2020 06:00	11.971	1.700	
113	08/12/2020 07:00	11.709	1.769	
114	08/12/2020 08:00	11.971	1.894	
115	08/12/2020 09:00	11.762	2.054	
116	08/12/2020 10:00	11.971	2.194	
117	08/12/2020 11:00	11.971	2.282	
118	08/12/2020 12:00	11.657	2.317	
119	08/12/2020 13:00	11.867	2.266	
120	08/12/2020 14:00	11.814	2.155	
121	08/12/2020 15:00	11.971	1.996	
122	08/12/2020 16:00	11.919	1.841	
123	08/12/2020 17:00	11.657	1.710	
124	08/12/2020 18:00	11.919	1.629	
125	08/12/2020 19:00	11.709	1.657	
126	08/12/2020 20:00	11.657	1.793	
127	08/12/2020 21:00	11.971	2.000	
128	08/12/2020 22:00	11.919	2.214	
129	08/12/2020 23:00	11.552	2.377	
130	09/12/2020 00:00	11.605	2.483	
131	09/12/2020 01:00	11.971	2.498	
132	09/12/2020 02:00	11.500	2.461	
133	09/12/2020 03:00	11.971	2.363	
134	09/12/2020 04:00	11.971	2.184	
135	09/12/2020 05:00	11.500	2.020	
136	09/12/2020 06:00	11.867	1.874	
137	09/12/2020 07:00	11.605	1.792	
138	09/12/2020 08:00	11.605	1.776	
139	09/12/2020 09:00	11.814	1.901	
140	09/12/2020 10:00	11.500	2.073	
141	09/12/2020 11:00	11.709	2.236	
142	09/12/2020 12:00	11.762	2.341	
143	09/12/2020 13:00	11.605	2.372	
144	09/12/2020 14:00	11.709	2.331	
145	09/12/2020 15:00	11.919	2.242	
146	09/12/2020 16:00	11.814	2.087	
147	09/12/2020 17:00	11.919	1.916	
148	09/12/2020 18:00	11.971	1.695	
149	09/12/2020 19:00	11.971	1.563	
150	09/12/2020 20:00	11.971	1.534	
151	09/12/2020 21:00	11.552	1.613	
152	09/12/2020 22:00	11.500	1.821	
153	09/12/2020 23:00	11.971	2.042	
154	10/12/2020 00:00	11.971	2.229	
155	10/12/2020 01:00	11.971	2.340	
156	10/12/2020 02:00	11.971	2.380	
157	10/12/2020 03:00	11.867	2.343	
158	10/12/2020 04:00	11.500	2.240	
159	10/12/2020 05:00	11.971	2.107	
160	10/12/2020 06:00	11.919	1.946	
161	10/12/2020 07:00	11.971	1.793	
162	10/12/2020 08:00	11.919	1.688	
163	10/12/2020 09:00	11.552	1.690	
164	10/12/2020 10:00	11.657	1.843	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	10/12/2020 11:00	11.971	2.011	
166	10/12/2020 12:00	11.657	2.196	
167	10/12/2020 13:00	11.552	2.320	
168	10/12/2020 14:00	11.971	2.379	
169	10/12/2020 15:00	11.605	2.327	
170	10/12/2020 16:00	11.657	2.238	
171	10/12/2020 17:00	11.605	2.079	
172	10/12/2020 18:00	11.552	1.862	
173	10/12/2020 19:00	11.971	1.652	
174	10/12/2020 20:00	11.971	1.486	
175	10/12/2020 21:00	11.762	1.456	
176	10/12/2020 22:00	11.762	1.576	
177	10/12/2020 23:00	11.919	1.808	
178	11/12/2020 00:00	11.657	2.046	
179	11/12/2020 01:00	11.814	2.242	
180	11/12/2020 02:00	11.657	2.359	
181	11/12/2020 03:00	11.657	2.396	
182	11/12/2020 04:00	11.762	2.350	
183	11/12/2020 05:00	11.971	2.227	
184	11/12/2020 06:00	11.919	2.017	
185	11/12/2020 07:00	11.762	1.796	
186	11/12/2020 08:00	11.762	1.603	
187	11/12/2020 09:00	11.709	1.464	
188	11/12/2020 10:00	11.867	1.480	
189	11/12/2020 11:00	11.657	1.658	
190	11/12/2020 12:00	11.971	1.872	
191	11/12/2020 13:00	11.971	2.107	
192	11/12/2020 14:00	11.657	2.242	
193	11/12/2020 15:00	11.762	2.309	
194	11/12/2020 16:00	11.762	2.283	
195	11/12/2020 17:00	11.971	2.143	
196	11/12/2020 18:00	11.657	2.008	
197	11/12/2020 19:00	11.762	1.818	
198	11/12/2020 20:00	11.919	1.601	
199	11/12/2020 21:00	11.762	1.475	
200	11/12/2020 22:00	11.709	1.465	
201	11/12/2020 23:00	11.762	1.624	
202	12/12/2020 00:00	11.709	1.869	
203	12/12/2020 01:00	11.814	2.138	
204	12/12/2020 02:00	11.971	2.353	
205	12/12/2020 03:00	11.971	2.478	
206	12/12/2020 04:00	11.709	2.509	
207	12/12/2020 05:00	11.971	2.423	
208	12/12/2020 06:00	11.867	2.276	
209	12/12/2020 07:00	11.867	2.064	
210	12/12/2020 08:00	11.867	1.848	
211	12/12/2020 09:00	11.709	1.662	
212	12/12/2020 10:00	11.919	1.576	
213	12/12/2020 11:00	11.919	1.607	
214	12/12/2020 12:00	11.814	1.816	
215	12/12/2020 13:00	11.814	2.068	
216	12/12/2020 14:00	11.709	2.289	
217	12/12/2020 15:00	11.709	2.432	
218	12/12/2020 16:00	11.919	2.471	
219	12/12/2020 17:00	11.762	2.435	

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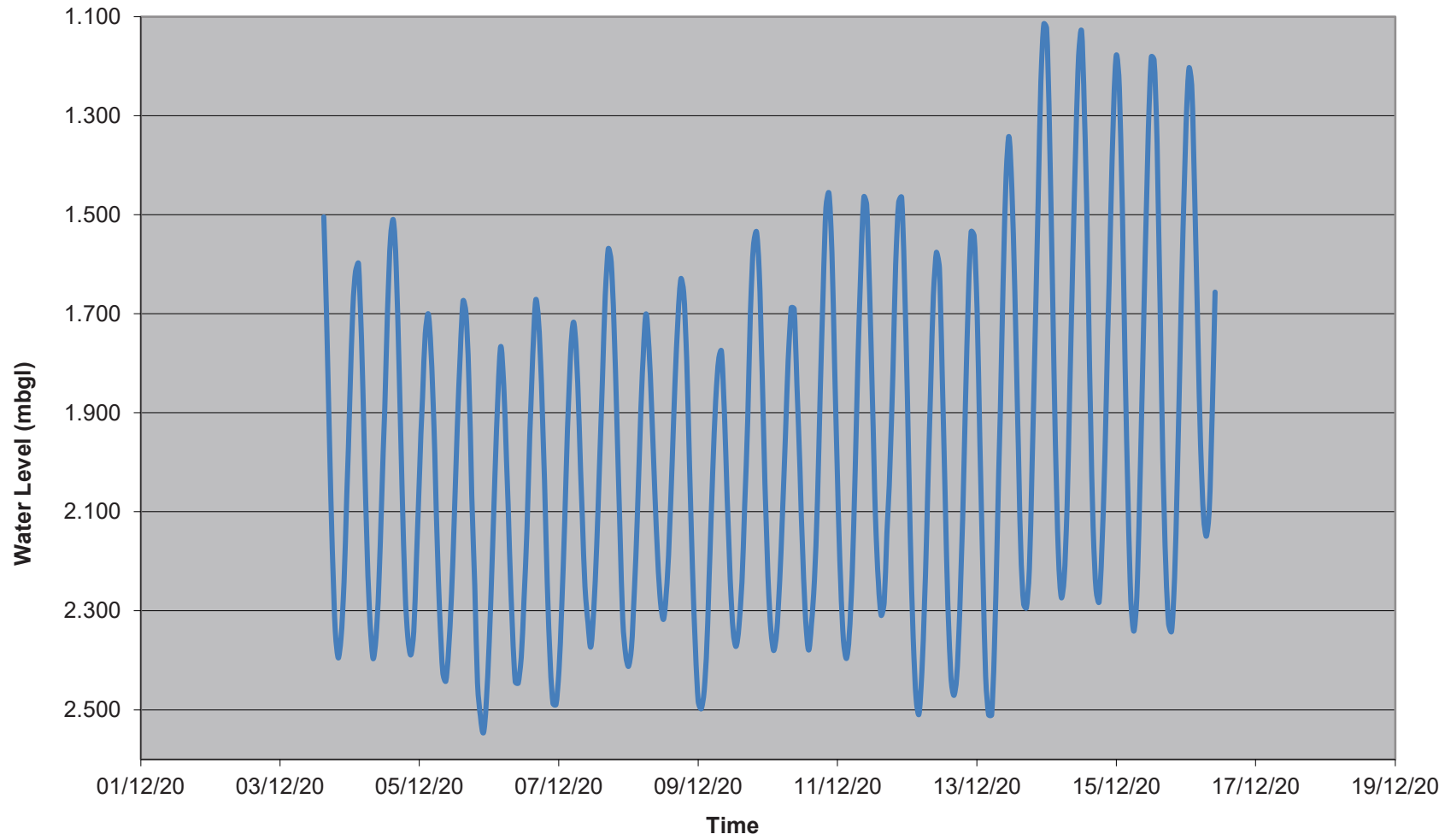
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	12/12/2020 18:00	11.919	2.307	
221	12/12/2020 19:00	11.814	2.115	
222	12/12/2020 20:00	11.709	1.885	
223	12/12/2020 21:00	11.919	1.663	
224	12/12/2020 22:00	11.919	1.534	
225	12/12/2020 23:00	11.709	1.543	
226	13/12/2020 00:00	11.762	1.696	
227	13/12/2020 01:00	11.762	1.959	
228	13/12/2020 02:00	11.867	2.219	
229	13/12/2020 03:00	11.814	2.432	
230	13/12/2020 04:00	11.814	2.510	
231	13/12/2020 05:00	11.814	2.510	
232	13/12/2020 06:00	11.762	2.376	
233	13/12/2020 07:00	11.814	2.138	
234	13/12/2020 08:00	11.867	1.892	
235	13/12/2020 09:00	11.814	1.635	
236	13/12/2020 10:00	11.814	1.420	
237	13/12/2020 11:00	11.814	1.342	
238	13/12/2020 12:00	11.814	1.448	
239	13/12/2020 13:00	11.814	1.659	
240	13/12/2020 14:00	11.867	1.907	
241	13/12/2020 15:00	11.814	2.164	
242	13/12/2020 16:00	11.814	2.285	
243	13/12/2020 17:00	11.867	2.294	
244	13/12/2020 18:00	11.814	2.215	
245	13/12/2020 19:00	11.867	2.003	
246	13/12/2020 20:00	11.814	1.745	
247	13/12/2020 21:00	11.814	1.476	
248	13/12/2020 22:00	11.814	1.231	
249	13/12/2020 23:00	11.814	1.114	
250	14/12/2020 00:00	11.867	1.124	
251	14/12/2020 01:00	11.762	1.344	
252	14/12/2020 02:00	11.867	1.659	
253	14/12/2020 03:00	11.867	1.958	
254	14/12/2020 04:00	11.762	2.183	
255	14/12/2020 05:00	11.867	2.273	
256	14/12/2020 06:00	11.867	2.235	
257	14/12/2020 07:00	11.867	2.088	
258	14/12/2020 08:00	11.814	1.847	
259	14/12/2020 09:00	11.814	1.584	
260	14/12/2020 10:00	11.814	1.350	
261	14/12/2020 11:00	11.867	1.179	
262	14/12/2020 12:00	11.814	1.129	
263	14/12/2020 13:00	11.762	1.290	
264	14/12/2020 14:00	11.867	1.552	
265	14/12/2020 15:00	11.762	1.888	
266	14/12/2020 16:00	11.867	2.130	
267	14/12/2020 17:00	11.814	2.258	
268	14/12/2020 18:00	11.814	2.282	
269	14/12/2020 19:00	11.814	2.176	
270	14/12/2020 20:00	11.814	1.992	
271	14/12/2020 21:00	11.867	1.752	
272	14/12/2020 22:00	11.814	1.509	
273	14/12/2020 23:00	11.814	1.287	
274	15/12/2020 00:00	11.814	1.177	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/12/2020 01:00	11.867	1.244	
276	15/12/2020 02:00	11.867	1.486	
277	15/12/2020 03:00	11.814	1.804	
278	15/12/2020 04:00	11.867	2.082	
279	15/12/2020 05:00	11.867	2.279	
280	15/12/2020 06:00	11.867	2.341	
281	15/12/2020 07:00	11.814	2.271	
282	15/12/2020 08:00	11.814	2.074	
283	15/12/2020 09:00	11.867	1.816	
284	15/12/2020 10:00	11.814	1.568	
285	15/12/2020 11:00	11.814	1.328	
286	15/12/2020 12:00	11.814	1.181	
287	15/12/2020 13:00	11.814	1.188	
288	15/12/2020 14:00	11.814	1.355	
289	15/12/2020 15:00	11.867	1.680	
290	15/12/2020 16:00	11.867	1.995	
291	15/12/2020 17:00	11.762	2.211	
292	15/12/2020 18:00	11.867	2.326	
293	15/12/2020 19:00	11.867	2.341	
294	15/12/2020 20:00	11.814	2.232	
295	15/12/2020 21:00	11.867	2.029	
296	15/12/2020 22:00	11.762	1.757	
297	15/12/2020 23:00	11.814	1.525	
298	16/12/2020 00:00	11.814	1.316	
299	16/12/2020 01:00	11.867	1.203	
300	16/12/2020 02:00	11.814	1.245	
301	16/12/2020 03:00	11.814	1.471	
302	16/12/2020 04:00	11.814	1.739	
303	16/12/2020 05:00	11.814	1.965	
304	16/12/2020 06:00	11.867	2.109	
305	16/12/2020 07:00	11.814	2.149	
306	16/12/2020 08:00	11.814	2.091	
307	16/12/2020 09:00	11.814	1.892	
308	16/12/2020 10:00	13.014	1.656	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	06/10/2020 14:00	11.254	5.109	
2	06/10/2020 15:00	11.254	5.116	
3	06/10/2020 16:00	11.254	5.118	
4	06/10/2020 17:00	11.254	5.113	
5	06/10/2020 18:00	11.306	5.116	
6	06/10/2020 19:00	11.305	5.123	
7	06/10/2020 20:00	11.357	5.116	
8	06/10/2020 21:00	11.357	5.117	
9	06/10/2020 22:00	11.254	5.119	
10	06/10/2020 23:00	11.306	5.114	
11	07/10/2020 00:00	11.306	5.112	
12	07/10/2020 01:00	11.254	5.115	
13	07/10/2020 02:00	11.254	5.119	
14	07/10/2020 03:00	11.306	5.117	
15	07/10/2020 04:00	11.306	5.120	
16	07/10/2020 05:00	11.202	5.116	
17	07/10/2020 06:00	11.306	5.116	
18	07/10/2020 07:00	11.254	5.109	
19	07/10/2020 08:00	11.461	5.123	
20	07/10/2020 09:00	11.357	5.111	
21	07/10/2020 10:00	11.305	5.120	
22	07/10/2020 11:00	11.305	5.119	
23	07/10/2020 12:00	11.203	5.121	
24	07/10/2020 13:00	11.254	5.109	
25	07/10/2020 14:00	11.254	5.117	
26	07/10/2020 15:00	11.306	5.117	
27	07/10/2020 16:00	11.357	5.122	
28	07/10/2020 17:00	11.203	5.123	
29	07/10/2020 18:00	11.151	5.116	
30	07/10/2020 19:00	11.305	5.112	
31	07/10/2020 20:00	11.306	5.113	
32	07/10/2020 21:00	11.565	5.113	
33	07/10/2020 22:00	11.461	5.124	
34	07/10/2020 23:00	11.358	5.130	
35	08/10/2020 00:00	11.305	5.125	
36	08/10/2020 01:00	11.357	5.119	
37	08/10/2020 02:00	11.202	5.123	
38	08/10/2020 03:00	11.254	5.114	
39	08/10/2020 04:00	11.357	5.120	
40	08/10/2020 05:00	11.357	5.129	
41	08/10/2020 06:00	11.305	5.126	
42	08/10/2020 07:00	11.203	5.117	
43	08/10/2020 08:00	11.254	5.126	
44	08/10/2020 09:00	11.254	5.108	
45	08/10/2020 10:00	11.461	5.124	
46	08/10/2020 11:00	11.254	5.129	
47	08/10/2020 12:00	11.357	5.126	
48	08/10/2020 13:00	11.254	5.120	
49	08/10/2020 14:00	11.254	5.119	
50	08/10/2020 15:00	11.306	5.127	
51	08/10/2020 16:00	11.202	5.124	
52	08/10/2020 17:00	11.409	5.134	
53	08/10/2020 18:00	11.254	5.131	
54	08/10/2020 19:00	11.306	5.127	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	08/10/2020 20:00	11.305	5.122	
56	08/10/2020 21:00	11.357	5.124	
57	08/10/2020 22:00	11.357	5.128	
58	08/10/2020 23:00	11.357	5.118	
59	09/10/2020 00:00	11.409	5.137	
60	09/10/2020 01:00	11.357	5.134	
61	09/10/2020 02:00	11.151	5.135	
62	09/10/2020 03:00	11.254	5.134	
63	09/10/2020 04:00	11.151	5.127	
64	09/10/2020 05:00	11.202	5.127	
65	09/10/2020 06:00	11.254	5.137	
66	09/10/2020 07:00	11.357	5.135	
67	09/10/2020 08:00	11.202	5.135	
68	09/10/2020 09:00	11.357	5.131	
69	09/10/2020 10:00	11.254	5.126	
70	09/10/2020 11:00	11.358	5.143	
71	09/10/2020 12:00	11.409	5.143	
72	09/10/2020 13:00	11.461	5.140	
73	09/10/2020 14:00	11.254	5.137	
74	09/10/2020 15:00	11.202	5.138	
75	09/10/2020 16:00	11.254	5.131	
76	09/10/2020 17:00	11.306	5.136	
77	09/10/2020 18:00	11.254	5.143	
78	09/10/2020 19:00	11.202	5.142	
79	09/10/2020 20:00	11.357	5.144	
80	09/10/2020 21:00	11.357	5.133	
81	09/10/2020 22:00	11.357	5.140	
82	09/10/2020 23:00	11.357	5.145	
83	10/10/2020 00:00	11.409	5.137	
84	10/10/2020 01:00	11.409	5.142	
85	10/10/2020 02:00	11.306	5.146	
86	10/10/2020 03:00	11.202	5.139	
87	10/10/2020 04:00	11.357	5.130	
88	10/10/2020 05:00	11.202	5.144	
89	10/10/2020 06:00	11.254	5.144	
90	10/10/2020 07:00	11.306	5.129	
91	10/10/2020 08:00	11.254	5.144	
92	10/10/2020 09:00	11.254	5.146	
93	10/10/2020 10:00	11.254	5.143	
94	10/10/2020 11:00	11.409	5.146	
95	10/10/2020 12:00	11.357	5.142	
96	10/10/2020 13:00	11.306	5.150	
97	10/10/2020 14:00	11.305	5.139	
98	10/10/2020 15:00	11.357	5.142	
99	10/10/2020 16:00	11.306	5.146	
100	10/10/2020 17:00	11.306	5.134	
101	10/10/2020 18:00	11.202	5.139	
102	10/10/2020 19:00	11.254	5.146	
103	10/10/2020 20:00	11.254	5.147	
104	10/10/2020 21:00	11.409	5.154	
105	10/10/2020 22:00	11.357	5.151	
106	10/10/2020 23:00	11.409	5.148	
107	11/10/2020 00:00	11.410	5.149	
108	11/10/2020 01:00	11.513	5.153	
109	11/10/2020 02:00	11.357	5.140	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	11/10/2020 03:00	11.305	5.135	
111	11/10/2020 04:00	11.357	5.142	
112	11/10/2020 05:00	11.305	5.143	
113	11/10/2020 06:00	11.202	5.150	
114	11/10/2020 07:00	11.306	5.148	
115	11/10/2020 08:00	11.203	5.142	
116	11/10/2020 09:00	11.254	5.149	
117	11/10/2020 10:00	11.357	5.152	
118	11/10/2020 11:00	11.306	5.154	
119	11/10/2020 12:00	11.461	5.146	
120	11/10/2020 13:00	11.409	5.152	
121	11/10/2020 14:00	11.357	5.153	
122	11/10/2020 15:00	11.306	5.145	
123	11/10/2020 16:00	11.305	5.143	
124	11/10/2020 17:00	11.254	5.141	
125	11/10/2020 18:00	11.306	5.143	
126	11/10/2020 19:00	11.254	5.151	
127	11/10/2020 20:00	11.202	5.135	
128	11/10/2020 21:00	11.203	5.137	
129	11/10/2020 22:00	11.202	5.139	
130	11/10/2020 23:00	11.254	5.147	
131	12/10/2020 00:00	11.409	5.141	
132	12/10/2020 01:00	11.357	5.150	
133	12/10/2020 02:00	11.461	5.150	
134	12/10/2020 03:00	11.358	5.148	
135	12/10/2020 04:00	11.409	5.141	
136	12/10/2020 05:00	11.254	5.151	
137	12/10/2020 06:00	11.203	5.145	
138	12/10/2020 07:00	11.306	5.139	
139	12/10/2020 08:00	11.306	5.141	
140	12/10/2020 09:00	11.202	5.124	
141	12/10/2020 10:00	11.203	5.125	
142	12/10/2020 11:00	11.203	5.132	
143	12/10/2020 12:00	11.254	5.135	
144	12/10/2020 13:00	11.357	5.129	
145	12/10/2020 14:00	11.358	5.120	
146	12/10/2020 15:00	11.306	5.137	
147	12/10/2020 16:00	11.306	5.128	
148	12/10/2020 17:00	11.357	5.130	
149	12/10/2020 18:00	11.305	5.128	
150	12/10/2020 19:00	11.306	5.130	
151	12/10/2020 20:00	11.254	5.121	
152	12/10/2020 21:00	11.254	5.124	
153	12/10/2020 22:00	11.151	5.129	
154	12/10/2020 23:00	11.202	5.124	
155	13/10/2020 00:00	11.305	5.121	
156	13/10/2020 01:00	11.305	5.113	
157	13/10/2020 02:00	11.409	5.126	
158	13/10/2020 03:00	11.306	5.127	
159	13/10/2020 04:00	11.513	5.113	
160	13/10/2020 05:00	11.305	5.110	
161	13/10/2020 06:00	11.357	5.120	
162	13/10/2020 07:00	11.203	5.118	
163	13/10/2020 08:00	11.202	5.115	
164	13/10/2020 09:00	11.202	5.125	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	13/10/2020 10:00	11.254	5.123	
166	13/10/2020 11:00	11.202	5.113	
167	13/10/2020 12:00	11.254	5.113	
168	13/10/2020 13:00	11.305	5.125	
169	13/10/2020 14:00	11.306	5.121	
170	13/10/2020 15:00	11.409	5.123	
171	13/10/2020 16:00	11.409	5.117	
172	13/10/2020 17:00	11.305	5.125	
173	13/10/2020 18:00	11.305	5.115	
174	13/10/2020 19:00	11.203	5.116	
175	13/10/2020 20:00	11.151	5.117	
176	13/10/2020 21:00	11.254	5.124	
177	13/10/2020 22:00	11.254	5.116	
178	13/10/2020 23:00	11.203	5.120	
179	14/10/2020 00:00	11.203	5.115	
180	14/10/2020 01:00	11.254	5.116	
181	14/10/2020 02:00	11.409	5.116	
182	14/10/2020 03:00	11.306	5.106	
183	14/10/2020 04:00	11.461	5.111	
184	14/10/2020 05:00	11.358	5.111	
185	14/10/2020 06:00	11.254	5.116	
186	14/10/2020 07:00	11.306	5.112	
187	14/10/2020 08:00	11.255	5.112	
188	14/10/2020 09:00	11.203	5.116	
189	14/10/2020 10:00	11.254	5.112	
190	14/10/2020 11:00	11.306	5.108	
191	14/10/2020 12:00	11.255	5.112	
192	14/10/2020 13:00	11.151	5.109	
193	14/10/2020 14:00	11.357	5.097	
194	14/10/2020 15:00	11.461	5.114	
195	14/10/2020 16:00	11.357	5.110	
196	14/10/2020 17:00	11.409	5.105	
197	14/10/2020 18:00	11.306	5.101	
198	14/10/2020 19:00	11.306	5.097	
199	14/10/2020 20:00	11.255	5.112	
200	14/10/2020 21:00	11.203	5.106	
201	14/10/2020 22:00	11.305	5.108	
202	14/10/2020 23:00	11.254	5.103	
203	15/10/2020 00:00	11.357	5.114	
204	15/10/2020 01:00	11.151	5.102	
205	15/10/2020 02:00	11.357	5.097	
206	15/10/2020 03:00	11.358	5.101	
207	15/10/2020 04:00	11.409	5.099	
208	15/10/2020 05:00	11.409	5.092	
209	15/10/2020 06:00	11.358	5.096	
210	15/10/2020 07:00	11.305	5.091	
211	15/10/2020 08:00	11.254	5.091	
212	15/10/2020 09:00	11.306	5.089	
213	15/10/2020 10:00	11.202	5.089	
214	15/10/2020 11:00	11.305	5.096	
215	15/10/2020 12:00	11.254	5.093	
216	15/10/2020 13:00	11.203	5.093	
217	15/10/2020 14:00	11.203	5.089	
218	15/10/2020 15:00	11.409	5.104	
219	15/10/2020 16:00	11.461	5.099	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	15/10/2020 17:00	11.306	5.097	
221	15/10/2020 18:00	11.409	5.087	
222	15/10/2020 19:00	11.305	5.090	
223	15/10/2020 20:00	11.305	5.084	
224	15/10/2020 21:00	11.254	5.092	
225	15/10/2020 22:00	11.357	5.076	
226	15/10/2020 23:00	11.254	5.088	
227	16/10/2020 00:00	11.202	5.083	
228	16/10/2020 01:00	11.254	5.084	
229	16/10/2020 02:00	11.202	5.088	
230	16/10/2020 03:00	11.357	5.079	
231	16/10/2020 04:00	11.254	5.091	
232	16/10/2020 05:00	11.357	5.092	
233	16/10/2020 06:00	11.358	5.083	
234	16/10/2020 07:00	11.305	5.082	
235	16/10/2020 08:00	11.306	5.079	
236	16/10/2020 09:00	11.306	5.082	
237	16/10/2020 10:00	11.254	5.083	
238	16/10/2020 11:00	11.203	5.082	
239	16/10/2020 12:00	11.357	5.076	
240	16/10/2020 13:00	11.202	5.084	
241	16/10/2020 14:00	11.255	5.079	
242	16/10/2020 15:00	11.358	5.077	
243	16/10/2020 16:00	11.461	5.087	
244	16/10/2020 17:00	11.358	5.085	
245	16/10/2020 18:00	11.358	5.074	
246	16/10/2020 19:00	11.358	5.088	
247	16/10/2020 20:00	11.358	5.087	
248	16/10/2020 21:00	11.202	5.078	
249	16/10/2020 22:00	11.409	5.088	
250	16/10/2020 23:00	11.255	5.091	
251	17/10/2020 00:00	11.254	5.072	
252	17/10/2020 01:00	11.254	5.076	
253	17/10/2020 02:00	11.358	5.081	
254	17/10/2020 03:00	11.254	5.079	
255	17/10/2020 04:00	11.306	5.080	
256	17/10/2020 05:00	11.357	5.084	
257	17/10/2020 06:00	11.409	5.083	
258	17/10/2020 07:00	11.358	5.083	
259	17/10/2020 08:00	11.306	5.079	
260	17/10/2020 09:00	11.409	5.081	
261	17/10/2020 10:00	11.254	5.084	
262	17/10/2020 11:00	11.305	5.076	
263	17/10/2020 12:00	11.357	5.079	
264	17/10/2020 13:00	11.254	5.086	
265	17/10/2020 14:00	11.357	5.085	
266	17/10/2020 15:00	11.151	5.077	
267	17/10/2020 16:00	11.305	5.076	
268	17/10/2020 17:00	11.409	5.083	
269	17/10/2020 18:00	11.358	5.078	
270	17/10/2020 19:00	11.461	5.092	
271	17/10/2020 20:00	11.306	5.086	
272	17/10/2020 21:00	11.357	5.074	
273	17/10/2020 22:00	11.255	5.077	
274	17/10/2020 23:00	11.305	5.073	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	18/10/2020 00:00	11.358	5.066	
276	18/10/2020 01:00	11.409	5.068	
277	18/10/2020 02:00	11.358	5.076	
278	18/10/2020 03:00	11.306	5.077	
279	18/10/2020 04:00	11.357	5.073	
280	18/10/2020 05:00	11.357	5.074	
281	18/10/2020 06:00	11.254	5.081	
282	18/10/2020 07:00	11.357	5.063	
283	18/10/2020 08:00	11.306	5.064	
284	18/10/2020 09:00	11.306	5.069	
285	18/10/2020 10:00	11.202	5.059	
286	18/10/2020 11:00	11.358	5.059	
287	18/10/2020 12:00	11.358	5.056	
288	18/10/2020 13:00	11.254	5.060	
289	18/10/2020 14:00	11.203	5.047	
290	18/10/2020 15:00	11.254	5.061	
291	18/10/2020 16:00	11.254	5.051	
292	18/10/2020 17:00	11.564	5.048	
293	18/10/2020 18:00	11.202	5.053	
294	18/10/2020 19:00	11.306	5.053	
295	18/10/2020 20:00	11.305	5.054	
296	18/10/2020 21:00	11.409	5.045	
297	18/10/2020 22:00	11.357	5.045	
298	18/10/2020 23:00	11.357	5.045	
299	19/10/2020 00:00	11.357	5.048	
300	19/10/2020 01:00	11.254	5.054	
301	19/10/2020 02:00	11.358	5.051	
302	19/10/2020 03:00	11.358	5.051	
303	19/10/2020 04:00	11.306	5.046	
304	19/10/2020 05:00	11.254	5.030	
305	19/10/2020 06:00	11.357	5.047	
306	19/10/2020 07:00	11.461	5.045	
307	19/10/2020 08:00	11.306	5.035	
308	19/10/2020 09:00	11.357	5.053	
309	19/10/2020 10:00	11.254	5.035	
310	19/10/2020 11:00	11.357	5.058	
311	19/10/2020 12:00	11.357	5.044	
312	19/10/2020 13:00	11.305	5.047	
313	19/10/2020 14:00	11.305	5.039	
314	19/10/2020 15:00	11.254	5.039	
315	19/10/2020 16:00	11.151	5.051	
316	19/10/2020 17:00	11.306	5.046	
317	19/10/2020 18:00	11.357	5.044	
318	19/10/2020 19:00	11.357	5.035	
319	19/10/2020 20:00	11.409	5.046	
320	19/10/2020 21:00	11.358	5.049	
321	19/10/2020 22:00	11.305	5.045	
322	19/10/2020 23:00	11.254	5.050	
323	20/10/2020 00:00	11.202	5.040	
324	20/10/2020 01:00	11.254	5.038	
325	20/10/2020 02:00	11.305	5.038	
326	20/10/2020 03:00	11.254	5.030	
327	20/10/2020 04:00	11.306	5.040	
328	20/10/2020 05:00	11.254	5.044	
329	20/10/2020 06:00	11.306	5.041	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	20/10/2020 07:00	11.306	5.035	
331	20/10/2020 08:00	11.409	5.032	
332	20/10/2020 09:00	11.357	5.041	
333	20/10/2020 10:00	11.357	5.038	
334	20/10/2020 11:00	11.306	5.050	
335	20/10/2020 12:00	11.254	5.037	
336	20/10/2020 13:00	11.305	5.033	
337	20/10/2020 14:00	11.513	5.036	
338	20/10/2020 15:00	11.357	5.046	
339	20/10/2020 16:00	11.203	5.042	
340	20/10/2020 17:00	11.254	5.039	
341	20/10/2020 18:00	11.255	5.042	
342	20/10/2020 19:00	11.461	5.038	
343	20/10/2020 20:00	11.357	5.047	
344	20/10/2020 21:00	11.357	5.037	
345	20/10/2020 22:00	11.357	5.055	
346	20/10/2020 23:00	11.306	5.051	
347	21/10/2020 00:00	11.357	5.037	
348	21/10/2020 01:00	11.202	5.049	
349	21/10/2020 02:00	11.254	5.047	
350	21/10/2020 03:00	11.358	5.051	
351	21/10/2020 04:00	11.203	5.039	
352	21/10/2020 05:00	11.305	5.043	
353	21/10/2020 06:00	11.357	5.035	
354	21/10/2020 07:00	11.409	5.029	
355	21/10/2020 08:00	11.461	5.029	
356	21/10/2020 09:00	11.306	5.037	
357	21/10/2020 10:00	11.254	5.031	
358	21/10/2020 11:00	11.306	5.038	
359	21/10/2020 12:00	11.409	5.032	
360	21/10/2020 13:00	11.358	5.037	
361	21/10/2020 14:00	11.255	5.033	
362	21/10/2020 15:00	11.306	5.035	
363	21/10/2020 16:00	11.203	5.044	
364	21/10/2020 17:00	11.357	5.038	
365	21/10/2020 18:00	11.151	5.047	
366	21/10/2020 19:00	11.357	5.042	
367	21/10/2020 20:00	11.306	5.034	
368	21/10/2020 21:00	11.254	5.033	
369	21/10/2020 22:00	11.357	5.042	
370	21/10/2020 23:00	11.306	5.031	
371	22/10/2020 00:00	11.202	5.023	
372	22/10/2020 01:00	11.254	5.028	
373	22/10/2020 02:00	11.099	5.038	
374	22/10/2020 03:00	11.410	5.031	
375	22/10/2020 04:00	11.305	5.044	
376	22/10/2020 05:00	11.357	5.030	
377	22/10/2020 06:00	11.203	5.026	
378	22/10/2020 07:00	11.151	5.028	
379	22/10/2020 08:00	11.513	5.025	
380	22/10/2020 09:00	11.357	5.033	
381	22/10/2020 10:00	11.357	5.030	
382	22/10/2020 11:00	11.358	5.036	
383	22/10/2020 12:00	11.306	5.030	
384	22/10/2020 13:00	11.306	5.038	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	22/10/2020 14:00	11.254	5.029	
386	22/10/2020 15:00	11.305	5.024	
387	22/10/2020 16:00	11.409	5.025	
388	22/10/2020 17:00	11.254	5.038	
389	22/10/2020 18:00	11.203	5.035	
390	22/10/2020 19:00	11.358	5.023	
391	22/10/2020 20:00	11.357	5.027	
392	22/10/2020 21:00	11.357	5.029	
393	22/10/2020 22:00	11.357	5.021	
394	22/10/2020 23:00	11.306	5.034	
395	23/10/2020 00:00	11.357	5.023	
396	23/10/2020 01:00	11.306	5.016	
397	23/10/2020 02:00	11.254	5.025	
398	23/10/2020 03:00	11.254	5.028	
399	23/10/2020 04:00	11.150	5.027	
400	23/10/2020 05:00	11.202	5.014	
401	23/10/2020 06:00	11.254	5.017	
402	23/10/2020 07:00	11.305	5.018	
403	23/10/2020 08:00	11.306	5.009	
404	23/10/2020 09:00	11.306	5.024	
405	23/10/2020 10:00	11.202	5.012	
406	23/10/2020 11:00	11.254	5.018	
407	23/10/2020 12:00	11.306	5.018	
408	23/10/2020 13:00	11.306	5.016	
409	23/10/2020 14:00	11.357	5.020	
410	23/10/2020 15:00	11.203	5.021	
411	23/10/2020 16:00	11.358	5.027	
412	23/10/2020 17:00	11.410	5.022	
413	23/10/2020 18:00	11.151	5.024	
414	23/10/2020 19:00	11.202	5.019	
415	23/10/2020 20:00	11.513	5.016	
416	23/10/2020 21:00	11.306	5.025	
417	23/10/2020 22:00	11.409	5.016	
418	23/10/2020 23:00	11.306	5.012	
419	24/10/2020 00:00	11.202	5.007	
420	24/10/2020 01:00	11.461	5.007	
421	24/10/2020 02:00	11.254	5.015	
422	24/10/2020 03:00	11.564	5.001	
423	24/10/2020 04:00	11.254	5.013	
424	24/10/2020 05:00	11.306	5.005	
425	24/10/2020 06:00	11.151	5.018	
426	24/10/2020 07:00	11.305	5.013	
427	24/10/2020 08:00	11.306	5.002	
428	24/10/2020 09:00	11.151	5.021	
429	24/10/2020 10:00	11.254	5.010	
430	24/10/2020 11:00	11.150	5.018	
431	24/10/2020 12:00	11.254	5.019	
432	24/10/2020 13:00	11.254	5.000	
433	24/10/2020 14:00	11.202	5.010	
434	24/10/2020 15:00	11.512	5.014	
435	24/10/2020 16:00	11.305	5.010	
436	24/10/2020 17:00	11.358	5.010	
437	24/10/2020 18:00	11.203	5.012	
438	24/10/2020 19:00	11.202	5.017	
439	24/10/2020 20:00	11.203	5.015	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	24/10/2020 21:00	11.203	5.010	
441	24/10/2020 22:00	11.305	5.006	
442	24/10/2020 23:00	11.358	5.010	
443	25/10/2020 00:00	11.306	5.014	
444	25/10/2020 01:00	11.254	5.001	
445	25/10/2020 02:00	11.306	5.008	
446	25/10/2020 02:00	11.254	4.994	
447	25/10/2020 03:00	11.202	4.997	
448	25/10/2020 04:00	11.409	5.007	
449	25/10/2020 05:00	11.357	5.010	
450	25/10/2020 06:00	11.151	5.006	
451	25/10/2020 07:00	11.409	5.014	
452	25/10/2020 08:00	11.461	5.005	
453	25/10/2020 09:00	11.151	5.001	
454	25/10/2020 10:00	11.255	5.009	
455	25/10/2020 11:00	11.357	5.001	
456	25/10/2020 12:00	11.306	5.008	
457	25/10/2020 13:00	11.461	5.006	
458	25/10/2020 14:00	11.306	5.002	
459	25/10/2020 15:00	11.461	5.015	
460	25/10/2020 16:00	11.254	5.001	
461	25/10/2020 17:00	11.254	5.003	
462	25/10/2020 18:00	11.357	5.001	
463	25/10/2020 19:00	11.305	5.003	
464	25/10/2020 20:00	11.357	4.992	
465	25/10/2020 21:00	11.151	5.012	
466	25/10/2020 22:00	11.254	5.003	
467	25/10/2020 23:00	11.357	5.013	
468	26/10/2020 00:00	11.409	5.008	
469	26/10/2020 01:00	11.306	5.001	
470	26/10/2020 02:00	11.254	4.996	
471	26/10/2020 03:00	11.513	5.007	
472	26/10/2020 04:00	11.306	4.999	
473	26/10/2020 05:00	11.358	4.998	
474	26/10/2020 06:00	11.254	4.998	
475	26/10/2020 07:00	11.461	4.984	
476	26/10/2020 08:00	11.357	4.997	
477	26/10/2020 09:00	11.202	4.999	
478	26/10/2020 10:00	11.254	4.993	
479	26/10/2020 11:00	11.254	4.991	
480	26/10/2020 12:00	11.202	4.999	
481	26/10/2020 13:00	11.306	4.984	
482	26/10/2020 14:00	11.513	4.999	
483	26/10/2020 15:00	11.306	4.994	
484	26/10/2020 16:00	11.306	4.988	
485	26/10/2020 17:00	11.254	4.985	
486	26/10/2020 18:00	11.357	4.991	
487	26/10/2020 19:00	11.203	4.997	
488	26/10/2020 20:00	11.306	4.982	
489	26/10/2020 21:00	11.099	4.991	
490	26/10/2020 22:00	11.151	4.986	
491	26/10/2020 23:00	11.409	4.993	
492	27/10/2020 00:00	11.357	4.983	
493	27/10/2020 01:00	11.254	4.998	
494	27/10/2020 02:00	11.306	4.984	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	27/10/2020 03:00	11.409	4.987	
496	27/10/2020 04:00	11.202	4.986	
497	27/10/2020 05:00	11.150	4.976	
498	27/10/2020 06:00	11.357	4.984	
499	27/10/2020 07:00	11.306	4.982	
500	27/10/2020 08:00	11.202	4.986	
501	27/10/2020 09:00	11.306	4.977	
502	27/10/2020 10:00	11.254	4.982	
503	27/10/2020 11:00	11.254	4.974	
504	27/10/2020 12:00	11.202	4.994	
505	27/10/2020 13:00	11.306	4.976	
506	27/10/2020 14:00	11.150	4.981	
507	27/10/2020 15:00	11.306	4.977	
508	27/10/2020 16:00	11.409	4.969	
509	27/10/2020 17:00	11.202	4.978	
510	27/10/2020 18:00	11.151	4.981	
511	27/10/2020 19:00	11.203	4.983	
512	27/10/2020 20:00	11.254	4.977	
513	27/10/2020 21:00	11.306	4.979	
514	27/10/2020 22:00	11.512	4.972	
515	27/10/2020 23:00	11.150	4.977	
516	28/10/2020 00:00	11.150	4.970	
517	28/10/2020 01:00	11.254	4.960	
518	28/10/2020 02:00	11.461	4.969	
519	28/10/2020 03:00	11.306	4.980	
520	28/10/2020 04:00	11.358	4.965	
521	28/10/2020 05:00	11.564	4.979	
522	28/10/2020 06:00	11.202	4.969	
523	28/10/2020 07:00	11.305	4.969	
524	28/10/2020 08:00	11.099	4.969	
525	28/10/2020 09:00	11.254	4.961	
526	28/10/2020 10:00	11.254	4.962	
527	28/10/2020 11:00	11.203	4.972	
528	28/10/2020 12:00	11.151	4.962	
529	28/10/2020 13:00	11.202	4.962	
530	28/10/2020 14:00	11.357	4.970	
531	28/10/2020 15:00	11.202	4.951	
532	28/10/2020 16:00	11.306	4.960	
533	28/10/2020 17:00	11.150	4.949	
534	28/10/2020 18:00	11.202	4.963	
535	28/10/2020 19:00	11.306	4.956	
536	28/10/2020 20:00	11.306	4.964	
537	28/10/2020 21:00	11.409	4.961	
538	28/10/2020 22:00	11.151	4.951	
539	28/10/2020 23:00	11.203	4.950	
540	29/10/2020 00:00	11.151	4.947	
541	29/10/2020 01:00	11.461	4.946	
542	29/10/2020 02:00	11.564	4.950	
543	29/10/2020 03:00	11.254	4.954	
544	29/10/2020 04:00	11.357	4.948	
545	29/10/2020 05:00	11.202	4.951	
546	29/10/2020 06:00	11.513	4.945	
547	29/10/2020 07:00	11.254	4.954	
548	29/10/2020 08:00	11.150	4.953	
549	29/10/2020 09:00	11.305	4.941	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	29/10/2020 10:00	11.254	4.952	
551	29/10/2020 11:00	11.305	4.934	
552	29/10/2020 12:00	11.254	4.934	
553	29/10/2020 13:00	11.461	4.945	
554	29/10/2020 14:00	11.409	4.939	
555	29/10/2020 15:00	11.461	4.932	
556	29/10/2020 16:00	11.357	4.948	
557	29/10/2020 17:00	11.254	4.933	
558	29/10/2020 18:00	11.202	4.950	
559	29/10/2020 19:00	11.202	4.936	
560	29/10/2020 20:00	11.099	4.941	
561	29/10/2020 21:00	11.357	4.933	
562	29/10/2020 22:00	11.150	4.935	
563	29/10/2020 23:00	11.203	4.926	
564	30/10/2020 00:00	11.357	4.933	
565	30/10/2020 01:00	11.564	4.925	
566	30/10/2020 02:00	11.306	4.935	
567	30/10/2020 03:00	11.306	4.938	
568	30/10/2020 04:00	11.409	4.921	
569	30/10/2020 05:00	11.357	4.931	
570	30/10/2020 06:00	11.513	4.932	
571	30/10/2020 07:00	11.306	4.925	
572	30/10/2020 08:00	11.098	4.927	
573	30/10/2020 09:00	11.202	4.928	
574	30/10/2020 10:00	11.099	4.936	
575	30/10/2020 11:00	11.202	4.924	
576	30/10/2020 12:00	11.202	4.923	
577	30/10/2020 13:00	11.099	4.926	
578	30/10/2020 14:00	11.305	4.912	
579	30/10/2020 15:00	11.358	4.923	
580	30/10/2020 16:00	11.150	4.927	
581	30/10/2020 17:00	11.306	4.913	
582	30/10/2020 18:00	11.357	4.932	
583	30/10/2020 19:00	11.358	4.921	
584	30/10/2020 20:00	11.098	4.921	
585	30/10/2020 21:00	11.150	4.922	
586	30/10/2020 22:00	11.306	4.911	
587	30/10/2020 23:00	11.357	4.921	
588	31/10/2020 00:00	11.305	4.907	
589	31/10/2020 01:00	11.461	4.912	
590	31/10/2020 02:00	11.409	4.908	
591	31/10/2020 03:00	11.306	4.909	
592	31/10/2020 04:00	11.254	4.916	
593	31/10/2020 05:00	11.513	4.921	
594	31/10/2020 06:00	11.358	4.915	
595	31/10/2020 07:00	11.513	4.915	
596	31/10/2020 08:00	11.202	4.906	
597	31/10/2020 09:00	11.254	4.911	
598	31/10/2020 10:00	11.098	4.917	
599	31/10/2020 11:00	11.254	4.925	
600	31/10/2020 12:00	11.513	4.906	
601	31/10/2020 13:00	11.409	4.910	
602	31/10/2020 14:00	11.047	4.907	
603	31/10/2020 15:00	11.409	4.913	
604	31/10/2020 16:00	11.254	4.923	

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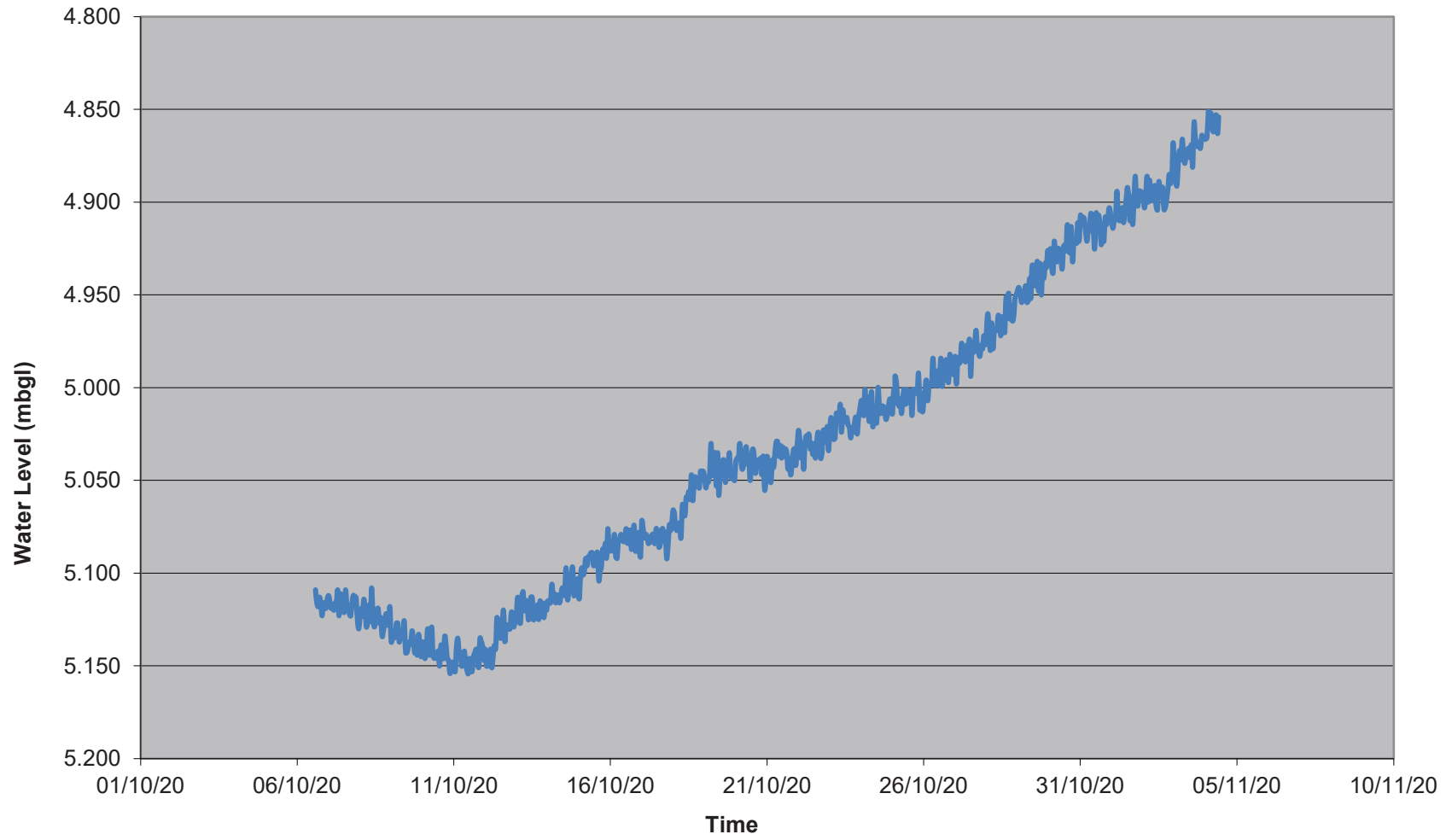
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	31/10/2020 17:00	11.202	4.915	
606	31/10/2020 18:00	11.254	4.921	
607	31/10/2020 19:00	11.564	4.908	
608	31/10/2020 20:00	11.098	4.912	
609	31/10/2020 21:00	11.254	4.909	
610	31/10/2020 22:00	11.202	4.903	
611	31/10/2020 23:00	11.306	4.906	
612	01/11/2020 00:00	11.203	4.911	
613	01/11/2020 01:00	11.254	4.914	
614	01/11/2020 02:00	11.255	4.909	
615	01/11/2020 03:00	11.202	4.908	
616	01/11/2020 04:00	11.202	4.894	
617	01/11/2020 05:00	11.306	4.909	
618	01/11/2020 06:00	11.409	4.910	
619	01/11/2020 07:00	11.409	4.907	
620	01/11/2020 08:00	11.461	4.903	
621	01/11/2020 09:00	11.357	4.911	
622	01/11/2020 10:00	11.150	4.905	
623	01/11/2020 11:00	11.461	4.899	
624	01/11/2020 12:00	11.150	4.892	
625	01/11/2020 13:00	11.305	4.897	
626	01/11/2020 14:00	11.151	4.910	
627	01/11/2020 15:00	11.409	4.897	
628	01/11/2020 16:00	11.357	4.912	
629	01/11/2020 17:00	11.564	4.900	
630	01/11/2020 18:00	11.306	4.886	
631	01/11/2020 19:00	11.306	4.901	
632	01/11/2020 20:00	11.409	4.902	
633	01/11/2020 21:00	11.409	4.894	
634	01/11/2020 22:00	11.150	4.894	
635	01/11/2020 23:00	11.150	4.897	
636	02/11/2020 00:00	11.306	4.895	
637	02/11/2020 01:00	11.150	4.903	
638	02/11/2020 02:00	11.357	4.897	
639	02/11/2020 03:00	11.358	4.886	
640	02/11/2020 04:00	11.254	4.900	
641	02/11/2020 05:00	11.306	4.888	
642	02/11/2020 06:00	11.461	4.899	
643	02/11/2020 07:00	11.254	4.897	
644	02/11/2020 08:00	11.357	4.899	
645	02/11/2020 09:00	11.306	4.891	
646	02/11/2020 10:00	11.564	4.902	
647	02/11/2020 11:00	11.150	4.904	
648	02/11/2020 12:00	11.357	4.889	
649	02/11/2020 13:00	11.150	4.894	
650	02/11/2020 14:00	11.150	4.897	
651	02/11/2020 15:00	11.150	4.892	
652	02/11/2020 16:00	11.202	4.904	
653	02/11/2020 17:00	11.357	4.903	
654	02/11/2020 18:00	11.306	4.899	
655	02/11/2020 19:00	11.358	4.893	
656	02/11/2020 20:00	11.358	4.885	
657	02/11/2020 21:00	11.306	4.890	
658	02/11/2020 22:00	11.461	4.888	
659	02/11/2020 23:00	11.150	4.868	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	03/11/2020 00:00	11.305	4.880	
661	03/11/2020 01:00	11.306	4.888	
662	03/11/2020 02:00	11.151	4.891	
663	03/11/2020 03:00	11.254	4.879	
664	03/11/2020 04:00	11.409	4.872	
665	03/11/2020 05:00	11.202	4.877	
666	03/11/2020 06:00	11.357	4.866	
667	03/11/2020 07:00	11.564	4.875	
668	03/11/2020 08:00	11.098	4.879	
669	03/11/2020 09:00	11.202	4.874	
670	03/11/2020 10:00	11.254	4.872	
671	03/11/2020 11:00	11.357	4.871	
672	03/11/2020 12:00	11.254	4.876	
673	03/11/2020 13:00	11.202	4.869	
674	03/11/2020 14:00	11.254	4.881	
675	03/11/2020 15:00	11.151	4.857	
676	03/11/2020 16:00	11.254	4.865	
677	03/11/2020 17:00	11.565	4.868	
678	03/11/2020 18:00	11.461	4.870	
679	03/11/2020 19:00	11.306	4.868	
680	03/11/2020 20:00	11.565	4.871	
681	03/11/2020 21:00	11.358	4.864	
682	03/11/2020 22:00	11.098	4.866	
683	03/11/2020 23:00	11.202	4.866	
684	04/11/2020 00:00	11.254	4.866	
685	04/11/2020 01:00	11.202	4.865	
686	04/11/2020 02:00	11.254	4.851	
687	04/11/2020 03:00	11.203	4.852	
688	04/11/2020 04:00	11.150	4.852	
689	04/11/2020 05:00	11.461	4.860	
690	04/11/2020 06:00	11.202	4.862	
691	04/11/2020 07:00	11.202	4.857	
692	04/11/2020 08:00	11.357	4.853	
693	04/11/2020 09:00	11.254	4.863	
694	04/11/2020 10:00	11.202	4.854	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	04/11/2020 13:00	11.766	4.824	
2	04/11/2020 14:00	11.662	4.827	
3	04/11/2020 15:00	11.714	4.831	
4	04/11/2020 16:00	11.662	4.834	
5	04/11/2020 17:00	11.662	4.827	
6	04/11/2020 18:00	11.610	4.830	
7	04/11/2020 19:00	11.662	4.829	
8	04/11/2020 20:00	11.662	4.827	
9	04/11/2020 21:00	11.662	4.829	
10	04/11/2020 22:00	11.662	4.833	
11	04/11/2020 23:00	11.610	4.836	
12	05/11/2020 00:00	11.662	4.836	
13	05/11/2020 01:00	11.662	4.827	
14	05/11/2020 02:00	11.610	4.828	
15	05/11/2020 03:00	11.610	4.820	
16	05/11/2020 04:00	11.610	4.822	
17	05/11/2020 05:00	11.662	4.828	
18	05/11/2020 06:00	11.662	4.825	
19	05/11/2020 07:00	11.662	4.830	
20	05/11/2020 08:00	11.610	4.824	
21	05/11/2020 09:00	11.662	4.836	
22	05/11/2020 10:00	11.662	4.824	
23	05/11/2020 11:00	11.662	4.825	
24	05/11/2020 12:00	11.662	4.826	
25	05/11/2020 13:00	11.610	4.830	
26	05/11/2020 14:00	11.662	4.829	
27	05/11/2020 15:00	11.662	4.831	
28	05/11/2020 16:00	11.610	4.823	
29	05/11/2020 17:00	11.610	4.828	
30	05/11/2020 18:00	11.662	4.832	
31	05/11/2020 19:00	11.610	4.822	
32	05/11/2020 20:00	11.610	4.826	
33	05/11/2020 21:00	11.610	4.821	
34	05/11/2020 22:00	11.610	4.826	
35	05/11/2020 23:00	11.662	4.820	
36	06/11/2020 00:00	11.610	4.823	
37	06/11/2020 01:00	11.662	4.813	
38	06/11/2020 02:00	11.662	4.821	
39	06/11/2020 03:00	11.610	4.821	
40	06/11/2020 04:00	11.610	4.825	
41	06/11/2020 05:00	11.662	4.818	
42	06/11/2020 06:00	11.610	4.822	
43	06/11/2020 07:00	11.610	4.817	
44	06/11/2020 08:00	11.610	4.816	
45	06/11/2020 09:00	11.662	4.820	
46	06/11/2020 10:00	11.662	4.816	
47	06/11/2020 11:00	11.662	4.816	
48	06/11/2020 12:00	11.610	4.812	
49	06/11/2020 13:00	11.610	4.808	
50	06/11/2020 14:00	11.610	4.809	
51	06/11/2020 15:00	11.610	4.811	
52	06/11/2020 16:00	11.662	4.816	
53	06/11/2020 17:00	11.610	4.810	
54	06/11/2020 18:00	11.662	4.804	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	06/11/2020 19:00	11.662	4.815	
56	06/11/2020 20:00	11.610	4.806	
57	06/11/2020 21:00	11.662	4.809	
58	06/11/2020 22:00	11.662	4.815	
59	06/11/2020 23:00	11.662	4.807	
60	07/11/2020 00:00	11.662	4.810	
61	07/11/2020 01:00	11.662	4.813	
62	07/11/2020 02:00	11.610	4.805	
63	07/11/2020 03:00	11.662	4.810	
64	07/11/2020 04:00	11.662	4.814	
65	07/11/2020 05:00	11.610	4.815	
66	07/11/2020 06:00	11.610	4.806	
67	07/11/2020 07:00	11.610	4.808	
68	07/11/2020 08:00	11.662	4.816	
69	07/11/2020 09:00	11.662	4.810	
70	07/11/2020 10:00	11.662	4.817	
71	07/11/2020 11:00	11.662	4.810	
72	07/11/2020 12:00	11.610	4.814	
73	07/11/2020 13:00	11.610	4.808	
74	07/11/2020 14:00	11.662	4.819	
75	07/11/2020 15:00	11.662	4.816	
76	07/11/2020 16:00	11.662	4.815	
77	07/11/2020 17:00	11.662	4.804	
78	07/11/2020 18:00	11.662	4.814	
79	07/11/2020 19:00	11.662	4.813	
80	07/11/2020 20:00	11.662	4.818	
81	07/11/2020 21:00	11.662	4.809	
82	07/11/2020 22:00	11.662	4.811	
83	07/11/2020 23:00	11.662	4.817	
84	08/11/2020 00:00	11.662	4.820	
85	08/11/2020 01:00	11.610	4.821	
86	08/11/2020 02:00	11.662	4.815	
87	08/11/2020 03:00	11.662	4.813	
88	08/11/2020 04:00	11.662	4.812	
89	08/11/2020 05:00	11.662	4.819	
90	08/11/2020 06:00	11.662	4.810	
91	08/11/2020 07:00	11.662	4.809	
92	08/11/2020 08:00	11.662	4.811	
93	08/11/2020 09:00	11.662	4.822	
94	08/11/2020 10:00	11.662	4.820	
95	08/11/2020 11:00	11.662	4.839	
96	08/11/2020 12:00	11.662	4.840	
97	08/11/2020 13:00	11.662	4.845	
98	08/11/2020 14:00	11.662	4.837	
99	08/11/2020 15:00	11.662	4.850	
100	08/11/2020 16:00	11.662	4.852	
101	08/11/2020 17:00	11.662	4.843	
102	08/11/2020 18:00	11.662	4.842	
103	08/11/2020 19:00	11.662	4.843	
104	08/11/2020 20:00	11.610	4.843	
105	08/11/2020 21:00	11.610	4.855	
106	08/11/2020 22:00	11.662	4.847	
107	08/11/2020 23:00	11.610	4.844	
108	09/11/2020 00:00	11.662	4.848	
109	09/11/2020 01:00	11.662	4.849	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	09/11/2020 02:00	11.662	4.854	
111	09/11/2020 03:00	11.662	4.840	
112	09/11/2020 04:00	11.662	4.843	
113	09/11/2020 05:00	11.662	4.851	
114	09/11/2020 06:00	11.610	4.851	
115	09/11/2020 07:00	11.662	4.852	
116	09/11/2020 08:00	11.610	4.856	
117	09/11/2020 09:00	11.662	4.855	
118	09/11/2020 10:00	11.662	4.855	
119	09/11/2020 11:00	11.662	4.855	
120	09/11/2020 12:00	11.662	4.851	
121	09/11/2020 13:00	11.610	4.857	
122	09/11/2020 14:00	11.662	4.858	
123	09/11/2020 15:00	11.662	4.845	
124	09/11/2020 16:00	11.662	4.854	
125	09/11/2020 17:00	11.610	4.853	
126	09/11/2020 18:00	11.610	4.850	
127	09/11/2020 19:00	11.662	4.851	
128	09/11/2020 20:00	11.662	4.850	
129	09/11/2020 21:00	11.662	4.849	
130	09/11/2020 22:00	11.662	4.857	
131	09/11/2020 23:00	11.662	4.861	
132	10/11/2020 00:00	11.662	4.858	
133	10/11/2020 01:00	11.662	4.856	
134	10/11/2020 02:00	11.662	4.857	
135	10/11/2020 03:00	11.662	4.852	
136	10/11/2020 04:00	11.610	4.864	
137	10/11/2020 05:00	11.662	4.866	
138	10/11/2020 06:00	11.662	4.862	
139	10/11/2020 07:00	11.662	4.867	
140	10/11/2020 08:00	11.662	4.853	
141	10/11/2020 09:00	11.662	4.861	
142	10/11/2020 10:00	11.662	4.861	
143	10/11/2020 11:00	11.817	4.863	
144	10/11/2020 12:00	11.714	4.867	
145	10/11/2020 13:00	11.714	4.872	
146	10/11/2020 14:00	11.714	4.871	
147	10/11/2020 15:00	11.714	4.874	
148	10/11/2020 16:00	11.714	4.865	
149	10/11/2020 17:00	11.662	4.869	
150	10/11/2020 18:00	11.714	4.866	
151	10/11/2020 19:00	11.662	4.872	
152	10/11/2020 20:00	11.714	4.867	
153	10/11/2020 21:00	11.662	4.866	
154	10/11/2020 22:00	11.714	4.870	
155	10/11/2020 23:00	11.662	4.868	
156	11/11/2020 00:00	11.662	4.860	
157	11/11/2020 01:00	11.714	4.860	
158	11/11/2020 02:00	11.714	4.863	
159	11/11/2020 03:00	11.714	4.862	
160	11/11/2020 04:00	11.662	4.858	
161	11/11/2020 05:00	11.662	4.854	
162	11/11/2020 06:00	11.714	4.862	
163	11/11/2020 07:00	11.714	4.859	
164	11/11/2020 08:00	15.252	4.869	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	11/11/2020 09:00	11.766	4.924	
166	11/11/2020 10:00	11.714	4.918	
167	11/11/2020 11:00	11.662	4.926	
168	11/11/2020 12:00	11.714	4.924	
169	11/11/2020 13:00	11.714	4.917	
170	11/11/2020 14:00	11.714	4.909	
171	11/11/2020 15:00	11.714	4.914	
172	11/11/2020 16:00	11.714	4.906	
173	11/11/2020 17:00	11.714	4.920	
174	11/11/2020 18:00	11.714	4.915	
175	11/11/2020 19:00	11.714	4.917	
176	11/11/2020 20:00	11.714	4.918	
177	11/11/2020 21:00	11.714	4.923	
178	11/11/2020 22:00	11.714	4.922	
179	11/11/2020 23:00	11.714	4.925	
180	12/11/2020 00:00	11.714	4.924	
181	12/11/2020 01:00	11.714	4.923	
182	12/11/2020 02:00	11.714	4.925	
183	12/11/2020 03:00	11.714	4.927	
184	12/11/2020 04:00	11.714	4.932	
185	12/11/2020 05:00	11.714	4.933	
186	12/11/2020 06:00	11.714	4.931	
187	12/11/2020 07:00	11.662	4.924	
188	12/11/2020 08:00	11.714	4.926	
189	12/11/2020 09:00	11.714	4.926	
190	12/11/2020 10:00	11.662	4.934	
191	12/11/2020 11:00	11.766	4.941	
192	12/11/2020 12:00	11.766	4.926	
193	12/11/2020 13:00	11.766	4.934	
194	12/11/2020 14:00	11.714	4.931	
195	12/11/2020 15:00	11.714	4.935	
196	12/11/2020 16:00	11.714	4.925	
197	12/11/2020 17:00	11.714	4.922	
198	12/11/2020 18:00	11.714	4.928	
199	12/11/2020 19:00	11.766	4.917	
200	12/11/2020 20:00	11.714	4.920	
201	12/11/2020 21:00	11.766	4.921	
202	12/11/2020 22:00	11.714	4.926	
203	12/11/2020 23:00	11.714	4.919	
204	13/11/2020 00:00	11.714	4.917	
205	13/11/2020 01:00	11.714	4.911	
206	13/11/2020 02:00	11.714	4.918	
207	13/11/2020 03:00	11.714	4.922	
208	13/11/2020 04:00	11.714	4.927	
209	13/11/2020 05:00	11.766	4.921	
210	13/11/2020 06:00	11.766	4.916	
211	13/11/2020 07:00	11.662	4.922	
212	13/11/2020 08:00	11.766	4.919	
213	13/11/2020 09:00	11.714	4.927	
214	13/11/2020 10:00	11.714	4.921	
215	13/11/2020 11:00	11.766	4.921	
216	13/11/2020 12:00	11.714	4.914	
217	13/11/2020 13:00	11.714	4.914	
218	13/11/2020 14:00	11.714	4.926	
219	13/11/2020 15:00	11.714	4.921	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	13/11/2020 16:00	11.714	4.924	
221	13/11/2020 17:00	11.714	4.924	
222	13/11/2020 18:00	11.714	4.921	
223	13/11/2020 19:00	11.714	4.922	
224	13/11/2020 20:00	11.714	4.920	
225	13/11/2020 21:00	11.714	4.912	
226	13/11/2020 22:00	11.714	4.910	
227	13/11/2020 23:00	11.766	4.909	
228	14/11/2020 00:00	11.714	4.916	
229	14/11/2020 01:00	11.714	4.911	
230	14/11/2020 02:00	11.714	4.913	
231	14/11/2020 03:00	11.714	4.907	
232	14/11/2020 04:00	11.714	4.907	
233	14/11/2020 05:00	11.714	4.903	
234	14/11/2020 06:00	11.662	4.896	
235	14/11/2020 07:00	11.714	4.895	
236	14/11/2020 08:00	11.766	4.894	
237	14/11/2020 09:00	11.714	4.890	
238	14/11/2020 10:00	11.714	4.891	
239	14/11/2020 11:00	11.766	4.883	
240	14/11/2020 12:00	11.714	4.889	
241	14/11/2020 13:00	11.766	4.874	
242	14/11/2020 14:00	11.714	4.871	
243	14/11/2020 15:00	11.714	4.870	
244	14/11/2020 16:00	11.714	4.864	
245	14/11/2020 17:00	11.714	4.871	
246	14/11/2020 18:00	11.714	4.873	
247	14/11/2020 19:00	11.766	4.872	
248	14/11/2020 20:00	11.714	4.870	
249	14/11/2020 21:00	11.714	4.868	
250	14/11/2020 22:00	11.766	4.866	
251	14/11/2020 23:00	11.714	4.857	
252	15/11/2020 00:00	11.714	4.851	
253	15/11/2020 01:00	11.714	4.848	
254	15/11/2020 02:00	11.714	4.844	
255	15/11/2020 03:00	11.714	4.848	
256	15/11/2020 04:00	11.714	4.834	
257	15/11/2020 05:00	11.766	4.839	
258	15/11/2020 06:00	11.714	4.837	
259	15/11/2020 07:00	11.714	4.824	
260	15/11/2020 08:00	11.766	4.828	
261	15/11/2020 09:00	11.766	4.824	
262	15/11/2020 10:00	11.714	4.818	
263	15/11/2020 11:00	11.714	4.822	
264	15/11/2020 12:00	11.714	4.817	
265	15/11/2020 13:00	11.714	4.822	
266	15/11/2020 14:00	11.766	4.815	
267	15/11/2020 15:00	11.766	4.814	
268	15/11/2020 16:00	11.766	4.818	
269	15/11/2020 17:00	11.714	4.815	
270	15/11/2020 18:00	11.714	4.812	
271	15/11/2020 19:00	11.714	4.819	
272	15/11/2020 20:00	11.714	4.812	
273	15/11/2020 21:00	11.714	4.807	
274	15/11/2020 22:00	11.766	4.808	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/11/2020 23:00	11.766	4.807	
276	16/11/2020 00:00	11.714	4.800	
277	16/11/2020 01:00	11.714	4.799	
278	16/11/2020 02:00	11.714	4.798	
279	16/11/2020 03:00	11.714	4.790	
280	16/11/2020 04:00	11.766	4.798	
281	16/11/2020 05:00	11.766	4.793	
282	16/11/2020 06:00	11.766	4.791	
283	16/11/2020 07:00	11.766	4.790	
284	16/11/2020 08:00	11.714	4.784	
285	16/11/2020 09:00	11.714	4.785	
286	16/11/2020 10:00	11.766	4.783	
287	16/11/2020 11:00	11.714	4.781	
288	16/11/2020 12:00	11.714	4.765	
289	16/11/2020 13:00	11.714	4.761	
290	16/11/2020 14:00	11.714	4.771	
291	16/11/2020 15:00	11.714	4.759	
292	16/11/2020 16:00	11.714	4.764	
293	16/11/2020 17:00	11.766	4.768	
294	16/11/2020 18:00	11.766	4.762	
295	16/11/2020 19:00	11.714	4.750	
296	16/11/2020 20:00	11.714	4.748	
297	16/11/2020 21:00	11.714	4.750	
298	16/11/2020 22:00	11.714	4.752	
299	16/11/2020 23:00	11.766	4.743	
300	17/11/2020 00:00	11.714	4.744	
301	17/11/2020 01:00	11.714	4.745	
302	17/11/2020 02:00	11.766	4.742	
303	17/11/2020 03:00	11.714	4.738	
304	17/11/2020 04:00	11.714	4.736	
305	17/11/2020 05:00	11.714	4.728	
306	17/11/2020 06:00	11.714	4.726	
307	17/11/2020 07:00	11.714	4.724	
308	17/11/2020 08:00	11.714	4.719	
309	17/11/2020 09:00	11.714	4.726	
310	17/11/2020 10:00	11.714	4.719	
311	17/11/2020 11:00	11.714	4.724	
312	17/11/2020 12:00	11.714	4.719	
313	17/11/2020 13:00	11.766	4.717	
314	17/11/2020 14:00	11.714	4.714	
315	17/11/2020 15:00	11.714	4.706	
316	17/11/2020 16:00	11.766	4.709	
317	17/11/2020 17:00	11.766	4.717	
318	17/11/2020 18:00	11.766	4.701	
319	17/11/2020 19:00	11.714	4.699	
320	17/11/2020 20:00	11.766	4.701	
321	17/11/2020 21:00	11.714	4.699	
322	17/11/2020 22:00	11.766	4.703	
323	17/11/2020 23:00	11.714	4.695	
324	18/11/2020 00:00	11.714	4.691	
325	18/11/2020 01:00	11.714	4.695	
326	18/11/2020 02:00	11.714	4.687	
327	18/11/2020 03:00	11.714	4.687	
328	18/11/2020 04:00	11.766	4.680	
329	18/11/2020 05:00	11.714	4.676	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	18/11/2020 06:00	11.766	4.674	
331	18/11/2020 07:00	11.714	4.675	
332	18/11/2020 08:00	11.714	4.673	
333	18/11/2020 09:00	11.714	4.672	
334	18/11/2020 10:00	11.766	4.677	
335	18/11/2020 11:00	11.714	4.679	
336	18/11/2020 12:00	11.766	4.668	
337	18/11/2020 13:00	11.766	4.671	
338	18/11/2020 14:00	11.714	4.670	
339	18/11/2020 15:00	11.766	4.666	
340	18/11/2020 16:00	11.766	4.660	
341	18/11/2020 17:00	11.714	4.662	
342	18/11/2020 18:00	11.766	4.654	
343	18/11/2020 19:00	11.766	4.653	
344	18/11/2020 20:00	11.714	4.657	
345	18/11/2020 21:00	11.714	4.652	
346	18/11/2020 22:00	11.714	4.656	
347	18/11/2020 23:00	11.714	4.650	
348	19/11/2020 00:00	11.714	4.656	
349	19/11/2020 01:00	11.766	4.652	
350	19/11/2020 02:00	11.766	4.651	
351	19/11/2020 03:00	11.766	4.654	
352	19/11/2020 04:00	11.714	4.644	
353	19/11/2020 05:00	11.714	4.654	
354	19/11/2020 06:00	11.714	4.653	
355	19/11/2020 07:00	11.766	4.656	
356	19/11/2020 08:00	11.714	4.653	
357	19/11/2020 09:00	11.766	4.650	
358	19/11/2020 10:00	11.714	4.649	
359	19/11/2020 11:00	11.766	4.647	
360	19/11/2020 12:00	11.714	4.644	
361	19/11/2020 13:00	11.766	4.647	
362	19/11/2020 14:00	11.766	4.651	
363	19/11/2020 15:00	11.714	4.643	
364	19/11/2020 16:00	11.766	4.643	
365	19/11/2020 17:00	11.766	4.636	
366	19/11/2020 18:00	11.714	4.644	
367	19/11/2020 19:00	11.766	4.638	
368	19/11/2020 20:00	11.766	4.634	
369	19/11/2020 21:00	11.714	4.645	
370	19/11/2020 22:00	11.766	4.637	
371	19/11/2020 23:00	11.766	4.627	
372	20/11/2020 00:00	11.766	4.634	
373	20/11/2020 01:00	11.766	4.620	
374	20/11/2020 02:00	11.766	4.624	
375	20/11/2020 03:00	11.714	4.621	
376	20/11/2020 04:00	11.766	4.613	
377	20/11/2020 05:00	11.714	4.615	
378	20/11/2020 06:00	11.766	4.617	
379	20/11/2020 07:00	11.766	4.612	
380	20/11/2020 08:00	11.766	4.609	
381	20/11/2020 09:00	11.766	4.614	
382	20/11/2020 10:00	11.766	4.608	
383	20/11/2020 11:00	11.766	4.609	
384	20/11/2020 12:00	11.766	4.604	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	20/11/2020 13:00	11.766	4.604	
386	20/11/2020 14:00	11.766	4.603	
387	20/11/2020 15:00	11.714	4.600	
388	20/11/2020 16:00	11.766	4.604	
389	20/11/2020 17:00	11.714	4.598	
390	20/11/2020 18:00	11.766	4.598	
391	20/11/2020 19:00	11.766	4.601	
392	20/11/2020 20:00	11.766	4.602	
393	20/11/2020 21:00	11.714	4.592	
394	20/11/2020 22:00	11.766	4.601	
395	20/11/2020 23:00	11.766	4.600	
396	21/11/2020 00:00	11.766	4.594	
397	21/11/2020 01:00	11.766	4.592	
398	21/11/2020 02:00	11.766	4.584	
399	21/11/2020 03:00	11.766	4.590	
400	21/11/2020 04:00	11.766	4.584	
401	21/11/2020 05:00	11.766	4.585	
402	21/11/2020 06:00	11.714	4.584	
403	21/11/2020 07:00	11.766	4.586	
404	21/11/2020 08:00	11.766	4.586	
405	21/11/2020 09:00	11.766	4.579	
406	21/11/2020 10:00	11.766	4.576	
407	21/11/2020 11:00	11.766	4.582	
408	21/11/2020 12:00	11.714	4.583	
409	21/11/2020 13:00	11.766	4.581	
410	21/11/2020 14:00	11.766	4.574	
411	21/11/2020 15:00	11.714	4.571	
412	21/11/2020 16:00	11.766	4.582	
413	21/11/2020 17:00	11.766	4.573	
414	21/11/2020 18:00	11.766	4.570	
415	21/11/2020 19:00	11.766	4.576	
416	21/11/2020 20:00	11.766	4.581	
417	21/11/2020 21:00	11.766	4.580	
418	21/11/2020 22:00	11.766	4.576	
419	21/11/2020 23:00	11.766	4.572	
420	22/11/2020 00:00	11.766	4.577	
421	22/11/2020 01:00	11.766	4.576	
422	22/11/2020 02:00	11.766	4.576	
423	22/11/2020 03:00	11.766	4.571	
424	22/11/2020 04:00	11.766	4.580	
425	22/11/2020 05:00	11.766	4.567	
426	22/11/2020 06:00	11.766	4.571	
427	22/11/2020 07:00	11.766	4.570	
428	22/11/2020 08:00	11.766	4.568	
429	22/11/2020 09:00	11.766	4.570	
430	22/11/2020 10:00	11.766	4.563	
431	22/11/2020 11:00	11.766	4.564	
432	22/11/2020 12:00	11.766	4.563	
433	22/11/2020 13:00	11.766	4.564	
434	22/11/2020 14:00	11.766	4.567	
435	22/11/2020 15:00	11.766	4.564	
436	22/11/2020 16:00	11.766	4.568	
437	22/11/2020 17:00	11.766	4.565	
438	22/11/2020 18:00	11.766	4.563	
439	22/11/2020 19:00	11.766	4.559	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	22/11/2020 20:00	11.766	4.567	
441	22/11/2020 21:00	11.766	4.561	
442	22/11/2020 22:00	11.766	4.557	
443	22/11/2020 23:00	11.766	4.568	
444	23/11/2020 00:00	11.766	4.560	
445	23/11/2020 01:00	11.766	4.565	
446	23/11/2020 02:00	11.766	4.564	
447	23/11/2020 03:00	11.766	4.567	
448	23/11/2020 04:00	11.766	4.560	
449	23/11/2020 05:00	11.766	4.559	
450	23/11/2020 06:00	11.766	4.560	
451	23/11/2020 07:00	11.766	4.562	
452	23/11/2020 08:00	11.766	4.559	
453	23/11/2020 09:00	11.766	4.565	
454	23/11/2020 10:00	11.766	4.555	
455	23/11/2020 11:00	11.766	4.555	
456	23/11/2020 12:00	11.766	4.549	
457	23/11/2020 13:00	11.766	4.551	
458	23/11/2020 14:00	11.766	4.560	
459	23/11/2020 15:00	11.766	4.547	
460	23/11/2020 16:00	11.766	4.561	
461	23/11/2020 17:00	11.766	4.549	
462	23/11/2020 18:00	11.766	4.548	
463	23/11/2020 19:00	11.766	4.556	
464	23/11/2020 20:00	11.766	4.558	
465	23/11/2020 21:00	11.766	4.551	
466	23/11/2020 22:00	11.766	4.548	
467	23/11/2020 23:00	11.766	4.553	
468	24/11/2020 00:00	11.766	4.554	
469	24/11/2020 01:00	11.766	4.550	
470	24/11/2020 02:00	11.714	4.546	
471	24/11/2020 03:00	11.766	4.555	
472	24/11/2020 04:00	11.766	4.550	
473	24/11/2020 05:00	11.766	4.542	
474	24/11/2020 06:00	11.766	4.554	
475	24/11/2020 07:00	11.766	4.552	
476	24/11/2020 08:00	11.766	4.546	
477	24/11/2020 09:00	11.766	4.546	
478	24/11/2020 10:00	11.766	4.547	
479	24/11/2020 11:00	11.766	4.553	
480	24/11/2020 12:00	11.766	4.546	
481	24/11/2020 13:00	11.766	4.543	
482	24/11/2020 14:00	11.766	4.550	
483	24/11/2020 15:00	11.766	4.548	
484	24/11/2020 16:00	11.766	4.547	
485	24/11/2020 17:00	11.766	4.551	
486	24/11/2020 18:00	11.766	4.552	
487	24/11/2020 19:00	11.766	4.542	
488	24/11/2020 20:00	11.766	4.549	
489	24/11/2020 21:00	11.766	4.552	
490	24/11/2020 22:00	11.766	4.558	
491	24/11/2020 23:00	11.766	4.553	
492	25/11/2020 00:00	11.766	4.557	
493	25/11/2020 01:00	11.766	4.558	
494	25/11/2020 02:00	11.766	4.556	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	25/11/2020 03:00	11.766	4.562	
496	25/11/2020 04:00	11.766	4.557	
497	25/11/2020 05:00	11.766	4.561	
498	25/11/2020 06:00	11.766	4.555	
499	25/11/2020 07:00	11.766	4.562	
500	25/11/2020 08:00	11.766	4.554	
501	25/11/2020 09:00	11.766	4.556	
502	25/11/2020 10:00	11.766	4.559	
503	25/11/2020 11:00	11.766	4.564	
504	25/11/2020 12:00	11.766	4.563	
505	25/11/2020 13:00	11.766	4.561	
506	25/11/2020 14:00	11.766	4.565	
507	25/11/2020 15:00	11.766	4.562	
508	25/11/2020 16:00	11.766	4.563	
509	25/11/2020 17:00	11.766	4.567	
510	25/11/2020 18:00	11.766	4.565	
511	25/11/2020 19:00	11.766	4.566	
512	25/11/2020 20:00	11.766	4.567	
513	25/11/2020 21:00	11.766	4.564	
514	25/11/2020 22:00	11.766	4.566	
515	25/11/2020 23:00	11.766	4.562	
516	26/11/2020 00:00	11.766	4.568	
517	26/11/2020 01:00	11.766	4.564	
518	26/11/2020 02:00	11.766	4.574	
519	26/11/2020 03:00	11.766	4.563	
520	26/11/2020 04:00	11.766	4.571	
521	26/11/2020 05:00	11.766	4.568	
522	26/11/2020 06:00	11.766	4.568	
523	26/11/2020 07:00	11.766	4.565	
524	26/11/2020 08:00	11.766	4.567	
525	26/11/2020 09:00	11.766	4.569	
526	26/11/2020 10:00	11.766	4.566	
527	26/11/2020 11:00	11.766	4.567	
528	26/11/2020 12:00	11.766	4.571	
529	26/11/2020 13:00	11.766	4.570	
530	26/11/2020 14:00	11.766	4.566	
531	26/11/2020 15:00	11.766	4.573	
532	26/11/2020 16:00	11.766	4.572	
533	26/11/2020 17:00	11.766	4.567	
534	26/11/2020 18:00	11.766	4.568	
535	26/11/2020 19:00	11.817	4.571	
536	26/11/2020 20:00	11.766	4.580	
537	26/11/2020 21:00	11.766	4.575	
538	26/11/2020 22:00	11.766	4.574	
539	26/11/2020 23:00	11.766	4.577	
540	27/11/2020 00:00	11.766	4.577	
541	27/11/2020 01:00	11.766	4.567	
542	27/11/2020 02:00	11.766	4.566	
543	27/11/2020 03:00	11.766	4.570	
544	27/11/2020 04:00	11.766	4.571	
545	27/11/2020 05:00	11.766	4.575	
546	27/11/2020 06:00	11.766	4.571	
547	27/11/2020 07:00	11.766	4.580	
548	27/11/2020 08:00	11.766	4.577	
549	27/11/2020 09:00	11.766	4.573	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	27/11/2020 10:00	11.766	4.563	
551	27/11/2020 11:00	11.766	4.569	
552	27/11/2020 12:00	11.766	4.574	
553	27/11/2020 13:00	11.766	4.559	
554	27/11/2020 14:00	11.766	4.570	
555	27/11/2020 15:00	11.766	4.576	
556	27/11/2020 16:00	11.766	4.577	
557	27/11/2020 17:00	11.766	4.563	
558	27/11/2020 18:00	11.766	4.582	
559	27/11/2020 19:00	11.766	4.568	
560	27/11/2020 20:00	11.766	4.569	
561	27/11/2020 21:00	11.766	4.573	
562	27/11/2020 22:00	11.766	4.567	
563	27/11/2020 23:00	11.766	4.575	
564	28/11/2020 00:00	11.766	4.573	
565	28/11/2020 01:00	11.817	4.574	
566	28/11/2020 02:00	11.817	4.580	
567	28/11/2020 03:00	11.766	4.574	
568	28/11/2020 04:00	11.766	4.571	
569	28/11/2020 05:00	11.766	4.569	
570	28/11/2020 06:00	11.766	4.583	
571	28/11/2020 07:00	11.766	4.577	
572	28/11/2020 08:00	11.766	4.583	
573	28/11/2020 09:00	11.766	4.576	
574	28/11/2020 10:00	11.766	4.583	
575	28/11/2020 11:00	11.766	4.578	
576	28/11/2020 12:00	11.766	4.578	
577	28/11/2020 13:00	11.766	4.584	
578	28/11/2020 14:00	11.766	4.584	
579	28/11/2020 15:00	11.766	4.582	
580	28/11/2020 16:00	11.766	4.589	
581	28/11/2020 17:00	11.766	4.590	
582	28/11/2020 18:00	11.817	4.583	
583	28/11/2020 19:00	11.766	4.592	
584	28/11/2020 20:00	11.817	4.589	
585	28/11/2020 21:00	11.766	4.587	
586	28/11/2020 22:00	11.766	4.581	
587	28/11/2020 23:00	11.766	4.586	
588	29/11/2020 00:00	11.766	4.587	
589	29/11/2020 01:00	11.766	4.596	
590	29/11/2020 02:00	11.766	4.593	
591	29/11/2020 03:00	11.766	4.592	
592	29/11/2020 04:00	11.766	4.591	
593	29/11/2020 05:00	11.766	4.596	
594	29/11/2020 06:00	11.766	4.595	
595	29/11/2020 07:00	11.766	4.592	
596	29/11/2020 08:00	11.766	4.589	
597	29/11/2020 09:00	11.766	4.596	
598	29/11/2020 10:00	11.766	4.602	
599	29/11/2020 11:00	11.766	4.597	
600	29/11/2020 12:00	11.817	4.598	
601	29/11/2020 13:00	11.766	4.600	
602	29/11/2020 14:00	11.766	4.591	
603	29/11/2020 15:00	11.766	4.592	
604	29/11/2020 16:00	11.766	4.588	

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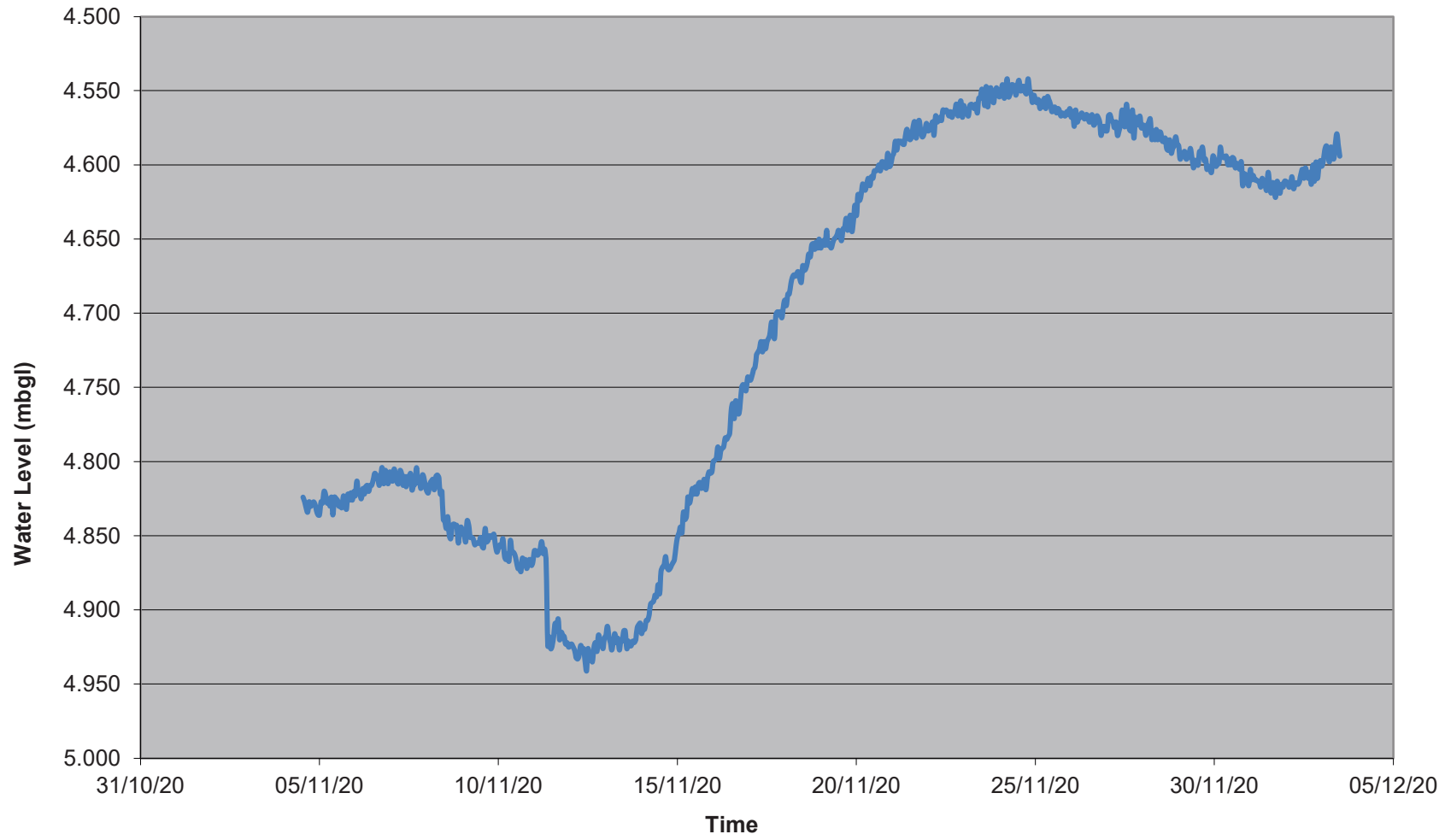
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	29/11/2020 17:00	11.766	4.597	
606	29/11/2020 18:00	11.766	4.596	
607	29/11/2020 19:00	11.766	4.603	
608	29/11/2020 20:00	11.766	4.601	
609	29/11/2020 21:00	11.766	4.602	
610	29/11/2020 22:00	11.766	4.605	
611	29/11/2020 23:00	11.817	4.594	
612	30/11/2020 00:00	11.817	4.596	
613	30/11/2020 01:00	11.766	4.601	
614	30/11/2020 02:00	11.766	4.599	
615	30/11/2020 03:00	11.766	4.599	
616	30/11/2020 04:00	11.766	4.588	
617	30/11/2020 05:00	11.817	4.594	
618	30/11/2020 06:00	11.766	4.595	
619	30/11/2020 07:00	11.817	4.595	
620	30/11/2020 08:00	11.817	4.594	
621	30/11/2020 09:00	11.766	4.600	
622	30/11/2020 10:00	11.766	4.596	
623	30/11/2020 11:00	11.766	4.600	
624	30/11/2020 12:00	11.766	4.595	
625	30/11/2020 13:00	11.817	4.596	
626	30/11/2020 14:00	11.817	4.602	
627	30/11/2020 15:00	11.817	4.599	
628	30/11/2020 16:00	11.817	4.600	
629	30/11/2020 17:00	11.766	4.603	
630	30/11/2020 18:00	11.817	4.598	
631	30/11/2020 19:00	11.766	4.614	
632	30/11/2020 20:00	11.766	4.606	
633	30/11/2020 21:00	11.766	4.607	
634	30/11/2020 22:00	11.766	4.607	
635	30/11/2020 23:00	11.766	4.614	
636	01/12/2020 00:00	11.766	4.603	
637	01/12/2020 01:00	11.817	4.610	
638	01/12/2020 02:00	11.817	4.607	
639	01/12/2020 03:00	11.817	4.610	
640	01/12/2020 04:00	11.817	4.610	
641	01/12/2020 05:00	11.817	4.611	
642	01/12/2020 06:00	11.817	4.611	
643	01/12/2020 07:00	11.766	4.615	
644	01/12/2020 08:00	11.766	4.609	
645	01/12/2020 09:00	11.766	4.613	
646	01/12/2020 10:00	11.766	4.614	
647	01/12/2020 11:00	11.766	4.617	
648	01/12/2020 12:00	11.766	4.605	
649	01/12/2020 13:00	11.817	4.613	
650	01/12/2020 14:00	11.817	4.619	
651	01/12/2020 15:00	11.766	4.612	
652	01/12/2020 16:00	11.817	4.614	
653	01/12/2020 17:00	11.766	4.622	
654	01/12/2020 18:00	11.817	4.611	
655	01/12/2020 19:00	11.766	4.617	
656	01/12/2020 20:00	11.817	4.619	
657	01/12/2020 21:00	11.766	4.613	
658	01/12/2020 22:00	11.817	4.615	
659	01/12/2020 23:00	11.766	4.611	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	02/12/2020 00:00	11.766	4.611	
661	02/12/2020 01:00	11.766	4.612	
662	02/12/2020 02:00	11.817	4.615	
663	02/12/2020 03:00	11.817	4.614	
664	02/12/2020 04:00	11.766	4.608	
665	02/12/2020 05:00	11.817	4.616	
666	02/12/2020 06:00	11.817	4.613	
667	02/12/2020 07:00	11.817	4.612	
668	02/12/2020 08:00	11.766	4.613	
669	02/12/2020 09:00	11.817	4.611	
670	02/12/2020 10:00	11.766	4.606	
671	02/12/2020 11:00	11.817	4.603	
672	02/12/2020 12:00	11.817	4.609	
673	02/12/2020 13:00	11.817	4.602	
674	02/12/2020 14:00	11.817	4.606	
675	02/12/2020 15:00	11.817	4.609	
676	02/12/2020 16:00	11.766	4.605	
677	02/12/2020 17:00	11.766	4.613	
678	02/12/2020 18:00	11.817	4.600	
679	02/12/2020 19:00	11.817	4.611	
680	02/12/2020 20:00	11.817	4.598	
681	02/12/2020 21:00	11.817	4.609	
682	02/12/2020 22:00	11.766	4.602	
683	02/12/2020 23:00	11.766	4.597	
684	03/12/2020 00:00	11.817	4.601	
685	03/12/2020 01:00	11.817	4.597	
686	03/12/2020 02:00	11.766	4.590	
687	03/12/2020 03:00	11.817	4.587	
688	03/12/2020 04:00	11.766	4.590	
689	03/12/2020 05:00	11.766	4.598	
690	03/12/2020 06:00	11.766	4.588	
691	03/12/2020 07:00	11.817	4.592	
692	03/12/2020 08:00	11.817	4.596	
693	03/12/2020 09:00	11.766	4.587	
694	03/12/2020 10:00	11.766	4.579	
695	03/12/2020 11:00	11.766	4.586	
696	03/12/2020 12:00	11.817	4.594	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	03/12/2020 15:00	11.817	4.590	
2	03/12/2020 16:00	11.817	4.585	
3	03/12/2020 17:00	11.817	4.578	
4	03/12/2020 18:00	11.817	4.582	
5	03/12/2020 19:00	11.817	4.593	
6	03/12/2020 20:00	11.817	4.594	
7	03/12/2020 21:00	11.817	4.583	
8	03/12/2020 22:00	11.817	4.582	
9	03/12/2020 23:00	11.817	4.584	
10	04/12/2020 00:00	11.817	4.596	
11	04/12/2020 01:00	11.766	4.588	
12	04/12/2020 02:00	11.817	4.598	
13	04/12/2020 03:00	11.817	4.591	
14	04/12/2020 04:00	11.817	4.592	
15	04/12/2020 05:00	11.817	4.593	
16	04/12/2020 06:00	11.817	4.595	
17	04/12/2020 07:00	11.817	4.585	
18	04/12/2020 08:00	11.817	4.595	
19	04/12/2020 09:00	11.817	4.595	
20	04/12/2020 10:00	11.817	4.600	
21	04/12/2020 11:00	11.817	4.607	
22	04/12/2020 12:00	11.817	4.602	
23	04/12/2020 13:00	11.817	4.602	
24	04/12/2020 14:00	11.817	4.595	
25	04/12/2020 15:00	11.817	4.596	
26	04/12/2020 16:00	11.817	4.589	
27	04/12/2020 17:00	11.817	4.597	
28	04/12/2020 18:00	11.766	4.592	
29	04/12/2020 19:00	11.817	4.600	
30	04/12/2020 20:00	11.817	4.588	
31	04/12/2020 21:00	11.766	4.593	
32	04/12/2020 22:00	11.817	4.594	
33	04/12/2020 23:00	11.817	4.601	
34	05/12/2020 00:00	11.817	4.606	
35	05/12/2020 01:00	11.817	4.607	
36	05/12/2020 02:00	11.817	4.601	
37	05/12/2020 03:00	11.817	4.605	
38	05/12/2020 04:00	11.817	4.609	
39	05/12/2020 05:00	11.817	4.610	
40	05/12/2020 06:00	11.817	4.617	
41	05/12/2020 07:00	11.817	4.609	
42	05/12/2020 08:00	11.817	4.610	
43	05/12/2020 09:00	11.817	4.610	
44	05/12/2020 10:00	11.817	4.610	
45	05/12/2020 11:00	11.817	4.614	
46	05/12/2020 12:00	11.817	4.615	
47	05/12/2020 13:00	11.817	4.616	
48	05/12/2020 14:00	11.817	4.612	
49	05/12/2020 15:00	11.817	4.627	
50	05/12/2020 16:00	11.817	4.617	
51	05/12/2020 17:00	11.817	4.611	
52	05/12/2020 18:00	11.817	4.639	
53	05/12/2020 19:00	11.817	4.621	
54	05/12/2020 20:00	11.817	4.635	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	05/12/2020 21:00	11.817	4.614	
56	05/12/2020 22:00	11.817	4.632	
57	05/12/2020 23:00	11.817	4.626	
58	06/12/2020 00:00	11.817	4.637	
59	06/12/2020 01:00	11.817	4.635	
60	06/12/2020 02:00	11.817	4.638	
61	06/12/2020 03:00	11.817	4.634	
62	06/12/2020 04:00	11.817	4.634	
63	06/12/2020 05:00	11.817	4.630	
64	06/12/2020 06:00	11.817	4.636	
65	06/12/2020 07:00	11.817	4.629	
66	06/12/2020 08:00	11.817	4.638	
67	06/12/2020 09:00	11.817	4.639	
68	06/12/2020 10:00	11.817	4.638	
69	06/12/2020 11:00	11.817	4.641	
70	06/12/2020 12:00	11.817	4.638	
71	06/12/2020 13:00	11.817	4.646	
72	06/12/2020 14:00	11.817	4.642	
73	06/12/2020 15:00	11.817	4.637	
74	06/12/2020 16:00	11.817	4.637	
75	06/12/2020 17:00	11.817	4.652	
76	06/12/2020 18:00	11.817	4.641	
77	06/12/2020 19:00	11.817	4.644	
78	06/12/2020 20:00	11.817	4.645	
79	06/12/2020 21:00	11.817	4.645	
80	06/12/2020 22:00	11.817	4.648	
81	06/12/2020 23:00	11.817	4.642	
82	07/12/2020 00:00	11.817	4.652	
83	07/12/2020 01:00	11.817	4.643	
84	07/12/2020 02:00	11.817	4.645	
85	07/12/2020 03:00	11.817	4.647	
86	07/12/2020 04:00	11.817	4.656	
87	07/12/2020 05:00	11.817	4.642	
88	07/12/2020 06:00	11.817	4.643	
89	07/12/2020 07:00	11.817	4.644	
90	07/12/2020 08:00	11.817	4.643	
91	07/12/2020 09:00	11.817	4.640	
92	07/12/2020 10:00	11.817	4.641	
93	07/12/2020 11:00	11.817	4.648	
94	07/12/2020 12:00	11.817	4.647	
95	07/12/2020 13:00	11.817	4.644	
96	07/12/2020 14:00	11.817	4.646	
97	07/12/2020 15:00	11.817	4.643	
98	07/12/2020 16:00	11.817	4.652	
99	07/12/2020 17:00	11.817	4.646	
100	07/12/2020 18:00	11.817	4.642	
101	07/12/2020 19:00	11.817	4.646	
102	07/12/2020 20:00	11.817	4.648	
103	07/12/2020 21:00	11.817	4.650	
104	07/12/2020 22:00	11.817	4.650	
105	07/12/2020 23:00	11.817	4.643	
106	08/12/2020 00:00	11.817	4.649	
107	08/12/2020 01:00	11.817	4.653	
108	08/12/2020 02:00	11.817	4.651	
109	08/12/2020 03:00	11.817	4.655	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	08/12/2020 04:00	11.817	4.655	
111	08/12/2020 05:00	11.817	4.651	
112	08/12/2020 06:00	11.817	4.652	
113	08/12/2020 07:00	11.817	4.658	
114	08/12/2020 08:00	11.817	4.657	
115	08/12/2020 09:00	11.817	4.652	
116	08/12/2020 10:00	11.817	4.660	
117	08/12/2020 11:00	11.817	4.654	
118	08/12/2020 12:00	11.817	4.661	
119	08/12/2020 13:00	11.817	4.657	
120	08/12/2020 14:00	11.817	4.658	
121	08/12/2020 15:00	11.817	4.656	
122	08/12/2020 16:00	11.817	4.661	
123	08/12/2020 17:00	11.817	4.662	
124	08/12/2020 18:00	11.817	4.669	
125	08/12/2020 19:00	11.817	4.666	
126	08/12/2020 20:00	11.817	4.663	
127	08/12/2020 21:00	11.817	4.665	
128	08/12/2020 22:00	11.817	4.668	
129	08/12/2020 23:00	11.817	4.666	
130	09/12/2020 00:00	11.817	4.662	
131	09/12/2020 01:00	11.817	4.662	
132	09/12/2020 02:00	11.817	4.666	
133	09/12/2020 03:00	11.817	4.667	
134	09/12/2020 04:00	11.817	4.672	
135	09/12/2020 05:00	11.817	4.674	
136	09/12/2020 06:00	11.817	4.672	
137	09/12/2020 07:00	11.817	4.680	
138	09/12/2020 08:00	11.817	4.671	
139	09/12/2020 09:00	11.817	4.678	
140	09/12/2020 10:00	11.817	4.676	
141	09/12/2020 11:00	11.817	4.676	
142	09/12/2020 12:00	11.817	4.679	
143	09/12/2020 13:00	11.817	4.673	
144	09/12/2020 14:00	11.817	4.675	
145	09/12/2020 15:00	11.817	4.682	
146	09/12/2020 16:00	11.817	4.678	
147	09/12/2020 17:00	11.817	4.676	
148	09/12/2020 18:00	11.817	4.659	
149	09/12/2020 19:00	11.817	4.657	
150	09/12/2020 20:00	11.817	4.666	
151	09/12/2020 21:00	11.817	4.662	
152	09/12/2020 22:00	11.817	4.658	
153	09/12/2020 23:00	11.817	4.657	
154	10/12/2020 00:00	11.817	4.667	
155	10/12/2020 01:00	11.817	4.666	
156	10/12/2020 02:00	11.817	4.664	
157	10/12/2020 03:00	11.817	4.663	
158	10/12/2020 04:00	11.817	4.668	
159	10/12/2020 05:00	11.817	4.668	
160	10/12/2020 06:00	11.817	4.670	
161	10/12/2020 07:00	11.817	4.683	
162	10/12/2020 08:00	11.817	4.669	
163	10/12/2020 09:00	11.817	4.668	
164	10/12/2020 10:00	11.817	4.681	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	10/12/2020 11:00	11.817	4.674	
166	10/12/2020 12:00	11.817	4.688	
167	10/12/2020 13:00	11.817	4.684	
168	10/12/2020 14:00	11.817	4.684	
169	10/12/2020 15:00	11.817	4.677	
170	10/12/2020 16:00	11.817	4.692	
171	10/12/2020 17:00	11.817	4.685	
172	10/12/2020 18:00	11.817	4.670	
173	10/12/2020 19:00	11.817	4.687	
174	10/12/2020 20:00	11.817	4.669	
175	10/12/2020 21:00	11.817	4.661	
176	10/12/2020 22:00	11.817	4.663	
177	10/12/2020 23:00	11.817	4.671	
178	11/12/2020 00:00	11.817	4.669	
179	11/12/2020 01:00	11.817	4.673	
180	11/12/2020 02:00	11.817	4.674	
181	11/12/2020 03:00	11.817	4.670	
182	11/12/2020 04:00	11.817	4.672	
183	11/12/2020 05:00	11.817	4.674	
184	11/12/2020 06:00	11.817	4.667	
185	11/12/2020 07:00	11.817	4.665	
186	11/12/2020 08:00	11.817	4.676	
187	11/12/2020 09:00	11.869	4.660	
188	11/12/2020 10:00	11.817	4.665	
189	11/12/2020 11:00	11.817	4.681	
190	11/12/2020 12:00	11.817	4.670	
191	11/12/2020 13:00	11.817	4.686	
192	11/12/2020 14:00	11.817	4.671	
193	11/12/2020 15:00	11.869	4.670	
194	11/12/2020 16:00	11.817	4.674	
195	11/12/2020 17:00	11.817	4.665	
196	11/12/2020 18:00	11.817	4.678	
197	11/12/2020 19:00	11.817	4.678	
198	11/12/2020 20:00	11.817	4.686	
199	11/12/2020 21:00	11.817	4.676	
200	11/12/2020 22:00	11.817	4.678	
201	11/12/2020 23:00	11.817	4.680	
202	12/12/2020 00:00	11.817	4.679	
203	12/12/2020 01:00	11.817	4.683	
204	12/12/2020 02:00	11.817	4.682	
205	12/12/2020 03:00	11.817	4.675	
206	12/12/2020 04:00	11.817	4.690	
207	12/12/2020 05:00	11.817	4.683	
208	12/12/2020 06:00	11.817	4.685	
209	12/12/2020 07:00	11.869	4.691	
210	12/12/2020 08:00	11.817	4.692	
211	12/12/2020 09:00	11.817	4.691	
212	12/12/2020 10:00	11.817	4.695	
213	12/12/2020 11:00	11.817	4.689	
214	12/12/2020 12:00	11.817	4.690	
215	12/12/2020 13:00	11.817	4.698	
216	12/12/2020 14:00	11.817	4.703	
217	12/12/2020 15:00	11.817	4.703	
218	12/12/2020 16:00	11.817	4.695	
219	12/12/2020 17:00	11.817	4.704	

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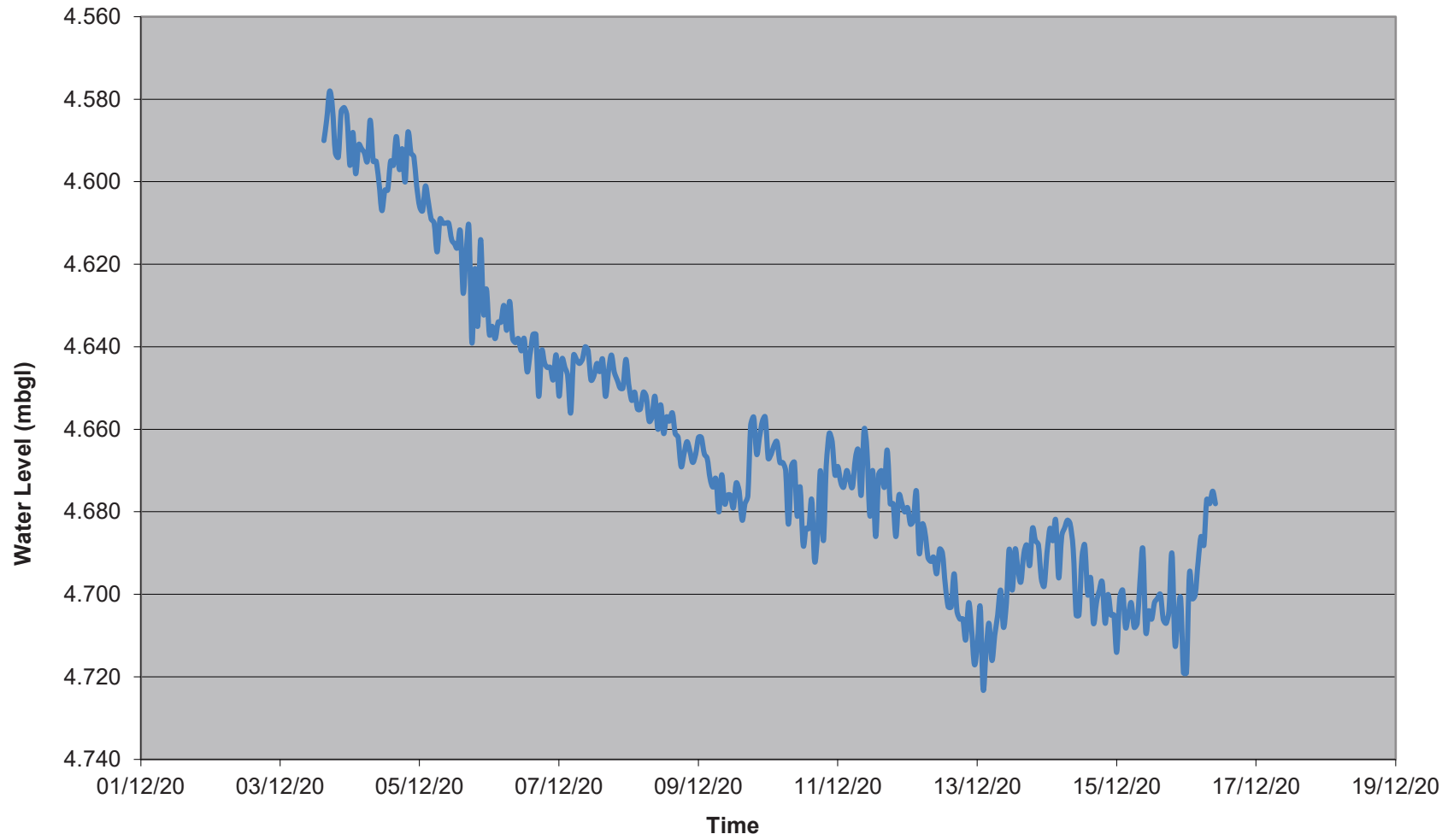
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	12/12/2020 18:00	11.817	4.706	
221	12/12/2020 19:00	11.817	4.706	
222	12/12/2020 20:00	11.817	4.711	
223	12/12/2020 21:00	11.817	4.702	
224	12/12/2020 22:00	11.817	4.708	
225	12/12/2020 23:00	11.869	4.717	
226	13/12/2020 00:00	11.817	4.712	
227	13/12/2020 01:00	11.817	4.703	
228	13/12/2020 02:00	11.817	4.723	
229	13/12/2020 03:00	11.817	4.714	
230	13/12/2020 04:00	11.817	4.707	
231	13/12/2020 05:00	11.817	4.716	
232	13/12/2020 06:00	11.817	4.710	
233	13/12/2020 07:00	11.817	4.705	
234	13/12/2020 08:00	11.817	4.699	
235	13/12/2020 09:00	11.817	4.708	
236	13/12/2020 10:00	11.817	4.702	
237	13/12/2020 11:00	11.817	4.689	
238	13/12/2020 12:00	11.817	4.699	
239	13/12/2020 13:00	11.817	4.689	
240	13/12/2020 14:00	11.817	4.694	
241	13/12/2020 15:00	11.817	4.697	
242	13/12/2020 16:00	11.817	4.690	
243	13/12/2020 17:00	11.817	4.688	
244	13/12/2020 18:00	11.817	4.693	
245	13/12/2020 19:00	11.817	4.684	
246	13/12/2020 20:00	11.817	4.687	
247	13/12/2020 21:00	11.869	4.688	
248	13/12/2020 22:00	11.817	4.696	
249	13/12/2020 23:00	11.817	4.698	
250	14/12/2020 00:00	11.817	4.690	
251	14/12/2020 01:00	11.817	4.684	
252	14/12/2020 02:00	11.817	4.687	
253	14/12/2020 03:00	11.817	4.682	
254	14/12/2020 04:00	11.817	4.696	
255	14/12/2020 05:00	11.817	4.686	
256	14/12/2020 06:00	11.817	4.684	
257	14/12/2020 07:00	11.817	4.682	
258	14/12/2020 08:00	11.817	4.683	
259	14/12/2020 09:00	11.817	4.689	
260	14/12/2020 10:00	11.817	4.705	
261	14/12/2020 11:00	11.817	4.705	
262	14/12/2020 12:00	11.817	4.691	
263	14/12/2020 13:00	11.817	4.688	
264	14/12/2020 14:00	11.869	4.700	
265	14/12/2020 15:00	11.817	4.696	
266	14/12/2020 16:00	11.817	4.707	
267	14/12/2020 17:00	11.817	4.702	
268	14/12/2020 18:00	11.817	4.699	
269	14/12/2020 19:00	11.869	4.697	
270	14/12/2020 20:00	11.817	4.707	
271	14/12/2020 21:00	11.817	4.700	
272	14/12/2020 22:00	11.817	4.705	
273	14/12/2020 23:00	11.817	4.705	
274	15/12/2020 00:00	11.817	4.714	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/12/2020 01:00	11.817	4.701	
276	15/12/2020 02:00	11.817	4.699	
277	15/12/2020 03:00	11.817	4.708	
278	15/12/2020 04:00	11.869	4.705	
279	15/12/2020 05:00	11.817	4.702	
280	15/12/2020 06:00	11.817	4.708	
281	15/12/2020 07:00	11.817	4.707	
282	15/12/2020 08:00	11.869	4.697	
283	15/12/2020 09:00	11.817	4.689	
284	15/12/2020 10:00	11.817	4.709	
285	15/12/2020 11:00	11.817	4.704	
286	15/12/2020 12:00	11.817	4.706	
287	15/12/2020 13:00	11.817	4.702	
288	15/12/2020 14:00	11.817	4.701	
289	15/12/2020 15:00	11.817	4.700	
290	15/12/2020 16:00	11.817	4.706	
291	15/12/2020 17:00	11.817	4.707	
292	15/12/2020 18:00	11.817	4.704	
293	15/12/2020 19:00	11.817	4.690	
294	15/12/2020 20:00	11.869	4.712	
295	15/12/2020 21:00	11.817	4.706	
296	15/12/2020 22:00	11.869	4.701	
297	15/12/2020 23:00	11.817	4.719	
298	16/12/2020 00:00	11.817	4.719	
299	16/12/2020 01:00	11.817	4.695	
300	16/12/2020 02:00	11.869	4.701	
301	16/12/2020 03:00	11.869	4.700	
302	16/12/2020 04:00	11.817	4.692	
303	16/12/2020 05:00	11.817	4.686	
304	16/12/2020 06:00	11.817	4.688	
305	16/12/2020 07:00	11.817	4.677	
306	16/12/2020 08:00	11.817	4.678	
307	16/12/2020 09:00	12.231	4.675	
308	16/12/2020 10:00	12.901	4.678	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	06/10/2020 14:00	11.747	3.495	
2	06/10/2020 15:00	11.747	3.389	
3	06/10/2020 16:00	11.747	3.376	
4	06/10/2020 17:00	11.695	3.453	
5	06/10/2020 18:00	11.747	3.591	
6	06/10/2020 19:00	11.747	3.769	
7	06/10/2020 20:00	11.747	3.898	
8	06/10/2020 21:00	11.695	3.974	
9	06/10/2020 22:00	11.747	3.982	
10	06/10/2020 23:00	11.747	3.919	
11	07/10/2020 00:00	11.747	3.825	
12	07/10/2020 01:00	11.747	3.694	
13	07/10/2020 02:00	11.747	3.578	
14	07/10/2020 03:00	11.747	3.485	
15	07/10/2020 04:00	11.747	3.440	
16	07/10/2020 05:00	11.747	3.485	
17	07/10/2020 06:00	11.747	3.593	
18	07/10/2020 07:00	11.747	3.759	
19	07/10/2020 08:00	11.695	3.894	
20	07/10/2020 09:00	11.747	3.979	
21	07/10/2020 10:00	11.747	4.001	
22	07/10/2020 11:00	11.747	3.965	
23	07/10/2020 12:00	11.798	3.858	
24	07/10/2020 13:00	11.747	3.759	
25	07/10/2020 14:00	11.747	3.649	
26	07/10/2020 15:00	11.747	3.546	
27	07/10/2020 16:00	11.747	3.482	
28	07/10/2020 17:00	11.798	3.495	
29	07/10/2020 18:00	11.798	3.576	
30	07/10/2020 19:00	11.747	3.721	
31	07/10/2020 20:00	11.695	3.870	
32	07/10/2020 21:00	11.695	3.961	
33	07/10/2020 22:00	11.747	3.996	
34	07/10/2020 23:00	11.798	3.976	
35	08/10/2020 00:00	11.747	3.882	
36	08/10/2020 01:00	11.747	3.762	
37	08/10/2020 02:00	11.747	3.628	
38	08/10/2020 03:00	11.747	3.502	
39	08/10/2020 04:00	11.747	3.407	
40	08/10/2020 05:00	11.695	3.377	
41	08/10/2020 06:00	11.747	3.441	
42	08/10/2020 07:00	11.798	3.556	
43	08/10/2020 08:00	11.747	3.699	
44	08/10/2020 09:00	11.798	3.811	
45	08/10/2020 10:00	11.695	3.877	
46	08/10/2020 11:00	11.747	3.856	
47	08/10/2020 12:00	11.695	3.814	
48	08/10/2020 13:00	11.747	3.724	
49	08/10/2020 14:00	11.747	3.637	
50	08/10/2020 15:00	11.695	3.527	
51	08/10/2020 16:00	11.747	3.456	
52	08/10/2020 17:00	11.695	3.409	
53	08/10/2020 18:00	11.695	3.440	
54	08/10/2020 19:00	11.695	3.515	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	08/10/2020 20:00	11.747	3.646	
56	08/10/2020 21:00	11.747	3.764	
57	08/10/2020 22:00	11.747	3.850	
58	08/10/2020 23:00	11.747	3.879	
59	09/10/2020 00:00	11.747	3.840	
60	09/10/2020 01:00	11.747	3.773	
61	09/10/2020 02:00	11.798	3.668	
62	09/10/2020 03:00	11.747	3.558	
63	09/10/2020 04:00	11.798	3.458	
64	09/10/2020 05:00	11.695	3.396	
65	09/10/2020 06:00	11.798	3.388	
66	09/10/2020 07:00	11.747	3.447	
67	09/10/2020 08:00	11.747	3.547	
68	09/10/2020 09:00	11.747	3.662	
69	09/10/2020 10:00	11.798	3.758	
70	09/10/2020 11:00	11.798	3.798	
71	09/10/2020 12:00	11.747	3.783	
72	09/10/2020 13:00	11.695	3.728	
73	09/10/2020 14:00	11.695	3.655	
74	09/10/2020 15:00	11.747	3.546	
75	09/10/2020 16:00	11.695	3.471	
76	09/10/2020 17:00	11.747	3.417	
77	09/10/2020 18:00	11.747	3.379	
78	09/10/2020 19:00	11.747	3.419	
79	09/10/2020 20:00	11.747	3.509	
80	09/10/2020 21:00	11.747	3.631	
81	09/10/2020 22:00	11.747	3.752	
82	09/10/2020 23:00	11.747	3.822	
83	10/10/2020 00:00	11.747	3.866	
84	10/10/2020 01:00	11.747	3.847	
85	10/10/2020 02:00	11.695	3.799	
86	10/10/2020 03:00	11.747	3.725	
87	10/10/2020 04:00	11.747	3.643	
88	10/10/2020 05:00	11.747	3.559	
89	10/10/2020 06:00	11.747	3.498	
90	10/10/2020 07:00	11.747	3.498	
91	10/10/2020 08:00	11.747	3.546	
92	10/10/2020 09:00	11.747	3.626	
93	10/10/2020 10:00	11.798	3.711	
94	10/10/2020 11:00	11.695	3.771	
95	10/10/2020 12:00	11.695	3.817	
96	10/10/2020 13:00	11.798	3.812	
97	10/10/2020 14:00	11.747	3.780	
98	10/10/2020 15:00	11.747	3.711	
99	10/10/2020 16:00	11.747	3.639	
100	10/10/2020 17:00	11.747	3.574	
101	10/10/2020 18:00	11.747	3.507	
102	10/10/2020 19:00	11.747	3.472	
103	10/10/2020 20:00	11.747	3.499	
104	10/10/2020 21:00	11.695	3.572	
105	10/10/2020 22:00	11.747	3.678	
106	10/10/2020 23:00	11.695	3.796	
107	11/10/2020 00:00	11.798	3.873	
108	11/10/2020 01:00	11.695	3.915	
109	11/10/2020 02:00	11.747	3.918	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	11/10/2020 03:00	11.747	3.886	
111	11/10/2020 04:00	11.695	3.821	
112	11/10/2020 05:00	11.747	3.745	
113	11/10/2020 06:00	11.747	3.655	
114	11/10/2020 07:00	11.695	3.595	
115	11/10/2020 08:00	11.798	3.570	
116	11/10/2020 09:00	11.747	3.598	
117	11/10/2020 10:00	11.695	3.665	
118	11/10/2020 11:00	11.798	3.751	
119	11/10/2020 12:00	11.695	3.829	
120	11/10/2020 13:00	11.747	3.883	
121	11/10/2020 14:00	11.747	3.895	
122	11/10/2020 15:00	11.798	3.878	
123	11/10/2020 16:00	11.747	3.837	
124	11/10/2020 17:00	11.798	3.766	
125	11/10/2020 18:00	11.695	3.682	
126	11/10/2020 19:00	11.747	3.592	
127	11/10/2020 20:00	11.747	3.541	
128	11/10/2020 21:00	11.798	3.539	
129	11/10/2020 22:00	11.747	3.585	
130	11/10/2020 23:00	11.798	3.672	
131	12/10/2020 00:00	11.747	3.793	
132	12/10/2020 01:00	11.747	3.893	
133	12/10/2020 02:00	11.695	3.940	
134	12/10/2020 03:00	11.798	3.952	
135	12/10/2020 04:00	11.747	3.929	
136	12/10/2020 05:00	11.747	3.871	
137	12/10/2020 06:00	11.798	3.776	
138	12/10/2020 07:00	11.798	3.676	
139	12/10/2020 08:00	11.747	3.574	
140	12/10/2020 09:00	11.747	3.518	
141	12/10/2020 10:00	11.798	3.501	
142	12/10/2020 11:00	11.798	3.558	
143	12/10/2020 12:00	11.798	3.635	
144	12/10/2020 13:00	11.747	3.739	
145	12/10/2020 14:00	11.798	3.818	
146	12/10/2020 15:00	11.798	3.846	
147	12/10/2020 16:00	11.798	3.861	
148	12/10/2020 17:00	11.695	3.832	
149	12/10/2020 18:00	11.747	3.752	
150	12/10/2020 19:00	11.747	3.678	
151	12/10/2020 20:00	11.747	3.585	
152	12/10/2020 21:00	11.747	3.526	
153	12/10/2020 22:00	11.798	3.500	
154	12/10/2020 23:00	11.747	3.553	
155	13/10/2020 00:00	11.747	3.669	
156	13/10/2020 01:00	11.747	3.806	
157	13/10/2020 02:00	11.747	3.919	
158	13/10/2020 03:00	11.798	3.992	
159	13/10/2020 04:00	11.695	4.022	
160	13/10/2020 05:00	11.747	3.991	
161	13/10/2020 06:00	11.695	3.901	
162	13/10/2020 07:00	11.798	3.802	
163	13/10/2020 08:00	11.747	3.679	
164	13/10/2020 09:00	11.747	3.569	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	13/10/2020 10:00	11.747	3.505	
166	13/10/2020 11:00	11.747	3.508	
167	13/10/2020 12:00	11.747	3.575	
168	13/10/2020 13:00	11.747	3.702	
169	13/10/2020 14:00	11.798	3.837	
170	13/10/2020 15:00	11.747	3.930	
171	13/10/2020 16:00	11.747	3.982	
172	13/10/2020 17:00	11.747	3.973	
173	13/10/2020 18:00	11.747	3.921	
174	13/10/2020 19:00	11.850	3.813	
175	13/10/2020 20:00	11.798	3.687	
176	13/10/2020 21:00	11.747	3.583	
177	13/10/2020 22:00	11.798	3.501	
178	13/10/2020 23:00	11.798	3.483	
179	14/10/2020 00:00	11.798	3.544	
180	14/10/2020 01:00	11.747	3.672	
181	14/10/2020 02:00	11.747	3.837	
182	14/10/2020 03:00	11.798	3.971	
183	14/10/2020 04:00	11.747	4.048	
184	14/10/2020 05:00	11.798	4.066	
185	14/10/2020 06:00	11.798	4.032	
186	14/10/2020 07:00	11.695	3.944	
187	14/10/2020 08:00	11.798	3.809	
188	14/10/2020 09:00	11.798	3.676	
189	14/10/2020 10:00	11.747	3.566	
190	14/10/2020 11:00	11.747	3.504	
191	14/10/2020 12:00	11.798	3.521	
192	14/10/2020 13:00	11.798	3.632	
193	14/10/2020 14:00	11.747	3.829	
194	14/10/2020 15:00	11.695	3.983	
195	14/10/2020 16:00	11.747	4.102	
196	14/10/2020 17:00	11.747	4.137	
197	14/10/2020 18:00	11.798	4.107	
198	14/10/2020 19:00	11.798	4.023	
199	14/10/2020 20:00	11.798	3.872	
200	14/10/2020 21:00	11.798	3.741	
201	14/10/2020 22:00	11.747	3.603	
202	14/10/2020 23:00	11.747	3.523	
203	15/10/2020 00:00	11.747	3.525	
204	15/10/2020 01:00	11.850	3.637	
205	15/10/2020 02:00	11.695	3.822	
206	15/10/2020 03:00	11.798	4.004	
207	15/10/2020 04:00	11.747	4.134	
208	15/10/2020 05:00	11.695	4.189	
209	15/10/2020 06:00	11.798	4.189	
210	15/10/2020 07:00	11.747	4.112	
211	15/10/2020 08:00	11.798	3.966	
212	15/10/2020 09:00	11.747	3.791	
213	15/10/2020 10:00	11.850	3.631	
214	15/10/2020 11:00	11.747	3.511	
215	15/10/2020 12:00	11.747	3.465	
216	15/10/2020 13:00	11.798	3.518	
217	15/10/2020 14:00	11.798	3.675	
218	15/10/2020 15:00	11.695	3.862	
219	15/10/2020 16:00	11.747	4.016	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	15/10/2020 17:00	11.798	4.091	
221	15/10/2020 18:00	11.695	4.110	
222	15/10/2020 19:00	11.747	4.042	
223	15/10/2020 20:00	11.747	3.900	
224	15/10/2020 21:00	11.747	3.732	
225	15/10/2020 22:00	11.747	3.571	
226	15/10/2020 23:00	11.850	3.438	
227	16/10/2020 00:00	11.850	3.373	
228	16/10/2020 01:00	11.747	3.413	
229	16/10/2020 02:00	11.747	3.553	
230	16/10/2020 03:00	11.747	3.798	
231	16/10/2020 04:00	11.798	3.985	
232	16/10/2020 05:00	11.747	4.088	
233	16/10/2020 06:00	11.798	4.142	
234	16/10/2020 07:00	11.747	4.127	
235	16/10/2020 08:00	11.798	4.014	
236	16/10/2020 09:00	11.747	3.829	
237	16/10/2020 10:00	11.747	3.646	
238	16/10/2020 11:00	11.798	3.489	
239	16/10/2020 12:00	11.695	3.392	
240	16/10/2020 13:00	11.850	3.375	
241	16/10/2020 14:00	11.798	3.479	
242	16/10/2020 15:00	11.695	3.688	
243	16/10/2020 16:00	11.643	3.893	
244	16/10/2020 17:00	11.798	4.032	
245	16/10/2020 18:00	11.798	4.094	
246	16/10/2020 19:00	11.798	4.081	
247	16/10/2020 20:00	11.798	3.972	
248	16/10/2020 21:00	11.850	3.787	
249	16/10/2020 22:00	11.695	3.585	
250	16/10/2020 23:00	11.798	3.423	
251	17/10/2020 00:00	11.850	3.308	
252	17/10/2020 01:00	11.798	3.263	
253	17/10/2020 02:00	11.695	3.348	
254	17/10/2020 03:00	11.798	3.551	
255	17/10/2020 04:00	11.798	3.807	
256	17/10/2020 05:00	11.747	3.982	
257	17/10/2020 06:00	11.747	4.081	
258	17/10/2020 07:00	11.798	4.116	
259	17/10/2020 08:00	11.798	4.064	
260	17/10/2020 09:00	11.747	3.907	
261	17/10/2020 10:00	11.747	3.702	
262	17/10/2020 11:00	11.747	3.521	
263	17/10/2020 12:00	11.695	3.372	
264	17/10/2020 13:00	11.798	3.284	
265	17/10/2020 14:00	11.747	3.315	
266	17/10/2020 15:00	11.850	3.466	
267	17/10/2020 16:00	11.747	3.706	
268	17/10/2020 17:00	11.747	3.919	
269	17/10/2020 18:00	11.798	4.031	
270	17/10/2020 19:00	11.747	4.067	
271	17/10/2020 20:00	11.798	4.022	
272	17/10/2020 21:00	11.747	3.883	
273	17/10/2020 22:00	11.798	3.679	
274	17/10/2020 23:00	11.747	3.489	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	18/10/2020 00:00	11.695	3.340	
276	18/10/2020 01:00	11.695	3.219	
277	18/10/2020 02:00	11.643	3.208	
278	18/10/2020 03:00	11.747	3.328	
279	18/10/2020 04:00	11.747	3.576	
280	18/10/2020 05:00	11.747	3.836	
281	18/10/2020 06:00	11.850	3.986	
282	18/10/2020 07:00	11.747	4.081	
283	18/10/2020 08:00	11.798	4.094	
284	18/10/2020 09:00	11.798	3.996	
285	18/10/2020 10:00	11.850	3.819	
286	18/10/2020 11:00	11.695	3.623	
287	18/10/2020 12:00	11.798	3.453	
288	18/10/2020 13:00	11.798	3.318	
289	18/10/2020 14:00	11.798	3.261	
290	18/10/2020 15:00	11.747	3.319	
291	18/10/2020 16:00	11.798	3.504	
292	18/10/2020 17:00	11.540	3.760	
293	18/10/2020 18:00	11.902	3.931	
294	18/10/2020 19:00	11.798	4.034	
295	18/10/2020 20:00	11.747	4.060	
296	18/10/2020 21:00	11.747	3.995	
297	18/10/2020 22:00	11.747	3.814	
298	18/10/2020 23:00	11.747	3.602	
299	19/10/2020 00:00	11.695	3.425	
300	19/10/2020 01:00	11.798	3.262	
301	19/10/2020 02:00	11.695	3.155	
302	19/10/2020 03:00	11.695	3.187	
303	19/10/2020 04:00	11.798	3.334	
304	19/10/2020 05:00	11.798	3.588	
305	19/10/2020 06:00	11.747	3.824	
306	19/10/2020 07:00	11.695	3.968	
307	19/10/2020 08:00	11.798	4.042	
308	19/10/2020 09:00	11.747	4.013	
309	19/10/2020 10:00	11.798	3.893	
310	19/10/2020 11:00	11.747	3.702	
311	19/10/2020 12:00	11.747	3.514	
312	19/10/2020 13:00	11.747	3.340	
313	19/10/2020 14:00	11.747	3.227	
314	19/10/2020 15:00	11.850	3.196	
315	19/10/2020 16:00	11.850	3.269	
316	19/10/2020 17:00	11.798	3.495	
317	19/10/2020 18:00	11.747	3.724	
318	19/10/2020 19:00	11.747	3.905	
319	19/10/2020 20:00	11.747	3.972	
320	19/10/2020 21:00	11.798	3.974	
321	19/10/2020 22:00	11.747	3.853	
322	19/10/2020 23:00	11.747	3.672	
323	20/10/2020 00:00	11.850	3.478	
324	20/10/2020 01:00	11.850	3.288	
325	20/10/2020 02:00	11.747	3.138	
326	20/10/2020 03:00	11.747	3.062	
327	20/10/2020 04:00	11.695	3.083	
328	20/10/2020 05:00	11.747	3.248	
329	20/10/2020 06:00	11.798	3.497	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	20/10/2020 07:00	11.798	3.719	
331	20/10/2020 08:00	11.747	3.849	
332	20/10/2020 09:00	11.747	3.898	
333	20/10/2020 10:00	11.747	3.839	
334	20/10/2020 11:00	11.747	3.691	
335	20/10/2020 12:00	11.747	3.507	
336	20/10/2020 13:00	11.747	3.337	
337	20/10/2020 14:00	11.488	3.171	
338	20/10/2020 15:00	11.695	3.060	
339	20/10/2020 16:00	11.798	3.036	
340	20/10/2020 17:00	11.798	3.162	
341	20/10/2020 18:00	11.798	3.366	
342	20/10/2020 19:00	11.695	3.603	
343	20/10/2020 20:00	11.747	3.767	
344	20/10/2020 21:00	11.747	3.856	
345	20/10/2020 22:00	11.747	3.852	
346	20/10/2020 23:00	11.798	3.752	
347	21/10/2020 00:00	11.695	3.623	
348	21/10/2020 01:00	11.747	3.457	
349	21/10/2020 02:00	11.747	3.310	
350	21/10/2020 03:00	11.798	3.173	
351	21/10/2020 04:00	11.798	3.128	
352	21/10/2020 05:00	11.747	3.156	
353	21/10/2020 06:00	11.695	3.312	
354	21/10/2020 07:00	11.747	3.528	
355	21/10/2020 08:00	11.643	3.716	
356	21/10/2020 09:00	11.798	3.824	
357	21/10/2020 10:00	11.798	3.868	
358	21/10/2020 11:00	11.798	3.797	
359	21/10/2020 12:00	11.643	3.681	
360	21/10/2020 13:00	11.643	3.535	
361	21/10/2020 14:00	11.798	3.377	
362	21/10/2020 15:00	11.747	3.235	
363	21/10/2020 16:00	11.798	3.156	
364	21/10/2020 17:00	11.695	3.148	
365	21/10/2020 18:00	11.850	3.259	
366	21/10/2020 19:00	11.747	3.453	
367	21/10/2020 20:00	11.798	3.651	
368	21/10/2020 21:00	11.850	3.804	
369	21/10/2020 22:00	11.747	3.866	
370	21/10/2020 23:00	11.798	3.869	
371	22/10/2020 00:00	11.850	3.801	
372	22/10/2020 01:00	11.798	3.682	
373	22/10/2020 02:00	11.902	3.551	
374	22/10/2020 03:00	11.643	3.422	
375	22/10/2020 04:00	11.747	3.311	
376	22/10/2020 05:00	11.747	3.267	
377	22/10/2020 06:00	11.798	3.292	
378	22/10/2020 07:00	11.850	3.424	
379	22/10/2020 08:00	11.643	3.602	
380	22/10/2020 09:00	11.747	3.746	
381	22/10/2020 10:00	11.747	3.841	
382	22/10/2020 11:00	11.798	3.871	
383	22/10/2020 12:00	11.798	3.820	
384	22/10/2020 13:00	11.798	3.710	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	22/10/2020 14:00	11.798	3.596	
386	22/10/2020 15:00	11.747	3.465	
387	22/10/2020 16:00	11.643	3.354	
388	22/10/2020 17:00	11.798	3.270	
389	22/10/2020 18:00	11.798	3.271	
390	22/10/2020 19:00	11.695	3.375	
391	22/10/2020 20:00	11.695	3.538	
392	22/10/2020 21:00	11.747	3.715	
393	22/10/2020 22:00	11.747	3.841	
394	22/10/2020 23:00	11.798	3.899	
395	23/10/2020 00:00	11.747	3.905	
396	23/10/2020 01:00	11.798	3.849	
397	23/10/2020 02:00	11.850	3.747	
398	23/10/2020 03:00	11.850	3.634	
399	23/10/2020 04:00	11.902	3.501	
400	23/10/2020 05:00	11.850	3.400	
401	23/10/2020 06:00	11.798	3.327	
402	23/10/2020 07:00	11.747	3.315	
403	23/10/2020 08:00	11.747	3.413	
404	23/10/2020 09:00	11.850	3.533	
405	23/10/2020 10:00	11.902	3.670	
406	23/10/2020 11:00	11.850	3.748	
407	23/10/2020 12:00	11.850	3.775	
408	23/10/2020 13:00	11.798	3.746	
409	23/10/2020 14:00	11.747	3.670	
410	23/10/2020 15:00	11.798	3.581	
411	23/10/2020 16:00	11.643	3.479	
412	23/10/2020 17:00	11.643	3.382	
413	23/10/2020 18:00	11.850	3.316	
414	23/10/2020 19:00	11.850	3.308	
415	23/10/2020 20:00	11.488	3.382	
416	23/10/2020 21:00	11.798	3.517	
417	23/10/2020 22:00	11.643	3.664	
418	23/10/2020 23:00	11.798	3.789	
419	24/10/2020 00:00	11.902	3.867	
420	24/10/2020 01:00	11.695	3.882	
421	24/10/2020 02:00	11.850	3.844	
422	24/10/2020 03:00	11.540	3.784	
423	24/10/2020 04:00	11.850	3.681	
424	24/10/2020 05:00	11.798	3.575	
425	24/10/2020 06:00	11.798	3.455	
426	24/10/2020 07:00	11.747	3.355	
427	24/10/2020 08:00	11.798	3.315	
428	24/10/2020 09:00	11.798	3.361	
429	24/10/2020 10:00	11.798	3.414	
430	24/10/2020 11:00	11.902	3.508	
431	24/10/2020 12:00	11.798	3.576	
432	24/10/2020 13:00	11.850	3.618	
433	24/10/2020 14:00	11.850	3.609	
434	24/10/2020 15:00	11.540	3.566	
435	24/10/2020 16:00	11.747	3.489	
436	24/10/2020 17:00	11.643	3.382	
437	24/10/2020 18:00	11.798	3.302	
438	24/10/2020 19:00	11.902	3.238	
439	24/10/2020 20:00	11.798	3.224	

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440	24/10/2020 21:00	11.798	3.276	
441	24/10/2020 22:00	11.747	3.390	
442	24/10/2020 23:00	11.798	3.534	
443	25/10/2020 00:00	11.798	3.645	
444	25/10/2020 01:00	11.850	3.744	
445	25/10/2020 02:00	11.798	3.777	
446	25/10/2020 02:00	11.850	3.783	
447	25/10/2020 03:00	11.902	3.732	
448	25/10/2020 04:00	11.695	3.638	
449	25/10/2020 05:00	11.747	3.537	
450	25/10/2020 06:00	11.850	3.414	
451	25/10/2020 07:00	11.747	3.338	
452	25/10/2020 08:00	11.591	3.300	
453	25/10/2020 09:00	11.850	3.325	
454	25/10/2020 10:00	11.798	3.404	
455	25/10/2020 11:00	11.747	3.513	
456	25/10/2020 12:00	11.798	3.608	
457	25/10/2020 13:00	11.695	3.672	
458	25/10/2020 14:00	11.798	3.670	
459	25/10/2020 15:00	11.695	3.651	
460	25/10/2020 16:00	11.798	3.577	
461	25/10/2020 17:00	11.798	3.481	
462	25/10/2020 18:00	11.747	3.378	
463	25/10/2020 19:00	11.747	3.283	
464	25/10/2020 20:00	11.747	3.248	
465	25/10/2020 21:00	11.850	3.249	
466	25/10/2020 22:00	11.798	3.347	
467	25/10/2020 23:00	11.747	3.470	
468	26/10/2020 00:00	11.695	3.614	
469	26/10/2020 01:00	11.798	3.724	
470	26/10/2020 02:00	11.902	3.785	
471	26/10/2020 03:00	11.591	3.797	
472	26/10/2020 04:00	11.798	3.778	
473	26/10/2020 05:00	11.798	3.702	
474	26/10/2020 06:00	11.850	3.614	
475	26/10/2020 07:00	11.695	3.503	
476	26/10/2020 08:00	11.695	3.391	
477	26/10/2020 09:00	11.850	3.343	
478	26/10/2020 10:00	11.695	3.367	
479	26/10/2020 11:00	11.850	3.454	
480	26/10/2020 12:00	11.850	3.564	
481	26/10/2020 13:00	11.798	3.688	
482	26/10/2020 14:00	11.643	3.759	
483	26/10/2020 15:00	11.798	3.789	
484	26/10/2020 16:00	11.798	3.756	
485	26/10/2020 17:00	11.798	3.687	
486	26/10/2020 18:00	11.747	3.589	
487	26/10/2020 19:00	11.798	3.484	
488	26/10/2020 20:00	11.695	3.409	
489	26/10/2020 21:00	11.902	3.355	
490	26/10/2020 22:00	11.850	3.374	
491	26/10/2020 23:00	11.695	3.460	
492	27/10/2020 00:00	11.747	3.607	
493	27/10/2020 01:00	11.850	3.750	
494	27/10/2020 02:00	11.850	3.863	

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495	27/10/2020 03:00	11.695	3.924	
496	27/10/2020 04:00	11.902	3.934	
497	27/10/2020 05:00	11.902	3.877	
498	27/10/2020 06:00	11.747	3.774	
499	27/10/2020 07:00	11.850	3.650	
500	27/10/2020 08:00	11.902	3.508	
501	27/10/2020 09:00	11.798	3.393	
502	27/10/2020 10:00	11.798	3.327	
503	27/10/2020 11:00	11.747	3.367	
504	27/10/2020 12:00	11.850	3.446	
505	27/10/2020 13:00	11.798	3.574	
506	27/10/2020 14:00	11.954	3.691	
507	27/10/2020 15:00	11.850	3.761	
508	27/10/2020 16:00	11.747	3.776	
509	27/10/2020 17:00	11.850	3.701	
510	27/10/2020 18:00	11.902	3.608	
511	27/10/2020 19:00	11.798	3.474	
512	27/10/2020 20:00	11.850	3.355	
513	27/10/2020 21:00	11.747	3.256	
514	27/10/2020 22:00	11.540	3.221	
515	27/10/2020 23:00	11.902	3.250	
516	28/10/2020 00:00	11.902	3.368	
517	28/10/2020 01:00	11.798	3.526	
518	28/10/2020 02:00	11.643	3.691	
519	28/10/2020 03:00	11.850	3.786	
520	28/10/2020 04:00	11.798	3.853	
521	28/10/2020 05:00	11.540	3.826	
522	28/10/2020 06:00	11.902	3.761	
523	28/10/2020 07:00	11.747	3.641	
524	28/10/2020 08:00	11.902	3.512	
525	28/10/2020 09:00	11.798	3.397	
526	28/10/2020 10:00	11.798	3.300	
527	28/10/2020 11:00	11.798	3.276	
528	28/10/2020 12:00	11.850	3.347	
529	28/10/2020 13:00	11.850	3.482	
530	28/10/2020 14:00	11.747	3.629	
531	28/10/2020 15:00	11.902	3.744	
532	28/10/2020 16:00	11.798	3.800	
533	28/10/2020 17:00	11.954	3.790	
534	28/10/2020 18:00	11.902	3.701	
535	28/10/2020 19:00	11.798	3.584	
536	28/10/2020 20:00	11.695	3.446	
537	28/10/2020 21:00	11.643	3.328	
538	28/10/2020 22:00	11.850	3.241	
539	28/10/2020 23:00	11.798	3.226	
540	29/10/2020 00:00	11.850	3.299	
541	29/10/2020 01:00	11.695	3.460	
542	29/10/2020 02:00	11.540	3.637	
543	29/10/2020 03:00	11.850	3.795	
544	29/10/2020 04:00	11.747	3.889	
545	29/10/2020 05:00	11.902	3.908	
546	29/10/2020 06:00	11.591	3.872	
547	29/10/2020 07:00	11.798	3.766	
548	29/10/2020 08:00	11.902	3.624	
549	29/10/2020 09:00	11.747	3.495	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	29/10/2020 10:00	11.798	3.361	
551	29/10/2020 11:00	11.747	3.304	
552	29/10/2020 12:00	11.798	3.321	
553	29/10/2020 13:00	11.591	3.421	
554	29/10/2020 14:00	11.747	3.581	
555	29/10/2020 15:00	11.643	3.728	
556	29/10/2020 16:00	11.747	3.812	
557	29/10/2020 17:00	11.850	3.845	
558	29/10/2020 18:00	11.850	3.777	
559	29/10/2020 19:00	11.902	3.657	
560	29/10/2020 20:00	11.902	3.505	
561	29/10/2020 21:00	11.695	3.366	
562	29/10/2020 22:00	11.902	3.236	
563	29/10/2020 23:00	11.798	3.177	
564	30/10/2020 00:00	11.747	3.181	
565	30/10/2020 01:00	11.488	3.295	
566	30/10/2020 02:00	11.798	3.467	
567	30/10/2020 03:00	11.798	3.655	
568	30/10/2020 04:00	11.695	3.784	
569	30/10/2020 05:00	11.747	3.850	
570	30/10/2020 06:00	11.591	3.817	
571	30/10/2020 07:00	11.798	3.747	
572	30/10/2020 08:00	11.954	3.625	
573	30/10/2020 09:00	11.850	3.497	
574	30/10/2020 10:00	11.954	3.372	
575	30/10/2020 11:00	11.850	3.278	
576	30/10/2020 12:00	11.850	3.265	
577	30/10/2020 13:00	11.902	3.343	
578	30/10/2020 14:00	11.747	3.521	
579	30/10/2020 15:00	11.798	3.697	
580	30/10/2020 16:00	11.954	3.843	
581	30/10/2020 17:00	11.798	3.932	
582	30/10/2020 18:00	11.695	3.917	
583	30/10/2020 19:00	11.798	3.839	
584	30/10/2020 20:00	11.954	3.691	
585	30/10/2020 21:00	11.902	3.545	
586	30/10/2020 22:00	11.798	3.422	
587	30/10/2020 23:00	11.695	3.307	
588	31/10/2020 00:00	11.747	3.267	
589	31/10/2020 01:00	11.540	3.304	
590	31/10/2020 02:00	11.747	3.433	
591	31/10/2020 03:00	11.798	3.632	
592	31/10/2020 04:00	11.902	3.799	
593	31/10/2020 05:00	11.591	3.881	
594	31/10/2020 06:00	11.798	3.895	
595	31/10/2020 07:00	11.643	3.820	
596	31/10/2020 08:00	11.902	3.688	
597	31/10/2020 09:00	11.798	3.500	
598	31/10/2020 10:00	11.954	3.326	
599	31/10/2020 11:00	11.850	3.186	
600	31/10/2020 12:00	11.591	3.154	
601	31/10/2020 13:00	11.695	3.175	
602	31/10/2020 14:00	11.954	3.304	
603	31/10/2020 15:00	11.695	3.467	
604	31/10/2020 16:00	11.850	3.631	

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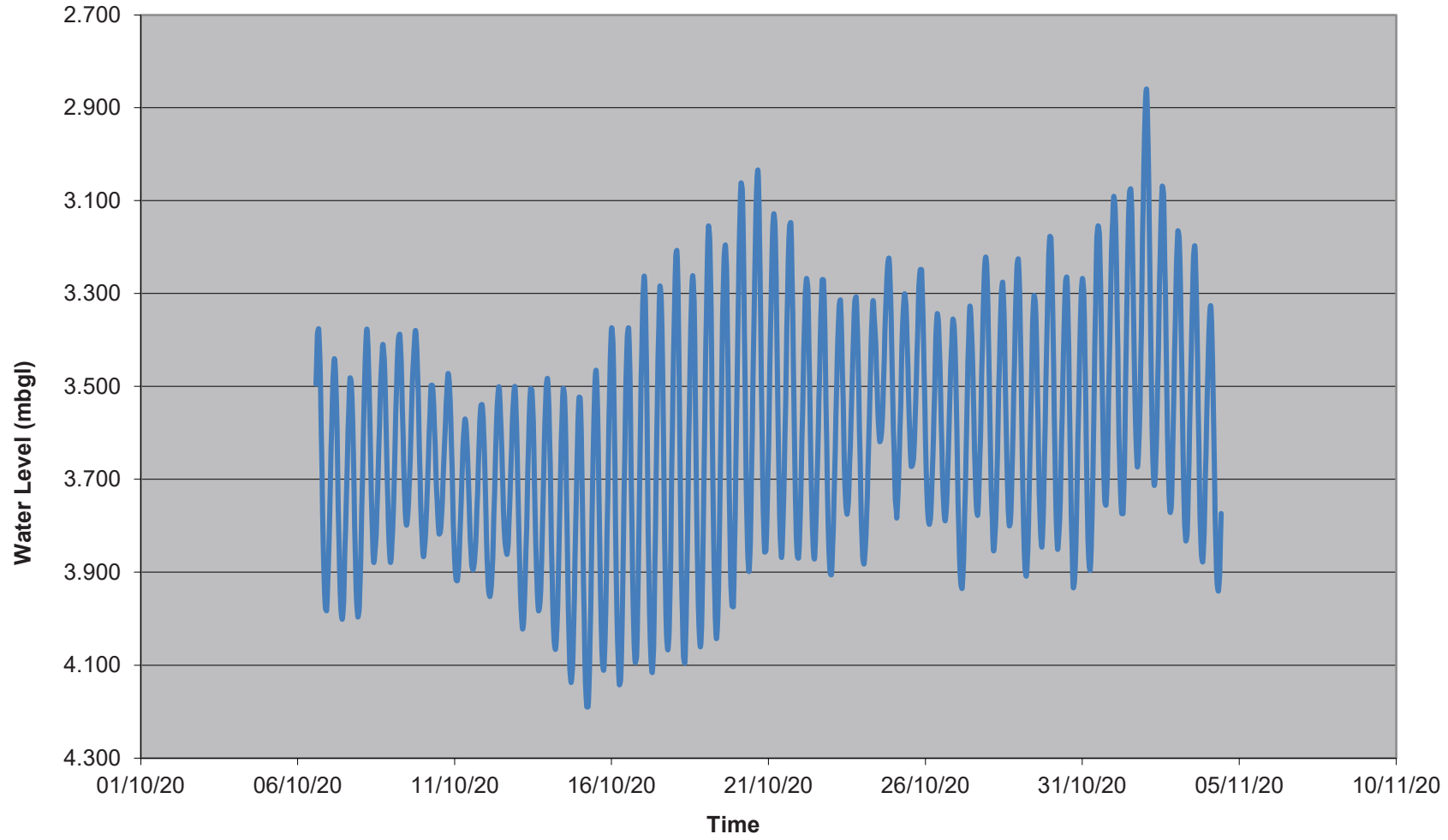
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	31/10/2020 17:00	11.850	3.744	
606	31/10/2020 18:00	11.902	3.755	
607	31/10/2020 19:00	11.540	3.687	
608	31/10/2020 20:00	11.954	3.527	
609	31/10/2020 21:00	11.798	3.389	
610	31/10/2020 22:00	11.902	3.236	
611	31/10/2020 23:00	11.798	3.146	
612	01/11/2020 00:00	11.850	3.091	
613	01/11/2020 01:00	11.798	3.115	
614	01/11/2020 02:00	11.798	3.235	
615	01/11/2020 03:00	11.902	3.419	
616	01/11/2020 04:00	11.850	3.606	
617	01/11/2020 05:00	11.798	3.712	
618	01/11/2020 06:00	11.747	3.773	
619	01/11/2020 07:00	11.695	3.773	
620	01/11/2020 08:00	11.643	3.679	
621	01/11/2020 09:00	11.747	3.508	
622	01/11/2020 10:00	11.954	3.323	
623	01/11/2020 11:00	11.643	3.165	
624	01/11/2020 12:00	11.902	3.081	
625	01/11/2020 13:00	11.747	3.075	
626	01/11/2020 14:00	11.850	3.154	
627	01/11/2020 15:00	11.747	3.332	
628	01/11/2020 16:00	11.747	3.506	
629	01/11/2020 17:00	11.540	3.609	
630	01/11/2020 18:00	11.850	3.673	
631	01/11/2020 19:00	11.798	3.632	
632	01/11/2020 20:00	11.695	3.539	
633	01/11/2020 21:00	11.695	3.377	
634	01/11/2020 22:00	11.902	3.181	
635	01/11/2020 23:00	11.954	3.025	
636	02/11/2020 00:00	11.798	2.902	
637	02/11/2020 01:00	11.902	2.860	
638	02/11/2020 02:00	11.747	2.943	
639	02/11/2020 03:00	11.643	3.122	
640	02/11/2020 04:00	11.850	3.341	
641	02/11/2020 05:00	11.798	3.549	
642	02/11/2020 06:00	11.643	3.675	
643	02/11/2020 07:00	11.850	3.713	
644	02/11/2020 08:00	11.747	3.670	
645	02/11/2020 09:00	11.798	3.564	
646	02/11/2020 10:00	11.540	3.426	
647	02/11/2020 11:00	11.902	3.276	
648	02/11/2020 12:00	11.747	3.152	
649	02/11/2020 13:00	11.902	3.069	
650	02/11/2020 14:00	11.902	3.086	
651	02/11/2020 15:00	11.954	3.227	
652	02/11/2020 16:00	11.850	3.398	
653	02/11/2020 17:00	11.747	3.596	
654	02/11/2020 18:00	11.850	3.718	
655	02/11/2020 19:00	11.798	3.771	
656	02/11/2020 20:00	11.798	3.757	
657	02/11/2020 21:00	11.902	3.642	
658	02/11/2020 22:00	11.643	3.497	
659	02/11/2020 23:00	11.902	3.357	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	03/11/2020 00:00	11.747	3.236	
661	03/11/2020 01:00	11.798	3.165	
662	03/11/2020 02:00	11.850	3.182	
663	03/11/2020 03:00	11.798	3.297	
664	03/11/2020 04:00	11.695	3.476	
665	03/11/2020 05:00	11.850	3.642	
666	03/11/2020 06:00	11.747	3.781	
667	03/11/2020 07:00	11.540	3.832	
668	03/11/2020 08:00	11.954	3.817	
669	03/11/2020 09:00	11.850	3.724	
670	03/11/2020 10:00	11.850	3.582	
671	03/11/2020 11:00	11.695	3.452	
672	03/11/2020 12:00	11.850	3.323	
673	03/11/2020 13:00	11.850	3.225	
674	03/11/2020 14:00	11.798	3.198	
675	03/11/2020 15:00	11.850	3.289	
676	03/11/2020 16:00	11.798	3.446	
677	03/11/2020 17:00	11.591	3.636	
678	03/11/2020 18:00	11.695	3.783	
679	03/11/2020 19:00	11.798	3.862	
680	03/11/2020 20:00	11.591	3.877	
681	03/11/2020 21:00	11.798	3.815	
682	03/11/2020 22:00	11.954	3.702	
683	03/11/2020 23:00	11.902	3.574	
684	04/11/2020 00:00	11.798	3.456	
685	04/11/2020 01:00	11.850	3.360	
686	04/11/2020 02:00	11.798	3.326	
687	04/11/2020 03:00	11.798	3.382	
688	04/11/2020 04:00	11.954	3.524	
689	04/11/2020 05:00	11.643	3.696	
690	04/11/2020 06:00	11.902	3.848	
691	04/11/2020 07:00	11.902	3.921	
692	04/11/2020 08:00	11.747	3.940	
693	04/11/2020 09:00	11.902	3.895	
694	04/11/2020 10:00	11.902	3.773	

22734-ROH 02 Harbour Point Bray



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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	04/11/2020 13:00	11.982	3.616	
2	04/11/2020 14:00	11.902	3.550	
3	04/11/2020 15:00	11.798	3.573	
4	04/11/2020 16:00	11.902	3.679	
5	04/11/2020 17:00	11.902	3.846	
6	04/11/2020 18:00	11.643	4.018	
7	04/11/2020 19:00	11.591	4.137	
8	04/11/2020 20:00	11.488	4.185	
9	04/11/2020 21:00	11.798	4.177	
10	04/11/2020 22:00	11.695	4.101	
11	04/11/2020 23:00	11.798	3.986	
12	05/11/2020 00:00	11.902	3.862	
13	05/11/2020 01:00	11.643	3.749	
14	05/11/2020 02:00	11.591	3.663	
15	05/11/2020 03:00	11.850	3.644	
16	05/11/2020 04:00	11.591	3.713	
17	05/11/2020 05:00	11.747	3.851	
18	05/11/2020 06:00	11.902	3.994	
19	05/11/2020 07:00	11.747	4.108	
20	05/11/2020 08:00	11.902	4.157	
21	05/11/2020 09:00	11.902	4.151	
22	05/11/2020 10:00	11.954	4.065	
23	05/11/2020 11:00	11.591	3.951	
24	05/11/2020 12:00	11.747	3.833	
25	05/11/2020 13:00	11.695	3.719	
26	05/11/2020 14:00	11.798	3.626	
27	05/11/2020 15:00	11.850	3.606	
28	05/11/2020 16:00	11.954	3.651	
29	05/11/2020 17:00	11.850	3.782	
30	05/11/2020 18:00	11.850	3.943	
31	05/11/2020 19:00	11.902	4.076	
32	05/11/2020 20:00	11.850	4.171	
33	05/11/2020 21:00	11.954	4.188	
34	05/11/2020 22:00	11.747	4.153	
35	05/11/2020 23:00	11.902	4.049	
36	06/11/2020 00:00	11.902	3.930	
37	06/11/2020 01:00	11.902	3.802	
38	06/11/2020 02:00	11.798	3.702	
39	06/11/2020 03:00	11.850	3.632	
40	06/11/2020 04:00	11.902	3.643	
41	06/11/2020 05:00	11.954	3.724	
42	06/11/2020 06:00	11.902	3.862	
43	06/11/2020 07:00	11.591	3.991	
44	06/11/2020 08:00	11.850	4.087	
45	06/11/2020 09:00	11.643	4.126	
46	06/11/2020 10:00	11.954	4.108	
47	06/11/2020 11:00	11.954	4.031	
48	06/11/2020 12:00	11.798	3.922	
49	06/11/2020 13:00	11.902	3.811	
50	06/11/2020 14:00	11.695	3.700	
51	06/11/2020 15:00	11.954	3.622	
52	06/11/2020 16:00	11.902	3.613	
53	06/11/2020 17:00	11.850	3.665	
54	06/11/2020 18:00	11.695	3.784	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	06/11/2020 19:00	11.850	3.932	
56	06/11/2020 20:00	11.798	4.040	
57	06/11/2020 21:00	11.798	4.104	
58	06/11/2020 22:00	11.798	4.123	
59	06/11/2020 23:00	11.695	4.058	
60	07/11/2020 00:00	11.902	3.975	
61	07/11/2020 01:00	11.798	3.881	
62	07/11/2020 02:00	11.643	3.766	
63	07/11/2020 03:00	11.747	3.679	
64	07/11/2020 04:00	11.591	3.637	
65	07/11/2020 05:00	11.850	3.657	
66	07/11/2020 06:00	11.747	3.732	
67	07/11/2020 07:00	11.954	3.856	
68	07/11/2020 08:00	11.850	3.990	
69	07/11/2020 09:00	11.747	4.048	
70	07/11/2020 10:00	11.591	4.084	
71	07/11/2020 11:00	11.747	4.040	
72	07/11/2020 12:00	11.591	3.970	
73	07/11/2020 13:00	11.540	3.863	
74	07/11/2020 14:00	11.798	3.768	
75	07/11/2020 15:00	11.902	3.661	
76	07/11/2020 16:00	11.695	3.596	
77	07/11/2020 17:00	11.850	3.573	
78	07/11/2020 18:00	11.850	3.641	
79	07/11/2020 19:00	11.850	3.762	
80	07/11/2020 20:00	11.902	3.904	
81	07/11/2020 21:00	11.591	4.011	
82	07/11/2020 22:00	11.798	4.084	
83	07/11/2020 23:00	11.591	4.097	
84	08/11/2020 00:00	11.902	4.070	
85	08/11/2020 01:00	11.850	4.008	
86	08/11/2020 02:00	11.902	3.916	
87	08/11/2020 03:00	11.643	3.825	
88	08/11/2020 04:00	11.850	3.735	
89	08/11/2020 05:00	11.591	3.687	
90	08/11/2020 06:00	11.902	3.689	
91	08/11/2020 07:00	11.798	3.755	
92	08/11/2020 08:00	11.902	3.857	
93	08/11/2020 09:00	11.798	3.964	
94	08/11/2020 10:00	11.798	4.031	
95	08/11/2020 11:00	11.850	4.543	
96	08/11/2020 12:00	11.591	4.015	
97	08/11/2020 13:00	11.902	3.943	
98	08/11/2020 14:00	11.798	3.848	
99	08/11/2020 15:00	11.902	3.773	
100	08/11/2020 16:00	11.798	3.684	
101	08/11/2020 17:00	11.695	3.619	
102	08/11/2020 18:00	11.850	3.602	
103	08/11/2020 19:00	11.798	3.651	
104	08/11/2020 20:00	11.954	3.763	
105	08/11/2020 21:00	11.695	3.900	
106	08/11/2020 22:00	11.954	4.005	
107	08/11/2020 23:00	11.902	4.081	
108	09/11/2020 00:00	11.850	4.101	
109	09/11/2020 01:00	11.954	4.084	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	09/11/2020 02:00	11.902	4.027	
111	09/11/2020 03:00	11.591	3.926	
112	09/11/2020 04:00	11.850	3.841	
113	09/11/2020 05:00	11.540	3.737	
114	09/11/2020 06:00	11.902	3.669	
115	09/11/2020 07:00	11.954	3.654	
116	09/11/2020 08:00	11.954	3.717	
117	09/11/2020 09:00	11.540	3.804	
118	09/11/2020 10:00	11.954	3.912	
119	09/11/2020 11:00	11.798	3.979	
120	09/11/2020 12:00	11.902	4.015	
121	09/11/2020 13:00	11.954	4.013	
122	09/11/2020 14:00	11.902	3.970	
123	09/11/2020 15:00	11.747	3.887	
124	09/11/2020 16:00	11.798	3.816	
125	09/11/2020 17:00	11.747	3.714	
126	09/11/2020 18:00	11.798	3.630	
127	09/11/2020 19:00	11.798	3.601	
128	09/11/2020 20:00	11.747	3.631	
129	09/11/2020 21:00	11.954	3.727	
130	09/11/2020 22:00	11.695	3.865	
131	09/11/2020 23:00	11.954	3.987	
132	10/11/2020 00:00	11.747	4.079	
133	10/11/2020 01:00	11.902	4.124	
134	10/11/2020 02:00	11.850	4.115	
135	10/11/2020 03:00	11.902	4.064	
136	10/11/2020 04:00	11.954	3.993	
137	10/11/2020 05:00	11.695	3.887	
138	10/11/2020 06:00	11.747	3.772	
139	10/11/2020 07:00	11.902	3.693	
140	10/11/2020 08:00	11.902	3.655	
141	10/11/2020 09:00	11.643	3.699	
142	10/11/2020 10:00	11.747	3.794	
143	10/11/2020 11:00	11.643	3.902	
144	10/11/2020 12:00	11.798	4.002	
145	10/11/2020 13:00	11.902	4.058	
146	10/11/2020 14:00	11.902	4.065	
147	10/11/2020 15:00	11.798	4.028	
148	10/11/2020 16:00	11.850	3.945	
149	10/11/2020 17:00	11.747	3.848	
150	10/11/2020 18:00	11.850	3.749	
151	10/11/2020 19:00	11.695	3.646	
152	10/11/2020 20:00	11.902	3.592	
153	10/11/2020 21:00	11.850	3.610	
154	10/11/2020 22:00	11.954	3.713	
155	10/11/2020 23:00	11.954	3.849	
156	11/11/2020 00:00	11.954	3.990	
157	11/11/2020 01:00	11.850	4.088	
158	11/11/2020 02:00	11.902	4.137	
159	11/11/2020 03:00	11.954	4.128	
160	11/11/2020 04:00	11.954	4.058	
161	11/11/2020 05:00	11.954	3.949	
162	11/11/2020 06:00	11.954	3.829	
163	11/11/2020 07:00	11.954	3.704	
164	11/11/2020 08:00	11.850	3.600	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	11/11/2020 09:00	11.954	3.559	
166	11/11/2020 10:00	11.954	3.589	
167	11/11/2020 11:00	11.850	3.701	
168	11/11/2020 12:00	11.954	3.837	
169	11/11/2020 13:00	11.850	3.938	
170	11/11/2020 14:00	11.850	3.993	
171	11/11/2020 15:00	11.850	3.995	
172	11/11/2020 16:00	11.850	3.932	
173	11/11/2020 17:00	11.488	3.831	
174	11/11/2020 18:00	11.695	3.692	
175	11/11/2020 19:00	11.954	3.547	
176	11/11/2020 20:00	11.540	3.420	
177	11/11/2020 21:00	11.902	3.364	
178	11/11/2020 22:00	11.798	3.373	
179	11/11/2020 23:00	11.798	3.506	
180	12/11/2020 00:00	11.954	3.676	
181	12/11/2020 01:00	11.902	3.835	
182	12/11/2020 02:00	11.902	3.942	
183	12/11/2020 03:00	11.798	3.985	
184	12/11/2020 04:00	11.747	3.951	
185	12/11/2020 05:00	11.954	3.861	
186	12/11/2020 06:00	11.954	3.722	
187	12/11/2020 07:00	11.954	3.564	
188	12/11/2020 08:00	11.798	3.423	
189	12/11/2020 09:00	11.798	3.309	
190	12/11/2020 10:00	11.850	3.298	
191	12/11/2020 11:00	11.798	3.337	
192	12/11/2020 12:00	11.488	3.467	
193	12/11/2020 13:00	11.954	3.637	
194	12/11/2020 14:00	11.850	3.769	
195	12/11/2020 15:00	11.798	3.840	
196	12/11/2020 16:00	11.954	3.835	
197	12/11/2020 17:00	11.902	3.745	
198	12/11/2020 18:00	11.695	3.618	
199	12/11/2020 19:00	11.798	3.447	
200	12/11/2020 20:00	11.954	3.297	
201	12/11/2020 21:00	11.798	3.172	
202	12/11/2020 22:00	11.747	3.114	
203	12/11/2020 23:00	11.850	3.156	
204	13/11/2020 00:00	11.798	3.304	
205	13/11/2020 01:00	11.850	3.497	
206	13/11/2020 02:00	11.798	3.689	
207	13/11/2020 03:00	11.798	3.808	
208	13/11/2020 04:00	11.591	3.855	
209	13/11/2020 05:00	11.747	3.801	
210	13/11/2020 06:00	11.902	3.675	
211	13/11/2020 07:00	11.850	3.517	
212	13/11/2020 08:00	11.902	3.347	
213	13/11/2020 09:00	11.954	3.209	
214	13/11/2020 10:00	11.591	3.107	
215	13/11/2020 11:00	11.850	3.117	
216	13/11/2020 12:00	11.902	3.226	
217	13/11/2020 13:00	11.902	3.419	
218	13/11/2020 14:00	11.591	3.625	
219	13/11/2020 15:00	11.850	3.760	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	13/11/2020 16:00	11.850	3.820	
221	13/11/2020 17:00	11.902	3.792	
222	13/11/2020 18:00	11.850	3.675	
223	13/11/2020 19:00	11.747	3.515	
224	13/11/2020 20:00	11.850	3.336	
225	13/11/2020 21:00	11.954	3.171	
226	13/11/2020 22:00	11.850	3.057	
227	13/11/2020 23:00	11.902	3.032	
228	14/11/2020 00:00	11.798	3.123	
229	14/11/2020 01:00	11.798	3.316	
230	14/11/2020 02:00	11.850	3.545	
231	14/11/2020 03:00	11.954	3.730	
232	14/11/2020 04:00	11.902	3.832	
233	14/11/2020 05:00	11.902	3.858	
234	14/11/2020 06:00	11.954	3.776	
235	14/11/2020 07:00	11.850	3.631	
236	14/11/2020 08:00	11.643	3.435	
237	14/11/2020 09:00	11.902	3.248	
238	14/11/2020 10:00	11.850	3.088	
239	14/11/2020 11:00	11.643	2.981	
240	14/11/2020 12:00	11.954	3.009	
241	14/11/2020 13:00	11.954	3.133	
242	14/11/2020 14:00	11.954	3.342	
243	14/11/2020 15:00	11.850	3.545	
244	14/11/2020 16:00	11.954	3.663	
245	14/11/2020 17:00	11.747	3.706	
246	14/11/2020 18:00	11.798	3.656	
247	14/11/2020 19:00	11.798	3.512	
248	14/11/2020 20:00	11.902	3.322	
249	14/11/2020 21:00	11.747	3.135	
250	14/11/2020 22:00	11.591	2.958	
251	14/11/2020 23:00	11.798	2.829	
252	15/11/2020 00:00	11.747	2.819	
253	15/11/2020 01:00	11.643	2.941	
254	15/11/2020 02:00	11.902	3.176	
255	15/11/2020 03:00	11.591	3.433	
256	15/11/2020 04:00	11.695	3.602	
257	15/11/2020 05:00	11.954	3.688	
258	15/11/2020 06:00	11.747	3.671	
259	15/11/2020 07:00	11.954	3.546	
260	15/11/2020 08:00	11.747	3.369	
261	15/11/2020 09:00	11.643	3.172	
262	15/11/2020 10:00	11.850	2.997	
263	15/11/2020 11:00	11.798	2.858	
264	15/11/2020 12:00	11.747	2.802	
265	15/11/2020 13:00	11.798	2.878	
266	15/11/2020 14:00	11.850	3.071	
267	15/11/2020 15:00	11.850	3.313	
268	15/11/2020 16:00	11.850	3.531	
269	15/11/2020 17:00	11.954	3.649	
270	15/11/2020 18:00	11.850	3.682	
271	15/11/2020 19:00	11.954	3.611	
272	15/11/2020 20:00	11.643	3.446	
273	15/11/2020 21:00	11.850	3.250	
274	15/11/2020 22:00	11.902	3.077	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/11/2020 23:00	11.850	2.925	
276	16/11/2020 00:00	11.902	2.841	
277	16/11/2020 01:00	11.850	2.869	
278	16/11/2020 02:00	11.902	3.039	
279	16/11/2020 03:00	11.798	3.292	
280	16/11/2020 04:00	11.747	3.533	
281	16/11/2020 05:00	11.695	3.683	
282	16/11/2020 06:00	11.591	3.753	
283	16/11/2020 07:00	11.695	3.719	
284	16/11/2020 08:00	11.850	3.581	
285	16/11/2020 09:00	11.954	3.394	
286	16/11/2020 10:00	11.954	3.210	
287	16/11/2020 11:00	11.850	3.051	
288	16/11/2020 12:00	11.747	2.924	
289	16/11/2020 13:00	11.954	2.910	
290	16/11/2020 14:00	11.540	3.009	
291	16/11/2020 15:00	11.643	3.223	
292	16/11/2020 16:00	11.954	3.460	
293	16/11/2020 17:00	11.902	3.636	
294	16/11/2020 18:00	11.695	3.719	
295	16/11/2020 19:00	11.798	3.729	
296	16/11/2020 20:00	11.798	3.622	
297	16/11/2020 21:00	12.005	3.454	
298	16/11/2020 22:00	11.591	3.263	
299	16/11/2020 23:00	11.798	3.076	
300	17/11/2020 00:00	11.850	2.916	
301	17/11/2020 01:00	11.591	2.842	
302	17/11/2020 02:00	11.850	2.876	
303	17/11/2020 03:00	11.902	3.051	
304	17/11/2020 04:00	11.798	3.293	
305	17/11/2020 05:00	11.747	3.511	
306	17/11/2020 06:00	11.695	3.642	
307	17/11/2020 07:00	11.798	3.687	
308	17/11/2020 08:00	11.954	3.625	
309	17/11/2020 09:00	11.798	3.479	
310	17/11/2020 10:00	11.798	3.285	
311	17/11/2020 11:00	11.850	3.112	
312	17/11/2020 12:00	11.850	2.950	
313	17/11/2020 13:00	11.954	2.852	
314	17/11/2020 14:00	11.954	2.853	
315	17/11/2020 15:00	11.798	2.983	
316	17/11/2020 16:00	11.850	3.207	
317	17/11/2020 17:00	11.954	3.447	
318	17/11/2020 18:00	11.850	3.603	
319	17/11/2020 19:00	11.954	3.682	
320	17/11/2020 20:00	11.902	3.681	
321	17/11/2020 21:00	11.902	3.575	
322	17/11/2020 22:00	11.954	3.411	
323	17/11/2020 23:00	11.798	3.235	
324	18/11/2020 00:00	11.954	3.058	
325	18/11/2020 01:00	11.850	2.931	
326	18/11/2020 02:00	11.954	2.866	
327	18/11/2020 03:00	11.798	2.923	
328	18/11/2020 04:00	11.954	3.096	
329	18/11/2020 05:00	11.747	3.308	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	18/11/2020 06:00	11.850	3.496	
331	18/11/2020 07:00	11.798	3.603	
332	18/11/2020 08:00	11.954	3.624	
333	18/11/2020 09:00	12.005	3.559	
334	18/11/2020 10:00	11.798	3.412	
335	18/11/2020 11:00	11.954	3.240	
336	18/11/2020 12:00	11.954	3.064	
337	18/11/2020 13:00	11.850	2.920	
338	18/11/2020 14:00	11.747	2.838	
339	18/11/2020 15:00	11.643	2.864	
340	18/11/2020 16:00	12.005	3.013	
341	18/11/2020 17:00	11.643	3.247	
342	18/11/2020 18:00	12.005	3.453	
343	18/11/2020 19:00	11.850	3.598	
344	18/11/2020 20:00	11.850	3.666	
345	18/11/2020 21:00	11.902	3.657	
346	18/11/2020 22:00	11.902	3.571	
347	18/11/2020 23:00	11.954	3.427	
348	19/11/2020 00:00	11.954	3.271	
349	19/11/2020 01:00	11.747	3.124	
350	19/11/2020 02:00	11.954	3.018	
351	19/11/2020 03:00	11.747	2.986	
352	19/11/2020 04:00	11.850	3.059	
353	19/11/2020 05:00	11.902	3.236	
354	19/11/2020 06:00	11.902	3.456	
355	19/11/2020 07:00	11.798	3.631	
356	19/11/2020 08:00	11.954	3.727	
357	19/11/2020 09:00	11.954	3.758	
358	19/11/2020 10:00	11.902	3.714	
359	19/11/2020 11:00	11.954	3.603	
360	19/11/2020 12:00	11.695	3.467	
361	19/11/2020 13:00	11.902	3.343	
362	19/11/2020 14:00	11.695	3.250	
363	19/11/2020 15:00	11.902	3.191	
364	19/11/2020 16:00	11.954	3.225	
365	19/11/2020 17:00	11.850	3.342	
366	19/11/2020 18:00	11.798	3.530	
367	19/11/2020 19:00	11.850	3.694	
368	19/11/2020 20:00	11.798	3.801	
369	19/11/2020 21:00	11.902	3.856	
370	19/11/2020 22:00	11.850	3.831	
371	19/11/2020 23:00	11.798	3.737	
372	20/11/2020 00:00	11.954	3.611	
373	20/11/2020 01:00	11.488	3.465	
374	20/11/2020 02:00	12.005	3.341	
375	20/11/2020 03:00	11.798	3.233	
376	20/11/2020 04:00	11.643	3.183	
377	20/11/2020 05:00	11.902	3.224	
378	20/11/2020 06:00	11.954	3.366	
379	20/11/2020 07:00	11.747	3.515	
380	20/11/2020 08:00	11.850	3.639	
381	20/11/2020 09:00	11.798	3.711	
382	20/11/2020 10:00	11.954	3.711	
383	20/11/2020 11:00	11.850	3.647	
384	20/11/2020 12:00	11.798	3.529	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	20/11/2020 13:00	11.902	3.396	
386	20/11/2020 14:00	11.591	3.259	
387	20/11/2020 15:00	11.902	3.153	
388	20/11/2020 16:00	11.798	3.097	
389	20/11/2020 17:00	11.850	3.127	
390	20/11/2020 18:00	11.591	3.254	
391	20/11/2020 19:00	11.850	3.427	
392	20/11/2020 20:00	11.902	3.601	
393	20/11/2020 21:00	11.902	3.708	
394	20/11/2020 22:00	11.850	3.768	
395	20/11/2020 23:00	11.643	3.758	
396	21/11/2020 00:00	11.695	3.691	
397	21/11/2020 01:00	11.747	3.594	
398	21/11/2020 02:00	11.798	3.482	
399	21/11/2020 03:00	11.695	3.379	
400	21/11/2020 04:00	11.850	3.281	
401	21/11/2020 05:00	11.850	3.238	
402	21/11/2020 06:00	11.954	3.279	
403	21/11/2020 07:00	11.850	3.380	
404	21/11/2020 08:00	11.902	3.515	
405	21/11/2020 09:00	11.695	3.622	
406	21/11/2020 10:00	11.798	3.691	
407	21/11/2020 11:00	11.798	3.694	
408	21/11/2020 12:00	11.850	3.638	
409	21/11/2020 13:00	11.695	3.537	
410	21/11/2020 14:00	11.902	3.416	
411	21/11/2020 15:00	11.850	3.300	
412	21/11/2020 16:00	11.798	3.227	
413	21/11/2020 17:00	11.902	3.183	
414	21/11/2020 18:00	11.798	3.213	
415	21/11/2020 19:00	11.695	3.324	
416	21/11/2020 20:00	11.954	3.480	
417	21/11/2020 21:00	11.747	3.630	
418	21/11/2020 22:00	11.798	3.733	
419	21/11/2020 23:00	11.850	3.790	
420	22/11/2020 00:00	11.902	3.796	
421	22/11/2020 01:00	11.850	3.741	
422	22/11/2020 02:00	11.695	3.668	
423	22/11/2020 03:00	11.747	3.571	
424	22/11/2020 04:00	11.850	3.478	
425	22/11/2020 05:00	11.902	3.378	
426	22/11/2020 06:00	11.798	3.332	
427	22/11/2020 07:00	11.954	3.358	
428	22/11/2020 08:00	11.798	3.447	
429	22/11/2020 09:00	11.902	3.568	
430	22/11/2020 10:00	11.798	3.667	
431	22/11/2020 11:00	11.850	3.728	
432	22/11/2020 12:00	11.695	3.737	
433	22/11/2020 13:00	12.005	3.704	
434	22/11/2020 14:00	12.005	3.631	
435	22/11/2020 15:00	11.540	3.539	
436	22/11/2020 16:00	11.954	3.440	
437	22/11/2020 17:00	11.798	3.349	
438	22/11/2020 18:00	11.747	3.289	
439	22/11/2020 19:00	11.798	3.286	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	22/11/2020 20:00	12.005	3.377	
441	22/11/2020 21:00	11.850	3.495	
442	22/11/2020 22:00	11.798	3.632	
443	22/11/2020 23:00	11.850	3.749	
444	23/11/2020 00:00	11.954	3.802	
445	23/11/2020 01:00	11.902	3.821	
446	23/11/2020 02:00	11.902	3.801	
447	23/11/2020 03:00	11.850	3.742	
448	23/11/2020 04:00	11.798	3.651	
449	23/11/2020 05:00	11.902	3.556	
450	23/11/2020 06:00	11.695	3.467	
451	23/11/2020 07:00	11.798	3.404	
452	23/11/2020 08:00	11.902	3.399	
453	23/11/2020 09:00	11.695	3.469	
454	23/11/2020 10:00	11.902	3.549	
455	23/11/2020 11:00	11.850	3.652	
456	23/11/2020 12:00	11.902	3.707	
457	23/11/2020 13:00	11.850	3.720	
458	23/11/2020 14:00	11.954	3.695	
459	23/11/2020 15:00	11.902	3.610	
460	23/11/2020 16:00	11.850	3.525	
461	23/11/2020 17:00	11.695	3.408	
462	23/11/2020 18:00	11.850	3.311	
463	23/11/2020 19:00	11.798	3.257	
464	23/11/2020 20:00	11.954	3.261	
465	23/11/2020 21:00	11.954	3.324	
466	23/11/2020 22:00	12.005	3.433	
467	23/11/2020 23:00	12.005	3.568	
468	24/11/2020 00:00	11.850	3.692	
469	24/11/2020 01:00	11.540	3.755	
470	24/11/2020 02:00	11.902	3.782	
471	24/11/2020 03:00	11.902	3.765	
472	24/11/2020 04:00	11.695	3.709	
473	24/11/2020 05:00	11.954	3.615	
474	24/11/2020 06:00	11.954	3.521	
475	24/11/2020 07:00	11.747	3.422	
476	24/11/2020 08:00	11.695	3.356	
477	24/11/2020 09:00	11.643	3.349	
478	24/11/2020 10:00	11.850	3.411	
479	24/11/2020 11:00	11.954	3.510	
480	24/11/2020 12:00	11.902	3.604	
481	24/11/2020 13:00	11.902	3.674	
482	24/11/2020 14:00	11.850	3.705	
483	24/11/2020 15:00	11.902	3.677	
484	24/11/2020 16:00	11.643	3.614	
485	24/11/2020 17:00	11.798	3.523	
486	24/11/2020 18:00	11.798	3.426	
487	24/11/2020 19:00	11.850	3.319	
488	24/11/2020 20:00	11.747	3.254	
489	24/11/2020 21:00	11.902	3.245	
490	24/11/2020 22:00	12.005	3.321	
491	24/11/2020 23:00	11.954	3.446	
492	25/11/2020 00:00	11.954	3.594	
493	25/11/2020 01:00	11.902	3.718	
494	25/11/2020 02:00	11.540	3.798	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	25/11/2020 03:00	11.954	3.839	
496	25/11/2020 04:00	11.850	3.818	
497	25/11/2020 05:00	11.695	3.760	
498	25/11/2020 06:00	11.954	3.664	
499	25/11/2020 07:00	11.954	3.569	
500	25/11/2020 08:00	11.591	3.452	
501	25/11/2020 09:00	11.954	3.391	
502	25/11/2020 10:00	11.850	3.394	
503	25/11/2020 11:00	11.695	3.463	
504	25/11/2020 12:00	11.850	3.577	
505	25/11/2020 13:00	11.954	3.687	
506	25/11/2020 14:00	11.902	3.772	
507	25/11/2020 15:00	11.850	3.803	
508	25/11/2020 16:00	11.954	3.786	
509	25/11/2020 17:00	11.850	3.726	
510	25/11/2020 18:00	11.954	3.630	
511	25/11/2020 19:00	11.747	3.527	
512	25/11/2020 20:00	11.954	3.441	
513	25/11/2020 21:00	11.798	3.369	
514	25/11/2020 22:00	12.005	3.364	
515	25/11/2020 23:00	11.954	3.440	
516	26/11/2020 00:00	11.798	3.578	
517	26/11/2020 01:00	11.902	3.730	
518	26/11/2020 02:00	11.954	3.852	
519	26/11/2020 03:00	12.005	3.907	
520	26/11/2020 04:00	11.902	3.930	
521	26/11/2020 05:00	11.850	3.888	
522	26/11/2020 06:00	11.798	3.805	
523	26/11/2020 07:00	11.902	3.695	
524	26/11/2020 08:00	11.954	3.591	
525	26/11/2020 09:00	11.902	3.491	
526	26/11/2020 10:00	11.798	3.431	
527	26/11/2020 11:00	11.747	3.445	
528	26/11/2020 12:00	12.005	3.548	
529	26/11/2020 13:00	11.850	3.679	
530	26/11/2020 14:00	11.798	3.798	
531	26/11/2020 15:00	11.798	3.801	
532	26/11/2020 16:00	11.798	3.864	
533	26/11/2020 17:00	11.798	3.843	
534	26/11/2020 18:00	11.798	3.755	
535	26/11/2020 19:00	11.747	3.637	
536	26/11/2020 20:00	12.005	3.536	
537	26/11/2020 21:00	11.902	3.440	
538	26/11/2020 22:00	11.850	3.381	
539	26/11/2020 23:00	12.057	3.406	
540	27/11/2020 00:00	11.747	3.505	
541	27/11/2020 01:00	11.850	3.638	
542	27/11/2020 02:00	11.850	3.775	
543	27/11/2020 03:00	11.902	3.885	
544	27/11/2020 04:00	12.005	3.944	
545	27/11/2020 05:00	11.902	3.937	
546	27/11/2020 06:00	11.747	3.867	
547	27/11/2020 07:00	11.954	3.775	
548	27/11/2020 08:00	11.902	3.670	
549	27/11/2020 09:00	12.005	3.543	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	27/11/2020 10:00	12.005	3.455	
551	27/11/2020 11:00	11.902	3.435	
552	27/11/2020 12:00	11.695	3.491	
553	27/11/2020 13:00	11.747	3.588	
554	27/11/2020 14:00	11.902	3.721	
555	27/11/2020 15:00	11.954	3.829	
556	27/11/2020 16:00	11.747	3.889	
557	27/11/2020 17:00	11.902	3.868	
558	27/11/2020 18:00	11.954	3.822	
559	27/11/2020 19:00	11.798	3.707	
560	27/11/2020 20:00	11.902	3.596	
561	27/11/2020 21:00	11.954	3.480	
562	27/11/2020 22:00	11.954	3.382	
563	27/11/2020 23:00	11.954	3.351	
564	28/11/2020 00:00	11.747	3.399	
565	28/11/2020 01:00	11.954	3.527	
566	28/11/2020 02:00	12.005	3.683	
567	28/11/2020 03:00	11.902	3.812	
568	28/11/2020 04:00	11.798	3.888	
569	28/11/2020 05:00	11.695	3.909	
570	28/11/2020 06:00	11.850	3.876	
571	28/11/2020 07:00	11.850	3.790	
572	28/11/2020 08:00	11.798	3.677	
573	28/11/2020 09:00	11.850	3.552	
574	28/11/2020 10:00	11.850	3.451	
575	28/11/2020 11:00	11.747	3.373	
576	28/11/2020 12:00	12.005	3.390	
577	28/11/2020 13:00	11.695	3.489	
578	28/11/2020 14:00	11.850	3.637	
579	28/11/2020 15:00	11.902	3.769	
580	28/11/2020 16:00	11.902	3.872	
581	28/11/2020 17:00	11.798	3.916	
582	28/11/2020 18:00	11.954	3.877	
583	28/11/2020 19:00	11.902	3.801	
584	28/11/2020 20:00	11.798	3.693	
585	28/11/2020 21:00	11.850	3.572	
586	28/11/2020 22:00	11.850	3.453	
587	28/11/2020 23:00	11.850	3.387	
588	29/11/2020 00:00	11.954	3.381	
589	29/11/2020 01:00	11.954	3.479	
590	29/11/2020 02:00	11.954	3.619	
591	29/11/2020 03:00	11.954	3.772	
592	29/11/2020 04:00	11.902	3.889	
593	29/11/2020 05:00	11.850	3.949	
594	29/11/2020 06:00	11.902	3.941	
595	29/11/2020 07:00	11.954	3.875	
596	29/11/2020 08:00	11.798	3.763	
597	29/11/2020 09:00	12.005	3.651	
598	29/11/2020 10:00	11.850	3.532	
599	29/11/2020 11:00	11.954	3.431	
600	29/11/2020 12:00	11.850	3.398	
601	29/11/2020 13:00	11.954	3.455	
602	29/11/2020 14:00	11.798	3.582	
603	29/11/2020 15:00	11.850	3.735	
604	29/11/2020 16:00	11.954	3.862	

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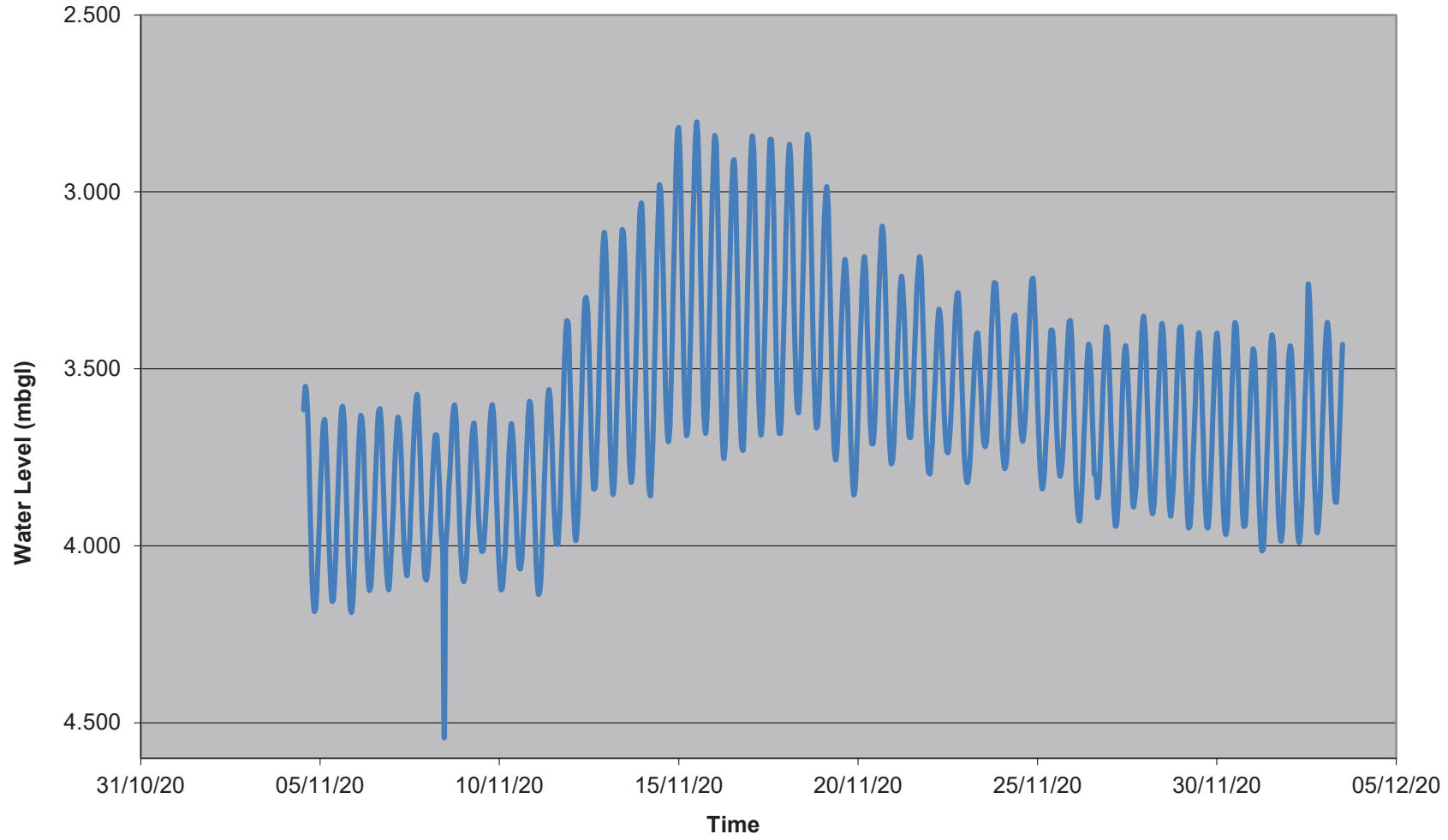
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	29/11/2020 17:00	11.643	3.942	
606	29/11/2020 18:00	11.850	3.949	
607	29/11/2020 19:00	11.902	3.900	
608	29/11/2020 20:00	11.954	3.791	
609	29/11/2020 21:00	11.954	3.670	
610	29/11/2020 22:00	11.850	3.547	
611	29/11/2020 23:00	11.954	3.439	
612	30/11/2020 00:00	11.954	3.399	
613	30/11/2020 01:00	11.954	3.446	
614	30/11/2020 02:00	11.850	3.571	
615	30/11/2020 03:00	11.850	3.725	
616	30/11/2020 04:00	11.798	3.858	
617	30/11/2020 05:00	11.954	3.948	
618	30/11/2020 06:00	11.798	3.968	
619	30/11/2020 07:00	11.902	3.935	
620	30/11/2020 08:00	11.798	3.828	
621	30/11/2020 09:00	11.850	3.706	
622	30/11/2020 10:00	11.850	3.566	
623	30/11/2020 11:00	11.747	3.451	
624	30/11/2020 12:00	12.005	3.370	
625	30/11/2020 13:00	11.798	3.384	
626	30/11/2020 14:00	11.902	3.483	
627	30/11/2020 15:00	11.902	3.631	
628	30/11/2020 16:00	11.591	3.784	
629	30/11/2020 17:00	11.850	3.893	
630	30/11/2020 18:00	12.005	3.945	
631	30/11/2020 19:00	11.643	3.941	
632	30/11/2020 20:00	11.850	3.854	
633	30/11/2020 21:00	12.005	3.736	
634	30/11/2020 22:00	11.902	3.620	
635	30/11/2020 23:00	12.005	3.523	
636	01/12/2020 00:00	11.954	3.444	
637	01/12/2020 01:00	11.747	3.454	
638	01/12/2020 02:00	11.747	3.537	
639	01/12/2020 03:00	12.005	3.686	
640	01/12/2020 04:00	12.005	3.842	
641	01/12/2020 05:00	12.005	3.954	
642	01/12/2020 06:00	11.954	4.014	
643	01/12/2020 07:00	11.798	4.009	
644	01/12/2020 08:00	11.954	3.931	
645	01/12/2020 09:00	11.798	3.808	
646	01/12/2020 10:00	11.798	3.685	
647	01/12/2020 11:00	11.798	3.545	
648	01/12/2020 12:00	11.954	3.433	
649	01/12/2020 13:00	11.954	3.404	
650	01/12/2020 14:00	11.902	3.450	
651	01/12/2020 15:00	11.798	3.581	
652	01/12/2020 16:00	11.902	3.751	
653	01/12/2020 17:00	11.902	3.895	
654	01/12/2020 18:00	11.954	3.966	
655	01/12/2020 19:00	11.798	3.987	
656	01/12/2020 20:00	11.902	3.943	
657	01/12/2020 21:00	11.798	3.825	
658	01/12/2020 22:00	11.902	3.710	
659	01/12/2020 23:00	11.591	3.586	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	02/12/2020 00:00	11.798	3.474	
661	02/12/2020 01:00	11.902	3.435	
662	02/12/2020 02:00	12.005	3.458	
663	02/12/2020 03:00	11.954	3.569	
664	02/12/2020 04:00	11.902	3.730	
665	02/12/2020 05:00	11.798	3.878	
666	02/12/2020 06:00	11.798	3.961	
667	02/12/2020 07:00	11.695	3.991	
668	02/12/2020 08:00	11.902	3.955	
669	02/12/2020 09:00	12.005	3.852	
670	02/12/2020 10:00	11.902	3.718	
671	02/12/2020 11:00	11.747	3.583	
672	02/12/2020 12:00	11.902	3.469	
673	02/12/2020 13:00	12.005	3.265	
674	02/12/2020 14:00	12.005	3.311	
675	02/12/2020 15:00	11.902	3.444	
676	02/12/2020 16:00	12.005	3.611	
677	02/12/2020 17:00	11.850	3.780	
678	02/12/2020 18:00	11.747	3.888	
679	02/12/2020 19:00	11.902	3.962	
680	02/12/2020 20:00	11.850	3.934	
681	02/12/2020 21:00	12.005	3.872	
682	02/12/2020 22:00	11.850	3.740	
683	02/12/2020 23:00	11.954	3.610	
684	03/12/2020 00:00	11.902	3.490	
685	03/12/2020 01:00	11.850	3.396	
686	03/12/2020 02:00	11.954	3.369	
687	03/12/2020 03:00	11.902	3.424	
688	03/12/2020 04:00	11.591	3.548	
689	03/12/2020 05:00	11.747	3.702	
690	03/12/2020 06:00	11.850	3.810	
691	03/12/2020 07:00	11.747	3.875	
692	03/12/2020 08:00	11.954	3.876	
693	03/12/2020 09:00	11.902	3.798	
694	03/12/2020 10:00	11.798	3.668	
695	03/12/2020 11:00	11.954	3.548	
696	03/12/2020 12:00	11.798	3.431	
697	03/12/2020 13:00	11.850	3.325	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	03/12/2020 15:00	11.850	3.270	
2	03/12/2020 16:00	11.850	3.288	
3	03/12/2020 17:00	11.902	3.405	
4	03/12/2020 18:00	11.798	3.572	
5	03/12/2020 19:00	12.005	3.741	
6	03/12/2020 20:00	11.798	3.844	
7	03/12/2020 21:00	12.005	3.874	
8	03/12/2020 22:00	11.902	3.849	
9	03/12/2020 23:00	12.005	3.763	
10	04/12/2020 00:00	11.902	3.662	
11	04/12/2020 01:00	11.798	3.540	
12	04/12/2020 02:00	11.954	3.440	
13	04/12/2020 03:00	11.798	3.364	
14	04/12/2020 04:00	11.954	3.372	
15	04/12/2020 05:00	11.954	3.463	
16	04/12/2020 06:00	11.902	3.603	
17	04/12/2020 07:00	11.798	3.737	
18	04/12/2020 08:00	11.902	3.848	
19	04/12/2020 09:00	12.005	3.880	
20	04/12/2020 10:00	11.850	3.861	
21	04/12/2020 11:00	11.747	3.786	
22	04/12/2020 12:00	12.005	3.669	
23	04/12/2020 13:00	11.902	3.545	
24	04/12/2020 14:00	12.005	3.430	
25	04/12/2020 15:00	11.954	3.348	
26	04/12/2020 16:00	11.798	3.318	
27	04/12/2020 17:00	11.850	3.386	
28	04/12/2020 18:00	11.850	3.515	
29	04/12/2020 19:00	11.902	3.670	
30	04/12/2020 20:00	11.747	3.798	
31	04/12/2020 21:00	11.902	3.876	
32	04/12/2020 22:00	11.902	3.891	
33	04/12/2020 23:00	11.902	3.852	
34	05/12/2020 00:00	12.005	3.763	
35	05/12/2020 01:00	11.850	3.671	
36	05/12/2020 02:00	11.954	3.571	
37	05/12/2020 03:00	11.902	3.499	
38	05/12/2020 04:00	11.902	3.469	
39	05/12/2020 05:00	11.954	3.508	
40	05/12/2020 06:00	11.902	3.625	
41	05/12/2020 07:00	11.902	3.747	
42	05/12/2020 08:00	11.902	3.872	
43	05/12/2020 09:00	11.850	3.940	
44	05/12/2020 10:00	11.850	3.957	
45	05/12/2020 11:00	11.902	3.914	
46	05/12/2020 12:00	11.902	3.835	
47	05/12/2020 13:00	11.954	3.741	
48	05/12/2020 14:00	11.954	3.624	
49	05/12/2020 15:00	11.954	3.540	
50	05/12/2020 16:00	11.954	3.464	
51	05/12/2020 17:00	11.954	3.469	
52	05/12/2020 18:00	11.954	3.580	
53	05/12/2020 19:00	11.798	3.695	
54	05/12/2020 20:00	11.902	3.854	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	05/12/2020 21:00	11.902	3.938	
56	05/12/2020 22:00	11.902	4.016	
57	05/12/2020 23:00	12.005	4.019	
58	06/12/2020 00:00	11.850	3.985	
59	06/12/2020 01:00	11.954	3.895	
60	06/12/2020 02:00	11.798	3.797	
61	06/12/2020 03:00	11.850	3.678	
62	06/12/2020 04:00	11.902	3.575	
63	06/12/2020 05:00	11.747	3.528	
64	06/12/2020 06:00	11.798	3.556	
65	06/12/2020 07:00	12.005	3.656	
66	06/12/2020 08:00	11.695	3.787	
67	06/12/2020 09:00	11.747	3.896	
68	06/12/2020 10:00	11.850	3.954	
69	06/12/2020 11:00	11.850	3.962	
70	06/12/2020 12:00	12.005	3.923	
71	06/12/2020 13:00	12.005	3.850	
72	06/12/2020 14:00	11.954	3.745	
73	06/12/2020 15:00	11.798	3.641	
74	06/12/2020 16:00	11.902	3.533	
75	06/12/2020 17:00	11.747	3.483	
76	06/12/2020 18:00	12.005	3.478	
77	06/12/2020 19:00	12.005	3.566	
78	06/12/2020 20:00	11.850	3.696	
79	06/12/2020 21:00	11.902	3.829	
80	06/12/2020 22:00	11.902	3.938	
81	06/12/2020 23:00	11.954	3.978	
82	07/12/2020 00:00	11.902	3.978	
83	07/12/2020 01:00	11.798	3.928	
84	07/12/2020 02:00	11.954	3.846	
85	07/12/2020 03:00	11.850	3.749	
86	07/12/2020 04:00	11.902	3.634	
87	07/12/2020 05:00	11.850	3.540	
88	07/12/2020 06:00	12.005	3.496	
89	07/12/2020 07:00	11.643	3.530	
90	07/12/2020 08:00	12.005	3.623	
91	07/12/2020 09:00	12.005	3.732	
92	07/12/2020 10:00	11.902	3.835	
93	07/12/2020 11:00	11.798	3.901	
94	07/12/2020 12:00	11.954	3.909	
95	07/12/2020 13:00	11.798	3.856	
96	07/12/2020 14:00	11.850	3.780	
97	07/12/2020 15:00	11.798	3.680	
98	07/12/2020 16:00	11.798	3.578	
99	07/12/2020 17:00	11.954	3.470	
100	07/12/2020 18:00	11.695	3.411	
101	07/12/2020 19:00	11.902	3.417	
102	07/12/2020 20:00	11.954	3.494	
103	07/12/2020 21:00	11.954	3.620	
104	07/12/2020 22:00	12.005	3.763	
105	07/12/2020 23:00	11.695	3.865	
106	08/12/2020 00:00	11.747	3.937	
107	08/12/2020 01:00	11.902	3.942	
108	08/12/2020 02:00	11.798	3.904	
109	08/12/2020 03:00	11.850	3.830	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	08/12/2020 04:00	11.798	3.739	
111	08/12/2020 05:00	11.695	3.632	
112	08/12/2020 06:00	12.005	3.540	
113	08/12/2020 07:00	11.902	3.508	
114	08/12/2020 08:00	11.954	3.520	
115	08/12/2020 09:00	11.902	3.605	
116	08/12/2020 10:00	11.902	3.710	
117	08/12/2020 11:00	11.798	3.809	
118	08/12/2020 12:00	11.695	3.876	
119	08/12/2020 13:00	11.902	3.880	
120	08/12/2020 14:00	12.005	3.846	
121	08/12/2020 15:00	12.005	3.774	
122	08/12/2020 16:00	11.902	3.688	
123	08/12/2020 17:00	11.850	3.595	
124	08/12/2020 18:00	11.798	3.510	
125	08/12/2020 19:00	11.902	3.455	
126	08/12/2020 20:00	11.798	3.465	
127	08/12/2020 21:00	11.954	3.552	
128	08/12/2020 22:00	11.902	3.678	
129	08/12/2020 23:00	12.005	3.818	
130	09/12/2020 00:00	12.005	3.925	
131	09/12/2020 01:00	12.005	3.990	
132	09/12/2020 02:00	11.695	4.006	
133	09/12/2020 03:00	11.954	3.974	
134	09/12/2020 04:00	11.798	3.901	
135	09/12/2020 05:00	11.798	3.814	
136	09/12/2020 06:00	11.850	3.702	
137	09/12/2020 07:00	11.902	3.606	
138	09/12/2020 08:00	11.902	3.538	
139	09/12/2020 09:00	11.902	3.553	
140	09/12/2020 10:00	11.850	3.618	
141	09/12/2020 11:00	11.850	3.722	
142	09/12/2020 12:00	11.798	3.825	
143	09/12/2020 13:00	11.798	3.886	
144	09/12/2020 14:00	11.902	3.912	
145	09/12/2020 15:00	11.798	3.889	
146	09/12/2020 16:00	12.057	3.820	
147	09/12/2020 17:00	11.902	3.728	
148	09/12/2020 18:00	11.850	3.607	
149	09/12/2020 19:00	11.954	3.493	
150	09/12/2020 20:00	12.005	3.417	
151	09/12/2020 21:00	11.902	3.387	
152	09/12/2020 22:00	11.954	3.439	
153	09/12/2020 23:00	11.902	3.562	
154	10/12/2020 00:00	11.850	3.717	
155	10/12/2020 01:00	11.798	3.834	
156	10/12/2020 02:00	12.005	3.911	
157	10/12/2020 03:00	11.902	3.929	
158	10/12/2020 04:00	11.850	3.906	
159	10/12/2020 05:00	11.902	3.837	
160	10/12/2020 06:00	11.850	3.751	
161	10/12/2020 07:00	11.798	3.651	
162	10/12/2020 08:00	11.902	3.538	
163	10/12/2020 09:00	11.643	3.477	
164	10/12/2020 10:00	11.902	3.482	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	10/12/2020 11:00	11.747	3.556	
166	10/12/2020 12:00	12.005	3.677	
167	10/12/2020 13:00	11.902	3.778	
168	10/12/2020 14:00	11.954	3.858	
169	10/12/2020 15:00	11.902	3.881	
170	10/12/2020 16:00	11.850	3.877	
171	10/12/2020 17:00	11.902	3.790	
172	10/12/2020 18:00	11.954	3.671	
173	10/12/2020 19:00	12.057	3.555	
174	10/12/2020 20:00	11.954	3.414	
175	10/12/2020 21:00	11.954	3.306	
176	10/12/2020 22:00	12.005	3.287	
177	10/12/2020 23:00	11.954	3.362	
178	11/12/2020 00:00	11.643	3.494	
179	11/12/2020 01:00	11.902	3.653	
180	11/12/2020 02:00	11.850	3.785	
181	11/12/2020 03:00	11.902	3.854	
182	11/12/2020 04:00	11.902	3.872	
183	11/12/2020 05:00	11.643	3.834	
184	11/12/2020 06:00	11.902	3.736	
185	11/12/2020 07:00	11.695	3.616	
186	11/12/2020 08:00	12.005	3.485	
187	11/12/2020 09:00	11.954	3.341	
188	11/12/2020 10:00	12.005	3.275	
189	11/12/2020 11:00	11.850	3.297	
190	11/12/2020 12:00	12.057	3.372	
191	11/12/2020 13:00	11.798	3.532	
192	11/12/2020 14:00	12.005	3.660	
193	11/12/2020 15:00	11.954	3.760	
194	11/12/2020 16:00	11.954	3.802	
195	11/12/2020 17:00	11.850	3.772	
196	11/12/2020 18:00	11.747	3.711	
197	11/12/2020 19:00	11.902	3.604	
198	11/12/2020 20:00	11.850	3.482	
199	11/12/2020 21:00	12.005	3.350	
200	11/12/2020 22:00	11.954	3.264	
201	11/12/2020 23:00	11.954	3.253	
202	12/12/2020 00:00	12.005	3.345	
203	12/12/2020 01:00	11.902	3.508	
204	12/12/2020 02:00	11.902	3.686	
205	12/12/2020 03:00	12.005	3.819	
206	12/12/2020 04:00	11.902	3.913	
207	12/12/2020 05:00	11.902	3.924	
208	12/12/2020 06:00	11.850	3.877	
209	12/12/2020 07:00	12.057	3.774	
210	12/12/2020 08:00	11.695	3.640	
211	12/12/2020 09:00	11.798	3.506	
212	12/12/2020 10:00	11.747	3.385	
213	12/12/2020 11:00	11.902	3.321	
214	12/12/2020 12:00	12.005	3.348	
215	12/12/2020 13:00	11.850	3.471	
216	12/12/2020 14:00	12.057	3.643	
217	12/12/2020 15:00	11.902	3.788	
218	12/12/2020 16:00	11.902	3.875	
219	12/12/2020 17:00	12.005	3.916	

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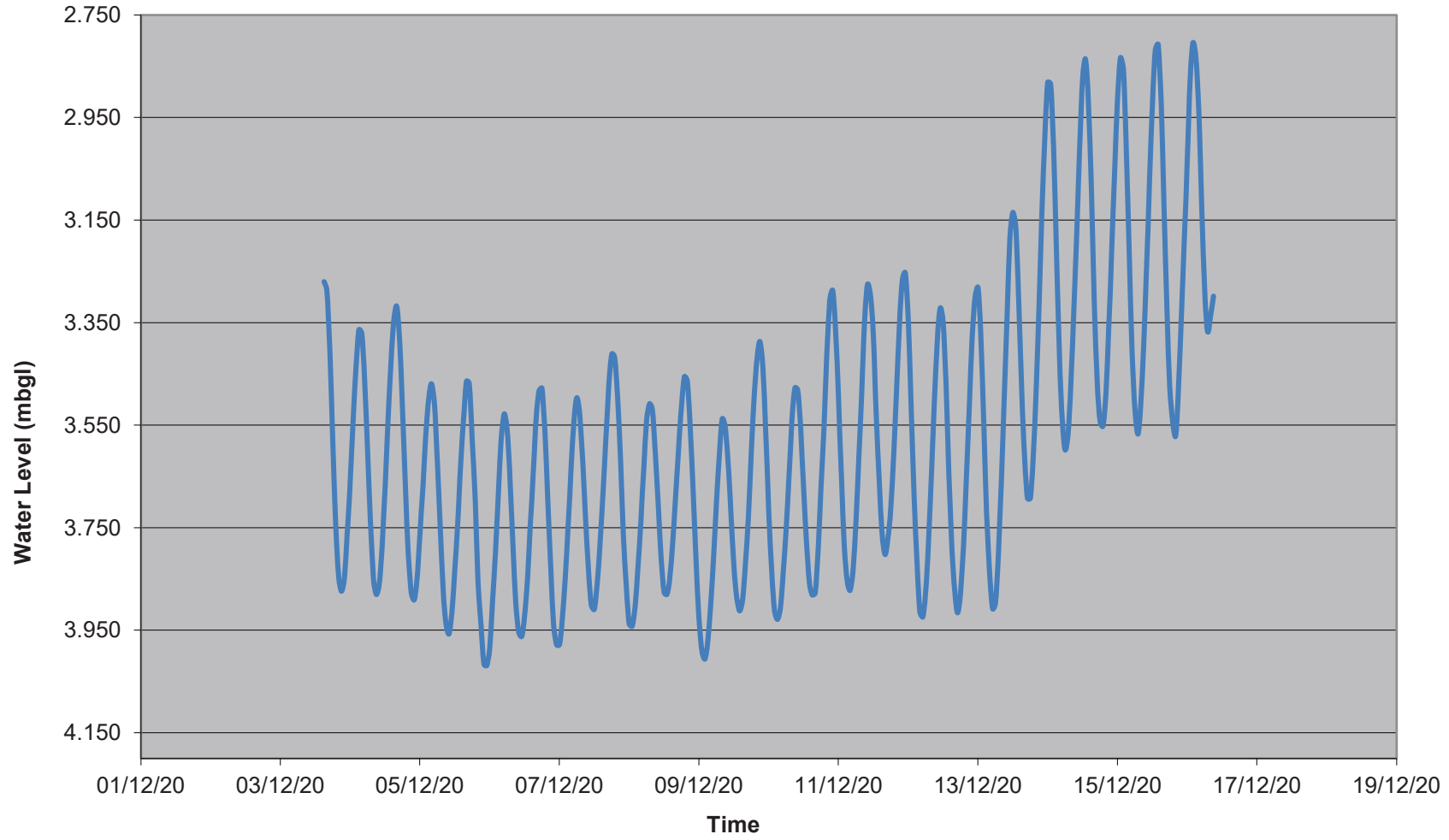
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	12/12/2020 18:00	11.902	3.876	
221	12/12/2020 19:00	11.954	3.783	
222	12/12/2020 20:00	11.850	3.654	
223	12/12/2020 21:00	11.954	3.512	
224	12/12/2020 22:00	12.005	3.381	
225	12/12/2020 23:00	11.954	3.300	
226	13/12/2020 00:00	11.798	3.282	
227	13/12/2020 01:00	11.695	3.377	
228	13/12/2020 02:00	11.798	3.551	
229	13/12/2020 03:00	11.954	3.723	
230	13/12/2020 04:00	11.850	3.839	
231	13/12/2020 05:00	11.643	3.908	
232	13/12/2020 06:00	11.850	3.898	
233	13/12/2020 07:00	12.005	3.804	
234	13/12/2020 08:00	12.005	3.659	
235	13/12/2020 09:00	11.902	3.502	
236	13/12/2020 10:00	11.747	3.335	
237	13/12/2020 11:00	11.954	3.185	
238	13/12/2020 12:00	11.902	3.135	
239	13/12/2020 13:00	11.902	3.166	
240	13/12/2020 14:00	11.850	3.303	
241	13/12/2020 15:00	11.643	3.477	
242	13/12/2020 16:00	11.850	3.613	
243	13/12/2020 17:00	11.954	3.692	
244	13/12/2020 18:00	11.902	3.692	
245	13/12/2020 19:00	12.057	3.615	
246	13/12/2020 20:00	11.902	3.482	
247	13/12/2020 21:00	11.954	3.310	
248	13/12/2020 22:00	12.005	3.135	
249	13/12/2020 23:00	11.747	2.985	
250	14/12/2020 00:00	12.005	2.881	
251	14/12/2020 01:00	11.850	2.885	
252	14/12/2020 02:00	11.902	3.013	
253	14/12/2020 03:00	11.902	3.208	
254	14/12/2020 04:00	11.850	3.411	
255	14/12/2020 05:00	11.902	3.544	
256	14/12/2020 06:00	12.005	3.598	
257	14/12/2020 07:00	12.057	3.566	
258	14/12/2020 08:00	12.005	3.466	
259	14/12/2020 09:00	11.902	3.321	
260	14/12/2020 10:00	11.798	3.165	
261	14/12/2020 11:00	11.850	3.007	
262	14/12/2020 12:00	11.954	2.872	
263	14/12/2020 13:00	12.057	2.836	
264	14/12/2020 14:00	11.902	2.923	
265	14/12/2020 15:00	12.057	3.091	
266	14/12/2020 16:00	12.057	3.306	
267	14/12/2020 17:00	11.902	3.463	
268	14/12/2020 18:00	12.057	3.544	
269	14/12/2020 19:00	12.005	3.552	
270	14/12/2020 20:00	11.954	3.488	
271	14/12/2020 21:00	11.954	3.361	
272	14/12/2020 22:00	11.747	3.207	
273	14/12/2020 23:00	11.954	3.051	
274	15/12/2020 00:00	11.902	2.916	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/12/2020 01:00	11.954	2.833	
276	15/12/2020 02:00	11.902	2.856	
277	15/12/2020 03:00	11.902	3.007	
278	15/12/2020 04:00	11.954	3.213	
279	15/12/2020 05:00	11.850	3.401	
280	15/12/2020 06:00	11.954	3.520	
281	15/12/2020 07:00	11.850	3.567	
282	15/12/2020 08:00	11.954	3.510	
283	15/12/2020 09:00	11.850	3.392	
284	15/12/2020 10:00	11.850	3.246	
285	15/12/2020 11:00	11.902	3.075	
286	15/12/2020 12:00	12.005	2.921	
287	15/12/2020 13:00	11.954	2.819	
288	15/12/2020 14:00	11.954	2.808	
289	15/12/2020 15:00	11.902	2.922	
290	15/12/2020 16:00	11.850	3.122	
291	15/12/2020 17:00	11.954	3.326	
292	15/12/2020 18:00	11.902	3.476	
293	15/12/2020 19:00	12.005	3.545	
294	15/12/2020 20:00	11.850	3.570	
295	15/12/2020 21:00	11.695	3.476	
296	15/12/2020 22:00	11.902	3.331	
297	15/12/2020 23:00	12.057	3.190	
298	16/12/2020 00:00	11.902	3.032	
299	16/12/2020 01:00	11.954	2.871	
300	16/12/2020 02:00	11.902	2.804	
301	16/12/2020 03:00	11.902	2.836	
302	16/12/2020 04:00	11.902	2.947	
303	16/12/2020 05:00	11.954	3.128	
304	16/12/2020 06:00	11.850	3.290	
305	16/12/2020 07:00	11.954	3.367	
306	16/12/2020 08:00	11.850	3.337	
307	16/12/2020 09:00	12.005	3.298	

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Engineer. Atkins
Client. Ballymore
Borehole No. ROH 04
Serial No. 760760



	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	08/10/2020 10:00	13.781	0.999	
2	08/10/2020 11:00	11.345	0.993	
3	08/10/2020 12:00	11.345	0.977	
4	08/10/2020 13:00	11.345	0.874	
5	08/10/2020 14:00	11.345	0.740	
6	08/10/2020 15:00	11.345	0.626	
7	08/10/2020 16:00	11.400	0.499	
8	08/10/2020 17:00	11.345	0.448	
9	08/10/2020 18:00	11.345	0.481	
10	08/10/2020 19:00	11.400	0.603	
11	08/10/2020 20:00	11.345	0.759	
12	08/10/2020 21:00	11.345	0.922	
13	08/10/2020 22:00	11.290	1.033	
14	08/10/2020 23:00	11.400	1.060	
15	09/10/2020 00:00	11.345	1.032	
16	09/10/2020 01:00	11.454	0.957	
17	09/10/2020 02:00	11.290	0.820	
18	09/10/2020 03:00	11.290	0.700	
19	09/10/2020 04:00	11.290	0.562	
20	09/10/2020 05:00	11.400	0.449	
21	09/10/2020 06:00	11.400	0.453	
22	09/10/2020 07:00	11.345	0.523	
23	09/10/2020 08:00	11.400	0.682	
24	09/10/2020 09:00	11.235	0.829	
25	09/10/2020 10:00	11.290	0.929	
26	09/10/2020 11:00	11.235	1.001	
27	09/10/2020 12:00	11.345	1.001	
28	09/10/2020 13:00	11.290	0.956	
29	09/10/2020 14:00	11.290	0.843	
30	09/10/2020 15:00	11.400	0.723	
31	09/10/2020 16:00	11.345	0.602	
32	09/10/2020 17:00	11.345	0.502	
33	09/10/2020 18:00	11.400	0.452	
34	09/10/2020 19:00	11.400	0.509	
35	09/10/2020 20:00	11.345	0.652	
36	09/10/2020 21:00	11.345	0.805	
37	09/10/2020 22:00	11.345	0.951	
38	09/10/2020 23:00	11.345	1.042	
39	10/10/2020 00:00	11.400	1.114	
40	10/10/2020 01:00	11.400	1.083	
41	10/10/2020 02:00	11.290	1.043	
42	10/10/2020 03:00	11.345	0.971	
43	10/10/2020 04:00	11.400	0.848	
44	10/10/2020 05:00	11.400	0.724	
45	10/10/2020 06:00	11.235	0.644	
46	10/10/2020 07:00	11.345	0.619	
47	10/10/2020 08:00	11.235	0.696	
48	10/10/2020 09:00	11.400	0.791	
49	10/10/2020 10:00	11.400	0.913	
50	10/10/2020 11:00	11.345	1.000	
51	10/10/2020 12:00	11.235	1.037	
52	10/10/2020 13:00	11.400	1.053	
53	10/10/2020 14:00	11.400	1.000	
54	10/10/2020 15:00	11.345	0.919	

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Project No. 22734
Engineer. Atkins
Client. Ballymore
Borehole No. ROH 04
Serial No. 760760



	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	10/10/2020 16:00	11.290	0.833	
56	10/10/2020 17:00	11.290	0.721	
57	10/10/2020 18:00	11.345	0.639	
58	10/10/2020 19:00	11.290	0.576	
59	10/10/2020 20:00	11.235	0.613	
60	10/10/2020 21:00	11.345	0.720	
61	10/10/2020 22:00	11.345	0.861	
62	10/10/2020 23:00	11.400	0.993	
63	11/10/2020 00:00	11.345	1.086	
64	11/10/2020 01:00	11.345	1.165	
65	11/10/2020 02:00	11.400	1.153	
66	11/10/2020 03:00	11.345	1.125	
67	11/10/2020 04:00	11.345	1.063	
68	11/10/2020 05:00	11.345	0.965	
69	11/10/2020 06:00	11.345	0.840	
70	11/10/2020 07:00	11.345	0.747	
71	11/10/2020 08:00	11.345	0.709	
72	11/10/2020 09:00	11.290	0.748	
73	11/10/2020 10:00	11.345	0.831	
74	11/10/2020 11:00	11.345	0.934	
75	11/10/2020 12:00	11.290	1.023	
76	11/10/2020 13:00	11.345	1.099	
77	11/10/2020 14:00	11.290	1.128	
78	11/10/2020 15:00	11.235	1.111	
79	11/10/2020 16:00	11.345	1.058	
80	11/10/2020 17:00	11.400	0.969	
81	11/10/2020 18:00	11.345	0.856	
82	11/10/2020 19:00	11.290	0.747	
83	11/10/2020 20:00	11.235	0.642	
84	11/10/2020 21:00	11.290	0.630	
85	11/10/2020 22:00	11.400	0.705	
86	11/10/2020 23:00	11.345	0.818	
87	12/10/2020 00:00	11.345	0.965	
88	12/10/2020 01:00	11.345	1.083	
89	12/10/2020 02:00	11.400	1.152	
90	12/10/2020 03:00	11.345	1.185	
91	12/10/2020 04:00	11.235	1.163	
92	12/10/2020 05:00	11.345	1.109	
93	12/10/2020 06:00	11.400	0.982	
94	12/10/2020 07:00	11.400	0.862	
95	12/10/2020 08:00	11.290	0.709	
96	12/10/2020 09:00	11.345	0.623	
97	12/10/2020 10:00	11.290	0.585	
98	12/10/2020 11:00	11.235	0.645	
99	12/10/2020 12:00	11.345	0.788	
100	12/10/2020 13:00	11.400	0.895	
101	12/10/2020 14:00	11.400	0.983	
102	12/10/2020 15:00	11.290	1.059	
103	12/10/2020 16:00	11.345	1.077	
104	12/10/2020 17:00	11.345	1.034	
105	12/10/2020 18:00	11.345	0.960	
106	12/10/2020 19:00	11.345	0.855	
107	12/10/2020 20:00	11.345	0.721	
108	12/10/2020 21:00	11.345	0.608	
109	12/10/2020 22:00	11.345	0.584	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	12/10/2020 23:00	11.345	0.666	
111	13/10/2020 00:00	11.345	0.819	
112	13/10/2020 01:00	11.290	0.971	
113	13/10/2020 02:00	11.345	1.109	
114	13/10/2020 03:00	11.345	1.209	
115	13/10/2020 04:00	11.345	1.252	
116	13/10/2020 05:00	11.400	1.217	
117	13/10/2020 06:00	11.345	1.146	
118	13/10/2020 07:00	11.290	1.022	
119	13/10/2020 08:00	11.345	0.855	
120	13/10/2020 09:00	11.290	0.692	
121	13/10/2020 10:00	11.345	0.604	
122	13/10/2020 11:00	11.345	0.570	
123	13/10/2020 12:00	11.290	0.671	
124	13/10/2020 13:00	11.400	0.846	
125	13/10/2020 14:00	11.400	1.003	
126	13/10/2020 15:00	11.345	1.139	
127	13/10/2020 16:00	11.290	1.197	
128	13/10/2020 17:00	11.345	1.207	
129	13/10/2020 18:00	11.345	1.135	
130	13/10/2020 19:00	11.345	0.998	
131	13/10/2020 20:00	11.290	0.846	
132	13/10/2020 21:00	11.290	0.684	
133	13/10/2020 22:00	11.345	0.550	
134	13/10/2020 23:00	11.345	0.536	
135	14/10/2020 00:00	11.290	0.622	
136	14/10/2020 01:00	11.345	0.777	
137	14/10/2020 02:00	11.290	0.980	
138	14/10/2020 03:00	11.345	1.147	
139	14/10/2020 04:00	11.345	1.281	
140	14/10/2020 05:00	11.400	1.300	
141	14/10/2020 06:00	11.400	1.274	
142	14/10/2020 07:00	11.345	1.174	
143	14/10/2020 08:00	11.345	1.014	
144	14/10/2020 09:00	11.345	0.830	
145	14/10/2020 10:00	11.345	0.658	
146	14/10/2020 11:00	11.345	0.550	
147	14/10/2020 12:00	11.345	0.564	
148	14/10/2020 13:00	11.345	0.746	
149	14/10/2020 14:00	11.345	0.968	
150	14/10/2020 15:00	11.290	1.182	
151	14/10/2020 16:00	11.345	1.325	
152	14/10/2020 17:00	11.345	1.383	
153	14/10/2020 18:00	11.400	1.376	
154	14/10/2020 19:00	11.400	1.239	
155	14/10/2020 20:00	11.400	1.084	
156	14/10/2020 21:00	11.400	0.861	
157	14/10/2020 22:00	11.400	0.682	
158	14/10/2020 23:00	11.345	0.541	
159	15/10/2020 00:00	11.400	0.555	
160	15/10/2020 01:00	11.400	0.701	
161	15/10/2020 02:00	11.290	0.934	
162	15/10/2020 03:00	11.345	1.168	
163	15/10/2020 04:00	11.345	1.347	
164	15/10/2020 05:00	11.400	1.409	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	15/10/2020 06:00	11.454	1.438	
166	15/10/2020 07:00	11.454	1.347	
167	15/10/2020 08:00	11.454	1.162	
168	15/10/2020 09:00	11.345	0.941	
169	15/10/2020 10:00	11.345	0.711	
170	15/10/2020 11:00	11.400	0.510	
171	15/10/2020 12:00	11.400	0.431	
172	15/10/2020 13:00	11.345	0.503	
173	15/10/2020 14:00	11.345	0.721	
174	15/10/2020 15:00	11.345	0.965	
175	15/10/2020 16:00	11.345	1.158	
176	15/10/2020 17:00	11.345	1.266	
177	15/10/2020 18:00	11.400	1.316	
178	15/10/2020 19:00	11.400	1.230	
179	15/10/2020 20:00	11.454	1.079	
180	15/10/2020 21:00	11.400	0.849	
181	15/10/2020 22:00	11.345	0.606	
182	15/10/2020 23:00	11.345	0.398	
183	16/10/2020 00:00	11.400	0.275	
184	16/10/2020 01:00	11.345	0.333	
185	16/10/2020 02:00	11.400	0.577	
186	16/10/2020 03:00	11.400	0.871	
187	16/10/2020 04:00	11.345	1.110	
188	16/10/2020 05:00	11.345	1.277	
189	16/10/2020 06:00	11.454	1.339	
190	16/10/2020 07:00	11.400	1.327	
191	16/10/2020 08:00	11.400	1.217	
192	16/10/2020 09:00	11.400	0.994	
193	16/10/2020 10:00	11.345	0.720	
194	16/10/2020 11:00	11.345	0.476	
195	16/10/2020 12:00	11.345	0.330	
196	16/10/2020 13:00	11.400	0.294	
197	16/10/2020 14:00	11.345	0.454	
198	16/10/2020 15:00	11.345	0.723	
199	16/10/2020 16:00	11.290	0.998	
200	16/10/2020 17:00	11.345	1.189	
201	16/10/2020 18:00	11.400	1.266	
202	16/10/2020 19:00	11.400	1.273	
203	16/10/2020 20:00	11.400	1.153	
204	16/10/2020 21:00	11.345	0.919	
205	16/10/2020 22:00	11.400	0.636	
206	16/10/2020 23:00	11.400	0.395	
207	17/10/2020 00:00	11.400	0.194	
208	17/10/2020 01:00	11.345	0.132	
209	17/10/2020 02:00	11.345	0.251	
210	17/10/2020 03:00	11.290	0.548	
211	17/10/2020 04:00	11.345	0.863	
212	17/10/2020 05:00	11.345	1.105	
213	17/10/2020 06:00	11.400	1.246	
214	17/10/2020 07:00	11.400	1.296	
215	17/10/2020 08:00	11.454	1.253	
216	17/10/2020 09:00	11.454	1.092	
217	17/10/2020 10:00	11.345	0.815	
218	17/10/2020 11:00	11.345	0.555	
219	17/10/2020 12:00	11.345	0.296	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	17/10/2020 13:00	11.345	0.160	
221	17/10/2020 14:00	11.400	0.208	
222	17/10/2020 15:00	11.290	0.435	
223	17/10/2020 16:00	11.345	0.744	
224	17/10/2020 17:00	11.290	1.033	
225	17/10/2020 18:00	11.345	1.176	
226	17/10/2020 19:00	11.400	1.252	
227	17/10/2020 20:00	11.400	1.217	
228	17/10/2020 21:00	11.400	1.069	
229	17/10/2020 22:00	11.400	0.782	
230	17/10/2020 23:00	11.345	0.500	
231	18/10/2020 00:00	11.345	0.246	
232	18/10/2020 01:00	11.345	0.072	
233	18/10/2020 02:00	11.345	0.045	
234	18/10/2020 03:00	11.345	0.246	
235	18/10/2020 04:00	11.345	0.593	
236	18/10/2020 05:00	11.345	0.913	
237	18/10/2020 06:00	11.345	1.136	
238	18/10/2020 07:00	11.400	1.255	
239	18/10/2020 08:00	11.454	1.276	
240	18/10/2020 09:00	11.454	1.186	
241	18/10/2020 10:00	11.400	0.968	
242	18/10/2020 11:00	11.345	0.701	
243	18/10/2020 12:00	11.400	0.430	
244	18/10/2020 13:00	11.400	0.212	
245	18/10/2020 14:00	11.345	0.116	
246	18/10/2020 15:00	11.400	0.215	
247	18/10/2020 16:00	11.345	0.485	
248	18/10/2020 17:00	11.345	0.801	
249	18/10/2020 18:00	11.345	1.052	
250	18/10/2020 19:00	11.345	1.188	
251	18/10/2020 20:00	11.400	1.243	
252	18/10/2020 21:00	11.454	1.156	
253	18/10/2020 22:00	11.400	0.957	
254	18/10/2020 23:00	11.400	0.663	
255	19/10/2020 00:00	11.400	0.373	
256	19/10/2020 01:00	11.345	0.112	
257	19/10/2020 02:00	11.345	-0.029	
258	19/10/2020 03:00	11.345	-0.004	
259	19/10/2020 04:00	11.345	0.230	
260	19/10/2020 05:00	11.345	0.591	
261	19/10/2020 06:00	11.345	0.897	
262	19/10/2020 07:00	11.345	1.093	
263	19/10/2020 08:00	11.400	1.191	
264	19/10/2020 09:00	11.400	1.198	
265	19/10/2020 10:00	11.400	1.045	
266	19/10/2020 11:00	11.400	0.803	
267	19/10/2020 12:00	11.345	0.537	
268	19/10/2020 13:00	11.400	0.267	
269	19/10/2020 14:00	11.345	0.086	
270	19/10/2020 15:00	11.345	0.011	
271	19/10/2020 16:00	11.345	0.167	
272	19/10/2020 17:00	11.290	0.487	
273	19/10/2020 18:00	11.290	0.793	
274	19/10/2020 19:00	11.345	1.004	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	19/10/2020 20:00	11.400	1.120	
276	19/10/2020 21:00	11.400	1.137	
277	19/10/2020 22:00	11.400	1.000	
278	19/10/2020 23:00	11.400	0.767	
279	20/10/2020 00:00	11.345	0.481	
280	20/10/2020 01:00	11.345	0.201	
281	20/10/2020 02:00	11.345	-0.041	
282	20/10/2020 03:00	11.290	-0.161	
283	20/10/2020 04:00	11.400	-0.125	
284	20/10/2020 05:00	11.345	0.136	
285	20/10/2020 06:00	11.345	0.486	
286	20/10/2020 07:00	11.345	0.748	
287	20/10/2020 08:00	11.400	0.942	
288	20/10/2020 09:00	11.345	1.004	
289	20/10/2020 10:00	11.345	0.963	
290	20/10/2020 11:00	11.345	0.802	
291	20/10/2020 12:00	11.345	0.563	
292	20/10/2020 13:00	11.290	0.300	
293	20/10/2020 14:00	11.345	0.032	
294	20/10/2020 15:00	11.345	-0.138	
295	20/10/2020 16:00	11.345	-0.140	
296	20/10/2020 17:00	11.345	0.016	
297	20/10/2020 18:00	11.345	0.334	
298	20/10/2020 19:00	11.345	0.619	
299	20/10/2020 20:00	11.345	0.842	
300	20/10/2020 21:00	11.345	0.959	
301	20/10/2020 22:00	11.345	0.978	
302	20/10/2020 23:00	11.400	0.886	
303	21/10/2020 00:00	11.400	0.707	
304	21/10/2020 01:00	11.345	0.497	
305	21/10/2020 02:00	11.345	0.274	
306	21/10/2020 03:00	11.345	0.078	
307	21/10/2020 04:00	11.345	-0.018	
308	21/10/2020 05:00	11.345	0.061	
309	21/10/2020 06:00	11.345	0.284	
310	21/10/2020 07:00	11.345	0.552	
311	21/10/2020 08:00	11.345	0.793	
312	21/10/2020 09:00	11.345	0.944	
313	21/10/2020 10:00	11.345	1.013	
314	21/10/2020 11:00	11.400	0.963	
315	21/10/2020 12:00	11.345	0.820	
316	21/10/2020 13:00	11.345	0.631	
317	21/10/2020 14:00	11.400	0.402	
318	21/10/2020 15:00	11.345	0.187	
319	21/10/2020 16:00	11.345	0.055	
320	21/10/2020 17:00	11.345	0.053	
321	21/10/2020 18:00	11.345	0.237	
322	21/10/2020 19:00	11.345	0.500	
323	21/10/2020 20:00	11.345	0.743	
324	21/10/2020 21:00	11.345	0.927	
325	21/10/2020 22:00	11.400	1.032	
326	21/10/2020 23:00	11.345	1.046	
327	22/10/2020 00:00	11.345	0.972	
328	22/10/2020 01:00	11.400	0.847	
329	22/10/2020 02:00	11.345	0.646	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	22/10/2020 03:00	11.345	0.455	
331	22/10/2020 04:00	11.400	0.293	
332	22/10/2020 05:00	11.345	0.214	
333	22/10/2020 06:00	11.400	0.264	
334	22/10/2020 07:00	11.345	0.464	
335	22/10/2020 08:00	11.345	0.674	
336	22/10/2020 09:00	11.345	0.861	
337	22/10/2020 10:00	11.345	0.985	
338	22/10/2020 11:00	11.345	1.037	
339	22/10/2020 12:00	11.345	0.994	
340	22/10/2020 13:00	11.345	0.880	
341	22/10/2020 14:00	11.345	0.707	
342	22/10/2020 15:00	11.345	0.519	
343	22/10/2020 16:00	11.400	0.331	
344	22/10/2020 17:00	11.345	0.217	
345	22/10/2020 18:00	11.345	0.234	
346	22/10/2020 19:00	11.345	0.375	
347	22/10/2020 20:00	11.345	0.590	
348	22/10/2020 21:00	11.345	0.813	
349	22/10/2020 22:00	11.345	0.956	
350	22/10/2020 23:00	11.345	1.063	
351	23/10/2020 00:00	11.345	1.074	
352	23/10/2020 01:00	11.400	1.011	
353	23/10/2020 02:00	11.345	0.920	
354	23/10/2020 03:00	11.345	0.755	
355	23/10/2020 04:00	11.345	0.587	
356	23/10/2020 05:00	11.345	0.391	
357	23/10/2020 06:00	11.345	0.279	
358	23/10/2020 07:00	11.345	0.288	
359	23/10/2020 08:00	11.345	0.419	
360	23/10/2020 09:00	11.345	0.597	
361	23/10/2020 10:00	11.345	0.757	
362	23/10/2020 11:00	11.345	0.872	
363	23/10/2020 12:00	11.290	0.923	
364	23/10/2020 13:00	11.345	0.892	
365	23/10/2020 14:00	11.345	0.808	
366	23/10/2020 15:00	11.345	0.693	
367	23/10/2020 16:00	11.345	0.519	
368	23/10/2020 17:00	11.345	0.370	
369	23/10/2020 18:00	11.345	0.260	
370	23/10/2020 19:00	11.345	0.263	
371	23/10/2020 20:00	11.345	0.351	
372	23/10/2020 21:00	11.345	0.549	
373	23/10/2020 22:00	11.345	0.740	
374	23/10/2020 23:00	11.290	0.888	
375	24/10/2020 00:00	11.290	0.989	
376	24/10/2020 01:00	11.345	1.015	
377	24/10/2020 02:00	11.345	1.002	
378	24/10/2020 03:00	11.345	0.909	
379	24/10/2020 04:00	11.345	0.801	
380	24/10/2020 05:00	11.345	0.644	
381	24/10/2020 06:00	11.345	0.468	
382	24/10/2020 07:00	11.345	0.361	
383	24/10/2020 08:00	11.345	0.298	
384	24/10/2020 09:00	11.345	0.346	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	24/10/2020 10:00	11.345	0.430	
386	24/10/2020 11:00	11.345	0.564	
387	24/10/2020 12:00	11.345	0.647	
388	24/10/2020 13:00	11.345	0.703	
389	24/10/2020 14:00	11.345	0.700	
390	24/10/2020 15:00	11.345	0.648	
391	24/10/2020 16:00	11.345	0.532	
392	24/10/2020 17:00	11.345	0.408	
393	24/10/2020 18:00	11.345	0.279	
394	24/10/2020 19:00	11.345	0.181	
395	24/10/2020 20:00	11.345	0.145	
396	24/10/2020 21:00	11.345	0.228	
397	24/10/2020 22:00	11.345	0.389	
398	24/10/2020 23:00	11.345	0.587	
399	25/10/2020 00:00	11.345	0.750	
400	25/10/2020 01:00	11.345	0.831	
401	25/10/2020 02:00	11.345	0.919	
402	25/10/2020 02:00	11.345	0.908	
403	25/10/2020 03:00	11.345	0.882	
404	25/10/2020 04:00	11.345	0.779	
405	25/10/2020 05:00	11.345	0.621	
406	25/10/2020 06:00	11.345	0.459	
407	25/10/2020 07:00	11.345	0.328	
408	25/10/2020 08:00	11.345	0.276	
409	25/10/2020 09:00	11.345	0.283	
410	25/10/2020 10:00	11.345	0.437	
411	25/10/2020 11:00	11.345	0.573	
412	25/10/2020 12:00	11.345	0.686	
413	25/10/2020 13:00	11.345	0.781	
414	25/10/2020 14:00	11.345	0.786	
415	25/10/2020 15:00	11.345	0.777	
416	25/10/2020 16:00	11.345	0.669	
417	25/10/2020 17:00	11.345	0.530	
418	25/10/2020 18:00	11.345	0.375	
419	25/10/2020 19:00	11.345	0.248	
420	25/10/2020 20:00	11.345	0.159	
421	25/10/2020 21:00	11.345	0.203	
422	25/10/2020 22:00	11.345	0.322	
423	25/10/2020 23:00	11.345	0.525	
424	26/10/2020 00:00	11.345	0.698	
425	26/10/2020 01:00	11.345	0.829	
426	26/10/2020 02:00	11.345	0.920	
427	26/10/2020 03:00	11.345	0.971	
428	26/10/2020 04:00	11.345	0.944	
429	26/10/2020 05:00	11.345	0.868	
430	26/10/2020 06:00	11.345	0.750	
431	26/10/2020 07:00	11.345	0.578	
432	26/10/2020 08:00	11.345	0.413	
433	26/10/2020 09:00	11.345	0.345	
434	26/10/2020 10:00	11.345	0.369	
435	26/10/2020 11:00	11.345	0.467	
436	26/10/2020 12:00	11.345	0.655	
437	26/10/2020 13:00	11.345	0.782	
438	26/10/2020 14:00	11.290	0.881	
439	26/10/2020 15:00	11.345	0.924	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	26/10/2020 16:00	11.345	0.905	
441	26/10/2020 17:00	11.345	0.819	
442	26/10/2020 18:00	11.345	0.668	
443	26/10/2020 19:00	11.345	0.547	
444	26/10/2020 20:00	11.345	0.391	
445	26/10/2020 21:00	11.345	0.328	
446	26/10/2020 22:00	11.345	0.364	
447	26/10/2020 23:00	11.290	0.496	
448	27/10/2020 00:00	11.345	0.668	
449	27/10/2020 01:00	11.345	0.837	
450	27/10/2020 02:00	11.345	0.970	
451	27/10/2020 03:00	11.345	1.060	
452	27/10/2020 04:00	11.345	1.071	
453	27/10/2020 05:00	11.345	1.019	
454	27/10/2020 06:00	11.345	0.918	
455	27/10/2020 07:00	11.345	0.745	
456	27/10/2020 08:00	11.345	0.556	
457	27/10/2020 09:00	11.345	0.376	
458	27/10/2020 10:00	11.345	0.288	
459	27/10/2020 11:00	11.345	0.309	
460	27/10/2020 12:00	11.345	0.465	
461	27/10/2020 13:00	11.345	0.664	
462	27/10/2020 14:00	11.345	0.789	
463	27/10/2020 15:00	11.345	0.888	
464	27/10/2020 16:00	11.345	0.897	
465	27/10/2020 17:00	11.345	0.825	
466	27/10/2020 18:00	11.345	0.699	
467	27/10/2020 19:00	11.345	0.500	
468	27/10/2020 20:00	11.345	0.318	
469	27/10/2020 21:00	11.345	0.183	
470	27/10/2020 22:00	11.400	0.116	
471	27/10/2020 23:00	11.345	0.147	
472	28/10/2020 00:00	11.290	0.332	
473	28/10/2020 01:00	11.345	0.556	
474	28/10/2020 02:00	11.345	0.734	
475	28/10/2020 03:00	11.345	0.903	
476	28/10/2020 04:00	11.345	0.966	
477	28/10/2020 05:00	11.345	0.968	
478	28/10/2020 06:00	11.345	0.910	
479	28/10/2020 07:00	11.290	0.756	
480	28/10/2020 08:00	11.345	0.560	
481	28/10/2020 09:00	11.345	0.371	
482	28/10/2020 10:00	11.345	0.227	
483	28/10/2020 11:00	11.345	0.197	
484	28/10/2020 12:00	11.345	0.290	
485	28/10/2020 13:00	11.345	0.493	
486	28/10/2020 14:00	11.345	0.680	
487	28/10/2020 15:00	11.345	0.828	
488	28/10/2020 16:00	11.345	0.916	
489	28/10/2020 17:00	11.345	0.895	
490	28/10/2020 18:00	11.345	0.826	
491	28/10/2020 19:00	11.345	0.661	
492	28/10/2020 20:00	11.345	0.456	
493	28/10/2020 21:00	11.345	0.261	
494	28/10/2020 22:00	11.345	0.157	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	28/10/2020 23:00	11.345	0.114	
496	29/10/2020 00:00	11.345	0.232	
497	29/10/2020 01:00	11.345	0.456	
498	29/10/2020 02:00	11.345	0.676	
499	29/10/2020 03:00	11.345	0.875	
500	29/10/2020 04:00	11.345	0.977	
501	29/10/2020 05:00	11.345	1.052	
502	29/10/2020 06:00	11.345	1.005	
503	29/10/2020 07:00	11.345	0.899	
504	29/10/2020 08:00	11.345	0.734	
505	29/10/2020 09:00	11.345	0.513	
506	29/10/2020 10:00	11.345	0.334	
507	29/10/2020 11:00	11.345	0.224	
508	29/10/2020 12:00	11.345	0.265	
509	29/10/2020 13:00	11.345	0.394	
510	29/10/2020 14:00	11.345	0.616	
511	29/10/2020 15:00	11.290	0.796	
512	29/10/2020 16:00	11.345	0.910	
513	29/10/2020 17:00	11.345	0.954	
514	29/10/2020 18:00	11.345	0.894	
515	29/10/2020 19:00	11.345	0.760	
516	29/10/2020 20:00	11.345	0.540	
517	29/10/2020 21:00	11.290	0.327	
518	29/10/2020 22:00	11.345	0.139	
519	29/10/2020 23:00	11.345	0.020	
520	30/10/2020 00:00	11.345	0.047	
521	30/10/2020 01:00	11.345	0.221	
522	30/10/2020 02:00	11.290	0.473	
523	30/10/2020 03:00	11.345	0.691	
524	30/10/2020 04:00	11.290	0.864	
525	30/10/2020 05:00	11.345	0.954	
526	30/10/2020 06:00	11.345	0.963	
527	30/10/2020 07:00	11.345	0.899	
528	30/10/2020 08:00	11.345	0.727	
529	30/10/2020 09:00	11.345	0.541	
530	30/10/2020 10:00	11.345	0.335	
531	30/10/2020 11:00	11.345	0.199	
532	30/10/2020 12:00	11.345	0.175	
533	30/10/2020 13:00	11.345	0.298	
534	30/10/2020 14:00	11.345	0.498	
535	30/10/2020 15:00	11.345	0.747	
536	30/10/2020 16:00	11.345	0.939	
537	30/10/2020 17:00	11.345	1.030	
538	30/10/2020 18:00	11.345	1.046	
539	30/10/2020 19:00	11.345	0.974	
540	30/10/2020 20:00	11.345	0.782	
541	30/10/2020 21:00	11.345	0.605	
542	30/10/2020 22:00	11.345	0.374	
543	30/10/2020 23:00	11.345	0.206	
544	31/10/2020 00:00	11.345	0.129	
545	31/10/2020 01:00	11.345	0.207	
546	31/10/2020 02:00	11.345	0.410	
547	31/10/2020 03:00	11.290	0.660	
548	31/10/2020 04:00	11.290	0.843	
549	31/10/2020 05:00	11.345	0.960	

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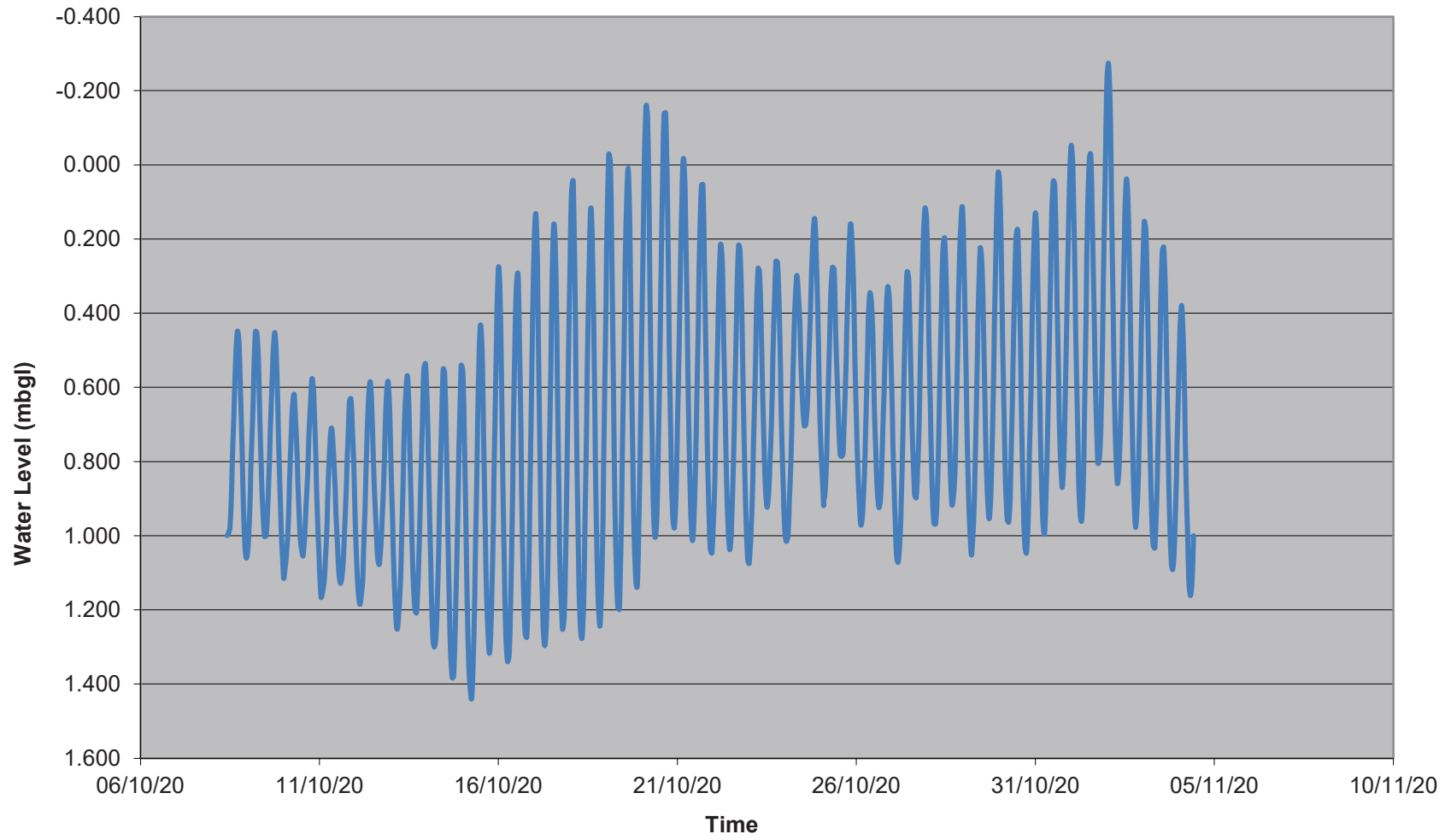
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	31/10/2020 06:00	11.345	0.995	
551	31/10/2020 07:00	11.345	0.906	
552	31/10/2020 08:00	11.345	0.746	
553	31/10/2020 09:00	11.345	0.547	
554	31/10/2020 10:00	11.345	0.324	
555	31/10/2020 11:00	11.345	0.123	
556	31/10/2020 12:00	11.345	0.043	
557	31/10/2020 13:00	11.345	0.056	
558	31/10/2020 14:00	11.345	0.260	
559	31/10/2020 15:00	11.345	0.470	
560	31/10/2020 16:00	11.345	0.680	
561	31/10/2020 17:00	11.345	0.814	
562	31/10/2020 18:00	11.290	0.870	
563	31/10/2020 19:00	11.345	0.793	
564	31/10/2020 20:00	11.345	0.635	
565	31/10/2020 21:00	11.345	0.405	
566	31/10/2020 22:00	11.345	0.206	
567	31/10/2020 23:00	11.345	0.020	
568	01/11/2020 00:00	11.345	-0.053	
569	01/11/2020 01:00	11.345	0.000	
570	01/11/2020 02:00	11.345	0.184	
571	01/11/2020 03:00	11.345	0.435	
572	01/11/2020 04:00	11.345	0.654	
573	01/11/2020 05:00	11.290	0.848	
574	01/11/2020 06:00	11.345	0.942	
575	01/11/2020 07:00	11.400	0.960	
576	01/11/2020 08:00	11.345	0.867	
577	01/11/2020 09:00	11.345	0.657	
578	01/11/2020 10:00	11.345	0.373	
579	01/11/2020 11:00	11.345	0.124	
580	01/11/2020 12:00	11.345	-0.010	
581	01/11/2020 13:00	11.345	-0.029	
582	01/11/2020 14:00	11.345	0.107	
583	01/11/2020 15:00	11.290	0.336	
584	01/11/2020 16:00	11.345	0.537	
585	01/11/2020 17:00	11.345	0.711	
586	01/11/2020 18:00	11.345	0.804	
587	01/11/2020 19:00	11.345	0.783	
588	01/11/2020 20:00	11.345	0.689	
589	01/11/2020 21:00	11.345	0.457	
590	01/11/2020 22:00	11.345	0.209	
591	01/11/2020 23:00	11.345	-0.046	
592	02/11/2020 00:00	11.345	-0.236	
593	02/11/2020 01:00	11.345	-0.274	
594	02/11/2020 02:00	11.345	-0.175	
595	02/11/2020 03:00	11.345	0.090	
596	02/11/2020 04:00	11.345	0.373	
597	02/11/2020 05:00	11.345	0.626	
598	02/11/2020 06:00	11.345	0.789	
599	02/11/2020 07:00	11.345	0.859	
600	02/11/2020 08:00	11.345	0.818	
601	02/11/2020 09:00	11.290	0.711	
602	02/11/2020 10:00	11.345	0.531	
603	02/11/2020 11:00	11.345	0.324	
604	02/11/2020 12:00	11.345	0.135	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	02/11/2020 13:00	11.400	0.038	
606	02/11/2020 14:00	11.345	0.085	
607	02/11/2020 15:00	11.345	0.265	
608	02/11/2020 16:00	11.345	0.503	
609	02/11/2020 17:00	11.345	0.736	
610	02/11/2020 18:00	11.345	0.884	
611	02/11/2020 19:00	11.345	0.976	
612	02/11/2020 20:00	11.345	0.935	
613	02/11/2020 21:00	11.345	0.832	
614	02/11/2020 22:00	11.345	0.658	
615	02/11/2020 23:00	11.345	0.460	
616	03/11/2020 00:00	11.345	0.271	
617	03/11/2020 01:00	11.345	0.153	
618	03/11/2020 02:00	11.345	0.178	
619	03/11/2020 03:00	11.345	0.338	
620	03/11/2020 04:00	11.345	0.568	
621	03/11/2020 05:00	11.345	0.784	
622	03/11/2020 06:00	11.345	0.961	
623	03/11/2020 07:00	11.345	1.026	
624	03/11/2020 08:00	11.345	1.032	
625	03/11/2020 09:00	11.345	0.939	
626	03/11/2020 10:00	11.345	0.795	
627	03/11/2020 11:00	11.345	0.589	
628	03/11/2020 12:00	11.345	0.379	
629	03/11/2020 13:00	11.345	0.233	
630	03/11/2020 14:00	11.345	0.222	
631	03/11/2020 15:00	11.345	0.332	
632	03/11/2020 16:00	11.345	0.538	
633	03/11/2020 17:00	11.345	0.772	
634	03/11/2020 18:00	11.345	0.953	
635	03/11/2020 19:00	11.345	1.071	
636	03/11/2020 20:00	11.345	1.091	
637	03/11/2020 21:00	11.345	1.050	
638	03/11/2020 22:00	11.345	0.914	
639	03/11/2020 23:00	11.345	0.753	
640	04/11/2020 00:00	11.345	0.584	
641	04/11/2020 01:00	11.345	0.436	
642	04/11/2020 02:00	11.345	0.379	
643	04/11/2020 03:00	11.345	0.456	
644	04/11/2020 04:00	11.345	0.633	
645	04/11/2020 05:00	11.345	0.852	
646	04/11/2020 06:00	11.345	1.005	
647	04/11/2020 07:00	11.345	1.135	
648	04/11/2020 08:00	11.400	1.161	
649	04/11/2020 09:00	11.400	1.121	
650	04/11/2020 10:00	11.345	1.000	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	04/11/2020 13:00	11.618	0.766	
2	04/11/2020 14:00	11.345	0.642	
3	04/11/2020 15:00	11.345	0.659	
4	04/11/2020 16:00	11.345	0.813	
5	04/11/2020 17:00	11.345	1.040	
6	04/11/2020 18:00	11.345	1.217	
7	04/11/2020 19:00	11.345	1.373	
8	04/11/2020 20:00	11.345	1.423	
9	04/11/2020 21:00	11.345	1.438	
10	04/11/2020 22:00	11.345	1.361	
11	04/11/2020 23:00	11.345	1.252	
12	05/11/2020 00:00	11.345	1.091	
13	05/11/2020 01:00	11.345	0.938	
14	05/11/2020 02:00	11.345	0.806	
15	05/11/2020 03:00	11.290	0.795	
16	05/11/2020 04:00	11.345	0.868	
17	05/11/2020 05:00	11.345	1.057	
18	05/11/2020 06:00	11.345	1.217	
19	05/11/2020 07:00	11.345	1.334	
20	05/11/2020 08:00	11.345	1.409	
21	05/11/2020 09:00	11.345	1.414	
22	05/11/2020 10:00	11.345	1.352	
23	05/11/2020 11:00	11.345	1.203	
24	05/11/2020 12:00	11.345	1.052	
25	05/11/2020 13:00	11.345	0.880	
26	05/11/2020 14:00	11.345	0.763	
27	05/11/2020 15:00	11.290	0.713	
28	05/11/2020 16:00	11.345	0.770	
29	05/11/2020 17:00	11.290	0.958	
30	05/11/2020 18:00	11.345	1.138	
31	05/11/2020 19:00	11.345	1.295	
32	05/11/2020 20:00	11.345	1.402	
33	05/11/2020 21:00	11.345	1.452	
34	05/11/2020 22:00	11.345	1.418	
35	05/11/2020 23:00	11.345	1.325	
36	06/11/2020 00:00	11.290	1.183	
37	06/11/2020 01:00	11.345	1.013	
38	06/11/2020 02:00	11.345	0.850	
39	06/11/2020 03:00	11.345	0.764	
40	06/11/2020 04:00	11.345	0.768	
41	06/11/2020 05:00	11.290	0.886	
42	06/11/2020 06:00	11.345	1.047	
43	06/11/2020 07:00	11.345	1.188	
44	06/11/2020 08:00	11.345	1.305	
45	06/11/2020 09:00	11.345	1.384	
46	06/11/2020 10:00	11.345	1.357	
47	06/11/2020 11:00	11.345	1.292	
48	06/11/2020 12:00	11.345	1.177	
49	06/11/2020 13:00	11.290	1.019	
50	06/11/2020 14:00	11.345	0.860	
51	06/11/2020 15:00	11.345	0.732	
52	06/11/2020 16:00	11.345	0.701	
53	06/11/2020 17:00	11.345	0.799	
54	06/11/2020 18:00	11.345	0.956	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	06/11/2020 19:00	11.345	1.123	
56	06/11/2020 20:00	11.345	1.262	
57	06/11/2020 21:00	11.345	1.344	
58	06/11/2020 22:00	11.345	1.373	
59	06/11/2020 23:00	11.345	1.318	
60	07/11/2020 00:00	11.345	1.236	
61	07/11/2020 01:00	11.345	1.100	
62	07/11/2020 02:00	11.345	0.968	
63	07/11/2020 03:00	11.345	0.808	
64	07/11/2020 04:00	11.345	0.741	
65	07/11/2020 05:00	11.345	0.767	
66	07/11/2020 06:00	11.345	0.889	
67	07/11/2020 07:00	11.290	1.044	
68	07/11/2020 08:00	11.345	1.164	
69	07/11/2020 09:00	11.345	1.281	
70	07/11/2020 10:00	11.345	1.317	
71	07/11/2020 11:00	11.345	1.308	
72	07/11/2020 12:00	11.290	1.217	
73	07/11/2020 13:00	11.345	1.092	
74	07/11/2020 14:00	11.345	0.924	
75	07/11/2020 15:00	11.345	0.812	
76	07/11/2020 16:00	11.345	0.687	
77	07/11/2020 17:00	11.345	0.649	
78	07/11/2020 18:00	11.345	0.734	
79	07/11/2020 19:00	11.345	0.907	
80	07/11/2020 20:00	11.345	1.070	
81	07/11/2020 21:00	11.345	1.218	
82	07/11/2020 22:00	11.345	1.298	
83	07/11/2020 23:00	11.290	1.341	
84	08/11/2020 00:00	11.345	1.312	
85	08/11/2020 01:00	11.345	1.253	
86	08/11/2020 02:00	11.345	1.150	
87	08/11/2020 03:00	11.345	1.037	
88	08/11/2020 04:00	11.345	0.903	
89	08/11/2020 05:00	11.345	0.790	
90	08/11/2020 06:00	11.345	0.817	
91	08/11/2020 07:00	11.290	0.891	
92	08/11/2020 08:00	11.345	1.020	
93	08/11/2020 09:00	11.345	1.144	
94	08/11/2020 10:00	11.345	1.245	
95	08/11/2020 11:00	11.345	1.252	
96	08/11/2020 12:00	11.345	1.243	
97	08/11/2020 13:00	11.345	1.159	
98	08/11/2020 14:00	11.345	1.049	
99	08/11/2020 15:00	11.345	0.917	
100	08/11/2020 16:00	11.345	0.798	
101	08/11/2020 17:00	11.345	0.695	
102	08/11/2020 18:00	11.345	0.666	
103	08/11/2020 19:00	11.345	0.738	
104	08/11/2020 20:00	11.290	0.884	
105	08/11/2020 21:00	11.345	1.056	
106	08/11/2020 22:00	11.290	1.193	
107	08/11/2020 23:00	11.345	1.281	
108	09/11/2020 00:00	11.345	1.326	
109	09/11/2020 01:00	11.345	1.329	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	09/11/2020 02:00	11.345	1.243	
111	09/11/2020 03:00	11.345	1.161	
112	09/11/2020 04:00	11.345	1.017	
113	09/11/2020 05:00	11.345	0.867	
114	09/11/2020 06:00	11.345	0.764	
115	09/11/2020 07:00	11.345	0.747	
116	09/11/2020 08:00	11.345	0.802	
117	09/11/2020 09:00	11.345	0.927	
118	09/11/2020 10:00	11.345	1.056	
119	09/11/2020 11:00	11.290	1.159	
120	09/11/2020 12:00	11.345	1.219	
121	09/11/2020 13:00	11.345	1.216	
122	09/11/2020 14:00	11.345	1.169	
123	09/11/2020 15:00	11.345	1.099	
124	09/11/2020 16:00	11.345	0.967	
125	09/11/2020 17:00	11.345	0.831	
126	09/11/2020 18:00	11.345	0.704	
127	09/11/2020 19:00	11.345	0.628	
128	09/11/2020 20:00	11.345	0.691	
129	09/11/2020 21:00	11.345	0.824	
130	09/11/2020 22:00	11.345	0.980	
131	09/11/2020 23:00	11.290	1.142	
132	10/11/2020 00:00	11.345	1.259	
133	10/11/2020 01:00	11.345	1.323	
134	10/11/2020 02:00	11.345	1.312	
135	10/11/2020 03:00	11.345	1.273	
136	10/11/2020 04:00	11.345	1.178	
137	10/11/2020 05:00	11.345	1.066	
138	10/11/2020 06:00	11.345	0.915	
139	10/11/2020 07:00	11.345	0.771	
140	10/11/2020 08:00	11.345	0.738	
141	10/11/2020 09:00	11.345	0.776	
142	10/11/2020 10:00	11.345	0.918	
143	10/11/2020 11:00	11.345	1.047	
144	10/11/2020 12:00	11.345	1.169	
145	10/11/2020 13:00	11.345	1.236	
146	10/11/2020 14:00	11.345	1.269	
147	10/11/2020 15:00	11.345	1.236	
148	10/11/2020 16:00	11.345	1.152	
149	10/11/2020 17:00	11.345	1.034	
150	10/11/2020 18:00	11.345	0.867	
151	10/11/2020 19:00	11.345	0.724	
152	10/11/2020 20:00	11.345	0.628	
153	10/11/2020 21:00	11.345	0.639	
154	10/11/2020 22:00	11.345	0.800	
155	10/11/2020 23:00	11.345	0.974	
156	11/11/2020 00:00	11.290	1.160	
157	11/11/2020 01:00	11.290	1.264	
158	11/11/2020 02:00	11.345	1.347	
159	11/11/2020 03:00	11.345	1.354	
160	11/11/2020 04:00	11.345	1.284	
161	11/11/2020 05:00	11.345	1.151	
162	11/11/2020 06:00	11.345	1.015	
163	11/11/2020 07:00	11.345	0.814	
164	11/11/2020 08:00	11.345	0.655	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	11/11/2020 09:00	11.345	0.576	
166	11/11/2020 10:00	11.345	0.638	
167	11/11/2020 11:00	11.345	0.775	
168	11/11/2020 12:00	11.345	0.959	
169	11/11/2020 13:00	11.345	1.110	
170	11/11/2020 14:00	11.345	1.180	
171	11/11/2020 15:00	11.345	1.183	
172	11/11/2020 16:00	11.345	1.118	
173	11/11/2020 17:00	11.345	0.972	
174	11/11/2020 18:00	11.345	0.787	
175	11/11/2020 19:00	11.345	0.529	
176	11/11/2020 20:00	11.345	0.385	
177	11/11/2020 21:00	11.345	0.292	
178	11/11/2020 22:00	11.345	0.331	
179	11/11/2020 23:00	11.345	0.549	
180	12/11/2020 00:00	11.345	0.785	
181	12/11/2020 01:00	11.345	0.991	
182	12/11/2020 02:00	11.345	1.143	
183	12/11/2020 03:00	11.345	1.227	
184	12/11/2020 04:00	11.345	1.222	
185	12/11/2020 05:00	11.400	1.154	
186	12/11/2020 06:00	11.345	1.026	
187	12/11/2020 07:00	11.345	0.830	
188	12/11/2020 08:00	11.345	0.636	
189	12/11/2020 09:00	11.345	0.490	
190	12/11/2020 10:00	11.345	0.443	
191	12/11/2020 11:00	11.345	0.541	
192	12/11/2020 12:00	11.345	0.734	
193	12/11/2020 13:00	11.345	0.937	
194	12/11/2020 14:00	11.345	1.109	
195	12/11/2020 15:00	11.345	1.196	
196	12/11/2020 16:00	11.345	1.232	
197	12/11/2020 17:00	11.345	1.143	
198	12/11/2020 18:00	11.345	0.980	
199	12/11/2020 19:00	11.290	0.784	
200	12/11/2020 20:00	11.345	0.539	
201	12/11/2020 21:00	11.345	0.348	
202	12/11/2020 22:00	11.345	0.265	
203	12/11/2020 23:00	11.345	0.349	
204	13/11/2020 00:00	11.345	0.563	
205	13/11/2020 01:00	11.345	0.798	
206	13/11/2020 02:00	11.345	1.018	
207	13/11/2020 03:00	11.345	1.159	
208	13/11/2020 04:00	11.345	1.235	
209	13/11/2020 05:00	11.345	1.182	
210	13/11/2020 06:00	11.345	1.066	
211	13/11/2020 07:00	11.345	0.862	
212	13/11/2020 08:00	11.345	0.633	
213	13/11/2020 09:00	11.345	0.418	
214	13/11/2020 10:00	11.345	0.270	
215	13/11/2020 11:00	11.345	0.282	
216	13/11/2020 12:00	11.345	0.467	
217	13/11/2020 13:00	11.345	0.720	
218	13/11/2020 14:00	11.345	0.947	
219	13/11/2020 15:00	11.345	1.145	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	13/11/2020 16:00	11.345	1.205	
221	13/11/2020 17:00	11.345	1.207	
222	13/11/2020 18:00	11.345	1.090	
223	13/11/2020 19:00	11.345	0.906	
224	13/11/2020 20:00	11.345	0.643	
225	13/11/2020 21:00	11.345	0.401	
226	13/11/2020 22:00	11.345	0.232	
227	13/11/2020 23:00	11.345	0.194	
228	14/11/2020 00:00	11.345	0.342	
229	14/11/2020 01:00	11.345	0.620	
230	14/11/2020 02:00	11.345	0.913	
231	14/11/2020 03:00	11.345	1.128	
232	14/11/2020 04:00	11.345	1.264	
233	14/11/2020 05:00	11.345	1.307	
234	14/11/2020 06:00	11.345	1.246	
235	14/11/2020 07:00	11.345	1.058	
236	14/11/2020 08:00	11.345	0.826	
237	14/11/2020 09:00	11.345	0.558	
238	14/11/2020 10:00	11.345	0.313	
239	14/11/2020 11:00	11.345	0.185	
240	14/11/2020 12:00	11.345	0.201	
241	14/11/2020 13:00	11.345	0.430	
242	14/11/2020 14:00	11.345	0.681	
243	14/11/2020 15:00	11.345	0.932	
244	14/11/2020 16:00	11.345	1.082	
245	14/11/2020 17:00	11.345	1.119	
246	14/11/2020 18:00	11.345	1.082	
247	14/11/2020 19:00	11.345	0.920	
248	14/11/2020 20:00	11.345	0.669	
249	14/11/2020 21:00	11.345	0.402	
250	14/11/2020 22:00	11.345	0.144	
251	14/11/2020 23:00	11.345	-0.021	
252	15/11/2020 00:00	11.345	-0.031	
253	15/11/2020 01:00	11.345	0.181	
254	15/11/2020 02:00	11.345	0.506	
255	15/11/2020 03:00	11.345	0.809	
256	15/11/2020 04:00	11.345	1.026	
257	15/11/2020 05:00	11.345	1.142	
258	15/11/2020 06:00	11.345	1.151	
259	15/11/2020 07:00	11.345	1.021	
260	15/11/2020 08:00	11.345	0.771	
261	15/11/2020 09:00	11.345	0.524	
262	15/11/2020 10:00	11.345	0.264	
263	15/11/2020 11:00	11.345	0.056	
264	15/11/2020 12:00	11.345	-0.006	
265	15/11/2020 13:00	11.345	0.090	
266	15/11/2020 14:00	11.345	0.389	
267	15/11/2020 15:00	11.345	0.681	
268	15/11/2020 16:00	11.345	0.908	
269	15/11/2020 17:00	11.345	1.087	
270	15/11/2020 18:00	11.345	1.126	
271	15/11/2020 19:00	11.345	1.074	
272	15/11/2020 20:00	11.345	0.889	
273	15/11/2020 21:00	11.345	0.648	
274	15/11/2020 22:00	11.345	0.386	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/11/2020 23:00	11.345	0.168	
276	16/11/2020 00:00	11.345	0.051	
277	16/11/2020 01:00	11.345	0.092	
278	16/11/2020 02:00	11.345	0.325	
279	16/11/2020 03:00	11.345	0.671	
280	16/11/2020 04:00	11.290	0.940	
281	16/11/2020 05:00	11.345	1.135	
282	16/11/2020 06:00	11.345	1.221	
283	16/11/2020 07:00	11.345	1.217	
284	16/11/2020 08:00	11.345	1.081	
285	16/11/2020 09:00	11.345	0.866	
286	16/11/2020 10:00	11.345	0.615	
287	16/11/2020 11:00	11.345	0.390	
288	16/11/2020 12:00	11.345	0.225	
289	16/11/2020 13:00	11.345	0.186	
290	16/11/2020 14:00	11.345	0.370	
291	16/11/2020 15:00	11.345	0.645	
292	16/11/2020 16:00	11.345	0.911	
293	16/11/2020 17:00	11.345	1.122	
294	16/11/2020 18:00	11.345	1.229	
295	16/11/2020 19:00	11.345	1.272	
296	16/11/2020 20:00	11.345	1.162	
297	16/11/2020 21:00	11.345	0.958	
298	16/11/2020 22:00	11.345	0.700	
299	16/11/2020 23:00	11.345	0.438	
300	17/11/2020 00:00	11.345	0.196	
301	17/11/2020 01:00	11.400	0.086	
302	17/11/2020 02:00	11.345	0.163	
303	17/11/2020 03:00	11.345	0.421	
304	17/11/2020 04:00	11.345	0.720	
305	17/11/2020 05:00	11.345	0.976	
306	17/11/2020 06:00	11.345	1.144	
307	17/11/2020 07:00	11.345	1.206	
308	17/11/2020 08:00	11.345	1.156	
309	17/11/2020 09:00	11.345	1.003	
310	17/11/2020 10:00	11.345	0.745	
311	17/11/2020 11:00	11.345	0.496	
312	17/11/2020 12:00	11.345	0.273	
313	17/11/2020 13:00	11.345	0.117	
314	17/11/2020 14:00	11.345	0.120	
315	17/11/2020 15:00	11.345	0.311	
316	17/11/2020 16:00	11.345	0.636	
317	17/11/2020 17:00	11.345	0.887	
318	17/11/2020 18:00	11.345	1.103	
319	17/11/2020 19:00	11.345	1.203	
320	17/11/2020 20:00	11.345	1.225	
321	17/11/2020 21:00	11.345	1.117	
322	17/11/2020 22:00	11.345	0.933	
323	17/11/2020 23:00	11.345	0.684	
324	18/11/2020 00:00	11.345	0.439	
325	18/11/2020 01:00	11.345	0.233	
326	18/11/2020 02:00	11.345	0.166	
327	18/11/2020 03:00	11.345	0.241	
328	18/11/2020 04:00	11.345	0.509	
329	18/11/2020 05:00	11.345	0.782	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
330	18/11/2020 06:00	11.345	1.014	
331	18/11/2020 07:00	11.290	1.152	
332	18/11/2020 08:00	11.345	1.180	
333	18/11/2020 09:00	11.345	1.097	
334	18/11/2020 10:00	11.345	0.935	
335	18/11/2020 11:00	11.345	0.684	
336	18/11/2020 12:00	11.345	0.451	
337	18/11/2020 13:00	11.345	0.219	
338	18/11/2020 14:00	11.345	0.107	
339	18/11/2020 15:00	11.345	0.146	
340	18/11/2020 16:00	11.345	0.375	
341	18/11/2020 17:00	11.345	0.677	
342	18/11/2020 18:00	11.345	0.930	
343	18/11/2020 19:00	11.345	1.117	
344	18/11/2020 20:00	11.345	1.202	
345	18/11/2020 21:00	11.345	1.202	
346	18/11/2020 22:00	11.345	1.102	
347	18/11/2020 23:00	11.345	0.957	
348	19/11/2020 00:00	11.345	0.694	
349	19/11/2020 01:00	11.345	0.509	
350	19/11/2020 02:00	11.345	0.311	
351	19/11/2020 03:00	11.400	0.267	
352	19/11/2020 04:00	11.345	0.382	
353	19/11/2020 05:00	11.345	0.624	
354	19/11/2020 06:00	11.345	0.865	
355	19/11/2020 07:00	11.345	1.091	
356	19/11/2020 08:00	11.345	1.229	
357	19/11/2020 09:00	11.345	1.261	
358	19/11/2020 10:00	11.345	1.230	
359	19/11/2020 11:00	11.345	1.116	
360	19/11/2020 12:00	11.345	0.957	
361	19/11/2020 13:00	11.345	0.771	
362	19/11/2020 14:00	11.345	0.647	
363	19/11/2020 15:00	11.345	0.568	
364	19/11/2020 16:00	11.290	0.621	
365	19/11/2020 17:00	11.345	0.798	
366	19/11/2020 18:00	11.345	0.979	
367	19/11/2020 19:00	11.290	1.191	
368	19/11/2020 20:00	11.345	1.312	
369	19/11/2020 21:00	11.290	1.382	
370	19/11/2020 22:00	11.345	1.387	
371	19/11/2020 23:00	11.345	1.286	
372	20/11/2020 00:00	11.345	1.156	
373	20/11/2020 01:00	11.290	0.977	
374	20/11/2020 02:00	11.345	0.800	
375	20/11/2020 03:00	11.345	0.659	
376	20/11/2020 04:00	11.345	0.565	
377	20/11/2020 05:00	11.345	0.641	
378	20/11/2020 06:00	11.345	0.787	
379	20/11/2020 07:00	11.345	0.990	
380	20/11/2020 08:00	11.345	1.135	
381	20/11/2020 09:00	11.345	1.235	
382	20/11/2020 10:00	11.345	1.242	
383	20/11/2020 11:00	11.345	1.173	
384	20/11/2020 12:00	11.345	1.051	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
385	20/11/2020 13:00	11.345	0.874	
386	20/11/2020 14:00	11.345	0.687	
387	20/11/2020 15:00	11.345	0.512	
388	20/11/2020 16:00	11.345	0.428	
389	20/11/2020 17:00	11.290	0.469	
390	20/11/2020 18:00	11.345	0.643	
391	20/11/2020 19:00	11.345	0.851	
392	20/11/2020 20:00	11.345	1.081	
393	20/11/2020 21:00	11.345	1.205	
394	20/11/2020 22:00	11.345	1.267	
395	20/11/2020 23:00	11.345	1.279	
396	21/11/2020 00:00	11.345	1.219	
397	21/11/2020 01:00	11.345	1.114	
398	21/11/2020 02:00	11.345	0.975	
399	21/11/2020 03:00	11.345	0.828	
400	21/11/2020 04:00	11.345	0.691	
401	21/11/2020 05:00	11.345	0.602	
402	21/11/2020 06:00	11.345	0.662	
403	21/11/2020 07:00	11.345	0.810	
404	21/11/2020 08:00	11.290	0.940	
405	21/11/2020 09:00	11.345	1.088	
406	21/11/2020 10:00	11.345	1.160	
407	21/11/2020 11:00	11.345	1.184	
408	21/11/2020 12:00	11.345	1.140	
409	21/11/2020 13:00	11.345	1.025	
410	21/11/2020 14:00	11.290	0.870	
411	21/11/2020 15:00	11.345	0.706	
412	21/11/2020 16:00	11.345	0.567	
413	21/11/2020 17:00	11.345	0.494	
414	21/11/2020 18:00	11.345	0.540	
415	21/11/2020 19:00	11.290	0.676	
416	21/11/2020 20:00	11.345	0.899	
417	21/11/2020 21:00	11.345	1.064	
418	21/11/2020 22:00	11.345	1.174	
419	21/11/2020 23:00	11.290	1.270	
420	22/11/2020 00:00	11.345	1.258	
421	22/11/2020 01:00	11.345	1.249	
422	22/11/2020 02:00	11.345	1.168	
423	22/11/2020 03:00	11.345	1.041	
424	22/11/2020 04:00	11.345	0.907	
425	22/11/2020 05:00	11.345	0.785	
426	22/11/2020 06:00	11.345	0.692	
427	22/11/2020 07:00	11.345	0.730	
428	22/11/2020 08:00	11.290	0.850	
429	22/11/2020 09:00	11.345	0.982	
430	22/11/2020 10:00	11.345	1.101	
431	22/11/2020 11:00	11.345	1.185	
432	22/11/2020 12:00	11.345	1.197	
433	22/11/2020 13:00	11.345	1.175	
434	22/11/2020 14:00	11.345	1.106	
435	22/11/2020 15:00	11.345	0.991	
436	22/11/2020 16:00	11.345	0.864	
437	22/11/2020 17:00	11.345	0.714	
438	22/11/2020 18:00	11.345	0.637	
439	22/11/2020 19:00	11.345	0.606	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
440	22/11/2020 20:00	11.345	0.711	
441	22/11/2020 21:00	11.290	0.895	
442	22/11/2020 22:00	11.345	1.056	
443	22/11/2020 23:00	11.345	1.163	
444	23/11/2020 00:00	11.345	1.272	
445	23/11/2020 01:00	11.345	1.292	
446	23/11/2020 02:00	11.345	1.278	
447	23/11/2020 03:00	11.345	1.240	
448	23/11/2020 04:00	11.345	1.137	
449	23/11/2020 05:00	11.345	1.005	
450	23/11/2020 06:00	11.345	0.880	
451	23/11/2020 07:00	11.345	0.794	
452	23/11/2020 08:00	11.345	0.765	
453	23/11/2020 09:00	11.345	0.843	
454	23/11/2020 10:00	11.345	0.980	
455	23/11/2020 11:00	11.345	1.083	
456	23/11/2020 12:00	11.345	1.155	
457	23/11/2020 13:00	11.345	1.183	
458	23/11/2020 14:00	11.345	1.144	
459	23/11/2020 15:00	11.290	1.078	
460	23/11/2020 16:00	11.345	0.923	
461	23/11/2020 17:00	11.345	0.797	
462	23/11/2020 18:00	11.345	0.631	
463	23/11/2020 19:00	11.345	0.547	
464	23/11/2020 20:00	11.345	0.559	
465	23/11/2020 21:00	11.290	0.648	
466	23/11/2020 22:00	11.345	0.807	
467	23/11/2020 23:00	11.345	0.965	
468	24/11/2020 00:00	11.345	1.099	
469	24/11/2020 01:00	11.345	1.199	
470	24/11/2020 02:00	11.345	1.225	
471	24/11/2020 03:00	11.345	1.220	
472	24/11/2020 04:00	11.345	1.179	
473	24/11/2020 05:00	11.345	1.084	
474	24/11/2020 06:00	11.345	0.938	
475	24/11/2020 07:00	11.345	0.811	
476	24/11/2020 08:00	11.345	0.698	
477	24/11/2020 09:00	11.345	0.667	
478	24/11/2020 10:00	11.345	0.755	
479	24/11/2020 11:00	11.345	0.882	
480	24/11/2020 12:00	11.345	1.018	
481	24/11/2020 13:00	11.345	1.098	
482	24/11/2020 14:00	11.290	1.152	
483	24/11/2020 15:00	11.290	1.133	
484	24/11/2020 16:00	11.345	1.037	
485	24/11/2020 17:00	11.290	0.910	
486	24/11/2020 18:00	11.345	0.774	
487	24/11/2020 19:00	11.345	0.612	
488	24/11/2020 20:00	11.345	0.514	
489	24/11/2020 21:00	11.345	0.502	
490	24/11/2020 22:00	11.345	0.598	
491	24/11/2020 23:00	11.345	0.789	
492	25/11/2020 00:00	11.290	0.951	
493	25/11/2020 01:00	11.345	1.090	
494	25/11/2020 02:00	11.345	1.210	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
495	25/11/2020 03:00	11.345	1.248	
496	25/11/2020 04:00	11.345	1.256	
497	25/11/2020 05:00	11.345	1.191	
498	25/11/2020 06:00	11.345	1.094	
499	25/11/2020 07:00	11.345	0.957	
500	25/11/2020 08:00	11.345	0.797	
501	25/11/2020 09:00	11.345	0.695	
502	25/11/2020 10:00	11.345	0.686	
503	25/11/2020 11:00	11.345	0.780	
504	25/11/2020 12:00	11.345	0.943	
505	25/11/2020 13:00	11.345	1.063	
506	25/11/2020 14:00	11.345	1.156	
507	25/11/2020 15:00	11.345	1.204	
508	25/11/2020 16:00	11.345	1.180	
509	25/11/2020 17:00	11.345	1.133	
510	25/11/2020 18:00	11.345	1.034	
511	25/11/2020 19:00	11.345	0.893	
512	25/11/2020 20:00	11.345	0.743	
513	25/11/2020 21:00	11.290	0.643	
514	25/11/2020 22:00	11.345	0.635	
515	25/11/2020 23:00	11.345	0.745	
516	26/11/2020 00:00	11.290	0.906	
517	26/11/2020 01:00	11.345	1.074	
518	26/11/2020 02:00	11.345	1.222	
519	26/11/2020 03:00	11.345	1.313	
520	26/11/2020 04:00	11.290	1.330	
521	26/11/2020 05:00	11.345	1.311	
522	26/11/2020 06:00	11.345	1.239	
523	26/11/2020 07:00	11.345	1.098	
524	26/11/2020 08:00	11.345	0.957	
525	26/11/2020 09:00	11.345	0.803	
526	26/11/2020 10:00	11.345	0.717	
527	26/11/2020 11:00	11.345	0.748	
528	26/11/2020 12:00	11.345	0.867	
529	26/11/2020 13:00	11.345	1.035	
530	26/11/2020 14:00	11.345	1.150	
531	26/11/2020 15:00	11.345	1.252	
532	26/11/2020 16:00	11.345	1.274	
533	26/11/2020 17:00	11.345	1.260	
534	26/11/2020 18:00	11.345	1.164	
535	26/11/2020 19:00	11.345	1.001	
536	26/11/2020 20:00	11.345	0.834	
537	26/11/2020 21:00	11.345	0.717	
538	26/11/2020 22:00	11.345	0.607	
539	26/11/2020 23:00	11.345	0.655	
540	27/11/2020 00:00	11.345	0.775	
541	27/11/2020 01:00	11.345	0.963	
542	27/11/2020 02:00	11.345	1.126	
543	27/11/2020 03:00	11.345	1.253	
544	27/11/2020 04:00	11.345	1.320	
545	27/11/2020 05:00	11.345	1.342	
546	27/11/2020 06:00	11.345	1.294	
547	27/11/2020 07:00	11.345	1.179	
548	27/11/2020 08:00	11.345	1.045	
549	27/11/2020 09:00	11.345	0.868	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
550	27/11/2020 10:00	11.345	0.734	
551	27/11/2020 11:00	11.345	0.659	
552	27/11/2020 12:00	11.345	0.726	
553	27/11/2020 13:00	11.345	0.906	
554	27/11/2020 14:00	11.345	1.058	
555	27/11/2020 15:00	11.345	1.197	
556	27/11/2020 16:00	11.345	1.268	
557	27/11/2020 17:00	11.345	1.276	
558	27/11/2020 18:00	11.345	1.202	
559	27/11/2020 19:00	11.345	1.108	
560	27/11/2020 20:00	11.345	0.920	
561	27/11/2020 21:00	11.345	0.746	
562	27/11/2020 22:00	11.345	0.592	
563	27/11/2020 23:00	11.345	0.532	
564	28/11/2020 00:00	11.345	0.606	
565	28/11/2020 01:00	11.345	0.788	
566	28/11/2020 02:00	11.345	0.994	
567	28/11/2020 03:00	11.345	1.149	
568	28/11/2020 04:00	11.345	1.262	
569	28/11/2020 05:00	11.345	1.290	
570	28/11/2020 06:00	11.400	1.268	
571	28/11/2020 07:00	11.345	1.173	
572	28/11/2020 08:00	11.345	1.023	
573	28/11/2020 09:00	11.345	0.824	
574	28/11/2020 10:00	11.345	0.669	
575	28/11/2020 11:00	11.345	0.556	
576	28/11/2020 12:00	11.345	0.580	
577	28/11/2020 13:00	11.345	0.718	
578	28/11/2020 14:00	11.345	0.920	
579	28/11/2020 15:00	11.345	1.075	
580	28/11/2020 16:00	11.345	1.211	
581	28/11/2020 17:00	11.345	1.269	
582	28/11/2020 18:00	11.345	1.246	
583	28/11/2020 19:00	11.345	1.148	
584	28/11/2020 20:00	11.345	1.014	
585	28/11/2020 21:00	11.345	0.855	
586	28/11/2020 22:00	11.345	0.671	
587	28/11/2020 23:00	11.345	0.564	
588	29/11/2020 00:00	11.345	0.550	
589	29/11/2020 01:00	11.345	0.688	
590	29/11/2020 02:00	11.345	0.880	
591	29/11/2020 03:00	11.345	1.067	
592	29/11/2020 04:00	11.345	1.220	
593	29/11/2020 05:00	11.345	1.308	
594	29/11/2020 06:00	11.345	1.328	
595	29/11/2020 07:00	11.345	1.254	
596	29/11/2020 08:00	11.345	1.125	
597	29/11/2020 09:00	11.345	0.940	
598	29/11/2020 10:00	11.345	0.764	
599	29/11/2020 11:00	11.345	0.646	
600	29/11/2020 12:00	11.345	0.584	
601	29/11/2020 13:00	11.345	0.655	
602	29/11/2020 14:00	11.345	0.851	
603	29/11/2020 15:00	11.345	1.029	
604	29/11/2020 16:00	11.345	1.190	

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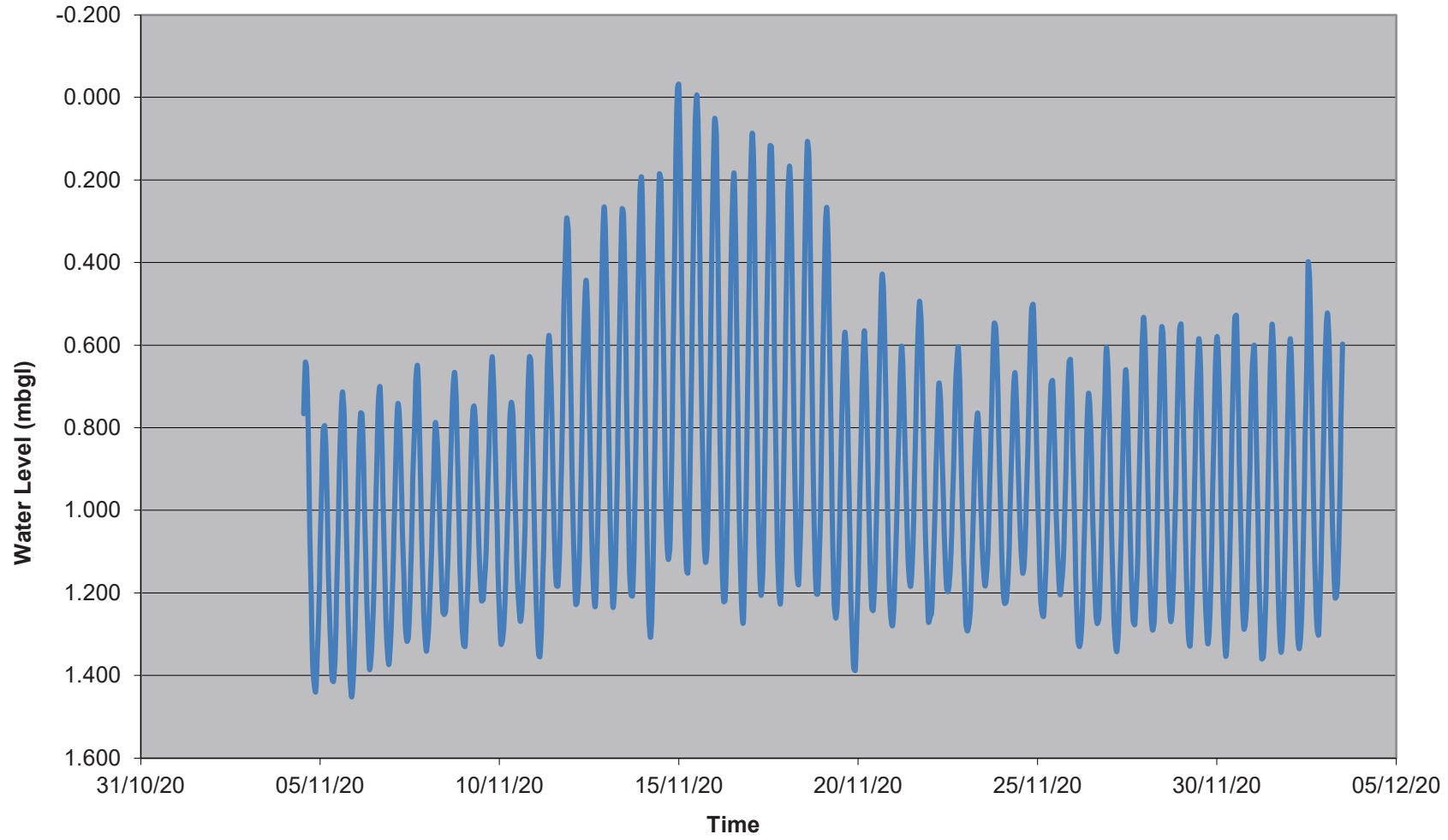
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
605	29/11/2020 17:00	11.345	1.283	
606	29/11/2020 18:00	11.345	1.323	
607	29/11/2020 19:00	11.345	1.284	
608	29/11/2020 20:00	11.345	1.163	
609	29/11/2020 21:00	11.345	0.979	
610	29/11/2020 22:00	11.345	0.809	
611	29/11/2020 23:00	11.345	0.649	
612	30/11/2020 00:00	11.345	0.579	
613	30/11/2020 01:00	11.345	0.631	
614	30/11/2020 02:00	11.345	0.799	
615	30/11/2020 03:00	11.345	1.031	
616	30/11/2020 04:00	11.345	1.194	
617	30/11/2020 05:00	11.345	1.304	
618	30/11/2020 06:00	11.345	1.354	
619	30/11/2020 07:00	11.345	1.304	
620	30/11/2020 08:00	11.345	1.194	
621	30/11/2020 09:00	11.345	1.033	
622	30/11/2020 10:00	11.345	0.820	
623	30/11/2020 11:00	11.345	0.655	
624	30/11/2020 12:00	11.345	0.533	
625	30/11/2020 13:00	11.345	0.528	
626	30/11/2020 14:00	11.345	0.674	
627	30/11/2020 15:00	11.345	0.880	
628	30/11/2020 16:00	11.345	1.047	
629	30/11/2020 17:00	11.345	1.217	
630	30/11/2020 18:00	11.345	1.287	
631	30/11/2020 19:00	11.345	1.275	
632	30/11/2020 20:00	11.345	1.208	
633	30/11/2020 21:00	11.345	1.048	
634	30/11/2020 22:00	11.345	0.897	
635	30/11/2020 23:00	11.345	0.715	
636	01/12/2020 00:00	11.345	0.627	
637	01/12/2020 01:00	11.290	0.603	
638	01/12/2020 02:00	11.345	0.740	
639	01/12/2020 03:00	11.345	0.948	
640	01/12/2020 04:00	11.345	1.134	
641	01/12/2020 05:00	11.345	1.273	
642	01/12/2020 06:00	11.345	1.359	
643	01/12/2020 07:00	11.345	1.355	
644	01/12/2020 08:00	11.345	1.288	
645	01/12/2020 09:00	11.345	1.164	
646	01/12/2020 10:00	11.345	0.982	
647	01/12/2020 11:00	11.345	0.764	
648	01/12/2020 12:00	11.345	0.618	
649	01/12/2020 13:00	11.345	0.549	
650	01/12/2020 14:00	11.345	0.627	
651	01/12/2020 15:00	11.345	0.826	
652	01/12/2020 16:00	11.345	1.019	
653	01/12/2020 17:00	11.290	1.197	
654	01/12/2020 18:00	11.290	1.307	
655	01/12/2020 19:00	11.345	1.344	
656	01/12/2020 20:00	11.345	1.296	
657	01/12/2020 21:00	11.345	1.189	
658	01/12/2020 22:00	11.345	1.003	
659	01/12/2020 23:00	11.345	0.831	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
660	02/12/2020 00:00	11.345	0.673	
661	02/12/2020 01:00	11.345	0.584	
662	02/12/2020 02:00	11.345	0.646	
663	02/12/2020 03:00	11.345	0.804	
664	02/12/2020 04:00	11.345	0.992	
665	02/12/2020 05:00	11.345	1.169	
666	02/12/2020 06:00	11.345	1.300	
667	02/12/2020 07:00	11.345	1.335	
668	02/12/2020 08:00	11.345	1.306	
669	02/12/2020 09:00	11.345	1.208	
670	02/12/2020 10:00	11.345	1.038	
671	02/12/2020 11:00	11.345	0.830	
672	02/12/2020 12:00	11.345	0.657	
673	02/12/2020 13:00	11.345	0.403	
674	02/12/2020 14:00	11.345	0.443	
675	02/12/2020 15:00	11.345	0.614	
676	02/12/2020 16:00	11.345	0.848	
677	02/12/2020 17:00	11.345	1.044	
678	02/12/2020 18:00	11.345	1.202	
679	02/12/2020 19:00	11.345	1.284	
680	02/12/2020 20:00	11.345	1.301	
681	02/12/2020 21:00	11.345	1.210	
682	02/12/2020 22:00	11.345	1.081	
683	02/12/2020 23:00	11.345	0.889	
684	03/12/2020 00:00	11.345	0.698	
685	03/12/2020 01:00	11.345	0.564	
686	03/12/2020 02:00	11.345	0.522	
687	03/12/2020 03:00	11.345	0.597	
688	03/12/2020 04:00	11.345	0.785	
689	03/12/2020 05:00	11.345	0.986	
690	03/12/2020 06:00	11.345	1.115	
691	03/12/2020 07:00	11.345	1.212	
692	03/12/2020 08:00	11.290	1.208	
693	03/12/2020 09:00	11.345	1.153	
694	03/12/2020 10:00	11.345	1.004	
695	03/12/2020 11:00	11.345	0.784	
696	03/12/2020 12:00	11.345	0.597	
697	03/12/2020 13:00	11.345	0.437	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	03/12/2020 15:00	11.345	0.722	
2	03/12/2020 16:00	11.345	0.838	
3	03/12/2020 17:00	11.345	1.017	
4	03/12/2020 18:00	11.345	1.153	
5	03/12/2020 19:00	11.345	1.230	
6	03/12/2020 20:00	11.345	1.211	
7	03/12/2020 21:00	11.345	1.122	
8	03/12/2020 22:00	11.290	0.970	
9	03/12/2020 23:00	11.345	0.816	
10	04/12/2020 00:00	11.345	0.635	
11	04/12/2020 01:00	11.345	0.529	
12	04/12/2020 02:00	11.345	0.554	
13	04/12/2020 03:00	11.290	0.680	
14	04/12/2020 04:00	11.345	0.866	
15	04/12/2020 05:00	11.345	1.046	
16	04/12/2020 06:00	11.290	1.173	
17	04/12/2020 07:00	11.345	1.225	
18	04/12/2020 08:00	11.290	1.221	
19	04/12/2020 09:00	11.345	1.134	
20	04/12/2020 10:00	11.345	0.998	
21	04/12/2020 11:00	11.290	0.819	
22	04/12/2020 12:00	11.345	0.651	
23	04/12/2020 13:00	11.345	0.494	
24	04/12/2020 14:00	11.345	0.436	
25	04/12/2020 15:00	11.400	0.541	
26	04/12/2020 16:00	11.290	0.726	
27	04/12/2020 17:00	11.345	0.936	
28	04/12/2020 18:00	11.345	1.092	
29	04/12/2020 19:00	11.345	1.201	
30	04/12/2020 20:00	11.345	1.220	
31	04/12/2020 21:00	11.345	1.182	
32	04/12/2020 22:00	11.400	1.063	
33	04/12/2020 23:00	11.345	0.934	
34	05/12/2020 00:00	11.290	0.791	
35	05/12/2020 01:00	11.345	0.668	
36	05/12/2020 02:00	11.345	0.606	
37	05/12/2020 03:00	11.345	0.683	
38	05/12/2020 04:00	11.290	0.815	
39	05/12/2020 05:00	11.290	0.971	
40	05/12/2020 06:00	11.345	1.132	
41	05/12/2020 07:00	11.345	1.223	
42	05/12/2020 08:00	11.345	1.260	
43	05/12/2020 09:00	11.345	1.227	
44	05/12/2020 10:00	11.345	1.153	
45	05/12/2020 11:00	11.345	0.991	
46	05/12/2020 12:00	11.345	0.850	
47	05/12/2020 13:00	11.345	0.708	
48	05/12/2020 14:00	11.345	0.586	
49	05/12/2020 15:00	11.345	0.601	
50	05/12/2020 16:00	11.345	0.728	
51	05/12/2020 17:00	11.345	0.912	
52	05/12/2020 18:00	11.345	1.094	
53	05/12/2020 19:00	11.345	1.217	
54	05/12/2020 20:00	11.345	1.331	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	05/12/2020 21:00	11.345	1.353	
56	05/12/2020 22:00	11.345	1.307	
57	05/12/2020 23:00	11.345	1.226	
58	06/12/2020 00:00	11.345	1.095	
59	06/12/2020 01:00	11.345	0.942	
60	06/12/2020 02:00	11.345	0.779	
61	06/12/2020 03:00	11.345	0.702	
62	06/12/2020 04:00	11.345	0.738	
63	06/12/2020 05:00	11.345	0.889	
64	06/12/2020 06:00	11.290	1.023	
65	06/12/2020 07:00	11.345	1.171	
66	06/12/2020 08:00	11.345	1.272	
67	06/12/2020 09:00	11.345	1.287	
68	06/12/2020 10:00	11.345	1.260	
69	06/12/2020 11:00	11.345	1.172	
70	06/12/2020 12:00	11.345	1.050	
71	06/12/2020 13:00	11.345	0.892	
72	06/12/2020 14:00	11.345	0.710	
73	06/12/2020 15:00	11.345	0.612	
74	06/12/2020 16:00	11.345	0.612	
75	06/12/2020 17:00	11.345	0.768	
76	06/12/2020 18:00	11.345	0.925	
77	06/12/2020 19:00	11.345	1.114	
78	06/12/2020 20:00	11.345	1.253	
79	06/12/2020 21:00	11.290	1.315	
80	06/12/2020 22:00	11.345	1.341	
81	06/12/2020 23:00	11.345	1.283	
82	07/12/2020 00:00	11.345	1.192	
83	07/12/2020 01:00	11.345	1.037	
84	07/12/2020 02:00	11.345	0.880	
85	07/12/2020 03:00	11.345	0.741	
86	07/12/2020 04:00	11.345	0.660	
87	07/12/2020 05:00	11.345	0.693	
88	07/12/2020 06:00	11.345	0.843	
89	07/12/2020 07:00	11.345	0.994	
90	07/12/2020 08:00	11.345	1.106	
91	07/12/2020 09:00	11.345	1.200	
92	07/12/2020 10:00	11.345	1.214	
93	07/12/2020 11:00	11.345	1.183	
94	07/12/2020 12:00	11.345	1.092	
95	07/12/2020 13:00	11.345	0.951	
96	07/12/2020 14:00	11.345	0.772	
97	07/12/2020 15:00	11.345	0.592	
98	07/12/2020 16:00	11.345	0.511	
99	07/12/2020 17:00	11.345	0.518	
100	07/12/2020 18:00	11.345	0.643	
101	07/12/2020 19:00	11.290	0.832	
102	07/12/2020 20:00	11.345	1.026	
103	07/12/2020 21:00	11.345	1.155	
104	07/12/2020 22:00	11.345	1.229	
105	07/12/2020 23:00	11.345	1.257	
106	08/12/2020 00:00	11.345	1.231	
107	08/12/2020 01:00	11.290	1.153	
108	08/12/2020 02:00	11.290	1.028	
109	08/12/2020 03:00	11.290	0.873	

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	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	08/12/2020 04:00	11.345	0.724	
111	08/12/2020 05:00	11.345	0.638	
112	08/12/2020 06:00	11.345	0.679	
113	08/12/2020 07:00	11.345	0.821	
114	08/12/2020 08:00	11.345	0.953	
115	08/12/2020 09:00	11.290	1.070	
116	08/12/2020 10:00	11.345	1.161	
117	08/12/2020 11:00	11.345	1.188	
118	08/12/2020 12:00	11.345	1.164	
119	08/12/2020 13:00	11.345	1.064	
120	08/12/2020 14:00	11.345	0.932	
121	08/12/2020 15:00	11.345	0.762	
122	08/12/2020 16:00	11.345	0.641	
123	08/12/2020 17:00	11.345	0.553	
124	08/12/2020 18:00	11.345	0.580	
125	08/12/2020 19:00	11.345	0.700	
126	08/12/2020 20:00	11.345	0.872	
127	08/12/2020 21:00	11.345	1.074	
128	08/12/2020 22:00	11.345	1.215	
129	08/12/2020 23:00	11.400	1.315	
130	09/12/2020 00:00	11.345	1.351	
131	09/12/2020 01:00	11.345	1.313	
132	09/12/2020 02:00	11.345	1.229	
133	09/12/2020 03:00	11.345	1.098	
134	09/12/2020 04:00	11.345	0.940	
135	09/12/2020 05:00	11.345	0.803	
136	09/12/2020 06:00	11.290	0.703	
137	09/12/2020 07:00	11.345	0.748	
138	09/12/2020 08:00	11.345	0.827	
139	09/12/2020 09:00	11.290	0.975	
140	09/12/2020 10:00	11.345	1.132	
141	09/12/2020 11:00	11.345	1.215	
142	09/12/2020 12:00	11.345	1.255	
143	09/12/2020 13:00	11.345	1.223	
144	09/12/2020 14:00	11.345	1.159	
145	09/12/2020 15:00	11.345	1.035	
146	09/12/2020 16:00	11.345	0.852	
147	09/12/2020 17:00	11.345	0.658	
148	09/12/2020 18:00	11.345	0.520	
149	09/12/2020 19:00	11.345	0.459	
150	09/12/2020 20:00	11.345	0.565	
151	09/12/2020 21:00	11.345	0.729	
152	09/12/2020 22:00	11.345	0.933	
153	09/12/2020 23:00	11.345	1.076	
154	10/12/2020 00:00	11.290	1.194	
155	10/12/2020 01:00	11.400	1.239	
156	10/12/2020 02:00	11.345	1.206	
157	10/12/2020 03:00	11.345	1.124	
158	10/12/2020 04:00	11.345	1.010	
159	10/12/2020 05:00	11.345	0.866	
160	10/12/2020 06:00	11.400	0.716	
161	10/12/2020 07:00	11.345	0.620	
162	10/12/2020 08:00	11.345	0.613	
163	10/12/2020 09:00	11.400	0.737	
164	10/12/2020 10:00	11.345	0.921	

Project. Harbour Point Bray
Project No. 22734
Engineer. Atkins
Client. Ballymore
Borehole No. ROH 04
Serial No. 760760



	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	10/12/2020 11:00	11.345	1.056	
166	10/12/2020 12:00	11.345	1.192	
167	10/12/2020 13:00	11.345	1.232	
168	10/12/2020 14:00	11.345	1.215	
169	10/12/2020 15:00	11.345	1.127	
170	10/12/2020 16:00	11.345	1.004	
171	10/12/2020 17:00	11.345	0.811	
172	10/12/2020 18:00	11.400	0.584	
173	10/12/2020 19:00	11.345	0.441	
174	10/12/2020 20:00	11.345	0.401	
175	10/12/2020 21:00	11.345	0.506	
176	10/12/2020 22:00	11.345	0.719	
177	10/12/2020 23:00	11.400	0.914	
178	11/12/2020 00:00	11.345	1.084	
179	11/12/2020 01:00	11.345	1.187	
180	11/12/2020 02:00	11.400	1.232	
181	11/12/2020 03:00	11.345	1.194	
182	11/12/2020 04:00	11.345	1.117	
183	11/12/2020 05:00	11.345	0.947	
184	11/12/2020 06:00	11.345	0.726	
185	11/12/2020 07:00	11.345	0.542	
186	11/12/2020 08:00	11.345	0.414	
187	11/12/2020 09:00	11.345	0.412	
188	11/12/2020 10:00	11.290	0.555	
189	11/12/2020 11:00	11.345	0.786	
190	11/12/2020 12:00	11.345	0.948	
191	11/12/2020 13:00	11.345	1.097	
192	11/12/2020 14:00	11.345	1.152	
193	11/12/2020 15:00	11.345	1.120	
194	11/12/2020 16:00	11.345	1.056	
195	11/12/2020 17:00	11.345	0.877	
196	11/12/2020 18:00	11.400	0.733	
197	11/12/2020 19:00	11.345	0.542	
198	11/12/2020 20:00	11.345	0.401	
199	11/12/2020 21:00	11.345	0.380	
200	11/12/2020 22:00	11.345	0.533	
201	11/12/2020 23:00	11.290	0.747	
202	12/12/2020 00:00	11.345	0.978	
203	12/12/2020 01:00	11.345	1.179	
204	12/12/2020 02:00	11.345	1.273	
205	12/12/2020 03:00	11.290	1.309	
206	12/12/2020 04:00	11.290	1.264	
207	12/12/2020 05:00	11.290	1.147	
208	12/12/2020 06:00	11.400	0.964	
209	12/12/2020 07:00	11.345	0.759	
210	12/12/2020 08:00	11.290	0.575	
211	12/12/2020 09:00	11.345	0.480	
212	12/12/2020 10:00	11.290	0.533	
213	12/12/2020 11:00	11.290	0.705	
214	12/12/2020 12:00	11.345	0.926	
215	12/12/2020 13:00	11.345	1.116	
216	12/12/2020 14:00	11.400	1.260	
217	12/12/2020 15:00	11.345	1.291	
218	12/12/2020 16:00	11.290	1.274	
219	12/12/2020 17:00	11.290	1.174	

Project. Harbour Point Bray
Project No. 22734
Engineer. Atkins
Client. Ballymore
Borehole No. ROH 04
Serial No. 760760



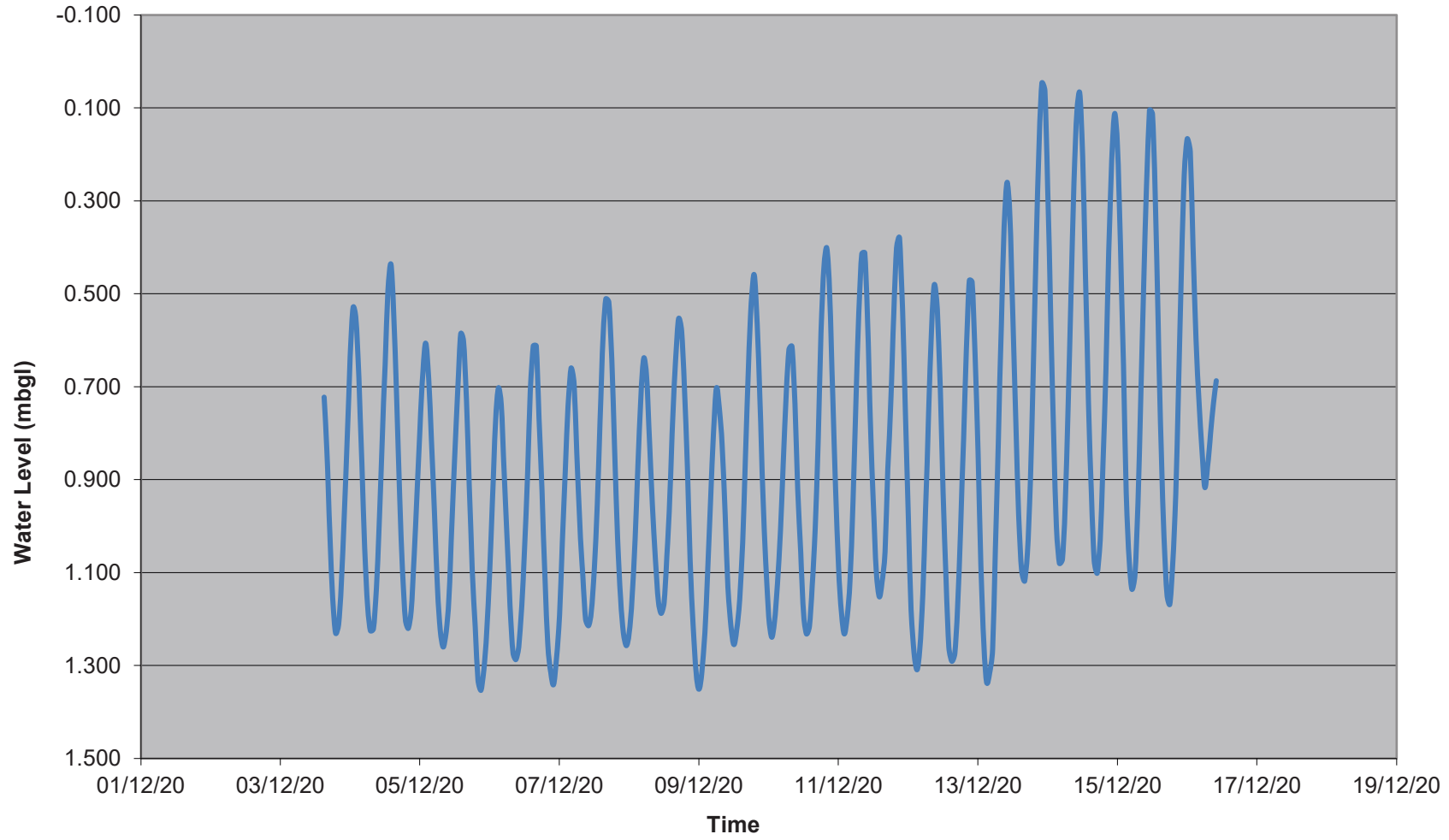
	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
220	12/12/2020 18:00	11.290	1.007	
221	12/12/2020 19:00	11.345	0.813	
222	12/12/2020 20:00	11.400	0.621	
223	12/12/2020 21:00	11.290	0.471	
224	12/12/2020 22:00	11.345	0.475	
225	12/12/2020 23:00	11.290	0.633	
226	13/12/2020 00:00	11.345	0.845	
227	13/12/2020 01:00	11.290	1.083	
228	13/12/2020 02:00	11.290	1.253	
229	13/12/2020 03:00	11.345	1.336	
230	13/12/2020 04:00	11.290	1.316	
231	13/12/2020 05:00	11.345	1.265	
232	13/12/2020 06:00	11.400	1.050	
233	13/12/2020 07:00	11.290	0.816	
234	13/12/2020 08:00	11.345	0.566	
235	13/12/2020 09:00	11.400	0.356	
236	13/12/2020 10:00	11.400	0.260	
237	13/12/2020 11:00	11.400	0.333	
238	13/12/2020 12:00	11.345	0.551	
239	13/12/2020 13:00	11.345	0.779	
240	13/12/2020 14:00	11.345	0.975	
241	13/12/2020 15:00	11.400	1.095	
242	13/12/2020 16:00	11.400	1.118	
243	13/12/2020 17:00	11.400	1.058	
244	13/12/2020 18:00	11.345	0.903	
245	13/12/2020 19:00	11.345	0.675	
246	13/12/2020 20:00	11.290	0.401	
247	13/12/2020 21:00	11.345	0.173	
248	13/12/2020 22:00	11.345	0.046	
249	13/12/2020 23:00	11.400	0.063	
250	14/12/2020 00:00	11.400	0.271	
251	14/12/2020 01:00	11.400	0.546	
252	14/12/2020 02:00	11.345	0.805	
253	14/12/2020 03:00	11.345	1.001	
254	14/12/2020 04:00	11.400	1.080	
255	14/12/2020 05:00	11.290	1.071	
256	14/12/2020 06:00	11.345	0.956	
257	14/12/2020 07:00	11.400	0.738	
258	14/12/2020 08:00	11.400	0.509	
259	14/12/2020 09:00	11.345	0.262	
260	14/12/2020 10:00	11.290	0.107	
261	14/12/2020 11:00	11.400	0.067	
262	14/12/2020 12:00	11.400	0.205	
263	14/12/2020 13:00	11.290	0.457	
264	14/12/2020 14:00	11.345	0.732	
265	14/12/2020 15:00	11.400	0.932	
266	14/12/2020 16:00	11.400	1.074	
267	14/12/2020 17:00	11.290	1.101	
268	14/12/2020 18:00	11.290	1.031	
269	14/12/2020 19:00	11.400	0.868	
270	14/12/2020 20:00	11.345	0.662	
271	14/12/2020 21:00	11.290	0.411	
272	14/12/2020 22:00	11.400	0.212	
273	14/12/2020 23:00	11.400	0.112	
274	15/12/2020 00:00	11.345	0.182	

Project. Harbour Point Bray
Project No. 22734
Engineer. Atkins
Client. Ballymore
Borehole No. ROH 04
Serial No. 760760



	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
275	15/12/2020 01:00	11.345	0.394	
276	15/12/2020 02:00	11.345	0.653	
277	15/12/2020 03:00	11.400	0.928	
278	15/12/2020 04:00	11.345	1.074	
279	15/12/2020 05:00	11.345	1.136	
280	15/12/2020 06:00	11.290	1.104	
281	15/12/2020 07:00	11.345	0.950	
282	15/12/2020 08:00	11.345	0.728	
283	15/12/2020 09:00	11.345	0.477	
284	15/12/2020 10:00	11.400	0.270	
285	15/12/2020 11:00	11.345	0.105	
286	15/12/2020 12:00	11.290	0.113	
287	15/12/2020 13:00	11.345	0.289	
288	15/12/2020 14:00	11.345	0.569	
289	15/12/2020 15:00	11.345	0.835	
290	15/12/2020 16:00	11.290	1.023	
291	15/12/2020 17:00	11.345	1.147	
292	15/12/2020 18:00	11.400	1.168	
293	15/12/2020 19:00	11.290	1.080	
294	15/12/2020 20:00	11.345	0.932	
295	15/12/2020 21:00	11.345	0.704	
296	15/12/2020 22:00	11.345	0.441	
297	15/12/2020 23:00	11.345	0.243	
298	16/12/2020 00:00	11.345	0.166	
299	16/12/2020 01:00	11.400	0.194	
300	16/12/2020 02:00	11.345	0.397	
301	16/12/2020 03:00	11.345	0.598	
302	16/12/2020 04:00	11.290	0.732	
303	16/12/2020 05:00	11.345	0.830	
304	16/12/2020 06:00	11.290	0.916	
305	16/12/2020 07:00	11.400	0.872	
306	16/12/2020 08:00	11.345	0.801	
307	16/12/2020 09:00	12.325	0.734	
308	16/12/2020 10:00	12.325	0.687	

22734-ROH 04 Harbour Point Bray



Appendix 9

Geotechnical Laboratory Test Results - Soil

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. **R116073** Contract No. **22734** Contract Name: **Harbour Point Bray , Co.Wicklow**
 Customer **Ballymore Group / Atkins**
 Samples Received: **09/10/20** Date Tested: **14/10/20**

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
BH201	AA134066	1.0	A20/4531	B	19	38	NP	NP	46	WS	4.4		Brown sandy gravelly SILT
BH201	AA134073	8.0	A20/4533	B	30								Brown sandy SILT/CLAY
BH201	AA134074	9.0	A20/4534	B	20	26	NP	NP	91	WS	4.4		Brown slightly gravelly sandy SILT
BH202	AA134475	1.0	A20/4535	B	12								Brown clayey/silty, very sandy, GRAVEL
BH202	AA134476	2.0	A20/4536	B	14	44	22	22	31	WS	4.4	C I	Brown sandy gravelly CLAY
BH204	AA146494	0.8	A20/4537	B	12	46	NP	NP	25	WS	4.4		Brown silty sandy GRAVEL
BH205	AA134477	1.0	A20/4539	B	11	37	NP	NP	28	WS	4.4		Brown silty, very sandy, GRAVEL
BH205	AA134479	3.0	A20/4540	B	6.3	29	NP	NP	22	WS	4.4		Brown silty, sandy, GRAVEL
BH205	AA134481	5.0	A20/4541	B	10								Brown sandy gravelly SILT/CLAY
BH205	AA134483	7.0	A20/4542	B	12								Brown clayey/silty, very sandy, GRAVEL with some co
BH205	AA134485	9.0	A20/4543	B	32	34	NP	NP	98	WS	4.4		Brown slightly gravelly sandy SILT
BH206	AA146486	1.0	A20/4544	B	4.2	26	NP	NP	7	WS	4.4		Brown silty very sandy GRAVEL
BH206	AA146491	4.5	A20/4546	B	24								Mottled brown sandy gravelly SILT/CLAY
BH206	AA146493	6.0	A20/4547	B	18	44	17	27	90	WS	4.4	C I	Brown sandy gravelly CLAY
BH207	AA134487	1.0	A20/4548	B	14	40	NP	NP	34	WS	4.4		Brown silty, sandy, GRAVEL

Notes: Preparation: WS - Wet sieved AR - As received NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method

Sample Type: B - Bulk Disturbed U - Undisturbed

Remarks: Results apply to the sample as received.
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		10/11/20	1 of 1

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. **R116074** Contract No. **22734** Contract Name: **Harbour Point Bray , Co.Wicklow**
 Customer **Ballymore Group / Atkins**
 Samples Received: **09/10/20** Date Tested: **12/10/20**

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
BH207	AA134489	3.0	A20/4549	B	8.3								Brown sandy gravelly SILT/CLAY
BH207	AA134490	4.0	A20/4550	B	7.8								Brown clayey/silty, very sandy, GRAVEL
BH207	AA134492	6.0	A20/4551	B	14								Brown sandy gravelly SILT/CLAY
BH207	AA134493	7.0	A20/4552	B	13	33	16	17	83	WS	4.4	C L	Brown sandy gravelly CLAY
BH207	AA134495	9.0	A20/4553	B	16								Brown sandy gravelly SILT/CLAY
BH208	AA139451	1.0	A20/4554	B	13	47	NP	NP	26	WS	4.4		Brown sandy gravelly SILT
BH208	AA139453	3.0	A20/4556	B	11								Brown sandy gravelly SILT/CLAY
BH210	AA141606	4.5	A20/4558	B	9.1	34	NP	NP	17	WS	4.4		Brown silty sandy GRAVEL
BH210	AA141607	5.5	A20/4559	B	9.6								Brown clayey/silty, very gravelly, SAND
BH210	AA141608	6.5	A20/4560	B	9.3	39	NP	NP	20	WS	4.4		Brown silty sandy GRAVEL
BH210	AA141610	8.5	A20/4561	B	10								Brown silty/clayey sandy GRAVEL
BH210	AA141611	9.5	A20/4562	B	28	34	NP	NP	95	WS	4.4		Brown slightly gravelly sandy SILT
BH210	AA141613	11.5	A20/4563	B	15	33	15	18	65	WS	4.4	C L	Brown slightly sandy, slightly gravelly, CLAY with some cobbles
BH211	AA146466	3.0	A20/4564	B	7								Brown clayey/silty, very sandy, GRAVEL
BH211	AA146470	6.0	A20/4565	B	19	27	NP	NP	75	WS	4.4		Brown sandy gravelly SILT

Notes: Preparation: WS - Wet sieved AR - As received NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method

Sample Type: B - Bulk Disturbed U - Undisturbed

Remarks: Results apply to the sample as received.
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		10/11/20	1 of 1

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. **R116075** Contract No. **22734** Contract Name: **Harbour Point Bray , Co.Wicklow**

Customer **Ballymore Group / Atkins**

Samples Received: **09/10/20** Date Tested: **12/10/20**

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
BH211	AA146473	7.5	A20/4566	B	19	27	NP	NP	77	WS	4.4		Brown sandy gravelly SILT
BH211	AA146475	8.5	A20/4567	B	22								Brown sandy gravelly SILT/CLAY
BH211	AA146477	9.5	A20/4568	B	18	50	NP	NP	66	WS	4.4		Brown sandy gravelly SILT
BH211	AA146480	10.5	A20/4569	B	9.2								Brown silty/clayey sandy GRAVEL
BH211	AA146482	12.0	A20/4570	B	8.2								Brown slightly clayey/silty, very sandy, GRAVEL
BH213	AA146604	4.5	A20/4572	B	18	40	17	23	95	WS	4.4	C I	Dark brown sandy gravelly CLAY
BH213	AA146607	7.5	A20/4573	B	20								Brown slightly sandy, slightly gravelly, SILT/CLAY
BH213	AA146609	9.5	A20/4574	B	22	42	17	25	98	WS	4.4	C I	Brown slightly gravelly sandy CLAY
BH213	AA146610	10.5	A20/4575	B	24								Brown sandy gravelly SILT/CLAY
BH214	AA146611	1.5	A20/4576	B	9.7	37	NP	NP	23	WS	4.4		Brown sandy gravelly SILT
BH214	AA146612	2.5	A20/4577	B	25								Brown slightly sandy, slightly gravelly, SILT/CLAY
BH214	AA146614	4.5	A20/4578	B	22	48	19	29	98	WS	4.4	C I	Brown slightly gravelly sandy CLAY
BH215	AA141653	1.5	A20/4579	B	18	40	18	22	97	WS	4.4	C I	Mottled brown sandy gravelly CLAY
BH215	AA141657	3.5	A20/4580	B	22								Mottled brown sandy gravelly SILT/CLAY
BH215	AA141659	4.5	A20/4588	B	15								Brown sandy gravelly SILT/CLAY

Notes: Preparation: WS - Wet sieved AR - As received NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method

Sample Type: B - Bulk Disturbed U - Undisturbed

Remarks: Results apply to the sample as received.
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		28/10/20	1 of 1

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. **R116076** Contract No. **22734** Contract Name: **Harbour Point Bray , Co.Wicklow**

Customer **Ballymore Group / Atkins**

Samples Received: **09/10/20** Date Tested: **12/10/20**

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
BH215	AA141661	5.5	A20/4581	B	18	31	NP	NP	71	WS	4.4		Brown sandy gravelly SILT
BH215	AA141663	6.5	A20/4582	B	20								Brown sandy gravelly SILT/CLAY
BH215	AA141665	7.5	A20/4583	B	21								Brown gravelly sandy SILT/CLAY
BH215	AA141667	8.5	A20/4584	B	21								Brown gravelly sandy SILT/CLAY
BH215	AA141669	9.5	A20/4585	B	17	39	15	24	84	WS	4.4		Brown sandy gravelly CLAY
BH215	AA141673	11.5	A20/4586	B	17								Brown sandy gravelly SILT/CLAY
BH215	AA141676	13.3	A20/4587	B	14								Brown sandy gravelly SILT/CLAY
BH216	AA146620	1.5	A20/4589	B	19	44	18	26	82	WS	4.4		Brown sandy gravelly CLAY
BH216	AA146622	3.5	A20/4591	B	20								Mottled brown sandy gravelly SILT/CLAY
BH216	AA146623	4.5	A20/4592	B	15								Brown slightly sandy, slightly gravelly, SILT/CLAY
BH216	AA146625	6.5	A20/4593	B	13	39	NP	NP	13	WS	4.4		Brown silty sandy GRAVEL
BH216	AA146626	7.5	A20/4594	B	16								Brown sandy gravelly SILT/CLAY
BH216	AA146628	9.5	A20/4596	B	18	31	NP	NP	83	WS	4.4		Brown sandy gravelly SILT
BH216	AA146629	10.5	A20/4597	B	15								Brown sandy gravelly SILT/CLAY
BH216	AA146630	11.5	A20/4598	B	11								Brown sandy gravelly SILT/CLAY

Notes: Preparation: WS - Wet sieved Sample Type: B - Bulk Disturbed Remarks: Results apply to the sample as received.
 AR - As received U - Undisturbed
 NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		23/10/20	1 of 1

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. **R116077** Contract No. **22734** Contract Name: **Harbour Point Bray , Co.Wicklow**

Customer **Ballymore Group / Atkins**

Samples Received: **09/10/20** Date Tested: **12/10/20**

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
BH221	AA141628	2.5	A20/4599	B	28	38	NP	NP	97	WS	4.4		Mottled brown sandy gravelly SILT
BH221	AA141630	4.5	A20/4600	B	36	35	NP	NP	99	WS	4.4		Brown sandy gravelly SILT
BH221	AA141632	6.5	A20/4601	B	47	33	NP	NP	97	WS	4.4		Grey slightly gravelly sandy SILT
BH221	AA141634	8.5	A20/4602	B	36	34	NP	NP	98	WS	4.4		Grey/brown slightly gravelly sandy SILT
BH221	AA141635	9.5	A20/4603	B	39								Grey sandy SILT/CLAY
BH221	AA141638	12.5	A20/4604	B	17								Brown clayey/silty, very gravelly, SAND
BH221	AA141640	14.5	A20/4605	B	13	37	15	22	57	WS	4.4	C I	Brown sandy gravelly CLAY
BH222A	AA141616	2.5	A20/4607	B	32	34	NP	NP	98	WS	4.4		Brown sandy SILT
BH222A	AA141618	4.5	A20/4608	B	59	27	NP	NP	98	WS	4.4		Grey/brown sandy SILT
BH222A	AA141620	6.5	A20/4609	B	41								Grey sandy, slightly gravelly, SILT/CLAY
BH222A	AA141622	8.5	A20/4610	B	39								Grey sandy SILT/CLAY
BH222A	AA141624	10.5	A20/4611	B	67	60	30	30	98	WS	4.4	C H	Grey sandy CLAY

Notes: Preparation: WS - Wet sieved Sample Type: B - Bulk Disturbed Remarks: Results apply to the sample as received.
 AR - As received U - Undisturbed
 NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		04/11/20	1 of 1

TEST REPORT

Determination of Particle Size Distribution

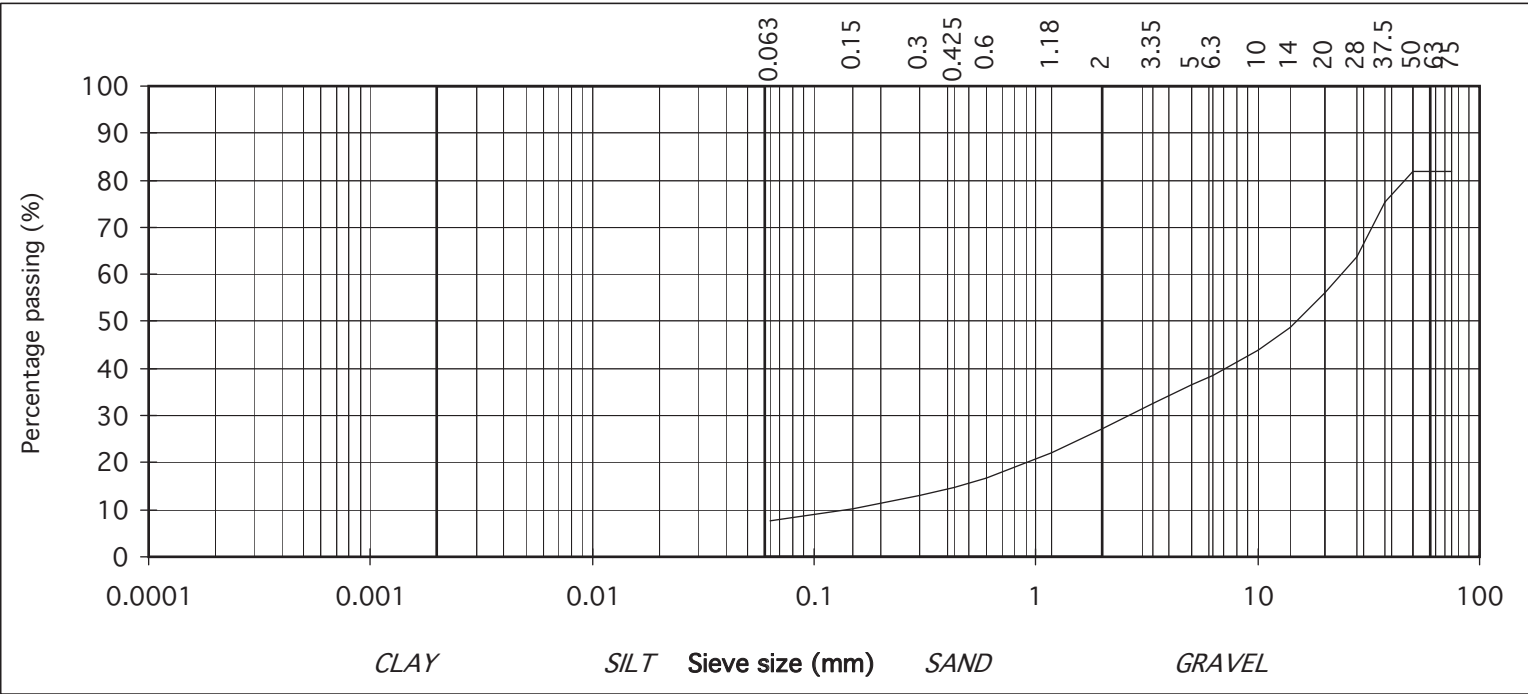
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	82	COBBLES
63	82	
50	82	GRAVEL
37.5	75	
28	64	
20	56	
14	49	
10	44	
6.3	39	
5	36	
3.35	33	
2	27	
1.18	22	SAND
0.6	17	
0.425	15	
0.3	13	
0.15	10	SILT/CLAY
0.063	8	

Contract No. 22734 Report No. R116131
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH201
 Sample No. AA134069 Lab. Sample No. A20/4532
 Sample Type: B
 Depth (m) 4.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 Description: Brown 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 apply to sample as received. Sample size did not meet the requirements of BS1377



TEST REPORT

Determination of Particle Size Distribution

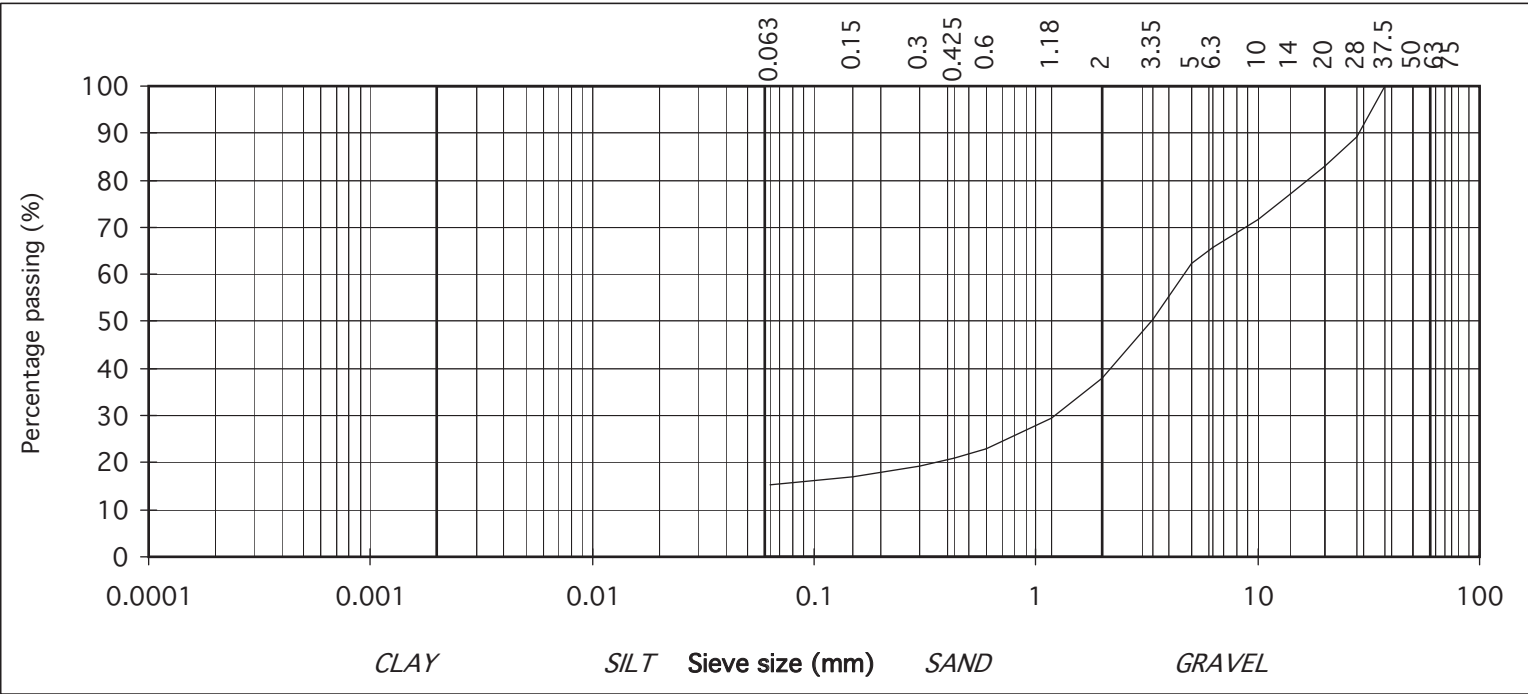
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	89	GRAVEL
20	83	
14	77	
10	72	
6.3	66	
5	62	
3.35	50	
2	38	
1.18	30	
0.6	23	
0.425	21	SAND
0.3	19	
0.15	17	
0.063	15	SILT/CLAY

Contract No. 22734 Report No. R116376
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH202
 Sample No. AA134475 Lab. Sample No. A20/4535
 Sample Type: B
 Depth (m) 1.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 21/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



TEST REPORT

Determination of Particle Size Distribution

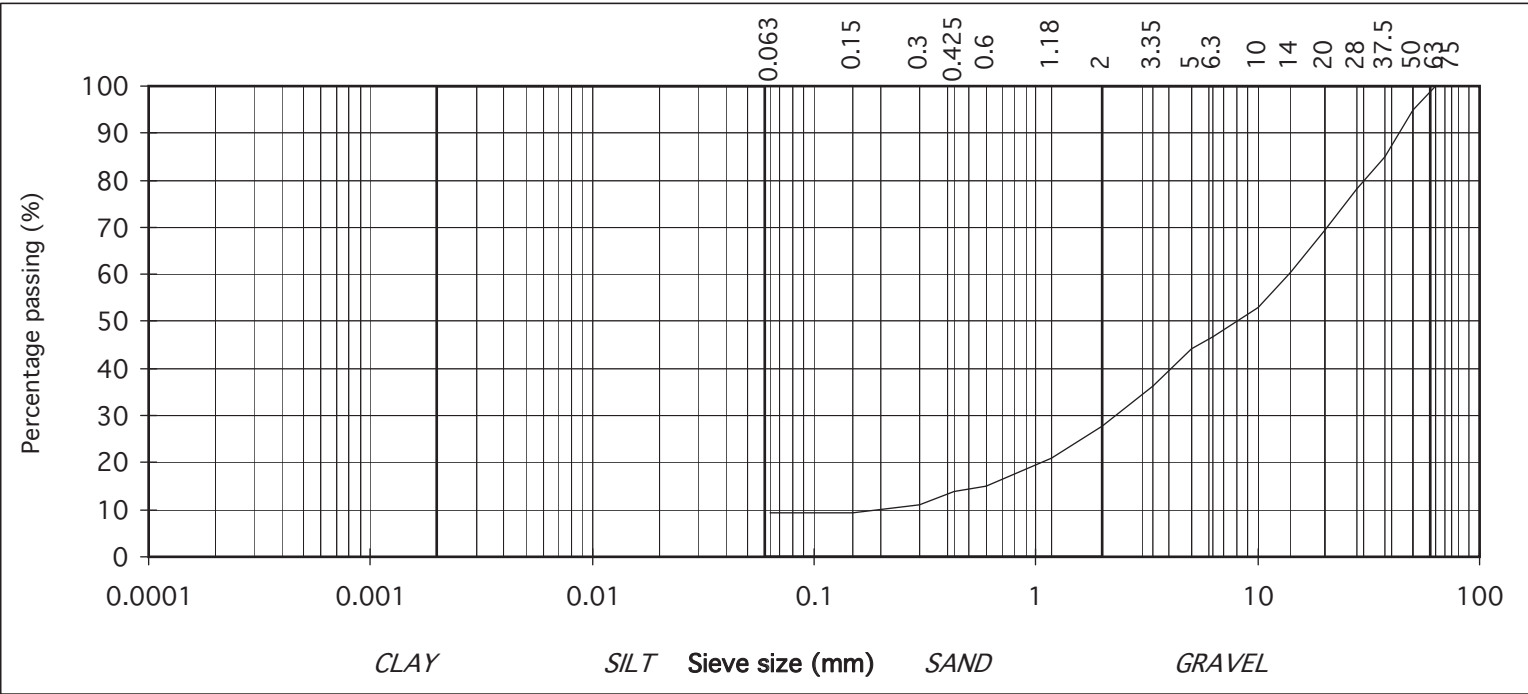
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	85	
28	78	
20	69	
14	60	
10	53	
6.3	47	
5	44	
3.35	36	
2	28	
1.18	21	SAND
0.6	15	
0.425	14	
0.3	11	SILT/CLAY
0.15	9	
0.063	9	

Contract No. 22734 Report No. R116115
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH204
 Sample No. AA146495 Lab. Sample No. A20/4538
 Sample Type: B
 Depth (m) 1.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 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 apply to sample as received.



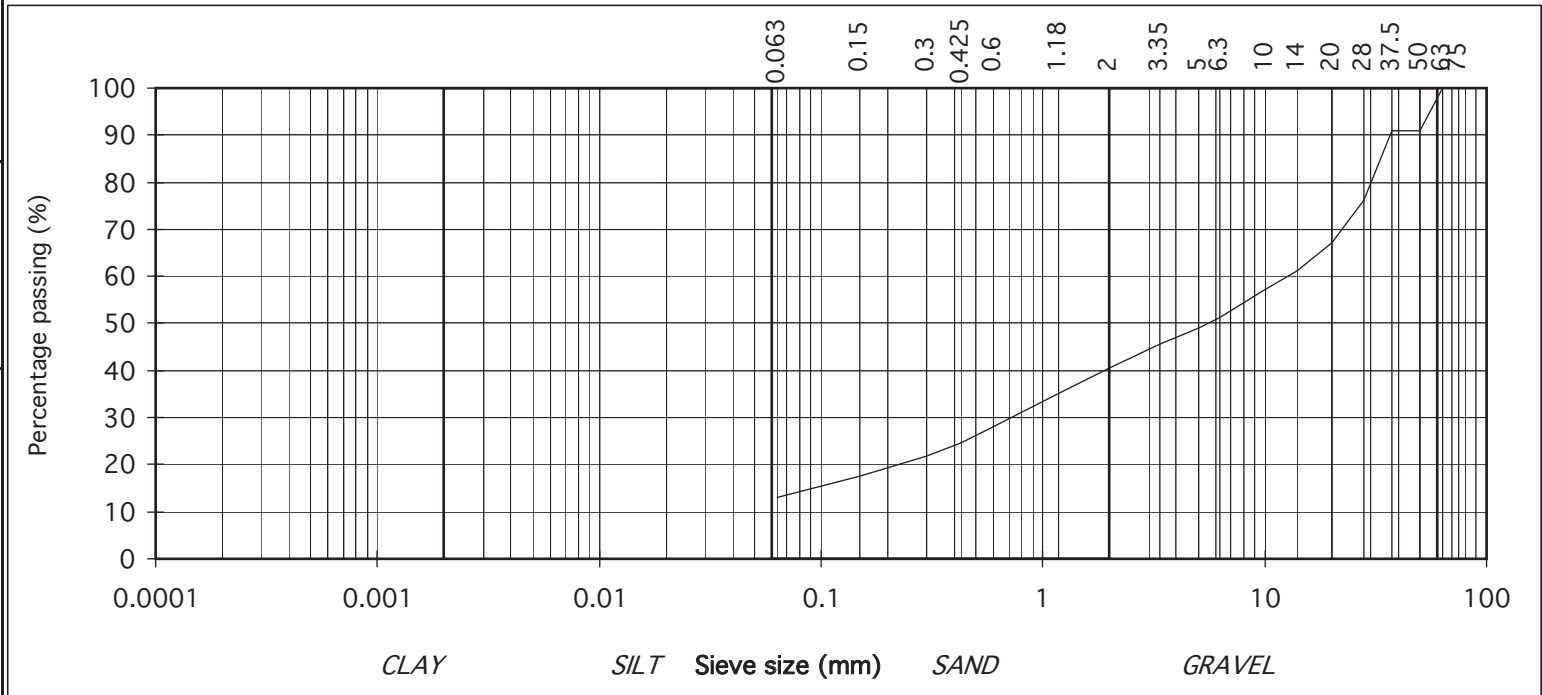
TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	91	GRAVEL
37.5	91	
28	76	
20	67	
14	61	
10	57	
6.3	51	
5	49	
3.35	46	
2	41	
1.18	35	SAND
0.6	28	
0.425	25	
0.3	22	
0.15	17	SILT/CLAY
0.063	13	

Contract No. 22734 Report No. R116132
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH205
 Sample No. AA134477 Lab. Sample No. A20/4539
 Sample Type: B
 Depth (m) 1.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 Description: Brown 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	23/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

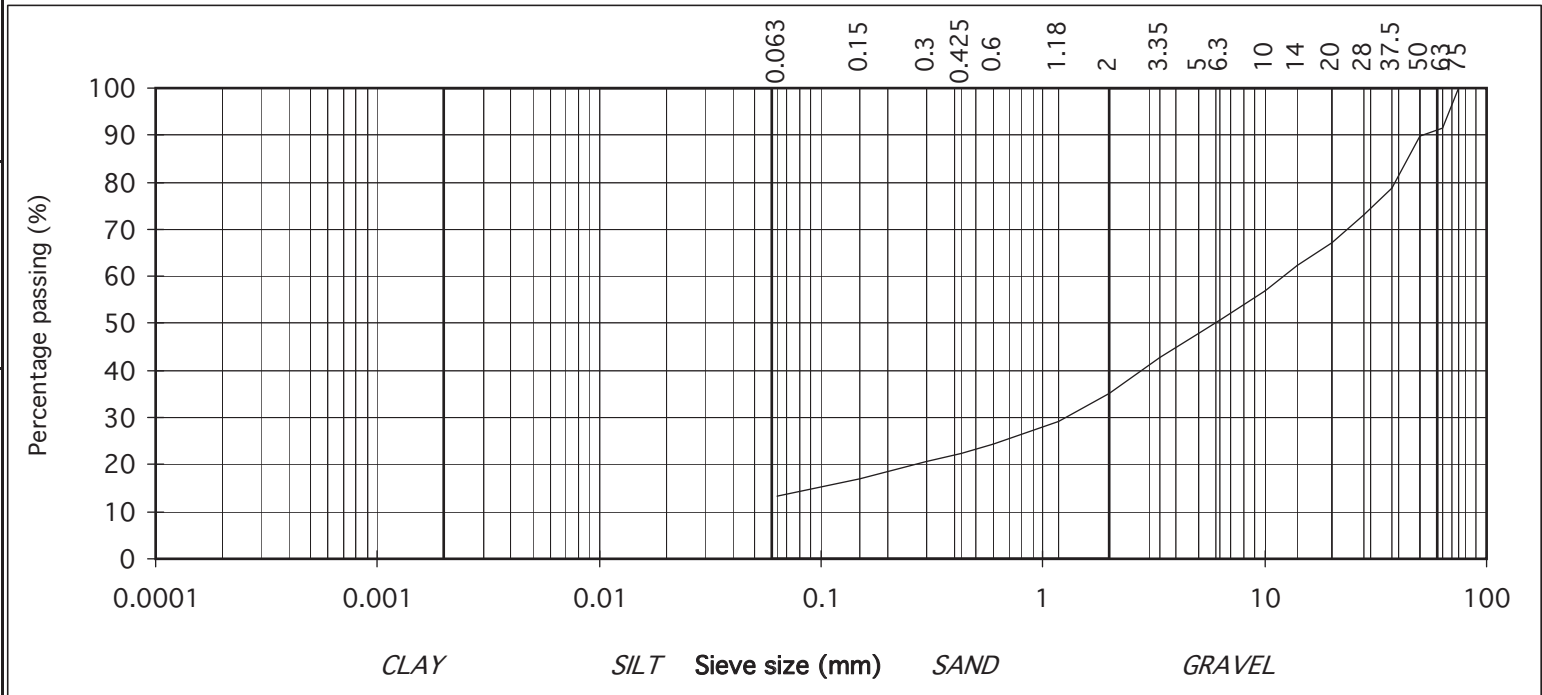
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	91	
50	90	GRAVEL
37.5	79	
28	73	
20	67	
14	62	
10	57	
6.3	51	
5	48	
3.35	43	
2	35	
1.18	29	
0.6	24	
0.425	23	
0.3	21	SILT/CLAY
0.15	17	
0.063	13	

Contract No. 22734 Report No. R116437
 Contract Name: Harbour , Point , Bray , Co.Wicklow
 BH/TP : BH205
 Sample No. AA134483 Lab. Sample No. A20/4542
 Sample Type: B
 Depth (m) 7.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 22/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received.



TEST REPORT

Determination of Particle Size Distribution

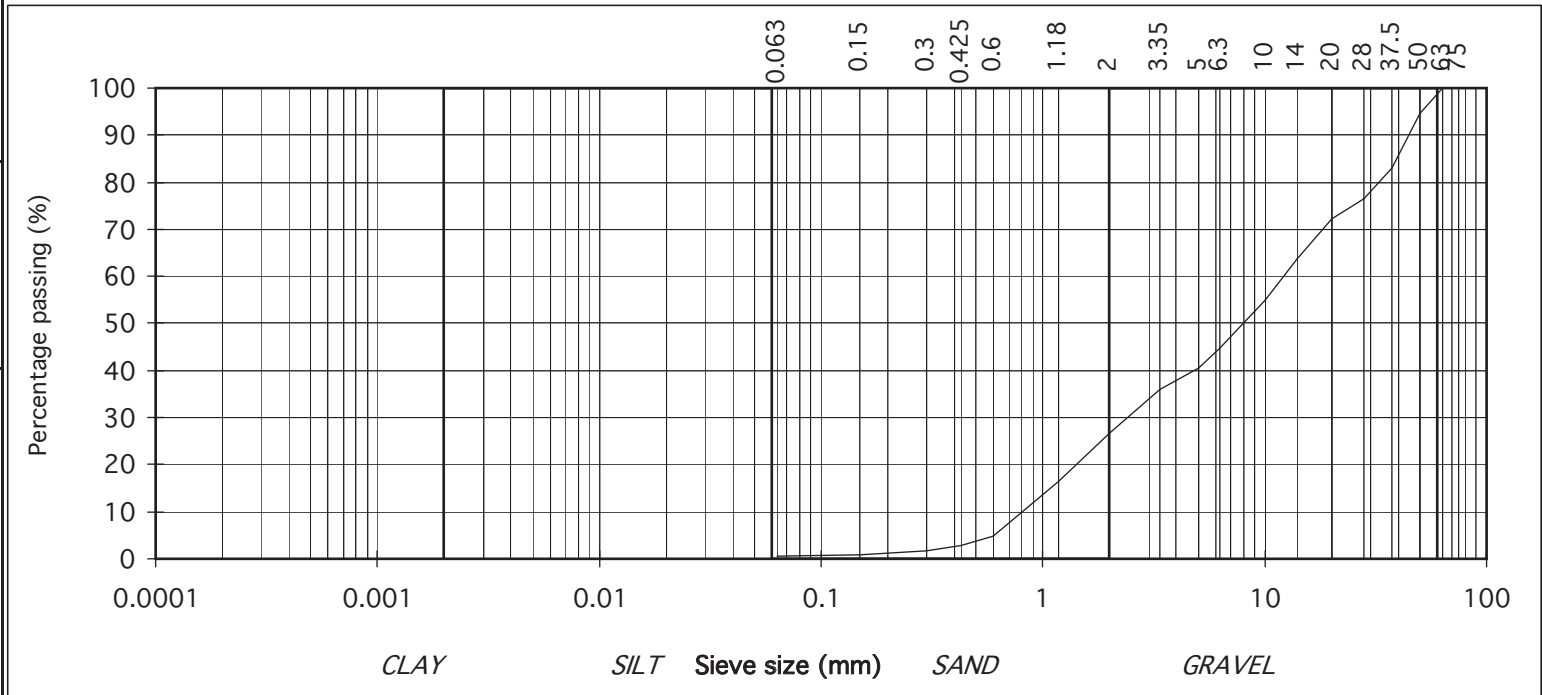
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	83	
28	76	
20	72	
14	64	
10	55	
6.3	45	
5	40	
3.35	36	
2	27	
1.18	16	SAND
0.6	5	
0.425	3	
0.3	2	SILT/CLAY
0.15	1	
0.063	1	

Contract No. 22734 Report No. R116133
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH206
 Sample No. AA146187 Lab. Sample No. A20/4545
 Sample Type: B
 Depth (m) 2.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 Description: Brown 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

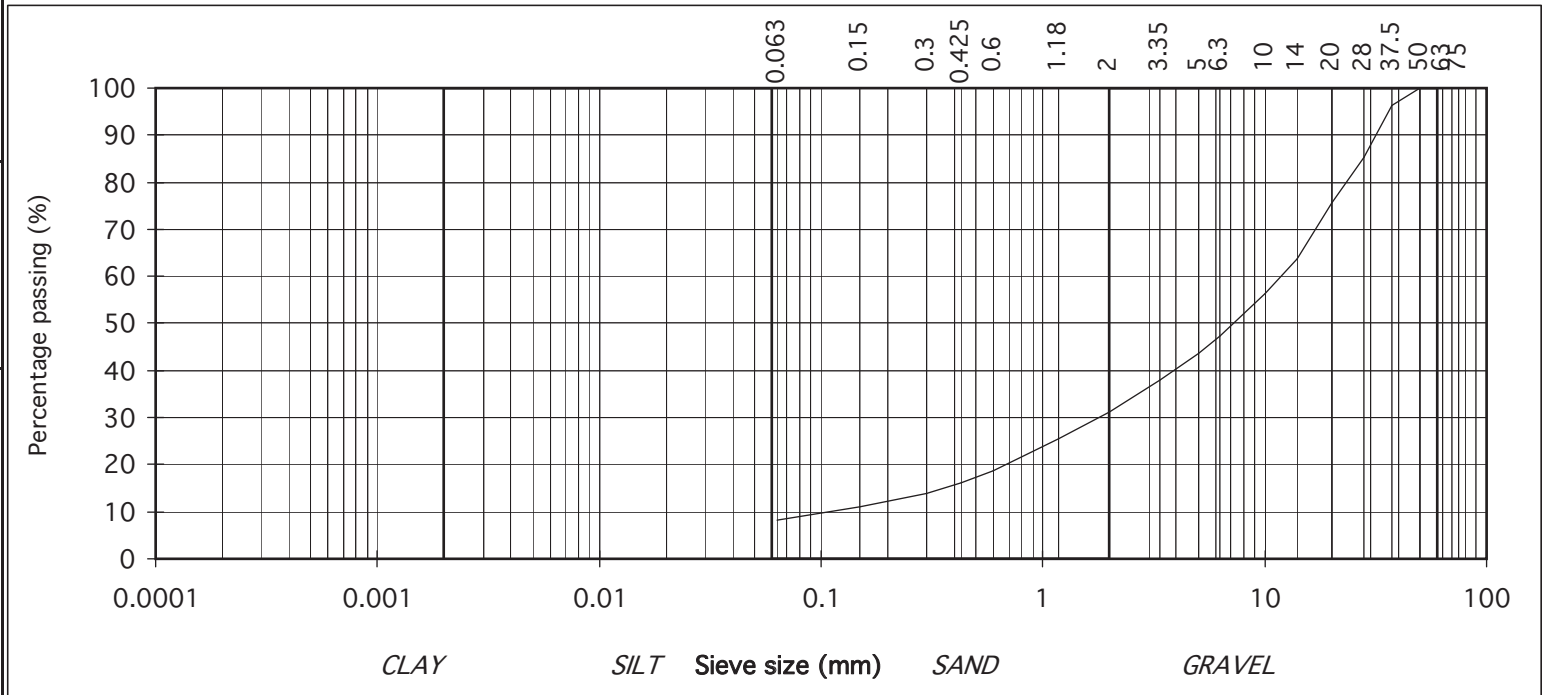
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	96	GRAVEL
28	85	
20	76	
14	64	
10	56	
6.3	47	
5	44	
3.35	38	
2	31	
1.18	25	
0.6	19	SAND
0.425	16	
0.3	14	
0.15	11	SILT/CLAY
0.063	8	

Contract No. 22734 Report No. R116134
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH207
 Sample No. AA134490 Lab. Sample No. A20/4550
 Sample Type: B
 Depth (m) 4.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received.



TEST REPORT

Determination of Particle Size Distribution

Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

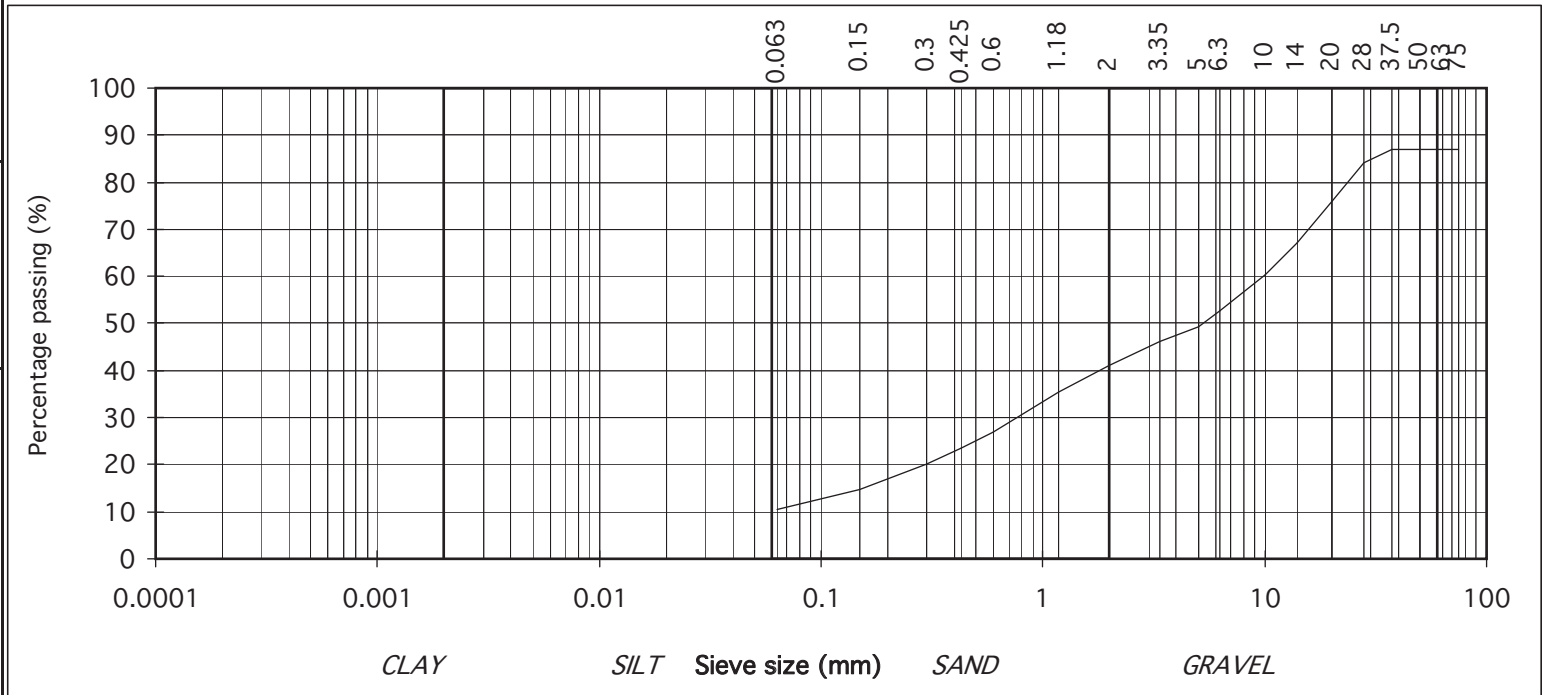


particle size	% passing	
75	87	COBBLES
63	87	
50	87	GRAVEL
37.5	87	
28	84	
20	76	
14	67	
10	60	
6.3	53	
5	49	
3.35	46	
2	41	
1.18	35	SAND
0.6	27	
0.425	24	
0.3	20	
0.15	15	SILT/CLAY
0.063	11	

Contract No. 22734 Report No. R116135
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH208
 Sample No. AA139452 Lab. Sample No. A20/4555
 Sample Type: B
 Depth (m) 2.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

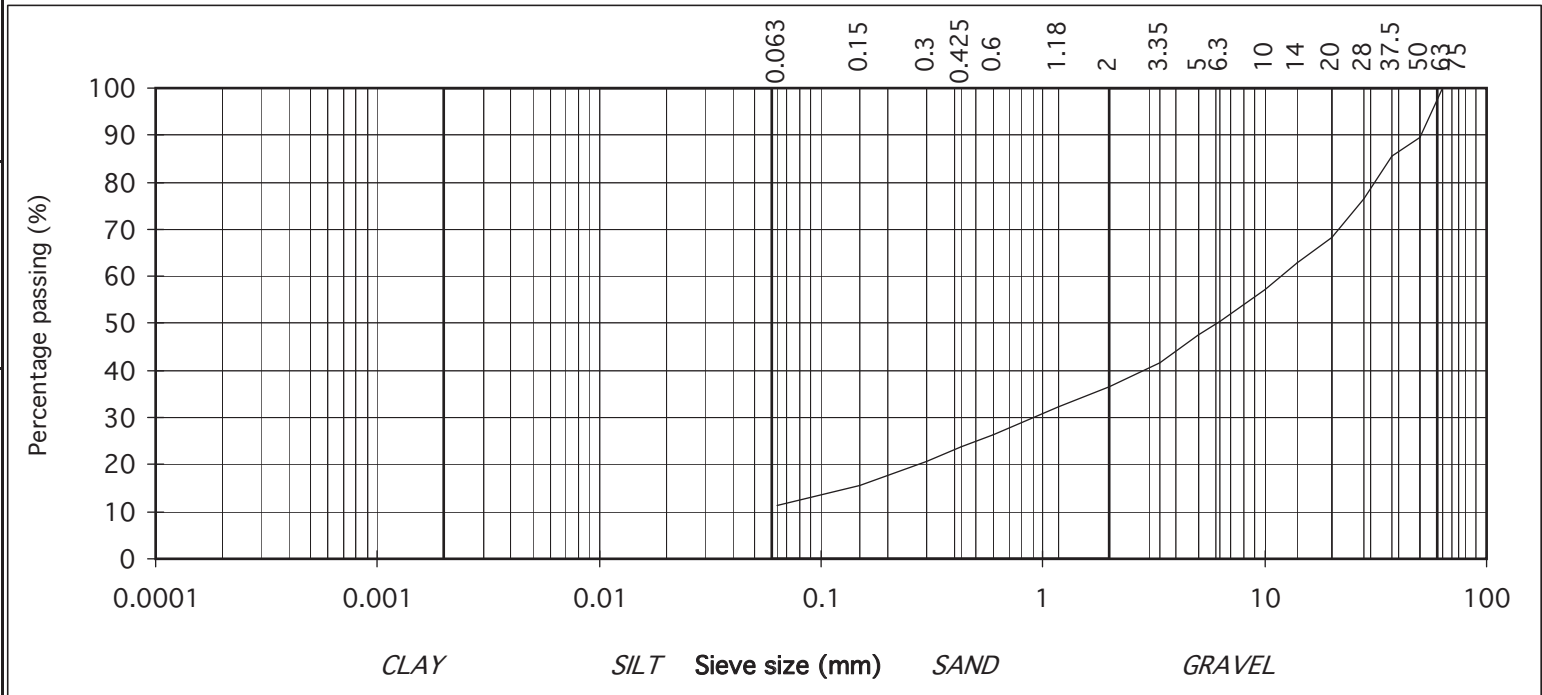
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	90	GRAVEL
37.5	85	
28	76	
20	68	
14	63	
10	57	
6.3	50	
5	48	
3.35	42	
2	37	
1.18	32	SAND
0.6	26	
0.425	24	
0.3	21	
0.15	16	SILT/CLAY
0.063	11	

Contract No. 22734 Report No. R116196
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH210
 Sample No. AA141604 Lab. Sample No. A20/4557
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 16/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received.



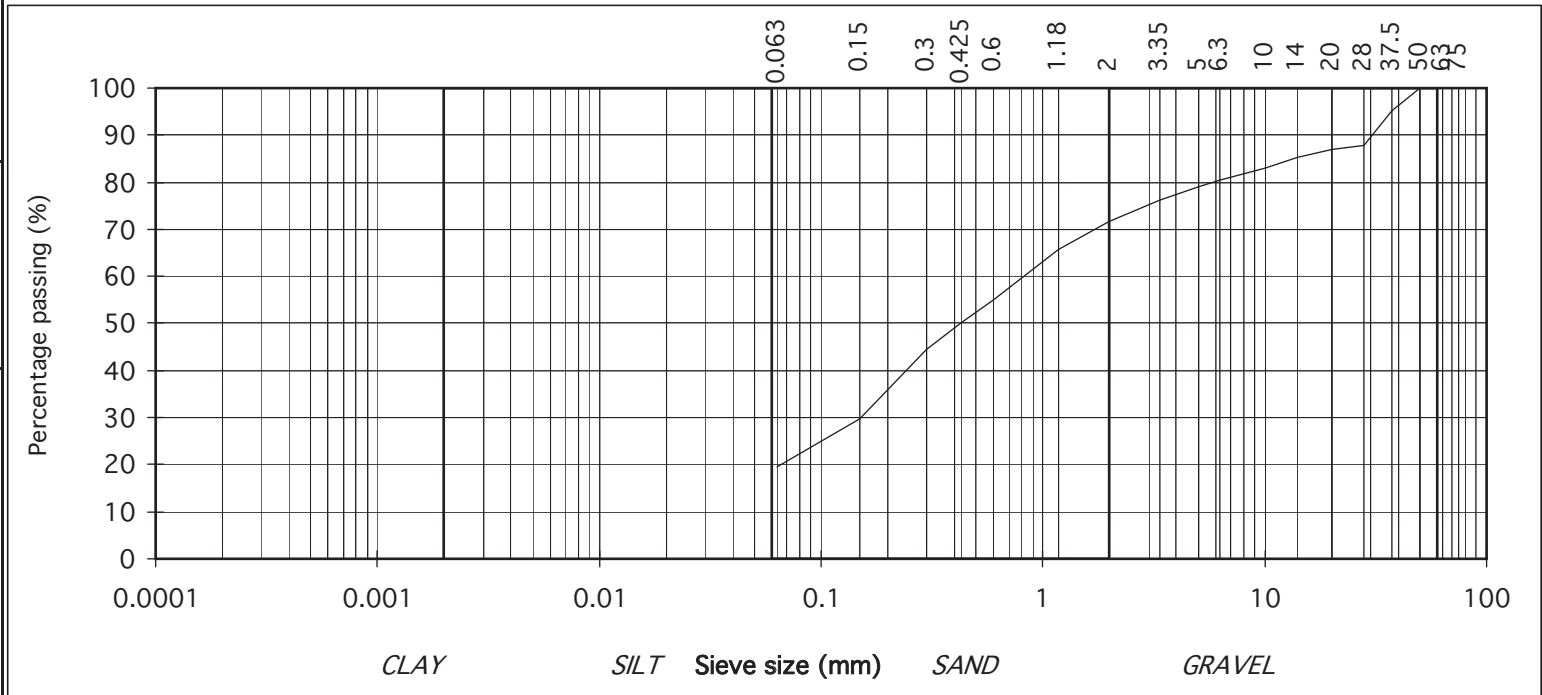
TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	95	GRAVEL
28	88	
20	87	
14	85	
10	83	
6.3	80	
5	79	
3.35	76	
2	72	
1.18	66	
0.6	55	SAND
0.425	50	
0.3	44	
0.15	30	SILT/CLAY
0.063	19	

Contract No. 22734 Report No. R116136
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH210
 Sample No. AA141607 Lab. Sample No. A20/4559
 Sample Type: B
 Depth (m) 5.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 Description: Brown clayey/silty, very gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

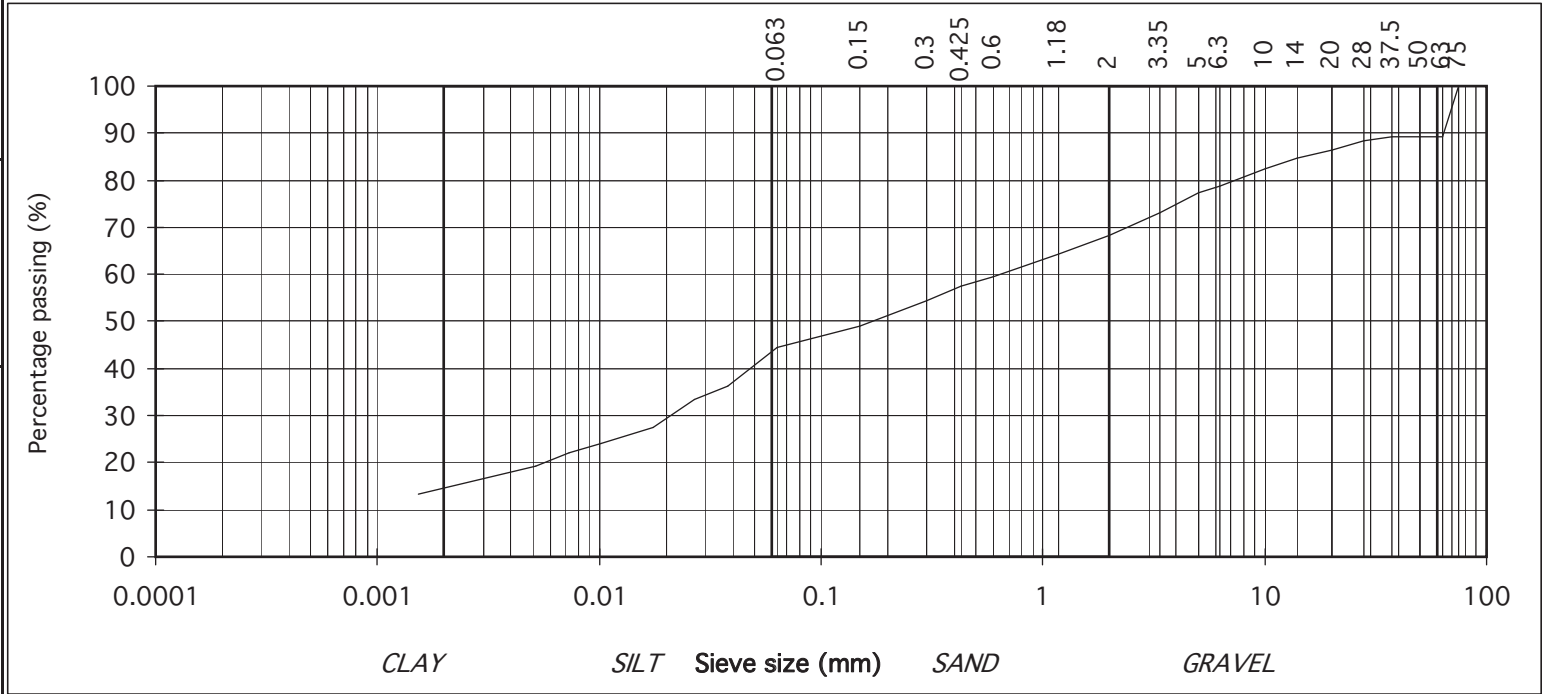
TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	89	
50	89	
37.5	89	
28	88	
20	86	
14	85	
10	83	
6.3	79	
5	77	
3.35	73	GRAVEL
2	68	
1.18	64	
0.6	59	
0.425	57	
0.3	54	
0.15	49	
0.063	44	
0.038	36	
0.027	33	
0.017	27	SILT/CLAY
0.010	24	
0.007	22	
0.005	19	
0.002	13	

Contract No. 22734 Report No. R116116
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH210
 Sample No. AA141613 Lab. Sample No. A20/4563
 Sample Type: B
 Depth (m) 11.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 Description: Brown slightly sandy, slightly gravelly, 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	22/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

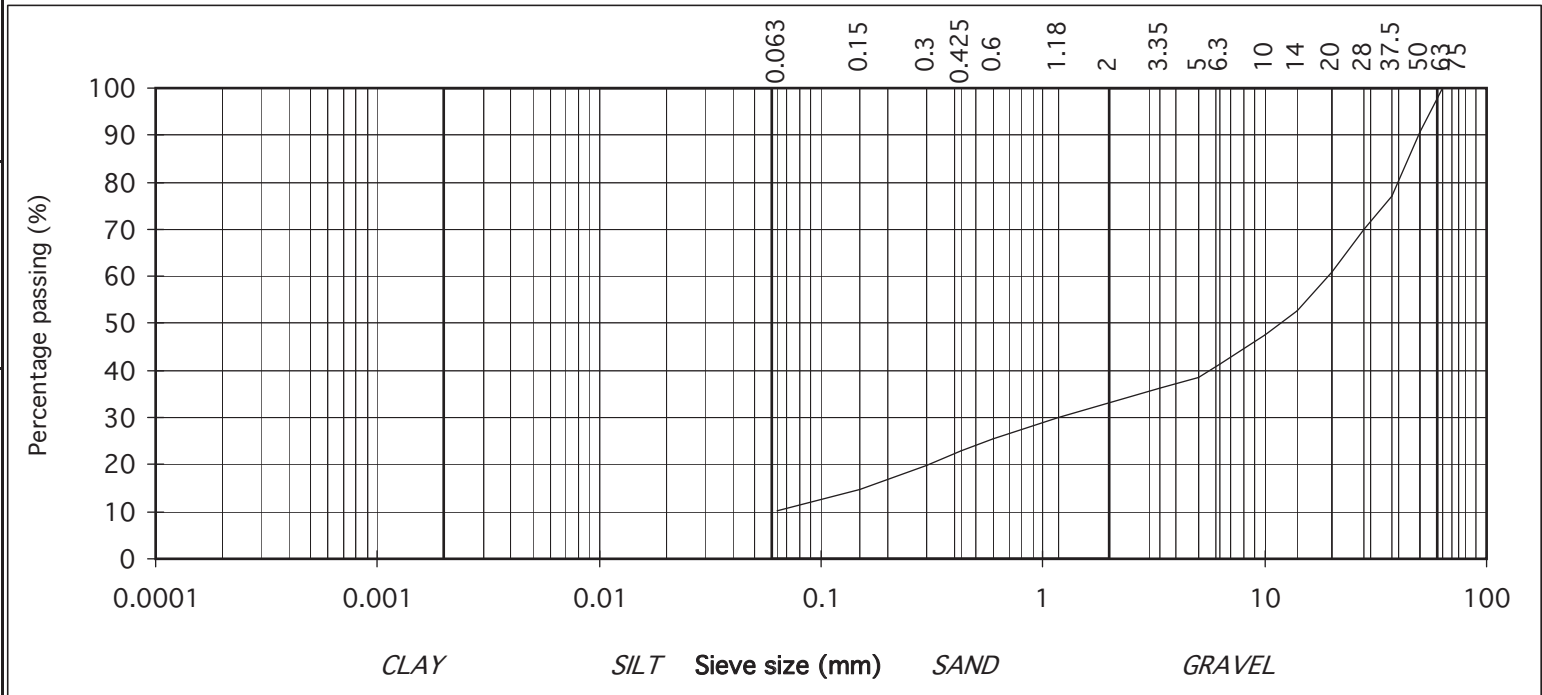
TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	91	GRAVEL
37.5	77	
28	70	
20	61	
14	53	
10	48	
6.3	41	
5	38	
3.35	36	
2	33	
1.18	30	SAND
0.6	25	
0.425	23	
0.3	20	SILT/CLAY
0.15	15	
0.063	10	

Contract No. 22734 Report No. R116197
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH211
 Sample No. AA146466 Lab. Sample No. A20/4564
 Sample Type: B
 Depth (m) 3.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 16/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	28/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

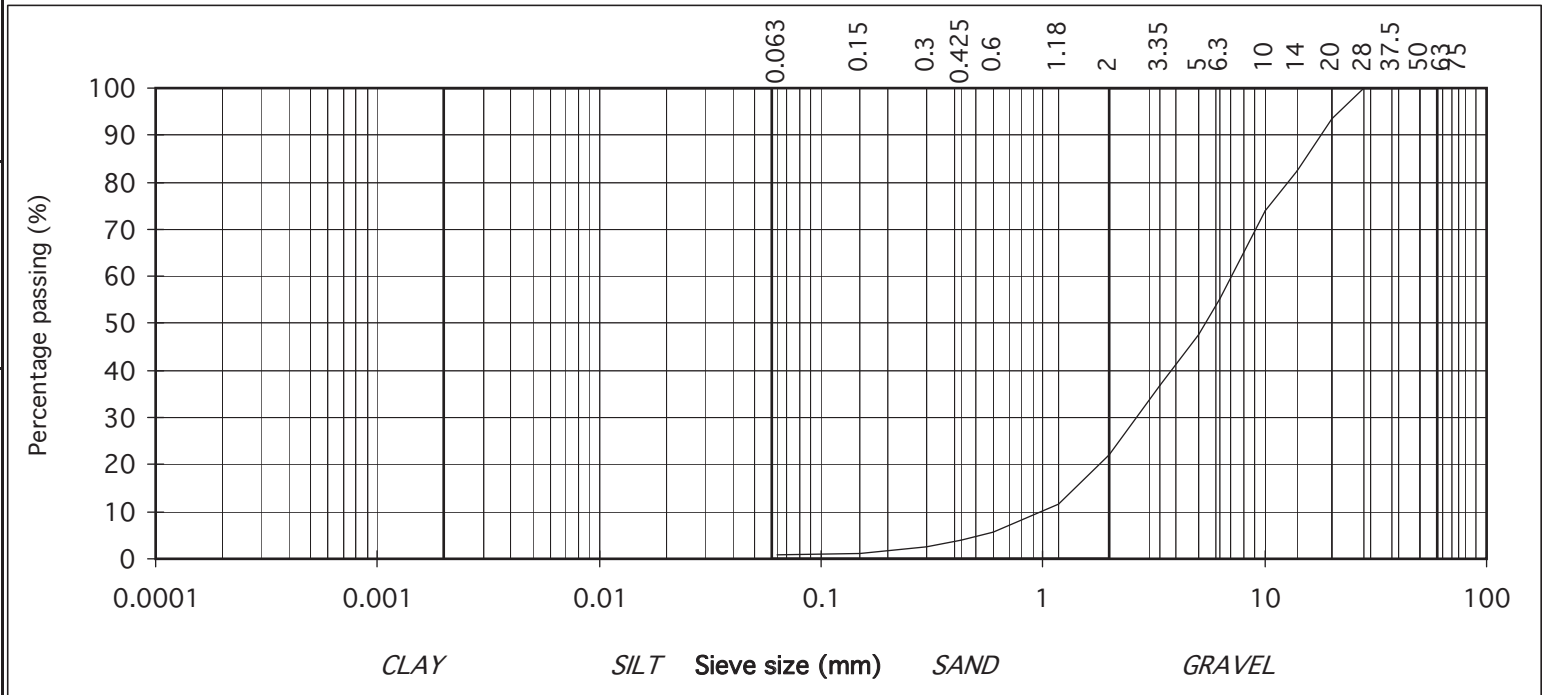


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	GRAVEL
28	100	
20	93	
14	82	
10	74	
6.3	55	
5	47	
3.35	37	
2	22	
1.18	12	
0.6	6	SAND
0.425	4	
0.3	2	
0.15	1	SILT/CLAY
0.063	1	

Contract No. 22734 Report No. R116137
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH211
 Sample No. AA146482 Lab. Sample No. A20/4570
 Sample Type: B
 Depth (m) 12.00 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 Description: Brown 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 apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by: *H Byrne*

Date: 23/10/20

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

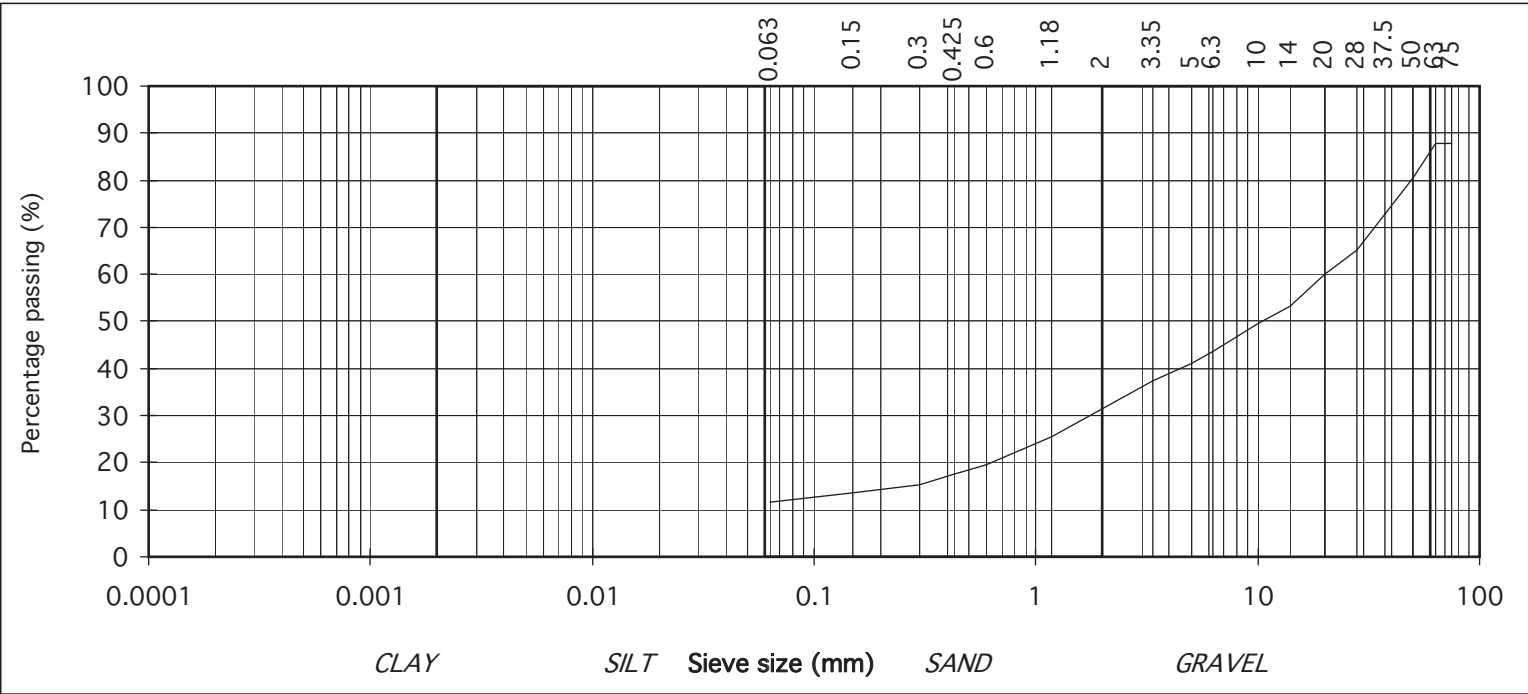
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	88	COBBLES
63	88	
50	81	GRAVEL
37.5	73	
28	65	
20	60	
14	53	
10	50	
6.3	44	
5	41	
3.35	37	
2	31	
1.18	26	SAND
0.6	20	
0.425	18	
0.3	15	SILT/CLAY
0.15	14	
0.063	12	

Contract No. 22734 Report No. R116117
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH213
 Sample No. AA146603 Lab. Sample No. A20/4574
 Sample Type: B
 Depth (m) 3.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 12/10/2020
 Description: Brown 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 apply to sample as received. Sample size did not meet the requirements of BS1377



TEST REPORT

Determination of Particle Size Distribution

Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

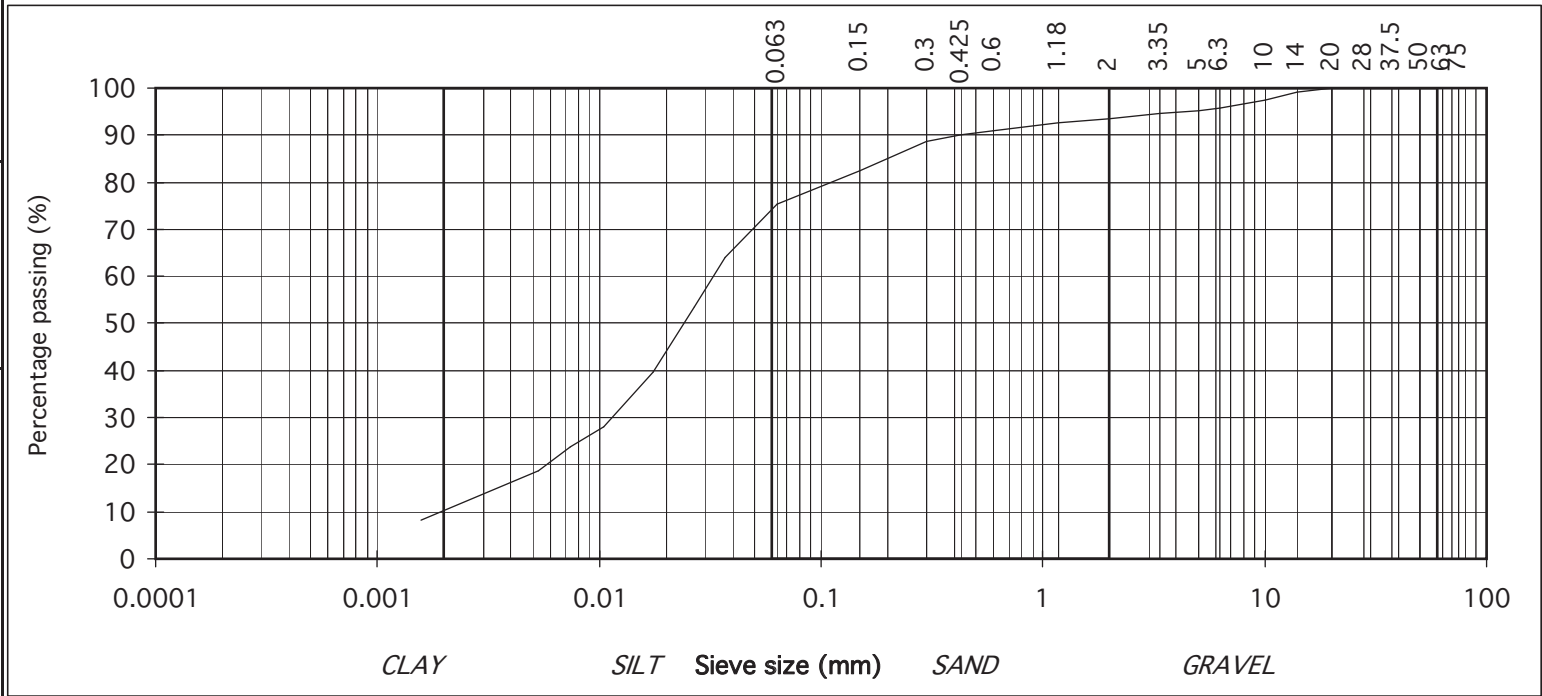


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	100	
20	100	
14	99	GRAVEL
10	97	
6.3	96	
5	95	
3.35	95	
2	94	
1.18	93	SAND
0.6	91	
0.425	90	
0.3	89	
0.15	82	
0.063	75	
0.037	64	SILT/CLAY
0.027	54	
0.018	40	
0.010	28	
0.007	24	
0.005	19	
0.002	8	

Contract No. 22734 Report No. R116138
 Contract Name: Harbour , Point , Bray , Co.Wicklow
 BH/TP : BH213
 Sample No. AA146607 Lab. Sample No. A20/4573
 Sample Type: B
 Depth (m) 7.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 12/10/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
<i>H Byrne</i>	23/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

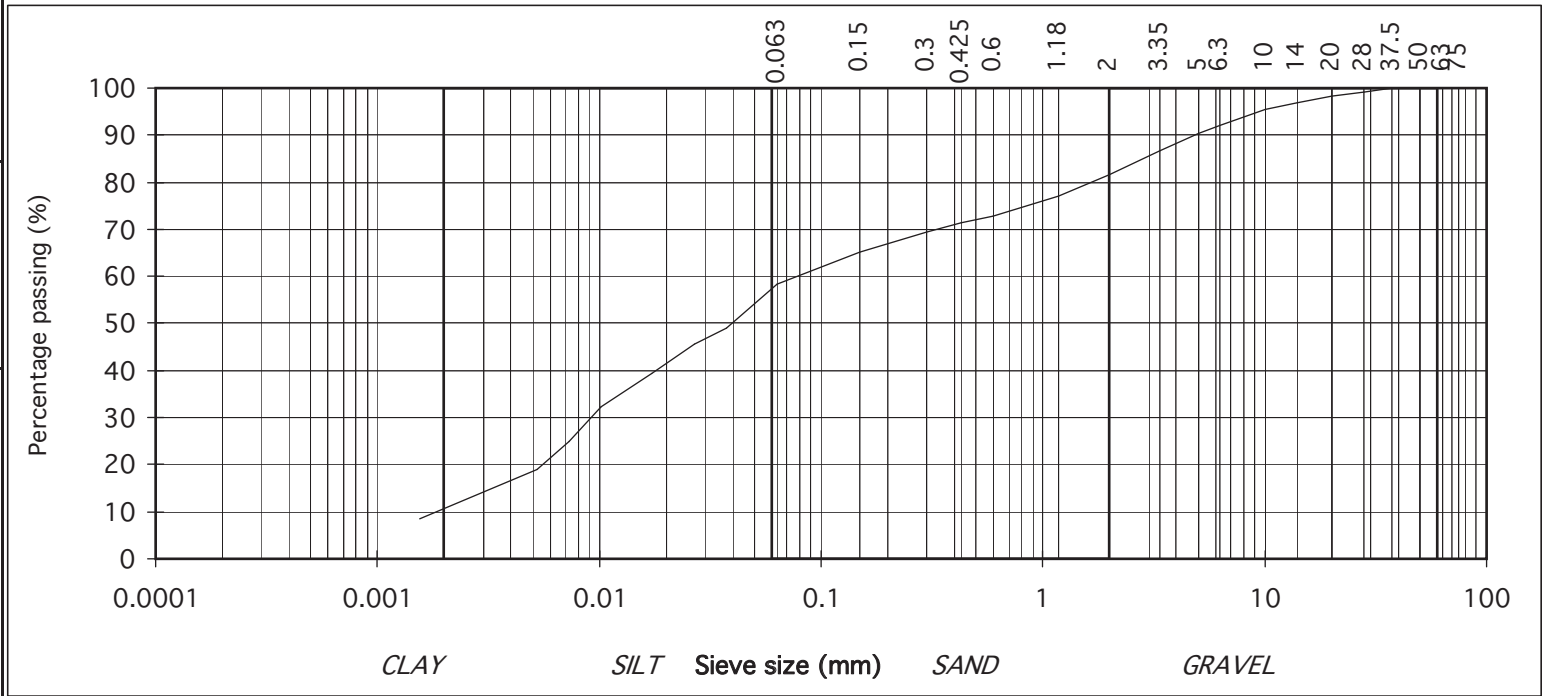


particle size	% passing		
75	100	COBBLES	
63	100		
50	100		
37.5	100		
28	99		
20	98		
14	97		
10	96		
6.3	92		
5	90		
3.35	87	GRAVEL	
2	82		
1.18	77		
0.6	73		
0.425	71		
0.3	69		
0.15	65		
0.063	58		
0.037	49		
0.027	46		
0.017	39	SAND	
0.010	32		
0.007	25		
0.005	19		
0.002	8		
			SILT/CLAY

Contract No. 22734 Report No. R116198
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH214
 Sample No. AA146612 Lab. Sample No. A20/4577
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 16/10/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
<i>H Byrne</i>	28/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

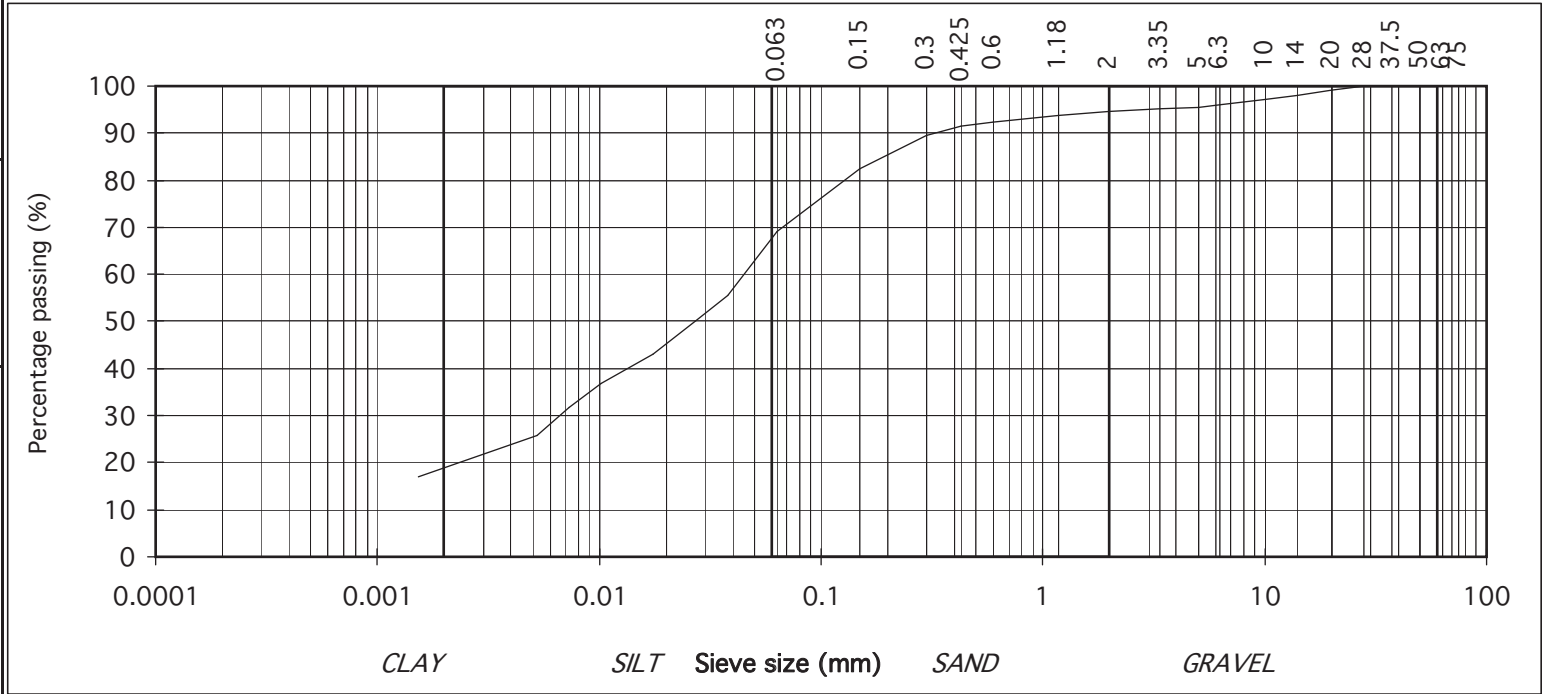
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	100	
20	99	
14	98	GRAVEL
10	97	
6.3	96	
5	96	
3.35	95	
2	95	
1.18	94	SAND
0.6	92	
0.425	91	
0.3	90	
0.15	82	
0.063	69	
0.038	55	SILT/CLAY
0.027	50	
0.017	43	
0.010	37	
0.007	32	
0.005	26	
0.002	17	

Contract No. 22734 Report No. R116199
 Contract Name: Harbour , Point , Bray , Co.Wicklow
 BH/TP : BH216
 Sample No. AA146621 Lab. Sample No. A20/4590
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 16/10/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	28/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

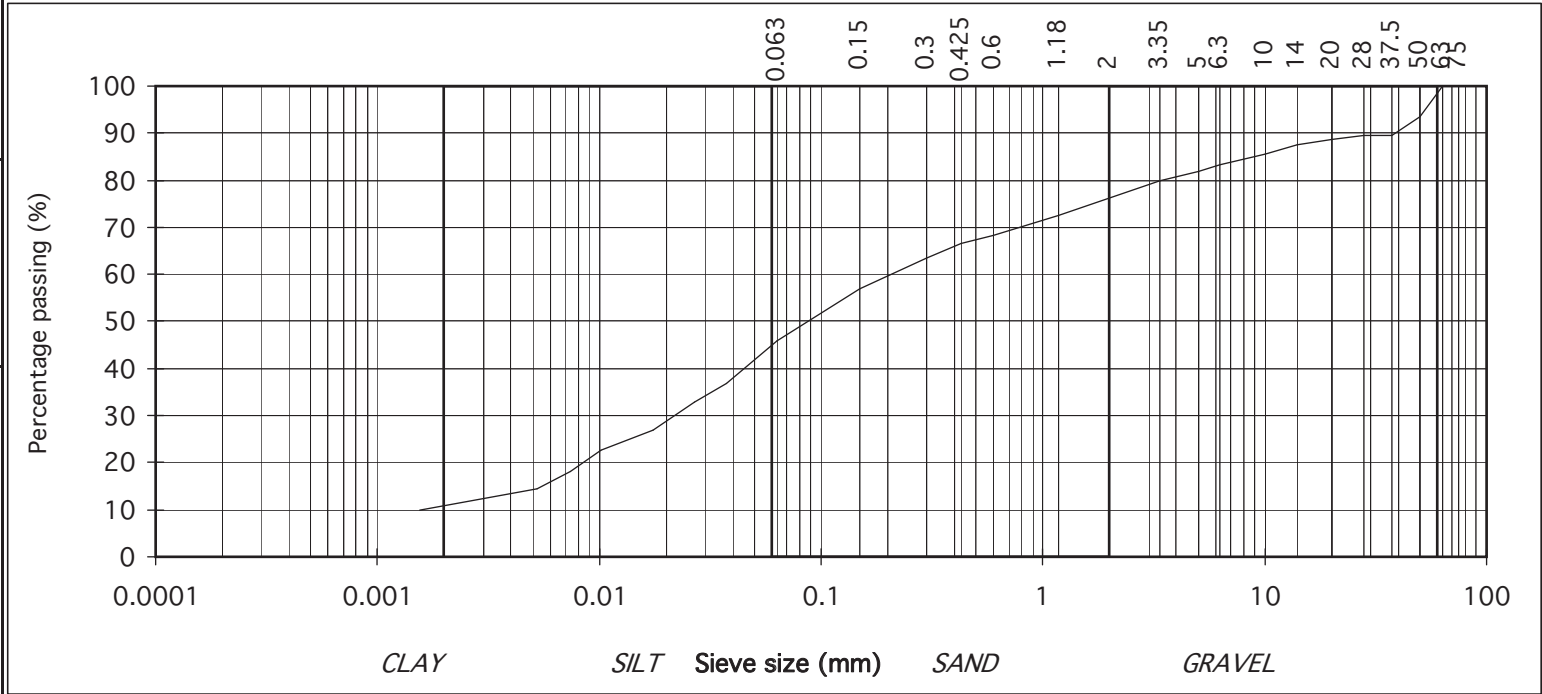
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	93	
37.5	90	
28	90	
20	89	
14	88	
10	86	
6.3	83	
5	82	
3.35	80	GRAVEL
2	76	
1.18	73	
0.6	68	
0.425	66	
0.3	63	
0.15	57	
0.063	46	
0.038	37	
0.027	33	
0.017	27	SILT/CLAY
0.010	23	
0.007	18	
0.005	15	
0.002	10	

Contract No. 22734 Report No. R116117
 Contract Name: Harbour , Point , Bray , Co.Wicklow
 BH/TP : BH216
 Sample No. AA146623 Lab. Sample No. A20/4592
 Sample Type: B
 Depth (m) 4.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 12/10/2020
 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 apply to sample as received.



TEST REPORT

Determination of Particle Size Distribution

Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

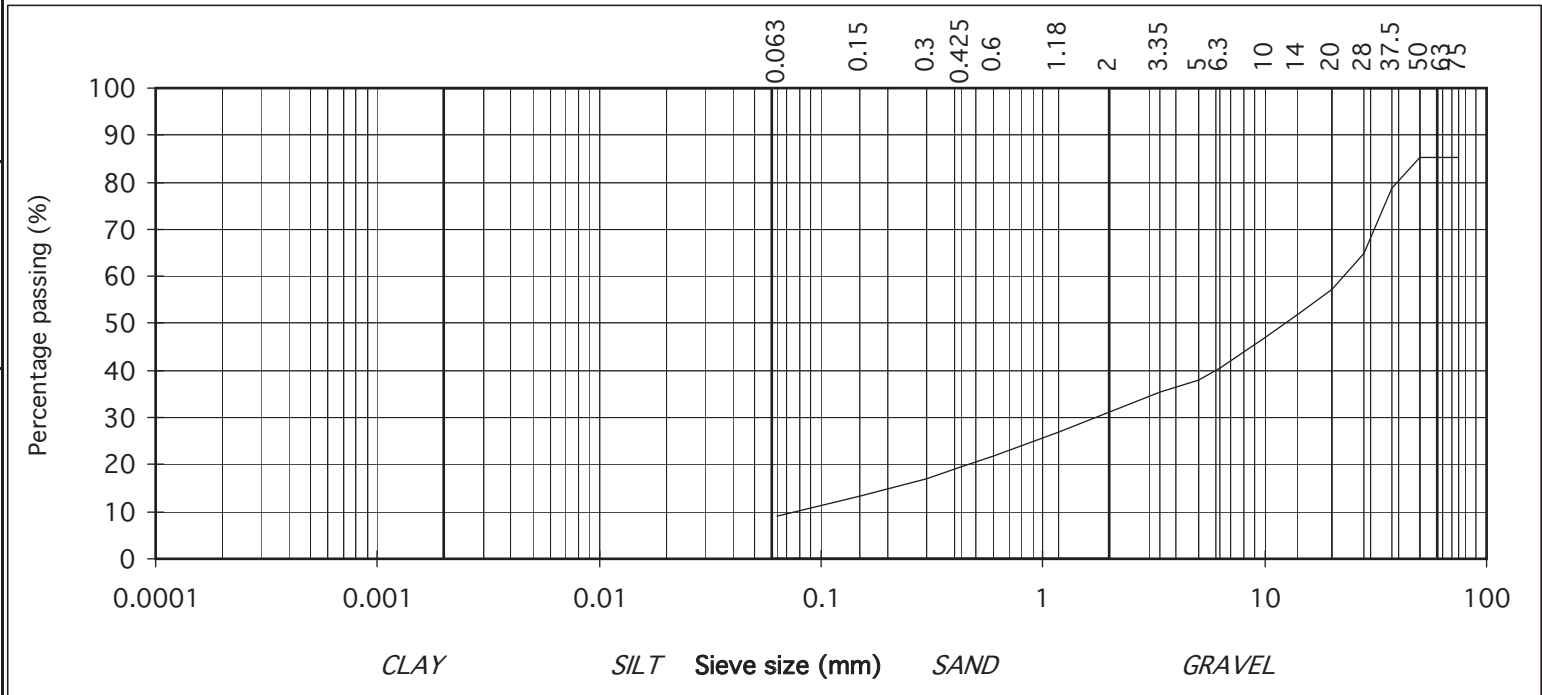


particle size	% passing	
75	85	COBBLES
63	85	
50	85	GRAVEL
37.5	79	
28	65	
20	57	
14	52	
10	47	
6.3	41	
5	38	
3.35	35	
2	31	
1.18	27	SAND
0.6	22	
0.425	20	
0.3	17	SILT/CLAY
0.15	13	
0.063	9	

Contract No. 22734 Report No. R116438
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH216
 Sample No. AA146627 Lab. Sample No. A20/4595
 Sample Type: B
 Depth (m) 8.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 22/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	03/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

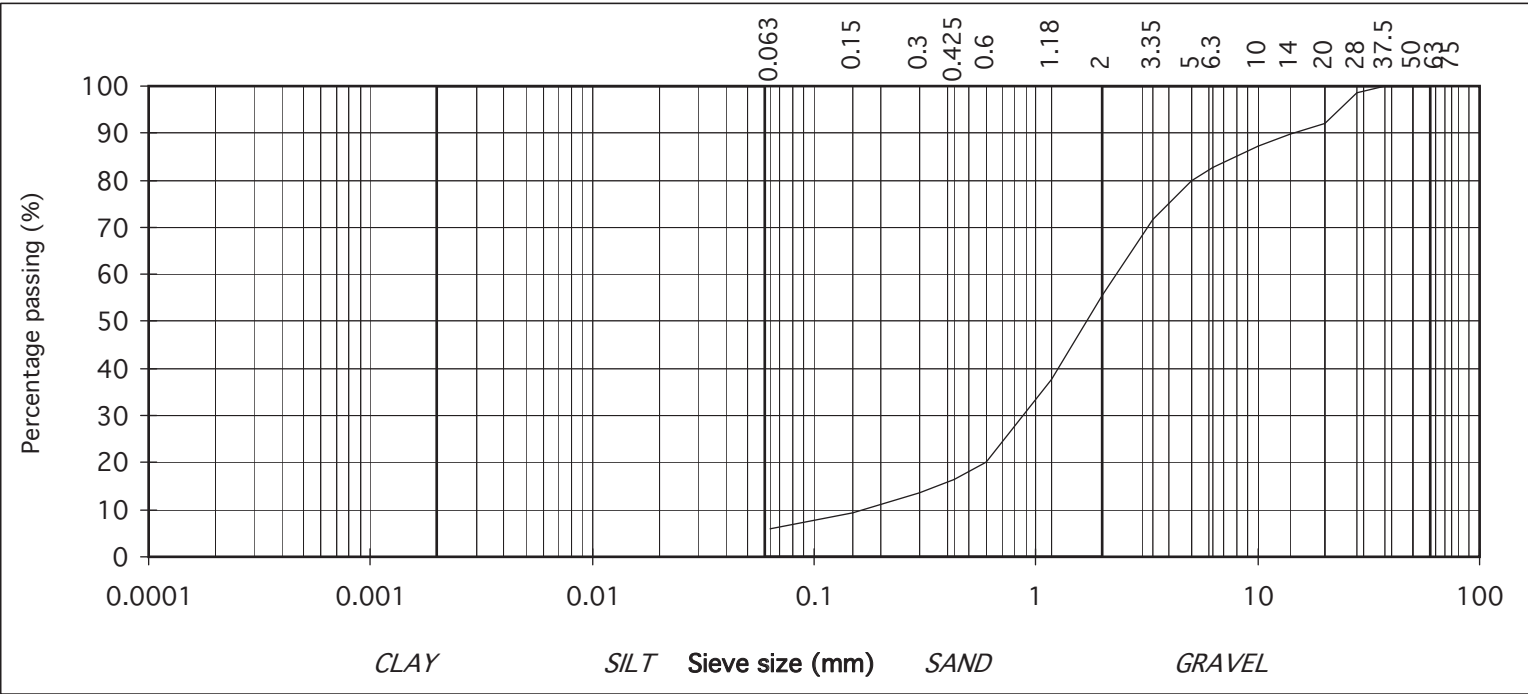
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	98	
20	92	GRAVEL
14	90	
10	87	
6.3	83	
5	80	
3.35	72	SAND
2	56	
1.18	38	
0.6	20	
0.425	16	
0.3	13	SILT/CLAY
0.15	9	
0.063	6	

Contract No. 22734 Report No. R116139
 Contract Name: Harbour , Point , Bray , Co.Wicklow
 BH/TP : BH221
 Sample No. AA141638 Lab. Sample No. A20/4604
 Sample Type: B
 Depth (m) 12.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 Description: Brown clayey/silty, very gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	23/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

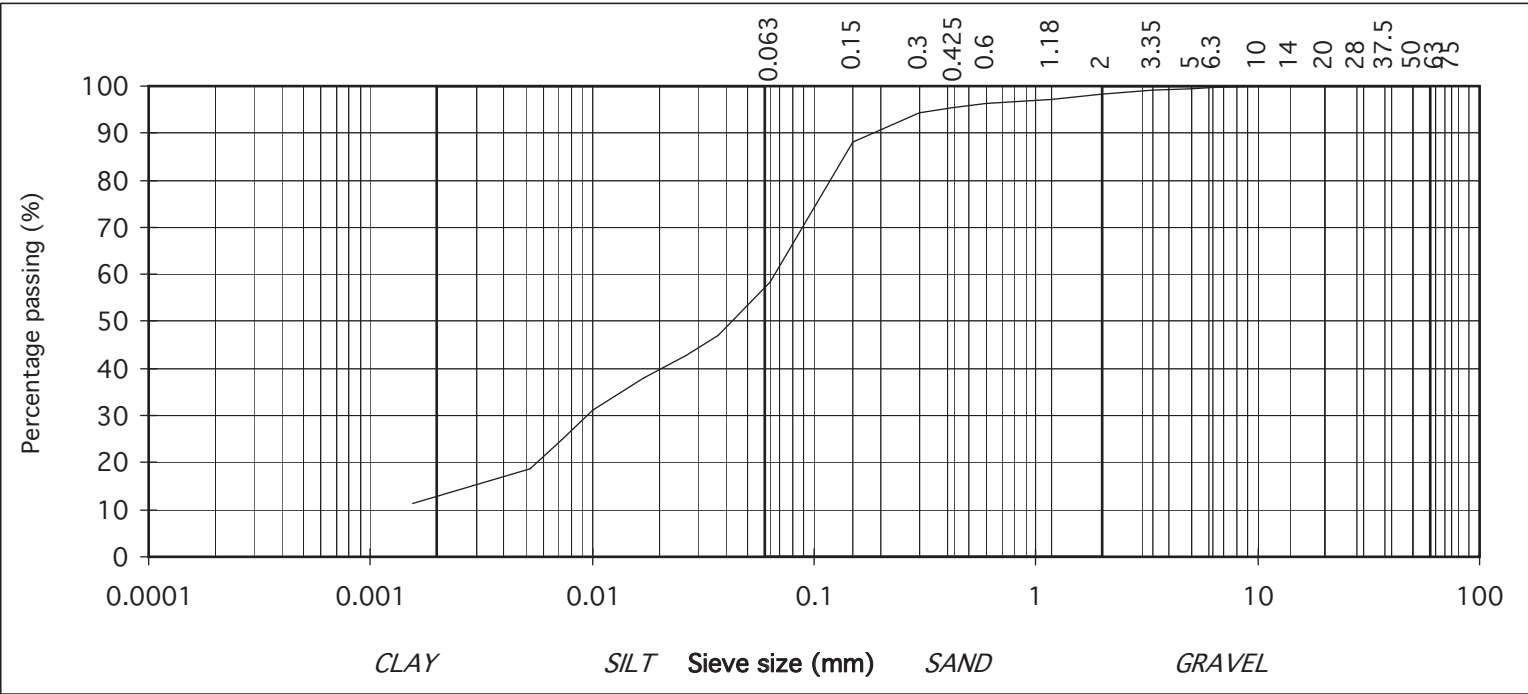
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	100	
20	100	
14	100	GRAVEL
10	100	
6.3	100	
5	100	
3.35	99	
2	98	
1.18	97	SAND
0.6	96	
0.425	95	
0.3	94	
0.15	88	
0.063	58	
0.037	47	SILT/CLAY
0.027	43	
0.017	38	
0.010	31	
0.007	25	
0.005	19	
0.002	11	

Contract No. 22734 Report No. R116140
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH222A
 Sample No. AA141620 Lab. Sample No. A20/4609
 Sample Type: B
 Depth (m) 6.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	23/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

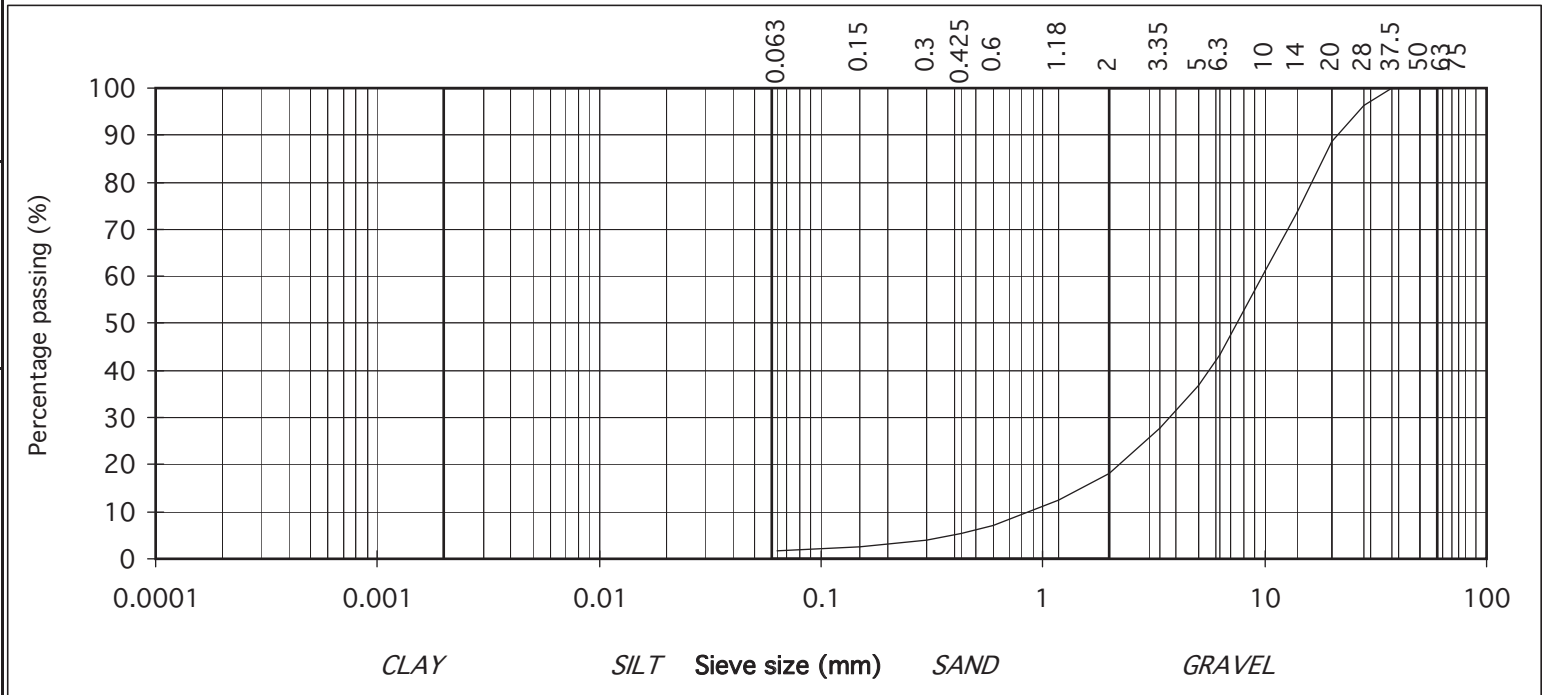


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	96	
20	89	GRAVEL
14	74	
10	61	
6.3	43	
5	37	
3.35	28	
2	18	
1.18	12	
0.6	7	
0.425	5	
0.3	4	
0.15	3	
0.063	2	SILT/CLAY

Contract No. 22734 Report No. R116141
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH222A
 Sample No. AA141626 Lab. Sample No. A20/4612
 Sample Type: B
 Depth (m) 12.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 14/10/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	23/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

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. **R116071** Contract No. **22734** Contract Name: **Harbour Point Bray , Co.Wicklow**

Customer **Ballymore Group / Atkins**

Samples Received: **09/10/20** Date Tested: **13/10/20**

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
TP201	AA137966	0.5	A20/4613	B	9.1								Brown sandy gravelly SILT/CLAY
TP201	AA137967	1.5	A20/4614	B	5.6								Brown slightly clayey/silty, sandy, GRAVEL
TP202	AA137965	2.5	A20/4615	B	4.0								Brown slightly clayey/silty, very sandy, GRAVEL with some cobbles
TP203	AA137973	1.5	A20/4616	B	4.9								Brown slightly clayey/silty, very sandy, GRAVEL with some cobbles
TP204	AA137969	0.5	A20/4617	B	9.0	39	NP	NP	28	WS	4.4		Brown sandy gravelly SILT
TP204	AA137971	2.5	A20/4618	B	5.1								Brown slightly clayey/silty, sandy, GRAVEL
TP205	AA137961	1.5	A20/4619	B	5.1								Brown slightly clayey/silty, very sandy, GRAVEL
TP207	AA137957	0.5	A20/4620	B	14								Brown sandy gravelly SILT/CLAY
TP207	AA137958	1.5	A20/4621	B	5.1								Brown silty/clayey gravelly SAND
TP208	AA137954	0.5	A20/4622	B	21	60	NP	NP	44	WS	4.4		Brown sandy gravelly SILT
TP208	AA137955	1.5	A20/4623	B	11								Brown clayey/silty, very sandy, GRAVEL
TP209	AA137976	1.0	A20/4624	B	16	30	NP	NP	63	WS	4.4		Brown sandy gravelly SILT
TP209	AA137977	1.5	A20/4625	B	19	46	17	29	90	WS	4.4	C I	Brown sandy gravelly CLAY
TP210	AA148851	0.5	A20/4627	B	22	51	NP	NP	40	WS	4.4		Brown sandy gravelly SILT
TP210	AA148853	2.5	A20/4629	B	16	45	19	26	96	WS	4.4	C I	Brown sandy gravelly CLAY

Notes: Preparation: WS - Wet sieved Sample Type: B - Bulk Disturbed Remarks: Results apply to the sample as received.
 AR - As received U - Undisturbed
 NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		10/11/20	1 of 1

TEST REPORT

Determination of Particle Size Distribution

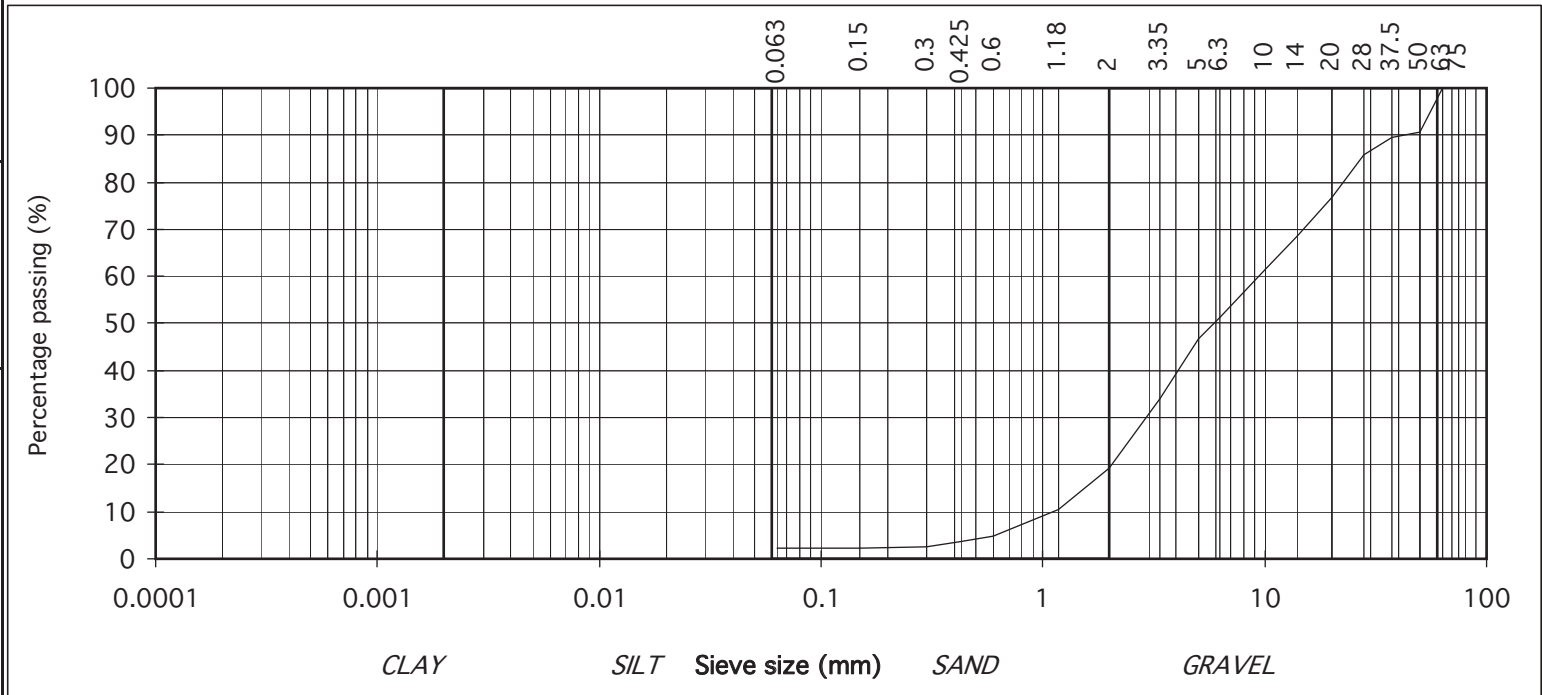
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	91	GRAVEL
37.5	90	
28	86	
20	77	
14	69	
10	61	
6.3	51	
5	47	
3.35	34	
2	19	
1.18	11	
0.6	5	
0.425	4	
0.3	2	SILT/CLAY
0.15	2	
0.063	2	

Contract No. 22734 Report No. R116109
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : TP201
 Sample No. AA137967 Lab. Sample No. A20/4614
 Sample Type: B
 Depth (m) 1.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 13/10/2020
 Description: Brown slightly clayey/silty, sandy, GRAVEL

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	21/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

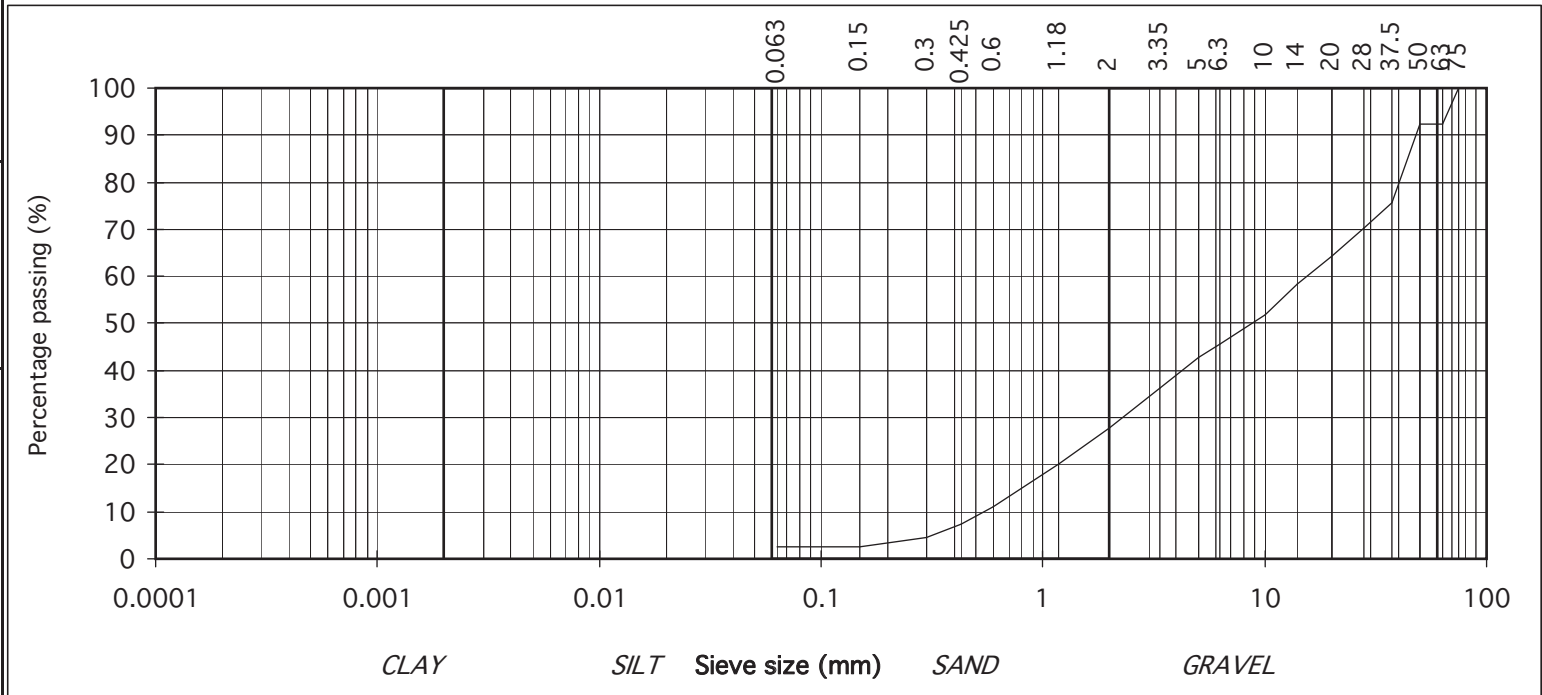
TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	92	
50	92	GRAVEL
37.5	76	
28	70	
20	64	
14	58	
10	52	
6.3	46	
5	43	
3.35	36	
2	28	
1.18	20	
0.6	11	
0.425	7	
0.3	5	SILT/CLAY
0.15	3	
0.063	3	

Contract No. 22734 Report No. R116195
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : TP202
 Sample No. AA137965 Lab. Sample No. A20/4615
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 16/10/2020
 Description: Brown slightly 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 ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	28/10/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

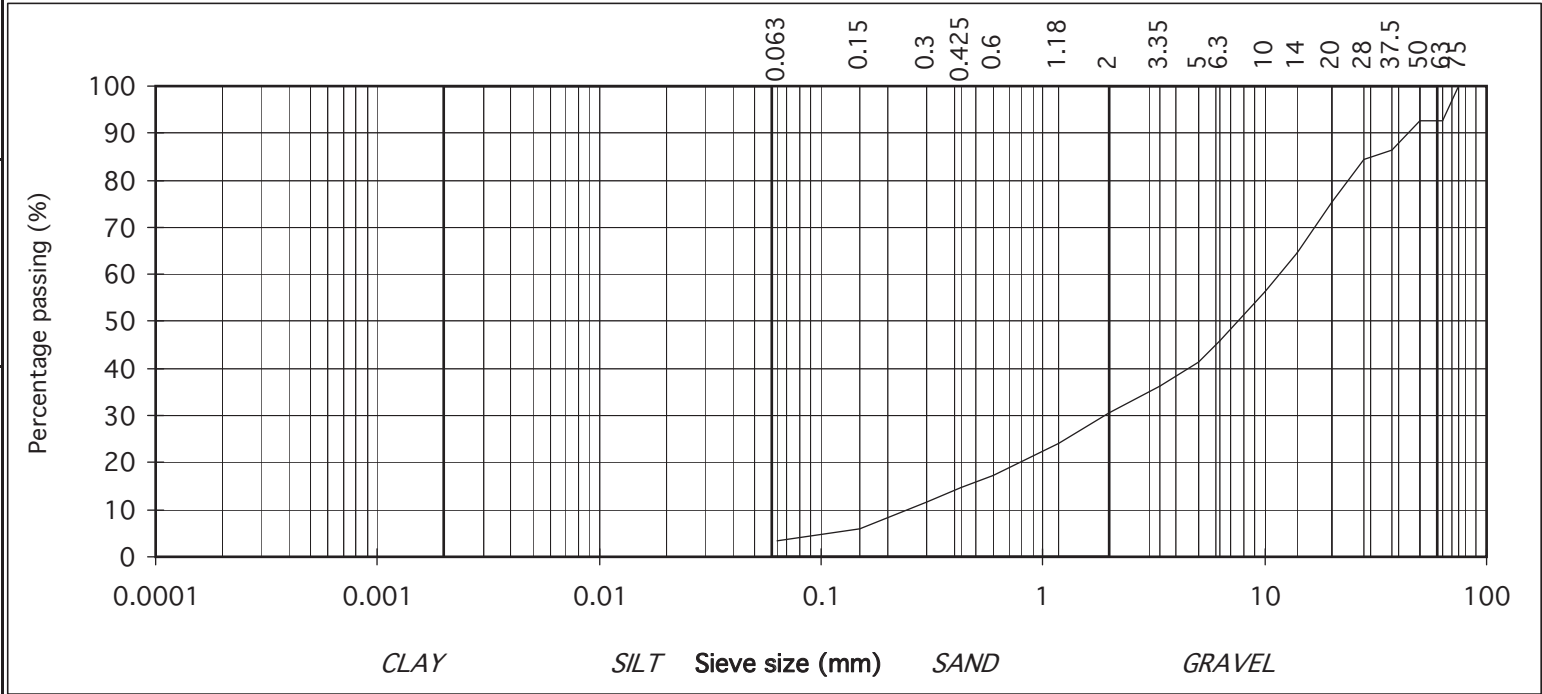
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	93	
50	93	GRAVEL
37.5	86	
28	84	
20	75	
14	65	
10	56	
6.3	46	
5	41	
3.35	36	
2	30	
1.18	24	SAND
0.6	17	
0.425	15	
0.3	12	SILT/CLAY
0.15	6	
0.063	4	

Contract No. 22734 Report No. R116110
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : TP203
 Sample No. AA137973 Lab. Sample No. A20/4616
 Sample Type: B
 Depth (m) 1.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 13/10/2020
 Description: Brown slightly 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 ISO17892-4:2016 . Results apply to sample as received.



TEST REPORT

Determination of Particle Size Distribution

Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

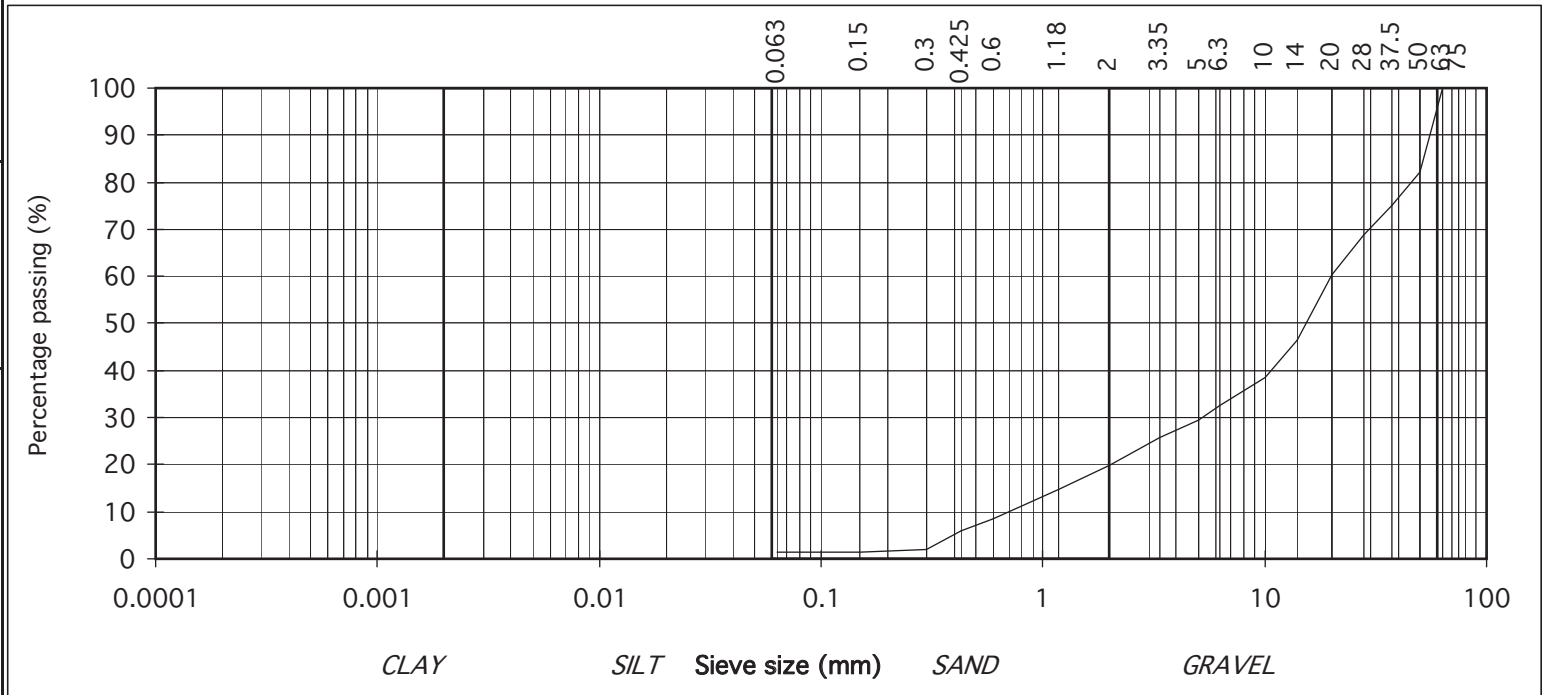


particle size	% passing	
75	100	COBBLES
63	100	
50	82	GRAVEL
37.5	75	
28	69	
20	60	
14	46	
10	39	
6.3	32	
5	29	
3.35	26	
2	20	
1.18	15	SAND
0.6	8	
0.425	6	
0.3	2	SILT/CLAY
0.15	1	
0.063	1	

Contract No. 22734 Report No. R116111
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : TP204
 Sample No. AA137971 Lab. Sample No. A20/4618
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 13/10/2020
 Description: Brown slightly clayey/silty, sandy, GRAVEL

Remarks

Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by: *H Byrne*

Date: 21/10/20

Page no: 1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

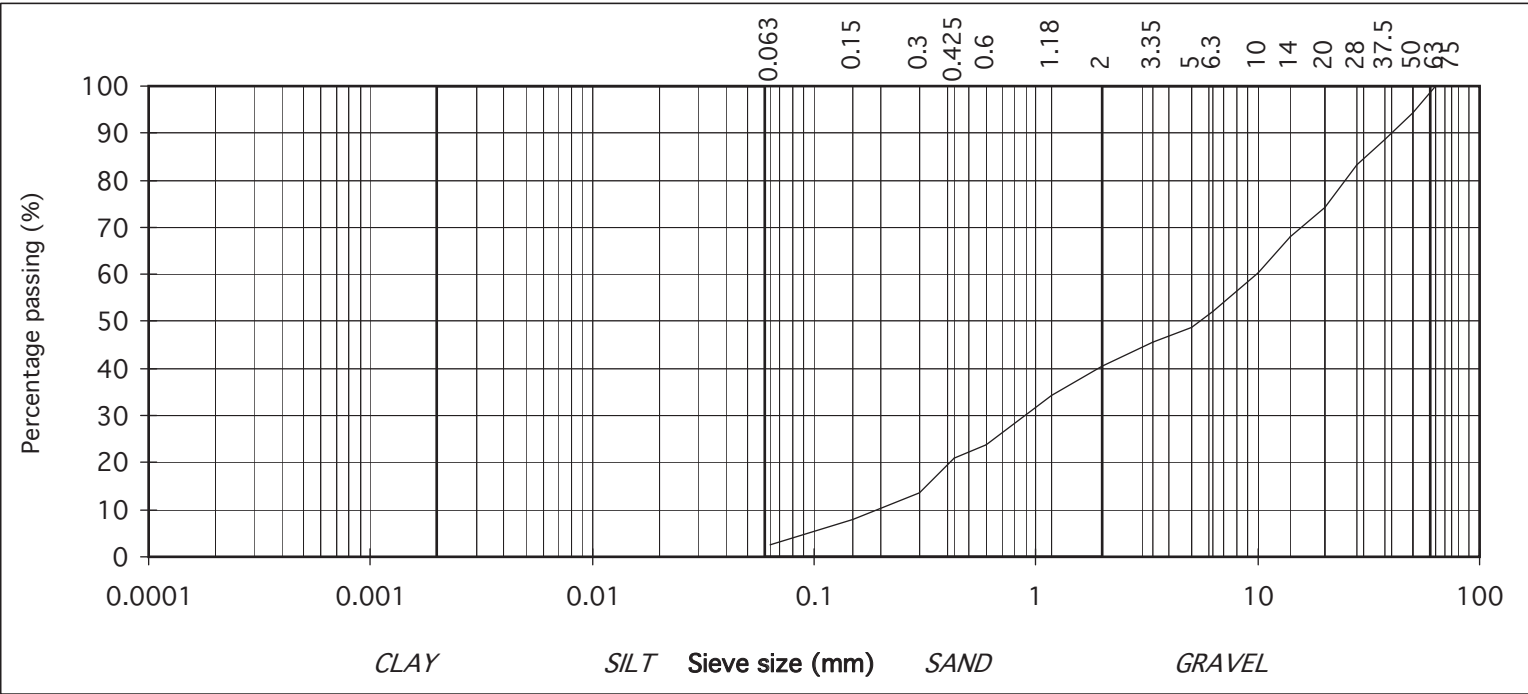
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	94	GRAVEL
37.5	89	
28	83	
20	74	
14	68	
10	60	
6.3	52	
5	49	
3.35	46	
2	40	
1.18	34	SAND
0.6	24	
0.425	21	
0.3	14	SILT/CLAY
0.15	8	
0.063	2	

Contract No. 22734 Report No. R116112
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : TP205
 Sample No. AA137961 Lab. Sample No. A20/4619
 Sample Type: B
 Depth (m) 1.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 13/10/2020
 Description: Brown 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 apply to sample as received.



TEST REPORT

Determination of Particle Size Distribution

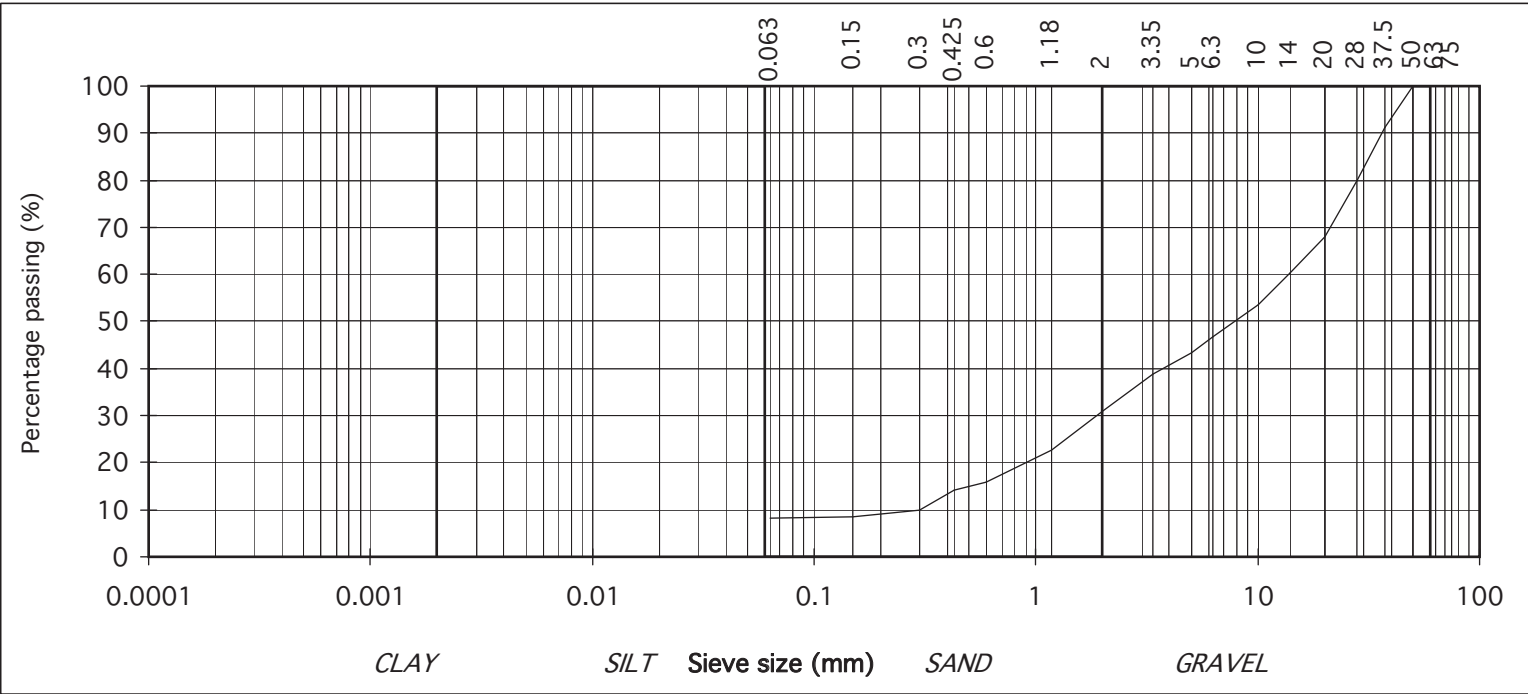
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	91	GRAVEL
28	80	
20	68	
14	60	
10	53	
6.3	47	
5	43	
3.35	39	
2	31	
1.18	23	
0.6	16	SAND
0.425	14	
0.3	10	
0.15	8	SILT/CLAY
0.063	8	

Contract No. 22734 Report No. R116113
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : TP208
 Sample No. AA137955 Lab. Sample No. A20/4623
 Sample Type: B
 Depth (m) 1.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 13/10/2020
 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 ISO17892-4:2016 . Results apply to sample as received.



TEST REPORT

Determination of Particle Size Distribution

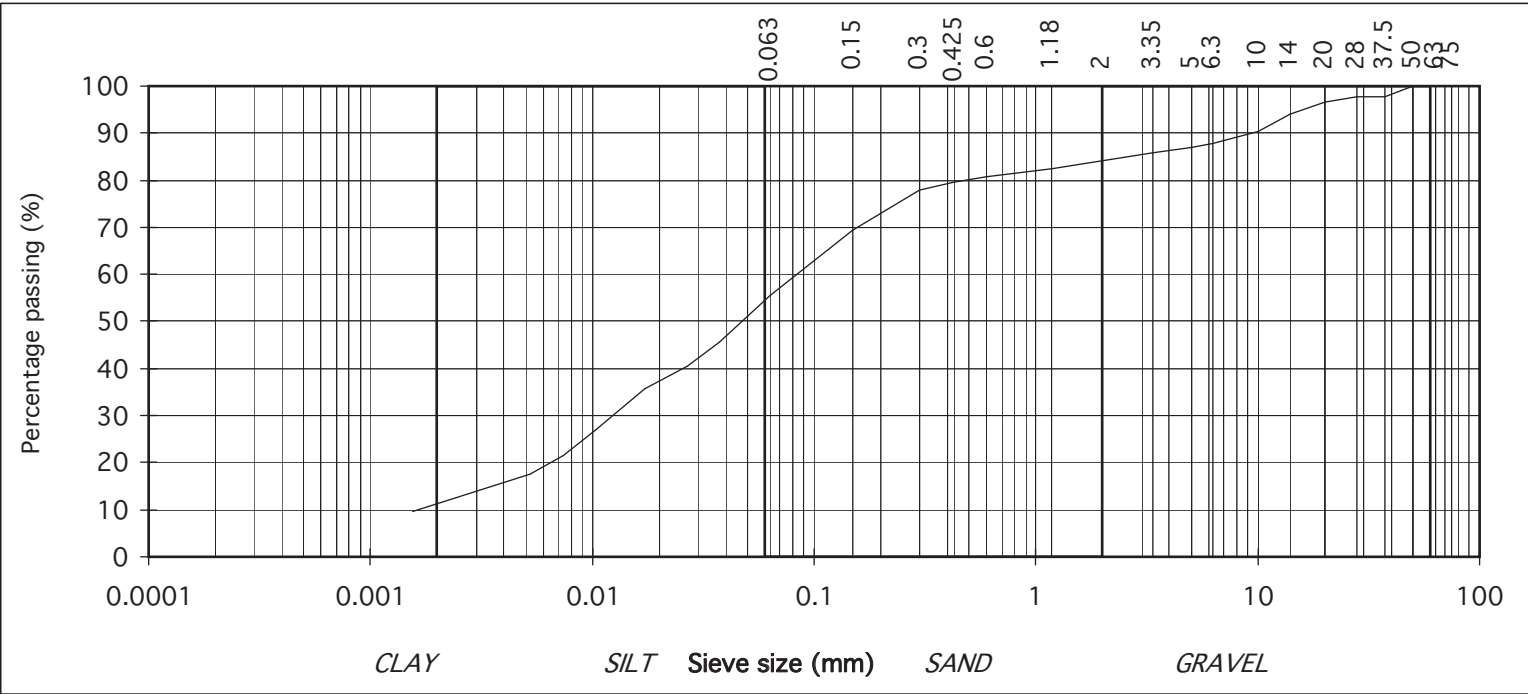
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	98	
28	98	
20	97	
14	94	GRAVEL
10	90	
6.3	88	
5	87	
3.35	86	
2	84	
1.18	83	SAND
0.6	81	
0.425	80	
0.3	78	
0.15	69	
0.063	55	
0.038	45	SILT/CLAY
0.027	41	
0.017	36	
0.010	27	
0.007	22	
0.005	17	
0.002	10	

Contract No. 22734 Report No. R116114
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : TP209
 Sample No. AA137978 Lab. Sample No. A20/4626
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins C.E
 Date Received 09/10/2020 Date Testing started 13/10/2020
 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 apply to sample as received.

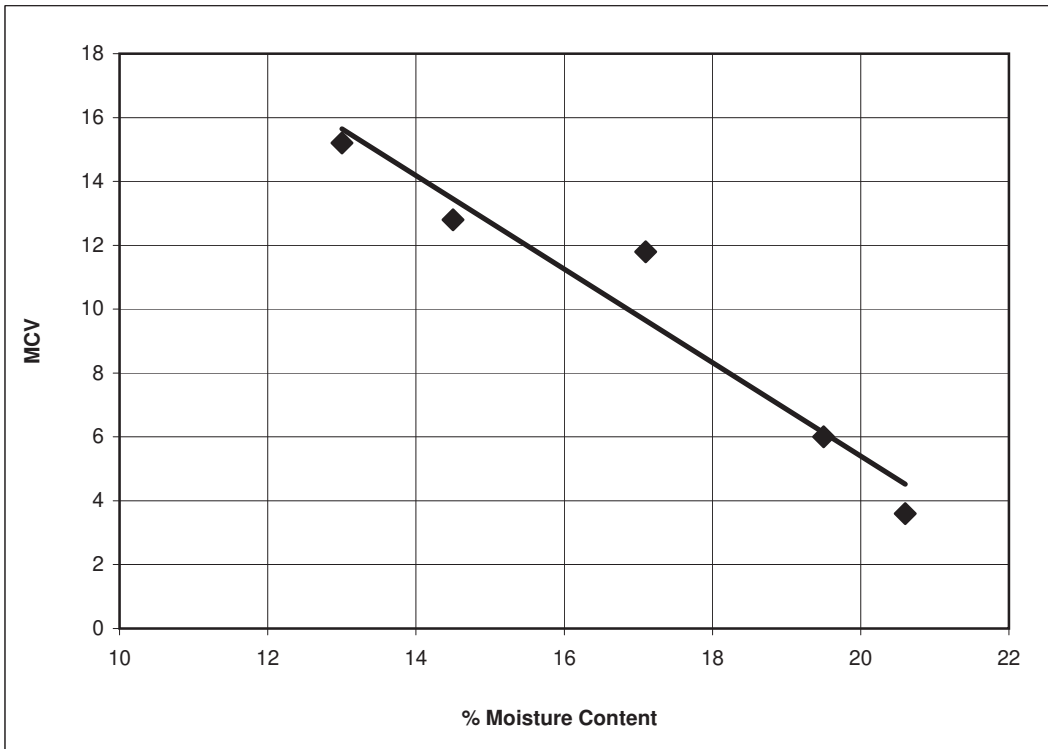


IGSL Ltd
 Materials Laboratory
 M7 Business Park
 Naas Co.Kildare
 045 846176

TEST REPORT
 Determination of MCV / moisture content
 Relation of a soil
 Tested in accordance with BS1377-4:1990, clause 5.5

Report No. R116200 Contract Harbour Point Bray, Co.Wicklow
 Contract No. 22734 Customer Ballymore Group / Atkins
 Date received 09/10/20 Date Tested 19/10/20
 BH/TP No. TP210 Sample No. AA148852 Type: B
 Depth (m) 1.50 Lab sample No. A20/4628

MC%	13	15	17	20	21
MCV	15.2	12.8	11.8	6	3.6



% material >20mm 2.6

Persons authorized to approve reports
 J Barrett (Quality Manager)
 H Byrne (Laboratory Manager)

IGSL Ltd Materials Laboratory

Approved by	Date	Page No.
<i>H Byrne</i>	28/10/20	1 of 1

IGSL Ltd
Materials Laboratory
M7 Business Park
Naas
Co. Kildare

Test Report

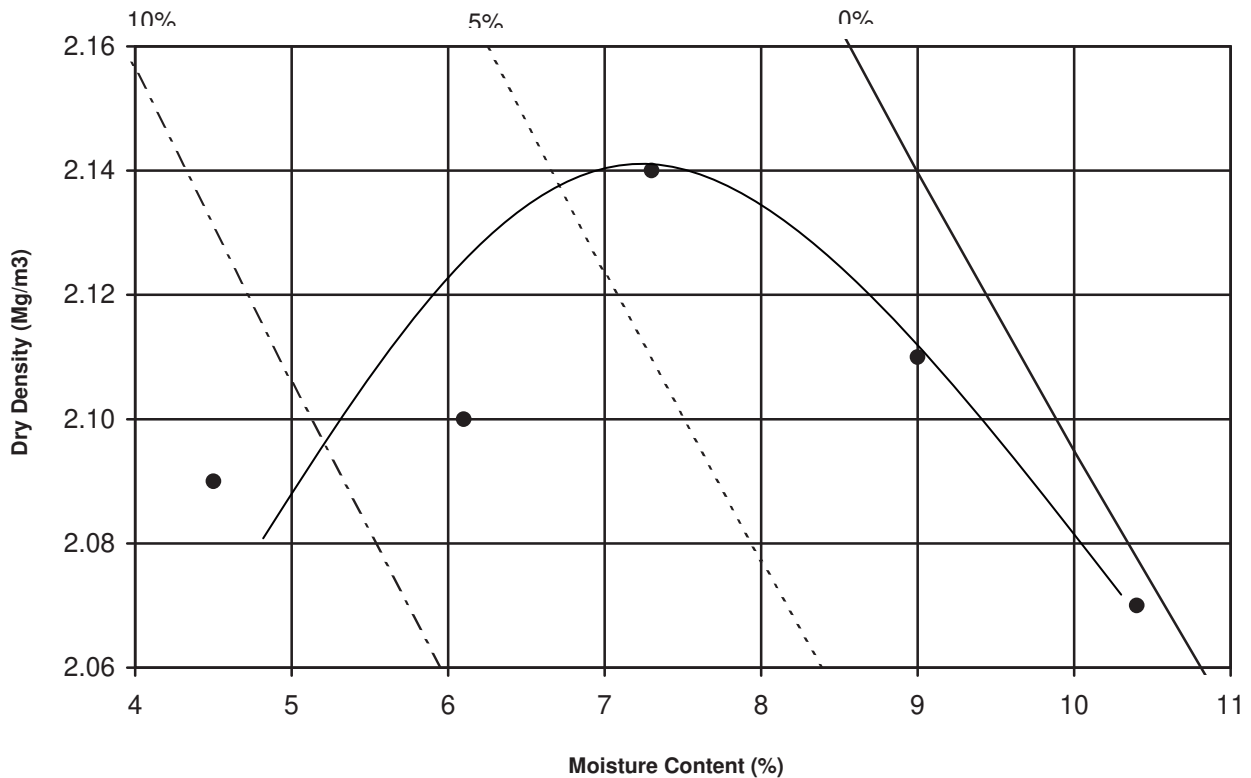
Dry Density/Moisture Content Relationship

Tested in accordance with BS1377:Part 4:1990



Report No. R116201 Contract No. 22734
 Contract Name: Harbour Point Bray, Co.Wicklow
 Lab Contract No. Location: TP202
 Sample No. AA137964 Depth (m) 1.5 Material Type B
 Lab sample no. A20/5422 Customer: Ballymore Group/Atkins
 Date Received: 09/10/2020 Test Method: 2.5 KG Rammer
 Date Tested: 22/10/2020 BS1377:Part 4:1990 3.3

Dry Density (Mg/m ³)	2.09	2.10	2.14	2.11	2.07	0.00	
Moisture Content (%)	4.5	6.1	7.3	9.0	10	0	



Maximum Dry Density (Mg/m³): 2.14 Optimum Moisture Content (%): 7

Description: Grey/brown silty/clayey gravelly SAND

Sample Preparation: Material passing 20mm Single / Separate samples used

Particle Density (Mg/m³): 2.65 Particle Density: Assumed

% retained on 20/37.5mm sieve: 2.4

The result relates to the specimen tested.
Opinions and interpretations are outside the scope of accreditation

Persons authorised to approve reports
J Barrett (Quality Manager)
H Byrne (Laboratory Manager)

IGSL Materials Laboratory

Approved by

Date

28/10/20

Page

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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. **R116677** Contract No. **22734** Contract Name: **Harbour Point , Bray , Co.Wicklow**

Customer **Ballymore Group / Atkins**

Samples Received: **20/10/20** Date Tested: **05/11/20**

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
BH203	AA139451	1.0	A20/5611	B	17	34	16	18	71	WS	4.4	C L	Brown sandy gravelly CLAY
BH203	AA139455	5.0	A20/5613	B	17	46	17	29	98	WS	4.4	C I	Brown sandy gravelly CLAY
BH203	AA139456	6.0	A20/5614	B	27	41	15	26	99	WS	4.4	C I	Brown sandy CLAY
BH203	AA139458	8.0	A20/5615	B	8.4	36	18	18	18	WS	4.4	C I	Brown sandy clayey GRAVEL
BH218	AA141678	1.5	A20/5616	B	11	45	22	23	25	WS	4.4	C I	Brown sandy gravelly CLAY
BH218	AA141691	8.5	A20/5619	B	26	41	NP	NP	97	WS	4.4		Brown sandy SILT
BH218	AA141694	9.5	A20/5620	B	41	50	NP	NP	98	WS	4.4		Grey slightly sandy, slightly gravelly, SILT
BH218	AA141700	12.5	A20/5621	B	59	51	NP	NP	93	WS	4.4		Mottled grey sandy SILT
BH212	AA141645	1.5	A20/5622	B	12	37	NP	NP	29	WS	4.4		Brown very sandy gravelly SILT
BH212	AA141647	2.5	A20/5623	B	26								Brown slightly sandy, slightly gravelly, SILT/CLAY
BH212	AA141649	3.5	A20/5624	B	18								Brown sandy gravelly SILT/CLAY
BH217	AA146655	0.5	A20/5625	B	18	35	16	19	72	WS	4.4	C L	Brown sandy gravelly CLAY
BH217	AA146657	3.5	A20/5626	B	25	34	NP	NP	98	WS	4.4		Brown sandy, SILT
BH217	AA146661	5.5	A20/5627	B	24								Brown sandy SILT/CLAY
BH217	AA146665	7.5	A20/5628	B	16	29	NP	NP	72	WS	4.4		Brown sandy gravelly SILT

Notes: Preparation: WS - Wet sieved Sample Type: B - Bulk Disturbed Remarks: Results apply to the sample as received.
 AR - As received U - Undisturbed
 NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		23/11/20	1 of 1

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. **R116678** Contract No. **22734** Contract Name: **Harbour Point , Bray , Co.Wicklow**

Customer **Ballymore Group / Atkins**

Samples Received: **20/10/20** Date Tested: **05/11/20**

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
BH217	AA146667	8.5	A20/5629	B	16	35	NP	NP	74	WS	4.4		Brown slightly sandy, slightly gravelly, SILT
BH217	AA146671	10.5	A20/5630	B	19	43	17	26	80	WS	4.4	C I	Brown sandy gravelly CLAY
BH219	AA146680	3.5	A20/5631	B	11	45	NP	NP	35	WS	4.4		Brown silty, very sandy, GRAVEL with some cobbles
BH219	AA146682	4.5	A20/5632	B	12	45	21	24	30	WS	4.4	C I	Brown sandy gravelly CLAY
BH219	AA146686	6.5	A20/5633	B	26								Brown sandy SILT/CLAY
BH219	AA146688	7.5	A20/5634	B	19	44	NP	NP	74	WS	4.4		Brown slightly sandy, slightly gravelly, SILT
BH219	AA146690	8.5	A20/5635	B	13	26	13	13	71	WS	4.4	C L	Brown sandy gravelly CLAY
BH219	AA146692	9.5	A20/5636	B	15								Brown sandy gravelly SILT/CLAY
BH219	AA146694	10.5	A20/5637	B	26								Mottled brown sandy SILT/CLAY
BH223	AA183903	1.5	A20/4638	B	19	43	NP	NP	50	WS	4.4		Brown sandy gravelly SILT
BH223	AA183905	2.5	A20/5639	B	11								Brown clayey/silty, sandy, GRAVEL with many cobbles
BH223	AA183907	3.5	A20/5640	B	20								Grey sandy gravelly SILT/CLAY
BH223	AA183911	5.5	A20/5641	B	61	68	NP	NP	98	WS	4.4		Grey sandy SILT
BH223	AA183915	7.5	A20/5642	B	61	47	NP	NP	97	WS	4.4		Grey sandy SILT
BH223	AA183917	8.5	A20/5643	B	20								Brown slightly sandy, slightly gravelly, SILT/CLAY

Notes: Preparation: WS - Wet sieved Sample Type: B - Bulk Disturbed Remarks: Results apply to the sample as received.
 AR - As received U - Undisturbed
 NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		19/11/20	1 of 1

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. **R116679** Contract No. **22734** Contract Name: **Harbour Point , Bray , Co.Wicklow**
 Customer **Ballymore Group / Atkins**
 Samples Received: **20/10/20** Date Tested: **05/11/20**

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
BH223	AA183919	9.5	A20/5644	B	59								Grey sandy SILT/CLAY
BH223	AA183921	10.5	A20/5645	B	68								Grey/brown clayey/silty, very gravelly, SAND
BH223	AA183923	11.5	A20/5646	B	15	34	NP	NP	21	WS	4.4		Grey sandy gravelly SILT
BH224	AA139463	2.5	A20/5640	B	19	44	NP	NP	55	WS	4.4		Grey very sandy gravelly SILT
BH224	AA139467	4.5	A20/5648	B	37								Grey sandy, slightly gravelly, SILT/CLAY
BH224	AA139471	6.5	A20/5649	B	40	52	NP	NP	99	WS	4.4		Grey sandy SILT
BH224	AA139475	8.5	A20/5650	B	58								Grey slightly sandy, slightly gravelly, SILT/CLAY

Notes: 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:
 Results apply to the sample as received.
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		17/11/20	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)

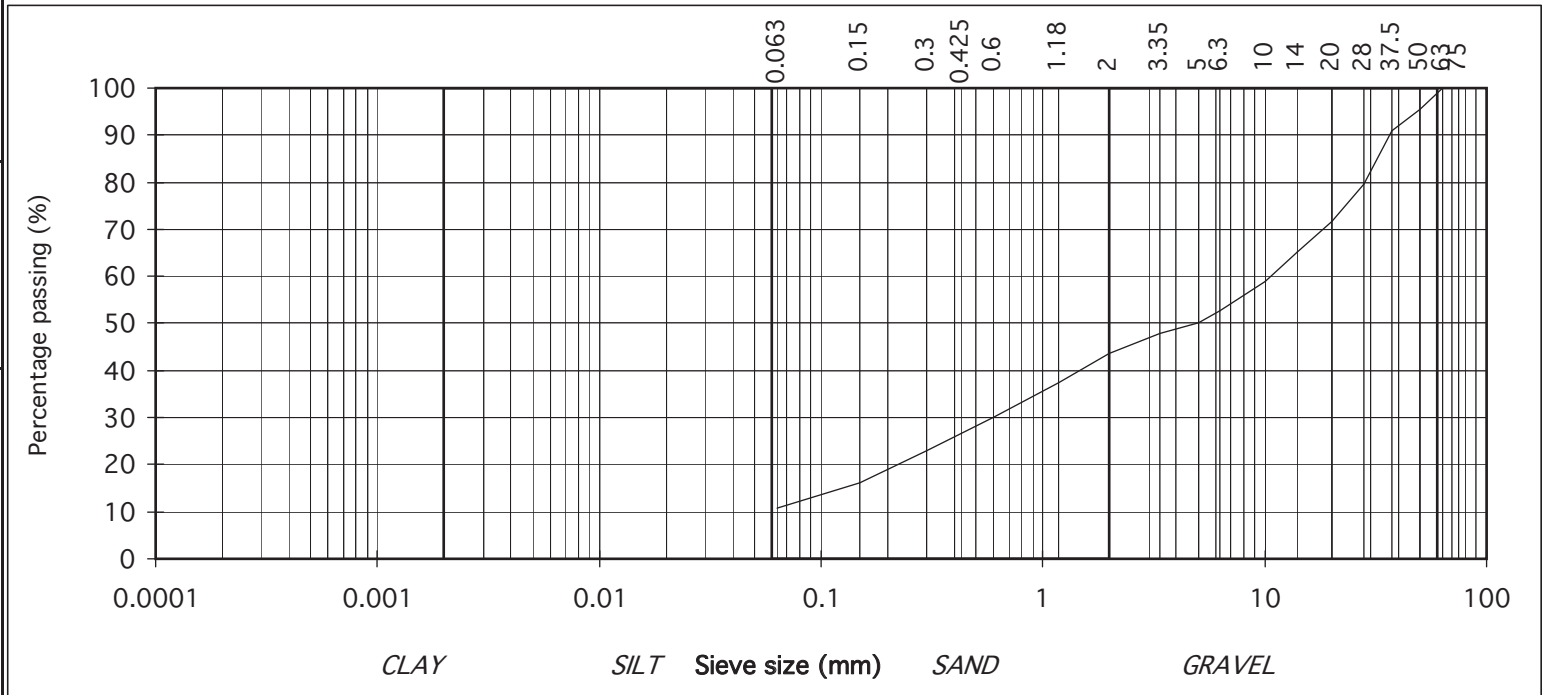


particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	91	
28	80	
20	72	
14	65	
10	59	
6.3	53	
5	50	
3.35	48	
2	44	
1.18	38	SAND
0.6	30	
0.425	27	
0.3	23	SILT/CLAY
0.15	16	
0.063	11	

Contract No. 22734 Report No. R116680
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH203
 Sample No. AA139452 Lab. Sample No. A20/5612
 Sample Type: B
 Depth (m) 2.00 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 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 ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

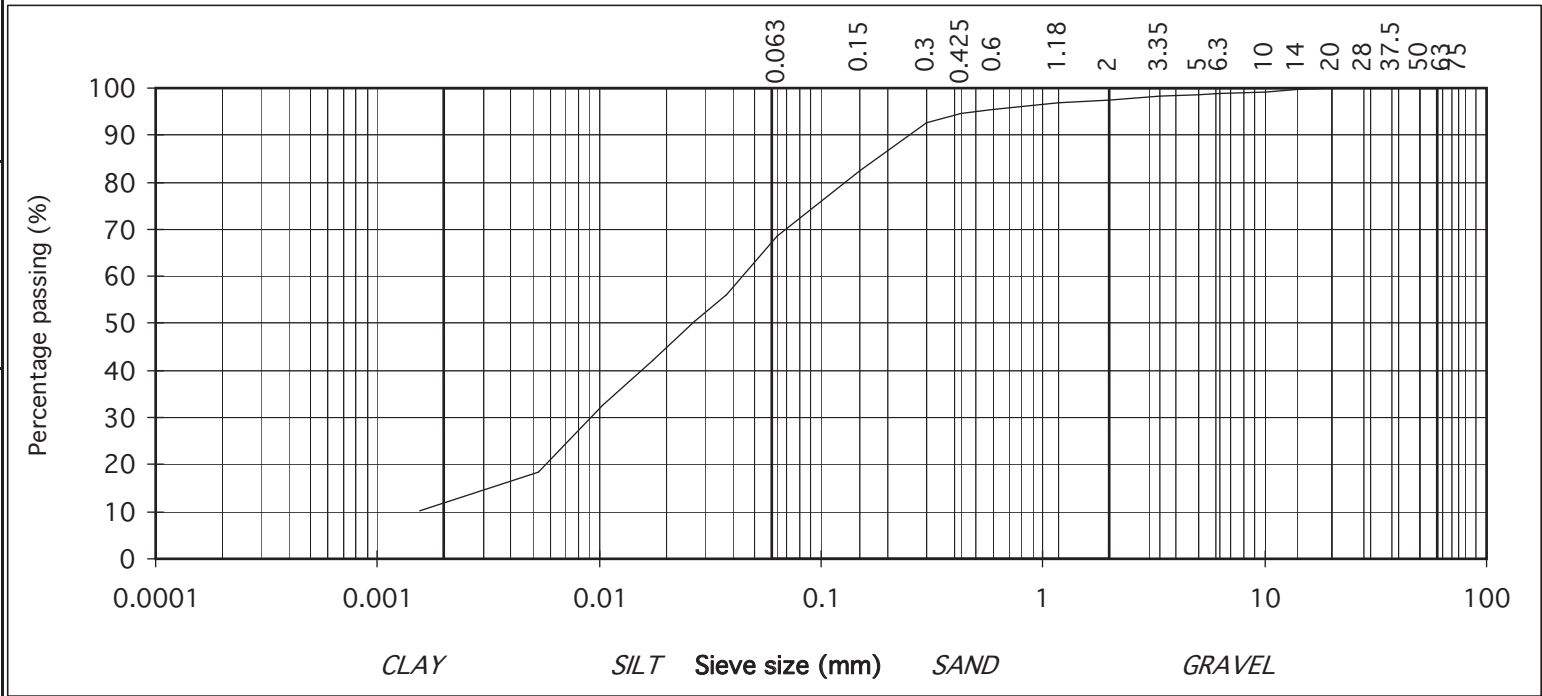
TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	100	
20	100	
14	100	GRAVEL
10	99	
6.3	99	
5	99	
3.35	98	
2	98	
1.18	97	SAND
0.6	95	
0.425	95	
0.3	93	
0.15	83	
0.063	68	
0.038	56	SILT/CLAY
0.027	50	
0.017	42	
0.010	33	
0.007	25	
0.005	18	
0.002	10	

Contract No. 22734 Report No. R116684
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH212
 Sample No. AA141647 Lab. Sample No. A20/5623
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 06/11/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

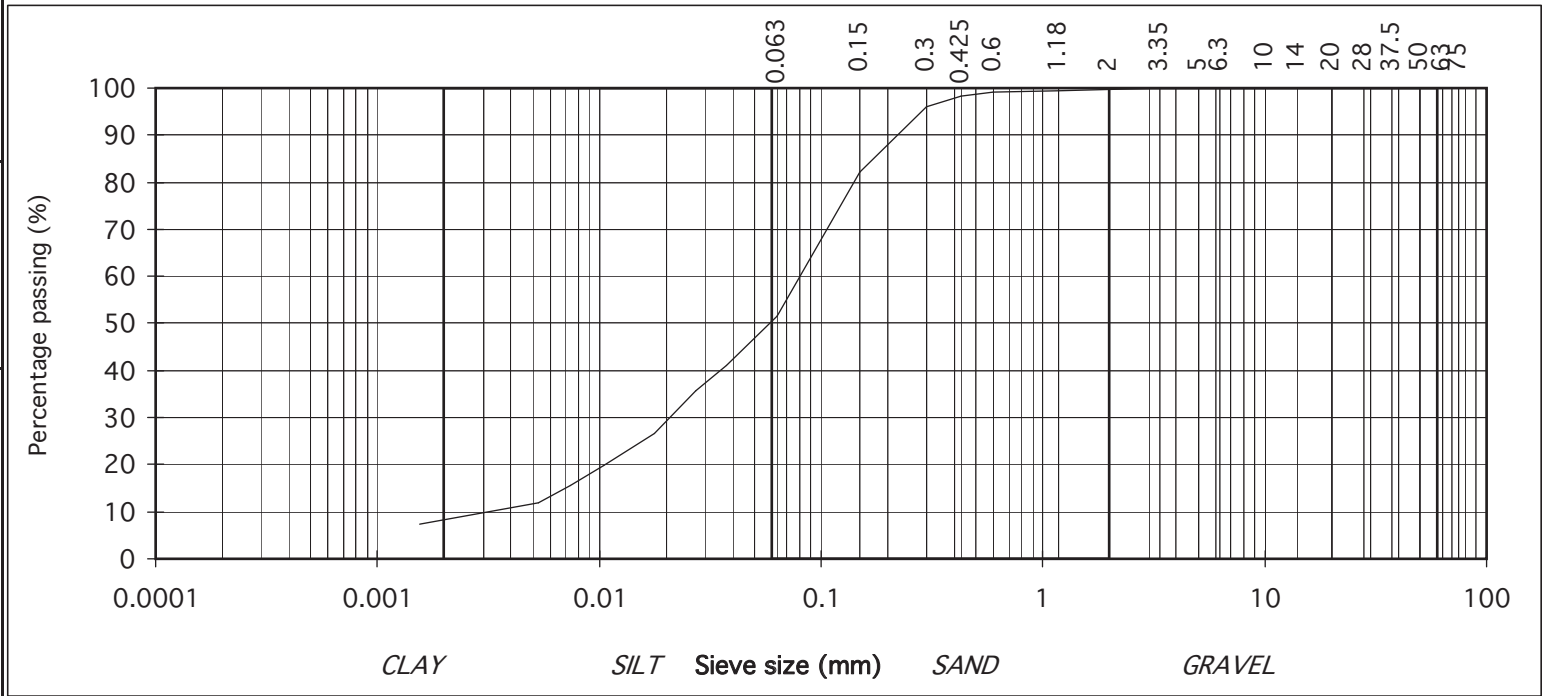
TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)



particle size	% passing		
75	100	COBBLES	
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100	GRAVEL	
2	100		
1.18	100		
0.6	99		
0.425	98		
0.3	96		
0.15	82		
0.063	52		
0.038	41		
0.027	36		
0.018	26	SAND	
0.010	20		
0.007	16		
0.005	12		
0.002	7		
			SILT/CLAY

Contract No. 22734 Report No. R116685
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH217
 Sample No. AA146657 Lab. Sample No. A20/5626
 Sample Type: B
 Depth (m) 3.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 Description: Brown sandy, SILT

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

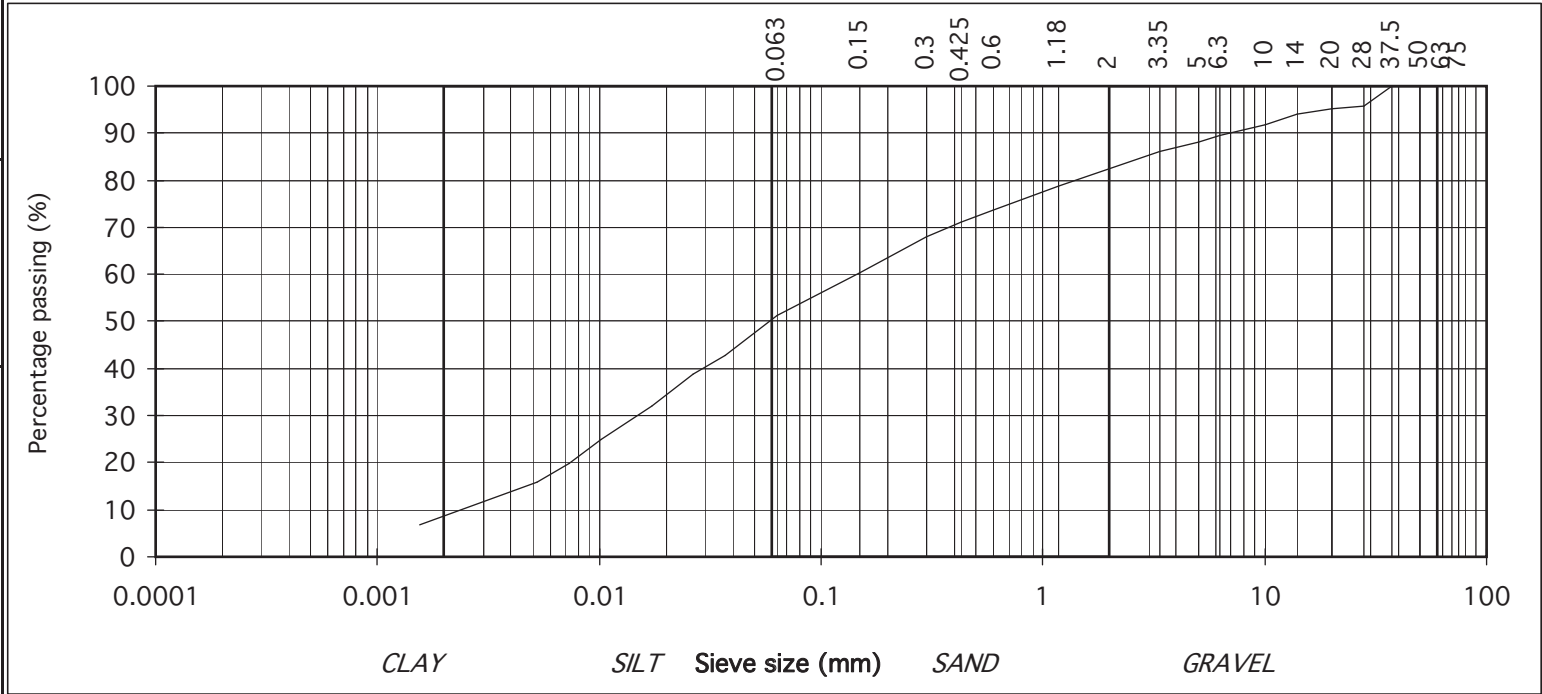


particle size	% passing		
75	100	COBBLES	
63	100		
50	100		
37.5	100		
28	96		
20	95	GRAVEL	
14	94		
10	92		
6.3	89		
5	88		
3.35	86		
2	82		
1.18	79		SAND
0.6	74		
0.425	71		
0.3	68		
0.15	60		
0.063	51	SILT/CLAY	
0.037	43		
0.027	39		
0.017	32		
0.010	25		
0.007	20		
0.005	16		
0.002	7		

Contract No. 22734 Report No. R116686
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH217
 Sample No. AA146667 Lab. Sample No. A20/5629
 Sample Type: B
 Depth (m) 8.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 06/11/2020
 Description: Brown slightly sandy, slightly gravelly, SILT

Remarks

Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

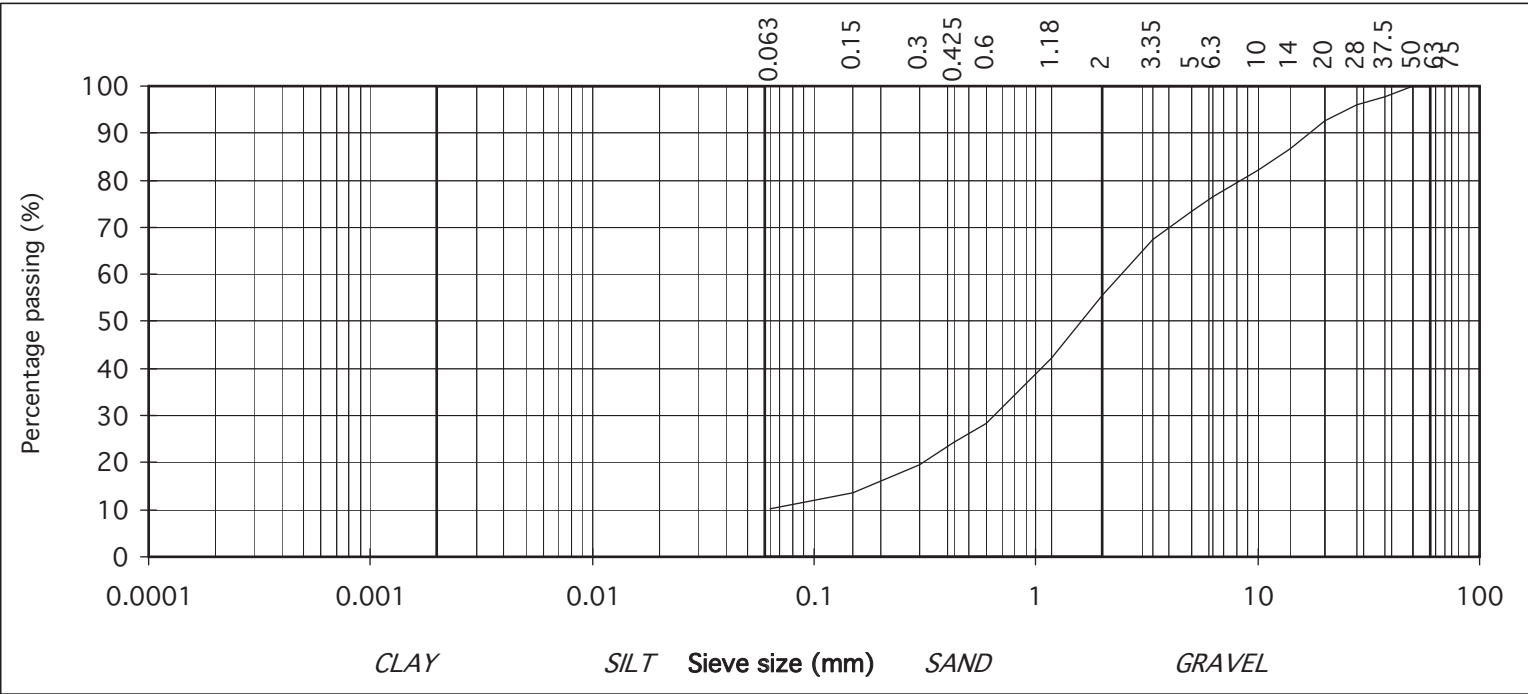
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	98	
28	96	
20	93	GRAVEL
14	87	
10	82	
6.3	76	
5	73	
3.35	67	
2	56	
1.18	42	SAND
0.6	28	
0.425	24	
0.3	19	
0.15	14	SILT/CLAY
0.063	10	

Contract No. 22734 Report No. R116681
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH218
 Sample No. AA141684 Lab. Sample No. A20/5617
 Sample Type: B
 Depth (m) 4.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 Description: Brown clayey/silty, very gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

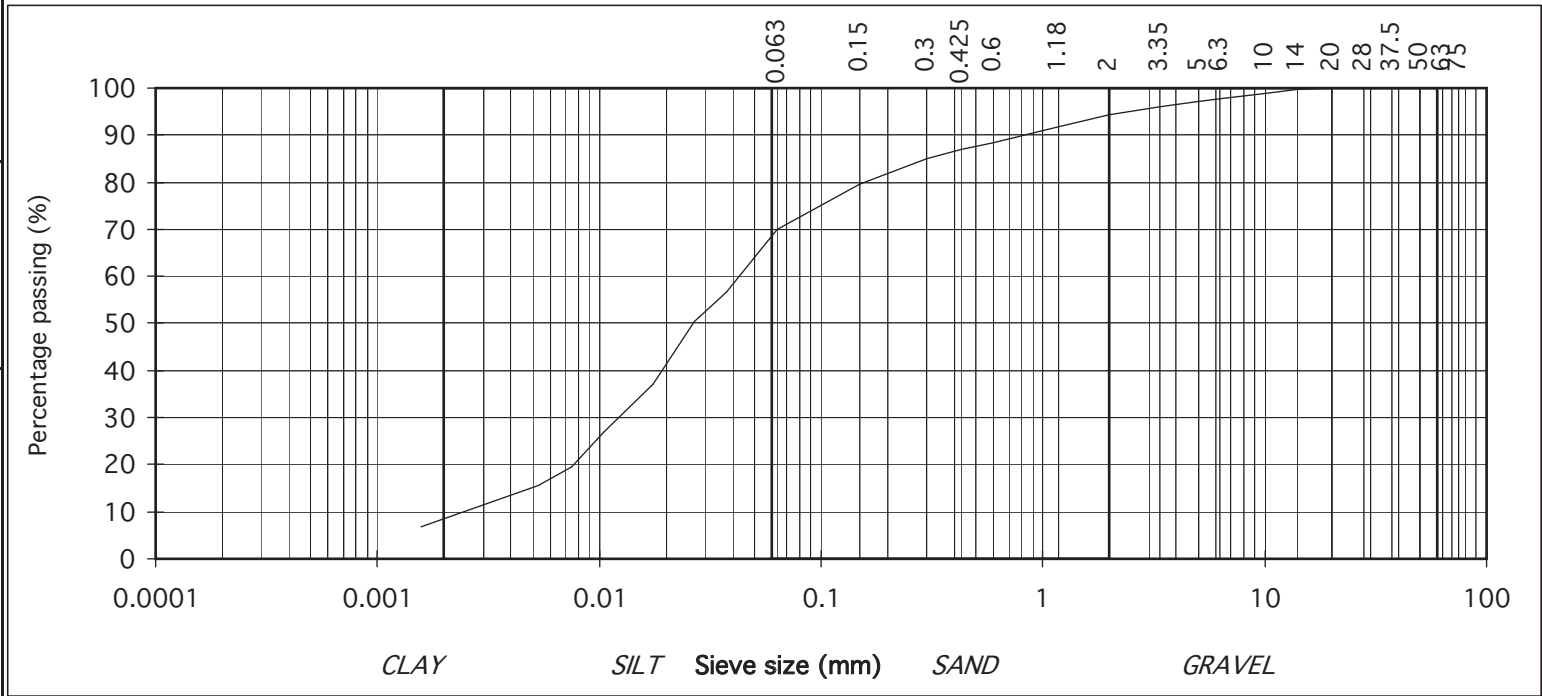


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	100	
20	100	
14	100	GRAVEL
10	99	
6.3	98	
5	97	
3.35	96	
2	94	
1.18	92	SAND
0.6	88	
0.425	87	
0.3	85	
0.15	80	
0.063	70	
0.037	57	SILT/CLAY
0.027	50	
0.018	37	
0.010	27	
0.007	20	
0.005	16	
0.002	7	

Contract No. 22734 Report No. R116682
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH218
 Sample No. AA141690 Lab. Sample No. A20/5618
 Sample Type: B
 Depth (m) 7.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

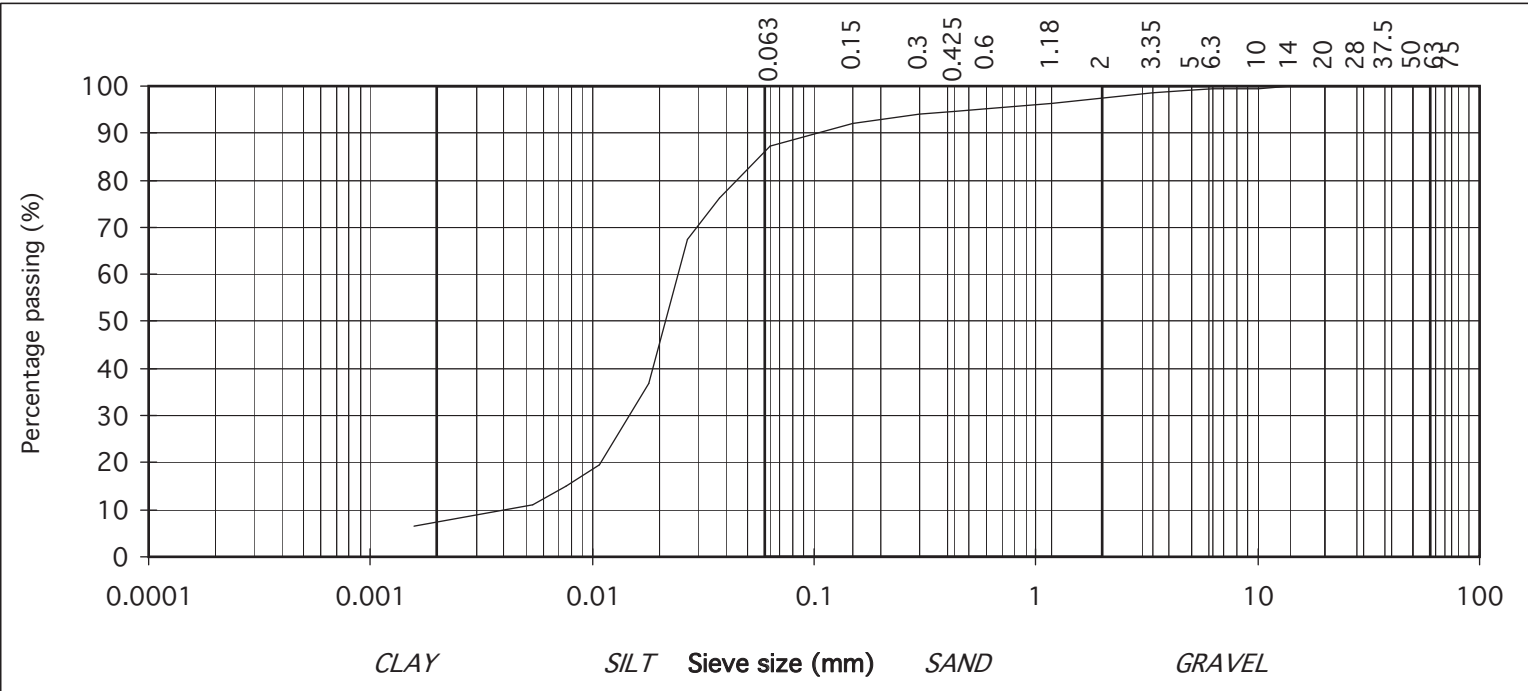
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing		
75	100	COBBLES	
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	99	GRAVEL	
2	97		
1.18	96		
0.6	95		
0.425	95		
0.3	94		
0.15	92		
0.063	87		
0.037	76		
0.027	68		
0.018	37	SAND	
0.011	20		
0.008	15		
0.005	11		
0.002	7		
			SILT/CLAY

Contract No. 22734 Report No. R116683
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH218
 Sample No. AA141694 Lab. Sample No. A20/5620
 Sample Type: B
 Depth (m) 9.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 Description: Grey slightly sandy, slightly gravelly, SILT

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



TEST REPORT

Determination of Particle Size Distribution

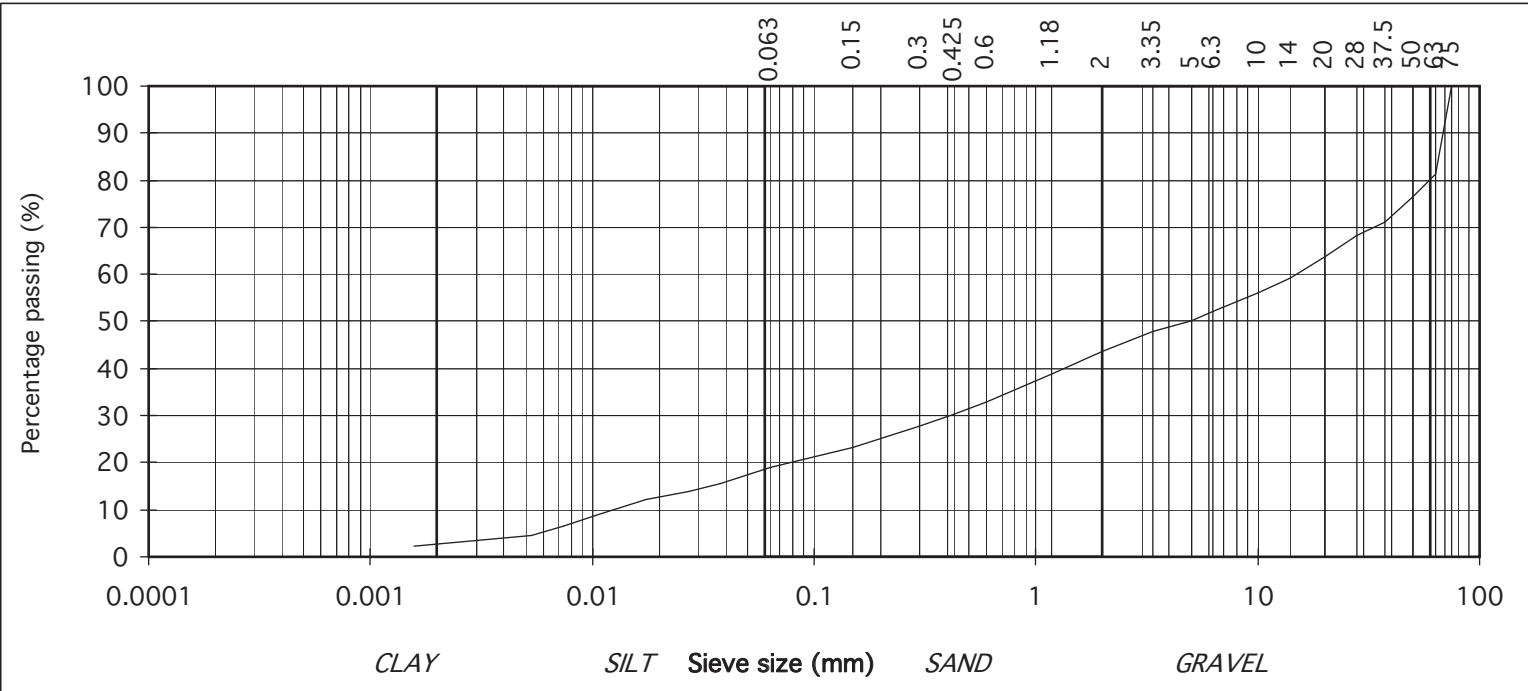
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing		
75	100	COBBLES	
63	81		
50	77		
37.5	71		
28	68		
20	64		
14	59		
10	56		
6.3	52		
5	50		
3.35	48	GRAVEL	
2	44		
1.18	39		
0.6	33		
0.425	30		
0.3	28		
0.15	23		
0.063	19		
0.038	16		
0.027	14		
0.018	12	SAND	
0.010	9		
0.007	6		
0.005	5		
0.002	2		
			SILT/CLAY

Contract No. 22734 Report No. R116687
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH219
 Sample No. AA146680 Lab. Sample No. A20/5631
 Sample Type: B
 Depth (m) 3.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 Description: Brown 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 ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

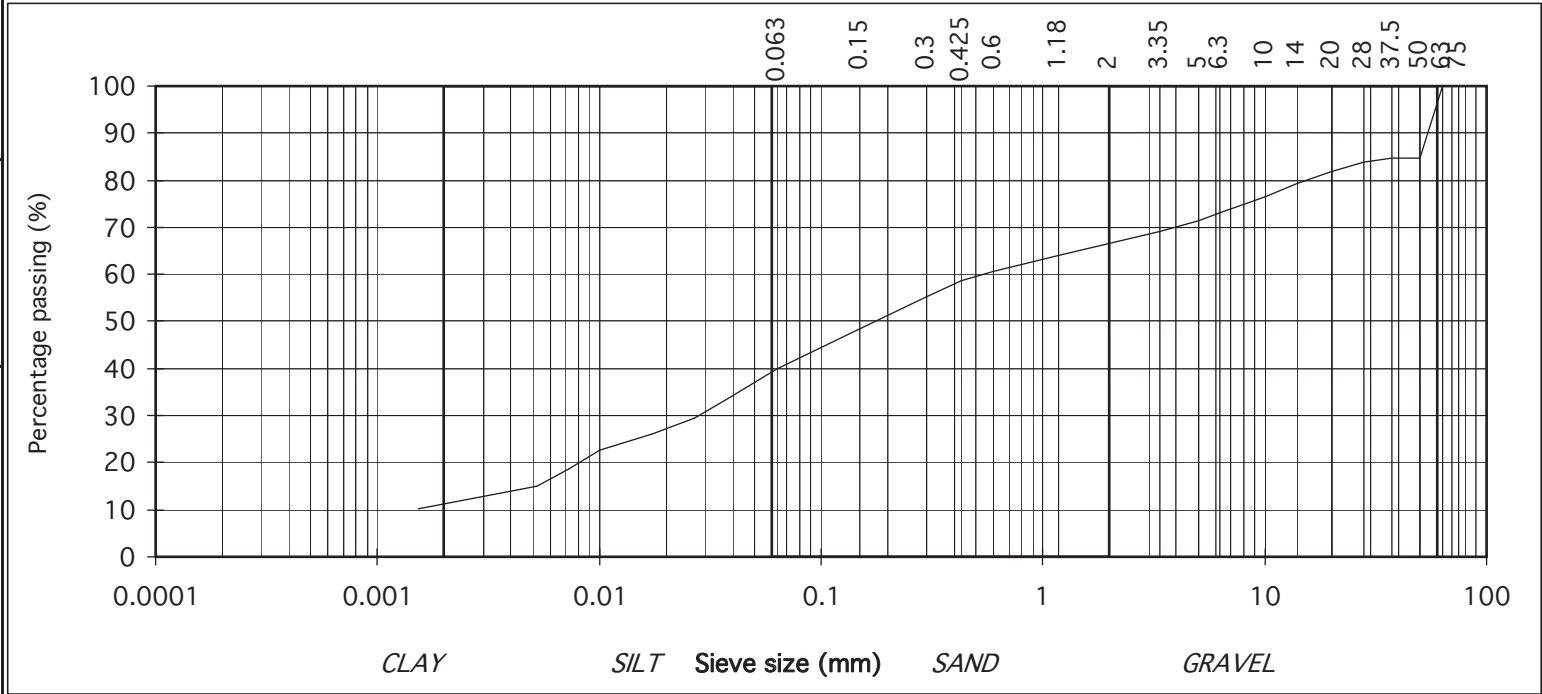


particle size	% passing	
75	100	COBBLES
63	100	
50	85	GRAVEL
37.5	85	
28	84	
20	82	
14	79	
10	76	
6.3	73	
5	71	
3.35	69	
2	67	
1.18	64	SAND
0.6	61	
0.425	59	
0.3	55	
0.15	49	SILT/CLAY
0.063	40	
0.037	34	
0.027	30	
0.017	26	
0.010	23	
0.007	19	
0.005	15	
0.002	10	

Contract No. 22734 Report No. R116688
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH219
 Sample No. AA146688 Lab. Sample No. A20/5634
 Sample Type: B
 Depth (m) 7.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 Description: Brown slightly sandy, slightly gravelly, SILT

Remarks

Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

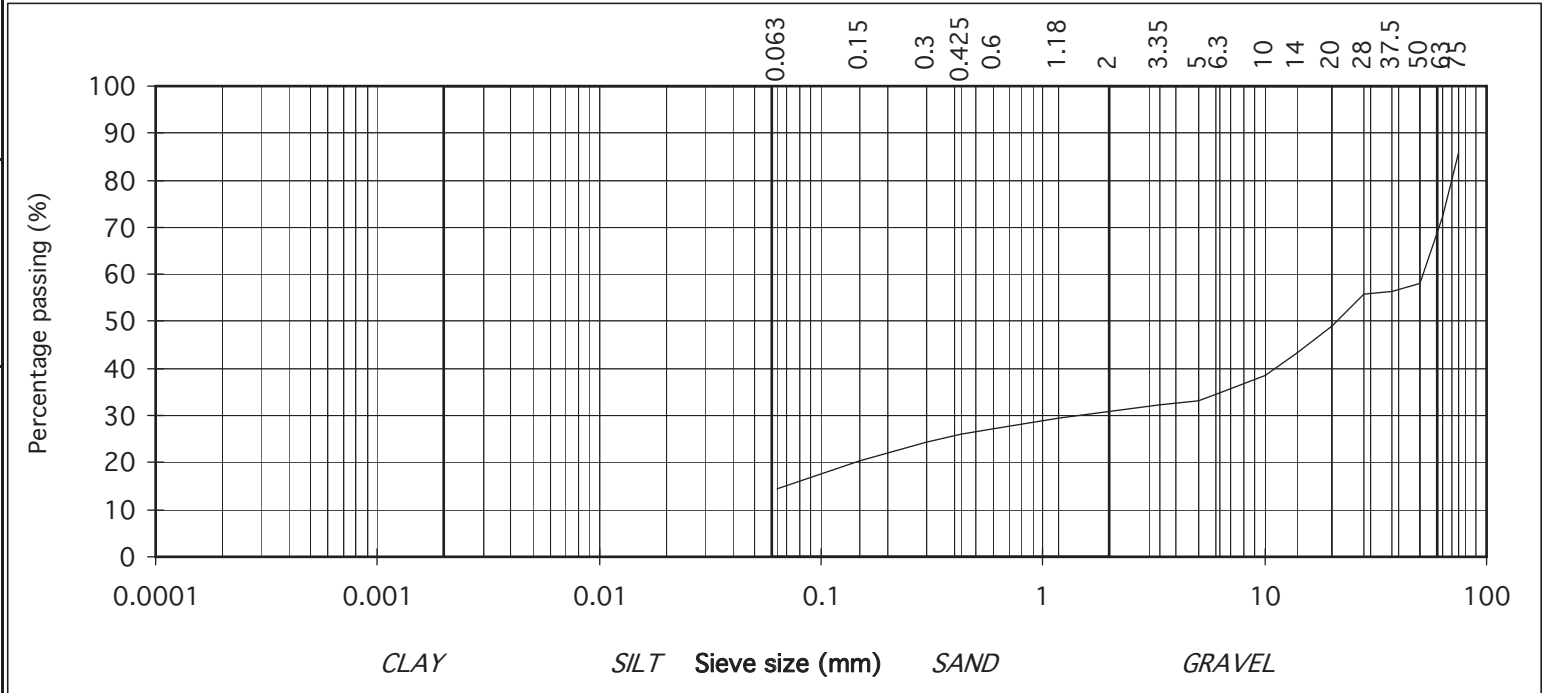


particle size	% passing	
75	86	COBBLES
63	72	
50	58	
37.5	56	
28	56	
20	49	
14	43	
10	39	
6.3	35	
5	33	
3.35	32	GRAVEL
2	31	
1.18	30	
0.6	27	
0.425	26	
0.3	24	
0.15	20	SAND
0.063	15	
		SILT/CLAY

Contract No. 22734 Report No. R116689
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH223
 Sample No. AA183905 Lab. Sample No. A20/5639
 Sample Type: B
 Depth (m) 2.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 Description: Brown 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 apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

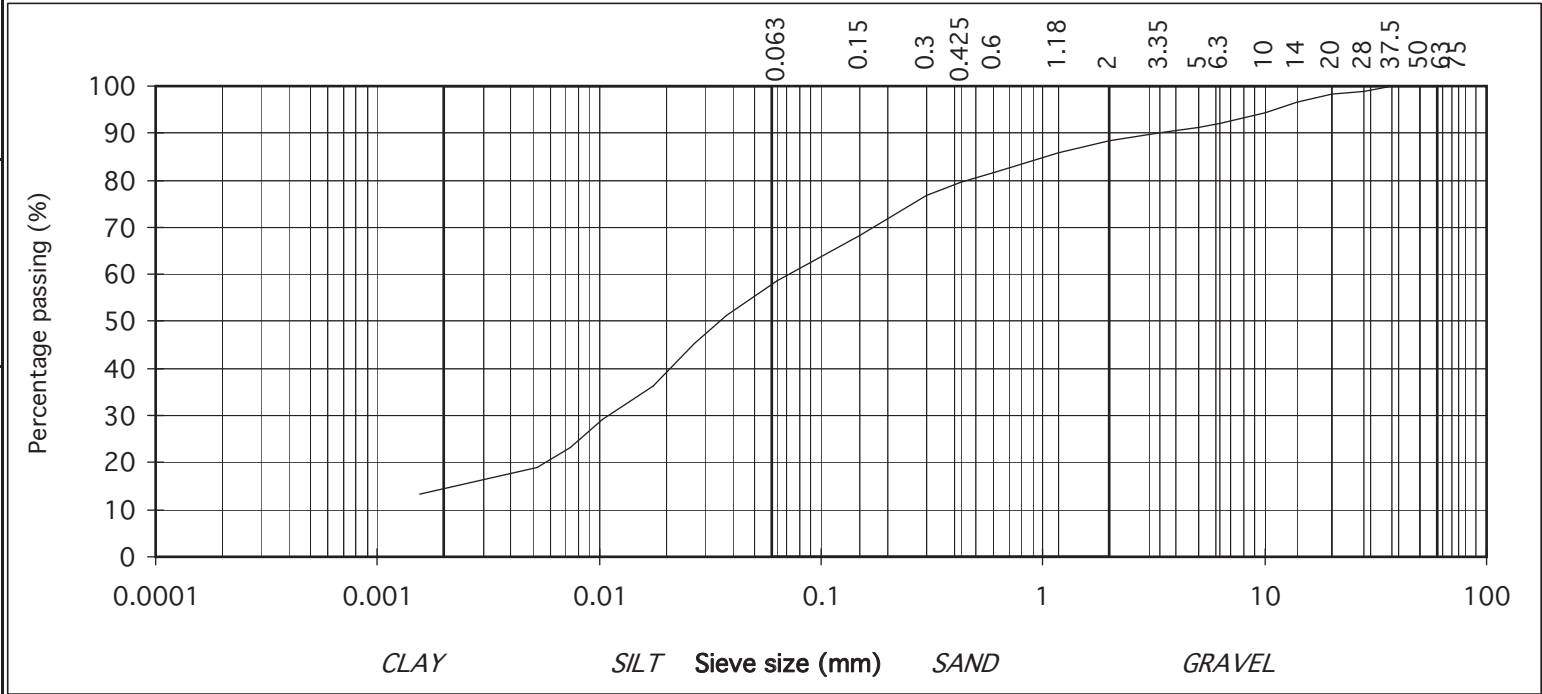
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	99	
20	98	
14	97	GRAVEL
10	94	
6.3	92	
5	91	
3.35	90	
2	88	
1.18	86	SAND
0.6	82	
0.425	79	
0.3	77	
0.15	68	
0.063	59	
0.037	51	SILT/CLAY
0.027	45	
0.017	36	
0.010	29	
0.007	23	
0.005	19	
0.002	13	

Contract No. 22734 Report No. R116690
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH223
 Sample No. AA183937 Lab. Sample No. A20/5643
 Sample Type: B
 Depth (m) 8.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 06/11/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

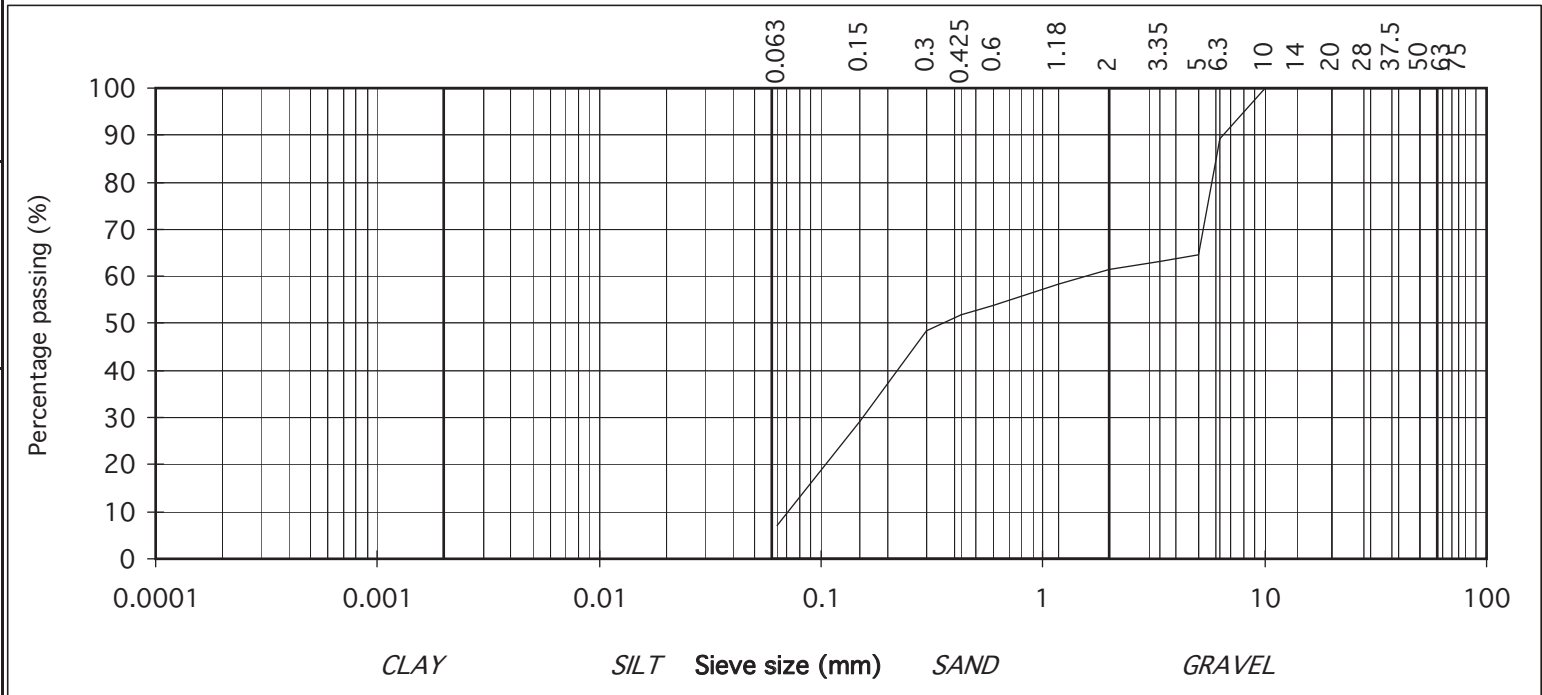


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	100	
20	100	
14	100	GRAVEL
10	100	
6.3	89	
5	64	
3.35	63	SAND
2	61	
1.18	58	
0.6	54	
0.425	52	
0.3	48	
0.15	29	SILT/CLAY
0.063	7	

Contract No. 22734 Report No. R116691
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH223
 Sample No. AA183921 Lab. Sample No. A20/5645
 Sample Type: B
 Depth (m) 10.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 Description: Grey/brown clayey/silty, very gravelly, SAND

Remarks

Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by: *H Byrne*

Date: 17/11/20

Page no: 1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

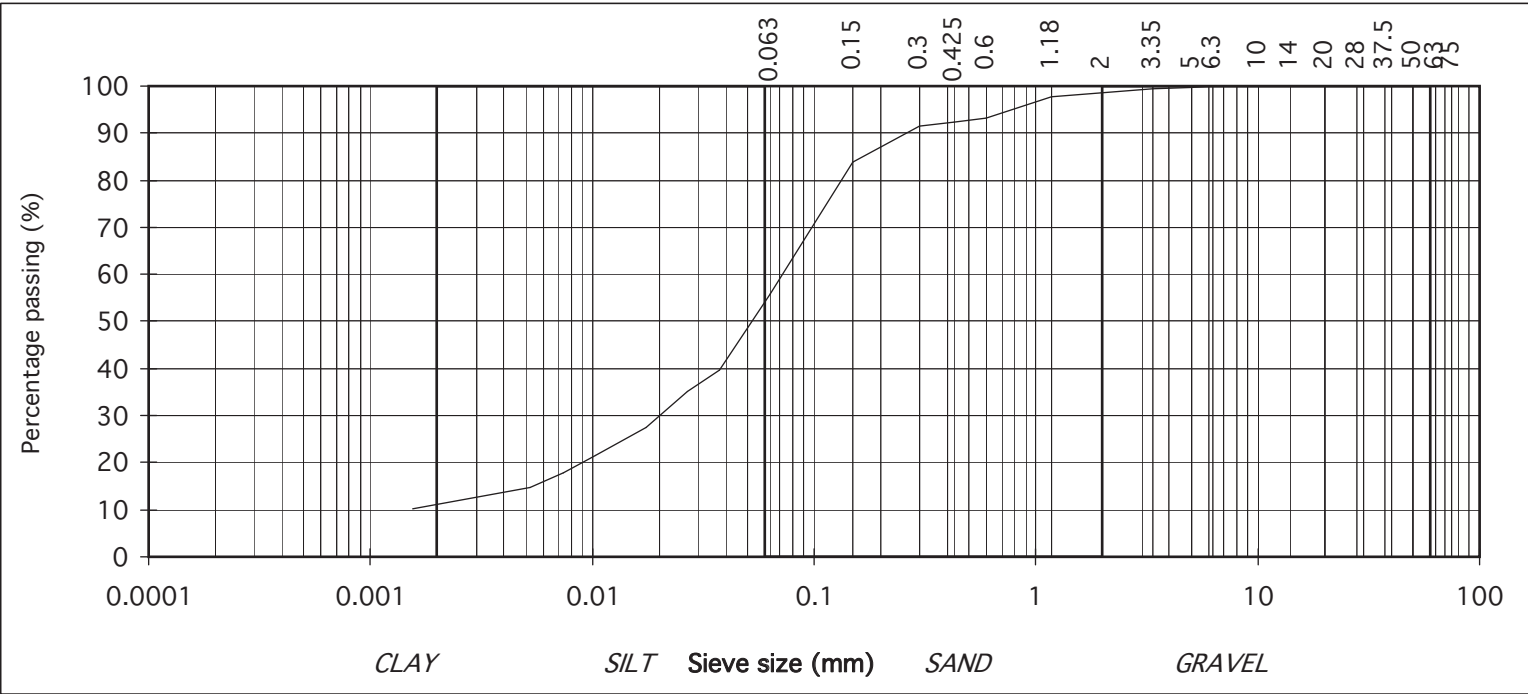
Determination of Particle Size Distribution

Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing		Contract No. 22734	Report No. R116692	
75	100	COBBLES	Contract Name: Harbour Point Bray, Co.Wicklow		
63	100		BH/TP : BH224		
50	100		Sample No. AA139467	Lab. Sample No. A20/5648	
37.5	100		Sample Type: B		
28	100		Depth (m) 4.50	Customer: Ballymore Group / Atkins	
20	100		Date Received 20/10/2020	Date Testing started 05/11/2020	
14	100		Description: Grey sandy, slightly gravelly, SILT/CLAY		
10	100				
6.3	100				
5	100				
3.35	99	GRAVEL			
2	99				
1.18	98				
0.6	93				
0.425	92				
0.3	91				
0.15	84				
0.063	56				
0.037	40				
0.027	35				
0.018	27	SAND			
0.010	22				
0.007	18				
0.005	15				
0.002	10				
			SILT/CLAY		

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

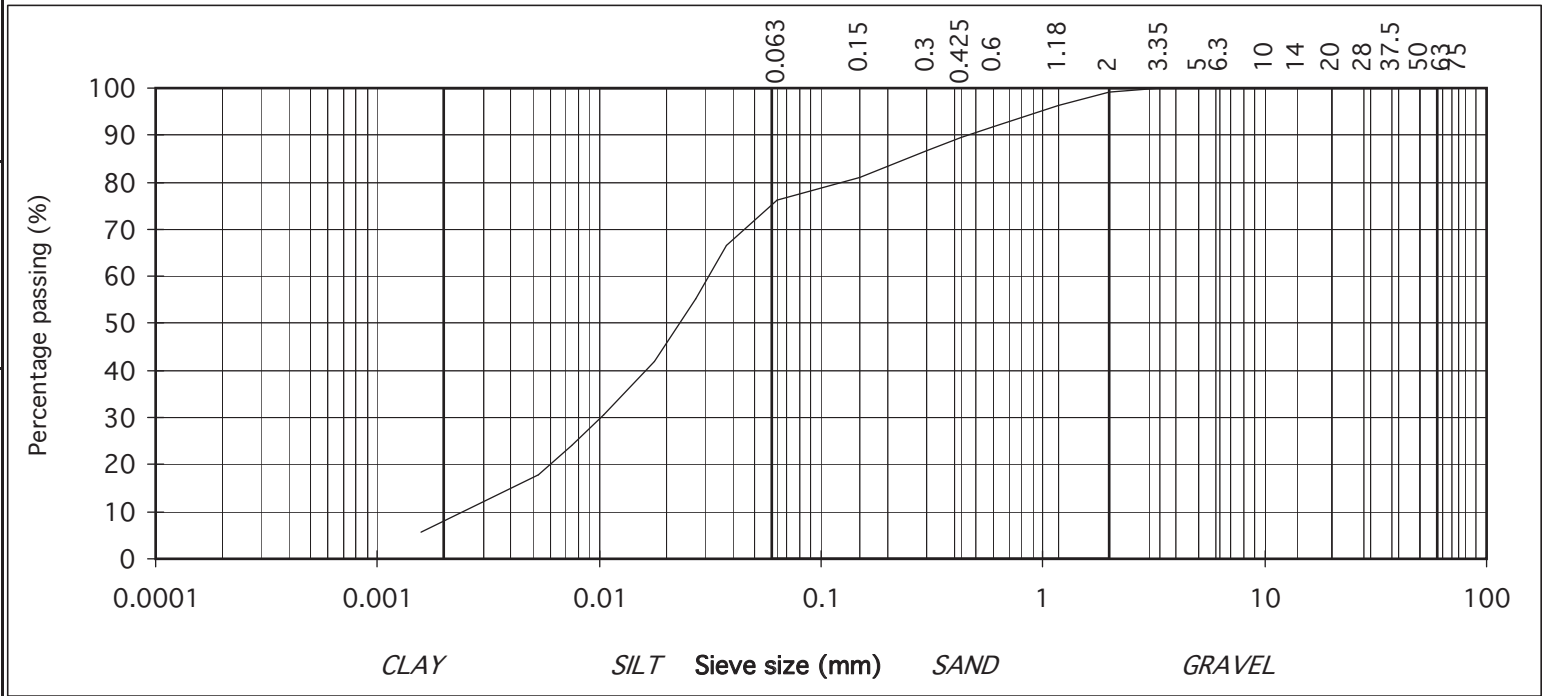


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	
28	100	
20	100	GRAVEL
14	100	
10	100	
6.3	100	
5	100	
3.35	100	
2	99	
1.18	96	SAND
0.6	92	
0.425	89	
0.3	87	
0.15	81	
0.063	76	SILT/CLAY
0.037	67	
0.027	55	
0.018	42	
0.010	30	
0.007	24	
0.005	18	
0.002	6	

Contract No. 22734 Report No. R116693
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH224
 Sample No. AA139475 Lab. Sample No. A20/5650
 Sample Type: B
 Depth (m) 8.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

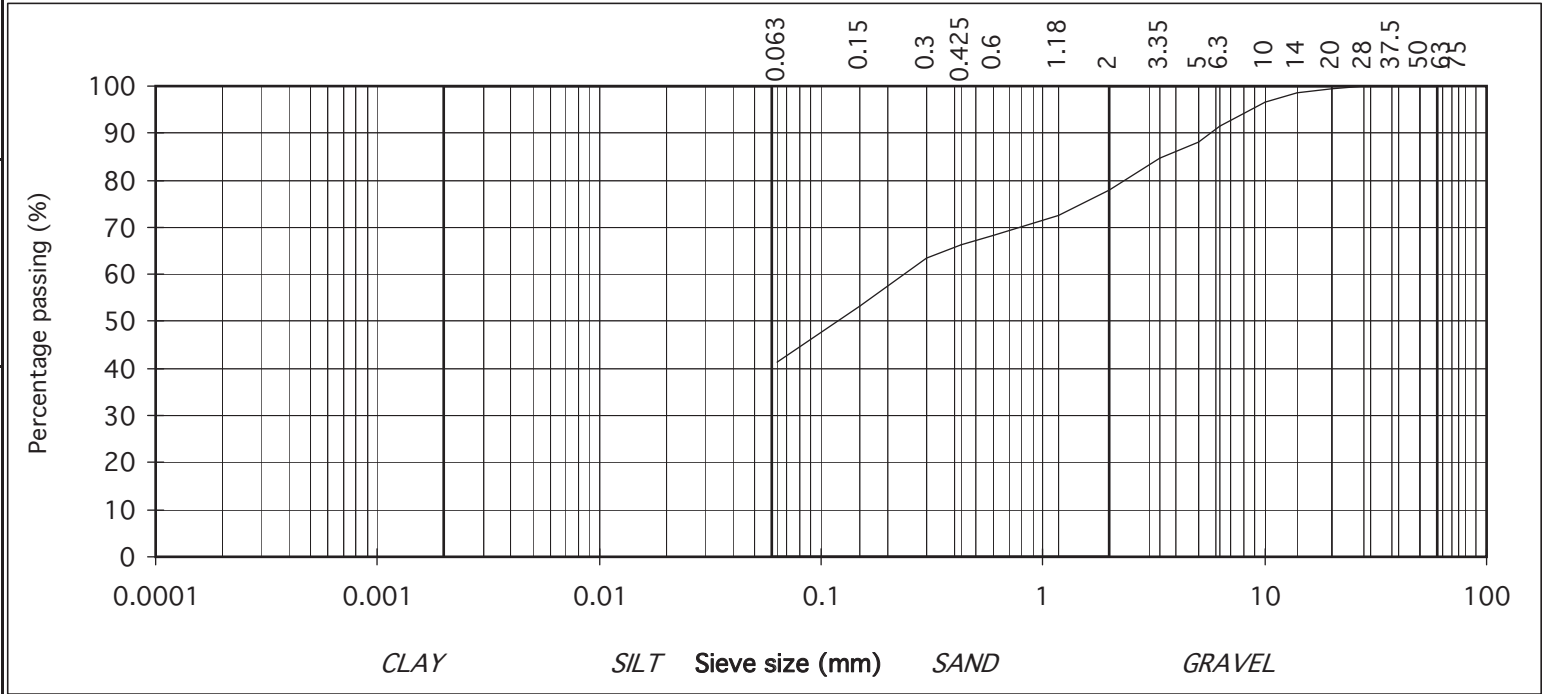
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	GRAVEL
28	100	
20	99	
14	99	
10	97	
6.3	91	
5	88	
3.35	85	
2	78	
1.18	72	
0.6	68	SAND
0.425	66	
0.3	64	
0.15	53	SILT/CLAY
0.063	41	

Contract No. 22734 Report No. R116694
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH224
 Sample No. AA139479 Lab. Sample No. A20/5651
 Sample Type: B
 Depth (m) 10.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 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 apply to sample as received.



TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

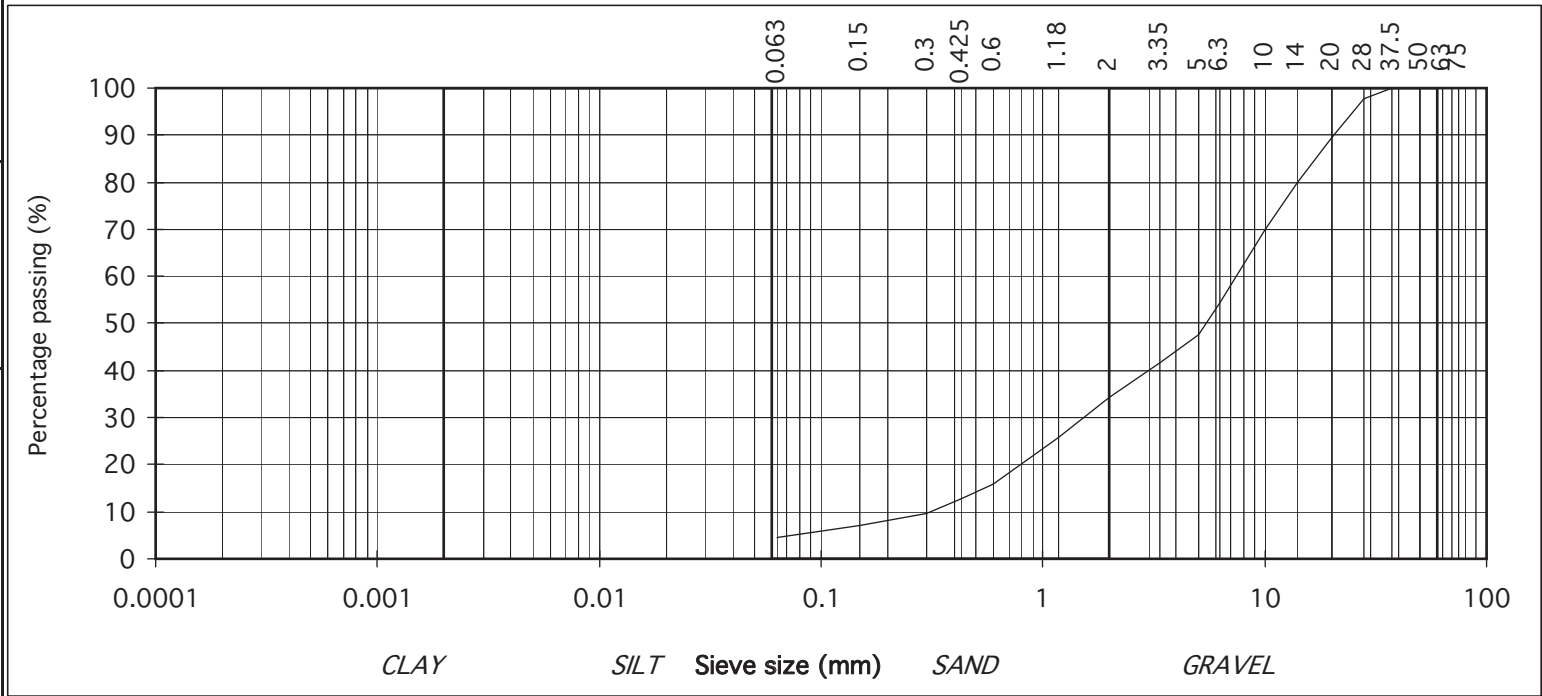


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	100	GRAVEL
28	98	
20	90	
14	80	
10	70	
6.3	54	
5	47	
3.35	42	
2	34	
1.18	26	
0.6	16	SAND
0.425	13	
0.3	10	
0.15	7	SILT/CLAY
0.063	4	

Contract No. 22734 Report No. R116695
 Contract Name: Harbour Point Bray, Co.Wicklow
 BH/TP : BH224
 Sample No. AA139481 Lab. Sample No. A20/5652
 Sample Type: B
 Depth (m) 11.50 Customer: Ballymore Group / Atkins
 Date Received 20/10/2020 Date Testing started 05/11/2020
 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 apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
<i>H Byrne</i>	17/11/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

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. **R116072** Contract No. **22734** Contract Name: **Harbour Point Bray , Co.Wicklow**

Customer **Ballymore Group / Atkins**

Samples Received: **09/10/20** Date Tested: **13/10/20**

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
TP211	AA137951	0.5	A20/4630	B	9.7	36	NP	NP	45	WS	4.4		Brown sandy gravelly SILT
TP211	AA137952	1.5	A20/4621	B	16								Brown sandy gravelly SILT/CLAY

Notes: Preparation: WS - Wet sieved Sample Type: B - Bulk Disturbed Remarks: Results apply to the sample as received.
 AR - As received U - Undisturbed
 NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		28/10/20	1 of 1



One dimensional Consolidation

BS1377:Part 5:1990

Report No. R115164

Contract: Harbour Point Bray

Contract number: 22734

BH: BH214 Sample number: 146613

Depth (m): 3.5

Description Brown mottled grey slightly sandy slightly gravelly CLAY

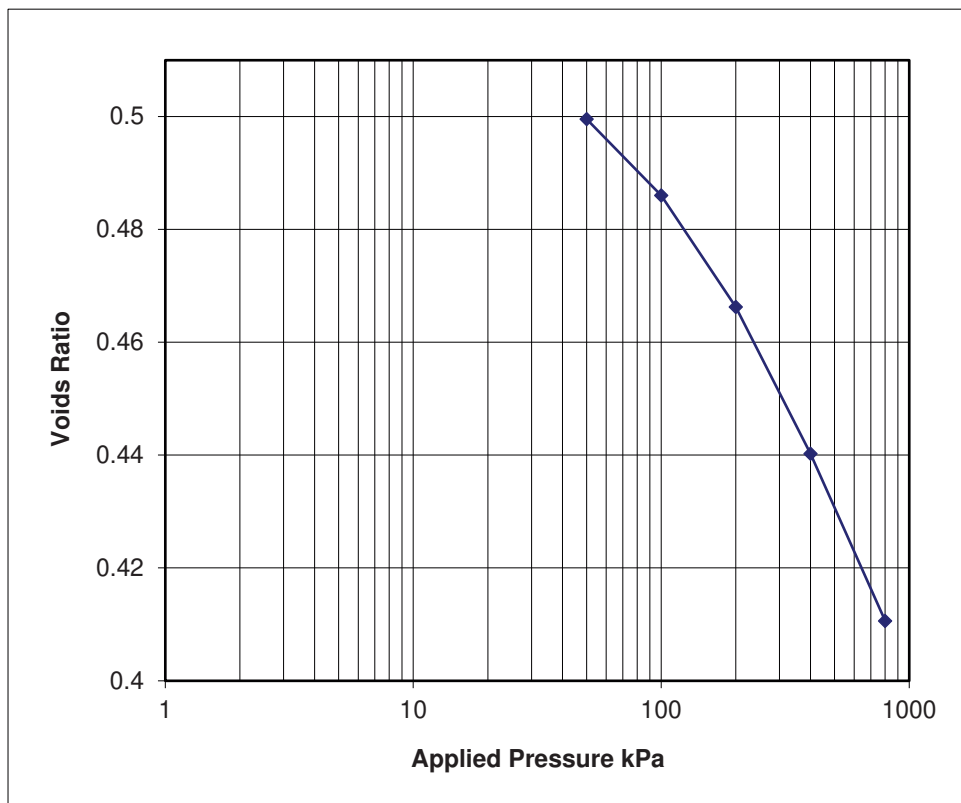
Specimen Height (mm) 20.0

Specimen diameter (mm) 75.0

	Initial	Final
Moisture content %	20	19
Bulk density Mg/m ³	2.08	2.24
Dry density Mg/m ³	1.74	1.89
Void ratio	0.521	0.411

Assumed Particle density Mg/m³ 2.65

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 50	0.286	30.425	0.49954
50 - 100	0.180	13.208	0.48601
100 - 200	0.133	7.265	0.46624
200 - 400	0.089	6.489	0.44024
400 - 800	0.051	4.335	0.41059





One dimensional Consolidation

BS1377:Part 5:1990

Report No. R115196

Contract: Harbour Point Bray

Contract number: 22734

BH: BH218 Sample number: 141692

Depth (m): 8.5

Description Greyish brown SILT/CLAY with shell fragments

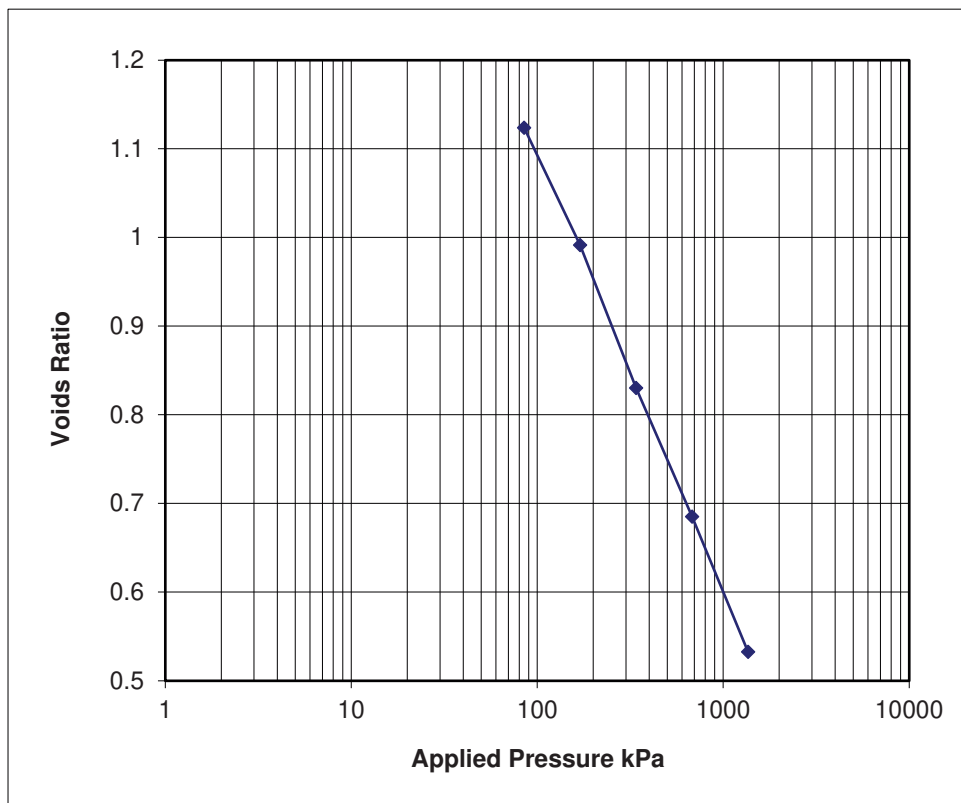
Specimen Height (mm) 20.1

Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	64	37
Bulk density Mg/m ³	1.59	2.10
Dry density Mg/m ³	0.97	1.53
Void ratio	1.471	0.532

Assumed Particle density Mg/m³ 2.40

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 85	1.653	3.774	1.12362
85 - 170	0.732	1.104	0.99140
170 - 340	0.476	0.653	0.83013
340 - 680	0.233	0.552	0.68511
680 - 1360	0.133	0.463	0.53246





One dimensional Consolidation

BS1377:Part 5:1990

Report No. R115165

Contract: Harbour Point Bray

Contract number: 22734

BH: BH221 Sample number: 141629

Depth (m): 3.5

Description Brown SILT/CLAY

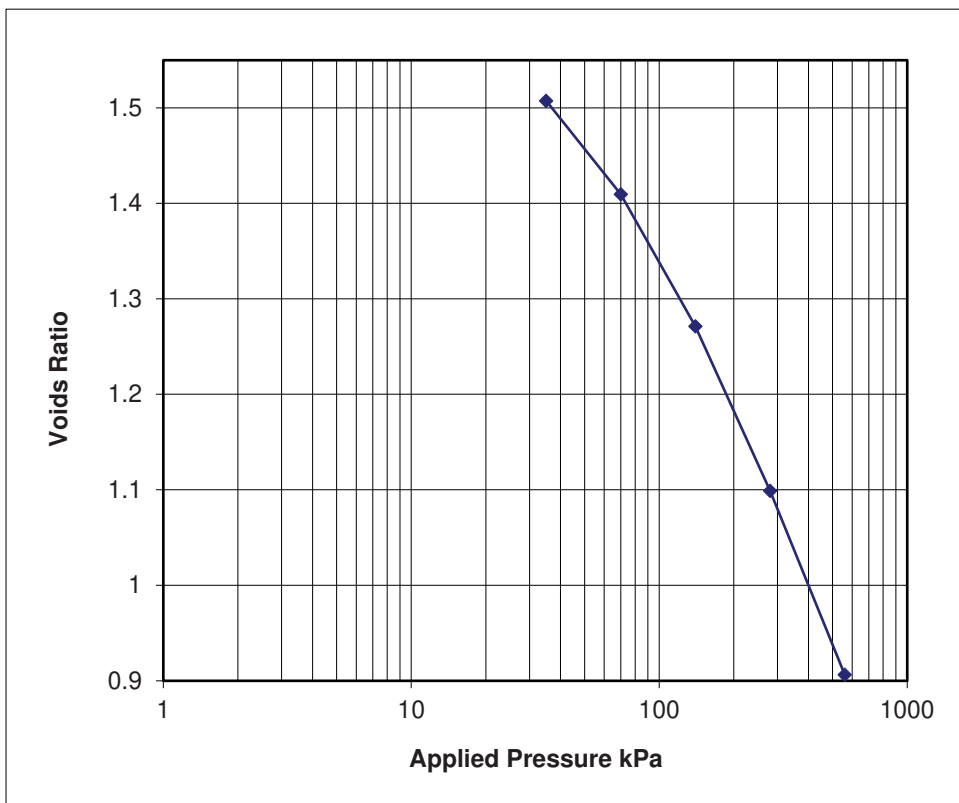
Specimen Height (mm) 20.0

Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	63	47
Bulk density Mg/m ³	1.59	1.96
Dry density Mg/m ³	0.98	1.33
Void ratio	1.713	0.906

Assumed Particle density Mg/m³ 2.65

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 35	2.163	5.243	1.50733
35 - 70	1.116	3.154	1.40940
70 - 140	0.820	1.496	1.27106
140 - 280	0.542	0.800	1.09880
280 - 560	0.328	0.672	0.90620





One dimensional Consolidation

BS1377:Part 5:1990

Report No. R115166

Contract: Harbour Point Bray

Contract number: 22734

BH: BH221 Sample number: 141636

Depth (m): 10.5

Description Grey SILT/CLAY with shell fragments

Specimen Height (mm)

18.5

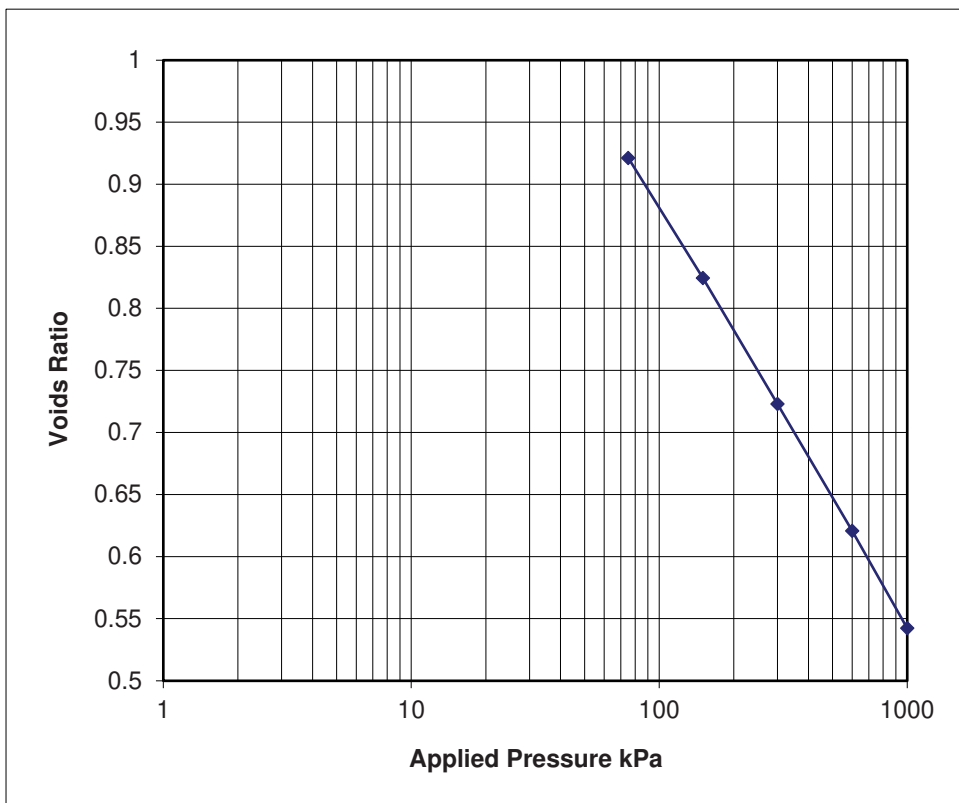
Specimen diameter (mm)

76.3

	Initial	Final
Moisture content %	50	29
Bulk density Mg/m ³	1.71	2.16
Dry density Mg/m ³	1.14	1.67
Void ratio	1.318	0.542

Assumed Particle density Mg/m³ 2.65

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 75	2.282	1.801	0.92114
75 - 150	0.671	1.406	0.82442
150 - 300	0.371	1.203	0.72294
300 - 600	0.198	1.069	0.62070
600 - 1000	0.121	0.957	0.54227





One dimensional Consolidation

BS1377:Part 5:1990

Report No. R115167

Contract: Harbour Point Bray

Contract number: 22734

BH: BH222A Sample number: 141619

Depth (m): 5.5

Description Grey slightly sandy SILT/CLAY

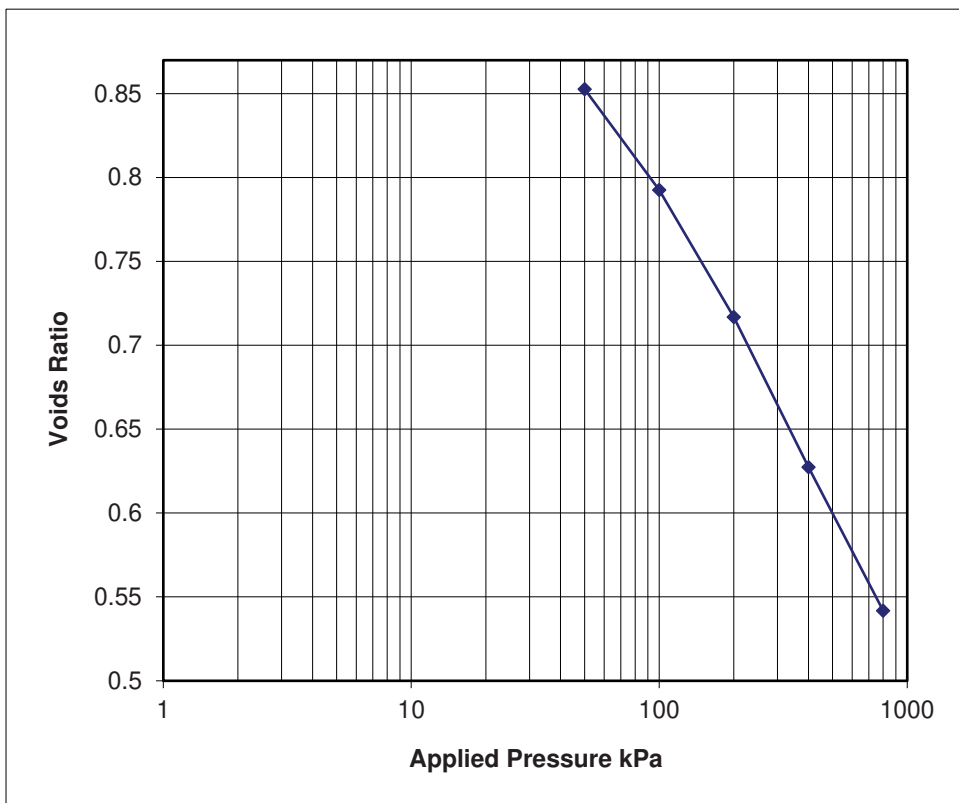
Specimen Height (mm) 20.0

Specimen diameter (mm) 75.0

	Initial	Final
Moisture content %	49	32
Bulk density Mg/m ³	1.87	2.29
Dry density Mg/m ³	1.26	1.73
Void ratio	1.104	0.542

Assumed Particle density Mg/m³ 2.65

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 50	2.387	6.288	0.85267
50 - 100	0.649	4.576	0.79253
100 - 200	0.422	3.436	0.71684
200 - 400	0.261	2.742	0.62726
400 - 800	0.131	2.058	0.54168





One dimensional Consolidation

BS1377:Part 5:1990

Report No. R117153

Contract: Harbour Point Bray

Contract number: 22734

BH: BH224 Sample number: 139461

Depth (m): 1.5

Description Grey slightly sandy SILT/CLAY

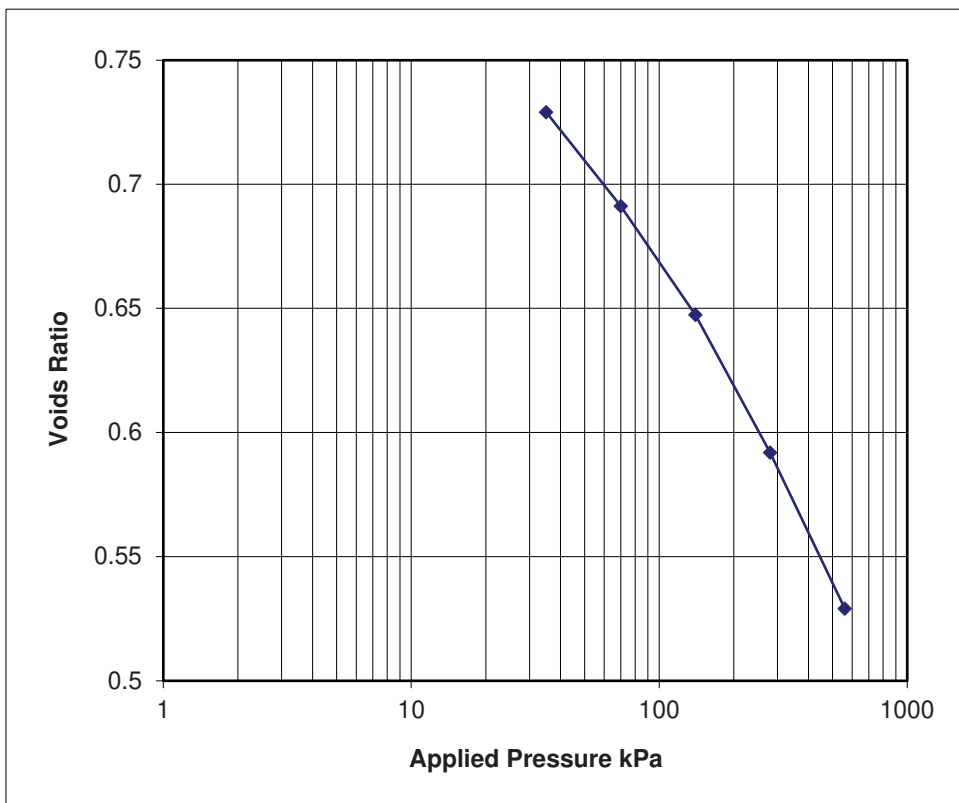
Specimen Height (mm) 20.0

Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	41	31
Bulk density Mg/m ³	1.85	2.05
Dry density Mg/m ³	1.31	1.56
Void ratio	0.839	0.529

Assumed Particle density Mg/m³ 2.40

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 35	1.705	41.832	0.72901
35 - 70	0.626	26.696	0.69115
70 - 140	0.369	21.675	0.64741
140 - 280	0.241	15.327	0.59191
280 - 560	0.141	12.504	0.52906





One dimensional Consolidation

BS1377:Part 5:1990

Report No. R117154

Contract: Harbour Point Bray

Contract number: 22734

BH: BH224 Sample number: 139469

Depth (m): 5.5

Description Grey mottled brown SILT/CLAY with shell fragments

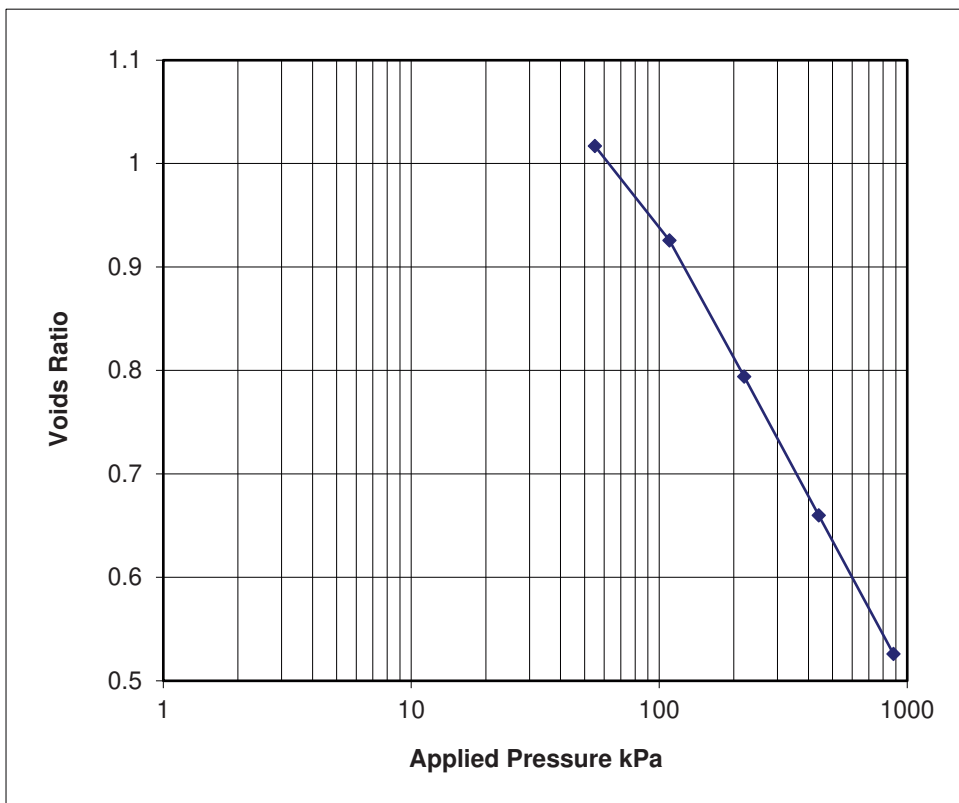
Specimen Height (mm) 20.0

Specimen diameter (mm) 75.0

	Initial	Final
Moisture content %	52	49
Bulk density Mg/m ³	1.57	2.01
Dry density Mg/m ³	1.04	1.35
Void ratio	1.314	0.526

Assumed Particle density Mg/m³ 2.40

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 55	2.333	15.205	1.01696
55 - 110	0.824	8.935	0.92561
110 - 220	0.621	7.953	0.79401
220 - 440	0.340	3.961	0.65987
440 - 880	0.183	2.504	0.52596





One dimensional Consolidation

BS1377:Part 5:1990

Report No. R117155

Contract: Harbour Point Bray

Contract number: 22734

BH: BH224 Sample number: 139477

Depth (m): 9.5

Description Brown SILT/CLAY

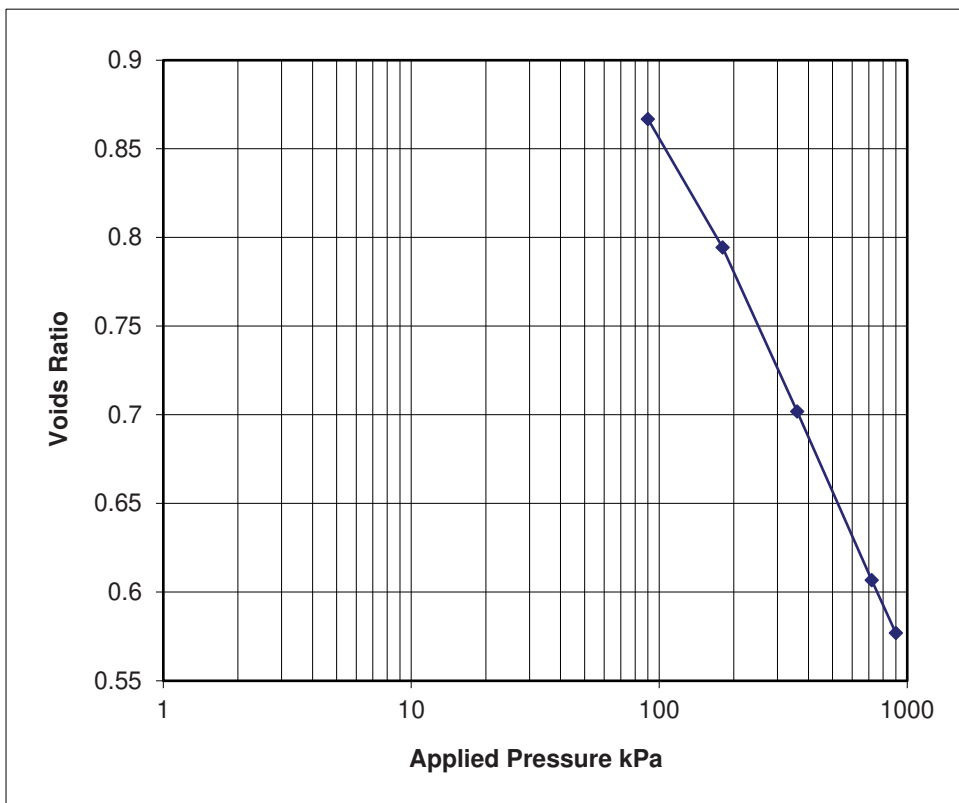
Specimen Height (mm) 20.0

Specimen diameter (mm) 75.1

	Initial	Final
Moisture content %	40	33
Bulk density Mg/m ³	1.78	2.12
Dry density Mg/m ³	1.27	1.60
Void ratio	1.082	0.577

Assumed Particle density Mg/m³ 2.65

Applied Pressure (kPa)	m_v (m ² /MN)	c_v (m ² /year)	Voids Ratio
0 - 90	1.150	32.995	0.86675
90 - 180	0.431	17.507	0.79429
180 - 360	0.286	10.827	0.70183
360 - 720	0.155	5.297	0.60667
720 - 900	0.103	1.622	0.57690



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: R115169

Contract Name: Harbour Point Bray

Contract No: 22734

Location: BH201 @ 7.0m

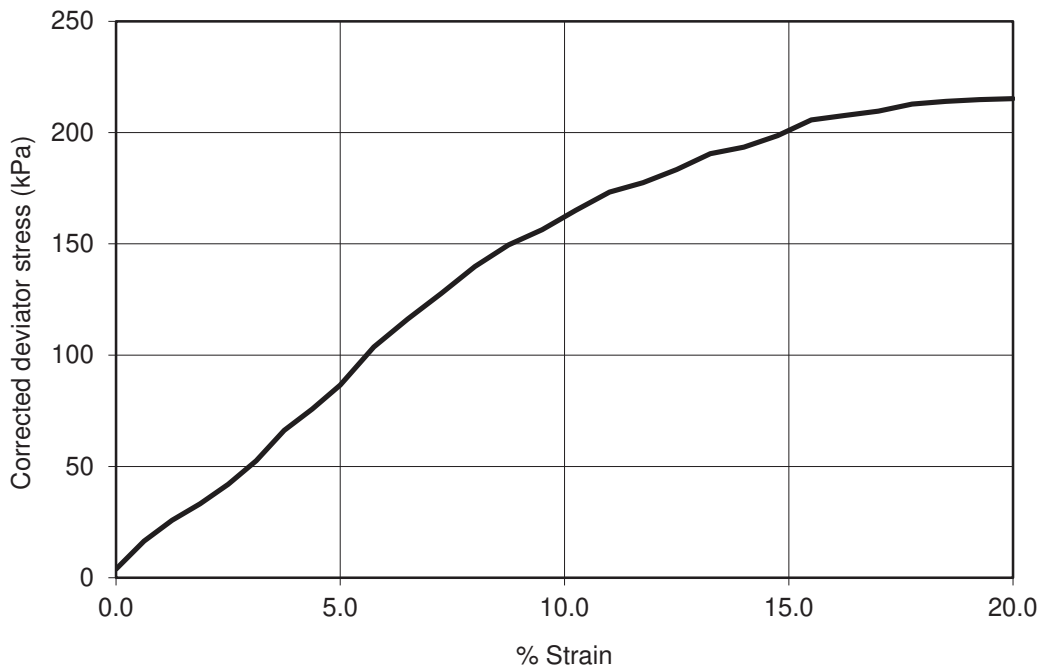
Sample No. 134072

Description: Yellowish brown silty SAND

Customer: Ballymore Group

Height (mm) 200 Diameter 102 Cell pressure(kPa) 140

Moisture Content % 29 Bulk density (Mg/m³) 1.93 Dry density (Mg/m³) 1.49



Strain at failure % 20 Cohesion C_u (kPa) 108
 (Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 0.75

Date received - Date tested 14/10/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



IGSL Materials Laboratory

Approved by

J Barrett

Date

04/11/20

Page

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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: R115170

Contract Name: Harbour Point Bray Contract No: 22734

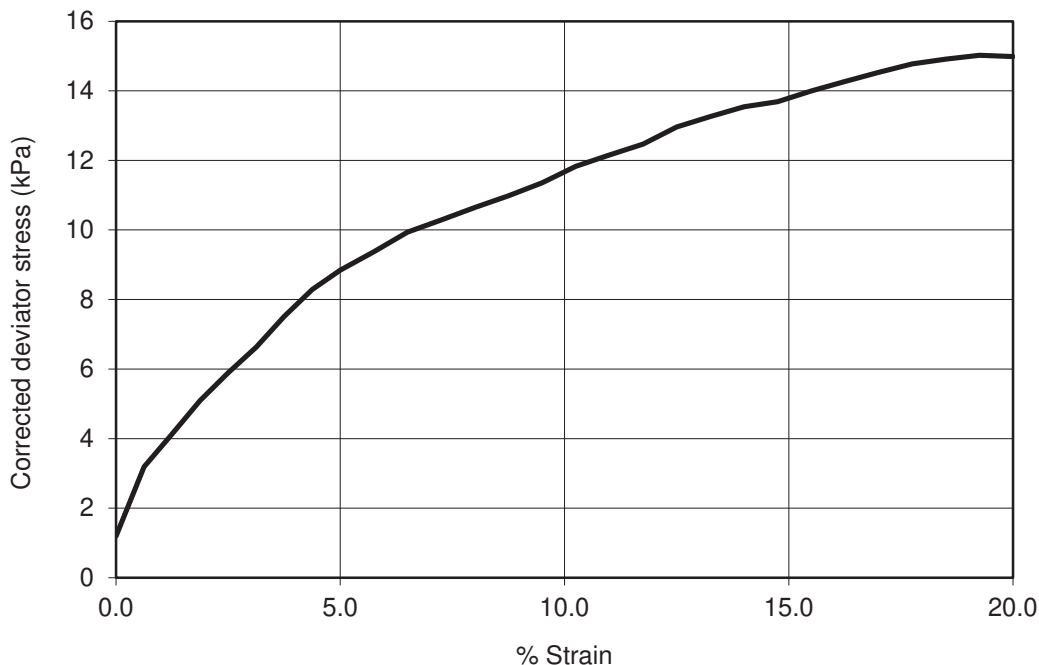
Location: BH221 @ 7.5m Sample No. 141633

Description: Grey slightly sandy SILT/CLAY with shell fragments

Customer: Ballymore Group

Height (mm) 200 Diameter 102 Cell pressure(kPa) 150

Moisture Content % 42 Bulk density (Mg/m³) 1.77 Dry density (Mg/m³) 1.25



Strain at failure % 19.3 Cohesion C_u (kPa) 8

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 0.72

Date received - Date tested 22/10/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



IGSL Materials Laboratory

Approved by

J Barrett

Date

04/11/20

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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: R115171

Contract Name: Harbour Point Bray Contract No: 22734

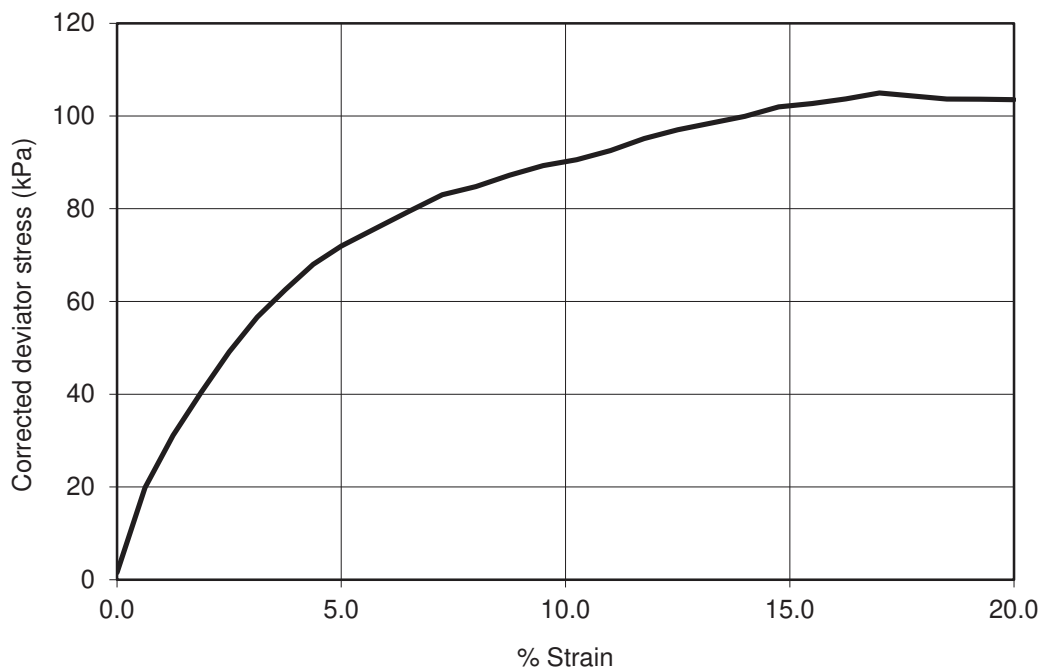
Location: BH222A @ 1.5m Sample No. 141615

Description: Brown slightly sandy SILT/CLAY

Customer: Ballymore Group

Height (mm) 200 Diameter 102 Cell pressure(kPa) 30

Moisture Content % 29 Bulk density (Mg/m³) 1.91 Dry density (Mg/m³) 1.47



Strain at failure % 17 Cohesion C_u (kPa) 52

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 0.66

Date received - Date tested 28/10/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



IGSL Materials Laboratory

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J Barrett

Date

04/11/20

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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: R115172

Contract Name: Harbour Point Bray

Contract No: 22734

Location: BH222A @ 9.5m

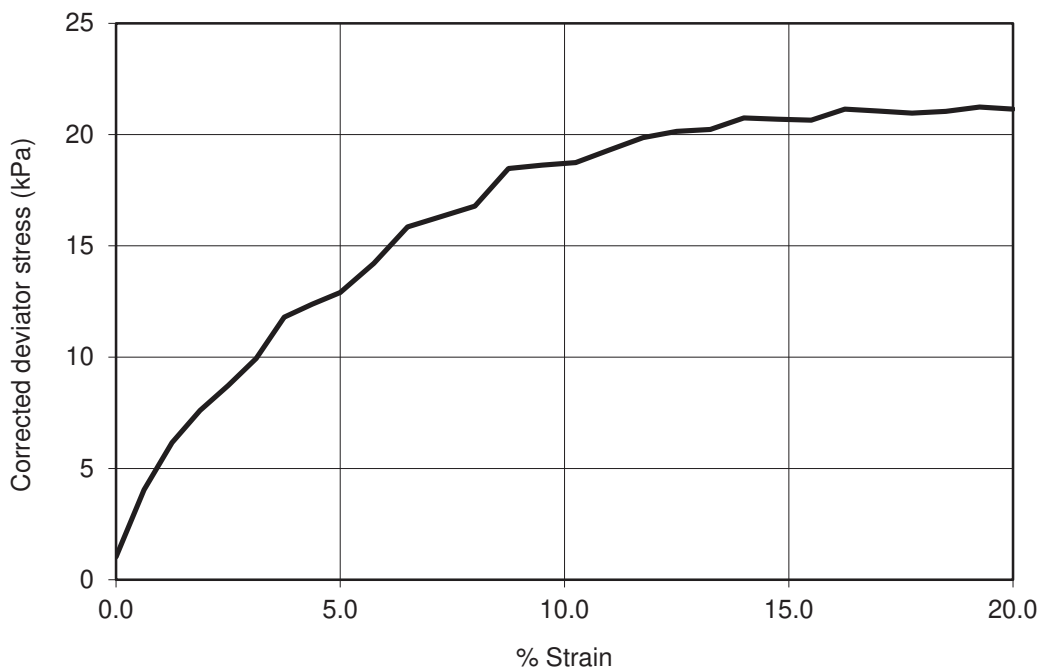
Sample No. 141623

Description: Grey SILT/CLAY

Customer: Ballymore Group

Height (mm) 200 Diameter 102 Cell pressure(kPa) 190

Moisture Content % 56 Bulk density (Mg/m³) 1.70 Dry density (Mg/m³) 1.09



Strain at failure % 19.3 Cohesion C_u (kPa) 11

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2

Membrane correction (at failure) 0.72

Date received -

Date tested 22/10/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



IGSL Materials Laboratory

Approved by

J Barrett

Date

04/11/20

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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: R115193

Contract Name: Harbour Point Bray Contract No: 22734

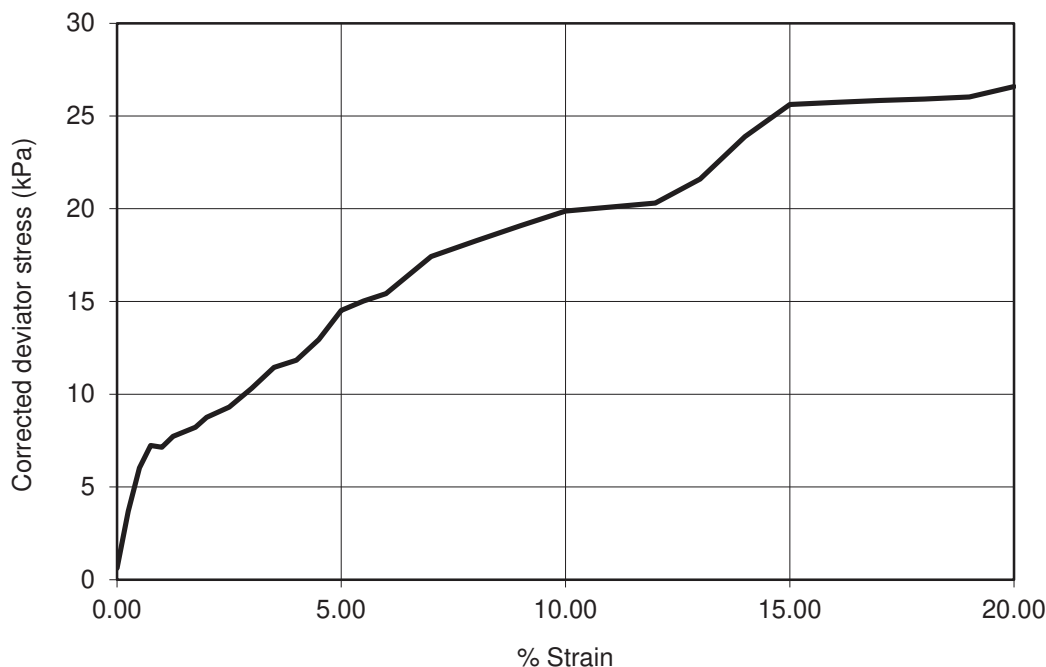
Location: BH223 4.5m Sample No. 183909

Description: Grey slightly silty SAND with shell fragments

Customer: Ballymore

Height (mm) 76 Diameter 38 Cell pressure(kPa) 45

Moisture Content % 28 Bulk density (Mg/m³) 1.83 Dry density (Mg/m³) 1.43



Strain at failure % 20 Cohesion C_u (kPa) 13

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 2

Date received - Date tested 17/11/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



IGSL Materials Laboratory

Approved by

J Barrett

Date

19/11/20

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IGSL Ltd
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 Unit F, M7 Business Park
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 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: R115193

Contract Name: Harbour Point Bray Contract No: 22734

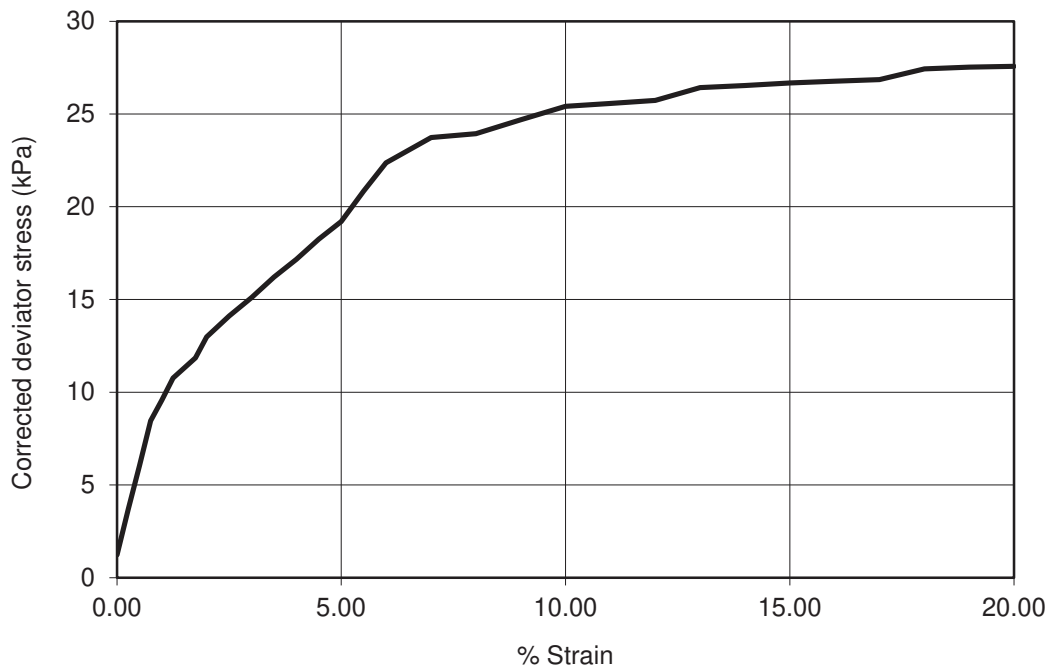
Location: BH223 4.5m Sample No. 183909

Description: Grey slightly silty SAND with shell fragments

Customer: Ballymore group

Height (mm) 76 Diameter 38 Cell pressure(kPa) 90

Moisture Content % 27 Bulk density (Mg/m³) 1.81 Dry density (Mg/m³) 1.43



Strain at failure % 20 Cohesion C_u (kPa) 14

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 2

Date received - Date tested 17/11/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



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Approved by

J Barrett

Date

19/11/20

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IGSL Ltd
 Materials Laboratory
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 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: R115193

Contract Name: Harbour Point Bray Contract No: 22734

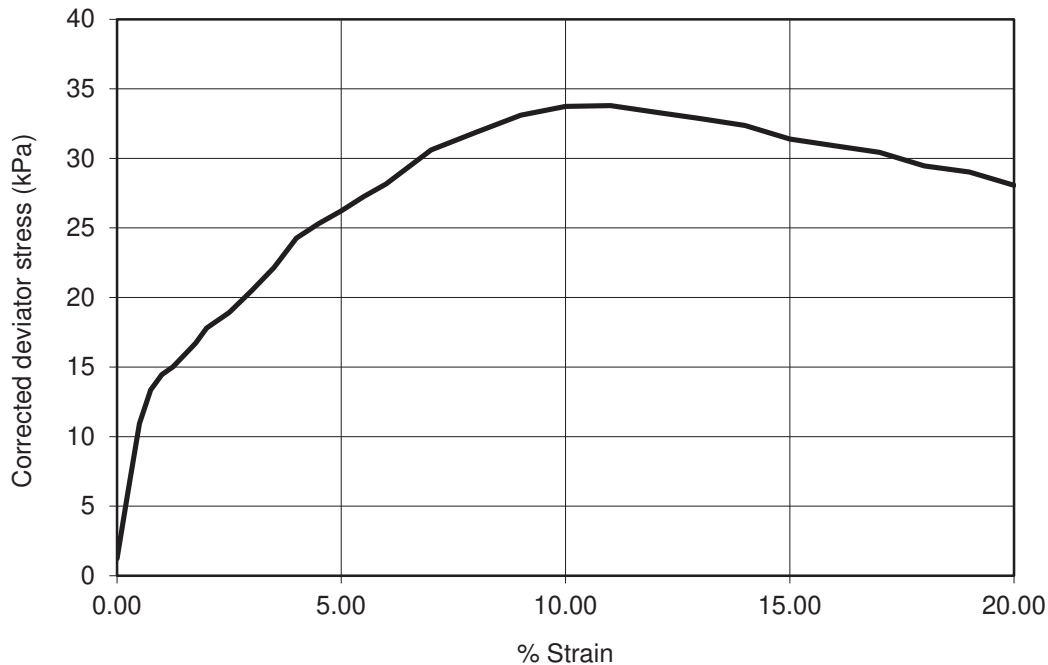
Location: BH223 4.5m Sample No. 183909

Description: Grey slightly silty SAND with shell fragments

Customer: Ballymore Group

Height (mm) 76 Diameter 38 Cell pressure(kPa) 180

Moisture Content % 31 Bulk density (Mg/m³) 1.80 Dry density (Mg/m³) 1.37



Strain at failure % 11 Cohesion C_u (kPa) 17

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 1.3

Date received - Date tested 17/11/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



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Approved by

J Barrett

Date

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IGSL Ltd
 Materials Laboratory
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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: R115194

Contract Name: Harbour Point Bray Contract No: 22734

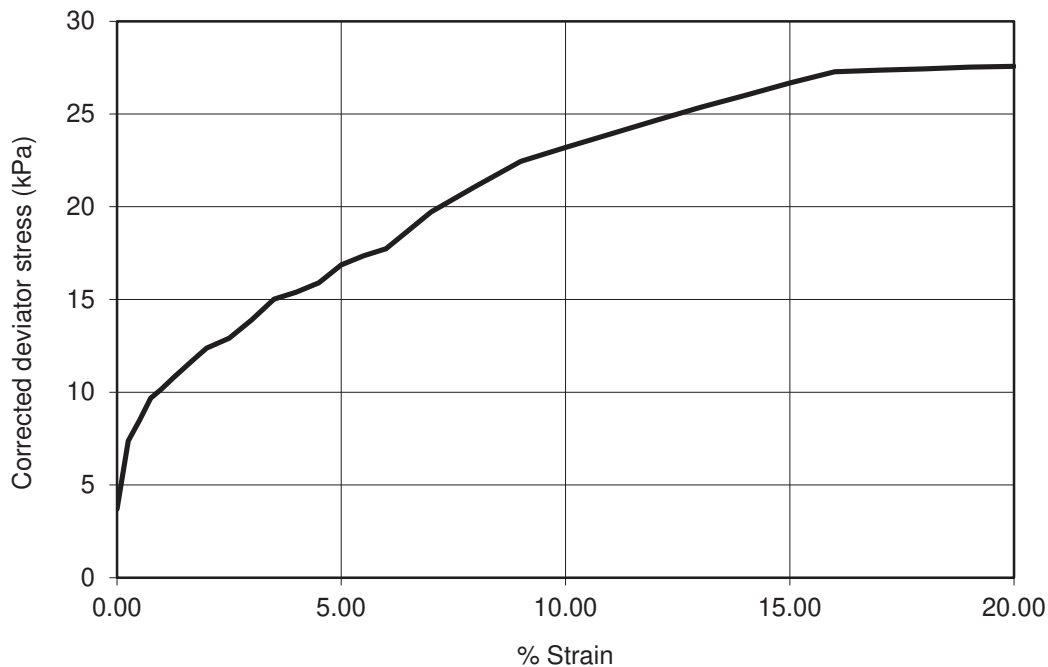
Location: BH224 7.5m Sample No. 139473

Description: Grey SILT/CLAY with shell fragments

Customer: Ballymore Group

Height (mm) 76 Diameter 38 Cell pressure(kPa) 75

Moisture Content % 61 Bulk density (Mg/m³) 1.67 Dry density (Mg/m³) 1.04



Strain at failure % 20 Cohesion C_u (kPa) 14

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 2

Date received - Date tested 17/11/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



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J Barrett

Date

19/11/20

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IGSL Ltd
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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: R115194

Contract Name: Harbour Point Bray

Contract No: 22734

Location: BH224 7.5m

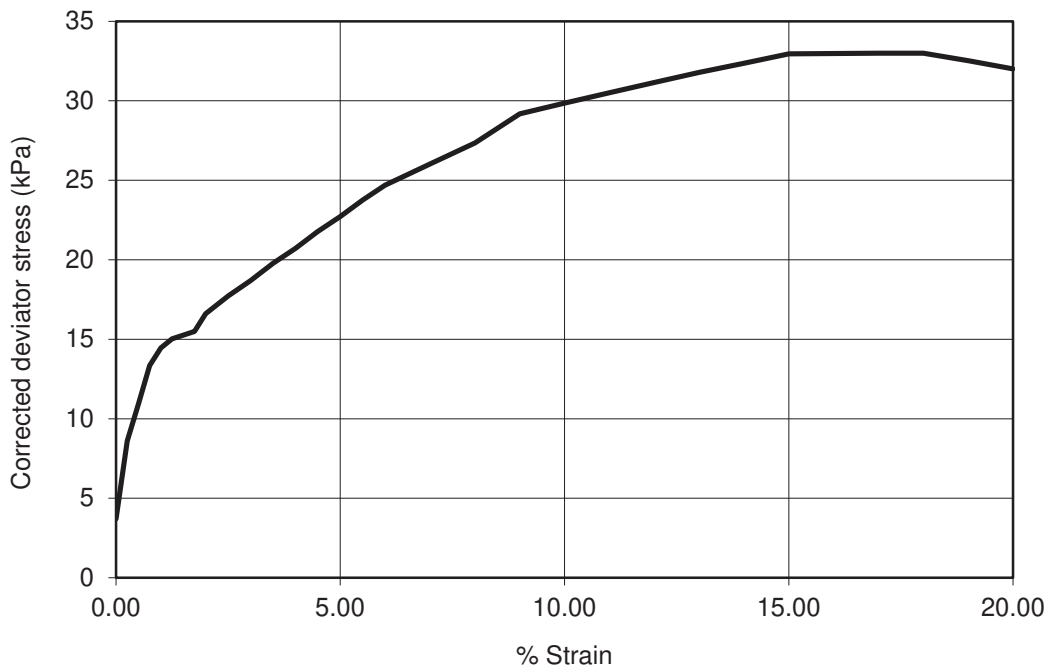
Sample No. 139473

Description: Grey SILT/CLAY with shell fragments

Customer: Ballymore Group

Height (mm) 76 Diameter 38 Cell pressure(kPa) 150

Moisture Content % 60 Bulk density (Mg/m³) 1.61 Dry density (Mg/m³) 1.01



Strain at failure % 17 Cohesion C_u (kPa) 16

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2

Membrane correction (at failure) 1.78

Date received -

Date tested 17/11/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



IGSL Materials Laboratory

Approved by

J Barrett

Date

19/11/20

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IGSL Ltd
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 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: R115194

Contract Name: Harbour Point Bray Contract No: 22734

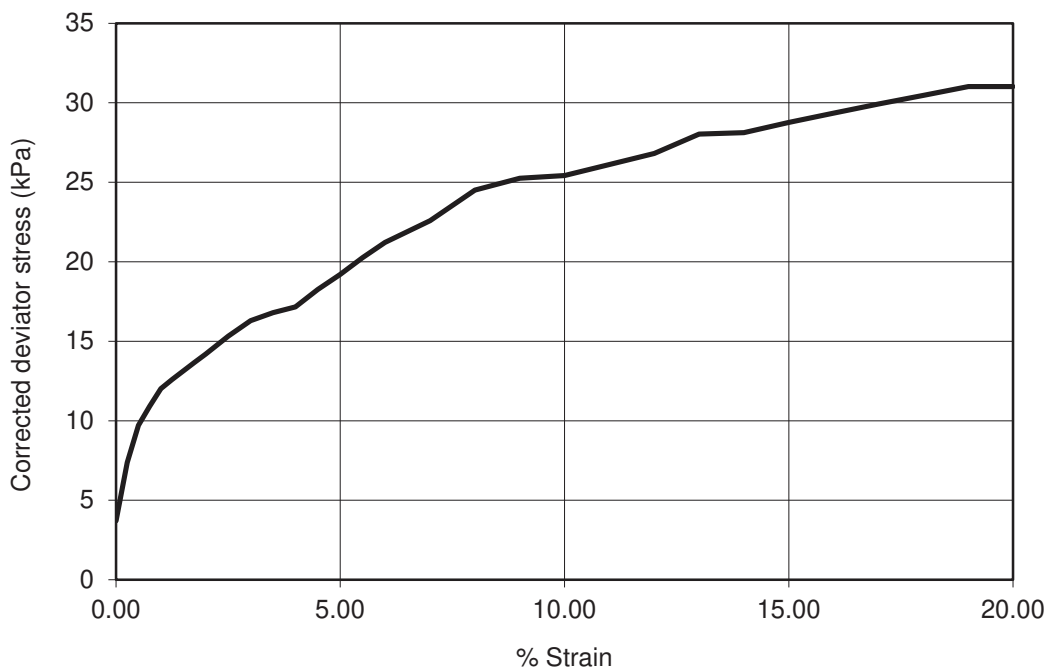
Location: BH224 7.5m Sample No. 139473

Description: Grey SILT/CLAY with shell fragments

Customer: Ballymore Group

Height (mm) 76 Diameter 38 Cell pressure(kPa) 300

Moisture Content % 59 Bulk density (Mg/m³) 1.60 Dry density (Mg/m³) 1.01



Strain at failure % 20 Cohesion C_u (kPa) 16

(Undrained shear strength kPa)

Rate of strain (%/minute) 1.9

Thickness of membrane 0.2 Membrane correction (at failure) 2

Date received - Date tested 17/11/20

The result relates to the specimen in as received condition unless otherwise stated.

Any remaining material will be retained for one month.

*This Standard has been superseded by ISO17892-8:2018

Person authorised to approve report: J Barrett (Quality Manager)



IGSL Materials Laboratory

Approved by

J Barrett

Date

19/11/20

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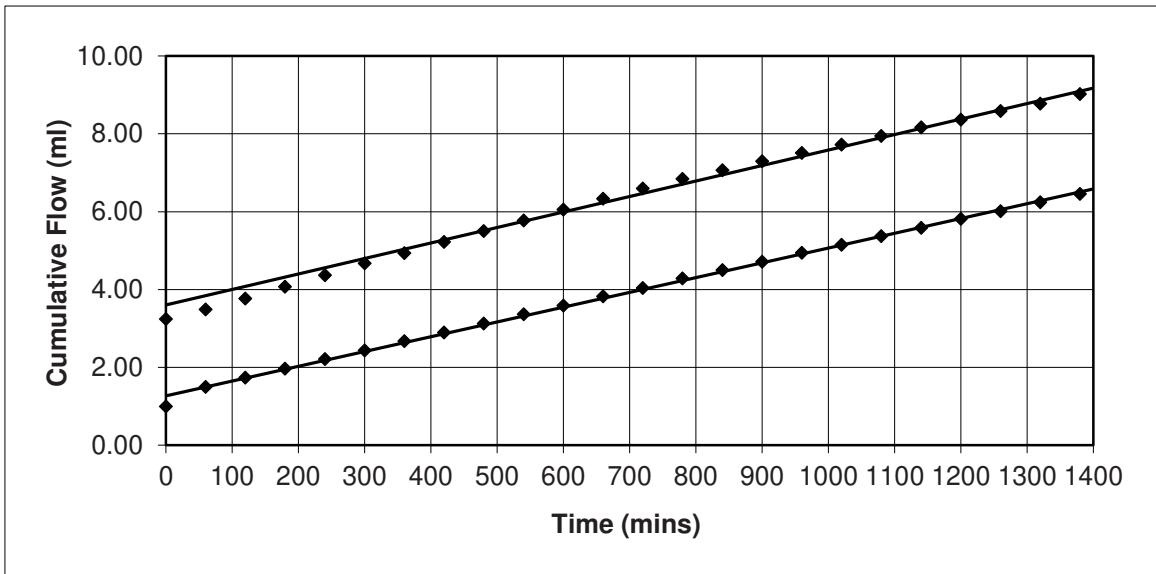


Determination of Permeability in a Triaxial Cell

BS1377:Part 6:1990, Clause 6



Contract:	Harbour Point Bray	Contract No.	22734
Location:	BH223 8.5m	Sample No.	183917
Report No.	R117156	Customer:	Ballymore Group
Sample Received:		Testing started:	16/11/20
Method of Preparation:	Undisturbed		
Description:	Grey SILT/CLAY with shell fragments		
Specimen Dimensions:	Height (mm)	102.1	Diameter (mm) 100.5
Specimen Conditions:	Initial	Final	
Moisture Content (%)	46	35	
Bulk Density (Mg/m ³)	1.81	1.94	
Dry Density (Mg/m ³)	1.23	1.44	
Saturation Stage			
Method:	Cell & back pressure stages	Final B Value:	1.00
Duration of Stage (days):	2		
Consolidation Stage			
Cell Pressure (kPa)	450	Back Pressure (kPa)	370
Volume change (ml)	115.16	Duration of Stage (days)	5
Permeability Stage			
Mean Effective Stress	70	Hydraulic gradient	21
Coefficient of Permeability (m/s)	4.32E-10	Duration of Stage (days)	1



Total duration of test (days) 8



Determination of Permeability in a Triaxial Cell

BS1377:Part 6:1990, Clause 6



Contract: Harbour Point Bray

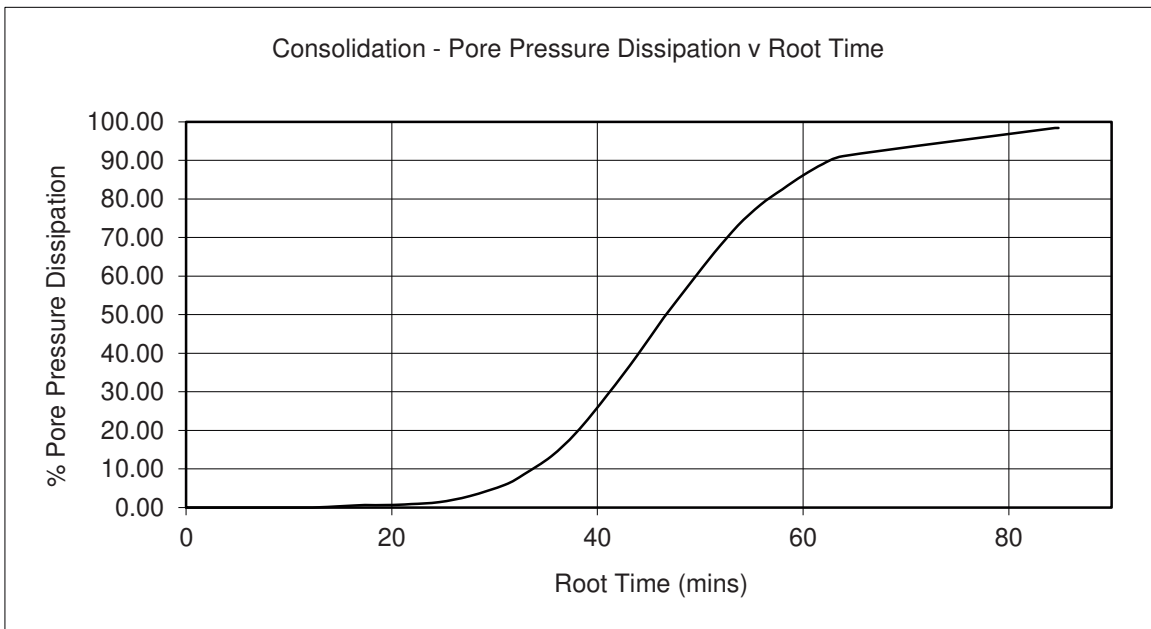
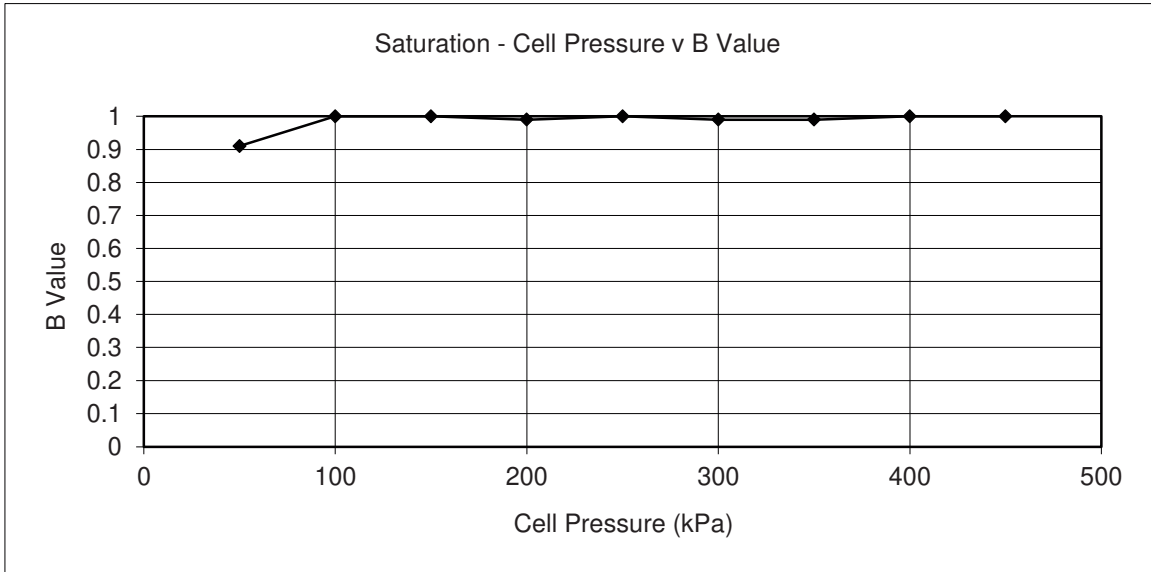
Contract No. 22734

Location: BH223 8.5m

Sample No. 183917

Report No. R117156

Customer: Ballymore Group



The specimen was tested in as received condition unless otherwise stated

Approved signatories

- J Barrett (Quality Manager)
- H Byrne (Laboratory Manager)

Approved by

Date

25/11/20

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Appendix 10**Chemical Testing – Soil****Chemtest Reports**

Standard Report_20-22757-20200907 131844
Standard Report_20-22900-20200910 143129
Standard Report_20-22901-20200909 154226
Standard Report_20-23017-20200910 155415
Standard Report_20-26294-20201021 142357
Standard Report_20-28179-20201026 070240
Standard Report_20-30300-20201217 145751
Standard Report_20-32225-20201128 141228



Final Report

Report No.: 20-22757-1

Initial Date of Issue: 07-Sep-2020

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: GNI Bray

Quotation No.:		Date Received:	27-Aug-2020
Order No.:		Date Instructed:	28-Aug-2020
No. of Samples:	5		
Turnaround (Wkdays):	7	Results Due:	08-Sep-2020
Date Approved:	07-Sep-2020		

Approved By:


Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: GNI Bray

Client: IGSL		Chemtest Job No.: 20-22757 20-22757 20-22757 20-22757 20-22757								
Quotation No.:		Chemtest Sample ID.: 1055000 1055001 1055002 1055003 1055005								
		Sample Location: WS01A WS01B WS03A WS03A WS10B								
		Sample Type: SOIL SOIL SOIL SOIL SOIL								
		Top Depth (m): 0.90 0.30 0.25 0.65 0.70								
		Bottom Depth (m): 2.50 0.70 0.65 1.55 2.00								
		Date Sampled: 24-Aug-2020 24-Aug-2020 24-Aug-2020 24-Aug-2020 24-Aug-2020								
Determinand	Accred.	SOP	Type	Units	LOD					
pH	U	1010	10:1		N/A	8.8	8.4	8.0	9.0	9.2
Ammonium	U	1220	10:1	mg/l	0.050	0.050	< 0.050	0.065	< 0.050	< 0.050
Ammonium	N	1220	10:1	mg/kg	0.10	0.68	0.35	0.69	0.71	0.83
Boron (Dissolved)	U	1450	10:1	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Benzo[<i>a</i>]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:		20-22757	20-22757	20-22757	20-22757	20-22757	
Quotation No.:	Chemtest Sample ID.:		1055000	1055001	1055002	1055003	1055005	
	Sample Location:		WS01A	WS01B	WS03A	WS03A	WS10B	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.90	0.30	0.25	0.65	0.70	
	Bottom Depth (m):		2.50	0.70	0.65	1.55	2.00	
	Date Sampled:		24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD				
ACM Type	U	2192		N/A	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-
Moisture	N	2030	%	0.020	3.9	11	12	2.4
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0	170	310	250	160
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	< 0.40	< 0.40	0.58	0.49
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.011	< 0.010	< 0.010	< 0.010
Sulphur (Elemental)	U	2180	mg/kg	1.0	1.6	< 1.0	2.0	2.2
Chloride (Water Soluble)	U	2220	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoride (Extractable)	N	2220	mg/kg	0.010	0.66	0.42	0.72	0.64
Nitrite (Extractable)	N	2220	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phosphate (Available)	N	2420	mg/l	2.0	5.6	5.0	6.4	4.2
Cyanide (Total)	U	2300	mg/kg	0.50	1.6	3.4	1.8	0.60
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	6.8	2.0	4.5	2.3
Sodium	N	2400	mg/l	2.0	55	60	26	17
Ammoniacal Nitrogen	U	2425	mg/kg	0.50	120	12	3.0	1.3
Sulphate (Total)	U	2430	mg/kg	100	110	300	710	170
Sulphate (Acid Soluble)	U	2430	%	0.010	0.13	0.042	0.11	0.082
Arsenic	U	2450	mg/kg	1.0	22	19	27	21
Barium	U	2450	mg/kg	10	28	61	61	21
Cadmium	U	2450	mg/kg	0.10	0.62	1.4	1.1	0.50
Chromium	U	2450	mg/kg	1.0	20	33	25	13
Molybdenum	U	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	16	18	21	7.8
Mercury	U	2450	mg/kg	0.10	< 0.10	0.13	0.14	< 0.10
Nickel	U	2450	mg/kg	0.50	26	41	31	18
Lead	U	2450	mg/kg	0.50	15	19	39	7.4
Selenium	U	2450	mg/kg	0.20	< 0.20	1.1	0.37	< 0.20
Zinc	U	2450	mg/kg	0.50	43	73	78	25
Chromium (Trivalent)	N	2490	mg/kg	1.0	20	33	25	13
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	< 0.40	0.64	1.9	< 0.40
Mineral Oil	N	2670	mg/kg	10	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:					20-22757	20-22757	20-22757	20-22757	20-22757
Quotation No.:	Chemtest Sample ID.:					1055000	1055001	1055002	1055003	1055005
	Sample Location:					WS01A	WS01B	WS03A	WS03A	WS10B
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.90	0.30	0.25	0.65	0.70
	Bottom Depth (m):					2.50	0.70	0.65	1.55	2.00
	Date Sampled:					24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020
	Asbestos Lab:					COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD						
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl Chloride	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromomethane	U	2760	µg/kg	20	< 20	< 20	< 20	< 20	< 20	
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trichlorofluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethene	U	2760	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromochloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trichloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:					20-22757	20-22757	20-22757	20-22757	20-22757
Quotation No.:	Chemtest Sample ID.:					1055000	1055001	1055002	1055003	1055005
	Sample Location:					WS01A	WS01B	WS03A	WS03A	WS10B
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.90	0.30	0.25	0.65	0.70
	Bottom Depth (m):					2.50	0.70	0.65	1.55	2.00
	Date Sampled:					24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020
	Asbestos Lab:					COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD						
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:					20-22757	20-22757	20-22757	20-22757	20-22757
Quotation No.:	Chemtest Sample ID.:					1055000	1055001	1055002	1055003	1055005
	Sample Location:					WS01A	WS01B	WS03A	WS03A	WS10B
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.90	0.30	0.25	0.65	0.70
	Bottom Depth (m):					2.50	0.70	0.65	1.55	2.00
	Date Sampled:					24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020
	Asbestos Lab:					COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD						
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Naphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Methylnaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Acenaphthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Dibenzofuran	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Fluorene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-22757	20-22757	20-22757	20-22757	20-22757
Quotation No.:		Chemtest Sample ID.:		1055000	1055001	1055002	1055003	1055005
		Sample Location:		WS01A	WS01B	WS03A	WS03A	WS10B
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.90	0.30	0.25	0.65	0.70
		Bottom Depth (m):		2.50	0.70	0.65	1.55	2.00
		Date Sampled:		24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020
		Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD				
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:		20-22757	20-22757	20-22757	20-22757	20-22757	20-22757
Quotation No.:	Chemtest Sample ID.:		1055000	1055001	1055002	1055003	1055005	
	Sample Location:		WS01A	WS01B	WS03A	WS03A	WS10B	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.90	0.30	0.25	0.65	0.70	
	Bottom Depth (m):		2.50	0.70	0.65	1.55	2.00	
	Date Sampled:		24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	24-Aug-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD				
Coronene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB 28	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 52	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 118	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 153	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 138	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 180	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30
SVOC TIC	N	2790	mg/kg	N/A	None Detected	None Detected	None Detected	None Detected
VOC TIC	N	2760	µg/kg	N/A	None Detected	None Detected	None Detected	None Detected

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22757					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 1055000					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS01A							
Top Depth(m): 0.90							
Bottom Depth(m): 2.50							
Sampling Date: 24-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	< 0.20	3	5	6
Loss On Ignition	2610	U	%	1.3	--	--	10
Total BTEX	2760	U	mg/kg	< 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	< 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	--
pH	2010	U		8.9	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.089	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0011	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0020	< 0.050	0.5	10	30
Nickel	1450	U	0.0027	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	33	330	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.0	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	3.9

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22757					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1055001					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS01B							
Top Depth(m): 0.30							
Bottom Depth(m): 0.70							
Sampling Date: 24-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	0.37	3	5	6
Loss On Ignition	2610	U	%	2.4	--	--	10
Total BTEX	2760	U	mg/kg	< 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	< 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	--
pH	2010	U		7.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.025	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0016	< 0.050	0.5	2	25
Barium	1450	U	0.0066	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	0.0023	< 0.050	0.5	10	70
Copper	1450	U	0.0020	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	0.0012	0.012	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0048	< 0.50	4	50	200
Chloride	1220	U	1.7	17	800	15000	25000
Fluoride	1220	U	0.14	1.4	10	150	500
Sulphate	1220	U	3.1	31	1000	20000	50000
Total Dissolved Solids	1020	N	20	200	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	22	220	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22757					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 1055002					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS03A							
Top Depth(m): 0.25							
Bottom Depth(m): 0.65							
Sampling Date: 24-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	1.1	3	5	
Loss On Ignition	2610	U	%	3.7	--	10	
Total BTEX	2760	U	mg/kg	< 0.010	6	--	
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	< 10	500	--	
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	
pH	2010	U		8.2	--	>6	
Acid Neutralisation Capacity	2015	N	mol/kg	0.030	--	To evaluate	
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0032	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0020	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0026	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0019	< 0.50	4	50	200
Chloride	1220	U	2.3	23	800	15000	25000
Fluoride	1220	U	0.23	2.3	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	6.9	69	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22757					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 1055003					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS03A							
Top Depth(m): 0.65							
Bottom Depth(m): 1.55							
Sampling Date: 24-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	0.21	3	5	6
Loss On Ignition	2610	U	%	0.86	--	--	10
Total BTEX	2760	U	mg/kg	< 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	< 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	--
pH	2010	U		8.9	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.22	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0025	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	40	400	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.2	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	2.4

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22757					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 1055005					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS10B							
Top Depth(m): 0.70							
Bottom Depth(m): 2.00							
Sampling Date: 24-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	0.23	3	5	
Loss On Ignition	2610	U	%	0.91	--	10	
Total BTEX	2760	U	mg/kg	< 0.010	6	--	
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	< 10	500	--	
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	
pH	2010	U		9.0	--	>6	
Acid Neutralisation Capacity	2015	N	mol/kg	0.22	--	To evaluate	
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0011	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0026	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.18	1.8	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	39	390	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.2	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	3.4

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easily liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2400	Cations	Cations	ICP-MS
2420	Phosphate	Phosphate	Spectrophotometry - Discrete analyser
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.

Test Methods

SOP	Title	Parameters included	Method summary
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
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
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
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
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane 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.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

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"

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 45 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



Final Report

Report No.: 20-22900-1

Initial Date of Issue: 10-Sep-2020

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: GNI Bray

Quotation No.: **Date Received:** 27-Aug-2020

Order No.: **Date Instructed:** 02-Sep-2020

No. of Samples: 1

Turnaround (Wkdays): 7 **Results Due:** 10-Sep-2020

Date Approved: 10-Sep-2020

Approved By:


Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: GNI Bray

Client: IGSL	Chemtest Job No.: 20-22900					
Quotation No.:	Chemtest Sample ID.: 1055659					
	Sample Location:				WS04B	
	Sample Type:				SOIL	
	Top Depth (m):				3.00	
Determinand	Accred.	SOP	Type	Units	LOD	
pH	U	1010	10:1		N/A	8.7
Ammonium	U	1220	10:1	mg/l	0.050	0.054
Ammonium	N	1220	10:1	mg/kg	0.10	0.67
Boron (Dissolved)	U	1450	10:1	mg/kg	0.20	< 0.20
Benzoflouranthene	N	1800	10:1	µg/l	0.010	< 0.010

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:		20-22900		
Quotation No.:	Chemtest Sample ID.:		1055659		
	Sample Location:		WS04B		
	Sample Type:		SOIL		
	Top Depth (m):		3.00		
	Asbestos Lab:		COVENTRY		
Determinand	Accred.	SOP	Units	LOD	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-
Asbestos By Fibre Counting	U	2192	%	0.001	-
Moisture	N	2030	%	0.020	21
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0	[A] 220
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] 0.47
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] < 1.0
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] < 0.010
Fluoride (Extractable)	N	2220	mg/kg	0.010	0.50
Nitrite (Extractable)	N	2220	mg/kg	0.10	0.28
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010
Phosphate (Available)	N	2420	mg/l	2.0	< 2.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 2.4
Ammoniacal Nitrogen	U	2425	mg/kg	0.50	[A] 3.5
Sodium (Total)	N	2430	mg/kg	10	130
Sulphate (Total)	U	2430	mg/kg	100	[A] 360
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.081
Arsenic	U	2450	mg/kg	1.0	15
Barium	U	2450	mg/kg	10	50
Cadmium	U	2450	mg/kg	0.10	0.90
Chromium	U	2450	mg/kg	1.0	26
Molybdenum	U	2450	mg/kg	2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0
Copper	U	2450	mg/kg	0.50	16
Mercury	U	2450	mg/kg	0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	33
Lead	U	2450	mg/kg	0.50	25
Selenium	U	2450	mg/kg	0.20	0.42
Zinc	U	2450	mg/kg	0.50	67
Chromium (Trivalent)	N	2490	mg/kg	1.0	26
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Organic Matter	U	2625	%	0.40	[A] 0.76
Mineral Oil	N	2670	mg/kg	10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.: 20-22900				
Quotation No.:	Chemtest Sample ID.: 1055659				
	Sample Location: WS04B				
	Sample Type: SOIL				
	Top Depth (m): 3.00				
	Asbestos Lab: COVENTRY				
Determinand	Accred.	SOP	Units	LOD	
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10
Dichlorodifluoromethane	U	2760	µg/kg	1.0	[A] < 1.0
Chloromethane	U	2760	µg/kg	1.0	[A] < 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	[A] < 1.0
Bromomethane	U	2760	µg/kg	20	[A] < 20
Chloroethane	U	2760	µg/kg	2.0	[A] < 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	[A] < 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0	[A] < 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0	[A] < 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	[A] < 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	[A] < 1.0
Bromochloromethane	U	2760	µg/kg	5.0	[A] < 5.0
Trichloromethane	U	2760	µg/kg	1.0	[A] < 1.0
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	[A] < 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	[A] < 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	[A] < 1.0
Benzene	U	2760	µg/kg	1.0	[A] < 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	[A] < 2.0
Trichloroethene	N	2760	µg/kg	1.0	[A] < 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	[A] < 1.0
Dibromomethane	U	2760	µg/kg	1.0	[A] < 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	[A] < 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	[A] < 10
Toluene	U	2760	µg/kg	1.0	[A] < 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	[A] < 10

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.: 20-22900				
Quotation No.:	Chemtest Sample ID.: 1055659				
	Sample Location:				WS04B
	Sample Type:				SOIL
	Top Depth (m):				3.00
	Asbestos Lab:				COVENTRY
Determinand	Accred.	SOP	Units	LOD	
1,1,2-Trichloroethane	U	2760	µg/kg	10	[A] < 10
Tetrachloroethene	U	2760	µg/kg	1.0	[A] < 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	[A] < 2.0
Dibromochloromethane	U	2760	µg/kg	10	[A] < 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	[A] < 5.0
Chlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	[A] < 2.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0
Styrene	U	2760	µg/kg	1.0	[A] < 1.0
Tribromomethane	U	2760	µg/kg	1.0	[A] < 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
Bromobenzene	U	2760	µg/kg	1.0	[A] < 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	[A] < 50
N-Propylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	[A] < 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	[A] < 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	[A] < 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	[A] < 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	[A] < 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	[A] < 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	[A] < 0.50
Phenol	U	2790	mg/kg	0.50	[A] < 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	[A] < 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	[A] < 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	[A] < 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50
2-Methylphenol	U	2790	mg/kg	0.50	[A] < 0.50

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.: 20-22900				
Quotation No.:	Chemtest Sample ID.: 1055659				
	Sample Location:				WS04B
	Sample Type:				SOIL
	Top Depth (m):				3.00
	Asbestos Lab:				COVENTRY
Determinand	Accred.	SOP	Units	LOD	
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	[A] < 0.50
Hexachloroethane	N	2790	mg/kg	0.50	[A] < 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	[A] < 0.50
4-Methylphenol	U	2790	mg/kg	0.50	[A] < 0.50
Nitrobenzene	U	2790	mg/kg	0.50	[A] < 0.50
Isophorone	U	2790	mg/kg	0.50	[A] < 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	[A] < 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	[A] < 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	[A] < 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	[A] < 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50
Naphthalene	U	2790	mg/kg	0.50	[A] < 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	[A] < 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	[A] < 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	[A] < 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	[A] < 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	[A] < 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	[A] < 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	[A] < 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	[A] < 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	[A] < 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	[A] < 0.50
Acenaphthylene	U	2790	mg/kg	0.50	[A] < 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	[A] < 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	[A] < 0.50
Acenaphthene	U	2790	mg/kg	0.50	[A] < 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	[A] < 0.50
Dibenzofuran	U	2790	mg/kg	0.50	[A] < 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	[A] < 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	[A] < 0.50
Fluorene	U	2790	mg/kg	0.50	[A] < 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	[A] < 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	[A] < 0.50
Azobenzene	U	2790	mg/kg	0.50	[A] < 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	[A] < 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	[A] < 0.50
Phenanthrene	U	2790	mg/kg	0.50	[A] < 0.50
Anthracene	U	2790	mg/kg	0.50	[A] < 0.50

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-22900	
Quotation No.:		Chemtest Sample ID.:		1055659	
		Sample Location:		WS04B	
		Sample Type:		SOIL	
		Top Depth (m):		3.00	
		Asbestos Lab:		COVENTRY	
Determinand	Accred.	SOP	Units	LOD	
Carbazole	U	2790	mg/kg	0.50	[A] < 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50
Fluoranthene	U	2790	mg/kg	0.50	[A] < 0.50
Pyrene	U	2790	mg/kg	0.50	[A] < 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	[A] < 0.50
Chrysene	U	2790	mg/kg	0.50	[A] < 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	[A] < 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	[A] < 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	[A] < 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	[A] < 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	[A] < 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	[A] < 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	[A] < 0.50
Naphthalene	N	2800	mg/kg	0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010
Pyrene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] < 0.20
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.: 20-22900				
Quotation No.:	Chemtest Sample ID.: 1055659				
	Sample Location:				WS04B
	Sample Type:				SOIL
	Top Depth (m):				3.00
	Asbestos Lab:				COVENTRY
Determinand	Accred.	SOP	Units	LOD	
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.30	< 0.30
SVOC TIC	N	2790	mg/kg	N/A	[A] None Detected
VOC TIC	N	2760	µg/kg	N/A	[A] None Detected

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22900 Chemtest Sample ID: 1055659 Sample Ref: Sample ID: Sample Location: WS04B Top Depth(m): 3.00 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.44	3	5	6
Loss On Ignition	2610	U	%	2.9	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.037	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0017	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0044	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0012	< 0.50	4	50	200
Chloride	1220	U	1.2	12	800	15000	25000
Fluoride	1220	U	0.23	2.3	10	150	500
Sulphate	1220	U	4.3	43	1000	20000	50000
Total Dissolved Solids	1020	N	78	780	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.1	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	21

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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:
1055659			WS04B		A	Amber Glass 250ml
1055659			WS04B		A	Amber Glass 60ml
1055659			WS04B		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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.
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement 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	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2420	Phosphate	Phosphate	Spectrophotometry - Discrete analyser
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.

Test Methods

SOP	Title	Parameters included	Method summary
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
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
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds (cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
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
2815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

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"

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 45 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



Final Report

Report No.: 20-22901-1

Initial Date of Issue: 09-Sep-2020

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: GNI Bray

Quotation No.:		Date Received:	27-Aug-2020
Order No.:		Date Instructed:	02-Sep-2020
No. of Samples:	2		
Turnaround (Wkdays):	5	Results Due:	08-Sep-2020
Date Approved:	09-Sep-2020		

Approved By:


Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: GNI Bray

Client: IGSL	Chemtest Job No.:		20-22901	20-22901			
Quotation No.:	Chemtest Sample ID.:		1055661	1055663			
	Sample Location:		WS04A	WS02A			
	Sample Type:		SOIL	SOIL			
	Top Depth (m):		0.85	0.55			
	Bottom Depth (m):		1.70	1.80			
Determinand	Accred.	SOP	Type	Units	LOD		
pH	U	1010	10:1		N/A	8.5	8.8
Ammonium	U	1220	10:1	mg/l	0.050	0.12	0.055
Ammonium	N	1220	10:1	mg/kg	0.10	1.4	0.73
Boron (Dissolved)	U	1450	10:1	mg/kg	0.20	0.24	< 0.20
Benzo[<i>a</i>]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-22901	20-22901	
Quotation No.:		Chemtest Sample ID.:		1055661	1055663	
		Sample Location:		WS04A	WS02A	
		Sample Type:		SOIL	SOIL	
		Top Depth (m):		0.85	0.55	
		Bottom Depth (m):		1.70	1.80	
		Asbestos Lab:		DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-
Asbestos By Fibre Counting	U	2192	%	0.001	-	-
Moisture	N	2030	%	0.020	21	22
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0	[A] 500	[A] 170
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	0.53	0.58
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.037	< 0.010
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 62	[A] 1.6
Chloride (Water Soluble)	U	2220	g/l	0.010	[A] 0.026	[A] < 0.010
Fluoride (Extractable)	N	2220	mg/kg	0.010	0.98	0.50
Nitrite (Extractable)	N	2220	mg/kg	0.10	1.7	0.10
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010
Phosphate (Available)	N	2420	mg/l	2.0	28	10
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 6.7	[A] 7.7
Ammoniacal Nitrogen	U	2425	mg/kg	0.50	[A] 2.9	[A] 0.61
Sodium (Total)	N	2430	mg/kg	10	200	190
Sulphate (Total)	U	2430	mg/kg	100	[A] 1500	[A] 290
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.078	[A] < 0.010
Arsenic	U	2450	mg/kg	1.0	17	23
Barium	U	2450	mg/kg	10	43	25
Cadmium	U	2450	mg/kg	0.10	1.2	0.78
Chromium	U	2450	mg/kg	1.0	18	15
Molybdenum	U	2450	mg/kg	2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	15	12
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	23	23
Lead	U	2450	mg/kg	0.50	34	13
Selenium	U	2450	mg/kg	0.20	0.53	< 0.20
Zinc	U	2450	mg/kg	0.50	69	41
Chromium (Trivalent)	N	2490	mg/kg	1.0	18	15
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	[A] 1.1	[A] 0.57
Mineral Oil	N	2670	mg/kg	10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-22901	20-22901	
Quotation No.:		Chemtest Sample ID.:		1055661	1055663	
		Sample Location:		WS04A	WS02A	
		Sample Type:		SOIL	SOIL	
		Top Depth (m):		0.85	0.55	
		Bottom Depth (m):		1.70	1.80	
		Asbestos Lab:		DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD		
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10
Dichlorodifluoromethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Chloromethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Bromomethane	U	2760	µg/kg	20	[A] < 20	[A] < 20
Chloroethane	U	2760	µg/kg	2.0	[A] < 2.0	[A] < 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0	[A] < 1.0	[A] < 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0	[A] < 1.0	[A] < 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Bromochloromethane	U	2760	µg/kg	5.0	[A] < 5.0	[A] < 5.0
Trichloromethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	[A] < 2.0	[A] < 2.0
Trichloroethene	N	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Dibromomethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	[A] < 5.0	[A] < 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	[A] < 10	[A] < 10

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-22901	20-22901	
Quotation No.:		Chemtest Sample ID.:		1055661	1055663	
		Sample Location:		WS04A	WS02A	
		Sample Type:		SOIL	SOIL	
		Top Depth (m):		0.85	0.55	
		Bottom Depth (m):		1.70	1.80	
		Asbestos Lab:		DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD		
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	[A] < 10	[A] < 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	[A] < 10	[A] < 10
Tetrachloroethene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	[A] < 2.0	[A] < 2.0
Dibromochloromethane	U	2760	µg/kg	10	[A] < 10	[A] < 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	[A] < 5.0	[A] < 5.0
Chlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	[A] < 2.0	[A] < 2.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Styrene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Tribromomethane	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Bromobenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	[A] < 50	[A] < 50
N-Propylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	[A] < 50	[A] < 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	[A] < 2.0	[A] < 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Phenol	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-22901	20-22901
Quotation No.:		Chemtest Sample ID.:		1055661	1055663
		Sample Location:		WS04A	WS02A
		Sample Type:		SOIL	SOIL
		Top Depth (m):		0.85	0.55
		Bottom Depth (m):		1.70	1.80
		Asbestos Lab:		DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD	
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	[A] < 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50
2-Methylphenol	U	2790	mg/kg	0.50	[A] < 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	[A] < 0.50
Hexachloroethane	N	2790	mg/kg	0.50	[A] < 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	[A] < 0.50
4-Methylphenol	U	2790	mg/kg	0.50	[A] < 0.50
Nitrobenzene	U	2790	mg/kg	0.50	[A] < 0.50
Isophorone	U	2790	mg/kg	0.50	[A] < 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	[A] < 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	[A] < 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	[A] < 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	[A] < 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50
Naphthalene	U	2790	mg/kg	0.50	[A] < 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	[A] < 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	[A] < 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	[A] < 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	[A] < 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	[A] < 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	[A] < 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	[A] < 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	[A] < 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	[A] < 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	[A] < 0.50
Acenaphthylene	U	2790	mg/kg	0.50	[A] < 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	[A] < 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	[A] < 0.50
Acenaphthene	U	2790	mg/kg	0.50	[A] < 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	[A] < 0.50
Dibenzofuran	U	2790	mg/kg	0.50	[A] < 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	[A] < 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	[A] < 0.50
Fluorene	U	2790	mg/kg	0.50	[A] < 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	[A] < 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	[A] < 0.50
Azobenzene	U	2790	mg/kg	0.50	[A] < 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	[A] < 0.50

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-22901	20-22901	
Quotation No.:		Chemtest Sample ID.:		1055661	1055663	
		Sample Location:		WS04A	WS02A	
		Sample Type:		SOIL	SOIL	
		Top Depth (m):		0.85	0.55	
		Bottom Depth (m):		1.70	1.80	
		Asbestos Lab:		DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD		
Hexachlorobenzene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Phenanthrene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Anthracene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Carbazole	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Fluoranthene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Pyrene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Chrysene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Naphthalene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] 0.18	[A] < 0.010
Pyrene	N	2800	mg/kg	0.010	[A] 0.20	[A] < 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] 0.38	[A] < 0.20
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:		20-22901	20-22901		
Quotation No.:	Chemtest Sample ID.:		1055661	1055663		
	Sample Location:		WS04A	WS02A		
	Sample Type:		SOIL	SOIL		
	Top Depth (m):		0.85	0.55		
	Bottom Depth (m):		1.70	1.80		
	Asbestos Lab:		DURHAM	DURHAM		
Determinand	Accred.	SOP	Units	LOD		
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30
SVOC TIC	N	2790	mg/kg	N/A	[A] None Detected	[A] None Detected
VOC TIC	N	2760	µg/kg	N/A	[A] None Detected	[A] None Detected

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22901					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1055661					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS04A							
Top Depth(m): 0.85							
Bottom Depth(m): 1.70							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.63	3	5	6
Loss On Ignition	2610	U	%	2.3	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.38	100	--	--
pH	2010	U		9.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.040	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0020	< 0.050	0.5	2	25
Barium	1450	U	0.0073	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0011	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.012	0.12	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	0.0010	0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.2	12	800	15000	25000
Fluoride	1220	U	0.28	2.8	10	150	500
Sulphate	1220	U	45	450	1000	20000	50000
Total Dissolved Solids	1020	N	130	1300	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.6	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	21

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-22901					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1055663					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS02A							
Top Depth(m): 0.55							
Bottom Depth(m): 1.80							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.33	3	5	6
Loss On Ignition	2610	U	%	0.87	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		9.1	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.022	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0012	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0058	0.058	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.14	1.4	10	150	500
Sulphate	1220	U	2.0	20	1000	20000	50000
Total Dissolved Solids	1020	N	49	490	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	< 2.5	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	22

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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:
1055661			WS04A		A	Amber Glass 250ml
1055661			WS04A		A	Amber Glass 60ml
1055661			WS04A		A	Plastic Tub 500g
1055663			WS02A		A	Amber Glass 250ml
1055663			WS02A		A	Amber Glass 60ml
1055663			WS02A		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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.
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement 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	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2420	Phosphate	Phosphate	Spectrophotometry - Discrete analyser
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.

Test Methods

SOP	Title	Parameters included	Method summary
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
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
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds (cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
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
2815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

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"

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 45 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



Final Report

Report No.: 20-23017-1
Initial Date of Issue: 10-Sep-2020
Client: IGSL
Client Address: M7 Business Park
Naas
County Kildare
Ireland
Contact(s): Darren Keogh
Project: GNI Bray
Quotation No.: Q20-19951
Date Received: 28-Aug-2020
Order No.:
Date Instructed: 02-Sep-2020
No. of Samples: 3
Turnaround (Wkdays): 7
Results Due: 10-Sep-2020
Date Approved: 10-Sep-2020

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: GNI Bray

Client: IGSL	Chemtest Job No.:					20-23017	20-23017	20-23017
Quotation No.: Q20-19951	Chemtest Sample ID.:					1056125	1056127	1056130
	Sample Location:					WS05B	WS05A	WS02B
	Sample Type:					SOIL	SOIL	SOIL
	Top Depth (m):					2.00	0.20	0.25
	Bottom Depth (m):					3.00	1.00	0.75
	Date Sampled:					26-Aug-2020	26-Aug-2020	26-Aug-2020
Determinand	Accred.	SOP	Type	Units	LOD			
pH	U	1010	10:1		N/A	8.6	8.8	8.5
Ammonium	U	1220	10:1	mg/l	0.050	0.056	< 0.050	0.078
Ammonium	N	1220	10:1	mg/kg	0.10	0.69	0.45	0.92
Boron (Dissolved)	U	1450	10:1	mg/kg	0.20	0.54	0.27	< 0.20
Benzo[<i>a</i>]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:		20-23017	20-23017	20-23017		
Quotation No.: Q20-19951	Chemtest Sample ID.:		1056125	1056127	1056130		
	Sample Location:		WS05B	WS05A	WS02B		
	Sample Type:		SOIL	SOIL	SOIL		
	Top Depth (m):		2.00	0.20	0.25		
	Bottom Depth (m):		3.00	1.00	0.75		
	Date Sampled:		26-Aug-2020	26-Aug-2020	26-Aug-2020		
	Asbestos Lab:		DURHAM	DURHAM	DURHAM		
Determinand	Accred.	SOP	Units	LOD			
ACM Type	U	2192		N/A	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-
Asbestos By Fibre Counting	U	2192	%	0.001	-	-	-
Moisture	N	2030	%	0.020	20	21	21
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0	770	710	570
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[B] 1.4	[B] 1.6	[B] < 0.40
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[B] 0.22	[B] 0.21	[B] 0.14
Sulphur (Elemental)	U	2180	mg/kg	1.0	8.9	12	25
Chloride (Water Soluble)	U	2220	g/l	0.010	0.048	0.044	< 0.010
Fluoride (Extractable)	N	2220	mg/kg	0.010	1.2	1.3	0.24
Nitrite (Extractable)	N	2220	mg/kg	0.10	0.48	0.32	< 0.10
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010	< 0.010
Phosphate (Available)	N	2420	mg/l	2.0	10	20	4.6
Cyanide (Total)	U	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	6.7	5.2	2.6
Ammoniacal Nitrogen	U	2425	mg/kg	0.50	1.3	0.59	2.0
Sodium (Total)	N	2430	mg/kg	10	420	240	100
Sulphate (Total)	U	2430	mg/kg	100	750	940	< 100
Sulphate (Acid Soluble)	U	2430	%	0.010	0.059	0.035	0.057
Arsenic	U	2450	mg/kg	1.0	17	19	25
Barium	U	2450	mg/kg	10	51	64	32
Cadmium	U	2450	mg/kg	0.10	0.72	0.72	0.39
Chromium	U	2450	mg/kg	1.0	15	22	28
Molybdenum	U	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	18	24	34
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	22	31	36
Lead	U	2450	mg/kg	0.50	31	31	19
Selenium	U	2450	mg/kg	0.20	0.28	0.22	0.37
Zinc	U	2450	mg/kg	0.50	69	90	96
Chromium (Trivalent)	N	2490	mg/kg	1.0	15	22	28
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	1.2	0.83	< 0.40
Mineral Oil	N	2670	mg/kg	10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-23017	20-23017	20-23017
Quotation No.: Q20-19951		Chemtest Sample ID.:		1056125	1056127	1056130
		Sample Location:		WS05B	WS05A	WS02B
		Sample Type:		SOIL	SOIL	SOIL
		Top Depth (m):		2.00	0.20	0.25
		Bottom Depth (m):		3.00	1.00	0.75
		Date Sampled:		26-Aug-2020	26-Aug-2020	26-Aug-2020
		Asbestos Lab:		DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD		
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	4.4
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	67
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	71
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	71
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20	< 20	< 20
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-23017	20-23017	20-23017
Quotation No.: Q20-19951		Chemtest Sample ID.:		1056125	1056127	1056130
		Sample Location:		WS05B	WS05A	WS02B
		Sample Type:		SOIL	SOIL	SOIL
		Top Depth (m):		2.00	0.20	0.25
		Bottom Depth (m):		3.00	1.00	0.75
		Date Sampled:		26-Aug-2020	26-Aug-2020	26-Aug-2020
		Asbestos Lab:		DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD		
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-23017	20-23017	20-23017
Quotation No.: Q20-19951		Chemtest Sample ID.:		1056125	1056127	1056130
		Sample Location:		WS05B	WS05A	WS02B
		Sample Type:		SOIL	SOIL	SOIL
		Top Depth (m):		2.00	0.20	0.25
		Bottom Depth (m):		3.00	1.00	0.75
		Date Sampled:		26-Aug-2020	26-Aug-2020	26-Aug-2020
		Asbestos Lab:		DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD		
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50	< 0.50	< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50

Results - Soil

Project: GNI Bray

Client: IGSL		Chemtest Job No.:		20-23017	20-23017	20-23017
Quotation No.: Q20-19951		Chemtest Sample ID.:		1056125	1056127	1056130
		Sample Location:		WS05B	WS05A	WS02B
		Sample Type:		SOIL	SOIL	SOIL
		Top Depth (m):		2.00	0.20	0.25
		Bottom Depth (m):		3.00	1.00	0.75
		Date Sampled:		26-Aug-2020	26-Aug-2020	26-Aug-2020
		Asbestos Lab:		DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD		
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Carbazole	U	2790	mg/kg	0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	0.94	0.96
Pyrene	U	2790	mg/kg	0.50	0.70	1.0
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	< 0.50	0.67
Chrysene	U	2790	mg/kg	0.50	< 0.50	0.70
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	< 0.50	0.89
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	< 0.50	0.85
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Naphthalene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Acenaphthylene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Acenaphthene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Fluorene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Phenanthrene	N	2800	mg/kg	0.010	< 0.010	0.18
Anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Fluoranthene	N	2800	mg/kg	0.010	0.13	0.79
Pyrene	N	2800	mg/kg	0.010	0.13	0.86
Benzo[a]anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Chrysene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010

Results - Soil

Project: GNI Bray

Client: IGSL	Chemtest Job No.:		20-23017	20-23017	20-23017		
Quotation No.: Q20-19951	Chemtest Sample ID.:		1056125	1056127	1056130		
	Sample Location:		WS05B	WS05A	WS02B		
	Sample Type:		SOIL	SOIL	SOIL		
	Top Depth (m):		2.00	0.20	0.25		
	Bottom Depth (m):		3.00	1.00	0.75		
	Date Sampled:		26-Aug-2020	26-Aug-2020	26-Aug-2020		
	Asbestos Lab:		DURHAM	DURHAM	DURHAM		
Determinand	Accred.	SOP	Units	LOD			
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010
Coronene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	0.26	1.8	< 0.20
PCB 28	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 52	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 118	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 153	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 138	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 180	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30
SVOC TIC	N	2790	mg/kg	N/A	None Detected	None Detected	None Detected
VOC TIC	N	2760	µg/kg	N/A	None Detected	None Detected	None Detected

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-23017					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 1056125					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS05B							
Top Depth(m): 2.00							
Bottom Depth(m): 3.00							
Sampling Date: 26-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	0.70	3	5	
Loss On Ignition	2610	U	%	2.8	--	10	
Total BTEX	2760	U	mg/kg	< 0.010	6	--	
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	< 10	500	--	
Total Of 17 PAH's	2800	N	mg/kg	0.26	100	--	
pH	2010	U		8.8	--	>6	
Acid Neutralisation Capacity	2015	N	mol/kg	0.048	--	To evaluate	
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0024	< 0.050	0.5	2	
Barium	1450	U	0.0036	< 0.50	20	100	
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	
Copper	1450	U	0.0021	< 0.050	2	50	
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	
Molybdenum	1450	U	0.0090	0.090	0.5	10	
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	
Lead	1450	U	< 0.0010	< 0.010	0.5	10	
Antimony	1450	U	0.0015	0.015	0.06	0.7	
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	
Zinc	1450	U	0.0013	< 0.50	4	50	
Chloride	1220	U	9.4	94	800	15000	
Fluoride	1220	U	0.32	3.2	10	150	
Sulphate	1220	U	35	350	1000	20000	
Total Dissolved Solids	1020	N	130	1300	4000	60000	
Phenol Index	1920	U	< 0.030	< 0.30	1	-	
Dissolved Organic Carbon	1610	U	9.0	90	500	800	

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	20

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-23017					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1056127					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS05A							
Top Depth(m): 0.20							
Bottom Depth(m): 1.00							
Sampling Date: 26-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	0.48	3	5	6
Loss On Ignition	2610	U	%	2.2	--	--	10
Total BTEX	2760	U	mg/kg	< 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	71	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	1.8	100	--	--
pH	2010	U		8.9	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.069	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0070	0.070	0.5	2	25
Barium	1450	U	0.0038	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0014	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0055	0.055	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0011	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.19	1.9	10	150	500
Sulphate	1220	U	12	120	1000	20000	50000
Total Dissolved Solids	1020	N	65	650	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.5	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	21

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: GNI Bray

Chemtest Job No: 20-23017					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 1056130					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS02B							
Top Depth(m): 0.25							
Bottom Depth(m): 0.75							
Sampling Date: 26-Aug-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	< 0.20	3	5	
Loss On Ignition	2610	U	%	1.8	--	10	
Total BTEX	2760	U	mg/kg	< 0.010	6	--	
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	< 10	500	--	
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	
pH	2010	U		7.5	--	>6	
Acid Neutralisation Capacity	2015	N	mol/kg	0.014	--	To evaluate	
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	
Barium	1450	U	0.0050	< 0.50	20	100	
Cadmium	1450	U	0.00012	< 0.010	0.04	1	
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	
Copper	1450	U	0.0012	< 0.050	2	50	
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	
Molybdenum	1450	U	0.0040	< 0.050	0.5	10	
Nickel	1450	U	0.0048	< 0.050	0.4	10	
Lead	1450	U	< 0.0010	< 0.010	0.5	10	
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	
Zinc	1450	U	0.0097	< 0.50	4	50	
Chloride	1220	U	< 1.0	< 10	800	15000	
Fluoride	1220	U	0.17	1.7	10	150	
Sulphate	1220	U	23	230	1000	20000	
Total Dissolved Solids	1020	N	53	520	4000	60000	
Phenol Index	1920	U	< 0.030	< 0.30	1	-	
Dissolved Organic Carbon	1610	U	3.1	< 50	500	800	

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	21

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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:
1056125			WS05B	26-Aug-2020	B	Amber Glass 250ml
1056125			WS05B	26-Aug-2020	B	Amber Glass 60ml
1056125			WS05B	26-Aug-2020	B	Plastic Tub 500g
1056127			WS05A	26-Aug-2020	B	Amber Glass 250ml
1056127			WS05A	26-Aug-2020	B	Amber Glass 60ml
1056127			WS05A	26-Aug-2020	B	Plastic Tub 500g
1056130			WS02B	26-Aug-2020	B	Amber Glass 250ml
1056130			WS02B	26-Aug-2020	B	Amber Glass 60ml
1056130			WS02B	26-Aug-2020	B	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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.
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement 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	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2420	Phosphate	Phosphate	Spectrophotometry - Discrete analyser
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.

Test Methods

SOP	Title	Parameters included	Method summary
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
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
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds (cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
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
2815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

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"

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 45 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



Final Report

Report No.: 20-26294-1

Initial Date of Issue: 21-Oct-2020

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: 22734 Harbour Point Bray

Quotation No.:		Date Received:	30-Sep-2020
Order No.:		Date Instructed:	13-Oct-2020
No. of Samples:	6		
Turnaround (Wkdays):	7	Results Due:	21-Oct-2020
Date Approved:	21-Oct-2020		

Approved By:


Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: 22734 Harbour Point Bray

Client: IGSL		Chemtest Job No.:										
Quotation No.:		Chemtest Sample ID.:										
		20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	
		1072770	1072771	1072773	1072776	1072777	1072779					
		Sample Location:		TP202	TP203	TP205	TP208	TP209	TP211			
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
		Top Depth (m):		0.50	0.50	0.50	0.50	0.50	0.50			
		Date Sampled:		25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020			
Determinand	Accred.	SOP	Type	Units	LOD							
pH	U	1010	10:1		N/A	8.0	7.8	7.9	7.7	7.9	8.1	
Ammonium	U	1220	10:1	mg/l	0.050	< 0.050	0.054	< 0.050	< 0.050	< 0.050	< 0.050	
Ammonium	N	1220	10:1	mg/kg	0.10	0.47	0.56	< 0.10	0.18	< 0.10	< 0.10	
Boron (Dissolved)	U	1450	10:1	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Benzo[<i>a</i>]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	

Results - Soil

Project: 22734 Harbour Point Bray

Client: IGSL	Chemtest Job No.:		20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294
Quotation No.:	Chemtest Sample ID.:		1072770	1072771	1072773	1072776	1072777	1072779	
	Sample Location:		TP202	TP203	TP205	TP208	TP209	TP211	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	0.50	0.50	0.50	0.50	0.50	
	Date Sampled:		25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-
Asbestos By Fibre Counting	U	2192	%	0.001	-	-	-	-	-
Moisture	N	2030	%	0.020	8.0	12	10	8.3	15
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0	100	110	42	81	250
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	0.80	0.69	0.45	0.68	0.70
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Sulphur (Elemental)	U	2180	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3
Chloride (Water Soluble)	U	2220	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoride (Extractable)	N	2220	mg/kg	0.010	0.40	0.38	0.34	0.44	0.88
Nitrite (Extractable)	N	2220	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	0.014	< 0.010	< 0.010	0.016
Cyanide (Total)	U	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	0.69	3.3	0.86	5.4	2.4
Ammoniacal Nitrogen	U	2425	mg/kg	0.50	2.9	4.5	3.1	2.1	5.7
Phosphate (Total)	N	2430	mg/kg	10	980	1100	400	1200	950
Sulphate (Total)	U	2430	mg/kg	100	350	570	< 100	400	460
Sulphate (Acid Soluble)	U	2430	%	0.010	0.048	0.083	0.020	0.049	0.072
Arsenic	U	2450	mg/kg	1.0	16	19	16	18	14
Barium	U	2450	mg/kg	10	53	63	57	67	60
Cadmium	U	2450	mg/kg	0.10	0.62	0.84	0.64	0.85	0.63
Chromium	U	2450	mg/kg	1.0	21	21	23	21	13
Molybdenum	U	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	15	18	16	20	19
Mercury	U	2450	mg/kg	0.10	0.10	0.11	< 0.10	< 0.10	0.13
Nickel	U	2450	mg/kg	0.50	21	24	28	25	16
Lead	U	2450	mg/kg	0.50	45	55	25	33	48
Selenium	U	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Zinc	U	2450	mg/kg	0.50	58	83	64	68	68
Chromium (Trivalent)	N	2490	mg/kg	1.0	21	21	23	21	13
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	3.6	3.5	0.90	1.7	6.0
Mineral Oil	N	2670	mg/kg	10	< 10	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0

Results - Soil

Project: 22734 Harbour Point Bray

Client: IGSL	Chemtest Job No.:		20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294
Quotation No.:	Chemtest Sample ID.:		1072770	1072771	1072773	1072776	1072777	1072779	
	Sample Location:		TP202	TP203	TP205	TP208	TP209	TP211	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	0.50	0.50	0.50	0.50	0.50	
	Date Sampled:		25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD					
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[B] < 10	[B] < 10	[B] < 10	[B] < 10	[B] < 10
Dichlorodifluoromethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Chloromethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Bromomethane	U	2760	µg/kg	20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20
Chloroethane	U	2760	µg/kg	2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Bromochloromethane	U	2760	µg/kg	5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0
Trichloromethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Benzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0
Trichloroethene	N	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Dibromomethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	[B] < 10	[B] < 10	[B] < 10	[B] < 10	[B] < 10
Toluene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0

Results - Soil

Project: 22734 Harbour Point Bray

Client: IGSL	Chemtest Job No.:		20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294
Quotation No.:	Chemtest Sample ID.:		1072770	1072771	1072773	1072776	1072777	1072779	
	Sample Location:		TP202	TP203	TP205	TP208	TP209	TP211	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	0.50	0.50	0.50	0.50	0.50	
	Date Sampled:		25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD					
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	[B] < 10	[B] < 10	[B] < 10	[B] < 10	[B] < 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	[B] < 10	[B] < 10	[B] < 10	[B] < 10	[B] < 10
Tetrachloroethene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0
Dibromochloromethane	U	2760	µg/kg	10	[B] < 10	[B] < 10	[B] < 10	[B] < 10	[B] < 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0
Chlorobenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0
Ethylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Styrene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Tribromomethane	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Bromobenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	[B] < 50	[B] < 50	[B] < 50	[B] < 50	[B] < 50
N-Propylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	[B] < 50	[B] < 50	[B] < 50	[B] < 50	[B] < 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0	[B] < 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Phenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50

Results - Soil

Project: 22734 Harbour Point Bray

Client: IGSL	Chemtest Job No.:		20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294
Quotation No.:	Chemtest Sample ID.:		1072770	1072771	1072773	1072776	1072777	1072779	
	Sample Location:		TP202	TP203	TP205	TP208	TP209	TP211	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	0.50	0.50	0.50	0.50	0.50	
	Date Sampled:		25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD					
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2-Methylphenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Hexachloroethane	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
4-Methylphenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Nitrobenzene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Isophorone	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Naphthalene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Acenaphthylene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Acenaphthene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Dibenzofuran	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Fluorene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Azobenzene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50

Results - Soil

Project: 22734 Harbour Point Bray

Client: IGSL	Chemtest Job No.:		20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294
Quotation No.:	Chemtest Sample ID.:		1072770	1072771	1072773	1072776	1072777	1072779	
	Sample Location:		TP202	TP203	TP205	TP208	TP209	TP211	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	0.50	0.50	0.50	0.50	0.50	
	Date Sampled:		25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD					
Pentachlorophenol	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Phenanthrene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Anthracene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Carbazole	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Fluoranthene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Pyrene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Chrysene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Naphthalene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	2800	mg/kg	0.010	0.16	0.050	< 0.010	< 0.010	0.090
Anthracene	N	2800	mg/kg	0.010	< 0.010	0.020	< 0.010	< 0.010	0.040
Fluoranthene	N	2800	mg/kg	0.010	0.18	0.070	< 0.010	< 0.010	0.20
Pyrene	N	2800	mg/kg	0.010	0.13	0.050	< 0.010	< 0.010	0.17
Benzo[a]anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Coronene	N	2800	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	0.47	< 0.20	< 0.20	< 0.20	0.50
PCB 28	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 52	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010

Results - Soil

Project: 22734 Harbour Point Bray

Client: IGSL	Chemtest Job No.:		20-26294	20-26294	20-26294	20-26294	20-26294	20-26294	20-26294
Quotation No.:	Chemtest Sample ID.:		1072770	1072771	1072773	1072776	1072777	1072779	
	Sample Location:		TP202	TP203	TP205	TP208	TP209	TP211	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	0.50	0.50	0.50	0.50	0.50	
	Date Sampled:		25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	25-Sep-2020	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD					
PCB 118	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 153	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 138	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
PCB 180	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
SVOC TIC	N	2790	mg/kg	N/A	[B] None Detected	[B] None Detected	[B] None Detected	[B] None Detected	[B] None Detected
VOC TIC	N	2760	µg/kg	N/A	[B] None Detected	[B] None Detected	[B] None Detected	[B] None Detected	[B] None Detected

Results - Single Stage WAC

Project: 22734 Harbour Point Bray

Chemtest Job No: 20-26294 Chemtest Sample ID: 1072770 Sample Ref: Sample ID: Sample Location: TP202 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date: 25-Sep-2020				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	2.1	3	5	6
Loss On Ignition	2610	U	%	5.1	--	--	10
Total BTEX	2760	U	mg/kg	[B] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[B] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	0.47	100	--	--
pH	2010	U		7.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	< 0.0020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0034	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0012	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0017	< 0.50	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.055	< 1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	32	320	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.7	97	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	8.0

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 22734 Harbour Point Bray

Chemtest Job No: 20-26294 Chemtest Sample ID: 1072771 Sample Ref: Sample ID: Sample Location: TP203 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date: 25-Sep-2020				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	2.0	3	5	6
Loss On Ignition	2610	U	%	6.1	--	--	10
Total BTEX	2760	U	mg/kg	[B] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[B] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	--
pH	2010	U		7.3	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	< 0.0020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0034	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0014	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0014	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.052	< 1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	45	450	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	13	130	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 22734 Harbour Point Bray

Chemtest Job No: 20-26294					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1072773					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: TP205							
Top Depth(m): 0.50							
Bottom Depth(m):							
Sampling Date: 25-Sep-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	0.52	3	5	6
Loss On Ignition	2610	U	%	2.6	--	--	10
Total BTEX	2760	U	mg/kg	[B] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[B] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	--
pH	2010	U		7.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	< 0.0020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0024	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	0.0030	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0024	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	< 0.050	< 1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	28	280	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	20	200	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	10

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 22734 Harbour Point Bray

Chemtest Job No: 20-26294 Chemtest Sample ID: 1072776 Sample Ref: Sample ID: Sample Location: TP208 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date: 25-Sep-2020				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	1.0	3	5	6
Loss On Ignition	2610	U	%	3.6	--	--	10
Total BTEX	2760	U	mg/kg	[B] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[B] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	--
pH	2010	U		6.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	< 0.0020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0039	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0012	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	0.0035	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0019	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.051	< 1.0	10	150	500
Sulphate	1220	U	1.1	11	1000	20000	50000
Total Dissolved Solids	1020	N	36	360	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	15	150	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	8.3

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 22734 Harbour Point Bray

Chemtest Job No: 20-26294					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1072777					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: TP209							
Top Depth(m): 0.50							
Bottom Depth(m):							
Sampling Date: 25-Sep-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	3.5	3	5	6
Loss On Ignition	2610	U	%	5.8	--	--	10
Total BTEX	2760	U	mg/kg	[B] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[B] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	0.50	100	--	--
pH	2010	U		7.9	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.015	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0078	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0019	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.17	1.7	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	120	1200	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	8.4	84	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	15

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 22734 Harbour Point Bray

Chemtest Job No: 20-26294					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1072779					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: TP211							
Top Depth(m): 0.50							
Bottom Depth(m):							
Sampling Date: 25-Sep-2020							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	2.6	3	5	6
Loss On Ignition	2610	U	%	3.8	--	--	10
Total BTEX	2760	U	mg/kg	[B] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	< 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[B] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	< 0.20	100	--	--
pH	2010	U		8.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.014	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0044	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.17	1.7	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	120	1200	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	7.0	70	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	10

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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:
1072770			TP202	25-Sep-2020	B	Amber Glass 250ml
1072770			TP202	25-Sep-2020	B	Plastic Tub 500g
1072771			TP203	25-Sep-2020	B	Amber Glass 250ml
1072771			TP203	25-Sep-2020	B	Plastic Tub 500g
1072773			TP205	25-Sep-2020	B	Amber Glass 250ml
1072773			TP205	25-Sep-2020	B	Plastic Tub 500g
1072776			TP208	25-Sep-2020	B	Amber Glass 250ml
1072776			TP208	25-Sep-2020	B	Plastic Tub 500g
1072777			TP209	25-Sep-2020	B	Amber Glass 250ml
1072777			TP209	25-Sep-2020	B	Plastic Tub 500g
1072779			TP211	25-Sep-2020	B	Amber Glass 250ml
1072779			TP211	25-Sep-2020	B	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easily liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.

Test Methods

SOP	Title	Parameters included	Method summary
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
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
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds (cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
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
2815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

Report Information

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SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

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 45 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



Final Report

Report No.: 20-28179-1

Initial Date of Issue: 26-Oct-2020

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: 22734 Harbour Point Bray Wicklow
(Ballymore Group & Atkins)

Quotation No.: **Date Received:** 19-Oct-2020

Order No.: **Date Instructed:** 20-Oct-2020

No. of Samples: 22

Turnaround (Wkdays): 7 **Results Due:** 28-Oct-2020

Date Approved: 26-Oct-2020

Approved By:


Details: Glynn Harvey, Technical Manager

Results - Soil

Project: 22734 Harbour Point Bray Wicklow (Ballymore Group & Atkins)

Client: IGSL	Chemtest Job No.:		20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	
Quotation No.:	Chemtest Sample ID.:		1083013	1083014	1083015	1083016	1083017	1083018	1083019	1083020	1083021	1083022		
Order No.:	Client Sample Ref.:		AA134068	AA134479	AA146488	AA134489	AA139453	AA141604	AA146466	AA146602	AA146612	AA141654		
	Sample Location:		BH201	BH205	BH206	BH207	BH208	BH210	BH211	BH213	BH214	BH215		
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
	Top Depth (m):		3.00	3.00	3.00	3.00	3.00	2.50	3.00	2.50	2.50	2.50		
	Bottom Depth (m):		3.00	3.00	3.00	3.00	3.00	2.50	3.00	2.50	2.50	2.50		
Determinand	Accred.	SOP	Units	LOD										
Moisture	N	2030	%	0.020	5.0	7.1	3.0	5.8	6.7	6.3	7.6	6.9	19	15
pH	U	2010		4.0	[A] 9.0	[A] 9.3	[A] 9.3	[A] 9.2	[A] 9.2	[A] 9.2	[A] 9.1	[A] 9.1	[A] 8.8	[A] 8.7
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	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	[A] < 0.010	[A] < 0.010
Sulphate (Total)	U	2430	mg/kg	100	[A] 1400	[A] 3600	[A] 800	[A] 880	[A] 880	[A] 710	[A] 510	[A] 480	[A] 170	[A] 110
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.015	[A] 0.020	[A] 0.013	[A] 0.016	[A] 0.012	[A] 0.015	[A] 0.017	[A] < 0.010	[A] < 0.010	[A] < 0.010
Organic Matter	U	2625	%	0.40										

Results - Soil

Project: 22734 Harbour Point Bray Wicklow (Ballymore Group & Atkins)

Client: IGSL	Chemtest Job No.:													
Quotation No.:	Chemtest Sample ID.:													
Order No.:	Client Sample Ref.:													
	Sample Location:													
	Sample Type:													
	Top Depth (m):													
	Bottom Depth (m):													
Determinand	Accred.	SOP	Units	LOD	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	20-28179	
Moisture	N	2030	%	0.020	15	19	24	24	21	39	3.7	4.3	59	28
pH	U	2010		4.0	[A] 8.8	[A] 8.3			[A] 8.3		[A] 9.1	[A] 9.2	[A] 8.7	[A] 8.8
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010	[A] < 0.010			[A] 0.047		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Sulphate (Total)	U	2430	mg/kg	100	[A] 220	[A] < 100			[A] 850		[A] 330	[A] 220	[A] 130	[A] 150
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.010	[A] < 0.010			[A] 0.034		[A] 0.015	[A] < 0.010	[A] < 0.010	[A] < 0.010
Organic Matter	U	2625	%	0.40			[A] 1.7	[A] 1.6		[A] 0.45				[A] < 0.40

Results - Soil

Project: 22734 Harbour Point Bray Wicklow (Ballymore Group & Atkins)

Client: IGSL	Chemtest Job No.:		20-28179	20-28179		
Quotation No.:	Chemtest Sample ID.:		1083033	1083034		
Order No.:	Client Sample Ref.:		AA148851	AA148853		
	Sample Location:		TP210	TP210		
	Sample Type:		SOIL	SOIL		
	Top Depth (m):		0.50	2.50		
	Bottom Depth (m):					
Determinand	Accred.	SOP	Units	LOD		
Moisture	N	2030	%	0.020	11	14
pH	U	2010		4.0	[A] 8.9	[A] 8.9
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	[A] < 0.010	[A] < 0.010
Sulphate (Total)	U	2430	mg/kg	100	[A] 210	[A] 710
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.016	[A] 0.015
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:
1083013	AA134068		BH201		A	Amber Glass 250ml
1083014	AA134479		BH205		A	Amber Glass 250ml
1083015	AA146488		BH206		A	Amber Glass 250ml
1083016	AA134489		BH207		A	Amber Glass 250ml
1083017	AA139453		BH208		A	Amber Glass 250ml
1083018	AA141604		BH210		A	Amber Glass 250ml
1083019	AA146466		BH211		A	Amber Glass 250ml
1083020	AA146602		BH213		A	Amber Glass 250ml
1083021	AA146612		BH214		A	Amber Glass 250ml
1083022	AA141654		BH215		A	Amber Glass 250ml
1083023	AA146621		BH216		A	Amber Glass 250ml
1083024	AA141628		BH221		A	Amber Glass 250ml
1083025	AA141630		BH221		A	Amber Glass 250ml
1083026	AA141632		BH221		A	Amber Glass 250ml
1083027	AA141616		BH222A		A	Amber Glass 250ml
1083028	AA141624		BH222A		A	Amber Glass 250ml
1083029	AA137965		TP202		A	Amber Glass 250ml
1083030	AA137962		TP205		A	Amber Glass 250ml
1083031	AA137956		TP208		A	Amber Glass 250ml

Deviations

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Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1083032	AA137977		TP209		A	Amber Glass 250ml
1083033	AA148851		TP210		A	Plastic Tub 1000g
1083034	AA148853		TP210		A	Amber Glass 250ml

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
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.

Report Information

Key

U	UKAS accredited
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N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
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N/E	not evaluated
<	"less than"
>	"greater than"

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The results relate only to the items tested

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All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis

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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
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Sample Retention and Disposal

All soil samples will be retained for a period of 45 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:

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Amended Report

Report No.: 20-30300-2
Initial Date of Issue: 17-Nov-2020 **Date of Re-Issue:** 17-Dec-2020
Client: IGSL
Client Address: M7 Business Park
Naas
County Kildare
Ireland
Contact(s): Darren Keogh
Project: 22734 Harbour Point Bray Wicklow
Quotation No.: Q20-21984 **Date Received:** 06-Nov-2020
Order No.: **Date Instructed:** 09-Nov-2020
No. of Samples: 23
Turnaround (Wkdays): 29 **Results Due:** 17-Dec-2020
Date Approved: 17-Dec-2020

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:		20-30300	20-30300	20-30300		
Quotation No.: Q20-21984		Chemtest Sample ID.:		1093427	1093429	1093438		
Order No.:		Client Sample Ref.:		AA141643	AA146675	AA139459		
		Sample Location:		BH212	BH219	BH224		
		Sample Type:		SOIL	SOIL	SOIL		
		Top Depth (m):		0.50	1.50	0.50		
		Bottom Depth (m):		0.50	1.50	0.50		
Determinand	Accred.	SOP	Type	Units	LOD			
pH	U	1010	10:1		N/A	8.8	8.9	8.6
Total Dissolved Solids	N	1020	10:1	mg/l	1.0	59	72	46
Chloride	U	1220	10:1	mg/l	1.0	4.8	7.0	3.0
Fluoride	U	1220	10:1	mg/l	0.050	0.19	0.20	0.50
Ammonium	U	1220	10:1	mg/l	0.050	0.058	0.066	0.072
Sulphate	U	1220	10:1	mg/l	1.0	12	17	4.9
Ammonium	N	1220	10:1	mg/kg	0.10	0.78	0.92	0.90
Arsenic (Dissolved)	U	1450	10:1	µg/l	1.0	1.7	3.8	2.0
Barium (Dissolved)	U	1450	10:1	µg/l	5.0	< 5.0	< 5.0	< 5.0
Cadmium (Dissolved)	U	1450	10:1	µg/l	0.080	< 0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	10:1	µg/l	1.0	< 1.0	< 1.0	< 1.0
Copper (Dissolved)	U	1450	10:1	µg/l	1.0	< 1.0	1.0	1.5
Mercury (Dissolved)	U	1450	10:1	µg/l	0.50	< 0.50	< 0.50	< 0.50
Molybdenum (Dissolved)	U	1450	10:1	µg/l	1.0	1.7	2.7	2.7
Nickel (Dissolved)	U	1450	10:1	µg/l	1.0	< 1.0	< 1.0	< 1.0
Lead (Dissolved)	U	1450	10:1	µg/l	1.0	< 1.0	< 1.0	1.2
Antimony (Dissolved)	U	1450	10:1	µg/l	1.0	< 1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	10:1	µg/l	1.0	< 1.0	< 1.0	< 1.0
Zinc (Dissolved)	U	1450	10:1	µg/l	1.0	< 1.0	1.1	4.8
Boron (Dissolved)	U	1450	10:1	mg/kg	0.20	< 0.20	< 0.20	< 0.20
Dissolved Organic Carbon	U	1610	10:1	mg/l	2.0	3.7	10	8.3
Benzo[<i>j</i>]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	10:1	mg/l	0.030	< 0.030	< 0.030	< 0.030

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:												
Quotation No.: Q20-21984		Chemtest Sample ID.:												
Order No.:	Client Sample Ref.:	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	
	Sample Location:	BH203	BH218	BH218	BH218	BH212	BH212	BH219	BH219	BH219	BH219	BH223	BH223	
	Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):	2.00	1.50	7.50	9.50	0.50	1.50	1.50	3.50	3.50	3.50	4.50	4.50	
	Bottom Depth (m):	2.00	1.50	7.50	9.50	0.50	1.50	1.50	3.50	3.50	3.50	4.50	4.50	
	Asbestos Lab:					COVENTRY		COVENTRY						
Determinand	Accred.	SOP	Units	LOD										
ACM Type	U	2192		N/A					-		-			
Asbestos Identification	U	2192		N/A					No Asbestos Detected		No Asbestos Detected			
ACM Detection Stage	U	2192		N/A					-		-			
Asbestos By Fibre Counting	U	2192	%	0.001					-		-			
Moisture	N	2030	%	0.020	9.6	10	22	27	8.5	8.5	11	8.4	15	8.0
pH	M	2010		4.0	[A] 8.4	[A] 8.2	[A] 7.7	[A] 8.0	[A] 8.7	[A] 8.6	[A] 8.8	[A] 8.6	[A] 7.4	
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0					[A] 180		[A] 97			
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40					[A] < 0.40		[A] 0.43			
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	[A] < 0.010	[A] 0.24	[A] 0.76	[A] 0.51	[A] 0.021	[A] 0.039	[A] 0.042	[A] 0.048	[A] 0.46	
Sulphate (2:1 Extract)	M	2120	mg/kg	20		[A] 480	[A] 1500						[A] 920	
Total Sulphur	M	2175	%	0.010		[A] 0.086	[A] 0.79						[A] 0.34	
Sulphur (Elemental)	M	2180	mg/kg	1.0					[A] 1.2		[A] < 1.0			
Chloride (Water Soluble)	M	2220	g/l	0.010					[A] 0.015		[A] 0.011			
Fluoride (Extractable)	N	2220	mg/kg	0.010					0.60		0.80			
Nitrite (Extractable)	N	2220	mg/kg	0.10					< 0.10		< 0.10			
Nitrate (Water Soluble)	N	2220	g/l	0.010					< 0.010		< 0.010			
Phosphate (Available)	N	2420	mg/l	2.0					4.8		9.2			
Cyanide (Total)	M	2300	mg/kg	0.50					[A] < 0.50		[A] < 0.50			
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50					[A] 11		[A] 5.5			
Ammonium (Extractable)	M	2425	mg/kg	0.50					[A] < 0.50		[A] < 0.50			
Ammoniacal Nitrogen	M	2425	mg/kg	0.50					[A] < 0.50		[A] < 0.50			
Sodium (Total)	N	2430	mg/kg	10					140		240			
Sulphate (Total)	M	2430	mg/kg	100	[A] 370			[A] 44000	[A] 710	[A] 1300	[A] 750	[A] 3300		
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.022	[A] 0.060	[A] 0.35	[A] 0.17	[A] < 0.010	[A] 0.027	[A] 0.029	[A] 0.047	[A] 0.090	
Arsenic	M	2450	mg/kg	1.0					20		27			
Barium	M	2450	mg/kg	10					26		51			
Cadmium	M	2450	mg/kg	0.10					0.47		0.74			
Chromium	M	2450	mg/kg	1.0					13		23			
Molybdenum	M	2450	mg/kg	2.0					< 2.0		< 2.0			
Antimony	N	2450	mg/kg	2.0					< 2.0		< 2.0			
Copper	M	2450	mg/kg	0.50					10		25			
Mercury	M	2450	mg/kg	0.10					< 0.10		< 0.10			
Nickel	M	2450	mg/kg	0.50					19		35			
Lead	M	2450	mg/kg	0.50					9.4		25			
Selenium	M	2450	mg/kg	0.20					< 0.20		0.22			
Zinc	M	2450	mg/kg	0.50					37		81			
Chromium (Trivalent)	N	2490	mg/kg	1.0					13		23			

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:													
Quotation No.: Q20-21984		20-30300		20-30300		20-30300		20-30300		20-30300		20-30300		20-30300	
Chemtest Sample ID.:		Client Sample Ref.:													
Order No.:		AA139452		AA141677		AA141689		AA141694		AA141643		AA141645		AA146675	
Sample Location:		Sample Type:													
Sample Location:		BH203		BH218		BH218		BH218		BH212		BH212		BH219	
Sample Type:		Top Depth (m):													
Sample Type:		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Top Depth (m):		Bottom Depth (m):													
Top Depth (m):		2.00		1.50		7.50		9.50		0.50		1.50		1.50	
Bottom Depth (m):		Asbestos Lab:													
Bottom Depth (m):		2.00		1.50		7.50		9.50		0.50		1.50		1.50	
Asbestos Lab:		COVENTRY													
Asbestos Lab:										COVENTRY		COVENTRY			
Determinand	Accred.	SOP	Units	LOD											
Chromium (Hexavalent)	N	2490	mg/kg	0.50						< 0.50		< 0.50			
Organic Matter	M	2625	%	0.40				[A] 1.5		[A] < 0.40		[A] 0.91			[A] 0.53
Total Organic Carbon	M	2625	%	0.20						[A] < 0.20		[A] 0.53			
Mineral Oil	N	2670	mg/kg	10						< 10		< 10			
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0						[AC] < 5.0		[A] < 5.0			
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0						[AC] < 1.0		[A] < 1.0			
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0						[AC] < 5.0		[A] < 5.0			
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0						[AC] < 10		[A] < 10			
Naphthalene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Acenaphthylene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Acenaphthene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Fluorene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Phenanthrene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Anthracene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Fluoranthene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Pyrene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Benzo[a]anthracene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Chrysene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Benzo[b]fluoranthene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Benzo[k]fluoranthene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Benzo[a]pyrene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10						[A] < 0.10		[A] < 0.10			

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGLS	Chemtest Job No.:										
Quotation No.: Q20-21984	Chemtest Sample ID.:										
Order No.:	Client Sample Ref.:										
	Sample Location:										
	Sample Type:										
	Top Depth (m):										
	Bottom Depth (m):										
	Asbestos Lab:										
Determinand	Accred.	SOP	Units	LOD							
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10				[A] < 0.10		[A] < 0.10	
Coronene	N	2700	mg/kg	0.10				[A] < 0.10		[A] < 0.10	
Benzo[j]fluoranthene	N	2700	mg/kg	0.10				[A] < 0.10		[A] < 0.10	
Total Of 16 PAH's	M	2700	mg/kg	2.0				[A] < 2.0		[A] < 2.0	
Total Of 17 PAH's	N	2700	mg/kg	2.0				[A] < 2.0		[A] < 2.0	
Dichlorodifluoromethane	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Chloromethane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Vinyl Chloride	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Bromomethane	M	2760	µg/kg	20				[AC] < 20		[A] < 20	
Chloroethane	U	2760	µg/kg	2.0				[AC] < 2.0		[A] < 2.0	
Trichlorofluoromethane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,1-Dichloroethene	M	2760	mg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Trans 1,2-Dichloroethene	M	2760	mg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,1-Dichloroethane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
cis 1,2-Dichloroethene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Bromochloromethane	U	2760	µg/kg	5.0				[AC] < 5.0		[A] < 5.0	
Trichloromethane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,1,1-Trichloroethane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Tetrachloromethane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,1-Dichloropropene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Benzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,2-Dichloroethane	M	2760	µg/kg	2.0				[AC] < 2.0		[A] < 2.0	
Trichloroethene	N	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,2-Dichloropropane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Dibromomethane	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Bromodichloromethane	M	2760	µg/kg	5.0				[AC] < 5.0		[A] < 5.0	
cis-1,3-Dichloropropene	N	2760	µg/kg	10				[AC] < 10		[A] < 10	
Toluene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
Trans-1,3-Dichloropropene	N	2760	µg/kg	10				[AC] < 10		[A] < 10	
1,1,2-Trichloroethane	M	2760	µg/kg	10				[AC] < 10		[A] < 10	
Tetrachloroethene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,3-Dichloropropane	U	2760	µg/kg	2.0				[AC] < 2.0		[A] < 2.0	
Dibromochloromethane	U	2760	µg/kg	10				[AC] < 10		[A] < 10	
1,2-Dibromoethane	M	2760	µg/kg	5.0				[AC] < 5.0		[A] < 5.0	
Chlorobenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
1,1,1,2-Tetrachloroethane	M	2760	µg/kg	2.0				[AC] < 2.0		[A] < 2.0	
Ethylbenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	
m & p-Xylene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0	

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:											
Quotation No.: Q20-21984		Chemtest Sample ID.:		20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300
Order No.:		Client Sample Ref.:		1093422	1093423	1093425	1093426	1093427	1093428	1093429	1093430	1093431	1093432
		Sample Location:		AA139452	AA141677	AA141689	AA141694	AA141643	AA141645	AA146675	AA146680	AA183906	AA183909
		Sample Type:		BH203	BH218	BH218	BH218	BH212	BH212	BH219	BH219	BH223	BH223
		Top Depth (m):		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Bottom Depth (m):		2.00	1.50	7.50	9.50	0.50	1.50	1.50	3.50	3.50	4.50
		Asbestos Lab:		2.00	1.50	7.50	9.50	0.50	1.50	1.50	3.50	3.50	4.50
								COVENTRY		COVENTRY			
Determinand	Accred.	SOP	Units	LOD									
Total Xylenes	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
o-Xylene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Styrene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Tribromomethane	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Isopropylbenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Bromobenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,2,3-Trichloropropane	N	2760	µg/kg	50				[AC] < 50		[A] < 50			
N-Propylbenzene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
2-Chlorotoluene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,3,5-Trimethylbenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
4-Chlorotoluene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Tert-Butylbenzene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,2,4-Trimethylbenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Sec-Butylbenzene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,3-Dichlorobenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
4-Isopropyltoluene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,4-Dichlorobenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
N-Butylbenzene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,2-Dichlorobenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50				[AC] < 50		[A] < 50			
1,2,4-Trichlorobenzene	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Hexachlorobutadiene	U	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0				[AC] < 2.0		[A] < 2.0			
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0				[AC] < 1.0		[A] < 1.0			
Bromoform	N	2760	µg/kg	10				[A] < 10		[A] < 10			
Chloroform	N	2760	µg/kg	10				[A] < 10		[A] < 10			
N-Nitrosodimethylamine	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
Phenol	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
2-Chlorophenol	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
1,3-Dichlorobenzene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
1,4-Dichlorobenzene	N	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
1,2-Dichlorobenzene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
2-Methylphenol	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
Hexachloroethane	N	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			
4-Methylphenol	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50			

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:													
Quotation No.: Q20-21984		20-30300		20-30300		20-30300		20-30300		20-30300		20-30300		20-30300	
Chemtest Sample ID.:		Chemtest Sample ID.:													
Order No.:		1093422		1093423		1093425		1093426		1093427		1093428		1093429	
Client Sample Ref.:		AA139452		AA141677		AA141689		AA141694		AA141643		AA141645		AA146675	
Sample Location:		BH203		BH218		BH218		BH218		BH212		BH212		BH219	
Sample Type:		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Top Depth (m):		2.00		1.50		7.50		9.50		0.50		1.50		1.50	
Bottom Depth (m):		2.00		1.50		7.50		9.50		0.50		1.50		1.50	
Asbestos Lab:										COVENTRY		COVENTRY			
Determinand	Accred.	SOP	Units	LOD											
Nitrobenzene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Isophorone	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2-Nitrophenol	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2,4-Dimethylphenol	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2,4-Dichlorophenol	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Naphthalene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
4-Chloroaniline	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Hexachlorobutadiene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2-Methylnaphthalene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
4-Nitrophenol	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2-Chloronaphthalene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2-Nitroaniline	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Acenaphthylene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Dimethylphthalate	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2,6-Dinitrotoluene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Acenaphthene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
3-Nitroaniline	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Dibenzofuran	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
4-Chlorophenylphenylether	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2,4-Dinitrotoluene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Fluorene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Diethyl Phthalate	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
4-Nitroaniline	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Azobenzene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Hexachlorobenzene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Pentachlorophenol	N	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Phenanthrene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Anthracene	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Carbazole	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50					[AC] < 0.50			[A] < 0.50			

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:									
Quotation No.: Q20-21984		Chemtest Sample ID.:									
Order No.:		Client Sample Ref.:									
		Sample Location:									
		Sample Type:									
		Top Depth (m):									
		Bottom Depth (m):									
		Asbestos Lab:					COVENTRY				
Determinand	Accred.	SOP	Units	LOD							
Fluoranthene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Pyrene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Butylbenzyl Phthalate	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Benzo[a]anthracene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Chrysene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Benzo[b]fluoranthene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Benzo[k]fluoranthene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Benzo[a]pyrene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50				[AC] < 0.50		[A] < 0.50	
Naphthalene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Acenaphthylene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Acenaphthene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Fluorene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Phenanthrene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Anthracene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Fluoranthene	N	2800	mg/kg	0.010				[A] < 0.010		[A] 0.061	
Pyrene	N	2800	mg/kg	0.010				[A] < 0.010		[A] 0.095	
Benzo[a]anthracene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Chrysene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Benzo[b]fluoranthene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Benzo[k]fluoranthene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Benzo[a]pyrene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Coronene	N	2800	mg/kg	0.010				[A] < 0.010		[A] < 0.010	
Total Of 17 PAH's	N	2800	mg/kg	0.20				[A] < 0.20		[A] < 0.20	
PCB 28	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010	
PCB 28	U	2815	mg/kg	0.010				[AC] < 0.010		[A] < 0.010	
PCB 52	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010	
PCB 52	U	2815	mg/kg	0.010				[AC] < 0.010		[A] < 0.010	
PCB 90+101	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010	
PCB 90+101	U	2815	mg/kg	0.010				[AC] < 0.010		[A] < 0.010	
PCB 118	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010	

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL	Chemtest Job No.:		20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300
Quotation No.: Q20-21984	Chemtest Sample ID.:		1093422	1093423	1093425	1093426	1093427	1093428	1093429	1093430	1093431	1093432
Order No.:	Client Sample Ref.:		AA139452	AA141677	AA141689	AA141694	AA141643	AA141645	AA146675	AA146680	AA183906	AA183909
	Sample Location:		BH203	BH218	BH218	BH218	BH212	BH212	BH219	BH219	BH223	BH223
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		2.00	1.50	7.50	9.50	0.50	1.50	1.50	3.50	3.50	4.50
	Bottom Depth (m):		2.00	1.50	7.50	9.50	0.50	1.50	1.50	3.50	3.50	4.50
	Asbestos Lab:						COVENTRY		COVENTRY			
Determinand	Accred.	SOP	Units	LOD								
PCB 118	U	2815	mg/kg	0.010				[AC] < 0.010		[A] < 0.010		
PCB 153	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010		
PCB 153	U	2815	mg/kg	0.010				[AC] < 0.010		[A] < 0.010		
PCB 138	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010		
PCB 138	U	2815	mg/kg	0.010				[AC] < 0.010		[A] < 0.010		
PCB 180	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010		
PCB 180	U	2815	mg/kg	0.010				[AC] < 0.010		[A] < 0.010		
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010				[AC] < 0.0010		[A] < 0.0010		
Total PCBs (7 Congeners)	U	2815	mg/kg	0.10				[AC] < 0.10		[A] < 0.10		
Total Phenols	M	2920	mg/kg	0.30				< 0.30		< 0.30		
SVOC TIC	N	2790	mg/kg	N/A				[A] None Detected		[A] None Detected		
VOC TIC	N	2760	µg/kg	N/A				[A] None Detected		[A] None Detected		

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL	Chemtest Job No.:												
Quotation No.: Q20-21984	Chemtest Sample ID.:												
Order No.:	Client Sample Ref.:												
	Sample Location:												
	Sample Type:												
	Top Depth (m):												
	Bottom Depth (m):												
	Asbestos Lab:												
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A						-			
Asbestos Identification	U	2192		N/A						No Asbestos Detected			
ACM Detection Stage	U	2192		N/A						-			
Asbestos By Fibre Counting	U	2192	%	0.001						-			
Moisture	N	2030	%	0.020	25	29	26	30	18	21	20	12	27
pH	M	2010		4.0	[A] 8.2		[A] 8.2	[A] 8.2	[A] 6.8	[A] 8.3		[A] 7.6	[A] 7.4
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0						[A] 290			
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40						[A] 0.58			
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	[A] 0.42		[A] 0.53	[A] 0.42	[A] 0.16	[A] < 0.010		[A] 0.23	[A] 0.47
Sulphate (2:1 Extract)	M	2120	mg/kg	20					[A] 320				[A] 940
Total Sulphur	M	2175	%	0.010					[A] 0.25				[A] 0.50
Sulphur (Elemental)	M	2180	mg/kg	1.0						[A] 1.3			
Chloride (Water Soluble)	M	2220	g/l	0.010						[A] < 0.010			
Fluoride (Extractable)	N	2220	mg/kg	0.010						1.4			
Nitrite (Extractable)	N	2220	mg/kg	0.10						< 0.10			
Nitrate (Water Soluble)	N	2220	g/l	0.010						< 0.010			
Phosphate (Available)	N	2420	mg/l	2.0						7.0			
Cyanide (Total)	M	2300	mg/kg	0.50						[A] < 0.50			
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50						[A] 2.6			
Ammonium (Extractable)	M	2425	mg/kg	0.50						[A] 2.3			
Ammoniacal Nitrogen	M	2425	mg/kg	0.50						[A] 1.8			
Sodium (Total)	N	2430	mg/kg	10						360			
Sulphate (Total)	M	2430	mg/kg	100	[A] 39000		[A] 49000	[A] 50000		[A] 1000		[A] 7200	
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.17		[A] 0.19	[A] 0.20	[A] 0.070	[A] 0.029		[A] 0.058	[A] 0.17
Arsenic	M	2450	mg/kg	1.0						27			
Barium	M	2450	mg/kg	10						32			
Cadmium	M	2450	mg/kg	0.10						0.31			
Chromium	M	2450	mg/kg	1.0						31			
Molybdenum	M	2450	mg/kg	2.0						2.9			
Antimony	N	2450	mg/kg	2.0						< 2.0			
Copper	M	2450	mg/kg	0.50						16			
Mercury	M	2450	mg/kg	0.10						< 0.10			
Nickel	M	2450	mg/kg	0.50						34			
Lead	M	2450	mg/kg	0.50						30			
Selenium	M	2450	mg/kg	0.20						0.60			
Zinc	M	2450	mg/kg	0.50						120			
Chromium (Trivalent)	N	2490	mg/kg	1.0						31			

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL		Chemtest Job No.: 20-30300									
Quotation No.: Q20-21984		Chemtest Sample ID.: 1093433									
Order No.:		Client Sample Ref.: AA183911									
		Sample Location: BH223									
		Sample Type: SOIL									
		Top Depth (m): 5.50									
		Bottom Depth (m): 5.50									
		Asbestos Lab: COVENTRY									
Determinand	Accred.	SOP	Units	LOD							
Chromium (Hexavalent)	N	2490	mg/kg	0.50						< 0.50	
Organic Matter	M	2625	%	0.40	[A] 1.5	[A] 1.7				[A] 0.72	[A] 0.50
Total Organic Carbon	M	2625	%	0.20						[A] 0.42	
Mineral Oil	N	2670	mg/kg	10						< 10	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0						[AC] < 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0						[AC] < 1.0	
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0						[AC] < 1.0	
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0						[AC] < 1.0	
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0						[AC] < 1.0	
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0						[AC] < 1.0	
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0						[AC] < 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0						[AC] < 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0						[AC] < 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0						[AC] < 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0						[AC] < 1.0	
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0						[AC] < 1.0	
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0						[AC] < 1.0	
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0						[AC] < 1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0						[AC] < 1.0	
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0						[AC] < 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0						[AC] < 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0						[AC] < 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0						[AC] < 10	
Naphthalene	M	2700	mg/kg	0.10						[A] < 0.10	
Acenaphthylene	M	2700	mg/kg	0.10						[A] < 0.10	
Acenaphthene	M	2700	mg/kg	0.10						[A] < 0.10	
Fluorene	M	2700	mg/kg	0.10						[A] < 0.10	
Phenanthrene	M	2700	mg/kg	0.10						[A] < 0.10	
Anthracene	M	2700	mg/kg	0.10						[A] < 0.10	
Fluoranthene	M	2700	mg/kg	0.10						[A] < 0.10	
Pyrene	M	2700	mg/kg	0.10						[A] < 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.10						[A] < 0.10	
Chrysene	M	2700	mg/kg	0.10						[A] < 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.10						[A] < 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.10						[A] < 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.10						[A] < 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10						[A] < 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10						[A] < 0.10	

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL	Chemtest Job No.: 20-30300										
Quotation No.: Q20-21984	Chemtest Sample ID.: 1093433										
Order No.:	Client Sample Ref.: AA183911										
	Sample Location: BH223										
	Sample Type: SOIL										
	Top Depth (m): 5.50										
	Bottom Depth (m): 5.50										
	Asbestos Lab: COVENTRY										
Determinand	Accred.	SOP	Units	LOD							
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10					[A] < 0.10		
Coronene	N	2700	mg/kg	0.10					[A] < 0.10		
Benzo[j]fluoranthene	N	2700	mg/kg	0.10					[A] < 0.10		
Total Of 16 PAH's	M	2700	mg/kg	2.0					[A] < 2.0		
Total Of 17 PAH's	N	2700	mg/kg	2.0					[A] < 2.0		
Dichlorodifluoromethane	U	2760	µg/kg	1.0					[AC] < 1.0		
Chloromethane	M	2760	µg/kg	1.0					[AC] < 1.0		
Vinyl Chloride	M	2760	µg/kg	1.0					[AC] < 1.0		
Bromomethane	M	2760	µg/kg	20					[AC] < 20		
Chloroethane	U	2760	µg/kg	2.0					[AC] < 2.0		
Trichlorofluoromethane	M	2760	µg/kg	1.0					[AC] < 1.0		
1,1-Dichloroethene	M	2760	mg/kg	1.0					[AC] < 1.0		
Trans 1,2-Dichloroethene	M	2760	mg/kg	1.0					[AC] < 1.0		
1,1-Dichloroethane	M	2760	µg/kg	1.0					[AC] < 1.0		
cis 1,2-Dichloroethene	M	2760	µg/kg	1.0					[AC] < 1.0		
Bromochloromethane	U	2760	µg/kg	5.0					[AC] < 5.0		
Trichloromethane	M	2760	µg/kg	1.0					[AC] < 1.0		
1,1,1-Trichloroethane	M	2760	µg/kg	1.0					[AC] < 1.0		
Tetrachloromethane	M	2760	µg/kg	1.0					[AC] < 1.0		
1,1-Dichloropropene	U	2760	µg/kg	1.0					[AC] < 1.0		
Benzene	M	2760	µg/kg	1.0					[AC] < 1.0		
1,2-Dichloroethane	M	2760	µg/kg	2.0					[AC] < 2.0		
Trichloroethene	N	2760	µg/kg	1.0					[AC] < 1.0		
1,2-Dichloropropane	M	2760	µg/kg	1.0					[AC] < 1.0		
Dibromomethane	M	2760	µg/kg	1.0					[AC] < 1.0		
Bromodichloromethane	M	2760	µg/kg	5.0					[AC] < 5.0		
cis-1,3-Dichloropropene	N	2760	µg/kg	10					[AC] < 10		
Toluene	M	2760	µg/kg	1.0					[AC] < 1.0		
Trans-1,3-Dichloropropene	N	2760	µg/kg	10					[AC] < 10		
1,1,2-Trichloroethane	M	2760	µg/kg	10					[AC] < 10		
Tetrachloroethene	M	2760	µg/kg	1.0					[AC] < 1.0		
1,3-Dichloropropane	U	2760	µg/kg	2.0					[AC] < 2.0		
Dibromochloromethane	U	2760	µg/kg	10					[AC] < 10		
1,2-Dibromoethane	M	2760	µg/kg	5.0					[AC] < 5.0		
Chlorobenzene	M	2760	µg/kg	1.0					[AC] < 1.0		
1,1,1,2-Tetrachloroethane	M	2760	µg/kg	2.0					[AC] < 2.0		
Ethylbenzene	M	2760	µg/kg	1.0					[AC] < 1.0		
m & p-Xylene	M	2760	µg/kg	1.0					[AC] < 1.0		

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGS		Chemtest Job No.: 20-30300									
Quotation No.: Q20-21984		Chemtest Sample ID.:									
Order No.:		Client Sample Ref.:									
		Sample Location:									
		Sample Type:									
		Top Depth (m):									
		Bottom Depth (m):									
		Asbestos Lab:									
Determinand	Accred.	SOP	Units	LOD							
Total Xylenes	M	2760	µg/kg	1.0						[AC] < 1.0	
o-Xylene	M	2760	µg/kg	1.0						[AC] < 1.0	
Styrene	M	2760	µg/kg	1.0						[AC] < 1.0	
Tribromomethane	U	2760	µg/kg	1.0						[AC] < 1.0	
Isopropylbenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
Bromobenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
1,2,3-Trichloropropane	N	2760	µg/kg	50						[AC] < 50	
N-Propylbenzene	U	2760	µg/kg	1.0						[AC] < 1.0	
2-Chlorotoluene	M	2760	µg/kg	1.0						[AC] < 1.0	
1,3,5-Trimethylbenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
4-Chlorotoluene	U	2760	µg/kg	1.0						[AC] < 1.0	
Tert-Butylbenzene	U	2760	µg/kg	1.0						[AC] < 1.0	
1,2,4-Trimethylbenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
Sec-Butylbenzene	U	2760	µg/kg	1.0						[AC] < 1.0	
1,3-Dichlorobenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
4-Isopropyltoluene	U	2760	µg/kg	1.0						[AC] < 1.0	
1,4-Dichlorobenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
N-Butylbenzene	U	2760	µg/kg	1.0						[AC] < 1.0	
1,2-Dichlorobenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50						[AC] < 50	
1,2,4-Trichlorobenzene	M	2760	µg/kg	1.0						[AC] < 1.0	
Hexachlorobutadiene	U	2760	µg/kg	1.0						[AC] < 1.0	
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0						[AC] < 2.0	
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0						[AC] < 1.0	
Bromoform	N	2760	µg/kg	10						[A] < 10	
Chloroform	N	2760	µg/kg	10						[A] < 10	
N-Nitrosodimethylamine	M	2790	mg/kg	0.50						[AC] < 0.50	
Phenol	M	2790	mg/kg	0.50						[AC] < 0.50	
2-Chlorophenol	M	2790	mg/kg	0.50						[AC] < 0.50	
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50						[AC] < 0.50	
1,3-Dichlorobenzene	M	2790	mg/kg	0.50						[AC] < 0.50	
1,4-Dichlorobenzene	N	2790	mg/kg	0.50						[AC] < 0.50	
1,2-Dichlorobenzene	M	2790	mg/kg	0.50						[AC] < 0.50	
2-Methylphenol	M	2790	mg/kg	0.50						[AC] < 0.50	
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50						[AC] < 0.50	
Hexachloroethane	N	2790	mg/kg	0.50						[AC] < 0.50	
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50						[AC] < 0.50	
4-Methylphenol	M	2790	mg/kg	0.50						[AC] < 0.50	

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:									
Quotation No.: Q20-21984		20-30300		20-30300		20-30300		20-30300		20-30300	
Chemtest Sample ID.:		Chemtest Sample ID.:									
Order No.:		Client Sample Ref.:									
		Sample Location:									
		Sample Type:									
		Top Depth (m):									
		Bottom Depth (m):									
		Asbestos Lab:									
		COVENTRY									
Determinand	Accred.	SOP	Units	LOD							
Nitrobenzene	M	2790	mg/kg	0.50						[AC] < 0.50	
Isophorone	M	2790	mg/kg	0.50						[AC] < 0.50	
2-Nitrophenol	N	2790	mg/kg	0.50						[AC] < 0.50	
2,4-Dimethylphenol	N	2790	mg/kg	0.50						[AC] < 0.50	
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50						[AC] < 0.50	
2,4-Dichlorophenol	M	2790	mg/kg	0.50						[AC] < 0.50	
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50						[AC] < 0.50	
Naphthalene	M	2790	mg/kg	0.50						[AC] < 0.50	
4-Chloroaniline	N	2790	mg/kg	0.50						[AC] < 0.50	
Hexachlorobutadiene	M	2790	mg/kg	0.50						[AC] < 0.50	
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50						[AC] < 0.50	
2-Methylnaphthalene	M	2790	mg/kg	0.50						[AC] < 0.50	
4-Nitrophenol	N	2790	mg/kg	0.50						[AC] < 0.50	
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50						[AC] < 0.50	
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50						[AC] < 0.50	
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50						[AC] < 0.50	
2-Chloronaphthalene	M	2790	mg/kg	0.50						[AC] < 0.50	
2-Nitroaniline	M	2790	mg/kg	0.50						[AC] < 0.50	
Acenaphthylene	M	2790	mg/kg	0.50						[AC] < 0.50	
Dimethylphthalate	M	2790	mg/kg	0.50						[AC] < 0.50	
2,6-Dinitrotoluene	M	2790	mg/kg	0.50						[AC] < 0.50	
Acenaphthene	M	2790	mg/kg	0.50						[AC] < 0.50	
3-Nitroaniline	N	2790	mg/kg	0.50						[AC] < 0.50	
Dibenzofuran	M	2790	mg/kg	0.50						[AC] < 0.50	
4-Chlorophenylphenylether	M	2790	mg/kg	0.50						[AC] < 0.50	
2,4-Dinitrotoluene	M	2790	mg/kg	0.50						[AC] < 0.50	
Fluorene	M	2790	mg/kg	0.50						[AC] < 0.50	
Diethyl Phthalate	M	2790	mg/kg	0.50						[AC] < 0.50	
4-Nitroaniline	M	2790	mg/kg	0.50						[AC] < 0.50	
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50						[AC] < 0.50	
Azobenzene	M	2790	mg/kg	0.50						[AC] < 0.50	
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50						[AC] < 0.50	
Hexachlorobenzene	M	2790	mg/kg	0.50						[AC] < 0.50	
Pentachlorophenol	N	2790	mg/kg	0.50						[AC] < 0.50	
Phenanthrene	M	2790	mg/kg	0.50						[AC] < 0.50	
Anthracene	M	2790	mg/kg	0.50						[AC] < 0.50	
Carbazole	M	2790	mg/kg	0.50						[AC] < 0.50	
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50						[AC] < 0.50	

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGS		Chemtest Job No.: 20-30300									
Quotation No.: Q20-21984		Chemtest Sample ID.: 1093433									
Order No.:		Client Sample Ref.: AA183911									
		Sample Location: BH223									
		Sample Type: SOIL									
		Top Depth (m): 5.50									
		Bottom Depth (m): 5.50									
		Asbestos Lab: COVENTRY									
Determinand	Accred.	SOP	Units	LOD							
Fluoranthene	M	2790	mg/kg	0.50						[AC] < 0.50	
Pyrene	M	2790	mg/kg	0.50						[AC] < 0.50	
Butylbenzyl Phthalate	M	2790	mg/kg	0.50						[AC] < 0.50	
Benzo[a]anthracene	M	2790	mg/kg	0.50						[AC] < 0.50	
Chrysene	M	2790	mg/kg	0.50						[AC] < 0.50	
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50						[AC] < 0.50	
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50						[AC] < 0.50	
Benzo[b]fluoranthene	M	2790	mg/kg	0.50						[AC] < 0.50	
Benzo[k]fluoranthene	M	2790	mg/kg	0.50						[AC] < 0.50	
Benzo[a]pyrene	M	2790	mg/kg	0.50						[AC] < 0.50	
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50						[AC] < 0.50	
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50						[AC] < 0.50	
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50						[AC] < 0.50	
Naphthalene	N	2800	mg/kg	0.010						[A] < 0.010	
Acenaphthylene	N	2800	mg/kg	0.010						[A] < 0.010	
Acenaphthene	N	2800	mg/kg	0.010						[A] < 0.010	
Fluorene	N	2800	mg/kg	0.010						[A] < 0.010	
Phenanthrene	N	2800	mg/kg	0.010						[A] 0.34	
Anthracene	N	2800	mg/kg	0.010						[A] 0.093	
Fluoranthene	N	2800	mg/kg	0.010						[A] 0.12	
Pyrene	N	2800	mg/kg	0.010						[A] 0.13	
Benzo[a]anthracene	N	2800	mg/kg	0.010						[A] < 0.010	
Chrysene	N	2800	mg/kg	0.010						[A] < 0.010	
Benzo[b]fluoranthene	N	2800	mg/kg	0.010						[A] < 0.010	
Benzo[k]fluoranthene	N	2800	mg/kg	0.010						[A] < 0.010	
Benzo[a]pyrene	N	2800	mg/kg	0.010						[A] < 0.010	
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010						[A] < 0.010	
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010						[A] < 0.010	
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010						[A] < 0.010	
Coronene	N	2800	mg/kg	0.010						[A] < 0.010	
Total Of 17 PAH's	N	2800	mg/kg	0.20						[A] 0.68	
PCB 28	N	2815	mg/kg	0.0010						[AC] < 0.0010	
PCB 28	U	2815	mg/kg	0.010						[AC] < 0.010	
PCB 52	N	2815	mg/kg	0.0010						[AC] < 0.0010	
PCB 52	U	2815	mg/kg	0.010						[AC] < 0.010	
PCB 90+101	N	2815	mg/kg	0.0010						[AC] < 0.0010	
PCB 90+101	U	2815	mg/kg	0.010						[AC] < 0.010	
PCB 118	N	2815	mg/kg	0.0010						[AC] < 0.0010	

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL	Chemtest Job No.:					20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300	20-30300
Quotation No.: Q20-21984	Chemtest Sample ID.:					1093433	1093434	1093435	1093436	1093437	1093438	1093439	1093440	1093441	1093442
Order No.:	Client Sample Ref.:					AA183911	AA183913	AA183915	AA183919	AA183922	AA139459	AA139461	AA139463	AA139466	AA139470
	Sample Location:					BH223	BH223	BH223	BH223	BH223	BH224	BH224	BH224	BH224	BH224
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					5.50	6.50	7.50	9.50	11.50	0.50	1.50	2.50	4.50	6.50
	Bottom Depth (m):					5.50	6.50	7.50	9.50	11.50	0.50	1.50	2.50	4.50	6.50
	Asbestos Lab:										COVENTRY				
Determinand	Accred.	SOP	Units	LOD											
PCB 118	U	2815	mg/kg	0.010							[AC] < 0.010				
PCB 153	N	2815	mg/kg	0.0010							[AC] < 0.0010				
PCB 153	U	2815	mg/kg	0.010							[AC] < 0.010				
PCB 138	N	2815	mg/kg	0.0010							[AC] < 0.0010				
PCB 138	U	2815	mg/kg	0.010							[AC] < 0.010				
PCB 180	N	2815	mg/kg	0.0010							[AC] < 0.0010				
PCB 180	U	2815	mg/kg	0.010							[AC] < 0.010				
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010							[AC] < 0.0010				
Total PCBs (7 Congeners)	U	2815	mg/kg	0.10							[AC] < 0.10				
Total Phenols	M	2920	mg/kg	0.30							< 0.30				
SVOC TIC	N	2790	mg/kg	N/A							[A] None Detected				
VOC TIC	N	2760	µg/kg	N/A							[A] None Detected				

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL	Chemtest Job No.:		20-30300	20-30300	20-30300		
Quotation No.: Q20-21984	Chemtest Sample ID.:		1093443	1093444	1093445		
Order No.:	Client Sample Ref.:		AA139474	AA139478	AA139480		
	Sample Location:		BH224	BH224	BH224		
	Sample Type:		SOIL	SOIL	SOIL		
	Top Depth (m):		8.50	10.50	11.50		
	Bottom Depth (m):		8.50	10.50	11.50		
	Asbestos Lab:						
Determinand	Accred.	SOP	Units	LOD			
ACM Type	U	2192		N/A			
Asbestos Identification	U	2192		N/A			
ACM Detection Stage	U	2192		N/A			
Asbestos By Fibre Counting	U	2192	%	0.001			
Moisture	N	2030	%	0.020	29	10	10
pH	M	2010		4.0	[A] 7.0	[A] 7.2	[A] 7.2
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0			
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40			
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	[A] 0.061	[A] 1.5	[A] 0.44
Sulphate (2:1 Extract)	M	2120	mg/kg	20	[A] 120	[A] 3000	[A] 880
Total Sulphur	M	2175	%	0.010	[A] 1.1	[A] 0.43	[A] 0.020
Sulphur (Elemental)	M	2180	mg/kg	1.0			
Chloride (Water Soluble)	M	2220	g/l	0.010			
Fluoride (Extractable)	N	2220	mg/kg	0.010			
Nitrite (Extractable)	N	2220	mg/kg	0.10			
Nitrate (Water Soluble)	N	2220	g/l	0.010			
Phosphate (Available)	N	2420	mg/l	2.0			
Cyanide (Total)	M	2300	mg/kg	0.50			
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50			
Ammonium (Extractable)	M	2425	mg/kg	0.50			
Ammoniacal Nitrogen	M	2425	mg/kg	0.50			
Sodium (Total)	N	2430	mg/kg	10			
Sulphate (Total)	M	2430	mg/kg	100			
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.30	[A] 0.10	[A] 0.020
Arsenic	M	2450	mg/kg	1.0			
Barium	M	2450	mg/kg	10			
Cadmium	M	2450	mg/kg	0.10			
Chromium	M	2450	mg/kg	1.0			
Molybdenum	M	2450	mg/kg	2.0			
Antimony	N	2450	mg/kg	2.0			
Copper	M	2450	mg/kg	0.50			
Mercury	M	2450	mg/kg	0.10			
Nickel	M	2450	mg/kg	0.50			
Lead	M	2450	mg/kg	0.50			
Selenium	M	2450	mg/kg	0.20			
Zinc	M	2450	mg/kg	0.50			
Chromium (Trivalent)	N	2490	mg/kg	1.0			

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:			20-30300	20-30300	20-30300
Quotation No.: Q20-21984		Chemtest Sample ID.:			1093443	1093444	1093445
Order No.:		Client Sample Ref.:			AA139474	AA139478	AA139480
		Sample Location:			BH224	BH224	BH224
		Sample Type:			SOIL	SOIL	SOIL
		Top Depth (m):			8.50	10.50	11.50
		Bottom Depth (m):			8.50	10.50	11.50
		Asbestos Lab:					
Determinand	Accred.	SOP	Units	LOD			
Chromium (Hexavalent)	N	2490	mg/kg	0.50			
Organic Matter	M	2625	%	0.40			
Total Organic Carbon	M	2625	%	0.20			
Mineral Oil	N	2670	mg/kg	10			
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0			
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0			
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0			
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0			
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0			
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0			
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0			
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0			
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0			
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0			
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0			
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0			
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0			
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0			
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0			
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0			
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0			
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0			
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0			
Naphthalene	M	2700	mg/kg	0.10			
Acenaphthylene	M	2700	mg/kg	0.10			
Acenaphthene	M	2700	mg/kg	0.10			
Fluorene	M	2700	mg/kg	0.10			
Phenanthrene	M	2700	mg/kg	0.10			
Anthracene	M	2700	mg/kg	0.10			
Fluoranthene	M	2700	mg/kg	0.10			
Pyrene	M	2700	mg/kg	0.10			
Benzo[a]anthracene	M	2700	mg/kg	0.10			
Chrysene	M	2700	mg/kg	0.10			
Benzo[b]fluoranthene	M	2700	mg/kg	0.10			
Benzo[k]fluoranthene	M	2700	mg/kg	0.10			
Benzo[a]pyrene	M	2700	mg/kg	0.10			
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10			
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10			

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL	Chemtest Job No.:		20-30300	20-30300	20-30300
Quotation No.: Q20-21984	Chemtest Sample ID.:		1093443	1093444	1093445
Order No.:	Client Sample Ref.:		AA139474	AA139478	AA139480
	Sample Location:		BH224	BH224	BH224
	Sample Type:		SOIL	SOIL	SOIL
	Top Depth (m):		8.50	10.50	11.50
	Bottom Depth (m):		8.50	10.50	11.50
	Asbestos Lab:				
Determinand	Accred.	SOP	Units	LOD	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	
Coronene	N	2700	mg/kg	0.10	
Benzo[j]fluoranthene	N	2700	mg/kg	0.10	
Total Of 16 PAH's	M	2700	mg/kg	2.0	
Total Of 17 PAH's	N	2700	mg/kg	2.0	
Dichlorodifluoromethane	U	2760	µg/kg	1.0	
Chloromethane	M	2760	µg/kg	1.0	
Vinyl Chloride	M	2760	µg/kg	1.0	
Bromomethane	M	2760	µg/kg	20	
Chloroethane	U	2760	µg/kg	2.0	
Trichlorofluoromethane	M	2760	µg/kg	1.0	
1,1-Dichloroethene	M	2760	mg/kg	1.0	
Trans 1,2-Dichloroethene	M	2760	mg/kg	1.0	
1,1-Dichloroethane	M	2760	µg/kg	1.0	
cis 1,2-Dichloroethene	M	2760	µg/kg	1.0	
Bromochloromethane	U	2760	µg/kg	5.0	
Trichloromethane	M	2760	µg/kg	1.0	
1,1,1-Trichloroethane	M	2760	µg/kg	1.0	
Tetrachloromethane	M	2760	µg/kg	1.0	
1,1-Dichloropropene	U	2760	µg/kg	1.0	
Benzene	M	2760	µg/kg	1.0	
1,2-Dichloroethane	M	2760	µg/kg	2.0	
Trichloroethene	N	2760	µg/kg	1.0	
1,2-Dichloropropane	M	2760	µg/kg	1.0	
Dibromomethane	M	2760	µg/kg	1.0	
Bromodichloromethane	M	2760	µg/kg	5.0	
cis-1,3-Dichloropropene	N	2760	µg/kg	10	
Toluene	M	2760	µg/kg	1.0	
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	
1,1,2-Trichloroethane	M	2760	µg/kg	10	
Tetrachloroethene	M	2760	µg/kg	1.0	
1,3-Dichloropropane	U	2760	µg/kg	2.0	
Dibromochloromethane	U	2760	µg/kg	10	
1,2-Dibromoethane	M	2760	µg/kg	5.0	
Chlorobenzene	M	2760	µg/kg	1.0	
1,1,1,2-Tetrachloroethane	M	2760	µg/kg	2.0	
Ethylbenzene	M	2760	µg/kg	1.0	
m & p-Xylene	M	2760	µg/kg	1.0	

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:		20-30300	20-30300	20-30300
Quotation No.: Q20-21984		Chemtest Sample ID.:		1093443	1093444	1093445
Order No.:		Client Sample Ref.:		AA139474	AA139478	AA139480
		Sample Location:		BH224	BH224	BH224
		Sample Type:		SOIL	SOIL	SOIL
		Top Depth (m):		8.50	10.50	11.50
		Bottom Depth (m):		8.50	10.50	11.50
		Asbestos Lab:				
Determinand	Accred.	SOP	Units	LOD		
Total Xylenes	M	2760	µg/kg	1.0		
o-Xylene	M	2760	µg/kg	1.0		
Styrene	M	2760	µg/kg	1.0		
Tribromomethane	U	2760	µg/kg	1.0		
Isopropylbenzene	M	2760	µg/kg	1.0		
Bromobenzene	M	2760	µg/kg	1.0		
1,2,3-Trichloropropane	N	2760	µg/kg	50		
N-Propylbenzene	U	2760	µg/kg	1.0		
2-Chlorotoluene	M	2760	µg/kg	1.0		
1,3,5-Trimethylbenzene	M	2760	µg/kg	1.0		
4-Chlorotoluene	U	2760	µg/kg	1.0		
Tert-Butylbenzene	U	2760	µg/kg	1.0		
1,2,4-Trimethylbenzene	M	2760	µg/kg	1.0		
Sec-Butylbenzene	U	2760	µg/kg	1.0		
1,3-Dichlorobenzene	M	2760	µg/kg	1.0		
4-Isopropyltoluene	U	2760	µg/kg	1.0		
1,4-Dichlorobenzene	M	2760	µg/kg	1.0		
N-Butylbenzene	U	2760	µg/kg	1.0		
1,2-Dichlorobenzene	M	2760	µg/kg	1.0		
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50		
1,2,4-Trichlorobenzene	M	2760	µg/kg	1.0		
Hexachlorobutadiene	U	2760	µg/kg	1.0		
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0		
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		
Bromoform	N	2760	µg/kg	10		
Chloroform	N	2760	µg/kg	10		
N-Nitrosodimethylamine	M	2790	mg/kg	0.50		
Phenol	M	2790	mg/kg	0.50		
2-Chlorophenol	M	2790	mg/kg	0.50		
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50		
1,3-Dichlorobenzene	M	2790	mg/kg	0.50		
1,4-Dichlorobenzene	N	2790	mg/kg	0.50		
1,2-Dichlorobenzene	M	2790	mg/kg	0.50		
2-Methylphenol	M	2790	mg/kg	0.50		
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50		
Hexachloroethane	N	2790	mg/kg	0.50		
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50		
4-Methylphenol	M	2790	mg/kg	0.50		

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:		20-30300	20-30300	20-30300
Quotation No.: Q20-21984		Chemtest Sample ID.:		1093443	1093444	1093445
Order No.:		Client Sample Ref.:		AA139474	AA139478	AA139480
		Sample Location:		BH224	BH224	BH224
		Sample Type:		SOIL	SOIL	SOIL
		Top Depth (m):		8.50	10.50	11.50
		Bottom Depth (m):		8.50	10.50	11.50
		Asbestos Lab:				
Determinand	Accred.	SOP	Units	LOD		
Nitrobenzene	M	2790	mg/kg	0.50		
Isophorone	M	2790	mg/kg	0.50		
2-Nitrophenol	N	2790	mg/kg	0.50		
2,4-Dimethylphenol	N	2790	mg/kg	0.50		
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50		
2,4-Dichlorophenol	M	2790	mg/kg	0.50		
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50		
Naphthalene	M	2790	mg/kg	0.50		
4-Chloroaniline	N	2790	mg/kg	0.50		
Hexachlorobutadiene	M	2790	mg/kg	0.50		
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50		
2-Methylnaphthalene	M	2790	mg/kg	0.50		
4-Nitrophenol	N	2790	mg/kg	0.50		
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50		
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50		
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50		
2-Chloronaphthalene	M	2790	mg/kg	0.50		
2-Nitroaniline	M	2790	mg/kg	0.50		
Acenaphthylene	M	2790	mg/kg	0.50		
Dimethylphthalate	M	2790	mg/kg	0.50		
2,6-Dinitrotoluene	M	2790	mg/kg	0.50		
Acenaphthene	M	2790	mg/kg	0.50		
3-Nitroaniline	N	2790	mg/kg	0.50		
Dibenzofuran	M	2790	mg/kg	0.50		
4-Chlorophenylphenylether	M	2790	mg/kg	0.50		
2,4-Dinitrotoluene	M	2790	mg/kg	0.50		
Fluorene	M	2790	mg/kg	0.50		
Diethyl Phthalate	M	2790	mg/kg	0.50		
4-Nitroaniline	M	2790	mg/kg	0.50		
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50		
Azobenzene	M	2790	mg/kg	0.50		
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50		
Hexachlorobenzene	M	2790	mg/kg	0.50		
Pentachlorophenol	N	2790	mg/kg	0.50		
Phenanthrene	M	2790	mg/kg	0.50		
Anthracene	M	2790	mg/kg	0.50		
Carbazole	M	2790	mg/kg	0.50		
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50		

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL		Chemtest Job No.:			20-30300	20-30300	20-30300
Quotation No.: Q20-21984		Chemtest Sample ID.:			1093443	1093444	1093445
Order No.:		Client Sample Ref.:			AA139474	AA139478	AA139480
		Sample Location:			BH224	BH224	BH224
		Sample Type:			SOIL	SOIL	SOIL
		Top Depth (m):			8.50	10.50	11.50
		Bottom Depth (m):			8.50	10.50	11.50
		Asbestos Lab:					
Determinand	Accred.	SOP	Units	LOD			
Fluoranthene	M	2790	mg/kg	0.50			
Pyrene	M	2790	mg/kg	0.50			
Butylbenzyl Phthalate	M	2790	mg/kg	0.50			
Benzo[a]anthracene	M	2790	mg/kg	0.50			
Chrysene	M	2790	mg/kg	0.50			
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50			
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50			
Benzo[b]fluoranthene	M	2790	mg/kg	0.50			
Benzo[k]fluoranthene	M	2790	mg/kg	0.50			
Benzo[a]pyrene	M	2790	mg/kg	0.50			
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50			
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50			
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50			
Naphthalene	N	2800	mg/kg	0.010			
Acenaphthylene	N	2800	mg/kg	0.010			
Acenaphthene	N	2800	mg/kg	0.010			
Fluorene	N	2800	mg/kg	0.010			
Phenanthrene	N	2800	mg/kg	0.010			
Anthracene	N	2800	mg/kg	0.010			
Fluoranthene	N	2800	mg/kg	0.010			
Pyrene	N	2800	mg/kg	0.010			
Benzo[a]anthracene	N	2800	mg/kg	0.010			
Chrysene	N	2800	mg/kg	0.010			
Benzo[b]fluoranthene	N	2800	mg/kg	0.010			
Benzo[k]fluoranthene	N	2800	mg/kg	0.010			
Benzo[a]pyrene	N	2800	mg/kg	0.010			
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010			
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010			
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010			
Coronene	N	2800	mg/kg	0.010			
Total Of 17 PAH's	N	2800	mg/kg	0.20			
PCB 28	N	2815	mg/kg	0.0010			
PCB 28	U	2815	mg/kg	0.010			
PCB 52	N	2815	mg/kg	0.0010			
PCB 52	U	2815	mg/kg	0.010			
PCB 90+101	N	2815	mg/kg	0.0010			
PCB 90+101	U	2815	mg/kg	0.010			
PCB 118	N	2815	mg/kg	0.0010			

Results - Soil

Project: 22734 Habour Point Bray Wicklow

Client: IGSL	Chemtest Job No.:				20-30300	20-30300	20-30300
Quotation No.: Q20-21984	Chemtest Sample ID.:				1093443	1093444	1093445
Order No.:	Client Sample Ref.:				AA139474	AA139478	AA139480
	Sample Location:				BH224	BH224	BH224
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				8.50	10.50	11.50
	Bottom Depth (m):				8.50	10.50	11.50
	Asbestos Lab:						
Determinand	Accred.	SOP	Units	LOD			
PCB 118	U	2815	mg/kg	0.010			
PCB 153	N	2815	mg/kg	0.0010			
PCB 153	U	2815	mg/kg	0.010			
PCB 138	N	2815	mg/kg	0.0010			
PCB 138	U	2815	mg/kg	0.010			
PCB 180	N	2815	mg/kg	0.0010			
PCB 180	U	2815	mg/kg	0.010			
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010			
Total PCBs (7 Congeners)	U	2815	mg/kg	0.10			
Total Phenols	M	2920	mg/kg	0.30			
SVOC TIC	N	2790	mg/kg	N/A			
VOC TIC	N	2760	µg/kg	N/A			

Results - Single Stage WAC

Project: 22734 Harbour Point Bray Wicklow

Chemtest Job No: 20-30300					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 1093427					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref: AA141643							
Sample ID:							
Sample Location: BH212							
Top Depth(m): 0.50							
Bottom Depth(m): 0.50							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	M	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	M	%	1.4	--	--	10
Total BTEX	2760	M	mg/kg	[AC] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[AC] < 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[AC] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	M		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.056	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0017	< 0.050	0.5	2	25
Barium	1450	U	0.0011	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0017	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	4.8	48	800	15000	25000
Fluoride	1220	U	0.19	1.9	10	150	500
Sulphate	1220	U	12	120	1000	20000	50000
Total Dissolved Solids	1020	N	59	590	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.7	< 50	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	8.5

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 22734 Harbour Point Bray Wicklow

Chemtest Job No: 20-30300 Chemtest Sample ID: 1093429 Sample Ref: AA146675 Sample ID: Sample Location: BH219 Top Depth(m): 1.50 Bottom Depth(m): 1.50 Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	M	%	[A] 0.53	3	5	6
Loss On Ignition	2610	M	%	2.3	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	M		8.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.022	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0038	< 0.050	0.5	2	25
Barium	1450	U	0.0038	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0027	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0011	< 0.50	4	50	200
Chloride	1220	U	7.0	70	800	15000	25000
Fluoride	1220	U	0.20	2.0	10	150	500
Sulphate	1220	U	17	170	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	10	100	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 22734 Harbour Point Bray Wicklow

Chemtest Job No: 20-30300 Chemtest Sample ID: 1093438 Sample Ref: AA139459 Sample ID: Sample Location: BH224 Top Depth(m): 0.50 Bottom Depth(m): 0.50 Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	M	%	[A] 0.42	3	5	6
Loss On Ignition	2610	M	%	2.7	--	--	10
Total BTEX	2760	M	mg/kg	[AC] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[AC] < 0.0010	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[AC] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.68	100	--	--
pH	2010	M		8.3	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.028	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0020	< 0.050	0.5	2	25
Barium	1450	U	0.0028	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0015	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0027	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	0.0012	0.012	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0048	< 0.50	4	50	200
Chloride	1220	U	3.0	30	800	15000	25000
Fluoride	1220	U	0.50	5.0	10	150	500
Sulphate	1220	U	4.9	49	1000	20000	50000
Total Dissolved Solids	1020	N	46	460	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	8.3	83	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	21

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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:
1093422	AA139452		BH203		A	Amber Glass 250ml
1093422	AA139452		BH203		A	Plastic Tub 500g
1093423	AA141677		BH218		A	Amber Glass 250ml
1093423	AA141677		BH218		A	Plastic Tub 500g
1093425	AA141689		BH218		A	Amber Glass 250ml
1093425	AA141689		BH218		A	Plastic Tub 500g
1093426	AA141694		BH218		A	Amber Glass 250ml
1093426	AA141694		BH218		A	Plastic Tub 500g
1093427	AA141643		BH212		AC	Plastic Tub 1000g
1093428	AA141645		BH212		A	Amber Glass 250ml
1093428	AA141645		BH212		A	Plastic Tub 500g
1093429	AA146675		BH219		A	Amber Glass 250ml
1093429	AA146675		BH219		A	Plastic Tub 500g
1093430	AA146680		BH219		A	Amber Glass 250ml
1093430	AA146680		BH219		A	Plastic Tub 500g
1093431	AA183906		BH223		A	Amber Glass 250ml
1093431	AA183906		BH223		A	Plastic Tub 500g
1093432	AA183909		BH223		A	Amber Glass 250ml
1093432	AA183909		BH223		A	Plastic Tub 500g
1093433	AA183911		BH223		A	Amber Glass 250ml
1093433	AA183911		BH223		A	Plastic Tub 500g
1093434	AA183913		BH223		A	Amber Glass 250ml
1093434	AA183913		BH223		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:
1093435	AA183915		BH223		A	Amber Glass 250ml
1093435	AA183915		BH223		A	Plastic Tub 500g
1093436	AA183919		BH223		A	Amber Glass 250ml
1093436	AA183919		BH223		A	Plastic Tub 500g
1093437	AA183922		BH223		A	Amber Glass 250ml
1093437	AA183922		BH223		A	Plastic Tub 500g
1093438	AA139459		BH224		AC	Plastic Tub 1000g
1093439	AA139461		BH224		A	Plastic Tub 1000g
1093440	AA139463		BH224		A	Amber Glass 250ml
1093440	AA139463		BH224		A	Plastic Tub 500g
1093441	AA139466		BH224		A	Amber Glass 250ml
1093441	AA139466		BH224		A	Plastic Tub 500g
1093442	AA139470		BH224		A	Amber Glass 250ml
1093442	AA139470		BH224		A	Plastic Tub 500g
1093443	AA139474		BH224		A	Amber Glass 250ml
1093443	AA139474		BH224		A	Plastic Tub 500g
1093444	AA139478		BH224		A	Amber Glass 250ml
1093444	AA139478		BH224		A	Plastic Tub 500g
1093445	AA139480		BH224		A	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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.
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement 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	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2420	Phosphate	Phosphate	Spectrophotometry - Discrete analyser
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.

Test Methods

SOP	Title	Parameters included	Method summary
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
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
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
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
2815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

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"

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 45 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



Final Report

Report No.: 20-32225-1
Initial Date of Issue: 28-Nov-2020
Client: IGSL
Client Address: M7 Business Park
Naas
County Kildare
Ireland
Contact(s): Darren Keogh
Project: 22734 Harbour Point Bray Wicklow
(Ballymore Group & Atkins)

Quotation No.:		Date Received:	25-Nov-2020
Order No.:		Date Instructed:	25-Nov-2020
No. of Samples:	2		
Turnaround (Wkdays):	7	Results Due:	03-Dec-2020
Date Approved:	28-Nov-2020		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: 22734 Harbour Point Bray Wicklow

(Ballymore Group & Atkins)

Client: IGSL	Chemtest Job No.:		20-32225	20-32225		
Quotation No.:	Chemtest Sample ID.:		1103160	1103161		
Order No.:	Client Sample Ref.:		AA183908	AA139461		
	Sample Location:		BH223	BH224		
	Sample Type:		SOIL	SOIL		
	Top Depth (m):		4.50	1.50		
	Bottom Depth (m):		4.50	1.50		
Determinand	Accred.	SOP	Units	LOD		
Moisture	N	2030	%	0.020	19	36
Organic Matter	U	2625	%	0.40	[A] 0.60	[A] 2.6

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:
1103160	AA183908		BH223		A	Plastic Tub 500g
1103161	AA139461		BH224		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
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
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"

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 45 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 11

Chemical Testing - Water

Chemtest Reports

Standard Report_20-30578-20201118 124837
Standard Report_20-31304-20201126 104845



Final Report

Report No.: 20-30578-1

Initial Date of Issue: 18-Nov-2020

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: Bray - Harbour Point

Quotation No.:		Date Received:	11-Nov-2020
Order No.:		Date Instructed:	11-Nov-2020
No. of Samples:	4		
Turnaround (Wkdays):	7	Results Due:	19-Nov-2020
Date Approved:	18-Nov-2020		

Approved By:


Details: Glynn Harvey, Technical Manager

Results - Water

Project: Bray - Harbour Point

Client: IGSL		Chemtest Job No.:		20-30578	20-30578	20-30578	20-30578	
Quotation No.:		Chemtest Sample ID.:		1094940	1094941	1094942	1094943	
		Sample Location:		ROH01	ROH02	RH04	WS04B	
		Sample Type:		WATER	WATER	WATER	WATER	
		Top Depth (m):		4.82	3.92	1.08	1.36	
		Date Sampled:		08-Nov-2020	08-Nov-2020	08-Nov-2020	08-Nov-2020	
Determinand	Accred.	SOP	Units	LOD				
Chloride	U	1220	mg/l	1.0	130	64	43	160
Fluoride	U	1220	mg/l	0.050	0.33	0.15	0.16	1.2
Ammonia (Free)	U	1220	mg/l	0.050	< 0.050	< 0.050	0.12	< 0.050
Ammonium	U	1220	mg/l	0.050	0.080	< 0.050	3.2	5.9
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.064	< 0.050	2.6	4.6
Nitrite	U	1220	mg/l	0.020	2.8	0.063	< 0.020	0.19
Nitrate	U	1220	mg/l	0.50	75	3.8	< 0.50	5.1
Orthophosphate as PO4	U	1220	mg/l	0.050	0.12	0.055	0.11	< 0.050
Sulphate	U	1220	mg/l	1.0	27	29	56	180
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Potassium	U	1415	mg/l	0.50	1.8	1.7	3.9	3.6
Sodium	U	1415	mg/l	0.50	40	41	30	140
Arsenic (Dissolved)	U	1450	µg/l	1.0	1.8	1.9	4.2	53
Boron (Dissolved)	U	1450	µg/l	20	56	54	87	120
Barium (Dissolved)	U	1450	µg/l	5.0	61	52	24	150
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.080	< 0.080	< 0.080
Copper (Dissolved)	U	1450	µg/l	1.0	1.1	< 1.0	< 1.0	1.5
Mercury (Dissolved)	U	1450	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Molybdenum (Dissolved)	U	1450	µg/l	1.0	2.0	1.3	2.7	4.2
Nickel (Dissolved)	U	1450	µg/l	1.0	15	3.5	< 1.0	3.4
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Antimony (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	µg/l	1.0	2.9	1.4	< 1.0	8.2
Zinc (Dissolved)	U	1450	µg/l	1.0	1.3	< 1.0	1.6	8.9
Chromium (Trivalent)	N	1490	µg/l	20	< 20	< 20	< 20	< 20
Chromium (Hexavalent)	U	1490	µg/l	20	< 20	< 20	< 20	< 20
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: Bray - Harbour Point

Client: IGSL		Chemtest Job No.:		20-30578	20-30578	20-30578	20-30578
Quotation No.:		Chemtest Sample ID.:		1094940	1094941	1094942	1094943
		Sample Location:		ROH01	ROH02	RH04	WS04B
		Sample Type:		WATER	WATER	WATER	WATER
		Top Depth (m):		4.82	3.92	1.08	1.36
		Date Sampled:		08-Nov-2020	08-Nov-2020	08-Nov-2020	08-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
Chloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0

Results - Water

Project: Bray - Harbour Point

Client: IGSL		Chemtest Job No.:		20-30578	20-30578	20-30578	20-30578
Quotation No.:		Chemtest Sample ID.:		1094940	1094941	1094942	1094943
		Sample Location:		ROH01	ROH02	RH04	WS04B
		Sample Type:		WATER	WATER	WATER	WATER
		Top Depth (m):		4.82	3.92	1.08	1.36
		Date Sampled:		08-Nov-2020	08-Nov-2020	08-Nov-2020	08-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: Bray - Harbour Point

Client: IGSL		Chemtest Job No.:		20-30578	20-30578	20-30578	20-30578
Quotation No.:		Chemtest Sample ID.:		1094940	1094941	1094942	1094943
		Sample Location:		ROH01	ROH02	RH04	WS04B
		Sample Type:		WATER	WATER	WATER	WATER
		Top Depth (m):		4.82	3.92	1.08	1.36
		Date Sampled:		08-Nov-2020	08-Nov-2020	08-Nov-2020	08-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: Bray - Harbour Point

Client: IGSL		Chemtest Job No.:		20-30578	20-30578	20-30578	20-30578
Quotation No.:		Chemtest Sample ID.:		1094940	1094941	1094942	1094943
		Sample Location:		ROH01	ROH02	RH04	WS04B
		Sample Type:		WATER	WATER	WATER	WATER
		Top Depth (m):		4.82	3.92	1.08	1.36
		Date Sampled:		08-Nov-2020	08-Nov-2020	08-Nov-2020	08-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
SVOC TIC	N	1790	µg/l	N/A	None Detected	None Detected	None Detected
VOC TIC	N	1760	µg/l	N/A	None Detected	None Detected	None Detected

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5-C6, >C6-C8, >C8-C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35-C44 Aromatics: >C5-C7, >C7-C8, >C8-C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35-C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection

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"

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 45 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



Final Report

Report No.: 20-31304-1

Initial Date of Issue: 26-Nov-2020

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: Harbour Bray

Quotation No.:		Date Received:	17-Nov-2020
Order No.:		Date Instructed:	18-Nov-2020
No. of Samples:	4		
Turnaround (Wkdays):	7	Results Due:	26-Nov-2020
Date Approved:	26-Nov-2020		

Approved By:


Details: Glynn Harvey, Technical Manager

Results - Water

Project: Harbour Bray

Client: IGSL		Chemtest Job No.:		20-31304	20-31304	20-31304	20-31304	
Quotation No.:		Chemtest Sample ID.:		1098217	1098218	1098219	1098220	
		Sample Location:		ROH1	ROH2	ROH4	WS4B	
		Sample Type:		WATER	WATER	WATER	WATER	
		Date Sampled:		13-Nov-2020	13-Nov-2020	13-Nov-2020	13-Nov-2020	
Determinand	Accred.	SOP	Units	LOD				
Chloride	U	1220	mg/l	1.0	97	81	50	110
Fluoride	U	1220	mg/l	0.050	0.14	0.13	0.12	0.14
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.16	0.077	1.5	2.7
Nitrite	U	1220	mg/l	0.020	2.5	0.033	0.14	0.14
Nitrate	U	1220	mg/l	0.50	61	2.9	1.9	< 0.50
Orthophosphate as PO4	U	1220	mg/l	0.050	0.066	0.063	0.13	0.064
Sulphate	U	1220	mg/l	1.0	25	33	57	220
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Potassium	U	1415	mg/l	0.50	1.4	0.80	1.0	6.8
Sodium	U	1415	mg/l	0.50	31	9.8	13	130
Arsenic (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	5.8
Boron (Dissolved)	U	1450	µg/l	20	45	< 20	< 20	100
Barium (Dissolved)	U	1450	µg/l	5.0	53	7.4	7.1	180
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.080	< 0.080	< 0.080
Copper (Dissolved)	U	1450	µg/l	1.0	1.5	1.9	< 1.0	1.5
Mercury (Dissolved)	U	1450	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Molybdenum (Dissolved)	U	1450	µg/l	1.0	1.3	< 1.0	< 1.0	3.3
Nickel (Dissolved)	U	1450	µg/l	1.0	7.5	< 1.0	< 1.0	11
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Antimony (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	µg/l	1.0	1.7	< 1.0	1.1	4.8
Zinc (Dissolved)	U	1450	µg/l	1.0	5.6	2.6	2.3	11
Chromium (Trivalent)	N	1490	µg/l	20	[B] < 20	[B] < 20	[B] < 20	[B] < 20
Chromium (Hexavalent)	U	1490	µg/l	20	[B] < 20	[B] < 20	[B] < 20	[B] < 20
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: Harbour Bray

Client: IGSL		Chemtest Job No.:		20-31304	20-31304	20-31304	20-31304
Quotation No.:		Chemtest Sample ID.:		1098217	1098218	1098219	1098220
		Sample Location:		ROH1	ROH2	ROH4	WS4B
		Sample Type:		WATER	WATER	WATER	WATER
		Date Sampled:		13-Nov-2020	13-Nov-2020	13-Nov-2020	13-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
Chloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10

Results - Water

Project: Harbour Bray

Client: IGSL		Chemtest Job No.:		20-31304	20-31304	20-31304	20-31304
Quotation No.:		Chemtest Sample ID.:		1098217	1098218	1098219	1098220
		Sample Location:		ROH1	ROH2	ROH4	WS4B
		Sample Type:		WATER	WATER	WATER	WATER
		Date Sampled:		13-Nov-2020	13-Nov-2020	13-Nov-2020	13-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: Harbour Bray

Client: IGSL		Chemtest Job No.:		20-31304	20-31304	20-31304	20-31304
Quotation No.:		Chemtest Sample ID.:		1098217	1098218	1098219	1098220
		Sample Location:		ROH1	ROH2	ROH4	WS4B
		Sample Type:		WATER	WATER	WATER	WATER
		Date Sampled:		13-Nov-2020	13-Nov-2020	13-Nov-2020	13-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: Harbour Bray

Client: IGSL		Chemtest Job No.:		20-31304	20-31304	20-31304	20-31304
Quotation No.:		Chemtest Sample ID.:		1098217	1098218	1098219	1098220
		Sample Location:		ROH1	ROH2	ROH4	WS4B
		Sample Type:		WATER	WATER	WATER	WATER
		Date Sampled:		13-Nov-2020	13-Nov-2020	13-Nov-2020	13-Nov-2020
Determinand	Accred.	SOP	Units	LOD			
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
SVOC TIC	N	1790	µg/l	N/A	None Detected	None Detected	None Detected
VOC TIC	N	1760	µg/l	N/A	None Detected	None Detected	None Detected

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:
1098217			ROH1	13-Nov-2020	B	Coloured Winchester 1000ml
1098217			ROH1	13-Nov-2020	B	EPA Vial 40ml
1098217			ROH1	13-Nov-2020	B	Plastic Bottle 1000ml
1098218			ROH2	13-Nov-2020	B	Coloured Winchester 1000ml
1098218			ROH2	13-Nov-2020	B	EPA Vial 40ml
1098218			ROH2	13-Nov-2020	B	Plastic Bottle 1000ml
1098219			ROH4	13-Nov-2020	B	Coloured Winchester 1000ml
1098219			ROH4	13-Nov-2020	B	EPA Vial 40ml
1098219			ROH4	13-Nov-2020	B	Plastic Bottle 1000ml
1098220			WS4B	13-Nov-2020	B	Coloured Winchester 1000ml
1098220			WS4B	13-Nov-2020	B	EPA Vial 40ml
1098220			WS4B	13-Nov-2020	B	Plastic Bottle 1000ml

Test Methods

SOP	Title	Parameters included	Method summary
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5-C6, >C6-C8, >C8-C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35-C44 Aromatics: >C5-C7, >C7-C8, >C8-C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35-C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection

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"

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 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt


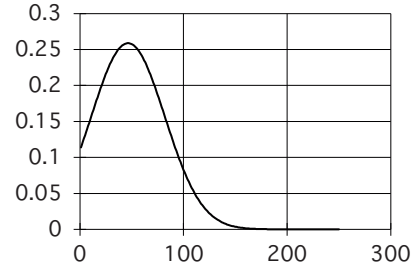
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com

Appendix 12

Geotechnical Laboratory Test Records – Rock

(Diametrial) POINT LOAD STRENGTH INDEX TEST DATA									
Contract: Harbour Point Bray Contract no. 22734 Date of test: 9/11/2020				Sample Type: Core					
RC No.	Depth m	D (Diameter) mm	P (failure load) kN	F	Is (index strength) Mpa	Is(50) (index strength) Mpa	*UCS MPa	Type	
RC221	26.2	78	8.0	1.222	1.31	1.61	32	d	//
	26.3	78	8.0	1.222	1.31	1.61	32	d	//
	27.8	78	10.0	1.222	1.64	2.01	40	d	//
	27.9	78	4.0	1.222	0.66	0.80	16	d	//
	28.1	78	8.0	1.222	1.31	1.61	32	d	//
RC222	25.3	78	24.0	1.222	3.94	4.82	96	d	//
	25.4	78	27.0	1.222	4.44	5.42	108	d	//
	25.6	78	12.0	1.222	1.97	2.41	48	d	//
	25.7	78	15.0	1.222	2.47	3.01	60	d	//
	25.8	78	4.0	1.222	0.66	0.80	16	d	//
	26.4	78	6.0	1.222	0.99	1.20	24	d	//
	26.5	78	12.0	1.222	1.97	2.41	48	d	//
	26.6	78	5.0	1.222	0.82	1.00	20	d	//
RC223	25.9	78	6.0	1.222	0.99	1.20	24	d	//
	26.2	78	3.0	1.222	0.49	0.60	12	d	//
	26.3	78	8.0	1.222	1.31	1.61	32	d	//
	26.4	78	4.0	1.222	0.66	0.80	16	d	//
	26.9	78	11.0	1.222	1.81	2.21	44	d	//
RC224	27.1	78	2.0	1.222	0.33	0.40	8	d	//
	23.6	78	33.0	1.222	5.42	6.63	133	d	//
	23.7	78	24.0	1.222	3.94	4.82	96	d	//
	24.3	78	25.0	1.222	4.11	5.02	100	d	//
	24.4	78	7.0	1.222	1.15	1.41	28	d	//
Statistical Summary Data			Is(50)	UCS*	*UCS Normal Distribution Curve			Abbreviations	
Number of Samples Tested			23	23				i	irregular
Minimum			0.40	8				a	axial
Average			2.32	46				b	block
Maximum			6.63	133				d	diametral
Standard Dev.			1.77	35				approx. orientation to planes of weakness/bedding	
Upper 95% Confidence Limit			5.80	115.94				U	unknown
Lower 95% Confidence Limit			-1.15	-23.06				P	perpendicular
Comments:					//	parallel			
*UCS taken as k x Point Load Is(50):			k=	20					

Uniaxial Compression Test Report Sheet

I.G.S.L.

Sample Identification

Contract Name: Harbour Point Bray
 Job Number: 22734
 Hole No: RC224
 Depth (m): 24.40m

Sample Description

Colour:	Dark blueish grey
Grain size:	Fine-grained
Weathering Grade:	Fresh
Rock Type:	SILTSTONE

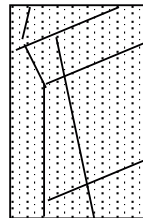
Weathering Grade Criteria

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 (\emptyset)	78.1	mm

Sketch of Failure Surfaces



Testing

Load Rate	4.3	kN/min
Load at Failure (P)	347	kN

Strength Calculations

Uniaxial Compressive Strength = $\frac{347000}{4788.19385}$

= $\frac{1000 \times P}{\pi \times (\emptyset/2)^2}$

= 72.43 (Mpa)

Bulk Density = 2.71 (Mg/m³)






Notes:

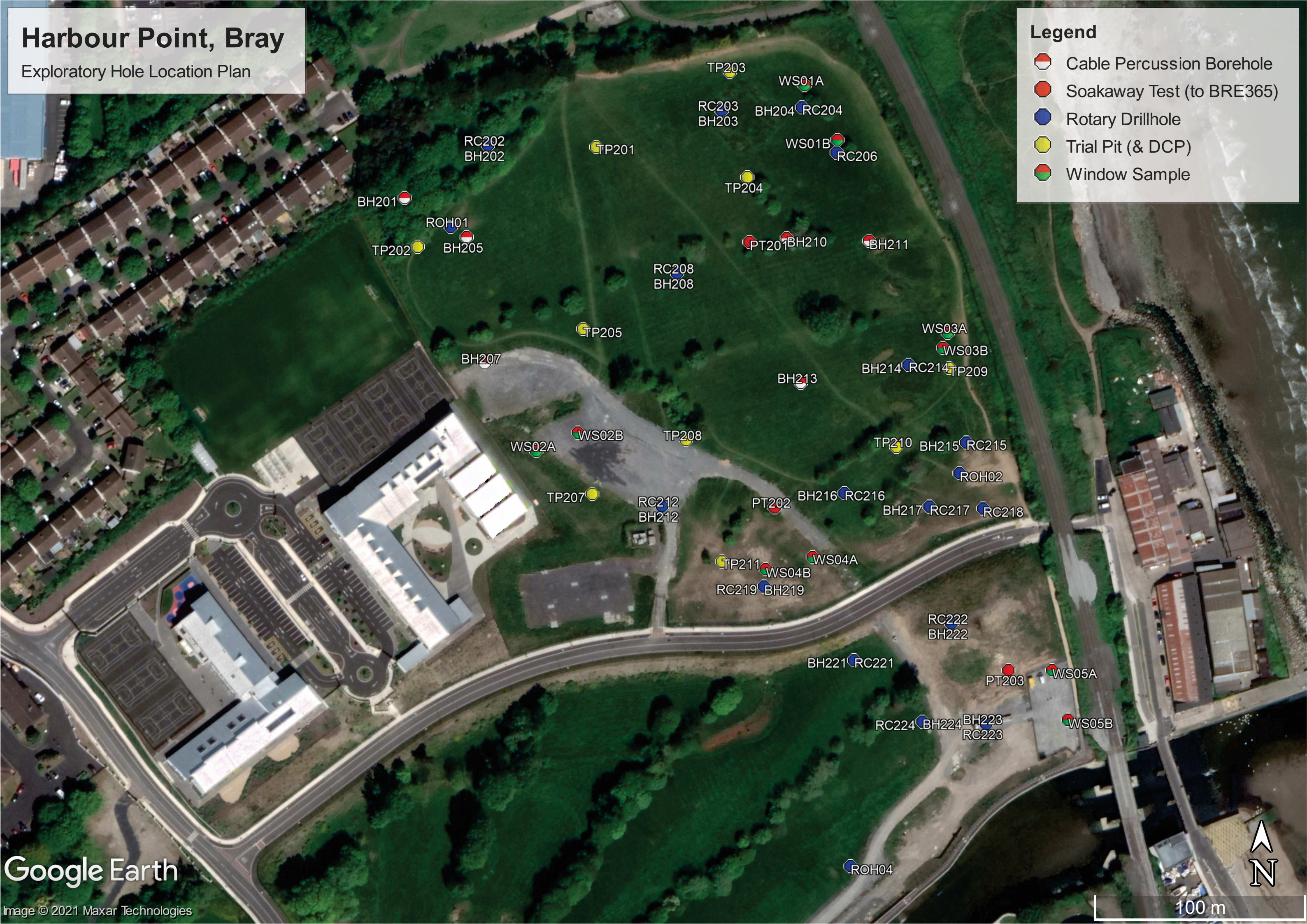
Appendix 13
Exploratory Hole Location Plan

Harbour Point, Bray

Exploratory Hole Location Plan

Legend

-  Cable Percussion Borehole
-  Soakaway Test (to BRE365)
-  Rotary Drillhole
-  Trial Pit (& DCP)
-  Window Sample



Appendix D. UK SuDS Output

Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

Reference:

Date:

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{BAR} estimation method:

SPR estimation method:

Soil characteristics

	Default	Edited
SOIL type:	2	4
HOST class:	N/A	N/A
SPR/SPRHOST:	0.3	0.47

Hydrological characteristics

	Default	Edited
SAAR (mm):	963	825
Hydrological region:	12	12
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.13	2.13
Growth curve factor 100 years:	2.61	2.61
Growth curve factor 200 years:	2.86	2.86

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q _{BAR} (l/s):	5.9	13.04
1 in 1 year (l/s):	5.01	11.08
1 in 30 years (l/s):	12.56	27.77
1 in 100 year (l/s):	15.39	34.02
1 in 200 years (l/s):	16.87	37.28

Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

Reference:

Date:

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{BAR} estimation method:

SPR estimation method:

Soil characteristics

	Default	Edited
SOIL type:	<input type="text" value="2"/>	<input type="text" value="4"/>
HOST class:	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>
SPR/SPRHOST:	<input type="text" value="0.3"/>	<input type="text" value="0.47"/>

Hydrological characteristics

	Default	Edited
SAAR (mm):	<input type="text" value="963"/>	<input type="text" value="1027.99"/>
Hydrological region:	<input type="text" value="12"/>	<input type="text" value="12"/>
Growth curve factor 1 year:	<input type="text" value="0.85"/>	<input type="text" value="0.85"/>
Growth curve factor 30 years:	<input type="text" value="2.13"/>	<input type="text" value="2.13"/>
Growth curve factor 100 years:	<input type="text" value="2.61"/>	<input type="text" value="2.61"/>
Growth curve factor 200 years:	<input type="text" value="2.86"/>	<input type="text" value="2.86"/>

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

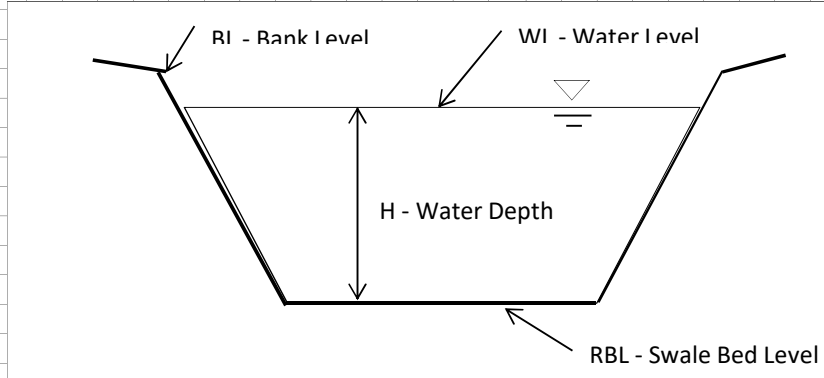
	Default	Edited
Q _{BAR} (l/s):	<input type="text" value="11.48"/>	<input type="text" value="32.83"/>
1 in 1 year (l/s):	<input type="text" value="9.76"/>	<input type="text" value="27.91"/>
1 in 30 years (l/s):	<input type="text" value="24.46"/>	<input type="text" value="69.93"/>
1 in 100 year (l/s):	<input type="text" value="29.97"/>	<input type="text" value="85.69"/>
1 in 200 years (l/s):	<input type="text" value="32.84"/>	<input type="text" value="93.9"/>

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

Appendix E. Swale Design

Ref	Calculations	Output
-----	--------------	--------

Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0040
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.27 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

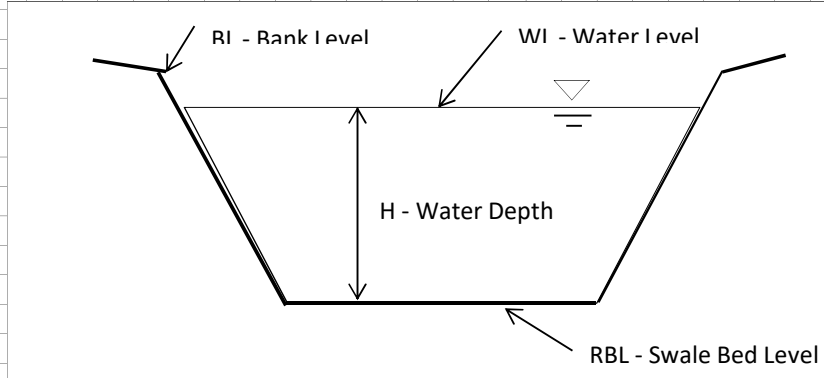
Maximum Contributing road area to Swale = 90m²
Swale Length 26.2m

Minimum Vegetated area receiving runoff = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Ref	Calculations	Output
-----	--------------	--------

Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0080
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.38 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

Maximum Contributing road area to Swale = 90m²

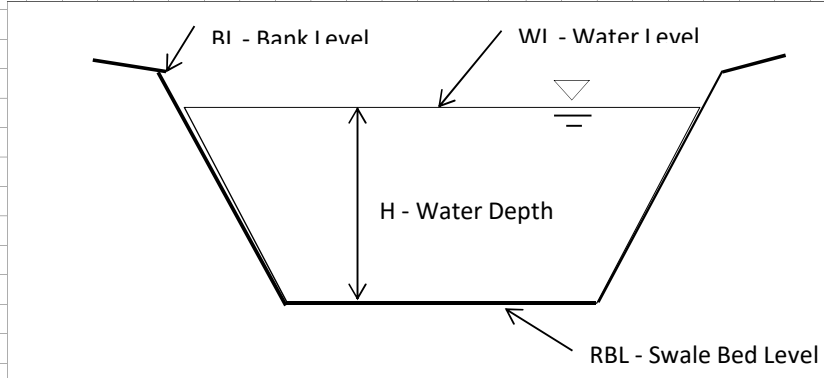
Swale Length 30m

Minimum Vegetated area receiving runoff = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Ref	Calculations	Output
-----	--------------	--------

Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0050
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.30 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

Maximum Contributing area to Swale = 90m²

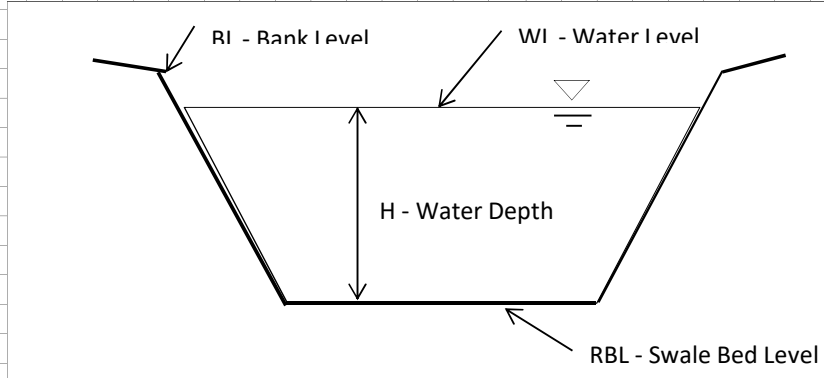
Swale Length 4.6m

Minimum Vegetated area receiving runoff = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Ref	Calculations	Output
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Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0070
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.36 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

Maximum Contributing area to Swale = 90m²

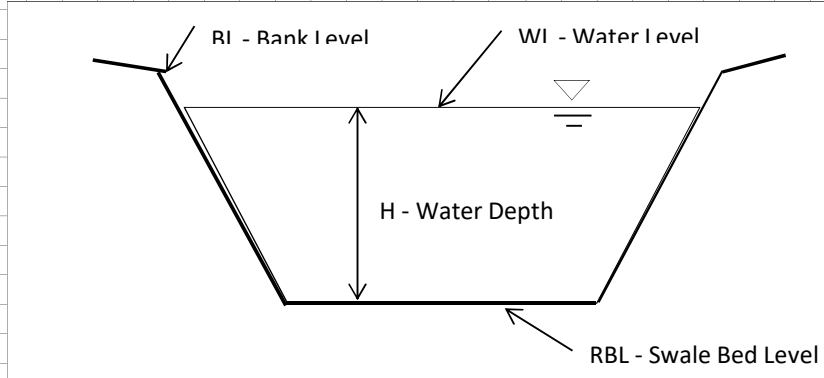
Swale Length 12.3m

Minimum Vegetated area receiving runoff = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Ref	Calculations	Output
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Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0060
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.33 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

Maximum Contributing area to Swale = 90m²
Swale Length 25m

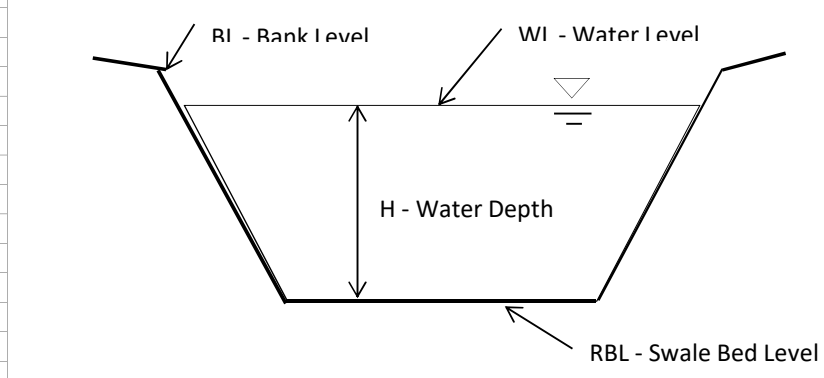
Minimum Vegetated area receiving runoff = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Project Ballymore Development		Sheet No. 6	Rev -
Sub Section Storm Drainage - Conveyance Swale B1		Job No: 5193890	
Calc By PE	Date 17/02/2021	Check By GH	Date 17/02/2021

Ref	Calculations	Output
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Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0080
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.38 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

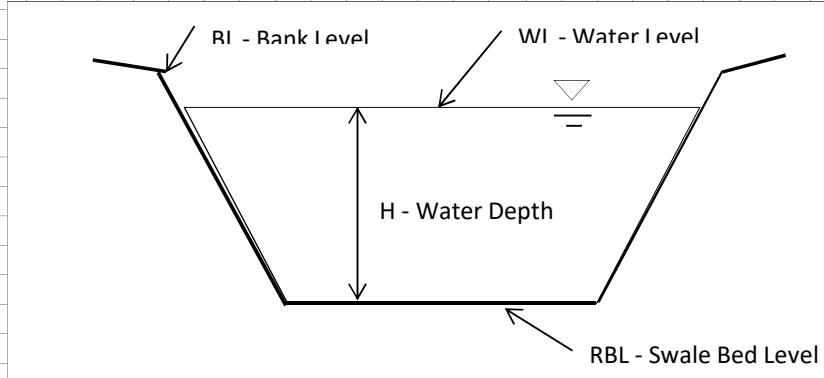
Maximum Contributing area to Swale = 90m²
Swale Length 26m

Minimum Vegetated area receiving runoff (including grass strip) = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Ref	Calculations	Output
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Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0050
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.30 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

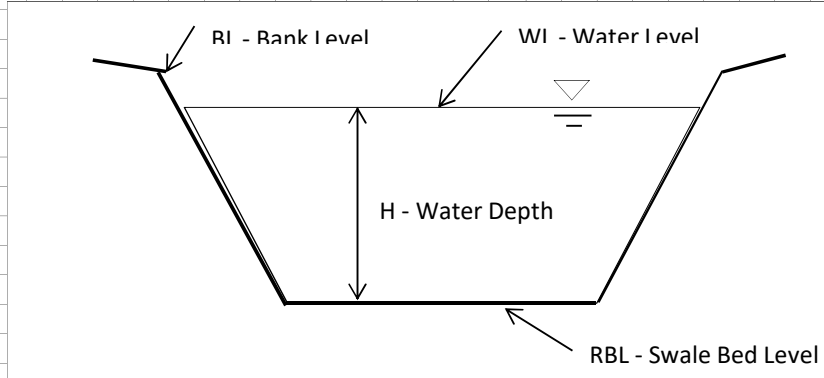
Maximum Contributing area to Swale = 90m²
Swale Length 25m

Minimum Vegetated area receiving runoff (including grass strip) = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Ref	Calculations	Output
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Hydraulic Capacity of Channel



Mannings Equation:

$$V(m/s) = \frac{R^{2/3} S^{1/2}}{n}$$

Parameters

- n = Mannings Roughness Value
- S = Slope
- A = Area
- P = Wetted Perimeter
- R = Hydraulic Radius

Values

- n = 0.04 (grassed areas)
- S = 0.0210
- H = 0.100 m
- A = 0.08 m²
- P = 1.13 m
- R = 0.071

1 in 100 year flow event

V = 0.62 m/s

For 100mm depth of water flow rate has a velocity below 1.0m/s which is in accordance in accordance with CIRIA report C753 SuDS manual section 17.4.1

Maximum Contributing area to Swale = 90m²
Swale Length 14m

Minimum Vegetated area receiving runoff (including grass strip) = 36m²

Outfall perforated manhole to be raised 50mm to provide interception within 5m from swale outfall

Appendix F. Modular Attenuation System Design

STORMTECH Stormwater Management System Design Tool

ver: Jan18

PROJECT REF:	5193890 - Stormtech Attenuation (North) A
LOCATION:	Ballymore
DATE:	11.05.2021
CREATED BY:	Peter Egan

SYSTEM PARAMETERS

Required Total Storage	918	m ³
Stormtech chamber model	MC3500	
Filtration Permeable Geo or Impermeable Geo	Filter geo	
Number of Isolator Rows (IR)	1	

SITE PARAMETERS

Stone Porosity	43%	
Excavation Batter Angle (degrees)	60°	Minimum Requirement
Stone Above Chambers	0.45 m	0.30
Stone Below Chambers	0.4 m	0.23
In-between Row Spacing	0.30 m	0.23
Additional Storage outside Excavation. E.g manholes, Header Pipe	5	m ³

HEADER PIPE

Is Header pipe required within excavation	Yes
Orientation of Header Pipe	Parrallel to IR
Diameter of Header Pipe	0.3 m
Length of Header Pipe	10 m

CHAMBER SYSTEM DIMENSIONS

	Calculated	Adopted
Number of Rows		5 ea
Number of units per Row		28 ea
System Installed Storage Depth (effective storage depth)	1.995	1.16 m
Tank overall installed Width at base	12.18	12.18 m
Tank overall installed Length at Base	62.78	62.78 m
Total Effective System Storage	988.9	988.9 m ³

STORMTECH SYSTEM DETAIL

StormTech Chamber Model	MC3500
Unit Width	1.955 m
Unit Length	2.18 m
Unit Height	1.145 m
Min Cover Over System	0.3 m
Max Cover Over Chamber (see StormTech for greater cover)	2.4 m
Chamber Internal Storage Vol.	3.11 m ³
Header Pipe Internal Storage Vol in Excavation	0.7 m ³

STONE AND EXCAVATION DETAIL

Volume of Dig for System	1702	m ³
Width at base	12.18	m
Width at top	14.48	m
Length at base	62.78	m
Length at top	65.08	m
Depth Of System	2.00	m
Area of Dig at Base of System	764	m ²
Area of Dig at Top of System	942	m ²
Void Ratio	58%	
Stone Requirement - m3	1260	m ³
Stone Requirement - tonne	2066	tonne

Appendix G. Responses to comments from ABP, WCC, and DLRCC

Opinion ABP-308291-20		
Ref	Issue	Atkins Response
Water Services 5	Further consideration / amendment or justification of the design of the storm water management proposals, including the location of attenuation tanks, having regard to existing underground infrastructure within the site and to all available flood maps / information regarding the potential for pluvial, fluvial and coastal / tidal flood risk within the site. A site-specific Flood Risk Assessment should be submitted. Further consideration of the concerns raised in the report of Dun Laoghaire Rathdown County Councils Drainage Planning Section dated 12th October 2020 and concerns raised under the Drainage section of Wicklow County Councils written opinion dated 28th October 2020.	Refer to sections 2.1 of Atkins Document 5193890DG0072 for details on the storm water management and SuDS proposals which includes how the attenuation tank within the flood zone will be incorporated into the wider strategy. Refer to Atkins Document 5193890DG0003 for further details on the site-specific flood risk assessment carried out for this development.

Inspector's Report on Recommended Opinion ABP-308291-20		
Ref	Issue	Atkins Response
Item 5:	<i>In relation to the Water Services, ABP representatives sought further elaboration / discussion /</i>	
5.4	Justification of the location of attenuation tanks within flood zones	Refer to Sections 2.1 of Atkins Document 5193890DG0072 for details on how the attenuation tank within the flood zone will be incorporated into the wider strategy.
5.5	Consideration of the need for attenuation within the site and further discussion of the proposed drainage network within the site and its impact on potential flooding.	Refer to Sections 2.1, 7.2 & 7.3 of Atkins Document 5193890DG0072 for details on how the attenuation tanks designs and how they are incorporated into the wider strategy.
WCC Report		
WCC 11	Consideration should be given to the location of attenuation tanks within flood zone areas and close proximity to a river.	Refer to sections 2.1 of Atkins Document 5193890DG0072 for details on the storm water management and SuDS proposals which includes how the attenuation tank within the flood zone will be incorporated into the wider strategy. Refer to Sections 4.4 & 4.6 of Atkins Document 5193890DG0003 for further details on the fluvial and tidal flood risk associated with the Darlge River.
DLR Report		
DLR 11	Insufficient details have been submitted to full assess the application. A number of issues relating to site investigation details, green roof areas, attenuation storage and run-off, details pertaining to interception and treatment volumes and calculations, plans and particulars and site-specific flood risk assessment are outstanding. The applicant is revised to review the contents of the Drainage Planning Report.	Refer to Stormwater Impact Assessment, Atkins Document 5193890DG0072, for site investigation details, green roof areas, attenuation storage and run-off, details pertaining to interception and treatment volumes and calculations, plans and particulars. A Stage 1 Stormwater Audit has been completed and is contained with the above the Atkins Document 5193890DG0072. Refer to Atkins Document 5193890DG0003 for further details on the site-specific flood risk assessment carried out for this development.

Record of Meeting ABP-308291-20		
Ref	Issue	Atkins Response
5	<i>Water Services – flooding and drainage</i>	
ABP 5.3	Details regarding the proposed location of attenuation tanks within the site and the proximity to flood zones.	Refer to sections 2.1, 7.2 & 7.3 of Atkins Document 5193890DG0072 for details on how the attenuation tanks designs and how they are incorporated into the wider strategy.

Appendix H. Responses to comments from DLRCC

DLRCC Comments on Atkins submission 20210528			
Item	Issue	Atkins Response	DLRCC Response
1	Drawing referenced in the Stormwater Impact Assessment Report have not been received	Noted, layout drawings should have formed part of the SuDS Audit report Appendix A issued by Punches on the 10th of May 2021 and re issued by Atkins for review on the 1st of June 2021.	Noted BE 16/06/21.
2	Saar value check: 326518 219524 (use 326000, 220000) SAAR 825, value chosen 1027 (very high)	Noted, SAAR value for the North catchment will be updated to 825mm, SAAR value for the Southern catchment will remain at the value of 1027mm as identified on the https://opw.hydronet.com/ website.	Noted BE 16/06/21. (The SAAR value of 1027mm may be a catchment average so it may be in your interest to consider (though it's not DLRCC) whether it is appropriate or not.
3	Qbar check : 12.1l/s , storage 783m3 (see attached UK suds printout). Storage provision seems ok but Qbar chosen 25.7l/s is too high (redesign hydrobrake).	Noted, this will be reviewed based on the revised SAAR value.	Noted BE 16/06/21, though the reduction in the SAAR value will not decrease the Qbar by 13l/s. The site area input value that you used in the UKsuds calculation should be the positively drained area and not the total site area.
4	Total impermeable area in Table 7-4 is 2.071ha yet interception storage provision area in table 7-7 is 1.608ha.	The lower value of 1.608ha is based on the reduced impermeable area when the runoff coefficients for SuDS are taken into account. Can you please confirm if this is an acceptable approach as was taken on Woodbrook SHD project or are the interception storage requirements required to be taken using the total impermeable area 2.071ha?	The area for interception storage calculation should be the gross (positively drained) impermeable area. BE 16/06/21.
5	1. Table 7-4 total impermeable area 2.071ha, where is (show on a drawing) the remainder (3.408ha-2.071ha)?	Total catchment A Area (North Catchment) = 3.408ha Total Impermeable Area (with open space and rear gardens – undrained areas) = 2.071ha. When runoff coefficients are applied the total impermeable area – 1.608ha.	Noted BE 16/06/21. Include in drawing if possible.
6	Responses to items 3-7, in particular a suite of supporting drawings, is required.	Noted, layout drawings should have formed part of the SuDS Audit report Appendix A issued by Punches on the 10th of May 2021 and re issued by Atkins for review on the 1st of June 2021.	Noted BE 16/06/21.
7	No information received in response to Item 9 of Drainage Planning Stage 2 ABP report (SSFRA).	A full stage 3 FRA has been carried out and completed for the Coastal Quarter Planning Application and addresses all comments received from DLRCC, WCC and ABP. This report will form part of the planning submission.	Noted BE 16/06/21.

Appendix I. Stormwater Audit Procedure Table

DLRCC Stormwater Audit Procedure Table

Surface Cover Type	Area (m ²)
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	N/A
Semi-natural vegetation (e.g. hedgerows, trees, woodland, species-rich grassland) maintained or established on site.	4718
Reuse of existing soils and seed source to develop vegetation cover	N/A
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	N/A
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	367
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	3270
Non intensive Brown Roof (Biodiversity Roof). Substrate minimum settled depth of 150mm. Design will be site specific and developed by a suitably qualified ecologist.	N/A
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket)	6520
Extensive green roof of sedum mat or other lightweight systems	N/A
Green wall -modular system or climbers rooted in soil.	N/A
Rain gardens and other vegetated sustainable drainage elements.	135
Flower-rich perennial planting & groundcover planting	7127
Hedges (line of mature shrubs one or two shrubs wide).	10631m
Hedgerows or double hedgerow of native species (may have an associated ditch and bank)	N/A
Groundcover planting.	N/A
Amenity grassland entire area or sections managed for lesser mowing frequencies for pollinators (e.g. six week meadow)	3930
Amenity grassland (species-poor, regularly mown lawn).	14430
Water features (chlorinated) or unplanted detention basins.	N/A
Permeable paving.	3175
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone)	13811

Appendix J. Stormwater Audit Letter

Attn:

Ballymore Developments,
One Royal Canal House,
Royal Canal Park,
Dublin 15

For the attention of Mr. Garry Hanratty, Atkins Ireland

09/09/2022

202273-PUNCH-XX-XX-C0-XX-001

Re: **Stage 1 SW Audit -Proposed Coastal Quarter SHD Planning Application, North Bray**

Dear Garry,

This letter confirms that Atkins has provided a revised *Storm Water Impact Assessment Report Rev 1* to PUNCH Consulting Engineers and Atkins has outlined the changes made to the proposed stormwater design following the permitted scheme in December 2021(planning ref ABP-311181-21). Atkins has confirmed the reduction of the total impermeable area primarily due to the redesign of apartment blocks A & B, modifications to the extents of green roof on apartment blocks C & D, and the removal of the car park previously located on top of the existing Irish Water Holding Tank. No further changes to the permitted scheme in December 2021(planning ref ABP-311181-21) have been proposed to the overall stormwater drainage network, stormwater attenuation volumes or stormwater discharge rates by Atkins.

In accordance with the DLRCC Development Plan 2022 - 2028 - Storm Water Management Policy, the Stormwater Audit Procedure Table has been included as part of the Atkins Storm Water Impact Assessment Report.

Yours sincerely



Marie-Claire Daly BEng(Hons) PGDipCL CEng MIEI
Technical Director
PUNCH Consulting Engineers

ATKINS
WS Atkins Ireland Limited
Atkins House
150 Airside Business Park
Swords
Co. Dublin

Tel: +353 1 810 8000
Fax: +353 1 810 8001

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