HYDROGEOLOGICAL ASSESSMENT

FOR

PROPOSED DEVELOPMENT

AT

COOLAGAD, GREYSTONES CO. WICKLOW

March 2022

ON BEHALF OF

CAIRN HOMES PROPERTIES LIMITED

Prepared by
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1 INTRODUCTION

Enviroguide Consulting (hereafter referred to as Enviroguide) was appointed by Cairn Homes Properties Limited (hereafter referred to as the Applicant) to prepare a hydrogeological assessment for the Proposed Development Site at Coolagad, Greystones (referred to hereafter as the Proposed Development and the Site).

This report presents the findings of the hydrogeological assessment to establish the existing hydrogeological environment (baseline situation) at the Site and identify any potential constraints for the Proposed Development and any potential impacts on the receiving hydrogeological environment.

1.1 Project Objectives and Scope

The project objective was to establish the baseline hydrological and hydrogeological environment and to identify the potential for any impacts associated with, and on the receiving hydrogeological environment during the Construction and Operational Phases of the Proposed Development.

The scope of the assessment included the following tasks:

- A desk-based review of published information for the Proposed Development Site.
- Site inspection and attendances during site investigation, topographical and hydrological survey of surface water drainage the Site; groundwater level measurements.
- Review and assessment of site investigation, design reports and drawings provided by the Applicant as referenced throughout this report where applicable.
- Develop a hydrogeological conceptual site model (CSM) for the Proposed Development.
- Assess the potential impacts that the Proposed Development may have on the receiving water environment.

This assessment is reliant on the design information for the Proposed Development provided by the Applicant.

2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Site Description and Location

The site is located at Coolagad to the northwest of Greystones town centre and the Site location is shown in

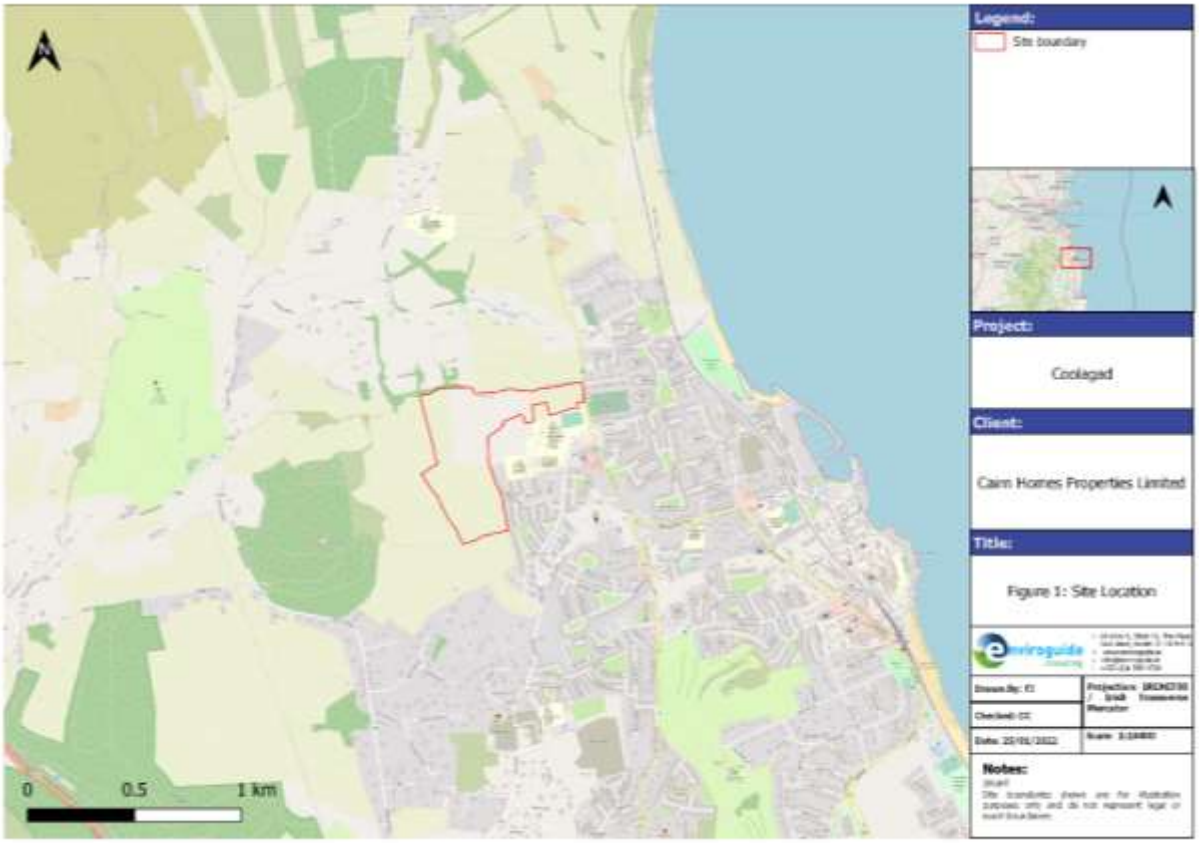

Figure *2-1*

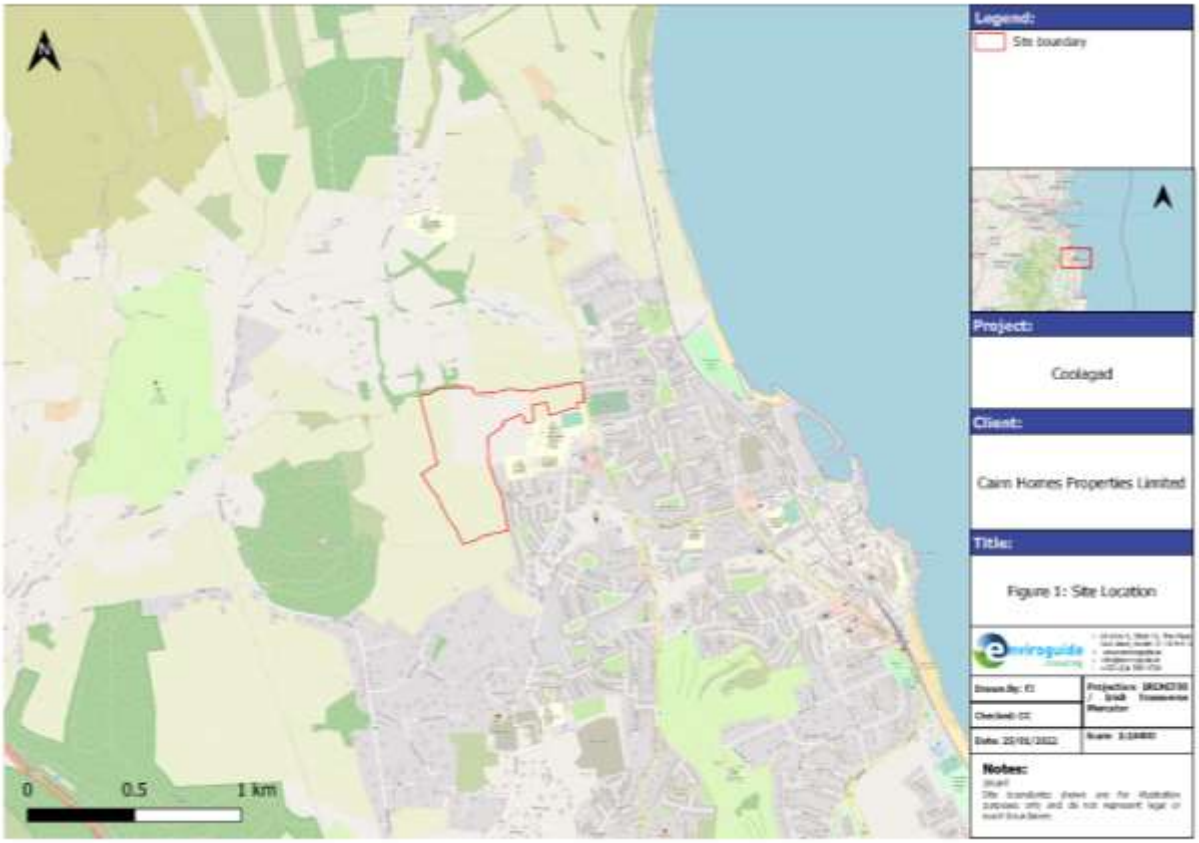

Figure 2-1Site Location

The Proposed Development Site is 26.03 Hectares (Ha) and is currently greenfield agricultural lands. The Site comprises of a number of fields with hedgerows and streams, there is also a number of springs identified at the Site. The Site is bound to the north, south and west by agricultural lands, to the east by the R761 and to the southeast by the Waverly and Seagreen residential estates, and further beyond a school campus and 2 no. detached dwellings with associated agricultural buildings.

2.2 Proposed Development

The proposed development consists of 586 residential units (351 houses; 203 apartments and 32 duplex units) at a site c. 26.03 ha at Coolagad, Greystones. The development will also include the provision of a community building, a creche, a sport field and a MUGA. A proposed new vehicular entrance with signalised junction from the R761 Rathdown Road to the north of Gate Lodge, Rathdown Road opposite Sea View and Redford Cemetery, providing a distributor road as part of the long-term objective to provide a northern access route from Greystones to the N11 is also proposed. The development also includes site development infrastructure, a hierarchy of internal streets including bridges, cycle paths & footpaths; new watermain connection and foul and surface water drainage; the development also provides for the upgrading of the public sewer within the wayleave of the R761/R762 (Rathdown Road) from the site entrance as far as the R762 in front of St. Kevin's National School, Rathdown Road, Greystones.

The Proposed Development Site layout is provided in Figure 2-2

Figure 2-2 Proposed Development Layout (MCORM, 2022. Drawing PL03)

2.3 Characteristics of the Proposed Development

The Proposed Development will include groundworks to facilitate the construction of drainage and other utilities and foundations for the proposed buildings. Cut and fill will be required to achieve final design levels with maximum excavation depth of 8-9m along the western

boundary of the Site and fill of up to 4-5m above current levels across the Site (Refer to 2-3

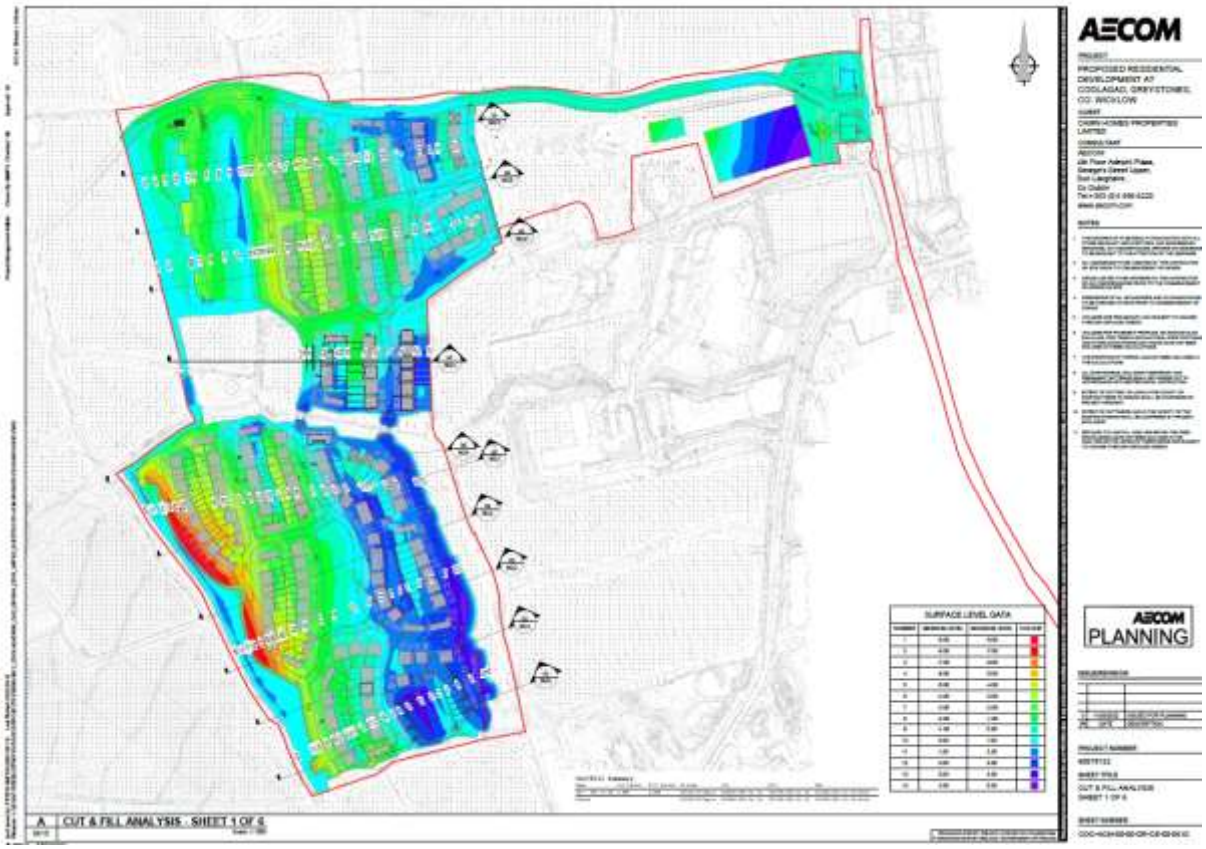

Figure 2-3). Where feasible, excavated soil will be retained on site for re-use as fill and for landscaping and surplus will be removed in accordance with the Construction and Demolition Waste Management Plan (CDWMP) to be prepared by the contractor.

All construction activities will be undertaken in accordance with a Construction Environmental Management Plan (CEMP) to be prepared by the contractor prepared for the Proposed Development to ensure construction activities are carried out in accordance with industry standard practice and to ensure appropriate management and avoidance measures are implemented where required.

Figure 2-3 Cut and Fill Analysis (AECOM, 2022. Drawing CE-00-0610)

2.4 Operational Phase

Water utilities as domestic and foul water from the new structures will connect to the existing municipal systems in accordance with relevant agreement and consents from Irish Water.

The Proposed Development will be served by a foul water network, and due to capacity issues will avoid the existing 300mm foul water sewer located in the R761 and discharge to the Irish Water 375mm combined sewer at Victoria Road via a new 300mm sewer to be laid along the R761 and Victoria Road roadways (AECOM 2022b). The Greystones area is currently serviced by the Greystones Wastewater Treatment Plant (WWTP) at Woodlands, Greystones Connection to the Irish Water sewer network will be subject to connection agreement.

It is proposed to provide water supply to the proposed development via a new watermain network connecting to the existing 100mm watermain on the R761. As part of the proposal approximately 200m of the existing watermain section require upgrading up to 200mm watermain in line with the recommendations issued as part of the Irish Water Confirmation of Feasibility (AECOM, 2022b).

As outlined in the Infrastructure Report (AECOM, 2022b) it is proposed to construct a new surface water drainage system for the development to collect runoff from all impermeable surfaces, together with any additional runoff from landscaped areas that do not percolate to ground. This will incorporate SuDS features and attenuation where required to meet policy guidelines. The proposed surface water drainage has been designed in accordance with the Greater Dublin Strategic Drainage Strategy (GDSDS).

A number of different SuDS measures are proposed to minimise the impact on water quality and quantity of the runoff and to maximise the amenity and biodiversity opportunities within the site. It is proposed to provide the following SuDS measures within the development, where feasible:

- water butts,
- permeable paving where feasible on hard landscaping areas,
- swales for conveyance,
- bio-retention,
- filter drains,
- by-pass interceptors to treat petroleum hydrocarbons,
- ponds for attenuation storage within identified landscape areas, and
- modular underground storage systems to provide attenuation storage.

The Site has been divided into three individual networks based off the site topography. The southwestern and south-eastern catchments make use of the existing stream in the centre of the site as a discharge point. The northern catchment discharges into the stream in the north-west area of the site. Prior to discharge to the stream, petrol interceptors will be implemented to control any residual contamination.

Due to the topography of the Site and the steep fall from land that is higher to the west, a cut off ditch along the western boundary is proposed to intercept any over land flows that may be generated from higher up the slope and which could potentially constitute a flood risk to the development. An existing ditch along the southern boundary drain along the eastern boundary adjoining the wavery development will be retained and a filter drain added along this boundary (Refer to Figure 2-4).

Figure 2-4 Proposed Drainage (AECOM, 2022 Drawing CE-00-0505)

3 SITE SETTING

3.1 Topography

The topography at the Site slopes from the local high point at Kindlestown Hill to the west of the Site towards the Irish Sea located to the east of the Site. The highest elevation at the Site is 93.5maOD in the south-western area, the lowest is 39.5maOD along the eastern Site boundary (refer to Figure 3-1).

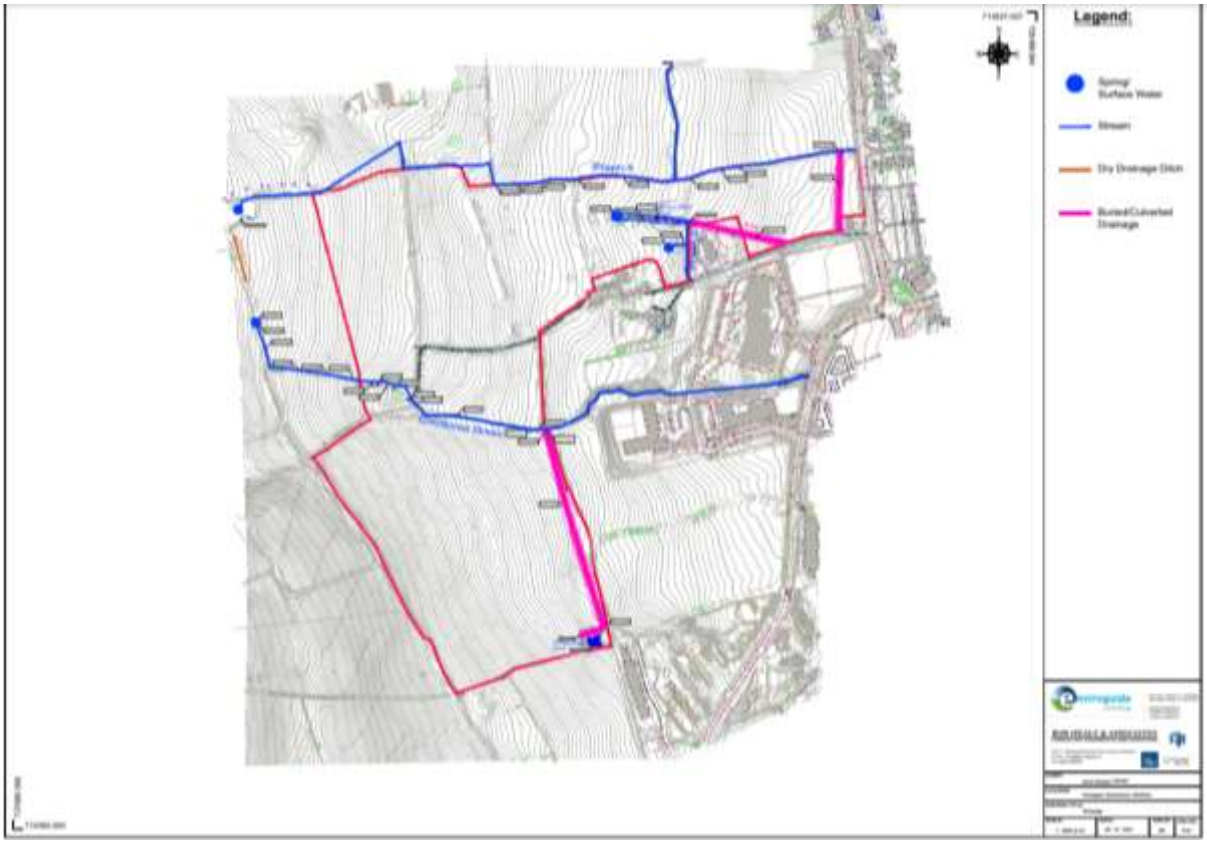

Figure 3-1 Topography and Surface Water Drainage

3.2 Soil and Subsoil

The soil beneath the majority of the Site has been mapped by the GSI (GSI, 2021) as “Surface water Gleys, Ground water Gleys” and described as “Mineral poorly drained (Mainly acidic)” (AminPD), while a small portion of soil beneath the Site alongside the western site boundary is mapped as “Acid Brown Earths, Brown Podzolics” which is described as “Deep well drained mineral (Mainly acidic)” (AminDW) (GSI, 2021).

The majority of the quaternary sediments beneath the Site are mapped by the GSI (GSI, 2021) as “Irish Sea Till derived from Cambrian sandstones and shales” (IrSTCSsS) and the subsoil along the western site boundary is mapped as “Till derived from Cambrian sandstones and shales” (TCSsS). The GSI mapped quaternary soils are shown in *Figure 3-2*.

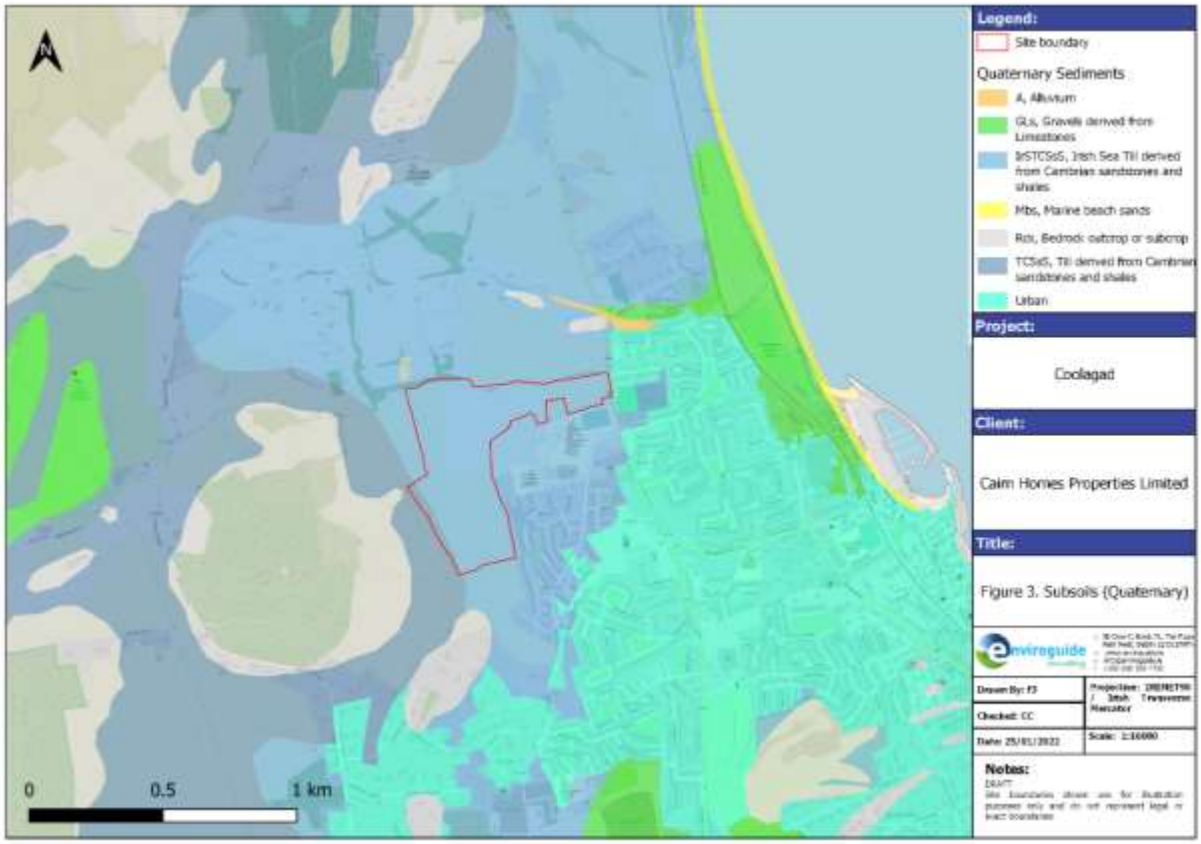

Figure 3-2: Quaternary Sediments

3.2.1 Site Investigation Results

The subsoils encountered during the site investigation are summarised in the following sections and detailed logs are provided in the site investigation report (Site Investigations Limited, 2021) included in Appendix A. The locations of boreholes (cable tool and air rotary) are shown in Figure 3-3.

The soils encountered in the site investigation can be summarised as brown and dark brown silty, slightly gravelly CLAY and was identified to depths ranging between 0.3 and 3mbGL. Orange and red to brown CLAY and SILT with varying gravel and cobble content was encountered to depths of 20mbGL.

Stiff, dark brown to black, sandy, gravelly CLAY with occasional cobbles was encountered at intervals between 1.8 to 5.6mbGL in the northern portion of the site.

Brown, silty SAND and GRAVEL with varying cobble content was also encountered between 4.5mbGL and 8.4mbGL with a thickness of up to 5.5m thick across the centre and eastern portion of the Site. The locations of the thick sand and gravel strata are identified in Figure 3-4.

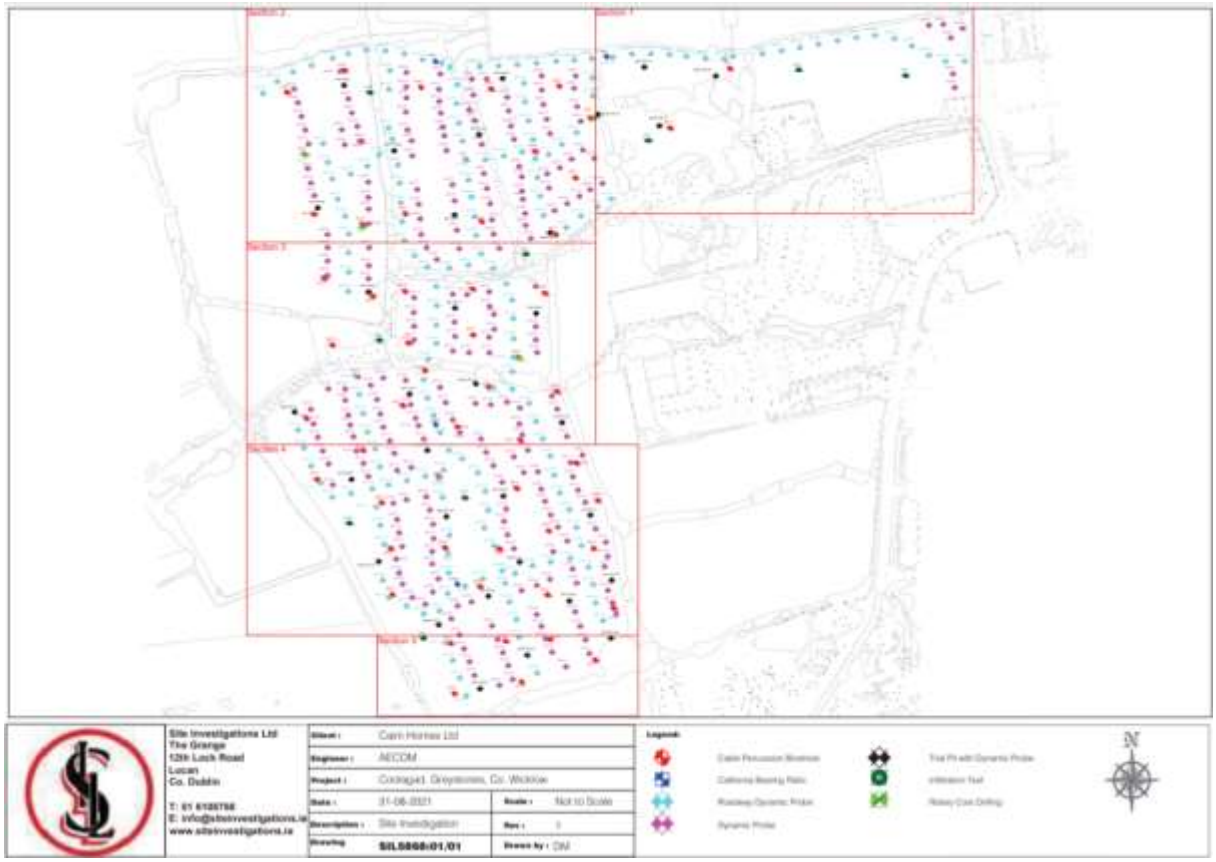

Figure 3-3 –Site Investigation Borehole Locations (Refer to Appendix A).

Laminations of sand were recorded within clays at various locations across the Site, sand arisings were also observed during drilling of boreholes. However, the drilling techniques used, including air rotary and cable percussion, result in some mixing of laminations as the borehole is advanced and for this reason the granular material present as thin lenses or lamination within a clayey matrix may not be observed or recorded at every location where present. Where drilling arisings were recovered from the boreholes as sandy or gravelly clays, in some instances this may be representative of laminations or lenses of granular material within clay or silt matrix. Overall, the heterogenous soil conditions were recorded across the Site with variable thickness of granular soil (sand and gravels) strata within the cohesive soils.

The schematic geological cross sections based on information provided in the site investigation report (Site Investigations Limited, 2021) including the sand and gravel strata are provided in Figure 3-5 and Figure 3-6

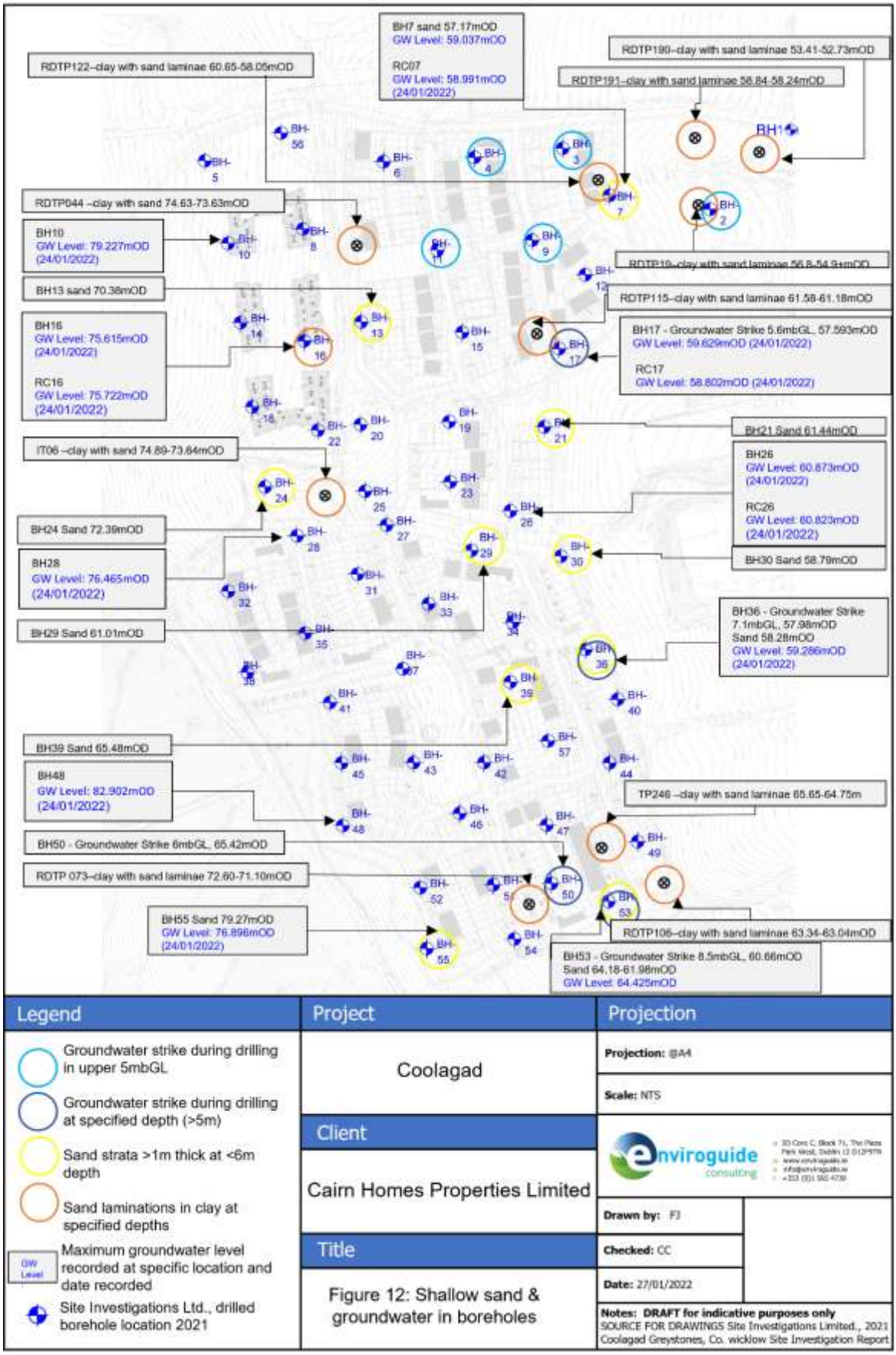

Figure 3-4 Locations of groundwater strikes and sand horizons (Refer to Appendix B)

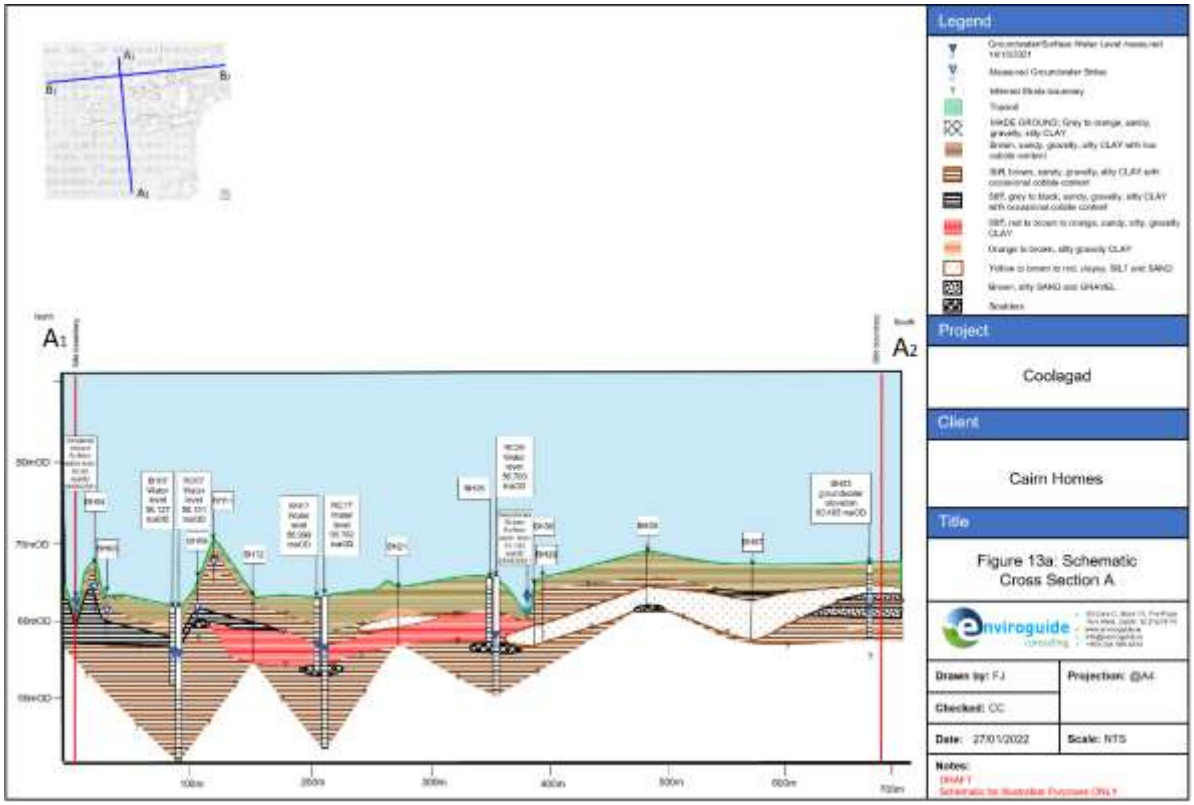

Figure 3-5: Geological Cross- Sections (North to South at the East of Site)

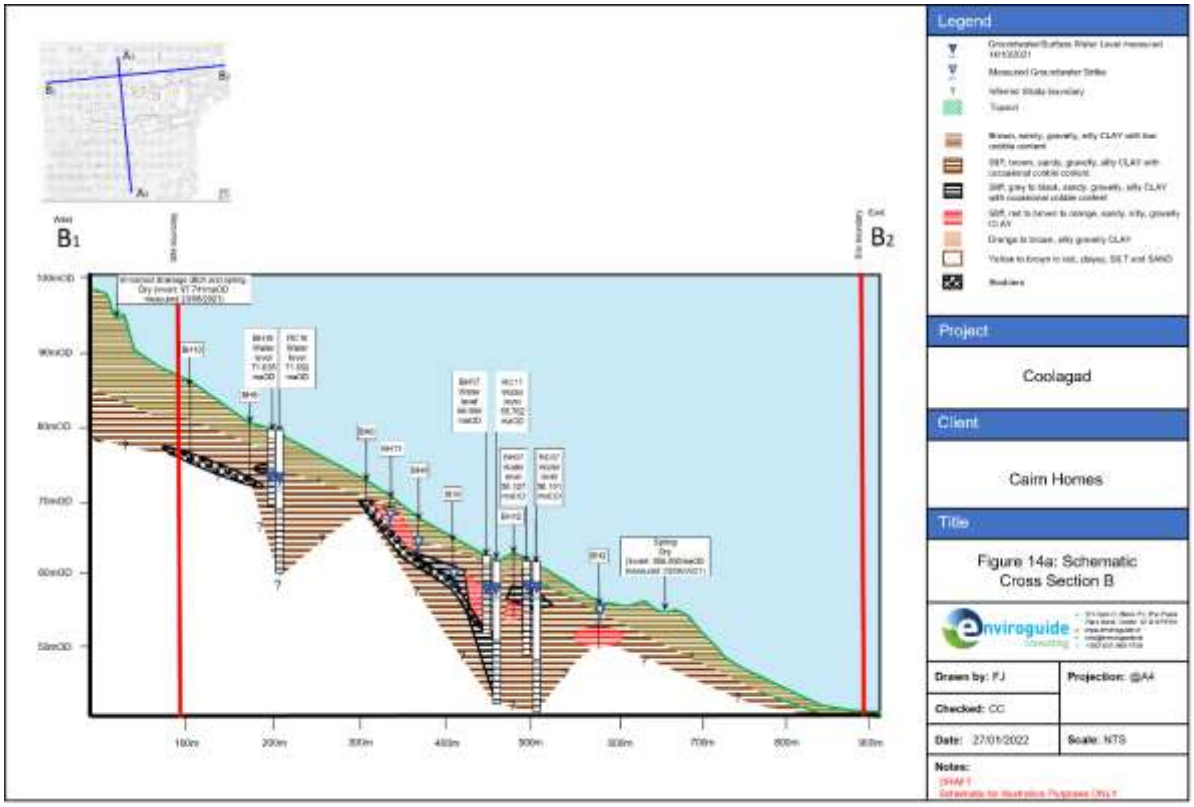

Figure 3-6 Geological Cross- Sections (West to East at the North of Site).

3.3 Bedrock Geology

The GSI has mapped (GSI, 2021) the bedrock beneath the majority of the Proposed Development Site as the Cambrian Bray Head Formation (Stratigraphic Code: BR; New Code: CABRAY) which is described as “Greywacke & quartzite” There is an inlier / outlier mapped along the northern boundary of the Site as the Cambrian Devils Glen Formation (Stratigraphic Code: DG; New Code: CADEVG) which is described as “Greywacke & shale” (GSI, 2021). The structural geology mapping indicates that the site is located within an anticline that is displaced by approximately north south trending and faults.

Bedrock was not encountered at any of the 57 borehole locations onsite that were drilled to a maximum depth of 20mbGL, borehole logs are provided in the site investigation report in Appendix A (SIL, 2021). The GSI bedrock geology mapping is presented in Figure 3-7.

Figure 3-7: Bedrock Geology

3.4 Hydrology

3.4.1 Surface Water Drainage

The Proposed Development has been mapped by the EPA (EPA, 2021) as within the Ovoca-Vartry WFD Catchment (ID: 10), the Ovoca-Vartry Hydrometric Area (HA10), the Newcastle [Wicklow]_SC_010 Sub-Catchment, (Subcatchment ID: 10_1) Wicklow Groundwater Body (EU Code: IE_EU_G_076), and the Kilruddery_Deerpark_010 WFD River Sub Basin (EU Code: IE_EA_10K520710).

The Greystones Stream which flows across the central part of the Site is mapped on the EPA database as rising within the Site and named the Greystones Stream (IE_EA_10K520710; Segment Code: 10_553; EPA Code: 10G26), the site survey identified that this stream rises along the field boundary ditch to the west of the Site (refer to Figure 3-1). The following off site watercourses have been mapped within a 2km radius of the Proposed Development Site (refer to Figure 3-8):

- The Paddock 10 Stream (IE_EA_10K520710; Segment Code: 10_1214; EPA Code: 10P11) - 1.1km northeast of the Site.
- The Kilruddery_Deerpark Stream (IE_EA_10K520710, Segment Code: 10_1242; EPA Code: 10K52) - 0.2km north of the Site and discharges at the cost 0.35km north of where the Greystones Stream discharges.
- The Three Trouts Stream (IE_EA_10T030580; Segment Code: 10_1795; EPA Code: 10T03) - 1.9km south of the Site.

All four water courses are mapped to flow towards the east and discharge to the Irish Sea.

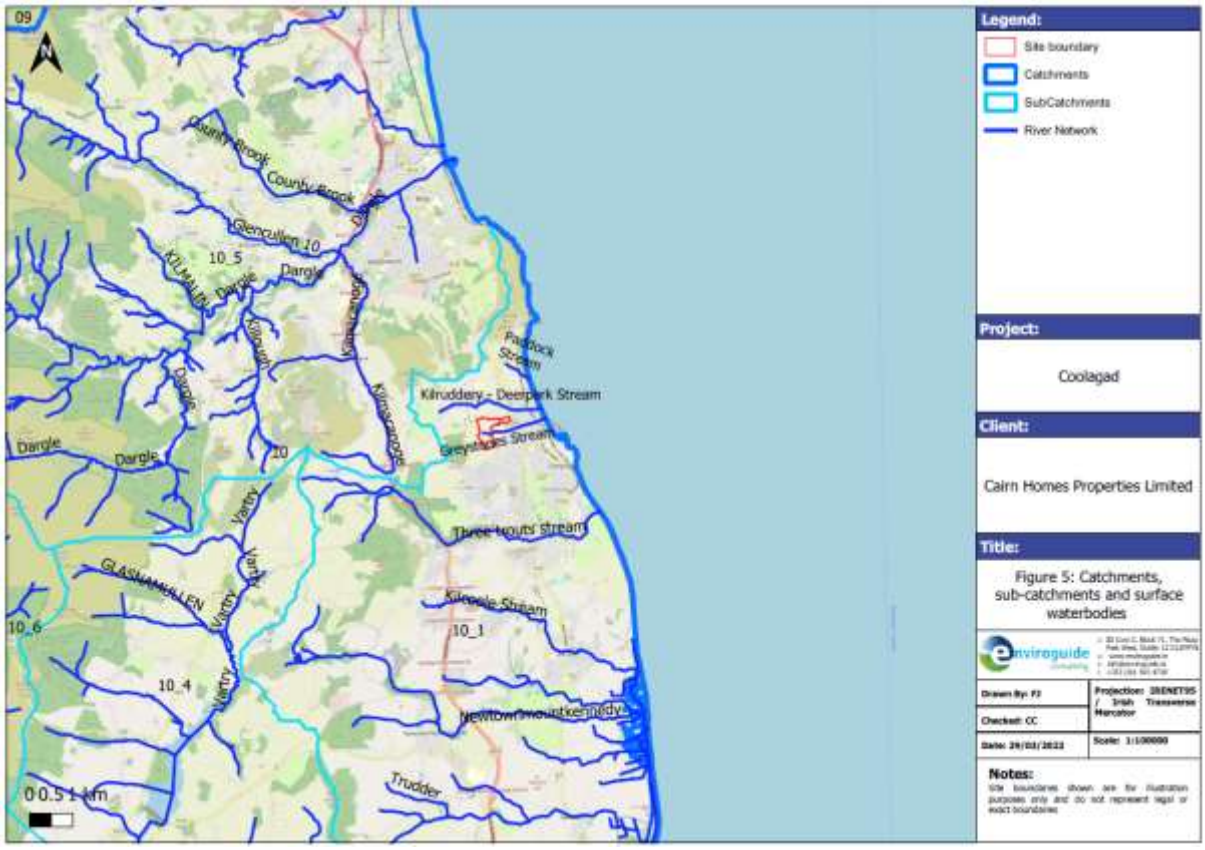

Figure 3-8 Surface Water Bodies and Catchments

3.4.2 Site Drainage

Enviroguide inspections in March and April 2021 identified a number of open drainage ditches and steams, culverted drains, streams, springs and surface water ponds.

The site drainage is shown on Figure 3-1.

A stream flows through the central portion of the Site which is identified as the Greystones Stream (EPA, 2021) that rises from a drainage ditch to the west of the Site that initially flows

to the south and then turns to flow to the east through the Site. The Greystones stream is culverted in a 750mm diameter pipe (Refer to drawing P-01 in Appendix B) .

A water drain or pipe of unknown diameter was identified during the March 2021 survey along the eastern Site boundary with the Waverley development. This pipe appeared to drain a natural depression where water collects in a pond in the southeastern corner of the Site with discharge to the existing Greystones Stream east of the 750mm pipe/culvert. The design and intended purpose of this pond and drain are unknown and potentially collect both shallow groundwater and surface runoff.

An unnamed stream (Stream A) that flows east along the northern site boundary was identified to source at a spring located in the northwest of the Site which flows to the east along the northern Site boundary. There is a culvert drain beneath the north-eastern part of the site that flows from north to south exiting the Site and second culvert at the north east of the Evans property that drains in a south-easterly direction beneath the Evans property and back into the Site before it exits the Site.

A spring in the central portion of the north of the Site sources a stream that joins another unnamed stream (Stream B) identified as rising from an area behind the offsite property to the south of this northern portion of the Site that flows north-easterly direction before being culverted under a portion of land in the eastern portion of the Site, this culvert drains from northwest to the southeast. It could not be verified during the Enviroguide Consulting surveys where these culverts discharged or if these culverts are connected further downstream to the east. An existing surface water pipe has been identified 65m south of this location and may be the outfall (AECOM, 2022b). The site inspection identified existing drainage manholes in the south-eastern corner of the Proposed Development Site.

The main foul sewer network was identified in the southern portion of the Site and discharges off site, to the east of the Proposed Development Site.

It is noted that some water mains were recorded historically at the Proposed Development Site and were partially traced during the site inspection on 11th March 2021.

3.5 Flood Risk Assessment

The OPW national flood hazard mapping (NFHM) database was consulted (OPW, 2021) and the available data maps the majority of the Proposed Development Site with an annual exceedance probability (AEP) of less than 0.1%., with a small portion of the Site along the Greystone Stream at the Site with an AEP of 0.1%.

A Flood Risk Assessment Report has been produced (AECOM 2022a) for the Proposed Development. The CFRAM Flood Maps include 0.1%AEP fluvial flood levels for the stream within the Site which are 2.10m below lowest Site levels and therefore the Site is considered not at risk of fluvial flooding. The Infrastructure Report (AECOM 2022a) notes that Wicklow County Council identified that surface runoff and spring discharges are conveyed to the culverts piped through Redford Park and Rathdown Park and that the culvert is at limited capacity and poor construction resulting in flooding at Redford Park.

The flood risk assessment prepared by AECOM (AECOM, 2022a) for the Proposed Development Site concludes that the proposed surface water and SuDS strategy will mitigate flood potential. This includes interception drainage along the western boundary of the Site, to

intercept water from the Kindlestown Hill area which will be discharged to the existing stream at controlled rates to avoid increased discharge rates that could cause flooding downstream.

There are no recorded historic groundwater flood events recorded at or within 2km of the Proposed Development Site (GSI, 2021). However, it is noted that the groundwater flood historical and predictive maps are only available for limestone regions, the Site is not within a limestone region.

3.6 Designated and Protected Sites

There are six (6No.) sites located within a 15km radius of the Site that are identified as Special Areas of Conservation (SAC), three (3No.) Special Protection Area (SPA) and fourteen (14No.) sites that are identified as proposed Natural Heritage Areas (pNHA) (EPA, 2021). There is a potential hydraulic connection between the Site via Greystones Stream and the closest sites:

- Bray Head SAC located 0.7km northeast of the Site and the Greystones Stream discharges at the coast 0.4km south of the Bray Head SAC.
- Murrough SPA and Murrough Wetlands SAC located approximately 5km southeast.

The designated and protected areas within 15km of the Site are presented in Figure 3-9.

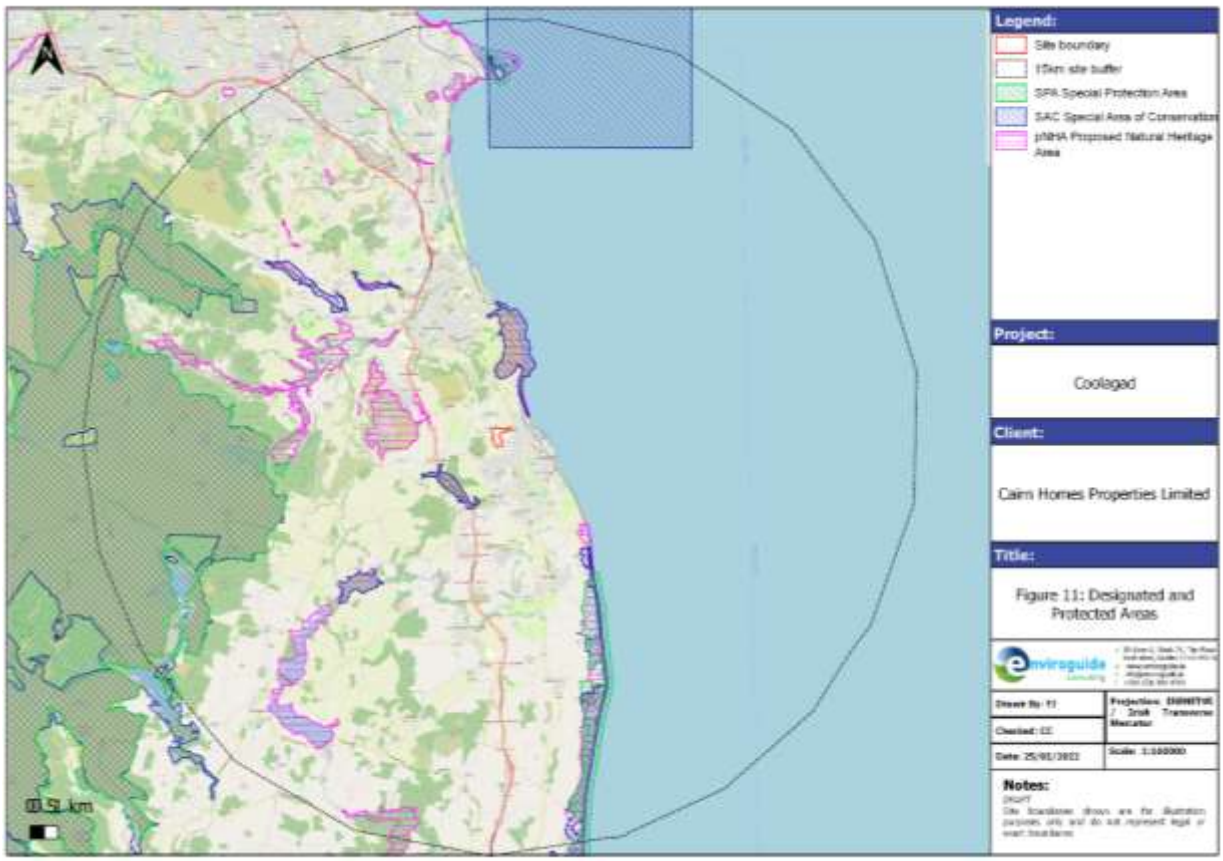

Figure 3-9: Designated and Protected Areas

3.7 Water Framework Directive Status

The Waterbody Status as recorded by the EPA (2022) in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003) for river, groundwater and coastal water bodies located within a 2km radius and considered to have a potential hydraulic connection to the Proposed Development Site are listed in Table 3-1.

It is noted that the Greystone's Stream and the Kilruddery_Deerpark Stream have the same EU code but different EPA Codes (Refer to Section 3.4).

Table 3-1 WFD Risk and Water body Status (EPA, 2022a)

Waterbody Name	Water body; EU code	Location from Site	Distance from Site (km)	WFD water body status	Hydraulic Connection to the Site
Surface Water Bodies					
Greystone's Stream	IE_EA_10K520710	Within the Site	Within the site	Moderate	Within the Site
Kilruddery_ Deerpark Stream	IE_EA_10K520710	0.2 km	North		Downgradient of Site.
Coastal Water Bodies					
Southwestern Irish Sea – Killiney Bay	IE_EA_G_076	0.8 km	East	High	Downstream of the Greystone's Stream
Groundwater Bodies					
Wicklow Groundwater Body	IE_EA_G_076	Within the Site	Within the site	Good	Underlying groundwater-body

3.8 Regional Hydrogeology

The bedrock aquifer beneath the Site is within the Wicklow GWB (EU Code: IE_EA_G_076). The Wicklow GWB covers some 1396km2 and occupies an area across Co. Dublin, Co. Wicklow and Co. Wexford (GSI, 2021).

Recharge in the vicinity of the Proposed Development is described as being diffuse through overlying tills into the aquifer. The Proposed Development Site is underlain by a poor aquifer which is generally unproductive except for local zones (PI) which indicates a lower capacity of the aquifer beneath the Proposed Development Site to accept recharge via infiltration of rainfall.

The GSI description of the Wicklow GWB identifies that the dominant recharge process will be diffuse recharge from water percolating through the overlying tills and into the aquifer. High rates of potential recharge are expected in the hilly areas where there are very thin subsoils and high rainfall. A large portion of this potential recharge will be rejected because the rocks in this area are considered to be poor aquifers with low storativity. In addition, the steep slopes in the area will increase surface runoff. Therefore, the rapid runoff component to streams will be higher.

The GSI (GSI, 2021) have identified a recharge coefficient for the aquifer beneath the Proposed Development Site as 15% of effective rainfall with a calculated average capped recharge of 100mm/year.

Groundwater flow is considered to recharge and discharge on a local scale. Groundwater discharges to the numerous small streams crossing the aquifer, to springs and seeps and also directly to the Irish Sea (GSI, 2021).

The GSI (Wicklow GWB Report) identifies that the majority of groundwater flow direction in the aquifer will take place in the upper weathered of the rocks with lateral flow towards discharge points to rivers, streams and towards the coast. Where structural deformation is greater there may be a flow within a fracture network which will allow groundwater movement at greater depths. Only flow in isolated fractures is expected below 30m depth.

Details on the hydrogeological conditions at the Site are described in detail in Sections 4 to 6.

3.9 Aquifer Classification and Vulnerability Rating

The bedrock of the Bray Head and Devils Glen Formations beneath the Site is classified as a Poor Aquifer (PI) (i.e., bedrock which is generally unproductive except for Local Zones) (GSI, 2021). The GSI aquifer classification map is presented in Figure 3-10.

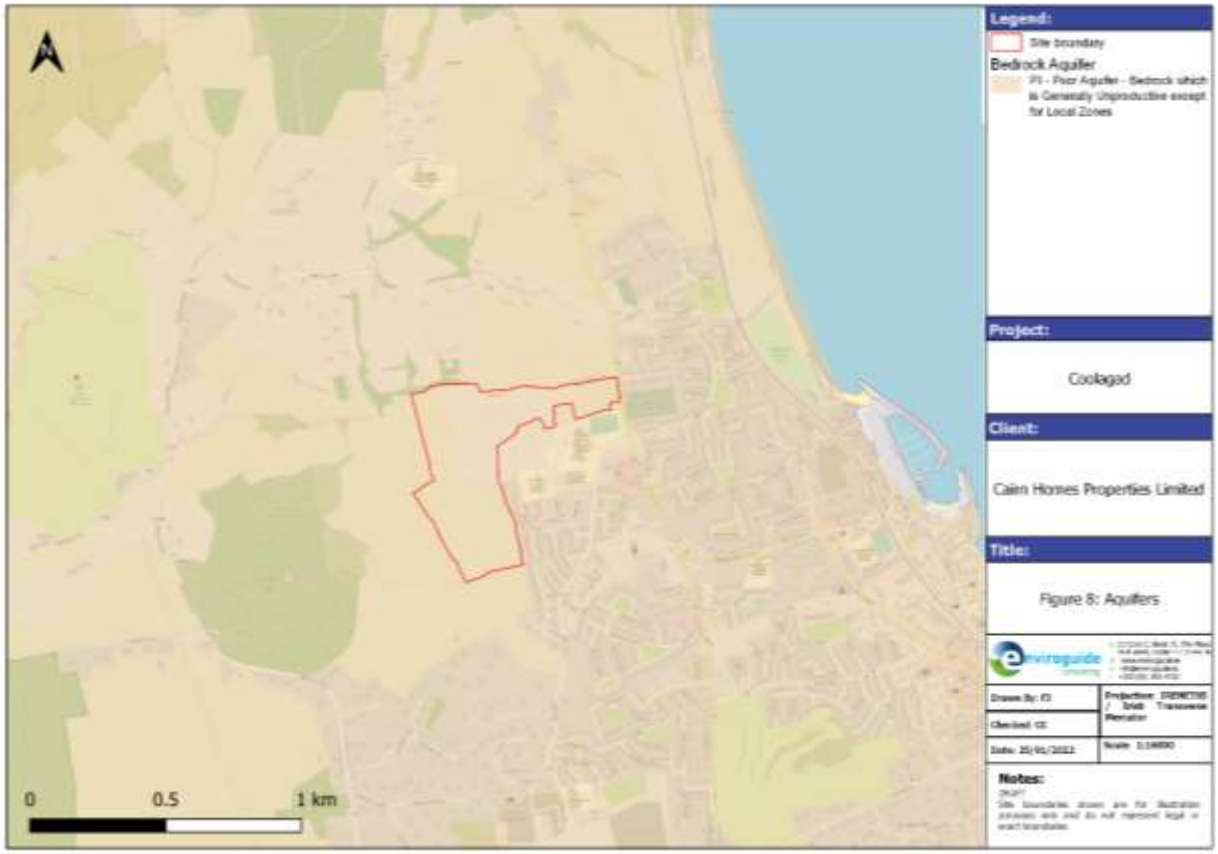

Figure3-10: Aquifer Classification

The GSI has assigned a groundwater vulnerability rating of “Moderate” (M) for the groundwater beneath the majority of the Proposed Development Site while a portion towards the western

Site boundary has been assigned a vulnerability rating of “High” (H) (GSI, 2021). It is noted that lower permeability overburden including clays albeit with sand horizons was encountered to a depth of at least 20m below ground. However, groundwater was encountered within the overburden.

The GSI groundwater vulnerability is presented in Figure 3-11.

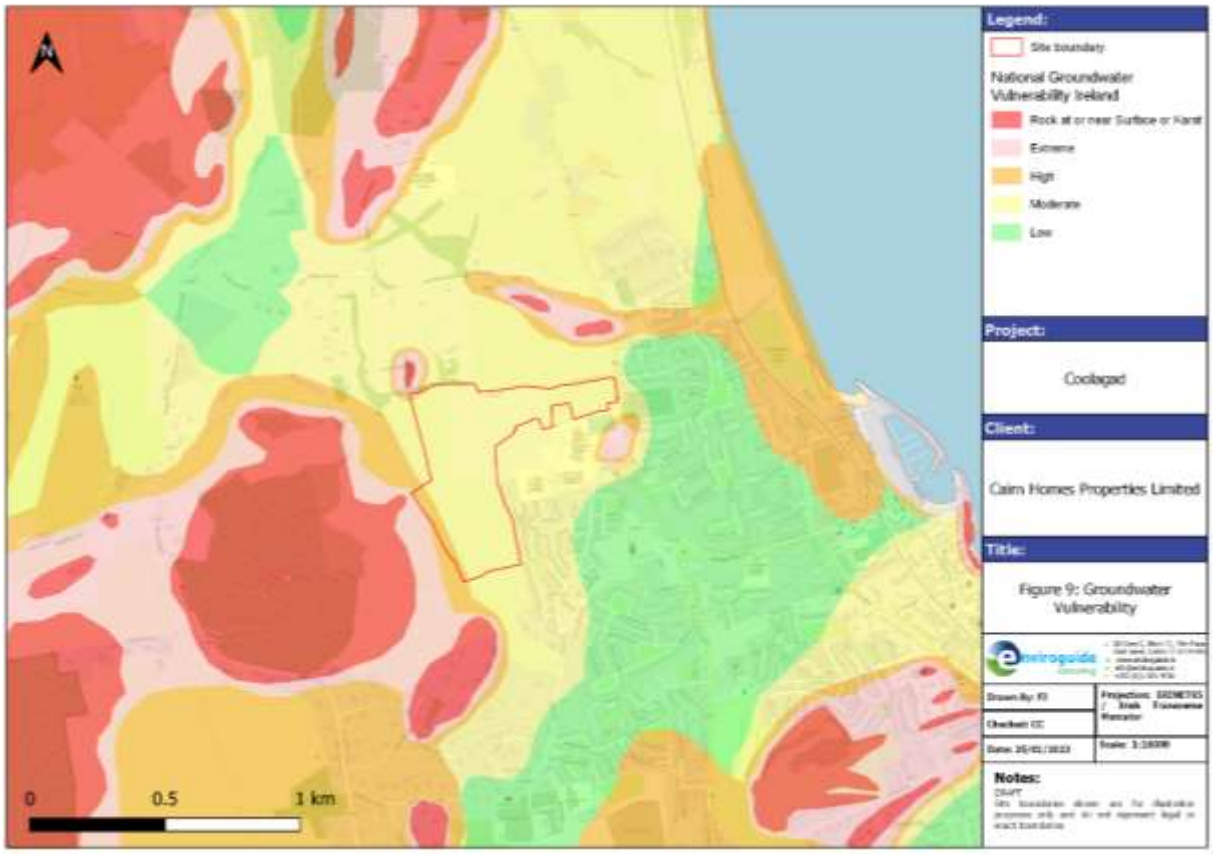

Figure 3-11 Groundwater Vulnerability

3.9.1 Groundwater Use and Source Protection

A search of the GSI groundwater well database was conducted to identify registered wells and groundwater sources in the surrounding area.

A search of the GSI groundwater well database was conducted to identify registered wells and groundwater sources in the surrounding area. There are a total of twenty-two (22 No.) groundwater sources recorded within a 2km radius of the Site (GSI, 2021).

There is a groundwater source at the Site that supplies the existing farm and dwelling located to the east of the Proposed development Site.

4 SITE HYDROGEOLOGY

4.1.1 Groundwater Levels

Groundwater level data measured at groundwater monitoring wells installed at the Site was used to determine groundwater elevations relative to ordnance datum and the inferred groundwater flow direction. Recorded groundwater levels and elevations for the Site are provided in Appendix D.

Groundwater was encountered at depths of less than 5m below ground during drilling. Measured groundwater levels for the period August to October 2021 ranged between 4.81mbTOC (below top of casing) (BH07) and 9.7mbTOC (RC26). Groundwater levels measured in January 2022 at these locations were 2.89mbTOC (BH07) and 5.53mbTOC (RC26). A seasonal variance in groundwater levels between the August to October 2021 period and January 2022 at specific monitoring locations ranging up to 4.955m (BH28) has been recorded at monitoring wells installed at the Site.

Groundwater levels were also recorded over a period of two weeks in August to September 2021 to determine if there were temporal fluctuations in groundwater levels or response to rainfall. However, this coincided with a predominantly dry period with occasional rainfall events. There was limited or no change in groundwater levels following rainfall events which is attributed to the moisture deficit in the soil and bedrock formations following a prolonged dry period.

It is noted that while groundwater levels were recorded in January 2022 to represent wetter weather and were higher than the August to October 2021 level, these levels may not be representative of wet weather groundwater levels. The EPA (EPA,2021) states in the December 2021 hydrology bulletin that based on the national groundwater monitoring programme data that ‘*‘Particularly low’ groundwater levels for this time of year were observed predominantly in the eastern half of the country. Most of the monitored spring flows were also below average monthly flows for December.*.’

Based on the measured groundwater elevations and hydraulic gradient, the inferred groundwater flow direction at the Site is to the east with contributions of flow from the northwest of the Site (refer to Figure 4-1 and Appendix B Figure 18-23).

Based on measured groundwater elevations at well pairs screened across different geological strata at different levels there are both upwards and downwards vertical gradients. This is discussed further in Section 4.1.3.

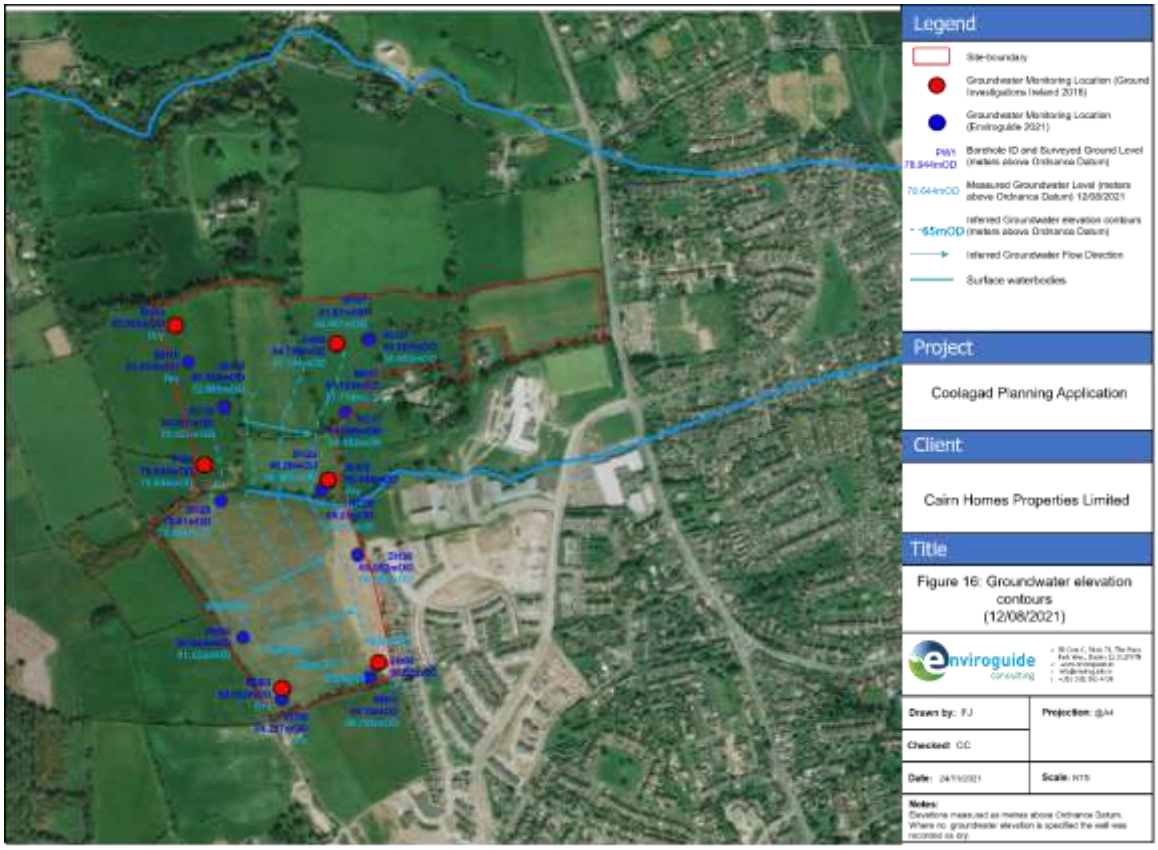

Figure 4-1 Groundwater Elevations and Flow Direction (12/08/2021)

4.1.2 Soil Infiltration

The site investigation results for infiltration tests identifies that that only two of the nine soakaway tests, at IT01 and IT08 located in the northeast and southwest of the Site respectively (refer to Figure 4-2), passed the BRE specification and recorded f-values of 3.17×10^{-5}m/s and 4.19×10^{-5}m/s respectively (Site Investigations Limited, 2021). The report also identifies that the remaining seven soakaway tests failed the specification as the water level did not fall sufficiently enough to complete the test and that the unsuitability of the soils for soakaways is further suggested by the soil descriptions of the materials i.e., well compacted clay soils (Site Investigations Limited, 2021) (Appendix A).

As outlined in Section 3.2 the soils encountered at the Site comprise of clay and silt with varying sand and gravel content including laminations of sand within the cohesive clays. However, at various intervals across the Site sand laminations were encountered within the clays and in particular in the east of the Site sand and gravel horizons of up to 5.5m thickness were encountered. Accordingly due to the heterogeneous nature of the soil at the Site, permeability and infiltration potential is variable across the Site and rainfall infiltration will occur where localised more permeable sand and gravel is closer to the surface. As identified in Section 3.8 due to the nature of the bedrock there is also limited capacity for the bedrock aquifer to accept recharge and in areas with steep slopes there will be a more rapid component of runoff to streams.

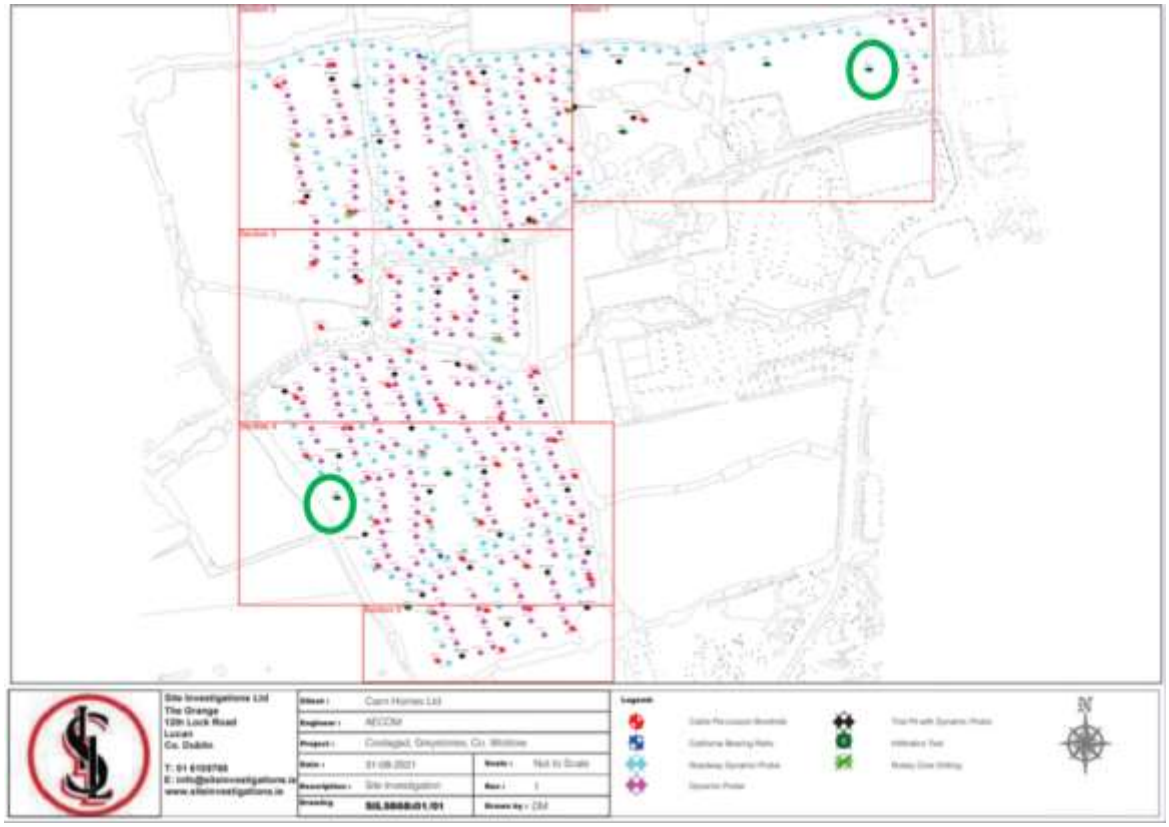

Figure 4-2 Infiltration Test Locations, IT01 and IT08 circled

4.1.3 Groundwater Flow and Flux

The principle that governs how fluid moves in the subsurface is called Darcy's law. Darcy's law is an equation that defines the ability of a fluid to flow through a porous media such as granular soils (sand and gravel) or bedrock. It relies on the fact that the amount of flow between two points is directly related to the difference in pressure between the points, the distance between the points, and the interconnectivity of flow pathways in the aquifer units between the points. The measurement of interconnectivity is called permeability. In the subsurface, rock is deposited in layers. Fluid flow within and between the rock layers is governed by the permeability of the rocks. However, to account for permeability, it must be measured in both the vertical and horizontal directions.

4.1.3.1 Lateral Groundwater Flow

Darcy's law was used to estimate later flow within the subsurface at the Site .

Darcy's law is written as: $Q = -K*A*dh/dl$ - Equation 1
where:

- Q = rate of water flow (volume per time)
- K = hydraulic conductivity
- A = column cross sectional area
- dh/dl = i = hydraulic gradient, that is, the change in head over the length of interest.

The hydraulic conductivity for soil at the Site (K) has been determined from the results of the rising head tests as described and reported in the site investigation report (refer to Appendix A). The results are summarised in Table 4-1 with an average hydraulic conductivity (K) value of 4.24E-7 m/s ($4.24x10^{-7}$ m/s) or 3.66E^{-02} m/s (3.66x10-^{2} m/day) (refer to Appendix A).

Table 4-1 Rising Head Permeability Results

Well/location ID	K m/s	K m/day	Screened depth (mbGL)
BH07	1.04E-06	8.99E-02	1.0-10.0 m
RC07	1.40E-07	1.21E-02	14.0-20.0
BH10	5.00E-07	4.32E-02	1.0-8.5m
RC10	7.82E-08	6.76E-03	9.0-15.0
BH 16	2.69E-07	2.32E-02	1.5-10.0m
RC16	2.05E-07	1.77E-02	14.0-20.0m
BH 17	1.92E-07	1.66E-02	1.0-9.0
RC17	1.25E-06	1.08E-01	14.0-20.0
RC26	8.48E-08	7.33E-03	9.0-15.0m
BH28	6.18E-07	5.34E-02	1.1-10.2m
BH36	3.47E-07	3.00E-02	1.0-10.0m
BH48	1.67E-07	1.44E-02	1.0-7.0m
BH53	6.18E-07	5.34E-02	1.0-10.0
Average	4.24E-07	3.66E-02	

At a number of borehole locations sand horizons were encountered at shallow depths (as summarised in Table 4-1 (refer to borehole logs in Appendix A) and locations are shown in Figure 3-4. The other principal geology encountered in the boreholes was a clay matrix with sand, silt, and gravels inclusions as laminae and this is not considered aquifer material. However, it should be noted that the sand laminations within the clay potentially provide a conduit for local scale groundwater flow within the subsurface.

Table 4-2: Recorded Sand Intervals

Well Location ID (BH/RC)	Sand Interval Top mbgl	Sand Interval Base (mbgl)	Drilling stopped due to obstruc-tion (denoted +)	Thickness (m)
7	4.7	9.9	+	5.2
13	6.8	7.9	+	1.1
21	3.3	4		0.7
24	6.8	10		3.2
29	6.8	10		3.2
30	4.5	7.8	+	3.3
36	6.8	10		3.2
39	4.8	7.5	+	2.7
53	5	7.2		2.2
55	5.1	10		4.9
57	4.5	10		5.5
Average Thickness				3.2

The effective aquifer thickness has been taken as 3.2m noting that thicker deposits were encountered at BH57, BH55 in the south and at BH7 in the north of the Site.

This measured water level data was plotted as metres above ordinance datum on a site map as shown in Figure 4-1. This has enabled the determination of the hydraulic gradient. Based on the available groundwater level data, the groundwater level and elevation change of 20 m (80mOD to 60mOD) over a distance of 210m was considered with the width of the site from north to south as 640 metres.

Darcy flux was calculated using Equation 1 with the following input values:

- Q = Flow
- K = Hydraulic conductivity $4.24E^{-07}$ m/s or $3.66E^{-02}$ m/day
- i = Hydraulic gradient (20m / 210m distance)
- A = Cross sectional area of flow (640m north south length x 3.2m average sand thickness)

The calculated Darcy flux through the sand and gravel strata (aquifer unit) was calculated to be:

- Q = 3.66×10^{-2} m/day x (20/210) x (640x3.2) = 7.14 m^3/day

This subsurface groundwater flux represents a significant quantity of water migrating through the Site in the shallow subsurface.

Where the permeable sand and gravel horizons sub-crop or outcrop at the Site there is a potential for groundwater emergence at surface as springs. It is noted that a number of springs are present at the Site and Enviroguide understands that springs occur across the Site following heavy or prolonged rainfall events.

4.1.3.2 Vertical Groundwater Flow

Vertical hydraulic gradients were calculated where pairs of monitoring wells with shallower (BH) and deeper (RC) screen intervals were installed at the Site using groundwater level measurements to determine if there was a vertical upwards or downwards component to groundwater flow at the Site. The calculated vertical hydraulic gradients using data from September 2021 and October 2021 are presented in Table 4-3 together with a determination of whether there is a measured upwards or downward vertical gradient at specific locations. The location where upwards gradient (BH16/RC16) was recorded was also identified based on January 2022 data (refer to Table1 in Appendix D).

It is demonstrated that based on measured water levels in the well pairs or clusters (wells located closely together) that there is a combination of both vertical upward or vertical downward flow in aquifer units or flow between adjacent geologic units across the Site attributed to the heterogeneous geological conditions at the Site including variation in permeability, depth and thickness of soil. This is evident where an upwards vertical gradient was calculated for BH16/RC16 (refer to Table 4-3) which is located close to the groundwater emergence at surface where there is a continuous spring in the north of the Site.

Table 4-3 Hydraulic Gradient Calculations

Date	Well No.	Ground Elevation (mOD)	Groundwater Elevation (mOD	Head Bh-Head Rc (m)	Distance (m) between screen mid points	Gradient
14.09.2021	BH07	61.87	56.55	0.13	12	0.011
	RC07	61.7	56.42			Downwards
	BH16	80.76	72.2	-0.14	11.75	0.012
	RC16	80.94	72.34			Upwards
	BH17	63.25	57.29	1.04	12.5	0.083
	RC17	63.25	56.25			Downwards
14.10.2021	BH07	61.87	56.07	0.05	12	0.004
	RC07	61.7	56.02			downwards

	BH16	80.76	71.46	-0.15	11.75	0.013
	RC16	80.94	71.61			upwards
	BH17	63.25	56.95	1.24	12.5	0.01
	RC17	63.25	55.71			Downwards

The potential vertical groundwater flux at the Site was calculated using another application or representation of Darcy's Law (Equation 2):

- q = -K x[(dh/dl)/distance] (Equation 2)

The hydraulic conductivity and permeability of the silt, sand and silty clay soil units which were determined by the site investigation contractor (refer to Appendix A) and which are summarised in Table 4-1, were used in Equation 2 to calculate the vertical flow per unit area.

Applying the Darcy's Law (Equation 2) for vertical flow per unit area for the 3 locations where vertical flow was calculated, q (m^3) was determined as described in Table 4-4 for the September 2021 groundwater level data.

Table 4-4 Application of Darcy Equation for Vertical Flow

Borehole ID	K m/s	Head (dh/dl) m	Distance m	H/D	q (per second)	q per Ha per day (extrapolated)
BH/RC7	1.40E-07	0.13	12.00	0.010833	1.52E-09	1.31E+00
BH/RC16	2.69E-07	-0.14	11.75	-0.01191	-3.21E-09	-2.77E+00
BH/RC17	1.92E-07	1.04	12.50	0.0832	1.60E-08	1.38E+01

The vertical flows calculated are equivalent to small flow volumes per day per square metre based on September 2021 data which it is noted is representative of dryer weather conditions. However even small amounts of upward groundwater flow as recorded at BH/RC16 can over time result in persistent groundwater emergence as springs that may require management.

4.1.3.3 Conceptual Groundwater Flow Regime

The Proposed Development Site is characterised by anisotropic or heterogeneous geology and multiple potential groundwater flow paths. Shallow water strikes (less than 5 mbGL) were recorded during borehole drilling at the Site (refer to Appendix A and Appendix B) indicative of the presence of localised groundwater at shallower depths although standing water levels recorded in most boreholes were below the depth of first water strike. This may be attributed to the dry weather conditions during the site investigation and subsequent monitoring period from August to October 2021.

The groundwater flux has been quantified based on site investigation data as 7.1m^3/day across the Site which represents a significant quantity of water within preferential flow paths where more permeable soil (sand) is present. There is also a vertical upwards hydraulic gradient which results in the observed groundwater springs at the Site. Based on available data it is considered that there is potential for intermittent springs at the Site and potentially more persistent spring flows following heavy rainfall events, noting that the data used in this assessment was compiled following an extensive dry period. Possible areas with risk of shallow groundwater flows and emergence at surface as springs are where shallow groundwater strikes were recorded and also where unsaturated sand was encountered at the Site which may become saturated during wetter weather.

5 SITE HYDROCHEMISTRY

The purpose of the hydrochemistry assessment was to establish the baseline hydrochemistry of surface water and groundwater at the Site and to identify the origin and sources of groundwater at the Site. This information would be used to support and verify the findings of the groundwater flow throughput assessment (refer to Section 4.1.3).

Groundwater and surface water monitoring and sampling was undertaken by Site Investigations Limited on the 14th of September 2021 and samples collected at the Ste were submitted to ALS Laboratory for analysis. Samples were collected from nine onsite groundwater sample locations which include BH07, BH16, BH17, BH28, BH53, RC07, RC16, RC17 and RC26 and three surface water locations (SW01, SW03 and SW04) which are shown in Figure 5-1. Groundwater and surface water analytical results are provided in Appendix E.

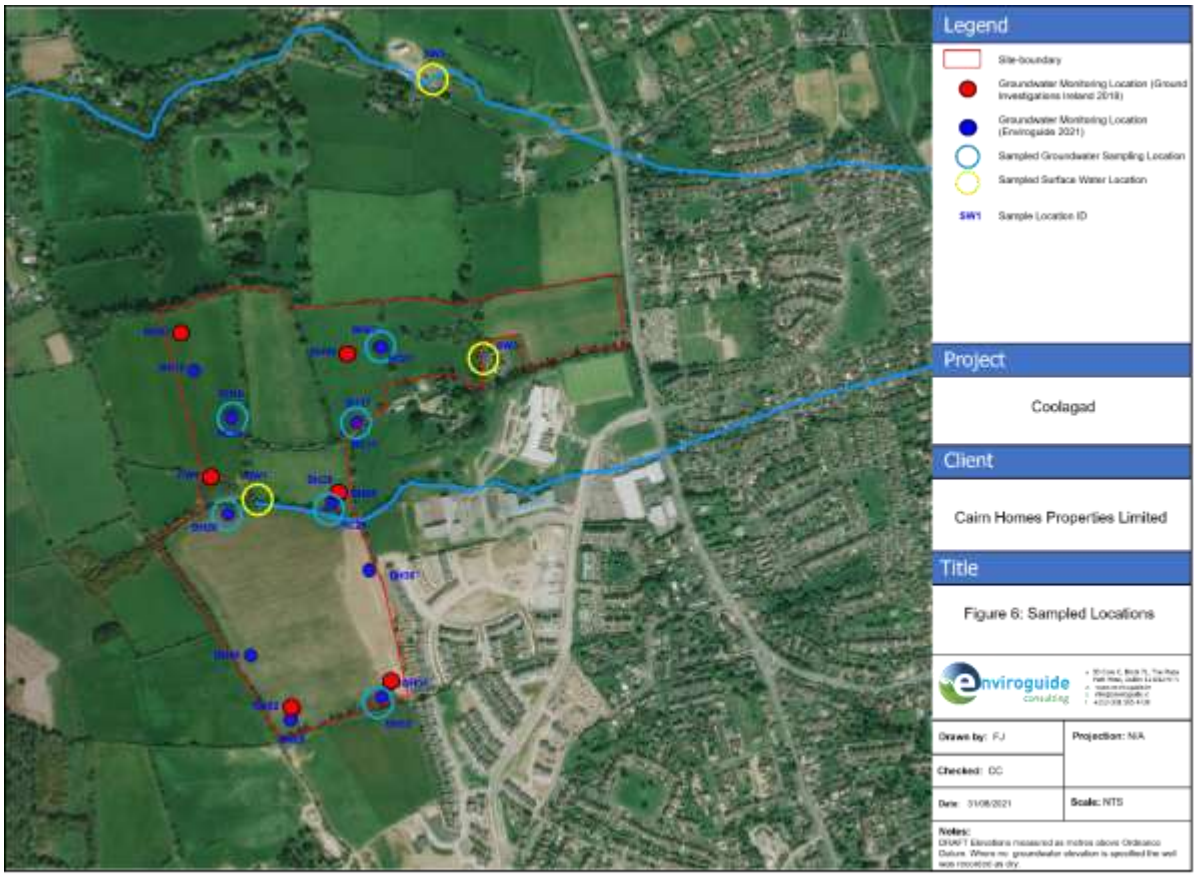

Figure 5-1 Surface Water and Groundwater Sample Locations

5.1 Groundwater Quality Data

The hydrochemistry analysis was undertaken based on the following steps:

- Collection of water samples comprising groundwater and potential sources ('end members') of groundwater, namely: surface water, drain water, and groundwater.
- Laboratory analysis of the samples.
- Interpretation of the results as follows:

  - Interpretation of the laboratory data to identify the chemical signatures of the end member groundwater source waters.
  - Interpretation of the laboratory data and application of the chemical signatures to estimate the relative contribution (as a percentage) of end member sources in each of the groundwater samples.
- Assessment of the hydrogeology and water balance context.

5.2 Hydrochemical Assessment

The hydrochemical assessment combined statistical, geochemical, and spatial techniques that incorporated hydrochemical data as well as hydrogeological and flux considerations.

The statistical clusters were analysed for spatial coherence confirming that the clusters have a geological basis corresponding to flow paths identified from piezometry and showing that the sands, gravels and clays behave as an equivalent porous medium on the watershed scale where the Site is located.

The principal component analysis was used to determine the sources of variation between parameters. The analyses show that the variations within the dataset are related to variations in major ions and nitrate which are derived from natural weathering of aquifer materials.

Hydrochemical modelling was used to quantitatively describe the natural hydrochemical evolution of groundwaters within the Coolagad area and aid in the isolation of samples that may have an anthropogenic component.

This integrated result provided a method to characterise the hydrogeology of the Coolagad area and the Site. The hydrochemistry assessment comprised the following procedure:

- Define end member chemistry based on collected samples and produce suitable hydrochemical plots of the said end member water type.
- Plot groundwater hydrochemistry samples as Piper diagrams by zone.
- Review zonal groundwater chemistry (i.e., zone Piper diagrams) to identify end member influence and select representative samples that define the range of chemistry in the zone.
- Analyse representative samples against defined end member chemistry via mass balance.
- Report rounded figures for representative samples to nearest 5% (accuracy of lab analysis).

5.3 Results

The accuracy of the laboratory analysis for major ions was evaluated by an equivalent weight balance. The balance considered the major cations Ca, Mg, Na and K and the major anions HCO3, SO4, Cl, and NO3, which were measured as meq/l. The analytical results were evaluated to determine if there was any error in balance in the results using the following equation:

- % =100* (ΣCat-ΣAn)/ (ΣCat+ΣAn)

Where calculated results were greater than 10% the data was rechecked to establish whether additional anions or cations were needed for ionic balance. It should be noted that this is not an indication of a laboratory error, but a method used to ensure that that correct parameters

are used in the evaluation of major ion results. Samples were out of balance and the extent can be visually assessed by inspection of the stiff diagrams in Appendix C. This issue is discussed further later in this section of the report.

The End Member Water Types Graphical Analysis Method was used for the site assessment.

The hydrochemical data for major ions were produced graphically for each end member (i.e., source) water type and for each flux zone/subzone where groundwater samples were taken. The following methods for graphical representation and assessment were used:

- Piper diagram showing all sampled water.
- Piper Diagram showing all sampled water with concentration circles.
- Durov Diagram showing all sampled data.
- Stiff Diagrams of sampling points.

The Piper Diagram is a graphical representation of the chemistry of a water sample or samples. The Trilinear Piper diagram can show the percentage composition of different ions.

The cations and anions are shown by separate ternary plots. The apexes of the cation plot are calcium, magnesium and sodium plus potassium cations. The apexes of the anion plot are sulphate, chloride and carbonate plus bicarbonate anions. The two ternary plots are then projected onto a diamond. The diamond is a matrix transformation of a graph of the anions (sulphate + chloride/ total anions) and cations (sodium + potassium/total cations).

All these points in the diamond-shaped area represent the total ionic distribution. For each water sample, a single point was obtained in the diamond-shaped area, which represents the total ionic distribution.

The Durov Diagram is an alternative to the Piper diagram. The Durov diagram plots the major ions as percentages of milli-equivalents in two base triangles. The total cations and the total anions are set equal to 100% and the data points in the two triangles are projected onto a square grid that lies perpendicular to the third axis in each triangle. This plot reveals useful properties and relationships for large sample groups. The main purpose of the Durov diagram is to show clustering of data points to indicate samples that have similar compositions. The extended Durov plot can be used to also show how the plotting positions relate to another parameter such as total dissolved solids or a minor constituent such as fluoride.

A Stiff Diagram is a graphical representation of chemical analyses, first developed by H.A. Stiff in 1951. It is widely used to display the major ion composition of a water sample. A polygonal shape is created from four parallel horizontal axes extending on either side of a vertical zero axis. Cations are plotted in milliequivalents per litre on the left side of the zero axis, one to each horizontal axis, and anions are plotted on the right side. Stiff patterns are useful in making a rapid visual comparison between water from different sources. Stiff diagrams can be used to:

- visualize ionically related waters from which a flow path can be determined; and
- show how the ionic composition of a water body changes over space and/or time if the flow path is known.

The hydrochemistry plots generated using the Piper, Durov and Stiff methods are provided in Appendix C.

5.4 Hydrochemistry and Groundwater Sources

The potential groundwater sources include the following:

- Infiltration of rainfall and stormwater runoff.
- Groundwater as native groundwater that has a chemistry influenced by the geology of the respective formation in which it is found.
- Interflow fed by streams.

From a hydrochemical perspective, the sources represent the following 'end members' that, when mixed, make the chemistry of groundwater beneath the Site:

- Rainwater.
- Native groundwater - this represents a progression of rainfall recharge through the subsurface geological strata without anthropogenic change.

The conceptual approach taken recognised that the groundwater is a mixture of different inputs including anthropogenic inputs (e.g., nutrients from agricultural lands) and also that any given sampling location may reflect a particular aspect of the water cycle depending on the pathway to that location.

The Stiff plots for selected sample locations depicting hydrochemical variation and distribution for surface water and groundwater across the Site are presented in Figure 5-2, the full set of hydrochemical plots are provided in Appendix C.

The diagram shapes show the ionic imbalance of the chemical analyses for different samples, review of the analytical data suggests this imbalance is probably due to the occurrence of ferrous ion in the groundwater. Surface sample SW1 is clearly unique compared to all other samples in Figure 5-2. It should be noted that the sample taken from MW53 while of similar hydrochemical facies to all other groundwater samples, has a lower salinity. This is interpretated as being due to a shorter residence time of water in the aquifer.

This is important as it suggests that the shallow aquifer formation may respond more quickly at the south of the site to a rainfall recharge event.

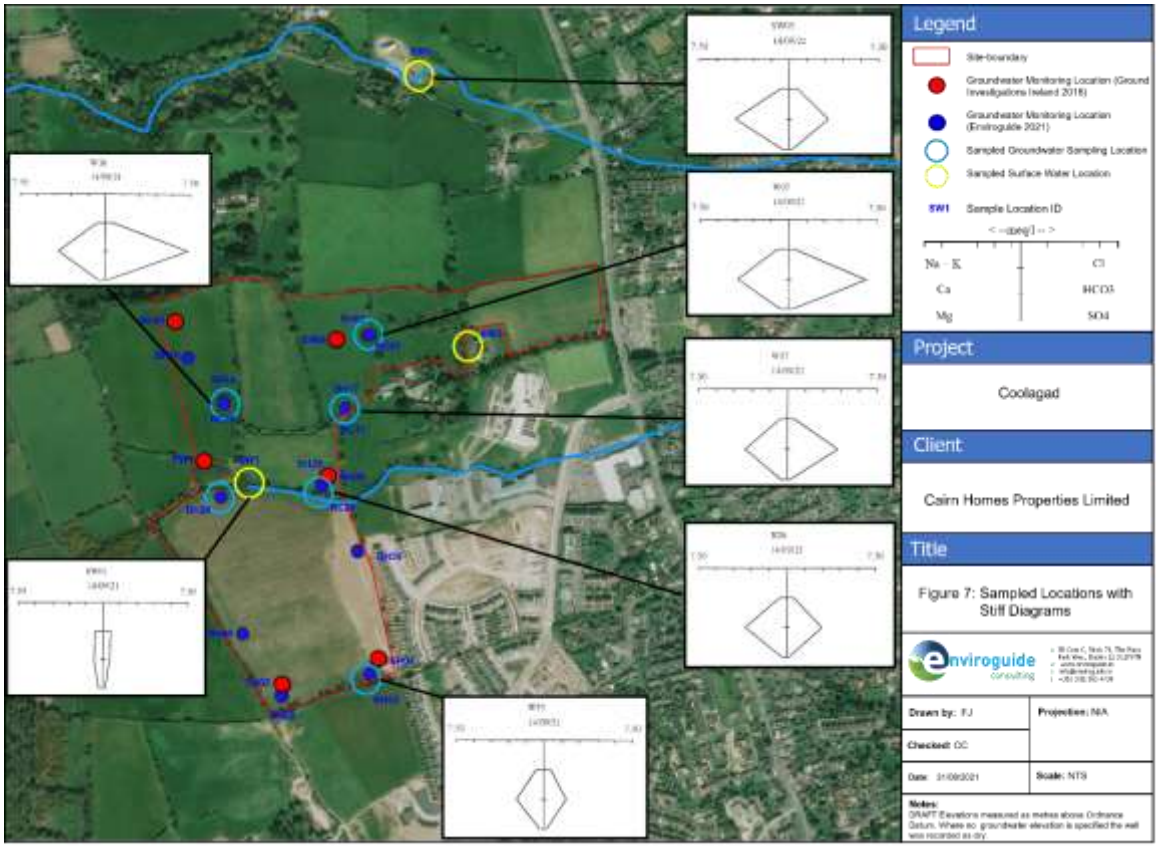

Figure 5-2 Stiff Diagram for Sample Locations

One end member of the hydrochemical sequence may be taken as rainfall. The closest example of that is the sample SW1, taken from a surface water stream just at the west of the site (refer to Figure 5-1 and Figure 5-2). Although the Site has the lowest sampled salinity, proportionally, this sample has a higher percentage of chloride and sodium ions than other samples and a likely characteristic considered to be due to the proximity to the Irish sea and contributions to rainfall and surface runoff.

The other end member is seen to be the calcium carbonate rich water taken from BH/RC7. This has permitted the identification of the hydrochemical progression as illustrated in *Figure 5-3*. The progression is from Low salinity Sodium Chloride Water (sourced from rainfall close to the sea and collected as run off) to Calcium Carbonate Water the result of percolation through clays, sands and gravels. Stiff diagrams of the end members can be inspected in Appendix C.

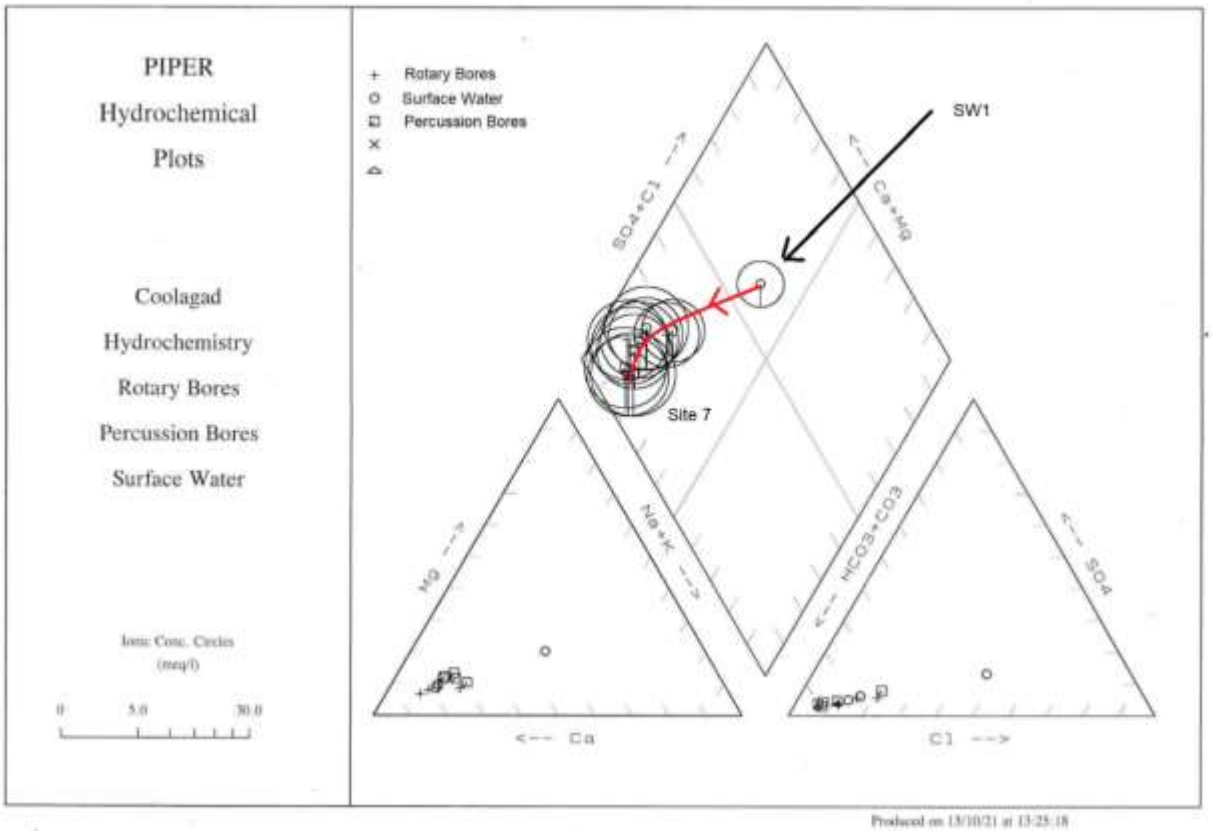

Figure 5-3: Piper Diagram showing Hydrochemical Progression (refer to Appendix C)

5.5 Water Quality Assessment

Surface water and groundwater analytical results (Appendix E) for the samples collected on the 14th September 2021 (SIL, 2021) were screened against the applicable Environmental Objectives Regulations.

Surface water environmental quality standards (SW EQS) set out in:

- S.I. No. 272/2009 - European Communities Environmental Objectives (Surface Waters) Regulations 2009 and as amended (SW EQS).

The analytical results for all three samples were generally within the respective SW EQS limits including ammonia however, elevated orthophosphate results were reported for all three samples. The highest concentration of ortho-phosphate was reported for SW1 (0.051 mg/l P) located upstream on the Greystones Stream which has a catchment offsite including the eastern slopes of Kindlestown Hill.

Groundwater quality results have been assessed against the following assessment criteria:

- SI. No. 122/2014 - European Union (Drinking Water) Regulations 2014 including amendments S.I. No. 464/2017 (DW PVs);
- S.I. No. 9/2010 - European Communities Environmental Objectives (Groundwater) Regulations 2010 and amendment S.I. No.366/2016 (GW GTVs); and
- S.I. No. 272/2009 - European Communities Environmental Objectives (Surface Waters) Regulations 2009 including amendments S.I. No. 327/2012, S.I. No. 386/2015 and S.I. No. 77/2019 (AA-EQS and/or MAC EQS).

An exceedance of the GW GTV for ammoniacal nitrogen was recorded for the sample collected from BH28, all other analytical result were below relevant criteria set out in the Environmental Objectives Regulations.

The identified elevations of orthophosphate in surface water and ammoniacal nitrogen in groundwater are attributed to agricultural landuse in the catchment and considered to be baseline Site conditions.

6 HYDROGEOLOGICAL RISK ASSESSMENT

6.1 Hydrogeological Conceptual Model

The local watershed is the Kindlestown Hill to the west of the Site and surface water and groundwater flow is towards the east.

The bedrock aquifer in the Wicklow GWB has limited capacity to accept recharge (GSI, 2021) and bedrock was not encountered in boreholes drilled to 20m at the Site (SIL, 2021). Overland flow, infiltration to ground and groundwater flow through more permeable soils rather than bedrock are the dominant mechanisms for transport of water through the Site. The potential for infiltration of rainfall to groundwater are limited where lower permeability soils are present.

Overburden at the Site is laterally and vertically heterogeneous comprising of lower permeability clay with localised sand lamination and more permeable deposits of sand and gravel in the upper 5-7m below ground surface. The potential for infiltration is limited due to the presence of clays and occurs where more permeable sand and gravels are present close at the ground surface. As a result of the heterogenic geology there are multiple groundwater flow paths within the subsurface at the Site with both lateral flow to the east and vertical upwards and downwards flow. The sand horizons that were dry during site investigation potentially become saturated during wetter periods with resultant shallower groundwater flow and possible spring emergence.

The horizontal groundwater flux has been quantified based on site investigation data as 7.1m^3/day across the Site which represents a significant quantity of water noting that this is considered to be within preferential flow within subsurface sand horizons.

Where permeable soils occur near surface, the upwards flow component results in groundwater emergence at ground surface as springs and seepages including the persistent springs in the northeast and to northwest of the Site which are the sources of the surface water wetland and streams at the northeast and northern boundary respectively. The source of the Greystones stream is predominantly surface runoff from the Kindlestown Hill catchment to the west of the Site, however, it may have a component of groundwater source from intermittent spring seeps.

Groundwater flow paths within the Wicklow GWB are on a local scale (GSI,2021) and groundwater beneath the Site potentially has a shorter residence time in the subsurface and shallow groundwater may respond more quickly to recharge.

Water quality data at the Site indicates influences of the agricultural landuses within the catchment with elevated ammoniacal nitrogen in groundwater and orthophosphate in surface water.

It is noted that there were only a limited number of groundwater monitoring wells that were installed in 2018 available for monitoring during wetter seasons and the more extensive network of monitoring wells were installed in 2021. However, within the available timeframe for the assessment the groundwater level measurements were predominantly collected during dry weather with winter water levels measured in January 2022.

6.2 Groundwater Flood Risk Potential

Groundwater flooding occurs when the level of water stored in the ground rises as a result of prolonged rainfall to meet the ground surface and flows out over it, i.e., when the capacity of this underground reservoir is exceeded (DEHLG, 2009). It is noted in the DEHLG guidelines that groundwater flooding may often result in significant damage to property rather than pose a potential risk to life and may be in place for extended periods of time following a prolonged rain event.

Groundwater flows and flooding at the Site occur as a combination of intermittent and persistent spring flows where permeable soil (sand) occurs in the shallow subsurface and groundwater levels are nearer ground surface and where upwards groundwater flow has been observed. Groundwater levels may also respond quickly to recharge in certain parts of the Site. The combination of both persistent and intermittent springs at the Site is consistent with the observed heterogeneous hydrogeological conditions and variable responses to recharge at the Site and represents a groundwater flood risk for the Site in both the current site situation and for the Proposed Development.

Some of the key risk areas of the Site where shallow groundwater and sand (saturated and unsaturated) were encountered are shown in

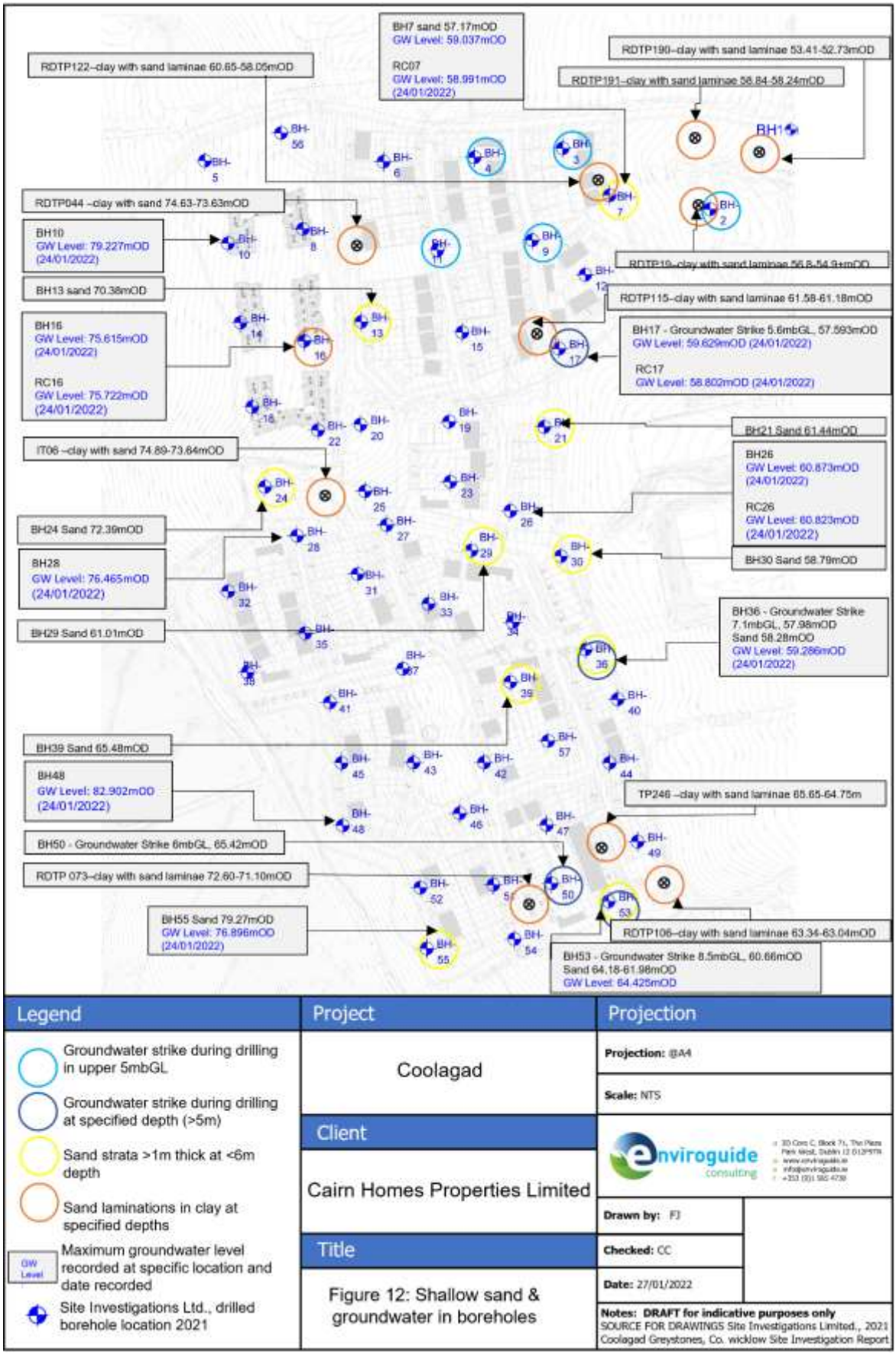

Figure 3-4 where shallow groundwater and spring emergence could occur based on current Site conditions (pre-development). These include the following areas of the Site where

subsurface sand horizons that coincide with areas with shallow groundwater strikes were encountered:

- In the south and south-western portion of the site identified at BH53 (64.18mOD) and at BH55 (79.27mOD);
- Along the eastern boundary at BH36 (58.28mOD), BH39 (65.48mOD), BH30 (58.79mOD), BH29 (61.01mOD), BH21 (61.44mOD);
- In the northwest area of the Site BH13 (70.38mOD) and BH24 (72.39mOD); and,
- In the northeast area of the site as identified at BH07 (57.17mOD).

The cut and fill analysis (AECOM, 2021) indicates that cut of up to 8-9m below existing ground level will be required in the western part of the Site. Removal of soil and overburden to reduce ground levels at the Site could result in groundwater levels closer to ground surface or groundwater seepage at surface. The measured groundwater levels and proposed ground levels are shown in Figure 6-1 (Refer to Figures 18-20 in Appendix B). These depict the measured groundwater levels and the potential for groundwater to be intercepted. There is a potential for the required cut levels to intercept groundwater during and post construction along areas of the western boundary of the Site. The impacts of groundwater emergence at the Site could be long-duration overland flows, potential infiltration to basements and infrastructure including attenuation tanks, utilities trenches and sewers at the Site if not appropriately managed. The construction of basement levels and other structures such as attenuation tanks may also be at risk of groundwater ingress of groundwater and flooding as well as reduce attenuation storage volume if permeable design is used.

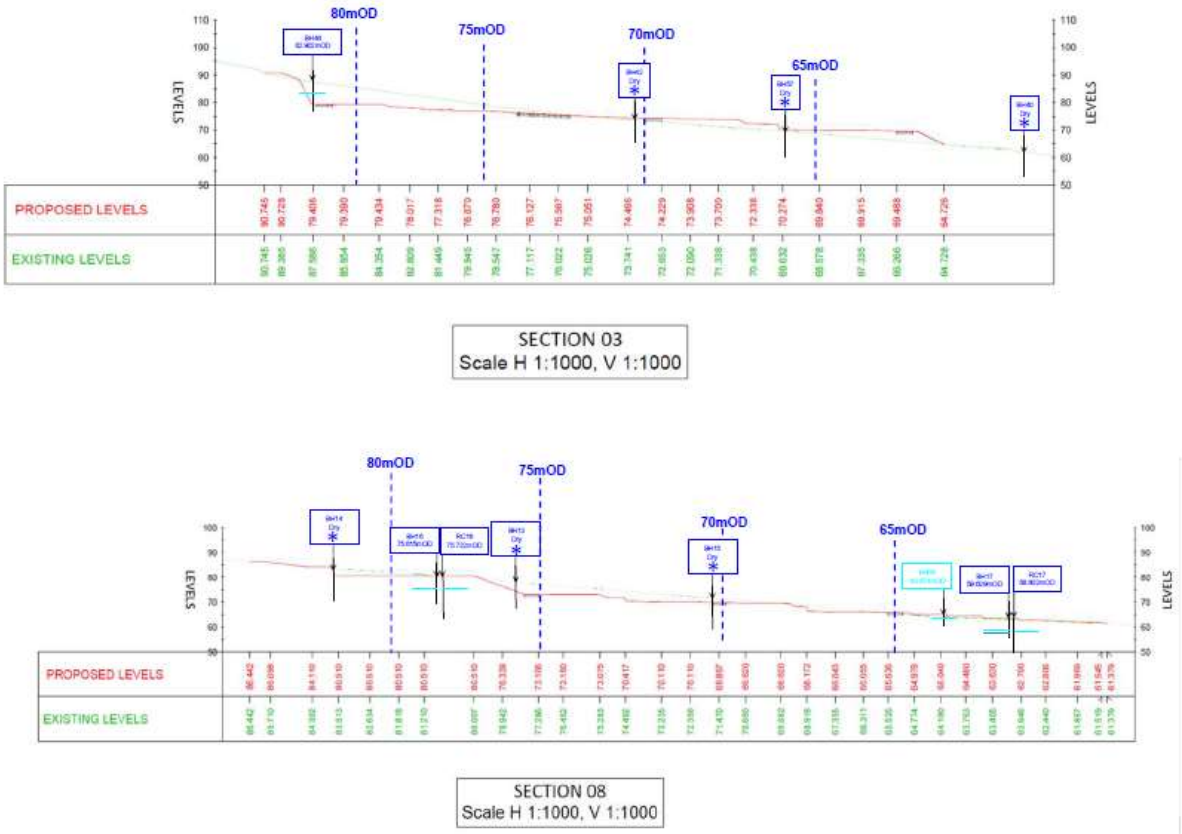

Figure 6-1: Cut and Fill Section with Groundwater Levels (adapted from AECOM 2022 Drawings CE-00-0610 to 0615)

Groundwater drainage to intercept and manage groundwater flows to prevent subsurface stability issues and groundwater emergence is required. Groundwater drainage is required at the western boundary as identified in the infrastructure report (AECOM, 2022). This drain should be installed to intercept flow that could emerge in cut walls and around impermeable structures (approximately 4-5mbGL) however this will be verified as part of the detailed geotechnical design for the cut and fill. Groundwater interception may also be considered at the northern parts of the Site where persistent springs have been identified. Any groundwater drainage would need to ensure that groundwater where intercepted is diverted around the Site and discharged into the surface water drainage network and not discharge back to ground downgradient of the drains.

As the springs feed local streams and a wetland area at the Site, the groundwater drainage design should consider any potential impacts of local dewatering on ecological habitats at and downstream of the Site as part of the overall drainage strategy for the Site.

6.3 Surface Water Drainage

The surface water drainage has been designed in accordance with the principles of Sustainable Drainage Systems (SuDS) Greater Dublin Strategic Drainage Strategy (GDSDS) and the Storm and Surface Water objectives of Wicklow County Council Adopted County Development Plan (AECOM, 2022b).

The proposed SuDS measures to be implemented at the Site include, where feasible: water butts, soakaways, permeable paving, filter drains swales, ponds and modular underground storage systems to provide attenuation storage (AECOM, 2022b). The ground conditions at the Site are generally not suitable for infiltration as a surface water management strategy and this is accounted for in the surface water and SUDS strategy.

The result of site investigation and testing identified that only two of the eight test locations were potentially suitable for infiltrations which is due to the heterogeneous geology and extensive lower permeability soils. In addition, the potential for shallow groundwater flows, rapid response of groundwater levels to recharge events (e.g., surface water infiltration) and upwards vertical groundwater flows would also limit the suitability of the Site for disposal of surface runoff to ground. Therefore, the use of soakaways and infiltration is not feasible for the Site and all surface runoff will be discharged to existing water courses at the Site via the attenuation measures incorporated in the surface water drainage design. Any groundwater interception drainage must be discharged in the surface water drainage and not discharged back into ground.

6.4 Ground Stability

There is a potential for groundwater levels to mound locally behind any impermeable retaining structures where the groundwater table is intercepted including temporary structures installed during construction. The potential impacts while not significant on a regional-scale, at site-scale could result in impact to the local groundwater levels and flow regime.

Due to the heterogeneous nature of the soil at the Site these effects could occur where groundwater is intercepted during construction and for post construction structures with the development of localised preferential flow paths and potentially undermining and associated slope and structural stability issues as well as flotation of structures.

Fill is required in the central and eastern parts of the Site to achieve proposed levels. There are potential issues slope stability associated with the placement of soil on areas with persistent springs and potential intermittent springs and shallow groundwater flows in the permeable sand horizons.

The detailed design will incorporate standard geotechnical design measures to ensure that drainage of groundwater around structures is managed appropriately to avoid any potential impacts during and post construction as part of the detailed cut and fill design. Foundation solutions will include piled, strip and pad or raft foundations as appropriate to the ground conditions. Soil stabilisation may also be considered as part of the detailed design.

6.5 Water Quality

There are substantial earthworks required to achieve the proposed levels and install site infrastructure, the culverting of stream sections and other instream works and the use of cementitious materials and fuels during construction. As there are a number of streams and water courses at the Site and the potential for groundwater to be encountered during construction works including piling, there is a potential for risk of impact to water quality if not appropriately managed.

Surface runoff of deleterious material including fuels and materials being used on-site during the construction works could potentially impact the receiving water quality in the Greystones Stream, other water courses and groundwater at the Site. In the event of a worst-case scenario (e.g., large fuel spill during construction works) this could impact on the Irish Sea where these streams discharge at Greystones. There is limited potential for discharge of any contaminated runoff to the receiving water courses during the operation of the Proposed Development due to the design for surface water retention and treatment facilities included in the SuDS measures.

Foul water from the Proposed Development will be discharged via a connection to the existing public sewer and ultimately discharged following treatment at Greystones WWTP. The WWTP operates under existing statutory consents and the most recent available data in the 2020 AER verifies that discharges from the WWTP were compliant. Foul water from the Proposed Development will only be discharged to public sewer under agreement from Irish water and other applicable statutory consents verifying capacity at the WWTP for the Proposed Development. Therefore, there will be no impacts including cumulative on the receiving water environment associated with discharges from the Proposed Development.

Appropriate management and mitigation measures will be required during the Construction Phase. The Construction Phase will be managed in accordance with a robust Construction Environmental Management Plan that will be prepared by the Contractor and which will include appropriate avoidance and mitigation measures to prevent or limit any potential impact on the receiving water quality.

6.6 Protected and Designated Sites

The findings of the risk-based assessment on water quality and applying the precautionary principle identified that in the absence of any mitigation of avoidance measures that there could be a potential impact on water quality within the Greystones Stream and at the point where it discharges to the Irish Sea. There is also a potential for sediment entrained in runoff from construction traffic along haul routes to enter adjoining offsite watercourses including the Kilruddery-Deerpark Stream to the north of the Site. Similarly, treated foul water will be discharge following treatment at Greystone WWTP to the Irish Sea. Given the proximity of the discharge point of the Greystones Stream and Kilruddery-Deerpark stream to Bray Head SAC there is a potential risk in a worst-case, unmitigated scenario incident of impact to water quality in the vicinity of Bray Head SAC, albeit low-level due to the dilution within the water courses and the Irish Sea. Taking account of the separation distance and significant dilution factor in the Irish Sea, there is no identified potential impact on the Murrough SPA and Murrough Wetlands SAC in the unlikely event of a worst-case scenario incident at the Site.

It is considered that there would be no impact on baseline conditions at any Natura 2000 sites associated with foul discharges from the Site.

The Construction Phase will be managed in accordance with a robust Construction Environmental Management Plan that will be prepared by the Contractor and which will include appropriate avoidance and mitigation measures to prevent any potential impact on the receiving water courses and associated Protected and Designated sites.

6.7 Water Framework Directive

The findings of the risk-based assessment identified that in the absence of any mitigation of avoidance measures there could be a potential impact on the receiving water quality of the surface water and groundwater bodies associated with the Site. Taking account of the inherent design avoidance and mitigation measures there are no identified significant residual impacts anticipated for water quality or quantity (including flow regime and water resources) for surface water and groundwater associated with the Proposed Development.

The potential impact on WFD Status for water bodies was assessed taking account of the design of the Proposed Development, the baseline conditions at the Site as outlined and the assigned WFD status (EPA, 2022) for the water bodies connected with the Site, namely the Greystones Stream and Kilruddery_Deerpark Stream surface water bodies, Wicklow GWB groundwater body and the Irish Sea coastal water body.

Overall, the Proposed Development taking account of embedded avoidance and mitigation measures to prevent or limit potential impacts on water bodies will not result in a deterioration or alteration of the WFD status for the water bodies.

7 CONCLUSIONS

A precautionary approach is recommended for interception and management of groundwater to avoid the potential for groundwater management issues during construction and potential groundwater flood risk at the Proposed Development and offsite locations.

7.1 Site Hydrogeology

The detailed engineering design for the Proposed Development will take account of the following key hydrogeological characteristics identified at the Site to ensure any potential risks associated with groundwater and the Proposed Development are appropriately mitigated and avoided:

- Heterogeneous ground conditions and variable groundwater flow paths have been identified at the Site and taking account of the available data, there are associated unknowns regarding groundwater flows at the Site.
- Groundwater strikes were encountered during borehole drilling at varying depths including the upper 5m below ground.
- Measured groundwater levels for August – October 2021 range between 4.81mbTOC (BH07) and 9.7mTOC (RC26) and were up to 4.955m (BH28) higher in wetter conditions as recorded in January 2022. The EPA (December 2021) has reported that the groundwater levels recorded for December 2021 are seasonally low particularly in the east of the country. Therefore, it is possible that the January 2022 levels are not indicative of wet season levels and this will need to be considered in the detailed design.
- The bedrock aquifer is below 20m depth, and the sandy clay and sand overburden soils are the predominant geological strata that control groundwater flows at the Site. Extensive surface cover of clay with sand laminations prevent infiltration to ground which only occurs where sand horizons are at surface. Sand horizons of variable thickness in excess of 5m encountered at locations across the site and in particular along the eastern parts of the Site provide pathways for shallow subsurface groundwater flows.
- Groundwater flow with lateral and vertical (upwards and downwards) components in a heterogeneous geological formation with persistent and intermittent groundwater emergence as spring flows.
- The potential for rapid response of groundwater levels to recharge events (including infiltration via soakaways) and intermittent groundwater emergence as springs and shallow sub-surface flow.

7.2 Design Avoidance and Mitigation

Groundwater level monitoring during wetter weather including longer-term continuous monitoring to record temporal fluctuations and groundwater level response to recharge (rainfall) events is recommended to establish worst case groundwater levels.

A cut off ditch along the western boundary is proposed to intercept any over land flows. At the lower boundary to the south and east of the Site, the existing ditch and drains will be retained and a new filter drain incorporated in the overall drainage strategy for the Proposed Development. Groundwater interception drainage is required at the western boundary and

potentially at the central and eastern parts of the Site. A similar precautionary approach for the management of groundwater flows to avoid potential groundwater flood risk at the Site and at the adjoining properties will be incorporated in the detailed design to ensure there are no flood risks at the site or elsewhere including offsite properties.

Where subsurface structures are required, for example temporary retaining walls basements, and attenuation tanks in locations where groundwater may be encountered, standard design measures will used to prevent groundwater ingress, flooding and ground stability issue. These measures include incorporating groundwater drains around structures to ensure groundwater movement across the Site is managed appropriately.

The presence of persistent and intermittent springs and shallow groundwater flows in permeable sand horizons have been identified across the Site. These ground conditions will be considered as part of the detailed design for cut and fill to ensure that groundwater is appropriately managed to avoid any issues with ground stability during and post construction.

Infiltration to ground via soakaways and infiltration swales is not feasible for the Site due to the variable capacity for infiltration as well as likely rapid response of groundwater levels to recharge. Alternative SuDS measures to avoid the discharge of surface water to ground have been incorporated into the drainage design.

Groundwater may be encountered during the construction works where excavation of 8-9m is required along the western parts of the Site. Where water must be pumped from the excavations, water will be managed through robust dewatering and water treatment methodologies to ensure that groundwater where encountered is appropriately managed. The dewatering strategy will ensure that potential impact on the local groundwater flow regime within the Site and associated receptors (e.g. springs, water courses and habitats) is minimised. Any dewatering required will be managed to prevent any potential impacts to offsite receptors including groundwater and associated ecosystems and habitats or other groundwater users along Site boundaries and offsite.

Where required, measures such as a temporary impermeable barrier (sheet piles) to enable working in the dry and to minimise the volume of water that would need to be pumped and treated from excavations will be incorporated in the detailed geotechnical design for the construction works.

A CEMP will be prepared by the contractor which will be prepared in accordance with industry best practice standards including CIRIA - C532. The CEMP will include detailed measures to protect water quality and associated ecological receptors. The measures will address the main activities of potential impact which include:

- Control and management of surface water runoff;
- Control and management of groundwater during excavation and dewatering;
- Management and control of works adjoining water courses;
- Management and control of imported soil and aggregates from off-site sources;
- Fuel and Chemical handling, transport and storage; and
- Accidental release of contaminants.

The CEMP will outline measures for the control and treatment of water encountered during excavations and a robust methodology for the treatment of water prior to discharge from the Site.

A watching brief by an Environmental / Ecologist Clerk of Works is recommended during critical stages of the construction works associated with surface water and crossings.

All below (below ground) drainage infrastructure will be constructed in accordance with current IW requirements.

Discharges from the Site for the construction and operational phases will be in accordance with relevant statutory approvals from Irish Water and Wicklow County Council.

These conclusions and recommendations are based on the current understanding of the existing site conditions and design proposals for the Proposed Development provided by the Applicant.

8 REFERENCES

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Site Investigation Limited, 2021. Coolagad, Greystones, Co. Wicklow Site Investigation Report (S.I. Ltd Contract No: 5868)

Appendix A

S.I. Ltd Contract No: 5868

Client: Cairn Homes
Engineer: AECOM
Contractor: Site Investigations Ltd

Coolagad,
Greystones, Co. Wicklow
Site Investigation Report

Prepared by:

.....
Stephen Letch

Issue Date:	12/10/2021
Status	Final
Revision	2

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1. Cable Percussive Borehole Logs
2. Rotary Corehole Logs
3. Trial Pit Logs and Photographs
4. Dynamic Probe Logs – Structures
5. Dynamic Probe Logs - Roads
6. Infiltration Test Results and Photographs
7. Groundwater Monitoring
8. Falling Head Test Results
9. Rising Head Test Results
10. Groundwater Analysis
11. California Bearing Ratio Tests
12. Geotechnical Laboratory Test Results
13. Specialist Geotechnical Test Results
14. Chemical Laboratory Test Results
15. Survey Data

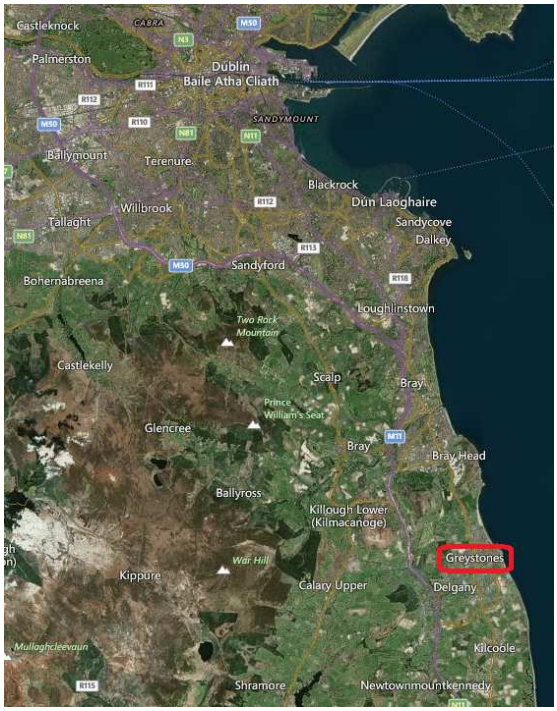
1. Introduction

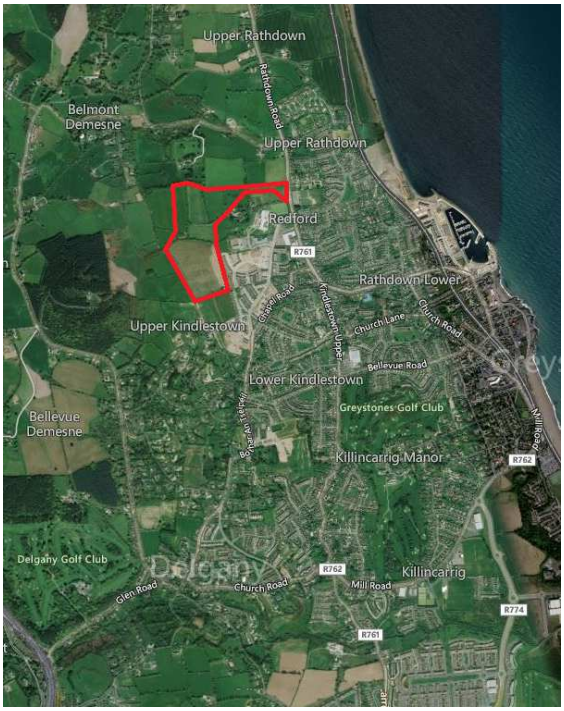
On the instructions of AECOM, Site Investigations Ltd (SIL) was appointed to complete a ground investigation at Greystones, Co. Wicklow. The investigation was completed for the residential development of the site on behalf of the Client, Cairn Homes. The fieldworks were started in July and completed in September 2021.

This report presents the factual geotechnical data obtained from the field and laboratory testing with interpretation of the ground conditions discussed.

2. Site Location

Greystones is located to the south of Dublin on the east coast of Ireland. The site is located to the west of Greystones town centre. The first map below shows the location of Greystones to the south of Dublin and the second map shows the location of the site in Greystones.





3. Fieldwork

The fieldworks comprised a programme of cable percussive boreholes, rotary coreholes, trial pits, dynamic probes, infiltration tests, permeability tests, groundwater analysis and California Bearing Ratio tests. All fieldwork was carried out in accordance with BS 5930:2015, Engineers Ireland GI Specification and Related Document 2nd Edition 2016 and Eurocode 7: Geotechnical Design. The fieldworks comprised of the following:

- 57 No. cable percussive boreholes
- 9 No. rotary coreholes
- 32 No. trial pits
- 447 No. dynamic probes
- 9 No. infiltration tests
- Groundwater monitoring
- 30 No permeability tests
- Groundwater analysis
- 4 No. California Bearing Ratio tests

3.1. Cable Percussive Boreholes

Cable percussion boring was undertaken at 57 No. locations using a Dando 150 rig and constructed 200mm diameter boreholes. The boreholes terminated at depths ranging from 3.20mbgl (BH06) to 10.20mbgl (BH28) after 1.5hrs chiselling with no further progress. Undisturbed 100mm diameter samples were recovered where possible and bulk disturbed samples were also taken at regular intervals.

To test the strength of the stratum, Standard Penetration Tests (SPT's) were performed at 1.00m intervals in accordance with BS 1377 (1990). In soils with high gravel and cobble content it is appropriate to use a solid cone (60°) (CPT) instead of the split spoon and this was used throughout the testing. The test is completed over 450mm and the cone is driven 150mm into the stratum to ensure that the test is conducted over an undisturbed zone. The cone is then driven the remaining 300mm and the blows recorded to report the N-Value. The report shows the N-Value with the 75mm incremental blows listed in brackets (e.g., BH01 at 1.00mbgl where N=12-(2,2/3,3,3,3)). Where refusal of 50 blows across the test zone was encountered was achieved during testing, the penetration depth is also reported (e.g., BH01 at 8.00mbgl where N=50-(25 for 125mm/50 for 20mm)).

At 10 No. locations, groundwater monitoring standpipes were installed in the cable percussive boreholes and consisted of slotted pipe surrounded by a gravel response zone with bentonite seals. The standpipe covers were then fenced off for protection from machinery and livestock.

The cable percussive borehole logs are presented in Appendix 1.

3.2. Rotary Coreholes

At 9 No. locations, rotary coreholes were completed adjacent to the cable percussive boreholes to investigate the depth of bedrock. The rotary drilling was carried out using a Sondeq SS71 top drive rig and open hole drilling techniques were used to advance through the overburden. The coreholes terminated at depths ranging from 10.00mbgl to 20.00mbgl and no bedrock was encountered across the site.

Five groundwater monitoring standpipes were installed in the coreholes as per the cable percussive boreholes and were also fenced off.

The rotary corehole logs are presented in Appendix 2.

3.3. Trial Pits

32 No. trial pits were excavated using a wheeled excavator. The pits were logged and photographed by a SIL geotechnical engineer and representative disturbed bulk samples were recovered as the pits were excavated, which were returned to the laboratory for testing. The pits were then reinstated with the arisings upon completion.

The trial pit logs and photographs are presented in Appendix 3.

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3.4. Dynamic Probes

At 447 No. locations, dynamic probes were completed using a track mounted Competitor 130 machine. 255 No. probes were completed for the proposed structures (DP001-DP255) and 192 No. probes were completed for the proposed roads (RDP001-RDP192).

The testing complies with the requirements of BS1377: Part 9 (1990) and Eurocode 7: Part 3. The configuration utilised standard DPH (Heavy) probing method comprising a 50kg weight, 500mm drop height and a 50mm diameter (90°) cone. The number of blows required to drive the cone each 100mm increment into the sub soil is recorded in accordance with the standards. The dynamic probe provides no information regarding soil type or groundwater conditions.

The dynamic probe results can be used to analyse the strength of the soil strata encountered by the probe. 'Proceedings of the Trinity College Dublin Symposium of Field and Laboratory Testing of Soils for Foundations and Embankments' presents a paper by Foirbart that is most relevant to Irish soil conditions and within this paper the following equations were included:

Granular Soils: DPH N_{100} x 2.5 = SPT N value

Cohesive Soils: C_u = 15 x DPH N_{100} + 30 kN/m^2

These equations present a relationship between the probe N_{100} value and the SPT N value for granular soils and the undrained shear strength of cohesive soils.

The dynamic probe logs are separated into two Appendices with the structural probes presented in Appendix 4 and the road probes in Appendix 5.

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3.5. Infiltration Tests

At 9 No. locations, soakaway tests were completed and logged by SIL geotechnical engineer. BRE Special Digest 365 stipulates that the pit should be filled three times and that the final cycle is used to provide the infiltration rate. The time taken for the water level to fall from 75% volume to 25% volume is required to calculate the rate of infiltration. However, if the water level does not fall at a steady rate, then the test is deemed to have failed and the area is unsuitable for storm water drainage.

The soakaway test results and photographs are presented in Appendix 6.

3.6. Groundwater Monitoring

Following the installation of the standpipes, 3 No. sets of groundwater readings were taken from the standpipes. This involved lowering a specialised groundwater tape that omits a sound when groundwater is encountered and the depth is recorded. The groundwater readings are presented in Appendix 6.

3.7. Permeability Tests

At the 15 No. standpipes, falling and rising head tests were completed to measure the permeability of the soils. The falling head involves adding water to the standpipe and then the rate of falling water level is recorded over time. The rising head test involves reducing the water level, an air compressor was used, and the rise of the water level was recorded.

The falling head tests are presented in Appendix 8 and the rising head tests are presented in Appendix 9.

3.9. Groundwater Analysis

Following the completion of the works, groundwater analysis was completed by Ronan Doyle Monitoring Solutions. The parameters required were specified by the Engineer and although the field testing has been completed, some test results are still outstanding so will be provided in Appendix 10 of the final report.

3.10. California Bearing Ratio Tests

At 4 No. locations, undisturbed cylindrical mould samples were taken to complete California Bearing Ratio tests in the laboratory. The results facilitate the designing of the access roads and associated areas. These tests were completed to BS1377: 1990: Part 4, Clause 7 ‘Determination of California Bearing Ratio’. The test results are provided in Appendix 11.

3.11. Surveying

Following completion of all the fieldworks, a survey of the exploratory hole locations was completed using a GeoMax GPS Rover. The data is supplied on each individual log along with a site plan in Appendix 15.

4. Laboratory Testing

Geotechnical laboratory testing was completed on representative soil samples in accordance with BS 1377 (1990). Testing included:

- 30 No. Moisture contents
- 25 No. Atterberg limits
- 25 No. Particle size gradings with hydrometers
- 25 No. pH and chloride content
- 20 No. sulphate content

Specialist geotechnical testing was completed by NMTL Ltd and consists of the following:

- 11 No. One dimensional consolidation tests
- 16 No. quick undrained triaxial tests

Specialist chemical testing was completed by Eurofins Chemtest Limited and consists of the following:

- 20 No. loss on ignition tests

The geotechnical laboratory test results are presented in Appendix 12, the NMTL Ltd test results in Appendix 13 and Eurofins Chemtest Limited testing in Appendix 14.

5. Ground Conditions

5.1. MADE GROUND

MADE GROUND was recorded at three borehole locations and three trial pits across the north and east of the site. The depth was generally less than 0.70mbgl but did extend to 1.20mbgl at BH36 and to 2.10mbgl at TP142. The fill material consisted of granular gravel soils in BH01 and BH03 but was cohesive clay soils with some timber, concrete and plastic fragments.

5.2. Overburden

The shallow ground conditions in the boreholes and trial pits are consistent with sandy gravelly silty CLAY with cobbles and boulders. The colour varies slightly across the site from light brown to brown to dark brown with red brown and brown yellow soils recorded.

The deeper ground conditions in the boreholes recorded mainly cohesive CLAY soils but SAND and GRAVEL strata were also recorded at various locations across the site.

No bedrock was encountered across the site in the rotary coreholes.

The SPT N-values generally range from 3 to 16 at 1.00mbgl which indicates soft to stiff soils at this depth and although the N-values then increase to a maximum of 29, low values of 3 to 8 were recorded at 8 No. locations indicating soft soils. The values at 3.00mbgl are generally 8 or greater but BH10 did record a value of 3 at 3.00mbgl.

Laboratory tests of the shallow cohesive soils recorded CLAY soils with low and intermediate plasticity indices of 11% to 17% recorded. The particle size distribution curves were poorly sorted straight-line curves with 23 to 50% fines content.

5.3. Groundwater

Groundwater details in the boreholes and trial pits during the fieldworks are noted on the logs in Appendices 1 and 3. Groundwater ingresses were recorded in nine boreholes, at depths ranging from 3.00mbgl (BH02) to 8.50mbgl (BH53). There were water ingresses into 2 No. trial pits across the site, at depths ranging from 1.20mbgl (RTP192) to 2.10mbgl (RTP191) with ingress rates logged as slow and medium respectively.

6. Recommendations and Conclusions

Please note the following caveats:

The recommendations given, and opinions expressed in this report are based on the findings as detailed in the exploratory hole records. Where an opinion is expressed on the material between the exploratory hole locations or below the final level of excavation, this is for guidance only and no liability can be accepted for its accuracy. No responsibility can be accepted for adjacent unexpected conditions that have not been revealed by the exploratory holes. It is further recommended that all bearing surfaces when excavated should be inspected by a suitably qualified Engineer to verify the information given in this report.

Excavated surfaces in clay strata should be kept dry to avoid softening prior to foundation placement. Foundations should always be taken to a minimum depth of 0.50mBGL to avoid the effects of frost action and possible seasonal shrinkage/swelling.

If it is intended that on-site materials are to be used as fill, then the necessary laboratory testing should be specified by the Client to confirm the suitability. Also, relevant lab testing should be specified where stability of side slopes to excavations is a concern, or where contamination may be an issue.

6.1. Shallow Foundations

Due to the unknown depth of foundation and no longer-term groundwater information, this analysis assumes the groundwater will not influence the construction or performance of these foundations.

As stated previously, man-made soils were recorded at three boreholes and three trial pits to a maximum depth of 2.10mbgl. SIL do not recommend that narrow shallow foundations are placed on fill material due to the unknown compaction methods used during laying of man-made material. This unknown could result in softer spots and differential settlement once construction is completed. If shallow foundations are to be used and man-made soils are encountered below foundation level, then the soil should be removed and replaced with engineered fill which is compacted to the required standard.

The boreholes generally encountered soft to firm brown slightly sandy slightly gravelly silty CLAY at 1.00mbgl and the SPT N-value at this depth ranges from 3 to 16. Using a correlation proposed by Stroud and Butler between SPT N-values and plasticity indices, the SPT N-value can be used to calculate the undrained shear strength. Dependent on the plasticity index at each site, the Stroud and Butler correlation is C_u=4 to 6N. With the low to intermediate plasticity indexes recorded in the laboratory for the soils on this site, the correlation chosen is C_u=6N.

The C_u value can then be used to calculate the ultimate bearing capacity, which is the total loading that the soil could withstand but then a factor of safety is used to ensure that failure of the soils does not occur.

The table overleaf shows the SPT N-value, the ultimate bearing capacity and finally the allowable bearing capacities for the top 3m at each borehole location. The ultimate bearing capacity and allowable bearing capacities are in kN/m^2.

BH No.	Depth	N-Value	UBC	ABC	Depth	N-Value	UBC	ABC	Depth	N-Value	UBC	ABC
BH01	1	12	385	130	2	18	587	196	3	33	1065	355
BH02	1	9	295	98	2	19	618	206	3	20	666	222
BH03	1	14	445	150	2	18	587	196	3	50	-	-
BH04	1	14	445	150	2	3	128	43	3	9	330	110
BH05	1	14	445	150	2	10	342	114	3	14	483	161
BH06	1	3	110	37	2	6	220	73	3	50	-	-
BH07	1	3	110	37	2	4	158	53	3	11	390	130
BH08	1	7	230	77	2	7	250	83	3	15	513	171
BH09	1	16	508	170	2	17	555	185	3	25	819	273
BH10	1	3	110	37	2	2	97	33	3	3	145	48
BH11	1	7	230	77	2	16	525	175	3	24	788	263
BH12	1	8	265	88	2	21	679	226	3	28	910	304
BH13	1	7	230	77	2	5	189	63	3	33	1065	355
BH14	1	6	200	67	2	16	525	175	3	25	819	273
BH15	1	10	325	110	2	9	312	104	3	37	1185	395
BH16	1	9	295	98	2	6	220	73	3	19	635	212
BH17	1	13	415	140	2	22	710	237	3	28	910	304
BH18	1.5	5	180	60	2	16	525	175	3	20	666	222
BH19	1	7	230	77	2	20	648	216	3	37	1185	395
BH20	1	15	477	160	2	16	525	175	3	23	758	253
BH21	1	11	355	120	2	13	435	145	3	50	-	-
BH22	1	9	295	98	2	15	495	165	3	25	819	273
BH23	1	9	295	98	2	18	587	196	3	20	666	222
BH24	1.2	9	297	99	2	16	525	175	3	30	972	324
BH25	1	8	265	88	2	15	495	165	3	31	1000	334
BH26	1	6	200	67	2	13	435	145	3	27	880	293
BH27	1	5	170	57	2	7	250	83	3	20	666	222
BH28	1	11	355	120	2	27	860	287	3	24	788	263
BH29	1	7	230	77	2	8	280	94	3	25	819	273
BH30	1	8	265	88	2	11	372	124	3	17	573	191
BH31	1	10	325	110	2	26	830	277	3	32	1035	345
BH32	1	11	355	120	2	20	648	216	3	23	758	253
BH33	1	13	415	140	2	14	465	155	3	21	696	232
BH34	1	13	415	140	2	19	618	206	3	18	605	202
BH35	1	14	445	150	2	29	923	308	3	25	819	273
BH36	1	7	230	77	2	9	312	104	3	12	420	140
BH37	1	10	325	110	2	11	372	124	3	17	573	191
BH38	1	11	355	120	2	19	618	206	3	21	696	232
BH39	1	9	295	98	2	15	495	165	3	14	483	161
BH40	1	16	508	170	2.5	17	565	190	3	17	573	191
BH41	1	13	415	140	2	19	618	206	3	31	1000	334
BH42	1	14	445	150	2	15	495	165	3	15	513	171
BH43	1	9	295	98	2	13	435	145	3	14	483	161
BH44	1	15	477	160	2	16	525	175	3	19	635	212
BH45	1	6	200	67	2	14	465	155	3	21	696	232
BH46	1	7	230	77	2	13	435	145	3.5	17	585	195
BH47	1	6	200	67	2	11	372	124	3.5	8	310	103
BH48	1	10	325	110	2	13	435	145	3	15	513	171
BH49	1	10	325	110	2	11	372	124	3	12	420	140
BH50	1	6	200	67	2	12	405	135	3	14	483	161
BH51	1	9	295	98	2	12	405	135	3	15	513	171
BH52	1	10	325	110	2	12	405	135	3	16	543	181
BH53	1	13	415	140	2	12	405	135	3	29	942	314
BH54	1	8	265	88	2	13	435	145	3	13	450	150
BH55	1	7	230	77	2	9	312	104	3	11	390	130
BH56	1	5	170	57	2	11	372	124	3	21	696	232
BH57	1	8	265	88	2	14	465	155	3	9	330	110

For analysis of bearing capacities from the dynamic probes, the N_{100} values are used as follows in cohesive soils. The undrained shear strength (C_u) is calculated using the N_{100} value as per the equation in Section 3.1. This can then be used in calculations to work out the ultimate bearing capacity (ULS) and when a factor of safety of 3 is applied, the allowable bearing capacity (ABC) can be provided.

In granular soils, the N_{100} value is used to correlate the SPT N-value. The SPT N-value can then be used to calculate the allowable bearing capacity, as per Terzaghi and Peck, using the correlation of SPT N-value x 10 = ABC.

The table overleaf shows the allowable bearing capacities for N_{100} values 1 to 10 at 1.00mbgl and these can be used provide the allowable bearing capacity at each probe location. If the blow counts at 1.00mbgl are too low for the proposed loadings then the foundations should be lowered until the soil becomes stiffer or denser. A suitably qualified Engineer should inspect the foundations prior to pouring and confirm that the soils are suitable for the foundation design.

N_{100} Value	Cohesive Soils			Granular Soils	
	C_u	ULS	ABC	SPT N-value	ABC
1	45	245	82	2.5	25
2	60	324	110	5	50
3	75	400	135	7.5	75
4	90	480	160	10	100
5	105	555	185	12.5	125
6	120	630	210	15	150
7	135	705	235	17.5	175
8	150	780	260	20	200
9	165	855	285	22.5	225
10	180	930	310	250	250

All capacities shown are in kN/m^2.

The following assumptions were made as part of these analyses. If any of these assumptions are not in accordance with detailed design or observations made during construction these recommendations should be re-evaluated.

- Foundations are to be constructed on a level formation of uniform material type (described above).
- The bulk unit weight of the material in this stratum has a minimum density of $19kN/m^3$.
- All bearing capacity calculations allow for a settlement of 25mm.

The trial pits indicate that excavations in the cohesive soils should be stable for a short while at least. However, all slopes should be evaluated upon excavation and regular inspections should be completed during construction to ensure that all slopes are stable. Temporary support should be used on any excavation that will be left open for an extended period.

6.2. Groundwater

The caveats below relating to interpretation of groundwater levels should be noted:

There is always considerable uncertainty as to the likely rates of water ingress into excavations in clayey soil sites due to the possibility of localised unforeseen sand and gravel lenses acting as permeable conduits for unknown volumes of water.

Furthermore, water levels noted on the borehole and trial pit logs do not generally give an accurate indication of the actual groundwater conditions as the borehole or trial pit is rarely left open for sufficient time for the water level to reach equilibrium.

Also, during boring procedures, a permeable stratum may have been sealed off by the borehole casing, or water may have been added to aid drilling. Therefore, an extended period of groundwater monitoring using any constructed standpipes is required to provide more accurate information regarding groundwater conditions. Finally, groundwater levels vary with time of year, rainfall, nearby construction and tides.

Pumping tests would be required to determine likely seepage rates and persistence into excavations taken below the groundwater level. Deep trial pits also aid estimation of seepage rates.

As discussed previously, groundwater was encountered in nine boreholes, all below 3.00mbgl, and in two trial pits at 1.20mbgl and 2.10mbgl.

There is always considerable uncertainty as to the likely rates of water ingress into excavations in cohesive soil sites due to the possibility of localised unforeseen sand and gravel lenses acting as permeable conduits for unknown volumes of water. Based on this information at the exploratory hole locations to date, it is considered likely that any shallow ingress (less than 2.00mbgl) into excavations of the CLAY will be slow to medium. If granular soils are encountered in shallow excavations, then the possibility of water ingressing into an excavation increase.

If groundwater is encountered during excavations then mechanical pumps will be required to remove the groundwater from sumps. Sumps should be carefully located and constructed to ensure that groundwater is efficiently removed from excavations and trenches.

6.3. Temporary Excavation Slopes

On the basis of the strength of the material from SPT's, groundwater conditions and pit wall stability during trial pitting, a temporary slope angle of 33º, or 1:1.5, would be recommended for the shallow CLAY soils. If the deeper excavations across the site extend into the stiffer CLAY soils then the temporary slope angle could be increased to 45º, or 1:1. If slopes are to be left for a long period of time then the possibility of shallow near surface slips could occur as cohesion in the exposed soils decreases.

Temporary slope protection measures should also be considered to minimise the risk of spalling. In order to protect against spalling of the slope walls, a heavy duty mesh could also be placed across the surface and weighed down to ensure it stays on the surface of the slope. The temporary slopes should be initially be inspected by a suitably qualified, experienced Engineer and then regularly inspected by an experienced site Engineer. If there are concerns with instability then advice should be sought from a suitably experienced geotechnical Engineer.

6.4. Pavement Design

The CBR test results in Appendix 11 indicate CBR values ranging from 8.0% to 12.8%.

The insitu CBR samples were recovered from 0.50mbgl. Inspection of the formation strata should be completed prior to construction of the pavement. Once the exact formation levels are finalised then additional in-situ testing could be completed to assist with the detailed pavement design.

6.5. Soakaway Tests

Two of the soakaway tests, IT01 and IT08, passed the BRE specification and recorded f-values of **3.17×10^{-5}m/s** and **4.19×10^{-5}m/s** respectively.

The remaining seven soakaway tests failed the specification as the water level did not fall sufficiently enough to complete the test. The BRE Digest stipulates that the pit should half empty within 24hrs, and extrapolation indicates this condition would not be satisfied. The tests were terminated at the end of the first (of a possible three) fill/empty cycle since further testing would give even slower fall rates due to increased soil saturation. The unsuitability of the soils for soakaways is further suggested by the soil descriptions of the materials in this area of the site where the soakaway was completed, i.e., well compacted clay soils.

Appendix 1

Cable Percussive Borehole Logs

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH01**

Contract:	Coolagad	Easting:	727988.757	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713274.995	Date Completed:	14/07/2021
Client:	Cairn Homes	Elevation:	53.95	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
0.10	TOPSOIL.	53.85					
0.40	MADE GROUND: grey silty sandy gravel.	53.55					
	Firm grey sandy slightly gravelly silty CLAY with low cobble content.		1.00 1.00	B C	JOT001 N=12 (2,2/3,3,3,3)		
			2.00 2.00	B C	JOT002 N=18 (2,3/4,4,5,5)		
2.30	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	51.65					
2.80	Very stiff black slightly sandy slightly gravelly silty CLAY with low cobble content.	51.15	3.00 3.00	B C	JOT003 N=33 (2,5/7,8,9,9)		
3.50	Stiff dark grey slightly sandy slightly gravelly silty CLAY.	50.45					
			4.00 4.00	B C	JOT004 N=23 (2,3/4,6,6,7)		
4.80	Very stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	49.15	5.00 5.00	B C	JOT005 N=38 (4,7/7,9,11,11)		
5.50	Very stiff black slightly sandy slightly gravelly silty CLAY with low cobble content.	48.45					
			6.00 6.00	B C	JOT006 N=45 (3,6/10,11,12,12)		
			7.00 7.00	B C	JOT007 N=43 (2,5/7,11,12,13)		
			8.00 8.00 8.20	B C C	JOT008 50 (25 for 125mm/50 for 20mm) 50 (25 for 5mm/50 for 5mm)		
8.10	Obstruction - boulders.	45.85					
8.20	End of Borehole at 8.20m	45.75					

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
8.10	8.20	01:30				14/07	8.20	Dry				0.00	8.20	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH02**
Contract:	Coolagad	Easting:	727926.097	Date Started:	11/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713212.480	Date Completed:	11/08/2021
Client:	Cairn Homes	Elevation:	56.75	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.30	TOPSOIL.		56.5	56.45					
0.5		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		56.0						
1.0						1.00	B	DM010		
				55.5		1.00	C	N=9 (1,1/2,2,2,3)		
1.5										
				55.0						
2.0	1.90	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.			54.85	2.00	B	DM011		
				54.5		2.00	C	N=19 (3,3/4,4,5,6)		
2.5						2.50	U	DM012 U100= 10%		
				54.0						
3.0						3.00	B	DM013		
				53.5		3.00	C	N=20 (4,5/5,4,5,6)		
3.5										
				53.0						
4.0	4.00	Stiff brown red sandy slightly gravelly silty CLAY with low cobble content.			52.75	4.00	B	DM014		
				52.5		4.00	C	50 (25 for 80mm/50 for 5mm)		
4.5										
				52.0						
5.0						5.00	B	DM015		
				51.5		5.00	C	N=24 (4,5/5,6,6,7)		
5.5										
				51.0						
6.0	6.10				50.65	6.00	B	DM016		
	6.20	Obstruction - boulders. End of Borehole at 6.20m		50.5	50.55	6.00	C	50 (25 for 85mm/50 for 5mm)		
6.5						6.20	C	50 (25 for 5mm/50 for 5mm)		
				50.0						
7.0										
				49.5						
7.5										
				49.0						
8.0										
				48.5						
8.5										
				48.0						
9.0										
				47.5						
9.5										
				47.0						
10.0										
				46.5						
10.5										
				46.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
4.10	4.20	01:00	3.00	2.50	NS	11/08	6.20	2.00				0.00	6.20	Arisings	Borehole terminated due to obstruction.
6.10	6.20	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH03**

Contract:	Coolagad	Easting:	727809.453	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713256.565	Date Completed:	15/07/2021
Client:	Cairn Homes	Elevation:	63.46	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			63.26					
0.5	0.60	MADE GROUND: grey orange silty sandy gravelly cobbles.		63.0	62.86	0.60	U	JOT009 U100= 0%		
1.0		Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		62.5		1.00 1.00	B C	JOT010 N=14 (2,3/3,4,3,4)		
1.5				62.0						
2.0				61.5		2.00 2.00	B C	JOT011 N=18 (2,3/4,4,5,5)		
2.5				61.0						
3.0	2.80	Very stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content.		60.5	60.66	3.00 3.00	B C	JOT012 50 (3,11/50 for 100mm)		
3.5				60.0						
4.0	4.10	Very stiff dark grey slightly sandy slightly gravelly silty CLAY with high cobble content.		59.5	59.36	4.00 4.00	B C	JOT013 50 (2,16/50 for 50mm)		
4.5				59.0						
5.0				58.5		5.00 5.00	B C	JOT014 50 (10,11/50 for 125mm)		
5.5	5.40 5.50	Obstruction - boulders. End of Borehole at 5.50m		58.0	58.06 57.96	5.50	C	50 (25 for 5mm/50 for 5mm)		
6.0				57.5						
6.5				57.0						
7.0				56.5						
7.5				56.0						
8.0				55.5						
8.5				55.0						
9.0				54.5						
9.5				54.0						
10.0				53.5						
10.5				53.0						

Chiselling:

From:	To:	Time:
3.30	3.40	01:00
5.40	5.50	01:30

Water Strikes:

Strike:	Rose:	Depth Sealed
3.80	2.90	NS

Water Details:

Date:	Hole Depth:	Water Depth:
15/07	5.50	1.80

Installation:

From:	To:	Pipe:

Backfill:

From:	To:	Type:
0.00	5.50	Arisings

Remarks:

Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH04**
Contract:	Coolagad	Easting:	727738.102	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713253.588	Date Completed:	16/07/2021
Client:	Cairn Homes	Elevation:	67.66	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result
0.20	TOPSOIL.	67.46			
	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.		0.60	U	JOT015 U100= 70%
			1.00	B	JOT016
			1.00	C	N=14 (0,2/3,4,4,3)
1.50	Soft becoming firm brown slightly sandy slightly gravelly silty CLAY.	66.16			
			2.00	B	JOT017
			2.00	C	N=3 (0,0/0,1,1,1)
			3.00	B	JOT018
			3.00	C	N=9 (0,1/1,2,3,3)
3.40	Very stiff dark grey slightly sandy slightly gravelly silty CLAY with high cobble content.	64.26			
			4.00	B	JOT019
			4.00	C	50 (4,7/50 for 105mm)
			5.00	B	JOT020
			5.00	C	50 (9,13/50 for 125mm)
5.40	Obstruction - boulders.	62.26	5.50	C	50 (25 for 5mm/50 for 5mm)
5.50	End of Borehole at 5.50m	62.16			

Water Strike

Backfill

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
4.30	4.40	01:00	3.50	2.80	NS	16/07	5.50	1.80				0.00	5.50	Arisings	Borehole terminated due to obstruction.
5.40	5.50	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH05**

Contract:	Coolagad	Easting:	727524.123	Date Started:	09/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713250.084	Date Completed:	09/08/2021
Client:	Cairn Homes	Elevation:	87.67	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		87.5	87.47					
0.5		Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		87.0						
1.0						1.00	B	JOT122		
				86.5		1.00	C	N=14 (1,2/3,3,4,4)		
1.5						1.40	U	JOT123 U100= 50%		
				86.0						
2.0						2.00	B	JOT124		
				85.5		2.00	C	N=10 (1,2/2,2,3,3)		
2.5				85.0						
3.0						3.00	B	JOT125		
				84.5		3.00	C	N=14 (1,2/2,3,4,5)		
3.5				84.0						
4.0						4.00	B	JOT126		
	4.10	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		83.5	83.57	4.00	C	N=24 (2,4/5,6,6,7)		
4.5				83.0						
5.0						5.00	B	JOT127		
				82.5		5.00	C	50 (3,6/50 for 115mm)		
5.5				82.0						
	5.80	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			81.87					
6.0						6.00	B	JOT128		
				81.5		6.00	C	50 (3,6/50 for 95mm)		
6.5				81.0						
7.0						7.00	B	JOT129		
				80.5		7.00	C	50 (2,11/50 for 180mm)		
7.5				80.0						
8.0						8.00	B	JOT130		
				79.5		8.00	C	50 (25 for 125mm/50 for 25mm)		
8.5				79.0						
9.0						9.00	B	JOT131		
				78.5		9.00	C	50 (4,9/50 for 170mm)		
9.5				78.0						
	9.80	Obstruction - boulders.			77.87					
10.0	10.00	End of Borehole at 10.00m			77.67	10.00	B	JOT132		
				77.5		10.00	C	50 (25 for 5mm/50 for 5mm)		
10.5				77.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
5.20	5.40	01:00				09/08	10.00	Dry				0.00	10.00	Arisings	-
9.90	10.00	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH06**
Contract:	Coolagad	Easting:	727664.422	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713255.380	Date Completed:	20/07/2021
Client:	Cairn Homes	Elevation:	73.56	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			73.36					
0.5		Brown slightly sandy slightly gravelly silty CLAY with low cobble content.		73.0						
1.0	1.10			72.5	72.46	1.00 1.00	B C	JOT021 N=3 (0,1/0,1,1,1)		
1.5		Very soft becoming softy brown slightly sandy slightly gravelly silty CLAY.		72.0		1.50	U	JOT022 U100= 0%		
2.0				71.5		2.00 2.00	B C	JOT023 N=6 (0,0/1,1,2,2)		
2.5				71.0						
3.0	2.90 3.10 3.20	Very stiff dark grey slightly sandy slightly gravelly silty CLAY with high cobble content. Obstruction - boulders. End of Borehole at 3.20m		70.5	70.66 70.46 70.36	3.00 3.00 3.20	B C C	JOT024 50 (25 for 100mm/50 for 10mm) 50 (25 for 5mm/50 for 0mm)		
3.5				70.0						
4.0				69.5						
4.5				69.0						
5.0				68.5						
5.5				68.0						
6.0				67.5						
6.5				67.0						
7.0				66.5						
7.5				66.0						
8.0				65.5						
8.5				65.0						
9.0				64.5						
9.5				64.0						
10.0				63.5						
10.5				63.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
3.10	3.20	02:00				20/07	3.20	Dry				0.00	3.20	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH07**
Contract:	Coolagad	Easting:	727842.524	Date Started:	30/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713223.275	Date Completed:	31/07/2021
Client:	Cairn Homes	Elevation:	61.87	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			61.67					
		Soft brown sandy slightly gravelly silty CLAY with low cobble content.				1.00	B	JOT091		
						1.00	C	N=3 (0,0/0,1,1,1)		
						2.00	B	JOT092		
						2.00	C	N=4 (0,0/0,1,1,2)		
	2.80	Firm red brown slightly sandy slightly gravelly silty CLAY with low cobble content.			59.07	3.00	B	JOT093		
						3.00	C	N=11 (0,1/2,2,3,4)		
	3.60	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.			58.27	4.00	B	JOT094		
						4.00	U	JOT095 U100= 80%		
						4.50	C	N=26 (5,6/6,7,7,6)		
	4.70	Medium dense becoming dense yellow silty gravelly SAND with low cobble content.			57.17	5.00	B	JOT096		
						5.00	C	50 (4,7/50 for 110mm)		
						6.00	B	JOT097		
						6.00	C	50 (10,14/50 for 100mm)		
						7.00	B	JOT098		
						7.00	C	50 (4,7/50 for 90mm)		
						8.00	B	JOT099		
						8.00	C	50 (25 for 125mm/50 for 25mm)		
						9.00	B	JOT100		
						9.00	C	50 (25 for 100mm/50 for 85mm)		
	9.30	Dense grey silty sandy GRAVEL with high cobble content.			52.57					
	9.90	Obstruction - boulders.			51.97	10.00	B	JOT101		
	10.00	End of Borehole at 10.00m			51.87	10.00	C	50 (25 for 5mm/50 for 0mm)		

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
9.90	10.00	01:30	7.90	7.50	NS	30/07	6.00	Dry	0.00	1.00	Solid	0.00	0.50	Bentonite	-
						31/07	6.00	Dry	1.00	10.00	Slotted	0.50	10.00	Gravel	
						31/07	10.00	6.10							

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH08**
Contract:	Coolagad	Easting:	727601.900	Date Started:	11/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713198.929	Date Completed:	11/08/2021
Client:	Cairn Homes	Elevation:	80.99	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			80.79					
0.5		Brown sandy slightly gravelly silty CLAY.		80.5						
	0.80				80.19					
1.0		Soft brown sandy slightly gravelly silty CLAY with low cobble content.		80.0		1.00	B	JOT142		
						1.00	C	N=7 (0,0/1,2,2,2)		
1.5				79.5		1.40	U	JOT143 U100= 100%		
2.0				79.0		2.00	B	JOT144		
						2.00	C	N=7 (0,0/1,2,2,2)		
2.5				78.5						
	2.80				78.19					
3.0		Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.		78.0		3.00	B	JOT145		
						3.00	C	N=15 (2,2/3,4,4,4)		
3.5				77.5						
	3.80				77.19					
4.0		Stiff brown slightly sandy slightly gravelly silty CLAY.		77.0		4.00	B	JOT146		
						4.00	C	N=16 (2,3/3,4,4,5)		
4.5				76.5						
	4.80				76.19					
5.0		Stiff becoming very stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		76.0		5.00	B	JOT147		
						5.00	C	N=29 (2,4/6,7,7,9)		
5.5				75.5						
6.0				75.0		6.00	B	JOT148		
						6.00	C	N=43 (4,5/7,11,12,13)		
6.5	6.50			74.5	74.49					
		Very stiff brown yellow sandy slightly gravelly silty CLAY.								
7.0				74.0		7.00	B	JOT149		
						7.00	C	50 (6,9/50 for 200mm)		
7.5				73.5						
8.0				73.0		8.00	B	JOT150		
						8.00	C	50 (4,16/50 for 50mm)		
8.5	8.50			72.5	72.49					
		Very stiff brown sandy slightly gravelly silty CLAY.								
9.0				72.0		9.00	B	JOT151		
						9.00	C	50 (25 for 125mm/50 for 25mm)		
9.5				71.5						
	9.70				71.29					
	9.80	Obstruction - boulders.			71.19	9.80	C	50 (25 for 5mm/50 for 0mm)		
10.0		End of Borehole at 9.80m		71.0						
10.5				70.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.60	6.80	00:45				11/08	9.80	Dry				0.00	9.80	Arisings	Borehole terminated due to obstruction.
9.70	9.80	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH09**

Contract:	Coolagad	Easting:	727784.390	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713188.093	Date Completed:	20/07/2021
Client:	Cairn Homes	Elevation:	65.38	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result
0.20	TOPSOIL.	65.18			
	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		1.00	B	JOT025
			1.00	C	N=16 (2,3/5,4,3,4)
			1.50	B	JOT026 U100= 0%
1.60	Stiff brown slightly sandy slightly gravelly silty CLAY.	63.78			
			2.00	B	JOT027
			2.00	C	N=17 (2,4/4,5,4,4)
			3.00	B	JOT028
			3.00	C	N=25 (4,6/7,6,6,6)
3.60	Very stiff dark grey slightly sandy slightly gravelly silty CLAY with high cobble content.	61.78			
			4.00	B	JOT029
			4.00	C	50 (3,9/50 for 115mm)
4.90	Obstruction - boulders.	60.48	5.00	C	50 (25 for 5mm/50 for 0mm)
5.00	End of Borehole at 5.00m	60.38			

Water Strike: ▼

Backfill

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:
1.60	1.70	00:45	4.80	4.60	NS	20/07	5.00	4.60
4.90	5.00	01:30						

Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:
			0.00	5.00	Arisings

Remarks: Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH10**
Contract:	Coolagad	Easting:	727542.423	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713185.099	Date Completed:	05/08/2021
Client:	Cairn Homes	Elevation:	86.00	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			85.80					
0.5		Soft brown slightly sandy slightly gravelly silty CLAY with low cobble content.		85.5						
1.0				85.0		1.00 1.00	B C	JOT113 N=3 (0,0/0,1,1,1)		
1.5				84.5		1.40	U	JOT114 U100= 100%		
2.0				84.0		2.00 2.00	B C	JOT115 N=2 (0,0/0,0,1,1)		
2.5				83.5						
3.0				83.0		3.00 3.00	B C	JOT116 N=3 (0,0/0,1,1,1)		
3.5				82.5						
4.0				82.0		4.00 4.00	B C	JOT117 N=9 (3 for 75mm/2,2,2,3)		
	4.20	Firm brown sandy slightly gravelly silty CLAY with low cobble content.			81.80					
4.5				81.5						
5.0	5.00	Stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		81.0	81.00	5.00 5.00	B C	JOT118 N=32 (4,5/7,7,9,9)		
5.5				80.5						
6.0				80.0		6.00 6.00	B C	JOT119 N=39 (4,6/7,9,12,11)		
6.5				79.5						
7.0				79.0		7.00 7.00	B C	JOT120 N=41 (5,7/9,9,11,12)		
7.5				78.5						
8.0				78.0		8.00 8.00	B C	JOT121 50 (25 for 120mm/50 for 90mm) 50 (25 for 5mm/50 for 0mm)		
8.5	8.40 8.50	Obstruction - boulders. End of Borehole at 8.50m		77.5	77.60 77.50	8.50	C			
9.0				77.0						
9.5				76.5						
10.0				76.0						
10.5				75.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
8.40	8.50	01:30				04/08 05/08 05/08	4.50 4.50 8.50	Dry Dry Dry	0.00 1.00	1.00 8.50	Solid Slotted	0.00 0.50	0.50 8.50	Bentonite Gravel	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH11**

Contract:	Coolagad	Easting:	727711.894	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713179.696	Date Completed:	21/07/2021
Client:	Cairn Homes	Elevation:	71.01	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			70.81					
		Soft brown slightly sandy slightly gravelly silty CLAY with low cobble content.				0.60	B	JOT030 U100= 80%		
						1.00	B	JOT031		
						1.00	C	N=7 (0,0/1,1,2,3)		
	1.50	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.			69.51					
						2.00	B	JOT032		
						2.00	C	N=16 (2,2/3,4,4,5)		
						3.00	B	JOT033		
						3.00	C	N=24 (3,4/5,6,6,7)		
	4.00	Stiff orange brown slightly sandy slightly gravelly silty CLAY with low cobble content.			67.01	4.00	B	JOT034		
						4.00	C	N=19 (2,4/4,5,5,5)		
						5.00	B	JOT035		
	5.10	Obstruction - boulders.			65.91	5.00	U	JOT036		
	5.20	End of Borehole at 5.20m			65.81	5.00	C	U100= 0% 50 (25 for 5mm/50 for 5mm)		

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
5.10	5.20	01:30	4.00	3.80	4.50	20/07	5.20	Dry				0.00	5.20	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH12**
Contract:	Coolagad	Easting:	727826.584	Date Started:	10/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713160.449	Date Completed:	10/08/2021
Client:	Cairn Homes	Elevation:	63.46	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.30	TOPSOIL.			63.16					
0.5		Brown sandy slightly gravelly silty CLAY.		63.0						
1.0	1.00	Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY.		62.5	62.46	1.00 1.00	B C	DM001 N=8 (1,1/2,1,2,3)		
1.5				62.0						
2.0				61.5		2.00 2.00	B C	DM002 N=21 (3,3/4,5,5,7)		
2.5	2.50	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		61.0	60.96	2.50	U	DM003 U100= 0%		
3.0				60.5		3.00 3.00	B C	DM004 N=28 (5,6/6,7,7,8)		
3.5	3.60	Stiff grey slightly sandy slightly gravelly silty CLAY with low cobble content.		60.0	59.86					
4.0	4.00	Stiff brown sandy slightly gravelly silty CLAY with low cobble content.		59.5	59.46	4.00 4.00	B C	DM005 N=30 (6,7/7,8,8,7)		
4.5	4.50	Stiff red brown slightly sandy slightly gravelly silty CLAY with low cobble content.		59.0	58.96					
5.0				58.5		5.00 5.00	B C	DM006 N=41 (7,7/9,10,11,11)		
5.5				58.0						
6.0				57.5		6.00 6.00	B C	DM007 N=40 (8,9/9,10,10,11)		
6.5				57.0						
7.0				56.5		7.00 7.00	B C	DM008 N=40 (9,9/8,10,11,11)		
7.5				56.0						
8.0				55.5		8.00 8.00	B C	DM009 N=44 (10,11/11,11,12,10)		
8.5	8.60 8.70	Obstruction - boulders. End of Borehole at 8.70m		55.0	54.86 54.76	8.70	C	50 (25 for 5mm/50 for 5mm)		
9.0				54.5						
9.5				54.0						
10.0				53.5						
10.5				53.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
4.70 8.60	4.80 8.70	00:45 01:30				10/08	8.70	Dry				0.00	8.70	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH13**

Contract:	Coolagad	Easting:	727648.270	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713122.994	Date Completed:	21/07/2021
Client:	Cairn Homes	Elevation:	77.18	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		77.0	76.98					
		Brown slightly sandy slightly gravelly silty CLAY with low cobble content.		76.5						
	1.10			76.0	76.08	1.00	B	JOT037		
		Soft brown slightly sandy slightly gravelly silty CLAY with low cobble content.				1.00	C	N=7 (0,1/1,2,2,2)		
						1.40	U	JOT038 U100= 90%		
				75.5						
						2.00	B	JOT039		
				75.0		2.00	C	N=5 (0,1/1,1,1,2)		
				74.5						
	2.90				74.28					
		Very stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.				3.00	B	JOT040		
				74.0		3.00	C	N=33 (4,5/7,7,9,10)		
				73.5						
						4.00	B	JOT041		
				73.0		4.00	C	50 (4,12/50 for 105mm)		
	4.40				72.78					
	4.60	Black slightly sandy slightly gravelly silty CLAY with low cobble content.			72.58					
		Very stiff orange brown slightly sandy slightly gravelly silty CLAY with low cobble content.		72.5						
						5.00	B	JOT042		
				72.0		5.00	C	50 (10,21/50 for 35mm)		
				71.5						
						6.00	B	JOT043		
				71.0		6.00	C	50 (4,9/50 for 105mm)		
	6.60				70.58					
		Medium dense yellow silty gravelly SAND.		70.5						
						7.00	B	JOT044		
				70.0		7.00	C	N=21 (4,4/4,5,6,6)		
				69.5						
	7.90				69.28					
	8.00	Obstruction - boulders. End of Borehole at 8.00m		69.0	69.18	8.00	B	JOT045		
						8.00	C	50 (25 for 5mm/50 for 5mm)		
				68.5						
				68.0						
				67.5						
				67.0						
				66.5						

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0, 10.5

Chiselling:

From:	To:	Time:
4.20	4.40	01:00
7.90	8.00	01:30

Water Strikes:

Strike:	Rose:	Depth Sealed

Water Details:

Date:	Hole Depth:	Water Depth:
21/07	8.00	Dry

Installation:

From:	To:	Pipe:

Backfill:

From:	To:	Type:
0.00	8.00	Arisings

Remarks:

Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH14**

Contract:	Coolagad	Easting:	727552.326	Date Started:	12/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713122.376	Date Completed:	12/08/2021
Client:	Cairn Homes	Elevation:	84.67	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL. Soft brown slightly sandy slightly gravelly silty CLAY.		84.5	84.47					
0.5				84.0		0.50	U	JOT152 U100= 100%		
1.0				83.5		1.00 1.00	B C	JOT153 N=6 (0,0/1,1,2,2)		
1.5	1.50	Stiff brown slightly sandy gravelly silty CLAY with low cobble content.		83.0	83.17					
2.0				82.5		2.00 2.00	B C	JOT154 N=16 (2,3/4,4,4,4)		
2.5				82.0						
3.0				81.5		3.00 3.00	B C	JOT155 N=25 (2,4/5,7,6,7)		
3.5				81.0						
4.0				80.5		4.00 4.00	B C	JOT156 N=23 (4,5/5,5,6,7)		
4.5				80.0						
5.0	5.20	Very stiff grey slightly sandy slightly gravelly silty CLAY with medium cobble content.		79.5	79.47	5.00 5.00	B C	JOT157 50 (6,10/50 for 20mm)		
5.5				79.0						
6.0				78.5		6.00 6.00	B C	JOT158 N=49 (5,7/9,11,14,15)		
6.5				78.0						
7.0				77.5		7.00 7.00	B C	JOT159 50 (4,5/50 for 200mm)		
7.5	7.50	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		77.0	77.17					
8.0				76.5		8.00 8.00	B C	JOT160 50 (2,7/50 for 175mm)		
8.5				76.0						
9.0				75.5		9.00 9.00	B C	JOT161 50 (7,18/50 for 50mm)		
9.5	9.40 9.50	Obstruction - boulders. End of Borehole at 9.50m		75.0	75.27 75.17	9.50	C	50 (25 for 5mm/50 for 0mm)		
10.0				74.5						
10.5				74.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
3.80 5.20 9.40	3.90 5.40 9.50	00:45 01:00 01:30				12/08	9.50	Dry				0.00	9.50	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH15**

Contract:	Coolagad	Easting:	727728.241	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713114.586	Date Completed:	22/07/2021
Client:	Cairn Homes	Elevation:	70.87	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
0.20	TOPSOIL.	70.67					
	Brown slightly sandy slightly gravelly silty CLAY with low cobble content.		1.00	B	JOT046		
1.20		69.67	1.00	C	N=10 (1,1/2,2,3,3)		
	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		1.30	U	JOT047 U100= 60%		
			2.00	B	JOT048		
			2.00	C	N=9 (1,2/2,2,2,3)		
2.80		68.07					
	Very stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		3.00	B	JOT049		
			3.00	C	N=37 (3,6/7,9,11,10)		
			4.00	B	JOT050		
			4.00	C	50 (5,14/50 for 105mm)		
4.90		65.97					
	Very stiff orange brown slightly sandy slightly gravelly silty CLAY with low cobble content.		5.00	B	JOT051		
			5.00	C	N=31 (2,5/7,7,9,8)		
			6.00	B	JOT052		
			6.00	C	N=50 (4,9/12,13,12,13)		
			7.00	B	JOT053		
			7.00	C	50 (4,21/50 for 50mm)		
7.50		63.37					
7.60	Obstruction - boulders.	63.27	7.60	C	50 (25 for 5mm/50 for 0mm)		
	End of Borehole at 7.60m						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
4.30	4.50	01:00				22/07	7.60	Dry				0.00	7.60	Arisings	Borehole terminated due to obstruction.
7.50	7.60	01:30				22/07	7.60	Dry							

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH16**
Contract:	Coolagad	Easting:	727603.543	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713111.735	Date Completed:	04/08/2021
Client:	Cairn Homes	Elevation:	80.76	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result
0.20	TOPSOIL.	80.56			
	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.		1.00	B	JOT102
			1.00	C	N=9 (1,1/2,2,2,3)
			1.40	U	JOT103 U100= 0%
			2.00	B	JOT104
			2.00	C	N=6 (0,0/1,1,2,2)
2.60	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	78.16			
			3.00	B	JOT105
			3.00	C	N=19 (2,3/4,4,5,6)
			4.00	B	JOT106
			4.00	C	N=29 (4,5/7,7,7,8)
4.50	Stiff grey slightly sandy slightly gravelly silty CLAY with low cobble content.	76.26			
5.00	Stiff brown sandy slightly gravelly silty CLAY with low cobble content.	75.76	5.00	B	JOT107
			5.00	C	N=24 (2,4/5,5,6,8)
5.70	Stiff becoming very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.	75.06			
			6.00	B	JOT108
			6.00	C	N=27 (3,4/6,7,7,7)
			7.00	B	JOT109
			7.00	C	N=28 (2,4/5,7,7,9)
			8.00	B	JOT110
			8.00	C	N=39 (4,7/9,9,11,10)
			9.00	B	JOT111
			9.00	C	50 (4,7/50 for 125mm)
10.00	End of Borehole at 10.00m	70.76	10.00	B	JOT112
			10.00	C	50 (25 for 100mm/50 for 15mm)

Water Strike

Backfill

Chiselling:

From:	To:	Time:
8.90	9.00	01:00

Water Strikes:

Strike:	Rose:	Depth Sealed

Water Details:

Date:	Hole Depth:	Water Depth:
03/08	6.00	Dry
04/08	6.00	Dry
04/08	10.00	Dry

Installation:

From:	To:	Pipe:
0.00	1.50	Solid
1.50	10.00	Slotted

Backfill:

From:	To:	Type:
0.00	1.00	Bentonite
1.00	10.00	Gravel

Remarks: -

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH17**
Contract:	Coolagad	Easting:	727805.647	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713101.471	Date Completed:	29/07/2021
Client:	Cairn Homes	Elevation:	63.25	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.								
		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		63.0	63.05					
0.5				62.5						
1.0						1.00	B	JOT081		
				62.0		1.00	C	N=13 (2,2/3,3,3,4)		
1.5						1.60	U	JOT082		
	1.80			61.5	61.45			U100= 100%		
2.0		Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.				2.00	B	JOT083		
				61.0		2.00	C	N=22 (2,4/5,5,6,6)		
2.5				60.5						
3.0						3.00	B	JOT084		
				60.0		3.00	C	N=28 (2,5/7,6,7,8)		
3.5				59.5						
4.0	3.90	Stiff brown sandy slightly gravelly silty CLAY.			59.35	4.00	B	JOT085		
	4.20			59.0	59.05	4.00	C	N=28 (2,4/6,7,7,8)		
4.5		Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.								
5.0				58.5		5.00	B	JOT086		
				58.0		5.00	C	N=16 (2,2/3,4,4,5)		
5.5										
	5.80			57.5	57.45					
6.0		Stiff dark red brown sandy slightly gravelly silty CLAY.				6.00	B	JOT087		
				57.0		6.00	C	N=23 (3,4/5,6,6,6)		
6.5				56.5						
7.0	6.90	Very stiff red brown slightly sandy slightly gravelly silty CLAY with low cobble content.			56.35	7.00	B	JOT088		
				56.0		7.00	C	50 (6,10/50 for 120mm)		
7.5				55.5						
8.0						8.00	B	JOT089		
				55.0		8.00	C	50 (25 for 135mm/50 for 40mm)		
8.5										
	8.80			54.5	54.45					
9.0	9.00	Obstruction - boulders.			54.25	9.00	B	JOT090		
		End of Borehole at 9.00m		54.0		9.00	C	50 (25 for 5mm/50 for 5mm)		
9.5				53.5						
10.0				53.0						
10.5				52.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
5.60	5.80	01:00	5.60	5.30	6.10	29/07	9.00	Dry	0.00	1.00	Solid	0.00	0.50	Bentonite	Borehole terminated due to obstruction.
8.80	9.00	01:30							1.00	9.00	Slotted	0.50	9.00	Gravel	

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH18**
Contract:	Coolagad	Easting:	727562.943	Date Started:	13/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713055.449	Date Completed:	13/08/2021
Client:	Cairn Homes	Elevation:	83.15	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		83.0	82.95					
		Soft becoming firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.				0.50	B	JOT162		
0.5				82.5						
1.0				82.0		1.00	U	JOT163 U100= 100%		
1.5				81.5		1.50	C	N=5 (1,1/1,1,1,2)		
2.0				81.0		2.00 2.00	B C	JOT164 N=16 (2,7/9,2,2,3)		
2.5				80.5						
	2.80	Stiff becoming very stiff grey brown slightly sandy slightly gravelly silty CLAY with medium cobble content.			80.35					
3.0				80.0		3.00 3.00	B C	JOT165 N=20 (2,3/4,5,5,6)		
3.5				79.5						
4.0				79.0		4.00 4.00	B C	JOT166 N=35 (2,4/7,9,9,10)		
4.5				78.5						
5.0				78.0		5.00 5.00	B C	JOT167 50 (25 for 140mm/50 for 25mm)		
5.5				77.5						
	5.90	Very stiff grey sandy slightly gravelly silty CLAY.			77.25					
6.0				77.0		6.00 6.00	B C	JOT168 50 (6,10/50 for 105mm)		
6.5				76.5						
7.0				76.0		7.00 7.00	B C	JOT169 N=41 (4,7/9,9,11,12)		
7.5				75.5						
	7.80	Very stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content.			75.35					
8.0				75.0		8.00 8.00	B C	JOT170 50 (6,11/50 for 100mm)		
8.5				74.5						
9.0				74.0		9.00 9.00	B C	JOT171 50 (25 for 125mm/50 for 40mm)		
9.5	9.40	Obstruction - boulders.			73.75	9.50	C	50 (25 for 5mm/50 for 5mm)		
	9.50	End of Borehole at 9.50m		73.5	73.65					
10.0				73.0						
10.5				72.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
5.50 7.80 9.40	5.70 8.00 9.50	00:45 00:45 01:30				13/08	9.50	Dry				0.00	9.50	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH19**

Contract:	Coolagad	Easting:	727718.799	Date Started:	12/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713044.011	Date Completed:	12/08/2021
Client:	Cairn Homes	Elevation:	71.34	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
0.30	TOPSOIL.	71.04					
	Soft brown slightly sandy slightly gravelly silty CLAY.		1.00	B	DM017		
			1.00	C	N=7 (1,2/1,2,2,2)		
1.50	Stiff brown sandy slightly gravelly silty CLAY with low cobble content.	69.84					
			2.00	B	DM018		
			2.00	C	N=20 (2,3/4,5,5,6)		
			2.50	U	DM019 U100= 0%		
3.00	Very stiff orange brown sandy slightly gravelly silty CLAY with low cobble content.	68.34	3.00	B	DM020		
			3.00	C	N=37 (3,4/9,9,9,10)		
			4.00	B	DM021		
			4.00	C	N=35 (3,4/7,9,9,10)		
4.60	Stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.	66.74					
			5.00	B	DM022		
			5.00	C	N=27 (5,5/6,7,7,7)		
			6.00	B	DM023		
			6.00	C	N=26 (4,4/5,7,7,7)		
			7.00	B	DM024		
			7.00	C	N=27 (6,6/7,6,7,7)		
			8.00	B	DM025		
			8.00	C	50 (5,6/50 for 125mm)		
8.30	Obstruction - boulders.	63.04	8.40	C	50 (25 for 5mm/50 for 0mm)		
8.40	End of Borehole at 8.40m	62.94					

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0, 10.5

Level scale: 71.0, 70.5, 70.0, 69.5, 69.0, 68.5, 68.0, 67.5, 67.0, 66.5, 66.0, 65.5, 65.0, 64.5, 64.0, 63.5, 63.0, 62.5, 62.0, 61.5, 61.0, 60.5

Chiselling:

From:	To:	Time:
1.80	1.90	01:00
6.60	6.70	01:00
8.30	8.40	01:30

Water Strikes:

Strike:	Rose:	Depth Sealed

Water Details:

Date:	Hole Depth:	Water Depth:
12/08	8.40	Dry

Installation:

From:	To:	Pipe:

Backfill:

From:	To:	Type:
0.00	8.40	Arisings

Remarks: Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH20**
Contract:	Coolagad	Easting:	727647.685	Date Started:	13/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713041.451	Date Completed:	13/08/2021
Client:	Cairn Homes	Elevation:	76.73	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		76.5	76.53					
		Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		76.0						
0.5										
1.0				75.5		1.00 1.00	B C	DM026 N=15 (2,2/3,4,4,4)		
1.5				75.0						
2.0				74.5		2.00 2.00	B C	DM027 N=16 (3,3/3,4,4,5)		
2.5				74.0		2.50	U	DM028 U100= 15%		
3.0				73.5		3.00 3.00	B C	DM029 N=23 (4,5/5,6,5,7)		
3.5	3.40	Stiff brown sandy slightly gravelly silty CLAY with low cobble content.		73.0	73.33					
4.0				72.5		4.00 4.00	B C	DM030 N=27 (5,5/5,7,7,8)		
4.5				72.0						
5.0				71.5		5.00 5.00	B C	DM031 N=34 (7,8/8,9,8,9)		
5.5	5.20	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		71.0	71.53					
6.0				70.5		6.00 6.00 6.40	B C C	DM032 50 (10,12/50 for 100mm) 50 (25 for 5mm/50 for 0mm)		
6.5	6.30 6.40	Obstruction - boulders. End of Borehole at 6.40m		70.0	70.43 70.33					
7.0				69.5						
7.5				69.0						
8.0				68.5						
8.5				68.0						
9.0				67.5						
9.5				67.0						
10.0				66.5						
10.5				66.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
1.80 6.30	2.00 6.40	01:00 01:30				13/08	6.40	Dry				0.00	6.40	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH21**
Contract:	Coolagad	Easting:	727794.489	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713039.697	Date Completed:	23/07/2021
Client:	Cairn Homes	Elevation:	64.74	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			64.54					
		Firm brown sandy slightly gravelly silty CLAY with low cobble content.				1.00	B	JOT054		
						1.00	C	N=11 (1,2/2,3,3,3)		
						1.40	U	JOT055 U100= 80%		
						2.00	B	JOT056		
						2.00	C	N=13 (2,3/3,3,3,4)		
						3.00	B	JOT057		
	3.30				61.44	3.00	C	50 (25 for 50mm/50 for 25mm)		
		Orange brown slightly sandy slightly gravelly silty CLAY with low cobble content.				3.50	B	JOT058		
	4.00				60.74	4.00	C	N=34 (2,5/7,9,9,9)		
		Dense yellow silty gravelly SAND.				4.50	B	JOT059		
						5.00	C	50 (10,15/50 for 60mm)		
	5.50				59.24	5.50	B	JOT060		
		Very stiff orange brown slightly sandy slightly gravelly silty CLAY with low cobble content.				6.00	C	50 (25 for 50mm/50 for 35mm)		
	6.90				57.84					
	7.00	Obstruction - boulders.			57.74	7.00	C	50 (25 for 5mm/50 for 0mm)		
		End of Borehole at 7.00m								

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
3.00	3.20	01:00				23/07	7.00	Dry				0.00	7.00	Arisings	Borehole terminated due to obstruction.
6.00	6.20	01:00													
6.90	7.00	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH22**

Contract:	Coolagad	Easting:	727613.995	Date Started:	16/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713036.553	Date Completed:	16/08/2021
Client:	Cairn Homes	Elevation:	78.93	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			78.73					
0.5		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		78.5						
1.0				78.0		1.00 1.00	B C	JOT172 N=9 (1,1/2,2,2,3)		
1.5				77.5		1.50	U	JOT173 U100= 100%		
	1.80	Stiff brown slightly sandy gravelly silty CLAY with low cobble content.			77.13					
2.0				77.0		2.00 2.00	B C	JOT174 N=15 (1,2/3,3,4,5)		
2.5				76.5						
3.0				76.0		3.00 3.00	B C	JOT175 N=25 (2,5/5,7,7,6)		
3.5				75.5						
4.0				75.0		4.00 4.00	B C	JOT176 N=33 (4,5/7,9,8,9)		
4.5	4.50	Very stiff brown sandy slightly gravelly silty CLAY.		74.5	74.43					
5.0				74.0		5.00 5.00	B C	JOT177 50 (7,10/50 for 125mm)		
5.5	5.50	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		73.5	73.43					
6.0				73.0		6.00 6.00	B C	JOT178 50 (4,7/50 for 175mm)		
6.5				72.5						
7.0				72.0		7.00 7.00	B C	JOT179 N=48 (5,7/11,11,12,14)		
7.5	7.50	Very stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content.		71.5	71.43					
8.0				71.0		8.00 8.00	B C	JOT180 50 (25 for 125mm/50 for 30mm) 50 (25 for 5mm/50 for 0mm)		
	8.30	Obstruction - boulders.			70.63					
8.5	8.50	End of Borehole at 8.50m		70.5	70.43	8.50	C			
9.0				70.0						
9.5				69.5						
10.0				69.0						
10.5				68.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
5.30 8.30	5.40 8.50	01:00 01:30				16/08	8.50	Dry				0.00	8.50	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH23**

Contract:	Coolagad	Easting:	727719.201	Date Started:	17/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712995.982	Date Completed:	17/08/2021
Client:	Cairn Homes	Elevation:	70.14	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		70.0	69.94					
		Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		69.5						
0.5										
1.0				69.0		1.00 1.00	B C	DM041 N=9 (2,2/3,2,2,2)		
1.5				68.5		1.50	U	DM042 U100= 15%		
2.0				68.0		2.00 2.00	B C	DM043 N=18 (3,4/4,4,5,5)		
2.5				67.5						
3.0	3.00	Stiff red brown sandy slightly gravelly silty CLAY with low cobble content.		67.0	67.14	3.00 3.00	B C	DM044 N=20 (4,4/5,5,5,5)		
3.5				66.5						
4.0	4.00	Stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		66.0	66.14	4.00 4.00	B C	DM045 N=19 (4,4/5,4,5,5)		
4.5				65.5						
5.0				65.0		5.00 5.00	B C	DM046 N=23 (4,5/5,6,6,6)		
5.5				64.5						
6.0				64.0		6.00 6.00	B C	DM047 N=25 (5,5/6,6,6,7)		
6.5				63.5						
7.0	7.10 7.20	Obstruction - boulders. End of Borehole at 7.20m		63.0	63.04 62.94	7.00 7.00 7.20	B C C	DM048 50 (25 for 85mm/50 for 5mm) 50 (25 for 5mm/50 for 0mm)		
7.5				62.5						
8.0				62.0						
8.5				61.5						
9.0				61.0						
9.5				60.5						
10.0				60.0						
10.5				59.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
7.10	7.20	01:30				17/08	7.20	Dry				0.00	7.20	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH24**

Contract:	Coolagad	Easting:	727571.563	Date Started:	17/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712985.336	Date Completed:	17/08/2021
Client:	Cairn Homes	Elevation:	79.19	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.								
		Brown sandy slightly gravelly silty CLAY.		79.0	78.99					
0.5	0.50	Firm brown grey sandy slightly gravelly silty CLAY with low cobble content.			78.69	0.60	U	JOT181 U100= 100%		
1.0				78.5						
	1.30	Stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		78.0	77.89	1.20	B	JOT182		
1.5						1.20	C	N=9 (2,2/2,2,2,3)		
				77.5						
2.0						2.00	B	JOT183		
				77.0		2.00	C	N=16 (1,2/3,4,4,5)		
2.5										
				76.5						
3.0						3.00	B	JOT184		
				76.0		3.00	C	N=30 (2,4/7,7,8,8)		
3.5										
				75.5						
4.0						4.00	B	JOT185		
				75.0		4.00	C	N=30 (3,5/6,7,8,9)		
4.5										
				74.5						
5.0						5.00	B	JOT186		
				74.0		5.00	C	N=26 (2,6/6,6,7,7)		
5.5										
				73.5						
6.0						6.00	B	JOT187		
				73.0		6.00	C	N=25 (2,5/5,6,7,7)		
6.5										
				72.5						
	6.80	Medium dense becoming dense yellow silty gravelly SAND with low cobble content.			72.39					
7.0						7.00	B	JOT188		
				72.0		7.00	C	N=24 (3,4/5,5,7,7)		
7.5										
				71.5						
8.0						8.00	B	JOT189		
				71.0		8.00	C	N=25 (2,3/4,6,7,8)		
8.5										
				70.5						
9.0						9.00	B	JOT190		
				70.0		9.00	C	N=41 (4,7/9,9,11,12)		
9.5										
				69.5						
10.0	10.00	End of Borehole at 10.00m			69.19	10.00	C	N=41 (6,9/9,11,10,11)		
				69.0						
10.5										
				68.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
						17/08	10.00	Dry				0.00	10.00	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH25**
Contract:	Coolagad	Easting:	727651.482	Date Started:	16/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712987.415	Date Completed:	16/08/2021
Client:	Cairn Homes	Elevation:	73.31	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.30	TOPSOIL.								
0.5		Soft red brown slightly sandy slightly gravelly silty CLAY.		73.0	73.01					
1.0				72.5		1.00	B	DM033		
						1.00	C	N=8 (1,2/2,2,2,2)		
1.5	1.40	Firm red brown slightly sandy slightly gravelly silty CLAY with low cobble content.		72.0	71.91					
2.0				71.5		2.00	B	DM034		
						2.00	C	N=15 (3,4/3,4,4,4)		
2.5	2.60	Stiff brown sandy slightly gravelly silty CLAY with low cobble content.		71.0	70.71	2.50	U	DM035 U100= 20%		
3.0				70.5		3.00	B	DM036		
						3.00	C	N=31 (7,7/7,8,8,8)		
3.5				70.0						
4.0				69.5		4.00	B	DM037		
						4.00	C	N=34 (7,8/8,8,9,9)		
4.5	4.50	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		69.0	68.81					
5.0				68.5		5.00	B	DM038		
						5.00	C	N=18 (4,3/3,5,5,5)		
5.5				68.0						
6.0				67.5		6.00	B	DM039		
						6.00	C	N=15 (2,5/3,3,5,4)		
6.5				67.0						
7.0				66.5		7.00	B	DM040		
						7.00	C	N=17 (4,4/3,4,5,5)		
7.5				66.0						
8.0	7.90	Obstruction - boulders.		65.5	65.41	8.00	C	50 (25 for 5mm/50 for 0mm)		
	8.00	End of Borehole at 8.00m			65.31					
8.5				65.0						
9.0				64.5						
9.5				64.0						
10.0				63.5						
10.5				63.0						
				62.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
7.90	8.00	01:30				16/08	8.00	Dry				0.00	8.00	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH26**
Contract:	Coolagad	Easting:	727766.800	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712972.365	Date Completed:	26/07/2021
Client:	Cairn Homes	Elevation:	66.25	Drilled By:	J. O'Toole / MEDL
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.								
		Soft brown sandy slightly gravelly silty CLAY with low cobble content.		66.0	66.05					
0.5				65.5						
1.0						1.00	B	JOT061		
				65.0		1.00	C	N=6 (0,1/1,1,2,2)		
						1.40	U	JOT062		
1.5	1.60				64.65			U100= 0%		
		Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		64.5						
2.0						2.00	B	JOT063		
				64.0		2.00	C	N=13 (1,2/2,3,4,4)		
2.5										
				63.5						
3.0						3.00	B	JOT064		
				63.0		3.00	C	N=27 (2,3/4,7,8,8)		
3.5										
				62.5						
4.0	4.00				62.25	4.00	B	JOT065		
		Stiff light brown slightly sandy slightly gravelly silty CLAY with low cobble content.		62.0		4.00	C	N=17 (2,3/3,4,5,5)		
4.5										
				61.5						
5.0						5.00	B	JOT066		
				61.0		5.00	C	N=23 (3,4/5,6,6,6)		
5.5										
				60.5						
6.0						6.00	B	JOT067		
				60.0		6.00	C	N=15 (2,2/2,4,4,5)		
6.5										
				59.5						
7.0						7.00	B	JOT068		
				59.0		7.00	C	N=25 (3,4/5,5,7,8)		
7.5										
				58.5						
8.0						8.00	B	JOT069		
	8.10	Obstruction - boulders.			58.15	8.00	C	50 (25 for		
	8.20	Open hole drilling - driller reports returns of boulder.		58.0	58.05	8.20	C	95mm/50 for		
8.5	8.60				57.65			10mm)		
		Open hole drilling - driller reports returns of sandy gravelly CLAY.		57.5				50 (25 for		
9.0								5mm/50 for 5mm)		
				57.0						
9.5										
				56.5						
10.0	10.00	End of Borehole at 10.00m			56.25					
				56.0						
10.5										
				55.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
4.60	4.70	01:00				26/07	8.20	Dry	0.00	1.00	Solid	0.00	1.00	Bentonite	Borehole encountered obstruction at 8.20m. Rotary coring rig instructed to set up and deepen hole to 10.00mbgl.
8.10	8.20	01:30							1.00	8.00	Slotted	1.00	10.00	Gravel	

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH27**
Contract:	Coolagad	Easting:	727668.672	Date Started:	19/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712958.666	Date Completed:	19/08/2021
Client:	Cairn Homes	Elevation:	71.73	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		71.5	71.53					
0.5		Soft grey brown slightly sandy slightly gravelly silty CLAY.				0.50	U	JOT201 U100= 0%		
1.0	1.10			71.0	70.63	1.00	B	JOT202		
1.5		Soft brown slightly sandy slightly gravelly silty CLAY with low cobble content.		70.5		1.00	C	N=5 (1,1/1,1,2,1)		
2.0				70.0		2.00	B	JOT203		
2.5				69.5		2.00	C	N=7 (1,1/1,1,2,3)		
	2.80			69.0	68.93					
3.0		Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.				3.00	B	JOT204		
	3.20	Stiff brown sandy slightly gravelly silty CLAY.		68.5	68.53	3.00	C	N=20 (2,4/4,5,5,6)		
3.5	3.50	Stiff red sandy slightly gravelly silty CLAY.			68.23					
4.0				68.0		4.00	B	JOT205		
				67.5		4.00	C	N=15 (2,2/3,4,4,4)		
4.5	4.50	Stiff becoming very stiff brown red slightly sandy slightly gravelly silty CLAY with medium cobble content.			67.23					
5.0				67.0		5.00	B	JOT206		
				66.5		5.00	C	N=23 (2,4/5,5,6,7)		
5.5				66.0						
6.0						6.00	B	JOT207		
				65.5		6.00	C	N=38 (4,7/9,9,9,11)		
6.5				65.0						
7.0						7.00	B	JOT208		
				64.5		7.00	C	N=43 (3,6/9,11,11,12)		
7.5				64.0						
8.0						8.00	B	JOT209		
				63.5		8.00	C	N=29 (4,5/7,7,7,8)		
8.5	8.50	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			63.23					
9.0				63.0		9.00	B	JOT210		
				62.5		9.00	C	N=36 (3,4/7,9,9,11)		
9.5										
	9.80			62.0	61.93					
10.0	9.90	Obstruction - boulders.			61.83	9.90	C	50 (25 for 5mm/50 for 5mm)		
		End of Borehole at 9.90m		61.5						
10.5				61.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
9.80	9.90	01:30				19/08	9.90	Dry				0.00	9.90	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH28**
Contract:	Coolagad	Easting:	727597.606	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712952.485	Date Completed:	28/07/2021
Client:	Cairn Homes	Elevation:	78.46	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			78.26					
		Firm brown sandy slightly gravelly silty CLAY.		78.0						
0.5										
1.0				77.5		1.00	B	JOT070		
						1.00	C	N=11 (1,2/2,3,3,3)		
1.5				77.0		1.40	U	JOT071 U100= 100%		
	1.80	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.			76.66					
2.0				76.5		2.00	B	JOT072		
						2.00	C	N=27 (2,5/7,7,6,7)		
2.5				76.0						
3.0				75.5		3.00	B	JOT073		
						3.00	C	N=24 (2,4/5,6,6,7)		
3.5				75.0						
4.0				74.5		4.00	B	JOT074		
						4.00	C	N=20 (2,3/4,5,5,6)		
4.5				74.0						
	4.70	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			73.76					
5.0				73.5		5.00	B	JOT075		
						5.00	C	N=43 (4,7/9,11,11,12)		
5.5				73.0						
6.0				72.5		6.00	B	JOT076		
						6.00	C	N=28 (2,4/5,7,7,9)		
6.5				72.0						
7.0				71.5		7.00	B	JOT077		
						7.00	C	N=48 (3,7/10,10,14,14)		
7.5	7.50	Very stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content.		71.0	70.96					
8.0				70.5		8.00	B	JOT078		
						8.00	C	50 (6,14/50 for 125mm)		
8.5				70.0						
9.0				69.5		9.00	B	JOT079		
						9.00	C	50 (4,12/50 for 135mm)		
9.5				69.0						
10.0	10.00			68.5	68.46	10.00	B	JOT080		
	10.20	Obstruction - boulders.			68.26	10.00	C	50 (25 for 85mm/50 for 5mm)		
		End of Borehole at 10.20m				10.20	C	50 (25 for 5mm/50 for 0mm)		
10.5				68.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
3.80	3.90	00:45				28/07	10.20	Dry	0.00	1.10	Solid	0.00	0.50	Bentonite	-
10.00	10.20	01:30							1.10	10.20	Slotted	0.50	10.20	Gravel	

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH29**

Contract:	Coolagad	Easting:	727735.823	Date Started:	18/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712941.177	Date Completed:	18/08/2021
Client:	Cairn Homes	Elevation:	67.81	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			67.61					
		Brown grey sandy slightly gravelly silty CLAY.		67.5						
0.5										
	0.90			67.0	66.91					
1.0		Firm brown yellow sandy slightly gravelly silty CLAY with low cobble content.				1.00	B	JOT191		
						1.00	C	N=7 (1,1/1,2,2,2)		
				66.5						
1.5						1.50	U	JOT192 U100= 100%		
				66.0						
2.0						2.00	B	JOT193		
	2.10	Stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			65.71	2.00	C	N=8 (0,1/1,2,2,3)		
2.5				65.5						
				65.0						
3.0						3.00	B	JOT194		
						3.00	C	N=25 (2,4/5,6,7,7)		
3.5				64.5						
				64.0						
4.0						4.00	B	JOT195		
						4.00	C	N=34 (4,5/7,9,9,9)		
				63.5						
4.5	4.50	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			63.31					
5.0				63.0		5.00	B	JOT196		
						5.00	C	N=33 (4,5/6,7,9,11)		
5.5				62.5						
				62.0						
6.0						6.00	B	JOT197		
						6.00	C	50 (25 for 125mm/50 for 35mm)		
6.5				61.5						
	6.80	Dense yellow silty gravelly SAND with low cobble content.		61.0	61.01					
7.0						7.00	B	JOT198		
						7.00	C	50 (11,14/50 for 100mm)		
7.5				60.5						
				60.0						
8.0						8.00	B	JOT199		
						8.00	C	N=48 (4,7/11,14,12,11)		
8.5				59.5						
				59.0						
9.0						9.00	B	JOT200		
						9.00	C	50 (25 for 125mm/50 for 20mm)		
9.5				58.5						
				58.0						
10.0	10.00	End of Borehole at 10.00m			57.81	10.00	C	50 (25 for 75mm/50 for 20mm)		
10.5				57.5						
				57.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.80	7.00	00:45				18/08	10.00	Dry				0.00	10.00	Arisings	Borehole terminated due to obstruction.
9.90	10.00	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH30**

Contract:	Coolagad	Easting:	727807.218	Date Started:	18/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712936.673	Date Completed:	18/08/2021
Client:	Cairn Homes	Elevation:	63.29	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL. Soft brown slightly sandy slightly gravelly silty CLAY.		63.0	63.09					
0.5				62.5						
1.0						1.00	B	DM049		
				62.0		1.00	C	N=8 (1,2/2,2,2,2)		
1.5	1.40	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.			61.89	1.50	U	DM050 U100= 0%		
				61.5						
2.0						2.00	B	DM051		
				61.0		2.00	C	N=11 (1,1/2,2,3,4)		
2.5										
	2.80	Stiff brown sandy slightly gravelly silty CLAY with low cobble content.		60.5	60.49					
3.0						3.00	B	DM052		
				60.0		3.00	C	N=17 (2,2/4,4,5,4)		
3.5										
	3.80	Stiff red brown sandy slightly gravelly silty CLAY with low cobble content.		59.5	59.49					
4.0						4.00	B	DM053		
				59.0		4.00	C	N=19 (2,3/5,4,5,5)		
4.5	4.50	Medium dense yellow silty gravelly SAND.			58.79					
				58.5						
5.0						5.00	B	DM054		
				58.0		5.00	C	N=22 (3,3/5,6,6,5)		
5.5										
				57.5						
6.0						6.00	B	DM055		
				57.0		6.00	C	N=23 (4,4/5,5,6,7)		
6.5										
				56.5						
7.0						7.00	B	DM056		
				56.0		7.00	C	N=26 (5,5/6,6,7,7)		
7.5										
	7.70	Obstruction - boulders.		55.5	55.59	7.80	C	50 (25 for 5mm/50 for 5mm)		
8.0	7.80	End of Borehole at 7.80m			55.49					
8.5				55.0						
9.0				54.5						
9.5				54.0						
10.0				53.5						
10.5				53.0						
				52.5						

Chiselling:

From:	To:	Time:
1.60	1.80	01:00
7.70	7.80	01:30

Water Strikes:

Strike:	Rose:	Depth Sealed

Water Details:

Date:	Hole Depth:	Water Depth:
18/08	7.80	Dry

Installation:

From:	To:	Pipe:

Backfill:

From:	To:	Type:
0.00	7.80	Arisings

Remarks:

Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH31**

Contract:	Coolagad	Easting:	727645.342	Date Started:	20/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712922.064	Date Completed:	20/08/2021
Client:	Cairn Homes	Elevation:	76.59	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
0.20	TOPSOIL.	76.39					
	Firm grey slightly sandy slightly gravelly silty CLAY with low cobble content.		0.60	U	JOT211 U100= 100%		
			1.00	B	JOT212		
			1.00	C	N=10 (1,1/2,2,3,3)		
1.50	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	75.09					
			2.00	B	JOT213		
			2.00	C	N=26 (3,4/5,7,7,7)		
			3.00	B	JOT214		
			3.00	C	N=32 (2,4/6,7,10,9)		
3.40	Stiff black slightly sandy slightly gravelly silty CLAY with low cobble content.	73.19					
			4.00	B	JOT215		
			4.00	C	N=33 (4,5/7,9,8,9)		
4.80	Very stiff grey slightly sandy slightly gravelly silty CLAY with low cobble content.	71.79					
			5.00	B	JOT216		
			5.00	C	N=40 (5,6/9,9,11,11)		
			6.00	B	JOT217		
			6.00	C	50 (6,7/50 for 200mm)		
			7.00	B	JOT218		
			7.00	C	50 (6,17/50 for 40mm)		
7.90	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.	68.69					
			8.00	B	JOT219		
			8.00	C	50 (6,15/50 for 110mm)		
			9.00	B	JOT220		
			9.00	C	N=44 (4,7/9,11,12,12)		
10.00	End of Borehole at 10.00m	66.59	10.00	C	50 (25 for 25mm/50 for 35mm)		

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
7.20	7.40	01:00				20/08	10.00	Dry				0.00	10.00	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH32**

Contract:	Coolagad	Easting:	727544.431	Date Started:	23/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712908.378	Date Completed:	23/08/2021
Client:	Cairn Homes	Elevation:	87.14	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		87.0	86.94					
		Grey brown slightly sandy slightly gravelly silty CLAY.								
0.5	0.60			86.5	86.54					
		Firm brown yellow sandy slightly gravelly silty CLAY with medium cobble content.								
1.0				86.0		1.00	B	JOT221		
						1.00	C	N=11 (1,1/2,2,3,4)		
1.5				85.5		1.50	U	JOT222 U100= 10%		
	1.80	Stiff yellow brown slightly sandy slightly gravelly silty CLAY with medium cobble content.			85.34					
2.0				85.0		2.00	B	JOT223		
						2.00	C	N=20 (2,3/4,5,5,6)		
2.5				84.5						
3.0				84.0		3.00	B	JOT224		
						3.00	C	N=23 (3,4/5,5,6,7)		
3.5				83.5						
4.0				83.0		4.00	B	JOT225		
						4.00	C	N=28 (4,5/7,7,7,7)		
4.5				82.5						
	4.80	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			82.34					
5.0				82.0		5.00	B	JOT226		
						5.00	C	50 (4,7/50 for 125mm)		
5.5				81.5						
6.0				81.0		6.00	B	JOT227		
						6.00	C	50 (10,12/50 for 85mm)		
6.5				80.5						
7.0				80.0		7.00	B	JOT228		
						7.00	C	50 (6,15/50 for 100mm)		
7.5				79.5						
	7.80	Obstruction - boulders.			79.34					
8.0	8.00	End of Borehole at 8.00m			79.14	8.00	C	50 (25 for 5mm/50 for 5mm)		
8.5				79.0						
9.0				78.5						
9.5				78.0						
10.0				77.5						
10.5				77.0						
				76.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
1.60	1.80	01:00				23/08	8.00	Dry				0.00	8.00	Arisings	Borehole terminated due to obstruction.
7.80	8.00	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH33**
Contract:	Coolagad	Easting:	727702.504	Date Started:	25/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712899.735	Date Completed:	25/08/2021
Client:	Cairn Homes	Elevation:	72.48	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.30	TOPSOIL.			72.18					
0.5		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		72.0						
1.0				71.5		1.00 1.00	B C	GM154 N=13 (2,2/3,3,4,3)		
1.5				71.0		1.50	U	GM155 U100= 0%		
	1.70	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content.			70.78					
2.0				70.5		2.00 2.00	B C	GM156 N=14 (3,3/3,4,3,4)		
2.5				70.0						
3.0	3.00	Stiff yellow brown slightly sandy slightly gravelly silty CLAY with medium cobble content.		69.5	69.48	3.00 3.00	B C	GM157 N=21 (4,5/5,5,6,5)		
3.5				69.0						
4.0				68.5		4.00 4.00	B C	GM158 N=24 (3,5/5,6,6,7)		
4.5				68.0						
5.0				67.5		5.00 5.00	B C	GM159 N=33 (5,6/8,8,9,8)		
5.5	5.40	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		67.0	67.08					
6.0				66.5		6.00 6.00	B C	GM160 N=36		
6.5	6.40 6.50	Obstruction - boulders. End of Borehole at 6.50m		66.0	66.08 65.98	6.50	C	(7,7/8,9,9,10) 50 (25 for 5mm/50 for 5mm)		
7.0				65.5						
7.5				65.0						
8.0				64.5						
8.5				64.0						
9.0				63.5						
9.5				63.0						
10.0				62.5						
10.5				62.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.40	6.50	01:30				25/08	6.50	Dry				0.00	6.50	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH34**
Contract:	Coolagad	Easting:	727768.697	Date Started:	19/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712885.620	Date Completed:	19/08/2021
Client:	Cairn Homes	Elevation:	67.93	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			67.73					
		Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.								
0.5				67.5						
1.0				67.0		1.00	B	DM057		
						1.00	C	N=13 (1,1/2,3,4,4)		
1.5				66.5		1.50	U	DM058 U100= 10%		
2.0				66.0		2.00	B	DM059		
						2.00	C	N=19 (2,2/4,5,5,5)		
2.5	2.50	Stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		65.5	65.43					
3.0				65.0		3.00	B	DM060		
						3.00	C	N=18 (2,3/4,4,5,5)		
3.5				64.5						
4.0				64.0		4.00	B	DM061		
						4.00	C	N=18 (2,3/3,5,5,5)		
4.5				63.5						
5.0				63.0		5.00	B	DM062		
						5.00	C	N=50 (2,2/50 for 250mm)		
5.5	5.40	Obstruction - boulders.		62.5	62.53	5.50	C	50 (25 for 5mm/50 for 0mm)		
	5.50	End of Borehole at 5.50m			62.43					
6.0				62.0						
6.5				61.5						
7.0				61.0						
7.5				60.5						
8.0				60.0						
8.5				59.5						
9.0				59.0						
9.5				58.5						
10.0				58.0						
10.5				57.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
5.40	5.50	01:30				19/08	5.50	Dry				0.00	5.50	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH35**
Contract:	Coolagad	Easting:	727603.776	Date Started:	26/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712875.198	Date Completed:	26/08/2021
Client:	Cairn Homes	Elevation:	82.94	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			82.74					
		Firm brown sandy slightly gravelly silty CLAY with low cobble content.								
0.5				82.5						
1.0				82.0		1.00	B	JOT245		
						1.00	C	N=14 (2,2/2,3,4,5)		
1.5				81.5		1.50	U	JOT246 U100= 0%		
2.0	1.90	Stiff brown yellow slightly sandy slightly gravelly silty CLAY with low cobble content.		81.0	81.04	2.00	B	JOT247		
						2.00	C	N=29 (2,4/6,7,9,7)		
2.5				80.5						
3.0	2.90	Stiff brown yellow slightly sandy slightly gravelly silty CLAY with medium cobble content.		80.0	80.04	3.00	B	JOT248		
						3.00	C	N=25 (3,4/5,7,7,6)		
3.5				79.5						
4.0				79.0		4.00	B	JOT249		
						4.00	C	N=28 (3,4/6,6,7,9)		
4.5				78.5						
5.0				78.0		5.00	B	JOT250		
	5.20	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			77.74	5.00	C	50 (6,9/50 for 135mm)		
5.5				77.5						
6.0				77.0		6.00	B	JOT251		
						6.00	C	50 (4,12/50 for 125mm)		
6.5				76.5						
7.0				76.0		7.00	B	JOT252		
						7.00	C	50 (5,16/50 for 100mm)		
7.5	7.60	Obstruction - boulders.		75.5	75.34	7.70	C	50 (25 for 5mm/50 for 5mm)		
	7.70	End of Borehole at 7.70m			75.24					
8.0				75.0						
8.5				74.5						
9.0				74.0						
9.5				73.5						
10.0				73.0						
10.5				72.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
1.80	1.90	01:00				26/08	7.70	Dry				0.00	7.70	Arisings	Borehole terminated due to obstruction.
7.60	7.70	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	Cable Percussion Borehole Log				Borehole No: BH36
Contract:	Coolagad	Easting:	727827.542	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712861.665	Date Completed:	28/07/2021
Client:	Cairn Homes	Elevation:	65.08	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result
0.20	TOPSOIL.	64.88			
1.20	MADE GROUND: brown sandy slightly gravelly silty clay with low cobble content and some concrete fragments.	63.88	1.00 1.00	B C	GM023 N=7 (2,2/1,1,2,3)
3.80	Firm brown sandy slightly gravelly silty CLAY with low cobble content.	61.28	2.00 2.00 2.00 3.00 3.00	B U C B C	GM024 GM025 U100= 70% N=9 (1,2/2,3,2,2) GM026 N=12 (2,2/3,3,3,3)
6.80	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	58.28	4.00 4.00 5.00 5.00 6.00 6.00	B C B C B C	GM027 N=15 (3,4/3,3,5,4) GM028 N=17 (5,4/3,4,4,6) GM029 N=22 (4,4/5,7,5,5)
10.00	Medium dense silty slightly gravelly SAND with low cobble content.	55.08	7.00 7.00 8.00 8.00 9.00 9.00 10.00 10.00	B C B C B C B C	GM030 N=15 (2,3/3,4,4,4) GM031 N=18 (2,2/4,4,5,5) GM032 N=17 (3,3/5,4,4,4) GM033 N=18 (4,4/5,4,4,5)
	End of Borehole at 10.00m				

Water Strike | Backfill

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
						28/07	10.00	Dry	0.00 1.00	1.00 10.00	Solid Slotted	0.00 1.00	1.00 10.00	Bentonite Gravel	-

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH37**

Contract:	Coolagad	Easting:	727683.349	Date Started:	24/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712847.152	Date Completed:	24/08/2021
Client:	Cairn Homes	Elevation:	76.05	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.30	TOPSOIL.			75.75					
0.5		Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		75.5						
1.0				75.0		1.00 1.00	B C	DM071 N=10 (1,2/2,2,3,3)		
1.5				74.5						
2.0				74.0		2.00 2.00	B C	DM072 N=11 (2,2/3,2,3,3)		
2.5				73.5		2.50	U	DM073 U100= 15%		
3.0				73.0		3.00 3.00	B C	DM074 N=17 (2,3/4,4,5,4)		
3.5	3.50	Stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		72.5	72.55					
4.0				72.0		4.00 4.00	B C	DM075 N=21 (2,4/4,5,6,6)		
4.5				71.5						
5.0				71.0		5.00 5.00	B C	DM076 N=23 (3,3/5,6,6,6)		
5.5				70.5						
6.0				70.0		6.00 6.00	B C	DM077 N=27 (4,5/6,7,7,7)		
6.5				69.5						
7.0				69.0		7.00 7.00	B C	DM078 N=28 (3,5/5,7,8,8)		
7.5	7.60	Obstruction - boulders.		68.5	68.45	7.70	C	50 (25 for 5mm/50 for 0mm)		
	7.70	End of Borehole at 7.70m			68.35					
8.0				68.0						
8.5				67.5						
9.0				67.0						
9.5				66.5						
10.0				66.0						
10.5				65.5						

Chiselling:

From:	To:	Time:
3.60	3.70	00:45
7.60	7.70	01:30

Water Strikes:

Strike:	Rose:	Depth Sealed

Water Details:

Date:	Hole Depth:	Water Depth:
24/08	7.70	Dry

Installation:

From:	To:	Pipe:

Backfill:

From:	To:	Type:
0.00	7.70	Arisings

Remarks:

Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH38**

Contract:	Coolagad	Easting:	727555.653	Date Started:	24/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712844.507	Date Completed:	24/08/2021
Client:	Cairn Homes	Elevation:	90.15	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		90.0	89.95					
		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		89.5						
0.5										
1.0				89.0		1.00	B	JOT229		
						1.00	C	N=11 (1,1/2,2,3,4)		
1.5				88.5		1.50	U	JOT230 U100= 20%		
	1.70	Stiff brown yellow slightly sandy slightly gravelly silty CLAY with medium cobble content.			88.45					
2.0				88.0		2.00	B	JOT231		
						2.00	C	N=19 (2,3/4,4,5,6)		
2.5				87.5						
3.0				87.0		3.00	B	JOT232		
						3.00	C	N=21 (2,3/4,5,6,6)		
3.5				86.5						
4.0				86.0		4.00	B	JOT233		
						4.00	C	N=25 (3,3/4,7,7,7)		
	4.30	Stiff yellow brown slightly sandy slightly gravelly silty CLAY with medium cobble content.			85.85					
4.5				85.5						
5.0				85.0		5.00	B	JOT234		
						5.00	C	N=28 (4,5/6,6,7,9)		
5.5				84.5						
	5.80	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.			84.35					
6.0				84.0		6.00	B	JOT235		
						6.00	C	50 (25 for 125mm/50 for 50mm)		
6.5				83.5						
7.0				83.0		7.00	B	JOT236		
						7.00	C	50 (25 for 140mm/50 for 40mm)		
7.5				82.5						
	7.80	Obstruction - boulders.			82.35					
8.0	8.00	End of Borehole at 8.00m		82.0	82.15	8.00	C	50 (25 for 25mm/50 for 5mm)		
8.5				81.5						
9.0				81.0						
9.5				80.5						
10.0				80.0						
10.5				79.5						

Chiselling:

From:	To:	Time:
4.60	4.70	01:00
7.80	8.00	01:30

Water Strikes:

Strike:	Rose:	Depth Sealed

Water Details:

Date:	Hole Depth:	Water Depth:
24/08	8.00	Dry

Installation:

From:	To:	Pipe:

Backfill:

From:	To:	Type:
0.00	8.00	Arisings

Remarks:

Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH39**

Contract:	Coolagad	Easting:	727765.031	Date Started:	23/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712835.224	Date Completed:	23/08/2021
Client:	Cairn Homes	Elevation:	70.28	Drilled By:	D MacEoin
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.								
		Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.			70.08					
						1.00	B	DM063		
						1.00	C	N=9 (1,1/2,2,2,3)		
						2.00	B	DM064		
						2.00	C	N=15 (2,2/3,4,4,4)		
						2.50	U	DM065 U100= 25%		
						3.00	B	DM066		
						3.00	C	N=14 (2,2/3,3,4,4)		
	3.80	Stiff brown slightly sandy gravelly silty CLAY with low cobble content.			66.48					
						4.00	B	DM067		
						4.00	C	N=17 (3,3/3,4,5,5)		
	4.80	Medium dense yellow silty gravelly SAND.			65.48					
						5.00	B	DM068		
						5.00	C	N=27 (5,5/6,7,7,7)		
						6.00	B	DM069		
						6.00	C	N=29 (4,5/7,7,7,8)		
						7.00	B	DM070		
						7.00	C	N=28 (4,5/6,6,8,8)		
	7.50	Obstruction - boulders.			62.78	7.60	C	50 (25 for 5mm/50 for 0mm)		
	7.60	End of Borehole at 7.60m			62.68					

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0, 10.5

Level (mOD): 70.0, 69.5, 69.0, 68.5, 68.0, 67.5, 67.0, 66.5, 66.0, 65.5, 65.0, 64.5, 64.0, 63.5, 63.0, 62.5, 62.0, 61.5, 61.0, 60.5, 60.0, 59.5

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
7.50	7.60	01:30				23/08	7.60	Dry				0.00	7.60	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH40**

Contract:	Coolagad	Easting:	727850.137	Date Started:	13/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712822.546	Date Completed:	13/08/2021
Client:	Cairn Homes	Elevation:	64.47	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			64.27					
		Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		64.0						
0.5										
1.0				63.5		1.00 1.00	B C	GM101 N=16 (2,4/4,3,5,4)		
1.5				63.0						
2.0				62.5		2.00	U	GM102 U100= 90%		
2.5				62.0		2.50	C	N=17 (3,3/3,5,5,4)		
3.0				61.5		3.00 3.00	B C	GM103 N=17 (2,2/5,4,4,4)		
3.5				61.0						
4.0				60.5		4.00 4.00	B C	GM104 N=12 (3,3/2,3,4,3)		
4.5	4.60			60.0	59.87					
		Stiff light brown slightly sandy slightly gravelly silty CLAY with low cobble content.								
5.0				59.5		5.00 5.00	B C	GM105 N=19 (4,3/5,5,5,4)		
5.5				59.0						
	5.80				58.67					
		Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		58.5		6.00 6.00	B C	GM106 N=23 (3,4/5,5,6,7)		
6.0										
6.5				58.0						
7.0				57.5		7.00 7.00	B C	GM107 N=25 (2,4/5,6,7,7)		
7.5				57.0						
8.0				56.5		8.00 8.00	B C	GM108 N=32 (5,6/7,8,9,8)		
8.5				56.0						
	8.70				55.77					
	8.80	Obstruction - boulders.			55.67	8.80	C	50 (25 for 5mm/50 for 0mm)		
9.0		End of Borehole at 8.80m		55.5						
9.5				55.0						
10.0				54.5						
10.5				54.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
8.70	8.80	01:30				13/08	8.80	Dry				0.00	8.80	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH41**

Contract:	Coolagad	Easting:	727623.236	Date Started:	25/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712820.242	Date Completed:	25/08/2021
Client:	Cairn Homes	Elevation:	83.13	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
0.20	TOPSOIL.	82.93					
	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		1.00	B	JOT237		
			1.00	C	N=13 (1,2/2,3,4,4)		
			1.50	U	JOT238 U100= 0%		
1.60	Stiff brown yellow slightly sandy slightly gravelly silty CLAY with low cobble content.	81.53					
			2.00	B	JOT239		
			2.00	C	N=19 (3,4/5,4,5,5)		
2.80	Stiff brown yellow slightly sandy slightly gravelly silty CLAY with medium cobble content.	80.33					
			3.00	B	JOT240		
			3.00	C	N=31 (4,5/7,7,9,8)		
			4.00	B	JOT241		
			4.00	C	N=28 (3,4/6,7,7,8)		
4.70	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.	78.43					
			5.00	B	JOT242		
			5.00	C	N=38 (4,5/7,9,11,11)		
			6.00	B	JOT243		
			6.00	C	50 (4,16/50 for 50mm)		
			7.00	B	JOT244		
			7.00	C	50 (6,19/50 for 25mm)		
7.70	Obstruction - boulders.	75.43					
7.90	End of Borehole at 7.90m	75.23	7.90	C	50 (25 for 5mm/50 for 0mm)		

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
7.80	7.90	01:30				25/08	7.90	Dry				0.00	7.90	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	Cable Percussion Borehole Log	Borehole No: BH42

Contract:	Coolagad	Easting:	727746.817	Date Started:	23/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712771.976	Date Completed:	23/08/2021
Client:	Cairn Homes	Elevation:	72.66	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		72.5	72.46					
		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		72.0						
0.5										
1.0						1.00	B	GM138		
				71.5		1.00	C	N=14 (2,2/3,3,4,4)		
1.5	1.50				71.16	1.50	U	GM139 U100= 10%		
		Firm becoming stiff brown red slightly sandy slightly gravelly silty CLAY with low cobble content.		71.0						
2.0						2.00	B	GM140		
				70.5		2.00	C	N=15 (2,2/3,3,4,5)		
2.5				70.0						
3.0						3.00	B	GM141		
				69.5		3.00	C	N=15 (3,3/4,3,3,5)		
3.5				69.0						
4.0						4.00	B	GM142		
				68.5		4.00	C	N=18 (3,3/4,4,5,5)		
4.5				68.0						
5.0						5.00	B	GM143		
				67.5		5.00	C	N=24 (3,4/5,6,6,7)		
5.5				67.0						
6.0						6.00	B	GM144		
				66.5		6.00	C	N=29 (5,5/6,7,8,8)		
6.5										
	6.70	Obstruction - boulders.		66.0	65.96	6.80	C	50 (25 for 5mm/50 for 5mm)		
7.0	6.80	End of Borehole at 6.80m			65.86					
7.5				65.5						
8.0				65.0						
8.5				64.5						
9.0				64.0						
9.5				63.5						
10.0				63.0						
10.5				62.5						
				62.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.70	6.80	01:30				23/08	6.80	Dry				0.00	6.80	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH43**
Contract:	Coolagad	Easting:	727689.794	Date Started:	20/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712772.965	Date Completed:	20/08/2021
Client:	Cairn Homes	Elevation:	77.82	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
0.20	TOPSOIL.	77.62					
	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		1.00	B	GM130		
			1.00	C	N=9 (2,2/3,2,2,2)		
1.30	Firm becoming stiff brown red slightly sandy slightly gravelly silty CLAY with low cobble content.	76.52					
			2.00	B	GM131		
			2.00	C	N=13 (3,3/2,4,4,3)		
			2.50	U	GM132 U100= 0%		
			3.00	B	GM133		
			3.00	C	N=14 (2,3/3,3,4,4)		
			4.00	B	GM134		
			4.00	C	N=13 (4,3/3,3,3,4)		
			5.00	B	GM135		
			5.00	C	N=14 (3,3/3,3,4,4)		
			6.00	B	GM136		
			6.00	C	N=24 (4,5/5,6,7,6)		
			7.00	B	GM137		
			7.00	C	N=25 (5,7/7,7,5,6)		
7.70	Obstruction - boulders.	70.12	7.80	C	50 (25 for 5mm/50 for 5mm)		
7.80	End of Borehole at 7.80m	70.02					

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
7.70	7.80	01:30				20/08	7.80	Dry				0.00	7.80	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH44**

Contract:	Coolagad	Easting:	727845.855	Date Started:	12/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712772.307	Date Completed:	12/08/2021
Client:	Cairn Homes	Elevation:	64.66	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		64.5	64.46					
		Firm becoming stiff brown slightly sandy gravelly silty CLAY with low cobble content.		64.0						
0.5										
1.0						1.00	B	GM090		
				63.5		1.00	C	N=15 (2,5/5,4,3,3)		
1.5										
				63.0						
2.0						2.00	B	GM091		
				62.5		2.00	U	GM092		
2.5						2.00	C	U100= 95%		
				62.0				N=16 (3,6/5,3,4,4)		
3.0						3.00	B	GM093		
				61.5		3.00	C	N=19 (3,3/4,5,5,5)		
3.5	3.60	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content.		61.0	61.06					
4.0						4.00	B	GM094		
				60.5		4.00	C	N=14 (2,2/3,3,4,4)		
4.5										
				60.0						
5.0						5.00	B	GM095		
				59.5		5.00	C	N=15 (3,3/3,3,4,5)		
5.5										
				59.0						
6.0						6.00	B	GM096		
	6.10	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		58.5	58.56	6.00	C	N=25 (3,5/6,6,7,6)		
6.5				58.0						
7.0						7.00	B	GM097		
				57.5		7.00	C	N=21 (3,4/4,6,6,5)		
7.5										
				57.0						
8.0						8.00	B	GM098		
				56.5		8.00	C	N=20 (4,5/5,4,4,7)		
8.5										
				56.0						
9.0						9.00	B	GM099		
				55.5		9.00	C	N=19 (5,4/4,3,6,6)		
9.5										
				55.0						
10.0	10.00	End of Borehole at 10.00m			54.66	10.00	B	GM100		
				54.5		10.00	C	N=18 (2,3/4,4,5,5)		
10.5										
				54.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
						12/08	10.00	Dry				0.00	10.00	Arisings	-

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH45**
Contract:	Coolagad	Easting:	727632.793	Date Started:	19/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712772.347	Date Completed:	19/08/2021
Client:	Cairn Homes	Elevation:	84.52	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			84.32					
		Soft brown red sandy slightly gravelly silty CLAY.								
0.5				84.0						
1.0				83.5		1.00	B	GM123		
						1.00	C	N=6 (1,2/1,1,2,2)		
1.5				83.0						
2.0	1.90	Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		82.5	82.62	2.00	B	GM124		
						2.00	C	N=14 (4,3/4,4,3,3)		
2.5				82.0		2.50	U	GM125 U100= 10%		
3.0				81.5		3.00	B	GM126		
						3.00	C	N=21 (5,4/6,5,5,5)		
3.5				81.0						
4.0				80.5		4.00	B	GM127		
						4.00	C	N=20 (4,5/5,6,5,4)		
4.5				80.0						
	4.70	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.			79.82					
5.0				79.5		5.00	B	GM128		
						5.00	C	N=16 (3,3/4,4,5,3)		
5.5				79.0						
6.0				78.5		6.00	B	GM129		
						6.00	C	N=18 (2,3/4,5,5,4)		
6.5				78.0						
	6.60	Obstruction - boulders.			77.92					
	6.80	End of Borehole at 6.80m			77.72	6.80	C	50 (25 for 5mm/50 for 5mm)		
7.0				77.5						
7.5				77.0						
8.0				76.5						
8.5				76.0						
9.0				75.5						
9.5				75.0						
10.0				74.5						
10.5				74.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.60	6.80	01:30				19/08	6.80	Dry				0.00	6.80	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH46**

Contract:	Coolagad	Easting:	727726.512	Date Started:	18/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712732.434	Date Completed:	18/08/2021
Client:	Cairn Homes	Elevation:	75.48	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			75.28					
		Soft brown red sandy slightly gravelly silty CLAY.		75.0						
0.5										
1.0				74.5		1.00 1.00	B C	GM117 N=7 (1,1/2,2,2,1)		
1.5				74.0						
2.0	1.90	Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		73.5	73.58	2.00 2.00	B C	GM118 N=13 (2,3/3,4,3,3)		
2.5				73.0						
3.0				72.5		3.00	U	GM119 U100= 100%		
3.5				72.0		3.50	C	N=17 (2,2/3,5,5,4)		
4.0				71.5		4.00 4.00	B C	GM120 N=18 (3,5/4,4,5,5)		
4.5				71.0						
5.0				70.5		5.00 5.00	B C	GM121 N=16 (3,3/3,4,4,5)		
5.5				70.0						
6.0				69.5		6.00 6.00 6.30	B C C	GM122 50 (3,16/50 for 50mm) 50 (25 for 5mm/50 for 0mm)		
	6.20	Obstruction - boulders.			69.28					
	6.30	End of Borehole at 6.30m			69.18					
6.5				69.0						
7.0				68.5						
7.5				68.0						
8.0				67.5						
8.5				67.0						
9.0				66.5						
9.5				66.0						
10.0				65.5						
10.5				65.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.20	6.30	01:30				18/08	6.30	Dry				0.00	6.30	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH47**
Contract:	Coolagad	Easting:	727797.232	Date Started:	17/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712723.788	Date Completed:	17/08/2021
Client:	Cairn Homes	Elevation:	69.69	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		69.5	69.49					
		Soft brown slightly sandy slightly gravelly silty CLAY.		69.0						
0.5										
1.0						1.00	B	GM109		
				68.5		1.00	C	N=6 (1,1/1,1,2,2)		
1.5										
	1.70	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		68.0	67.99					
2.0						2.00	B	GM110		
				67.5		2.00	C	N=11 (2,2/3,3,2,3)		
2.5	2.50	Firm brown slightly sandy slightly gravelly silty CLAY.			67.19					
				67.0						
3.0						3.00	U	GM111 U100= 80%		
				66.5						
3.5						3.50	C	N=8 (1,1/2,2,2,2)		
				66.0						
4.0						4.00	B	GM112		
	4.20	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.		65.5	65.49	4.00	C	N=9 (2,2/2,2,3,2)		
4.5				65.0						
5.0						5.00	B	GM113		
				64.5		5.00	C	N=14 (2,3/3,3,4,4)		
5.5				64.0						
6.0						6.00	B	GM114		
	6.30	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		63.5	63.39	6.00	C	N=18 (4,4/4,5,4,5)		
6.5				63.0						
7.0						7.00	B	GM115		
				62.5		7.00	C	N=20 (2,3/4,5,5,6)		
7.5				62.0						
8.0						8.00	B	GM116		
				61.5		8.00	C	N=21 (3,3/5,6,5,5)		
8.5	8.60	Obstruction - boulders.		61.0	61.09	8.70	C	50 (25 for 5mm/50 for 5mm)		
	8.70	End of Borehole at 8.70m			60.99					
9.0				60.5						
9.5				60.0						
10.0				59.5						
10.5				59.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
8.60	8.70	01:30				17/08	8.70	Dry				0.00	8.70	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH48**
Contract:	Coolagad	Easting:	727634.367	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712724.075	Date Completed:	29/07/2021
Client:	Cairn Homes	Elevation:	86.82	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			86.62					
		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		86.5						
0.5										
1.0				86.0		1.00	B	GM034		
						1.00	C	N=10 (1,2/2,2,3,3)		
1.5	1.50			85.5	85.32					
		Firm becoming stiff brown slightly sandy gravelly silty CLAY with low cobble content.		85.0						
2.0						2.00	B	GM035		
						2.00	C	N=13 (2,3/3,4,3,3)		
2.5				84.5						
				84.0						
3.0						3.00	U	GM036		
						3.00	C	U100= 90%		
3.5				83.5		3.50	B	N=15 (3,4/4,4,4,3) GM037		
4.0				83.0		4.00	C	N=12 (2,2/3,3,3,3)		
4.5				82.5		4.50	B	GM038		
5.0				82.0		5.00	C	N=22 (4,5/5,6,5,6)		
5.5				81.5		5.50	B	GM039		
6.0				81.0		6.00	C	N=17 (3,5/5,4,4,4)		
6.5				80.5		6.50	B	GM040		
	6.90	Obstruction - boulders.		80.0	79.92	7.00	C	50 (25 for 5mm/50 for 0mm)		
7.0	7.00	End of Borehole at 7.00m			79.82					
7.5				79.5						
8.0				79.0						
8.5				78.5						
9.0				78.0						
9.5				77.5						
10.0				77.0						
10.5				76.5						
				76.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.90	7.00	01:30				29/07	7.00	Dry	0.00	1.00	Solid	0.00	1.00	Bentonite	Borehole terminated due to obstruction.
									1.00	7.00	Slotted	1.00	7.00	Gravel	

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH49**

Contract:	Coolagad	Easting:	727866.921	Date Started:	11/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712709.726	Date Completed:	11/08/2021
Client:	Cairn Homes	Elevation:	65.36	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.30	TOPSOIL.			65.06					
0.5		Firm brown red slightly sandy gravelly silty CLAY with low cobble content.		65.0						
1.0				64.5		1.00	B	GM082		
						1.00	C	N=10 (2,2/2,2,3,3)		
1.5				64.0						
2.0				63.5		2.00	B	GM083		
						2.00	U	GM084		
2.5				63.0		2.00	C	U100= 85%		
								N=11 (3,3/4,2,2,3)		
3.0				62.5		3.00	B	GM085		
						3.00	C	N=12 (2,2/3,3,3,3)		
3.5				62.0						
4.0				61.5		4.00	B	GM086		
						4.00	C	N=24 (3,2/4,8,6,6)		
4.5	4.40	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.		61.0	60.96					
5.0				60.5		5.00	B	GM087		
						5.00	C	N=20 (4,4/4,6,5,5)		
5.5				60.0						
6.0				59.5		6.00	B	GM088		
						6.00	C	N=25 (5,5/6,6,6,7)		
6.5				59.0						
7.0				58.5		7.00	B	GM089		
						7.00	C	N=29 (5,6/7,7,7,8)		
7.5	7.60	Obstruction - boulders.		58.0	57.76	7.70	C	50 (25 for 5mm/50 for 5mm)		
	7.70	End of Borehole at 7.70m		57.5	57.66					
8.0										
8.5				57.0						
9.0				56.5						
9.5				56.0						
10.0				55.5						
10.5				55.0						
				54.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
5.70	5.80	01:00				11/08	7.70	Dry				0.00	7.70	Arisings	Borehole terminated due to obstruction.
7.60	7.70	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH50**
Contract:	Coolagad	Easting:	727799.940	Date Started:	10/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712676.945	Date Completed:	10/08/2021
Client:	Cairn Homes	Elevation:	71.42	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
		TOPSOIL.								
0.5	0.40	Soft brown slightly sandy slightly gravelly silty CLAY.		71.0	71.02					
1.0				70.5		1.00 1.00	B C	GM071 N=6 (1,2/2,1,1,2)		
1.5	1.30	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		70.0	70.12					
2.0				69.5		2.00 2.00	B C	GM072 N=12 (3,2/4,4,2,2)		
2.5	2.60	Firm brown red sandy slightly gravelly silty CLAY with low cobble content.		69.0	68.82	2.50	U	GM073 U100= 0%		
3.0				68.5		3.00 3.00	B C	GM074 N=14 (3,3/3,4,4,3)		
3.5				68.0						
4.0				67.5		4.00 4.00	B C	GM075 N=13 (4,2/4,3,3,3)		
4.5	4.60	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		67.0	66.82					
5.0				66.5		5.00 5.00	B C	GM076 N=9 (2,2/2,2,2,3)		
5.5				66.0					▼	
6.0				65.5		6.00 6.00	B C	GM077 N=8 (1,2/2,2,2,2)		
6.5				65.0						
7.0				64.5		7.00 7.00	B C	GM078 N=9 (2,2/3,2,2,2)		
7.5				64.0						
8.0				63.5		8.00 8.00	B C	GM079 N=18 (2,4/4,5,5,4)		
8.5	8.30	Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		63.0	63.12					
9.0				62.5		9.00 9.00	B C	GM080 N=11 (3,3/4,2,2,3)		
9.5				62.0						
10.0	10.00	End of Borehole at 10.00m		61.5	61.42	10.00 10.00	B C	GM081 N=17 (3,2/2,4,5,6)		
10.5				61.0						
				60.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
			6.00	5.50	NS	10/08	10.00	5.00				0.00	10.00	Arisings	-

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH51**

Contract:	Coolagad	Easting:	727753.423	Date Started:	24/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712675.401	Date Completed:	24/08/2021
Client:	Cairn Homes	Elevation:	75.13	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
0.30	TOPSOIL.	74.83					
	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		1.00	B	GM145		
			1.00	C	N=9 (1,1/1,2,3,3)		
			1.50	U	GM146 U100= 0%		
1.80	Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.	73.33					
			2.00	B	GM147		
			2.00	C	N=12 (2,2/2,3,3,4)		
			3.00	B	GM148		
			3.00	C	N=15 (3,3/4,4,3,4)		
			4.00	B	GM149		
			4.00	C	N=19 (4,4/4,4,5,6)		
4.60	Stiff brown red sandy slightly gravelly silty CLAY with low cobble content.	70.53					
			5.00	B	GM150		
			5.00	C	N=29 (4,6/6,7,8,8)		
			6.00	B	GM151		
			6.00	C	N=24 (4,5/5,6,7,6)		
			7.00	B	GM152		
			7.00	C	N=38 (5,7/9,10,10,9)		
8.10	Obstruction - boulders.	67.03	8.00	B	GM153		
8.20	End of Borehole at 8.20m	66.93	8.00	C	50 (25 for 50mm/50 for 15mm)		
			8.20	C	50 (25 for 5mm/50 for 5mm)		

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
8.10	8.20	01:30				24/08	8.20	Dry				0.00	8.20	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH52**

Contract:	Coolagad	Easting:	727695.355	Date Started:	05/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712672.943	Date Completed:	05/08/2021
Client:	Cairn Homes	Elevation:	81.16	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		81.0	80.96					
0.5		Firm brown sandy slightly gravelly silty CLAY with low cobble content.		80.5						
1.0						1.00	B	GM041		
	1.30			80.0	79.86	1.00	C	N=10 (2,2/2,2,3,3)		
1.5		Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		79.5						
2.0						2.00	B	GM042		
				79.0		2.00	C	N=12 (2,2/2,3,3,4)		
2.5						2.50	U	GM043 U100= 0%		
				78.5						
3.0						3.00	B	GM044		
				78.0		3.00	C	N=16 (2,2/3,4,4,5)		
3.5				77.5						
4.0						4.00	B	GM045		
				77.0		4.00	C	N=17 (4,4/4,4,5,4)		
4.5				76.5						
5.0						5.00	B	GM046		
	5.20	Stiff brown red sandy slightly gravelly silty CLAY with low cobble content.		76.0	75.96	5.00	C	N=19 (3,3/4,5,5,5)		
5.5				75.5						
6.0						6.00	B	GM047		
				75.0		6.00	C	N=25 (4,5/6,6,6,7)		
6.5				74.5						
7.0						7.00	B	GM048		
				74.0		7.00	C	50 (5,5/50 for 175mm)		
7.5	7.40	Obstruction - boulders.			73.76	7.50	C	50 (25 for 5mm/50 for 0mm)		
	7.50	End of Borehole at 7.50m		73.5	73.66					
8.0				73.0						
8.5				72.5						
9.0				72.0						
9.5				71.5						
10.0				71.0						
10.5				70.5						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
7.40	7.50	01:30				05/08	7.50	Dry				0.00	7.50	Arisings	Borehole terminated due to obstruction.

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	Cable Percussion Borehole Log				Borehole No: BH53
Contract:	Coolagad	Easting:	727847.535	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712655.579	Date Completed:	27/07/2021
Client:	Cairn Homes	Elevation:	69.18	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result
0.20	TOPSOIL.	68.98			
	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		1.00	B	GM012
			1.00	C	N=13 (1,2/3,3,3,4)
1.80	Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	67.38	2.00	B	GM013
			2.00	C	N=12 (2,2/2,4,3,3)
			3.00	B	GM014
			3.00	U	GM015
			3.00	C	U100= 75% N=29 (3,8/8,10,6,5)
			4.00	B	GM016
			4.00	C	N=18 (4,3/5,5,4,4)
5.00	Medium dense grey silty sandy GRAVEL with high cobble content.	64.18	5.00	B	GM017
			5.00	C	N=28 (5,8/6,6,7,9)
			6.00	B	GM018
			6.00	C	N=30 (7,7/7,10,7,6)
			7.00	B	GM019
7.20	Very stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	61.98	7.00	C	N=27 (4,6/8,8,6,5)
			8.00	B	GM020
			8.00	C	N=23 (6,6/8,5,5,5)
			9.00	B	GM021
			9.00	C	N=31 (8,8/7,7,9,8)
10.00	End of Borehole at 10.00m	59.18	10.00	B	GM022
			10.00	C	N=43 (9,10/10,11,10,12)

Water Strike

Backfill

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.80	6.90	01:00	8.50	8.10	NS	26/07	5.00	Dry	0.00	1.00	Solid	0.00	1.00	Bentonite	-
						27/07	5.00	Dry	1.00	10.00	Slotted	1.00	10.00	Gravel	
						27/07	10.00	8.00							

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log				Borehole No: **BH54**
Contract:	Coolagad	Easting:	727770.093	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712632.424	Date Completed:	06/08/2021
Client:	Cairn Homes	Elevation:	76.64	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		76.5	76.44					
		Firm brown slightly sandy slightly gravelly silty CLAY.		76.0						
0.5										
1.0				75.5		1.00	B	GM049		
						1.00	C	N=8 (1,1/2,2,2,2)		
1.5	1.60			75.0	75.04					
		Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.								
2.0				74.5		2.00	B	GM050		
						2.00	C	N=13 (2,3/3,3,4,3)		
	2.40				74.24					
2.5		Stiff brown red sandy slightly gravelly silty CLAY with low cobble content.		74.0		2.50	U	GM051 U100= 0%		
3.0				73.5		3.00	B	GM052		
						3.00	C	N=13 (4,2/2,3,4,4)		
3.5				73.0						
4.0				72.5		4.00	B	GM053		
						4.00	C	N=19 (2,3/5,5,4,5)		
	4.30				72.34					
4.5		Firm becoming stiff brown sandy slightly gravelly silty CLAY with low cobble content.		72.0						
5.0				71.5		5.00	B	GM054		
						5.00	C	N=18 (2,3/3,5,5,5)		
5.5				71.0						
6.0				70.5		6.00	B	GM055		
						6.00	C	N=13 (2,2/3,3,4,3)		
6.5				70.0						
7.0				69.5		7.00	B	GM056		
						7.00	C	N=12 (2,2/2,3,3,4)		
7.5				69.0						
8.0				68.5		8.00	B	GM057		
						8.00	C	N=19 (3,4/5,5,4,5)		
8.5				68.0						
9.0				67.5		9.00	B	GM058		
						9.00	C	N=17 (4,5/4,4,5,4)		
9.5				67.0						
10.0	10.00	End of Borehole at 10.00m		66.5	66.64	10.00	B	GM059		
						10.00	C	N=16 (3,4/4,3,5,4)		
10.5				66.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks: -

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	# Cable Percussion Borehole Log	Borehole No: **BH55**

Contract:	Coolagad	Easting:	727699.644	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712620.008	Date Completed:	26/07/2021
Client:	Cairn Homes	Elevation:	84.37	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Depth	Stratum Description	Level (mOD) Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike
0.30	TOPSOIL.	84.07				
	Soft brown slightly sandy slightly gravelly silty CLAY.		1.00	B	GM001	
			1.00	C	N=7 (1,1/2,2,1,2)	
1.50	Firm brown sandy slightly gravelly silty CLAY with low cobble content.	82.87				
			2.00	B	GM002	
			2.00	C	N=9 (2,3/3,2,2,2)	
			2.50	U	GM003 U100= 80%	
3.10	Stiff brown slightly sandy slightly gravelly silty CLAY with low cobble content.	81.27	3.00	B	GM004	
			3.00	C	N=11 (2,3/3,2,3,3)	
			4.00	B	GM005	
			4.00	C	N=16 (2,4/3,5,4,4)	
5.10	Medium dense yellow silty gravelly SAND.	79.27	5.00	B	GM006	
			5.00	C	N=16 (4,3/3,3,5,5)	
			6.00	B	GM007	
			6.00	C	N=17 (3,3/3,5,4,5)	
			7.00	B	GM008	
			7.00	C	N=15 (2,2/5,3,3,4)	
			8.00	B	GM009	
			8.00	C	N=17 (2,3/3,4,5,5)	
			9.00	B	GM010	
			9.00	C	N=18 (3,4/5,5,4,4)	
10.00	End of Borehole at 10.00m	74.37	10.00	B	GM011	
			10.00	C	N=13 (2,2/3,3,2,5)	

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0, 10.5

Level (mOD) Scale: 84.0, 83.5, 83.0, 82.5, 82.0, 81.5, 81.0, 80.5, 80.0, 79.5, 79.0, 78.5, 78.0, 77.5, 77.0, 76.5, 76.0, 75.5, 75.0, 74.5, 74.0, 73.5

Backfill

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
						23/07	8.00	Dry	0.00	0.50	Solid	0.00	0.30	Bentonite	-
						26/07	8.00	Dry	0.50	10.00	Slotted	0.30	10.00	Gravel	
						26/07	10.00	Dry							

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH56**

Contract:	Coolagad	Easting:	727584.586	Date Started:	10/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713272.967	Date Completed:	10/08/2021
Client:	Cairn Homes	Elevation:	82.83	Drilled By:	J. O'Toole
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.			82.63					
		Soft becoming firm brown slightly sandy gravelly silty CLAY with low cobble content.		82.5						
0.5										
1.0				82.0		1.00	B	JOT133		
						1.00	C	N=5 (0,0/1,1,1,2)		
1.5				81.5		1.40	U	JOT134 U100= 100%		
2.0				81.0		2.00	B	JOT135		
						2.00	C	N=11 (2,2/2,3,3,3)		
2.5				80.5						
3.0				80.0		3.00	B	JOT136		
	3.20	Stiff grey slightly sandy slightly gravelly silty CLAY with low cobble content.		79.5	79.63	3.00	C	N=21 (2,4/4,5,6,6)		
3.5	3.60	Stiff brown sandy slightly gravelly silty CLAY.			79.23					
4.0				79.0		4.00	B	JOT137		
						4.00	C	N=30 (2,4/7,7,8,8)		
4.5	4.50	Stiff brown sandy slightly gravelly silty CLAY with low cobble content.		78.5	78.33					
5.0				78.0		5.00	B	JOT138		
						5.00	C	50 (4,5/50 for 180mm)		
5.5				77.5						
6.0				77.0		6.00	B	JOT139		
						6.00	C	50 (25 for 125mm/50 for 20mm)		
6.5				76.5						
7.0				76.0		7.00	B	JOT140		
						7.00	C	50 (6,9/50 for 115mm)		
7.5	7.50	Very stiff brown yellow sandy slightly gravelly silty CLAY with medium cobble content.		75.5	75.33					
8.0				75.0		8.00	B	JOT141		
						8.00	C	50 (4,7/50 for 180mm)		
8.5				74.5						
9.0				74.0		9.00	C	50 (25 for 100mm/50 for 10mm)		
9.5				73.5						
	9.80	Obstruction - boulders.		73.0	73.03					
10.0	10.00	End of Borehole at 10.00m			72.83	10.00	C	50 (25 for 5mm/50 for 5mm)		
10.5				72.5						
				72.0						

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
6.20	6.40	01:00				10/08	10.00	Dry				0.00	10.00	Arisings	-
9.80	10.00	01:30													

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Contract No: 5868	**Cable Percussion Borehole Log**	Borehole No: **BH57**

Contract:	Coolagad	Easting:	727798.593	Date Started:	09/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712790.746	Date Completed:	09/08/2021
Client:	Cairn Homes	Elevation:	68.58	Drilled By:	G. Macken
Engineer:	AECOM	Borehole Diameter:	200mm	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples and Insitu Tests Depth	Type	Result	Water Strike	Backfill
	0.20	TOPSOIL.		68.5	68.38					
		Brown sandy slightly gravelly silty CLAY.		68.0						
	0.80	Firm brown red slightly sandy slightly gravelly silty CLAY.		67.5	67.78	1.00 1.00	B C	GM060 N=8 (1,2/2,2,2,2)		
	1.70	Firm brown sandy slightly gravelly silty CLAY with low cobble content.		67.0 66.5 66.0 65.5 65.0	66.88	2.00 2.00 3.00 3.00 3.00	B C B U C	GM061 N=14 (2,2/4,3,3,4) GM062 GM063 U100= 85% N=9 (1,2/2,2,3,2)		
	3.90	Stiff grey slightly sandy slightly gravelly silty CLAY with low cobble content.		64.5	64.68	4.00 4.00	B C	GM064 N=16 (2,3/4,4,4,4)		
	4.50	Medium dense becoming dense red silty gravelly SAND with low cobble content.		64.0 63.5 63.0 62.5 62.0 61.5 61.0 60.5 60.0 59.5 59.0	64.08	5.00 5.00 6.00 6.00 7.00 7.00 8.00 8.00 9.00 9.00	B C B C B C B C B C	GM065 N=29 (4,5/6,6,8,9) GM066 N=15 (2,3/3,4,4,4) GM067 N=18 (2,4/5,5,4,4) GM068 N=17 (4,5/5,4,4,4) GM069 N=22 (4,5/6,6,5,5)		
	10.00	End of Borehole at 10.00m		58.5 58.0	58.58	10.00 10.00	B C	GM070 N=32 (5,6/7,8,8,9)		

Chiselling: From:	To:	Time:	Water Strikes: Strike:	Rose:	Depth Sealed	Water Details: Date:	Hole Depth:	Water Depth:	Installation: From:	To:	Pipe:	Backfill: From:	To:	Type:	Remarks:
						09/08	10.00	Dry				0.00	10.00	Arisings	-

Legend:
B: Bulk
D: Disturbed
U: Undisturbed
ES: Environmental
W: Water
C: Cone SPT
S: Split spoon SPT

Appendix 2

Rotary Corehole Logs

Contract No: 5868	**Rotary Corehole Log**	Corehole No: **RC05**

Contract:	Coolagad	Easting:	727524.123	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713250.084	Date Completed:	22/07/2021
Client:	Cairn Homes	Elevation:	87.67	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5		Open hole drilling - driller reports returns of brown clay with some cobbles.		87.5							
1.0				87.0							
1.5				86.5							
2.0				86.0							
2.5				85.5							
3.0				85.0							
3.5				84.5							
4.0				84.0							
4.5				83.5							
5.0				83.0							
5.5				82.5							
6.0				82.0							
6.5				81.5							
7.0				81.0							
7.5				80.5							
8.0				80.0							
8.5				79.5							
9.0				79.0							
9.5				78.5							
10.0	10.00			78.0							
10.5		End of Corehole at 10.00m		77.5	77.67						
11.0				77.0							
11.5				76.5							
12.0				76.0							
12.5				75.5							
13.0				75.0							
13.5				74.5							
14.0				74.0							
14.5				73.5							
15.0				73.0							
15.5				72.5							
16.0				72.0							
16.5				71.5							
17.0				71.0							
17.5				70.5							
18.0				70.0							
18.5				69.5							
19.0				69.0							
19.5				68.5							
				68.0							

Installation: From:	To:	Pipe Type:	Backfill: From:	To:	Type:
			0.00	10.00	Bentonite

Remarks:
Completed at same location as cable percussive borehole.

Contract No: 5868	**Rotary Corehole Log**				Corehole No: **RC07**
Contract:	Coolagad	Easting:	727846.065	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713223.472	Date Completed:	23/07/2021
Client:	Cairn Homes	Elevation:	61.70	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0	8.00	Open hole drilling - driller reports returns of brown clay.		61.5, 61.0, 60.5, 60.0, 59.5, 59.0, 58.5, 58.0, 57.5, 57.0, 56.5, 56.0, 55.5, 55.0, 54.5, 54.0	53.70						
8.5, 9.0, 9.5, 10.0, 10.5, 11.0, 11.5, 12.0, 12.5, 13.0, 13.5, 14.0, 14.5, 15.0, 15.5, 16.0, 16.5, 17.0, 17.5, 18.0, 18.5, 19.0, 19.5	20.00	Open hole drilling - driller reports returns of light brown yellow clay with some cobbles.		53.5, 53.0, 52.5, 52.0, 51.5, 51.0, 50.5, 50.0, 49.5, 49.0, 48.5, 48.0, 47.5, 47.0, 46.5, 46.0, 45.5, 45.0, 44.5, 44.0, 43.5, 43.0, 42.5, 42.0	41.70						
		End of Corehole at 20.00m									

Installation: From:	To:	Pipe Type:	Backfill: From:	To:	Type:
0.00	15.00	Solid	0.00	14.00	Bentonite
15.00	20.00	Slotted	14.00	20.00	Gravel

Remarks:
Completed adjacent to cable percussive borehole.

Contract No: 5868	**Rotary Corehole Log**	Corehole No: **RC10**

Contract:	Coolagad	Easting:	727542.628	Date Started:	02/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713185.116	Date Completed:	02/08/2021
Client:	Cairn Homes	Elevation:	85.96	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5		Open hole drilling - driller reports returns of brown clay.		85.5							
1.0				85.0							
1.5				84.5							
2.0				84.0							
2.5				83.5							
3.0				83.0							
3.5				82.5							
4.0				82.0							
4.5				81.5							
5.0				81.0							
5.5	5.50	Open hole drilling - driller reports returns of brown yellow clay with some cobbles.		80.5	80.46						
6.0				80.0							
6.5				79.5							
7.0				79.0							
7.5				78.5							
8.0				78.0							
8.5				77.5							
9.0				77.0							
9.5				76.5							
10.0				76.0							
10.5				75.5		N=39 (3,5/7,8,12,12)					
11.0				75.0							
11.5				74.5							
12.0				74.0		50 (4,6/50 for 95mm)					
12.5				73.5							
13.0				73.0							
13.5				72.5		N=43 (5,5/8,9,12,14)					
14.0				72.0							
14.5				71.5							
15.0	15.00	End of Corehole at 15.00m		71.0	70.96	N=41 (4,6/7,10,11,13)					
15.5				70.5							
16.0				70.0							
16.5				69.5							
17.0				69.0							
17.5				68.5							
18.0				68.0							
18.5				67.5							
19.0				67.0							
19.5				66.5							

Installation: From:	To:	Pipe Type:	Backfill: From:	To:	Type:
0.00	9.00	Solid	0.00	9.00	Bentonite
9.00	15.00	Slotted	9.00	15.00	Gravel

Remarks:
Completed adjacent to cable percussive borehole.

Contract No: 5868	**Rotary Corehole Log**				Corehole No: **RC11**
Contract:	Coolagad	Easting:	727711.894	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713179.696	Date Completed:	22/07/2021
Client:	Cairn Homes	Elevation:	71.01	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5		Open hole drilling - driller reports returns of brown clay with some cobbles.		70.5							
1.0				70.0							
1.5				69.5							
2.0				69.0							
2.5				68.5							
3.0				68.0							
3.5				67.5							
4.0				67.0							
4.5				66.5							
5.0	5.00	Open hole drilling - driller reports returns of light brown clay with gravel.		66.0	66.01						
5.5				65.5							
6.0				65.0							
6.5				64.5							
7.0				64.0							
7.5				63.5							
8.0				63.0							
8.5				62.5							
9.0				62.0							
9.5				61.5							
10.0	10.00	End of Corehole at 10.00m		61.0	61.01						
10.5				60.5							
11.0				60.0							
11.5				59.5							
12.0				59.0							
12.5				58.5							
13.0				58.0							
13.5				57.5							
14.0				57.0							
14.5				56.5							
15.0				56.0							
15.5				55.5							
16.0				55.0							
16.5				54.5							
17.0				54.0							
17.5				53.5							
18.0				53.0							
18.5				52.5							
19.0				52.0							
19.5				51.5							

Installation: From:	To:	Pipe Type:	Backfill: From:	To:	Type:
			0.00	10.00	Bentonite

Remarks:
Completed at same location as cable percussive borehole.

Contract No: 5868	# Rotary Corehole Log				Corehole No: **RC16**
Contract:	Coolagad	Easting:	727602.824	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713108.575	Date Completed:	27/07/2021
Client:	Cairn Homes	Elevation:	80.94	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5		Open hole drilling - driller reports returns of brown clay.		80.5							
1.0				80.0							
1.5				79.5							
2.0				79.0							
2.5				78.5							
3.0				78.0							
3.5				77.5							
4.0				77.0							
4.5				76.5							
5.0				76.0							
5.5				75.5							
6.0				75.0							
6.5	6.20	Open hole drilling - driller reports returns of light brown yellow clay with some cobbles.		74.5	74.74						
7.0				74.0							
7.5				73.5							
8.0				73.0							
8.5				72.5							
9.0				72.0							
9.5				71.5							
10.0				71.0							
10.5				70.5							
11.0				70.0							
11.5				69.5							
12.0				69.0							
12.5				68.5							
13.0				68.0							
13.5				67.5							
14.0				67.0							
14.5				66.5							
15.0				66.0							
15.5				65.5							
16.0				65.0							
16.5				64.5							
17.0				64.0							
17.5				63.5							
18.0				63.0							
18.5				62.5							
19.0				62.0							
19.5				61.5							
	20.00	End of Corehole at 20.00m			60.94						

Installation:

From:	To:	Pipe Type:
0.00	15.00	Solid
15.00	20.00	Slotted

Backfill:

From:	To:	Type:
0.00	14.00	Bentonite
14.00	20.00	Gravel

Remarks:

Completed adjacent to cable percussive borehole.

Contract No: 5868	**Rotary Corehole Log**				Corehole No: **RC17**
Contract:	Coolagad	Easting:		Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:		Date Completed:	03/08/2021
Client:	Cairn Homes	Elevation:		Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5		Open hole drilling - driller reports returns of brown clay.		-0.5							
1.0				-1.0							
1.5				-1.5							
2.0				-2.0							
2.5				-2.5							
3.0				-3.0							
3.5				-3.5							
4.0				-4.0							
4.5				-4.5							
5.0				-5.0							
5.5				-5.5							
6.0	5.80	Open hole drilling - driller reports returns of brown yellow clay.		-6.0							
6.5				-6.5							
7.0				-7.0							
7.5				-7.5							
8.0				-8.0							
8.5				-8.5							
9.0				-9.0							
9.5				-9.5							
10.0				-10.0							
10.5				-10.5							
11.0				-11.0							
11.5				-11.5							
12.0				-12.0							
12.5				-12.5							
13.0				-13.0							
13.5				-13.5							
14.0	14.00	Open hole drilling - driller reports returns of grey clay.		-14.0							
14.5				-14.5							
15.0				-15.0							
15.5				-15.5							
16.0				-16.0							
16.5				-16.5							
17.0				-17.0							
17.5				-17.5							
18.0				-18.0							
18.5				-18.5							
19.0				-19.0							
19.5				-19.5							
	20.00	End of Corehole at 20.00m									

Installation: From:	To:	Pipe Type:	Backfill: From:	To:	Type:
0.00	15.00	Solid	0.00	14.00	Bentonite
15.00	20.00	Slotted	14.00	20.00	Gravel

Remarks:
Completed adjacent to cable percussive borehole.

Contract No: 5868	**Rotary Corehole Log**				Corehole No: **RC26**
Contract:	Coolagad	Easting:	727766.571	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712971.436	Date Completed:	26/07/2021
Client:	Cairn Homes	Elevation:	66.31	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5		Open hole drilling - driller reports returns of brown clay.		66.0							
1.0				65.5							
1.5				65.0							
2.0				64.5							
2.5				64.0							
3.0				63.5							
3.5				63.0							
4.0				62.5							
4.5				62.0							
5.0	5.00			61.5	61.31						
5.5		Open hole drilling - driller reports returns of light brown yellow clay with some cobbles.		61.0							
6.0				60.5							
6.5				60.0							
7.0				59.5							
7.5				59.0							
8.0				58.5							
8.5				58.0							
9.0				57.5							
9.5				57.0							
10.0				56.5							
10.5				56.0							
11.0				55.5							
11.5				55.0							
12.0				54.5							
12.5				54.0							
13.0				53.5							
13.5				53.0							
14.0				52.5							
14.5				52.0							
15.0	15.00	End of Corehole at 15.00m		51.5	51.31						
15.5				51.0							
16.0				50.5							
16.5				50.0							
17.0				49.5							
17.5				49.0							
18.0				48.5							
18.5				48.0							
19.0				47.5							
19.5				47.0							
				46.5							

Installation:

From:	To:	Pipe Type:
0.00	9.00	Solid
9.00	15.00	Slotted

Backfill:

From:	To:	Type:
0.00	9.00	Bentonite
9.00	15.00	Gravel

Remarks:

Completed adjacent to cable percussive borehole.

Contract No: 5868	**Rotary Corehole Log**				Corehole No: **RC37**
Contract:	Coolagad	Easting:	727683.349	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712847.152	Date Completed:	23/07/2021
Client:	Cairn Homes	Elevation:	76.05	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5		Open hole drilling - driller reports returns of brown clay.		75.5							
1.0				75.0							
1.5				74.5							
2.0				74.0							
2.5				73.5							
3.0				73.0							
3.5				72.5							
4.0				72.0							
4.5	4.50	Open hole drilling - driller reports returns of light brown clay with gravel.		71.5	71.55						
5.0				71.0							
5.5				70.5							
6.0				70.0							
6.5				69.5							
7.0				69.0							
7.5				68.5							
8.0				68.0							
8.5				67.5							
9.0				67.0							
9.5				66.5							
10.0	10.00	End of Corehole at 10.00m		66.0	66.05						
10.5				65.5							
11.0				65.0							
11.5				64.5							
12.0				64.0							
12.5				63.5							
13.0				63.0							
13.5				62.5							
14.0				62.0							
14.5				61.5							
15.0				61.0							
15.5				60.5							
16.0				60.0							
16.5				59.5							
17.0				59.0							
17.5				58.5							
18.0				58.0							
18.5				57.5							
19.0				57.0							
19.5				56.5							

Installation: From:	To:	Pipe Type:	Backfill: From:	To:	Type:
			0.00	10.00	Bentonite

Remarks:
Completed at same location as cable percussive borehole.

Contract No: 5868	**Rotary Corehole Log**				Corehole No: **RC38**
Contract:	Coolagad	Easting:	727555.653	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712844.507	Date Completed:	22/07/2021
Client:	Cairn Homes	Elevation:	90.15	Drilled By:	MEDL
Engineer:	AECOM	Rig Type:	Sondeq	Status:	FINAL

Depth (m) Scale	Depth	Stratum Description	Legend	Level (mOD) Scale	Depth	Samples	Rock Indices TCR/%	SCR/%	RQD/%	FI/m	Backfill
0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0		Open hole drilling - driller reports returns of brown clay.		90.0, 89.5, 89.0, 88.5, 88.0, 87.5, 87.0, 86.5, 86.0, 85.5, 85.0							
5.5	5.40	Open hole drilling - driller reports returns of light brown clay with gravel.		84.5, 84.0, 83.5, 83.0, 82.5, 82.0, 81.5, 81.0, 80.5	84.75						
10.0	10.00	End of Corehole at 10.00m		80.0	80.15						
10.5, 11.0, 11.5, 12.0, 12.5, 13.0, 13.5, 14.0, 14.5, 15.0, 15.5, 16.0, 16.5, 17.0, 17.5, 18.0, 18.5, 19.0, 19.5				79.5, 79.0, 78.5, 78.0, 77.5, 77.0, 76.5, 76.0, 75.5, 75.0, 74.5, 74.0, 73.5, 73.0, 72.5, 72.0, 71.5, 71.0, 70.5							

Installation: From:	To:	Pipe Type:	Backfill: From:	To:	Type:	Remarks:
			0.00	10.00	Bentonite	Completed at same location as cable percussive borehole.

Appendix 3

Trial Pit Logs and Photographs

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP016**
Contract:	Coolagad	Easting:	727750.024	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713264.596	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	67.00	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.70 x 0.60 x 2.20	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
	0.10	TOPSOIL.			66.90				
	0.40	Soft light brown sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			66.60				
0.5		Firm becoming stiff light brown slightly sandy slightly gravelly silty CLAY with medium cobble, low boulder content and some gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).		66.5					
1.0				66.0		1.00	B	MK04	
1.5				65.5					
2.0				65.0		2.00	B	MK05	
	2.20	Obstruction - boulders.			64.80				
		Pit terminated at 2.20m							
2.5				64.5					
3.0				64.0					
3.5				63.5					
4.0				63.0					
4.5				62.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP025**
Contract:	Coolagad	Easting:	727725.241	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713205.878	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	69.99	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.70 x 0.60 x 3.00	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
0.10	TOPSOIL.	69.89				
	Soft light brown sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.					
0.80	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content and occasional gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	69.19	1.00	B	MK17	
1.70	Stiff brown slightly sandy gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	68.29	2.00	B	MK18	
2.30	Stiff light brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	67.69				
3.00	Obstruction - boulders.	66.99	3.00	B	MK19	

Pit terminated at 3.00m

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5

Scale: 69.5, 69.0, 68.5, 68.0, 67.5, 67.0, 66.5, 66.0, 65.5

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP043**
Contract:	Coolagad	Easting:	727583.746	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713257.471	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	82.89	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.80 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.							
	0.20	Firm becoming stiff light brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			82.69				
0.5				82.5					
1.0				82.0		1.00	B	MK25	
1.5				81.5					
2.0				81.0					
2.5				80.5		2.50	B	MK26	
3.0				80.0					
3.5	3.50	**Pit terminated at 3.50m**		79.5	79.39				
4.0				79.0					
4.5				78.5					
				78.0					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP058**
Contract:	Coolagad	Easting:	727556.076	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713128.982	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	84.38	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.70 x 0.60 x 3.10	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
	TOPSOIL.					
0.20	Soft becoming firm brown slightly sandy slightly gravelly silty CLAY with medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	84.18				
0.90	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble and boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	83.48	1.00	B	MK27	
2.20	Firm brown slightly sandy gravelly silty CLAY with high cobble, low boulder content and frequent gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	82.18	2.50	B	MK28	
2.90	Stiff light brown slightly sandy gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	81.48	3.00	B	MK29	
3.10	Obstruction - boulders.	81.28				

Pit terminated at 3.10m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP070**
Contract:	Coolagad	Easting:	727609.454	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713041.049	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	79.46	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.80 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.							
	0.20	Soft light brown slightly sandy gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			79.26				
0.5	0.50	Firm brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		79.0	78.96				
1.0				78.5		1.00	B	MK30	
	1.10	Firm brown slightly sandy gravelly silty CLAY with medium cobble, low boulder content and frequent sand and gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			78.36				
1.5				78.0					
2.0				77.5		2.00	B	MK31	
2.5				77.0					
	2.90	Stiff light brown slightly sandy gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			76.56				
3.0				76.5		3.00	B	MK32	
3.5	3.50	**Pit terminated at 3.50m**		76.0	75.96				
4.0				75.5					
4.5				75.0					
				74.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP075**
Contract:	Coolagad	Easting:	727699.702	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713121.721	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	72.97	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.50 x 0.60 x 2.80	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.10	TOPSOIL.	72.87				
	Soft becoming firm light brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		1.00	B	MK23	
1.10	Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	71.87	2.00	B	MK24	
2.60	Very stiff brown slightly sandy gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	70.37				
2.80	Obstruction - boulders.	70.17				

Pit terminated at 2.80m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP107**
Contract:	Coolagad	Easting:	727785.272	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713018.521	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	65.17	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.70 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.20	TOPSOIL.	64.97				
0.70	Soft becoming firm light brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	64.47				
	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).		1.00	B	MK33	
2.60	Stiff brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	62.57	2.80	B	MK34	
2.90	Stiff brown slightly sandy gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	62.27	3.00	B	MK35	
3.50	**Pit terminated at 3.50m**	61.67				

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP115**
Contract:	Coolagad	Easting:	727700.088	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713024.068	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	72.46	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.60 x 0.60 x 3.00	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.							
	0.20	Soft becoming firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			72.26				
0.5				72.0					
1.0				71.5		1.00	B	MK36	
1.5				71.0					
2.0				70.5					
	2.30	Stiff brown slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			70.16				
2.5				70.0		2.50	B	MK37	
3.0	3.00	Obstruction - boulders.		69.5	69.46				
		Pit terminated at 3.00m							
3.5				69.0					
4.0				68.5					
4.5				68.0					
				67.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP130**
Contract:	Coolagad	Easting:	727812.412	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712904.163	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	64.52	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
0.5		MADE GROUND: brown slightly sandy gravelly silty clay with high cobble and low boulder content.		64.0					
	0.70	Soft becoming firm light brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			63.82				
1.0				63.5		1.00	B	MK38	
	1.30	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			63.22				
1.5				63.0					
2.0				62.5		2.00	B	MK39	
2.5				62.0					
3.0				61.5					
	3.20	Stiff brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			61.32	3.30	B	MK40	
3.5	3.50			61.0	61.02				
		Pit terminated at 3.50m							
4.0				60.5					
4.5				60.0					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP137**
Contract:	Coolagad	Easting:	727842.132	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712807.283	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	64.61	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		MADE GROUND: brown slightly sandy gravelly silty clay with high cobble and low boulder content and some plastic fragments.		64.5					
	0.40	Soft becoming firm light brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			64.21				
0.5				64.0					
1.0						1.00	B	MK41	
				63.5					
1.5				63.0					
	1.90	Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content and occasional sand laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			62.71				
2.0				62.5					
2.5						2.50	B	MK42	
				62.0					
3.0				61.5					
3.5	3.50	**Pit terminated at 3.50m**			61.11				
				61.0					
4.0				60.5					
4.5				60.0					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP142**
Contract:	Coolagad	Easting:	727864.438	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712738.933	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	65.09	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		MADE GROUND: brown slightly sandy gravelly silty clay with high cobble and low boulder content, some gravel lenses and timber branches.		65.0					
0.5				64.5					
1.0				64.0					
1.5				63.5					
2.0	2.10	Soft dark brown sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies.		63.0	62.99				
	2.20				62.89				
	2.40	Firm light brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			62.69				
2.5				62.5		2.50	B	MK43	
		Stiff grey sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.							
3.0				62.0					
3.5	3.50	**Pit terminated at 3.50m**			61.59				
				61.5					
4.0				61.0					
4.5				60.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	# Trial Pit Log				Trial Pit No: **TP160**
Contract:	Coolagad	Easting:	727591.589	Date:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712844.665	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	85.84	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.60 x 0.60 x 3.30	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
	TOPSOIL.					
0.30	Soft becoming firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	85.54	1.00	B	MK75	
1.40	Firm becoming stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble, low boulder content and some sandy gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	84.44	2.00	B	MK76	
3.30	Obstruction - boulders.	82.54				

Pit terminated at 3.30m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP165**
Contract:	Coolagad	Easting:	727652.459	Date:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712934.032	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	75.15	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	4.10 x 0.60 x 2.60	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
0.30	TOPSOIL.	74.85				
1.40	Soft becoming firm light brown sandy slightly gravelly silty CLAY with medium cobble content and occasional sandy gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	73.75	1.00	B	MK62	
2.20	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	72.95	2.00	B	MK63	
2.60	Stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	72.55	2.50	B	MK64	
	Obstruction - boulders.					
	Pit terminated at 2.60m					

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5

Scale: 75.0, 74.5, 74.0, 73.5, 73.0, 72.5, 72.0, 71.5, 71.0, 70.5

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP174**
Contract:	Coolagad	Easting:	727671.049	Date:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712875.021	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	76.10	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.		76.0					
	0.20	Soft becoming firm light brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			75.90				
0.5				75.5					
1.0						1.00	B	MK65	
	1.10	Firm becoming stiff light brown sandy slightly gravelly silty CLAY with medium cobble content and occasional sandy gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		75.0	75.00				
1.5				74.5					
2.0						2.00	B	MK66	
				74.0					
2.5				73.5					
	2.90	Stiff light brown sandy slightly gravelly silty CLAY with medium cobble content, occasional sandy gravel laminas and some black gravel pockets. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			73.20				
3.0				73.0		3.00	B	MK67	
3.5	3.50	**Pit terminated at 3.50m**			72.60				
				72.5					
4.0				72.0					
4.5				71.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP186**
Contract:	Coolagad	Easting:	727750.802	Date:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712827.183	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	71.73	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.80 x 0.60 x 2.80	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.20	TOPSOIL.	71.53				
0.70	Soft light brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	71.03	1.00	B	MK68	
1.30	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	70.43	2.00	B	MK69	
2.80	Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	68.93				
	Obstruction - boulders.					
	Pit terminated at 2.80m					

Legend

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5

Level (mOD) Scale: 71.5, 71.0, 70.5, 70.0, 69.5, 69.0, 68.5, 68.0, 67.5, 67.0

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP191**
Contract:	Coolagad	Easting:	727767.977	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712758.202	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	71.33	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.60 x 0.60 x 2.50	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.20	TOPSOIL.	71.13				
1.30	Soft light brown slightly sandy gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	70.03	1.00	B	MK49	
2.50	Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with high cobble, low boulder content and some black silty clay bands. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	68.83	2.00	B	MK50	
	Obstruction - boulders.					

Pit terminated at 2.50m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP226**
Contract:	Coolagad	Easting:	727735.120	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712722.356	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	74.97	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.50 x 0.60 x 3.00	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.20	TOPSOIL.	74.77				
0.60	Soft light brown slightly sandy gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	74.37				
0.70	Soft grey brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	74.27				
	Firm orange brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		1.00	B	MK46	
1.70	Firm becoming stiff light grey brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	73.27	2.00	B	MK47	
2.60	Stiff brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	72.37	2.80	B	MK48	
2.90	Obstruction - boulders.	72.07				

Pit terminated at 3.00m

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5

Scale: 74.5, 74.0, 73.5, 73.0, 72.5, 72.0, 71.5, 71.0, 70.5

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP240**
Contract:	Coolagad	Easting:	727726.408	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712625.460	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	80.96	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.60 x 0.60 x 2.70	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.							
	0.20	Soft becoming firm brown sandy slightly gravelly silty CLAY with medium cobble content interbedded with very silty gravelly sand. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			80.76				
0.5				80.5					
1.0				80.0		1.00	B	MK58	
1.5				79.5					
2.0				79.0					
	2.10	Firm becoming stiff orange brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			78.86				
2.5				78.5		2.50	B	MK59	
	2.70	Obstruction - boulders.			78.26				
		Pit terminated at 2.70m							
3.0				78.0					
3.5				77.5					
4.0				77.0					
4.5				76.5					
				76.0					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **TP246**
Contract:	Coolagad	Easting:	727820.130	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712717.385	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	68.25	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	4.10 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.30	TOPSOIL.	67.95				
1.60	Soft becoming firm brown sandy slightly gravelly silty CLAY with medium cobble content interbedded with very silty gravelly sand. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	66.65	1.00	B	MK51	
2.60	Firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	65.65	2.00	B	MK52	
3.50	Stiff brown slightly sandy slightly gravelly silty CLAY with high cobble, low boulder content and some silty gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	64.75	3.00	B	MK53	
	Pit terminated at 3.50m					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP044**
Contract:	Coolagad	Easting:	727636.233	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713188.975	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	77.53	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.80 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.							
	0.20	Soft becoming firm brown slightly sandy slightly gravelly silty CLAY with medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			77.33				
0.5				77.0					
1.0				76.5		1.00	B	MK20	
1.5				76.0					
2.0				75.5		2.00	B	MK21	
2.5				75.0					
	2.70	Stiff light brown slightly sandy gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			74.83				
	2.90	Stiff light brown slightly sandy slightly gravelly silty CLAY with low cobble content and occasional sand laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			74.63				
3.0				74.5		3.00	B	MK22	
3.5	3.50	**Pit terminated at 3.50m**		74.0	74.03				
4.0				73.5					
4.5				73.0					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP073**
Contract:	Coolagad	Easting:	727775.917	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712660.553	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	74.10	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.00	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
	TOPSOIL.					
0.30	Soft light brown slightly sandy gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	73.80				
			1.00	B	MK56	
1.20	Firm orange brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	72.90				
1.50	Firm becoming stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content and frequent sand laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	72.60				
			2.00	B	MK57	
3.00	Obstruction - boulders.	71.10				
	Pit terminated at 3.00m					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP106**
Contract:	Coolagad	Easting:	727863.694	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712678.379	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	66.54	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.		66.5					
	0.20	Soft becoming firm becoming stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content and some sand and gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			66.34				
0.5				66.0					
1.0				65.5		1.00	B	MK54	
1.5				65.0					
2.0				64.5					
2.5				64.0		2.50	B	MK55	
3.0				63.5					
3.5	3.50	**Pit terminated at 3.50m**		63.0	63.04				
4.0				62.5					
4.5				62.0					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP115**
Contract:	Coolagad	Easting:	727799.810	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713103.099	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	63.78	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.10	TOPSOIL.	63.68				
0.80	Soft light brown sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	62.98	1.00	B	MK06	
2.10	Firm light brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	61.68	2.50	B	MK07	
2.60	Stiff light brown slightly sandy slightly gravelly silty CLAY with medium cobble, low boulder content and some gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	61.18	3.00	B	MK08	
3.50	Stiff brown slightly sandy gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	60.28				
	Pit terminated at 3.50m					

Legend

Level (mOD) Scale: 63.5, 63.0, 62.5, 62.0, 61.5, 61.0, 60.5, 60.0, 59.5, 59.0

Level (mbgl) Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	# Trial Pit Log				Trial Pit No: **RTP122**
Contract:	Coolagad	Easting:	727850.132	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713227.019	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	61.55	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.50 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.10	TOPSOIL.	61.45				
	Soft becoming firm light brown sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		0.50	B	MK01	
0.90	Firm becoming stiff light brown slightly sandy slightly gravelly silty CLAY with medium cobble, low boulder content and some gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	60.65	1.50	B	MK02	
2.80	Stiff brown slightly sandy gravelly silty CLAY with high cobble, low boulder content and some black sandy gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	58.75	3.00	B	MK03	
3.50	**Pit terminated at 3.50m**	58.05				

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP144**
Contract:	Coolagad	Easting:	727721.973	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712944.822	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	68.60	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.50 x 0.60 x 3.00	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
	TOPSOIL.					
0.30	Soft becoming firm grey brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	68.30				
0.90	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	67.70	1.00	B	MK44	
2.10	Firm brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	66.50				
2.40	Stiff yellow brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	66.20	2.50	B	MK45	
3.00	**Pit terminated at 3.00m**	65.60				

Scale: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5

Scale: 68.5, 68.0, 67.5, 67.0, 66.5, 66.0, 65.5, 65.0, 64.5, 64.0

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP151**
Contract:	Coolagad	Easting:	727531.950	Date:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712915.270	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	87.94	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.80 x 0.60 x 2.60	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.30	TOPSOIL.	87.64				
0.80	Yellow brown silty gravelly fine to coarse SAND with medium cobble content. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	87.14	1.00	B	MK77	
1.20	Firm yellow brown slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	86.74	2.00	B	MK78	
2.20	Firm becoming stiff yellow brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	85.74	2.50	B	MK79	
2.60	Stiff orange brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter). Obstruction - boulders.	85.34				

Pit terminated at 2.60m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP165**
Contract:	Coolagad	Easting:	727690.997	Date:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712805.670	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	77.05	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.80 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.		77.0					
	0.20	Soft becoming firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			76.85				
0.5				76.5					
1.0				76.0		1.00	B	MK70	
1.5				75.5					
2.0				75.0					
2.5	2.60	Firm brown sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		74.5	74.45	2.80	B	MK71	
3.0	3.10	Stiff brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		74.0	73.95	3.30	B	MK72	
3.5	3.50	**Pit terminated at 3.50m**		73.5	73.55				
4.0				73.0					
4.5				72.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP171**
Contract:	Coolagad	Easting:	727682.986	Date:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712692.361	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	81.54	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.20	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
0.30	TOPSOIL.	81.24				
2.40	Firm becoming stiff orange brown slightly sandy slightly gravelly silty CLAY with medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	79.14	1.00	B	MK73	
3.20	Stiff orange brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	78.34	2.50	B	MK74	
	Obstruction - boulders.					

Pit terminated at 3.20m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	# Trial Pit Log				Trial Pit No: **RTP179**
Contract:	Coolagad	Easting:	727620.025	Date:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712758.658	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	87.10	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.30 x 0.60 x 2.40	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.		87.0					
	0.30	Soft light brown slightly sandy gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			86.80				
0.5				86.5					
1.0						1.00	B	MK60	
	1.10	Firm orange brown slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.		86.0	86.00				
	1.40	Firm becoming stiff orange brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			85.70				
1.5				85.5					
2.0						2.00	B	MK61	
				85.0					
	2.40	Obstruction - boulders. **Pit terminated at 2.40m**			84.70				
2.5				84.5					
3.0				84.0					
3.5				83.5					
4.0				83.0					
4.5				82.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP190**
Contract:	Coolagad	Easting:	727973.757	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713267.290	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	54.43	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.50	Status:	FINAL

Level (mbgl) Scale:	Depth	Stratum Description	Legend	Level (mOD) Scale:	Depth:	Samples / Field Tests Depth	Type	Result	Water Strike
		TOPSOIL.							
	0.30	Firm grey slightly sandy slightly gravelly silty CLAY with high cobble and medium boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			54.13				
0.5				54.0		0.50	B	MK11	
				53.5					
1.0	1.00	Firm grey brown slightly sandy gravelly silty CLAY with medium cobble content and frequent sandy gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.			53.43				
						1.30	B	MK12	
1.5				53.0					
	1.70	Firm becoming stiff light brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).			52.73				
2.0				52.5					
2.5				52.0		2.50	B	MK13	
3.0				51.5					
3.5	3.50	**Pit terminated at 3.50m**		51.0	50.93				
4.0				50.5					
4.5				50.0					
				49.5					

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Scheduled depth.	Pit walls stable.	Dry	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	# Trial Pit Log				Trial Pit No: **RTP191**
Contract:	Coolagad	Easting:	727898.708	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713276.449	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	58.84	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.90 x 0.60 x 3.10	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
	TOPSOIL.					
0.20	Soft light brown sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	58.64				
0.60	Firm light brown slightly sandy slightly gravelly silty CLAY with medium cobble content and occasional gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	58.24	1.00	B	MK14	
2.10	Stiff brown slightly sandy gravelly silty CLAY with high cobble, medium boulder content and some gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles and boulders are angular to subrounded of various lithologies (up to 400mm diameter).	56.74	2.50	B	MK15	▼
2.60	Stiff dark grey slightly sandy gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	56.24	3.00	B	MK16	
3.10	Obstruction - boulders.	55.74				

Pit terminated at 3.10m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Obstruction - boulders.	Pit walls stable.	2.10 Medium	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

Contract No: 5868	**Trial Pit Log**				Trial Pit No: **RTP192**
Contract:	Coolagad	Easting:	727914.528	Date:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713214.936	Excavator:	JCB 3CX
Client:	Cairn Homes	Elevation:	57.30	Logged By:	M. Kaliski
Engineer:	AECOM	Dimensions (LxWxD) (m):	3.60 x 0.60 x 2.40	Status:	FINAL

Level (mbgl) Depth	Stratum Description	Level (mOD) Depth	Samples / Field Tests Depth	Type	Result	Water Strike
	TOPSOIL.					
0.20	Soft light brown sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies.	57.10				
0.50	Firm grey brown slightly sandy gravelly silty CLAY with medium cobble content and frequent gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	56.80	1.00	B	MK09	
1.20	Firm becoming stiff grey slightly sandy gravelly silty CLAY with high cobble content and frequent sandy gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of various lithologies. Cobbles are angular to subrounded of various lithologies.	56.10	1.50	B	MK10	▼
2.40	Pit terminated due to pit wall instability.	54.90				

Pit terminated at 2.40m

Termination:	Pit Wall Stability:	Groundwater Rate:	Remarks:	Key:
Pit wall collapse.	Pit walls stable.	1.20 Slow	-	B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental

TP016 Sidewall

TP016 Spoil

TP025 Sidewall

TP025 Spoil

TP043 Sidewall

TP043 Spoil

TP058 Sidewall

TP058 Spoil

TP070 Sidewall

TP070 Spoil

TP075 Sidewall

TP075 Spoil

TP107 Sidewall

TP107 Spoil

TP115 Sidewall

TP115 Spoil

TP130 Sidewall

TP130 Spoil

TP137 Sidewall

TP137 Spoil

TP142 Sidewall

TP142 Spoil

TP160 Sidewall

TP160 Spoil

TP165 Sidewall

TP165 Spoil

TP174 Sidewall

TP174 Spoil

TP186 Sidewall

TP186 Spoil

TP191 Sidewall

TP191 Spoil

TP226 Sidewall

TP226 Spoil

TP240 Sidewall

TP240 Spoil

TP246 Sidewall

TP246 Spoil

RTP044 Sidewall

RTP044 Spoil

RTP073 Sidewall

RTP073 Spoil

RTP106 Sidewall

RTP106 Spoil

RTP115 Sidewall

RTP115 Spoil

RTP122 Sidewall

RTP122 Spoil

RTP144 Sidewall

RTP144 Spoil

RTP151 Sidewall

RTP151 Spoil

RTP165 Sidewall

RTP165 Spoil

RTP171 Sidewall

RTP171 Spoil

RTP179 Sidewall

RTP179 Spoil

RTP190 Sidewall

RTP190 Spoil

RTP191 Sidewall

RTP191 Spoil

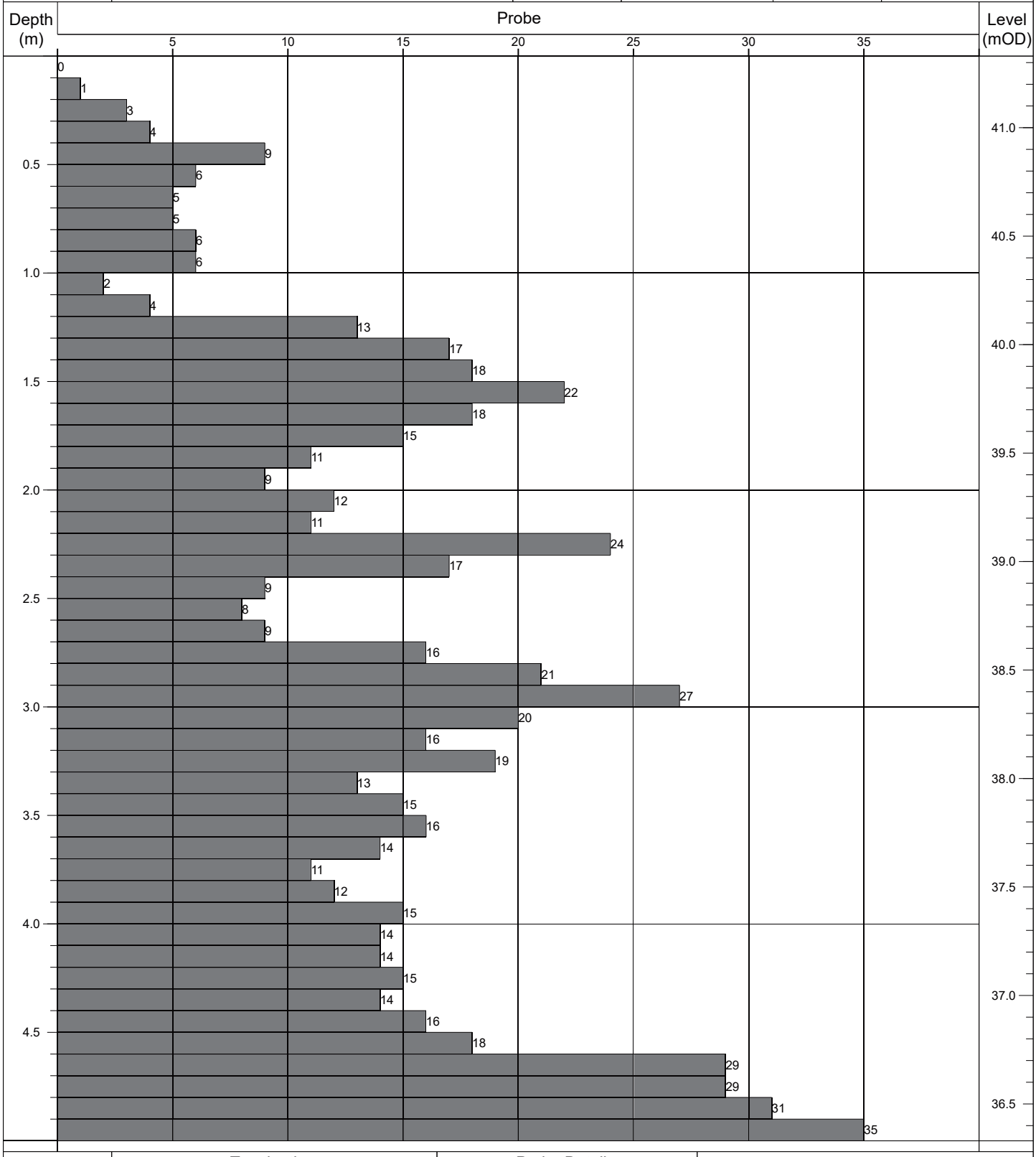
RTP192 Sidewall

RTP192 Spoil

Appendix 4

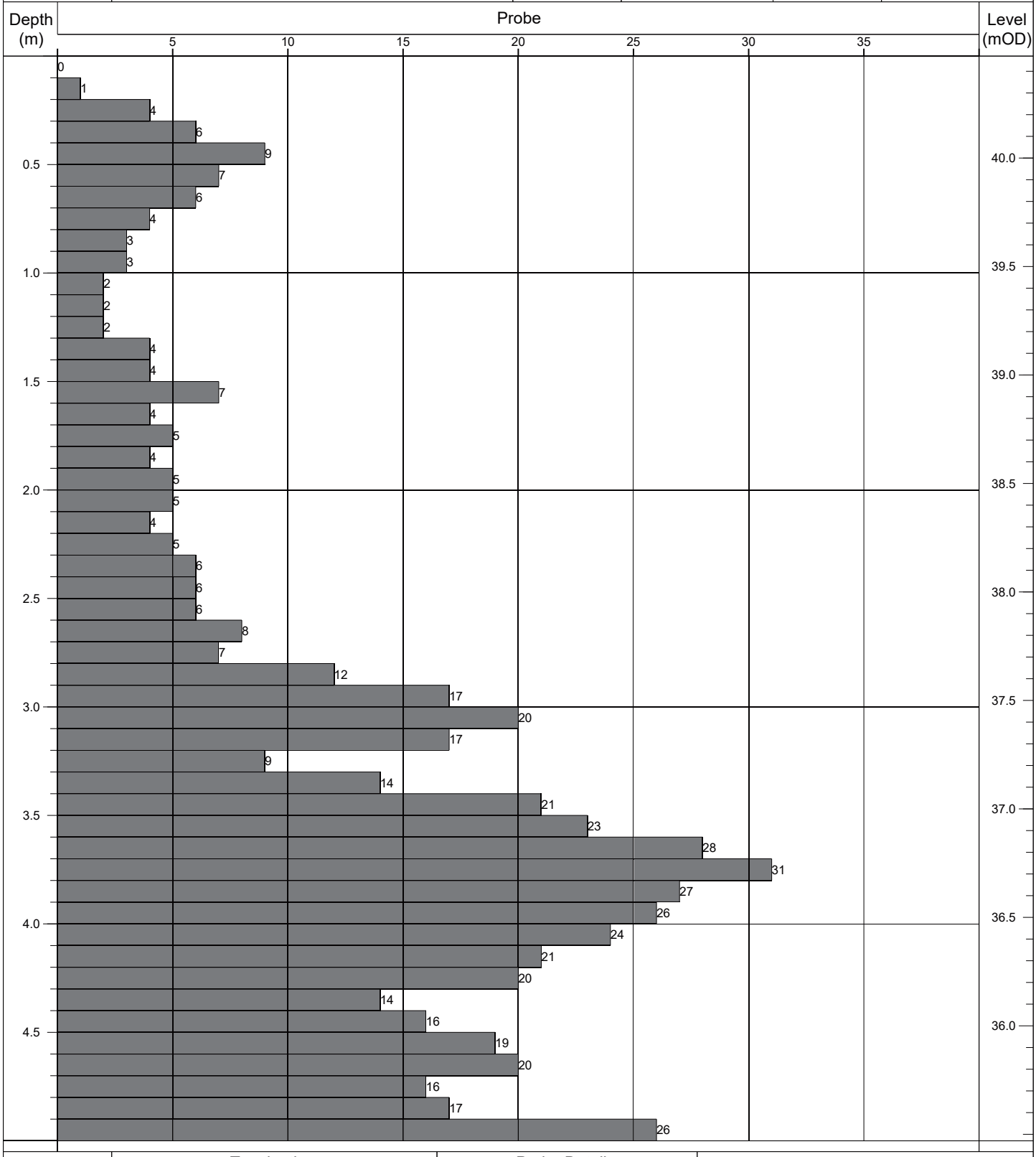
Dynamic Probe Logs - Structural

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP001**
Contract:	Coolagad	Easting:	728197.344	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713320.195	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	41.33	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



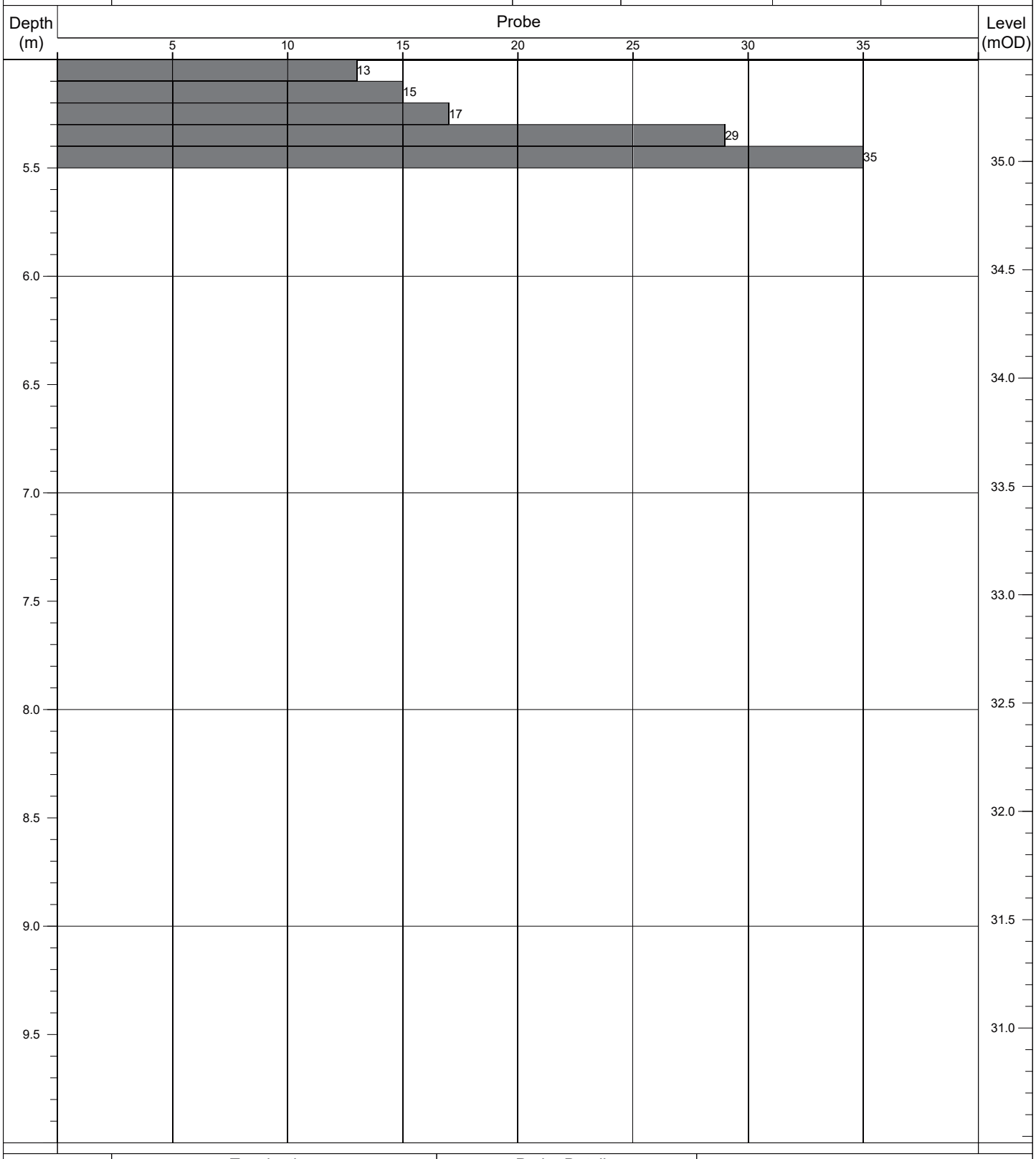
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP002**
Contract:	Coolagad	Easting:	728212.444	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713321.312	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	40.47	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 2



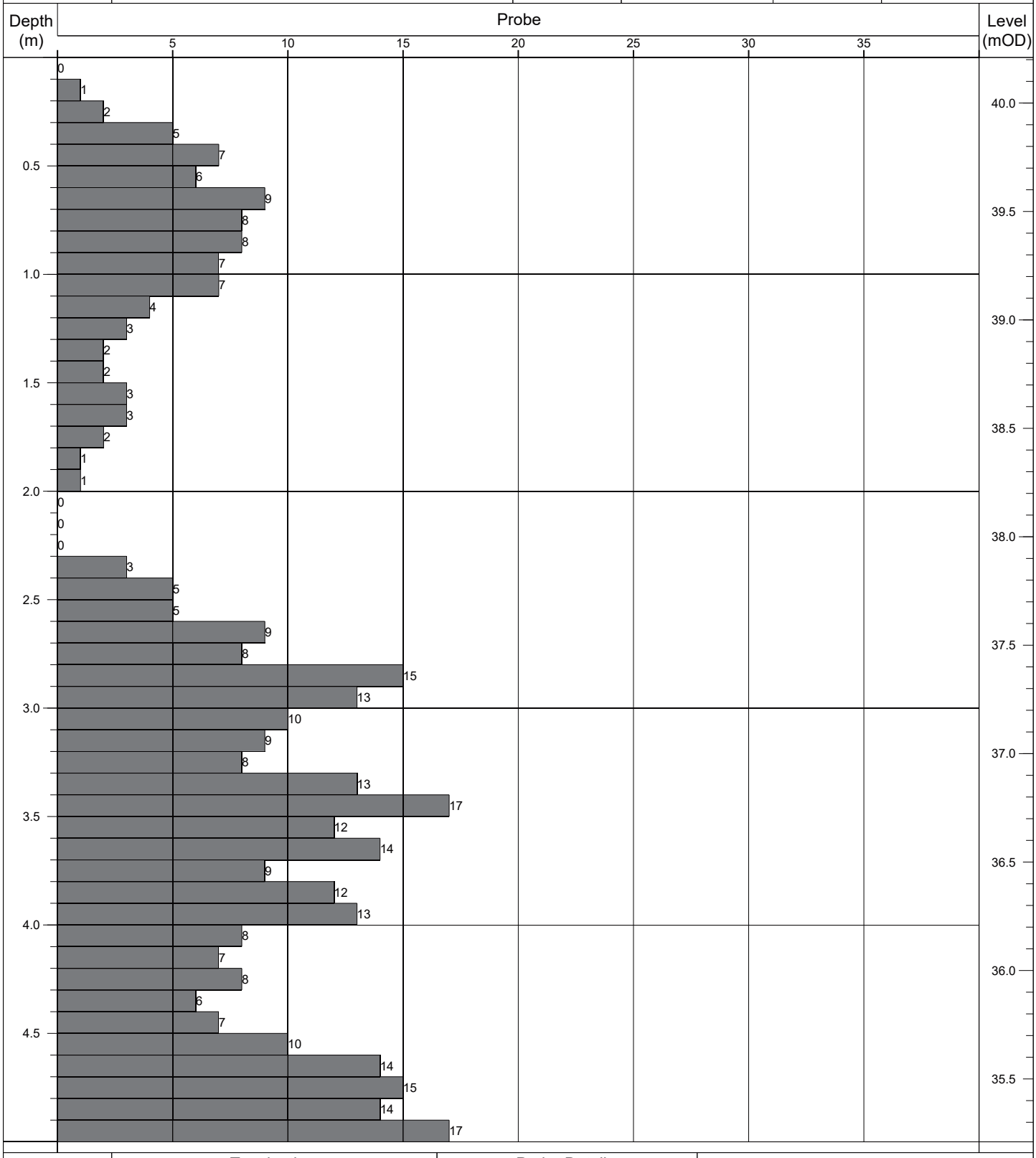
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP002**
Contract:	Coolagad	Easting:	728212.444	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713321.312	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	40.47	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 2 of 2



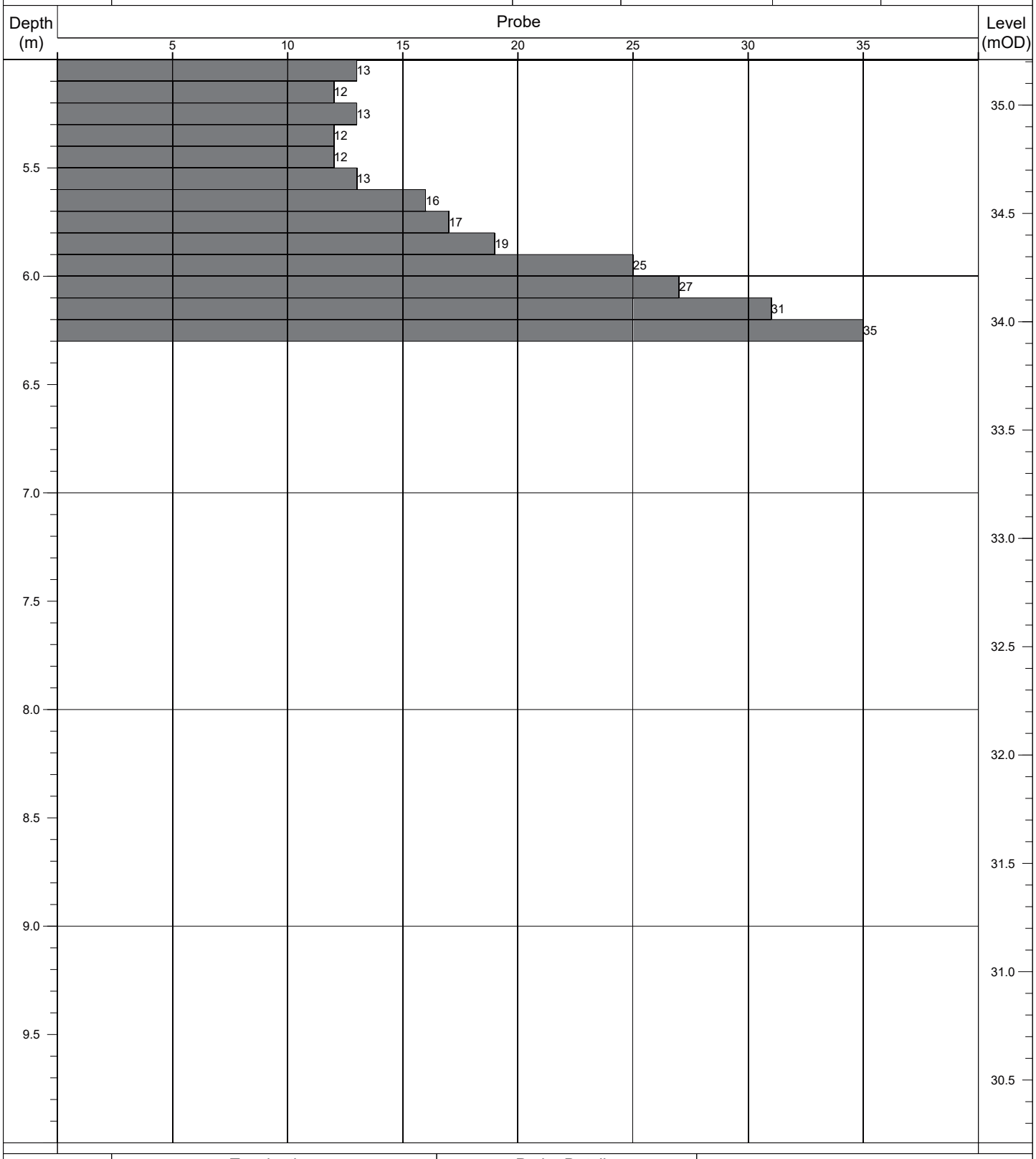
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP003**
Contract:	Coolagad	Easting:	728220.210	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713307.304	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	40.21	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 2



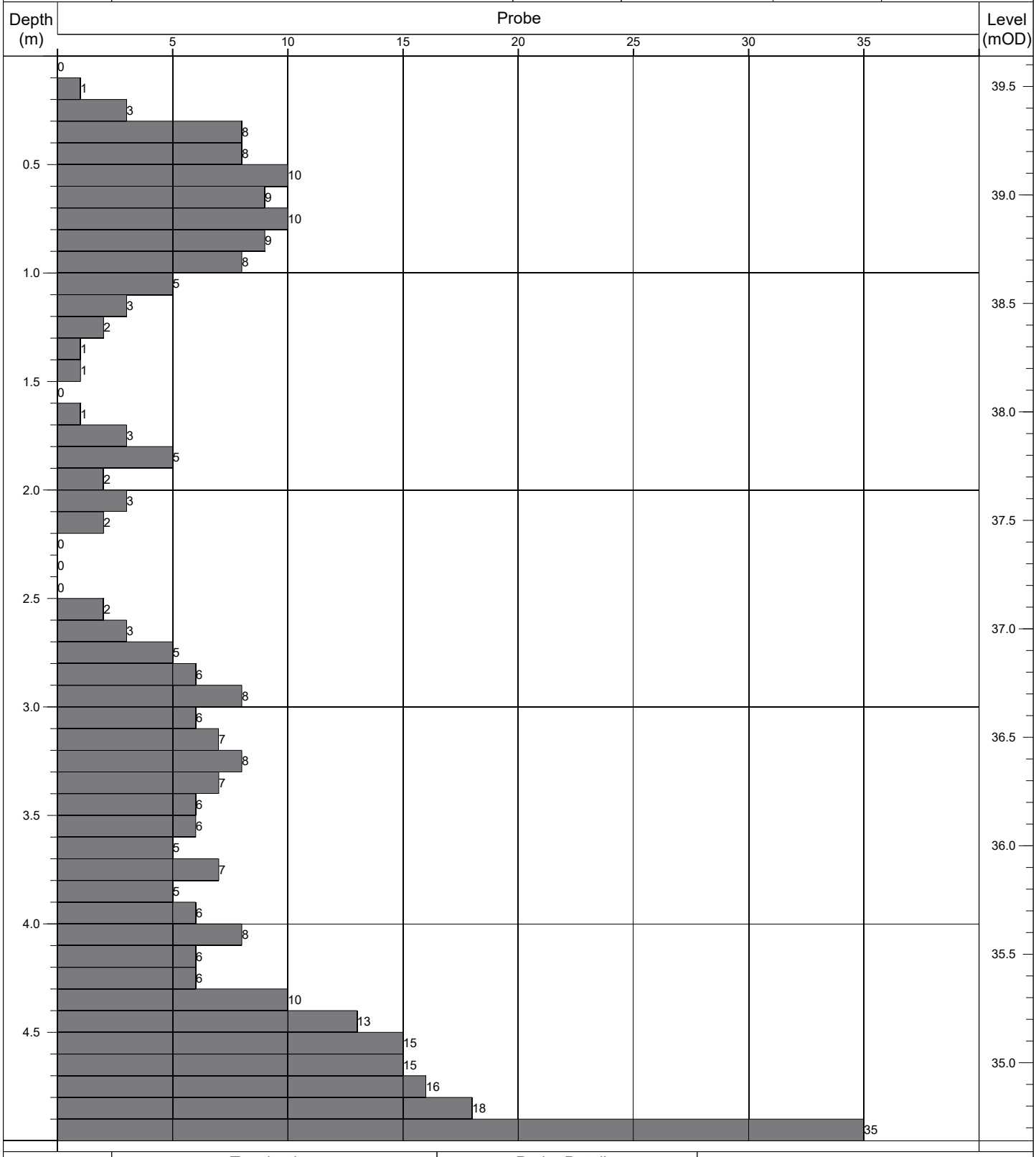
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
6.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP003**
Contract:	Coolagad	Easting:	728220.210	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713307.304	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	40.21	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 2 of 2



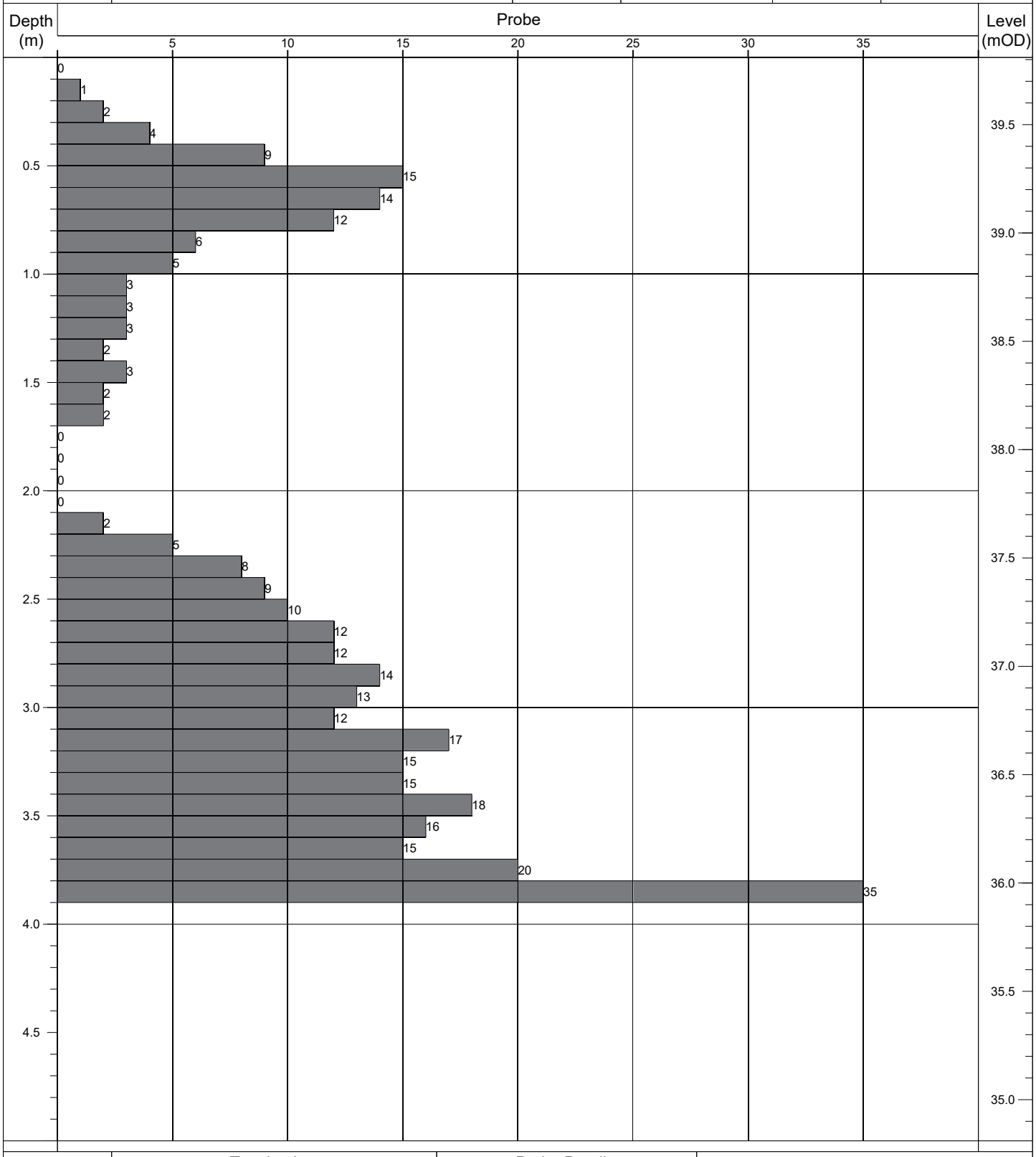
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
6.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP004
Contract:	Coolagad	Easting:	728232.678	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713317.073	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	39.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



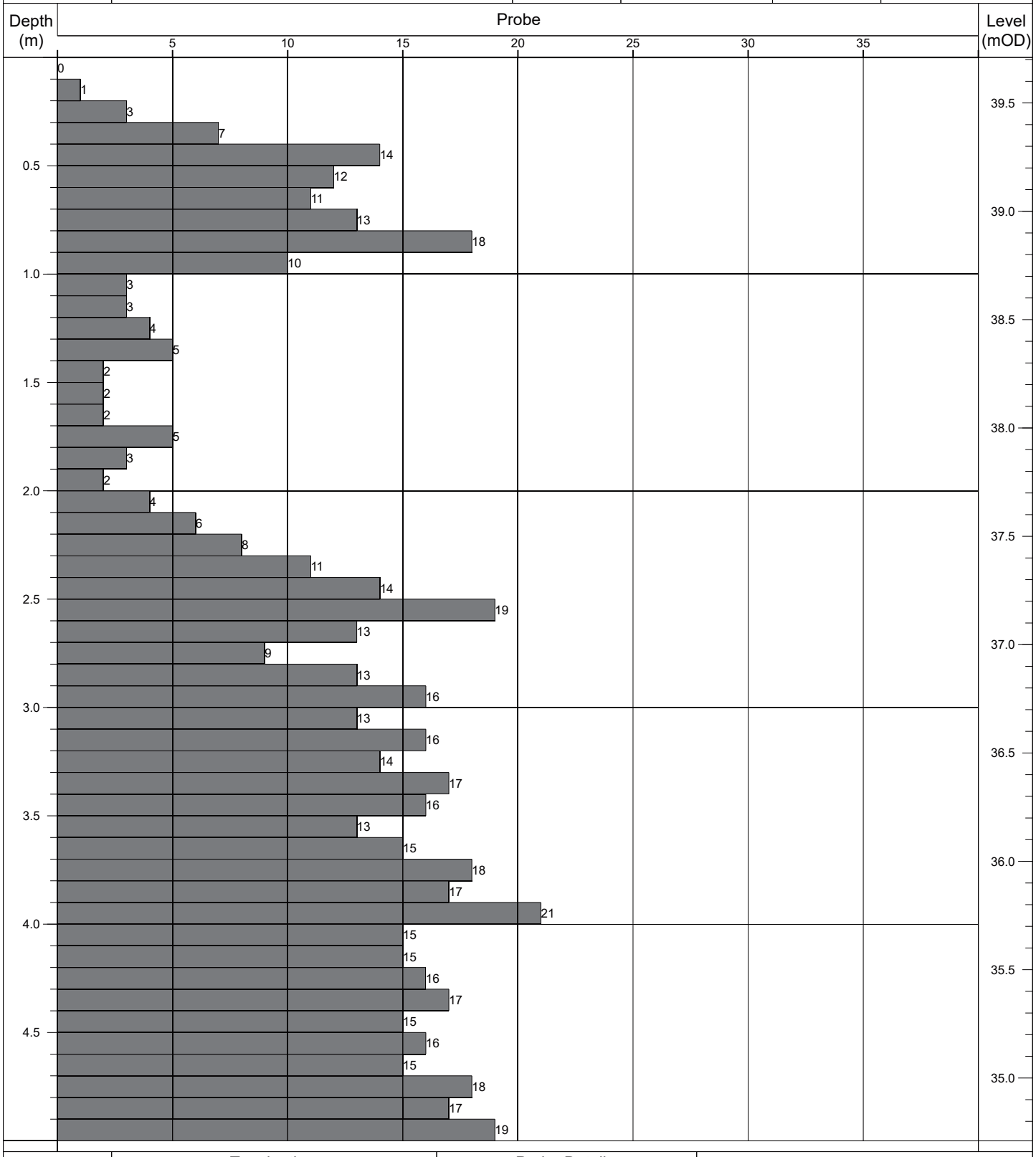
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP005**
Contract:	Coolagad	Easting:	728222.604	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713269.477	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	39.81	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



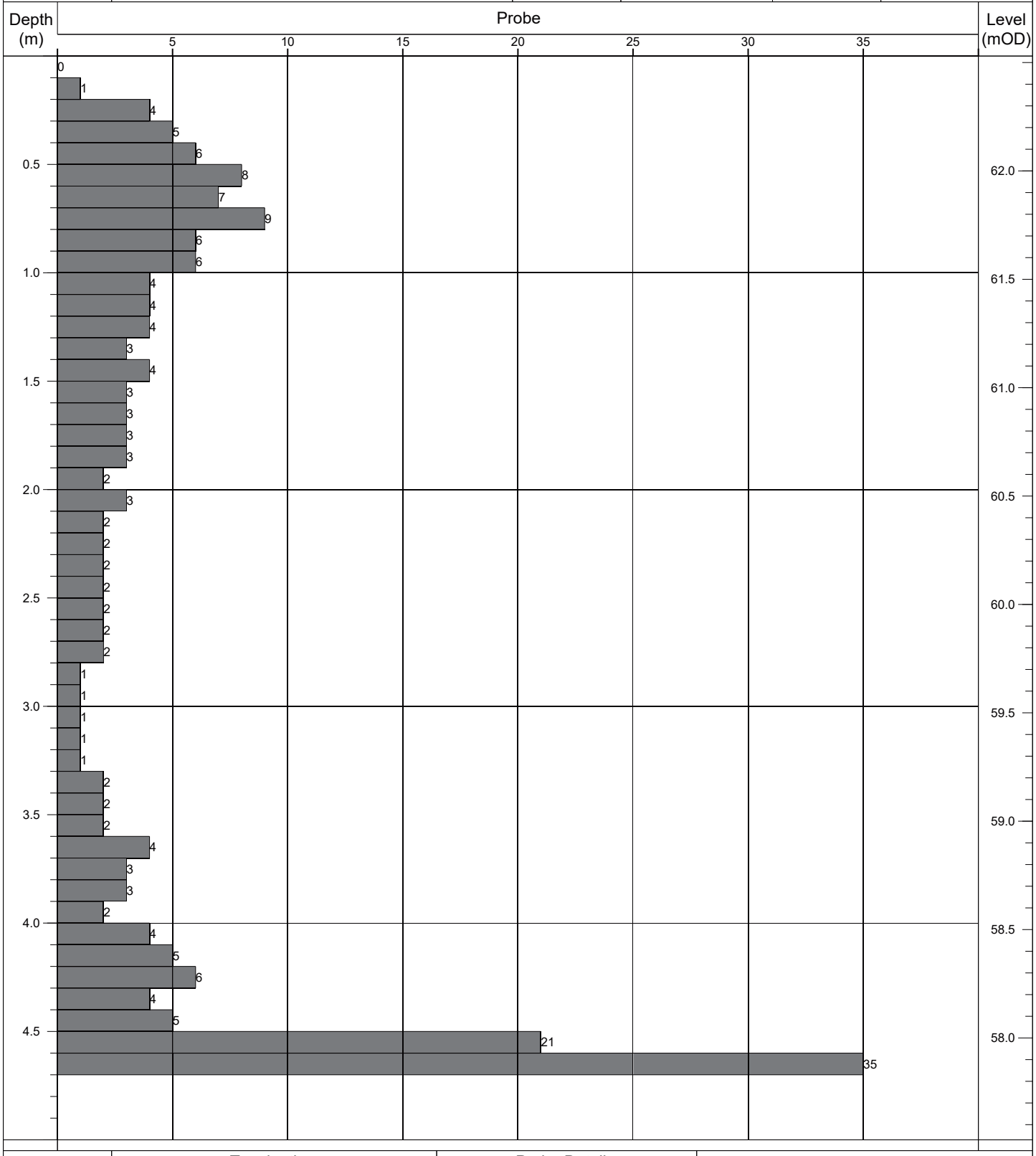
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP006**
Contract:	Coolagad	Easting:	728224.386	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713255.106	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	39.71	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



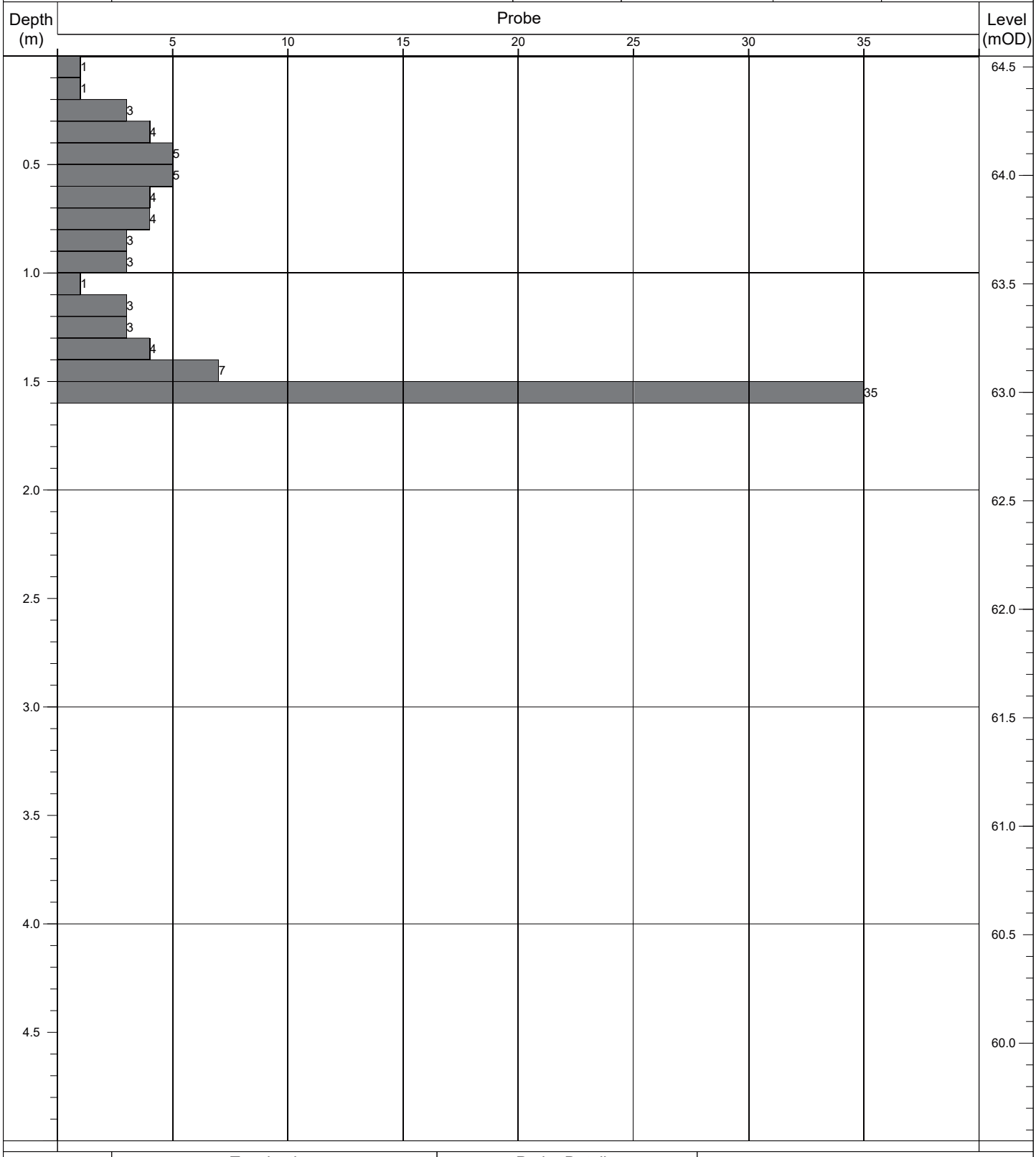
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP007**
Contract:	Coolagad	Easting:	727826.674	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713267.269	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	62.53	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



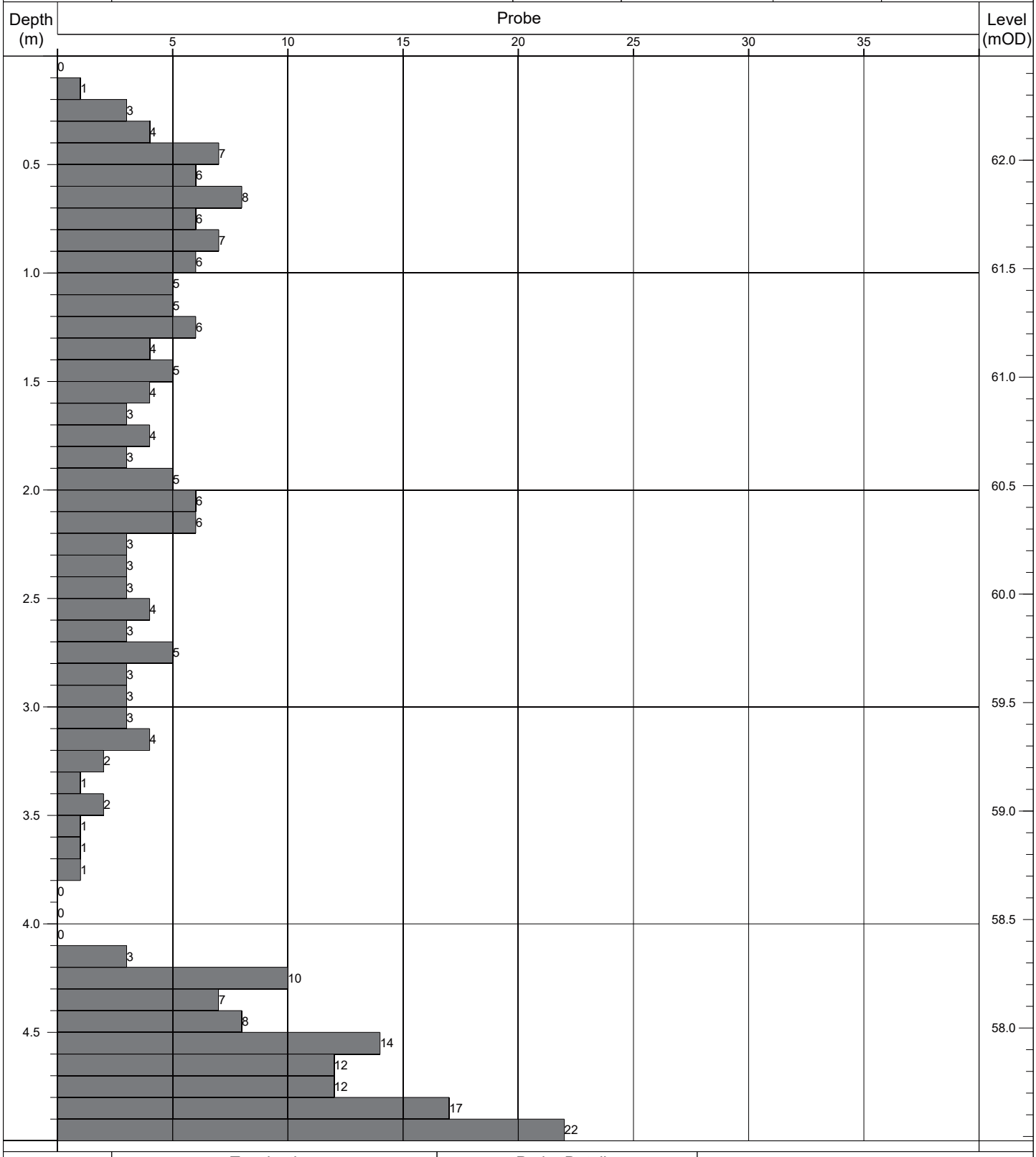
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP008**
Contract:	Coolagad	Easting:	727791.028	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713267.425	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



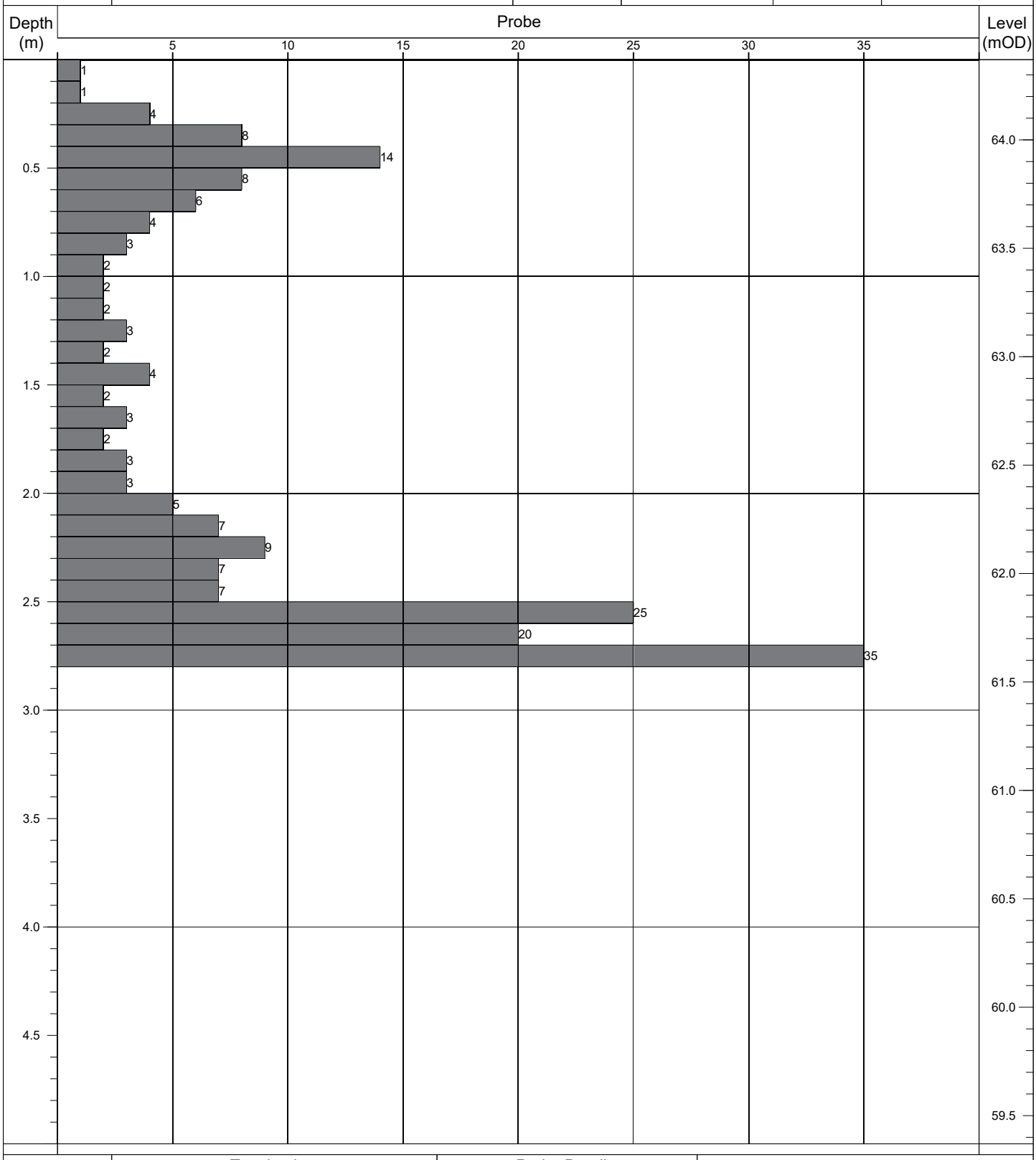
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP009**
Contract:	Coolagad	Easting:	727825.050	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713254.338	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	62.48	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



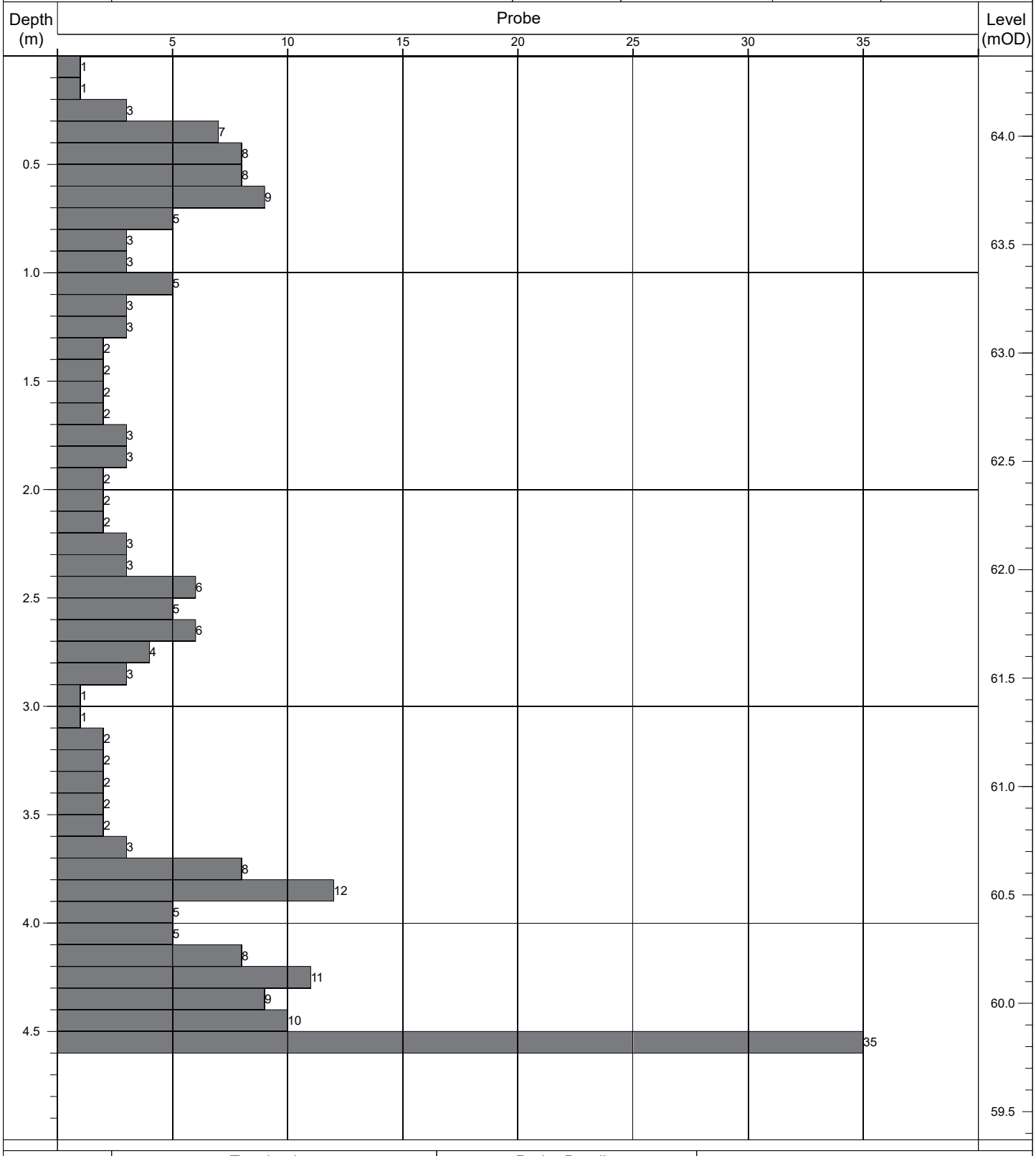
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP010
Contract:	Coolagad	Easting:	727791.026	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713252.590	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.37	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



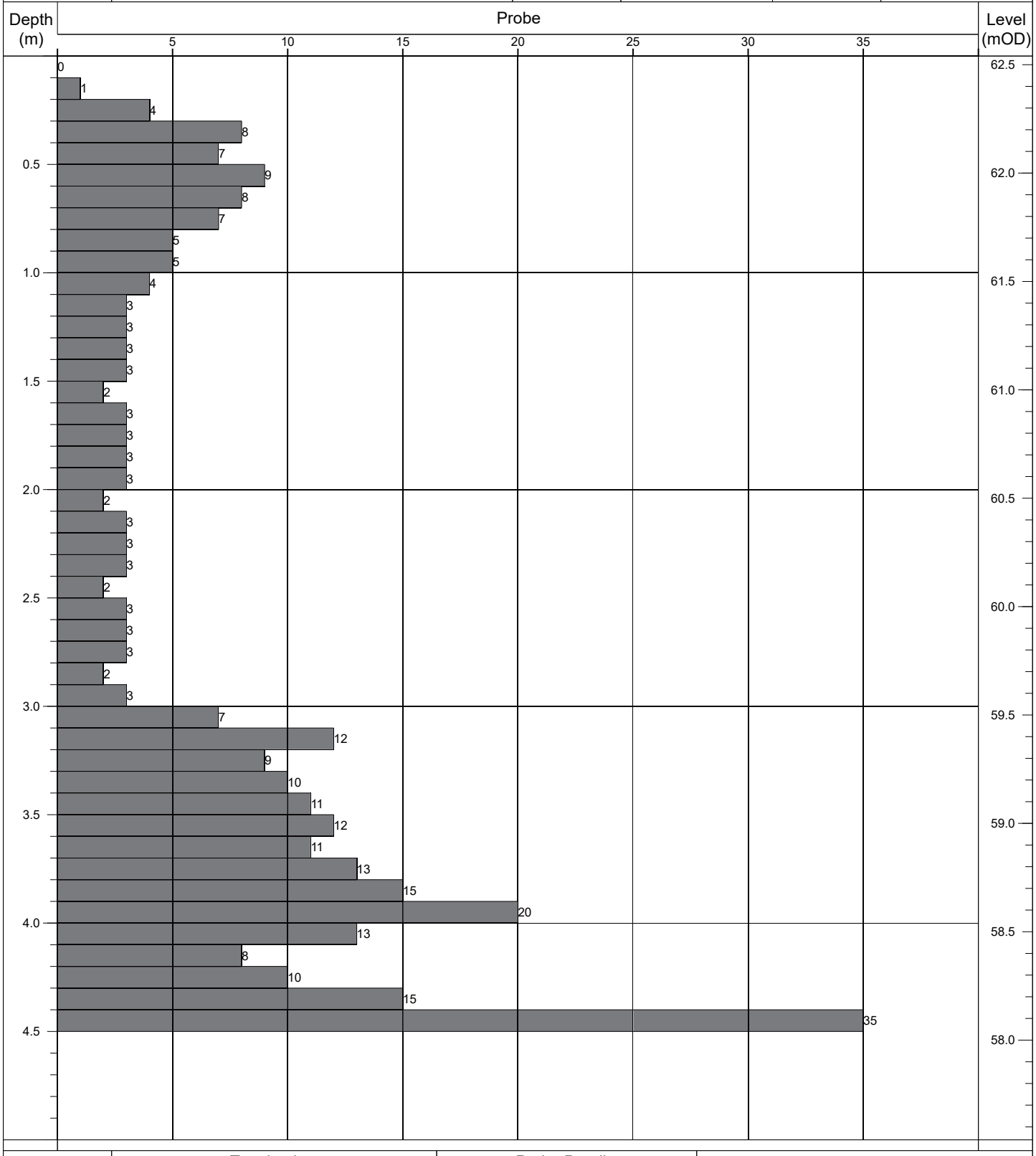
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP011**
Contract:	Coolagad	Easting:	727792.770	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713237.457	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.37	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



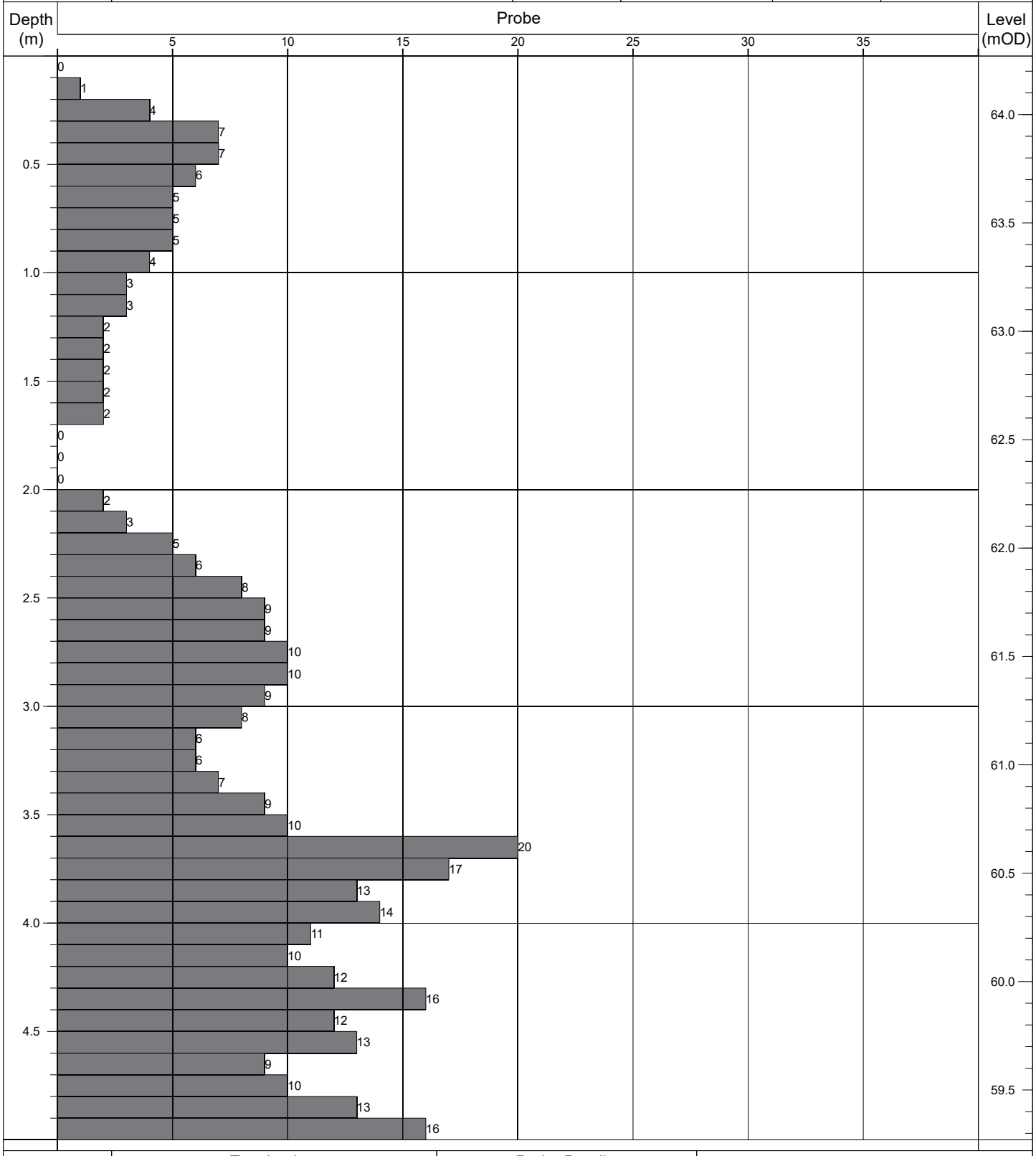
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP012**
Contract:	Coolagad	Easting:	727828.285	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713235.171	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	62.54	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



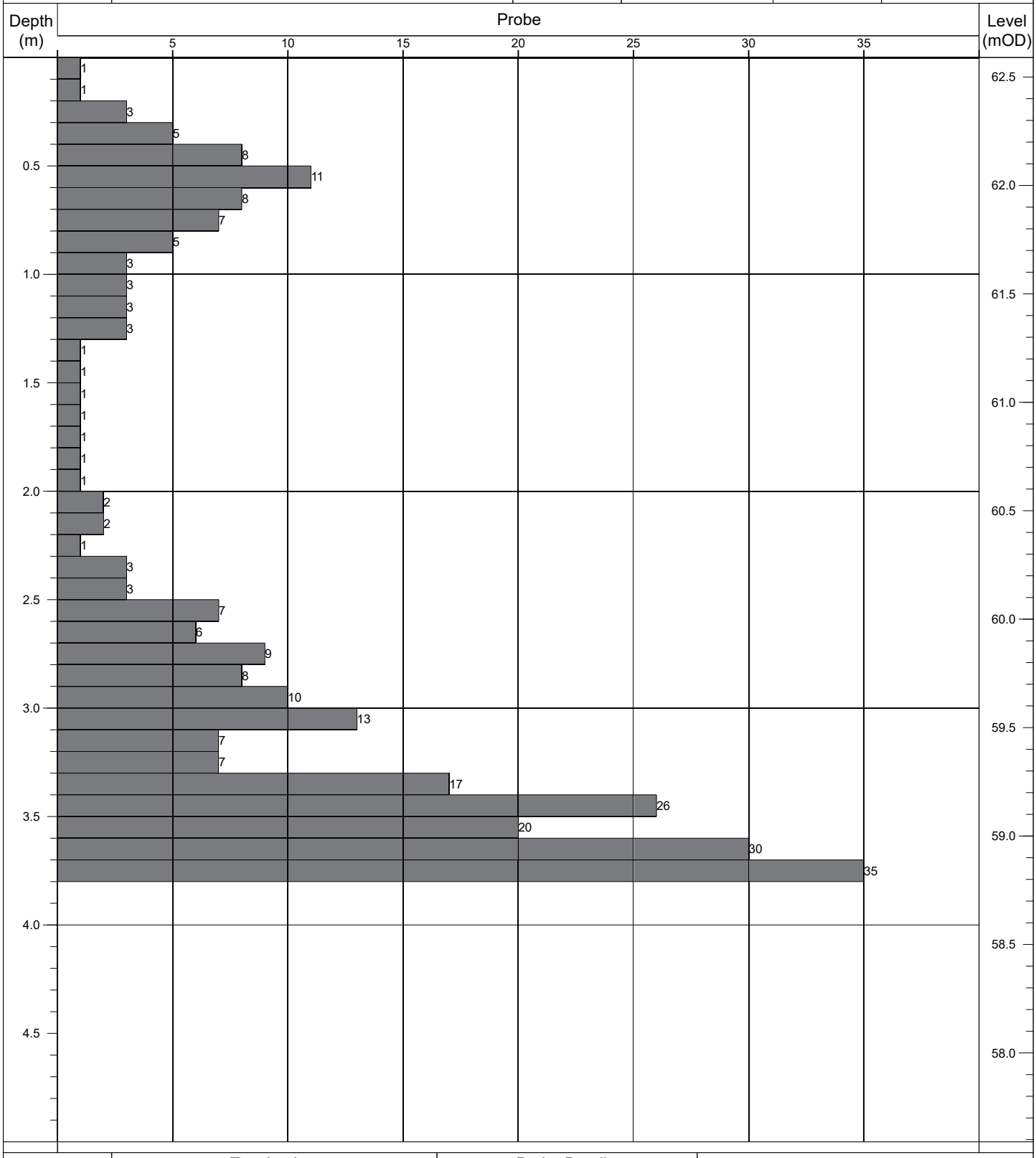
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP013**
Contract:	Coolagad	Easting:	727796.173	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713221.844	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.27	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



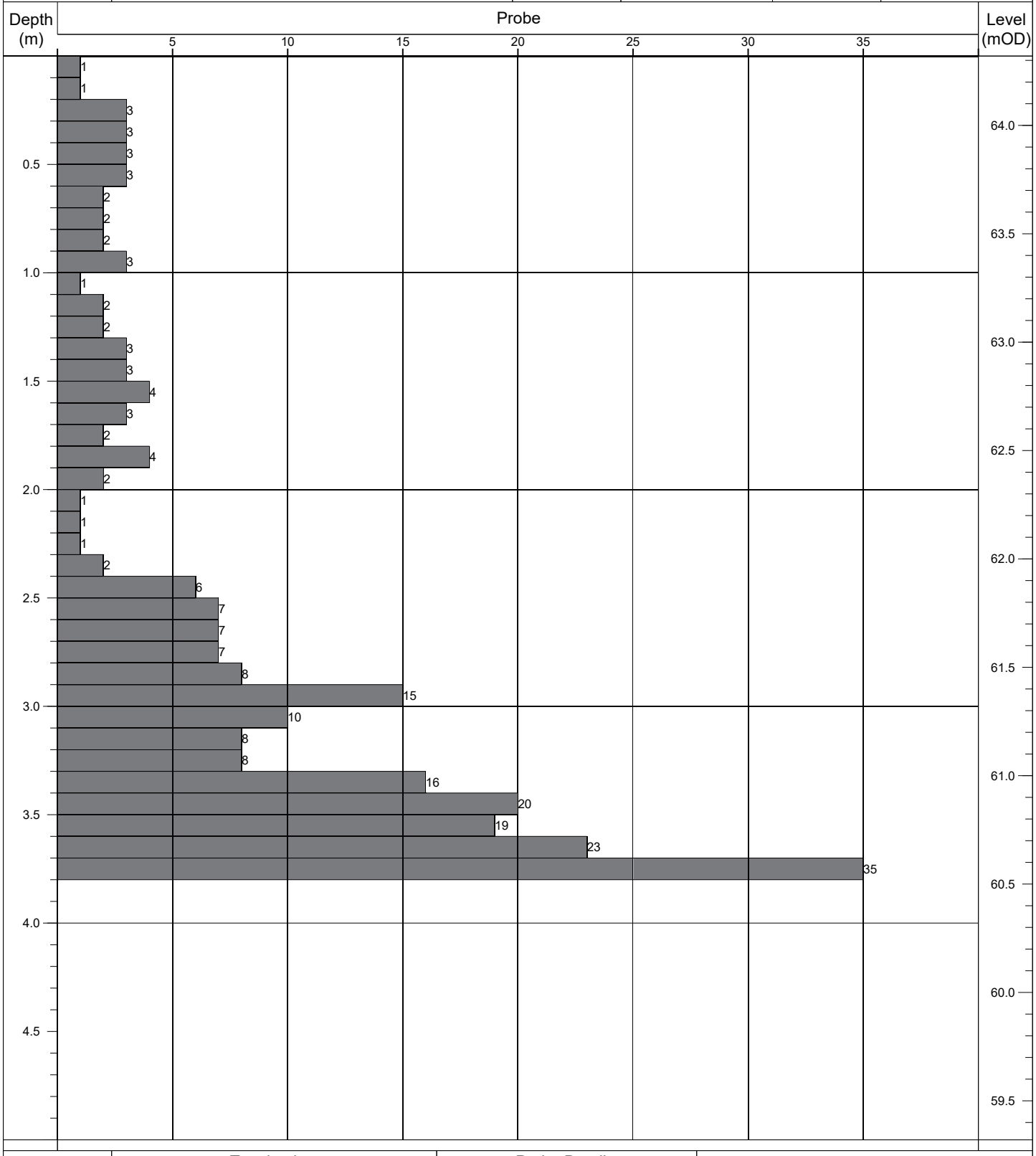
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP014**
Contract:	Coolagad	Easting:	727832.030	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713219.805	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	62.59	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



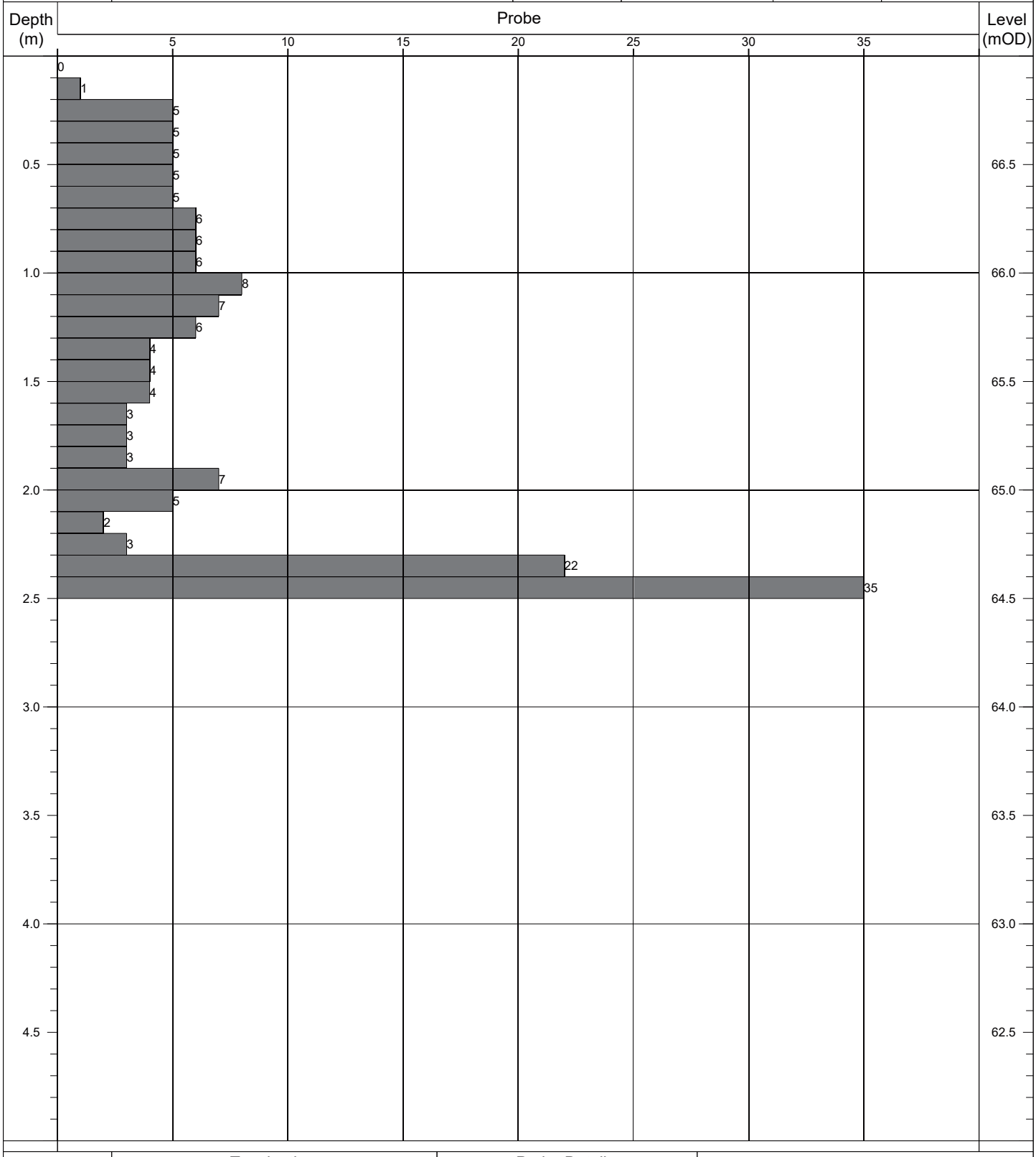
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP015**
Contract:	Coolagad	Easting:	727799.789	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713206.851	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.32	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



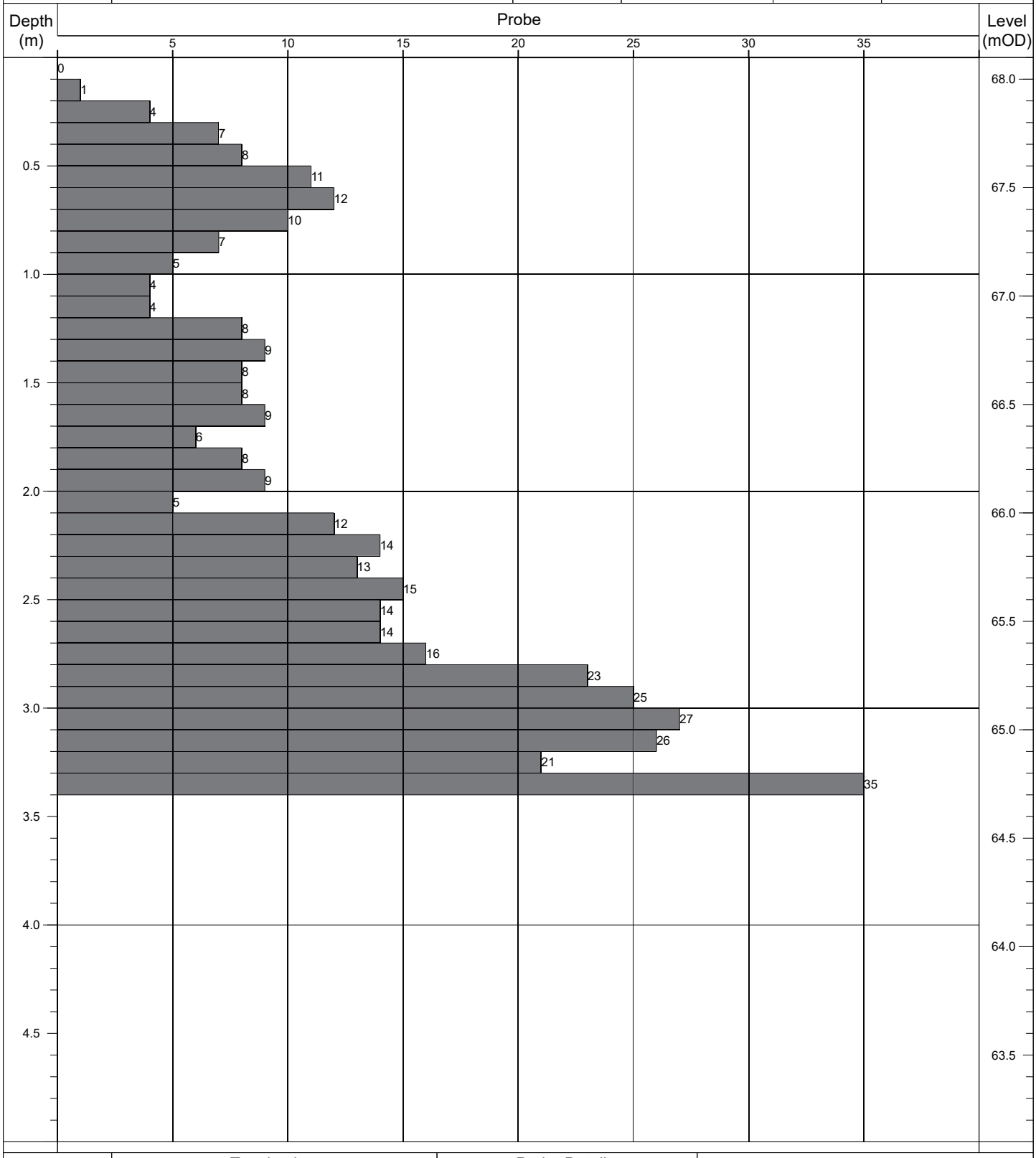
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP016**
Contract:	Coolagad	Easting:	727750.024	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713264.596	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	67.00	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



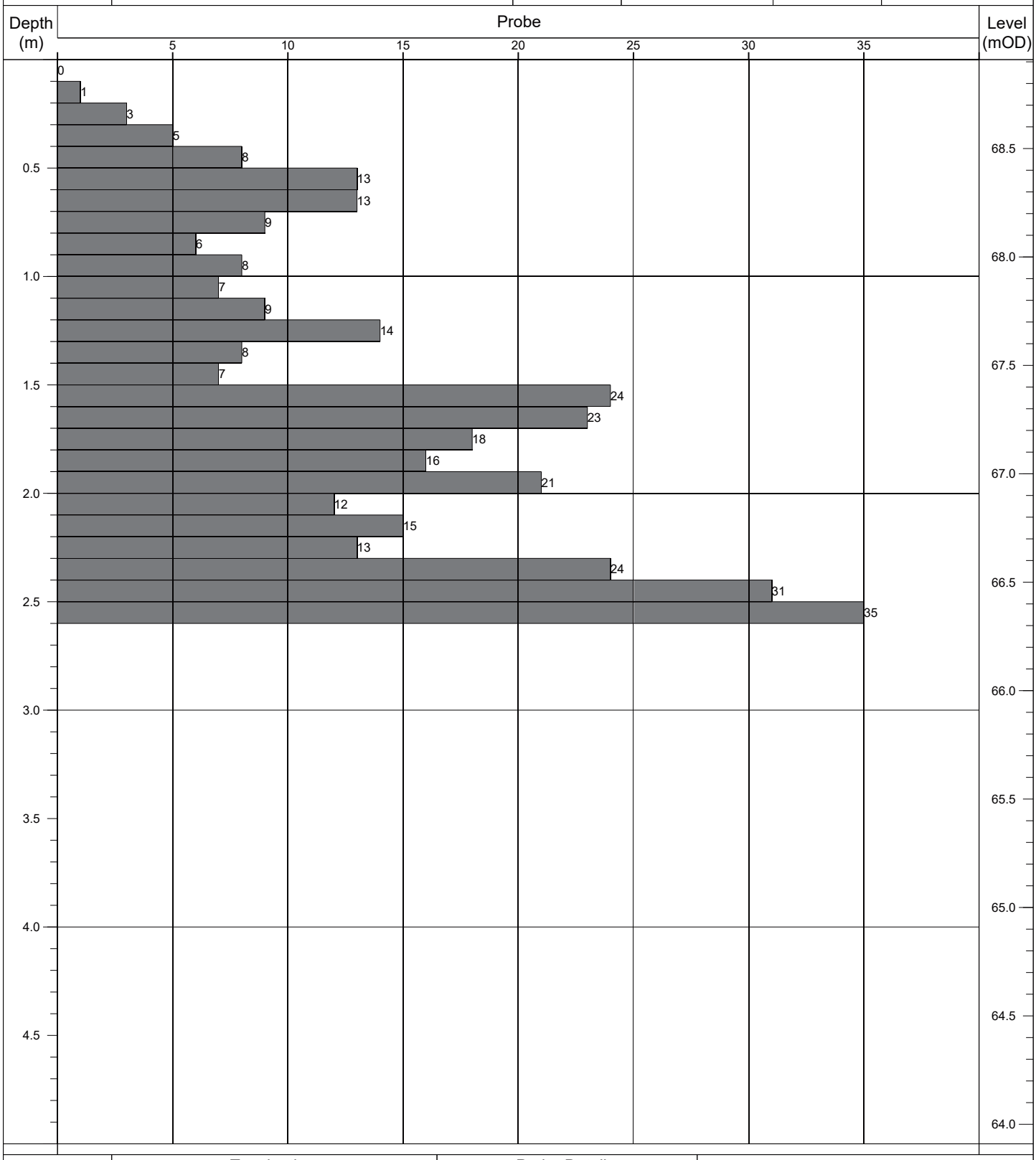
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP017**
Contract:	Coolagad	Easting:	727733.291	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713264.166	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.10	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



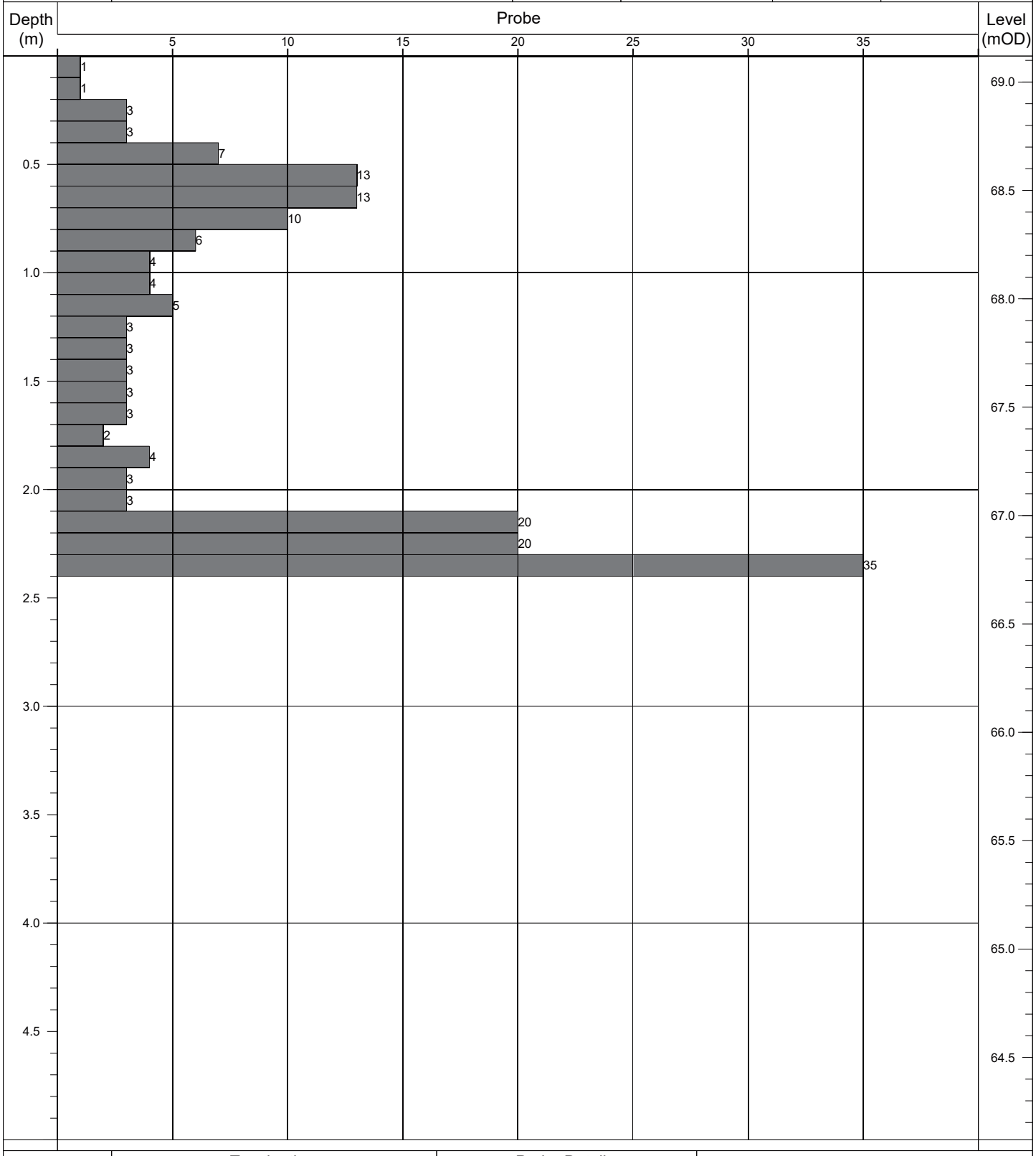
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP018
Contract:	Coolagad	Easting:	727718.060	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713264.011	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.91	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



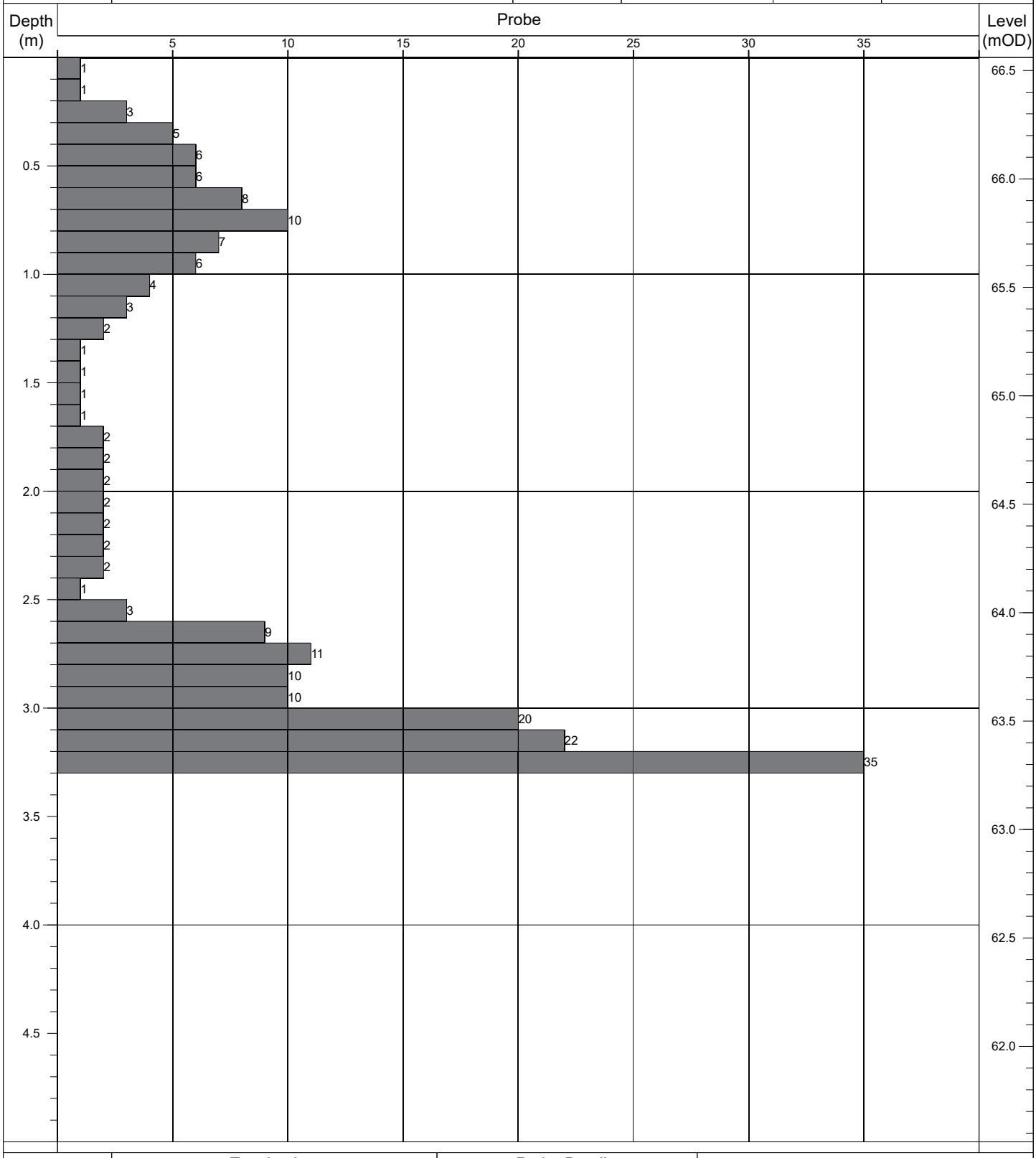
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP019**
Contract:	Coolagad	Easting:	727719.216	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713247.311	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	69.12	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



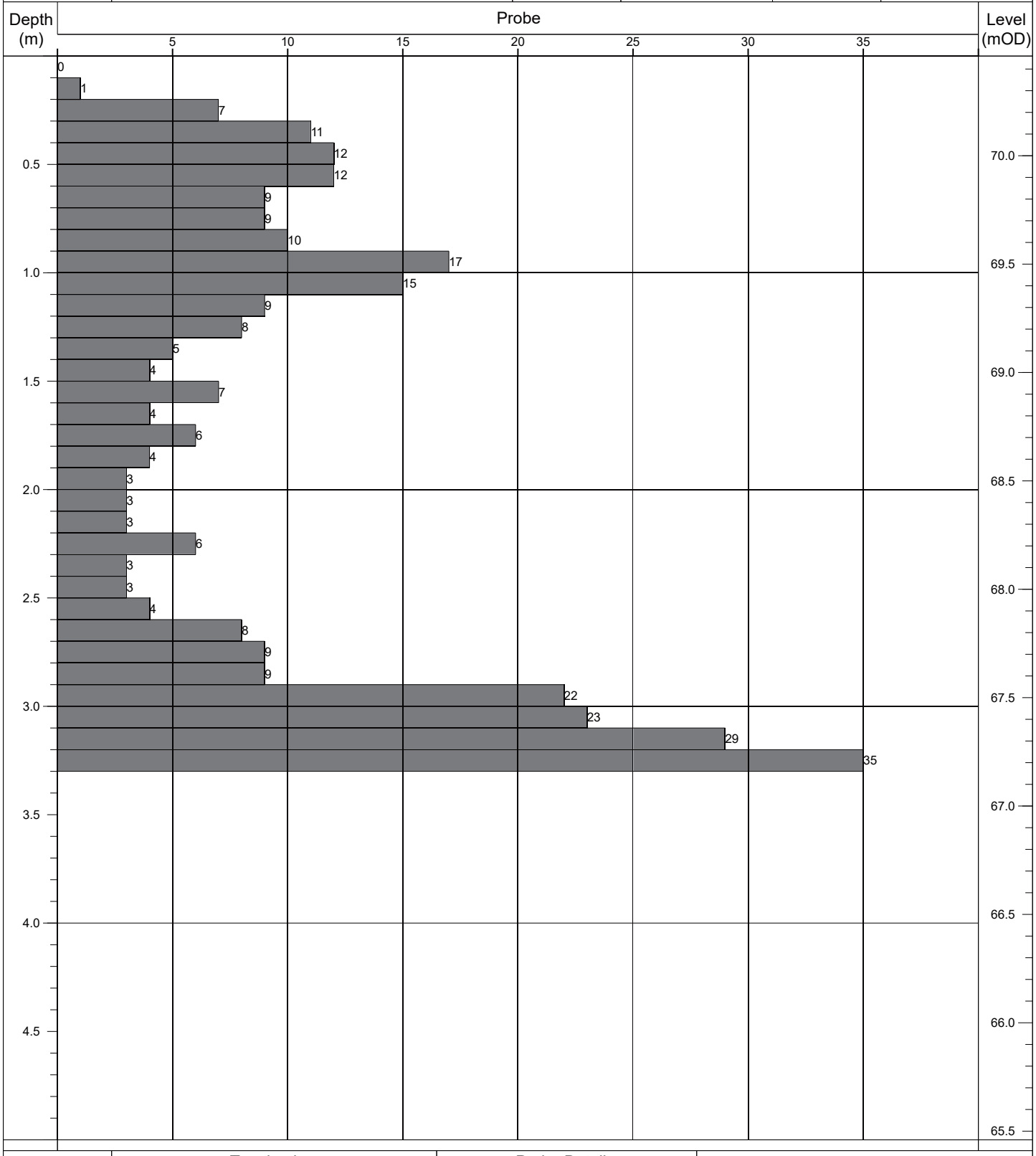
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP020**
Contract:	Coolagad	Easting:	727754.785	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713245.016	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.56	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



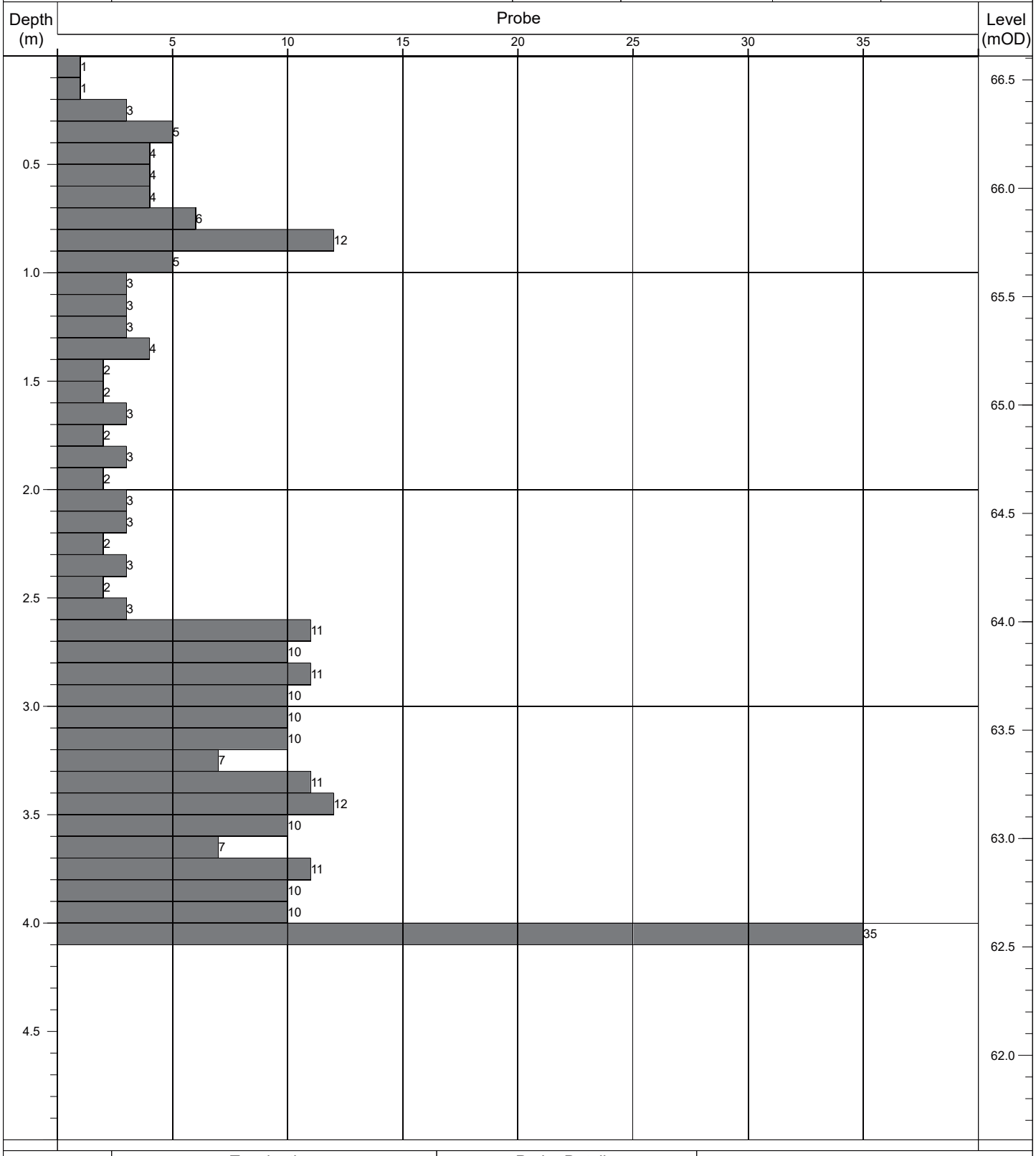
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP021**
Contract:	Coolagad	Easting:	727715.137	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713232.023	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	70.46	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



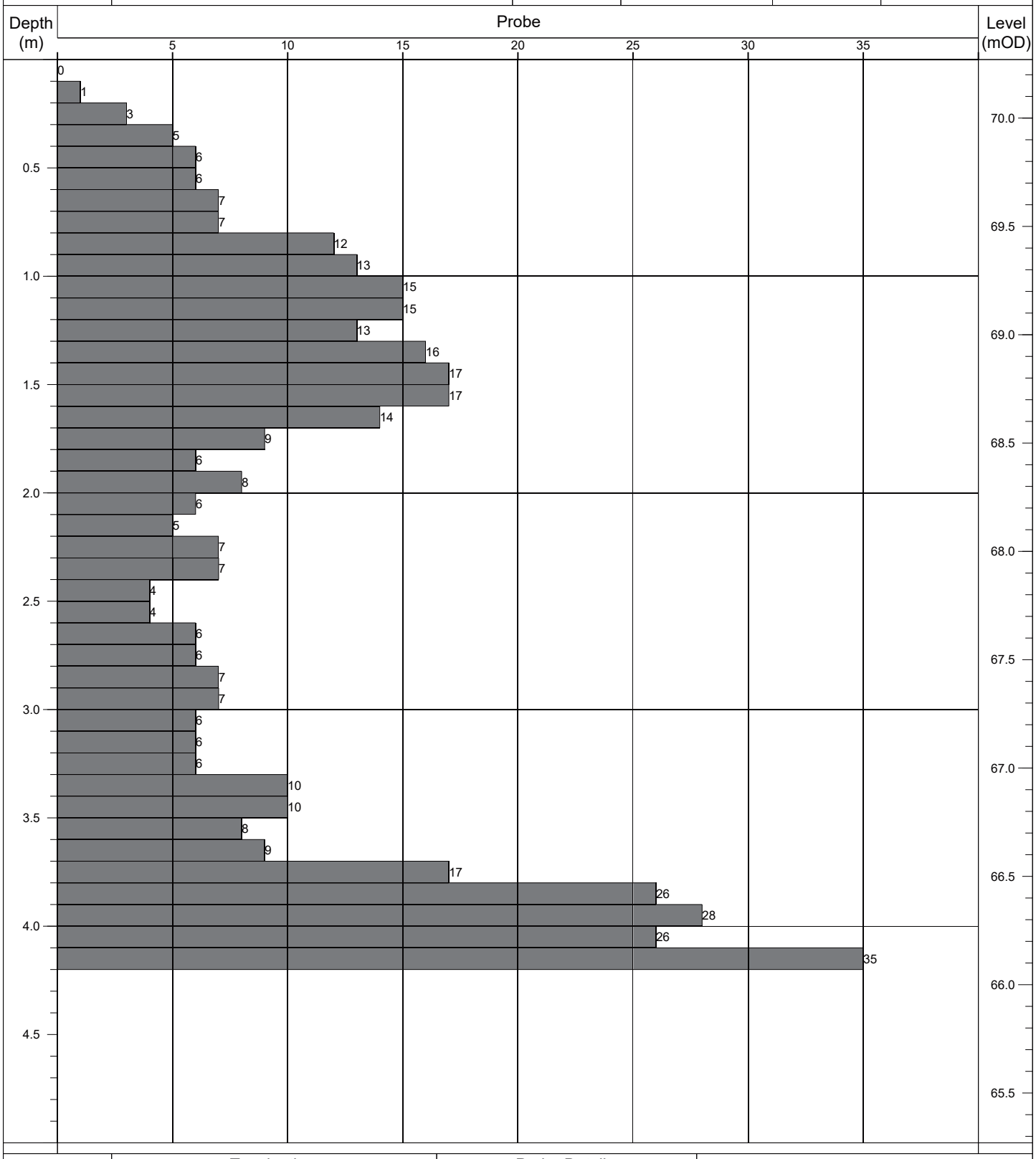
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP022**
Contract:	Coolagad	Easting:	727756.417	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713230.732	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.61	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



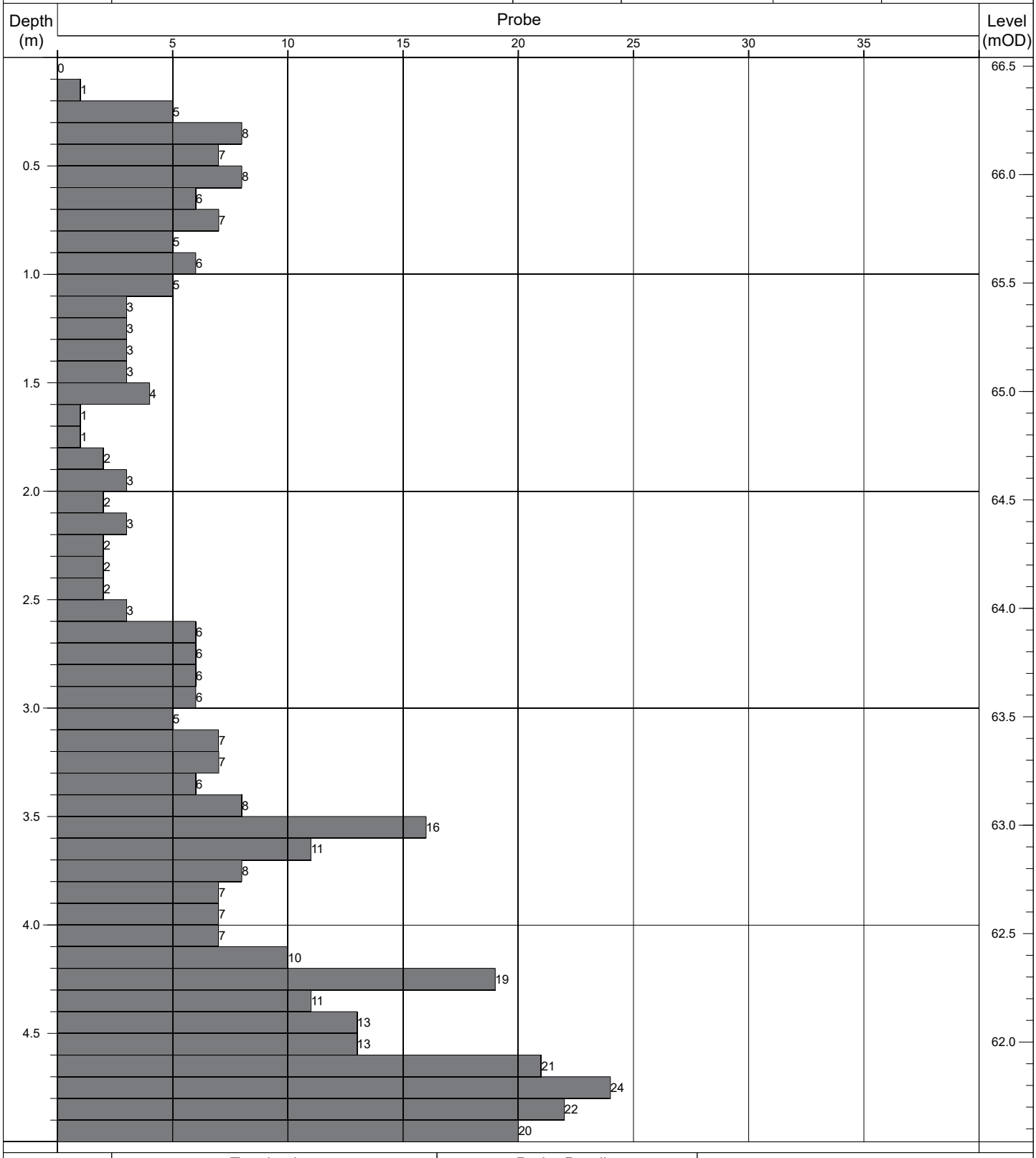
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP023**
Contract:	Coolagad	Easting:	727720.642	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713220.880	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	70.27	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



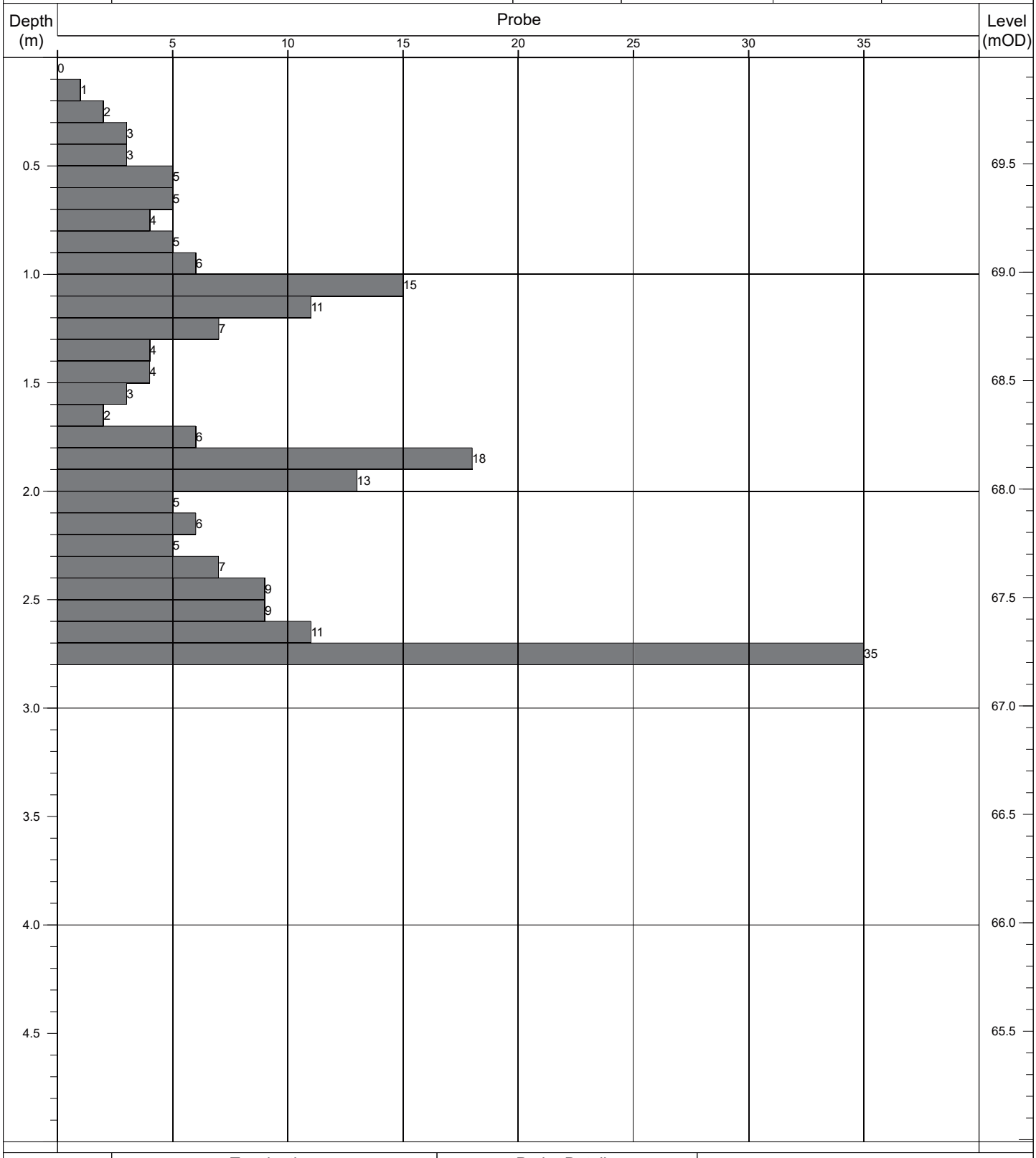
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP024**
Contract:	Coolagad	Easting:	727758.765	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713214.756	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.54	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



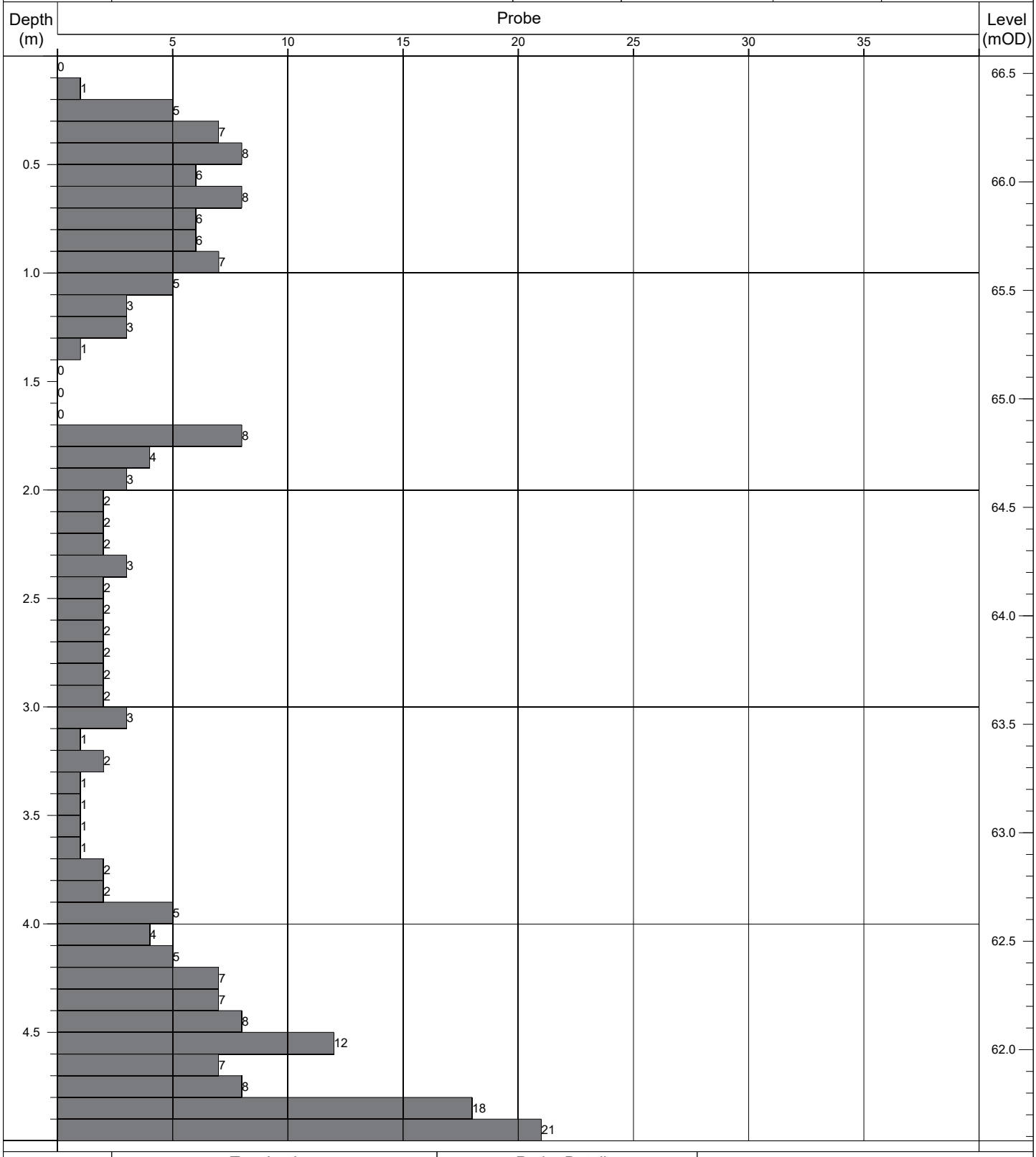
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP025**
Contract:	Coolagad	Easting:	727725.241	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713205.878	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	69.99	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



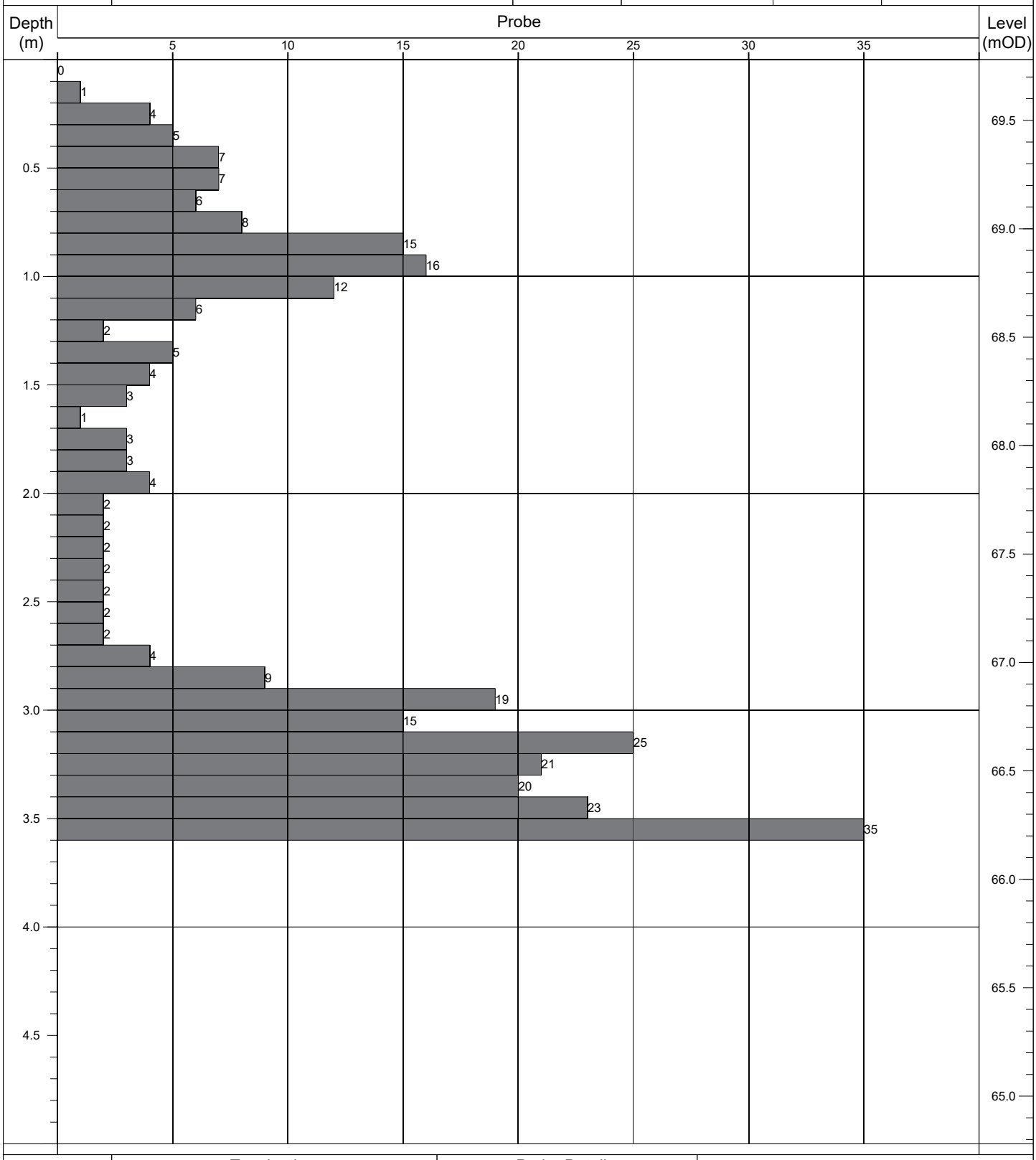
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP026**
Contract:	Coolagad	Easting:	727762.077	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713200.782	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.58	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



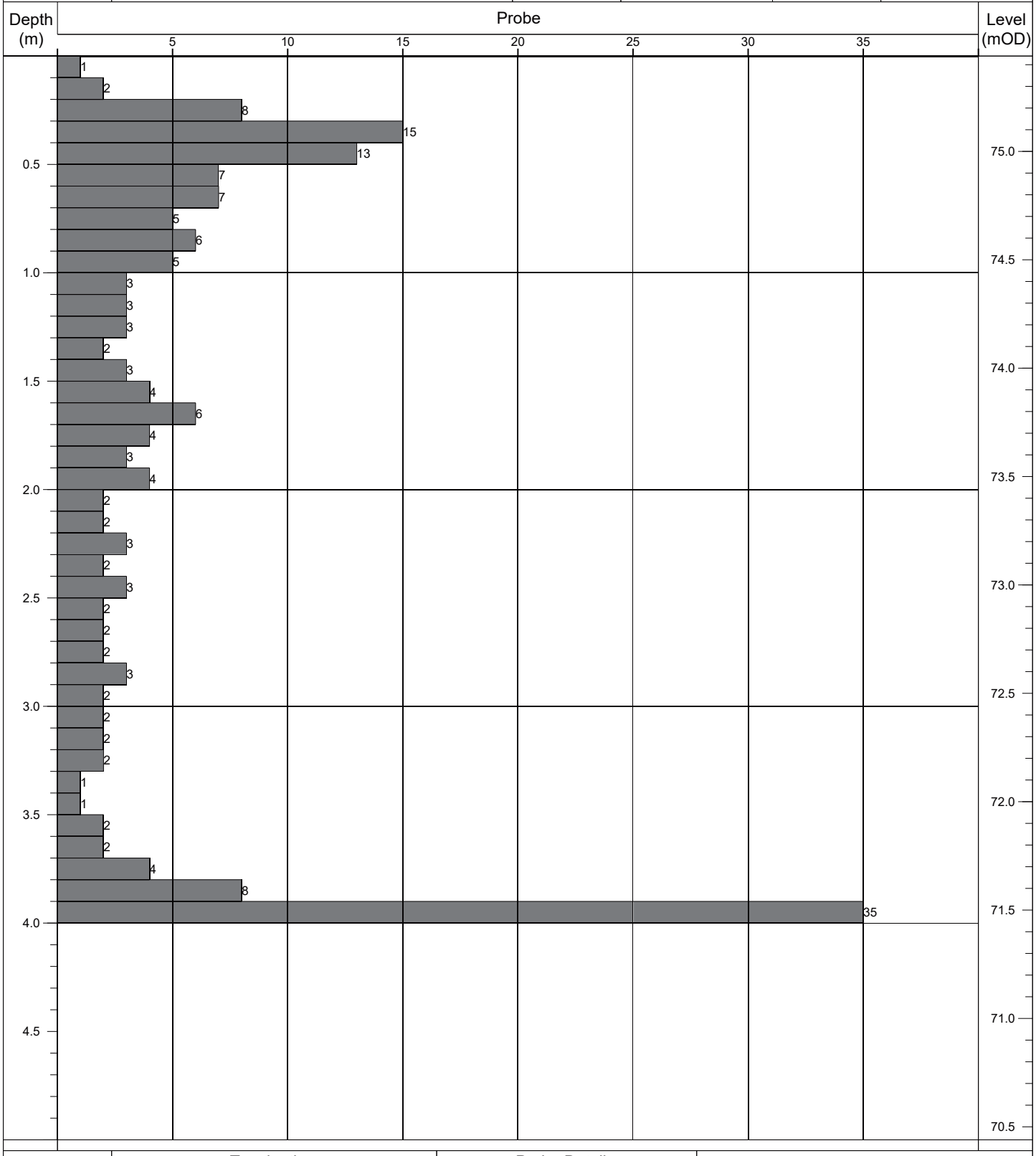
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP027**
Contract:	Coolagad	Easting:	727728.045	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713195.608	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	69.78	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



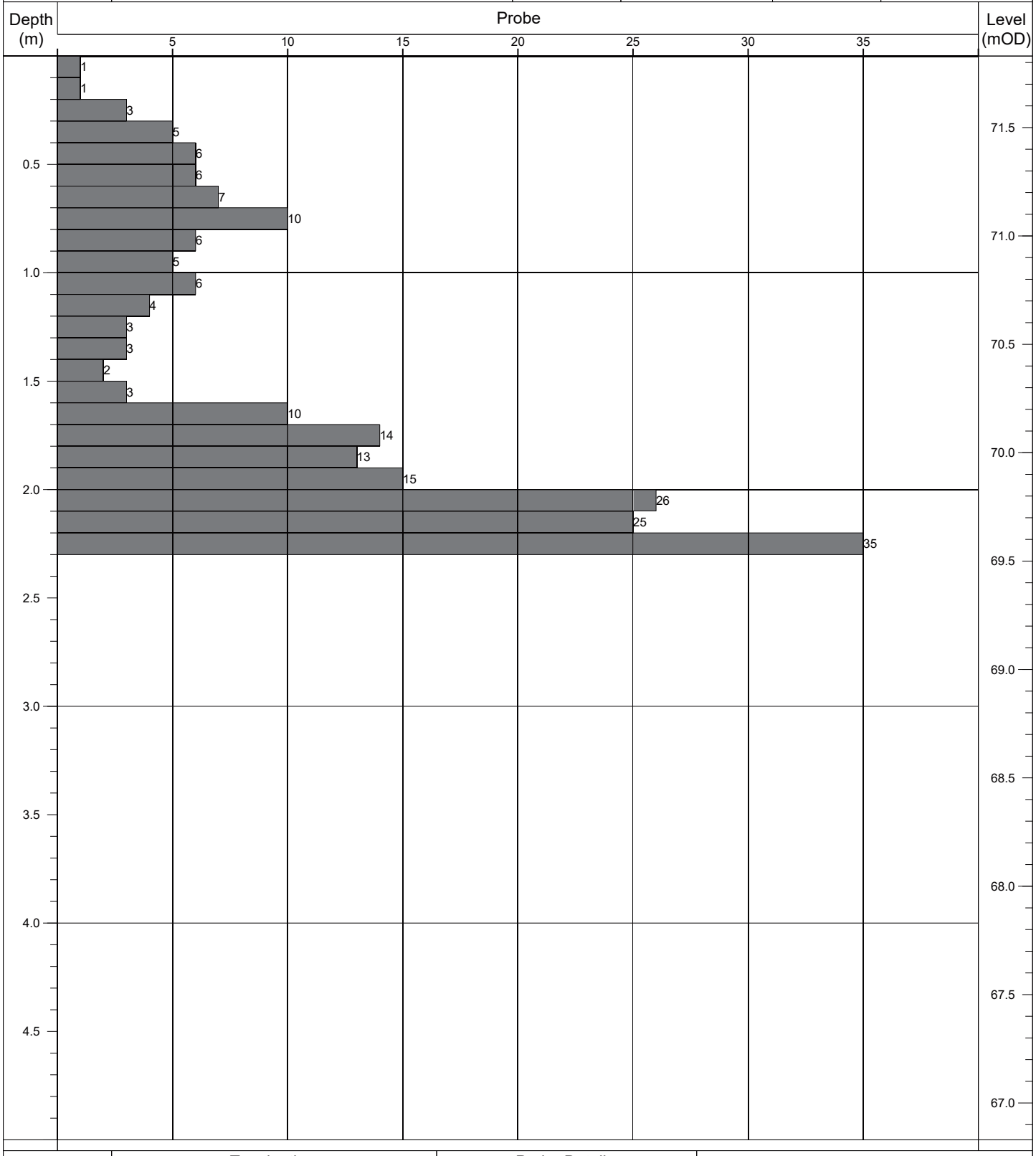
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP028**
Contract:	Coolagad	Easting:	727649.179	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713270.931	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.44	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



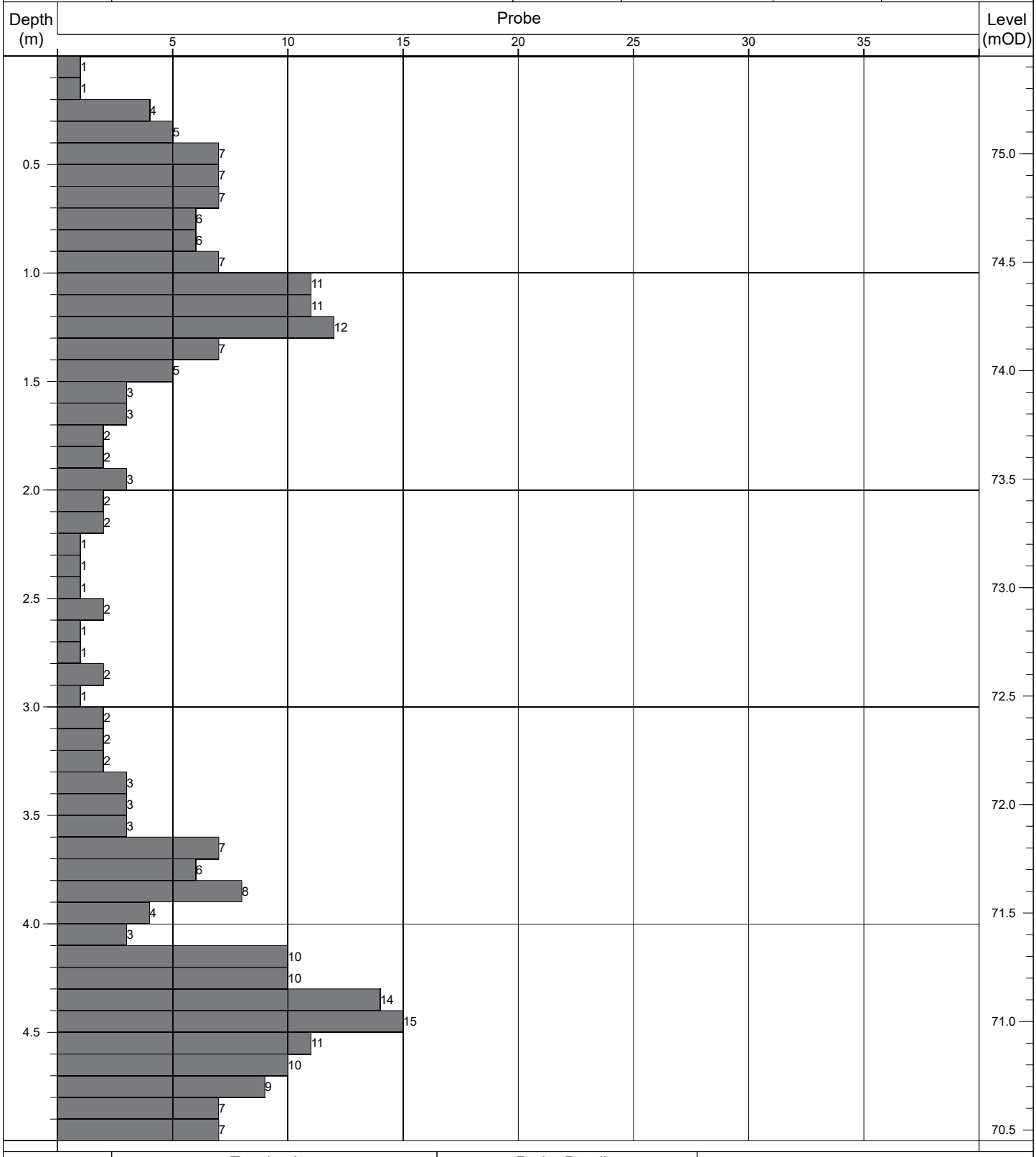
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP029**
Contract:	Coolagad	Easting:	727684.693	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713269.364	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.83	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



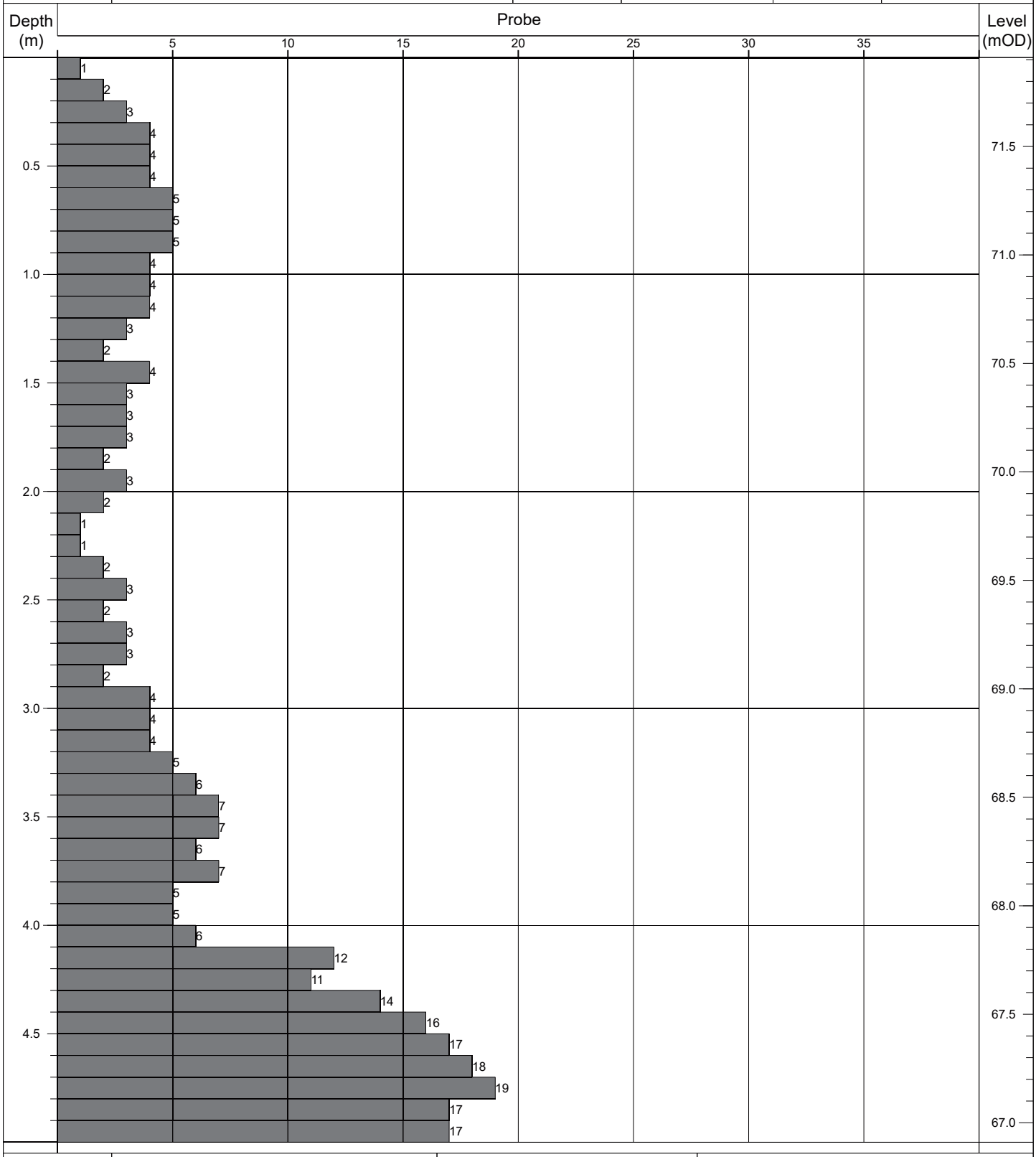
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP030
Contract:	Coolagad	Easting:	727648.871	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713255.533	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.45	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



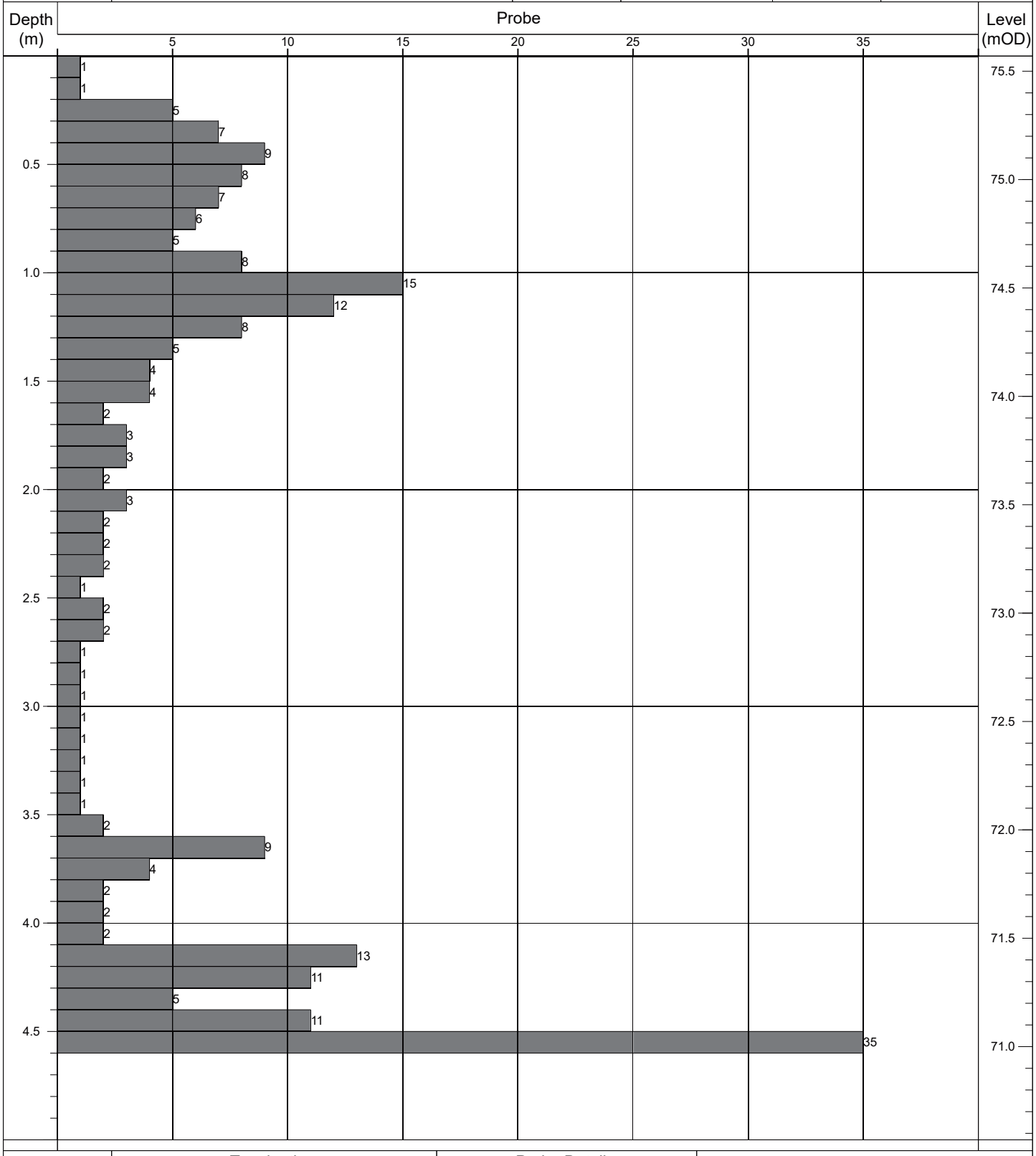
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP031**
Contract:	Coolagad	Easting:	727683.270	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713253.298	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.91	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



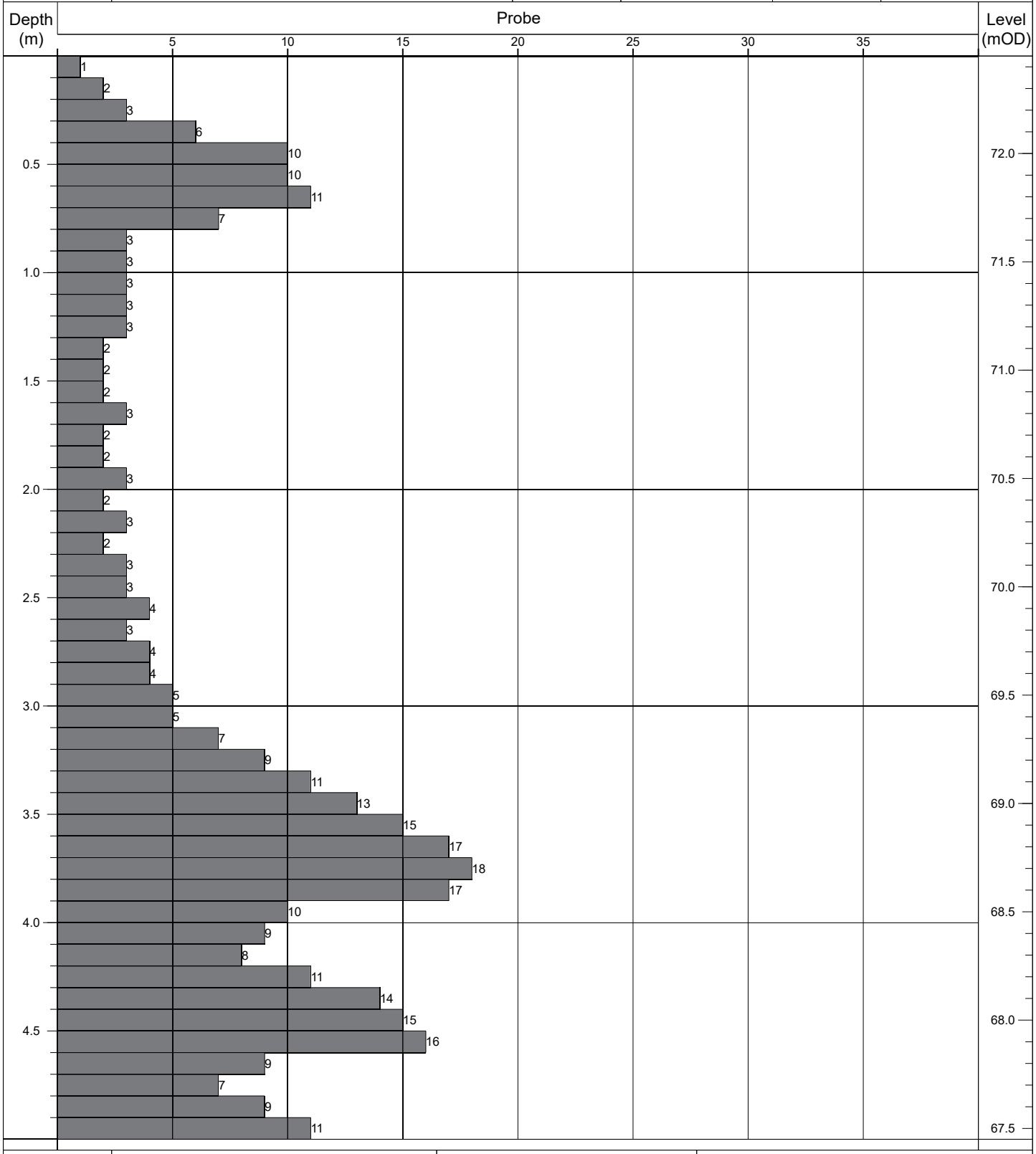
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP032**
Contract:	Coolagad	Easting:	727649.189	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713244.279	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.57	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



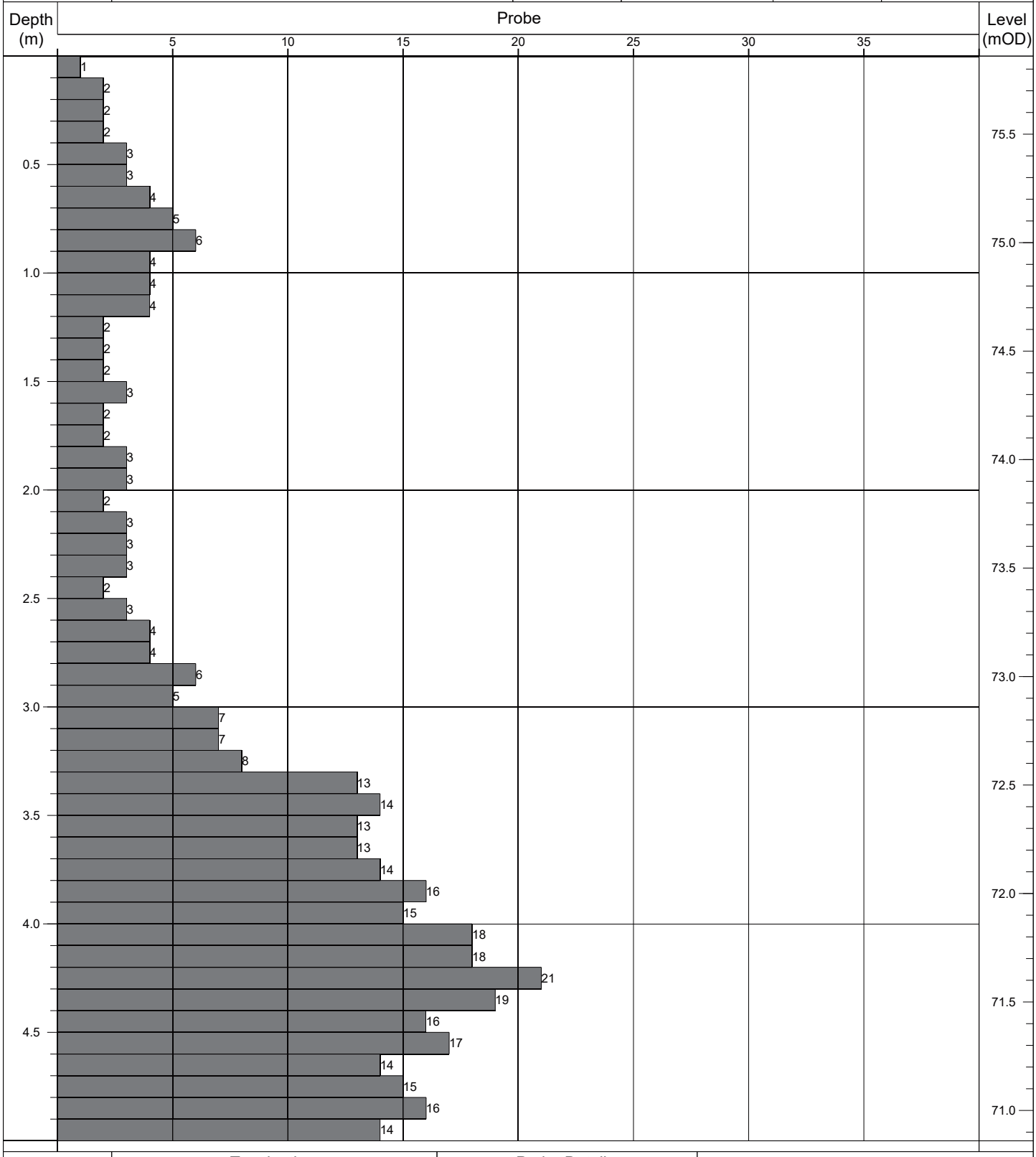
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP033
Contract:	Coolagad	Easting:	727683.565	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713240.428	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.45	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



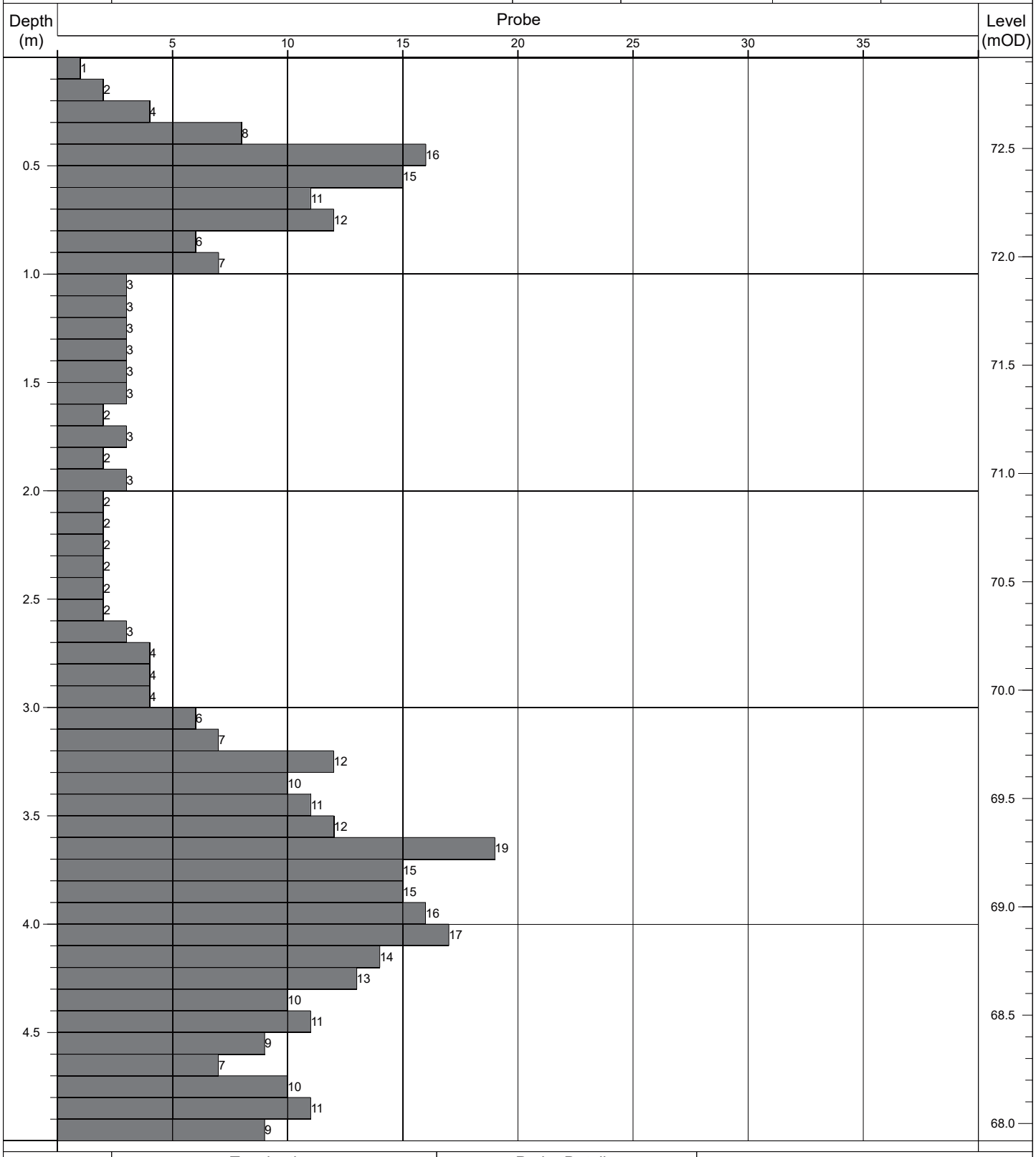
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP034**
Contract:	Coolagad	Easting:	727648.562	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713229.477	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.86	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



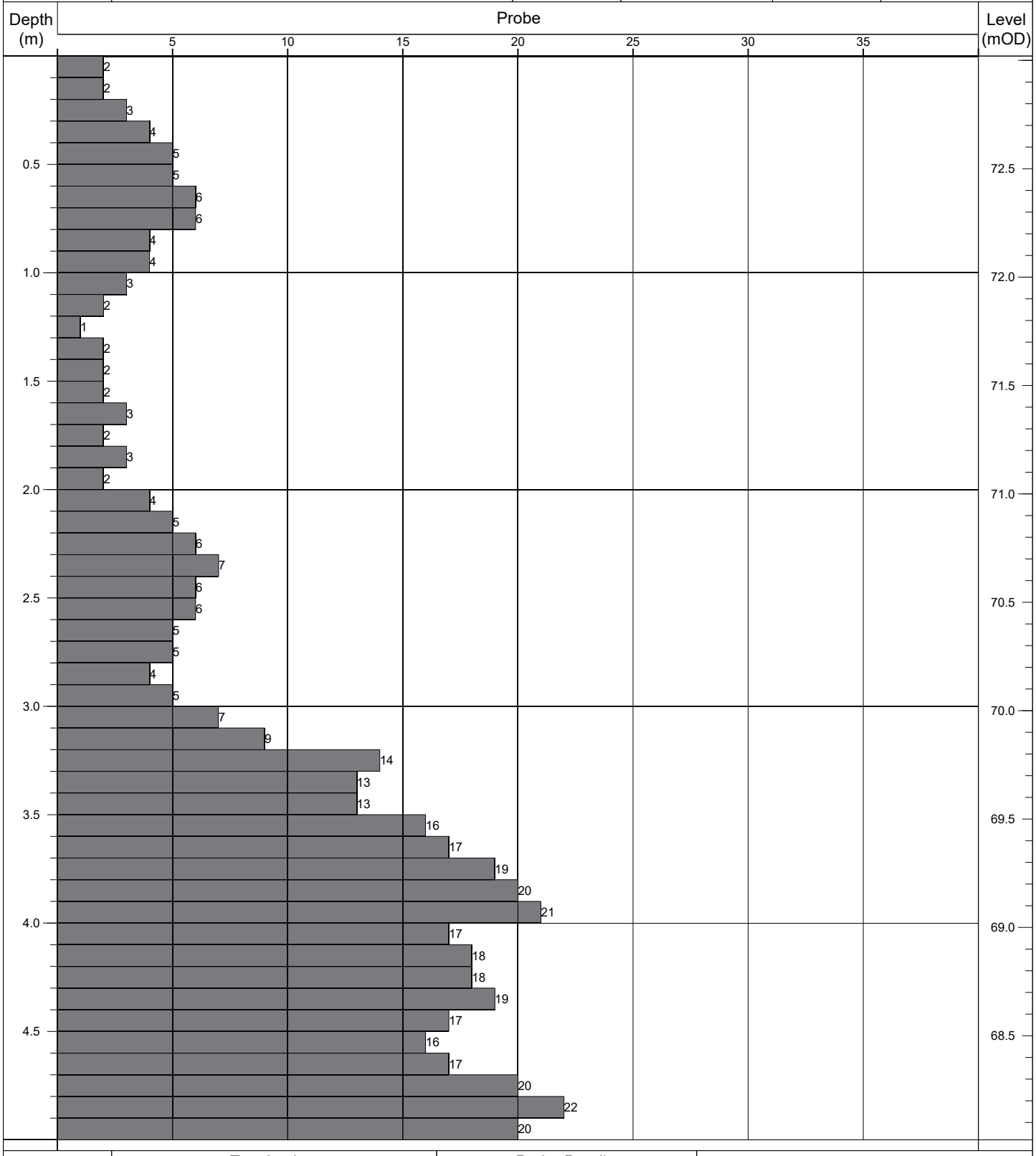
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP035**
Contract:	Coolagad	Easting:	727685.130	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713228.297	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.92	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



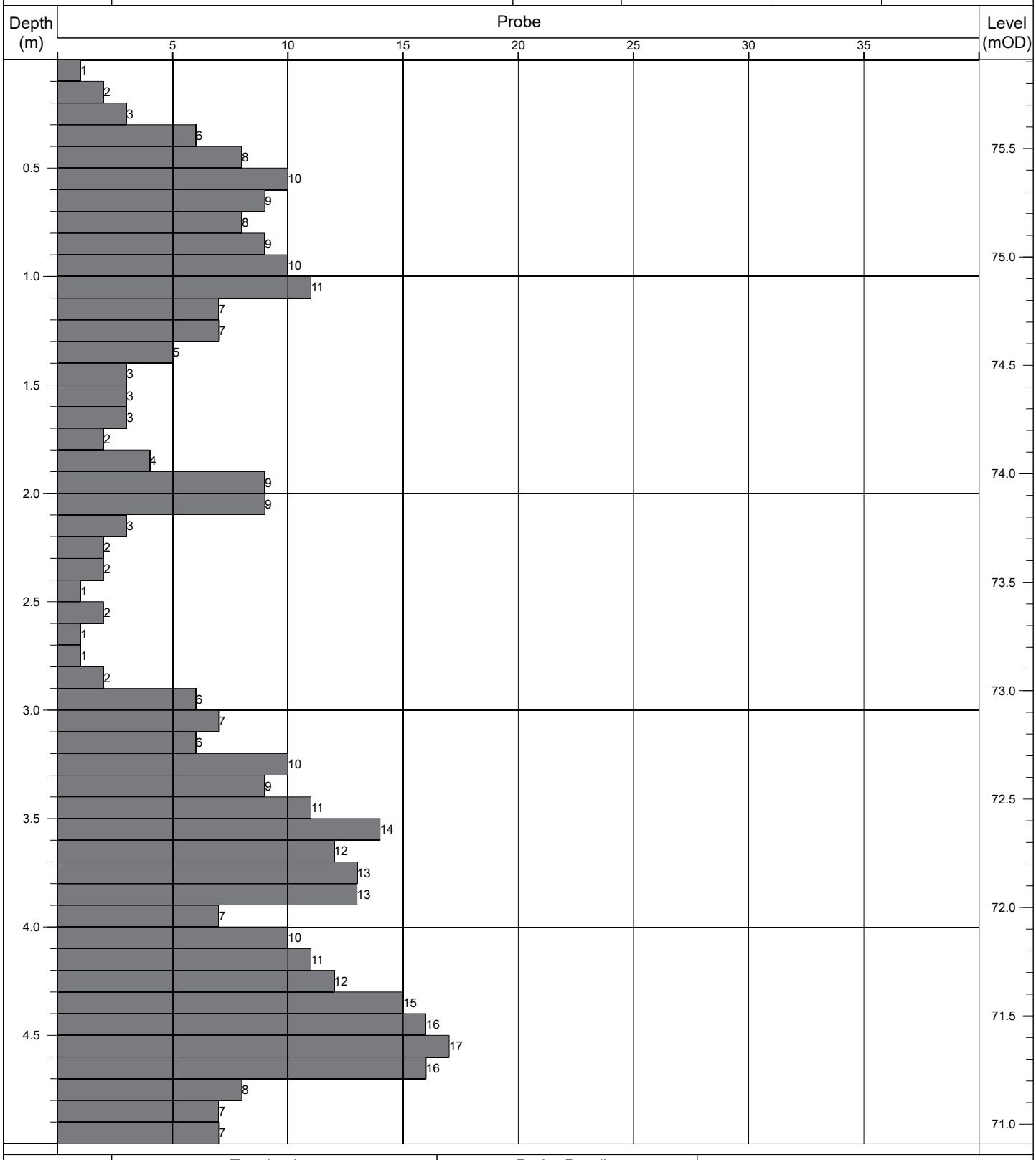
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP036**
Contract:	Coolagad	Easting:	727687.307	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713213.909	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	73.02	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



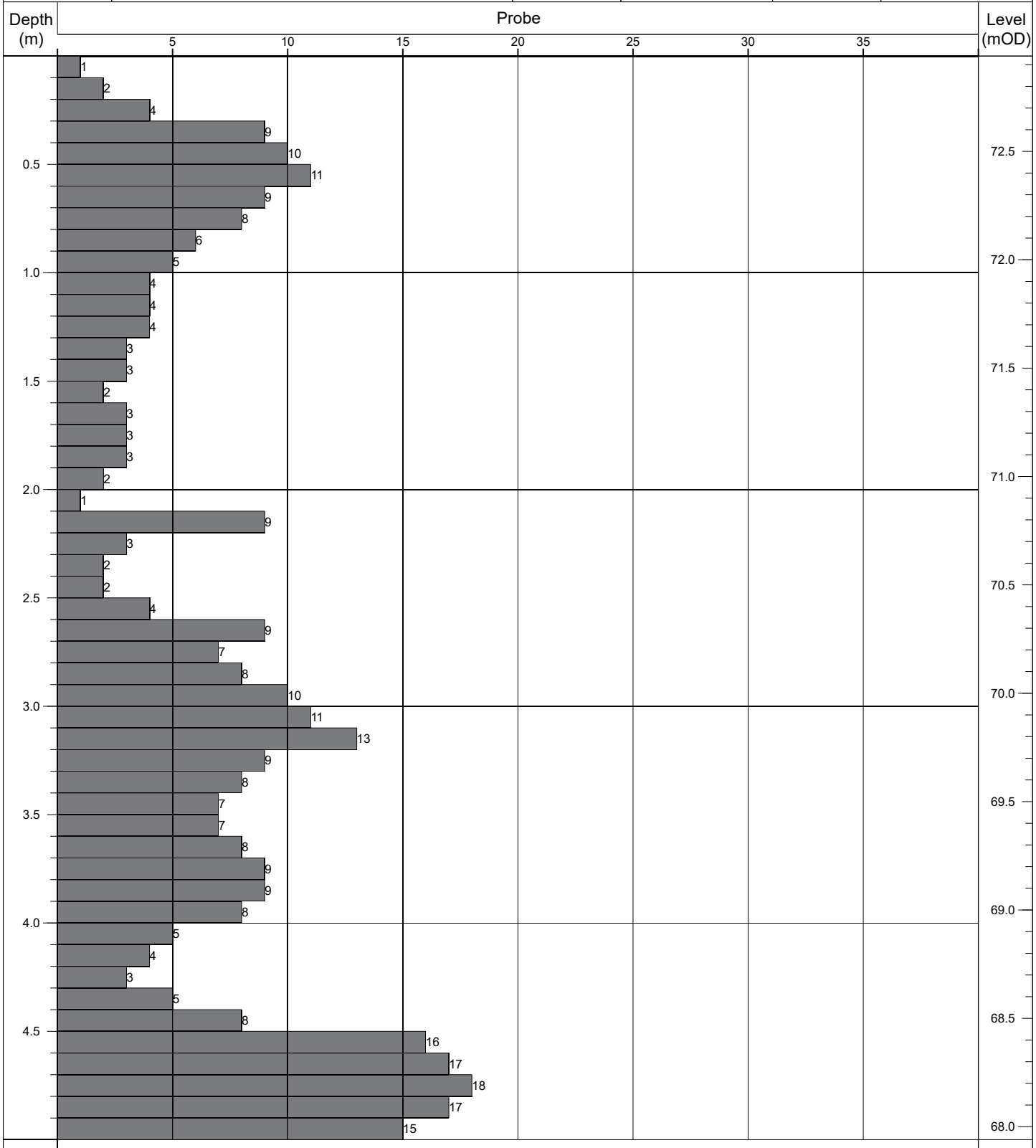
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP037**
Contract:	Coolagad	Easting:	727650.214	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713210.715	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.91	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



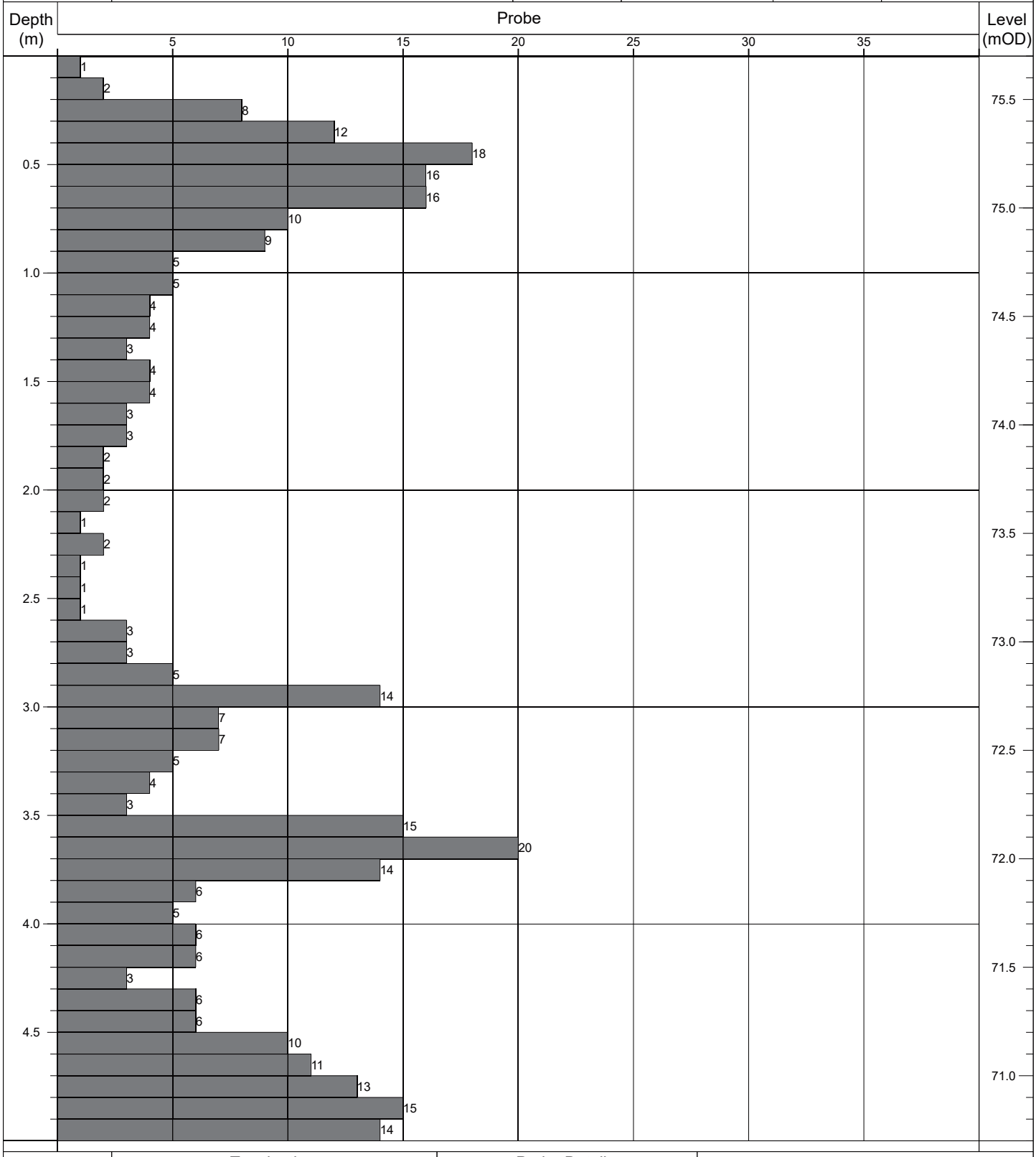
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP038**
Contract:	Coolagad	Easting:	727688.935	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713204.710	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.94	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



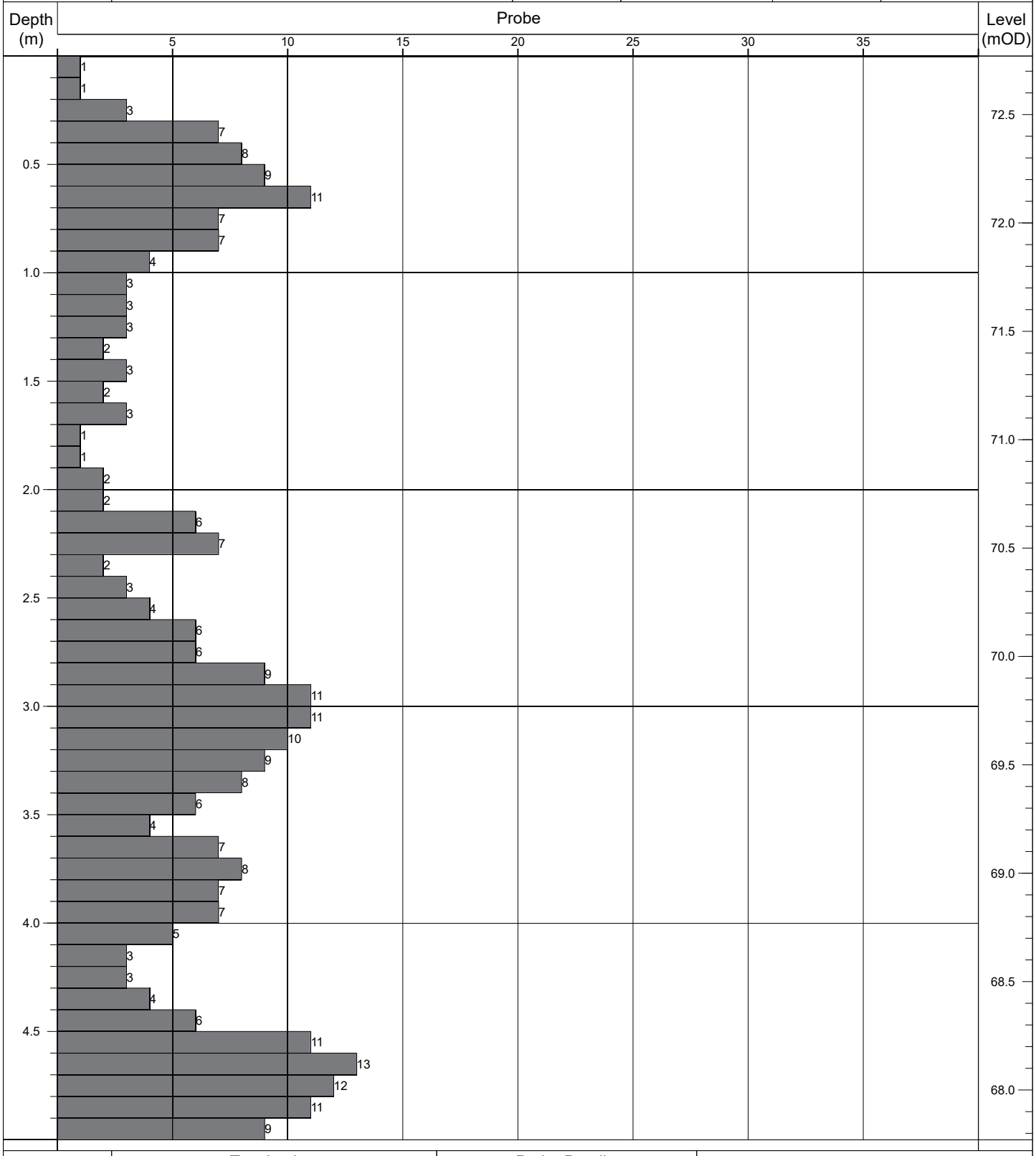
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP039**
Contract:	Coolagad	Easting:	727654.499	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713199.328	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.70	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



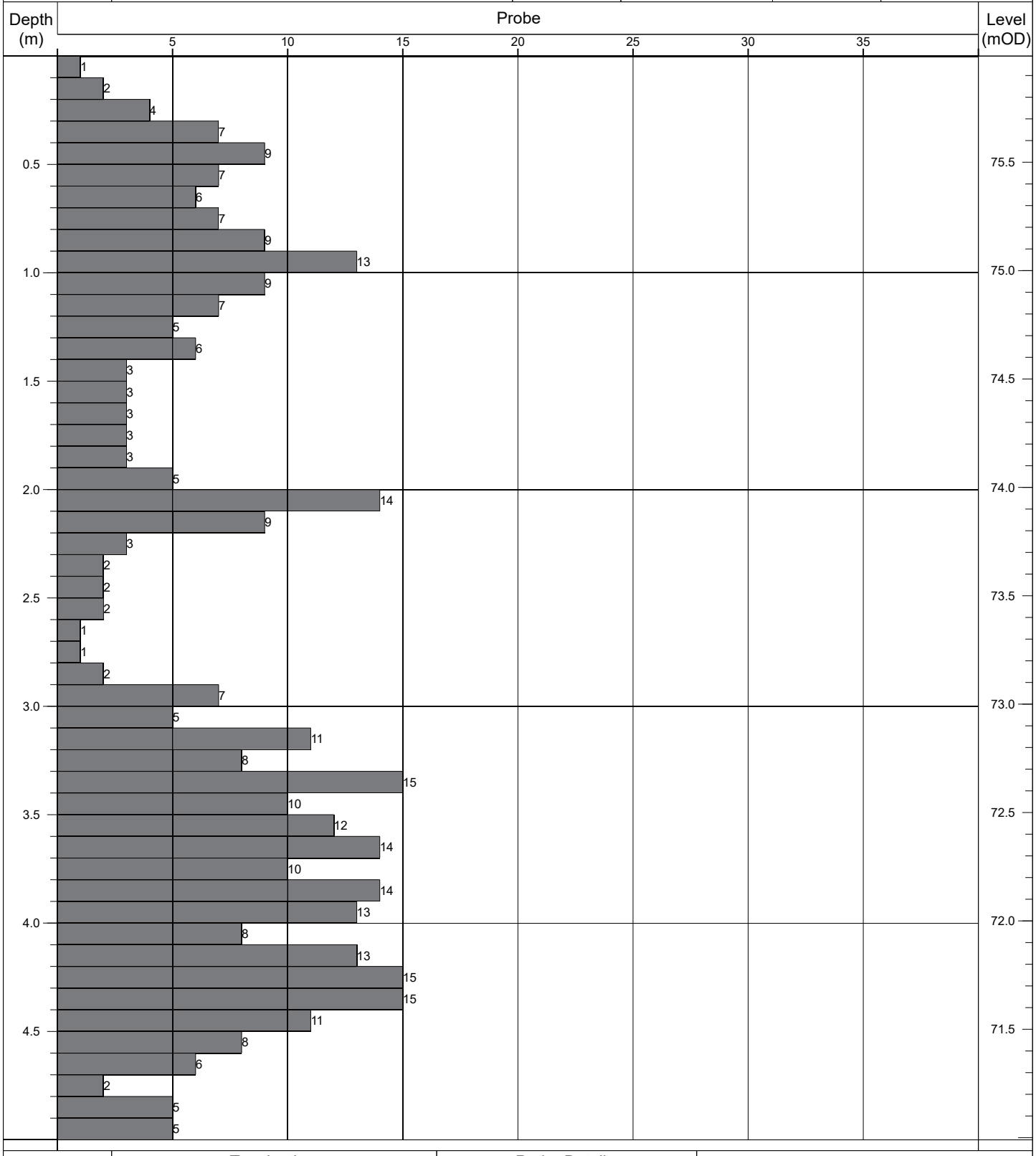
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP040**
Contract:	Coolagad	Easting:	727691.229	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713189.292	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.77	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



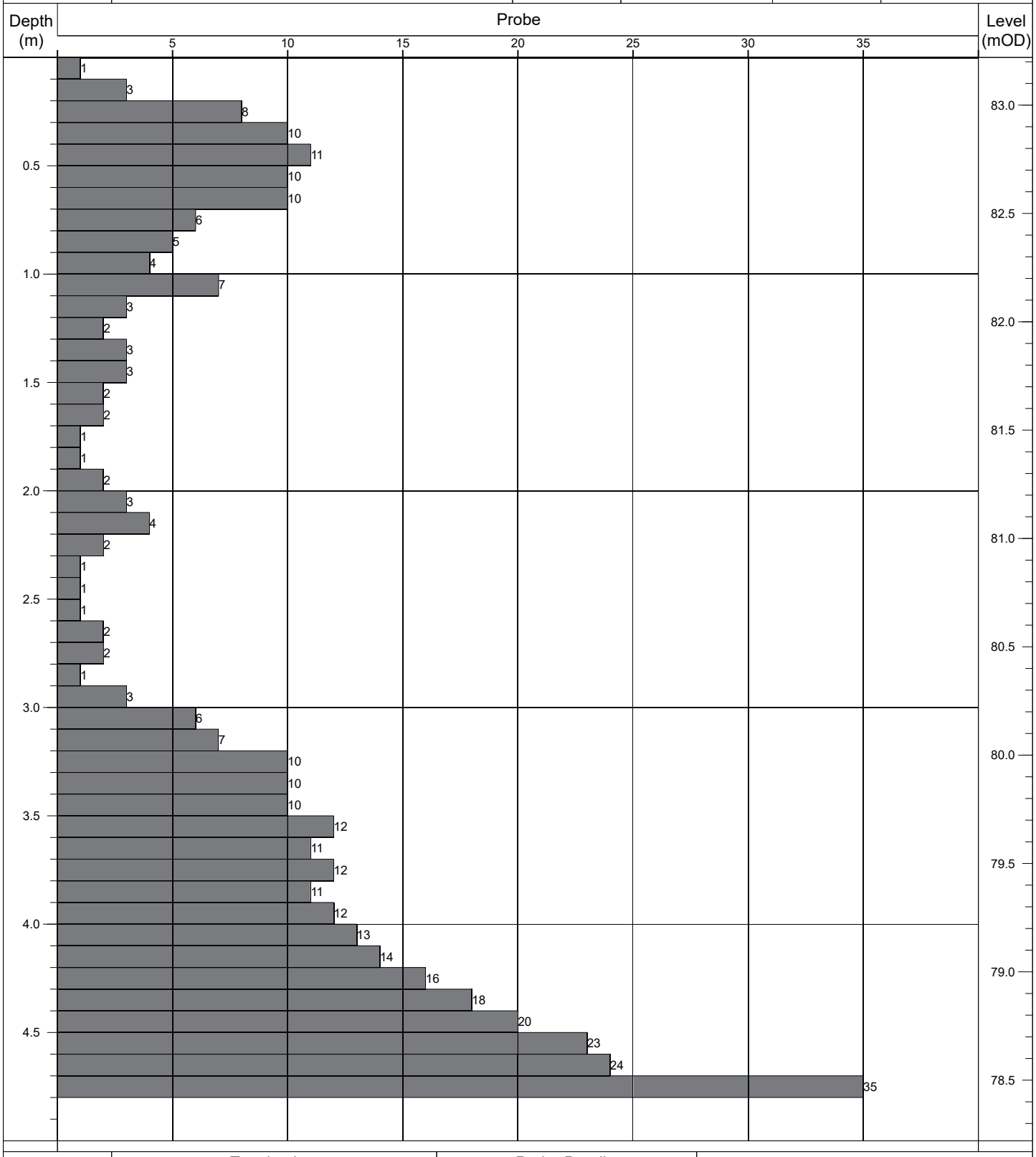
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP041**
Contract:	Coolagad	Easting:	727655.316	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713183.652	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.99	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



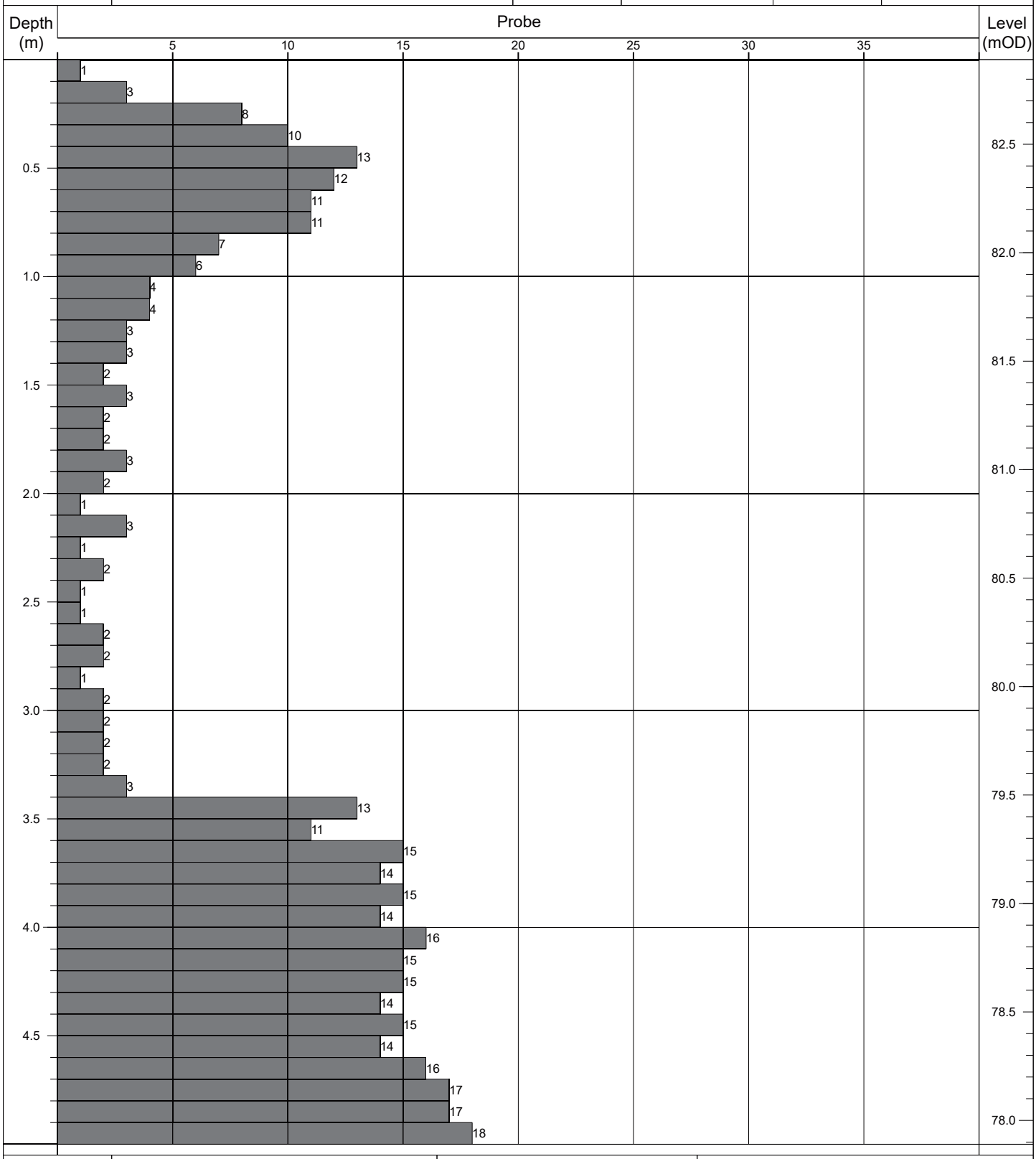
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP042**
Contract:	Coolagad	Easting:	727579.799	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713271.945	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.22	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



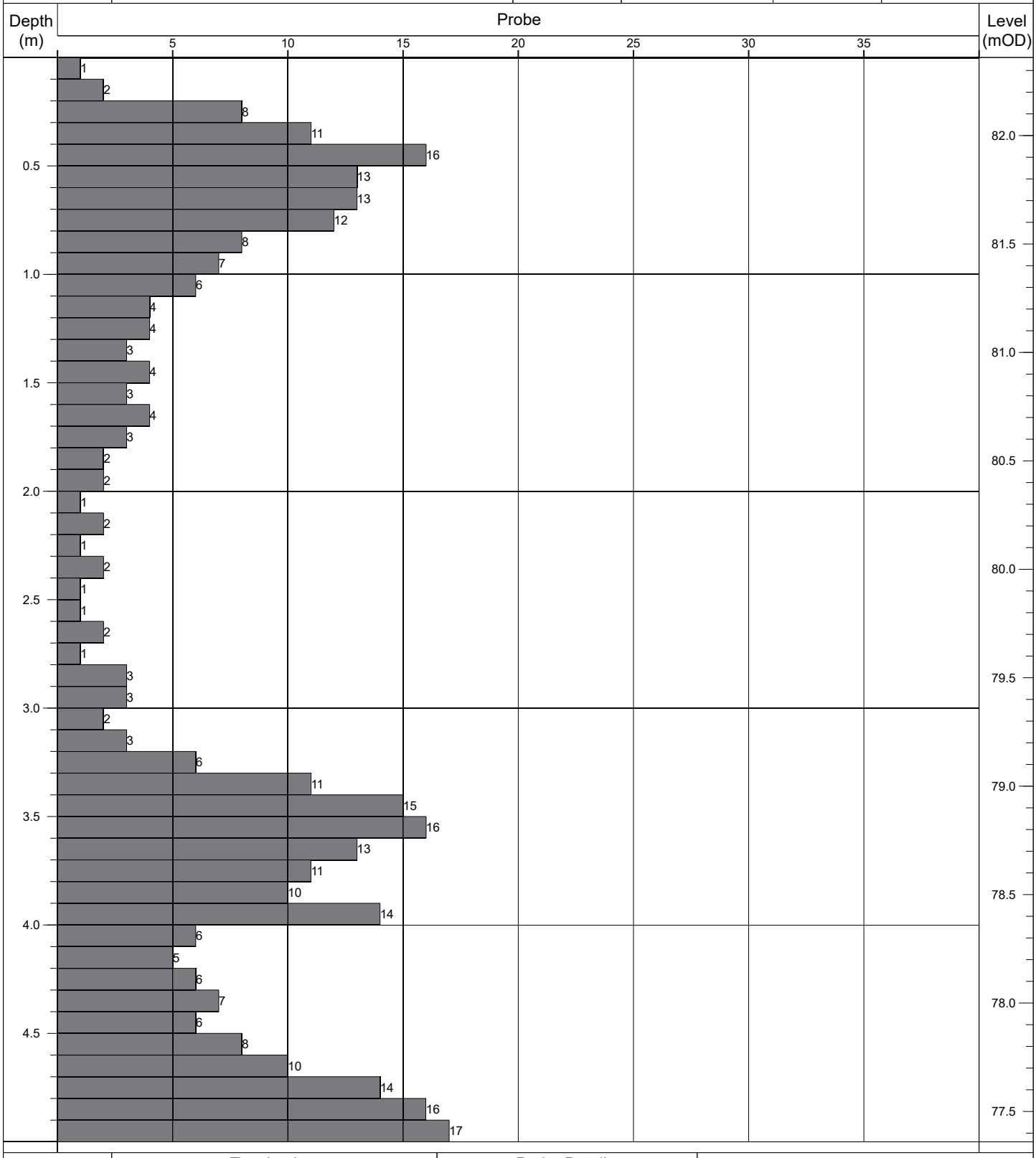
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP043**
Contract:	Coolagad	Easting:	727583.746	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713257.471	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.89	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



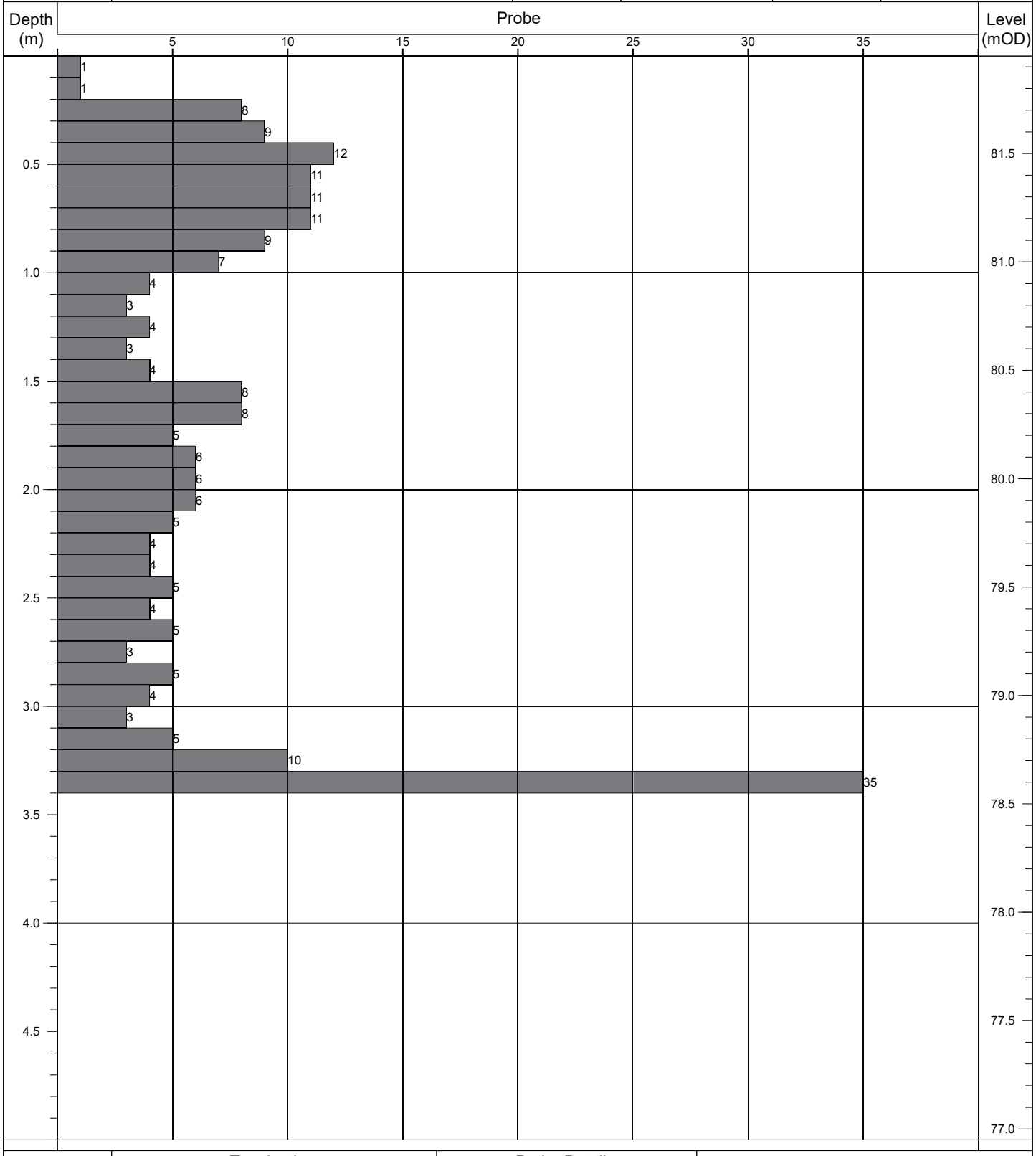
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP044**
Contract:	Coolagad	Easting:	727588.172	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713243.297	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.36	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



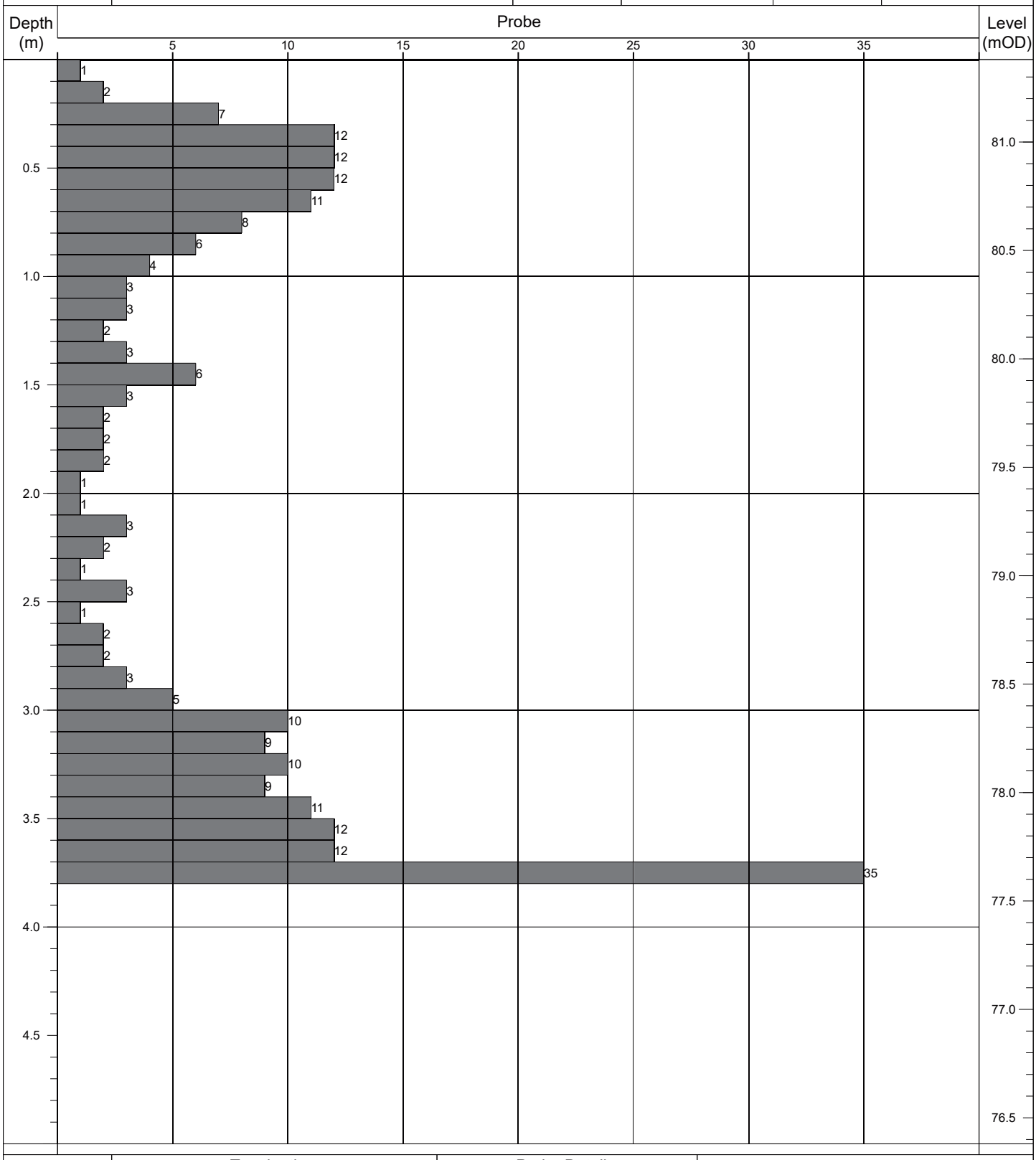
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP045**
Contract:	Coolagad	Easting:	727591.898	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713228.664	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.95	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



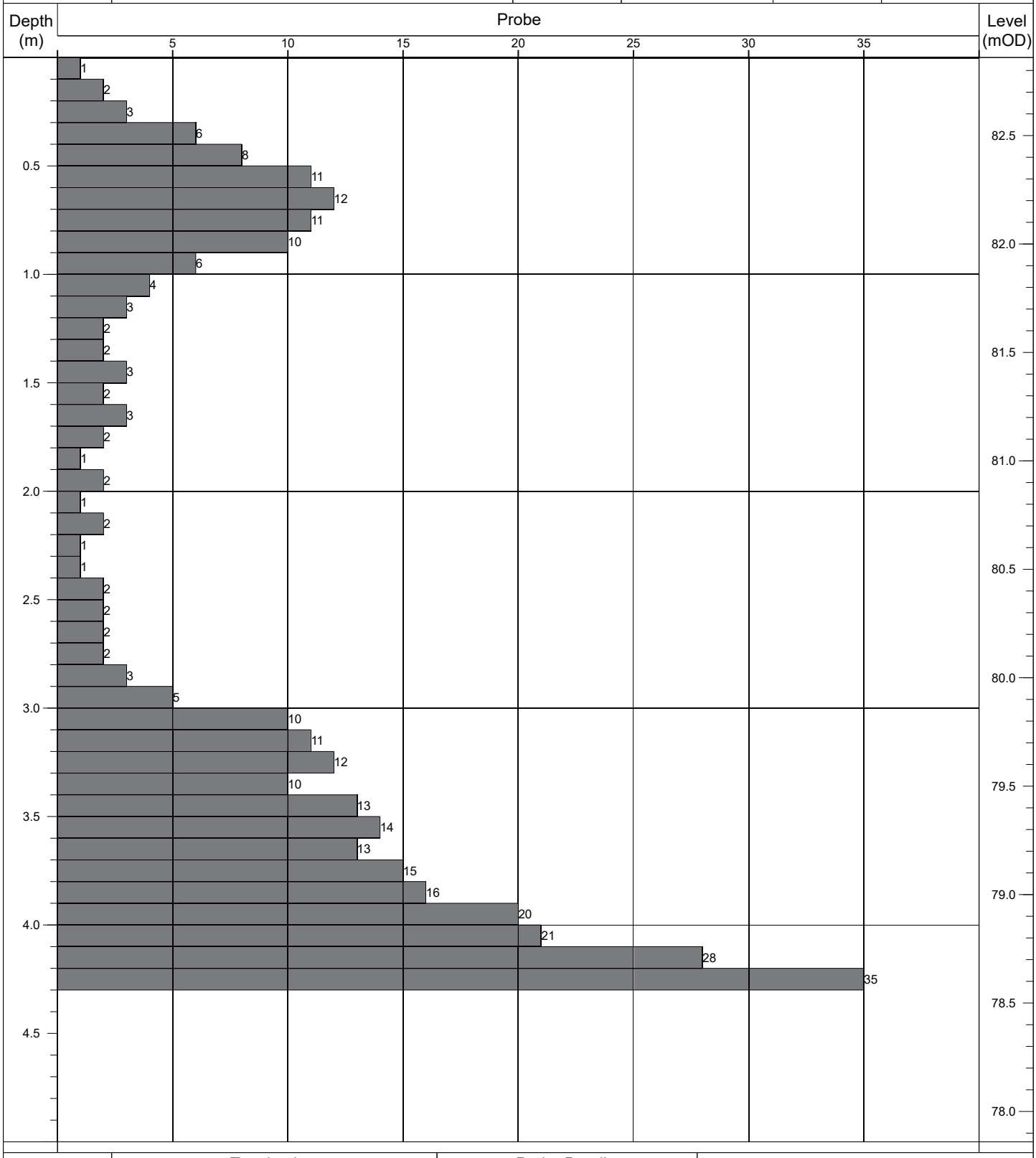
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP046
Contract:	Coolagad	Easting:	727597.680	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713214.535	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.38	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



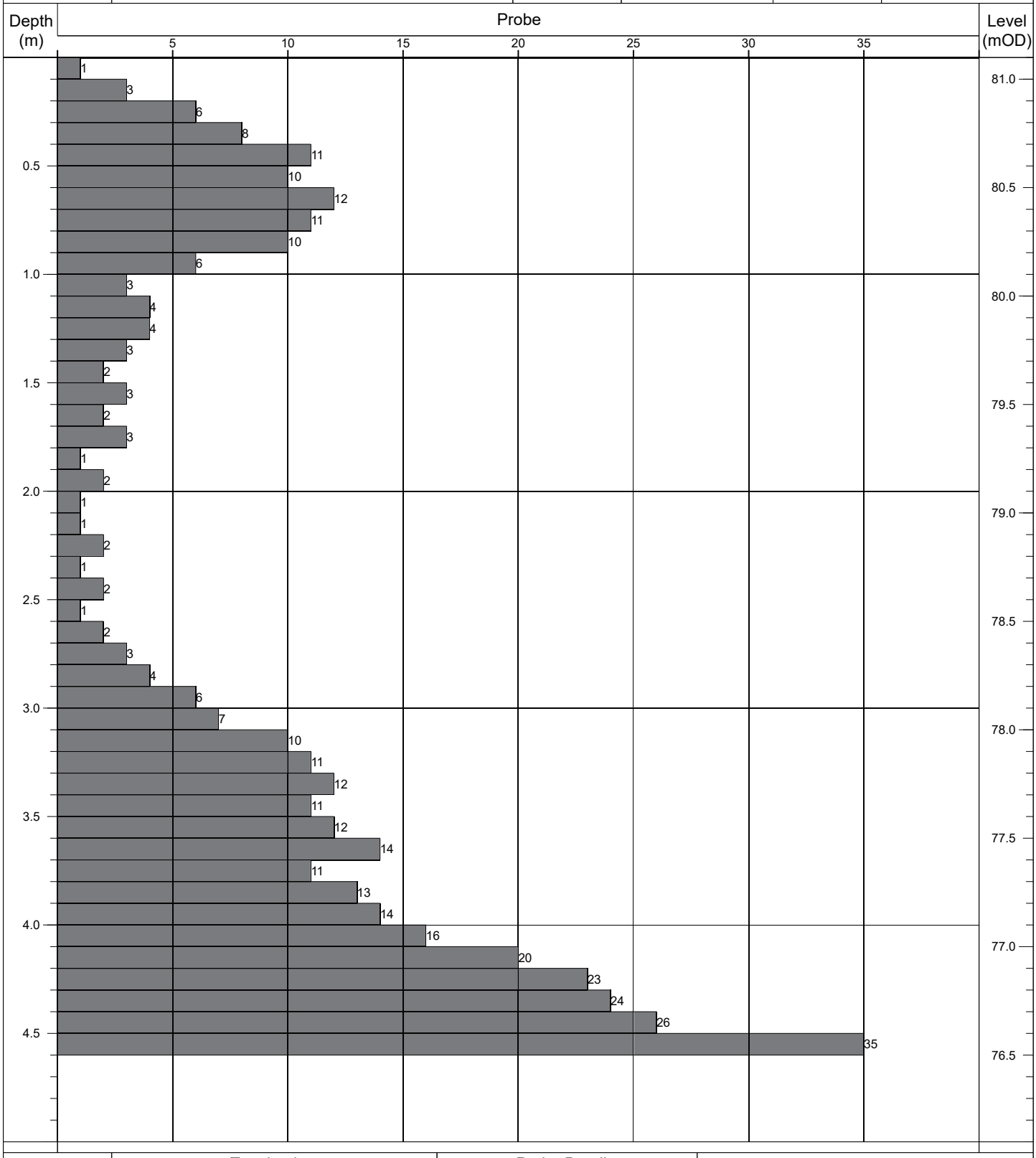
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP047**
Contract:	Coolagad	Easting:	727581.256	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713211.012	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.86	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



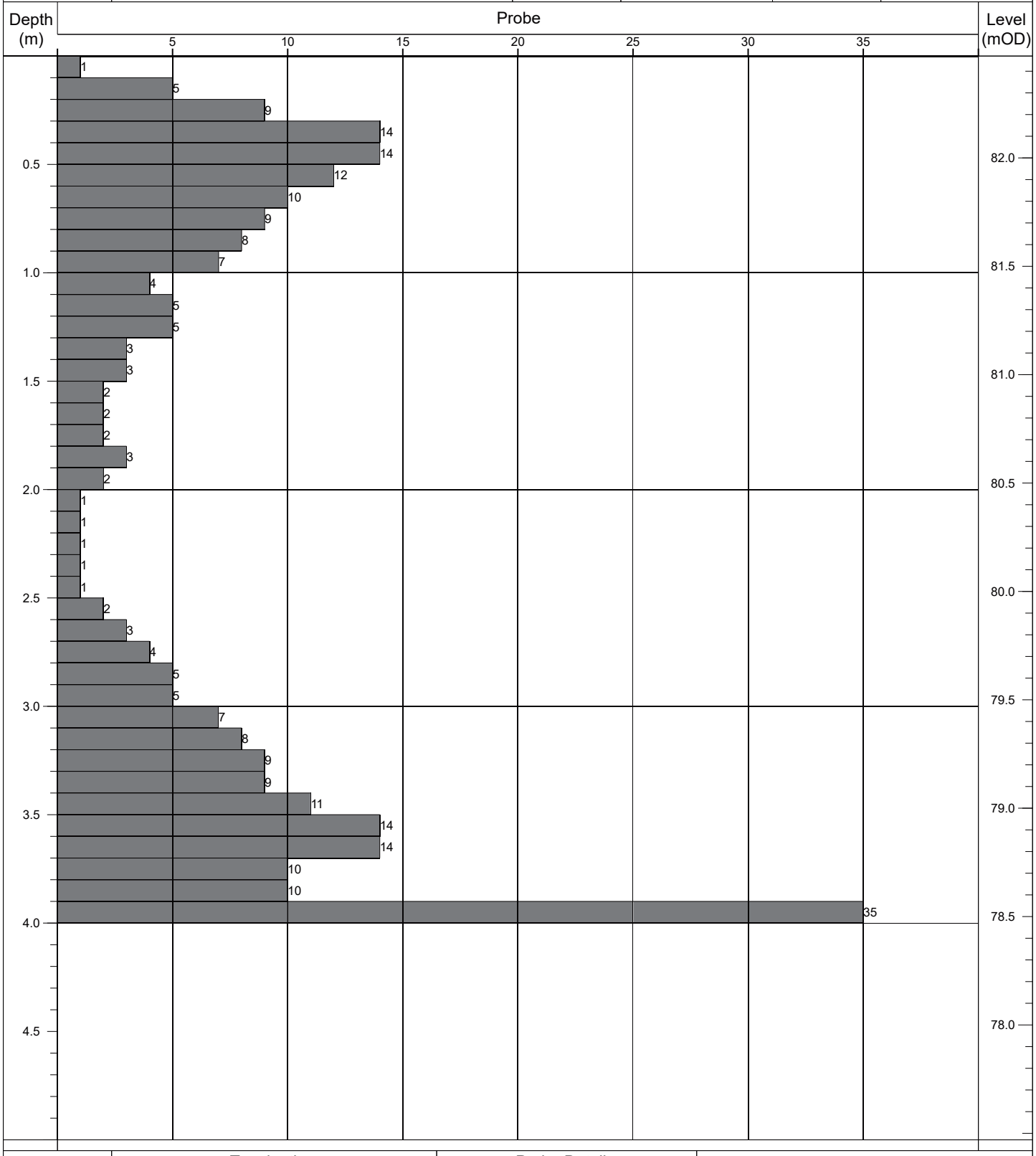
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP048**
Contract:	Coolagad	Easting:	727600.422	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713198.866	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.10	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



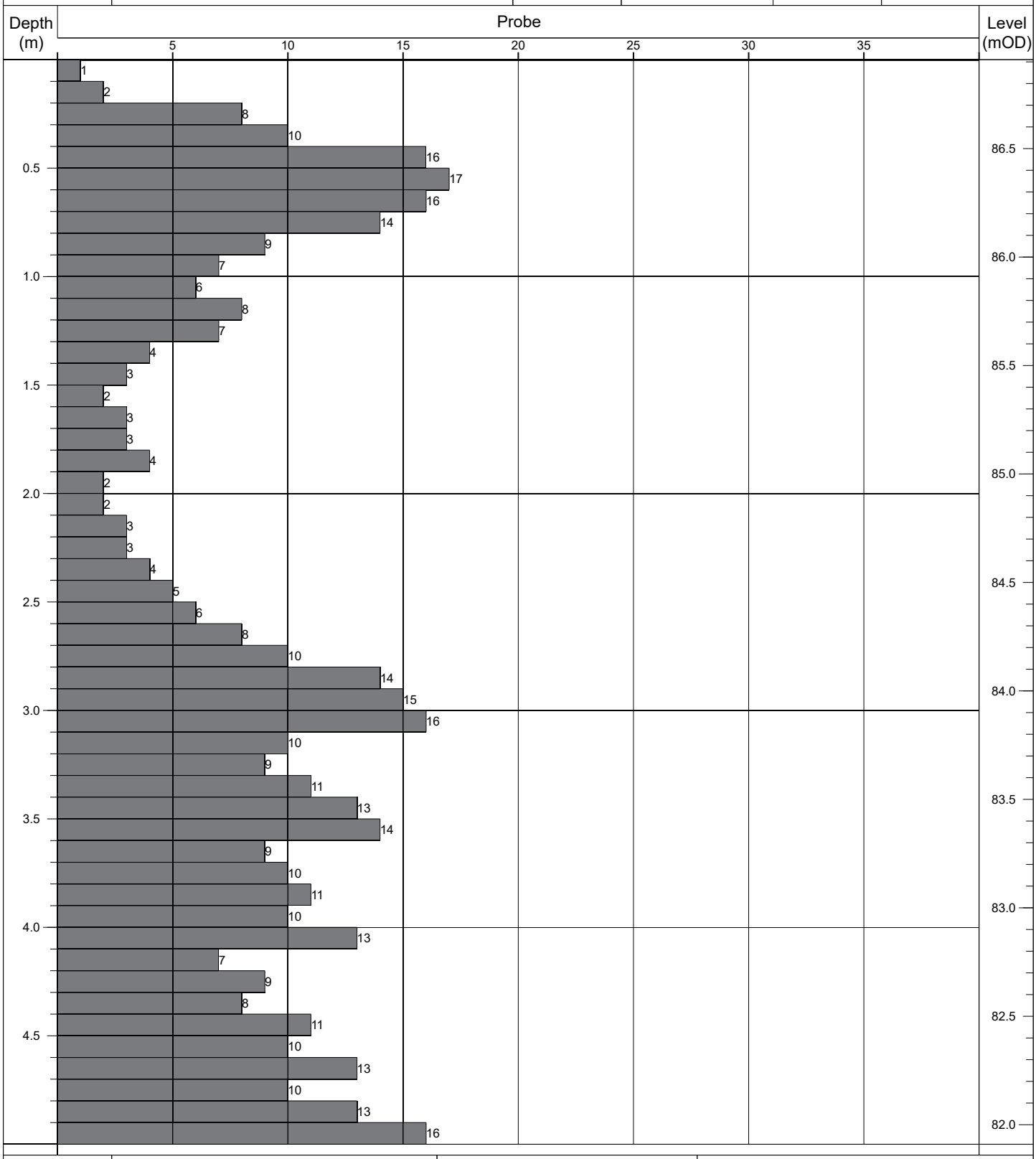
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP049**
Contract:	Coolagad	Easting:	727584.417	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713195.182	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.47	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



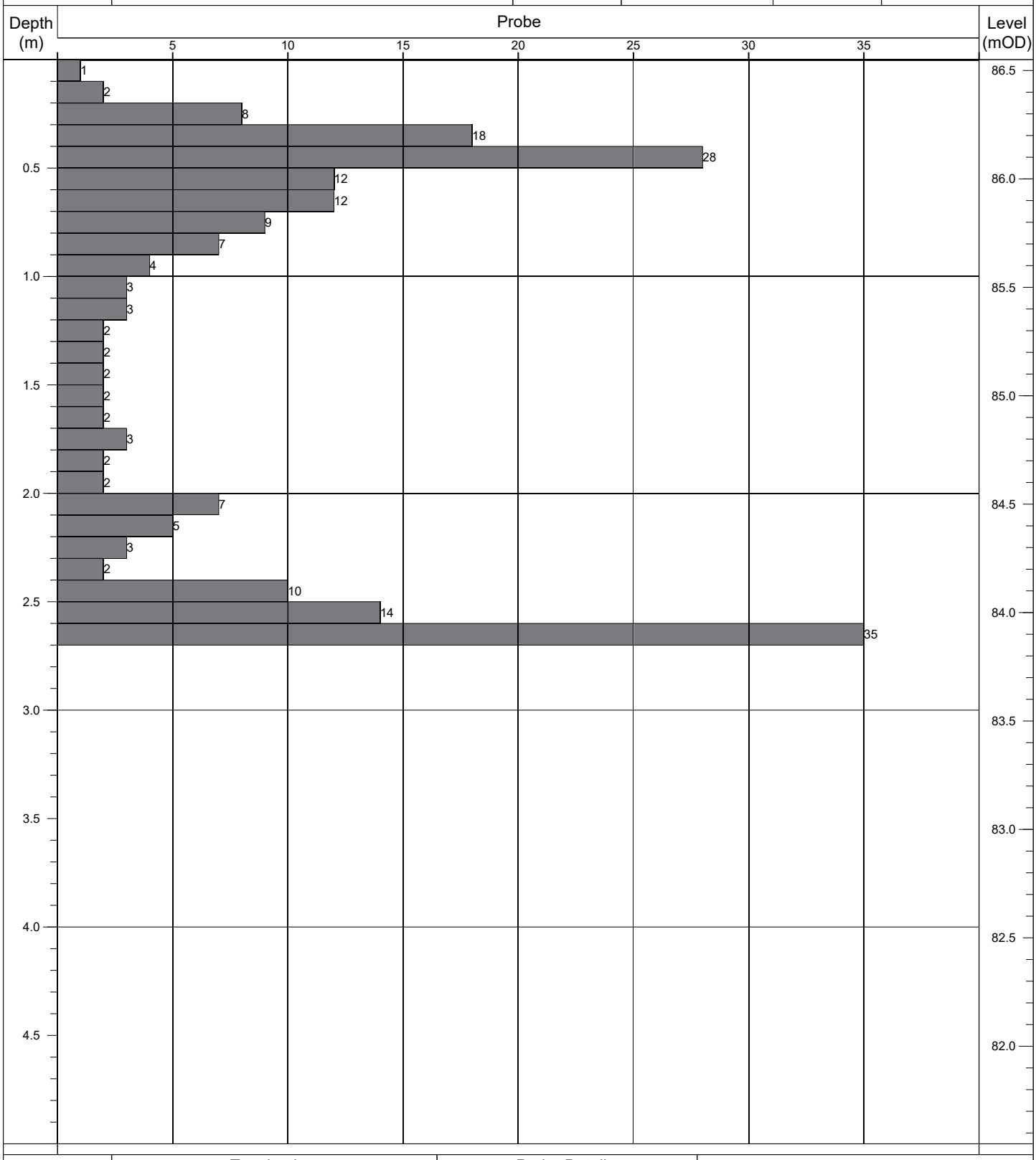
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP050
Contract:	Coolagad	Easting:	727531.376	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713253.598	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	86.91	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



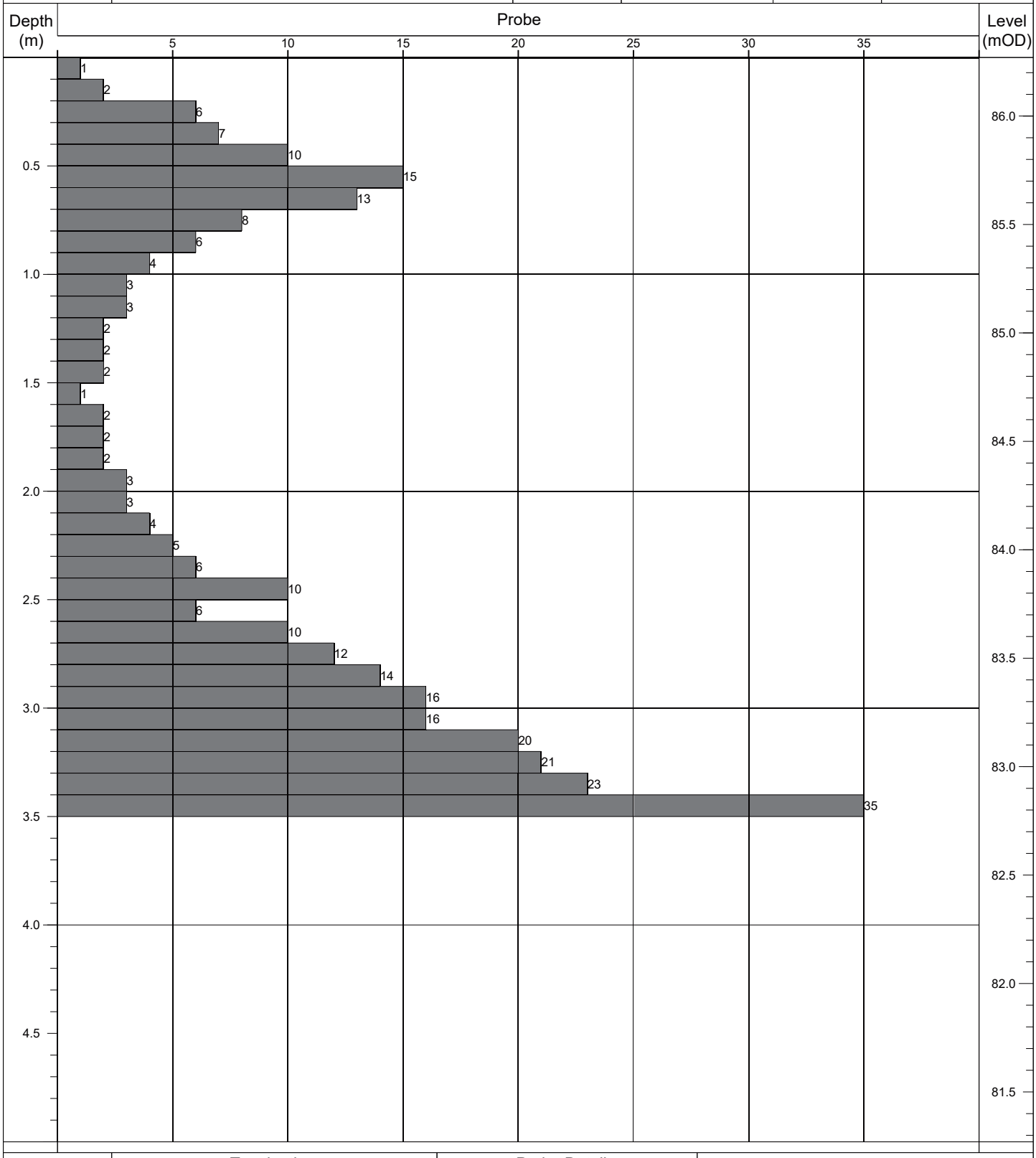
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP051**
Contract:	Coolagad	Easting:	727535.287	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713239.209	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	86.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



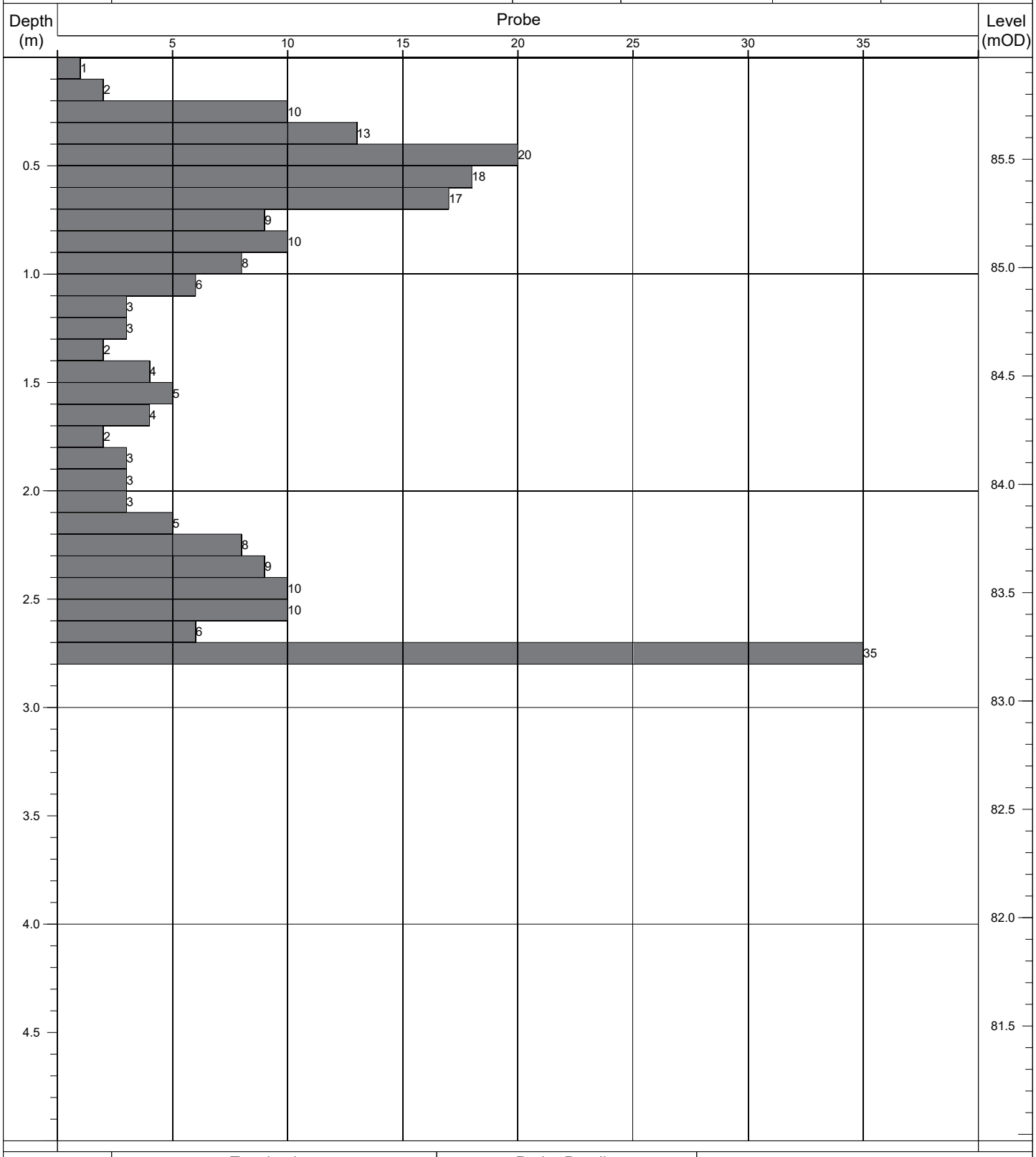
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP052**
Contract:	Coolagad	Easting:	727539.095	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713224.922	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	86.27	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



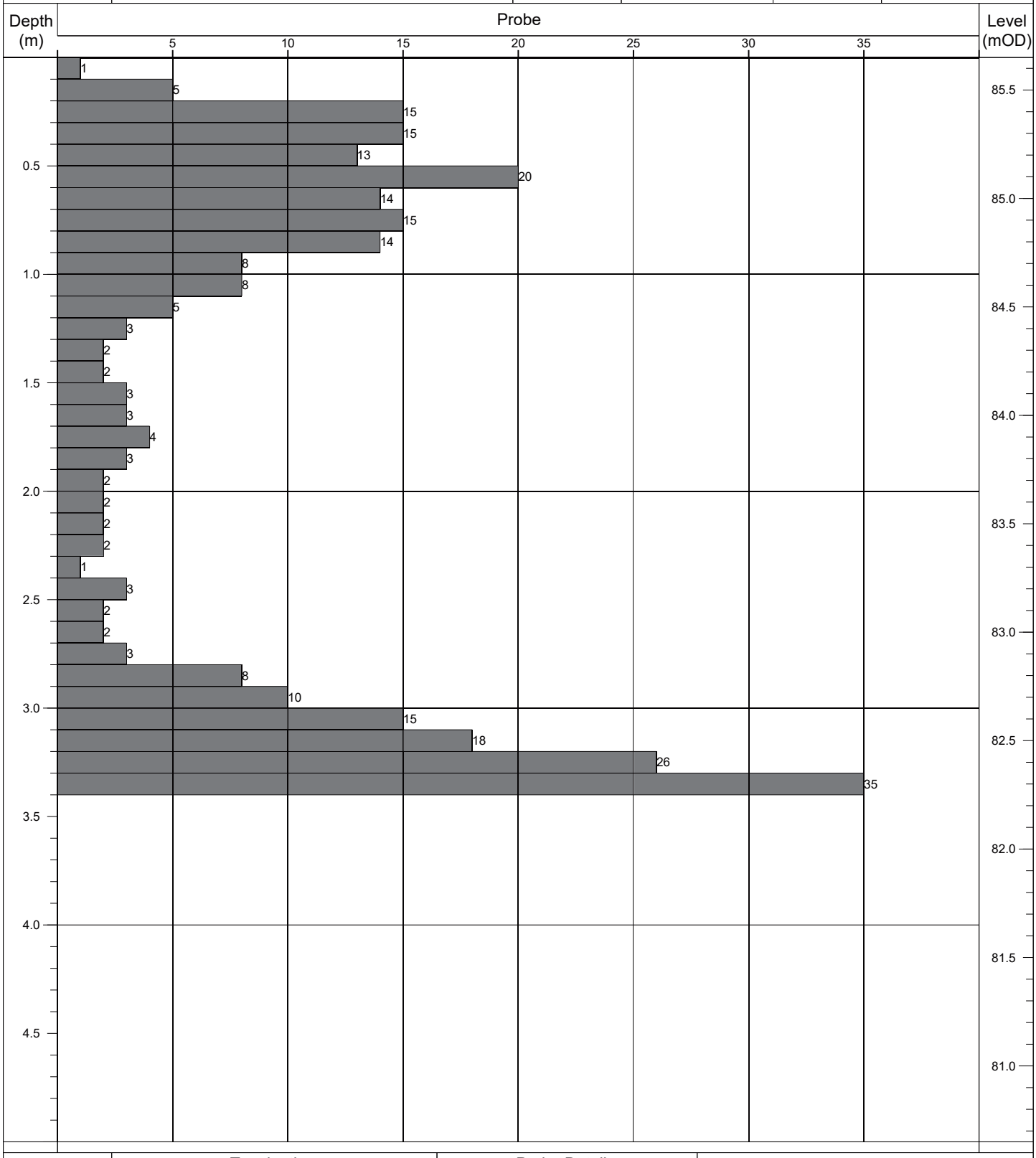
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP053**
Contract:	Coolagad	Easting:	727543.059	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713210.602	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	85.97	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



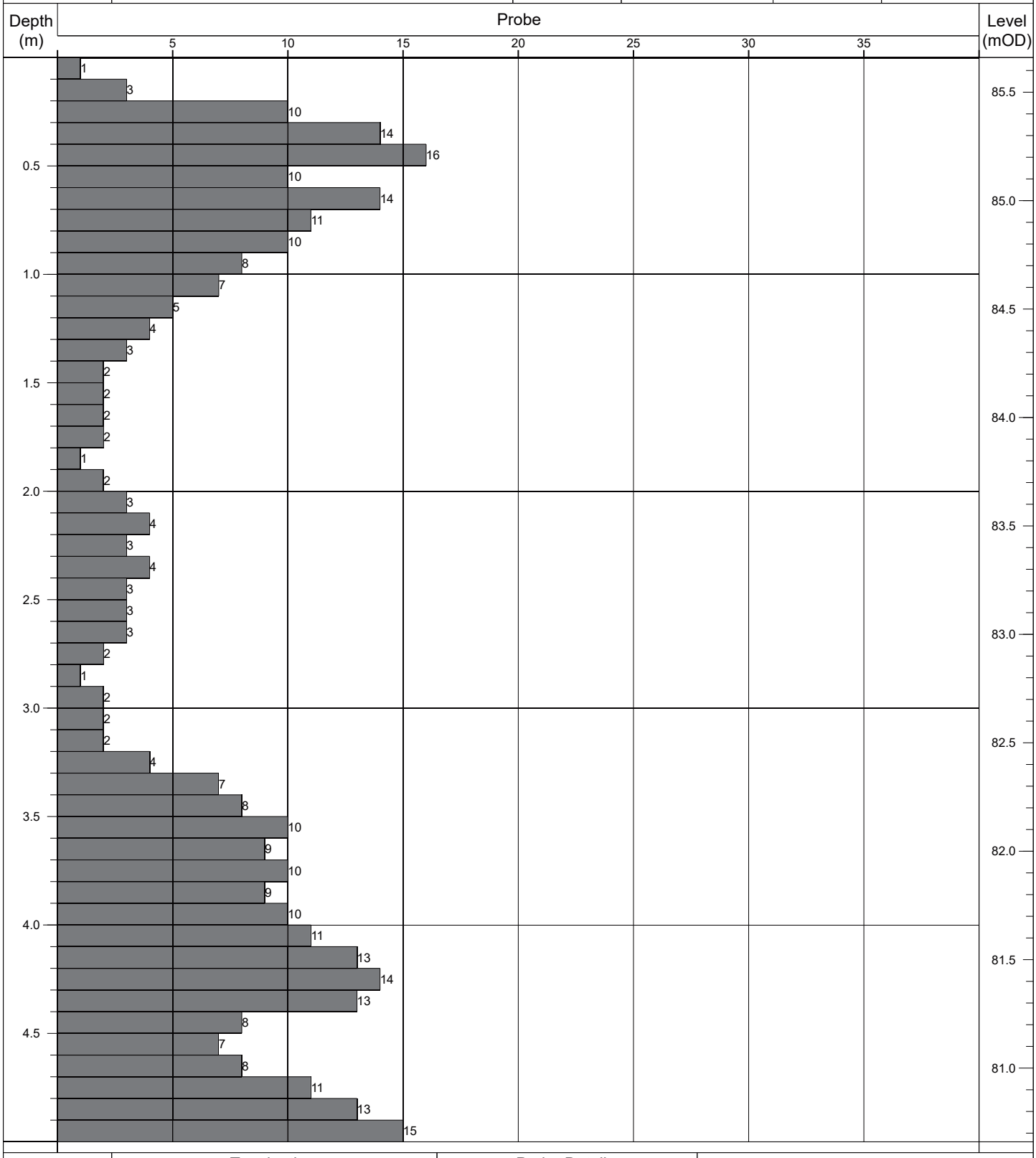
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP054**
Contract:	Coolagad	Easting:	727546.468	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713196.064	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	85.65	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



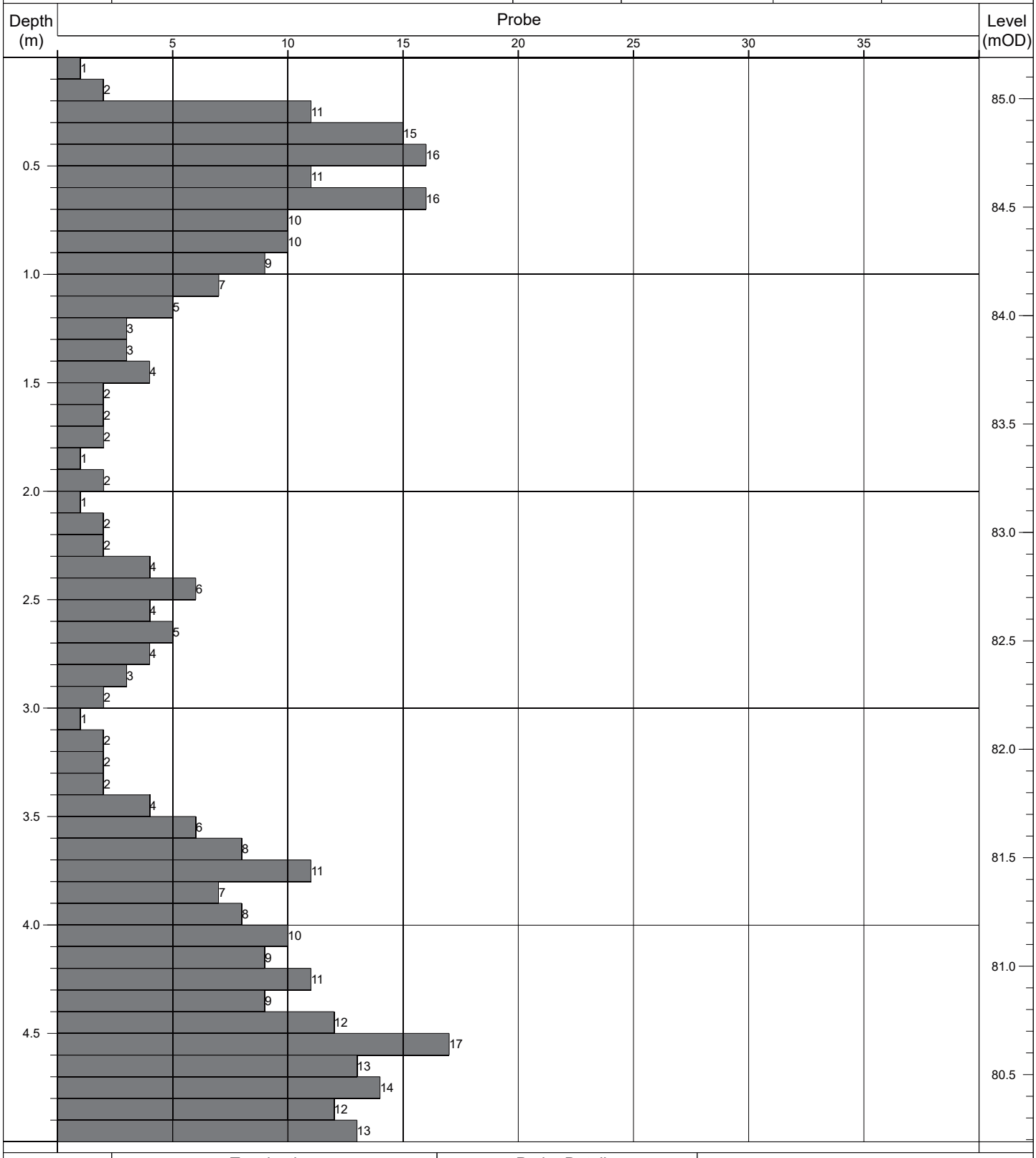
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP055
Contract:	Coolagad	Easting:	727545.539	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713170.177	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	85.66	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



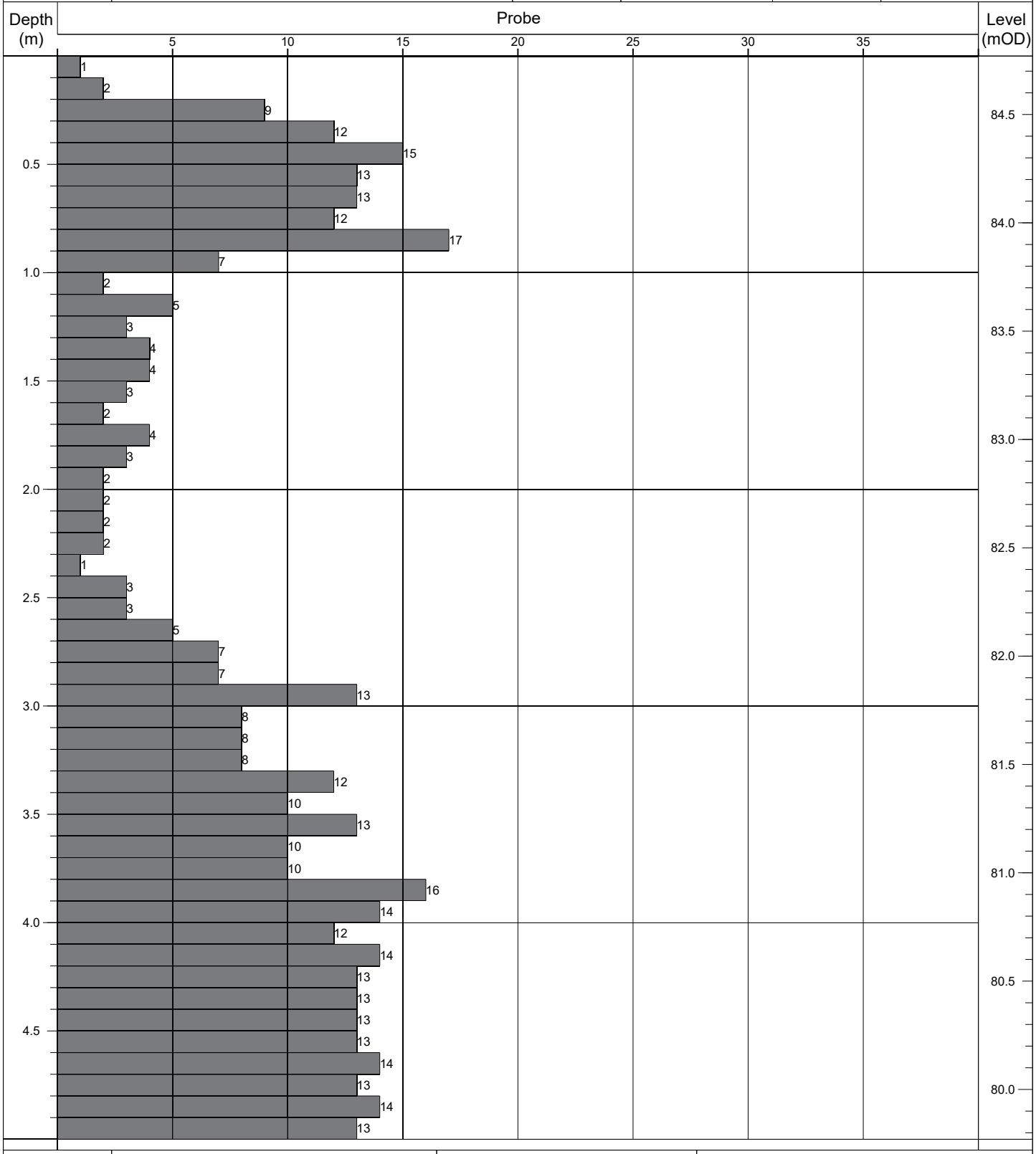
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP056**
Contract:	Coolagad	Easting:	727548.992	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713155.110	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	85.19	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



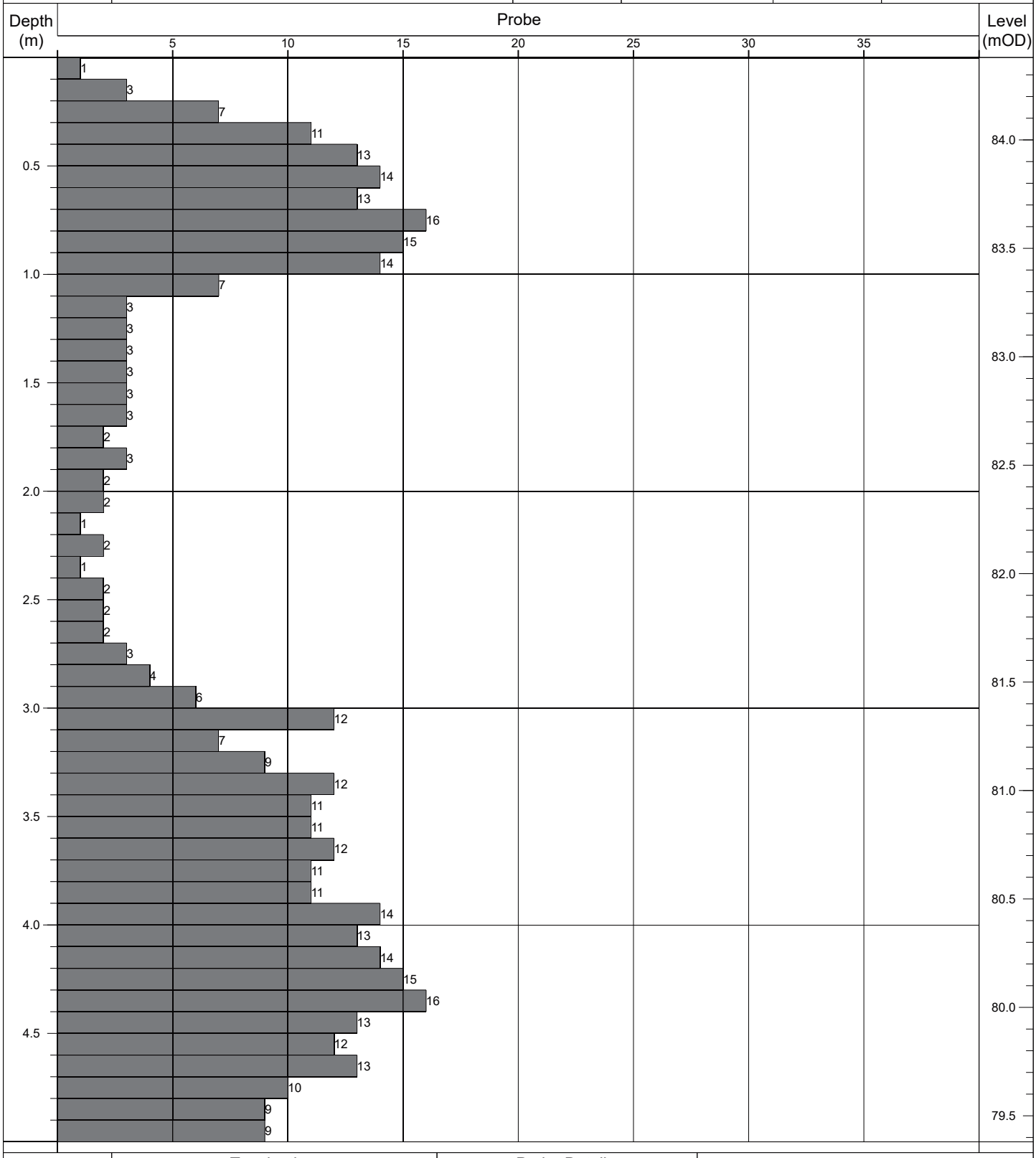
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP057**
Contract:	Coolagad	Easting:	727552.553	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713142.058	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	84.77	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



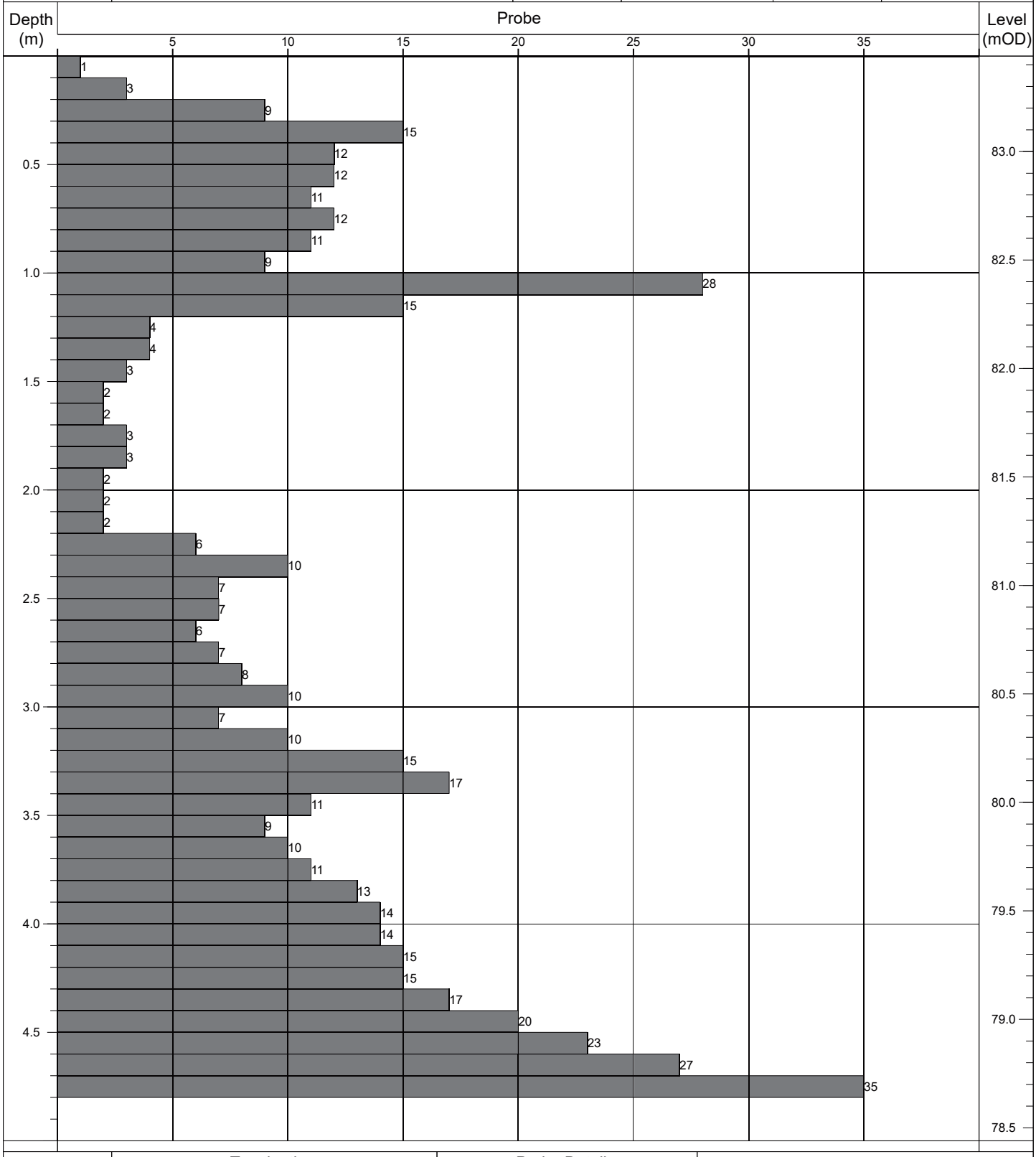
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP058**
Contract:	Coolagad	Easting:	727556.076	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713128.982	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	84.38	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



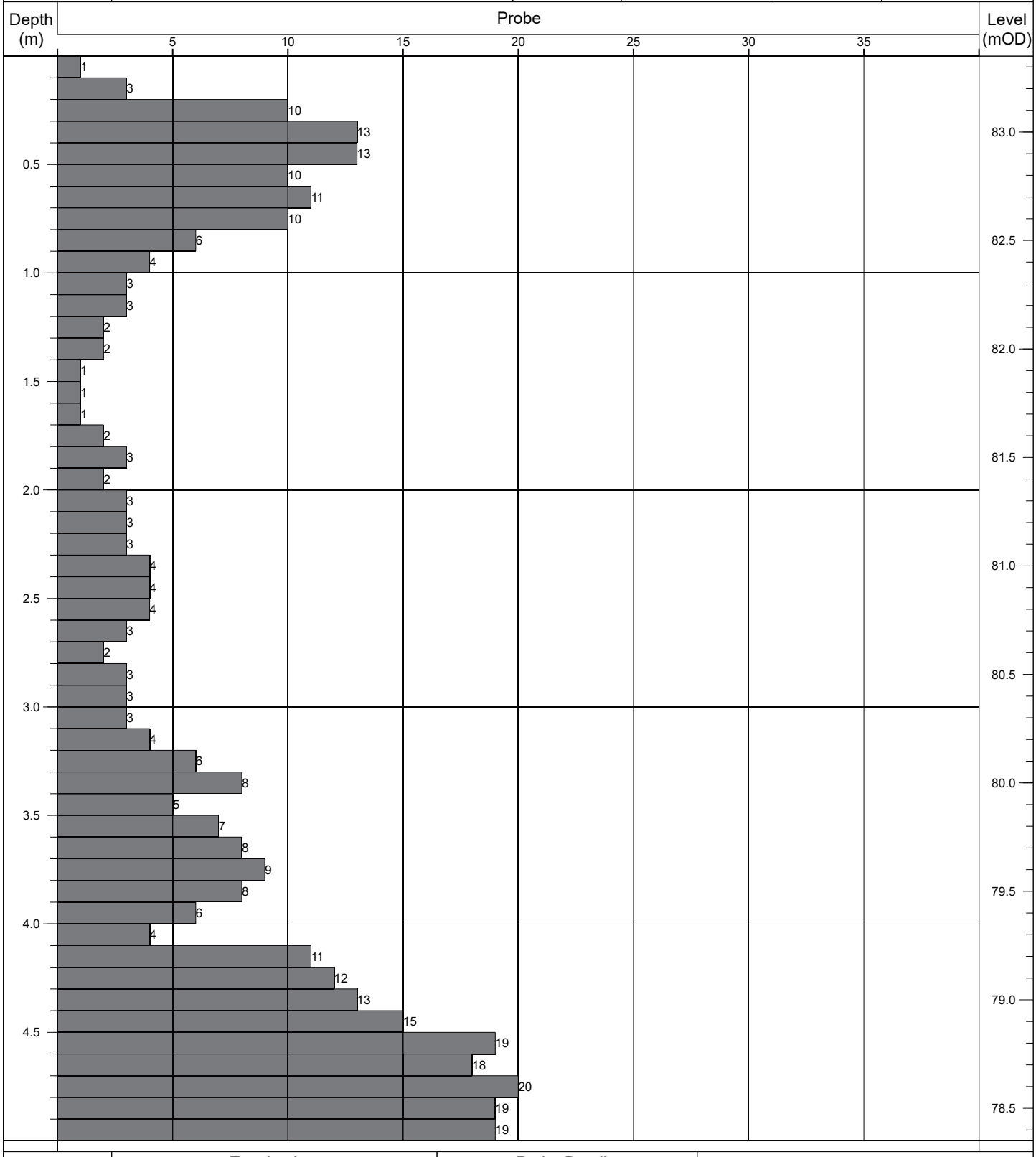
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP059
Contract:	Coolagad	Easting:	727566.507	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713101.109	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.44	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



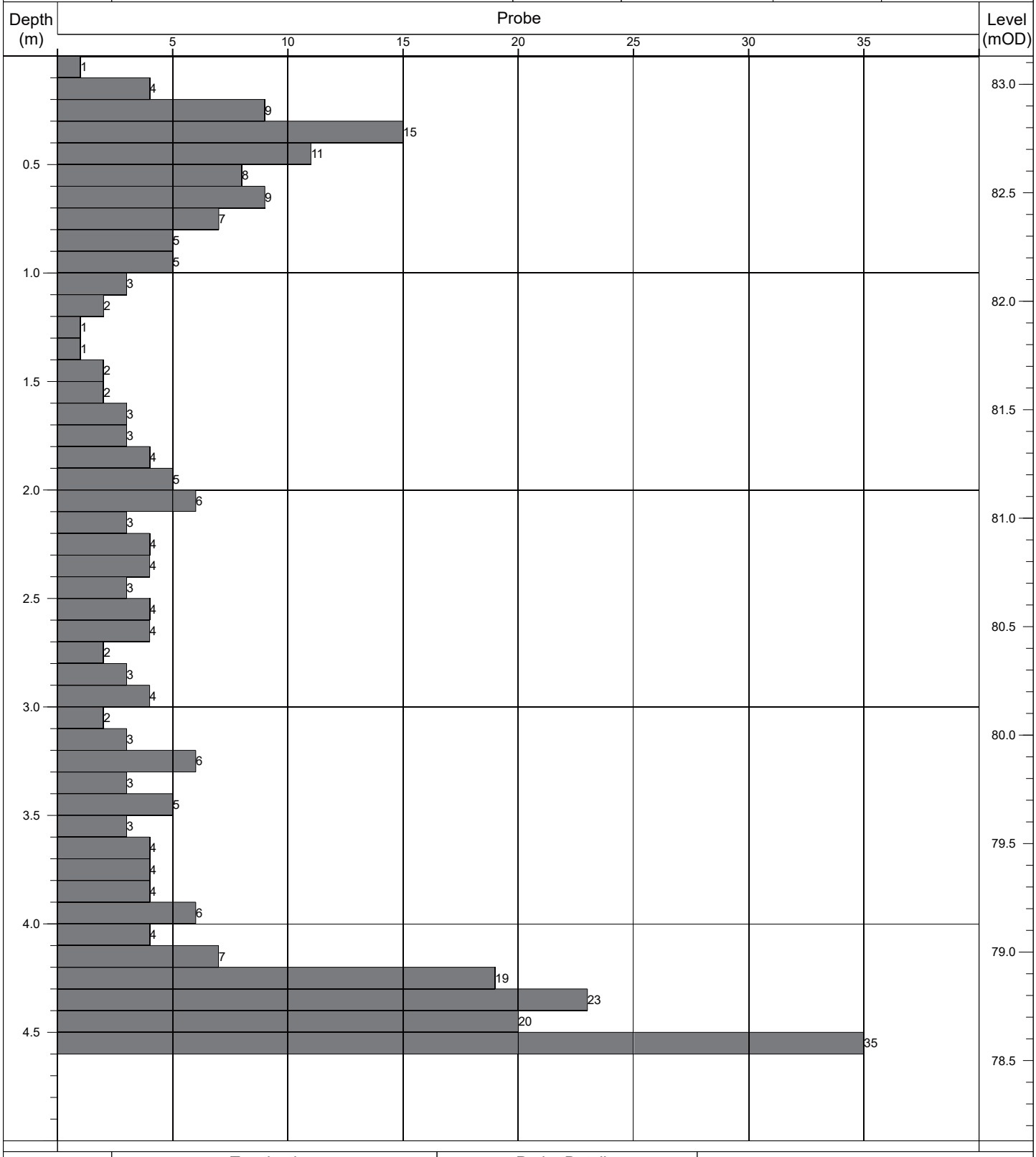
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP060**
Contract:	Coolagad	Easting:	727566.446	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713087.511	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



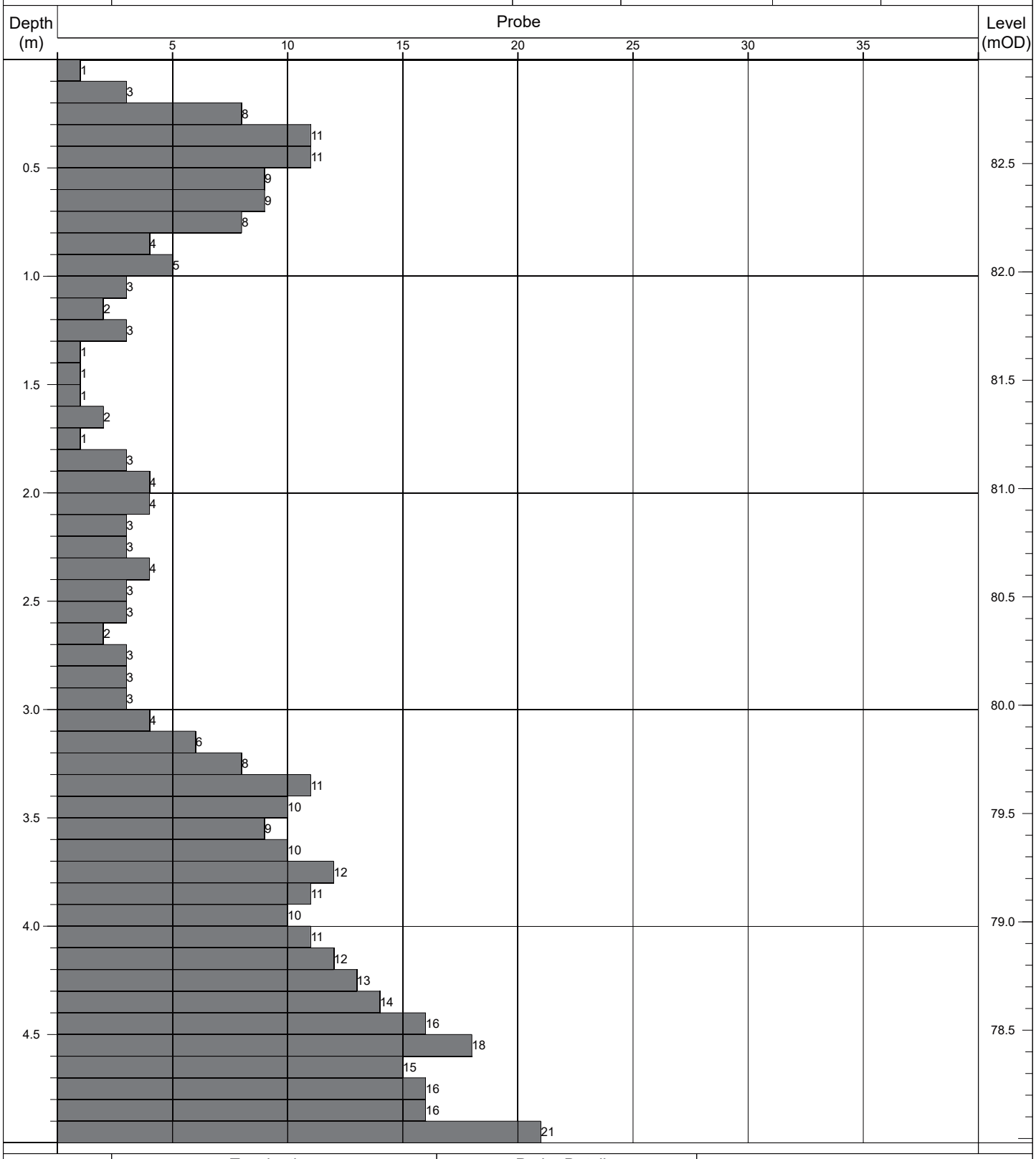
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP061**
Contract:	Coolagad	Easting:	727566.498	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713073.453	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.13	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



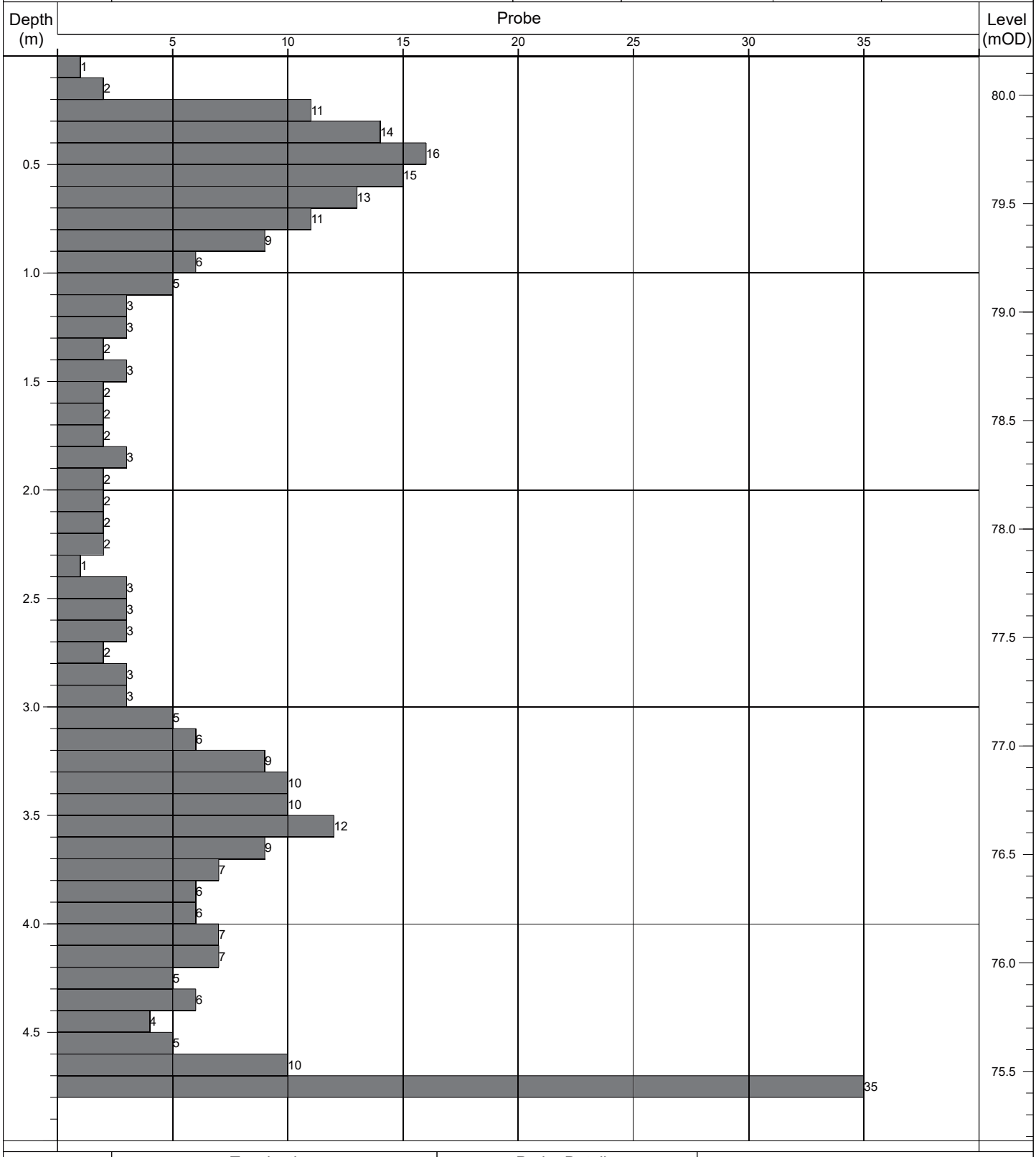
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP062**
Contract:	Coolagad	Easting:	727566.426	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713058.452	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.98	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



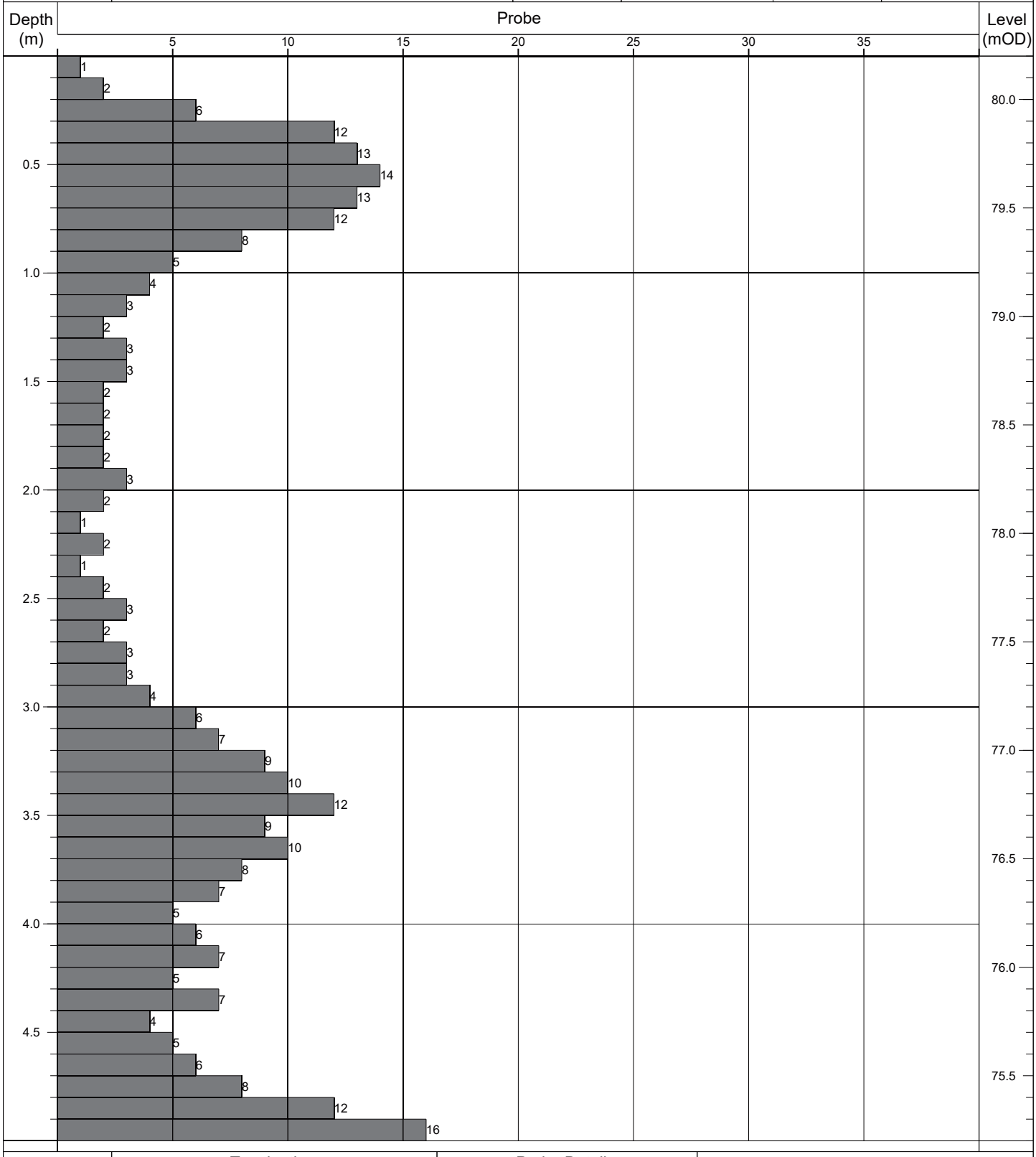
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP063**
Contract:	Coolagad	Easting:	727609.150	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713156.139	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.18	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



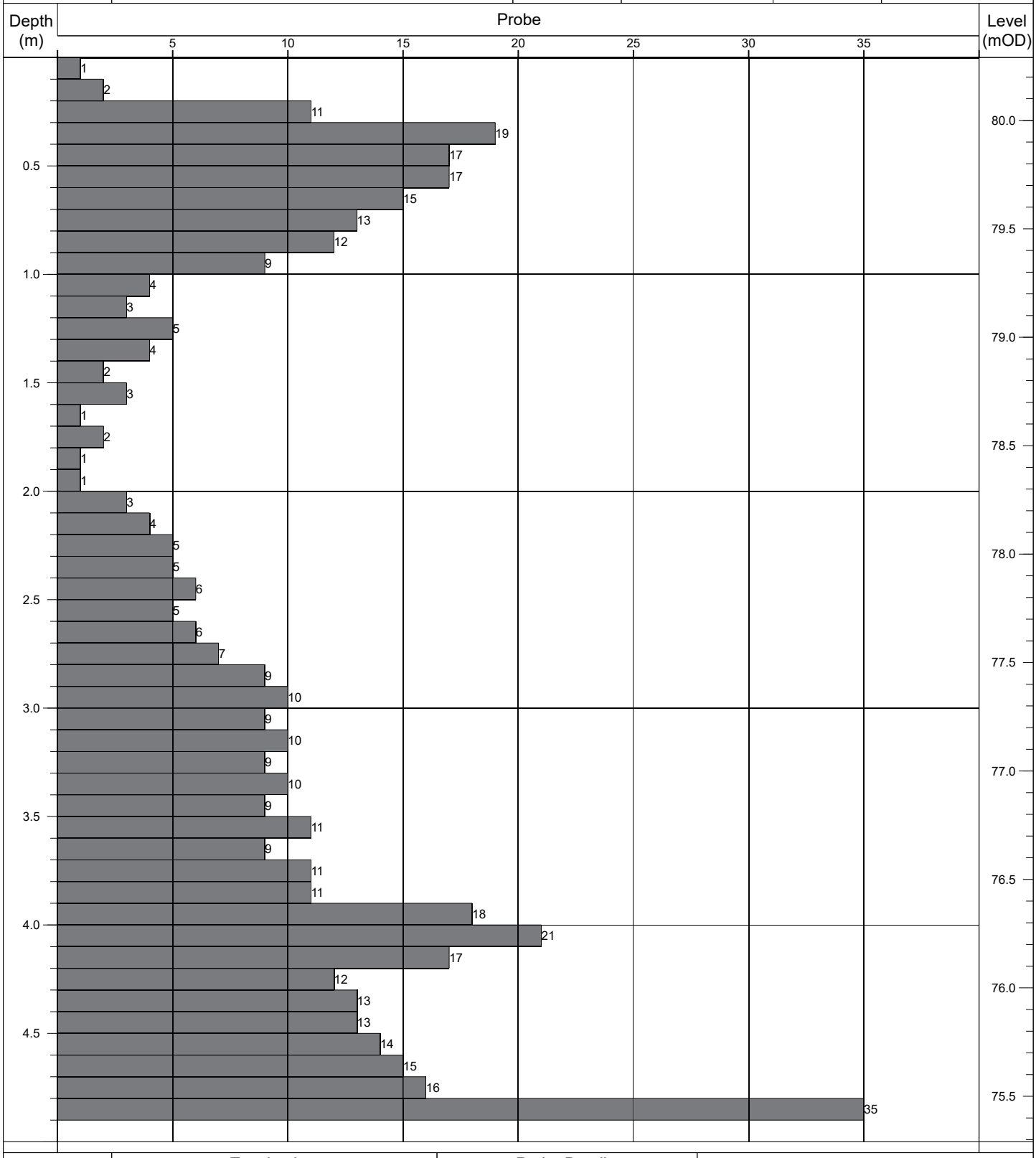
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP064**
Contract:	Coolagad	Easting:	727609.225	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713140.032	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.20	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



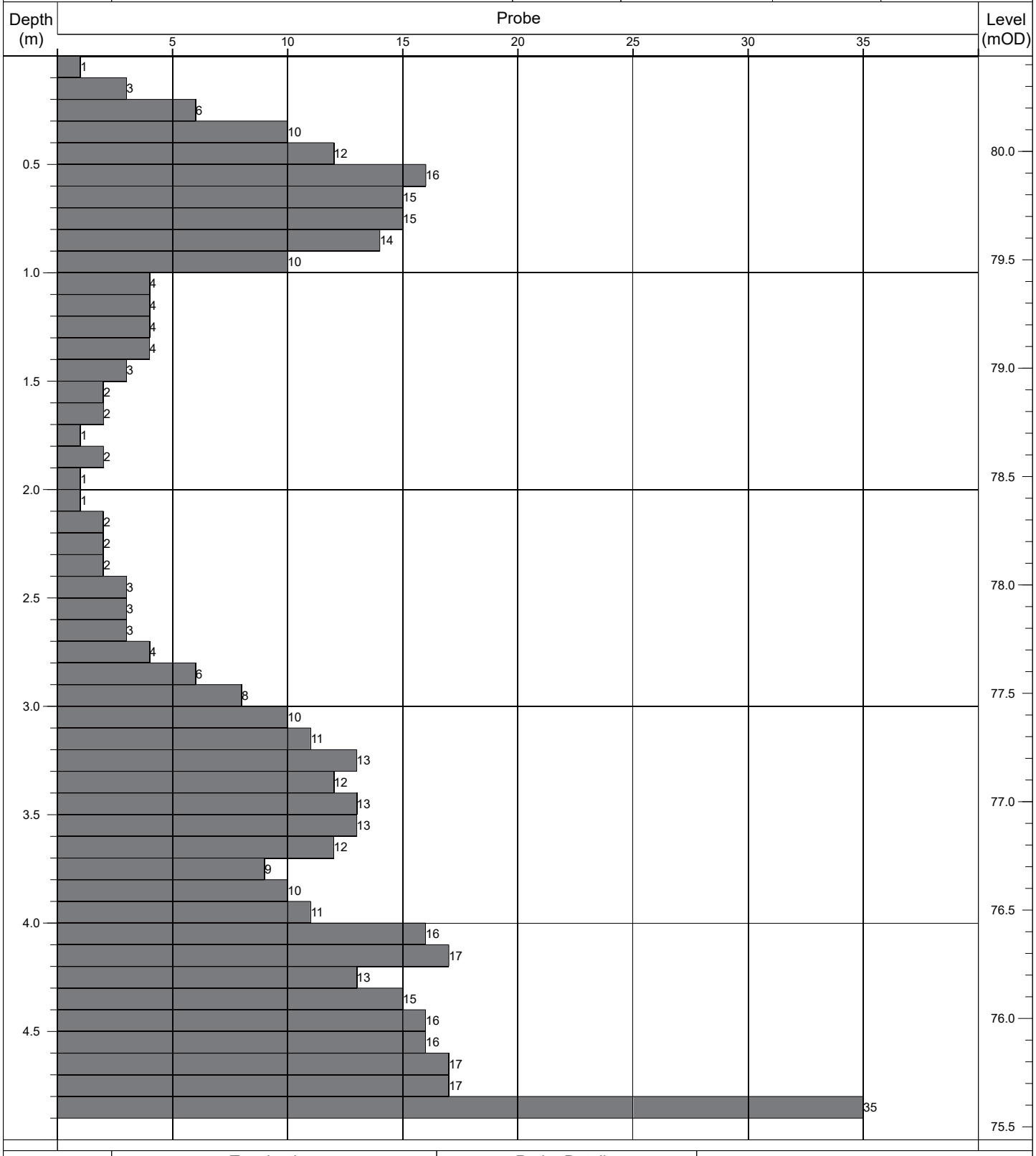
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP065**
Contract:	Coolagad	Easting:	727609.450	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713127.832	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.29	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



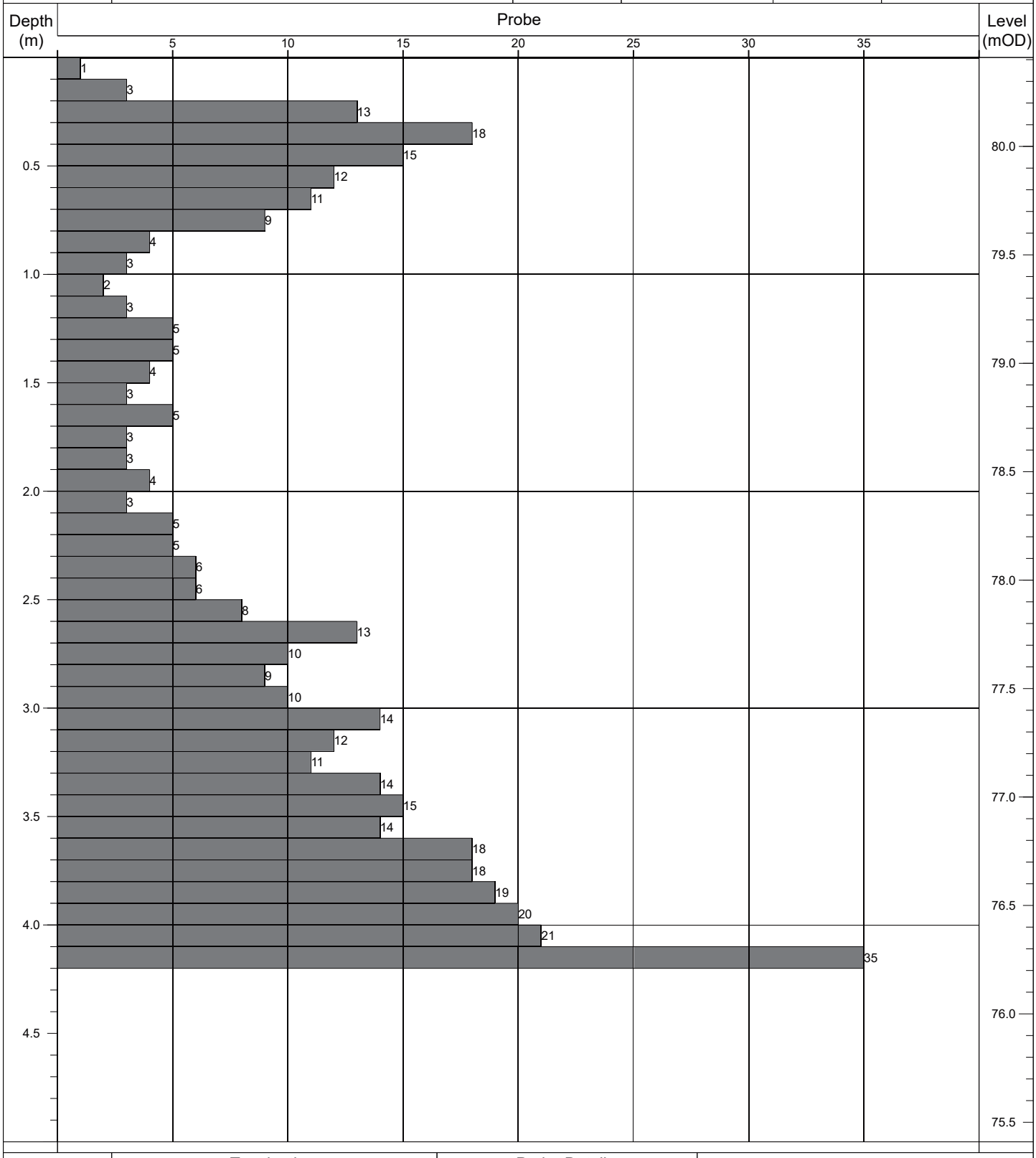
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP066
Contract:	Coolagad	Easting:	727609.341	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713112.456	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.44	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



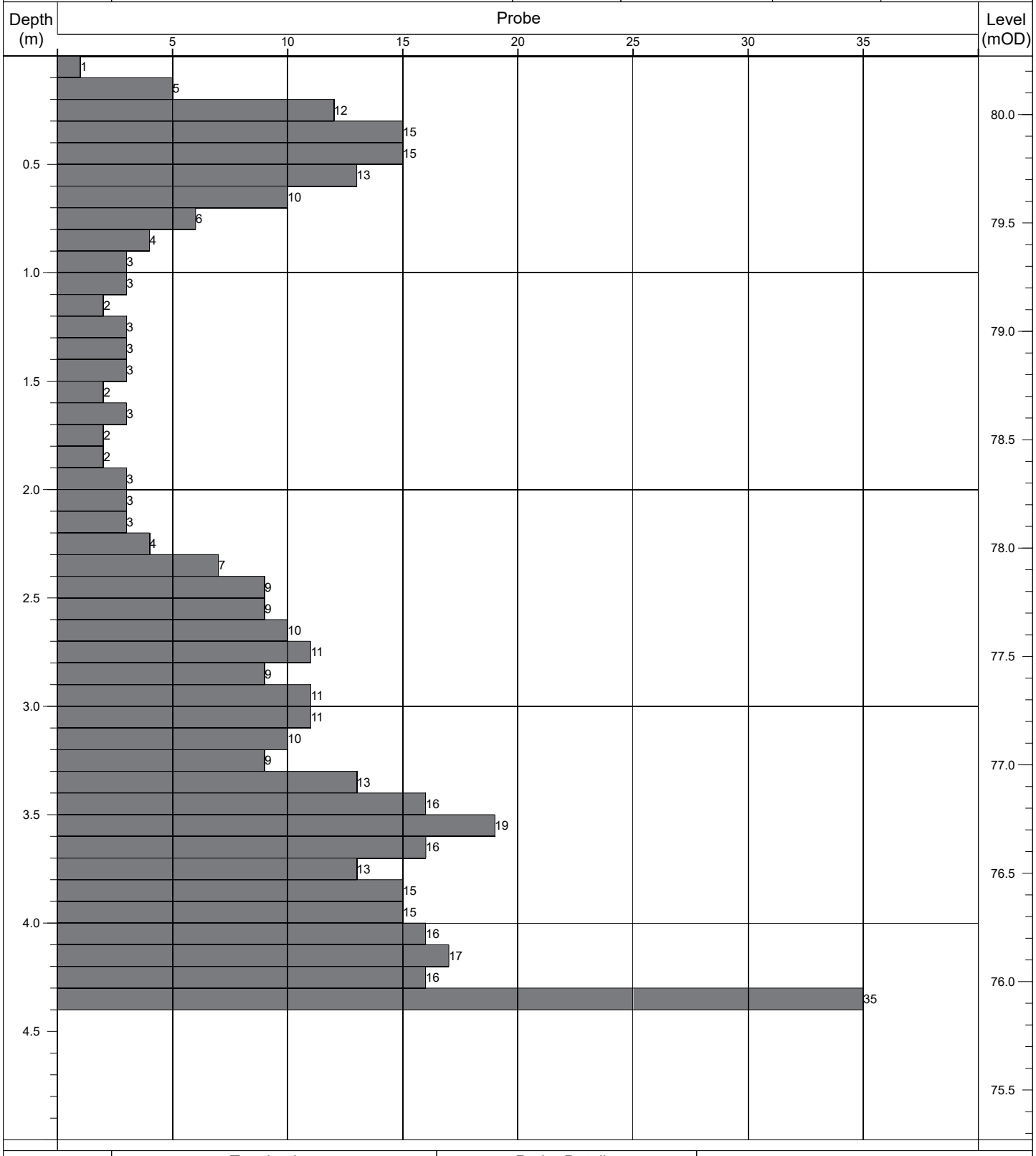
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP067**
Contract:	Coolagad	Easting:	727610.004	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713087.493	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.41	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



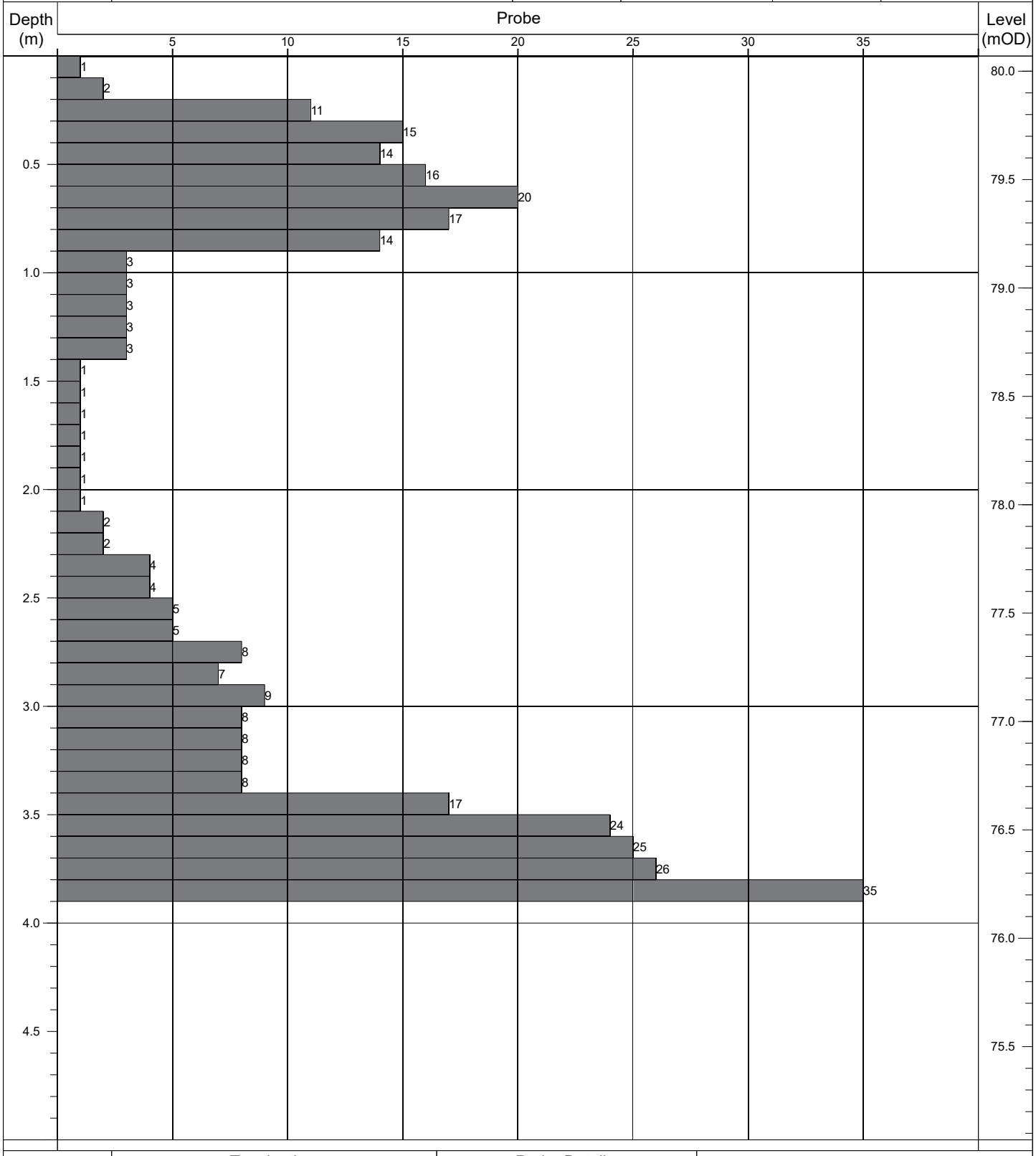
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP068
Contract:	Coolagad	Easting:	727609.592	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713068.594	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.27	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



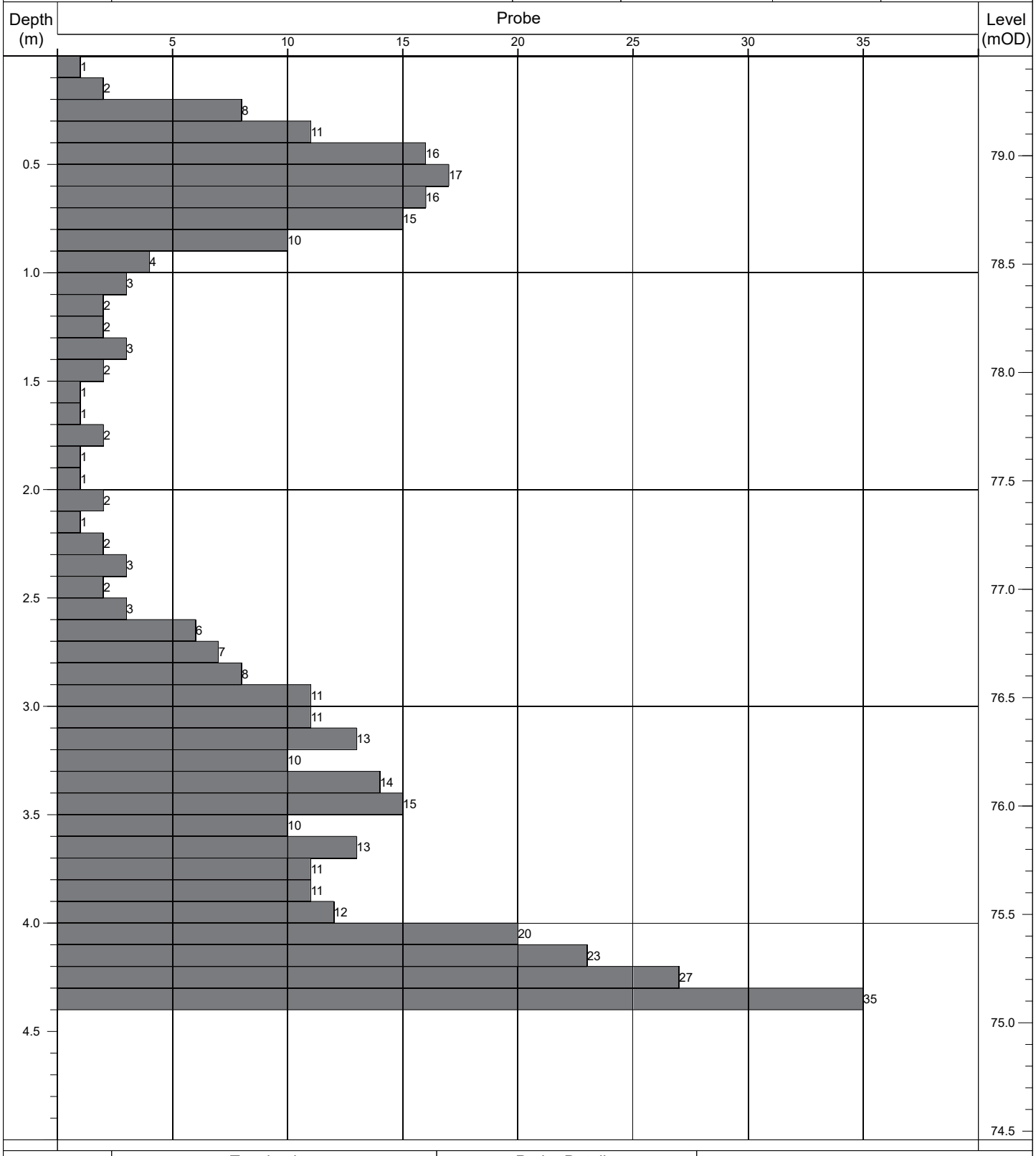
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP069**
Contract:	Coolagad	Easting:	727609.322	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713054.886	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.07	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



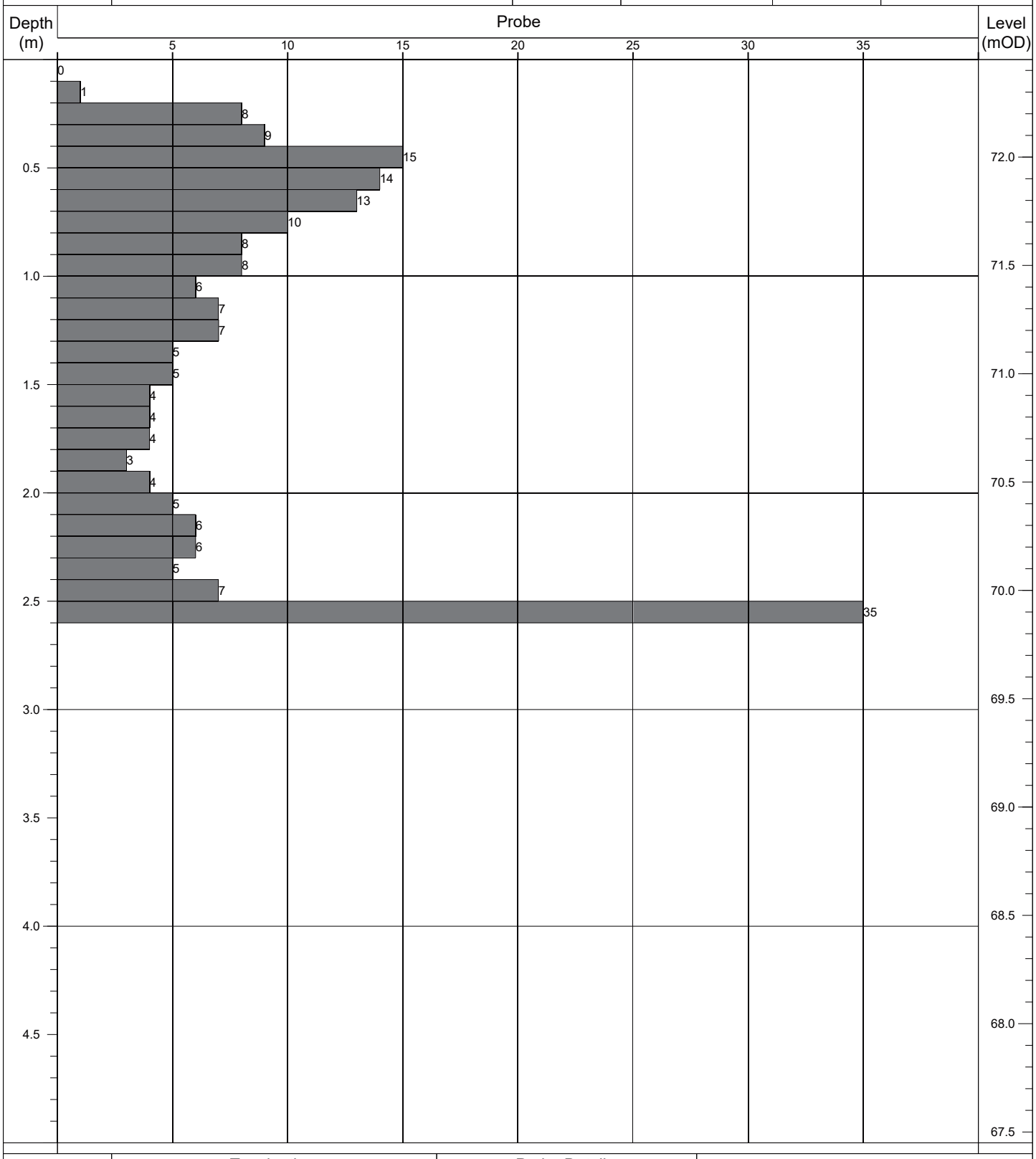
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP070**
Contract:	Coolagad	Easting:	727609.454	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713041.049	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.46	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



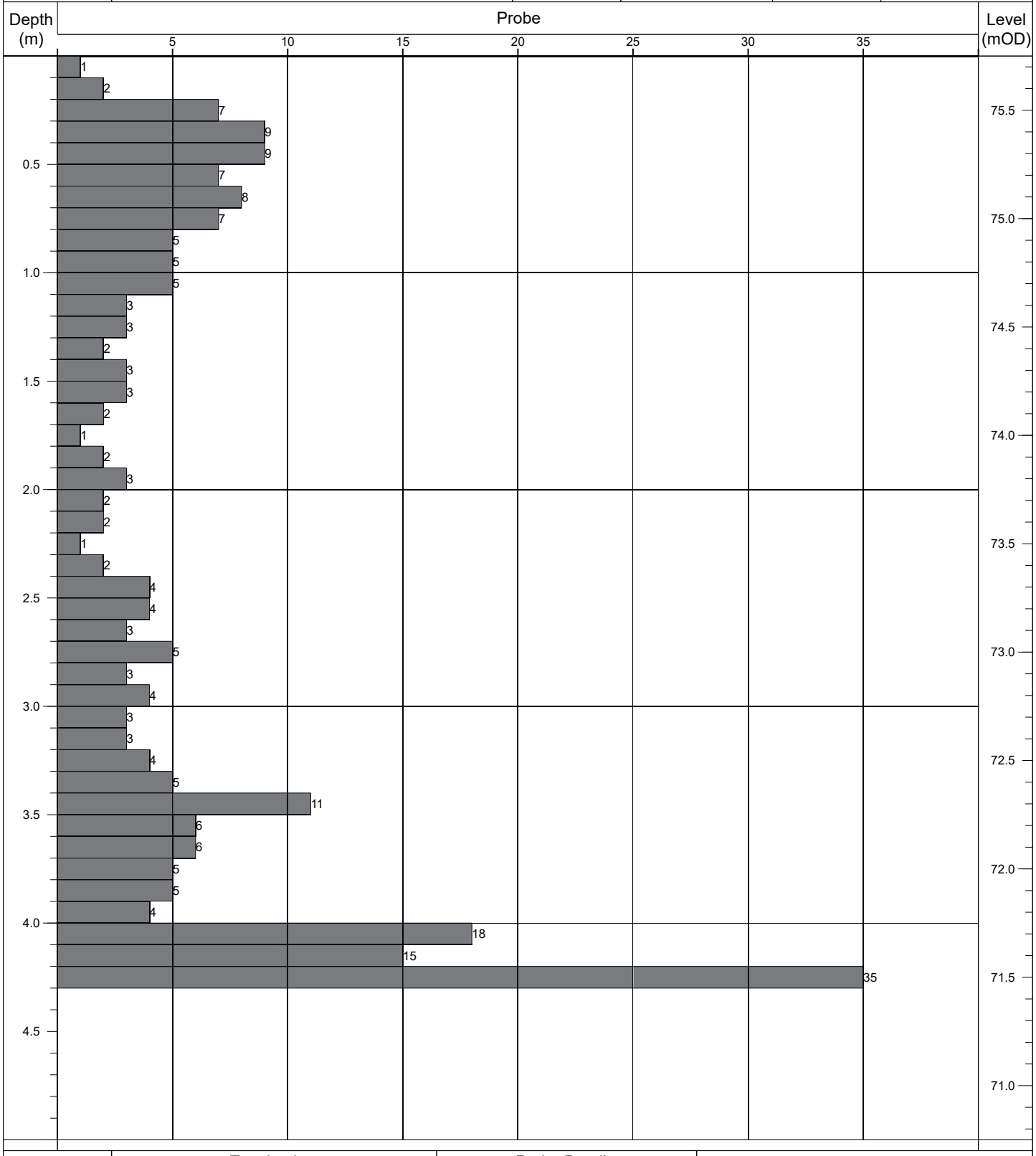
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP071**
Contract:	Coolagad	Easting:	727697.406	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713153.319	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.45	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



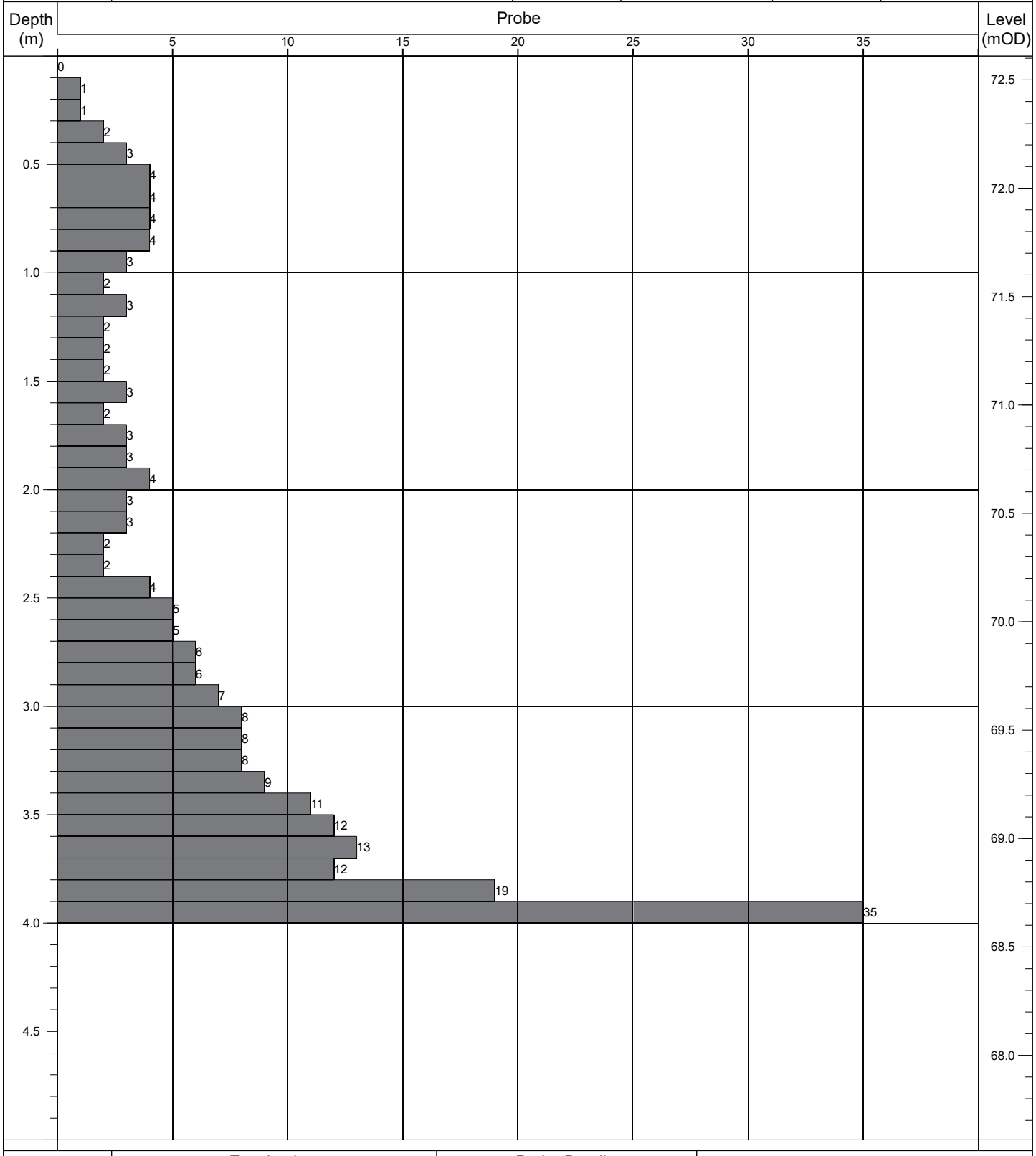
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP072**
Contract:	Coolagad	Easting:	727660.349	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713148.340	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.75	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



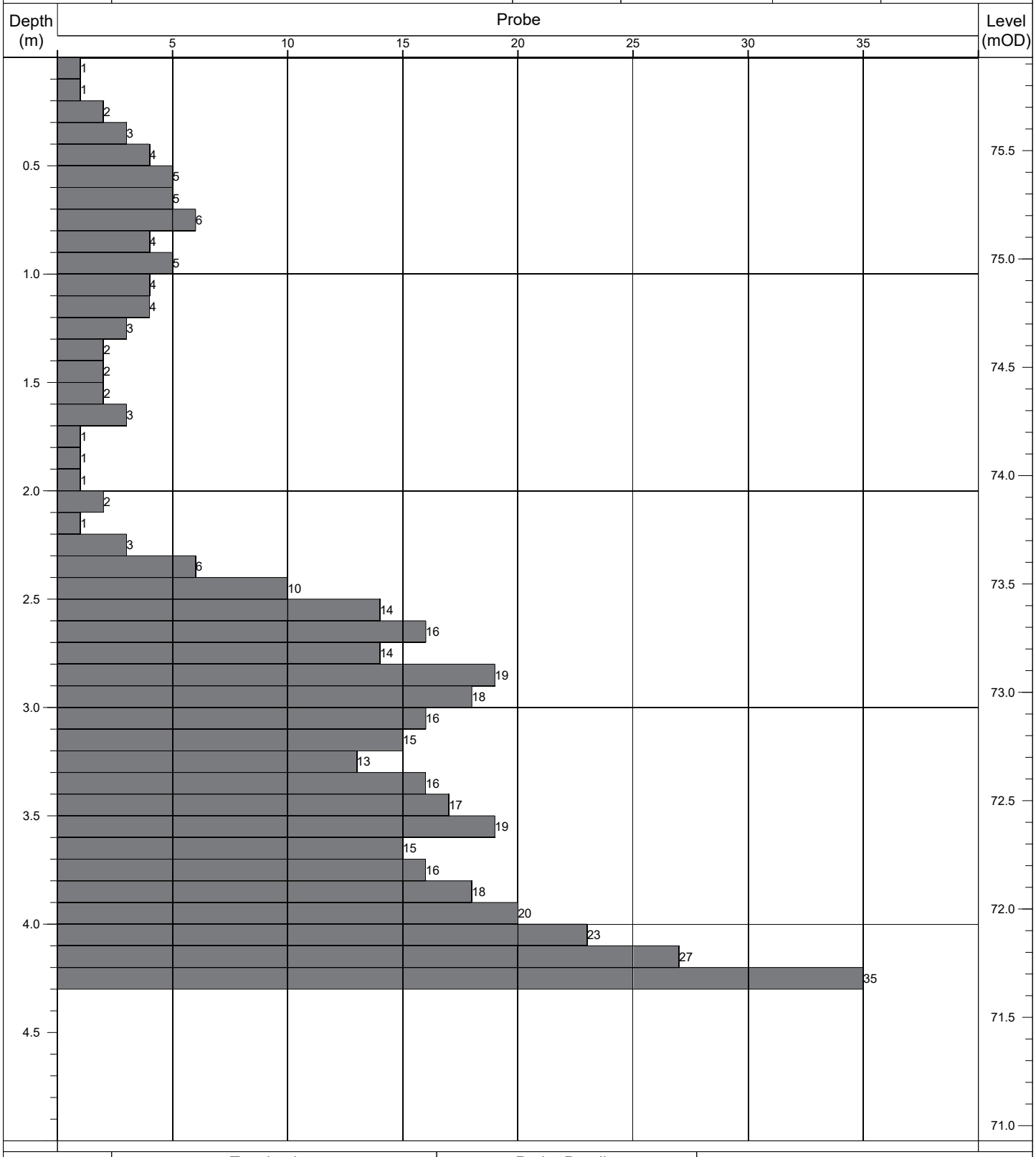
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP073**
Contract:	Coolagad	Easting:	727699.604	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713136.589	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.61	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



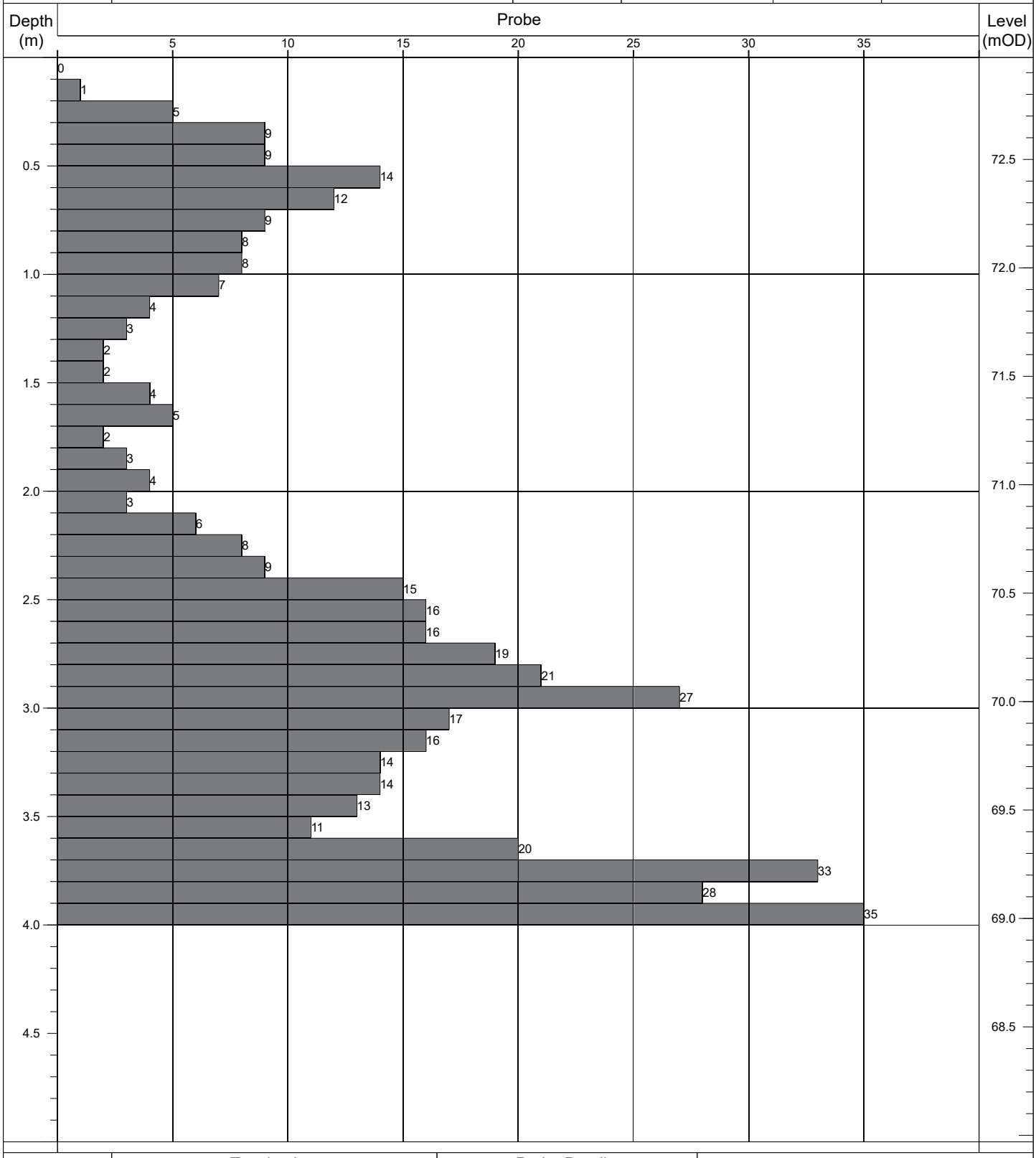
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP074**
Contract:	Coolagad	Easting:	727661.924	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713132.764	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.93	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



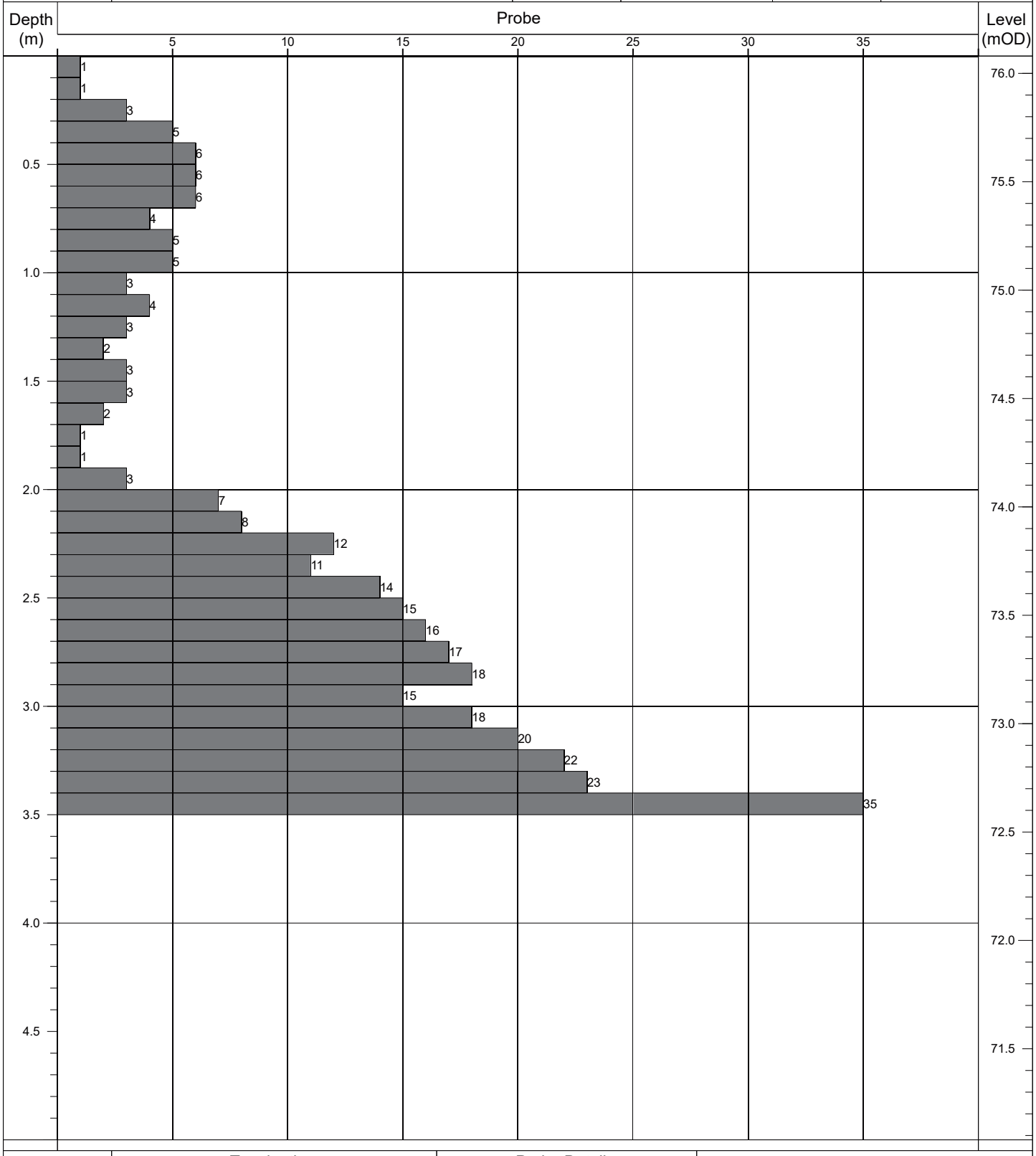
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP075**
Contract:	Coolagad	Easting:	727699.702	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713121.721	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.97	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



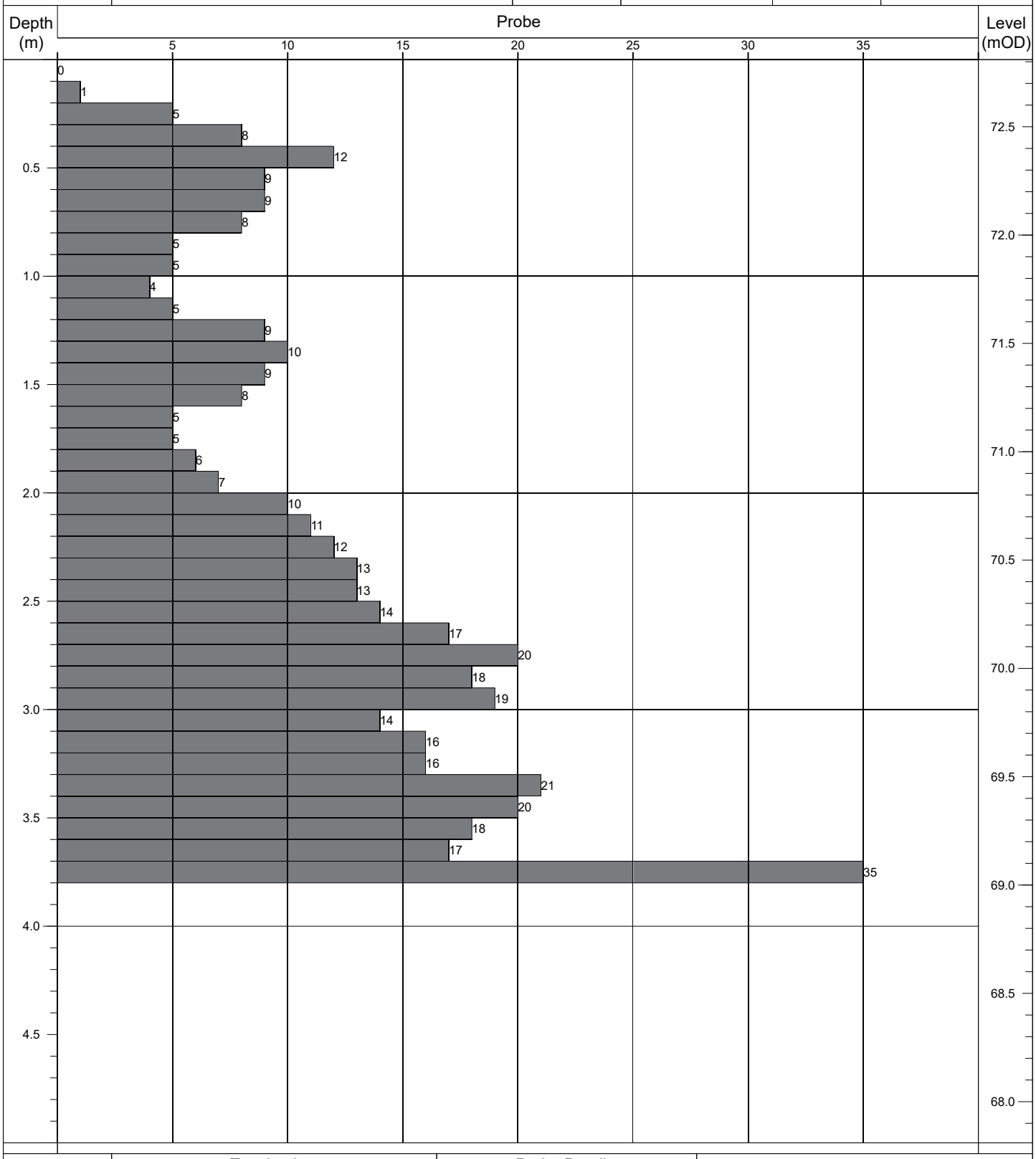
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP076**
Contract:	Coolagad	Easting:	727663.460	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713117.480	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	76.08	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



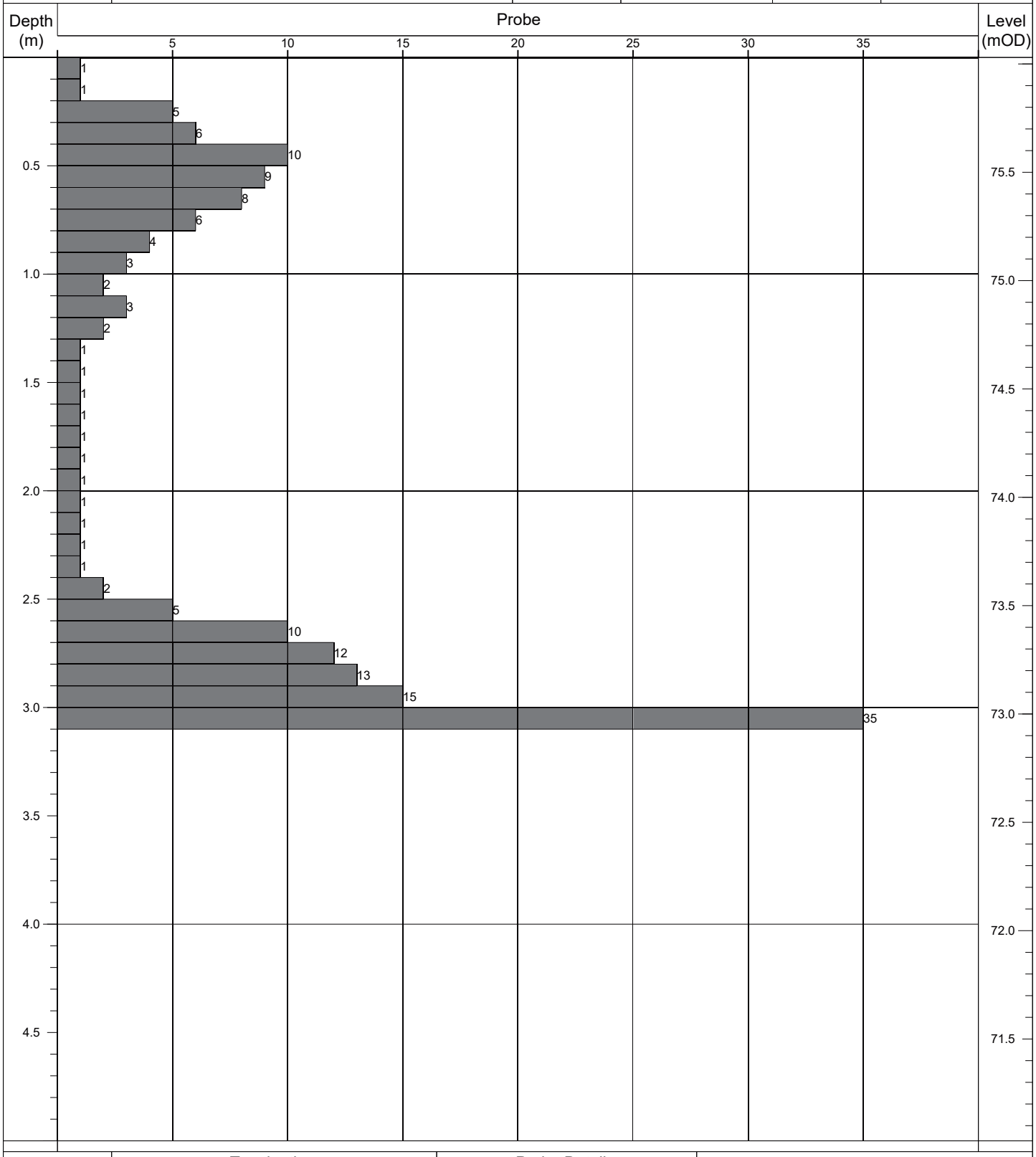
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP077**
Contract:	Coolagad	Easting:	727702.058	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713105.706	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.81	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



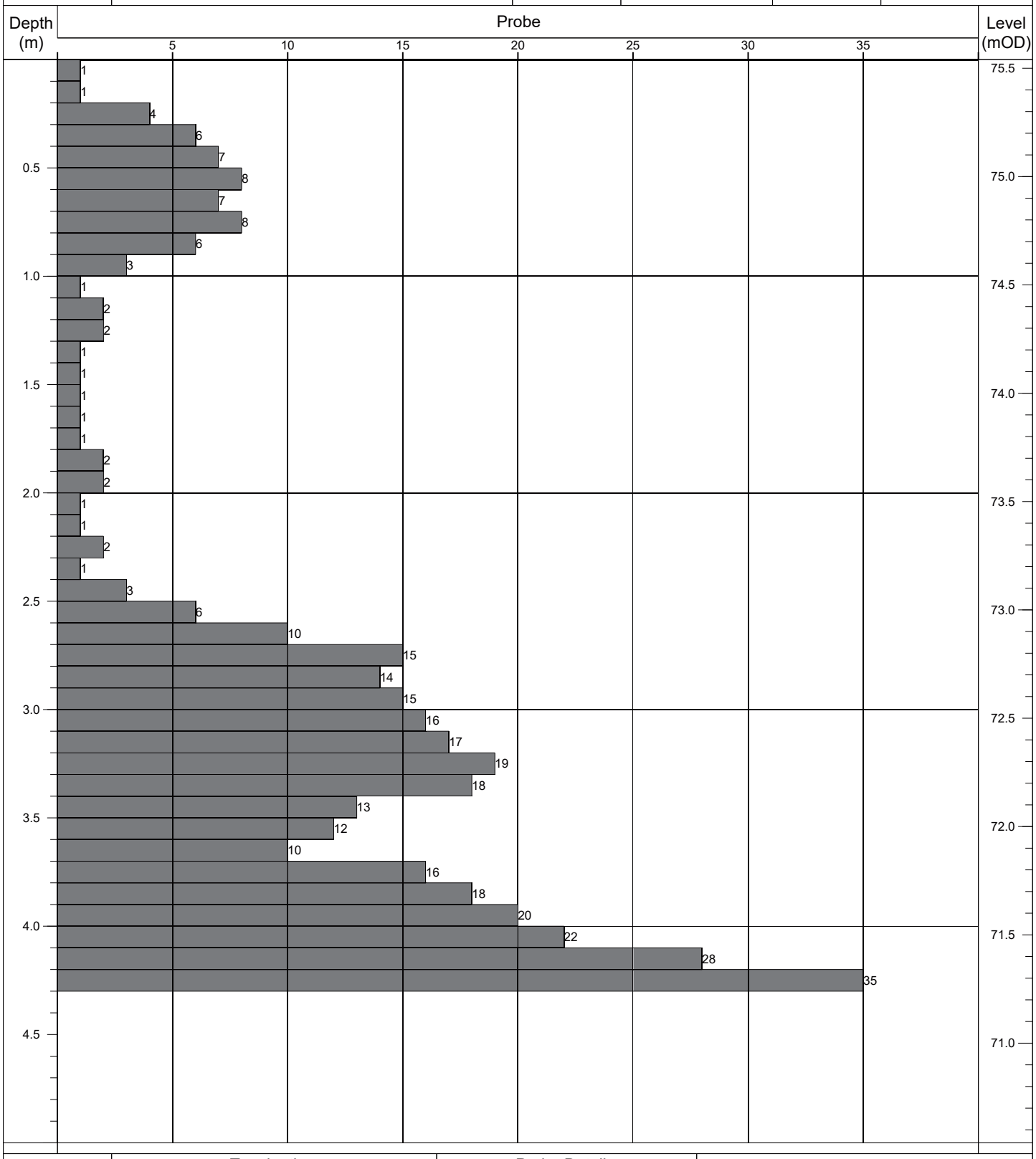
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP078**
Contract:	Coolagad	Easting:	727664.550	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713101.112	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	76.03	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



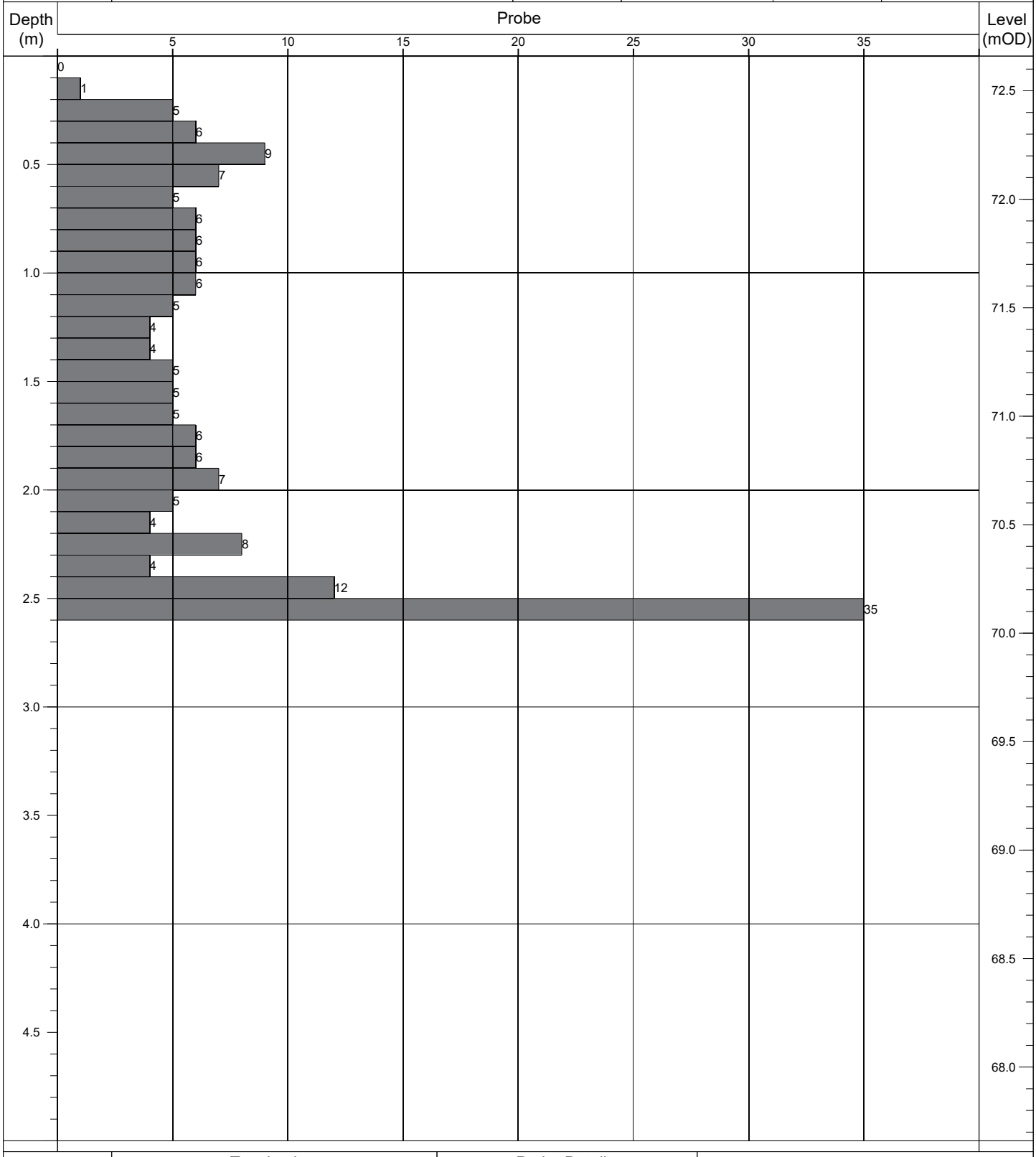
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP079**
Contract:	Coolagad	Easting:	727670.353	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713087.418	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	75.54	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



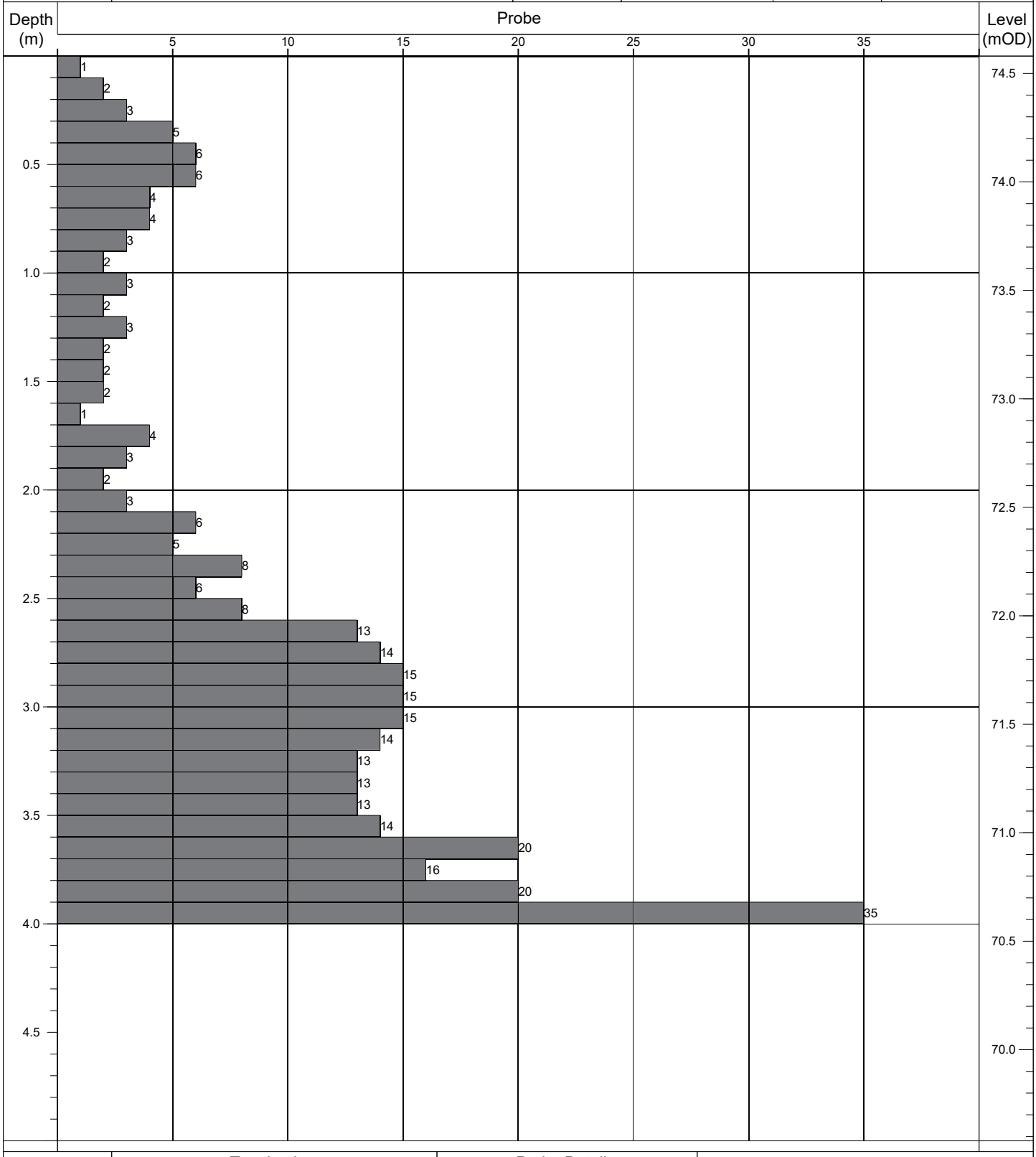
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP080**
Contract:	Coolagad	Easting:	727704.459	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713086.402	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.66	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



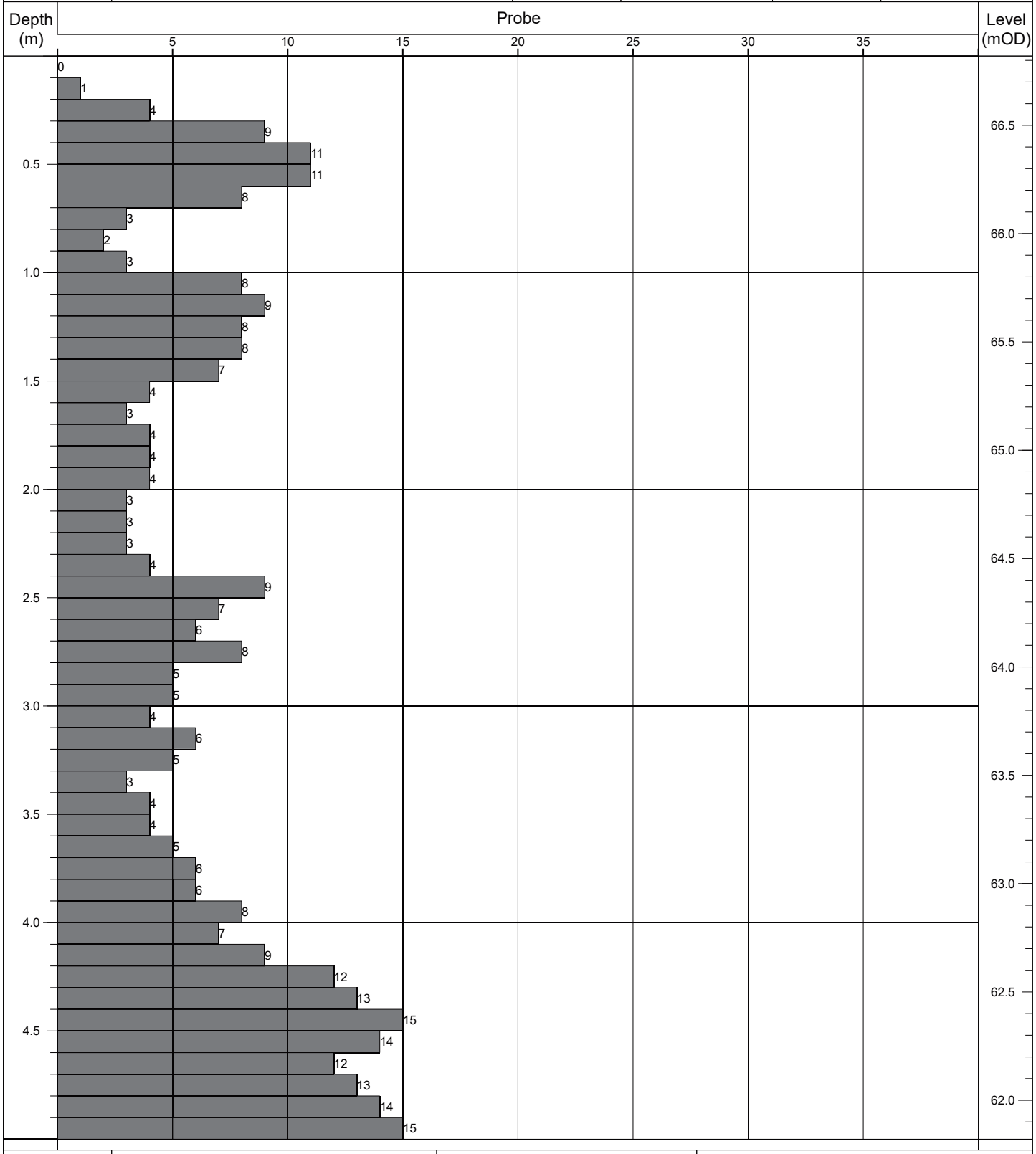
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP081**
Contract:	Coolagad	Easting:	727681.048	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713075.020	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.58	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



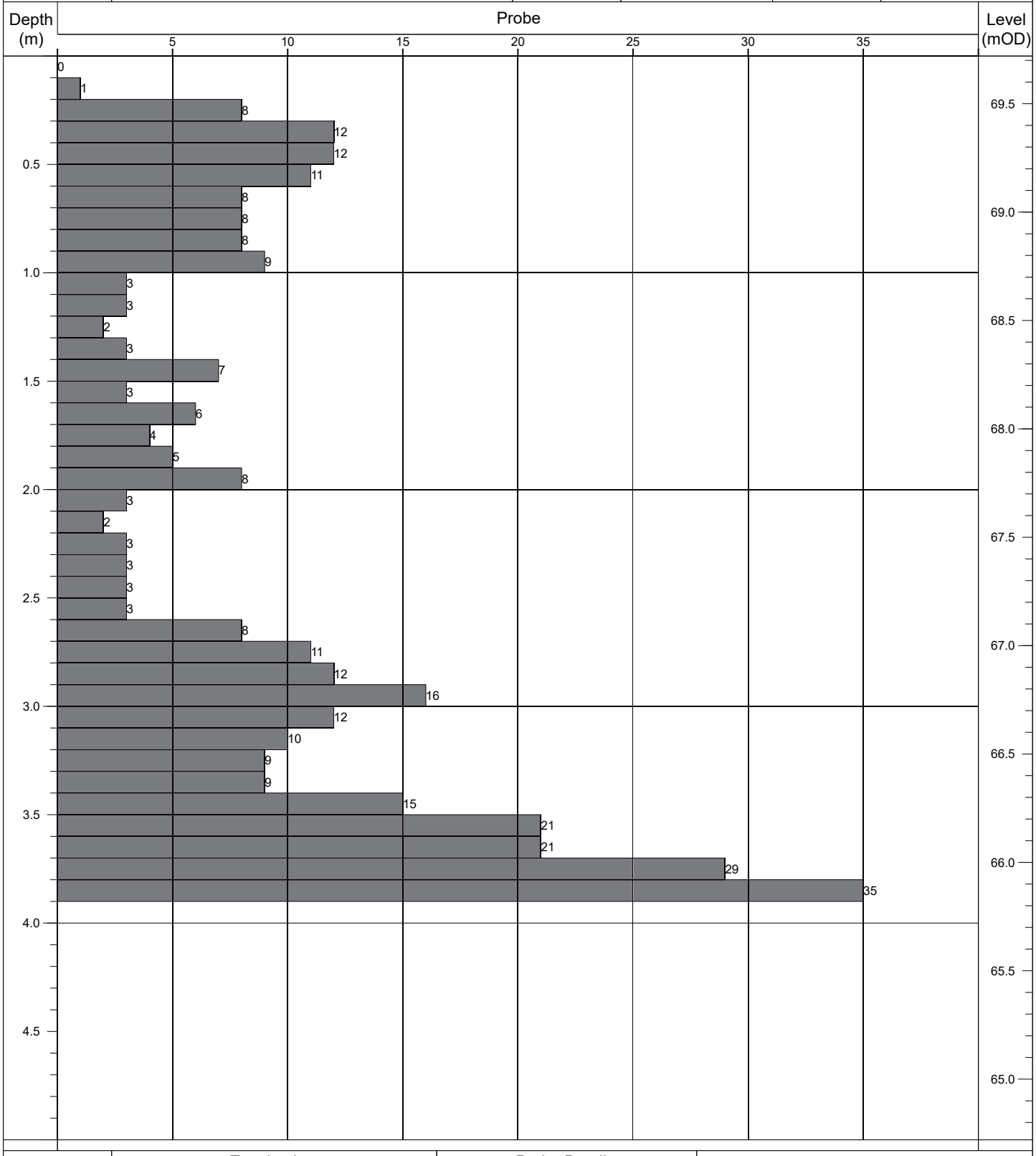
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP082**
Contract:	Coolagad	Easting:	727767.450	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713172.547	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.82	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



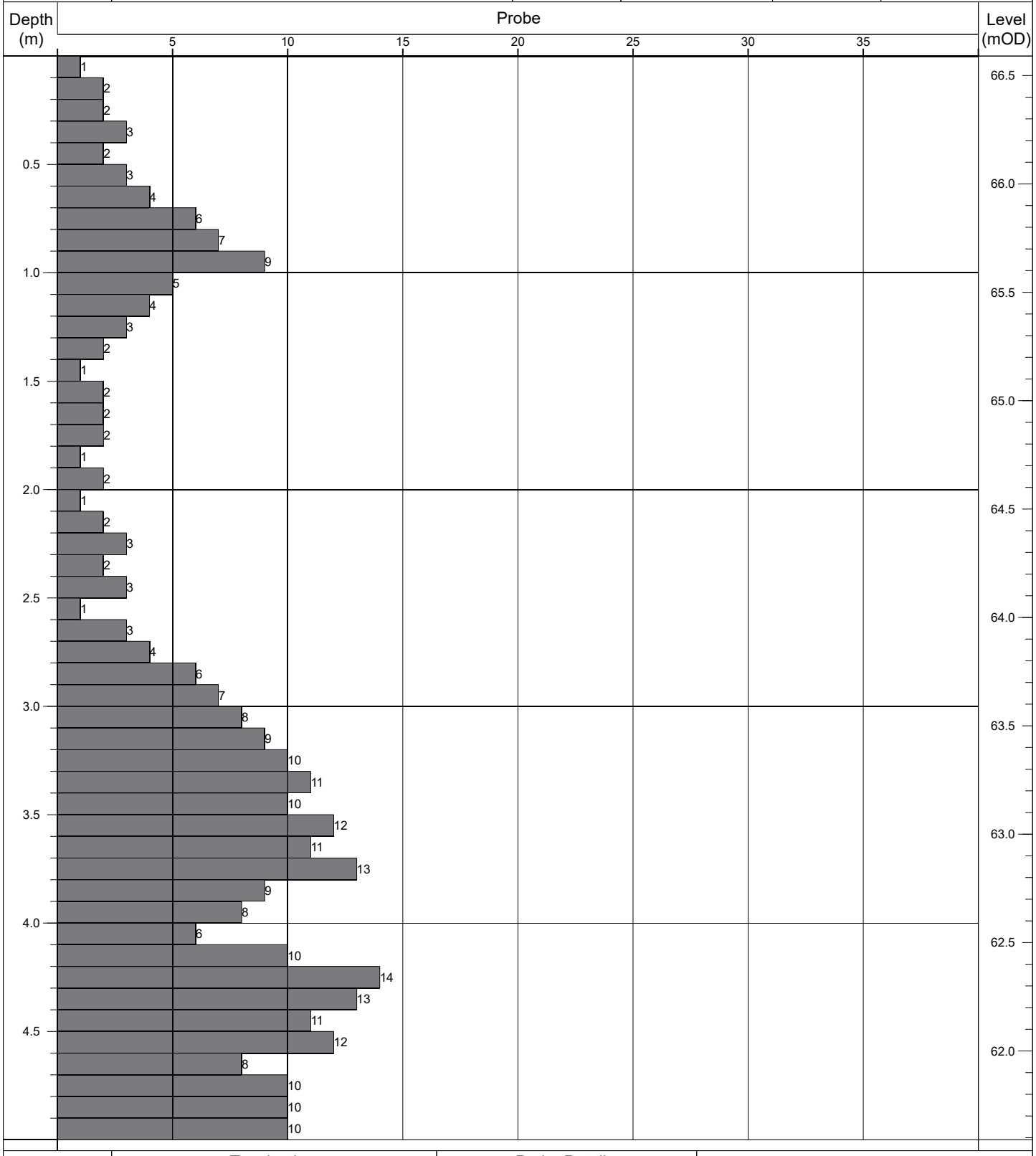
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP083**
Contract:	Coolagad	Easting:	727730.319	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713165.124	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.72	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



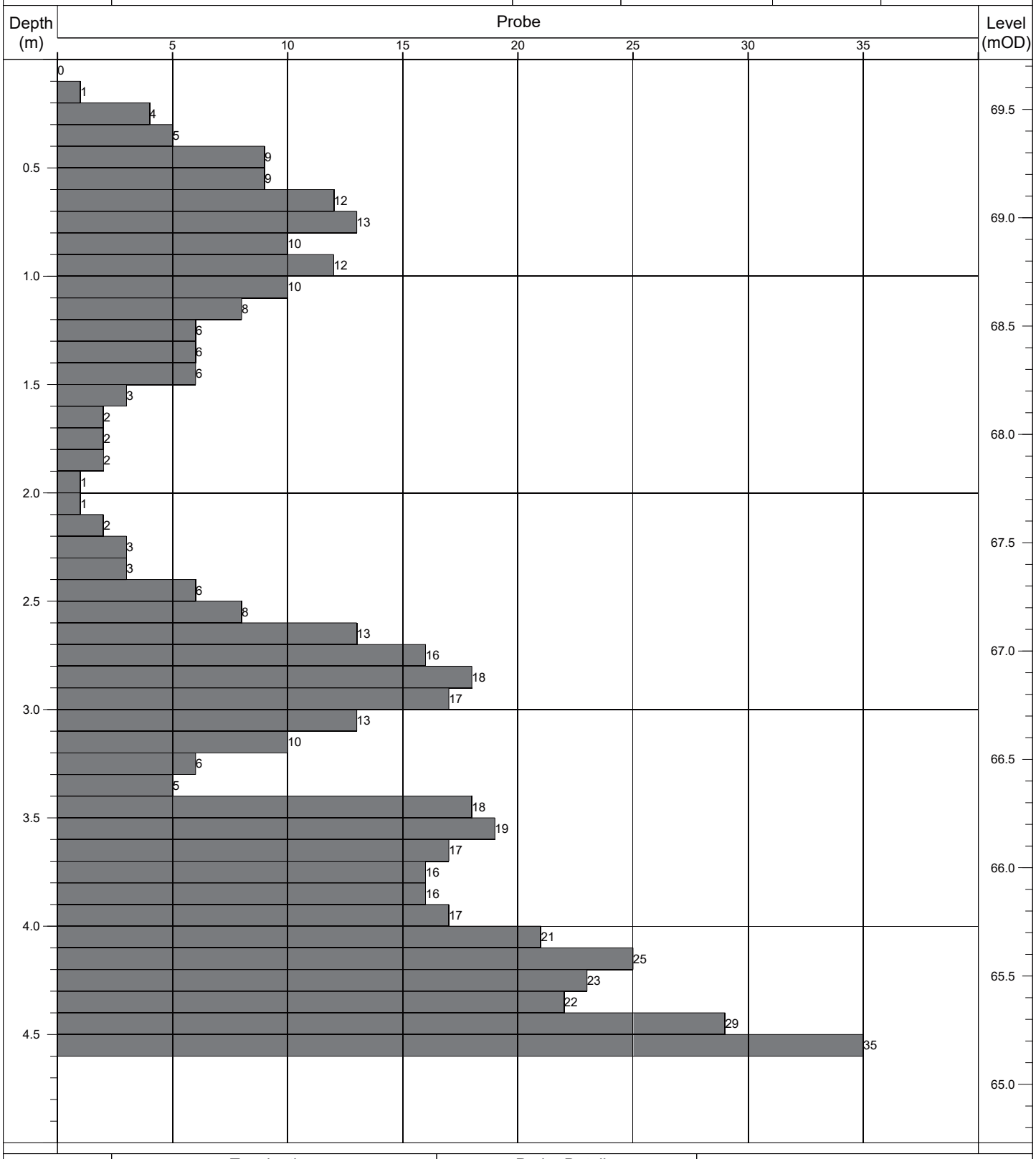
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP084**
Contract:	Coolagad	Easting:	727770.226	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713161.691	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.59	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



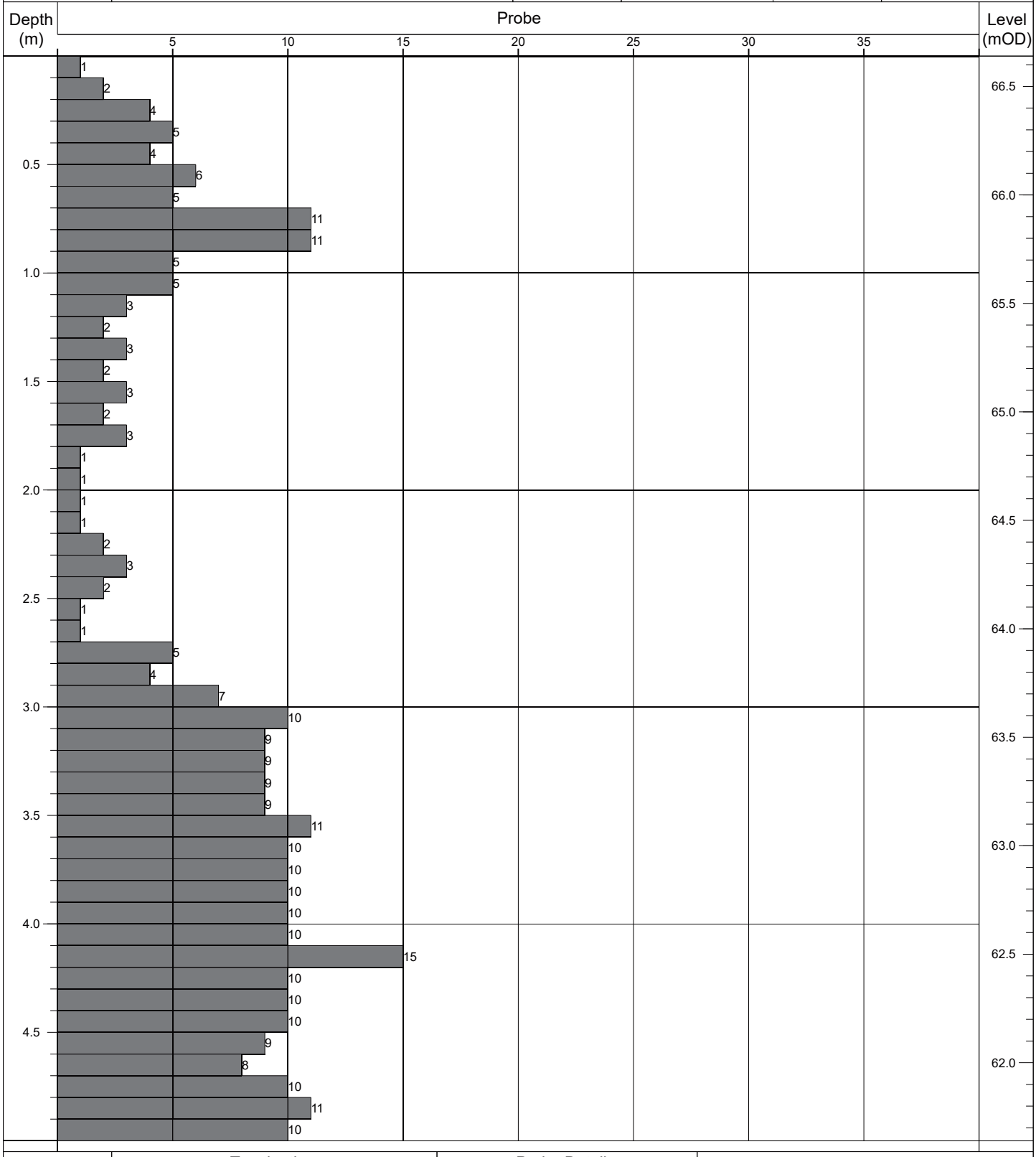
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP085
Contract:	Coolagad	Easting:	727733.574	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713149.317	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.73	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



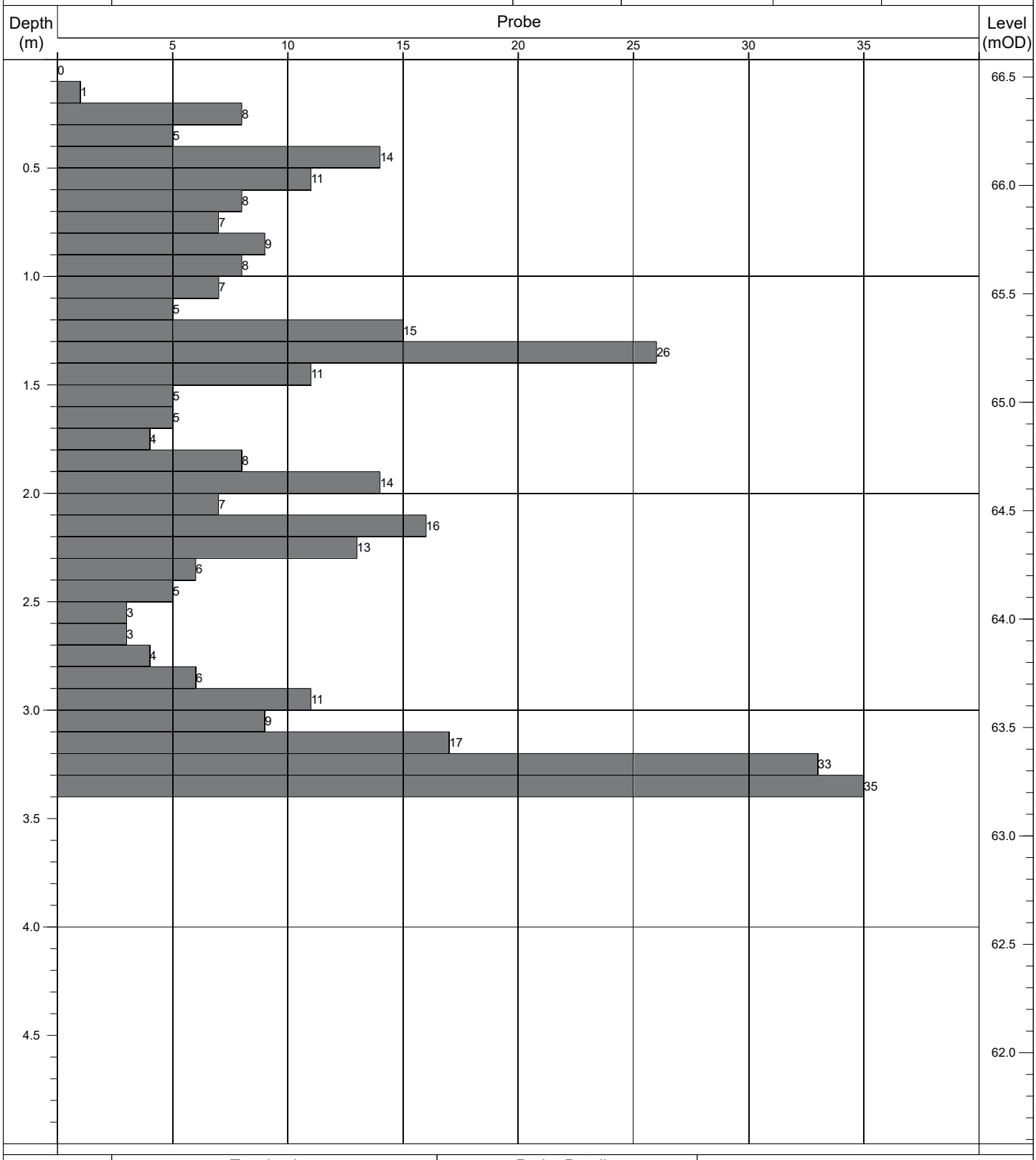
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP086**
Contract:	Coolagad	Easting:	727770.314	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713146.764	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



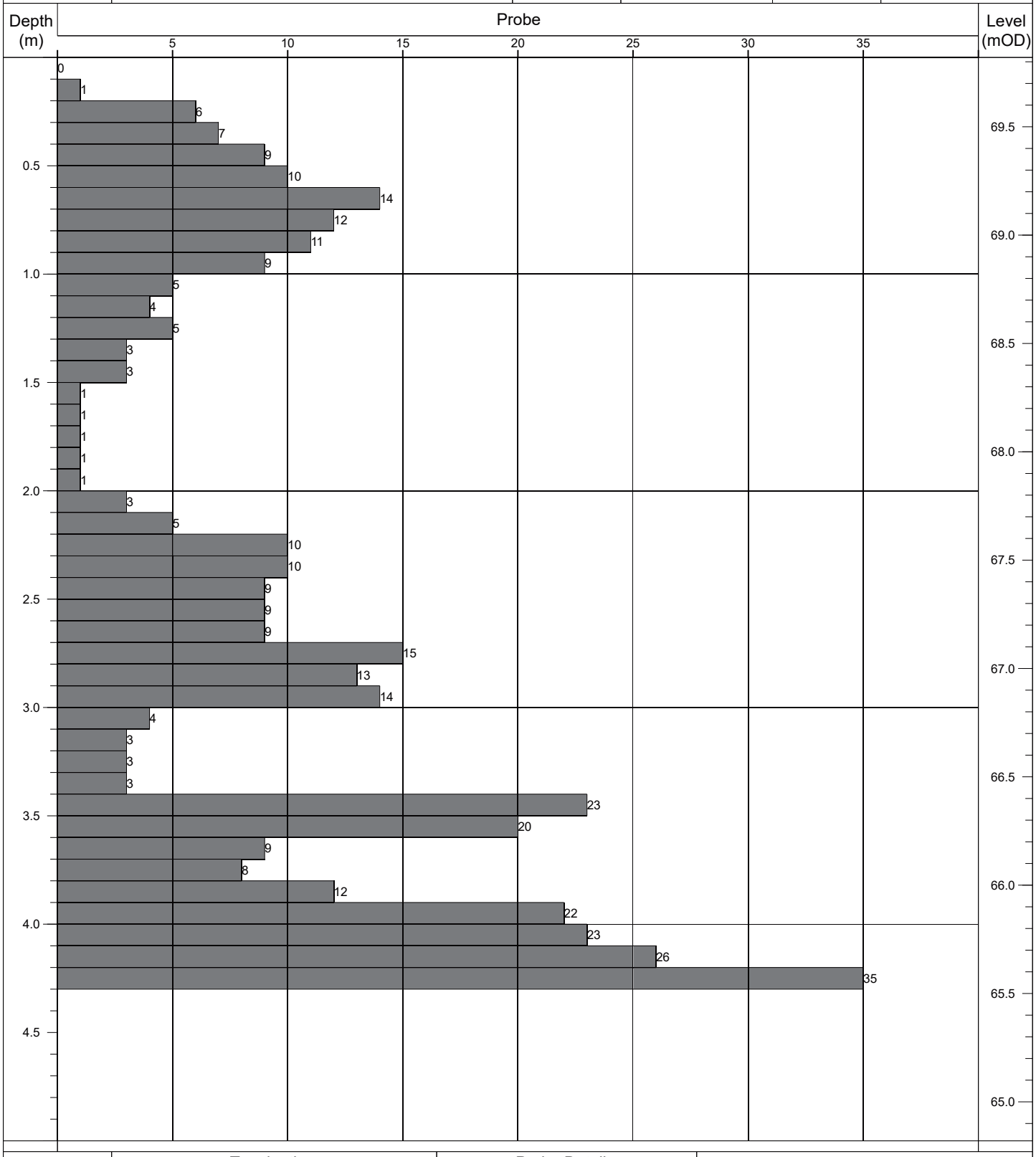
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP087
Contract:	Coolagad	Easting:	727771.417	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713138.045	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.58	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



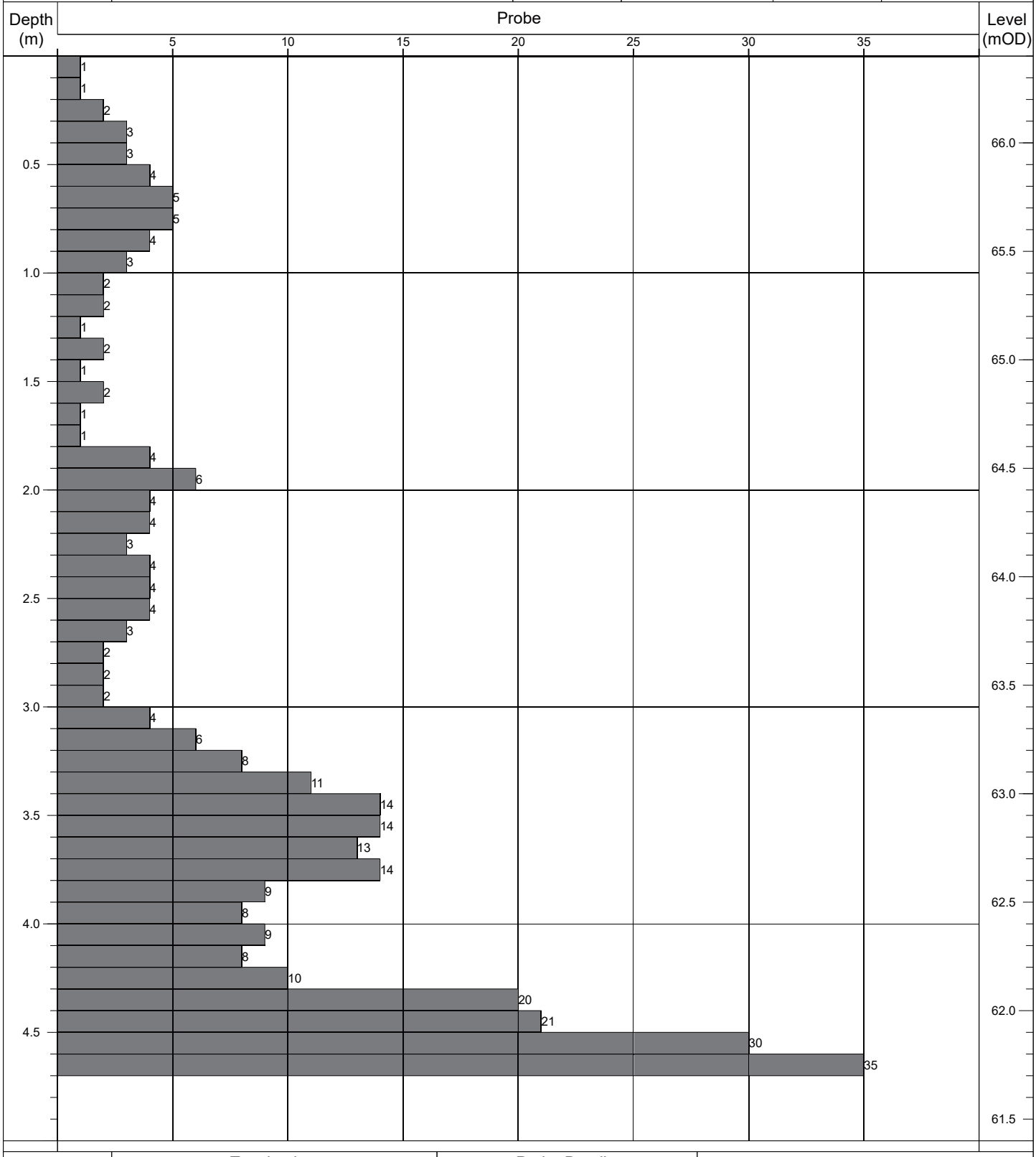
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP088
Contract:	Coolagad	Easting:	727736.982	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713133.526	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.82	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



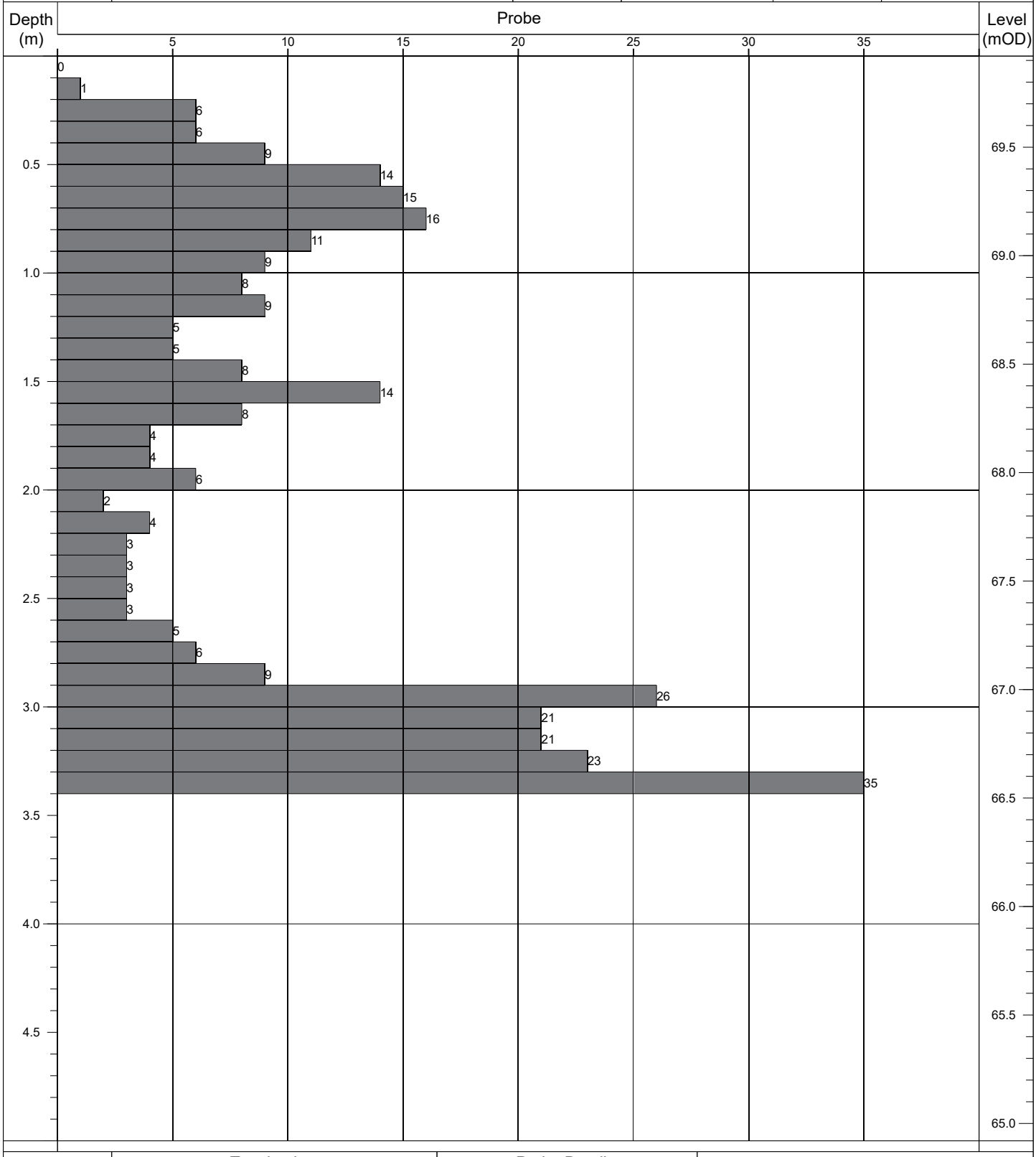
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP089**
Contract:	Coolagad	Easting:	727773.688	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713123.131	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.40	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



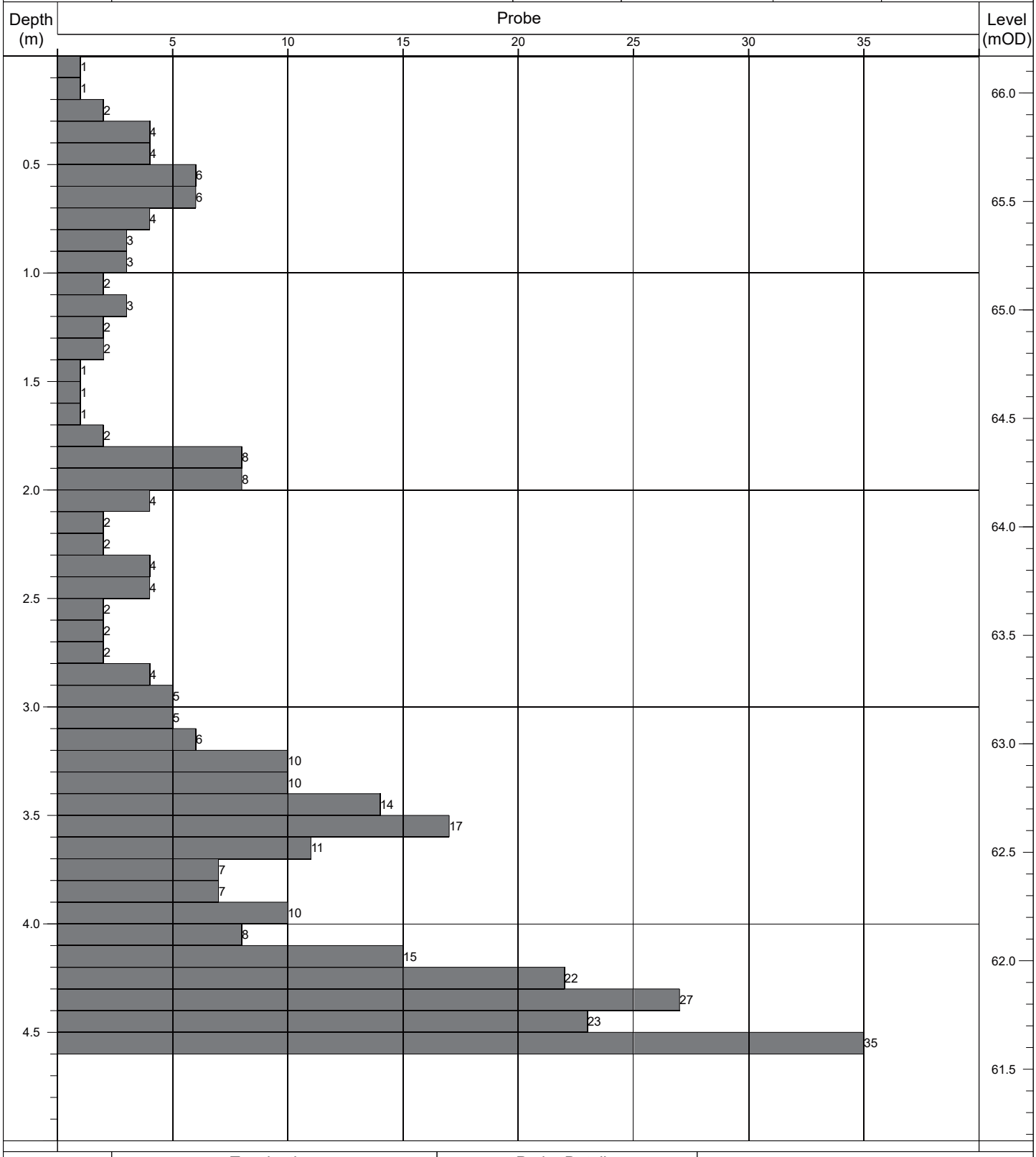
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP090**
Contract:	Coolagad	Easting:	727738.910	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713116.437	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.92	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



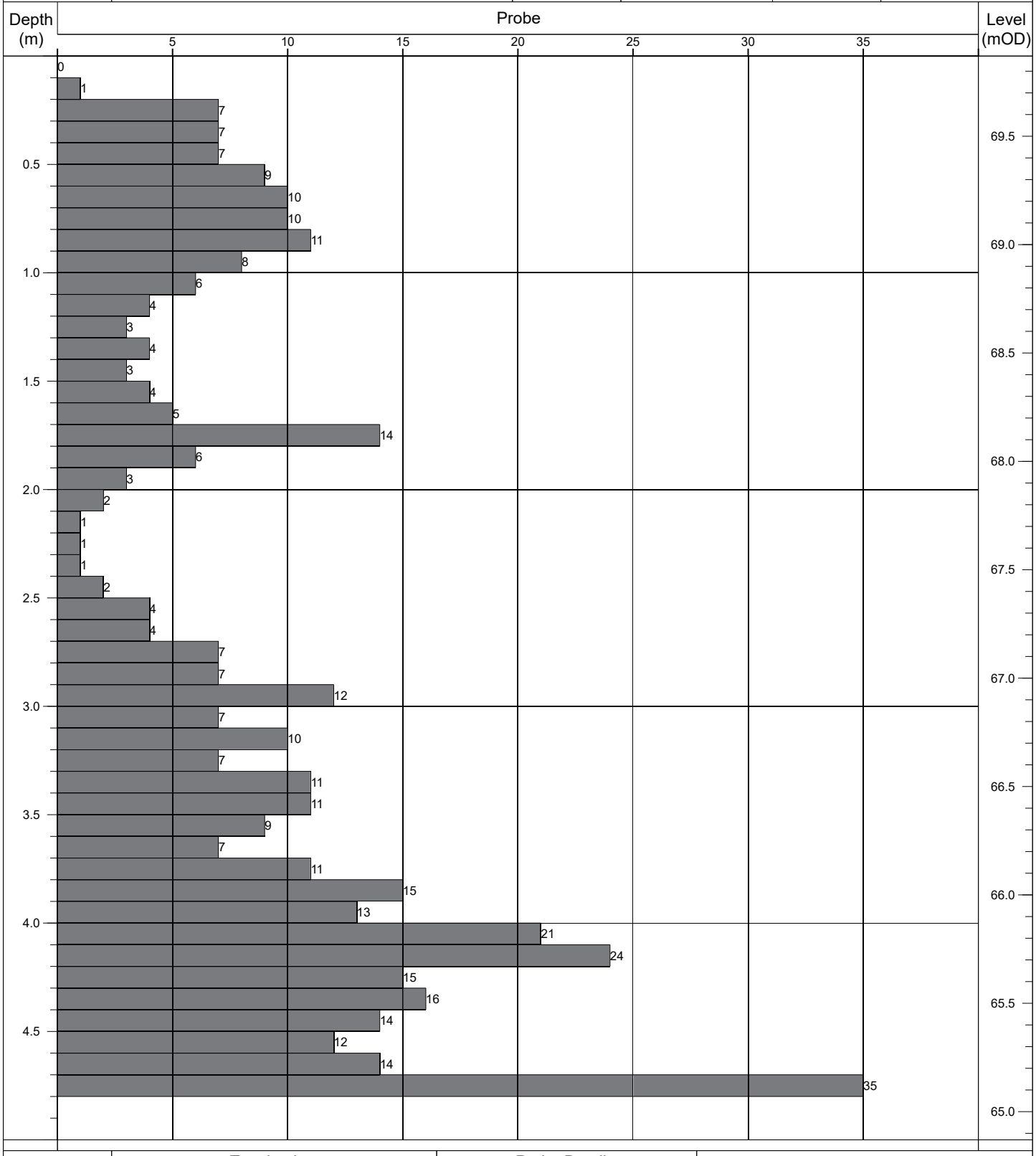
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP091**
Contract:	Coolagad	Easting:	727774.343	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713110.722	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.17	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



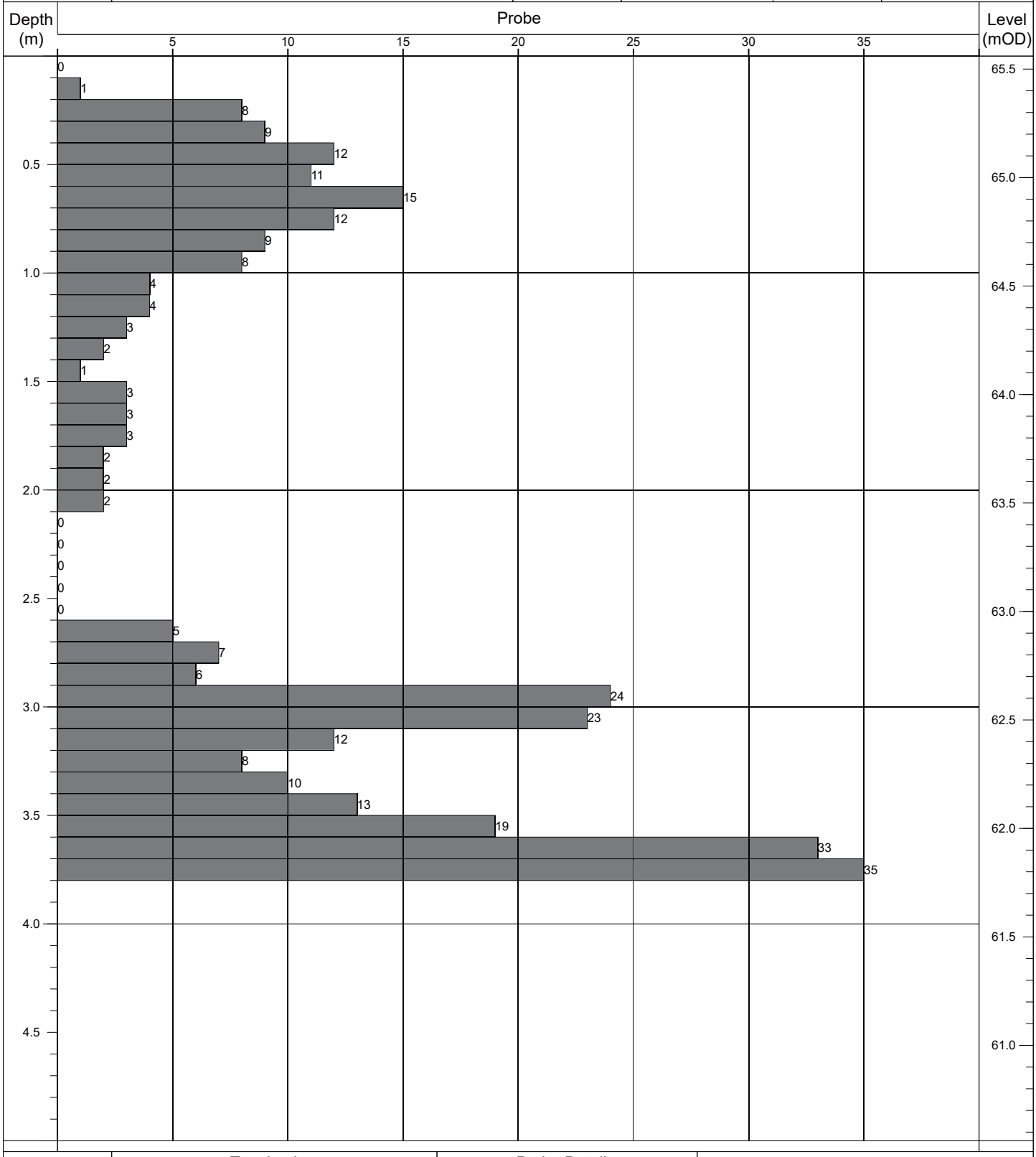
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP092**
Contract:	Coolagad	Easting:	727740.669	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713101.621	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.87	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



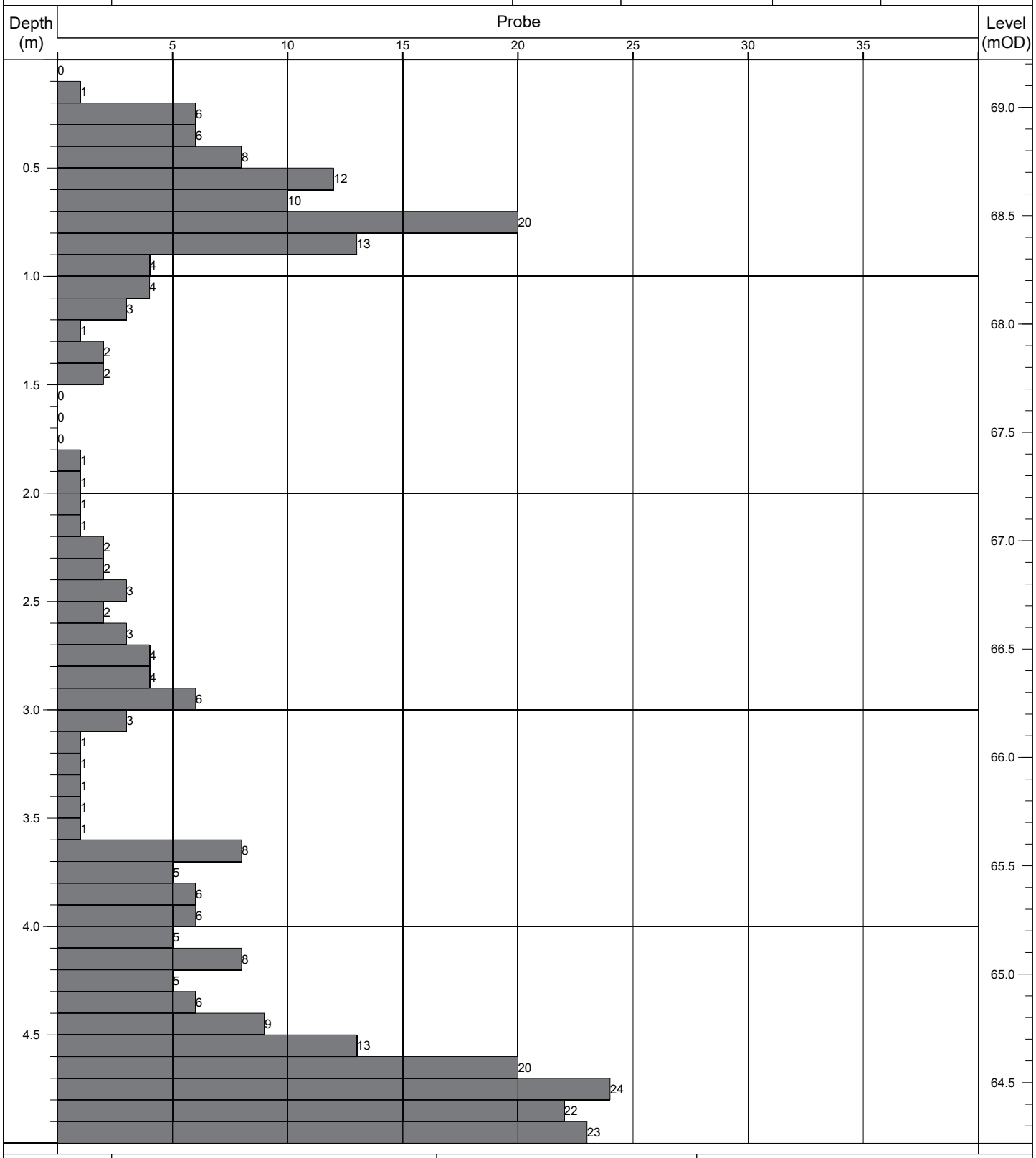
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP093**
Contract:	Coolagad	Easting:	727779.625	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713097.102	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	65.56	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



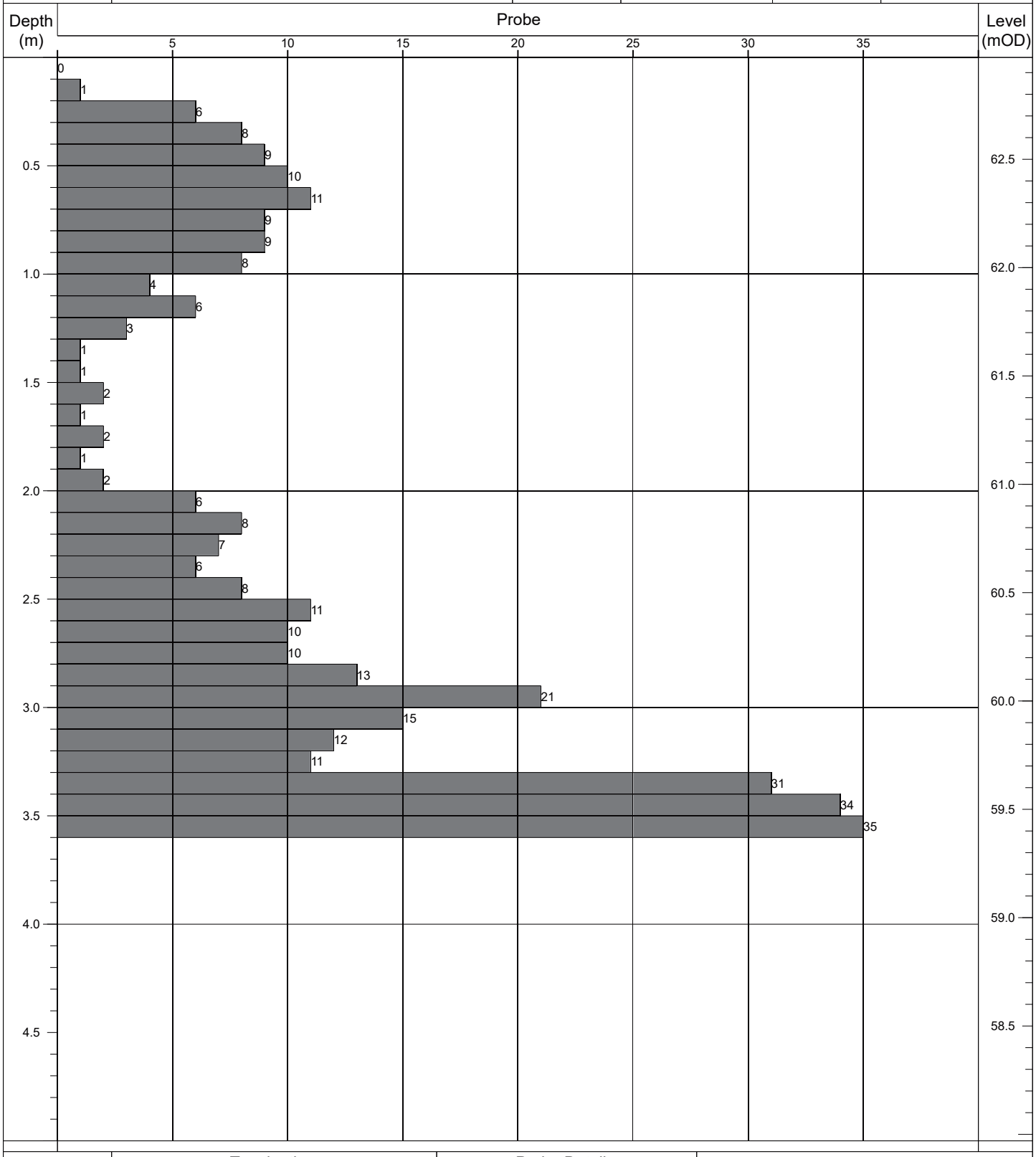
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP094**
Contract:	Coolagad	Easting:	727746.525	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713086.734	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.22	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



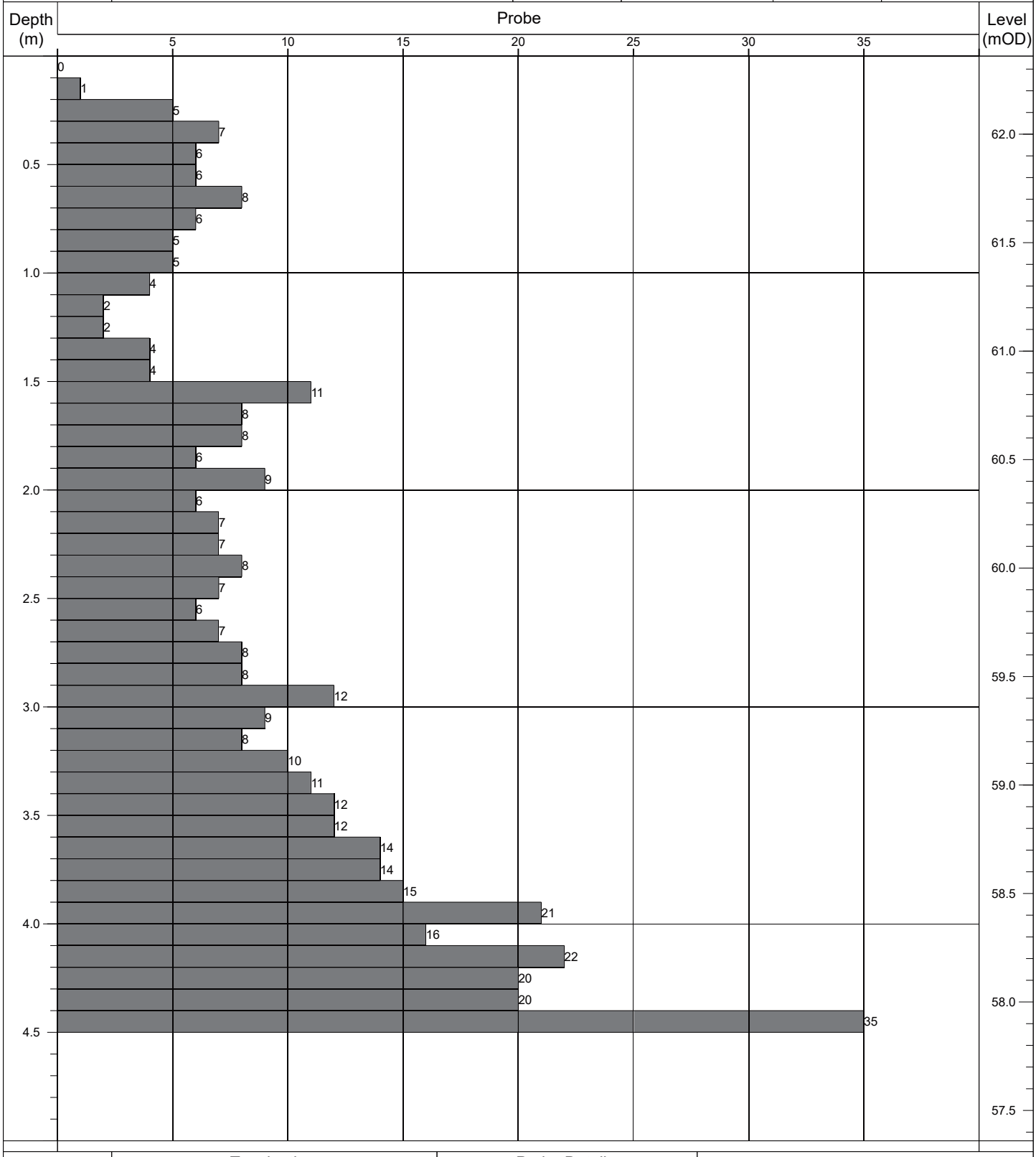
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP095**
Contract:	Coolagad	Easting:	727834.231	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713189.692	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.97	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



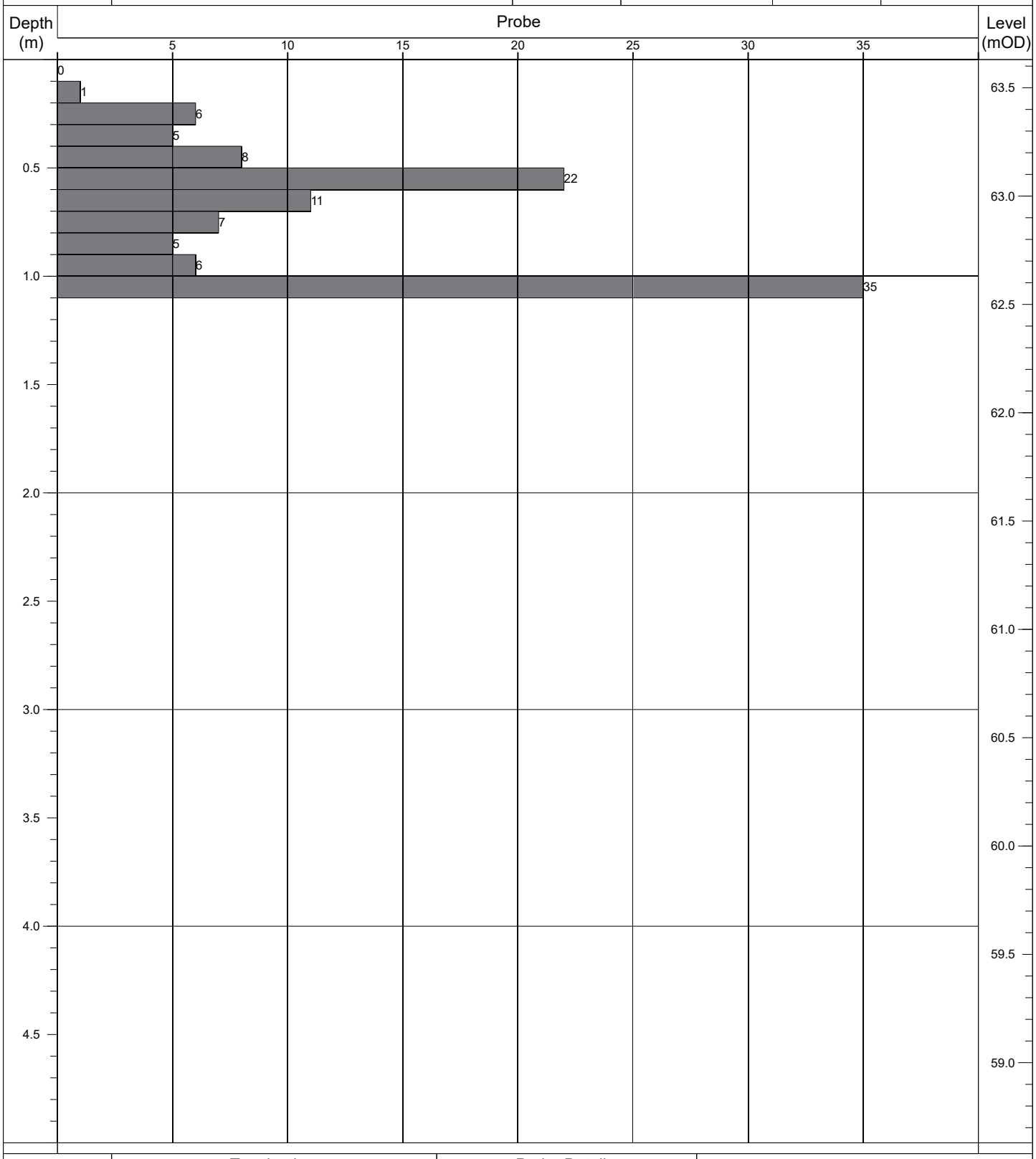
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP096**
Contract:	Coolagad	Easting:	727846.218	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713180.918	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.36	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



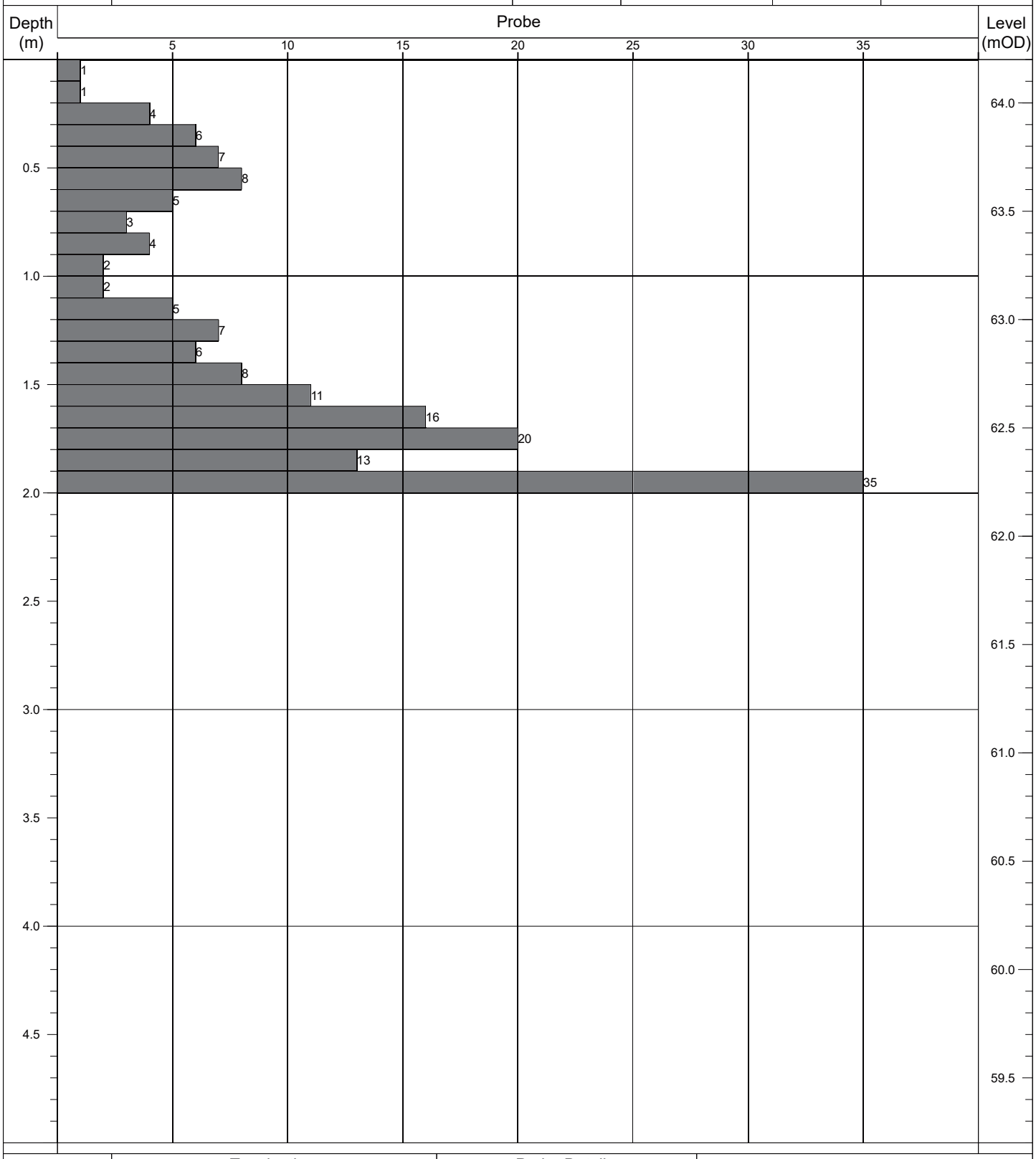
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP097**
Contract:	Coolagad	Easting:	727822.380	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713180.018	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	63.63	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



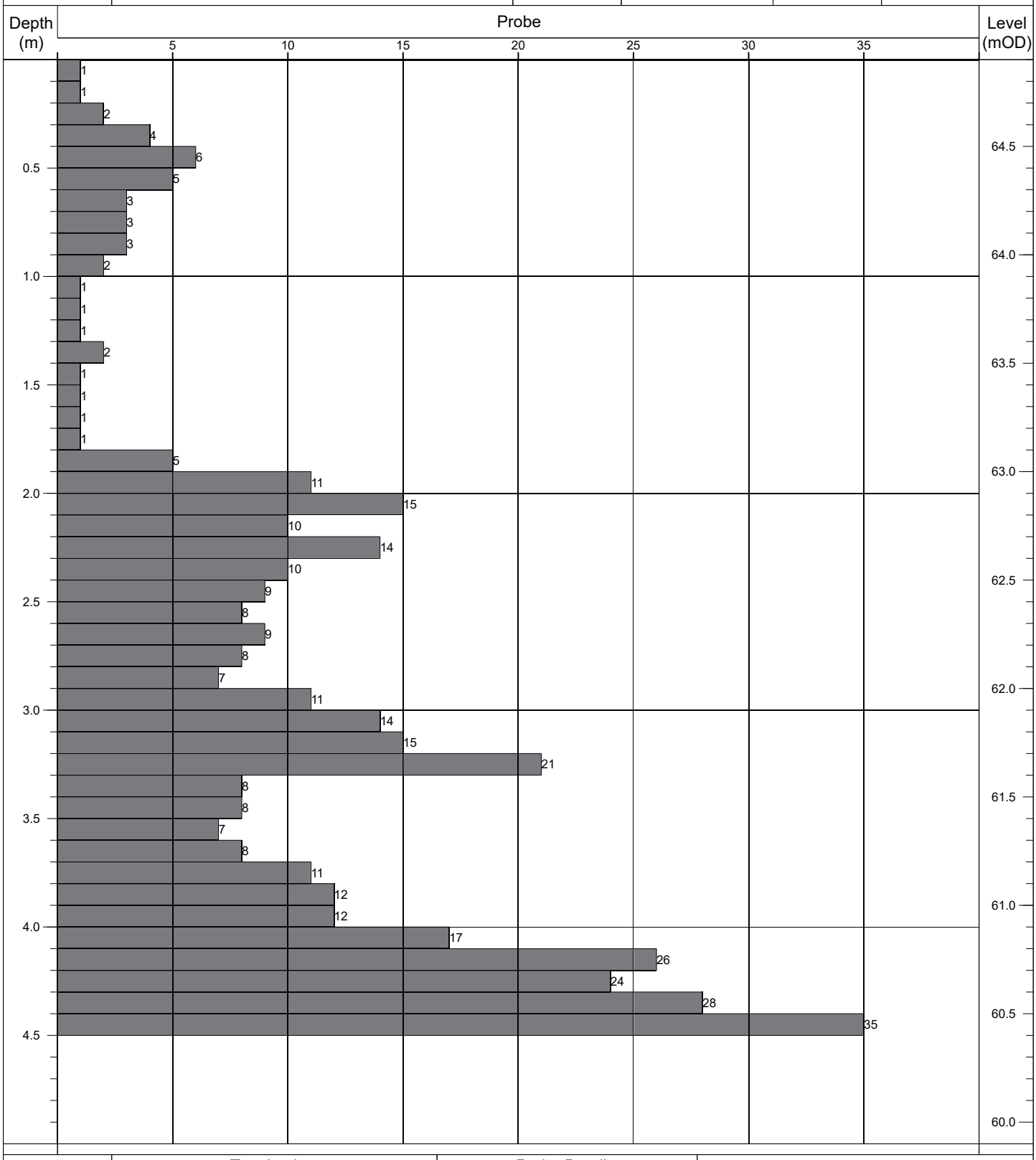
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP098**
Contract:	Coolagad	Easting:	727810.064	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713170.956	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.20	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



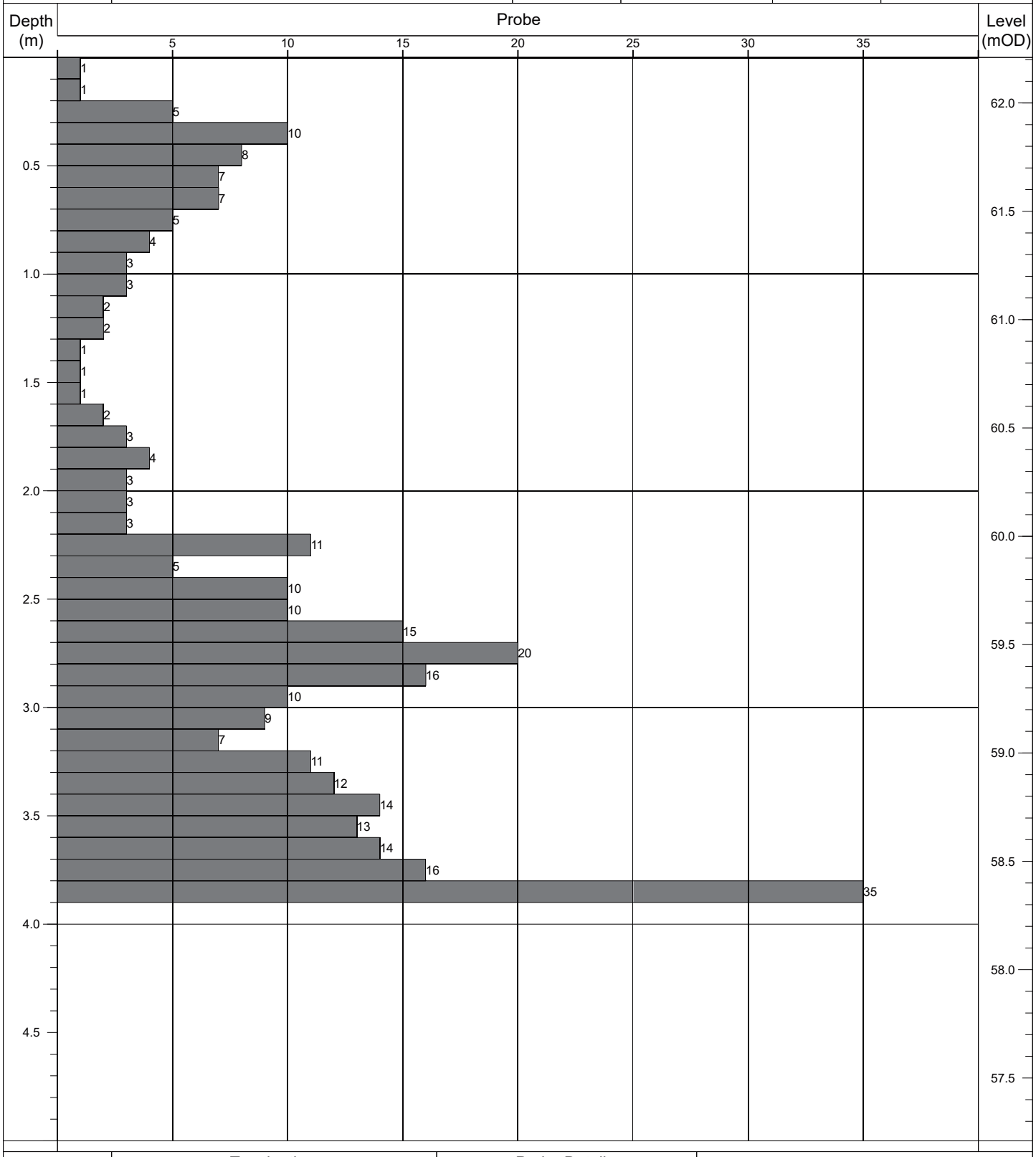
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP099**
Contract:	Coolagad	Easting:	727796.749	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713164.677	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.90	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



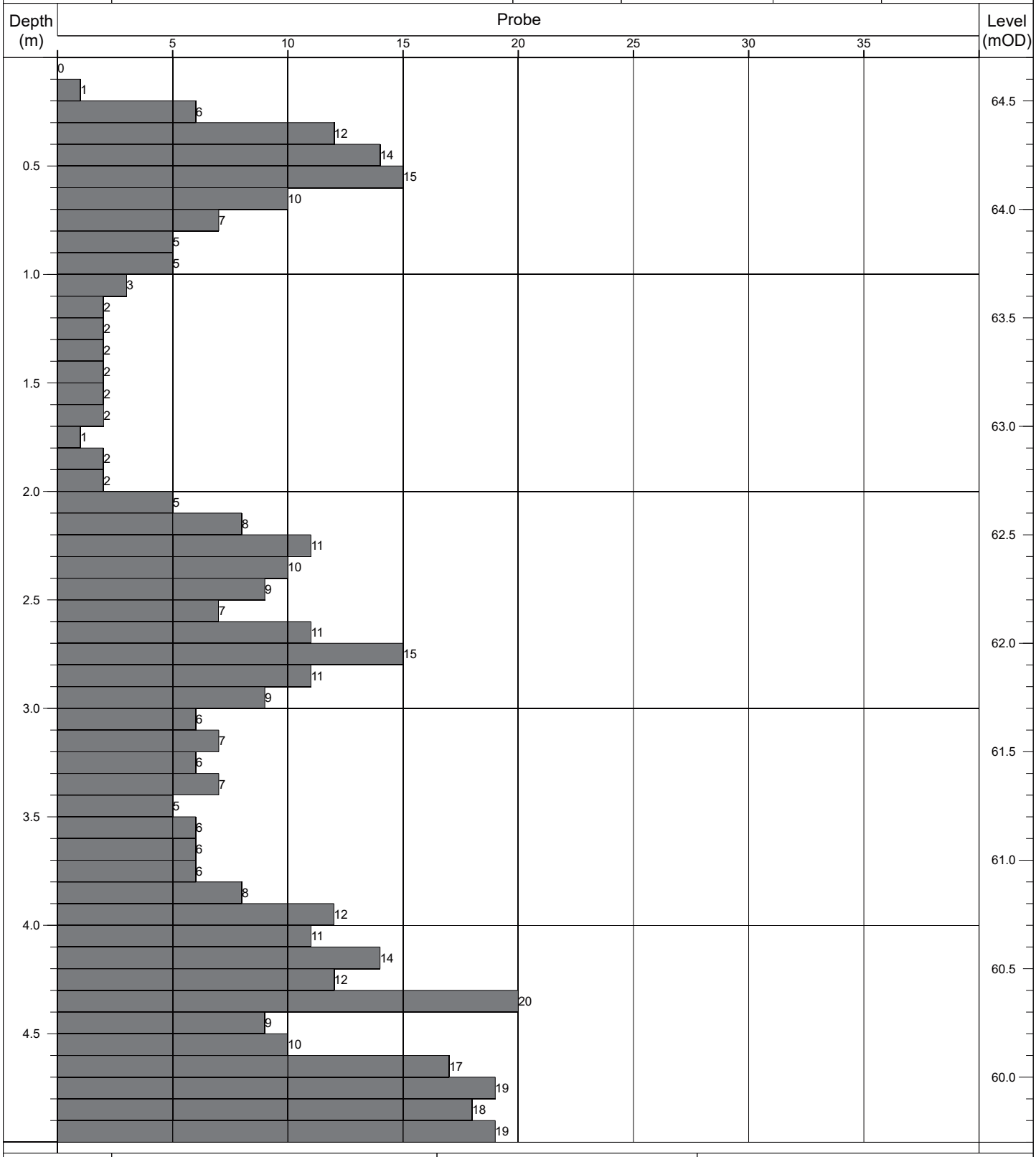
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP100**
Contract:	Coolagad	Easting:	727854.812	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713154.598	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.21	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



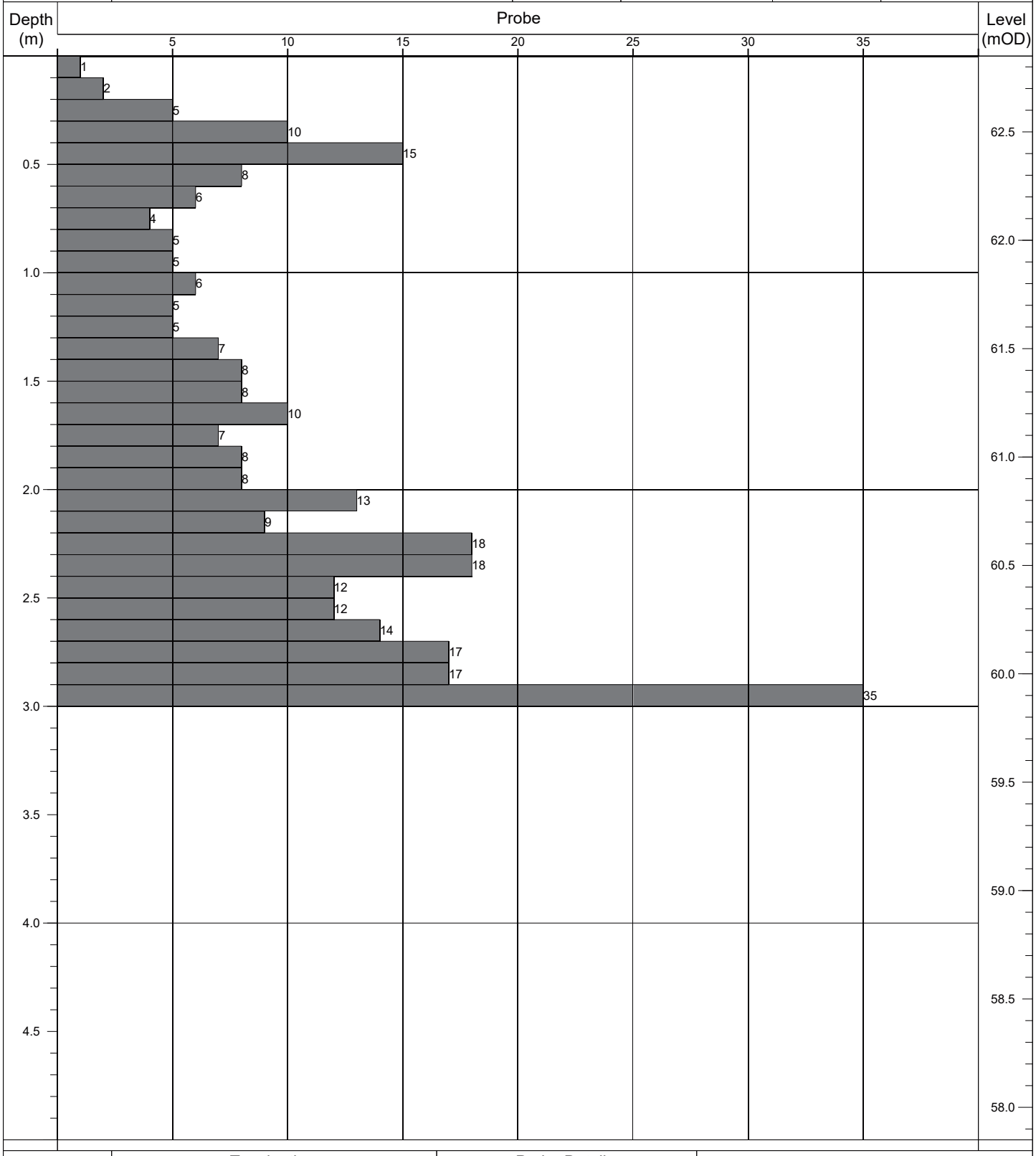
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP101**
Contract:	Coolagad	Easting:	727798.797	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713149.815	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.70	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



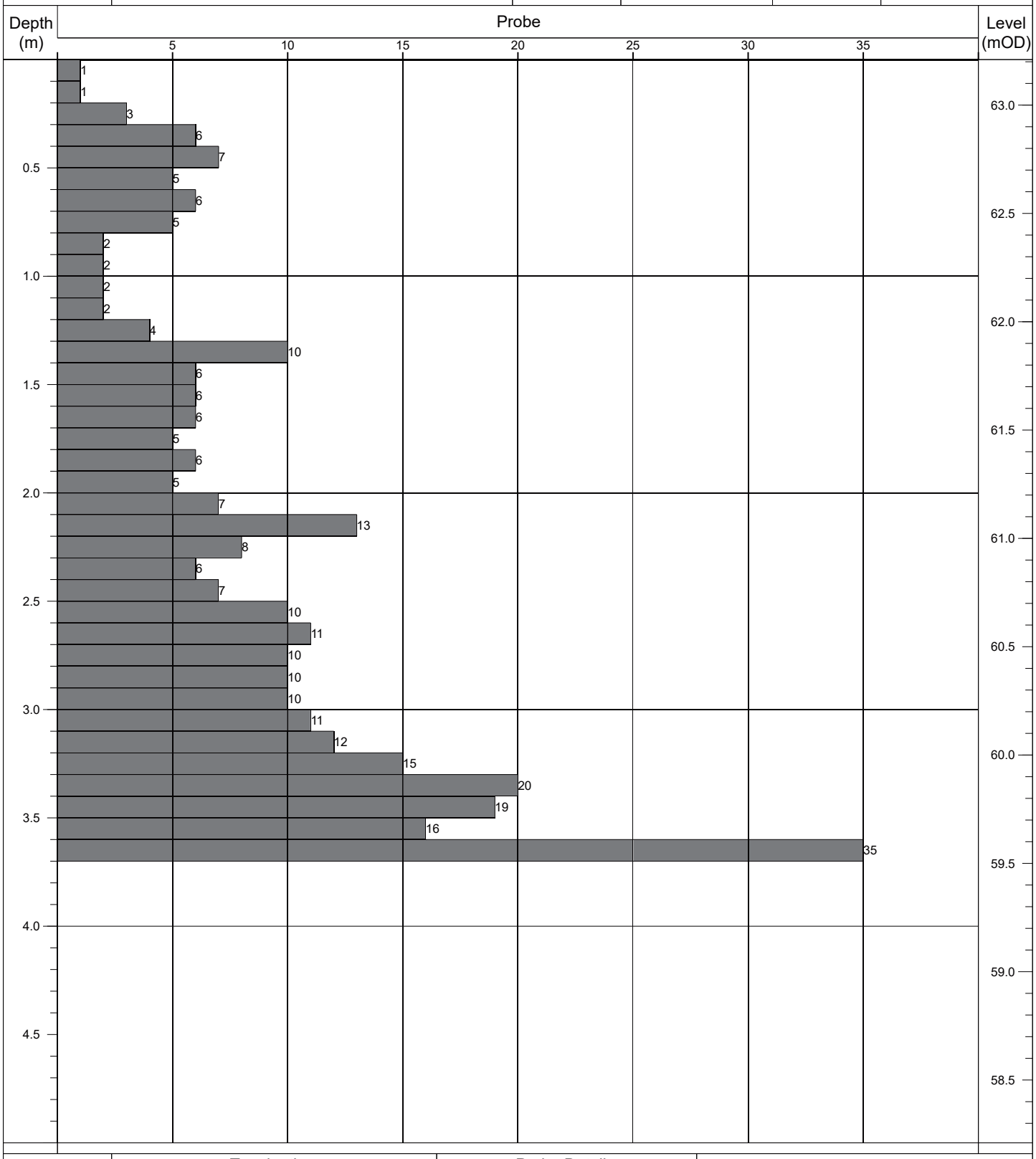
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP102**
Contract:	Coolagad	Easting:	727841.989	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713148.028	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.85	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



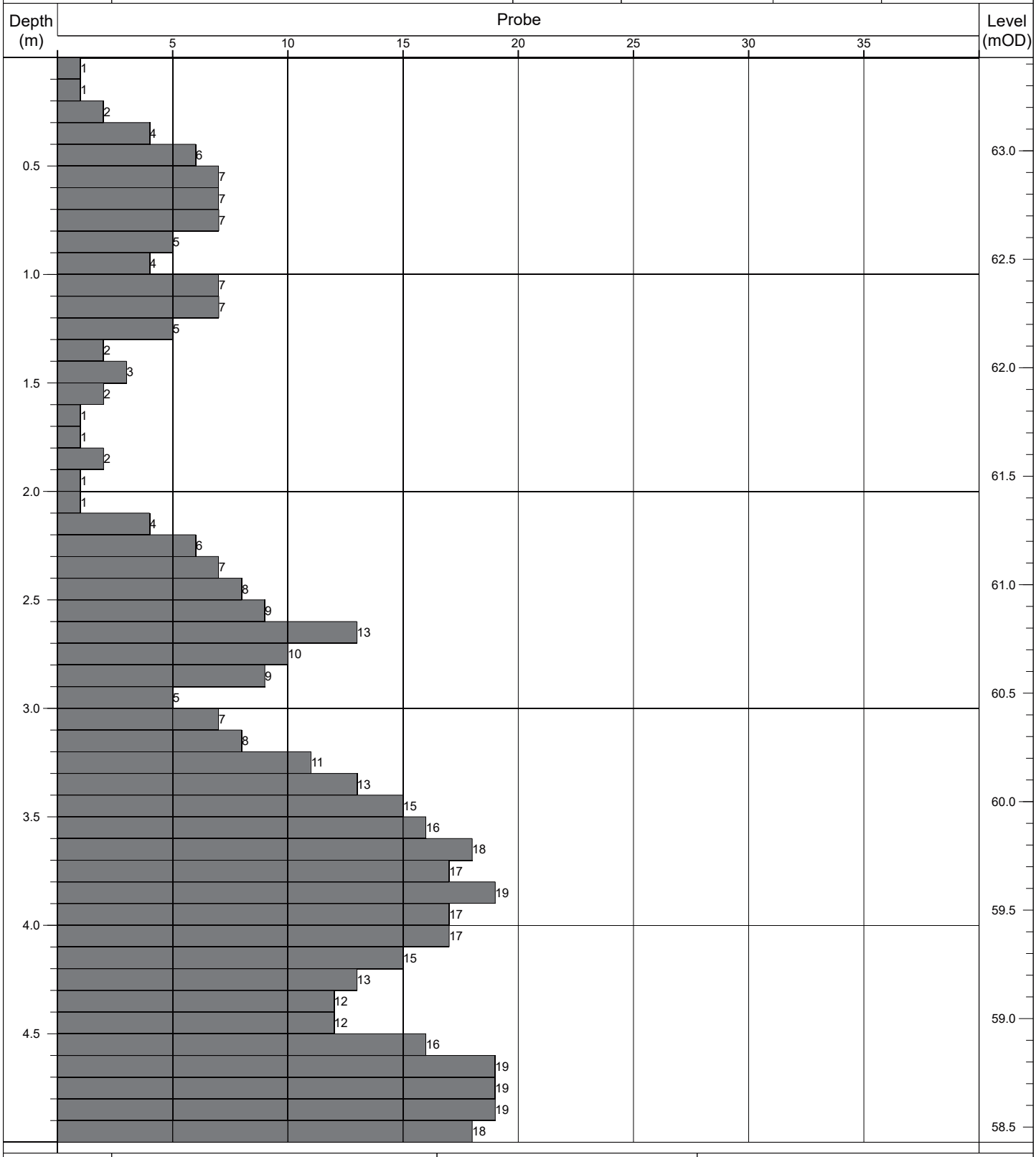
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	# Dynamic Probe Log				Probe No: **DP103**
Contract:	Coolagad	Easting:	727830.707	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713141.266	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	63.21	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



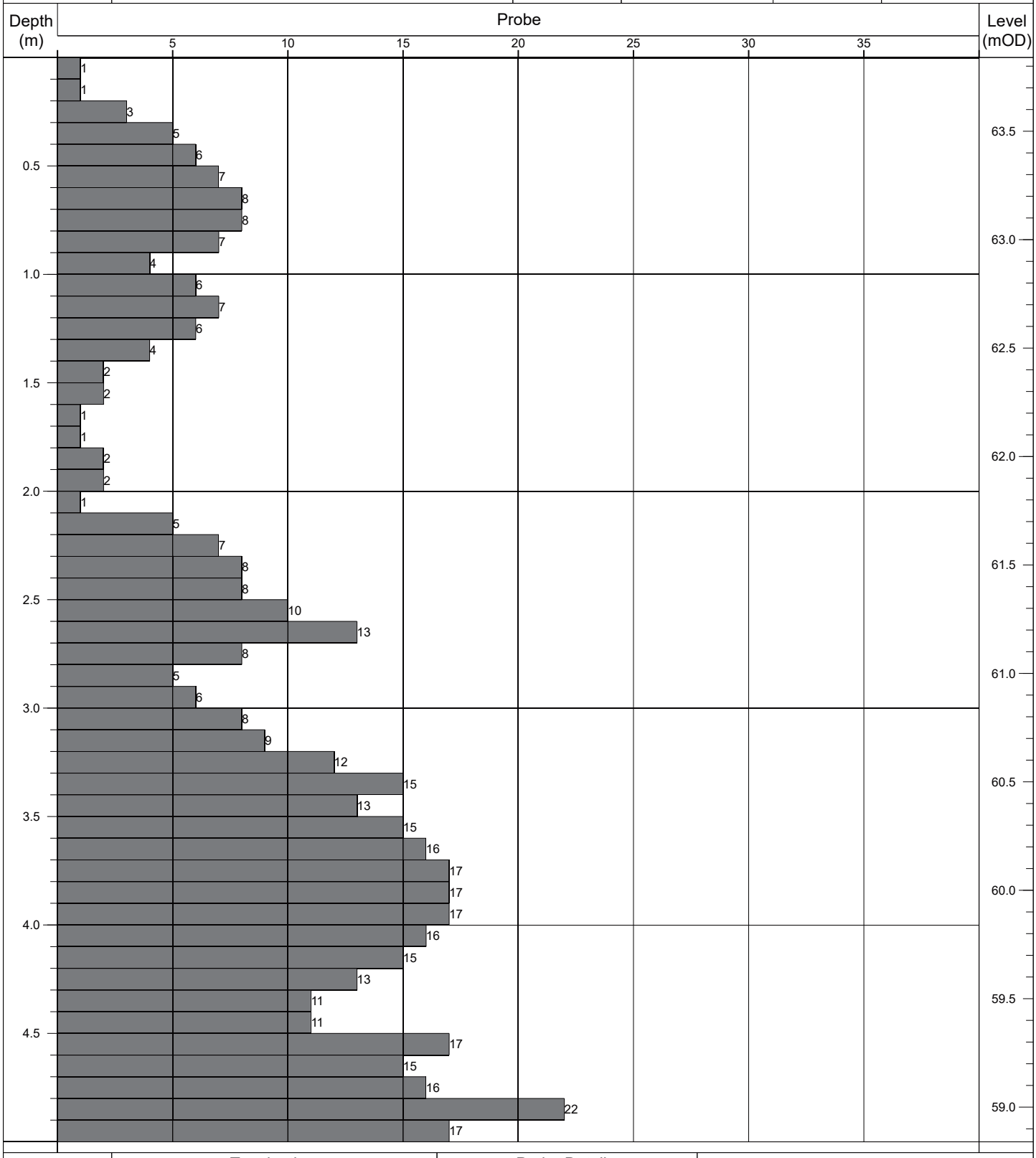
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP104
Contract:	Coolagad	Easting:	727817.802	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713133.560	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	63.43	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



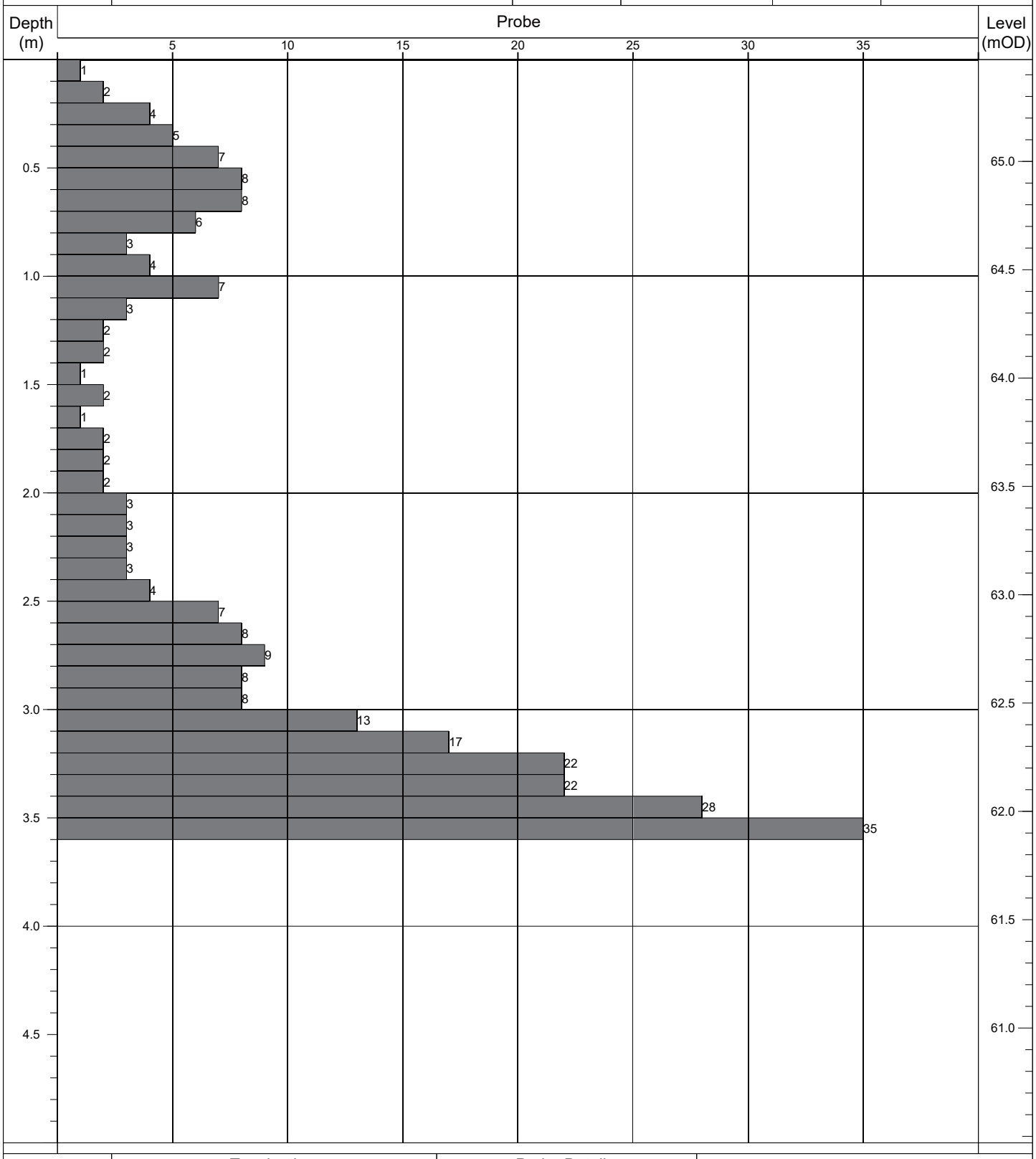
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP105**
Contract:	Coolagad	Easting:	727804.604	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713126.215	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	63.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



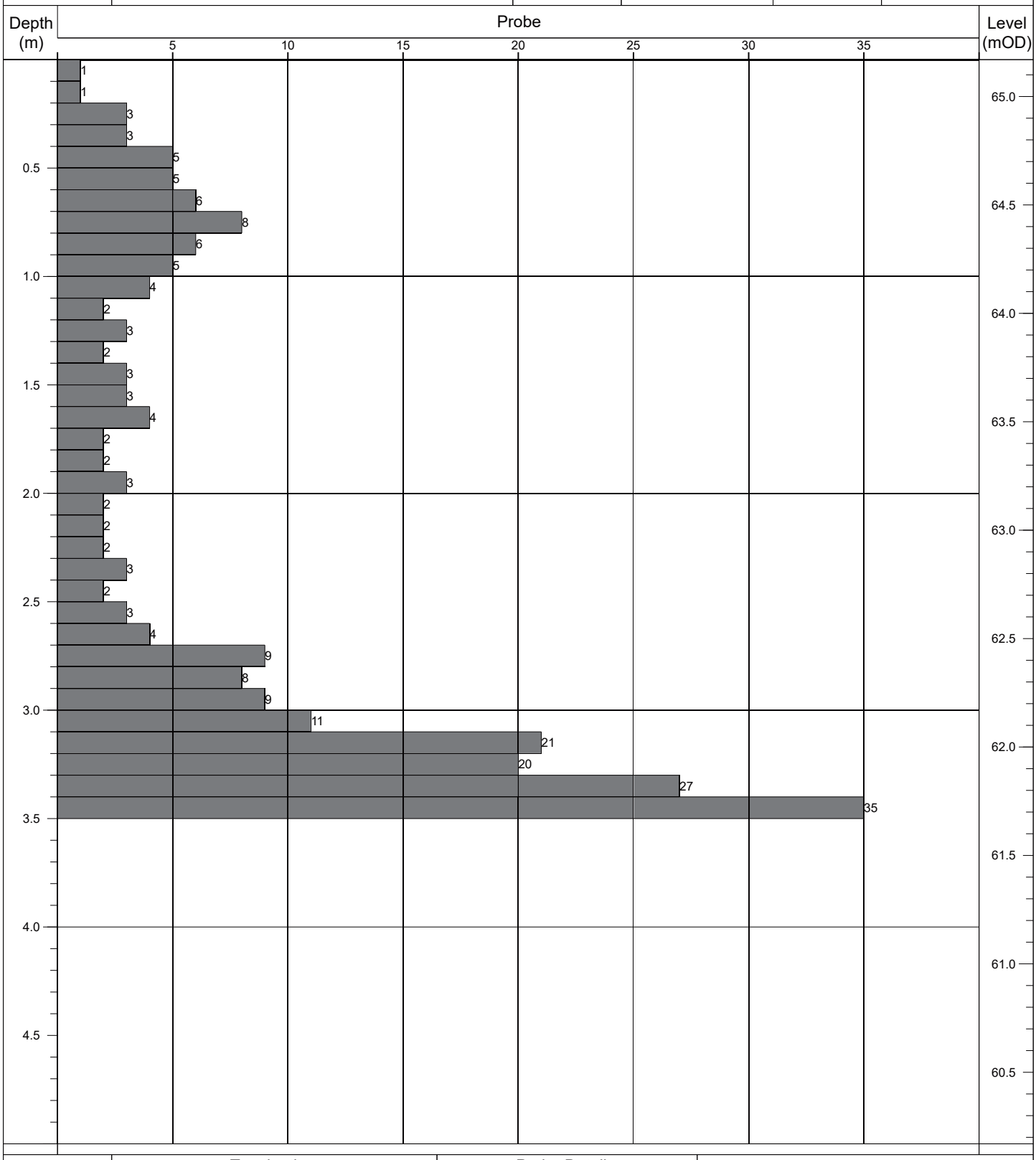
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP106**
Contract:	Coolagad	Easting:	727784.790	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713046.988	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	65.47	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



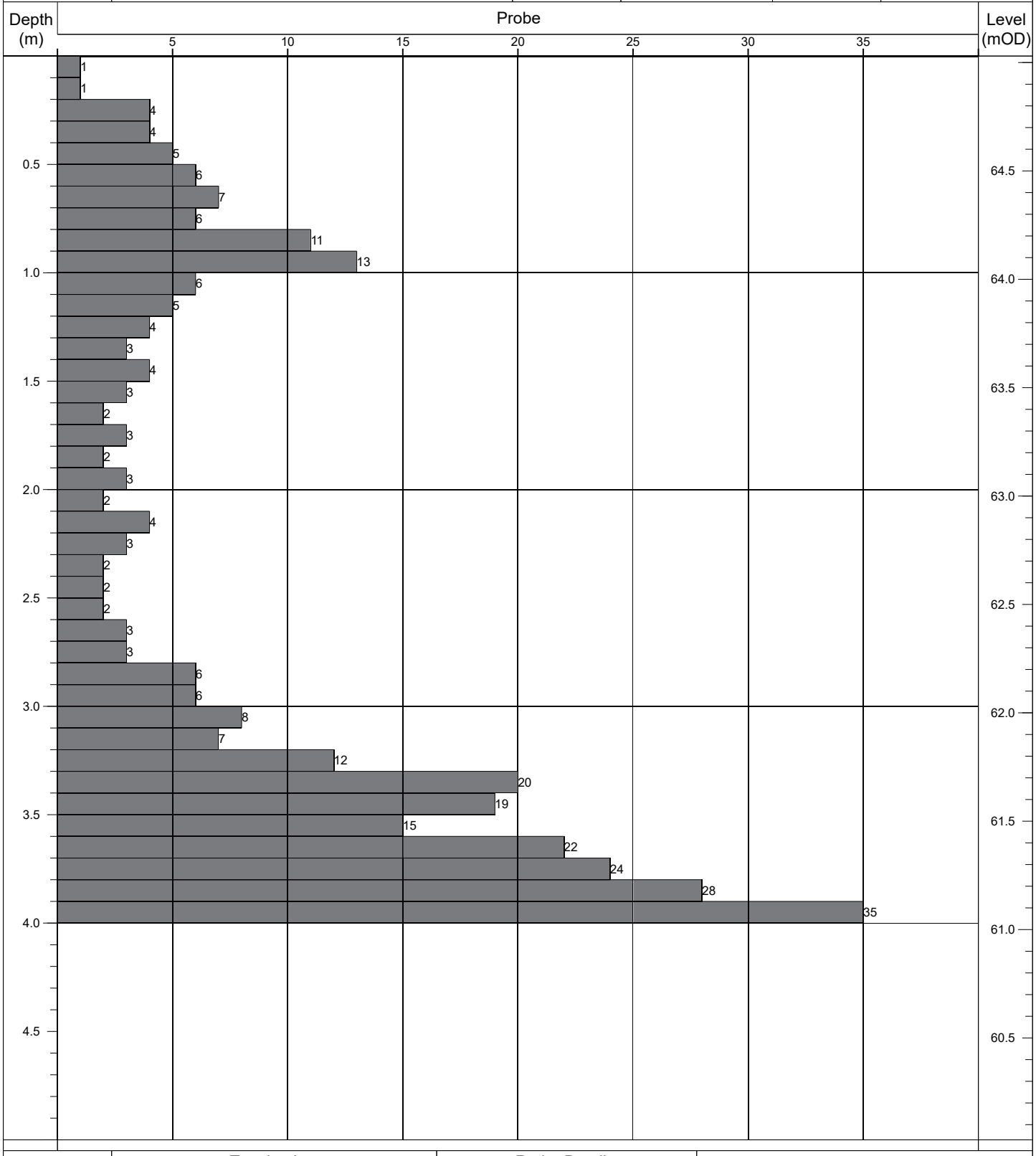
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP107**
Contract:	Coolagad	Easting:	727785.272	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713018.521	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	65.17	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



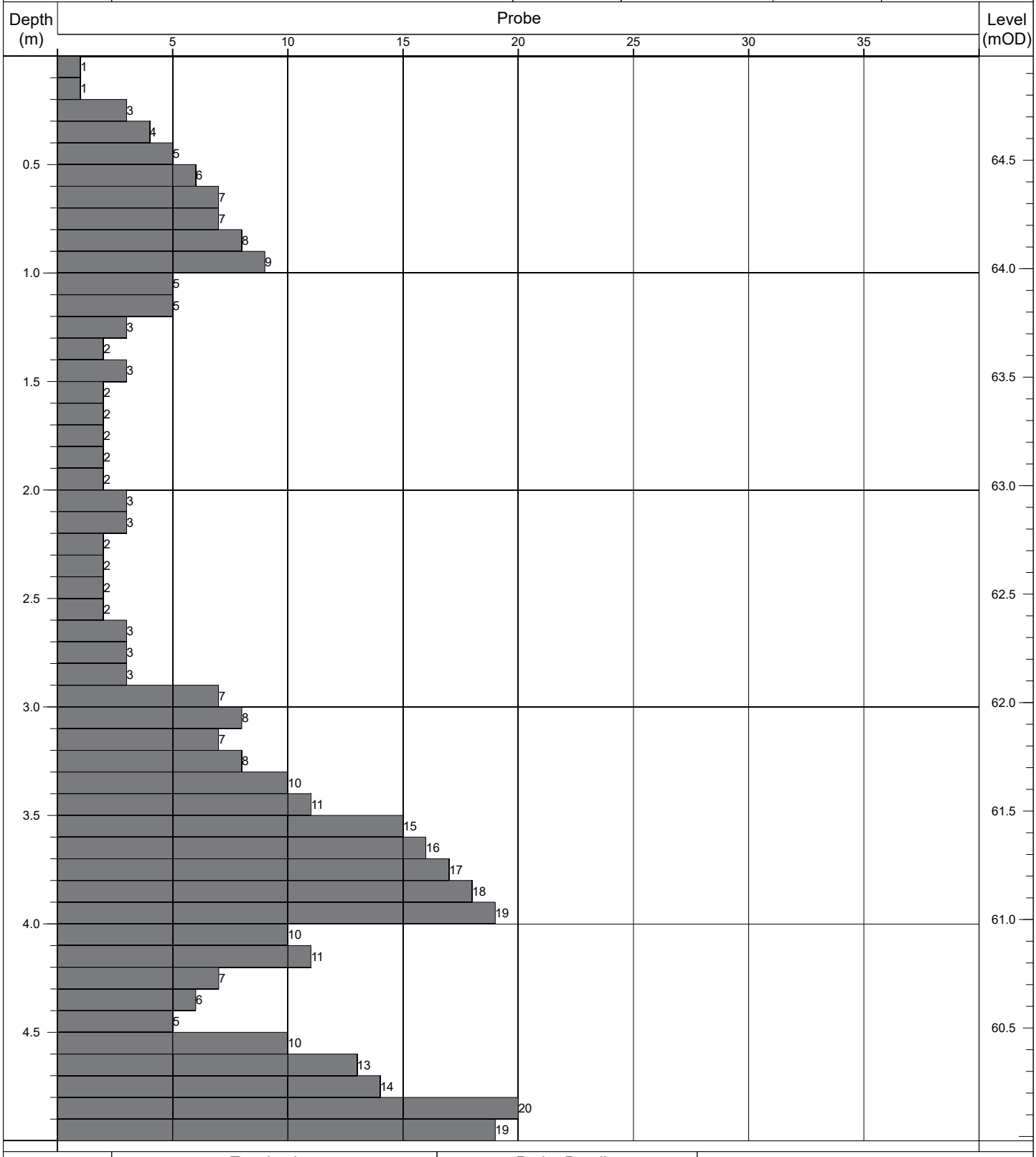
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP108**
Contract:	Coolagad	Easting:	727784.830	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713004.595	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	65.03	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



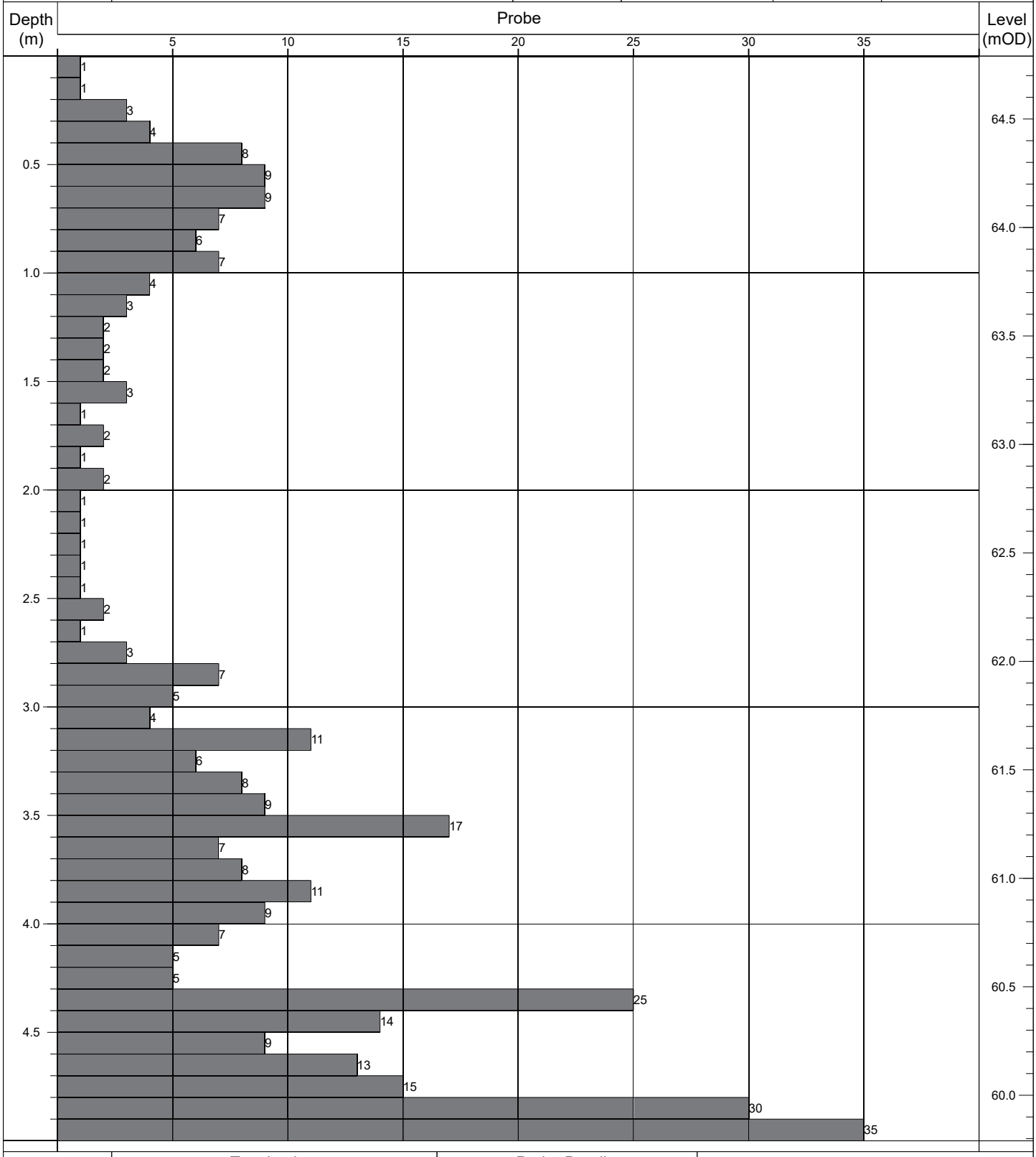
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP109**
Contract:	Coolagad	Easting:	727784.891	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712990.864	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.98	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



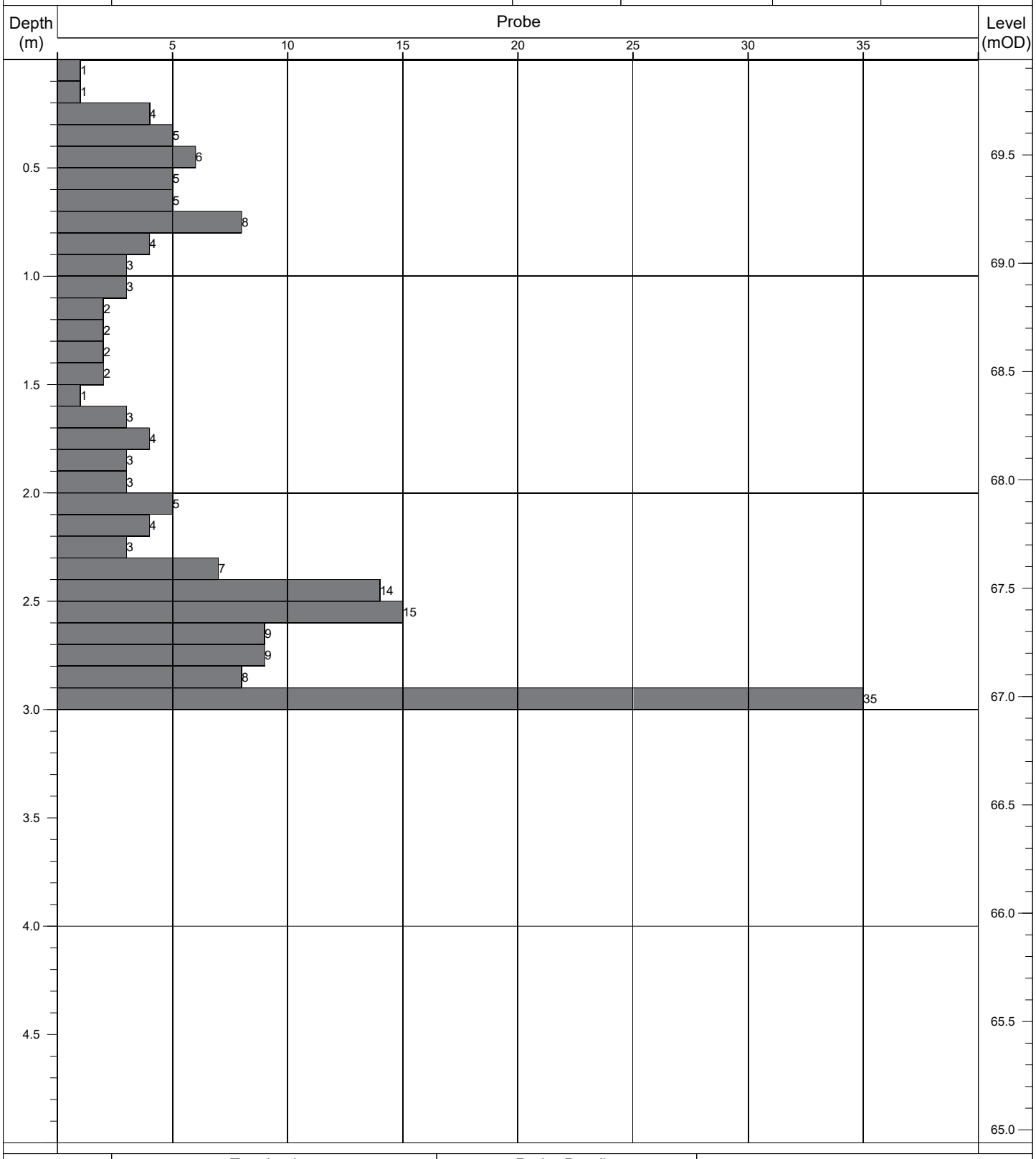
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP110**
Contract:	Coolagad	Easting:	727786.302	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712977.627	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.79	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



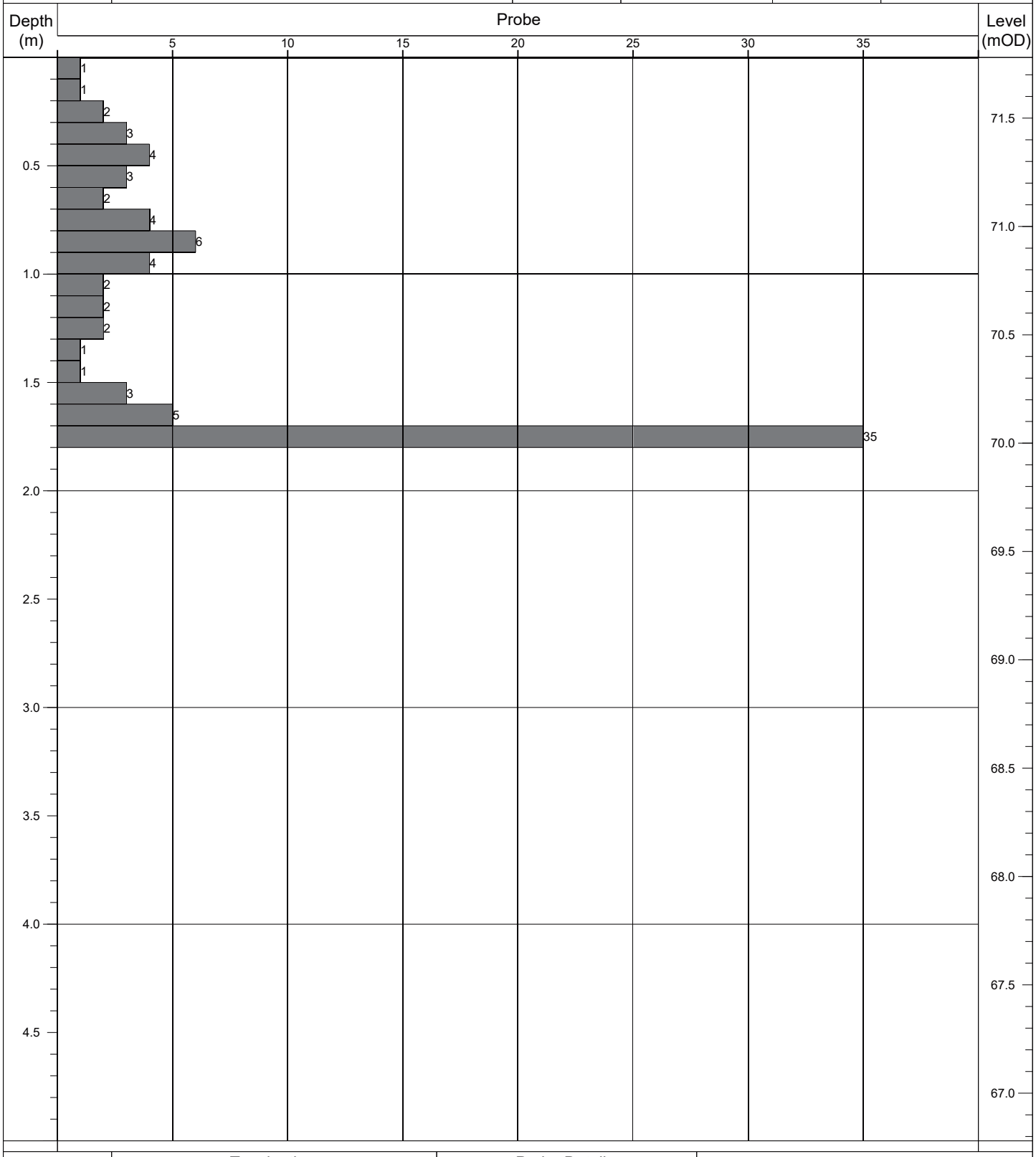
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP111
Contract:	Coolagad	Easting:	727735.894	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713041.194	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.94	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



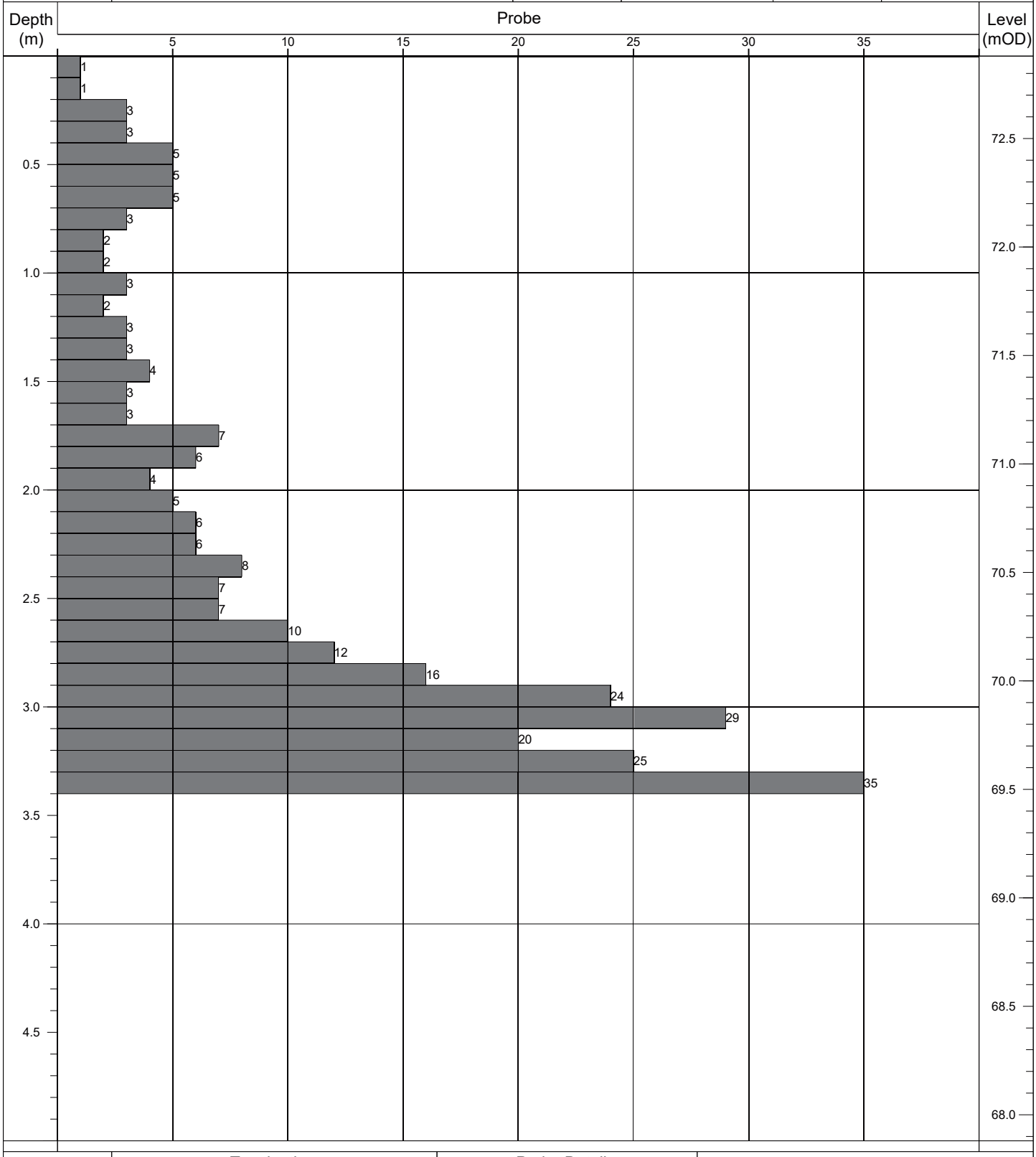
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP112**
Contract:	Coolagad	Easting:	727712.752	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713038.248	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.78	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



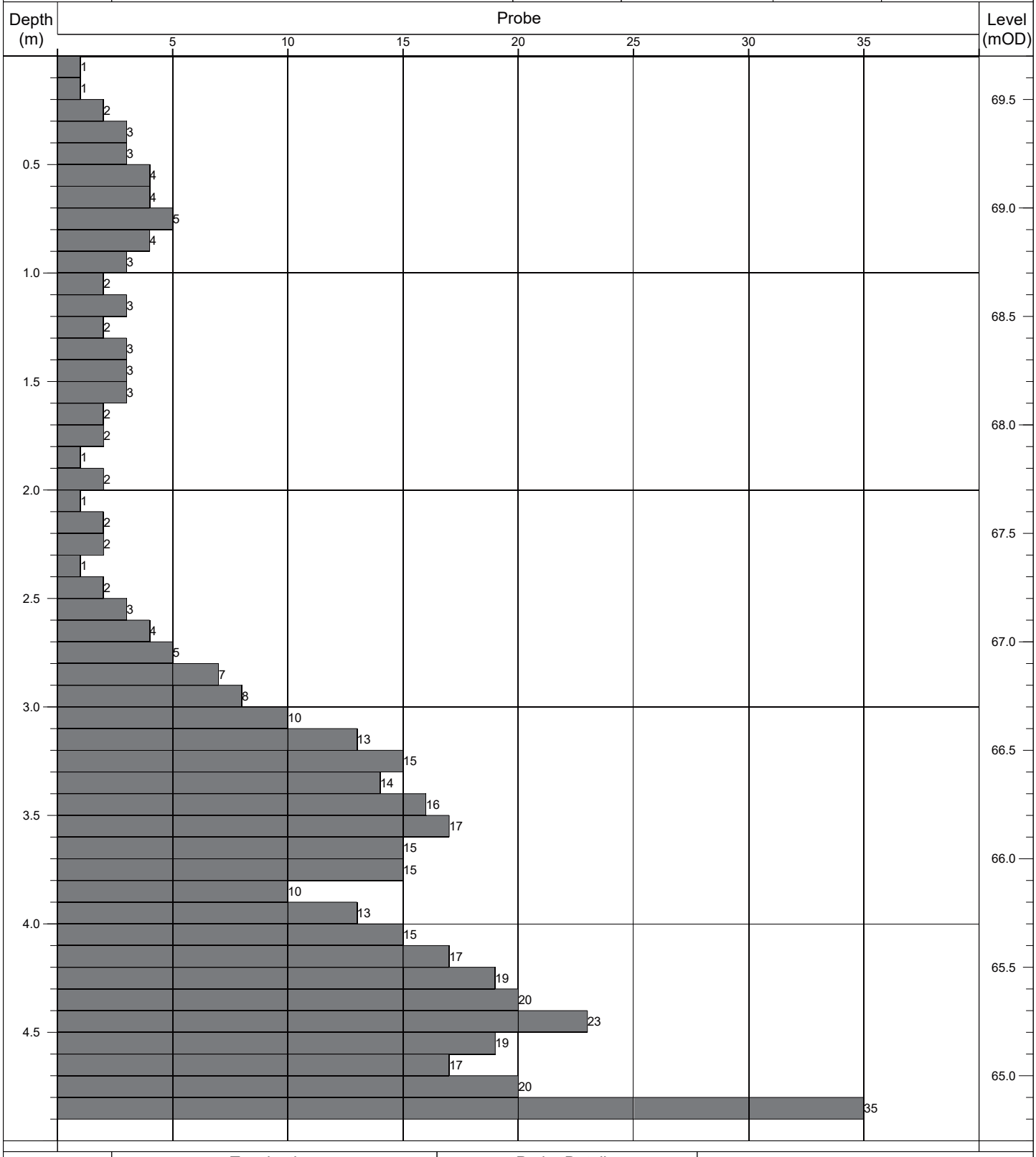
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP113
Contract:	Coolagad	Easting:	727697.820	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713038.682	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.88	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



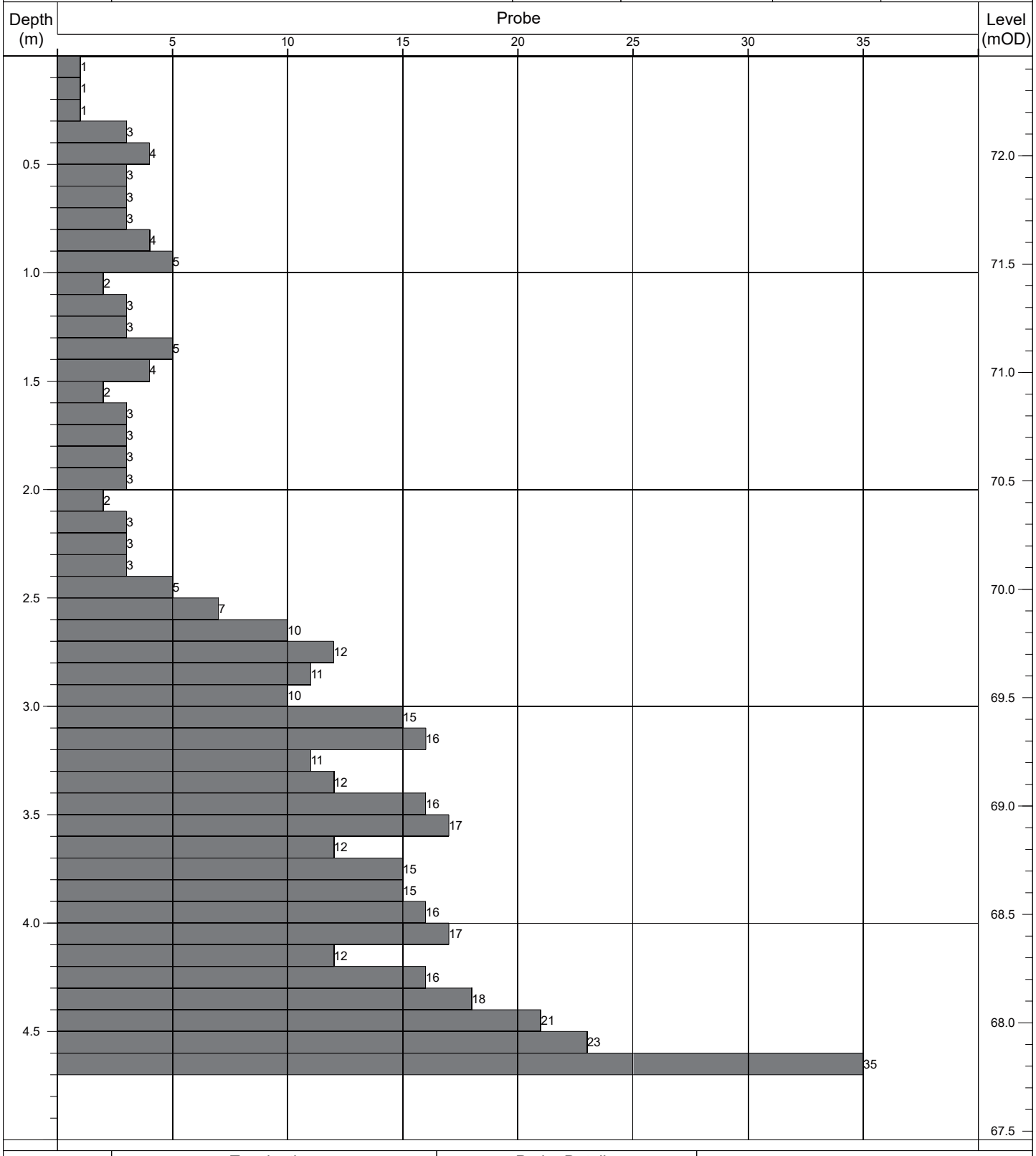
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP114**
Contract:	Coolagad	Easting:	727736.374	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713025.952	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.70	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



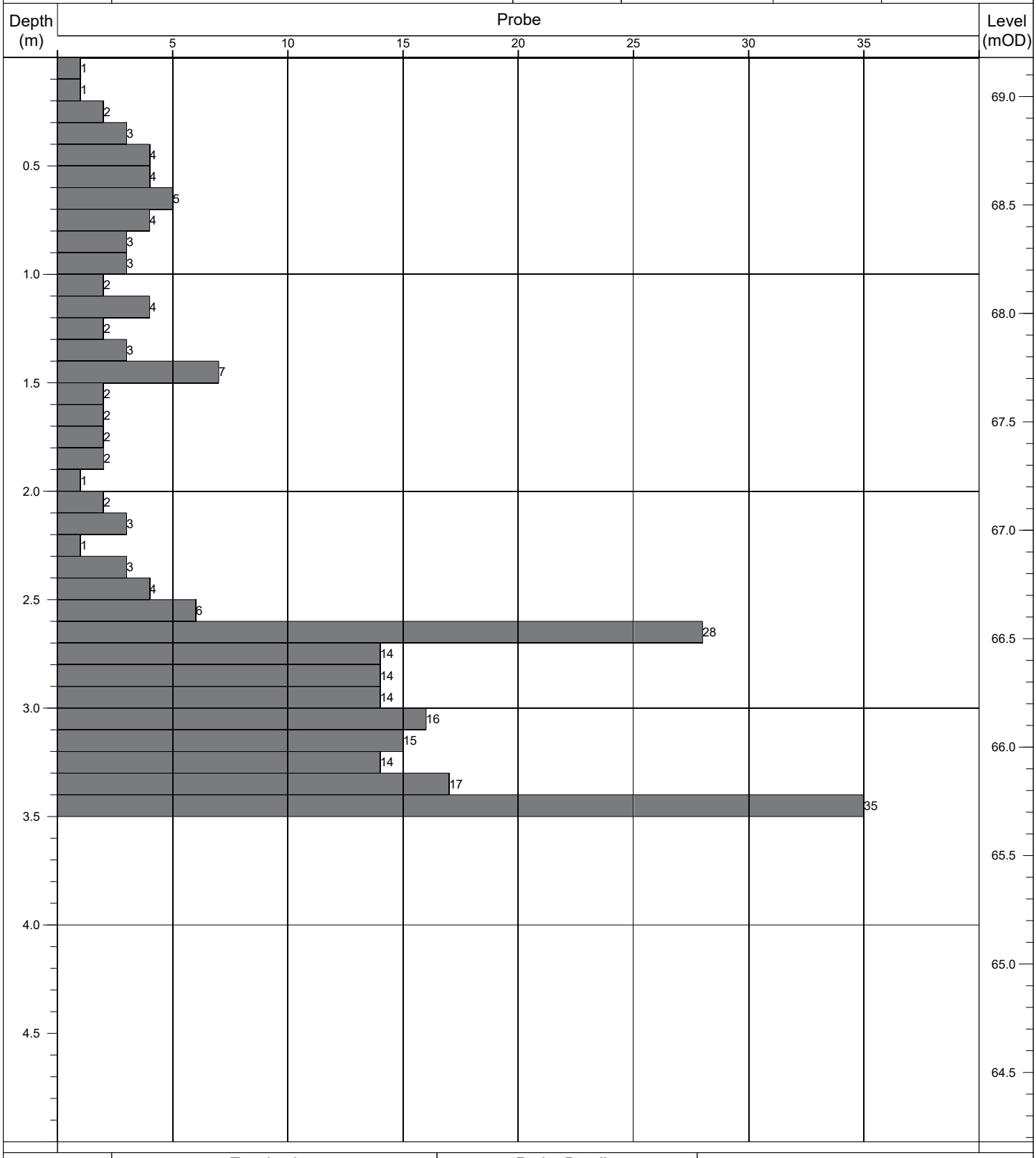
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	# Dynamic Probe Log				Probe No: **DP115**
Contract:	Coolagad	Easting:	727700.088	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713024.068	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.46	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



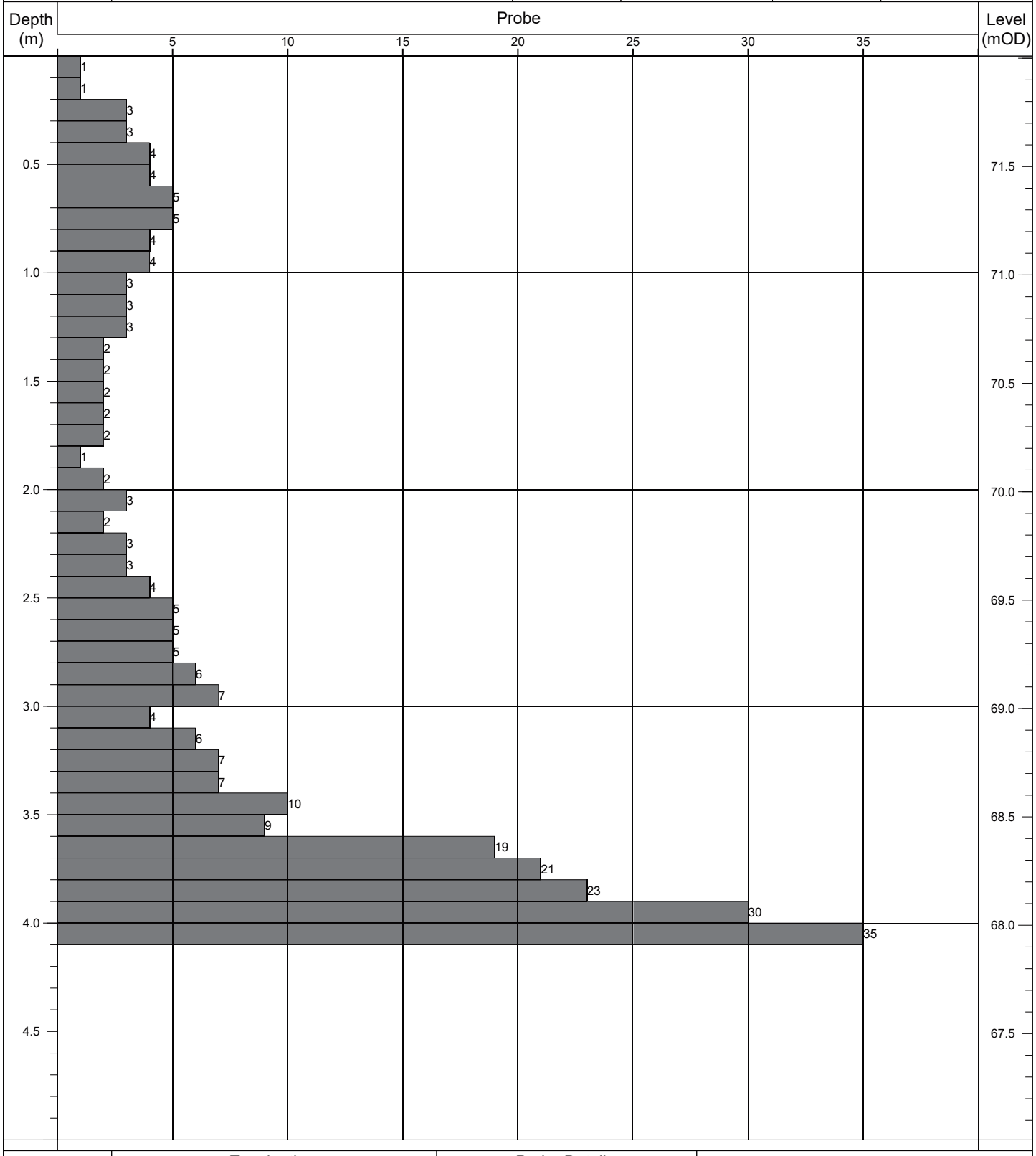
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP116**
Contract:	Coolagad	Easting:	727741.003	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713017.442	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.18	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



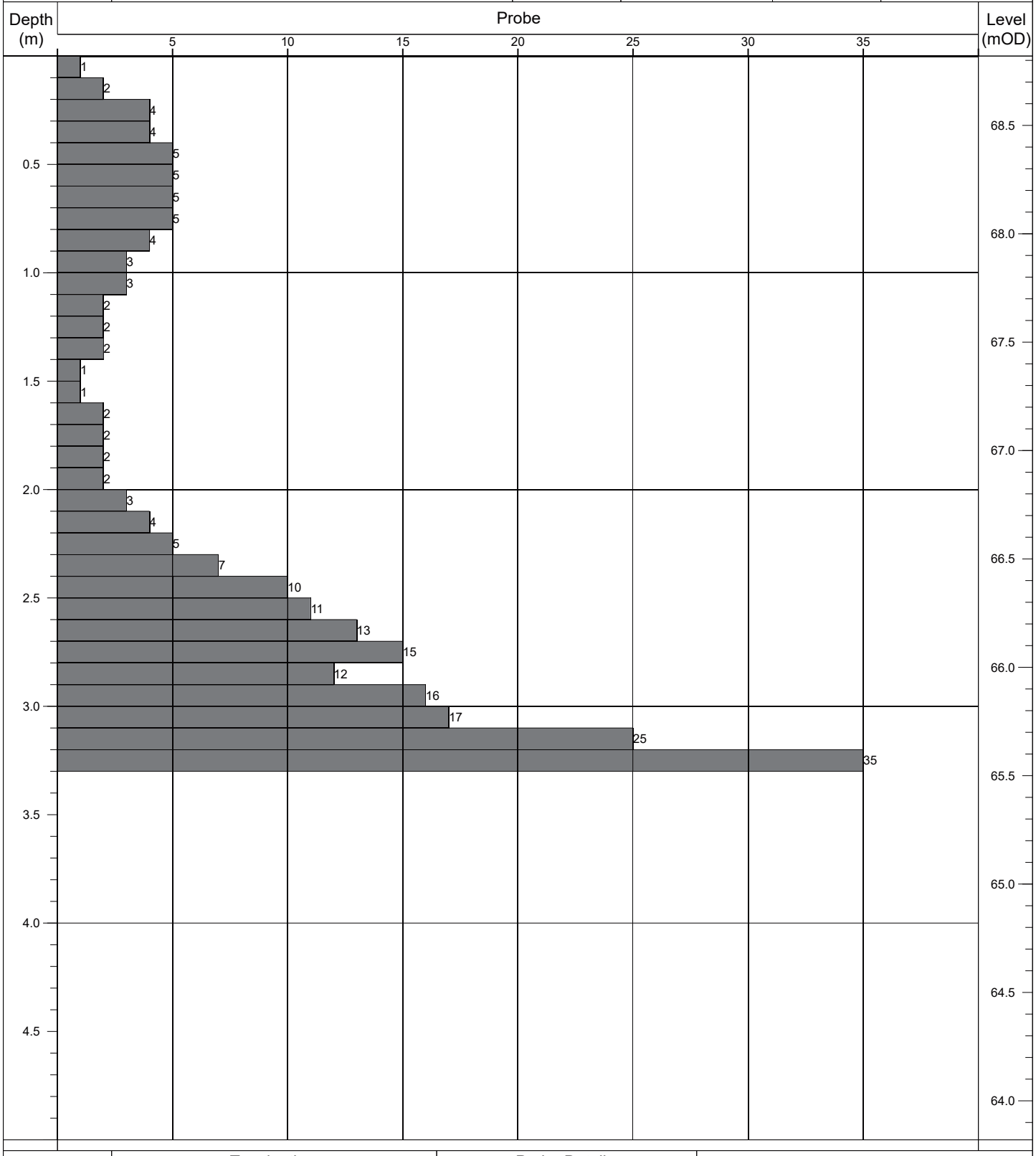
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP117**
Contract:	Coolagad	Easting:	727699.641	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713009.323	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.01	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



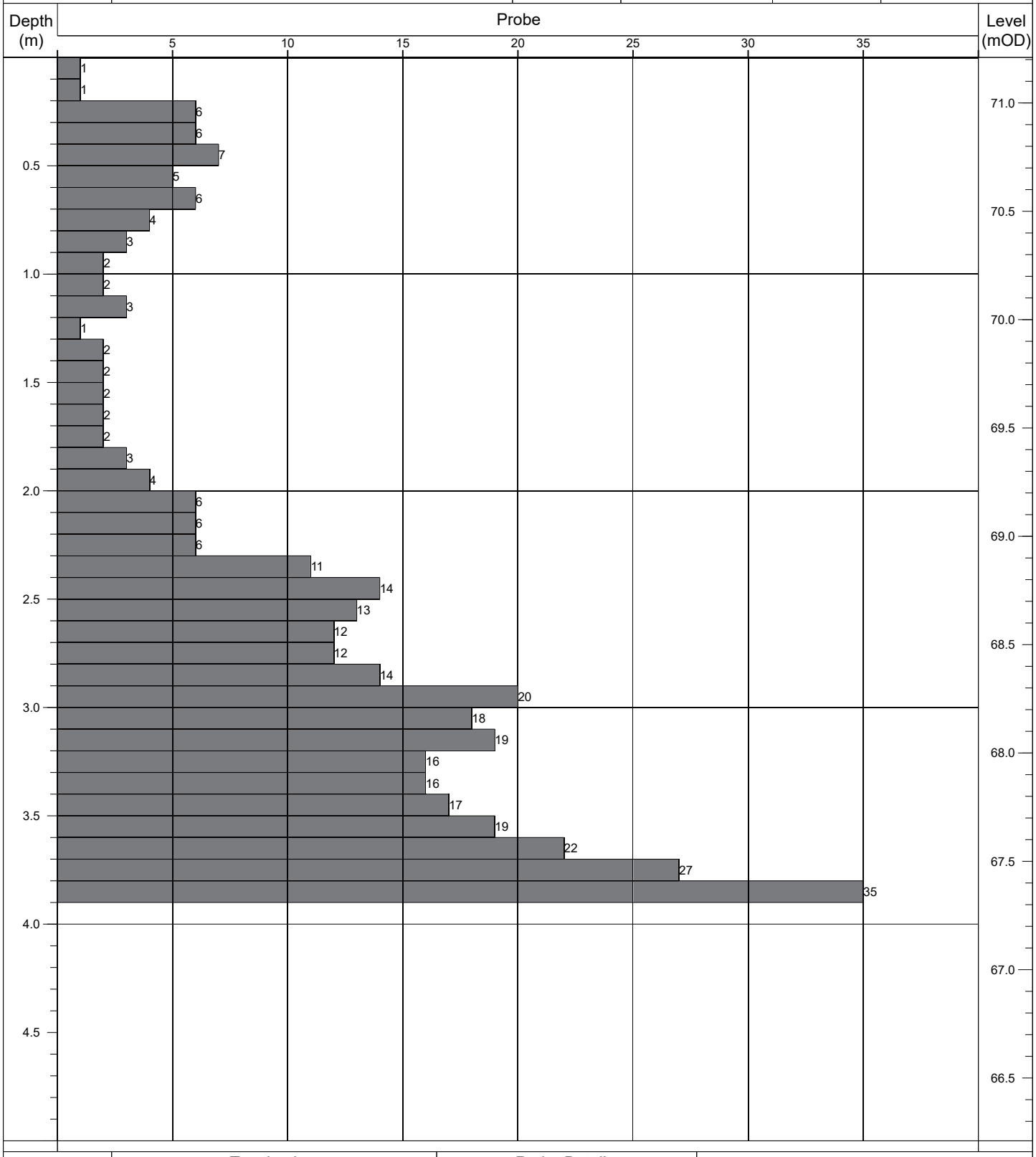
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP118**
Contract:	Coolagad	Easting:	727741.364	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713002.000	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.82	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



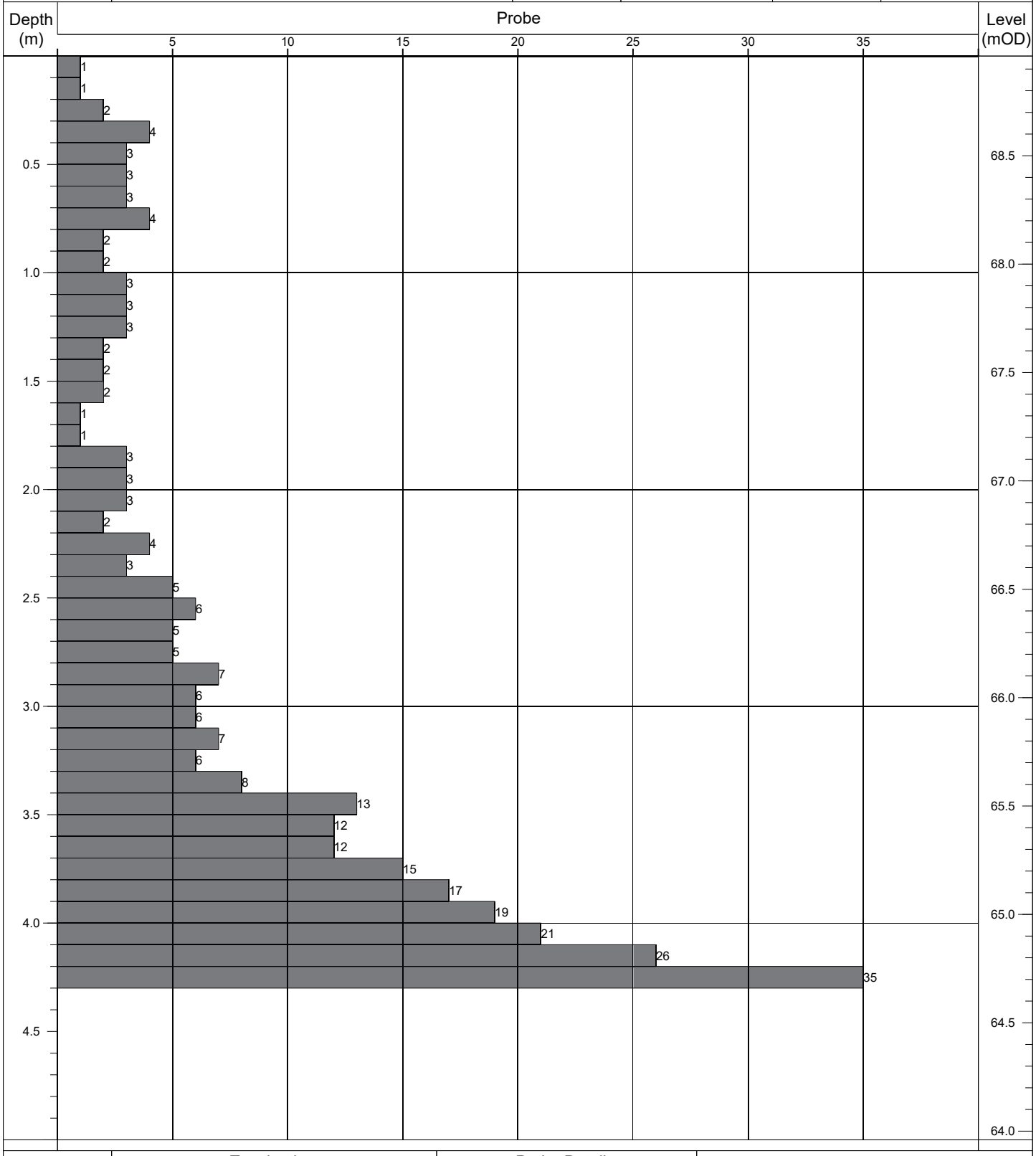
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP119**
Contract:	Coolagad	Easting:	727700.182	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712994.368	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.21	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



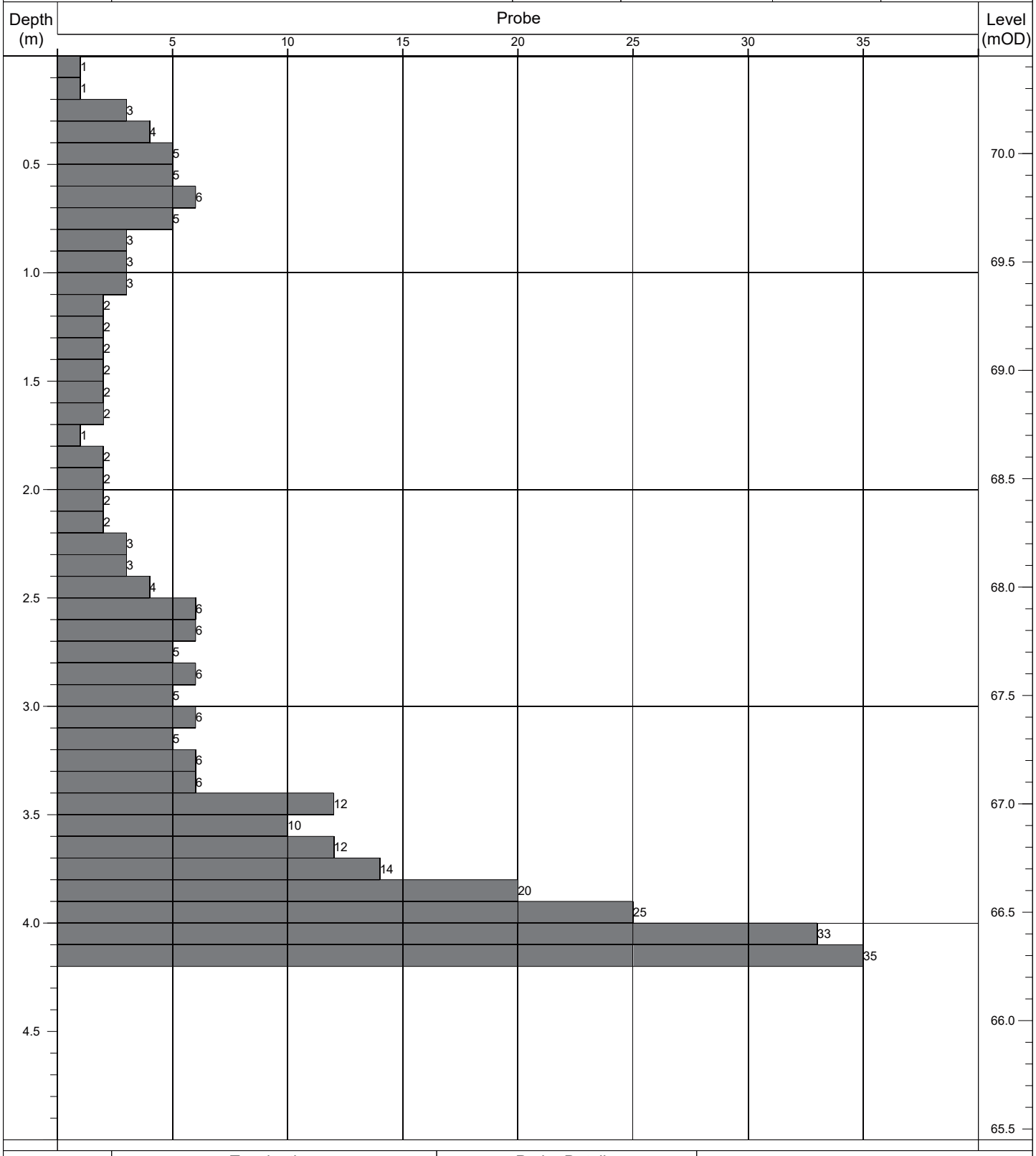
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP120**
Contract:	Coolagad	Easting:	727735.781	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712993.515	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.96	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



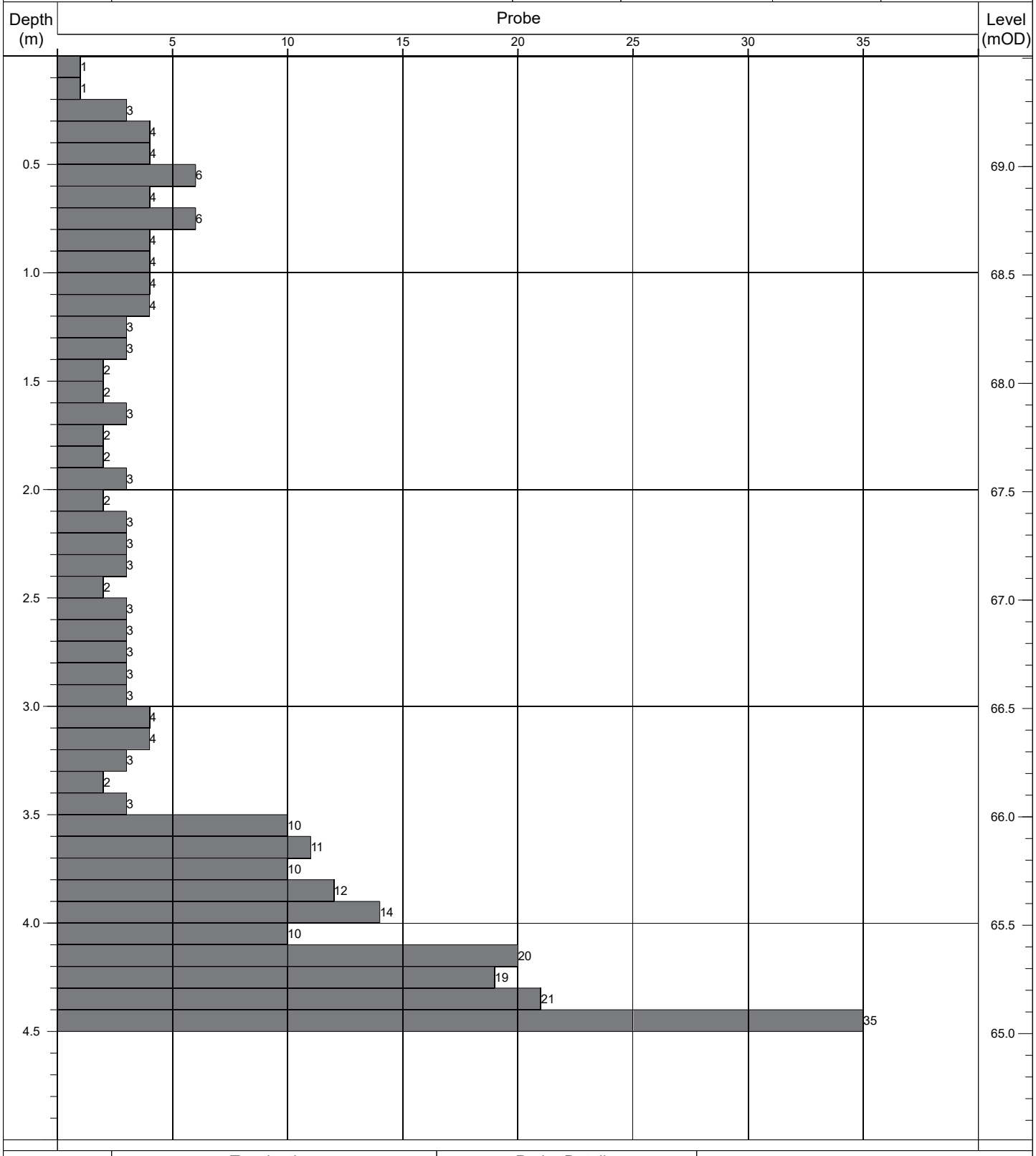
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP121**
Contract:	Coolagad	Easting:	727697.972	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712979.121	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	70.45	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



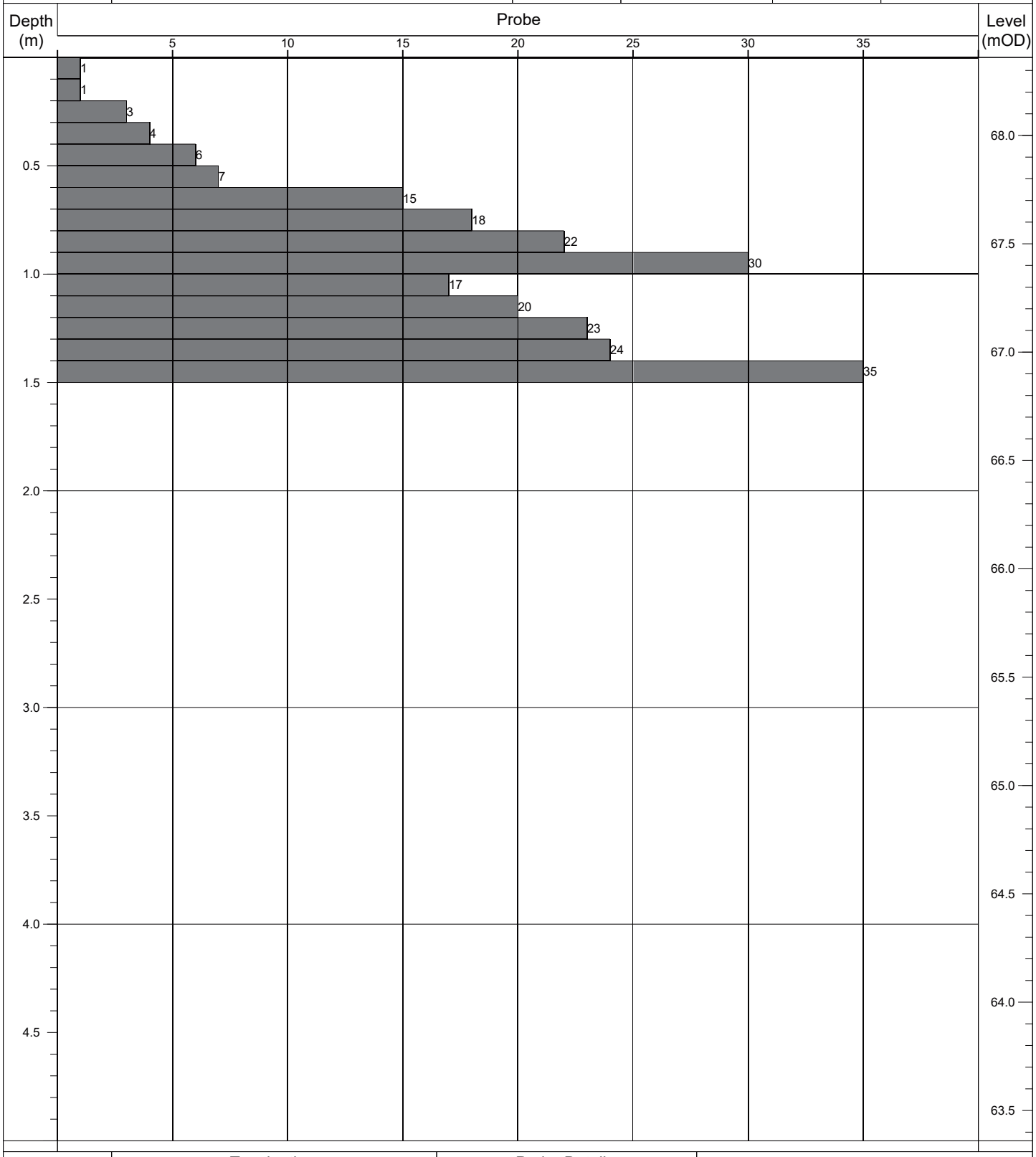
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP122**
Contract:	Coolagad	Easting:	727714.883	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712977.638	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	69.51	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



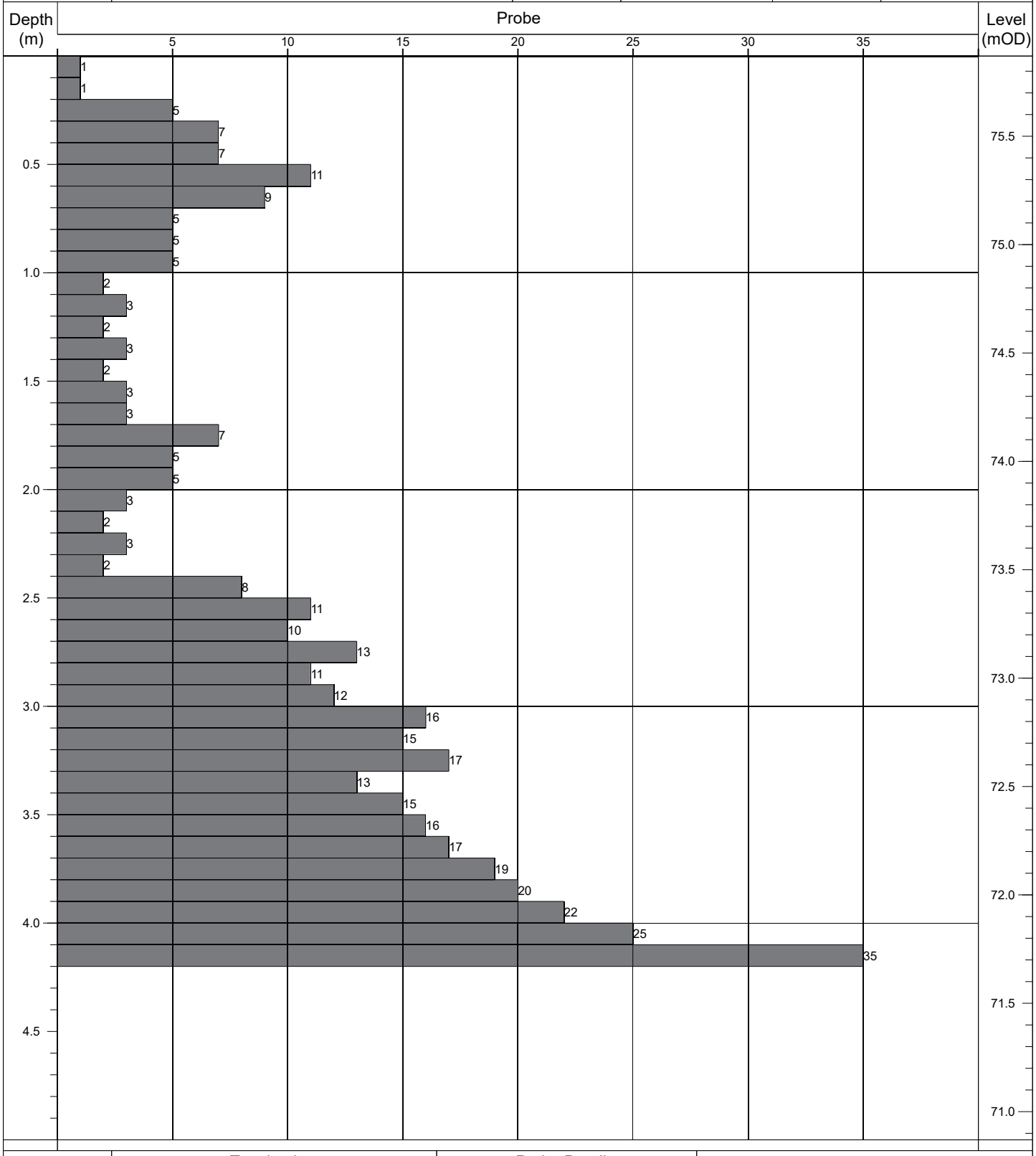
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP123**
Contract:	Coolagad	Easting:	727736.122	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712977.376	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.36	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



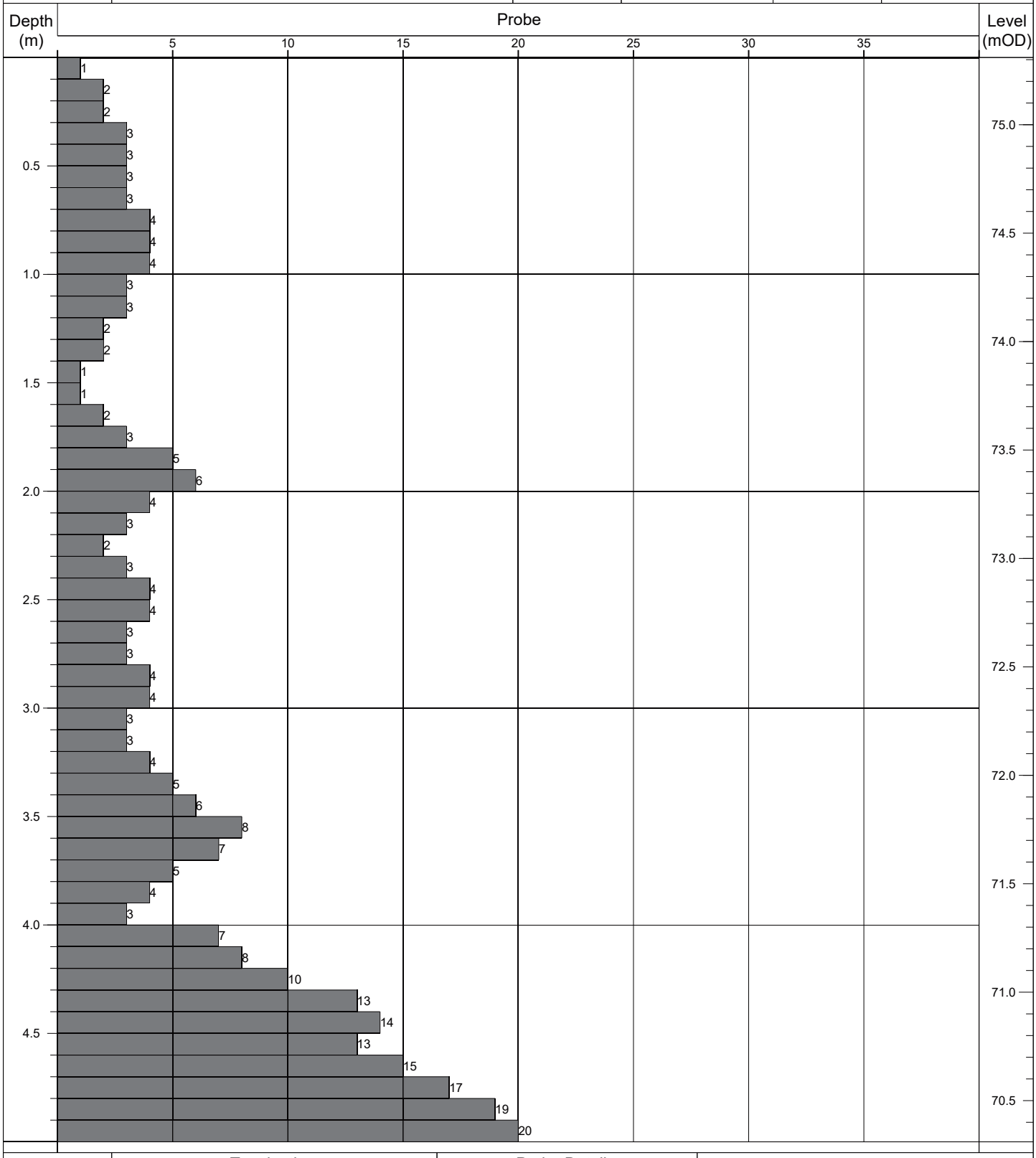
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP124**
Contract:	Coolagad	Easting:	727657.145	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713034.952	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.87	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



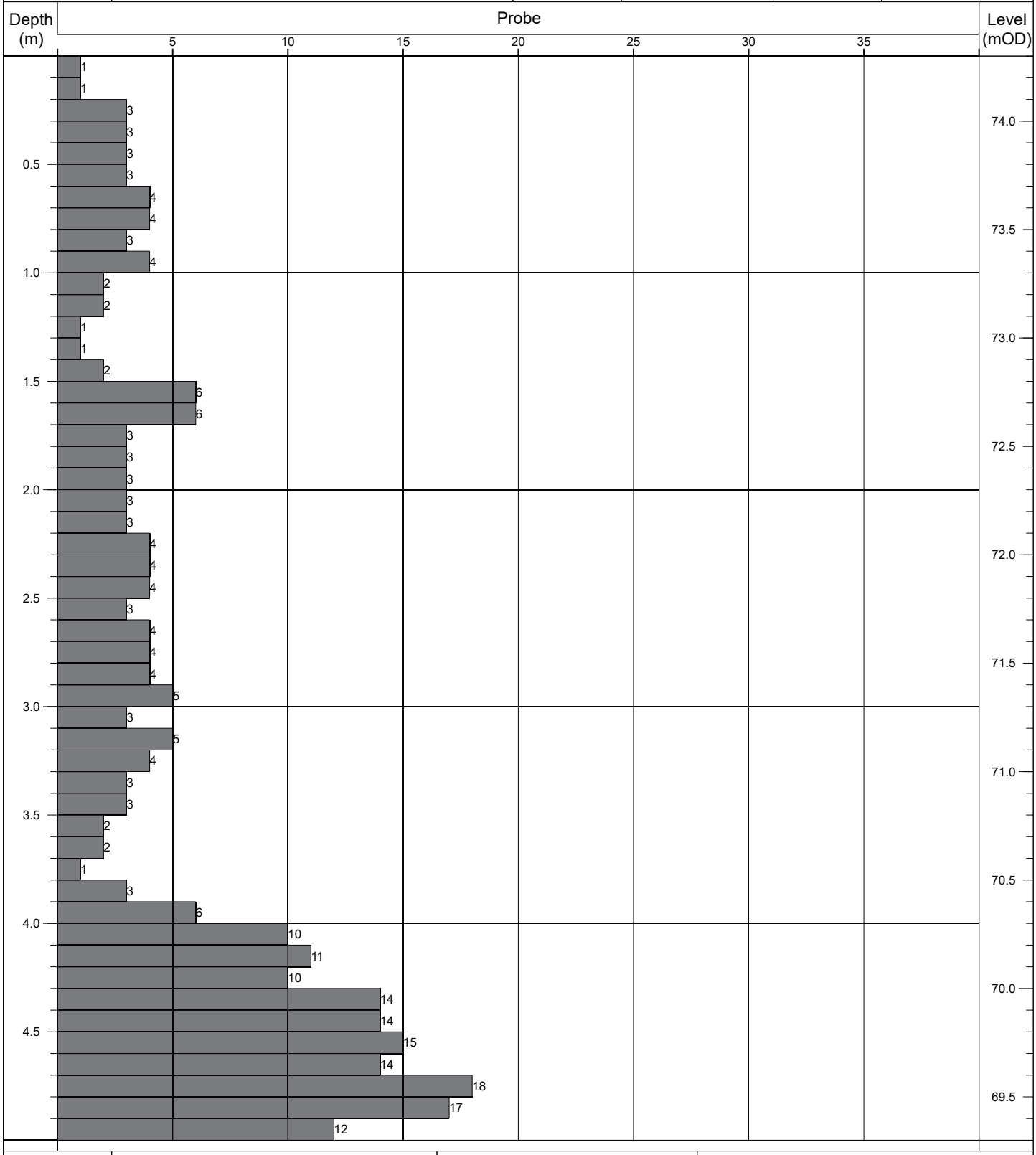
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP125**
Contract:	Coolagad	Easting:	727656.764	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713019.510	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.31	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



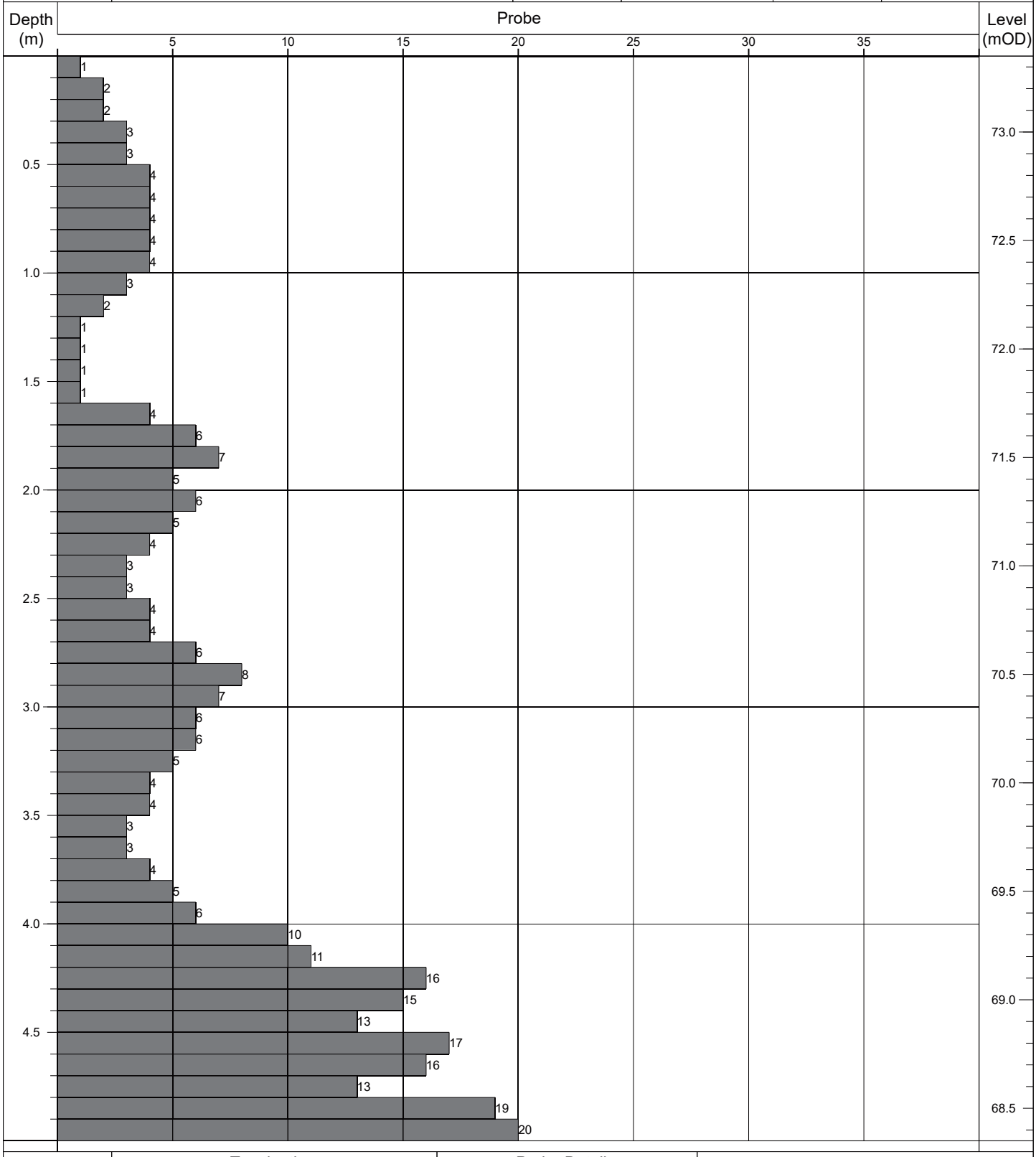
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP126**
Contract:	Coolagad	Easting:	727657.119	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713005.101	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	74.30	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



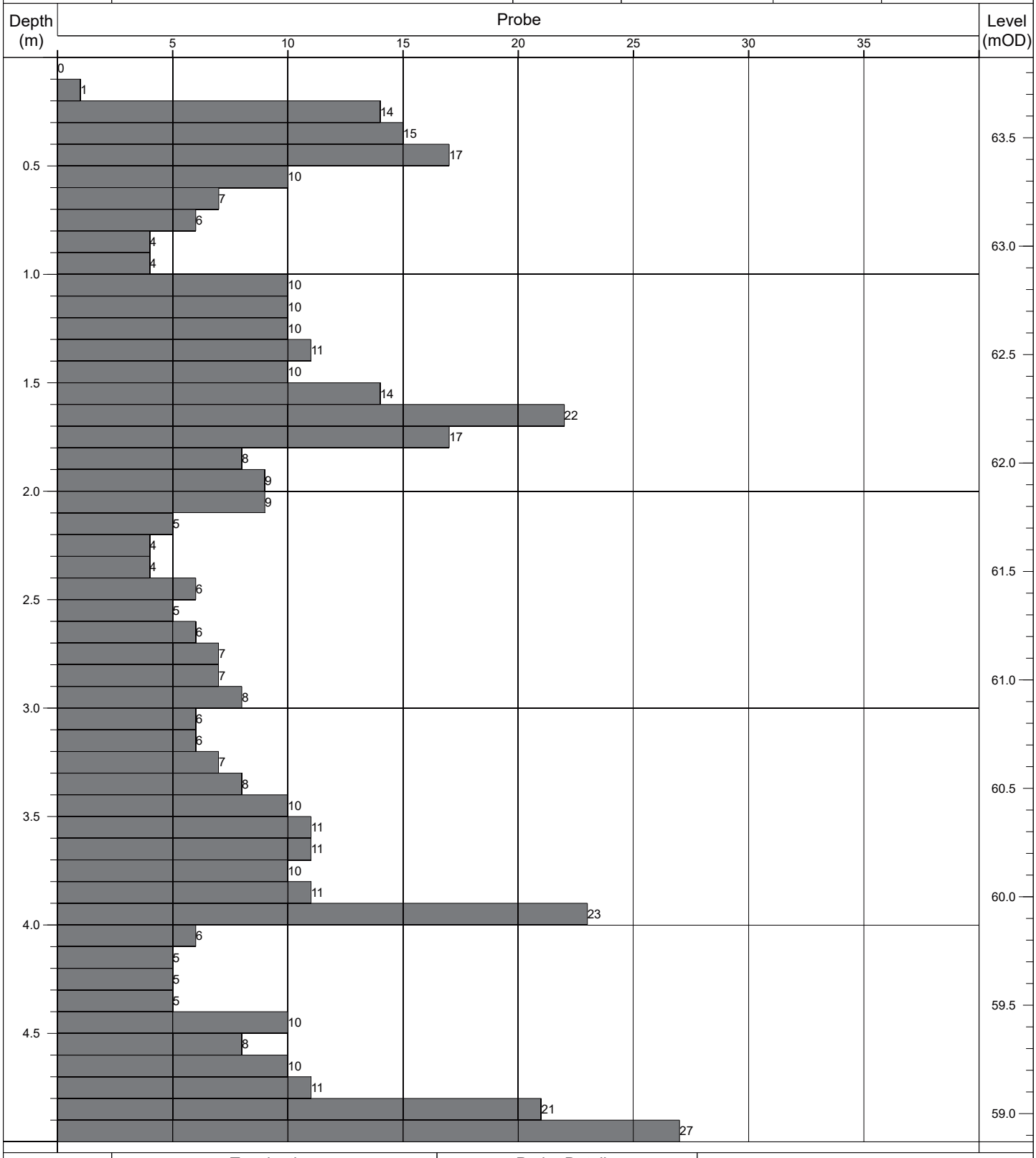
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP127**
Contract:	Coolagad	Easting:	727656.938	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712990.828	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	73.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



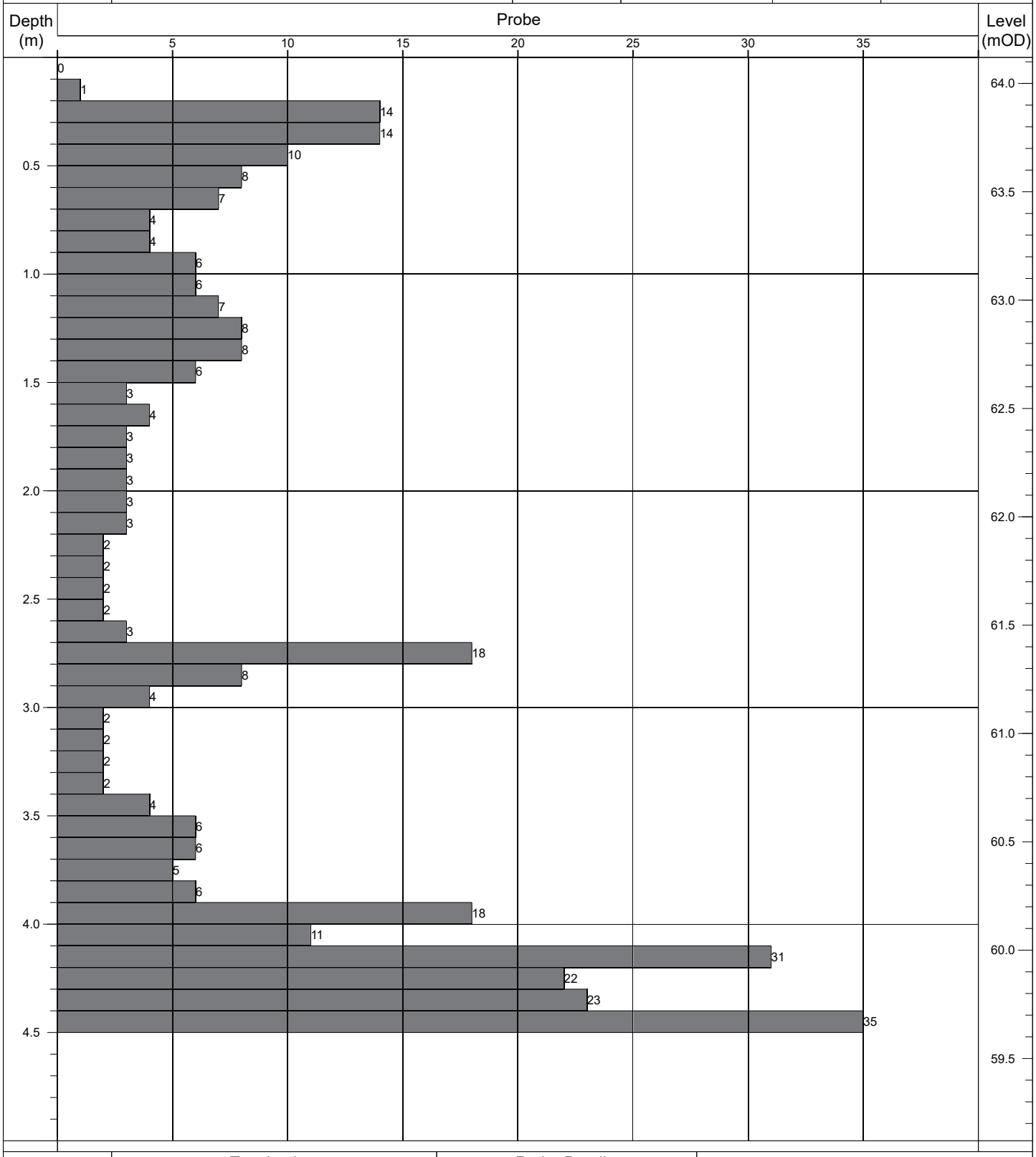
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP128**
Contract:	Coolagad	Easting:	727801.714	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712931.922	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	63.87	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



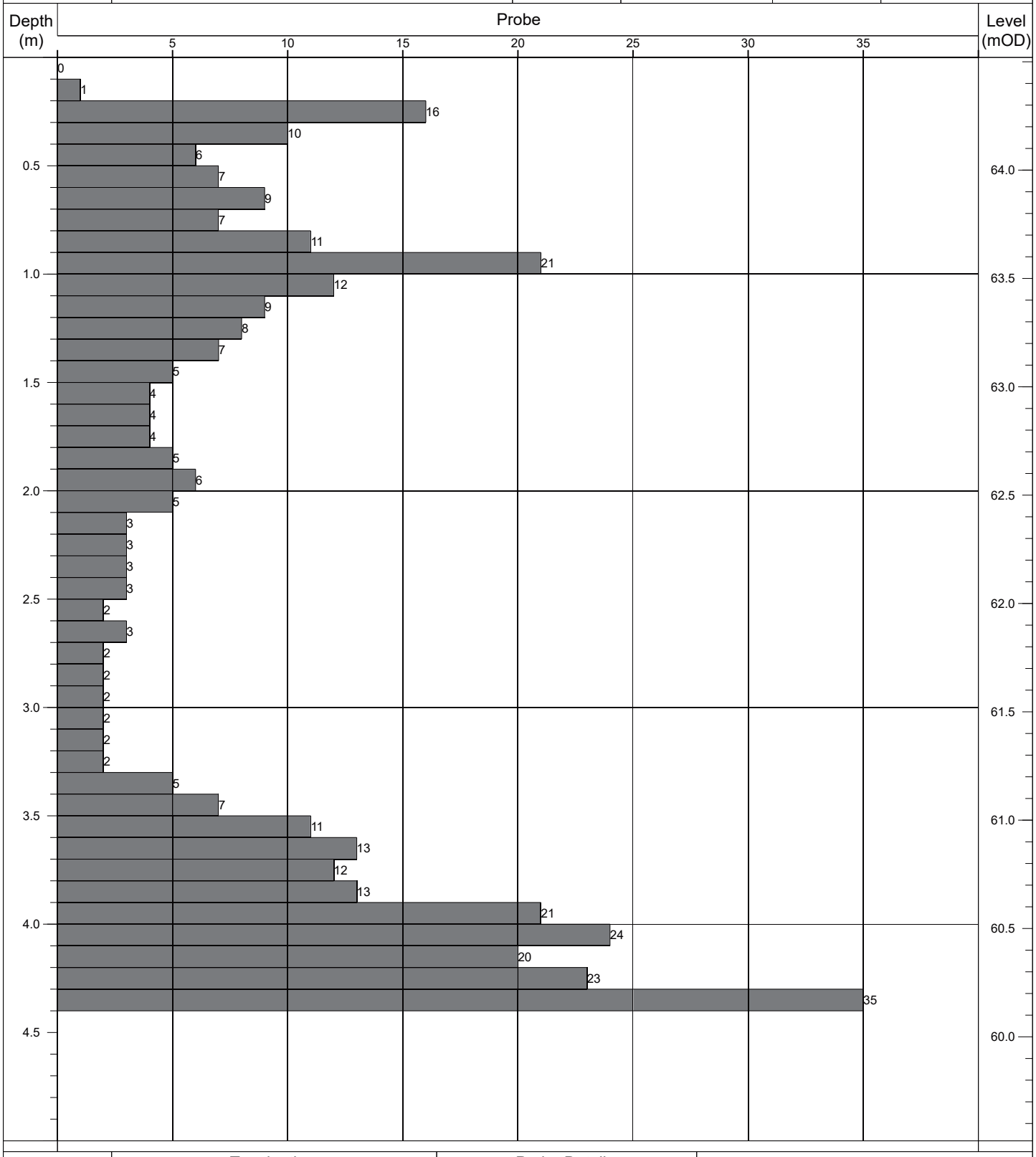
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP129**
Contract:	Coolagad	Easting:	727807.357	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712918.300	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.12	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



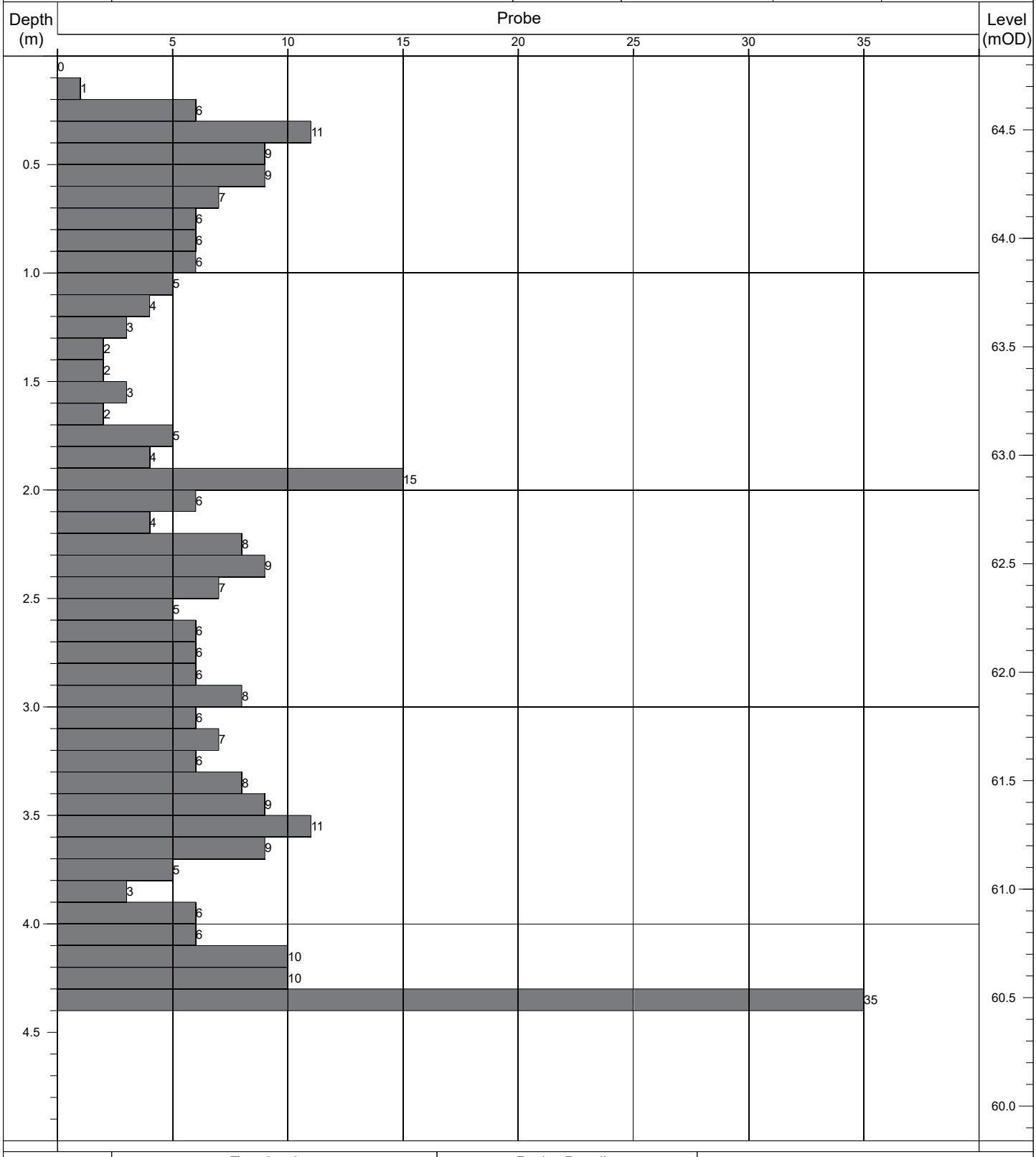
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP130**
Contract:	Coolagad	Easting:	727812.412	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712904.163	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.52	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



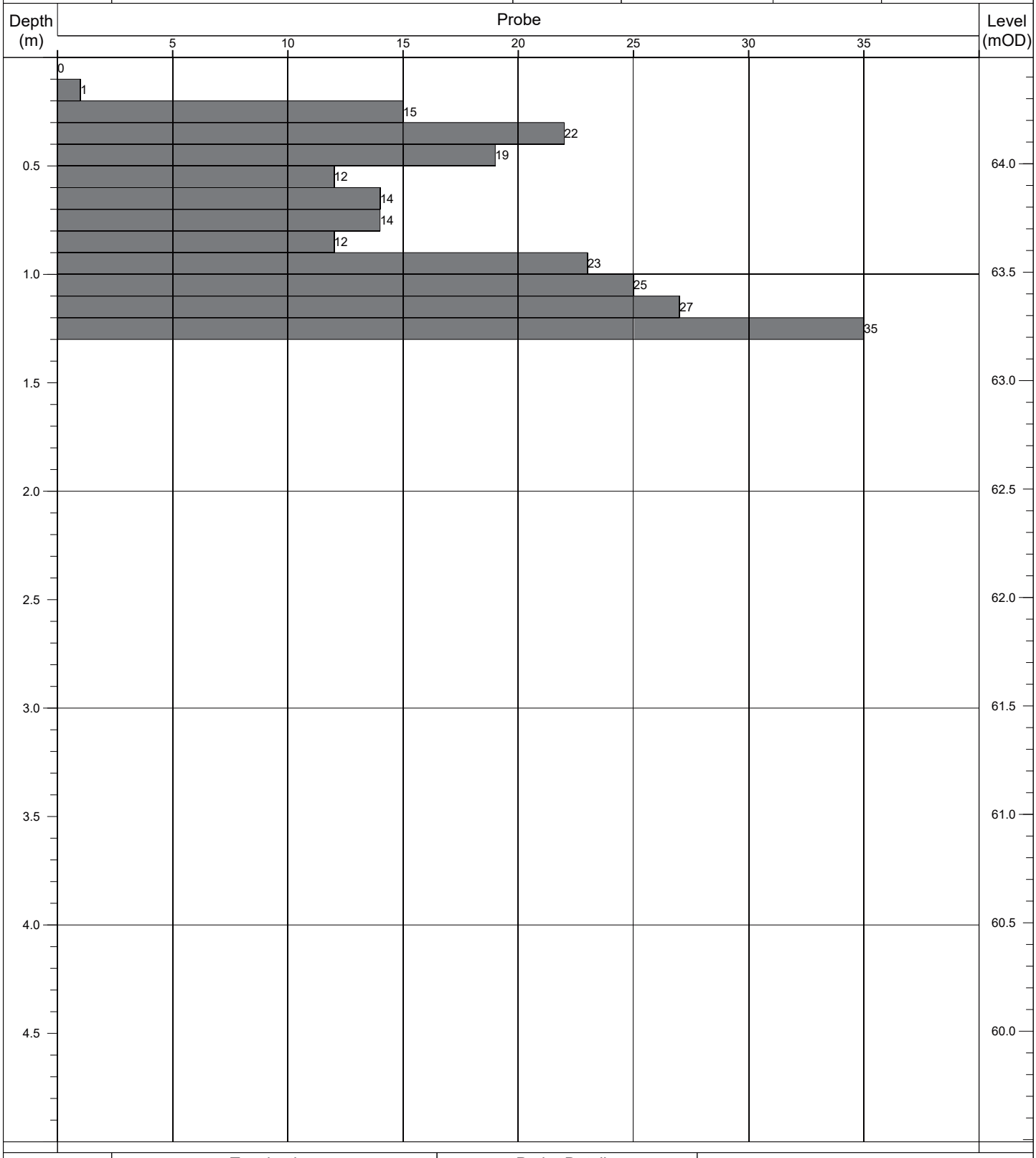
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP131**
Contract:	Coolagad	Easting:	727817.597	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712889.719	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



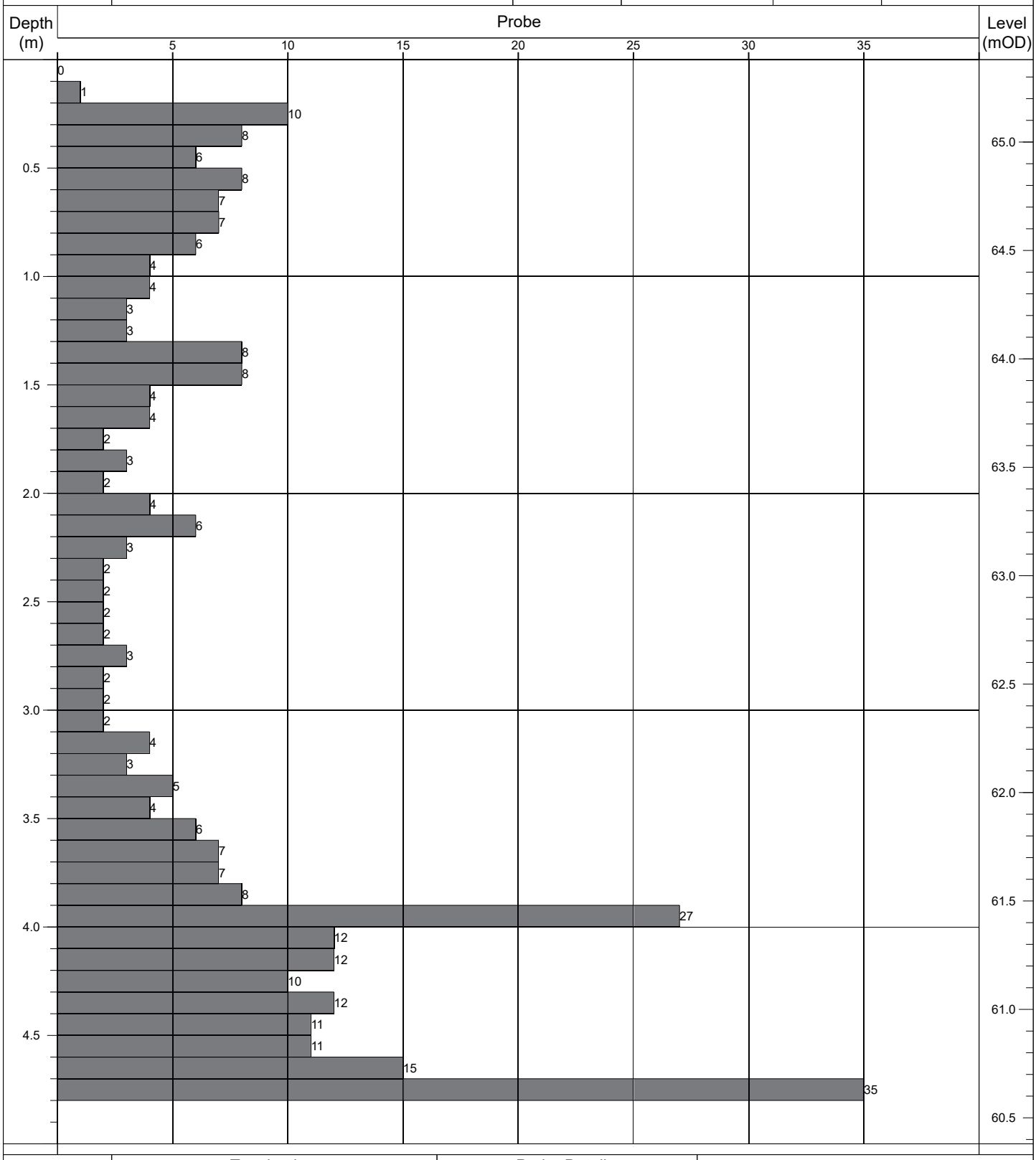
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP132**
Contract:	Coolagad	Easting:	727833.823	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712870.189	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.49	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



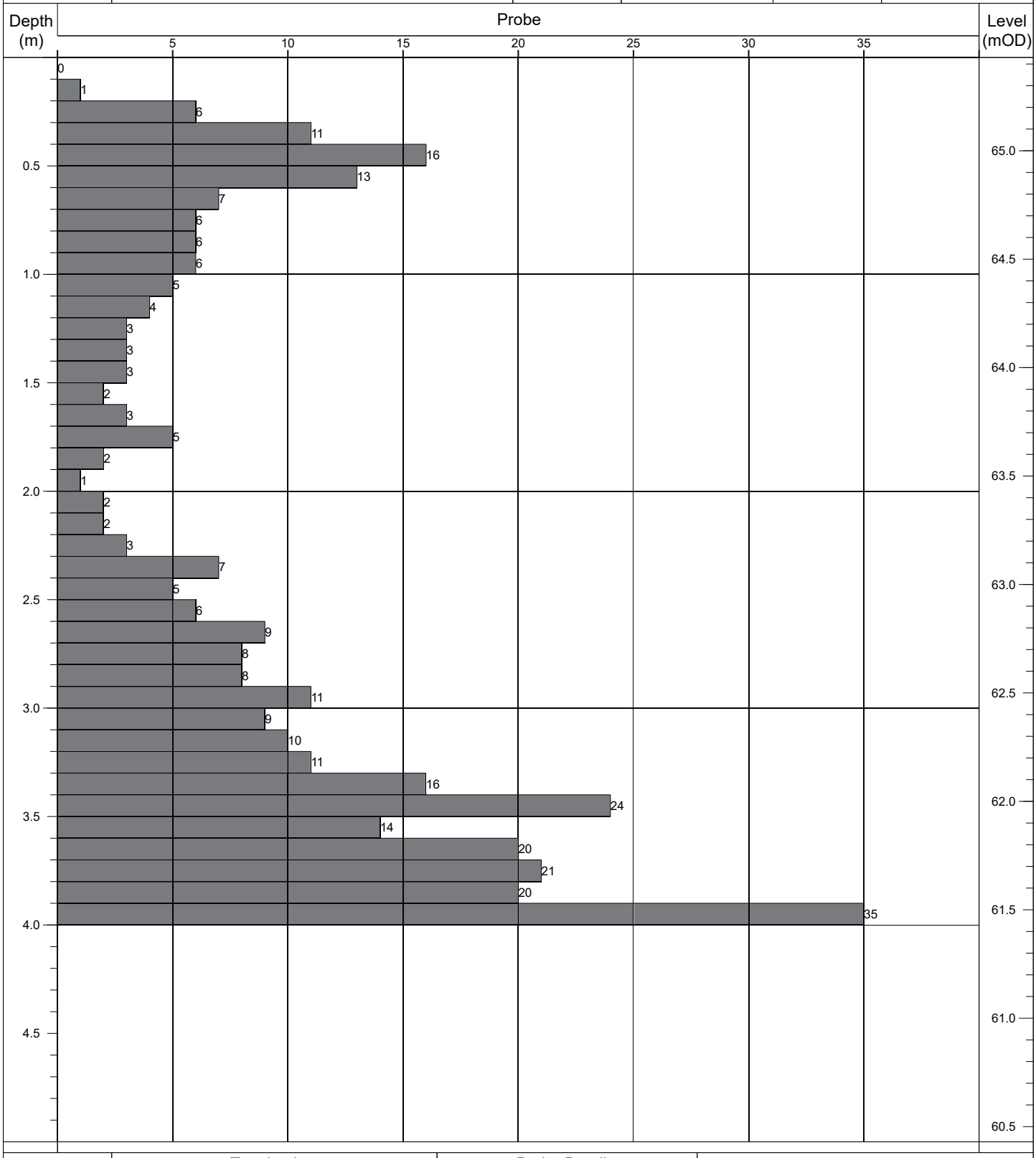
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP133**
Contract:	Coolagad	Easting:	727821.178	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712862.149	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.38	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



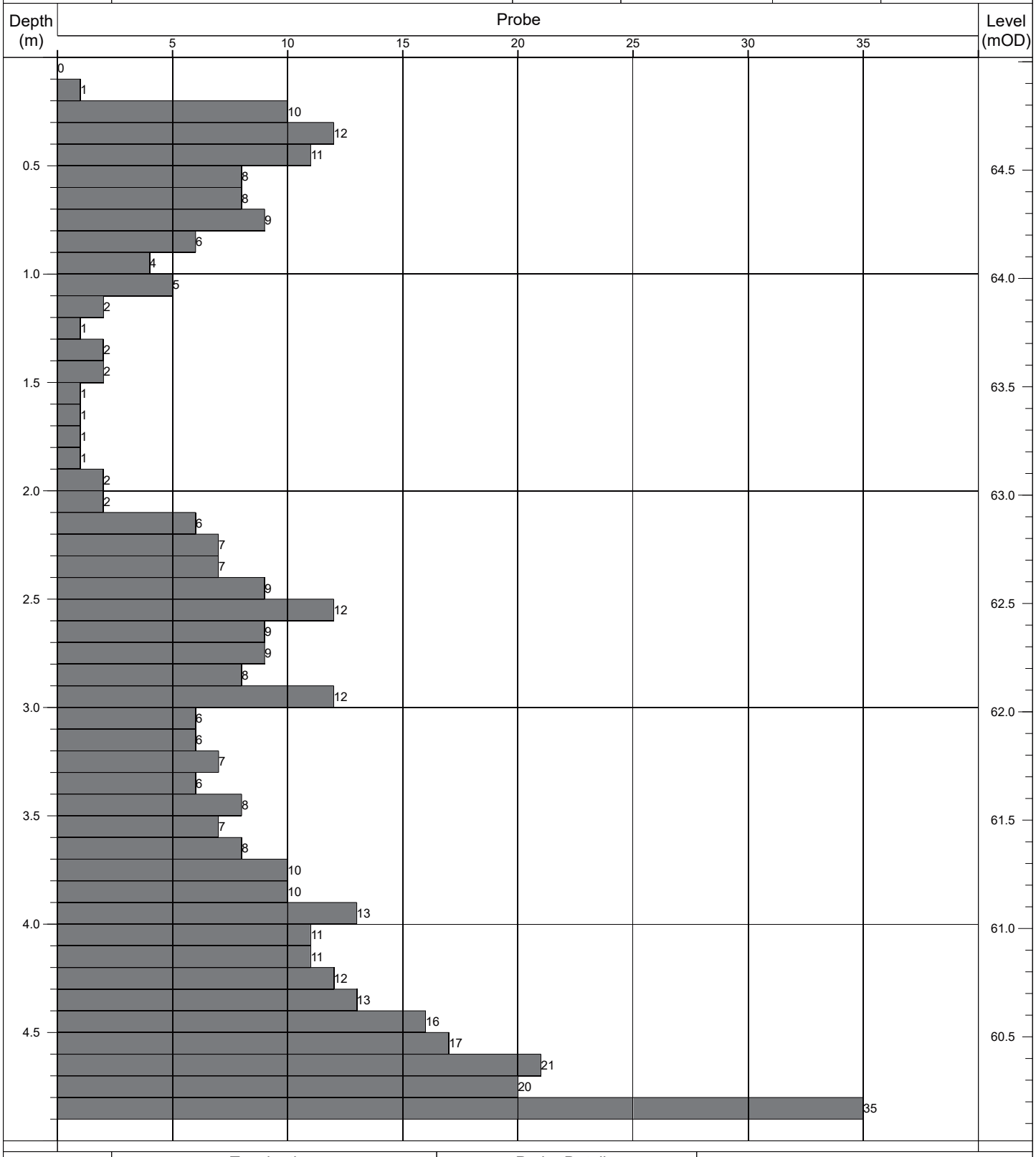
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP134**
Contract:	Coolagad	Easting:	727823.778	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712847.443	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.43	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



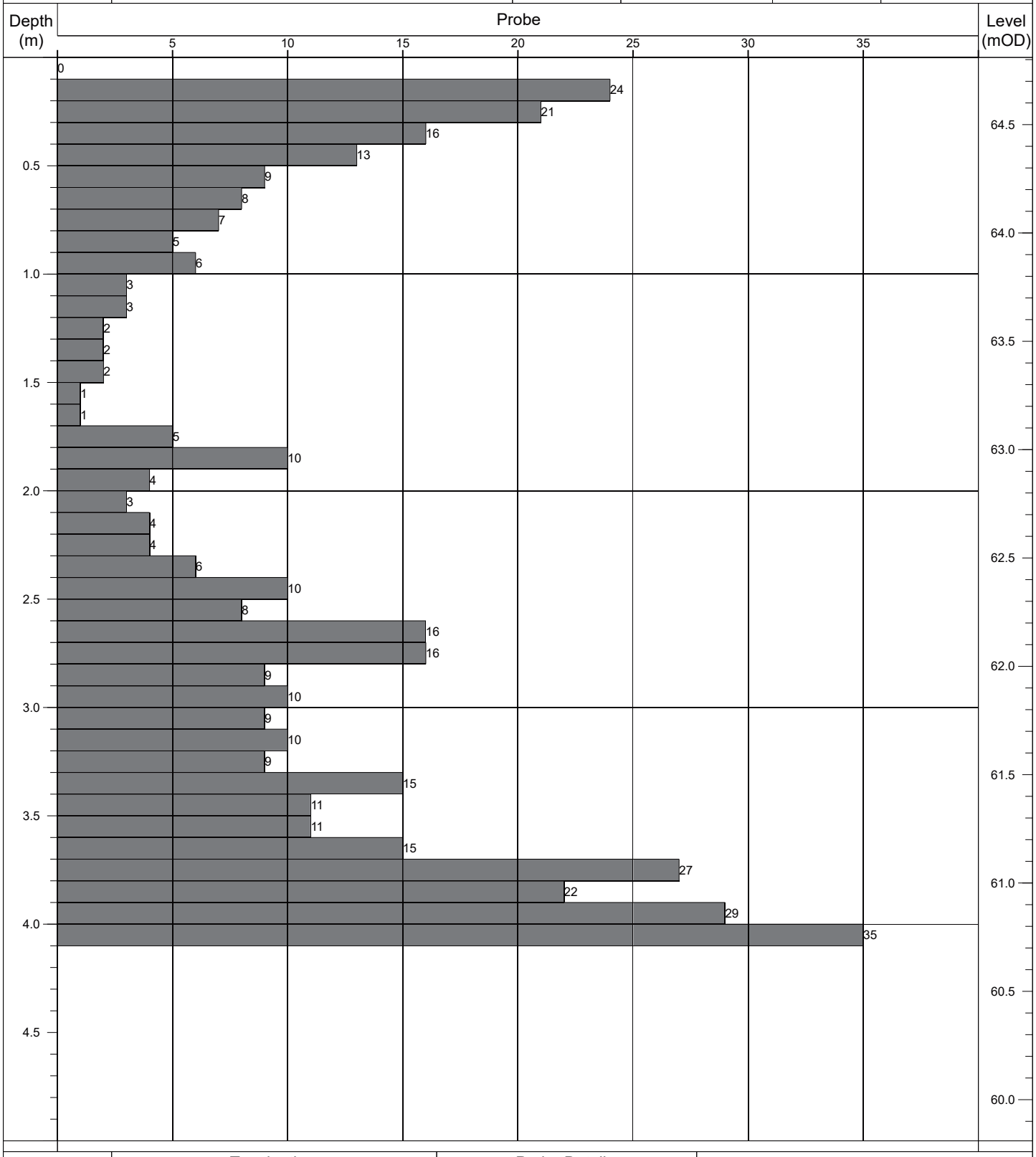
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP135**
Contract:	Coolagad	Easting:	727829.071	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712833.371	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.02	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



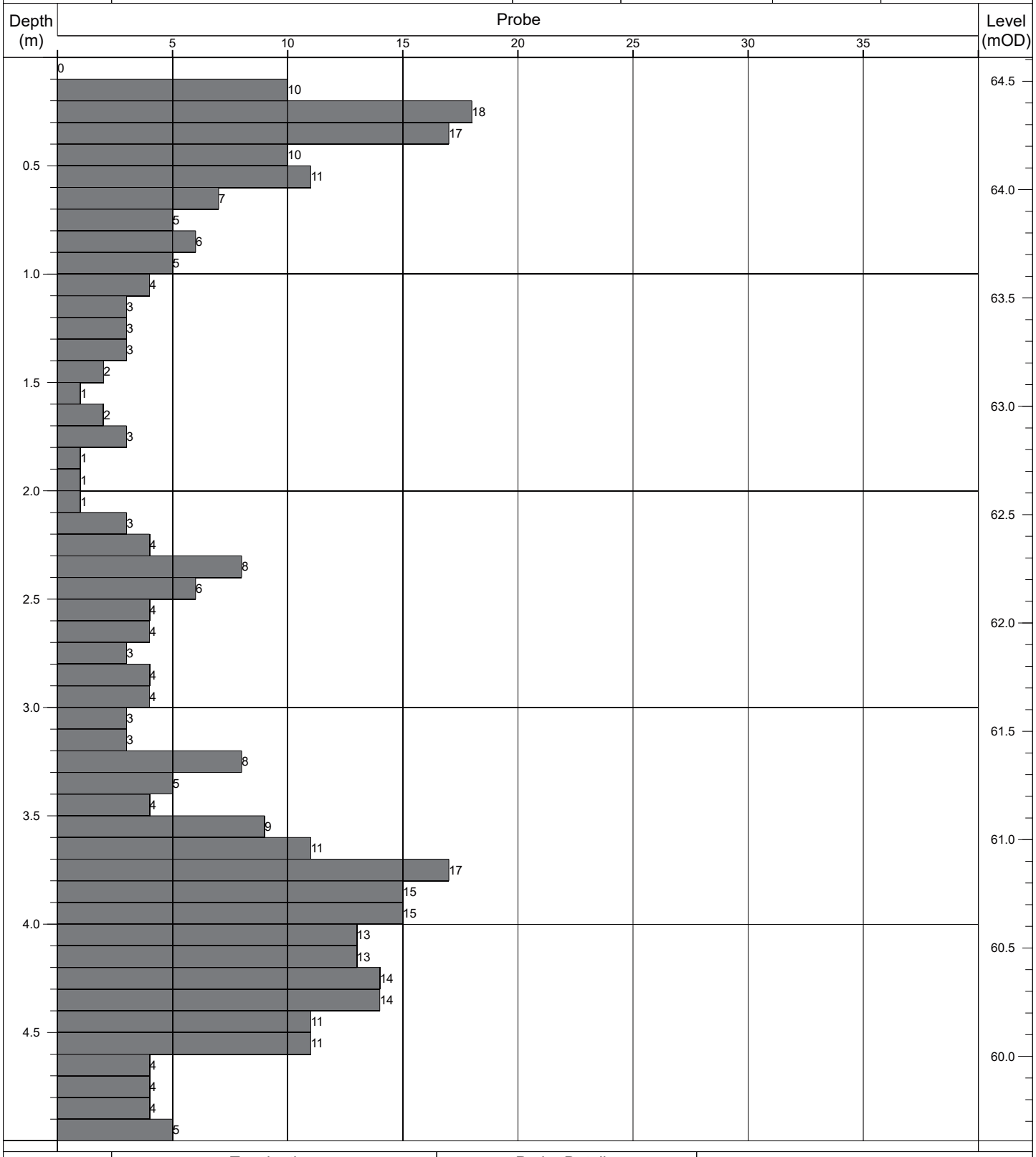
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP136**
Contract:	Coolagad	Easting:	727836.790	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712820.750	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.81	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



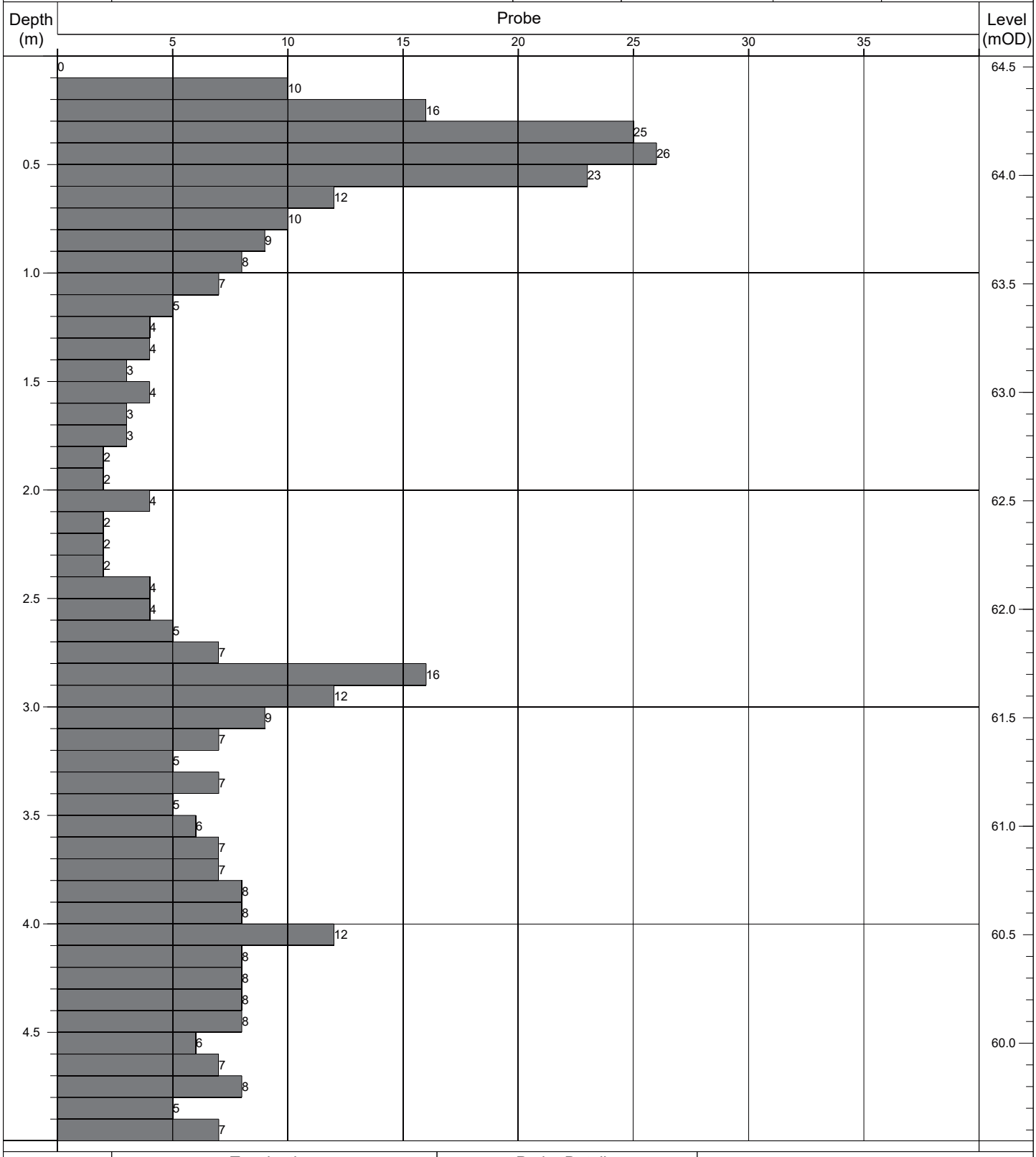
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP137**
Contract:	Coolagad	Easting:	727842.132	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712807.283	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.61	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



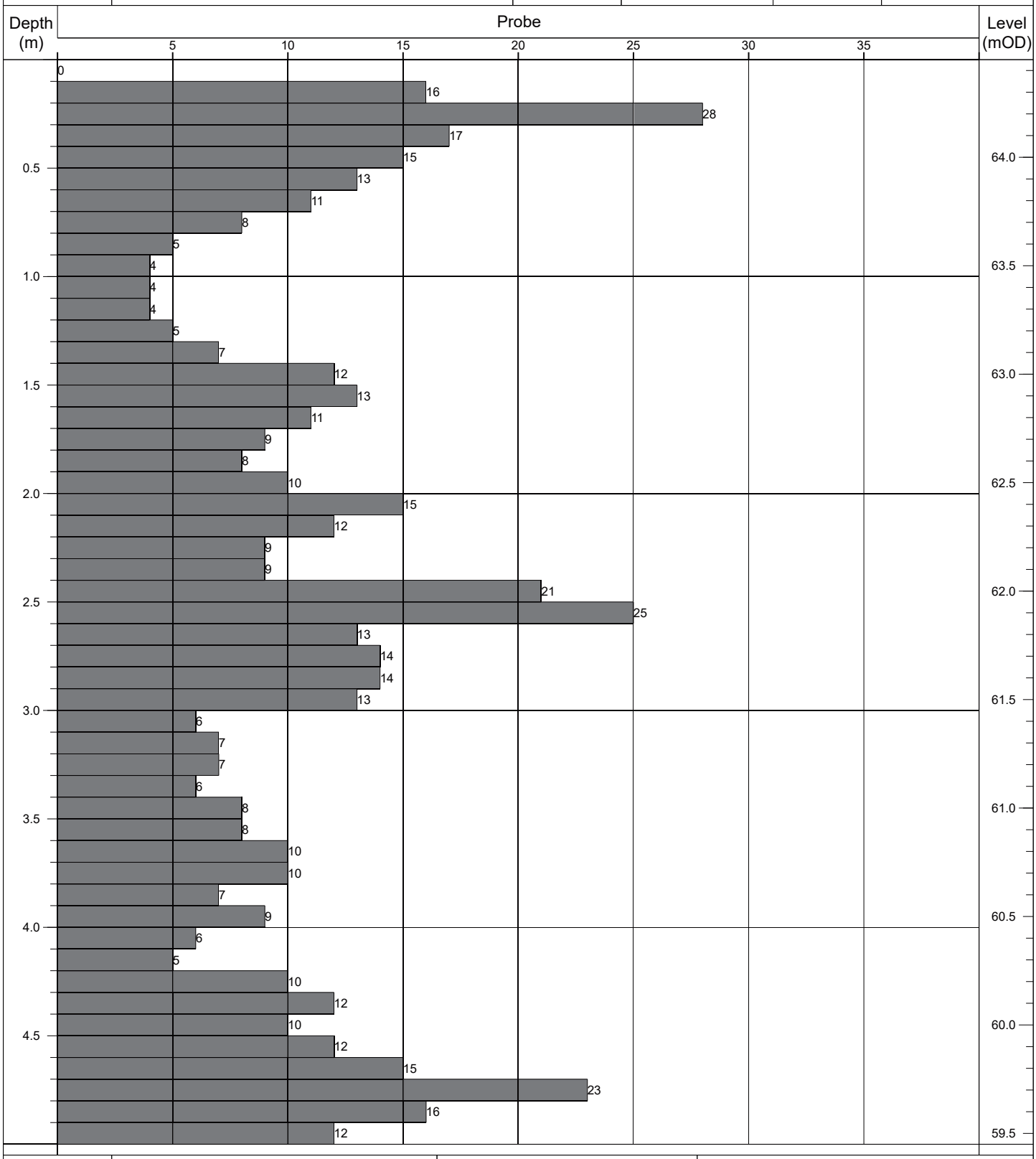
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP138
Contract:	Coolagad	Easting:	727847.703	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712792.861	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



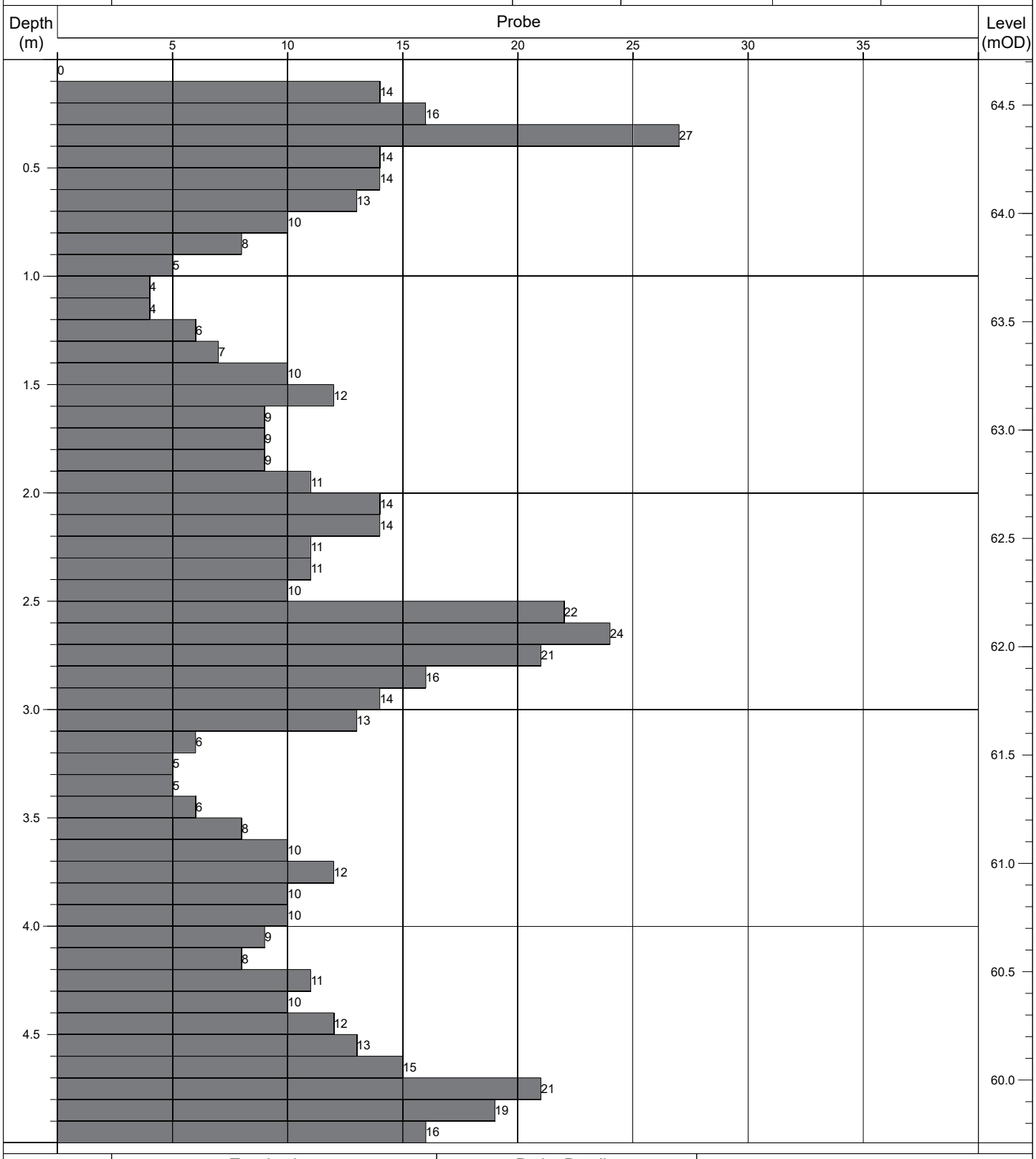
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP139**
Contract:	Coolagad	Easting:	727858.349	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712778.973	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.45	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



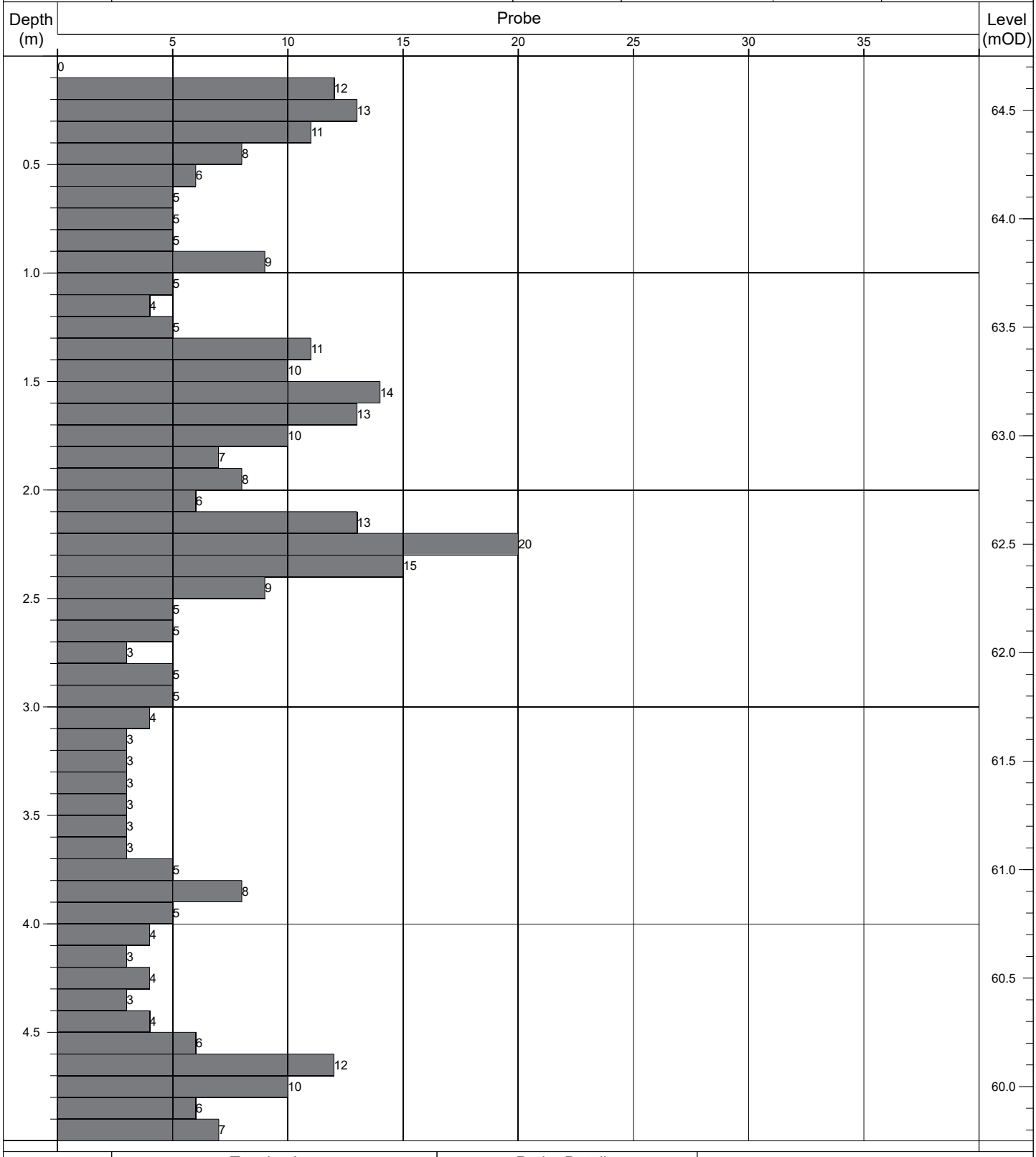
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP140**
Contract:	Coolagad	Easting:	727860.399	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712764.066	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.71	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



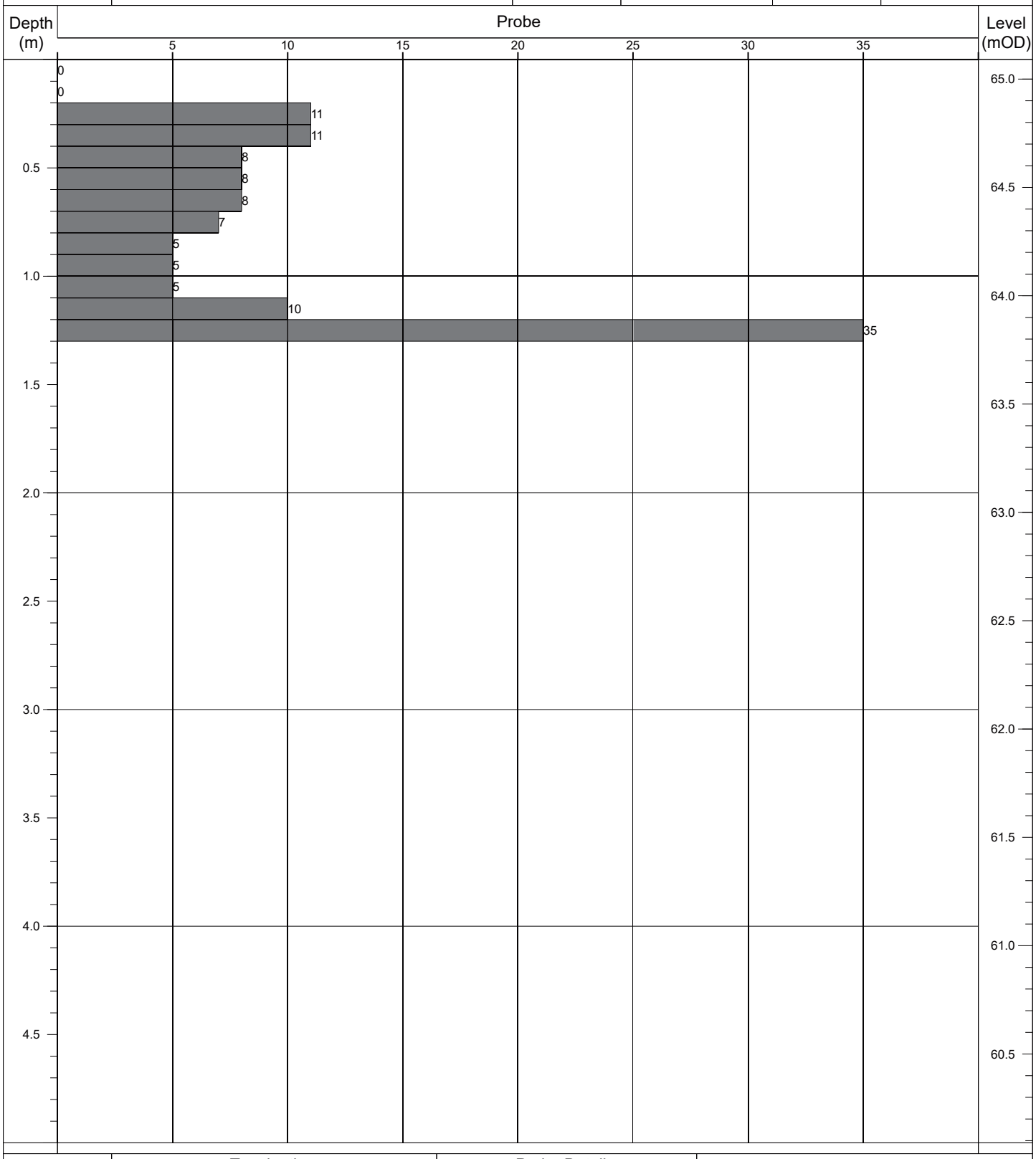
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP141
Contract:	Coolagad	Easting:	727857.153	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712753.286	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.75	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



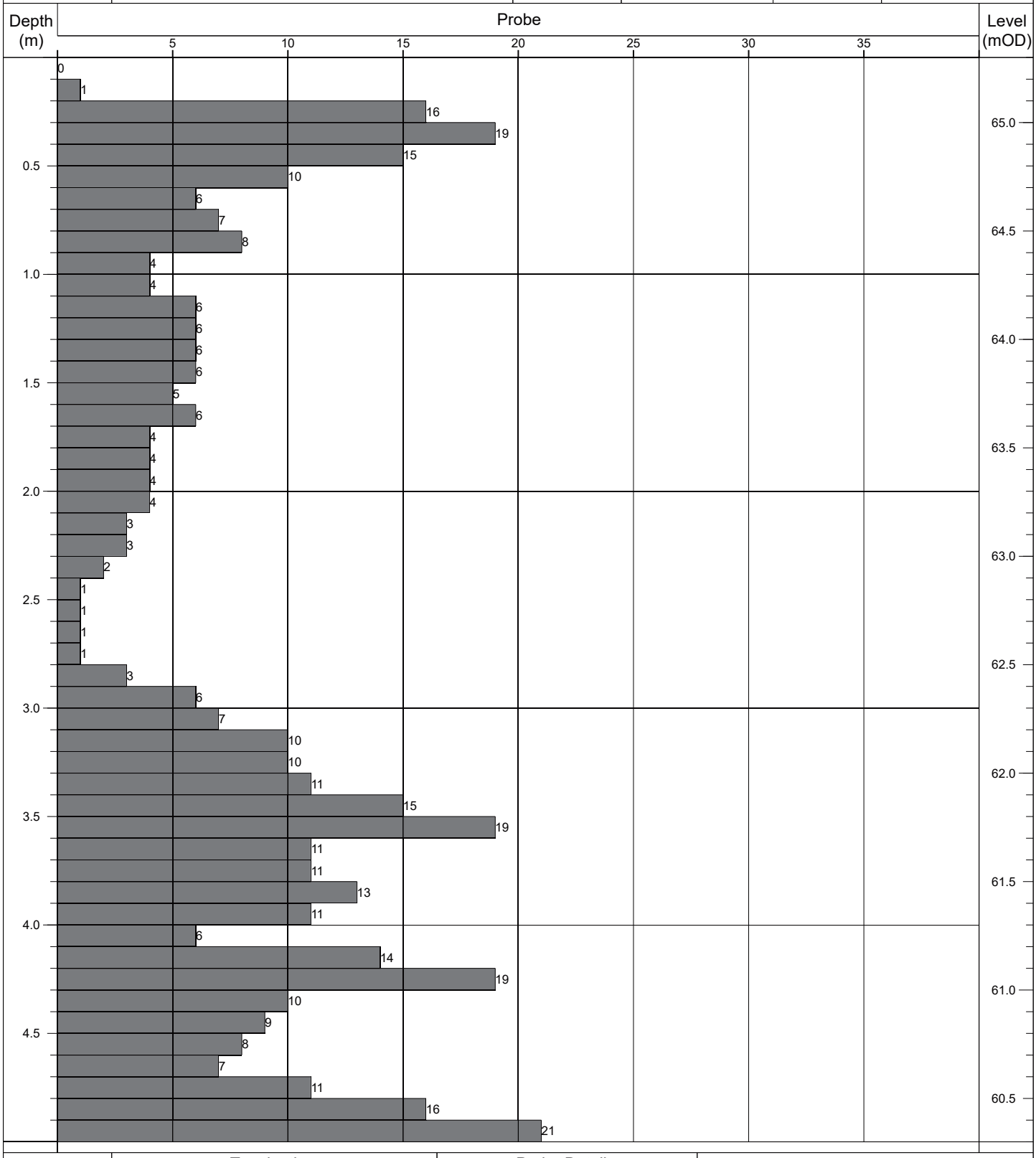
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP142**
Contract:	Coolagad	Easting:	727864.438	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712738.933	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.09	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



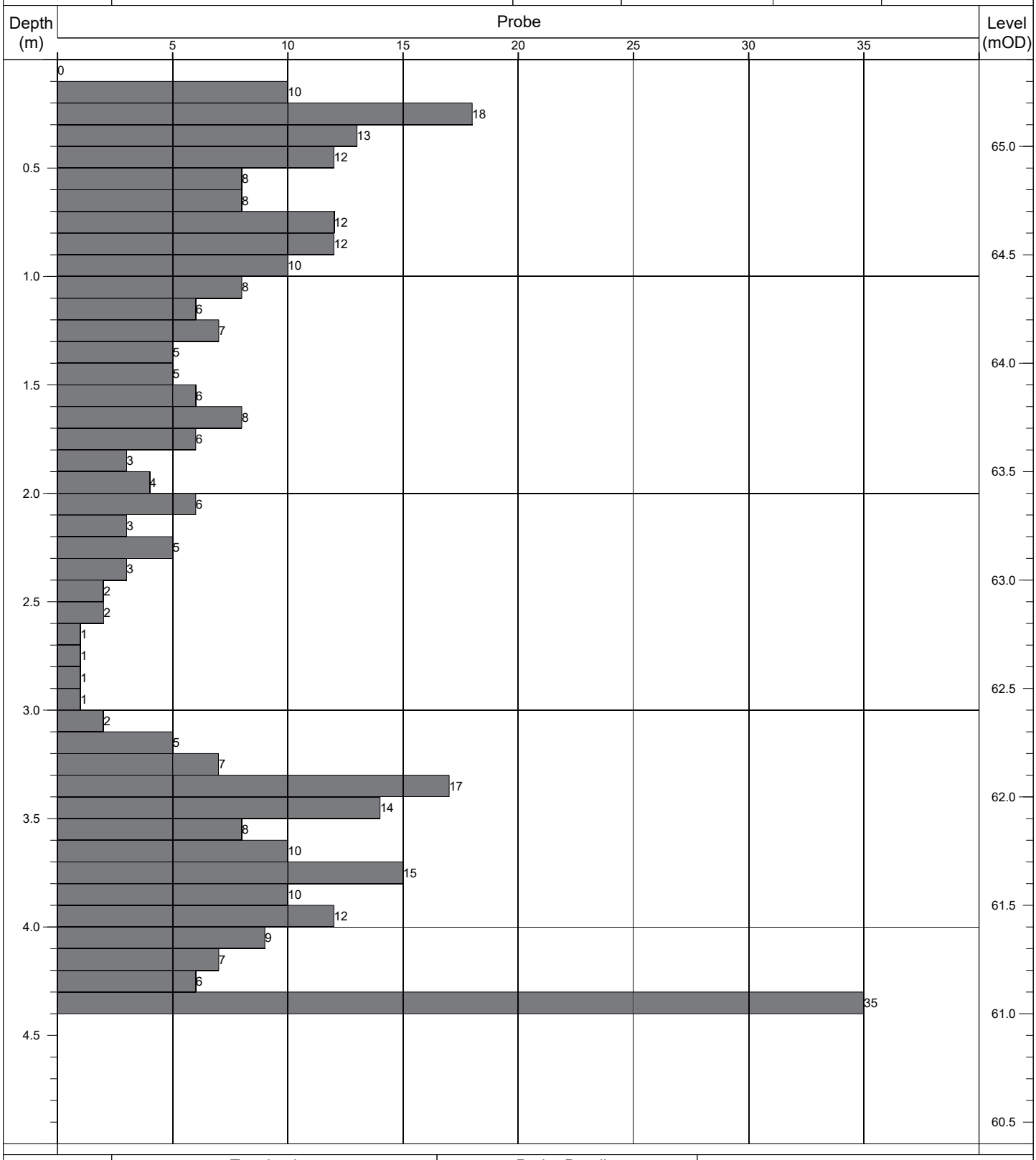
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP143**
Contract:	Coolagad	Easting:	727860.507	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712728.403	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.30	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



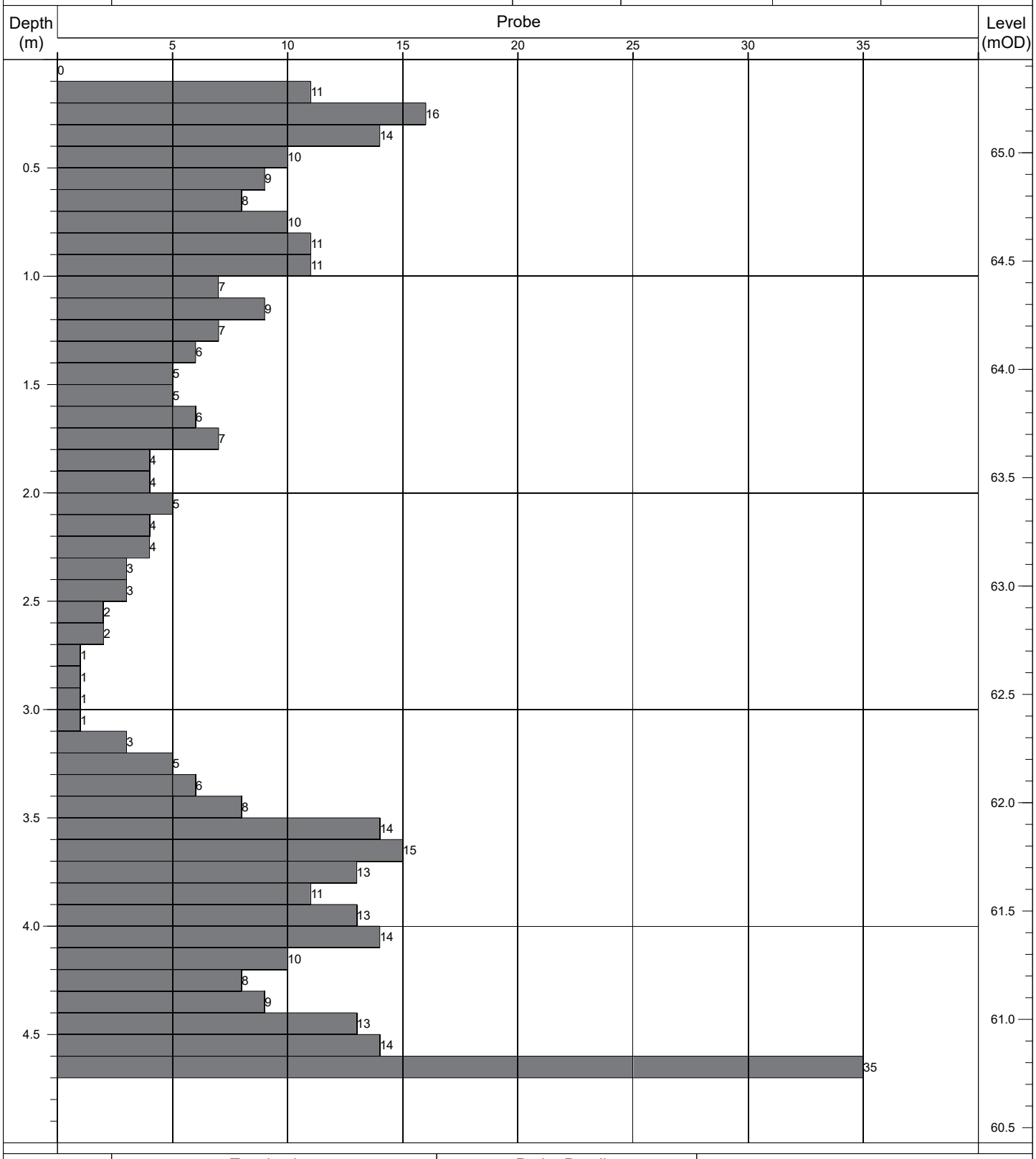
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP144**
Contract:	Coolagad	Easting:	727865.658	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712714.946	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.40	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



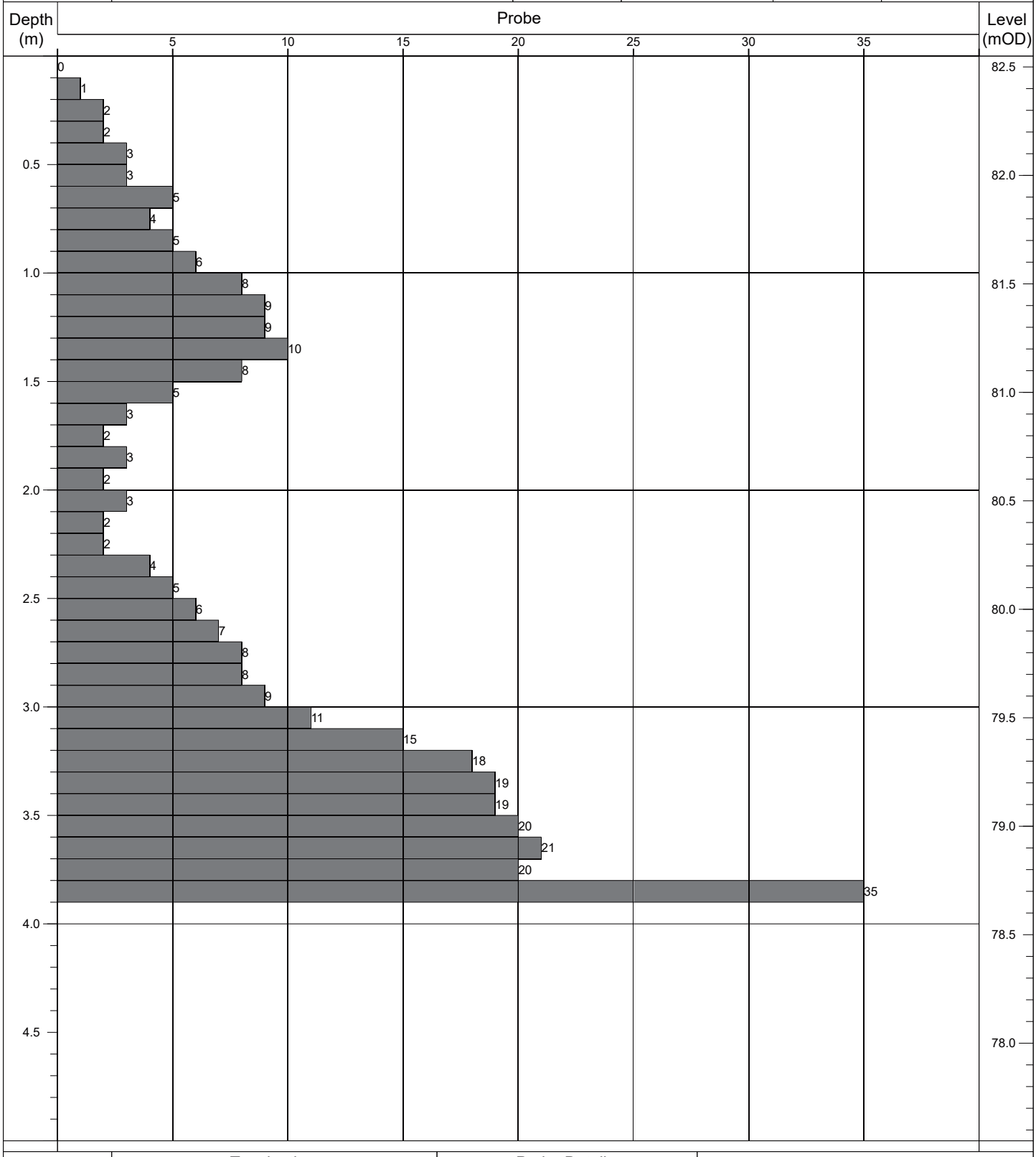
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP145**
Contract:	Coolagad	Easting:	727869.089	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712703.705	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.43	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



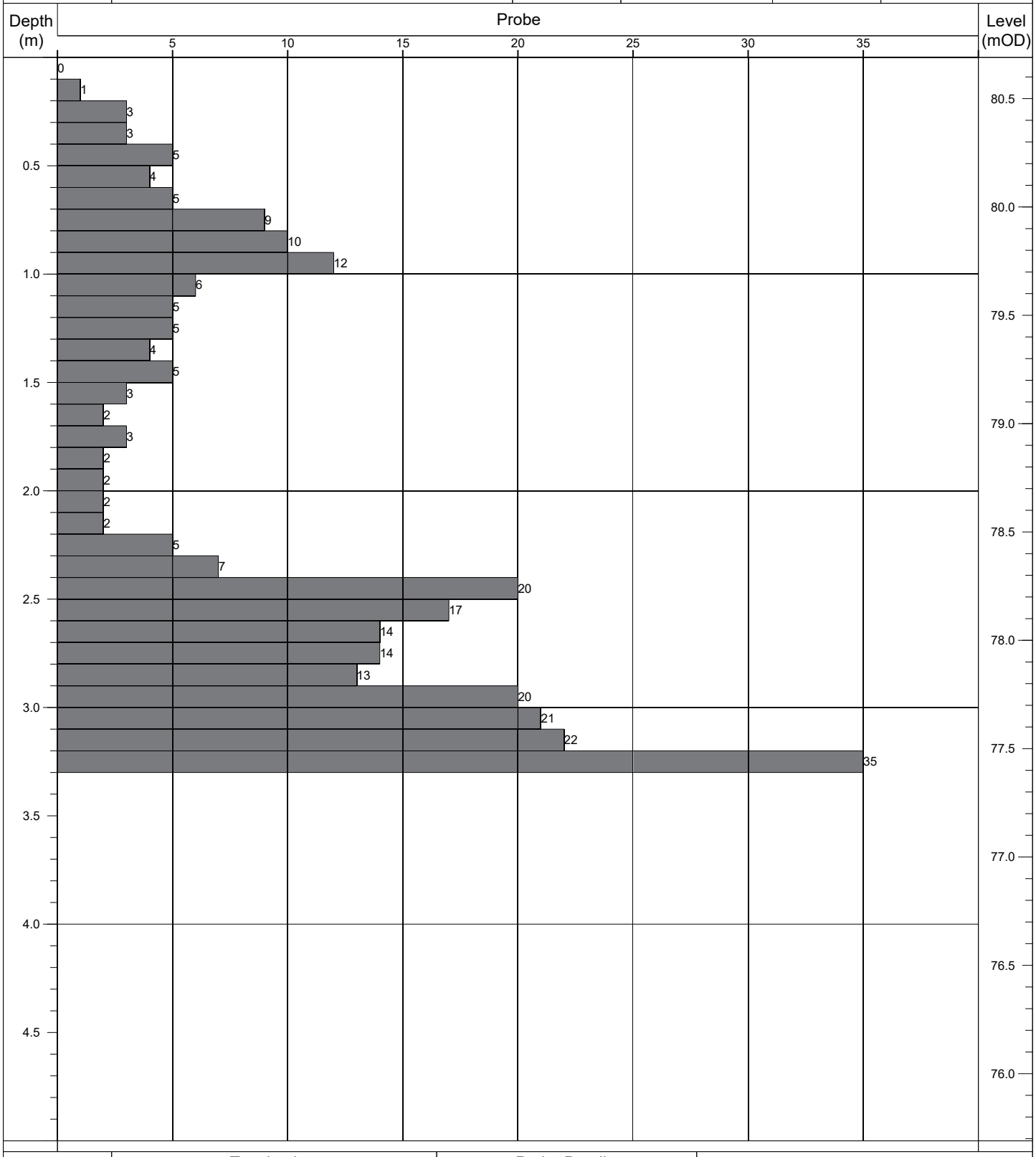
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP146**
Contract:	Coolagad	Easting:	727567.195	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712939.444	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



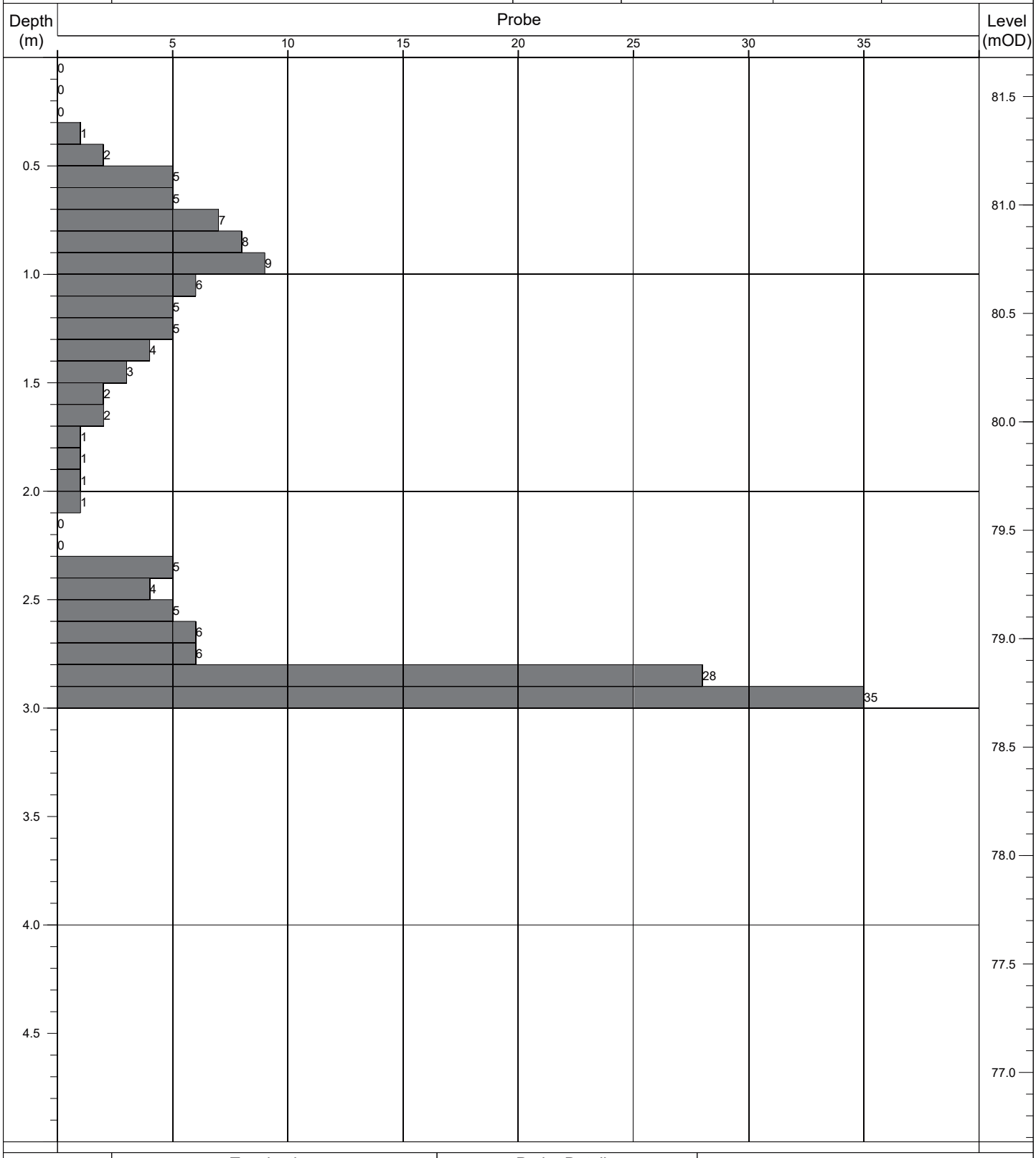
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP147**
Contract:	Coolagad	Easting:	727584.918	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712939.471	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.69	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



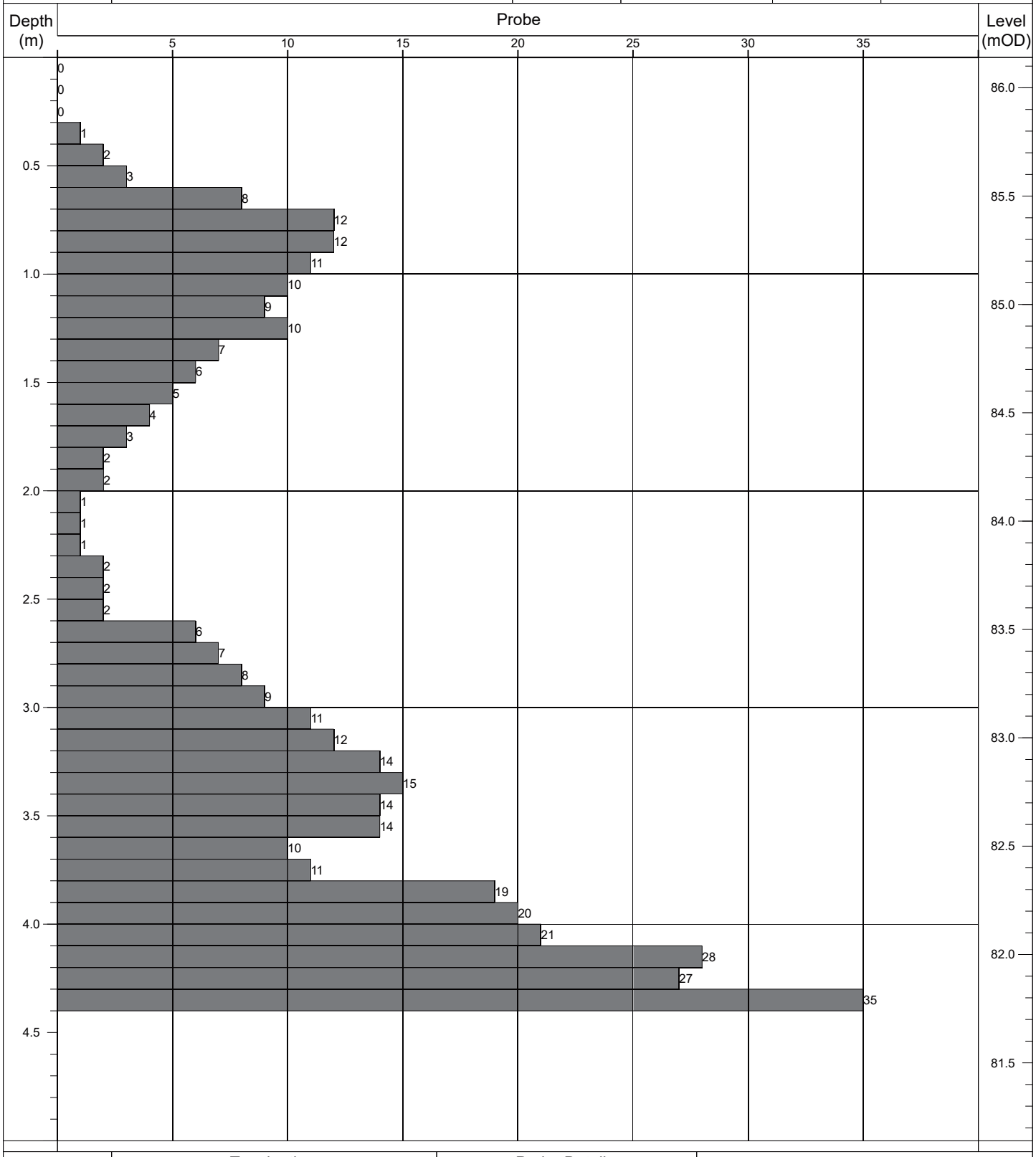
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP148**
Contract:	Coolagad	Easting:	727585.009	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712927.480	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.68	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



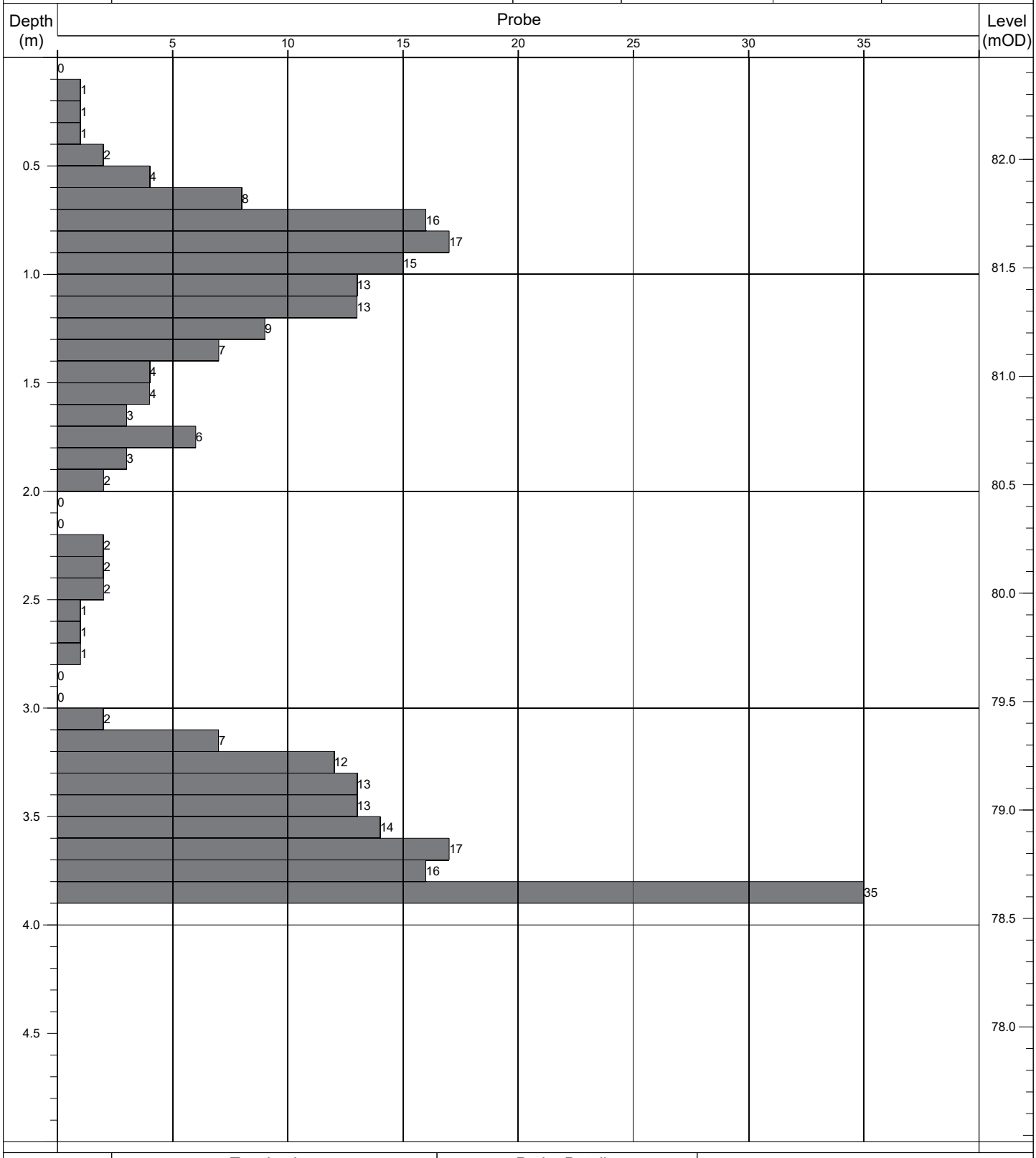
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP149**
Contract:	Coolagad	Easting:	727548.905	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712918.148	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	86.14	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



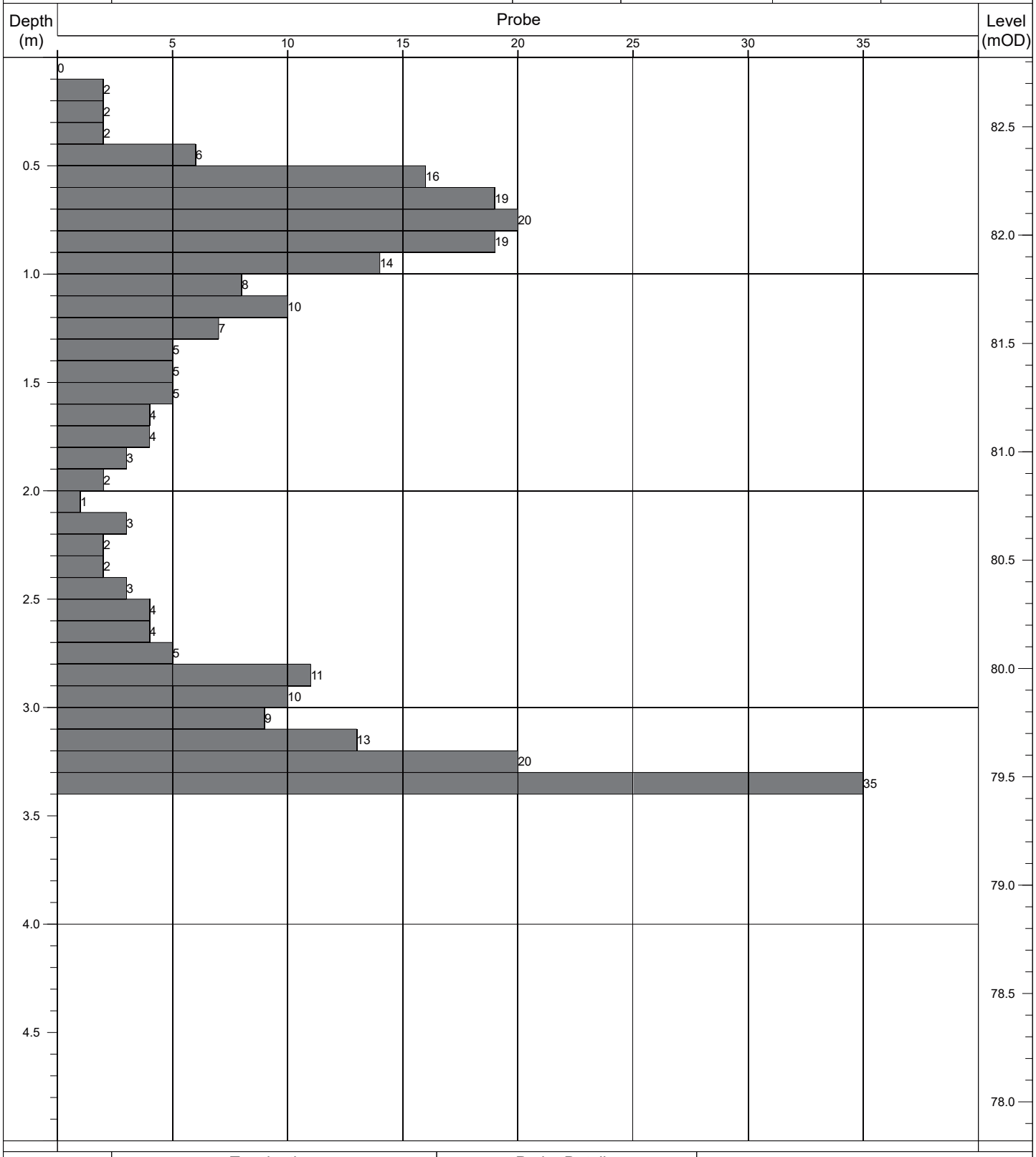
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP150**
Contract:	Coolagad	Easting:	727588.217	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712912.142	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.47	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



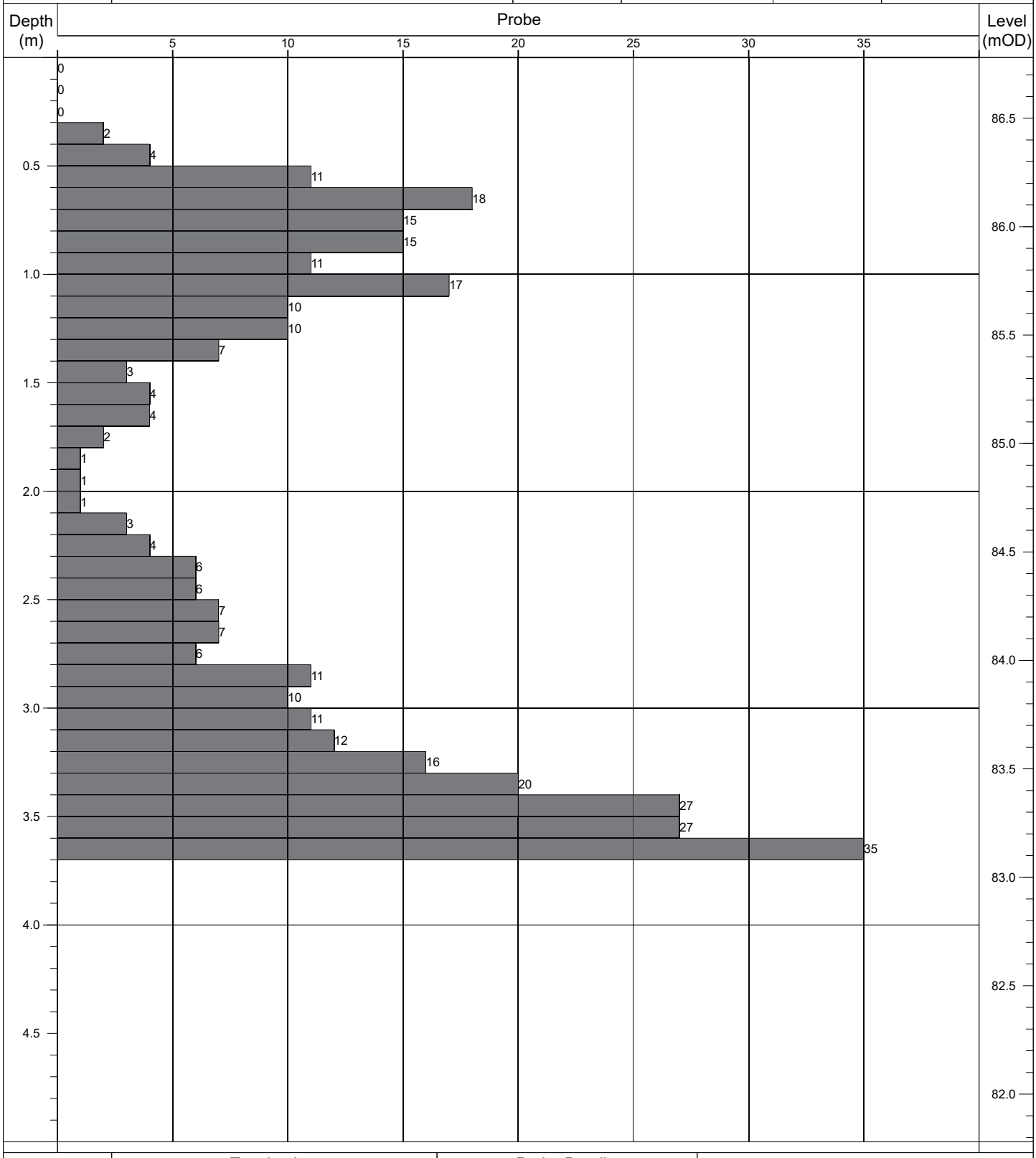
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP151**
Contract:	Coolagad	Easting:	727590.193	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712901.667	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.82	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



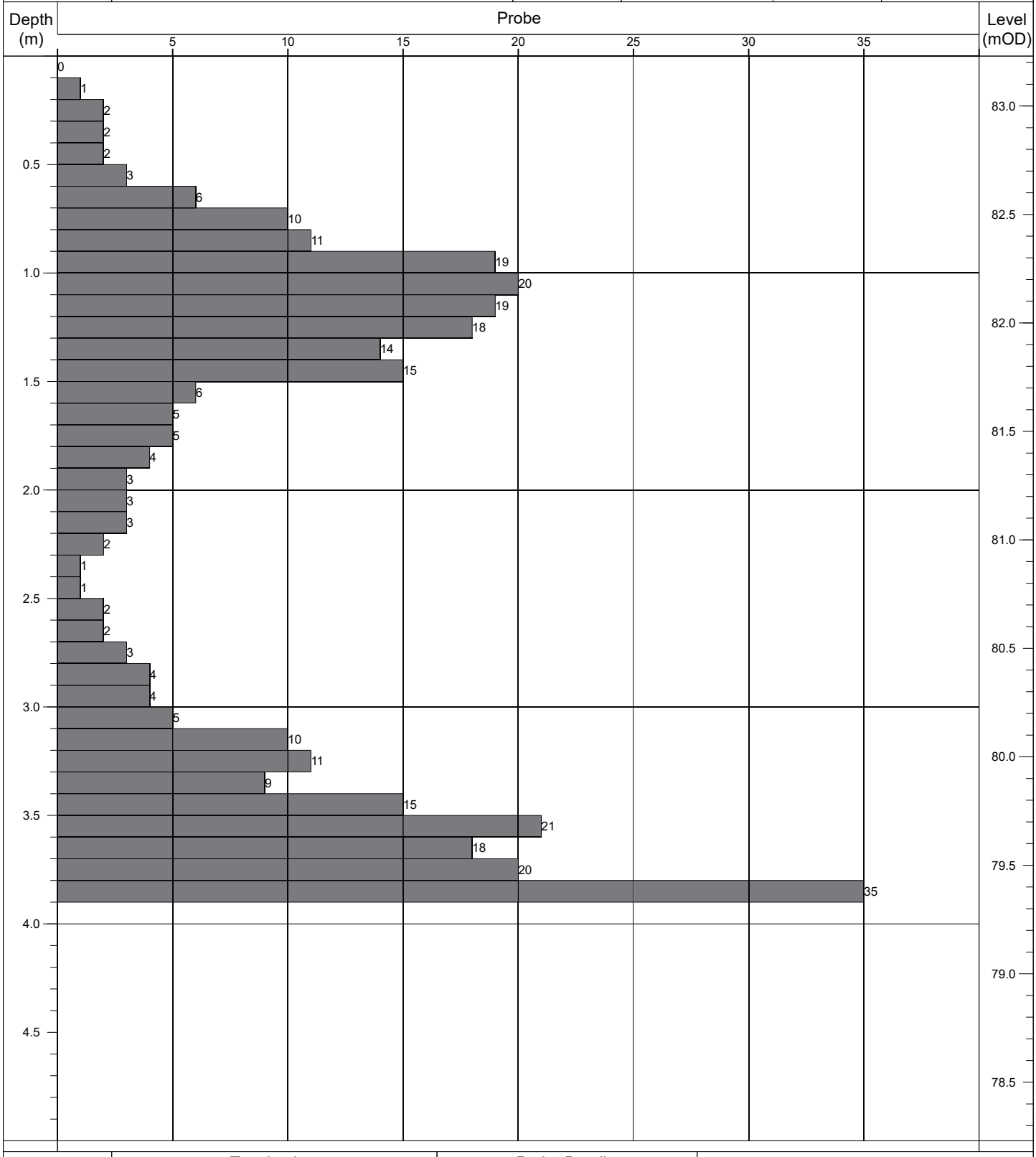
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP152**
Contract:	Coolagad	Easting:	727551.807	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712902.799	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	86.78	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



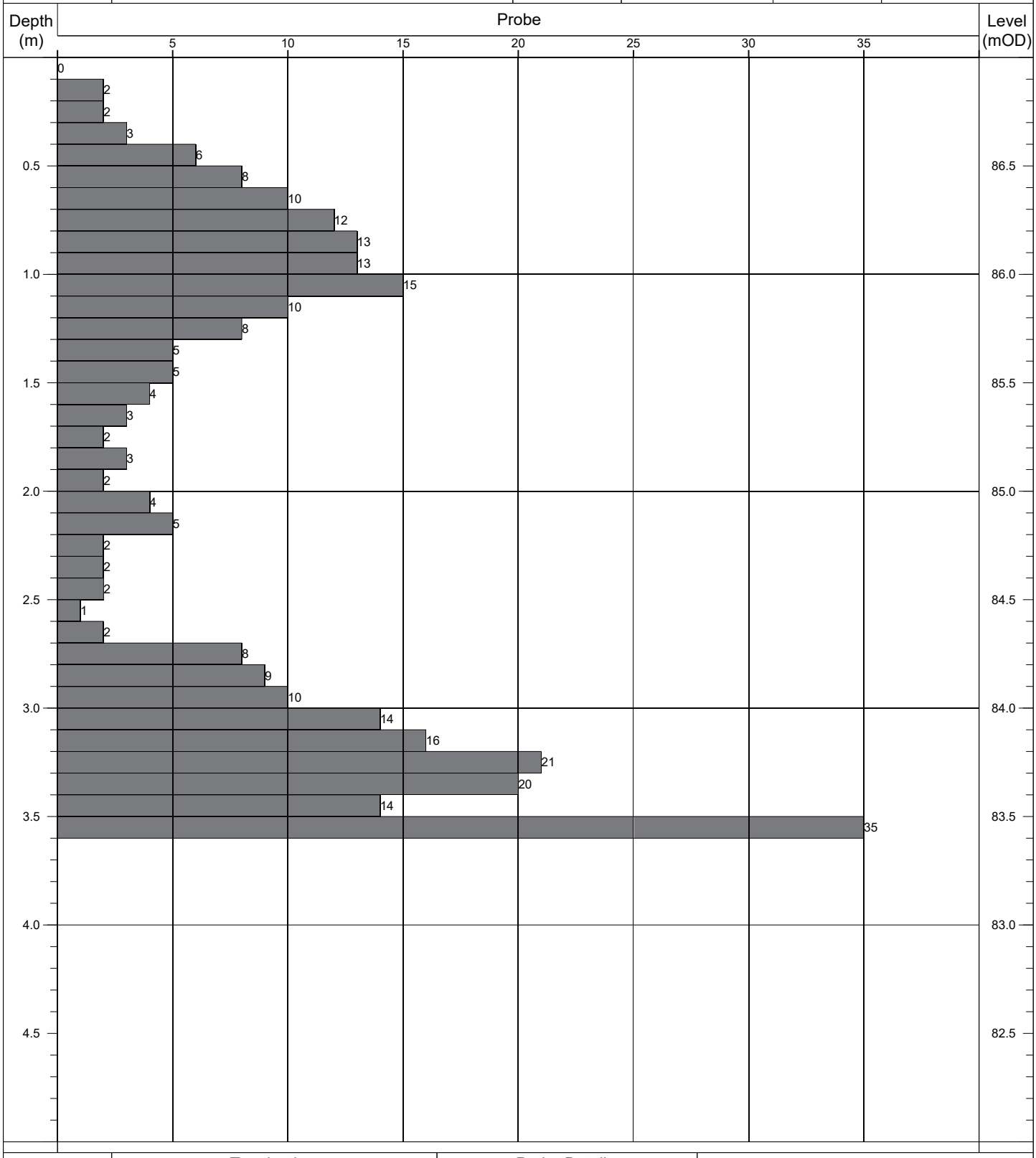
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP153**
Contract:	Coolagad	Easting:	727593.529	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712889.313	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.23	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



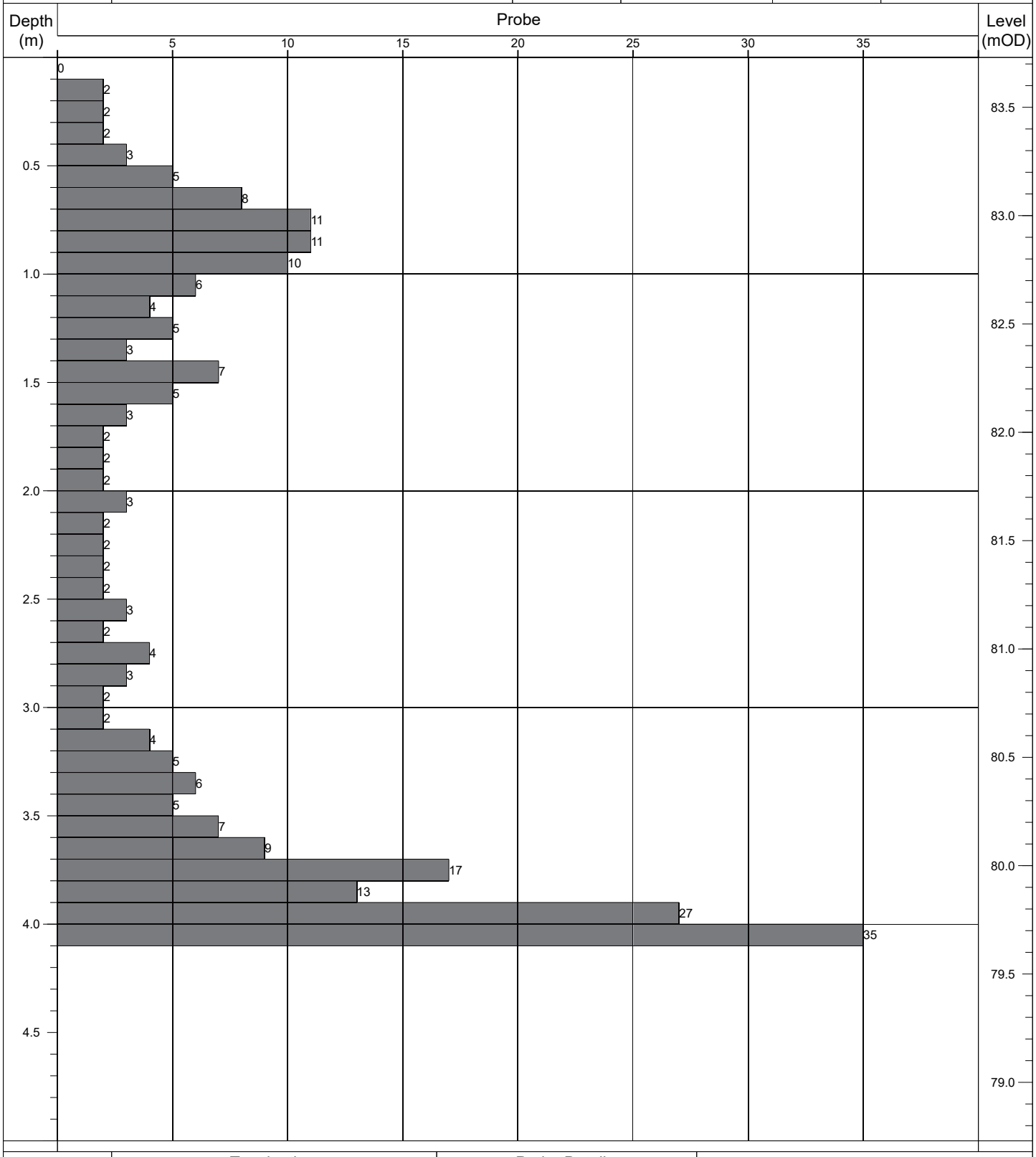
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP154**
Contract:	Coolagad	Easting:	727556.236	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712888.808	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	87.00	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



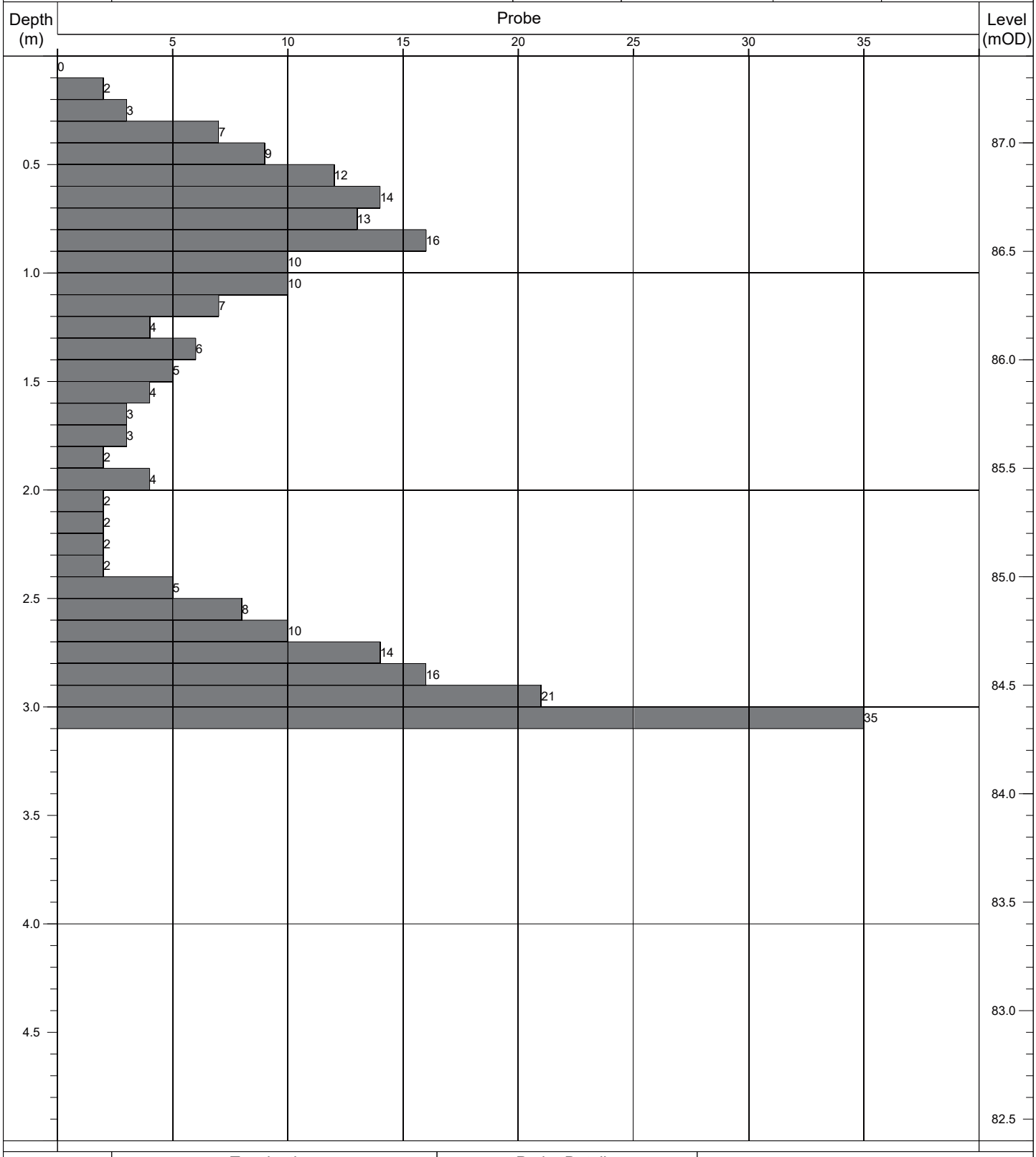
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP155**
Contract:	Coolagad	Easting:	727596.737	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712874.615	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.73	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



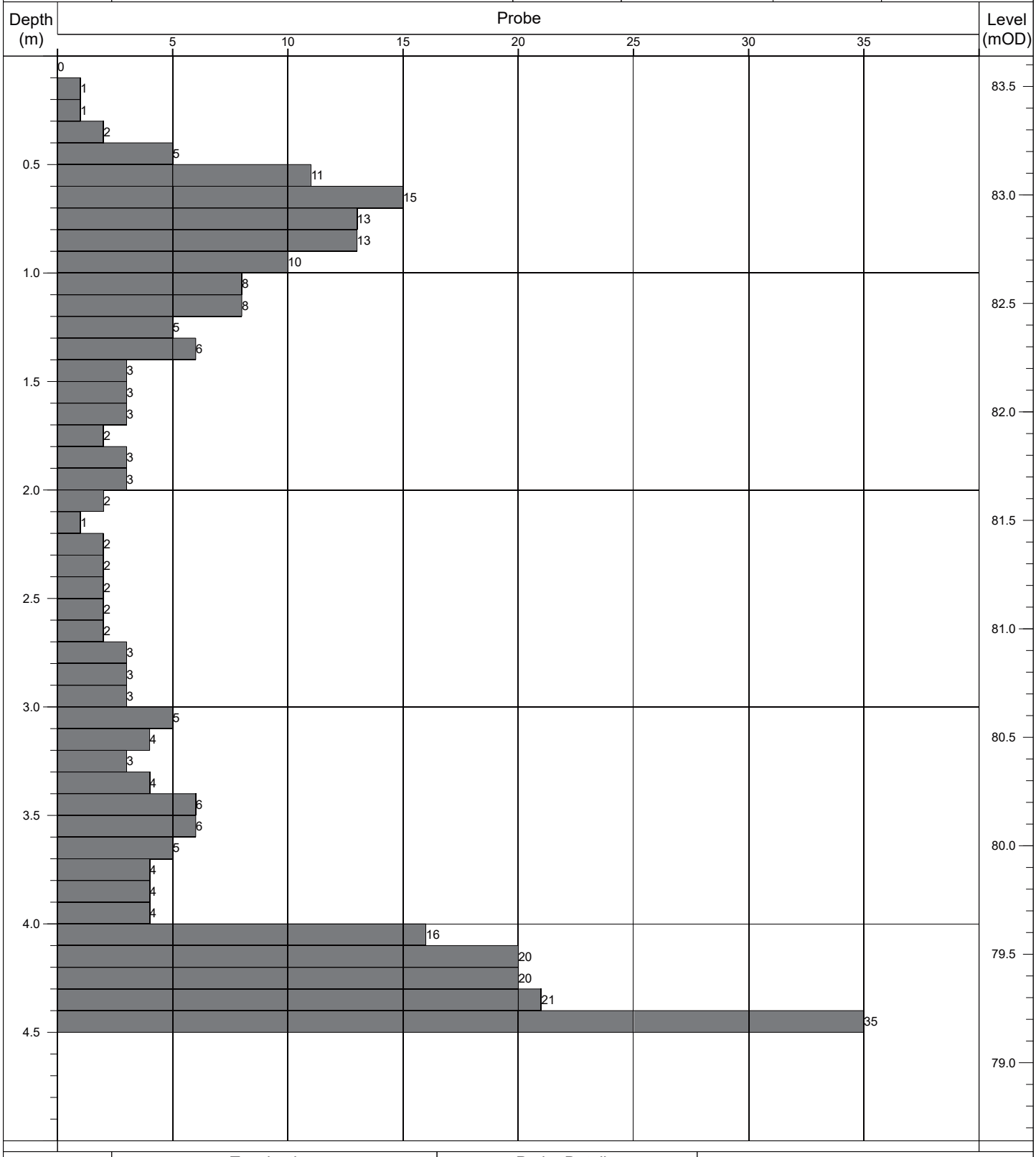
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP156**
Contract:	Coolagad	Easting:	727561.375	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712874.536	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	87.40	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



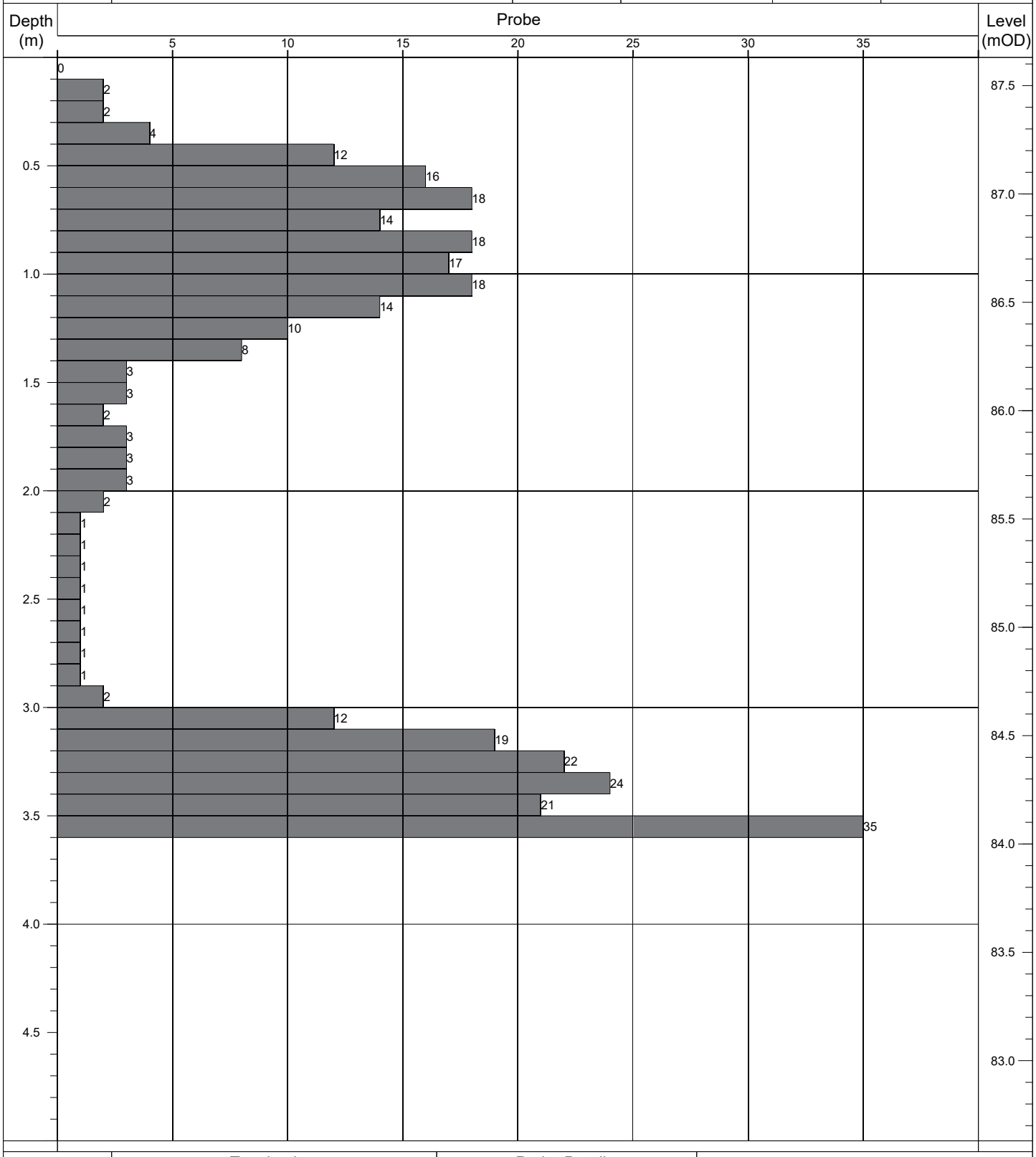
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP157**
Contract:	Coolagad	Easting:	727604.119	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712861.545	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



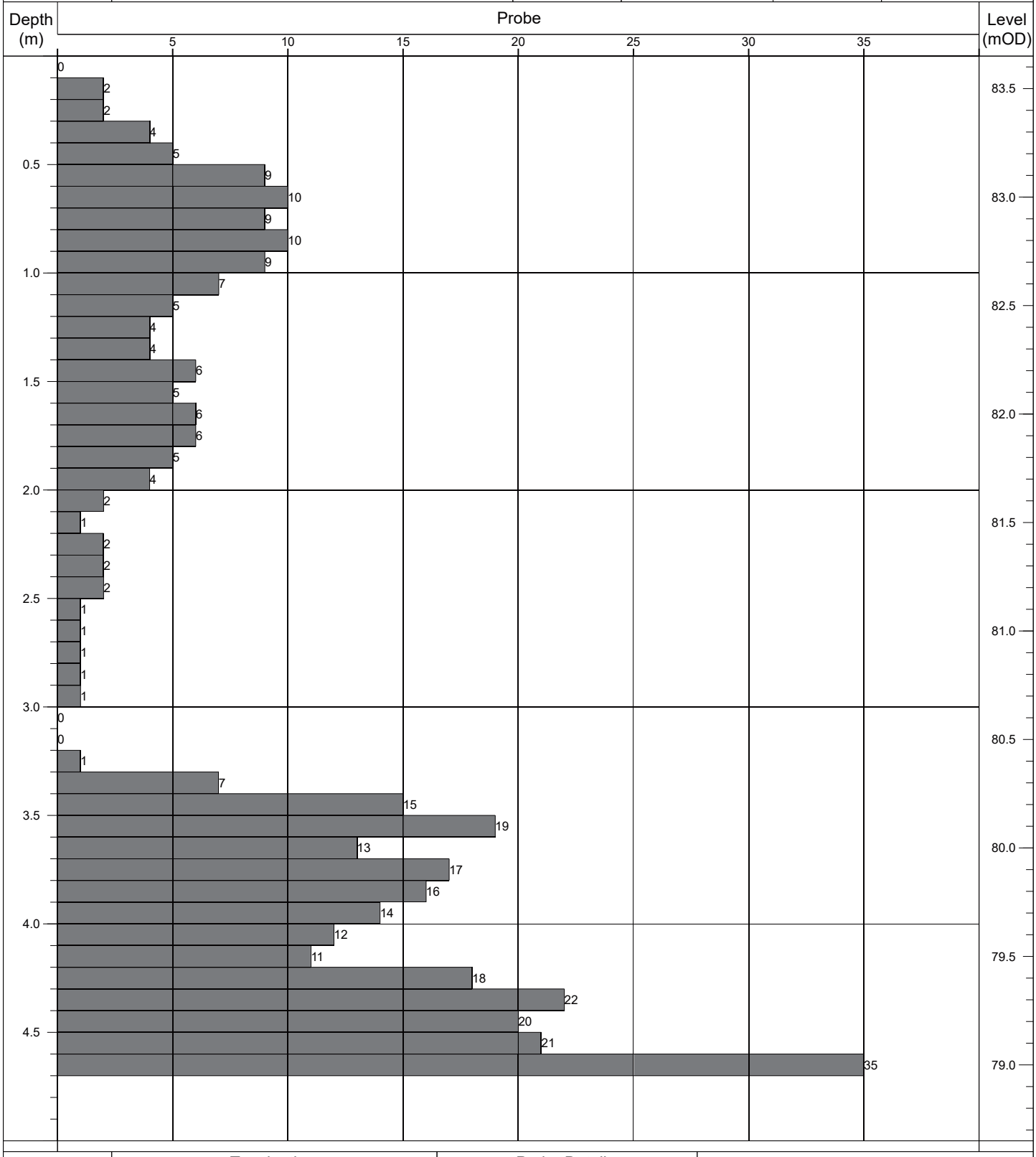
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP158
Contract:	Coolagad	Easting:	727567.457	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712860.704	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	87.63	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



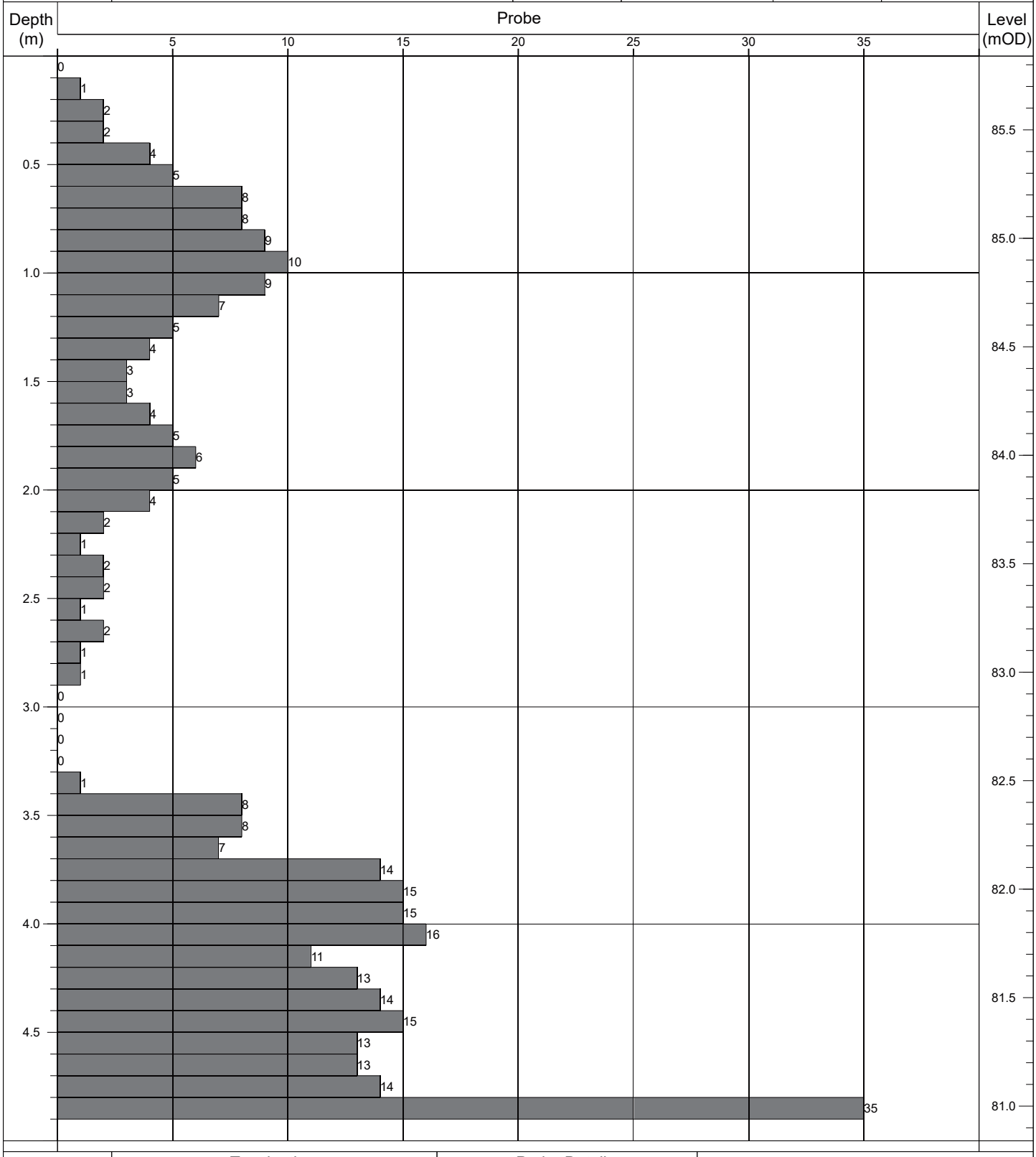
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP159**
Contract:	Coolagad	Easting:	727609.143	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712847.679	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.65	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



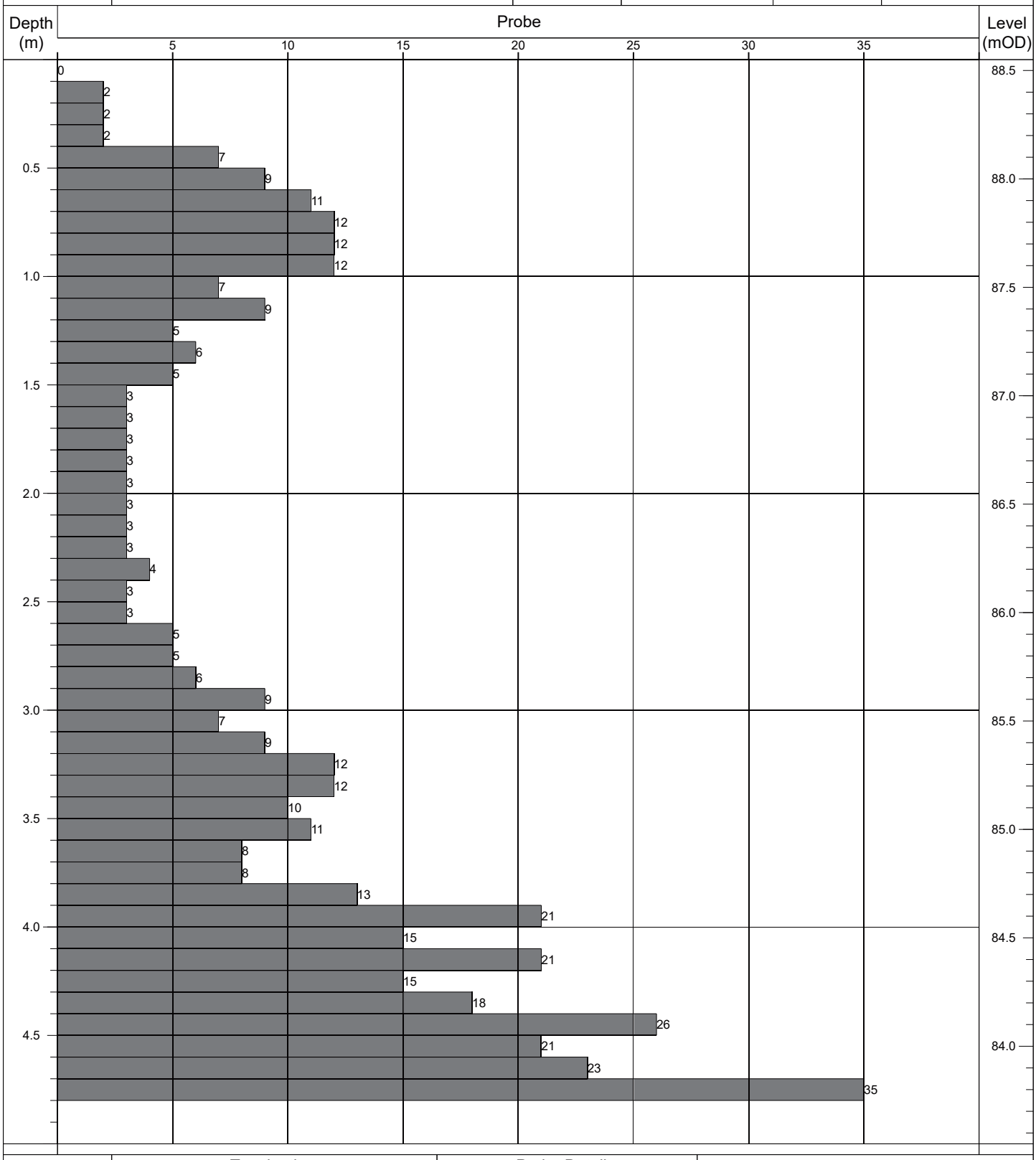
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP160**
Contract:	Coolagad	Easting:	727591.589	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712844.665	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	85.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



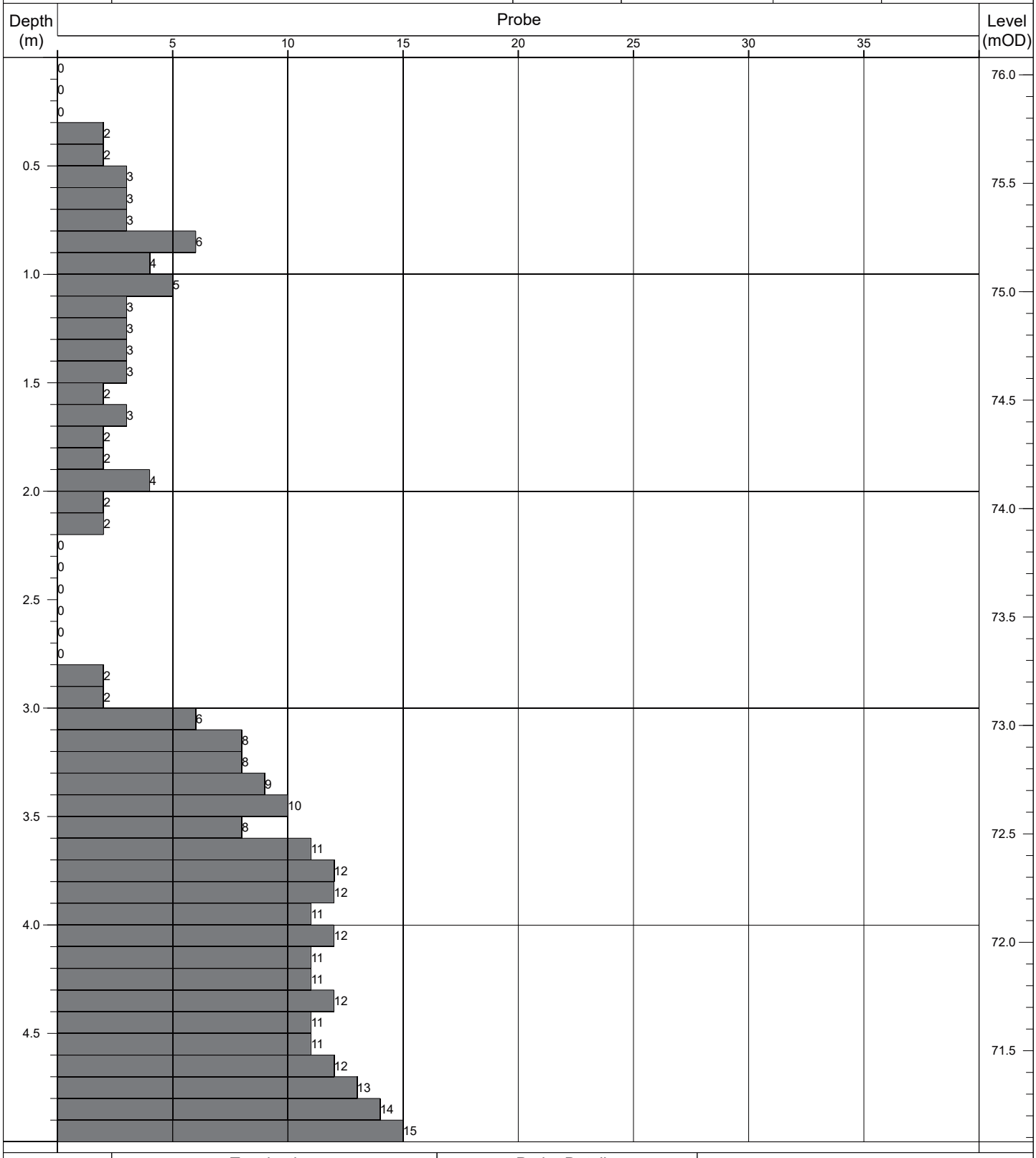
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP161**
Contract:	Coolagad	Easting:	727571.884	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712838.947	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	88.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



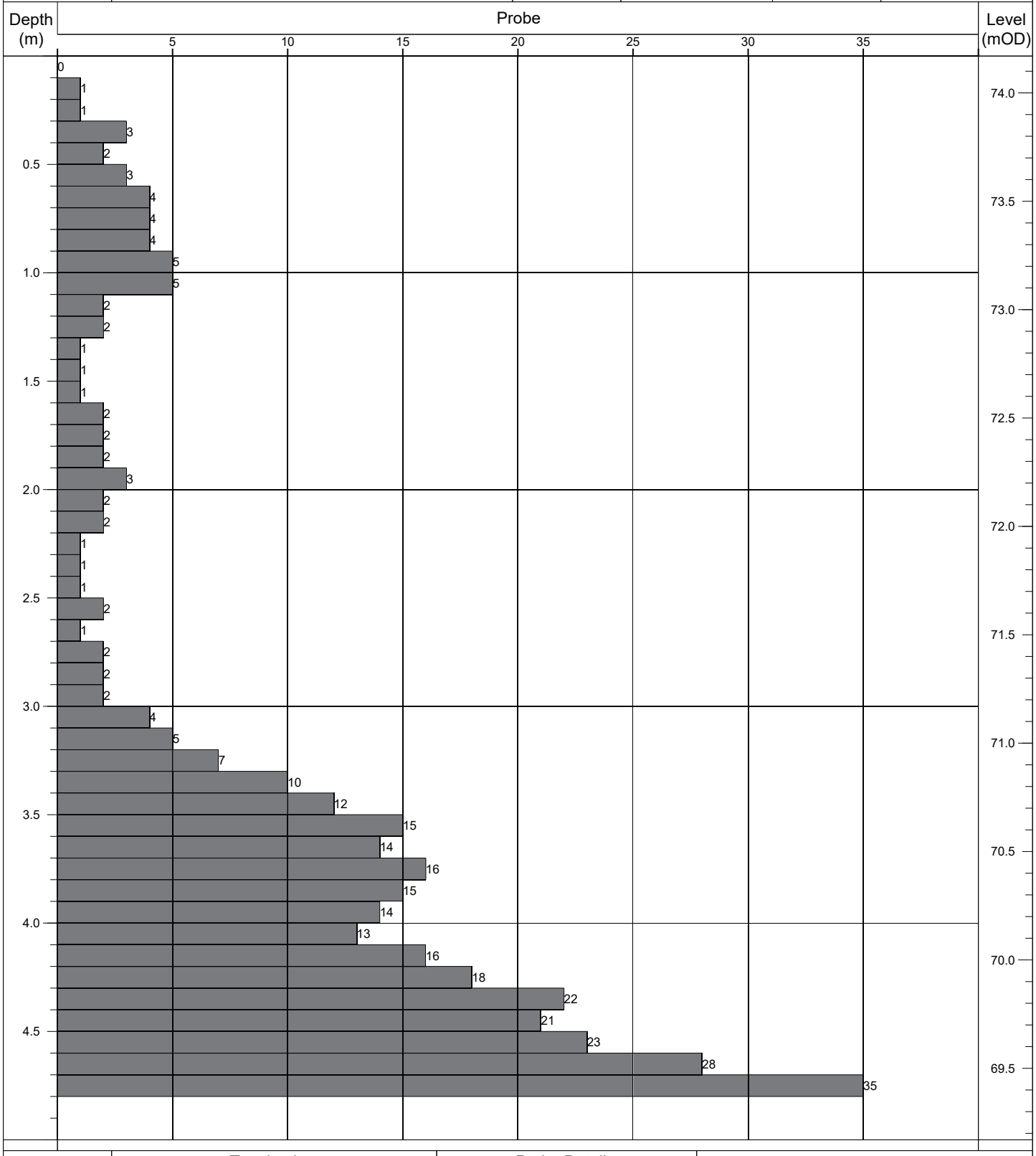
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP162**
Contract:	Coolagad	Easting:	727624.933	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712950.972	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.08	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



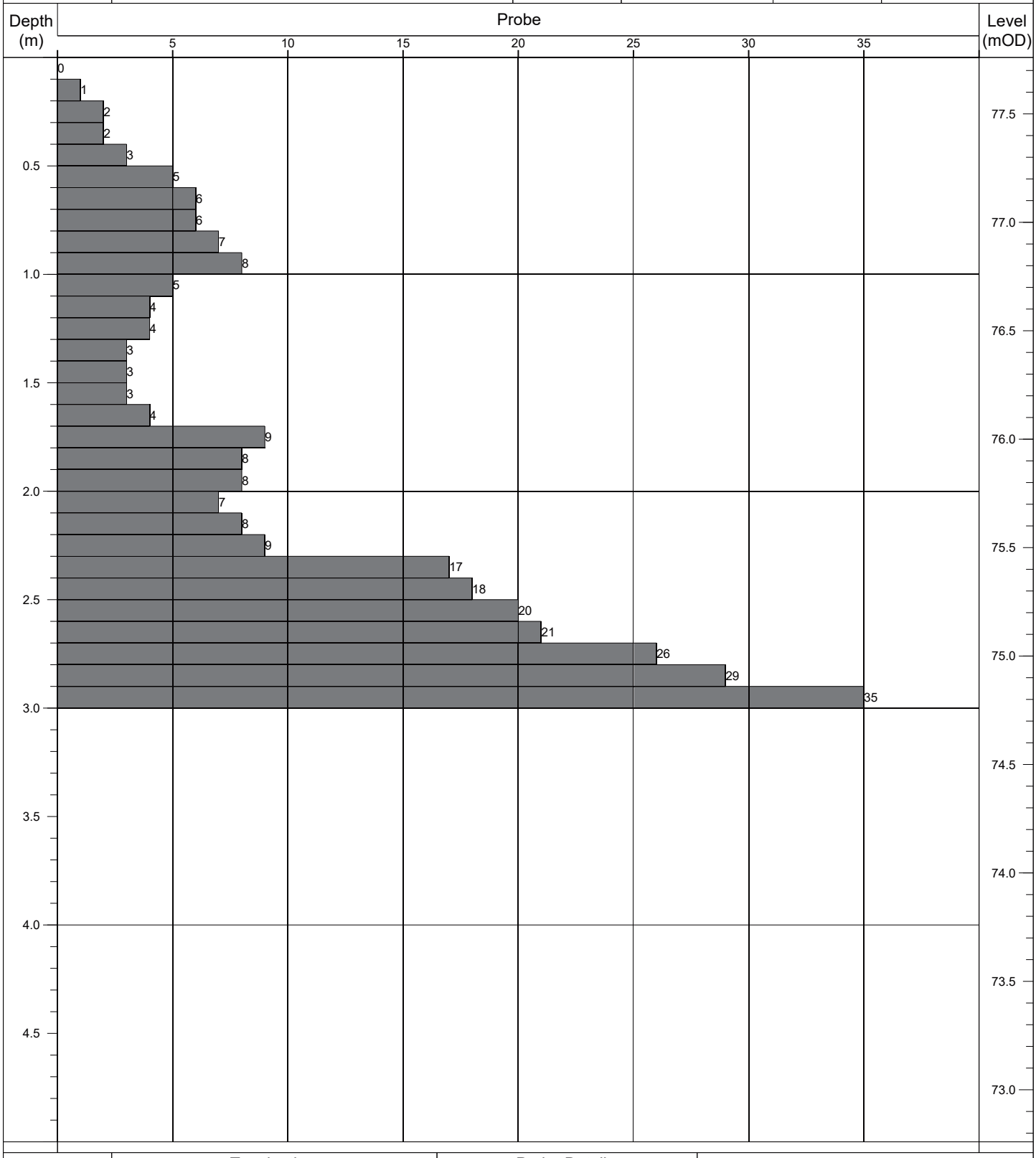
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP163**
Contract:	Coolagad	Easting:	727648.459	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712948.456	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	74.17	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



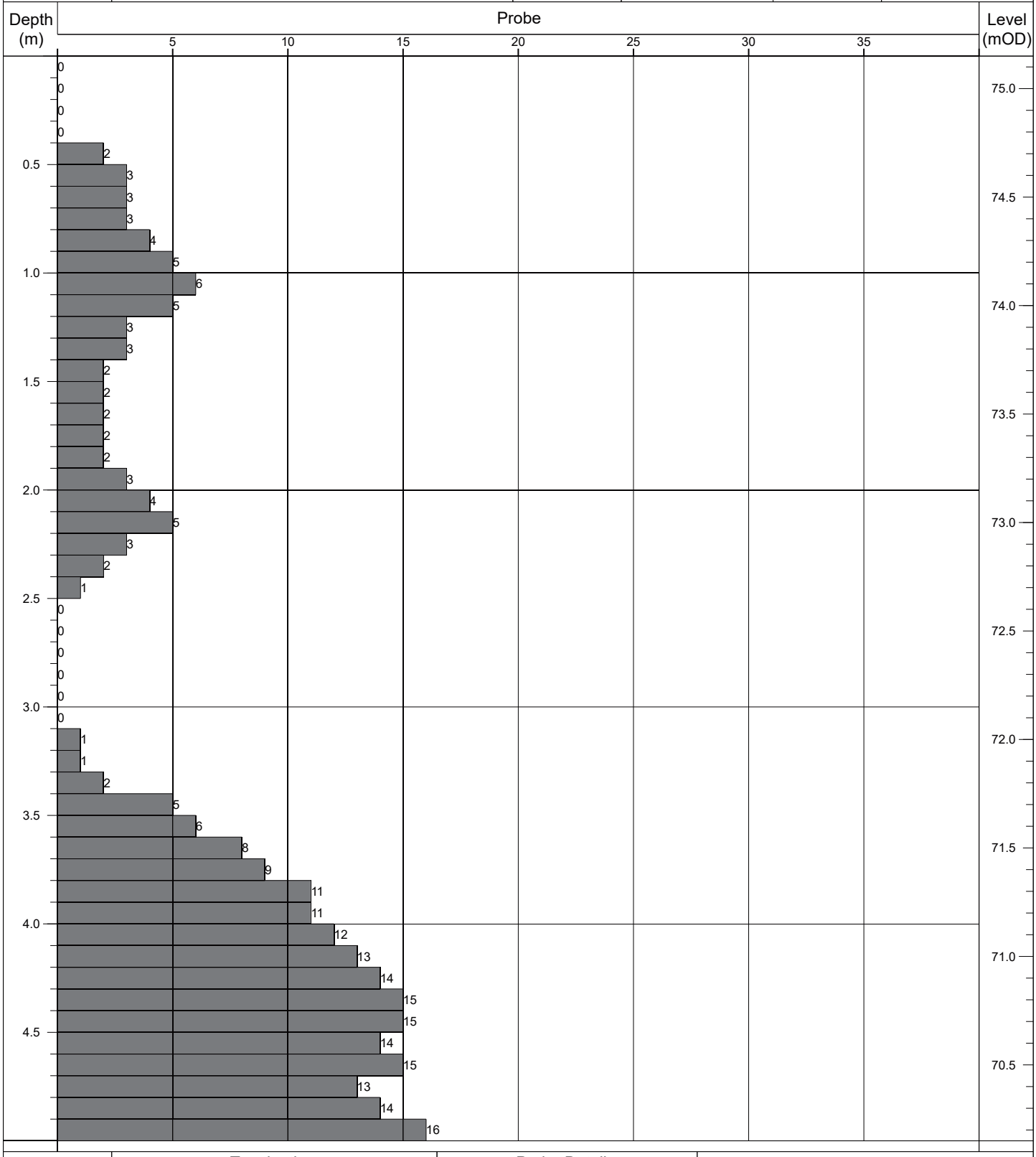
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP164**
Contract:	Coolagad	Easting:	727611.616	Date Started:	05/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712943.250	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	77.76	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



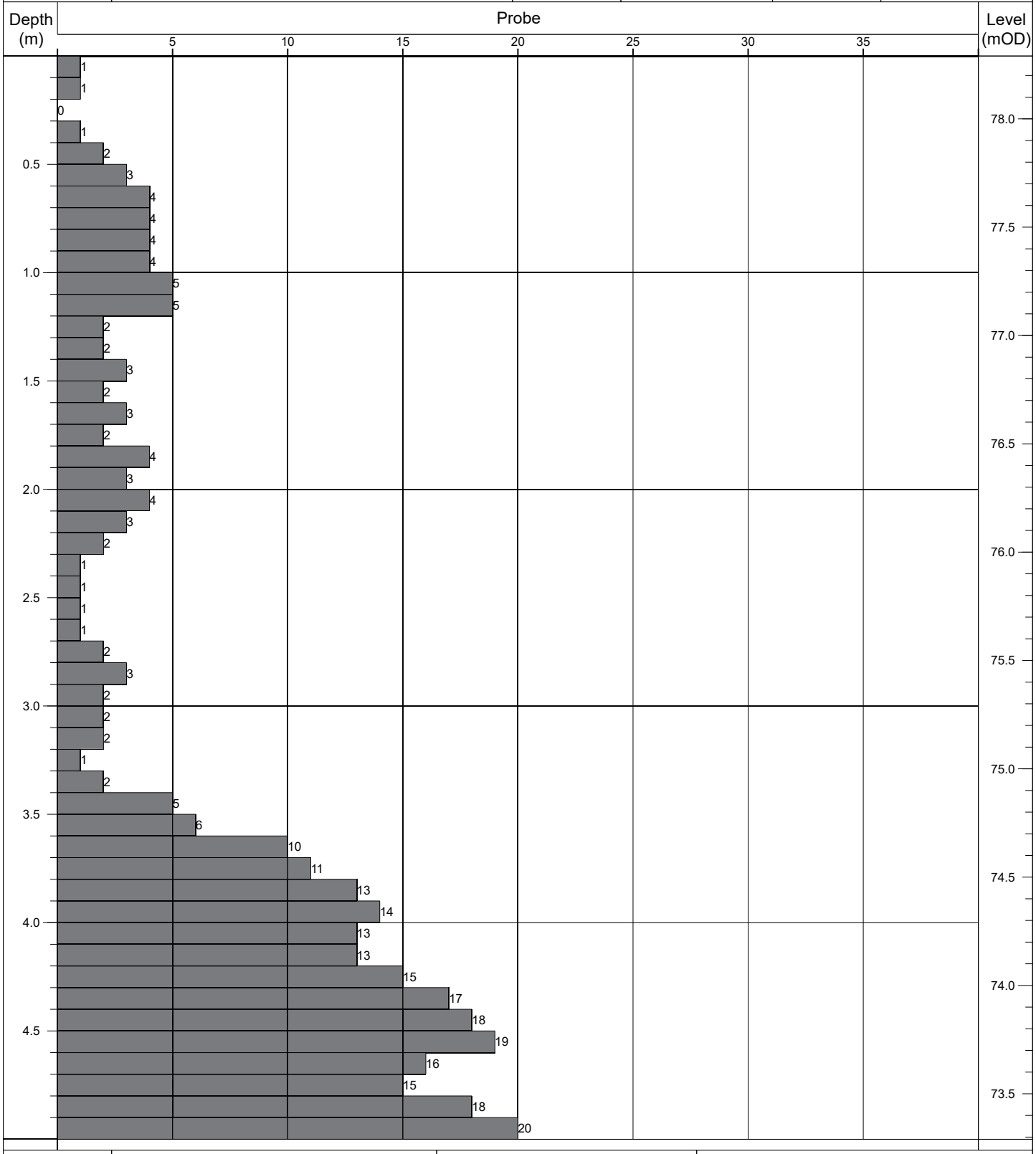
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP165**
Contract:	Coolagad	Easting:	727652.459	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712934.032	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.15	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



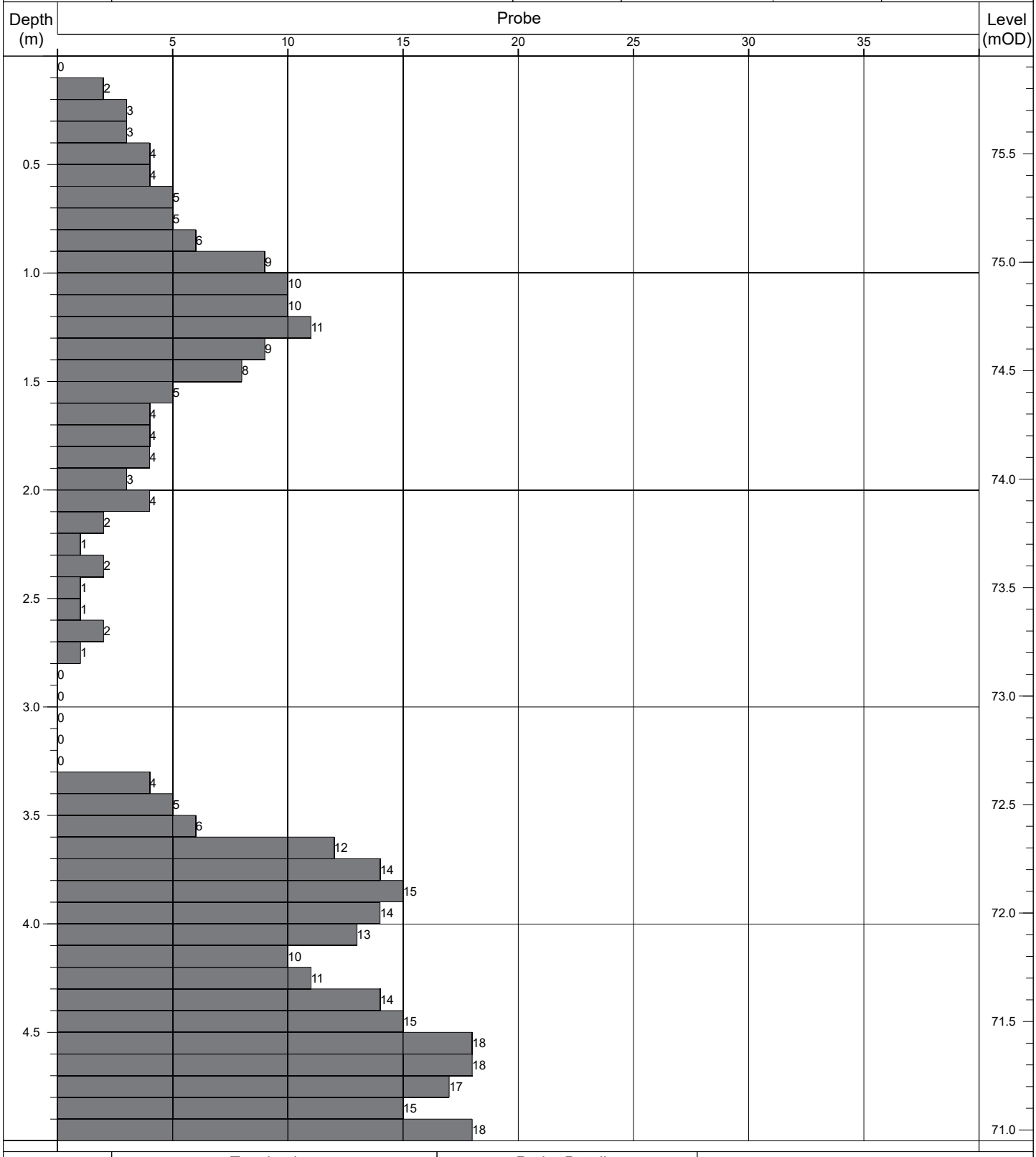
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP166**
Contract:	Coolagad	Easting:	727618.208	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712928.404	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	78.29	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



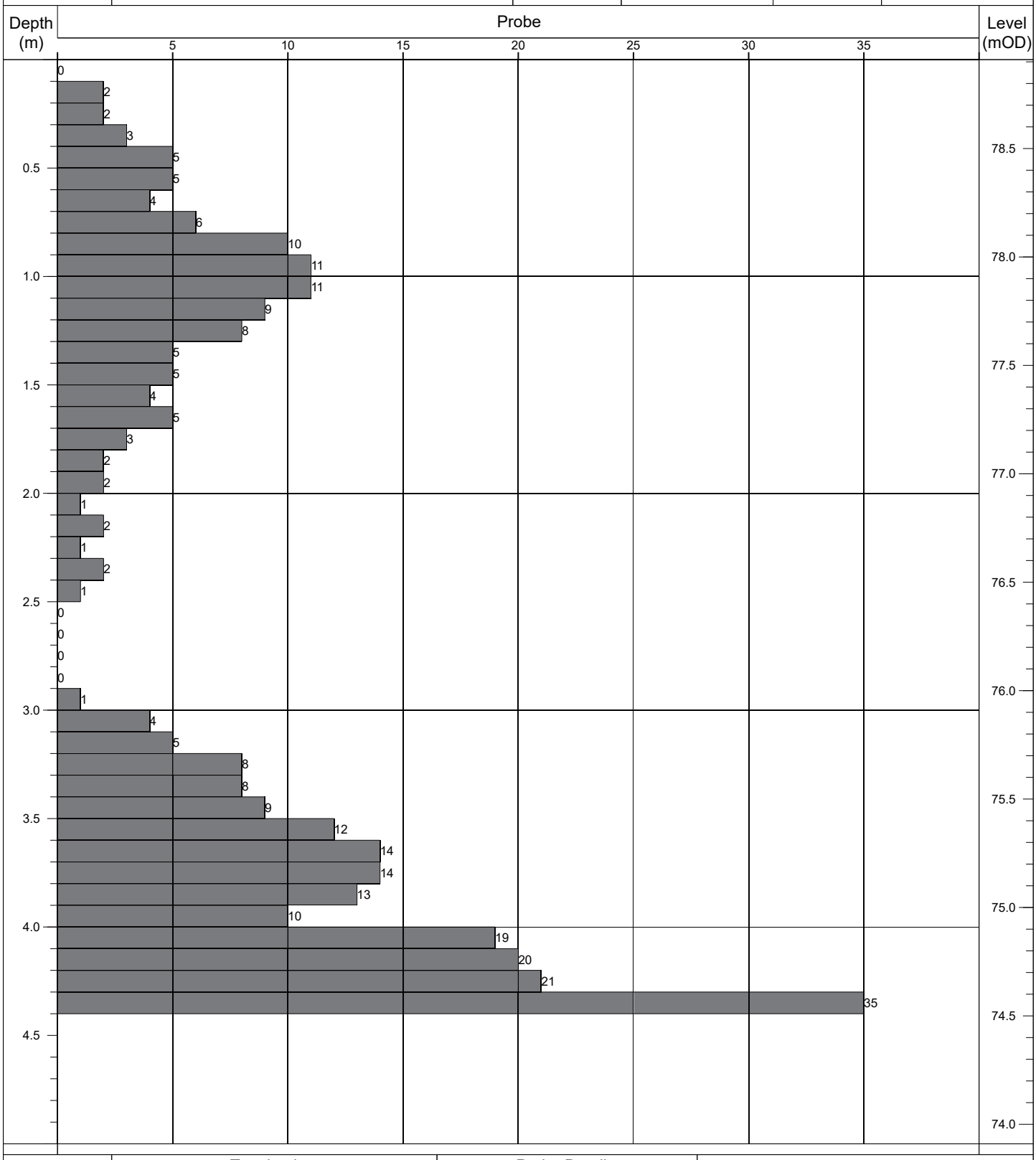
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP167**
Contract:	Coolagad	Easting:	727653.473	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712923.075	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.95	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



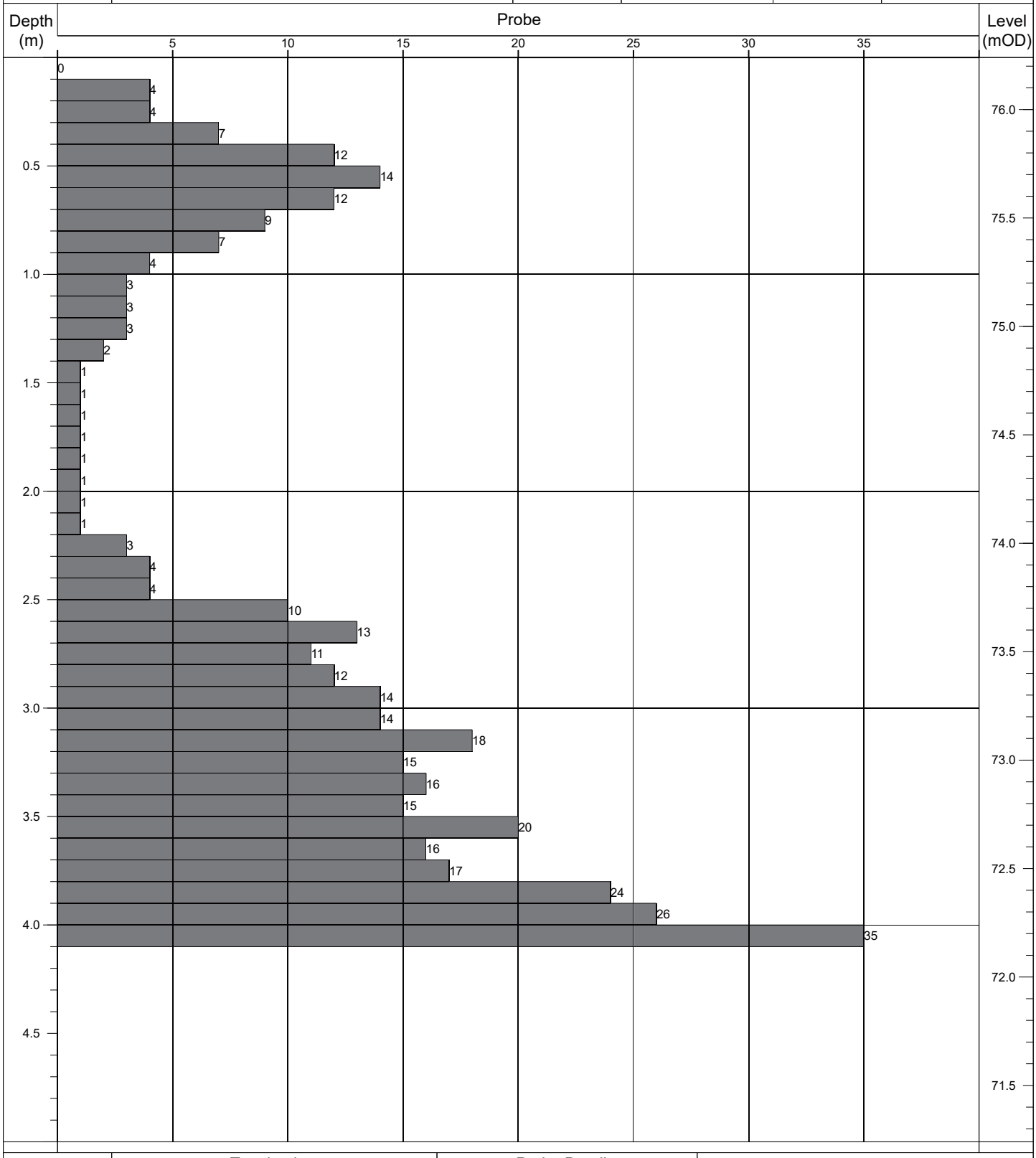
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP168**
Contract:	Coolagad	Easting:	727621.824	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712913.146	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	78.91	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



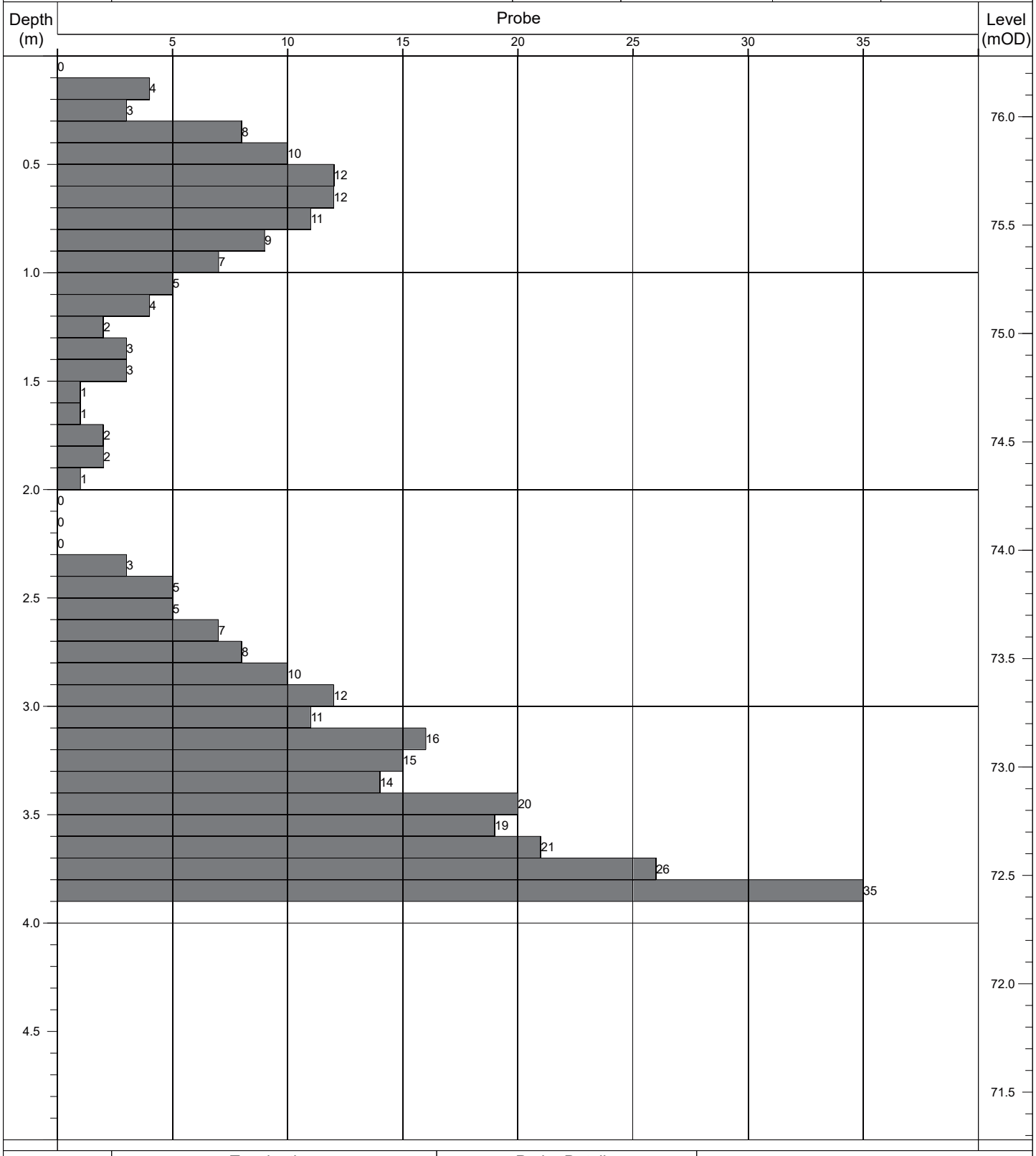
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP169**
Contract:	Coolagad	Easting:	727658.817	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712908.730	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.24	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



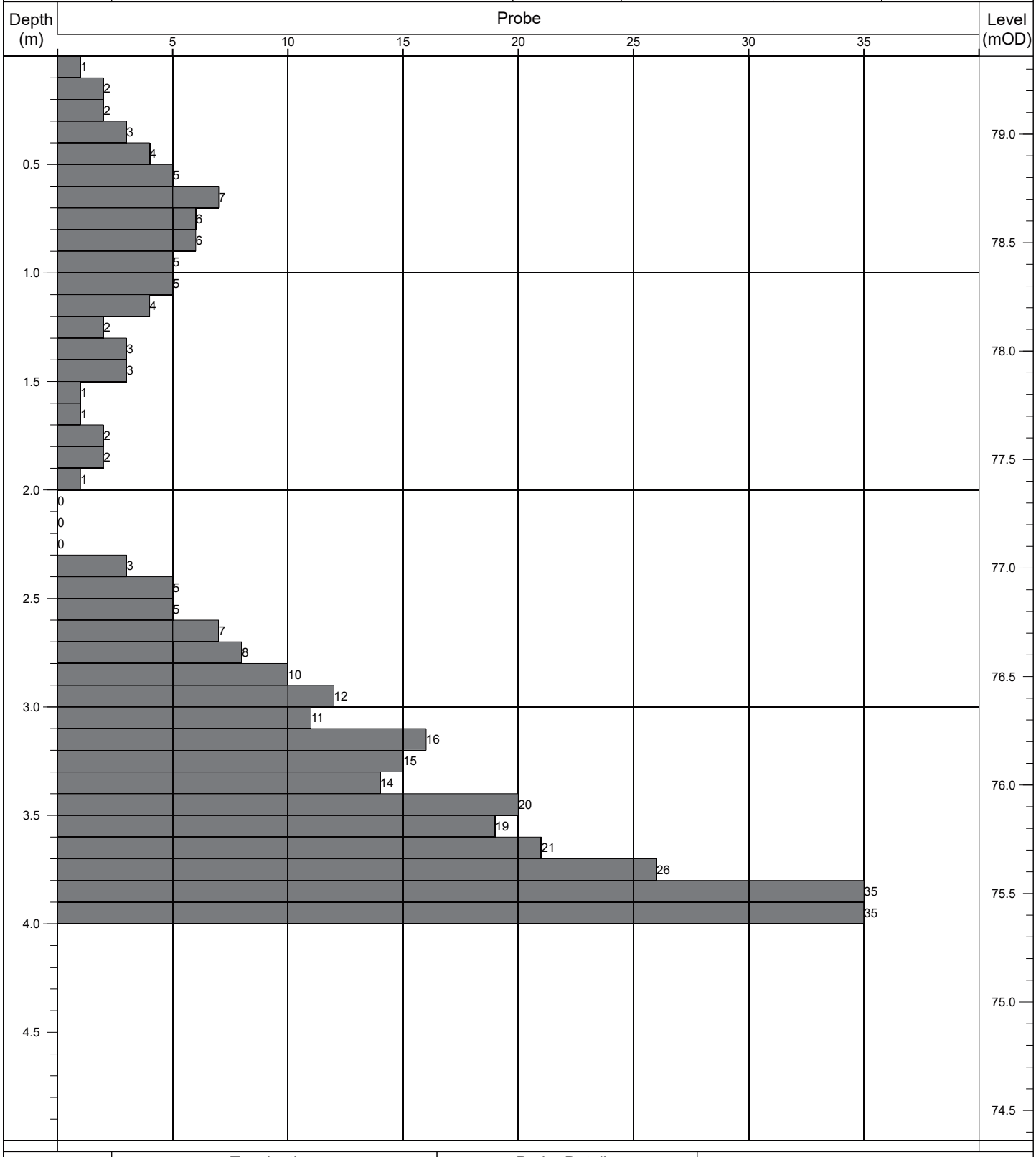
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP170**
Contract:	Coolagad	Easting:	727661.935	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712901.019	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.28	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



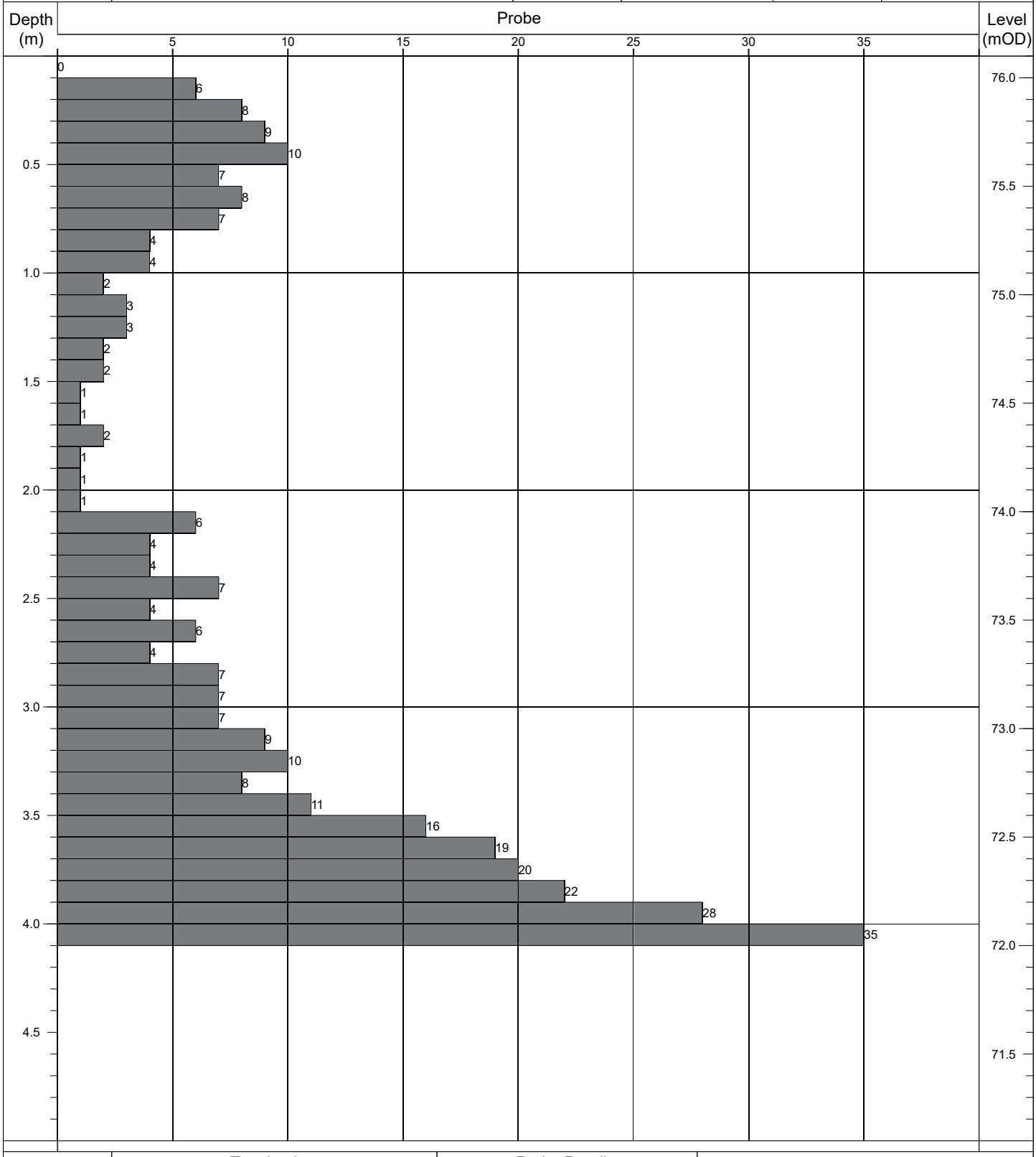
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP171**
Contract:	Coolagad	Easting:	727624.791	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712899.449	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.36	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



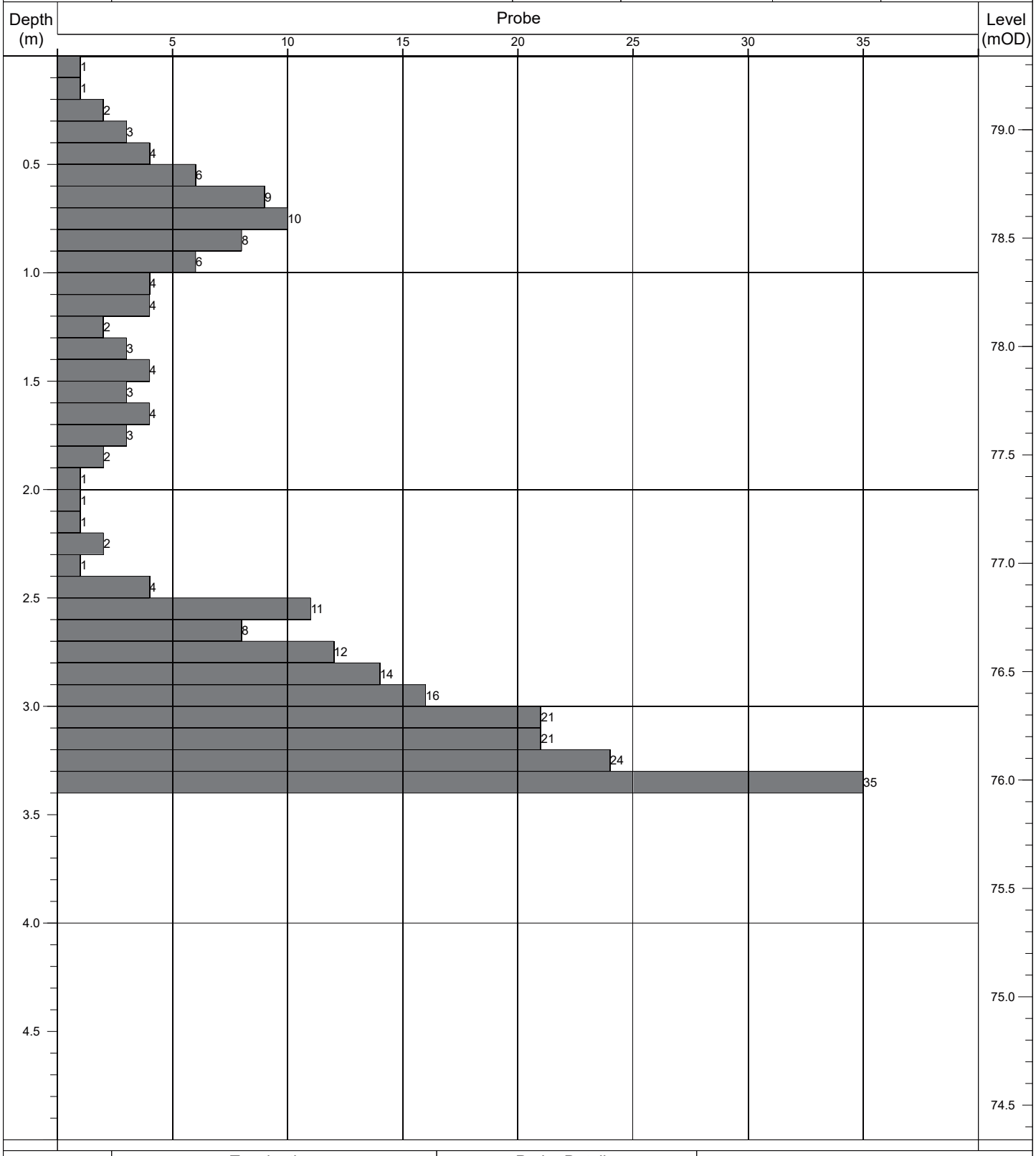
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP172**
Contract:	Coolagad	Easting:	727667.494	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712886.904	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.10	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



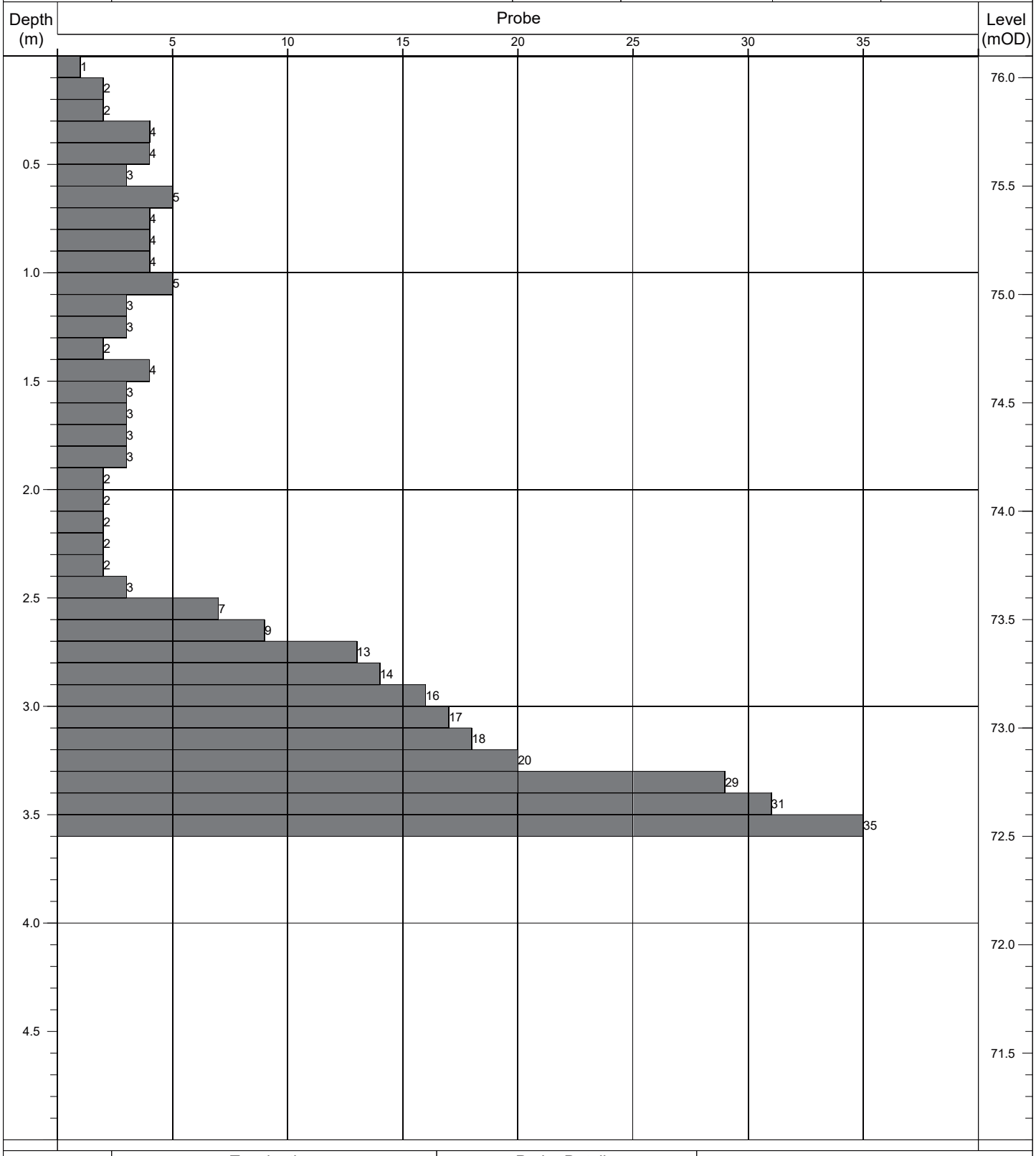
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP173
Contract:	Coolagad	Easting:	727631.700	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712885.259	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.34	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



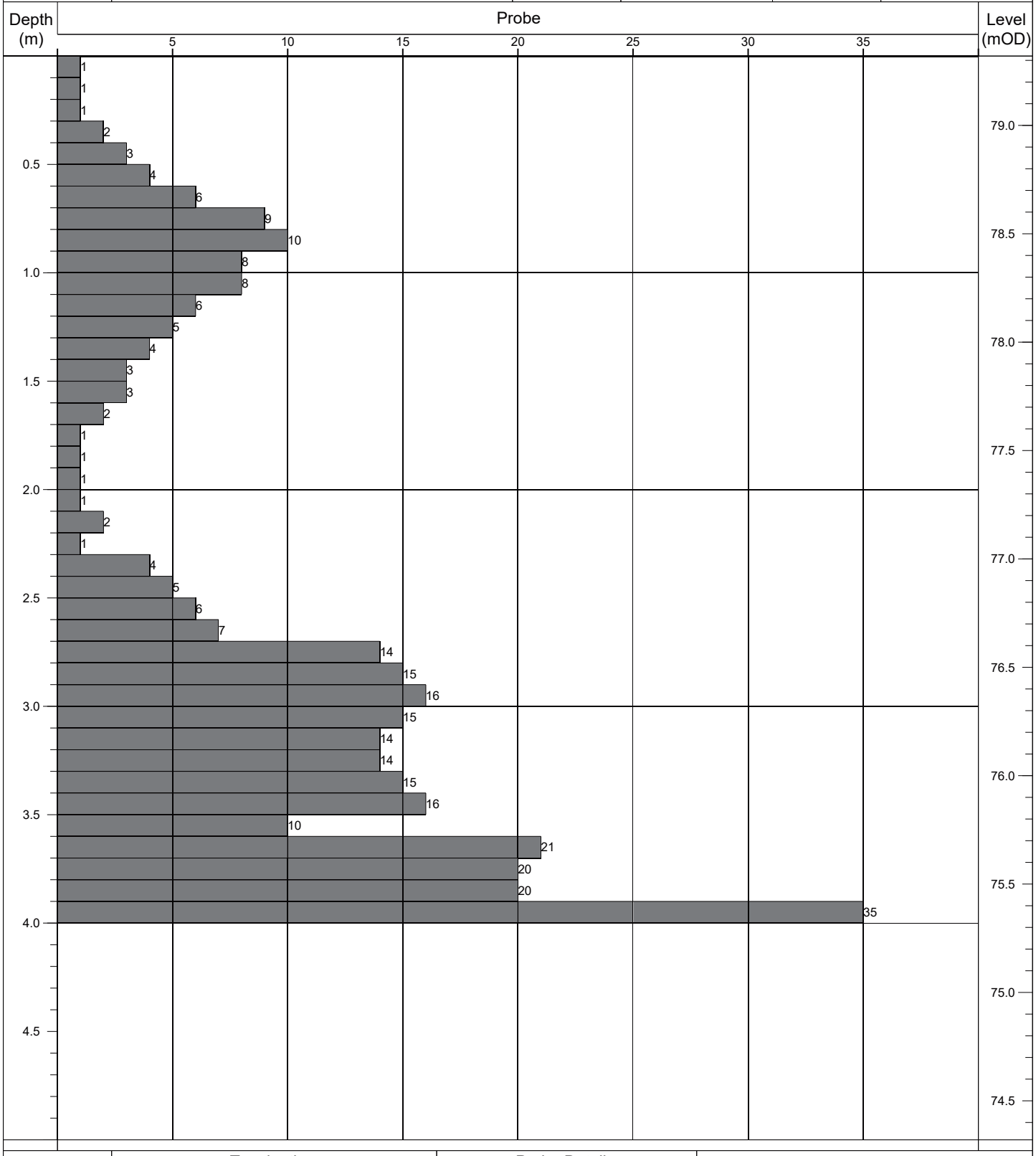
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP174**
Contract:	Coolagad	Easting:	727671.049	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712875.021	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.10	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



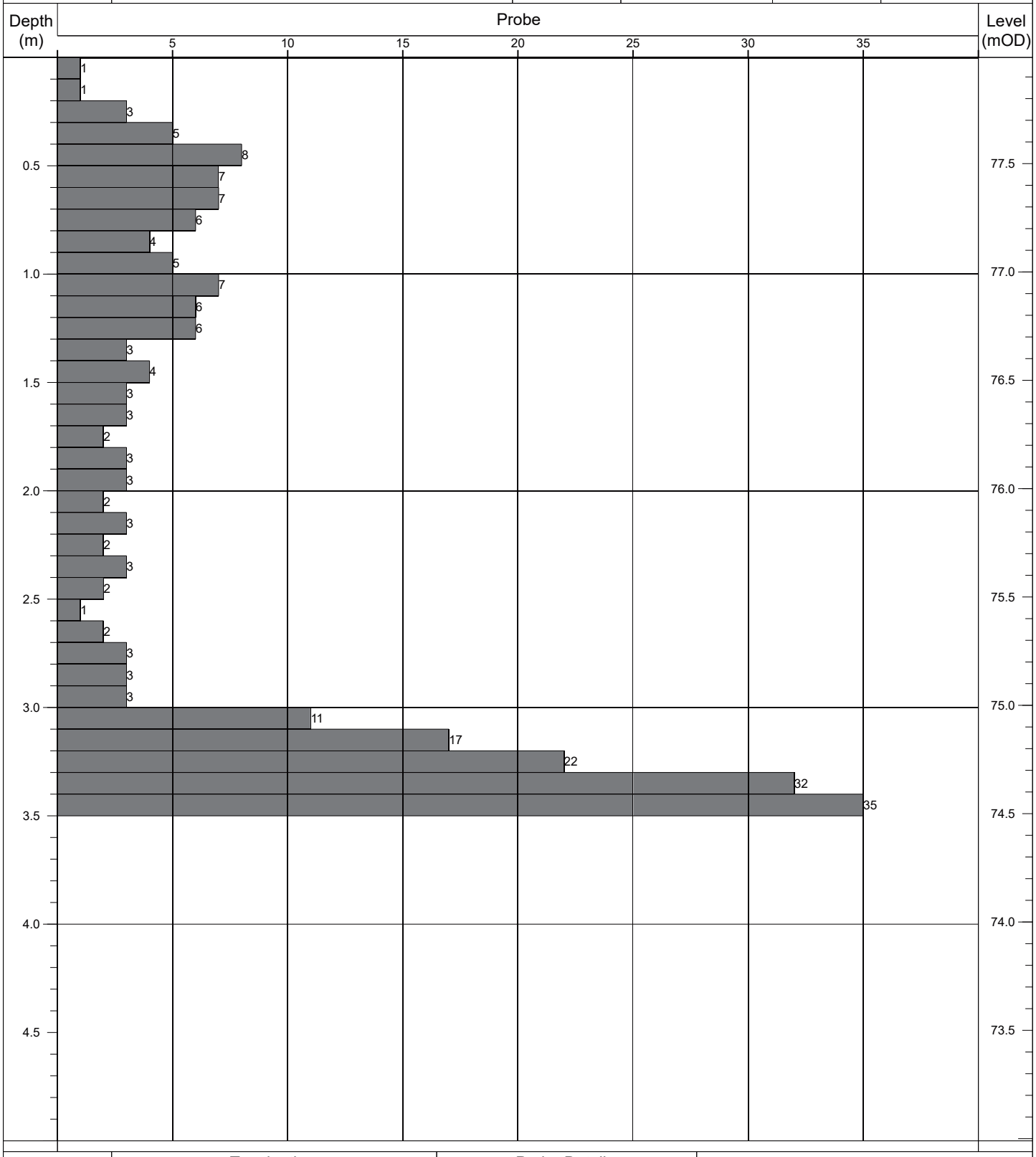
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP175**
Contract:	Coolagad	Easting:	727636.483	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712871.894	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.32	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



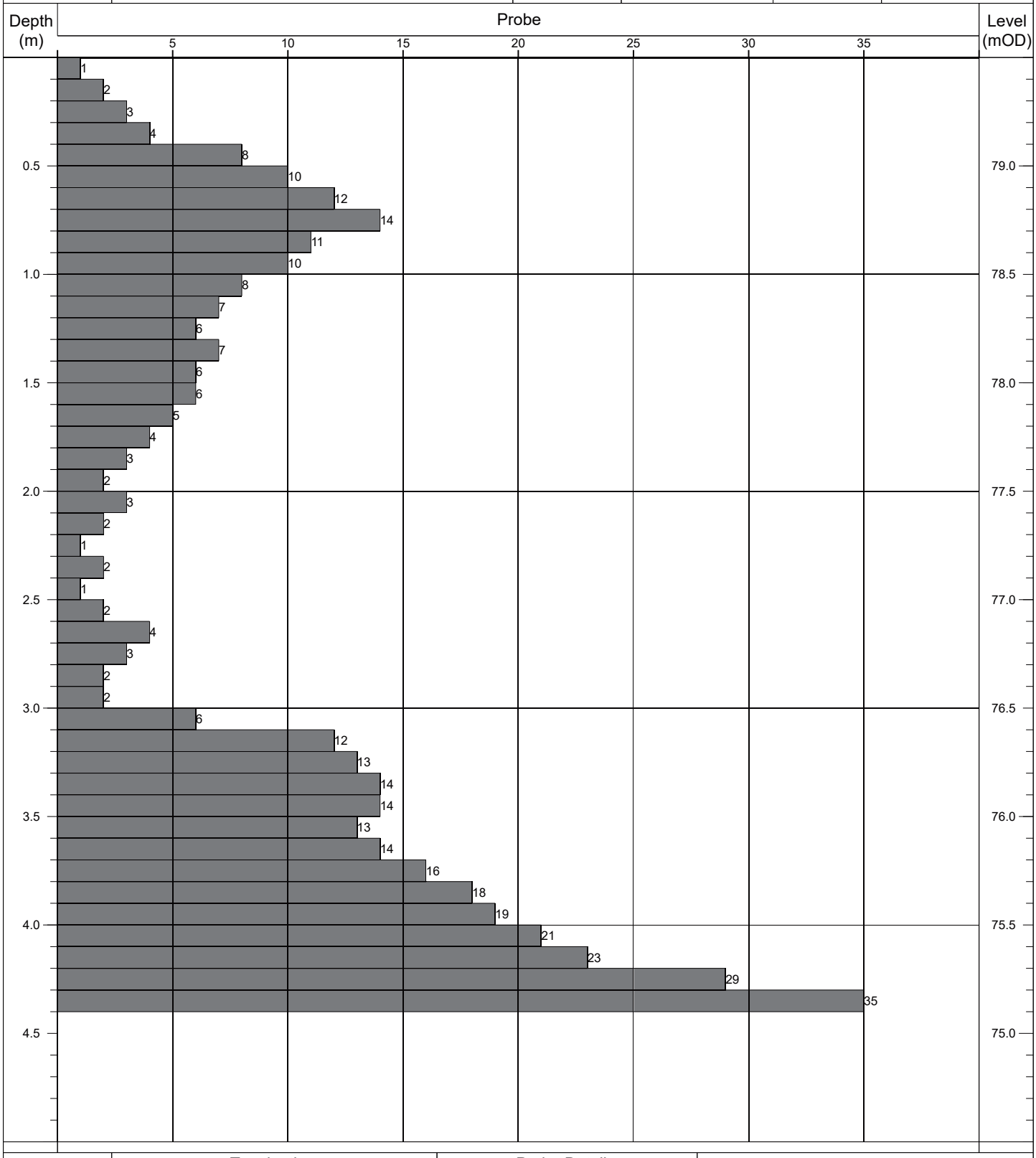
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP176**
Contract:	Coolagad	Easting:	727654.266	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712857.096	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	77.99	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



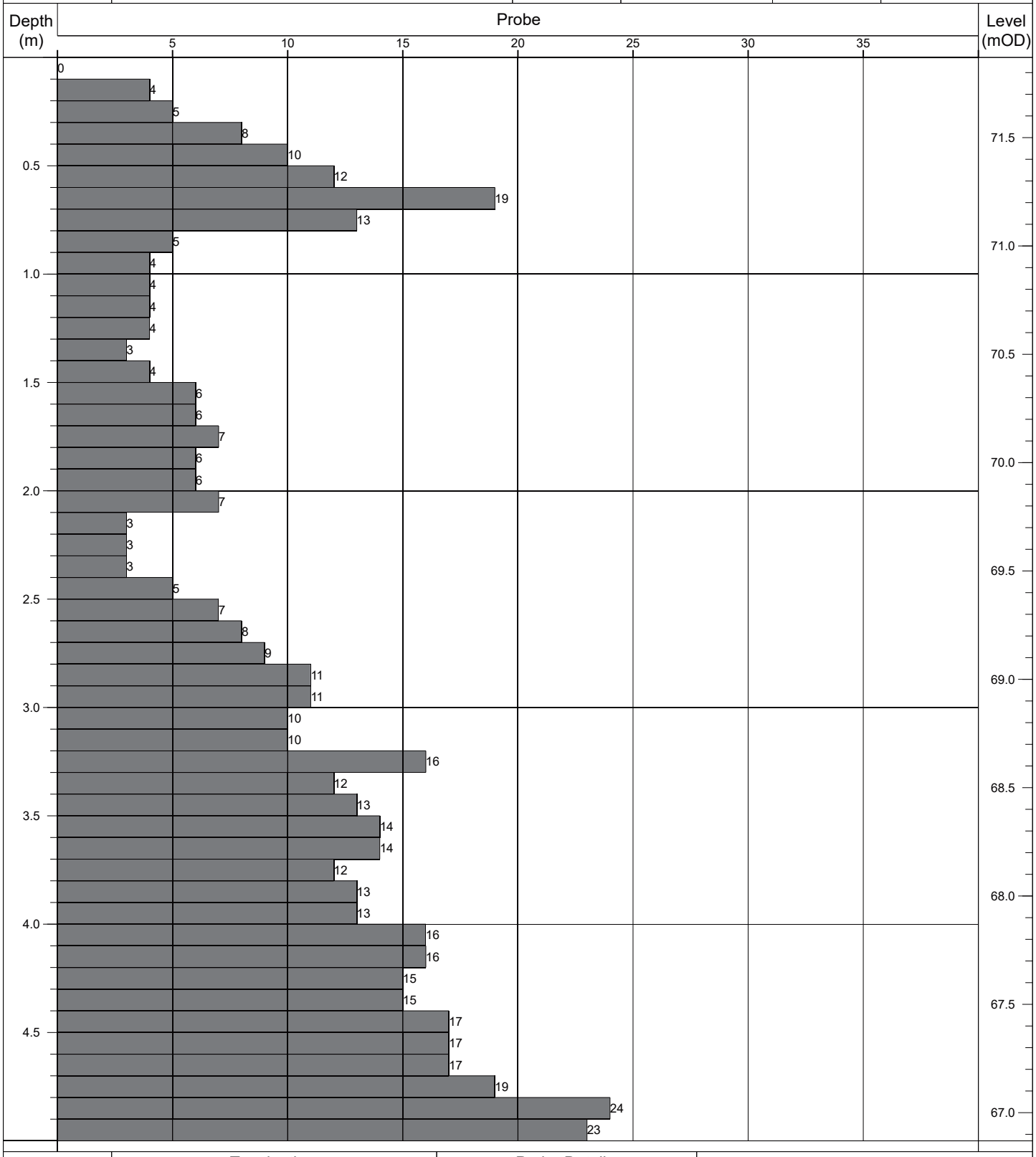
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP177**
Contract:	Coolagad	Easting:	727639.415	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712854.038	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.50	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



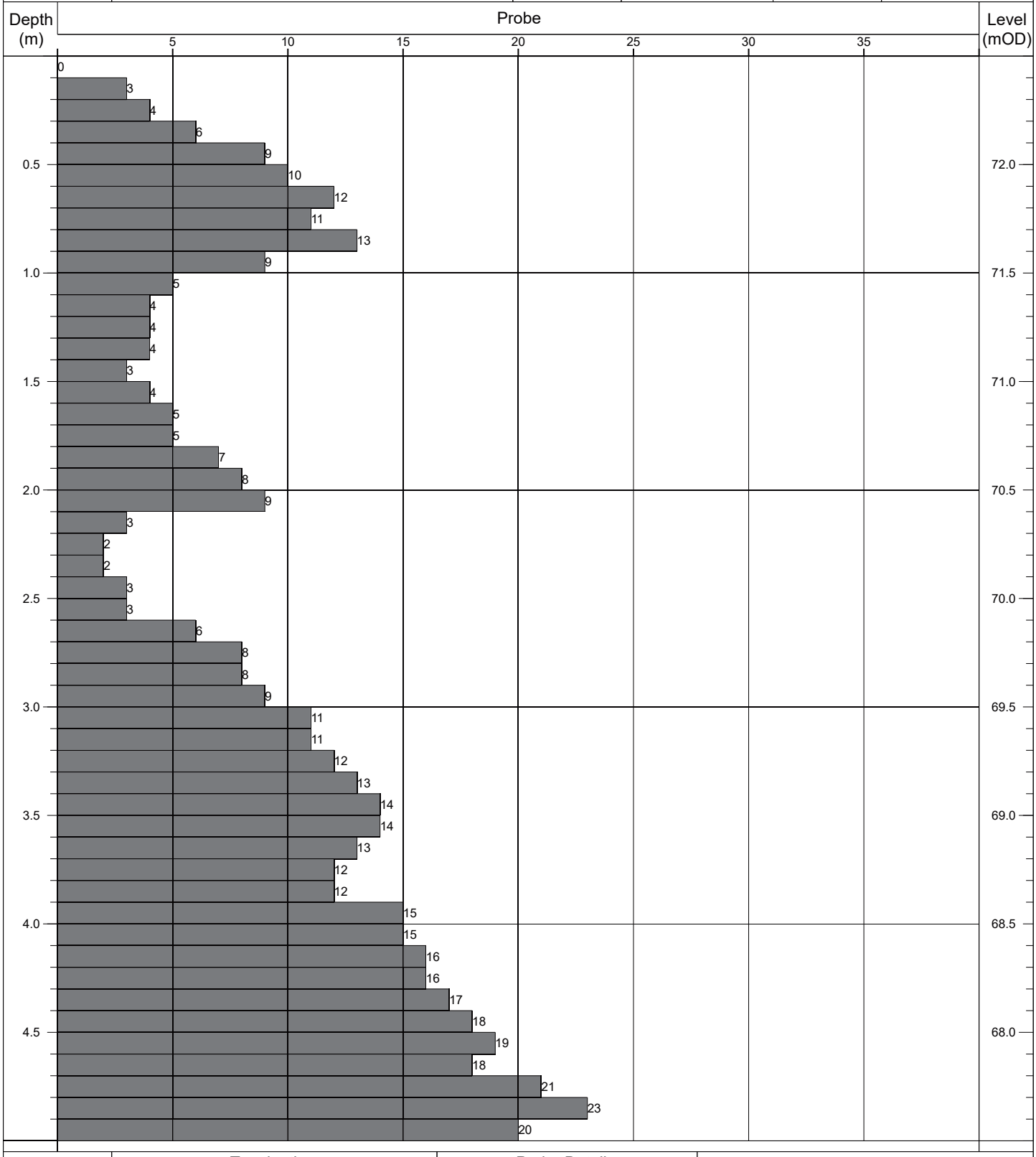
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP178**
Contract:	Coolagad	Easting:	727684.467	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712941.029	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.87	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



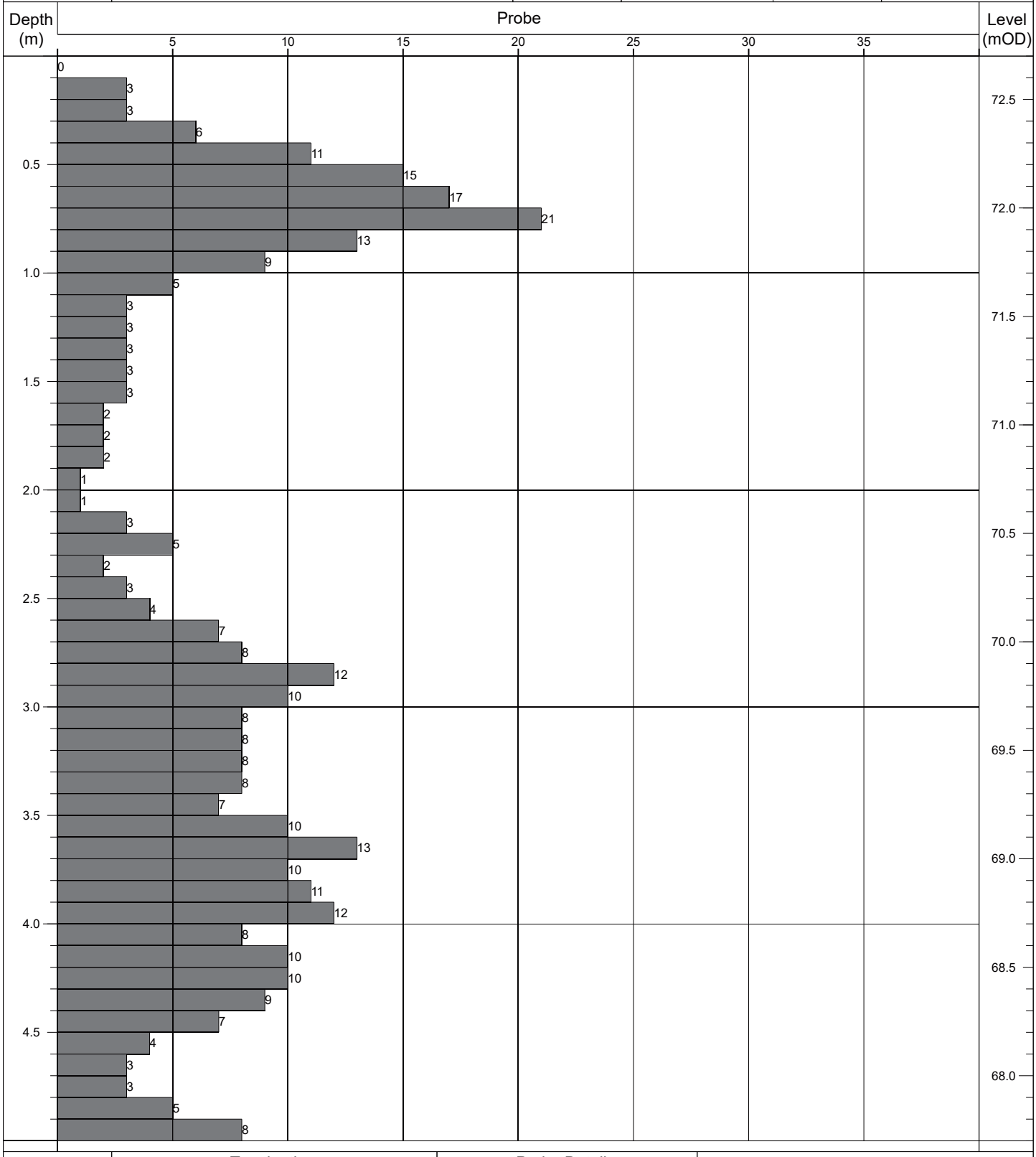
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP179**
Contract:	Coolagad	Easting:	727690.450	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712925.125	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	72.50	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



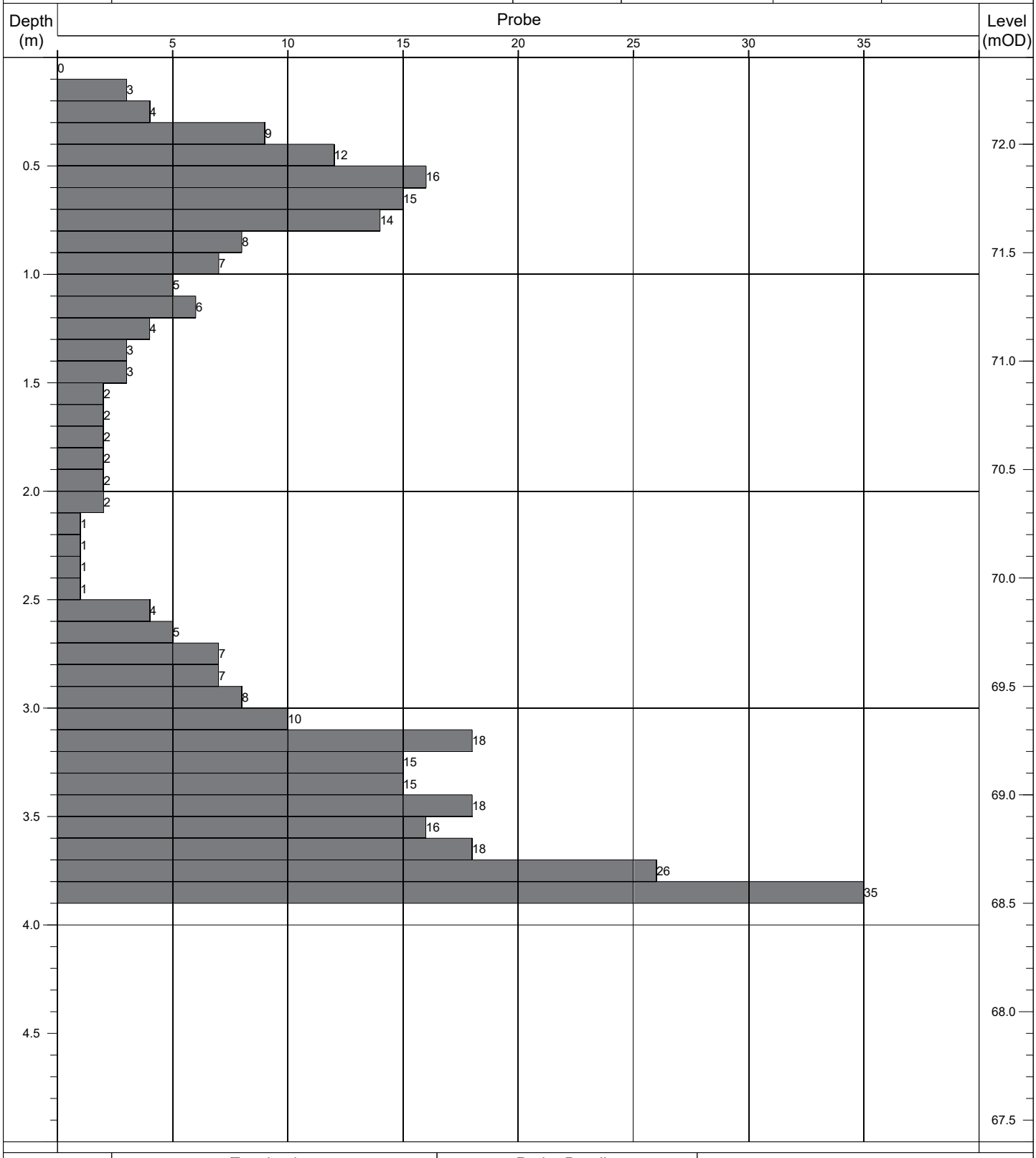
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP180**
Contract:	Coolagad	Easting:	727697.806	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712907.085	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.70	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



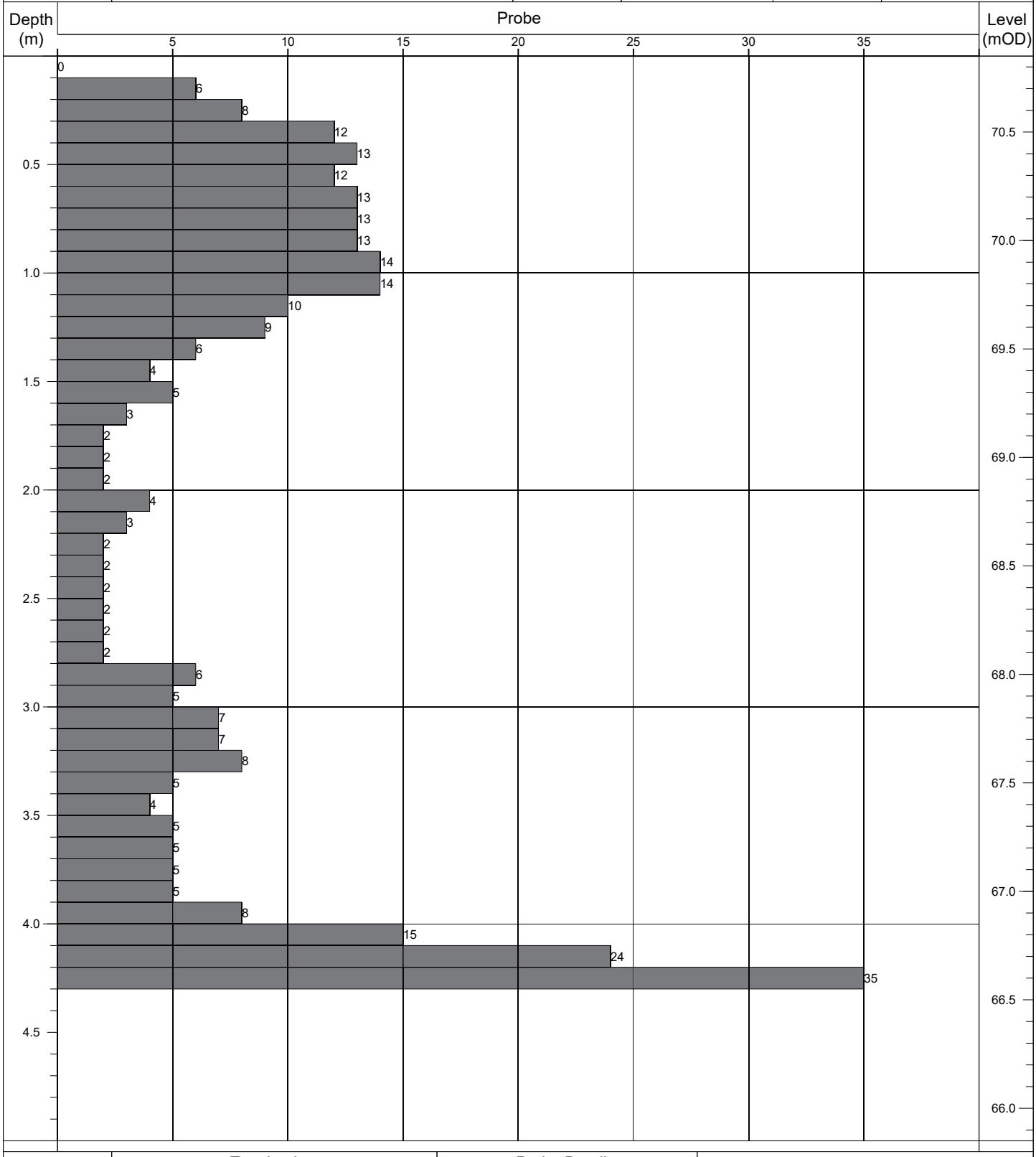
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP181**
Contract:	Coolagad	Easting:	727705.256	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712893.596	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.40	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



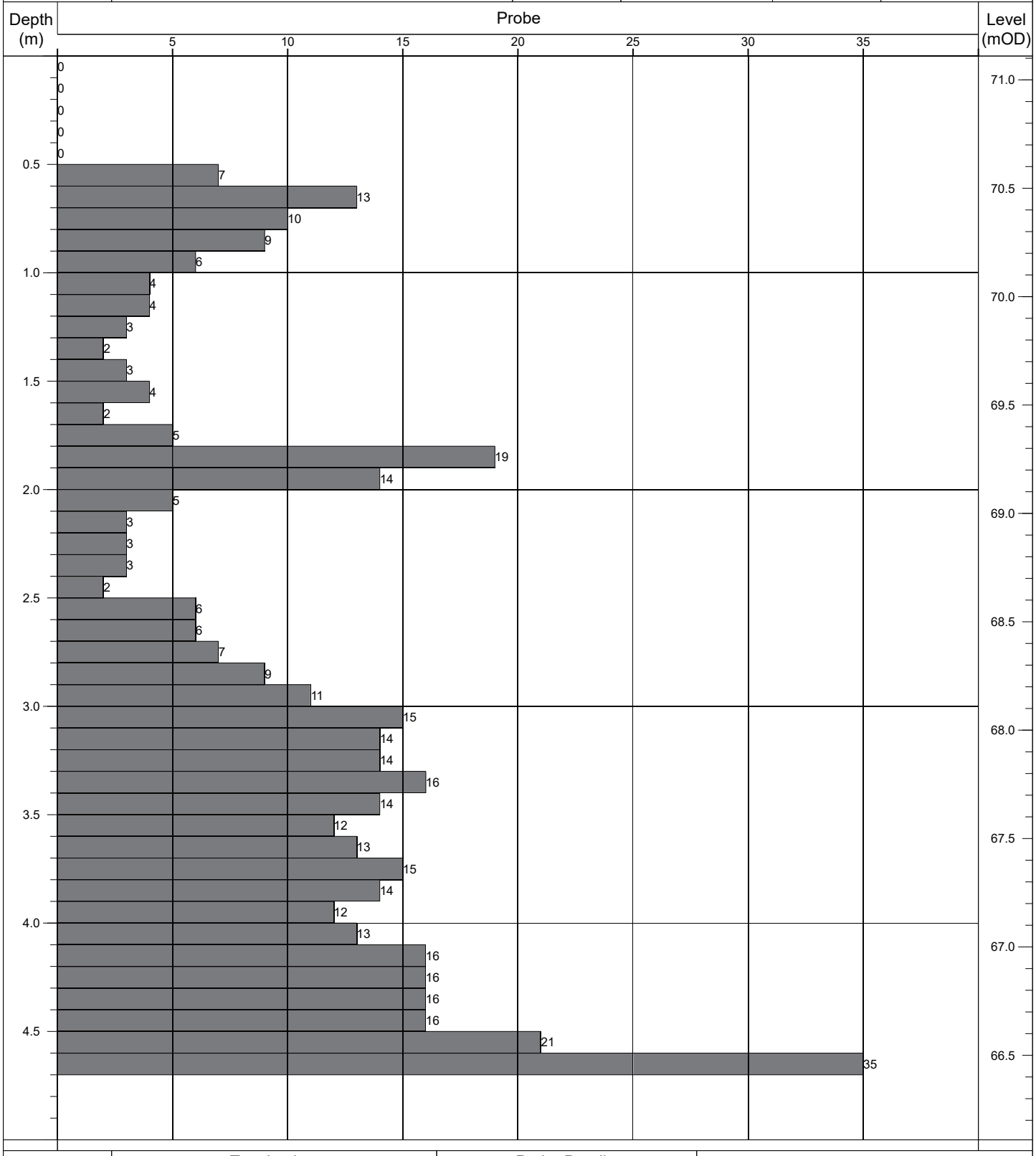
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP182**
Contract:	Coolagad	Easting:	727727.410	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712886.928	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	70.85	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



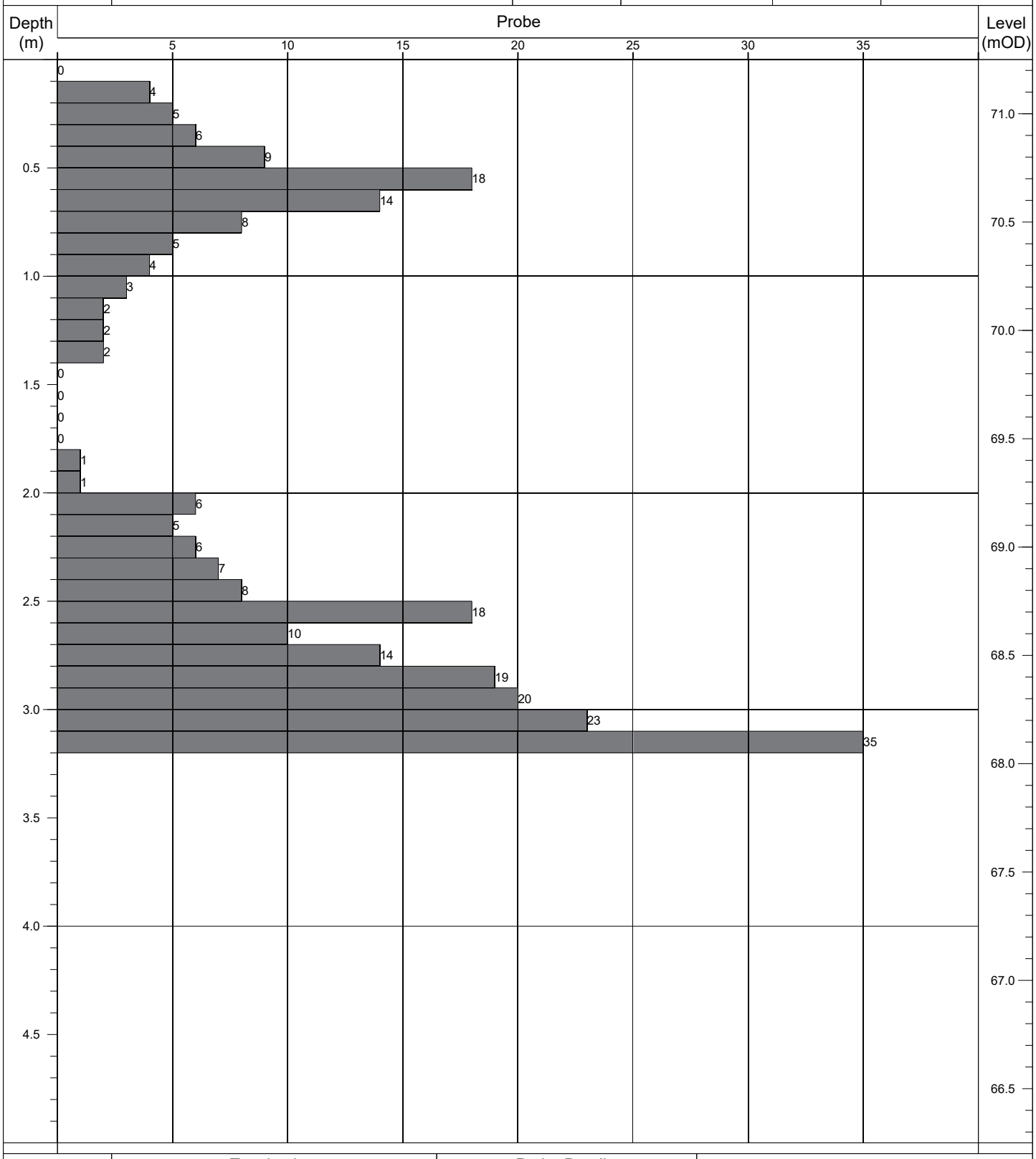
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP183**
Contract:	Coolagad	Easting:	727732.799	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712872.997	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.11	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



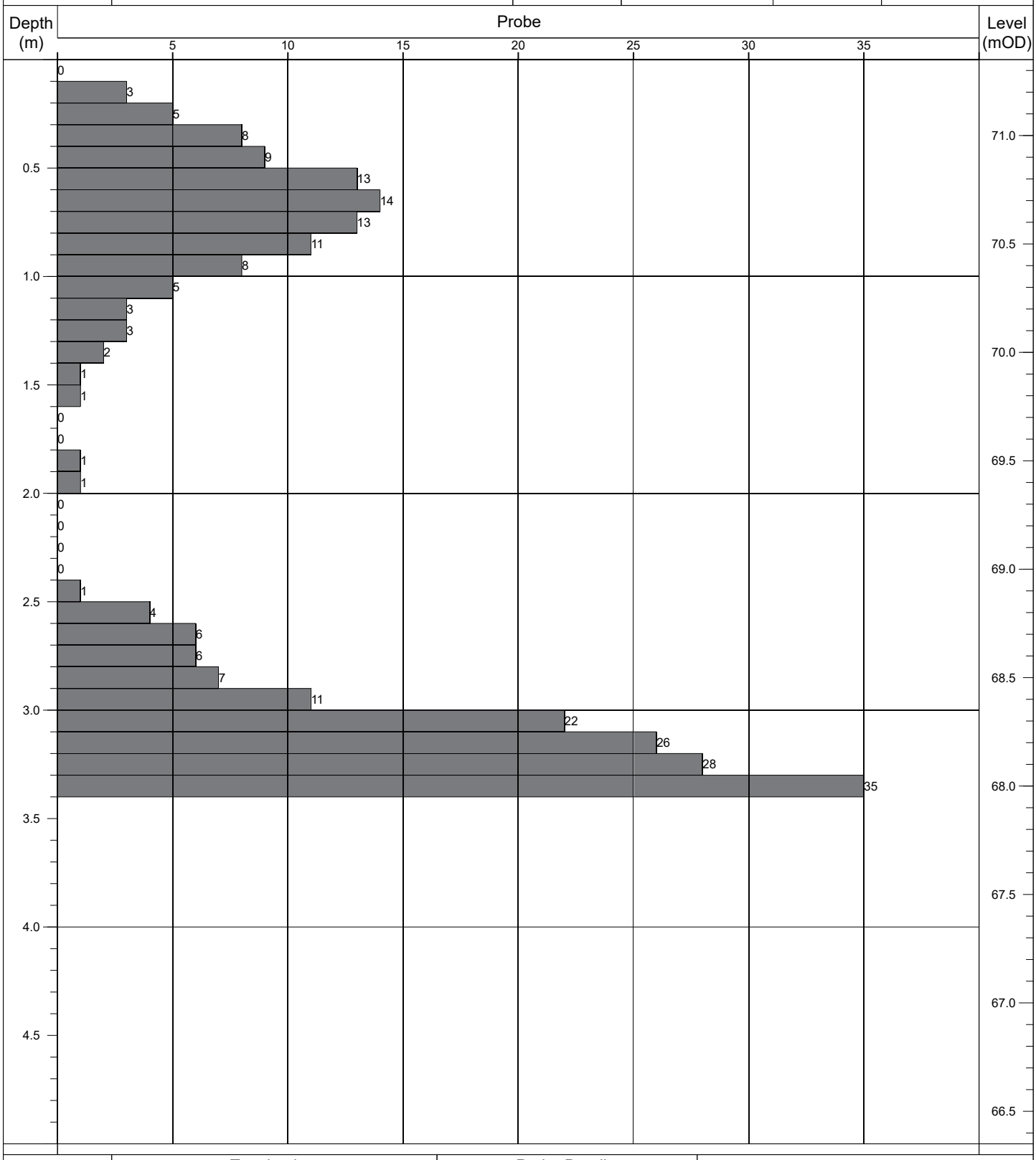
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP184**
Contract:	Coolagad	Easting:	727740.318	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712859.136	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.25	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



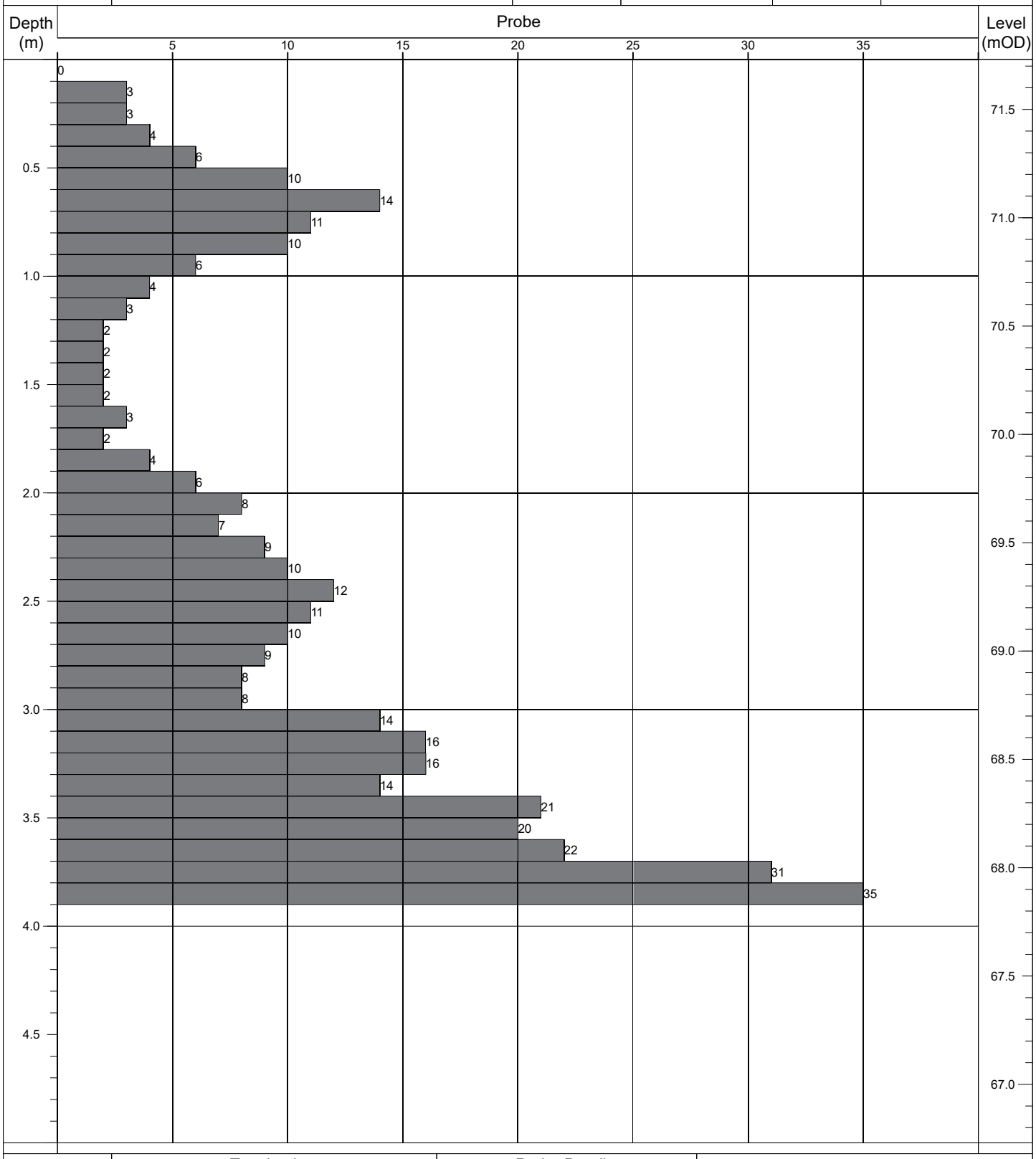
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP185**
Contract:	Coolagad	Easting:	727749.691	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712841.766	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



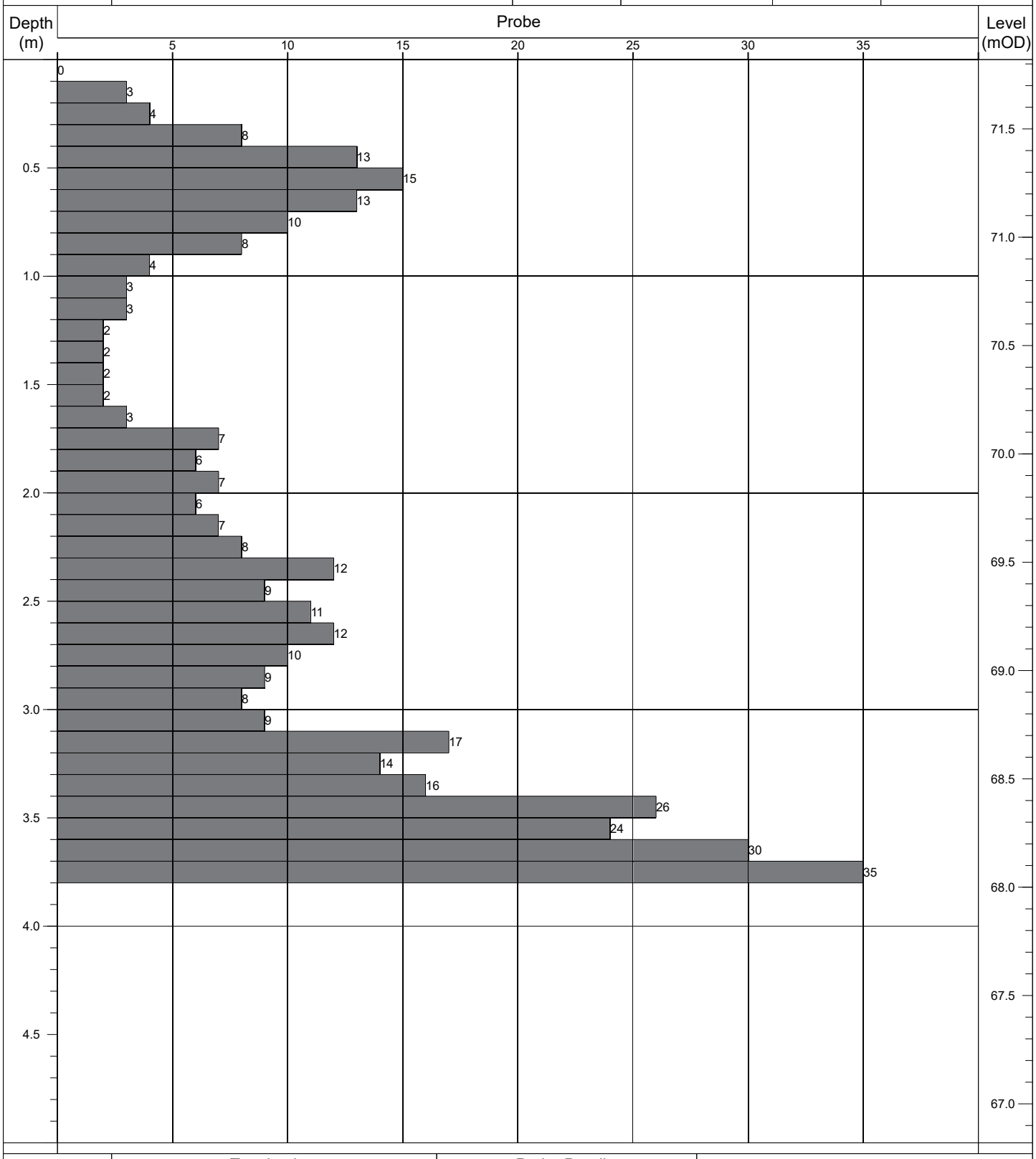
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP186**
Contract:	Coolagad	Easting:	727750.802	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712827.183	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.73	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



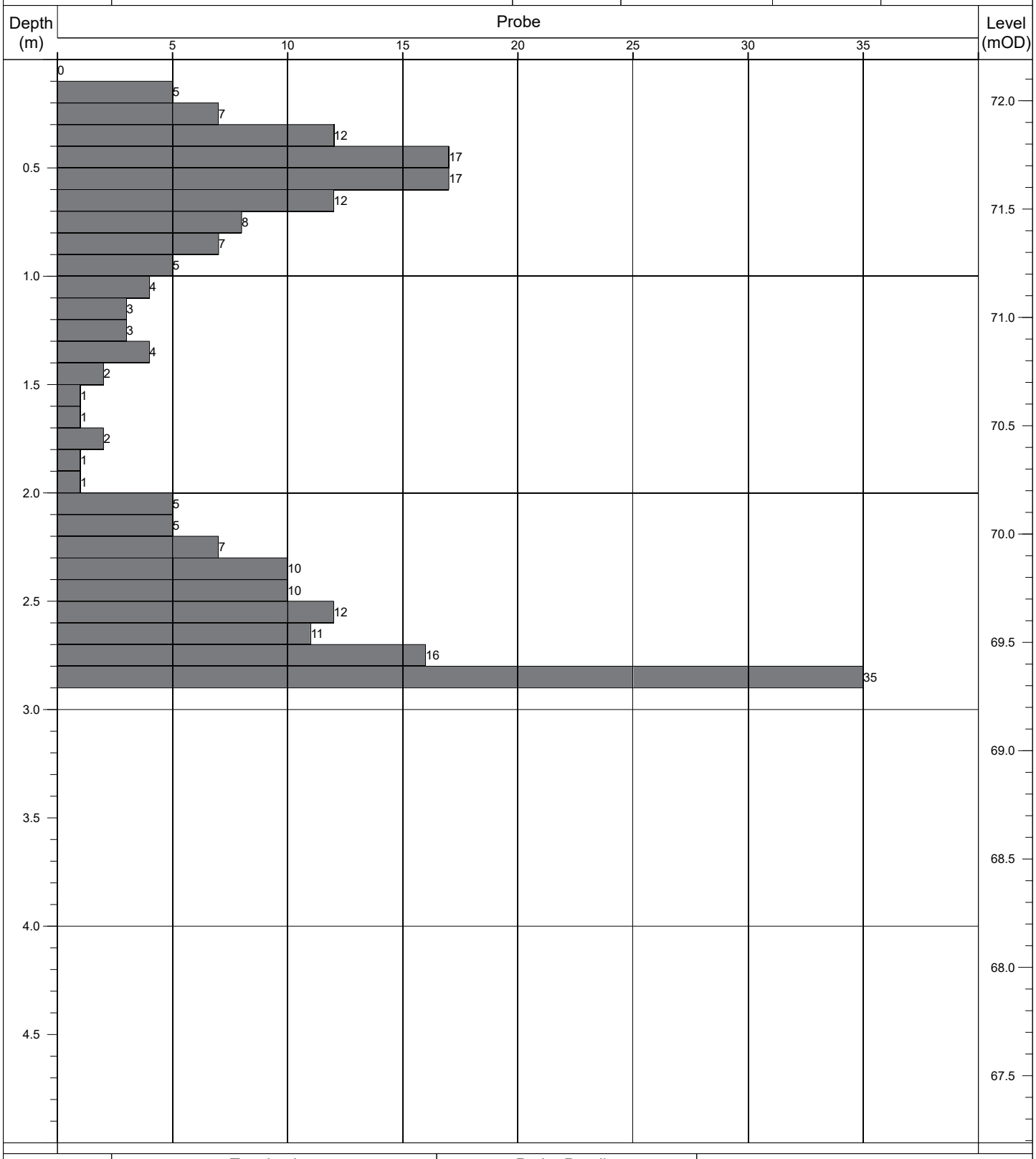
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP187**
Contract:	Coolagad	Easting:	727753.726	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712813.560	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.82	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



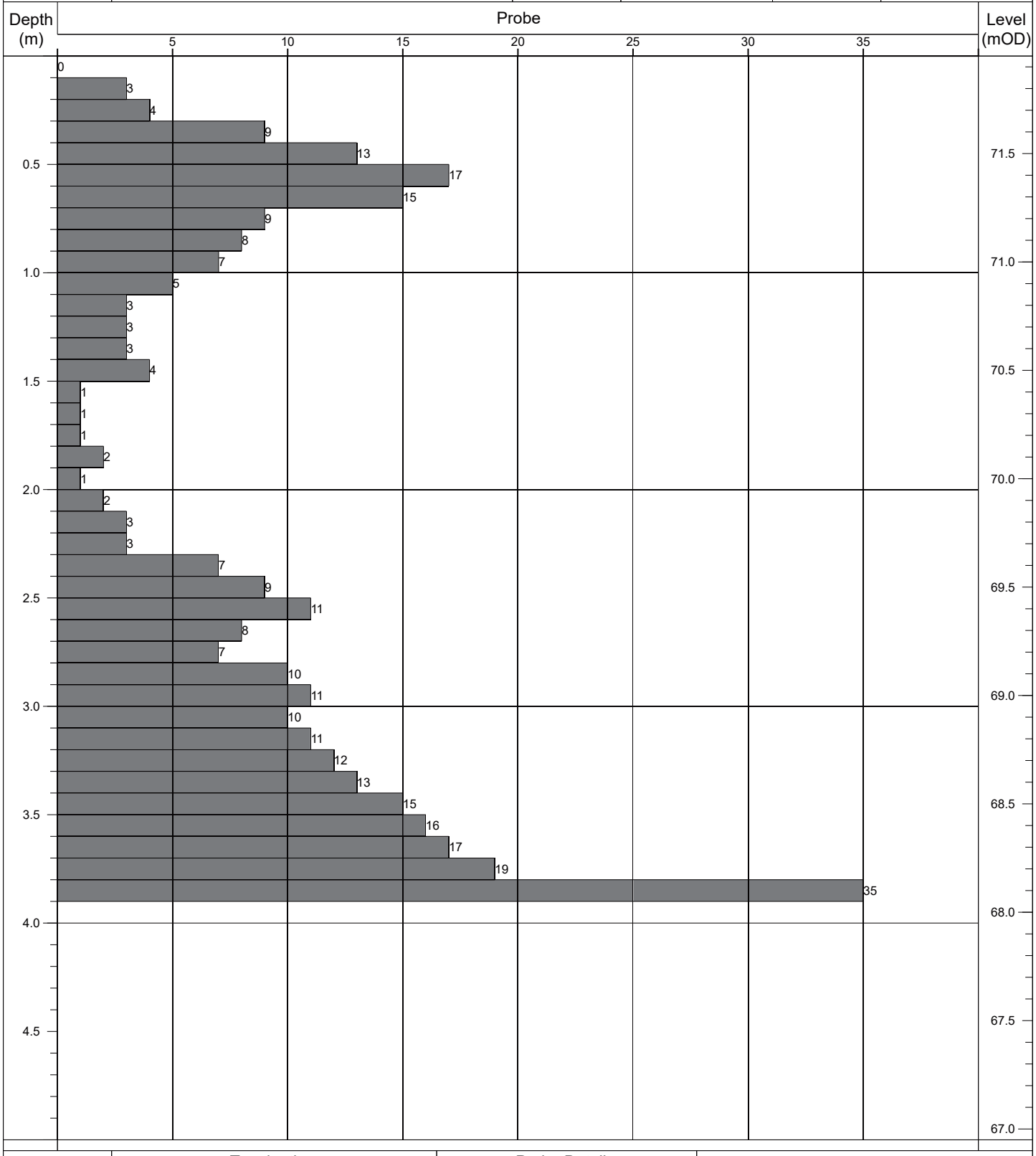
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP188**
Contract:	Coolagad	Easting:	727751.519	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712800.814	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.19	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



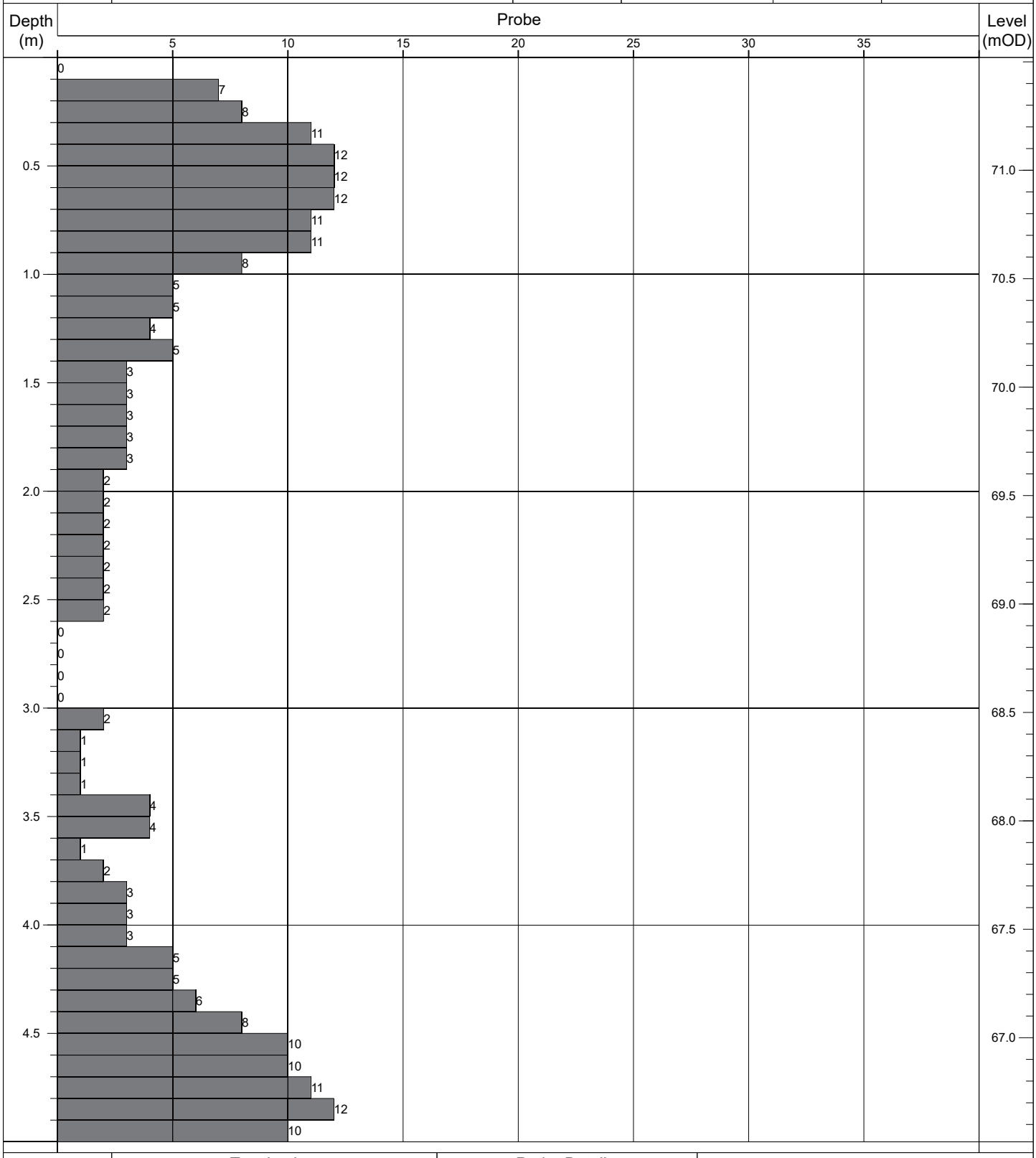
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP189**
Contract:	Coolagad	Easting:	727755.248	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712786.798	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.95	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



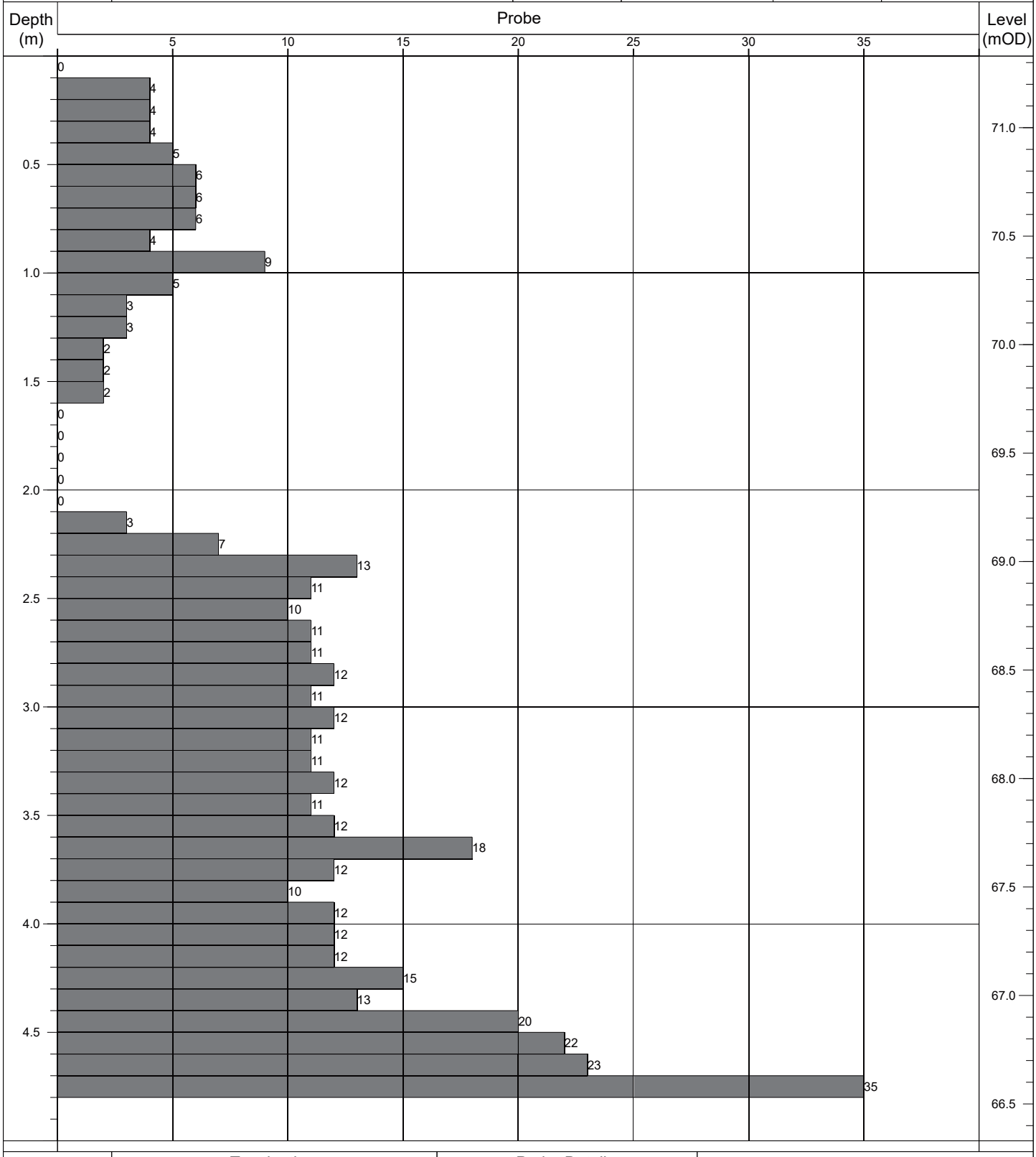
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP190**
Contract:	Coolagad	Easting:	727761.874	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712772.231	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.52	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



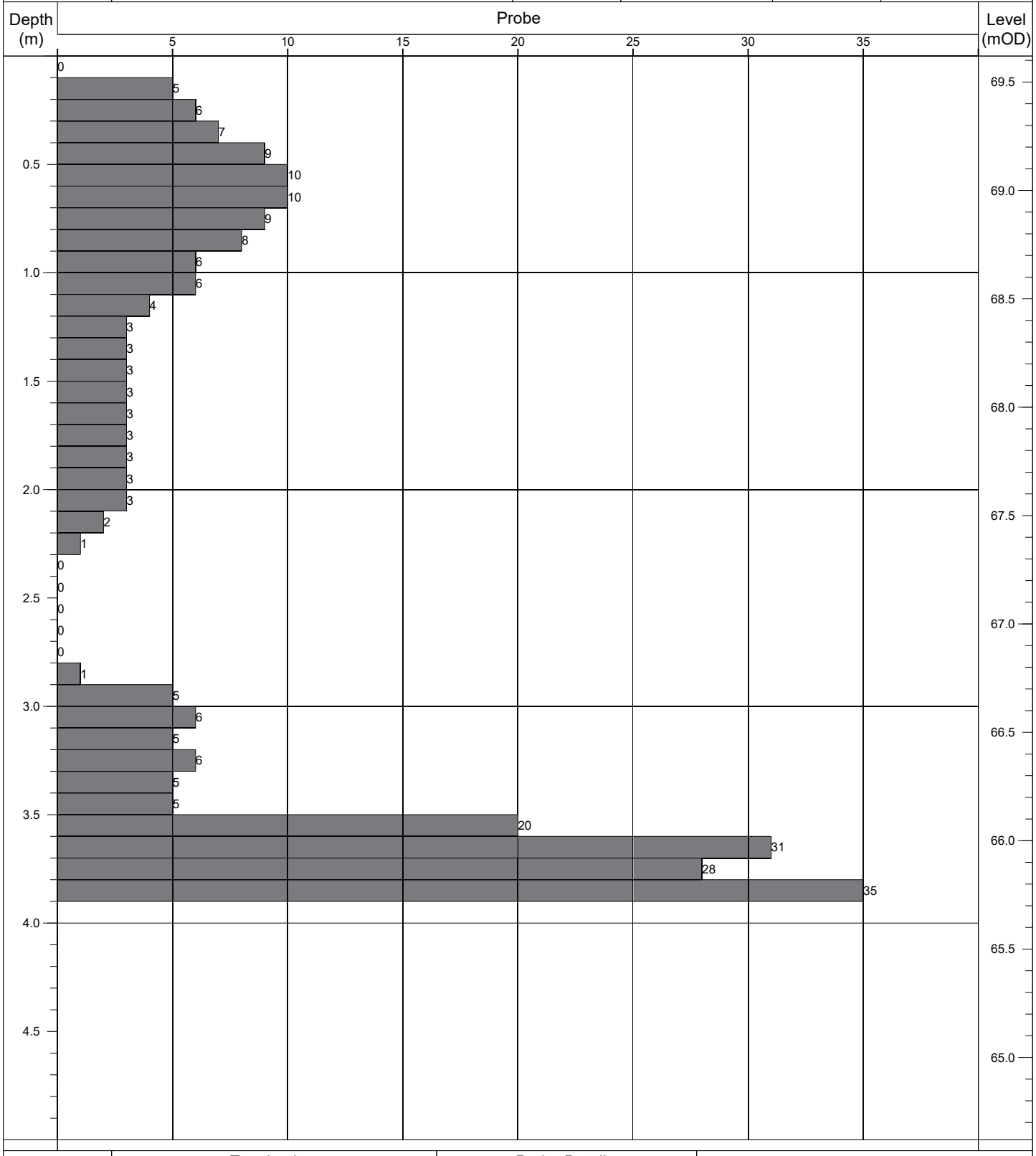
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP191
Contract:	Coolagad	Easting:	727767.977	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712758.202	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.33	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



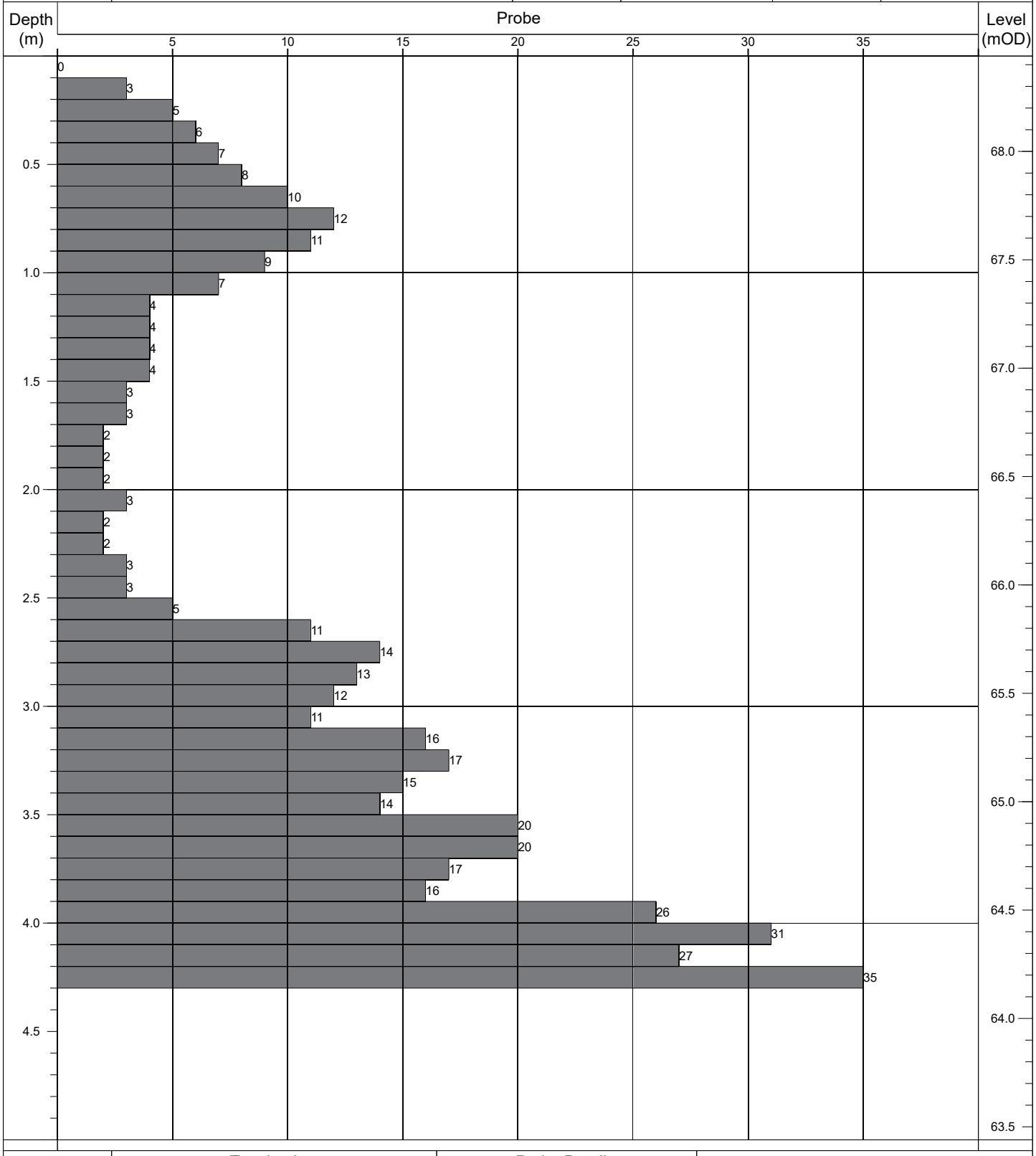
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP192**
Contract:	Coolagad	Easting:	727721.694	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712924.188	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.62	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



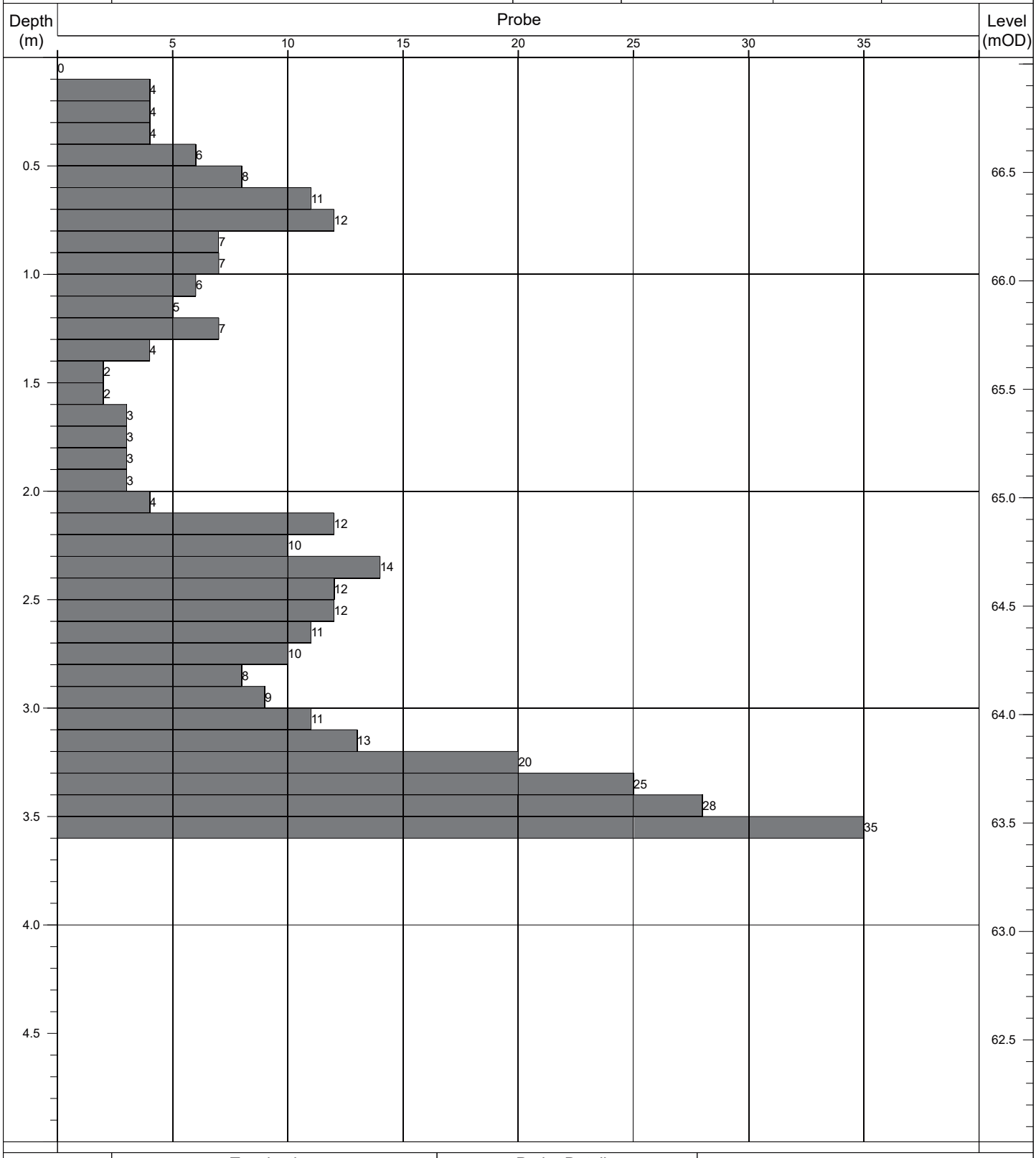
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP193**
Contract:	Coolagad	Easting:	727737.647	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712922.901	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.44	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



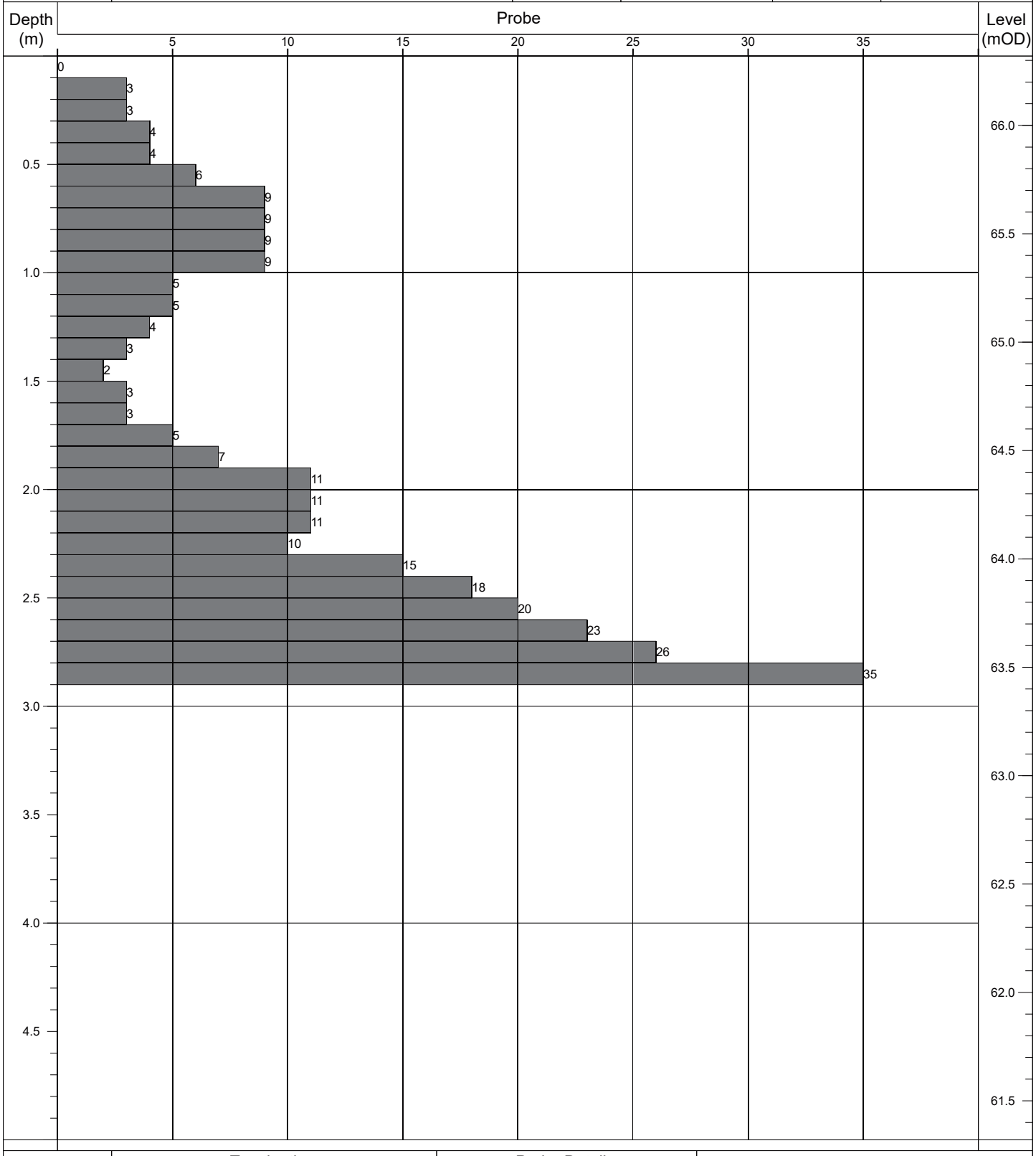
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP194**
Contract:	Coolagad	Easting:	727754.686	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712925.661	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.03	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



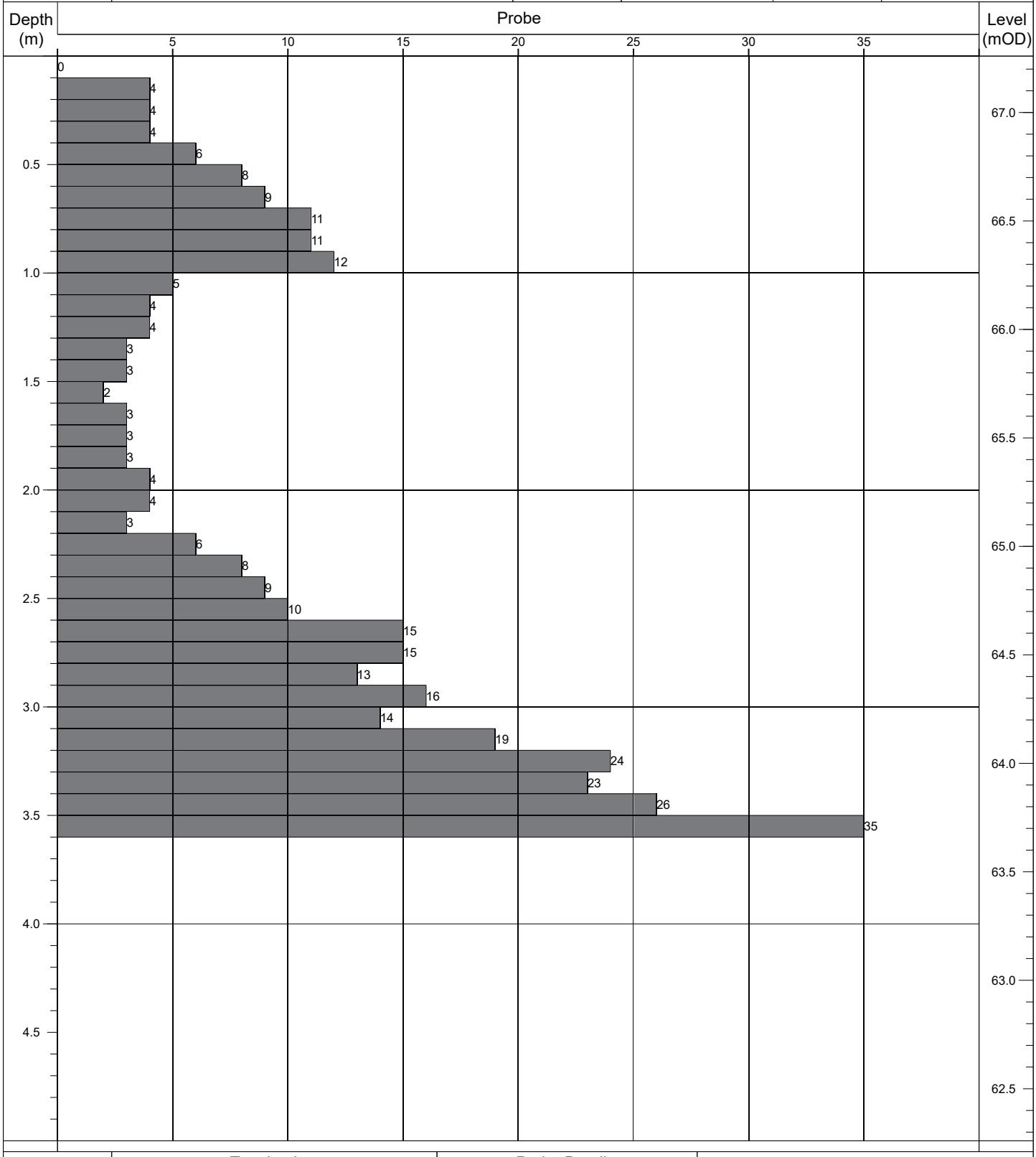
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP195**
Contract:	Coolagad	Easting:	727768.230	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712919.607	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.32	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



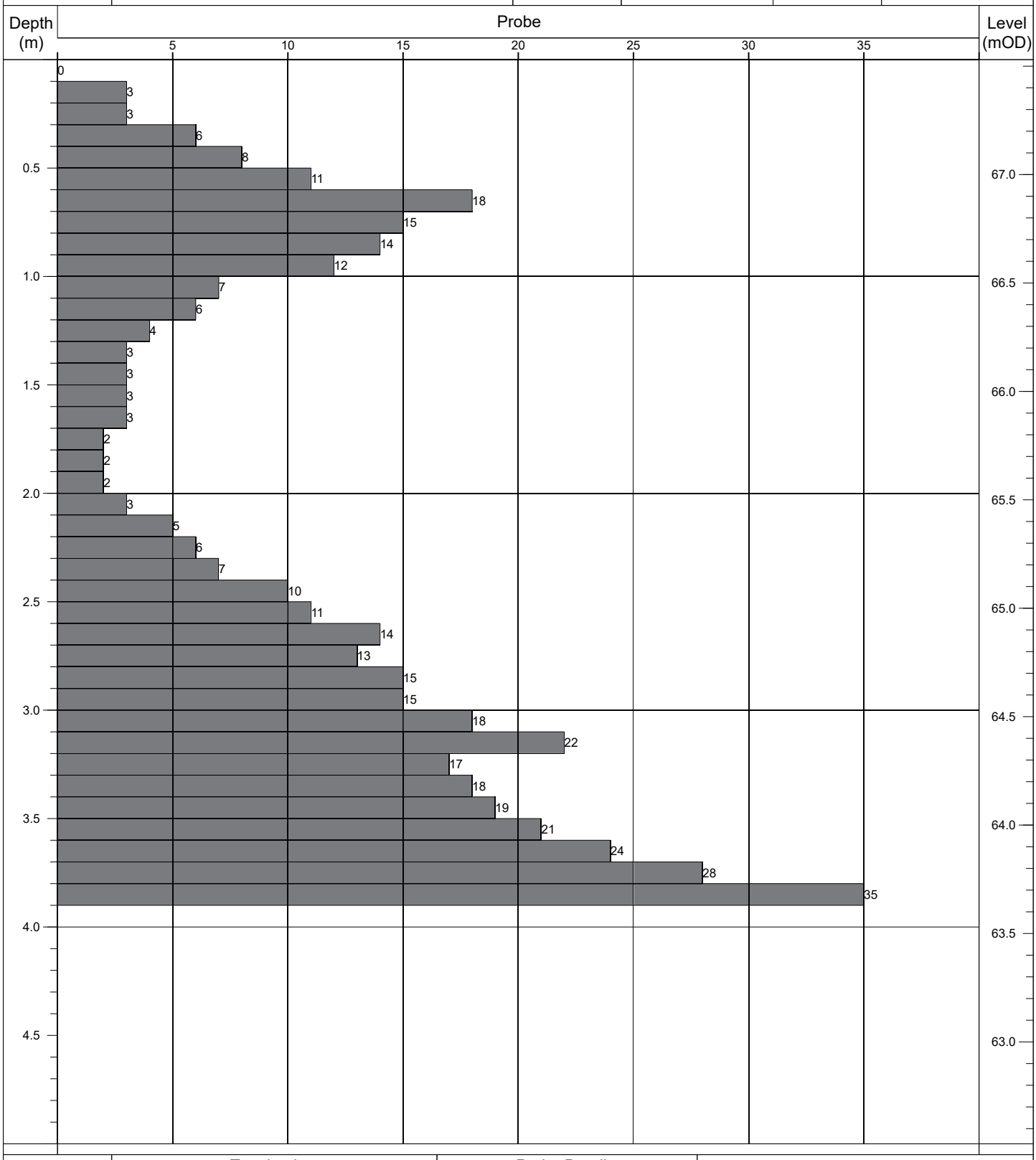
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP196**
Contract:	Coolagad	Easting:	727767.559	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712902.778	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.26	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



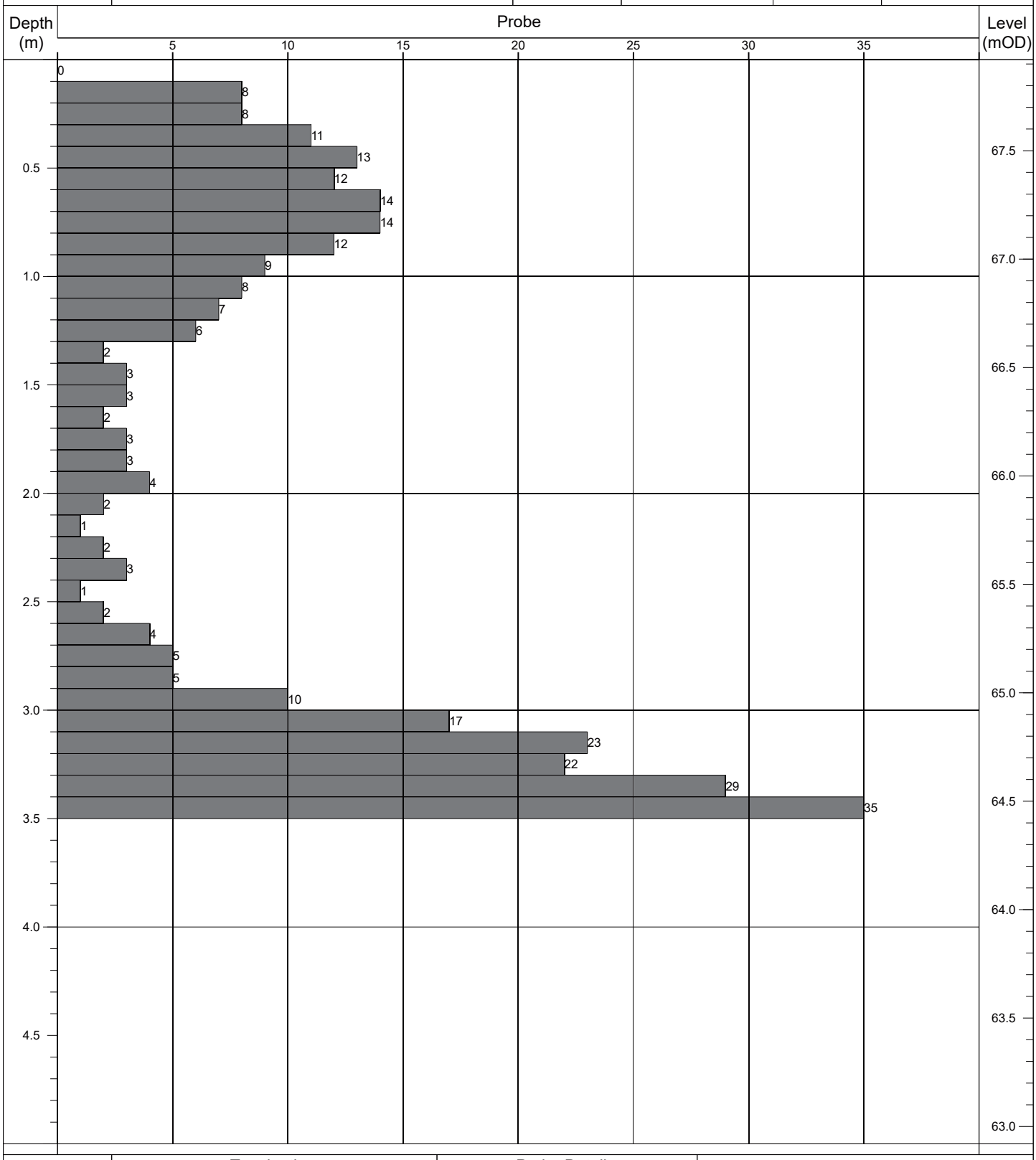
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP197**
Contract:	Coolagad	Easting:	727770.731	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712891.288	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.53	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



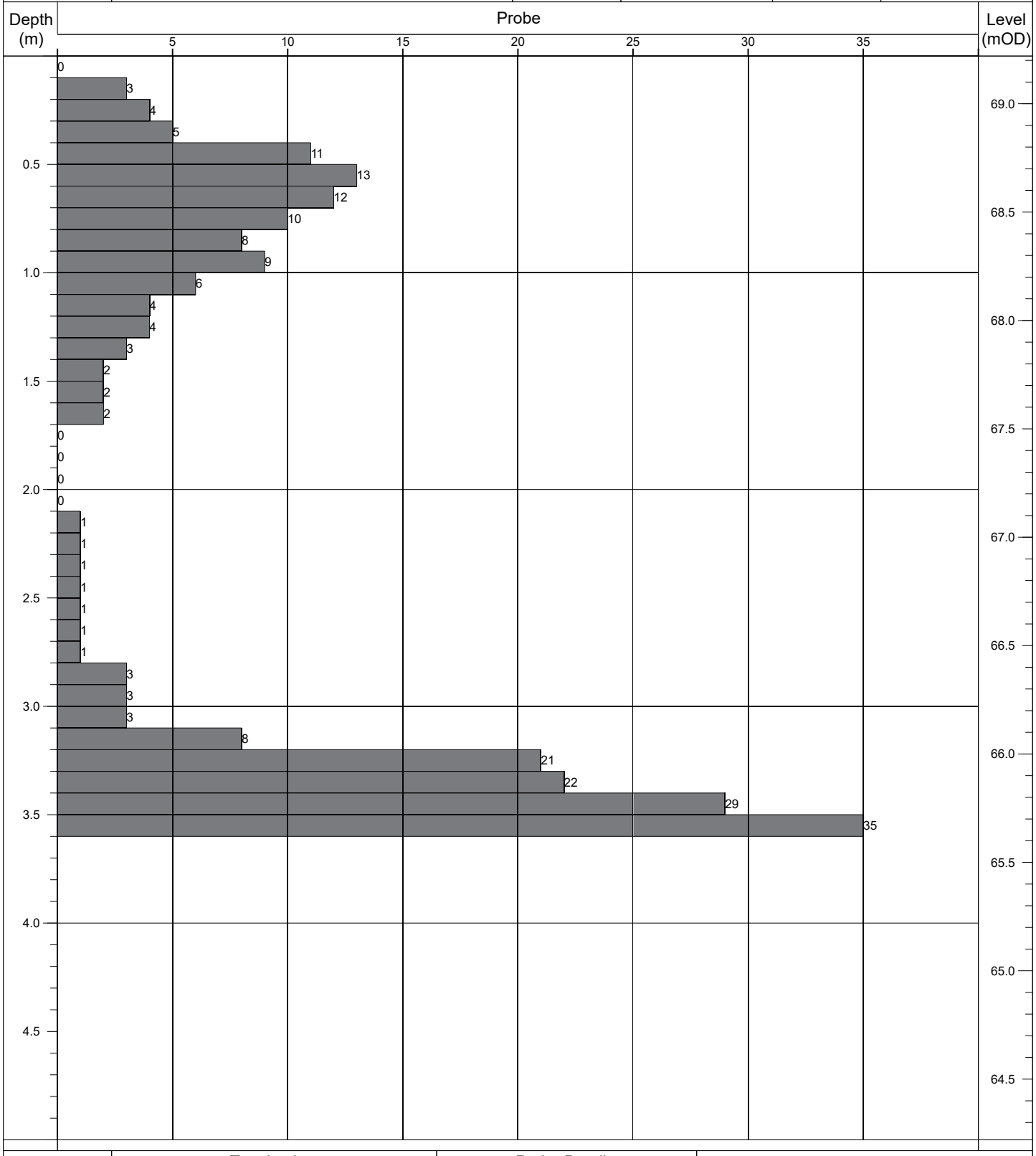
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP198**
Contract:	Coolagad	Easting:	727776.514	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712875.092	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.92	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



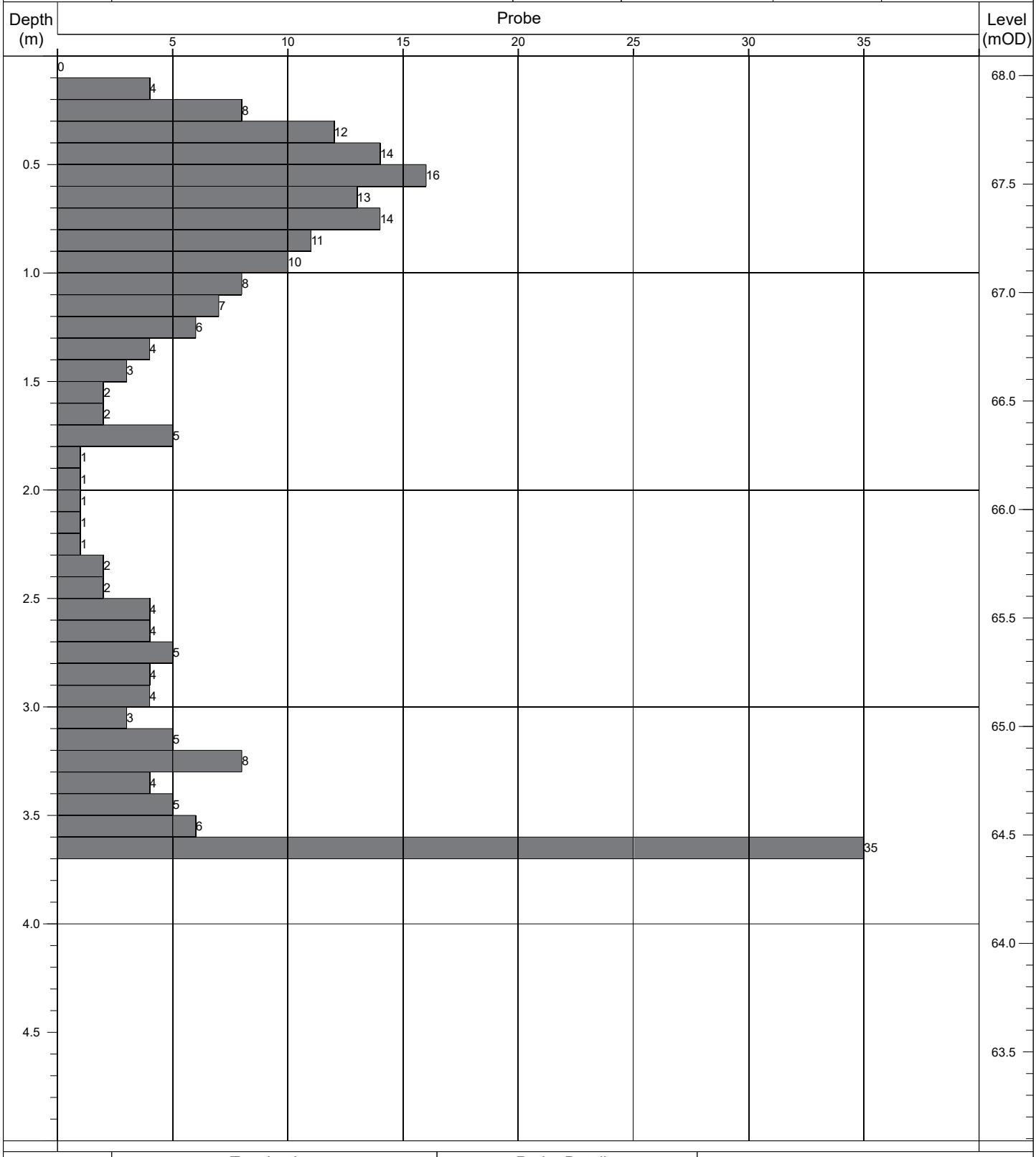
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP199**
Contract:	Coolagad	Easting:	727761.859	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712868.281	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.22	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



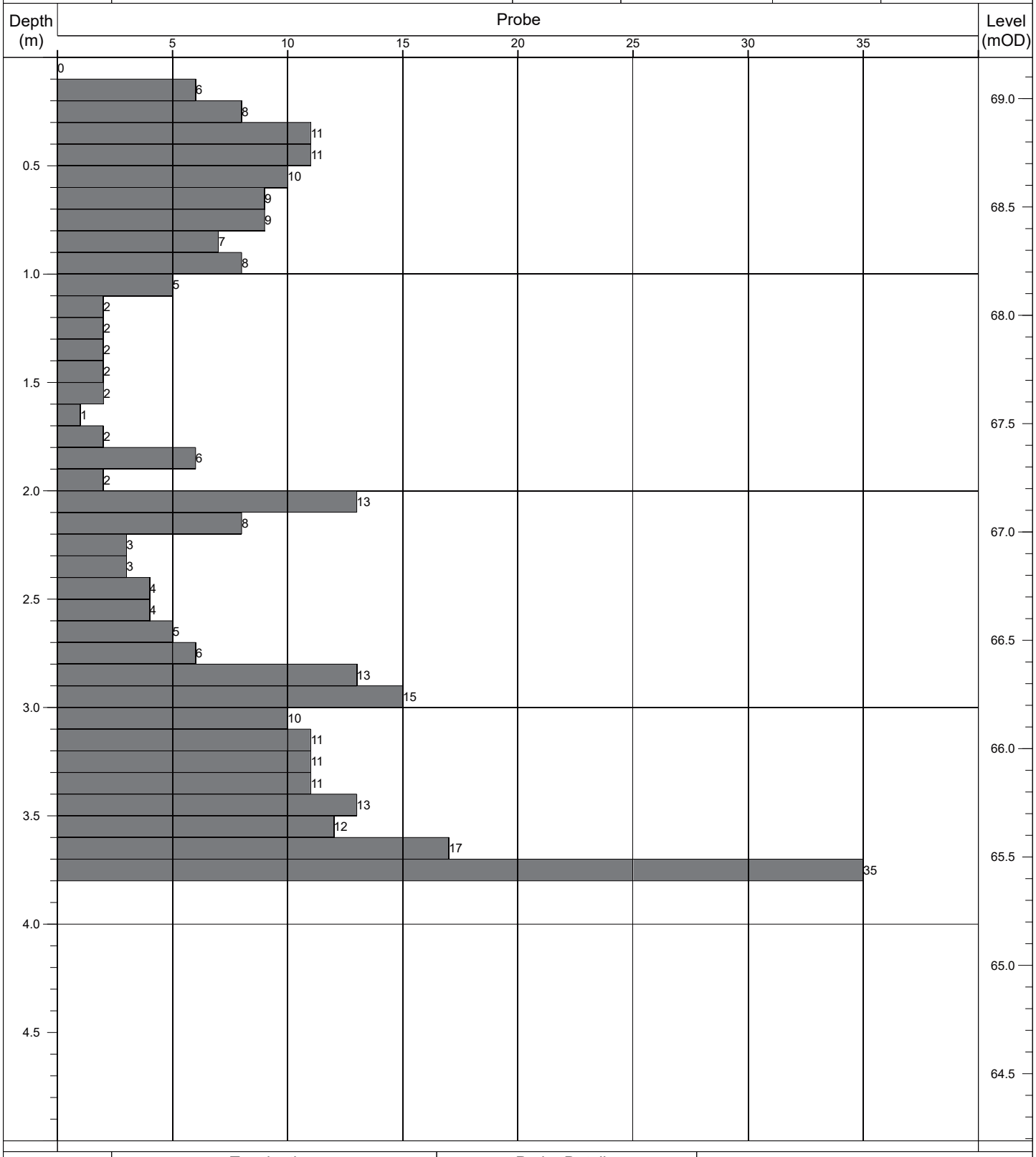
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP200**
Contract:	Coolagad	Easting:	727787.118	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712852.693	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.09	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



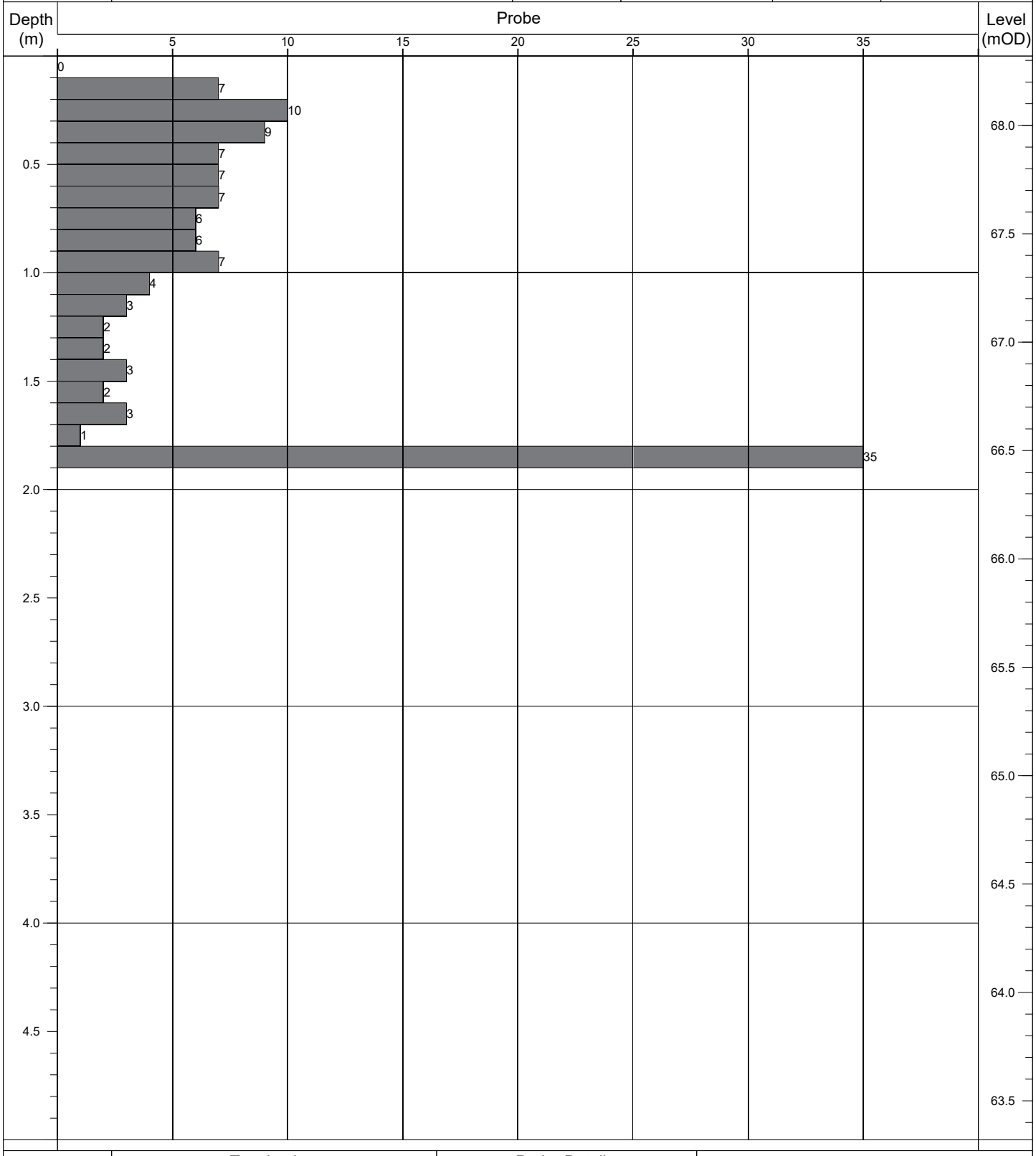
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP201**
Contract:	Coolagad	Easting:	727772.282	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712851.819	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.19	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



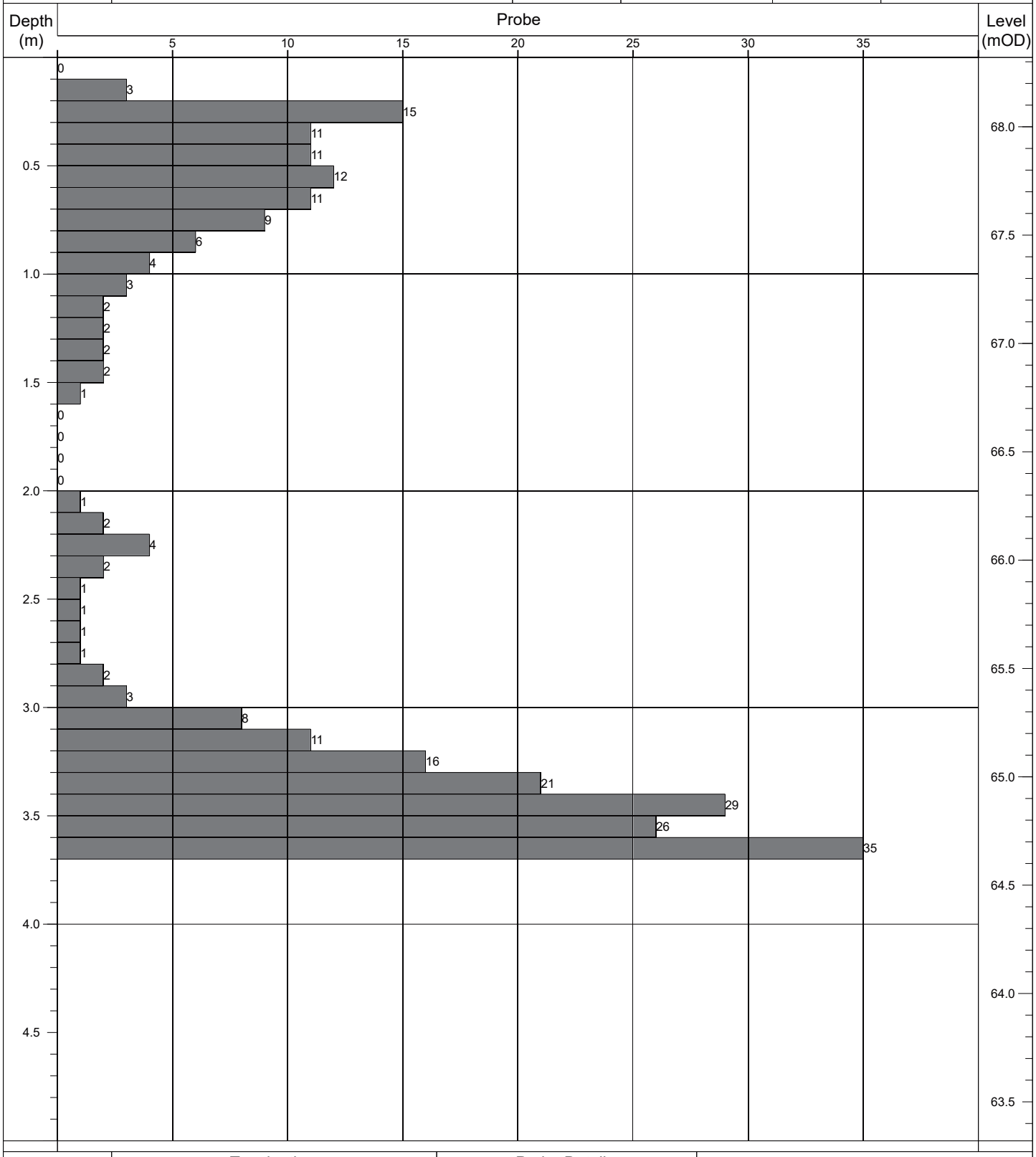
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP202
Contract:	Coolagad	Easting:	727790.599	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712834.453	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.32	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



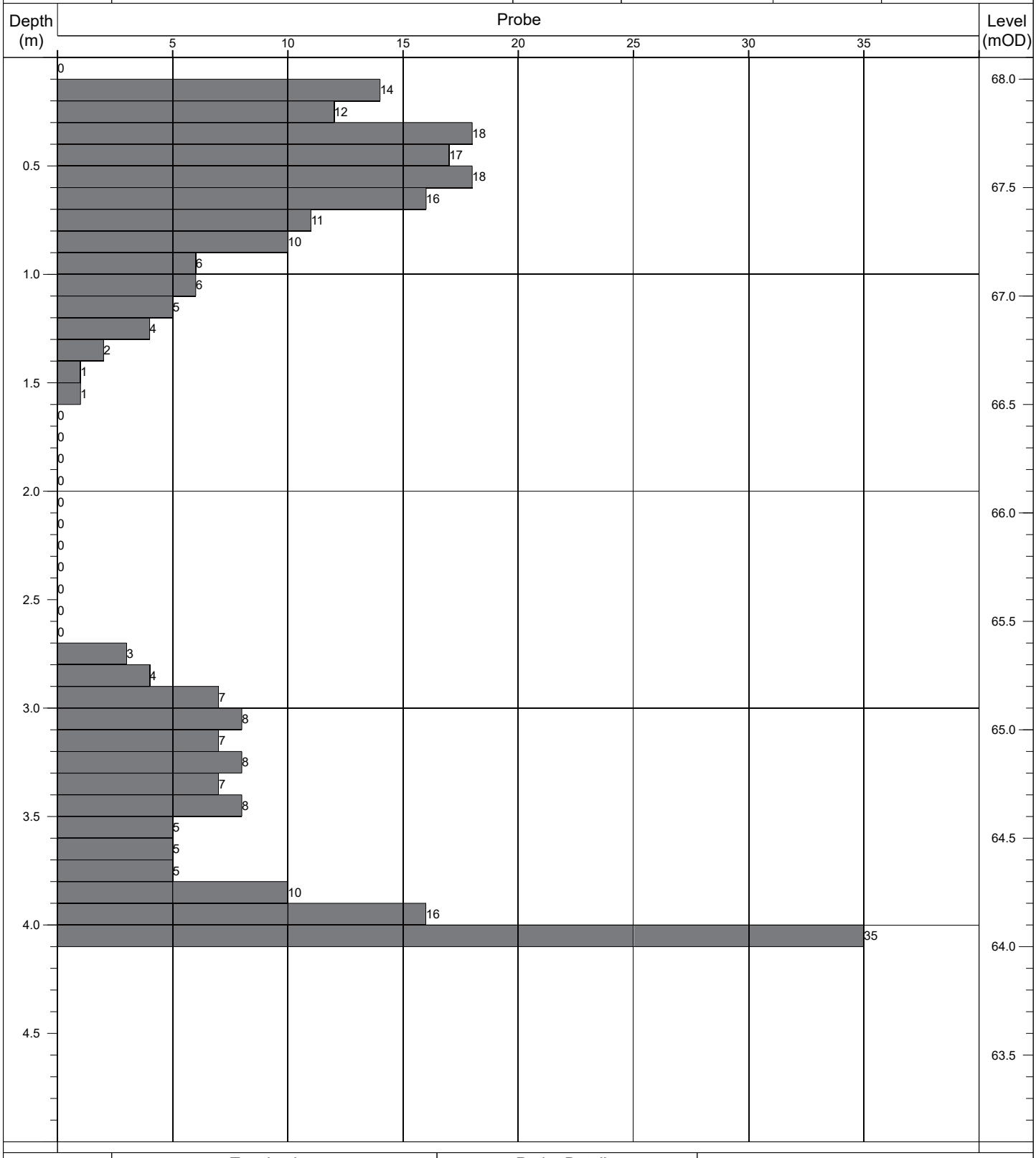
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP203**
Contract:	Coolagad	Easting:	727794.575	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712821.779	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.32	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



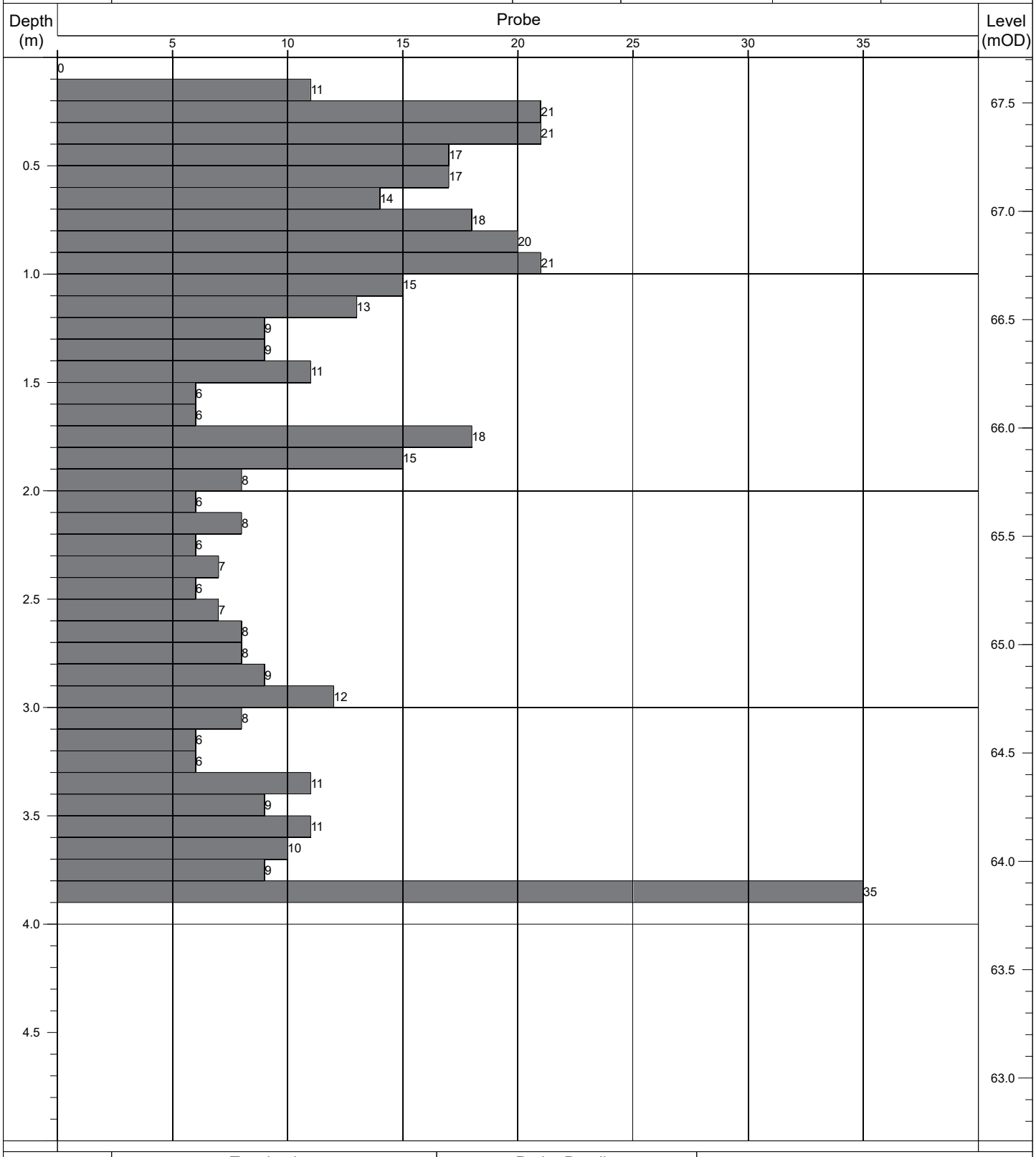
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP204**
Contract:	Coolagad	Easting:	727800.490	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712807.494	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.10	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



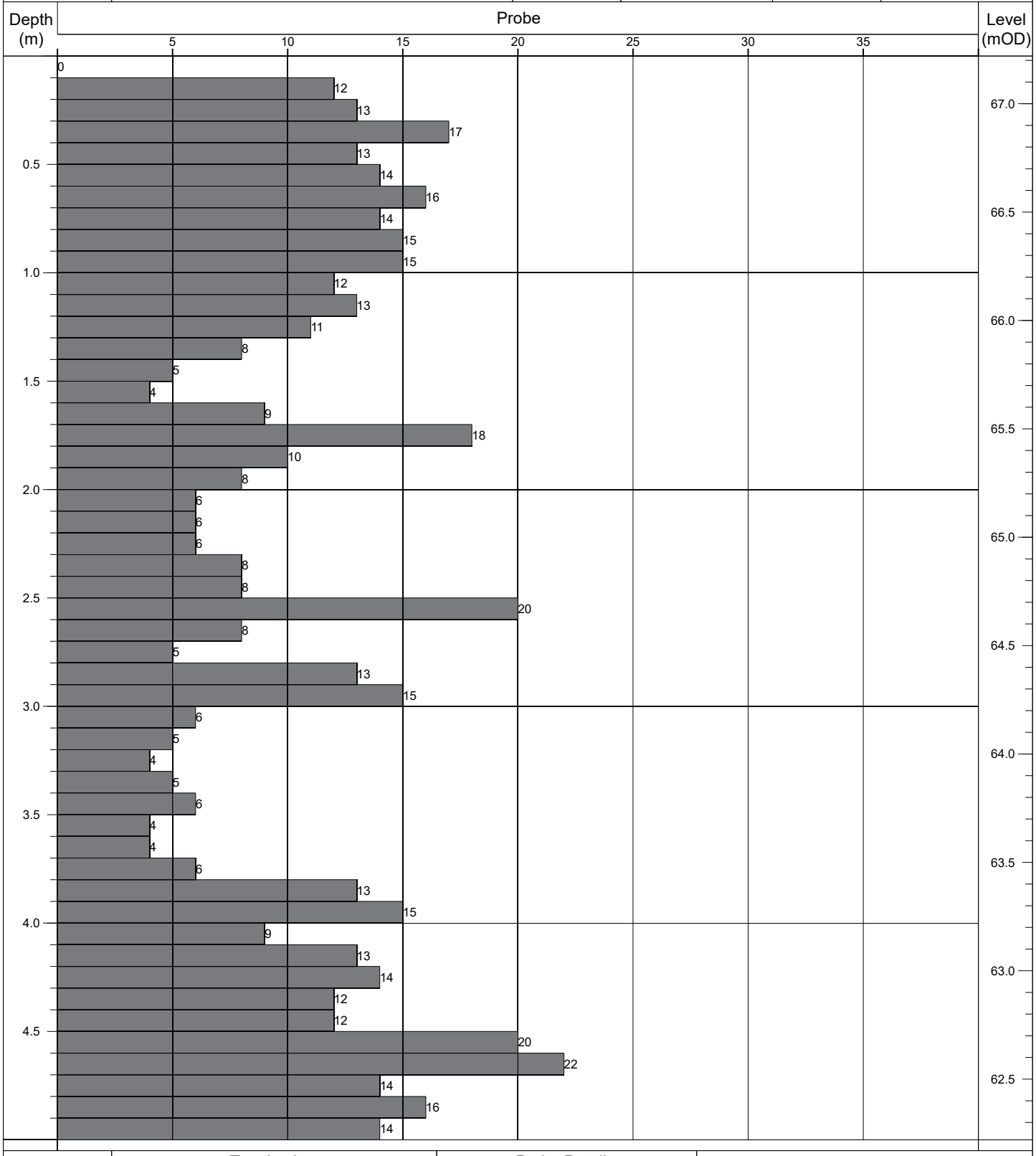
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP205**
Contract:	Coolagad	Easting:	727808.090	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712794.640	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.71	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



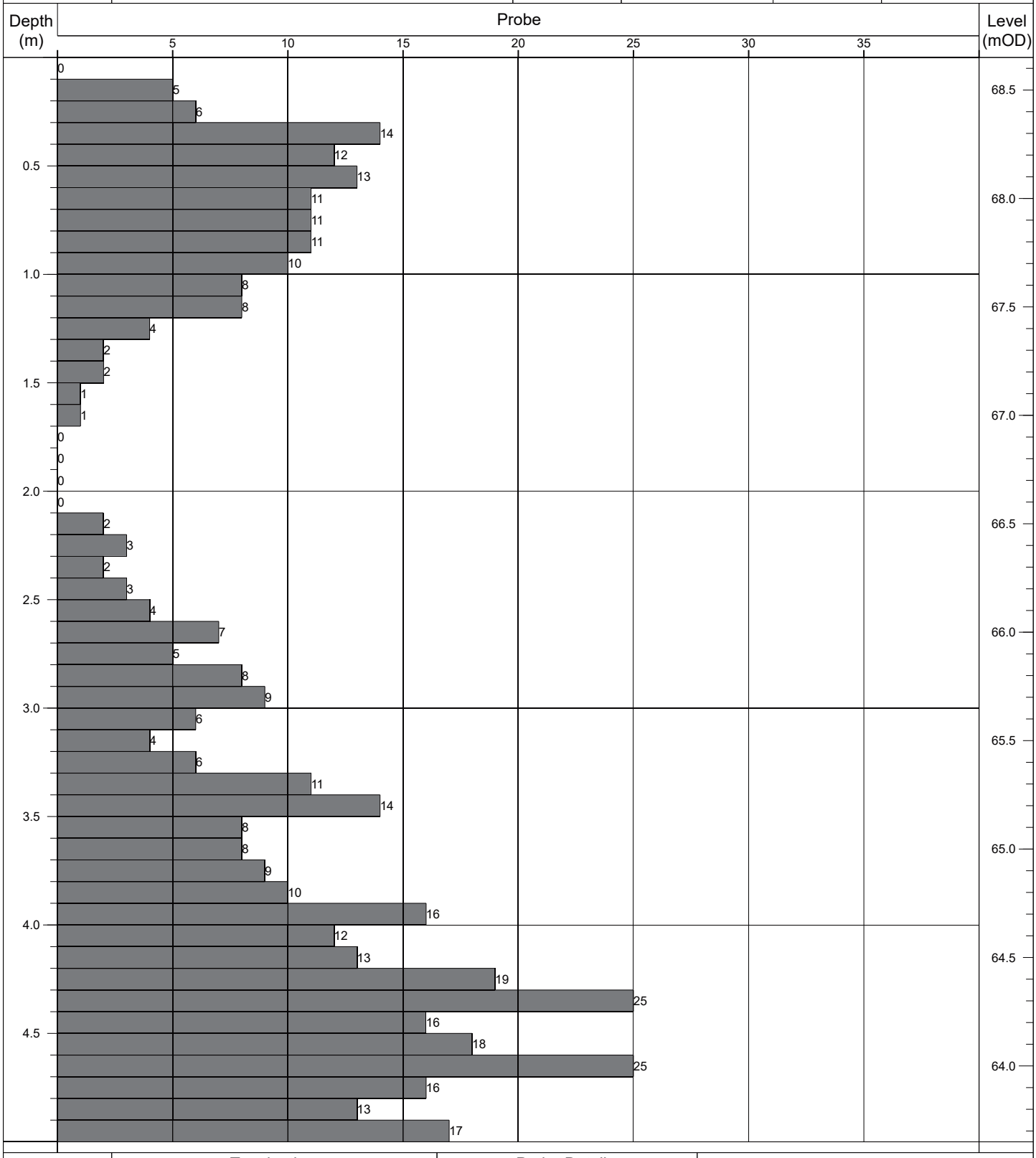
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP206
Contract:	Coolagad	Easting:	727817.957	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712780.111	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.22	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



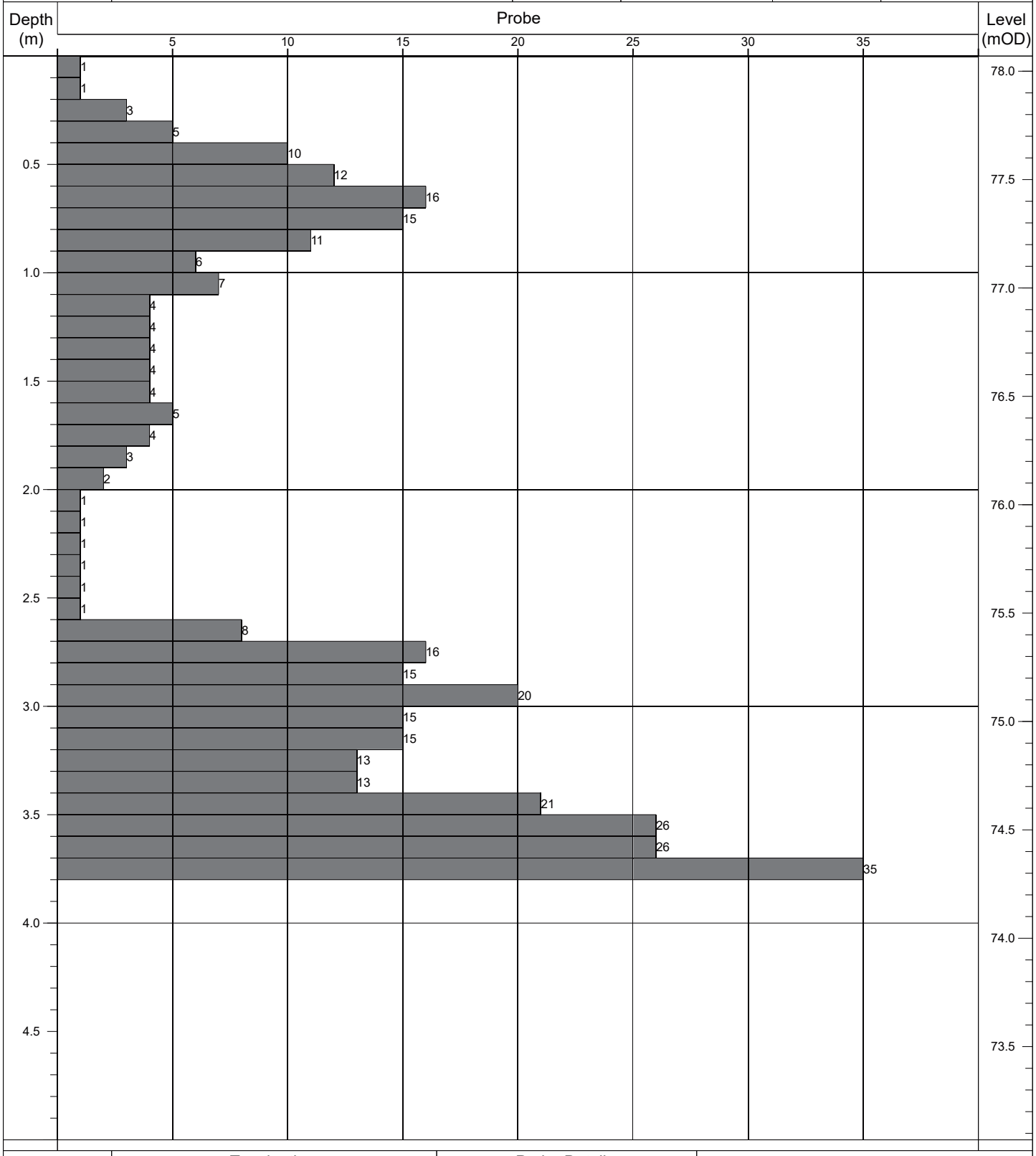
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP207**
Contract:	Coolagad	Easting:	727803.248	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712769.165	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.65	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



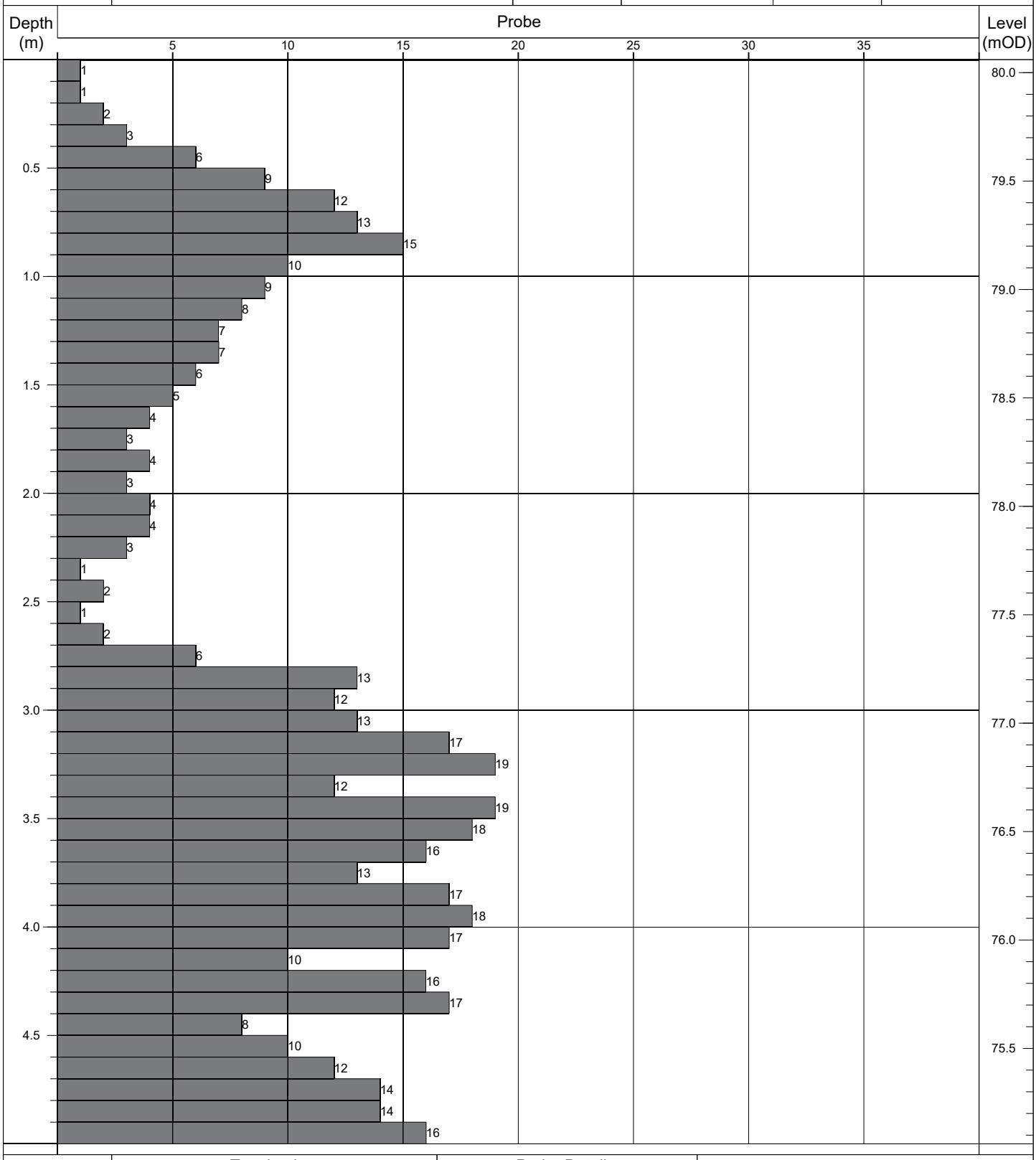
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP208**
Contract:	Coolagad	Easting:	727669.934	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712826.451	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	78.07	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



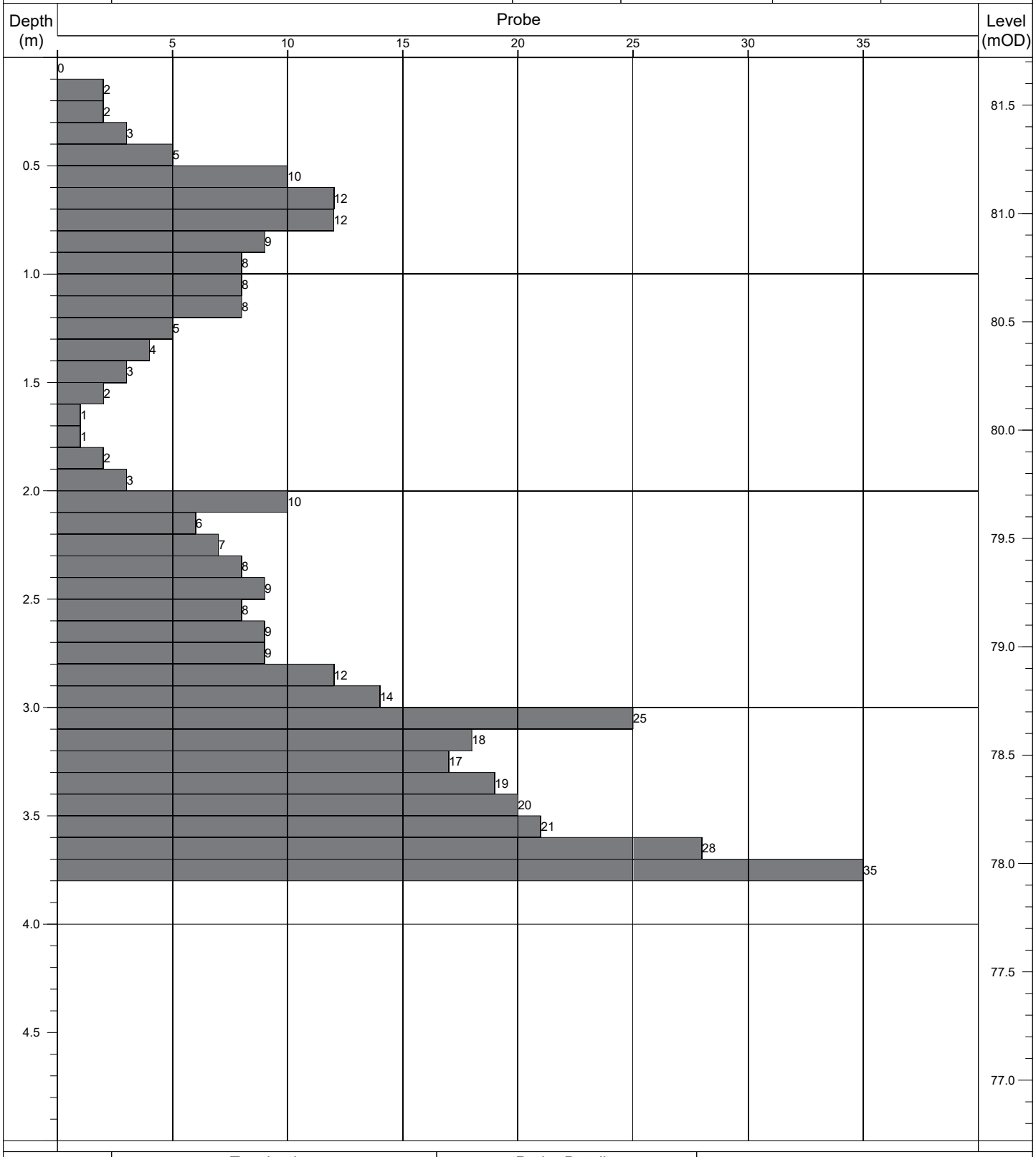
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP209**
Contract:	Coolagad	Easting:	727649.177	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712823.422	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	80.06	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



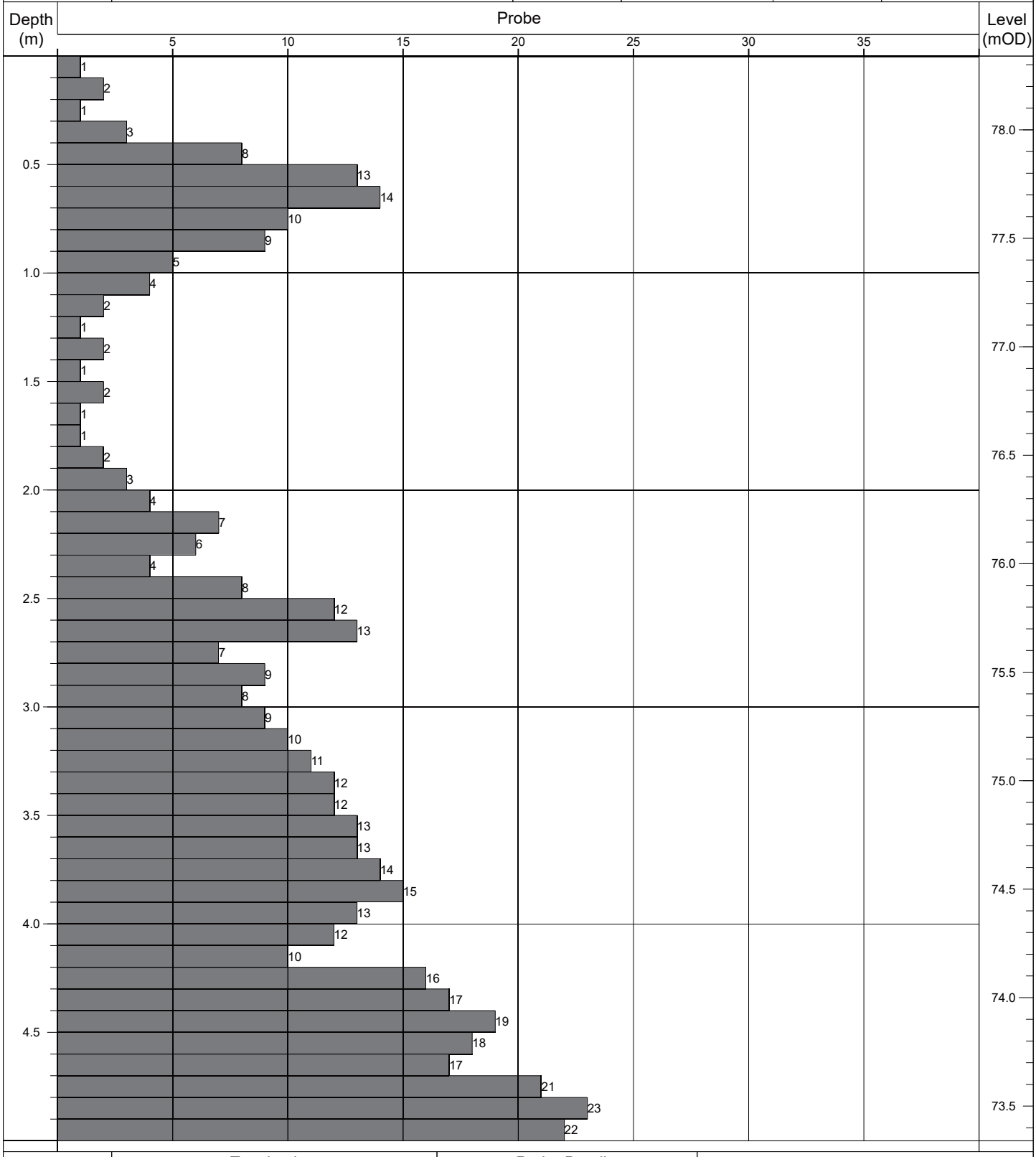
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP210**
Contract:	Coolagad	Easting:	727635.416	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712819.807	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.72	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



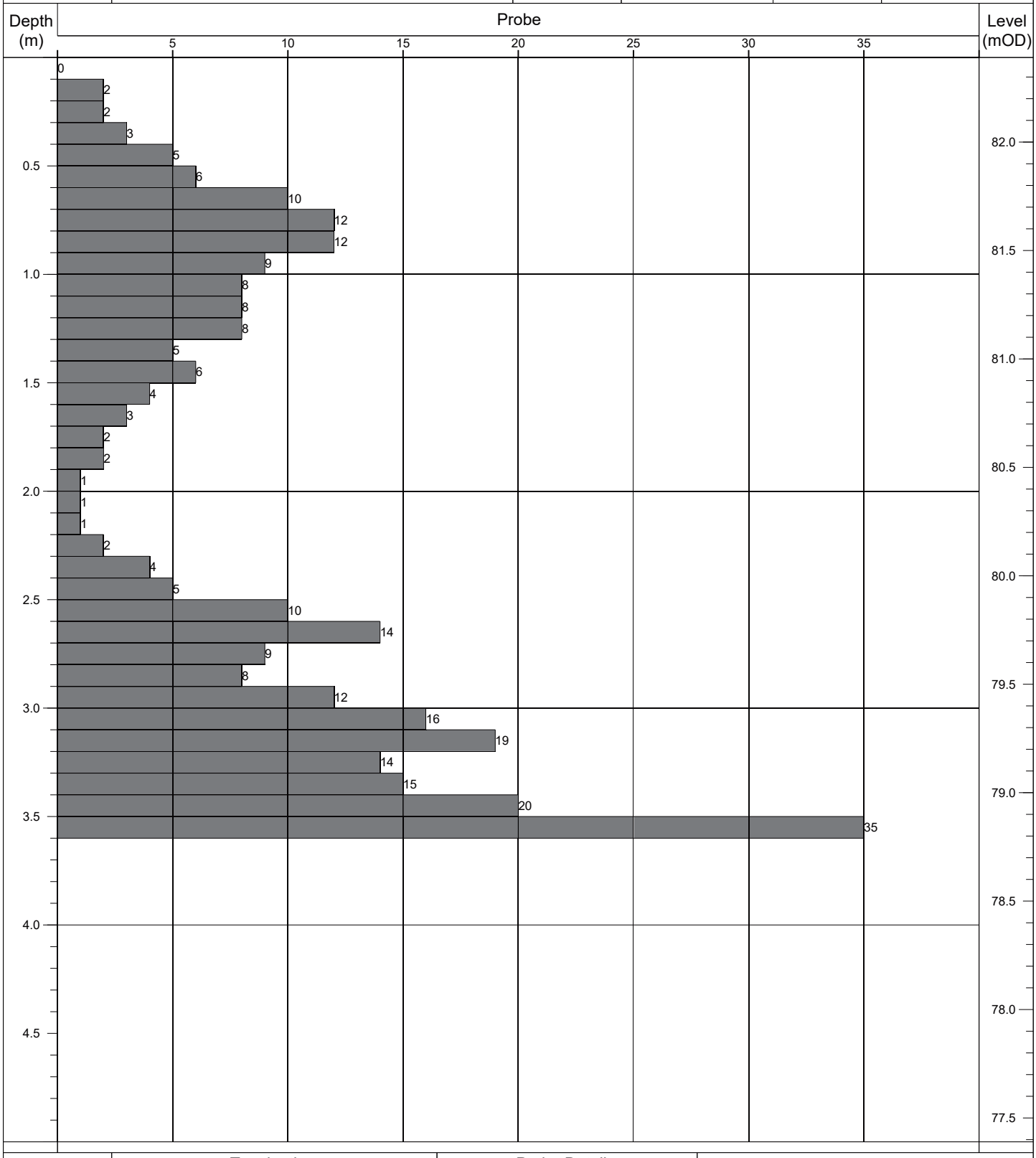
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP211
Contract:	Coolagad	Easting:	727673.663	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712812.548	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	78.34	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



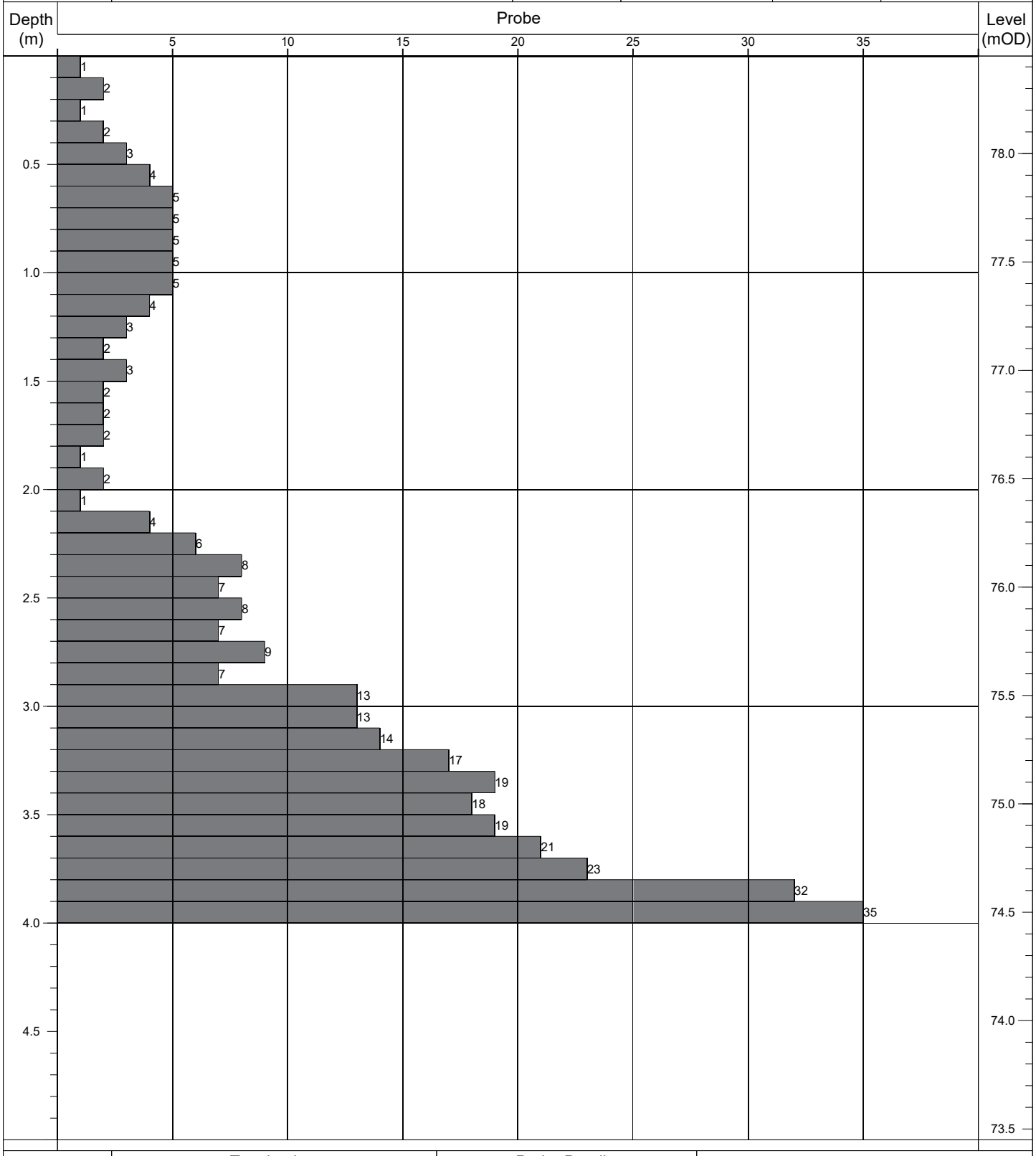
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP212**
Contract:	Coolagad	Easting:	727639.269	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712802.546	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	82.39	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



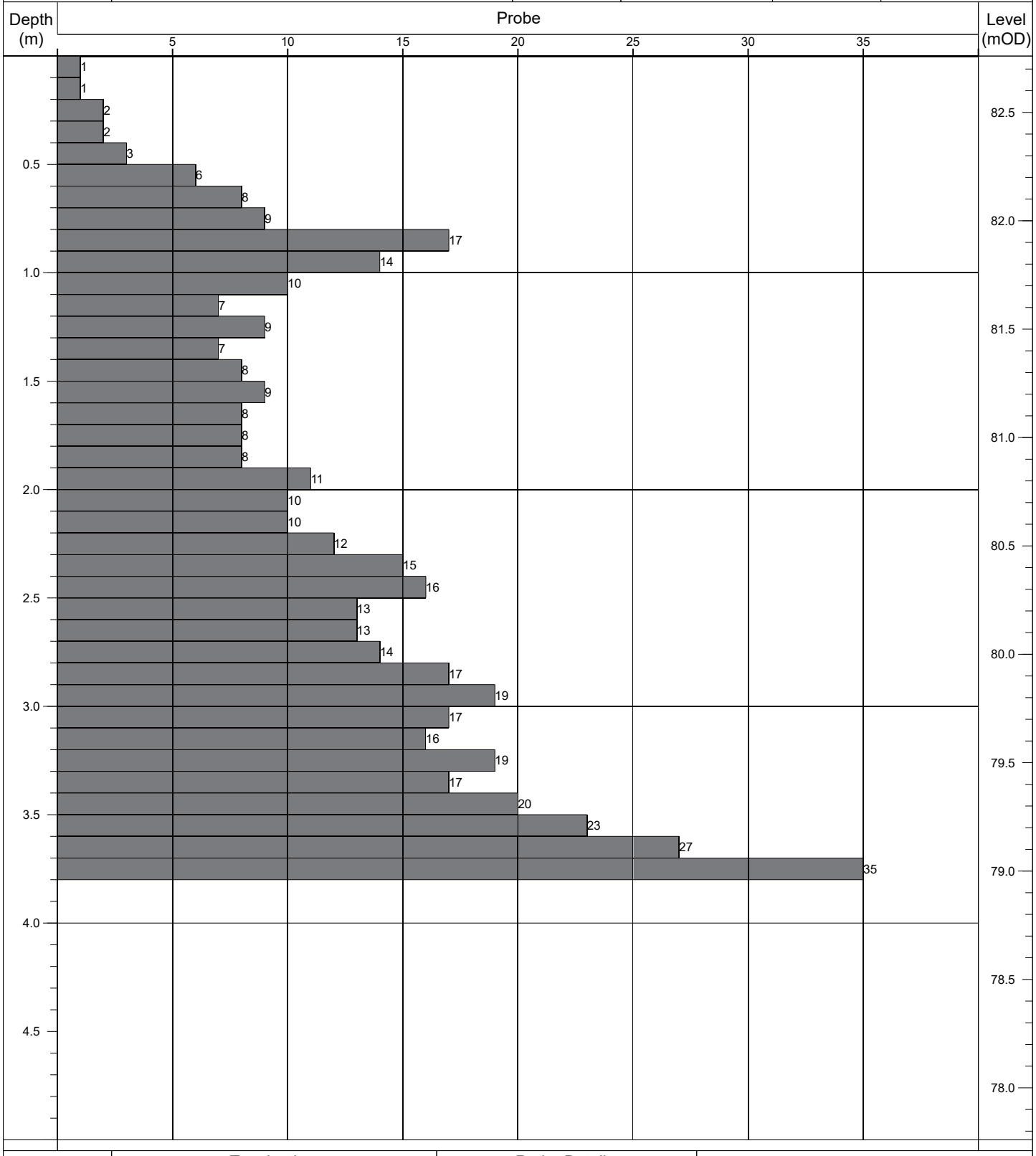
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP213**
Contract:	Coolagad	Easting:	727677.108	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712797.789	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	78.45	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



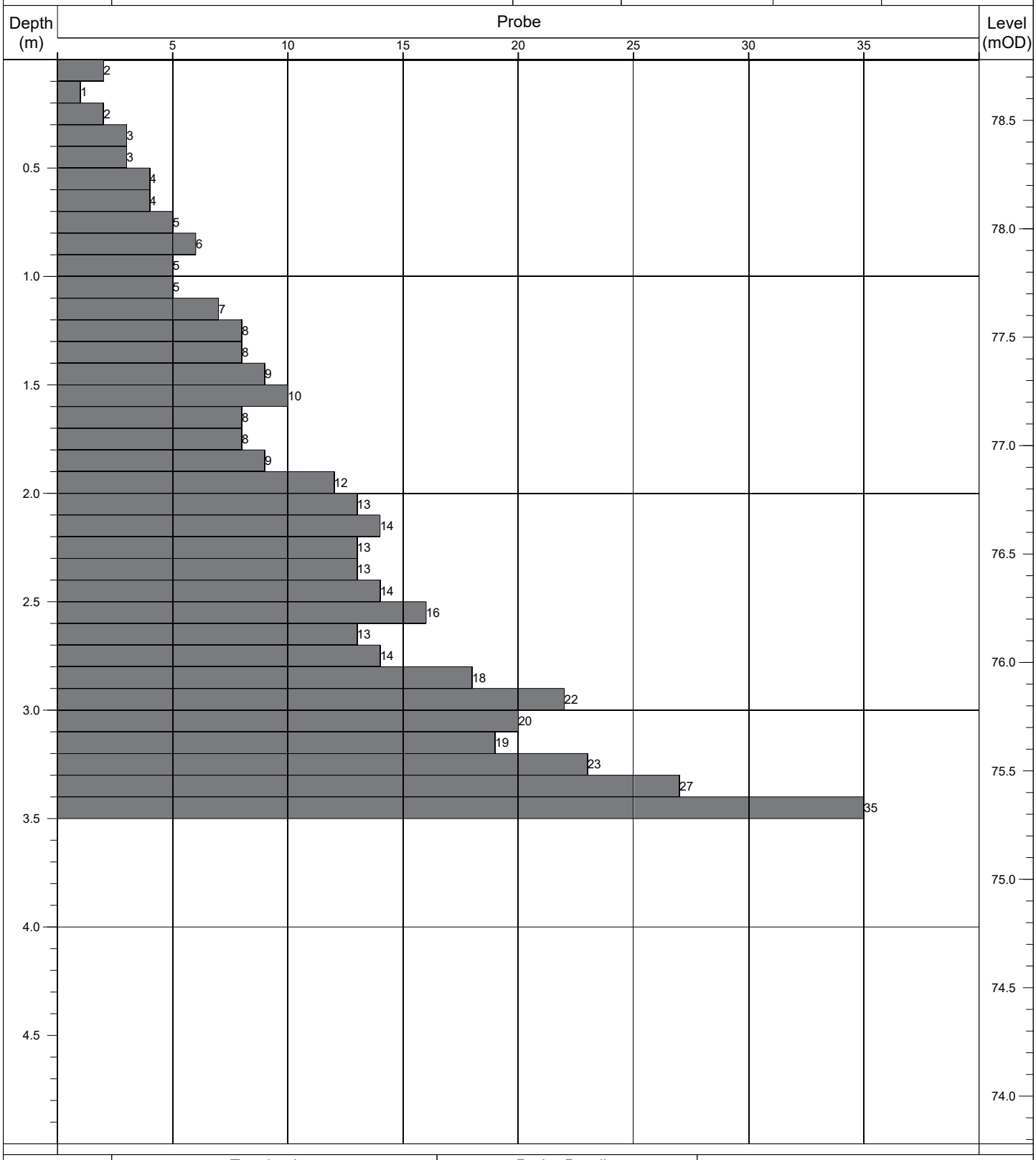
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP214**
Contract:	Coolagad	Easting:	727641.535	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712788.854	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	82.76	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



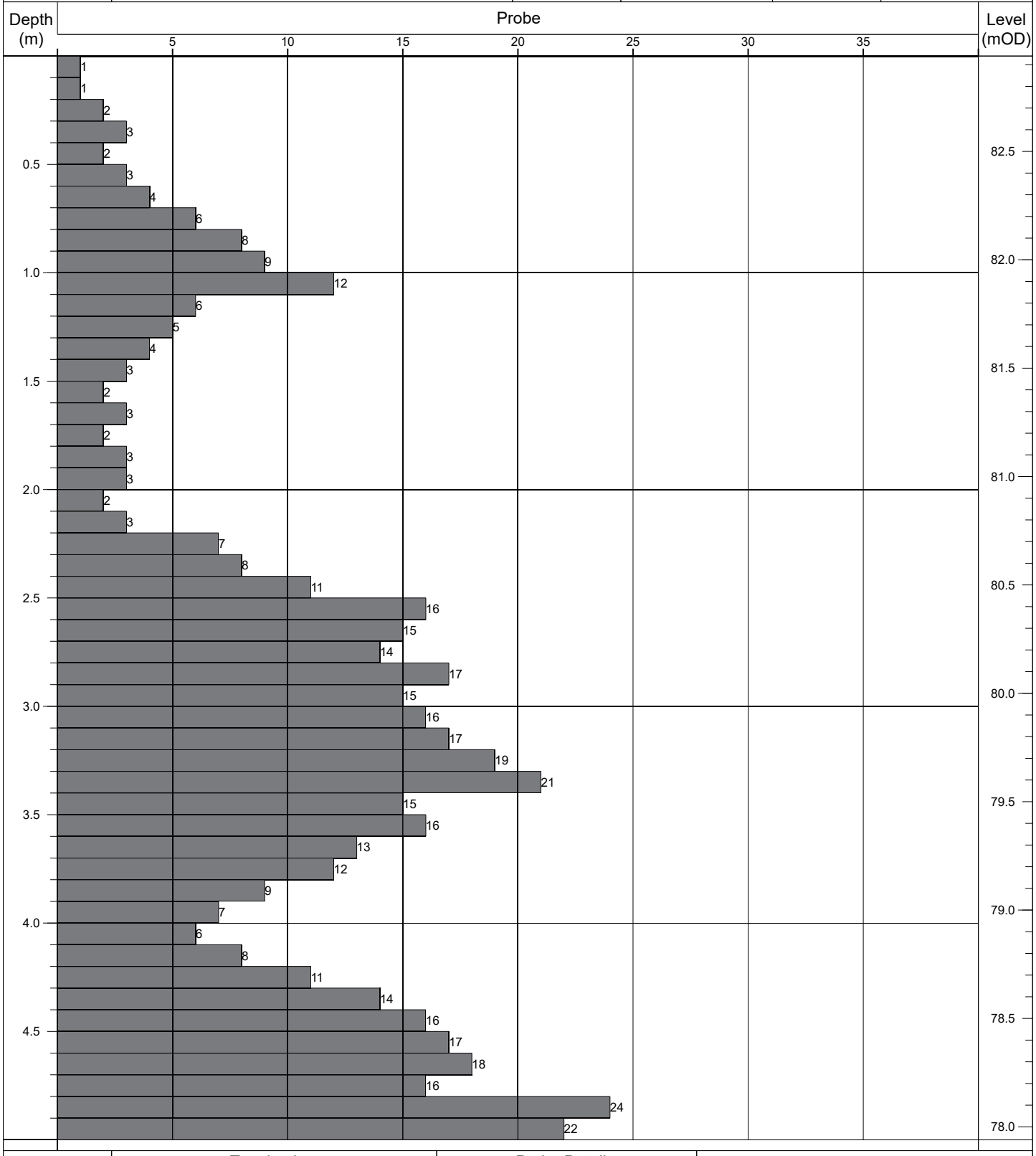
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP215**
Contract:	Coolagad	Easting:	727677.690	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712782.695	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	78.78	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



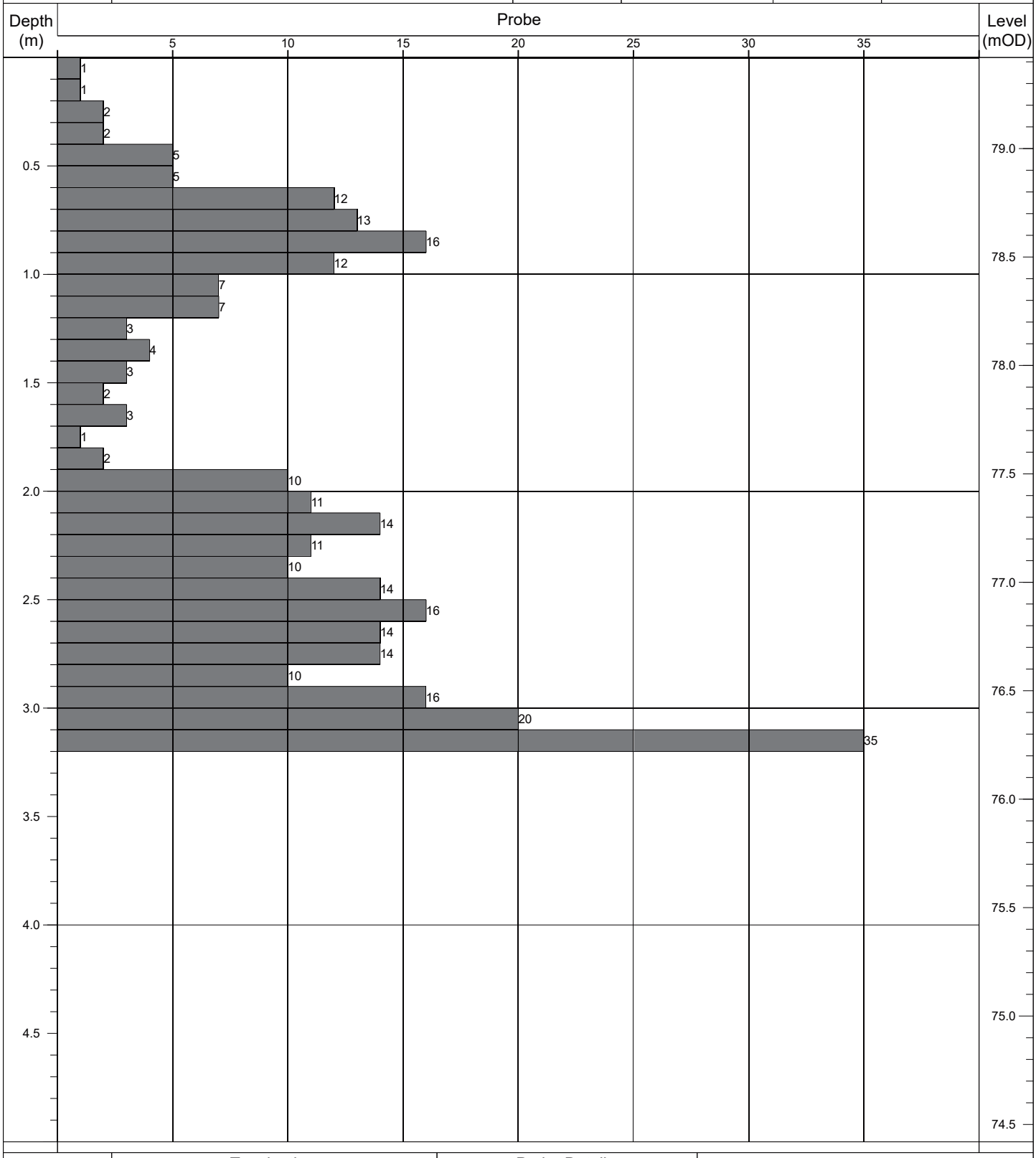
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP216
Contract:	Coolagad	Easting:	727644.665	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712774.286	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	82.94	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



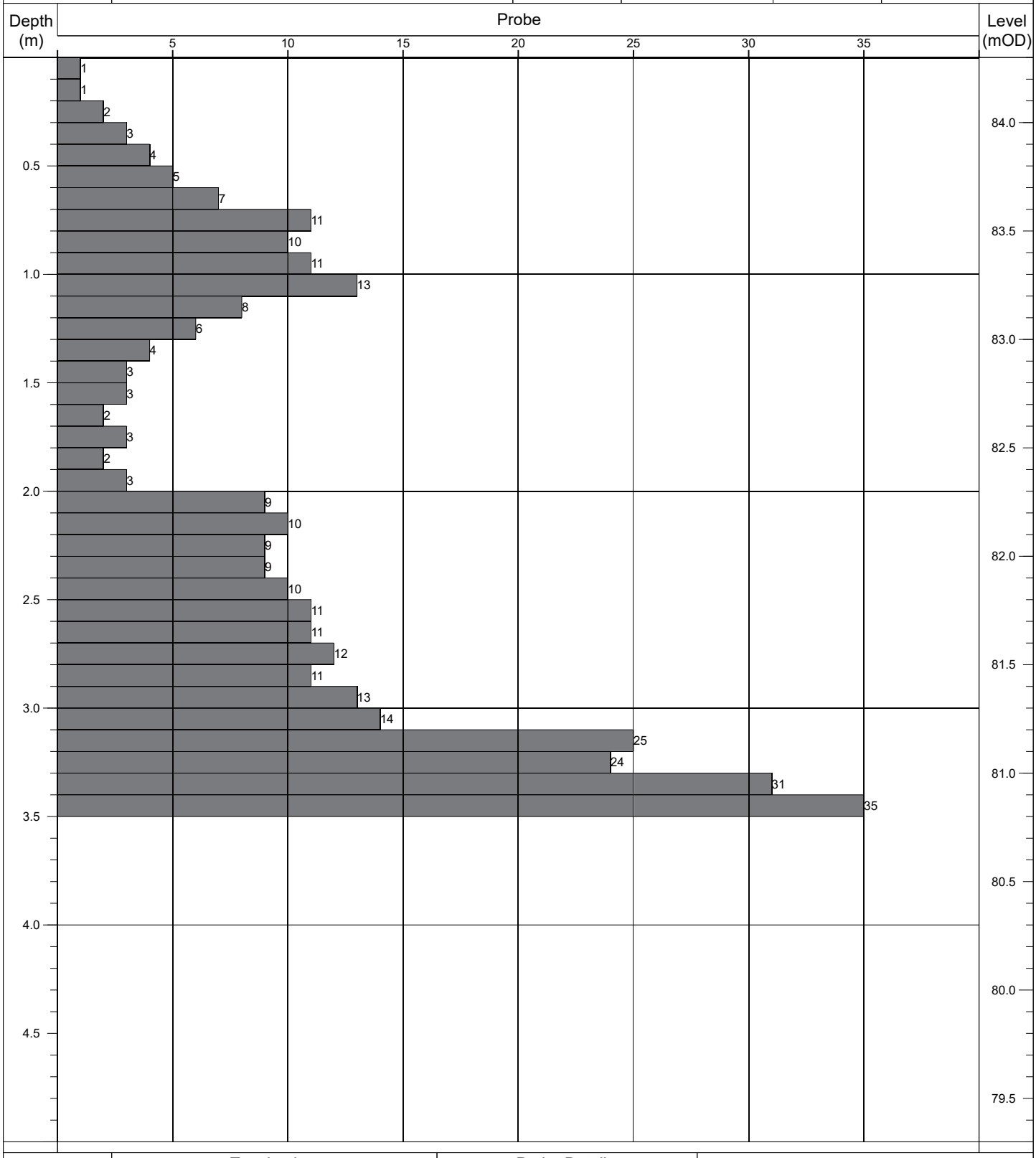
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP217**
Contract:	Coolagad	Easting:	727676.059	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712769.260	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	79.42	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



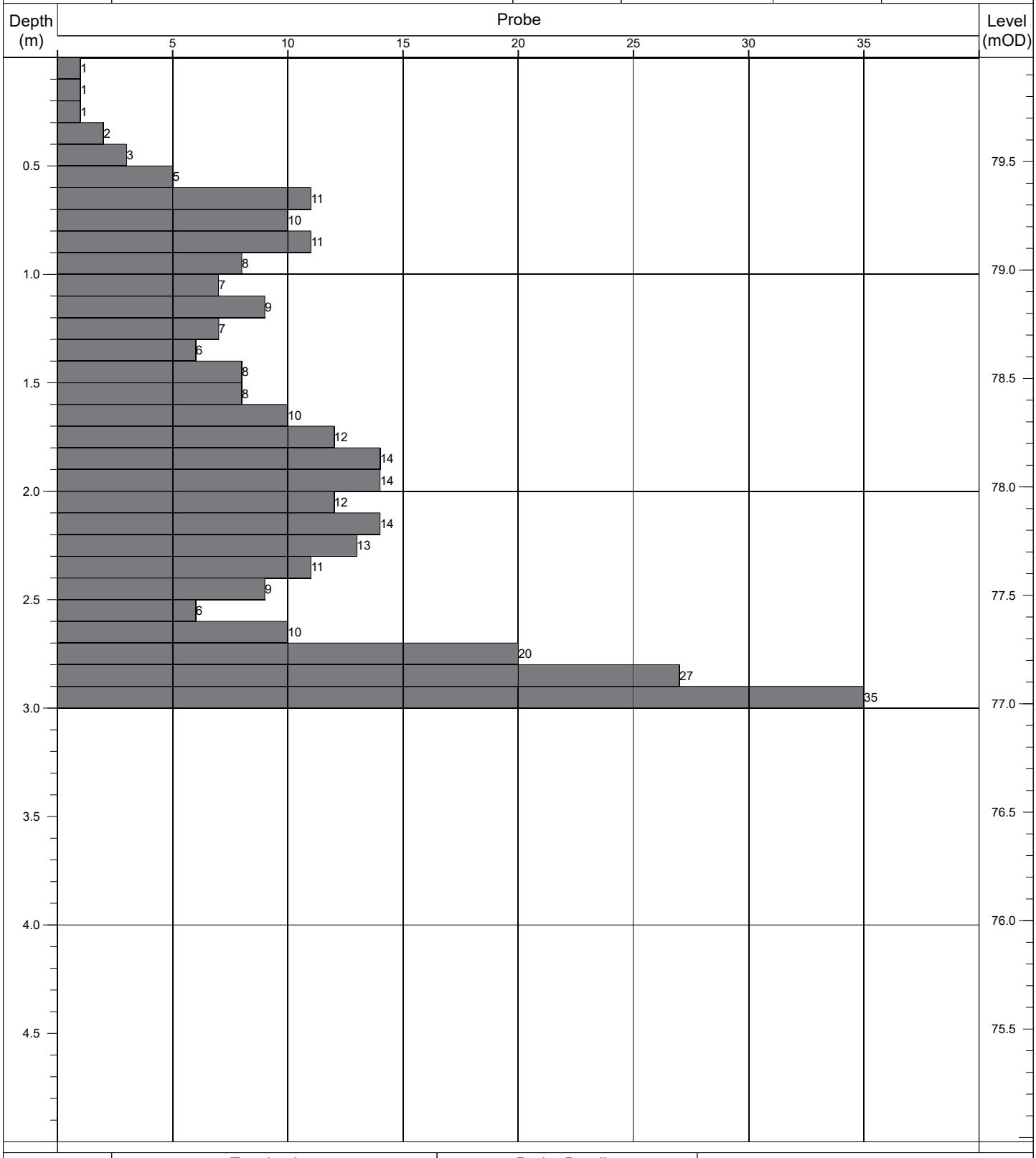
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP218**
Contract:	Coolagad	Easting:	727638.303	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712761.290	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	84.30	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



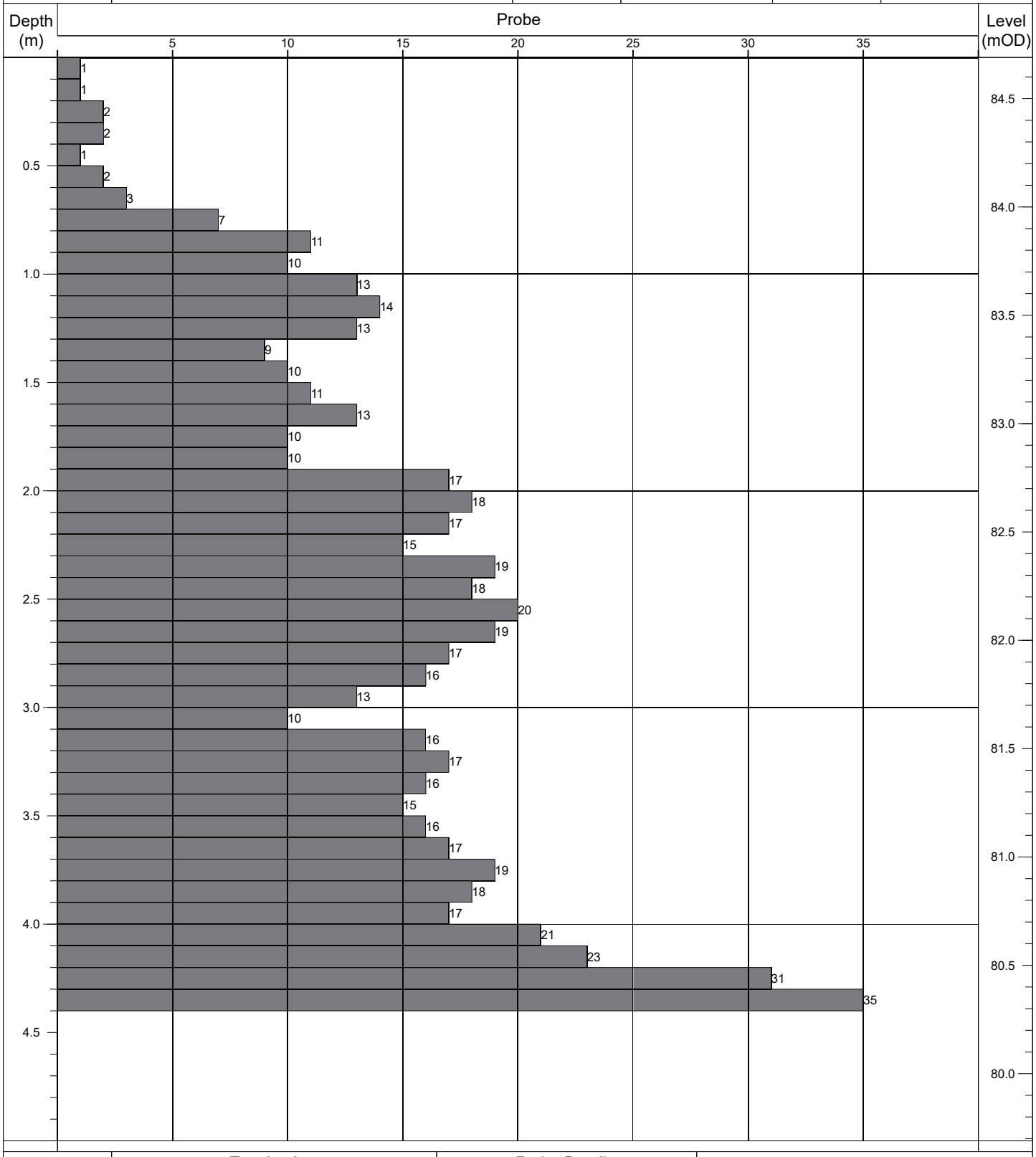
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP219**
Contract:	Coolagad	Easting:	727676.281	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712756.137	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	79.98	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



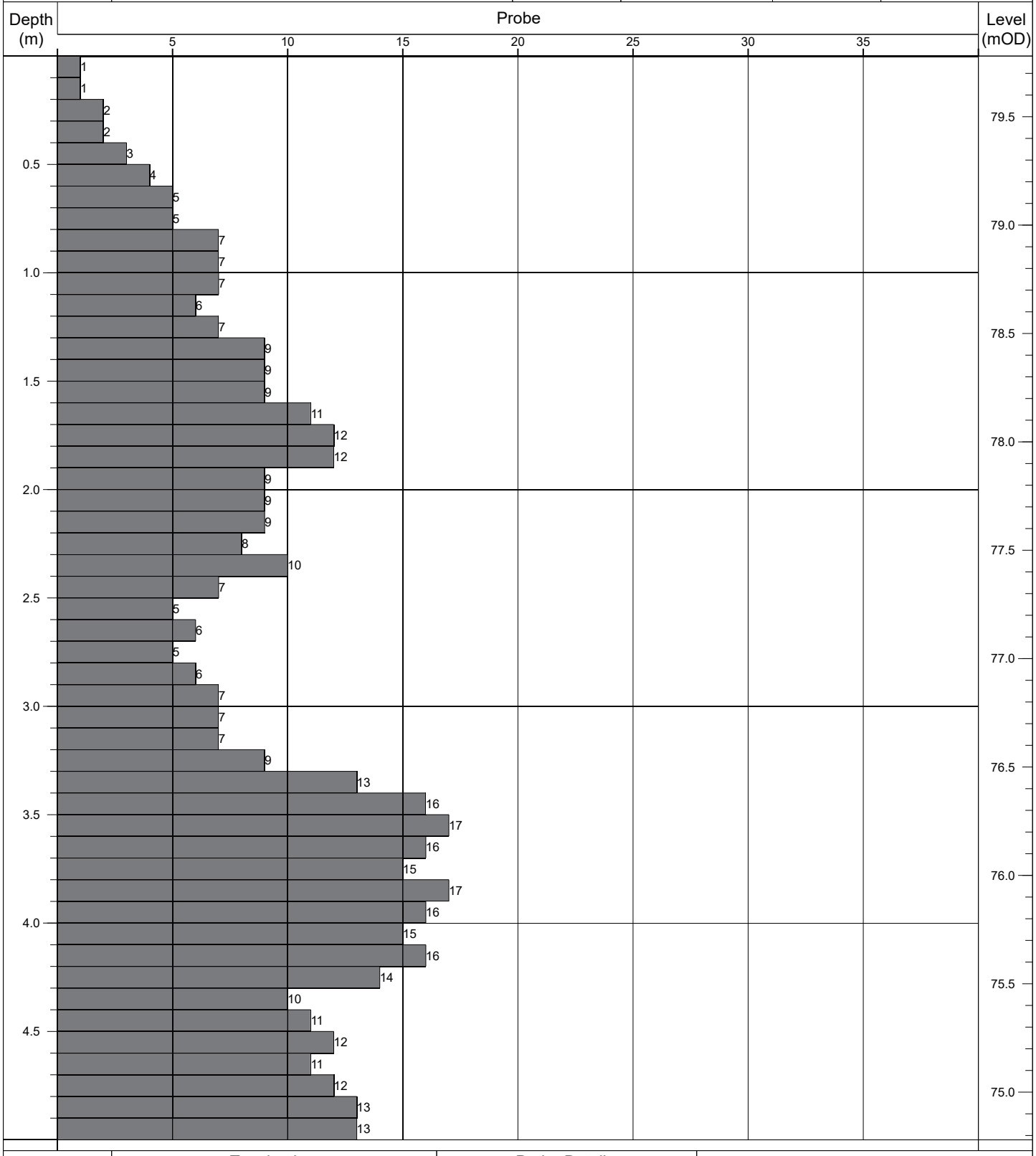
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP220**
Contract:	Coolagad	Easting:	727641.440	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712746.660	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	84.69	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



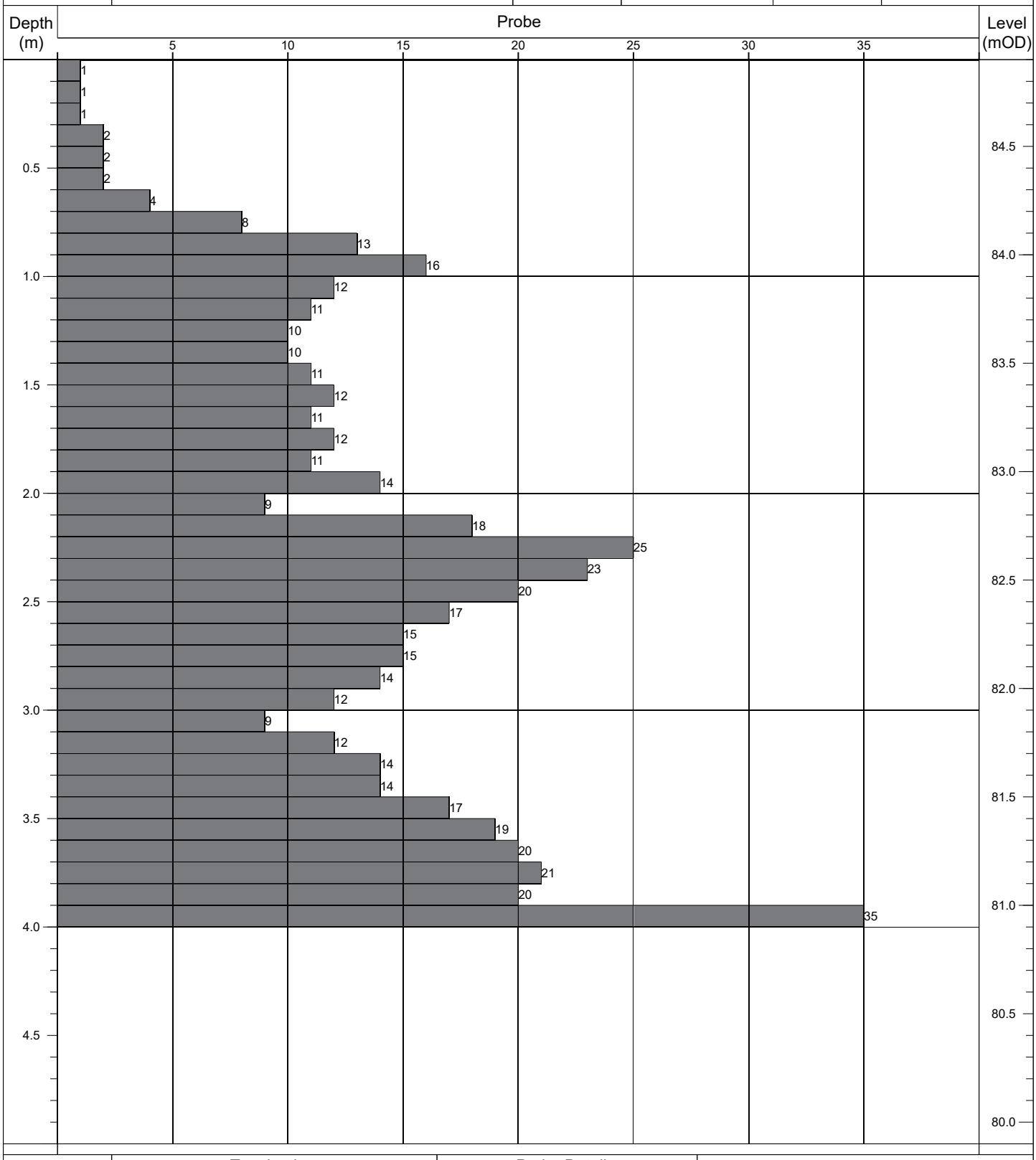
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP221**
Contract:	Coolagad	Easting:	727682.777	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712740.545	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	79.78	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



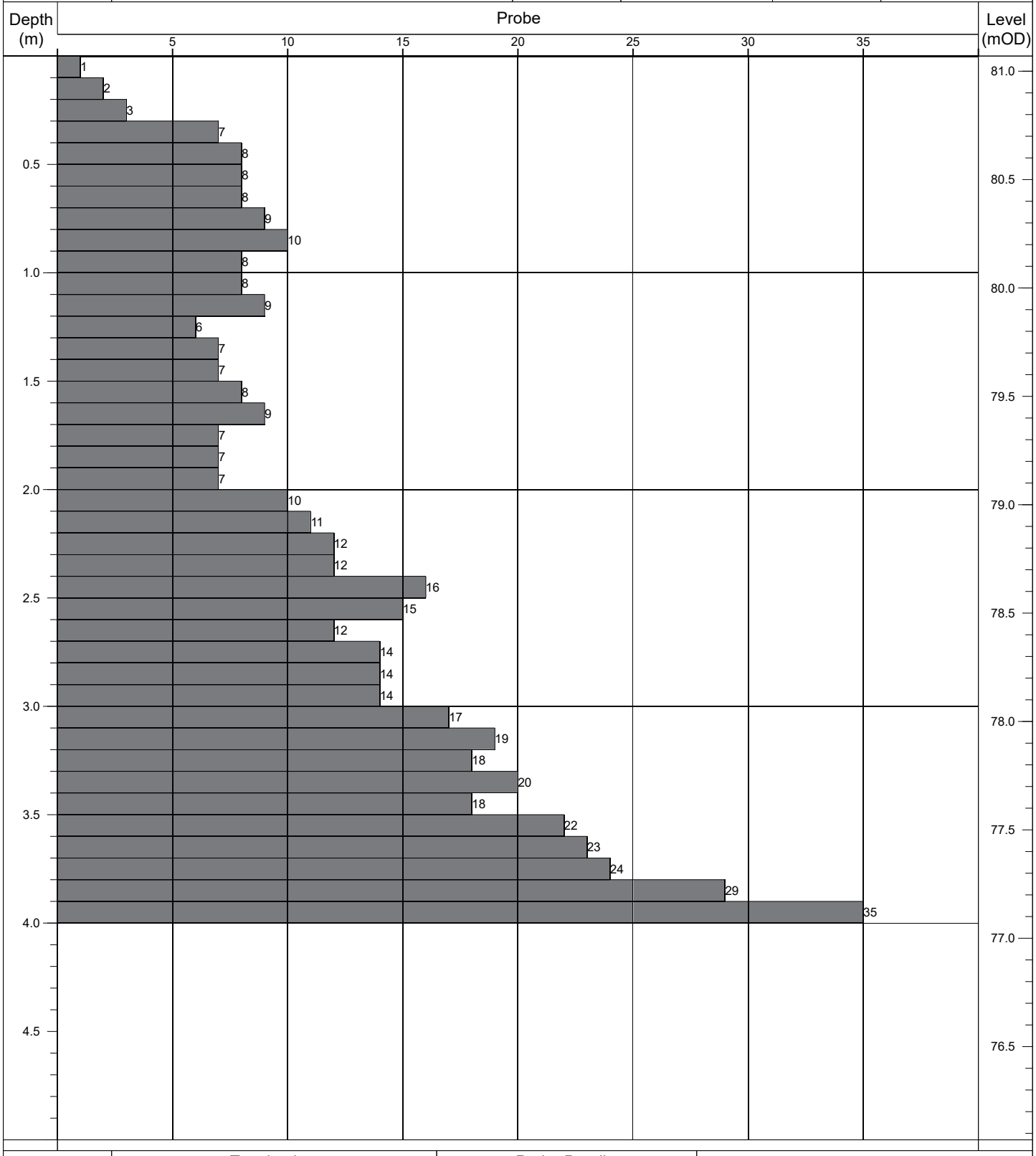
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP222**
Contract:	Coolagad	Easting:	727645.078	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712735.066	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	84.90	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



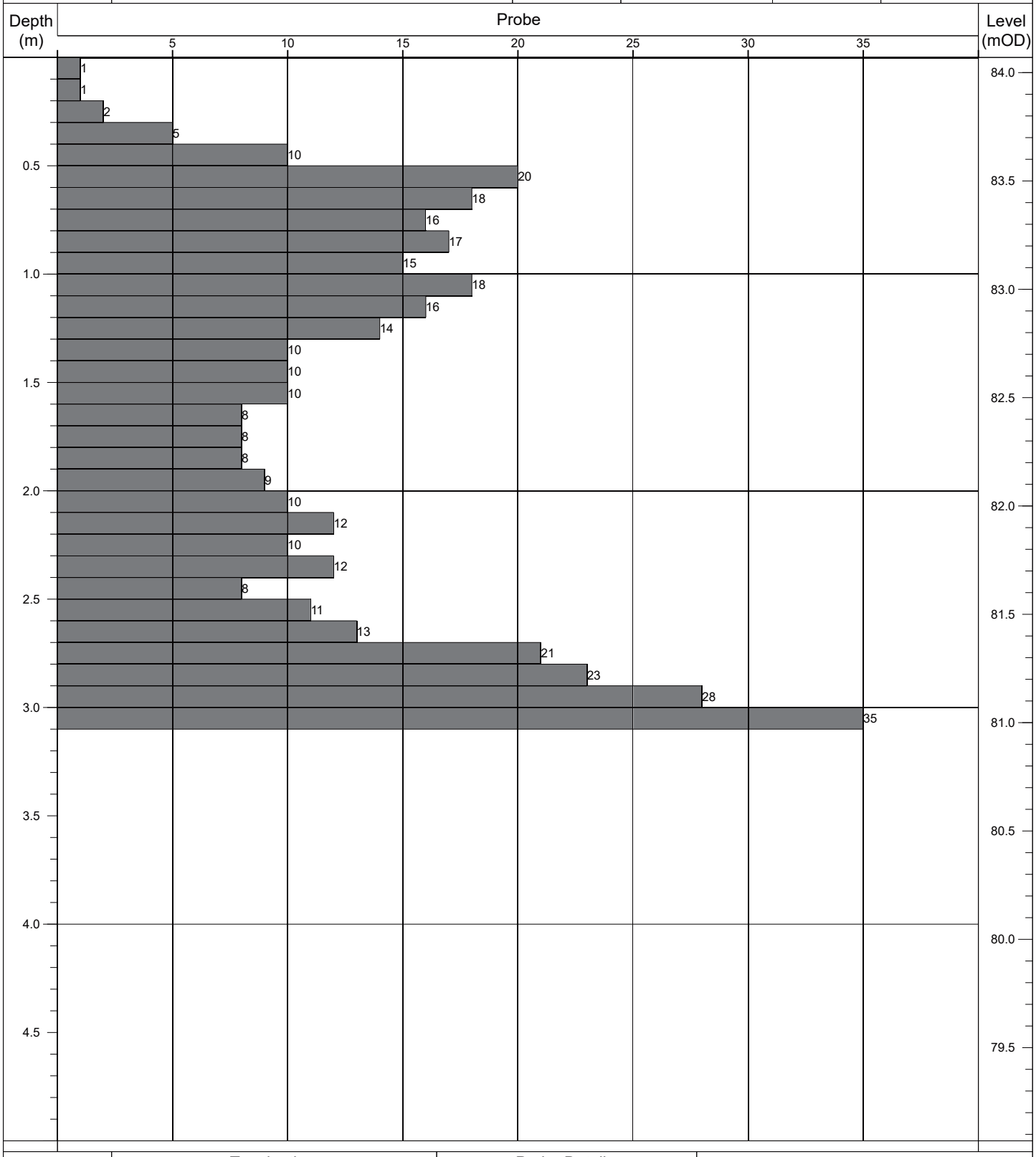
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP223**
Contract:	Coolagad	Easting:	727676.825	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712726.718	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.07	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



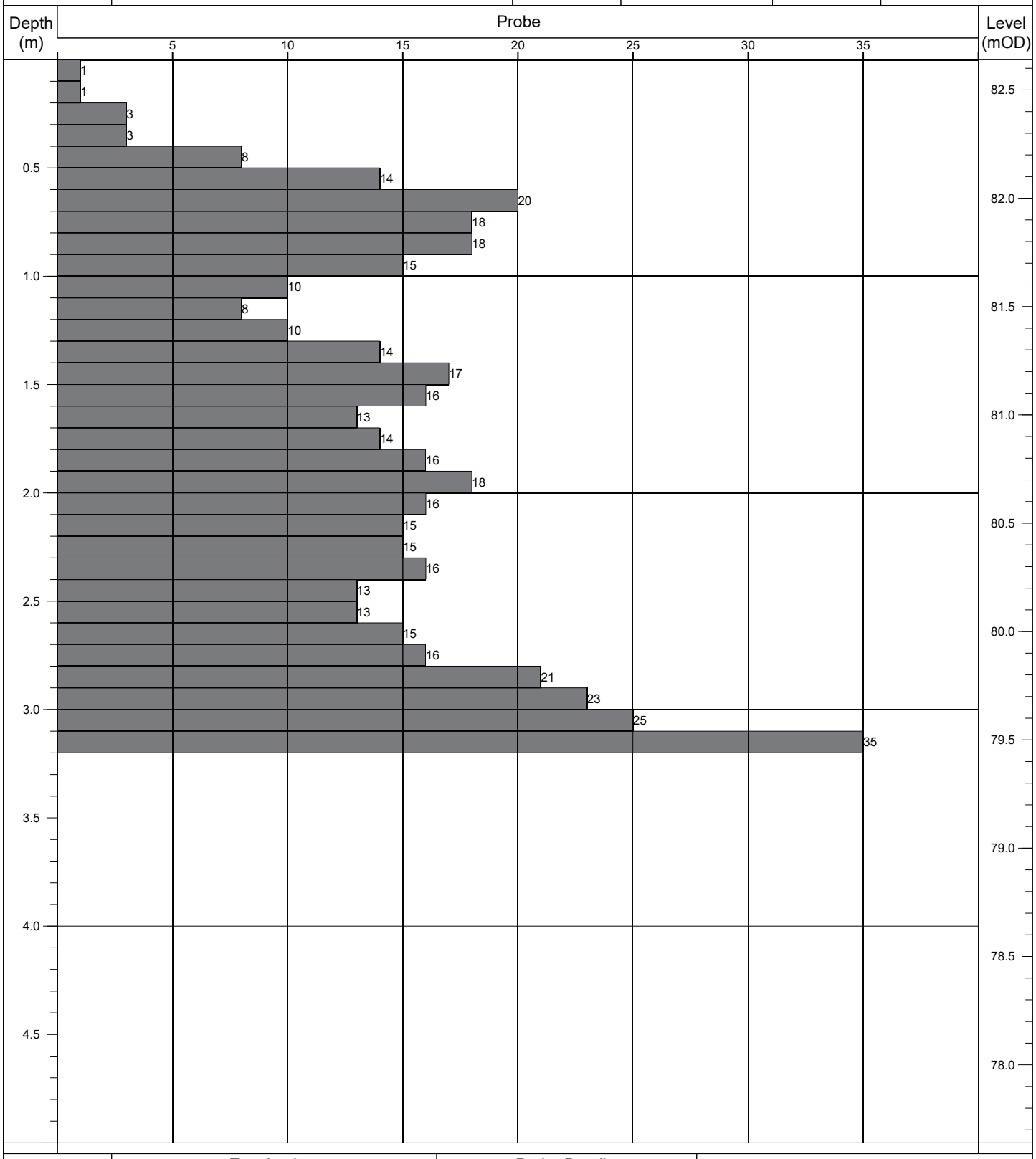
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP224**
Contract:	Coolagad	Easting:	727655.304	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712721.095	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	84.07	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



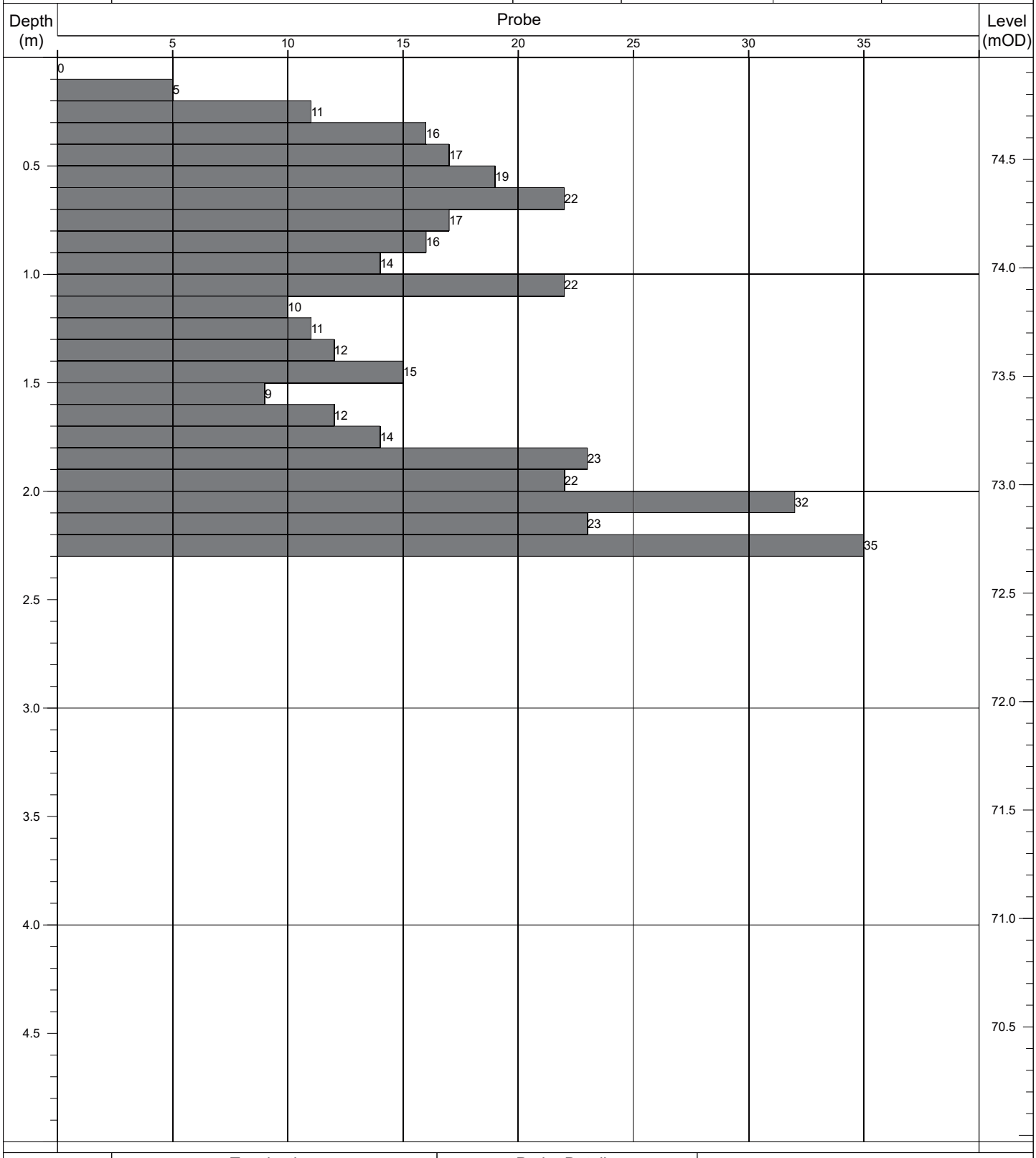
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP225**
Contract:	Coolagad	Easting:	727668.865	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712713.830	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	82.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



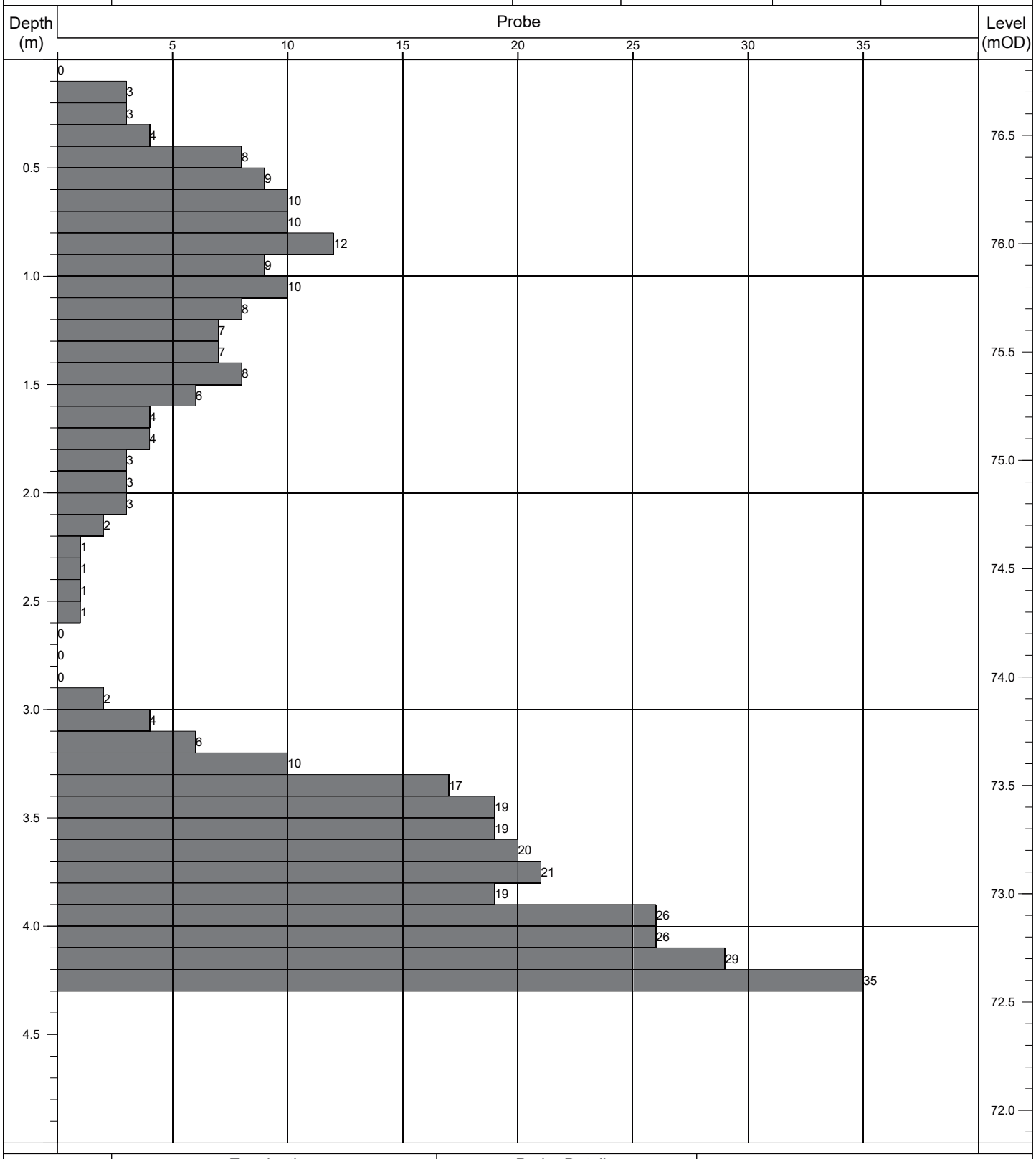
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP226**
Contract:	Coolagad	Easting:	727735.120	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712722.356	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.97	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



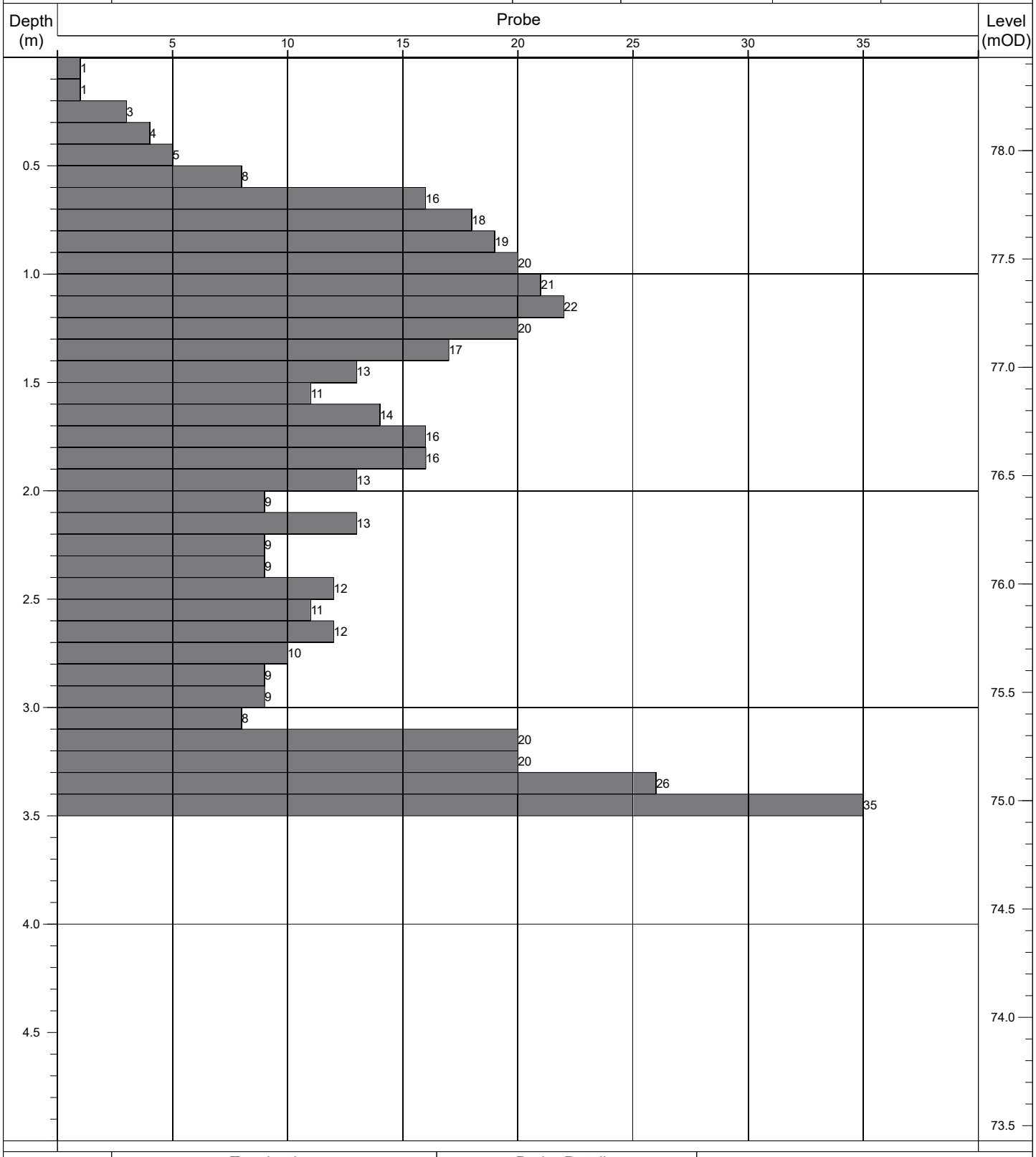
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP227**
Contract:	Coolagad	Easting:	727717.394	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712716.265	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	76.85	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



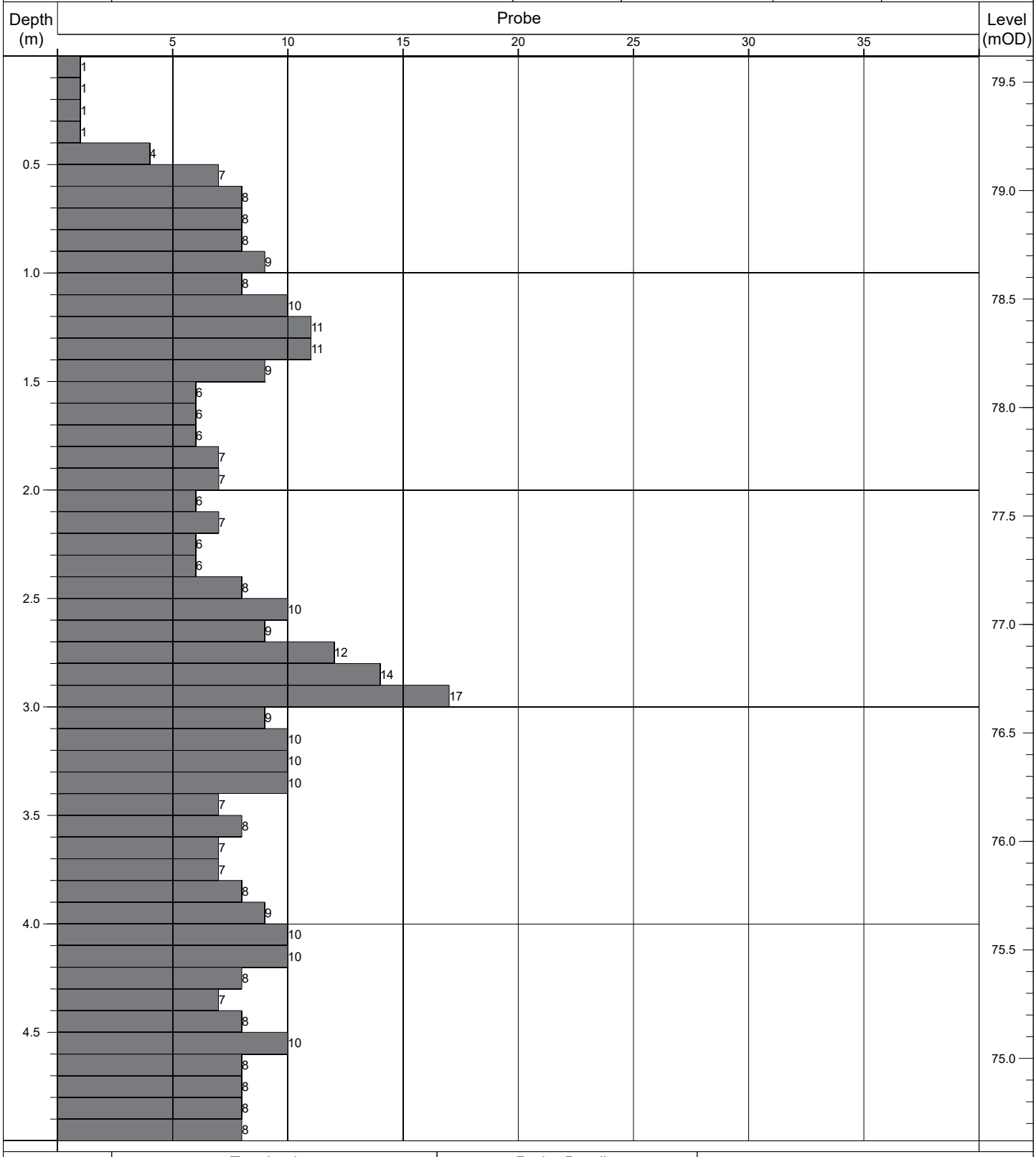
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP228**
Contract:	Coolagad	Easting:	727702.902	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712712.226	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	78.43	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



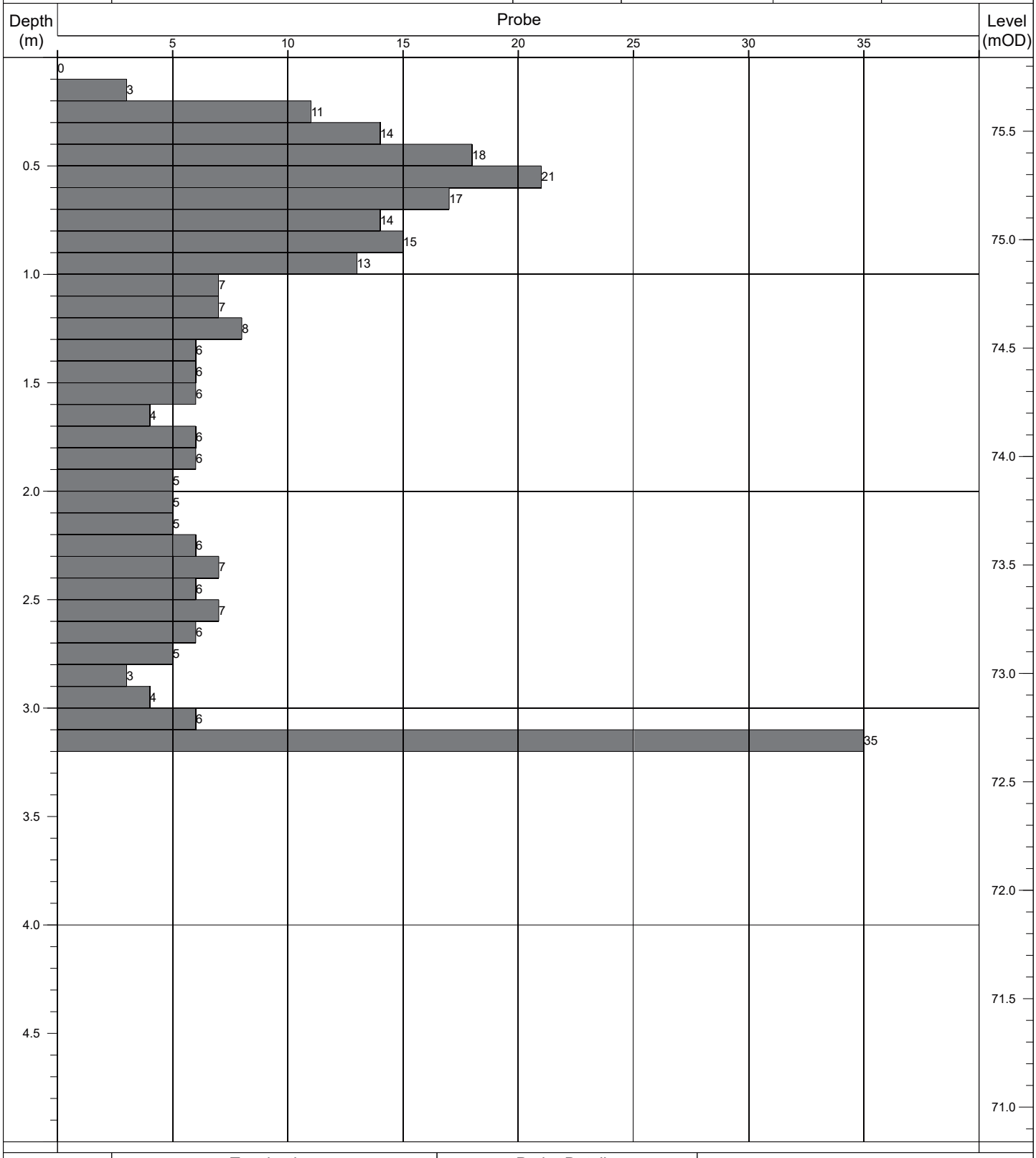
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP229
Contract:	Coolagad	Easting:	727696.330	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712698.585	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	79.62	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



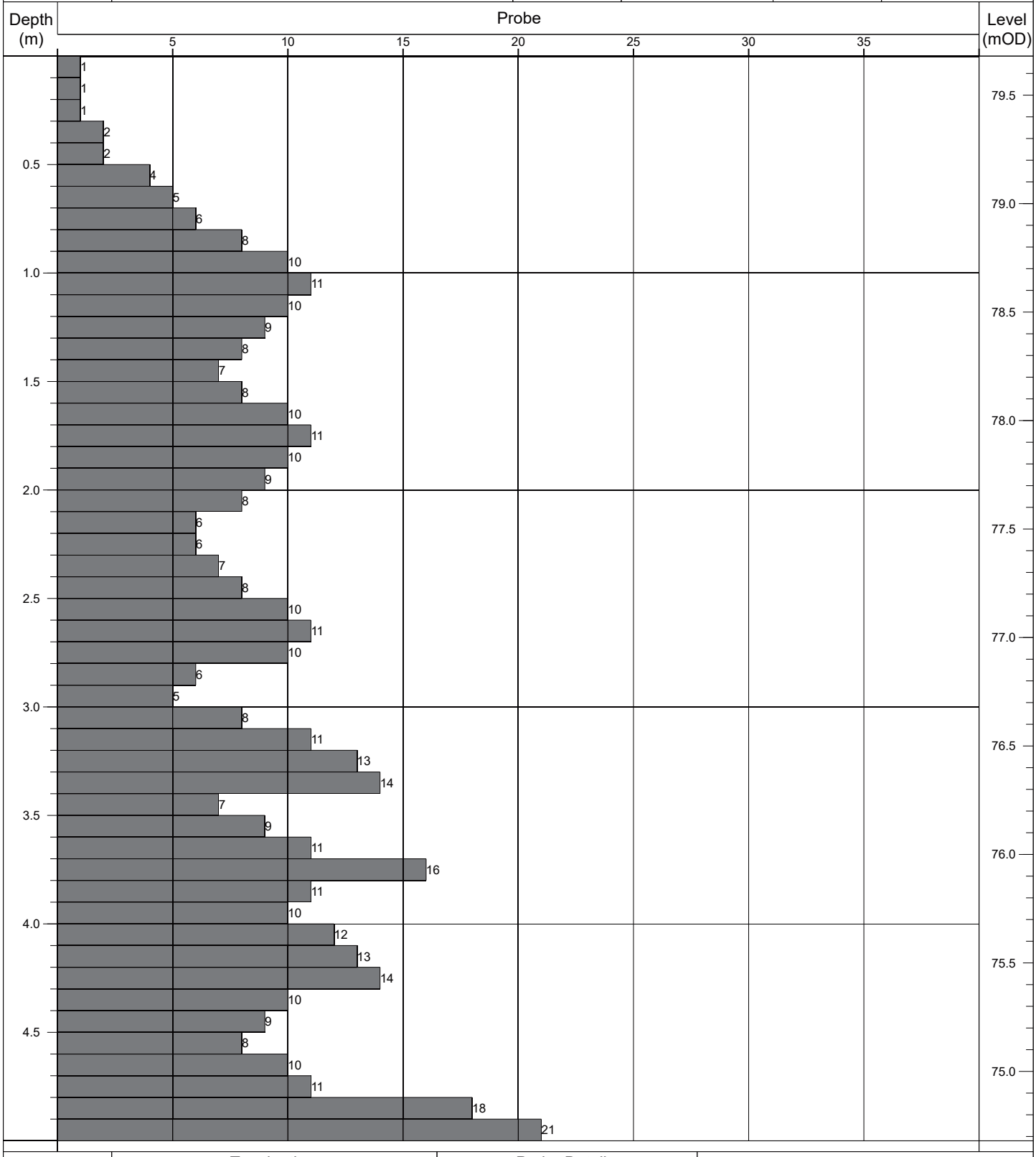
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP230**
Contract:	Coolagad	Easting:	727739.028	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712691.359	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



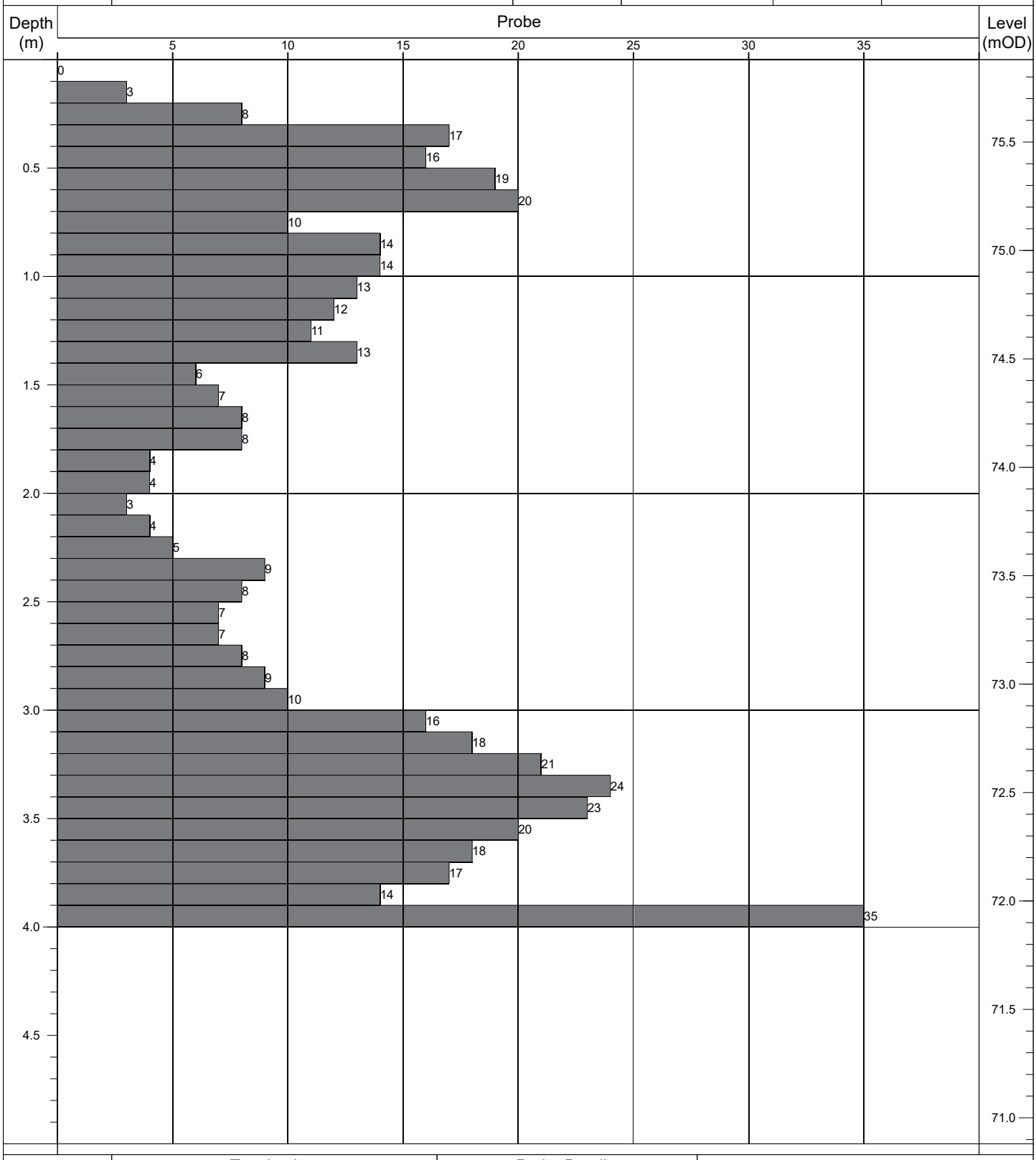
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP231
Contract:	Coolagad	Easting:	727704.917	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712681.845	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.68	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



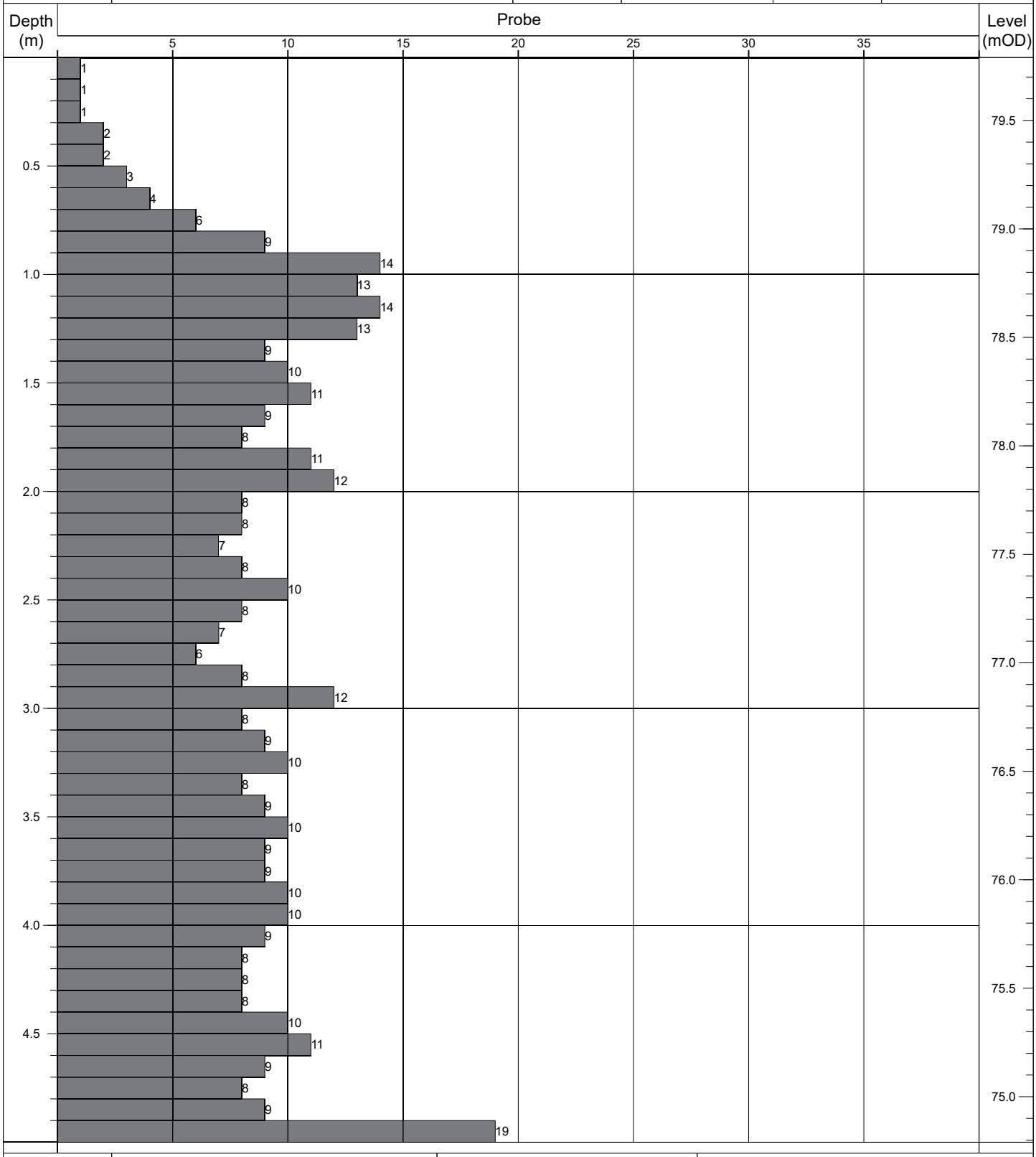
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP232**
Contract:	Coolagad	Easting:	727744.706	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712677.091	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.88	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



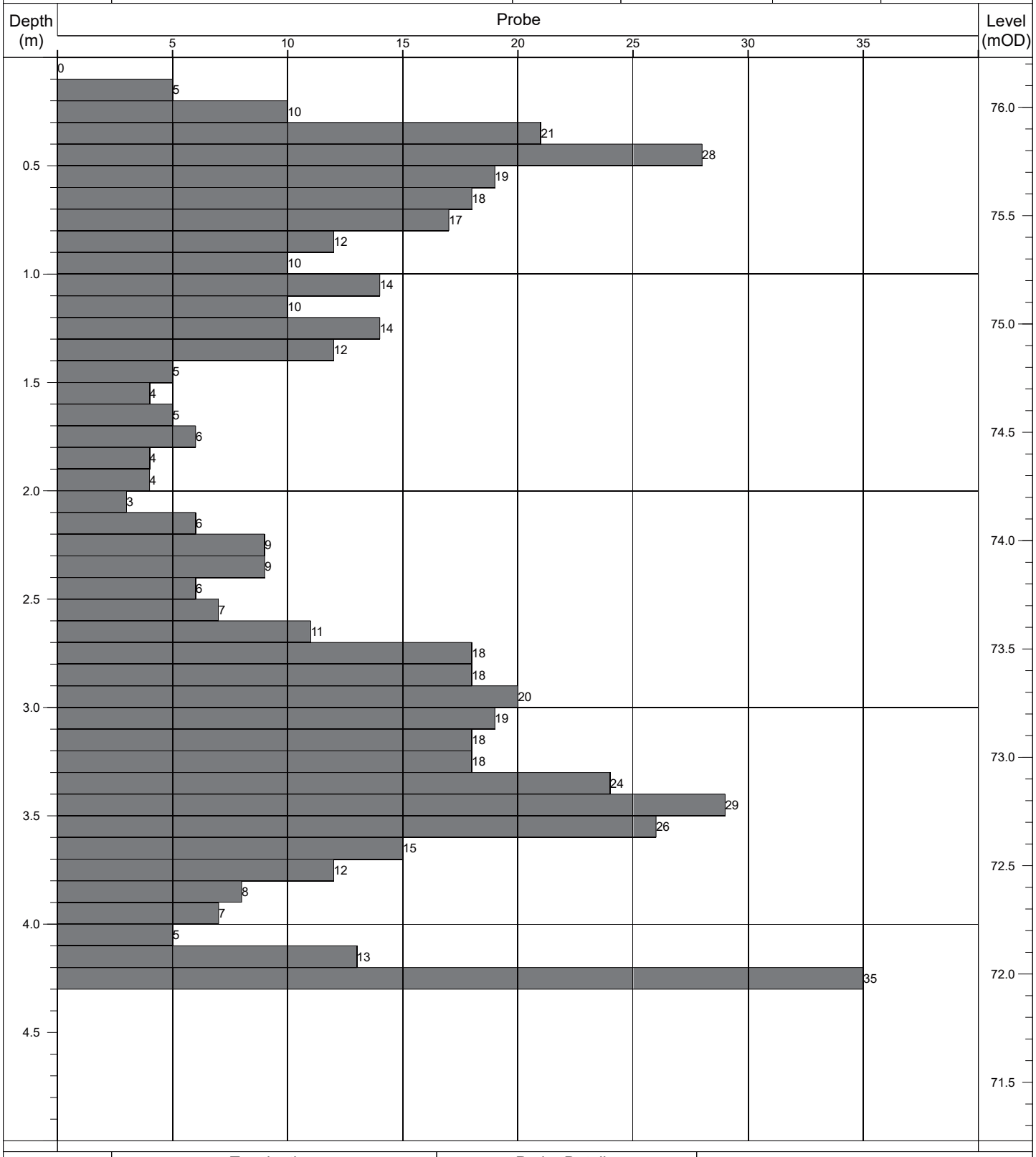
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP233**
Contract:	Coolagad	Easting:	727709.507	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712667.361	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.79	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



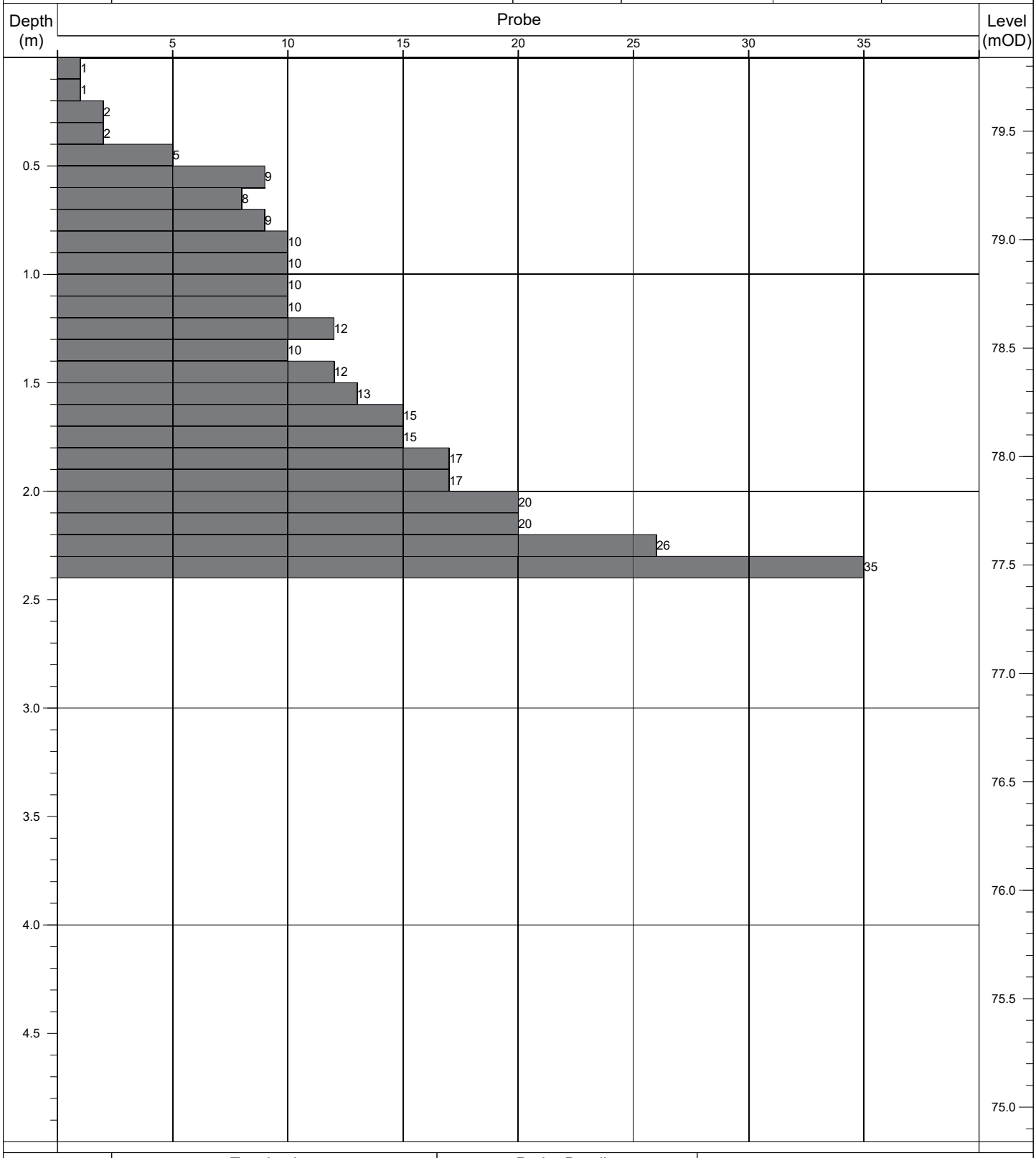
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP234**
Contract:	Coolagad	Easting:	727750.235	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712663.207	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.23	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



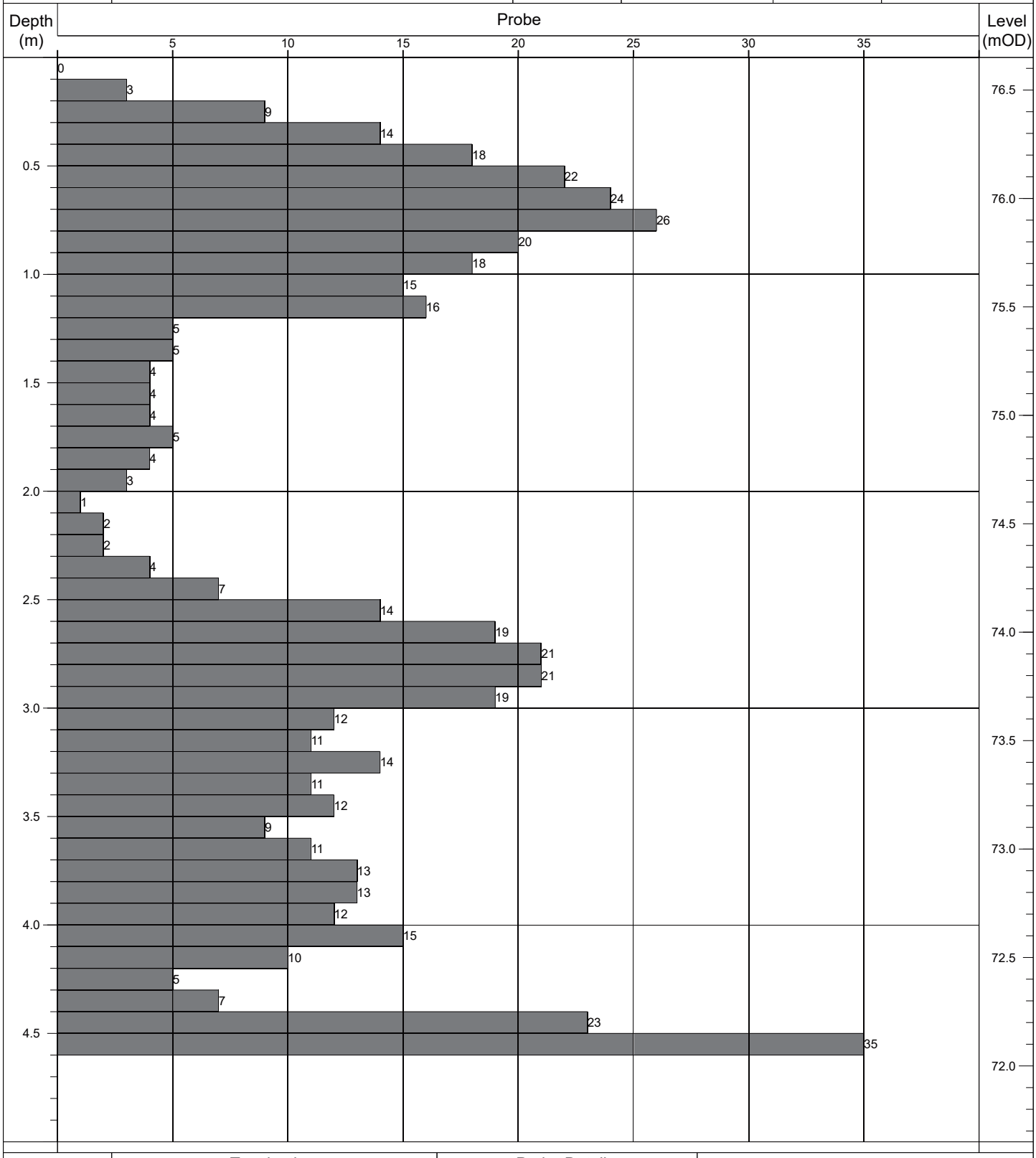
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP235**
Contract:	Coolagad	Easting:	727715.322	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712653.732	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



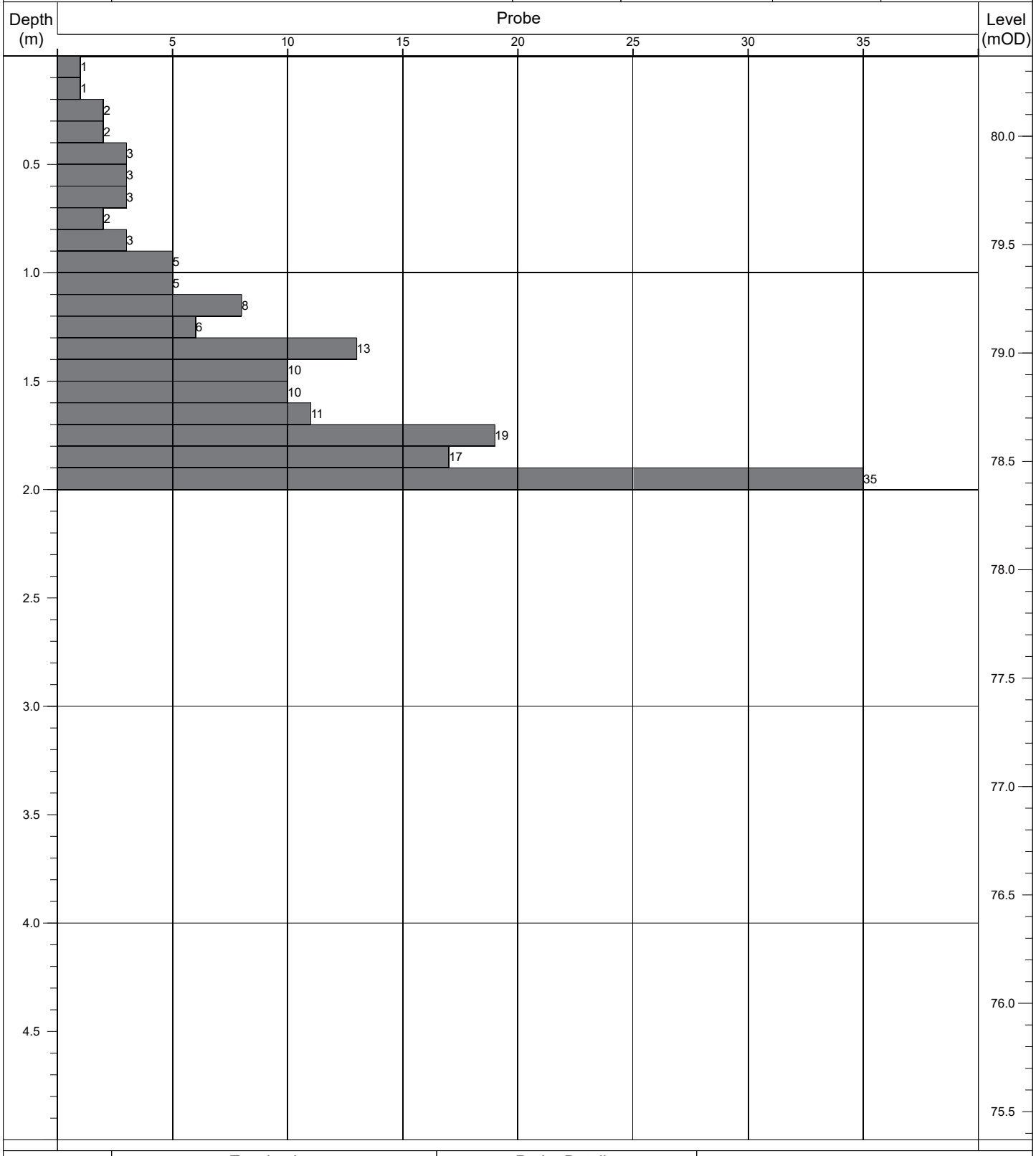
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP236
Contract:	Coolagad	Easting:	727755.975	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712649.719	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.65	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



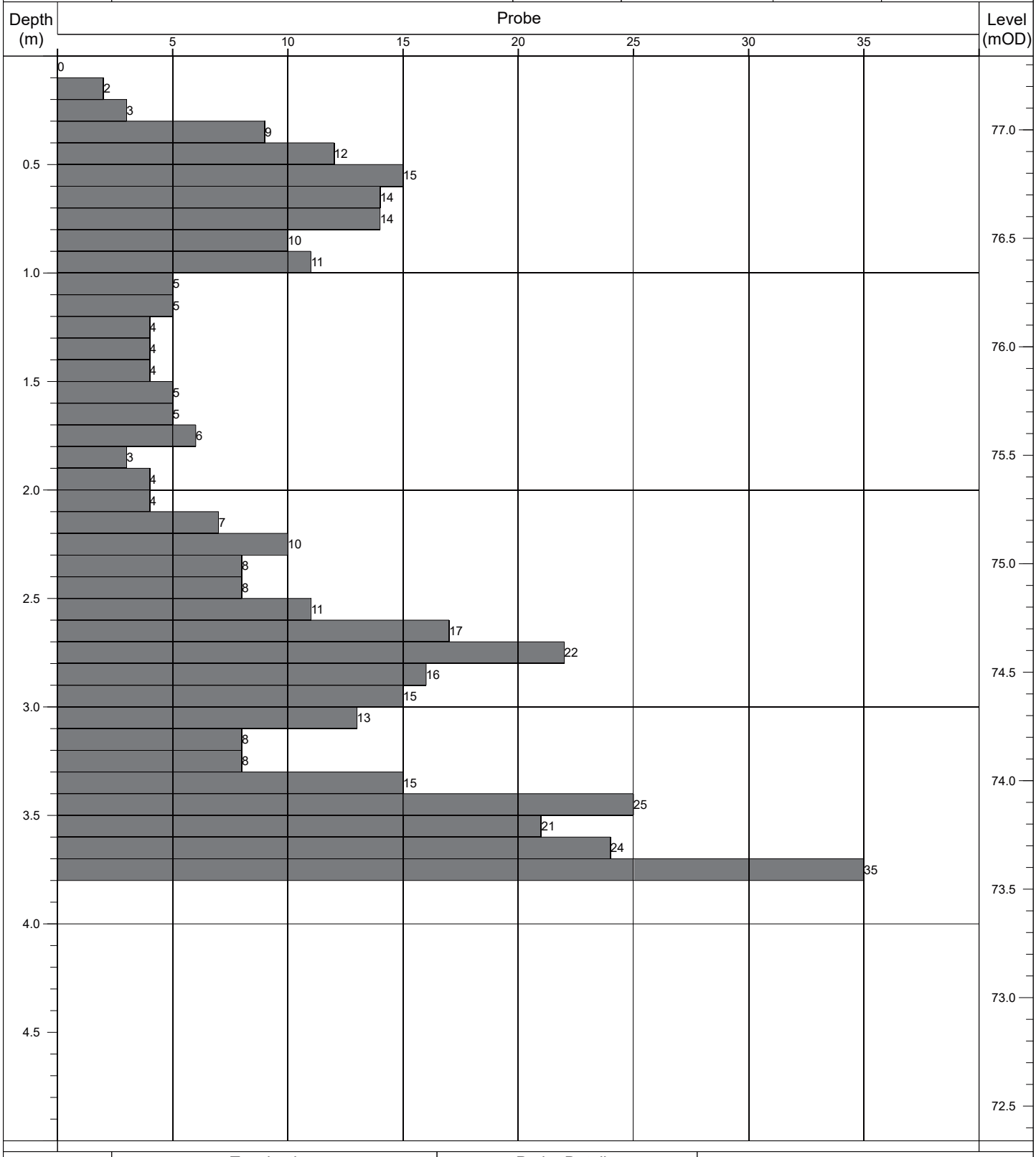
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP237**
Contract:	Coolagad	Easting:	727720.588	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712639.414	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.37	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



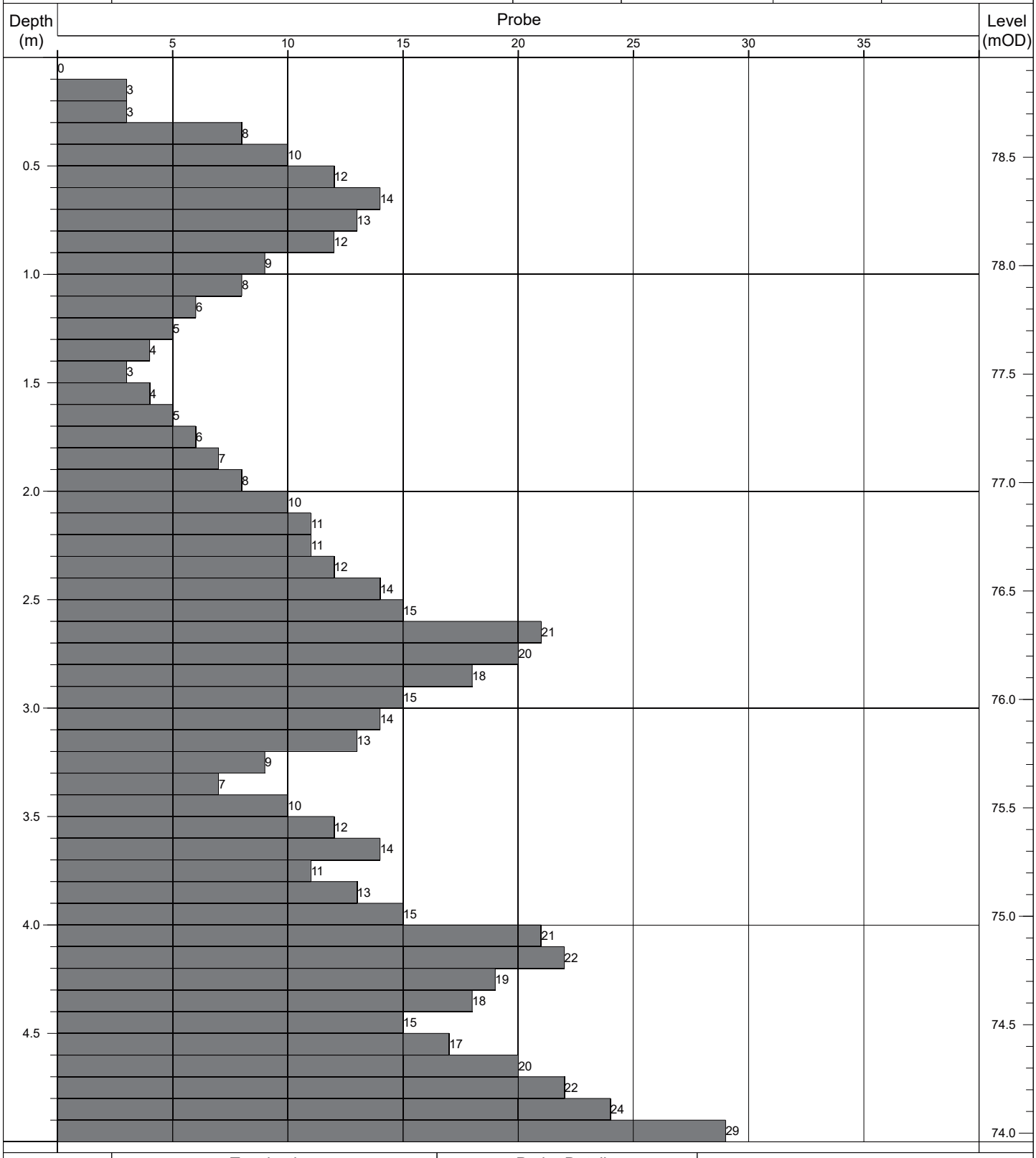
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP238**
Contract:	Coolagad	Easting:	727760.646	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712635.225	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	77.34	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



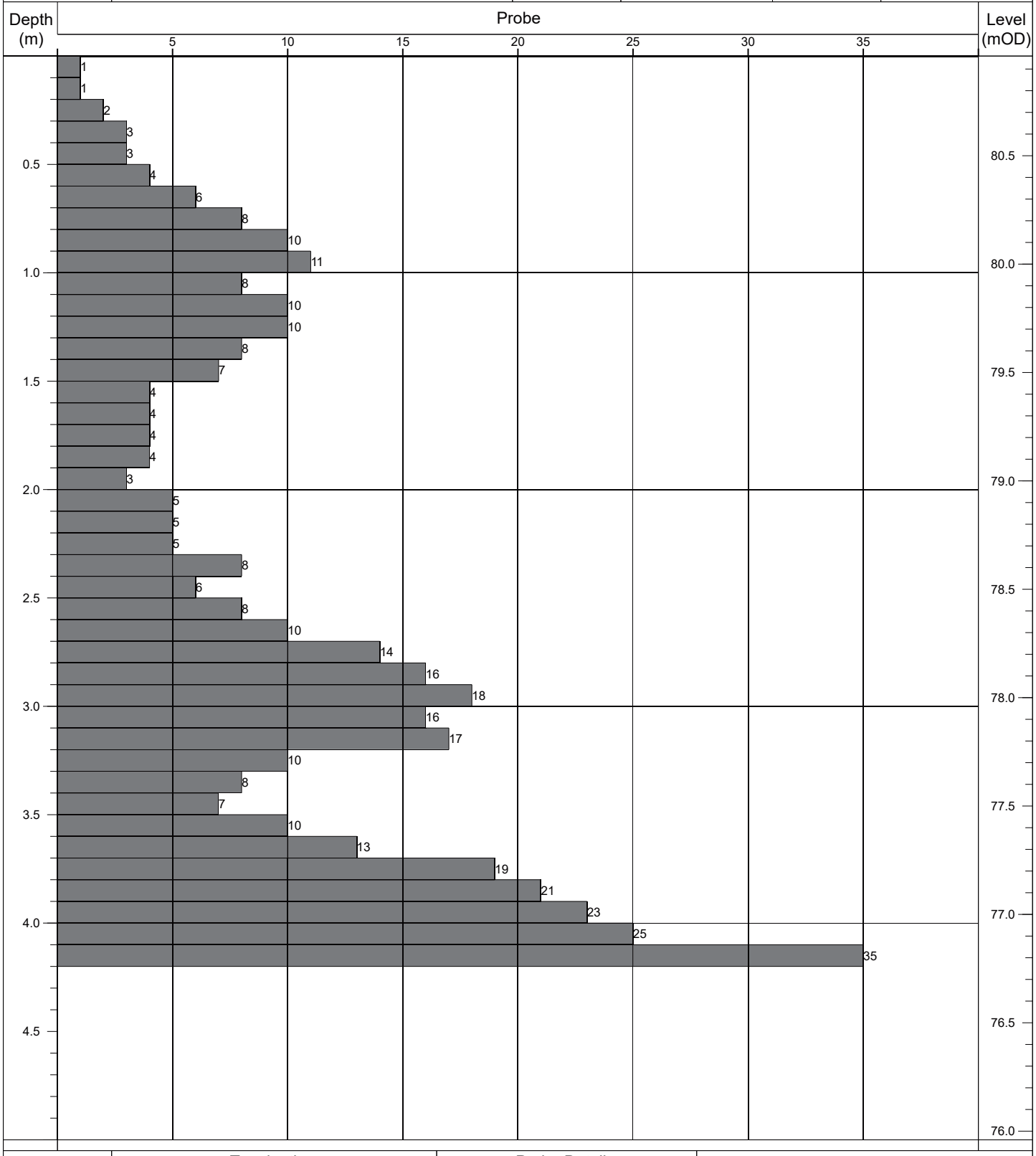
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP239**
Contract:	Coolagad	Easting:	727746.679	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712629.062	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	78.96	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



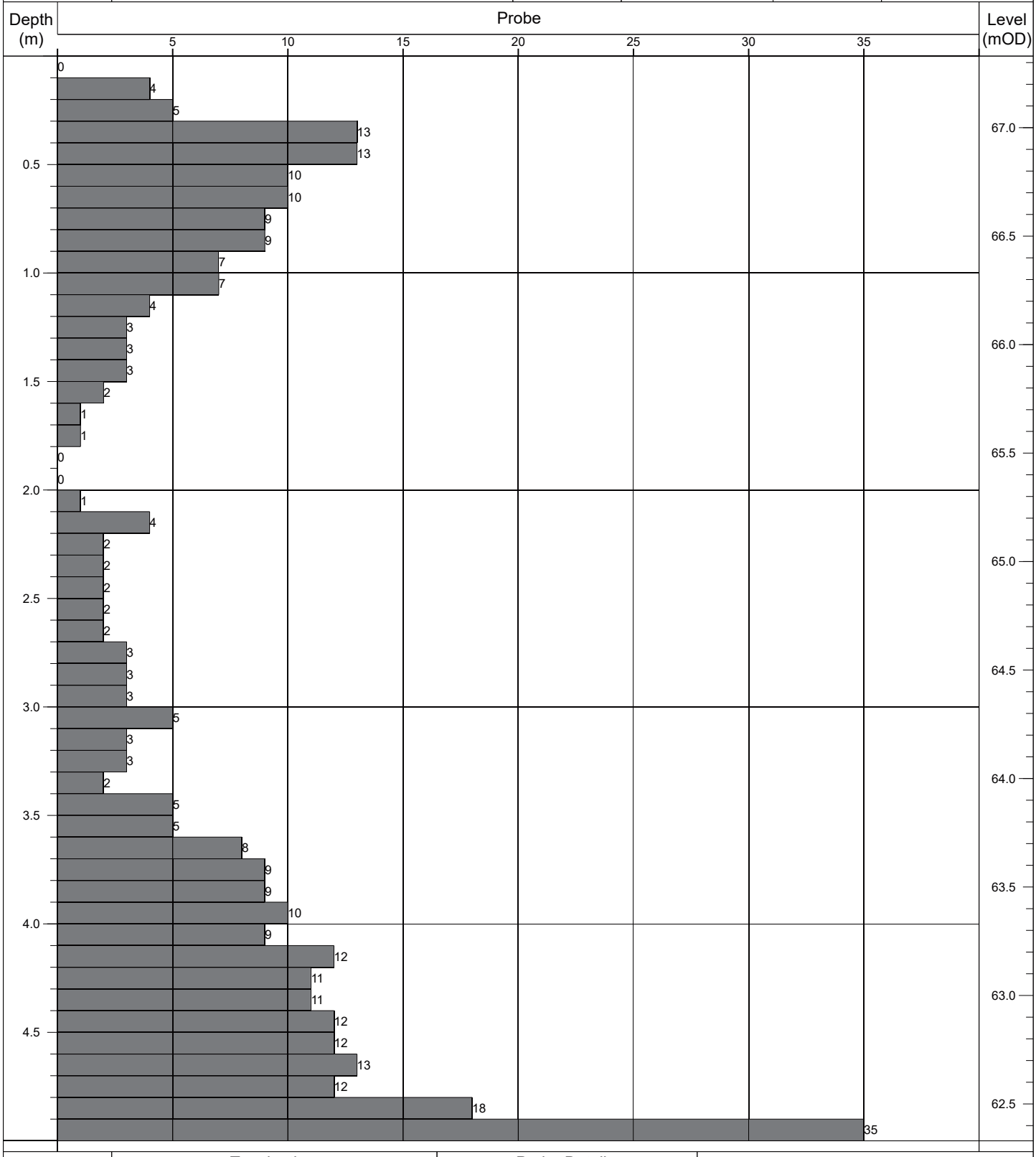
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP240**
Contract:	Coolagad	Easting:	727726.408	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712625.460	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.96	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



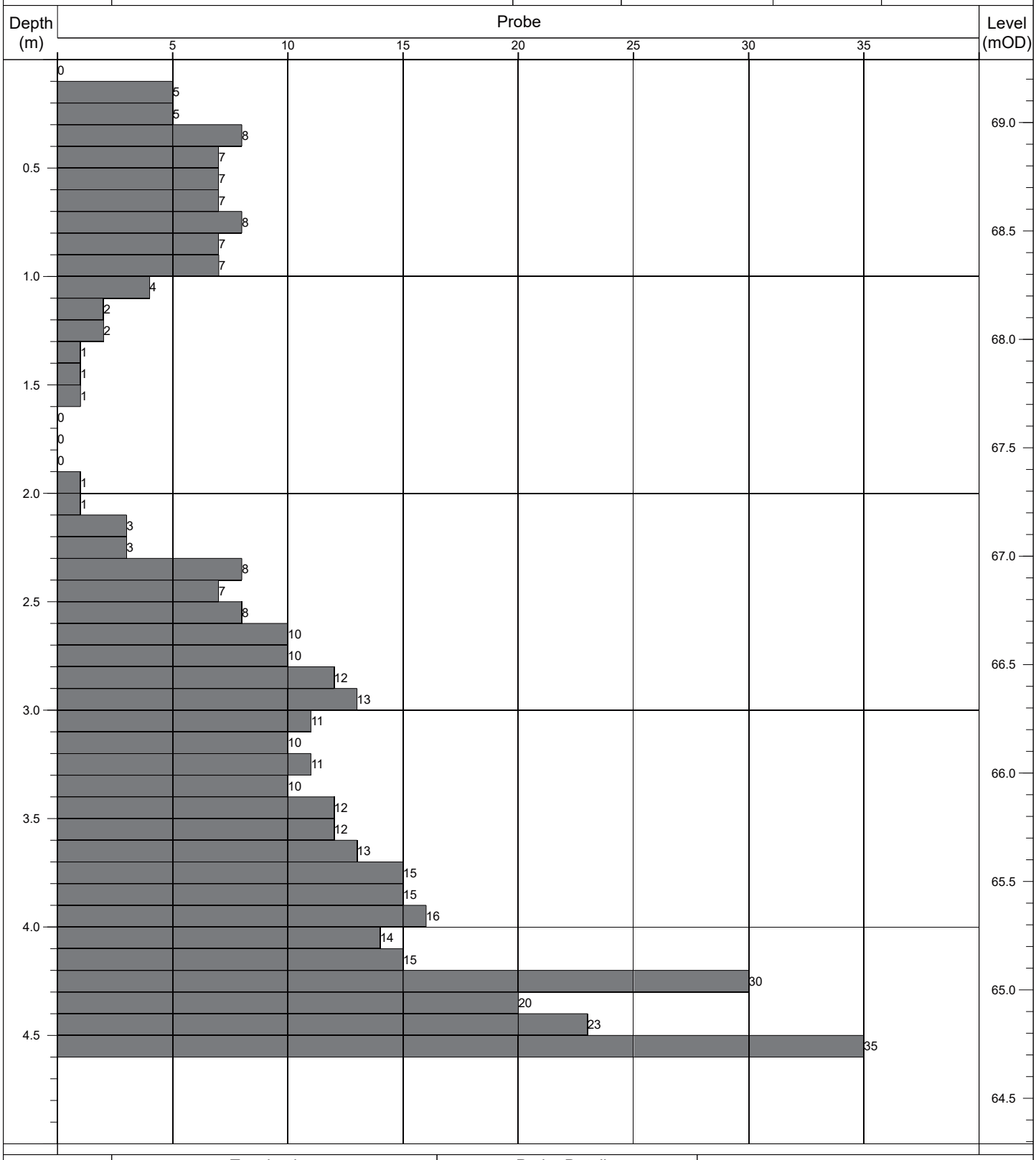
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP241**
Contract:	Coolagad	Easting:	727823.516	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712750.719	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	67.33	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



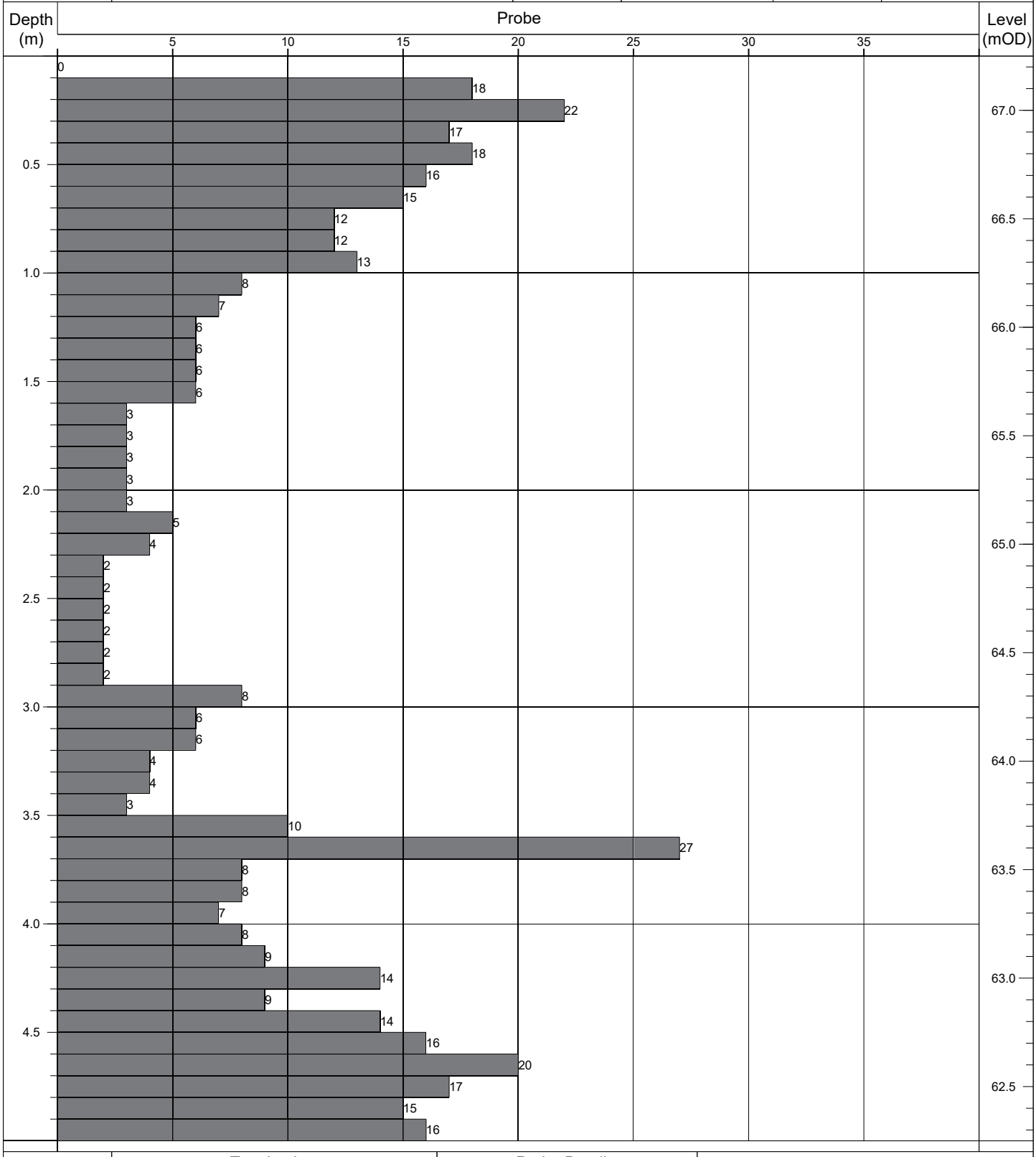
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP242
Contract:	Coolagad	Easting:	727799.770	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712739.936	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	69.29	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



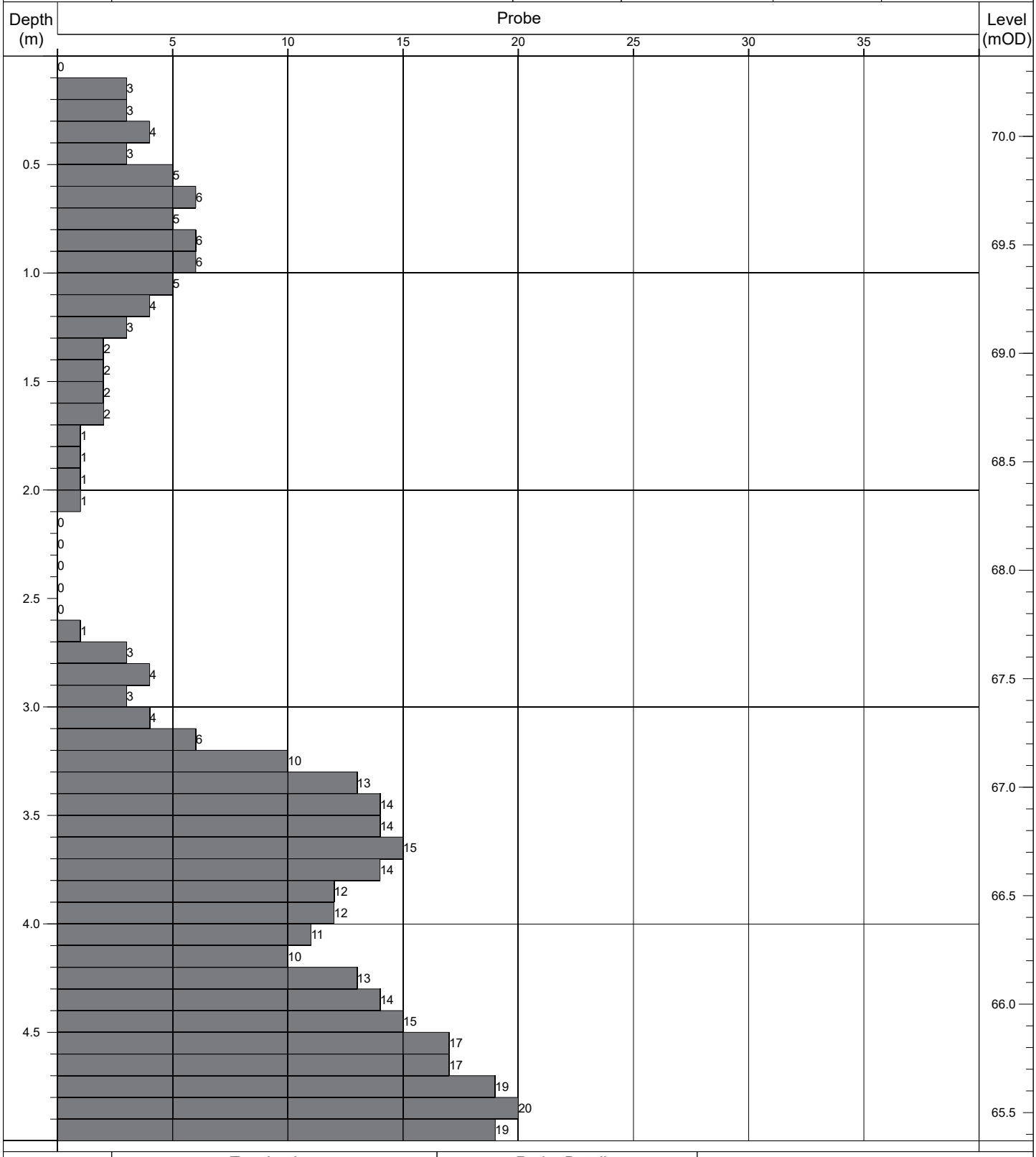
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP243**
Contract:	Coolagad	Easting:	727827.819	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712736.041	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	67.25	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



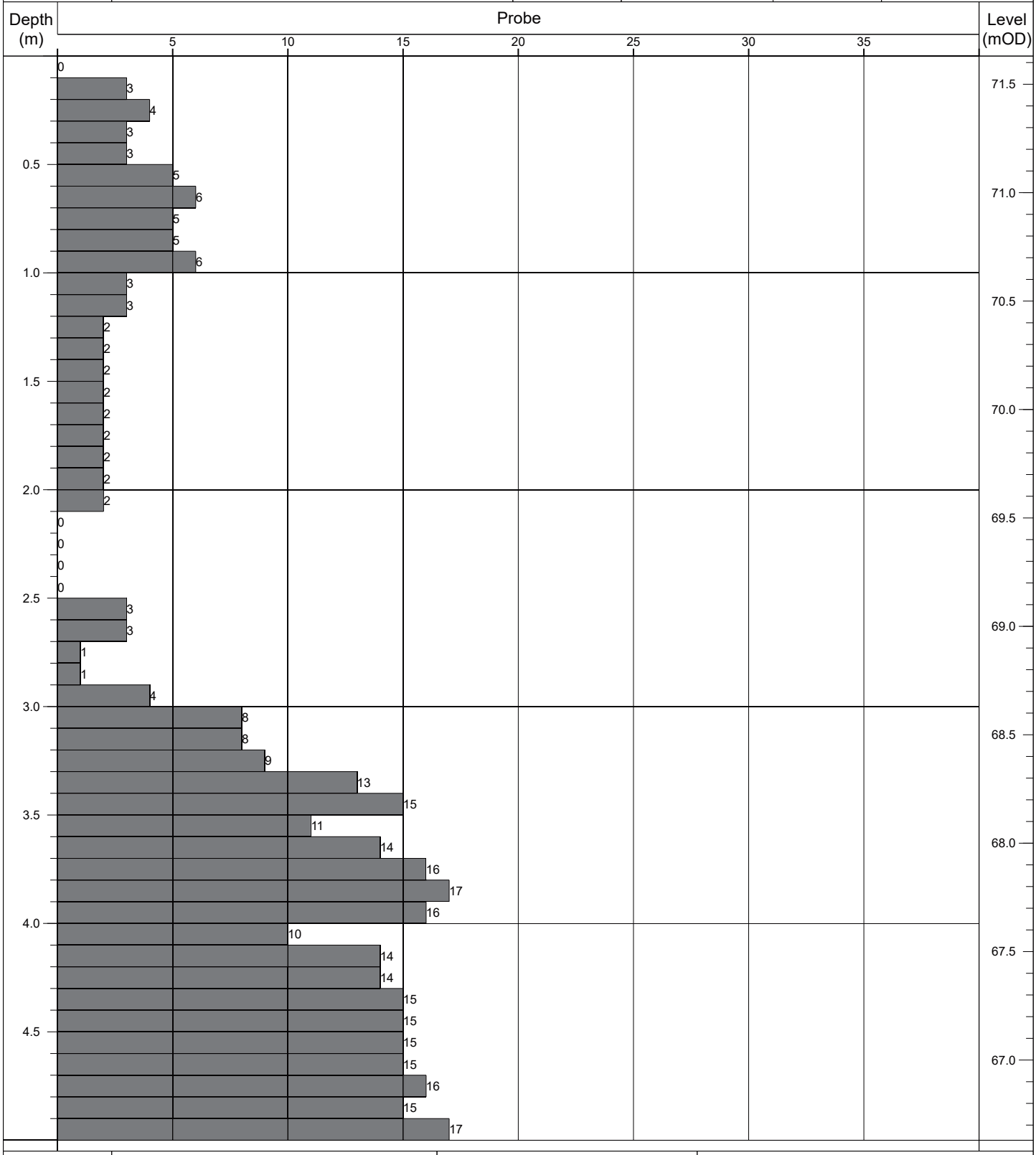
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP244**
Contract:	Coolagad	Easting:	727785.999	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712733.651	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	70.37	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



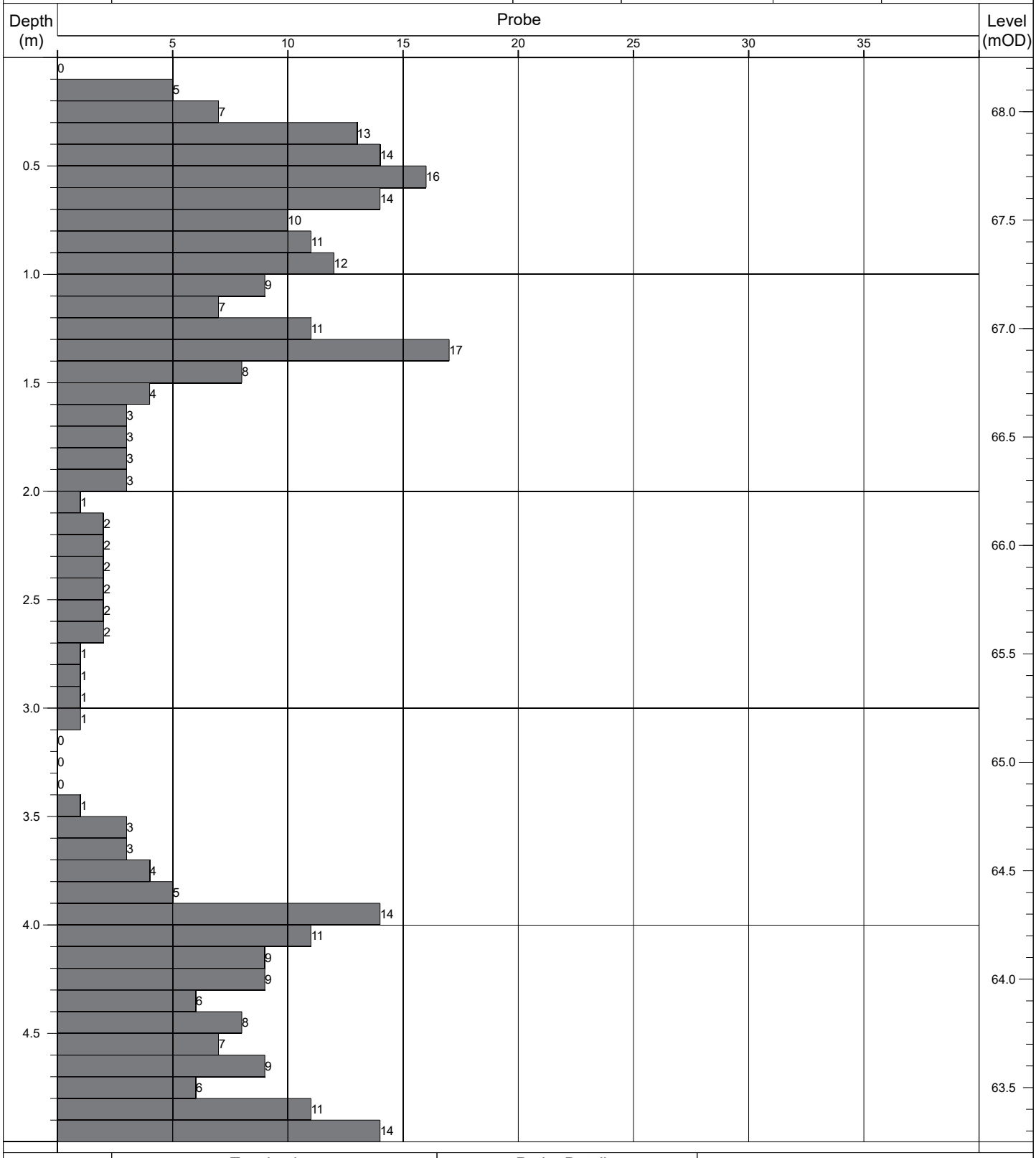
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP245**
Contract:	Coolagad	Easting:	727769.942	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712728.195	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.63	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



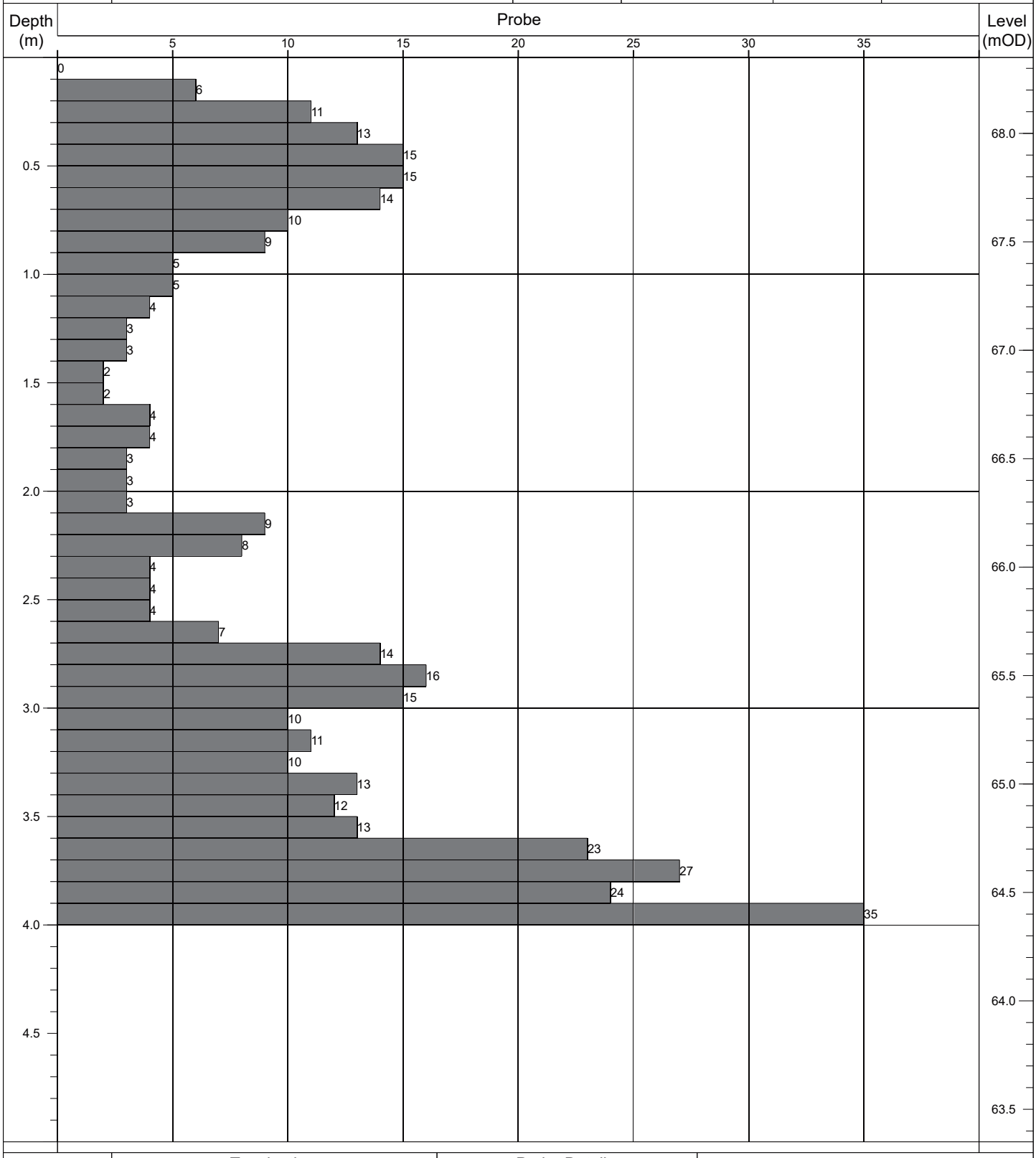
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP246**
Contract:	Coolagad	Easting:	727820.130	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712717.385	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.25	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



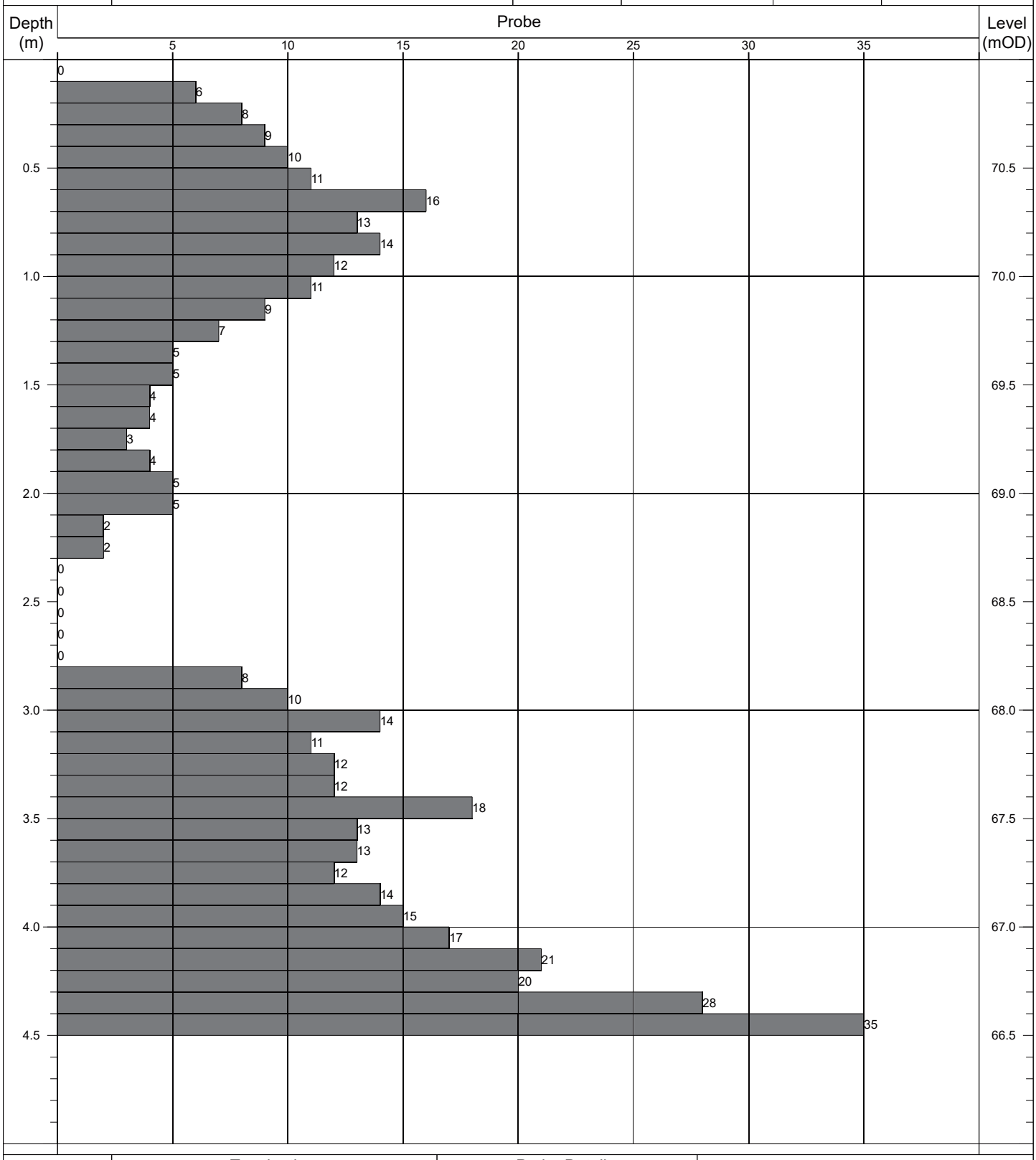
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP247**
Contract:	Coolagad	Easting:	727826.219	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712706.033	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



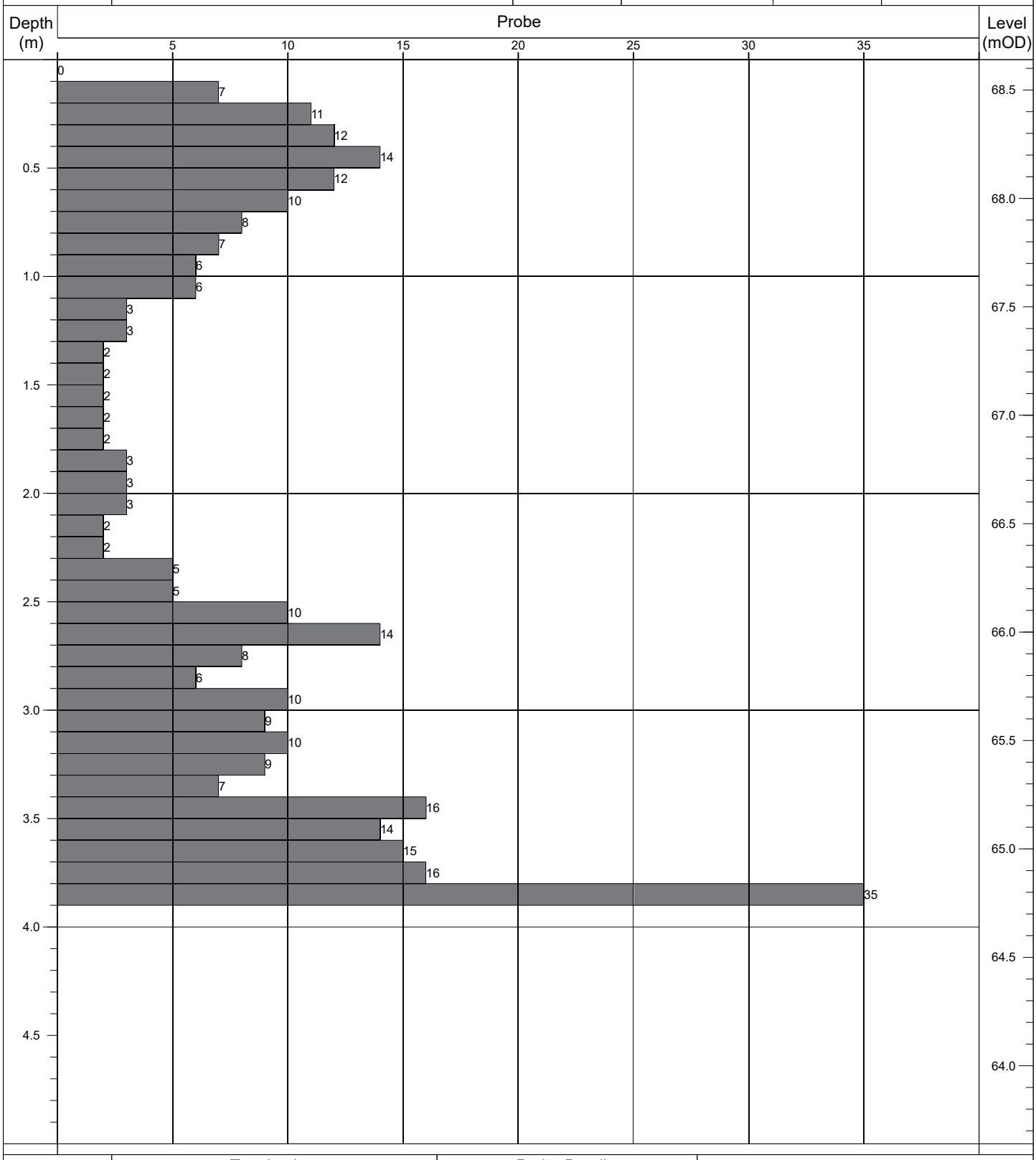
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP248
Contract:	Coolagad	Easting:	727785.895	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712703.222	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.00	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



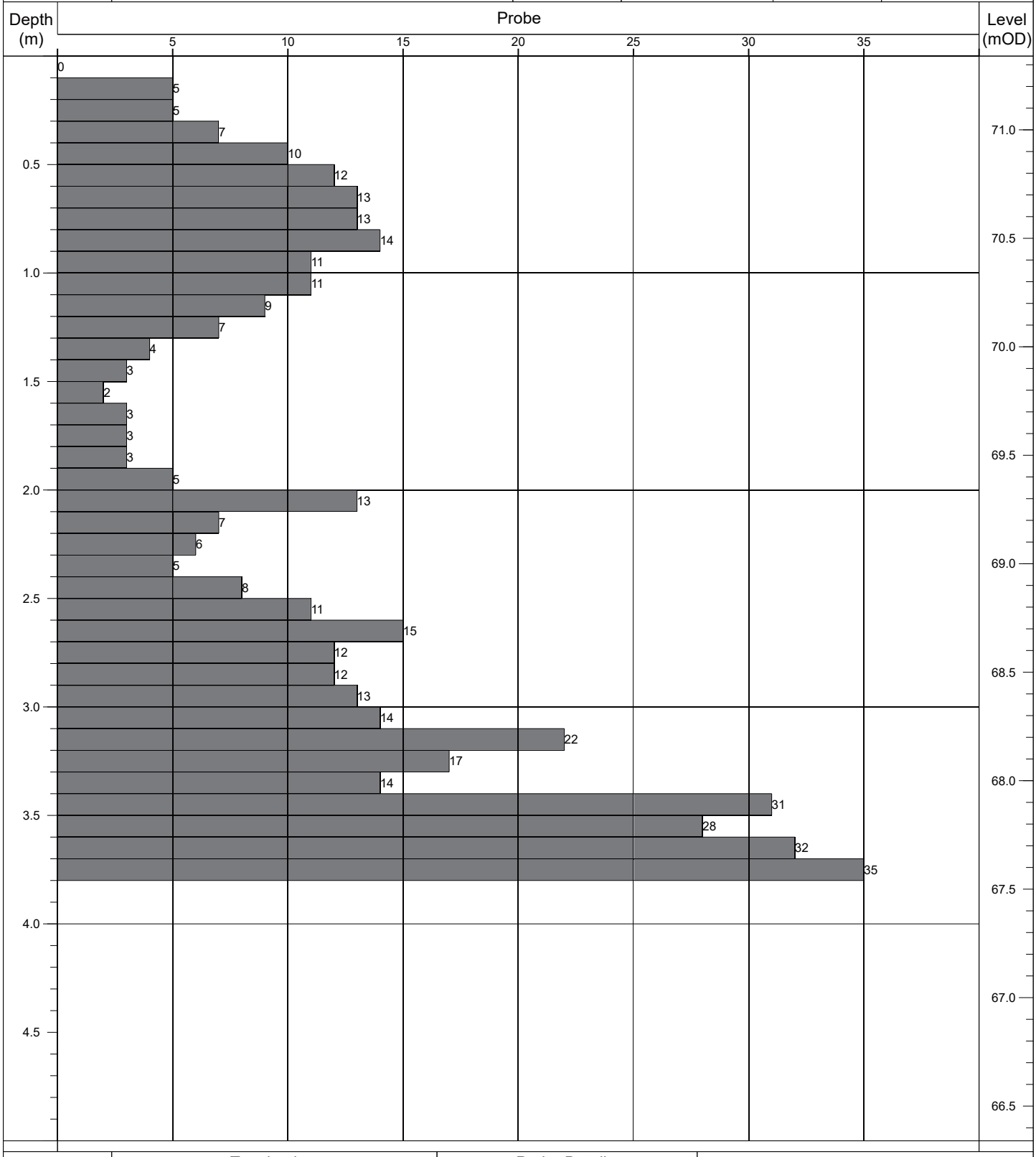
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP249**
Contract:	Coolagad	Easting:	727831.520	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712690.845	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



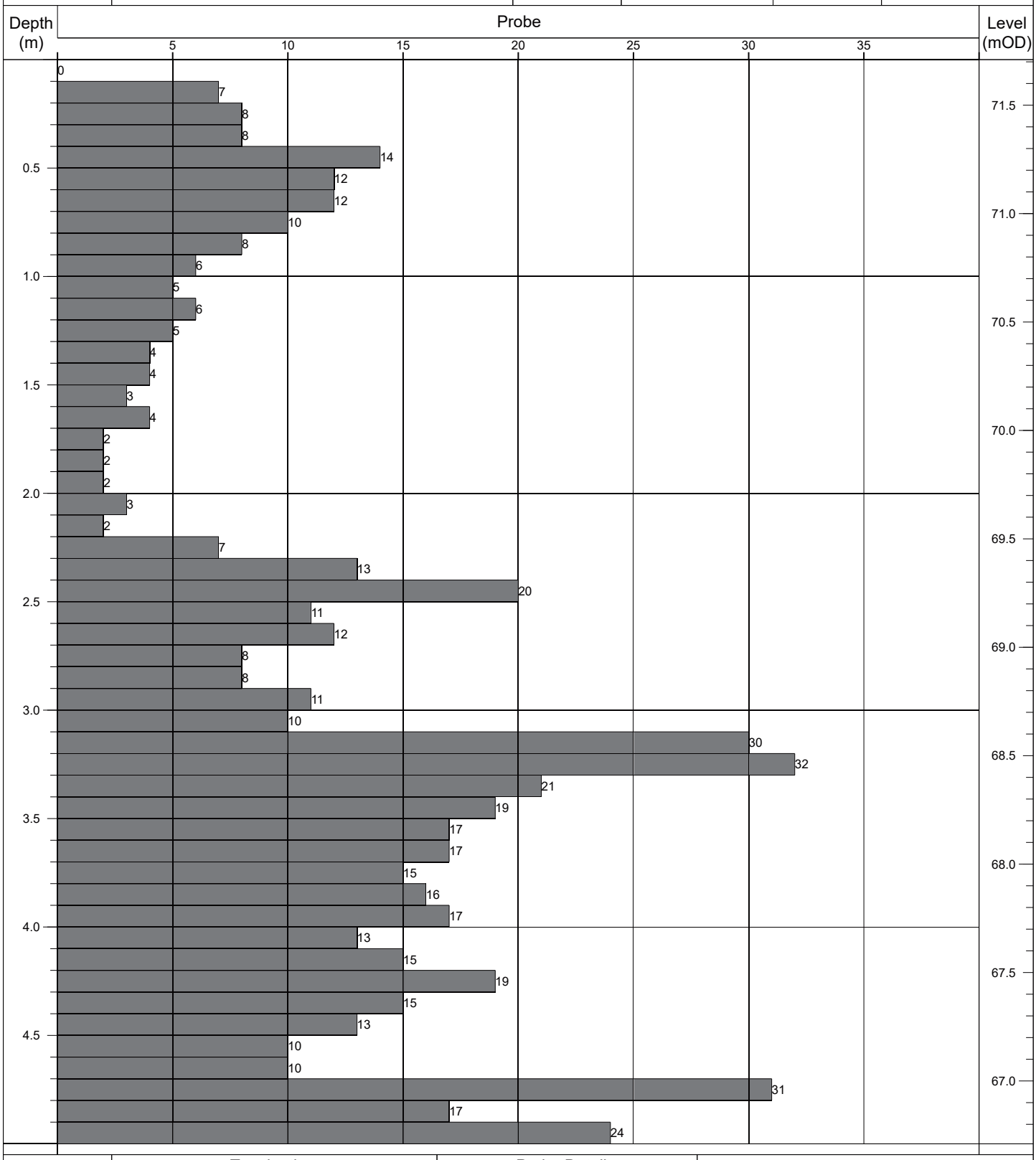
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP250**
Contract:	Coolagad	Easting:	727790.791	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712690.793	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.34	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



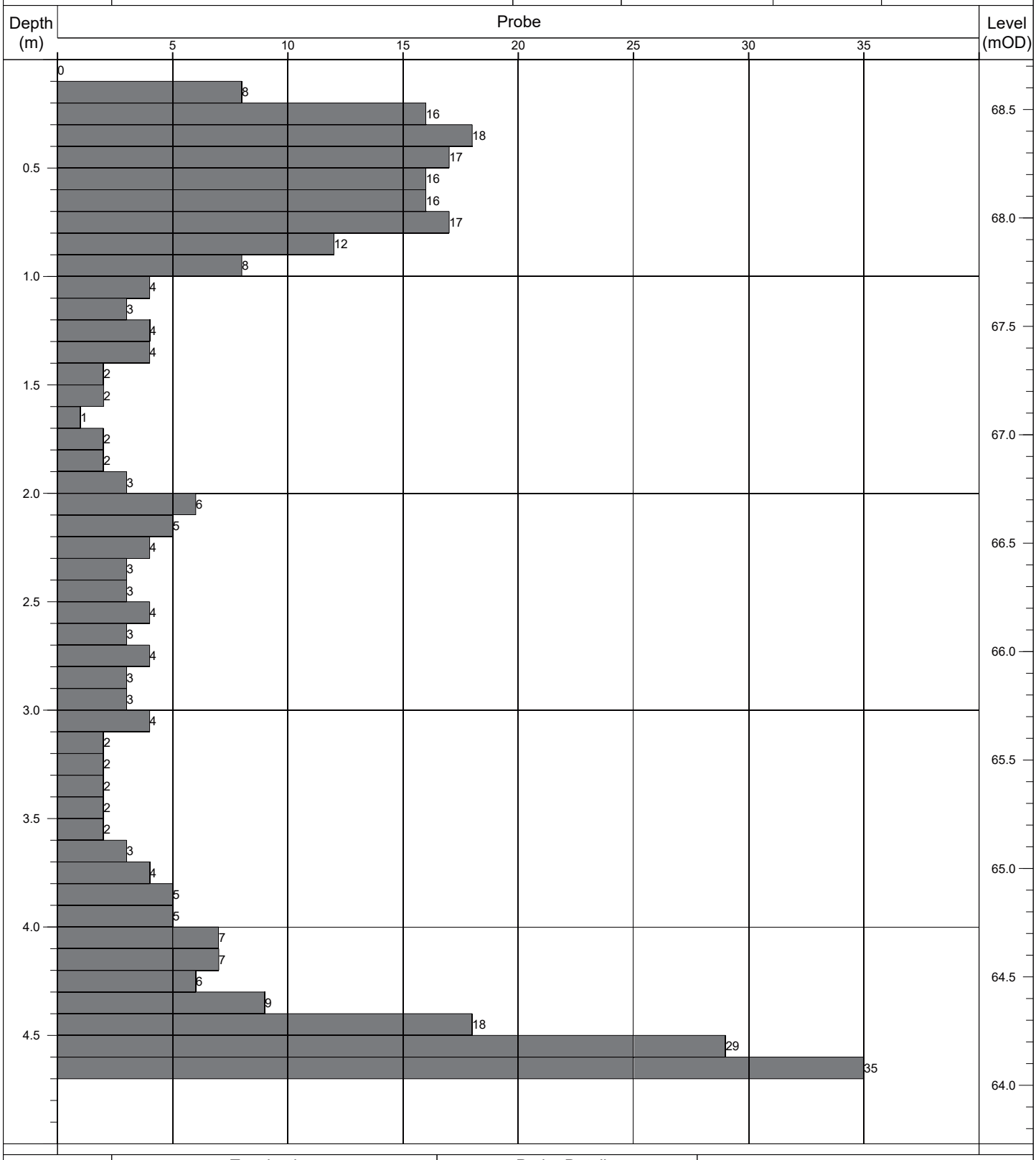
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP251**
Contract:	Coolagad	Easting:	727795.118	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712677.572	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.71	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



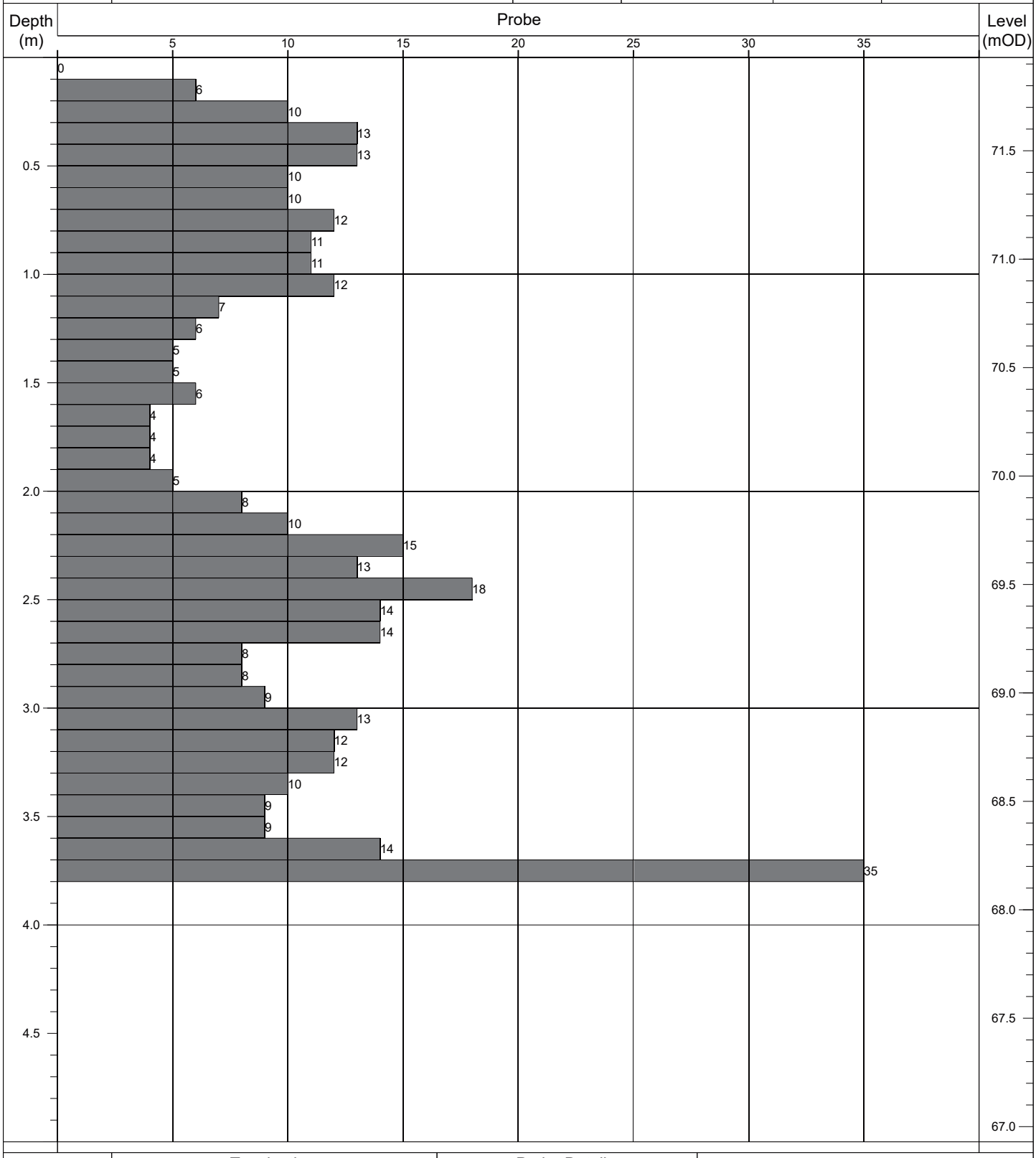
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP252**
Contract:	Coolagad	Easting:	727837.093	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712676.599	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.73	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



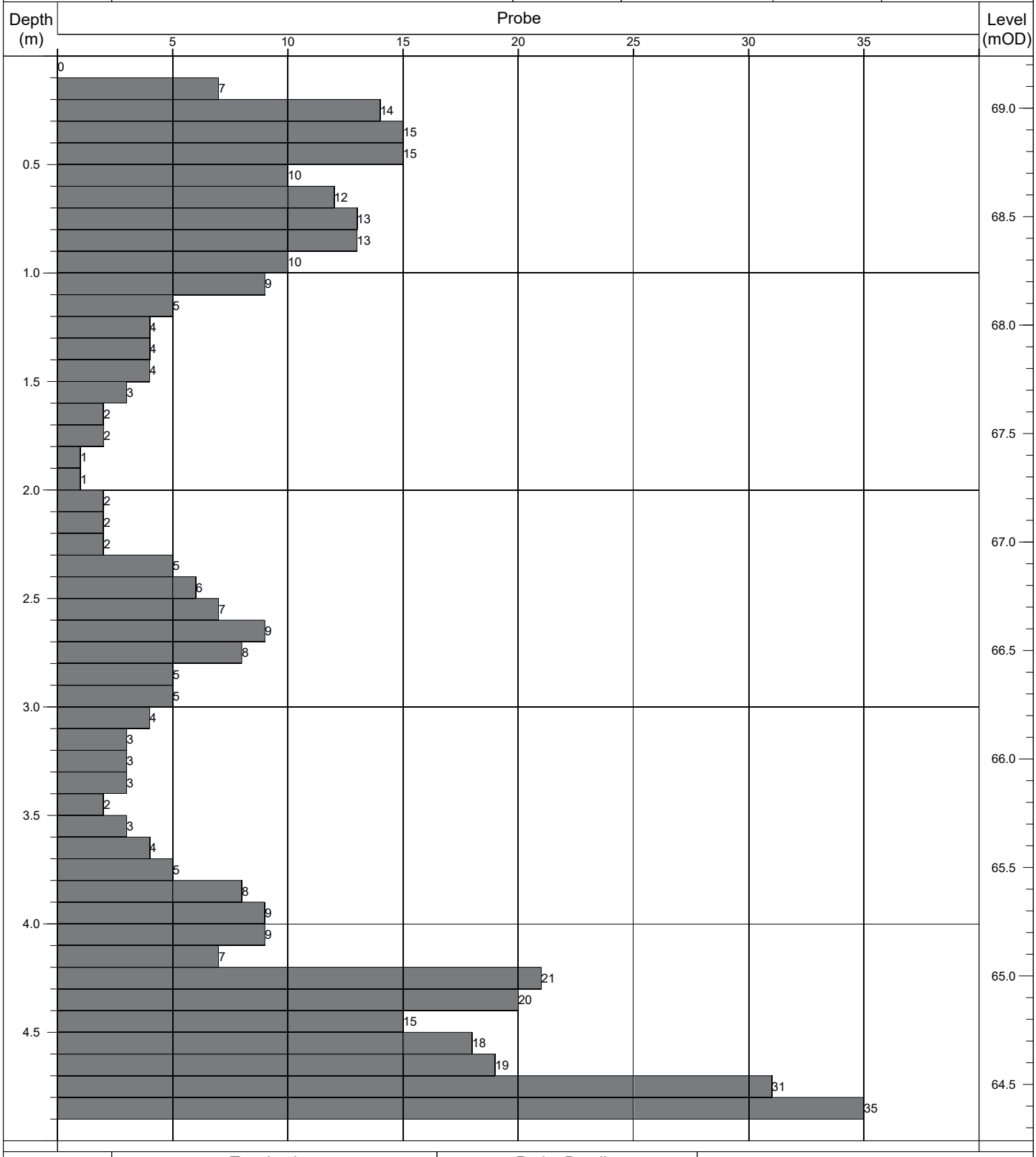
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP253
Contract:	Coolagad	Easting:	727801.962	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712663.756	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.93	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



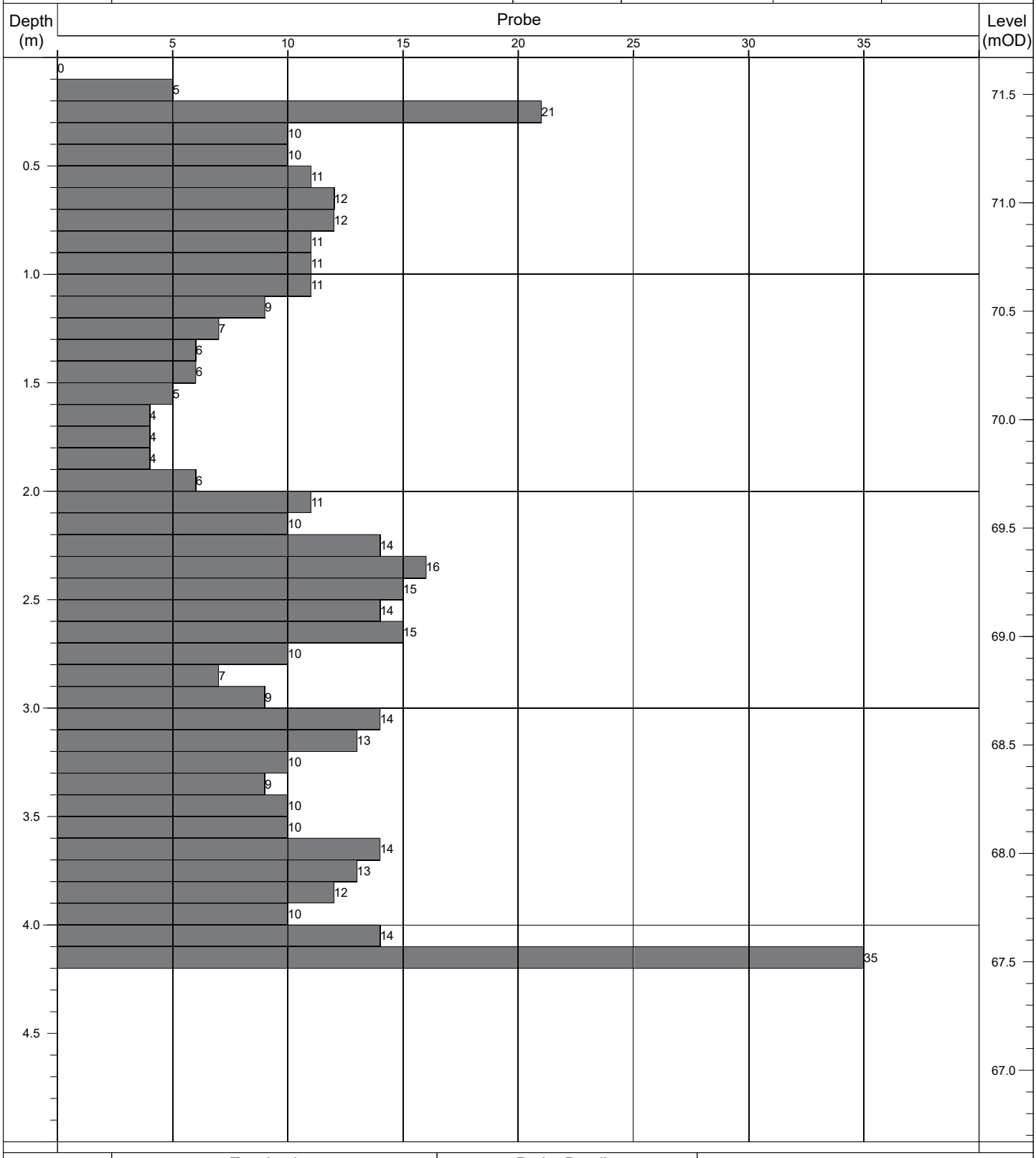
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: DP254
Contract:	Coolagad	Easting:	727841.004	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712662.169	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	69.24	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **DP255**
Contract:	Coolagad	Easting:	727816.675	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712648.419	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.67	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1

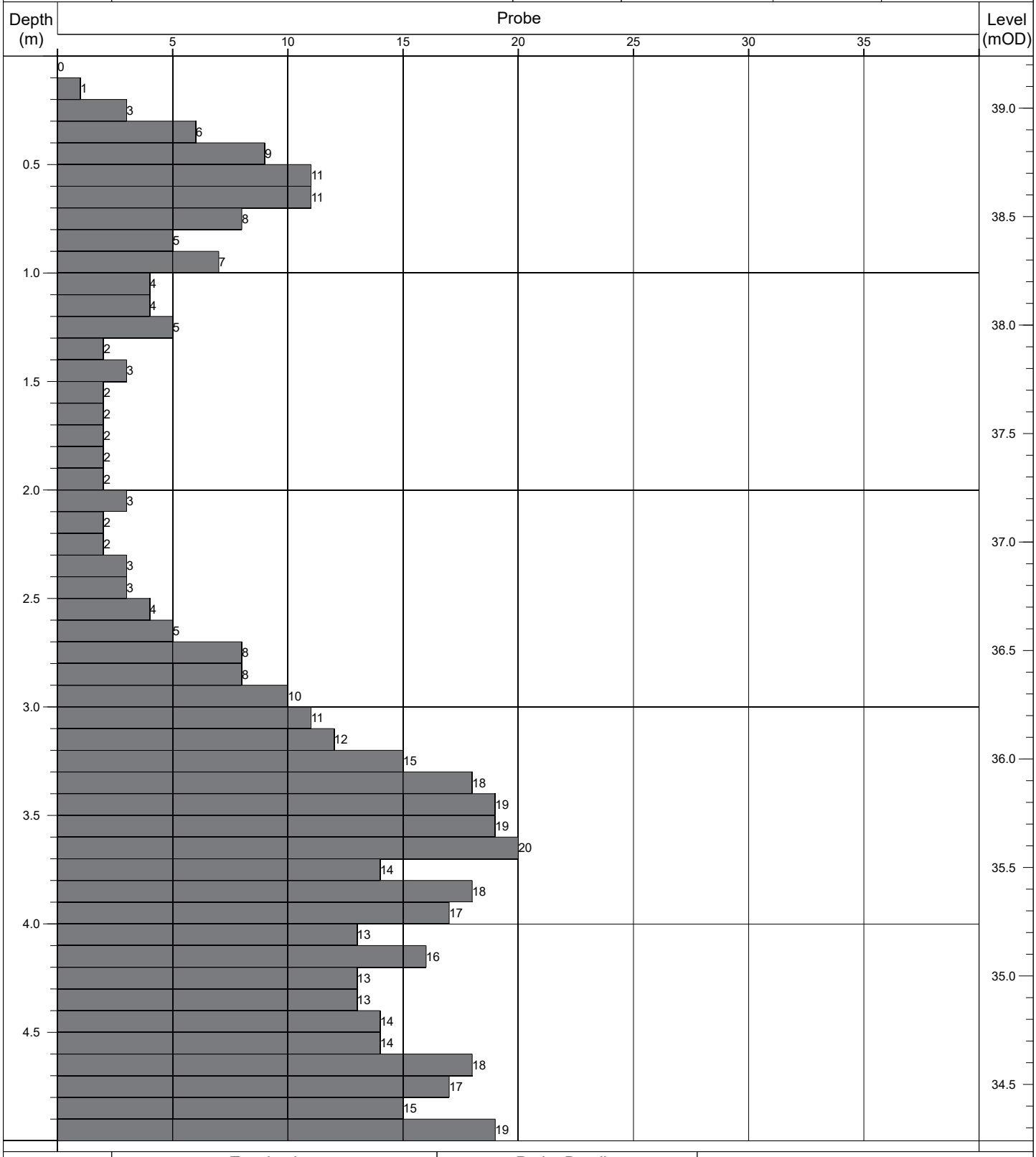


Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Appendix 5

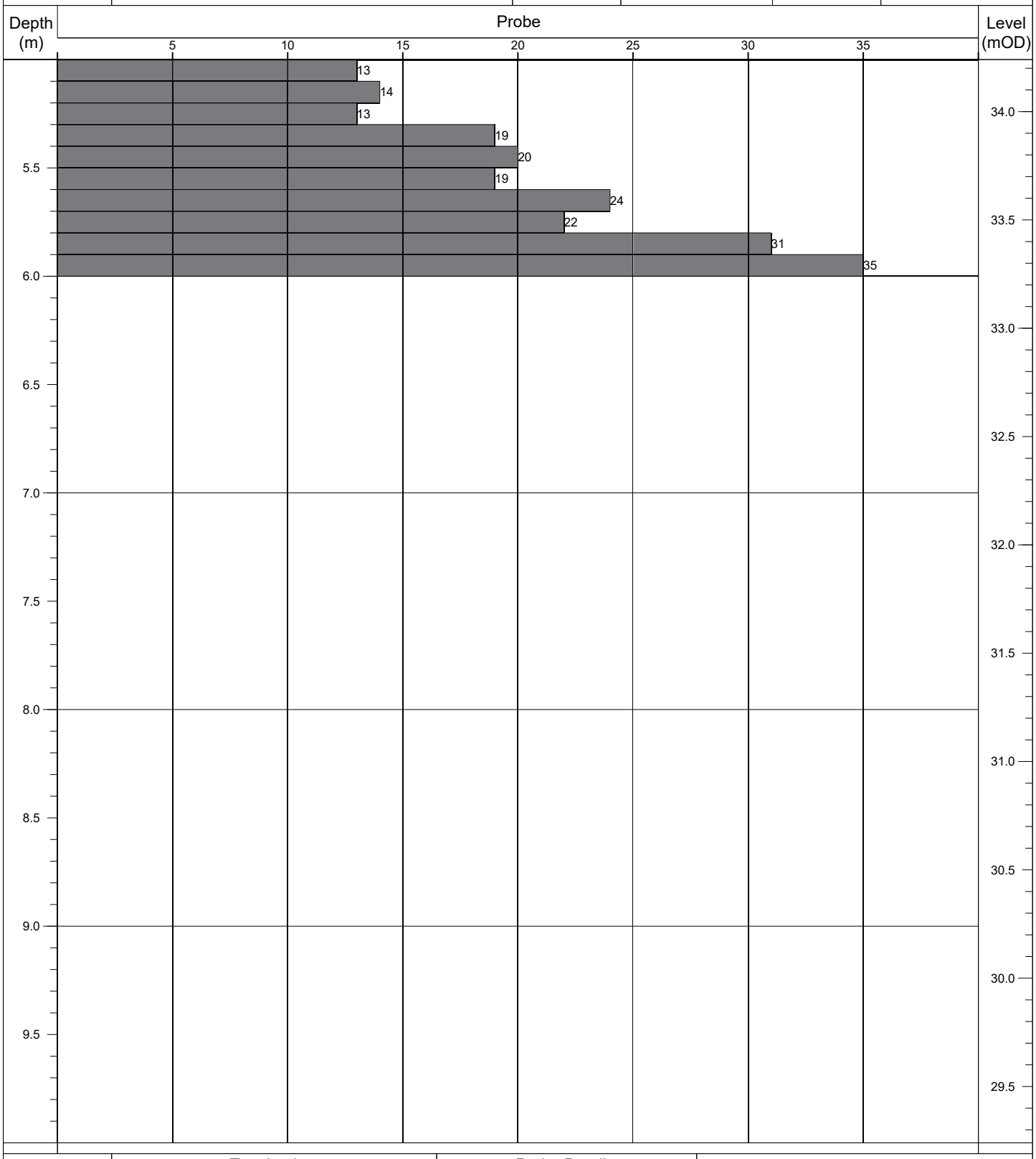
Dynamic Probe Logs – Roads

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP001**
Contract:	Coolagad	Easting:	728234.958	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713282.775	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	39.24	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 2



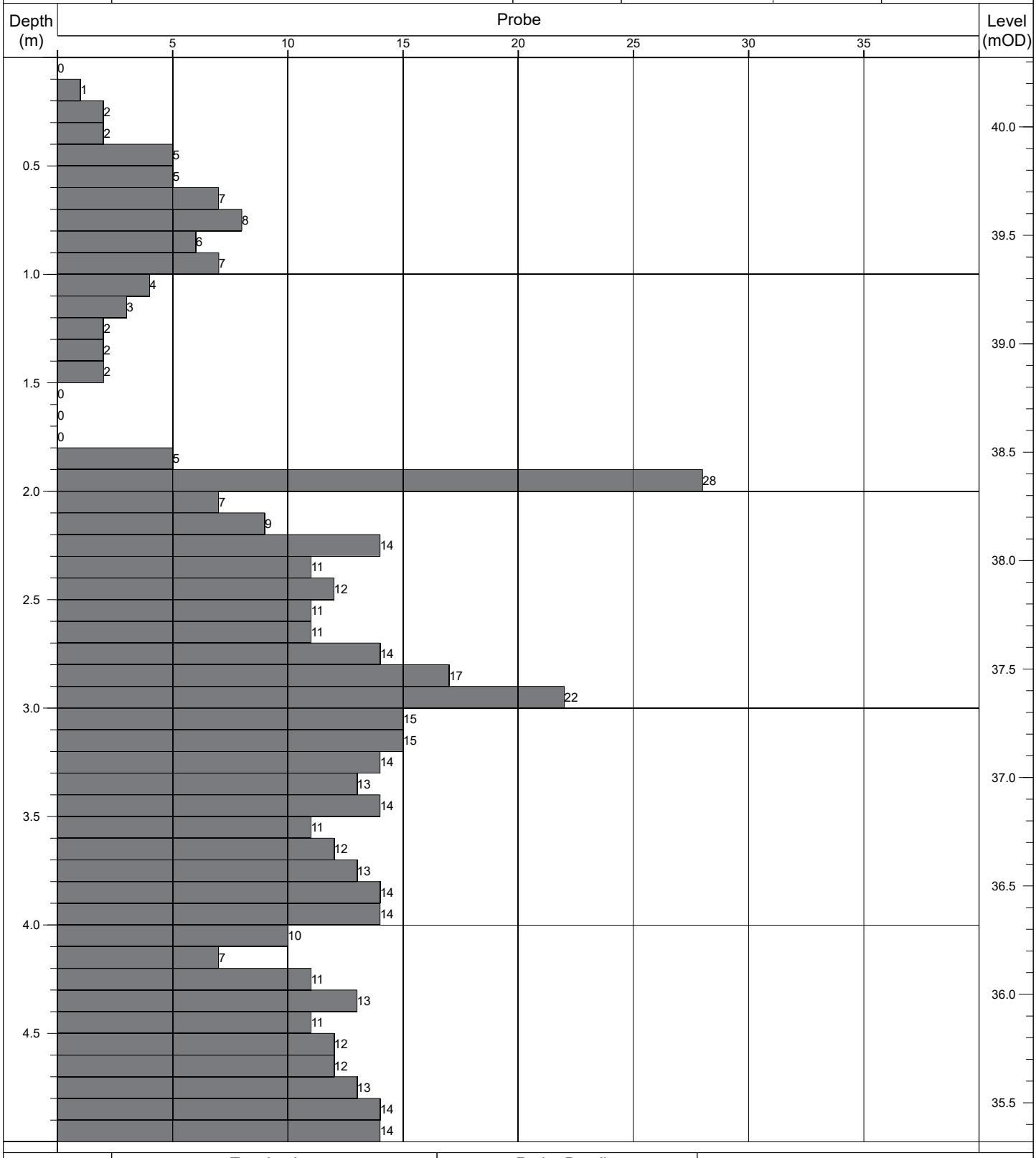
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
6.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP001**
Contract:	Coolagad	Easting:	728234.958	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713282.775	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	39.24	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 2 of 2



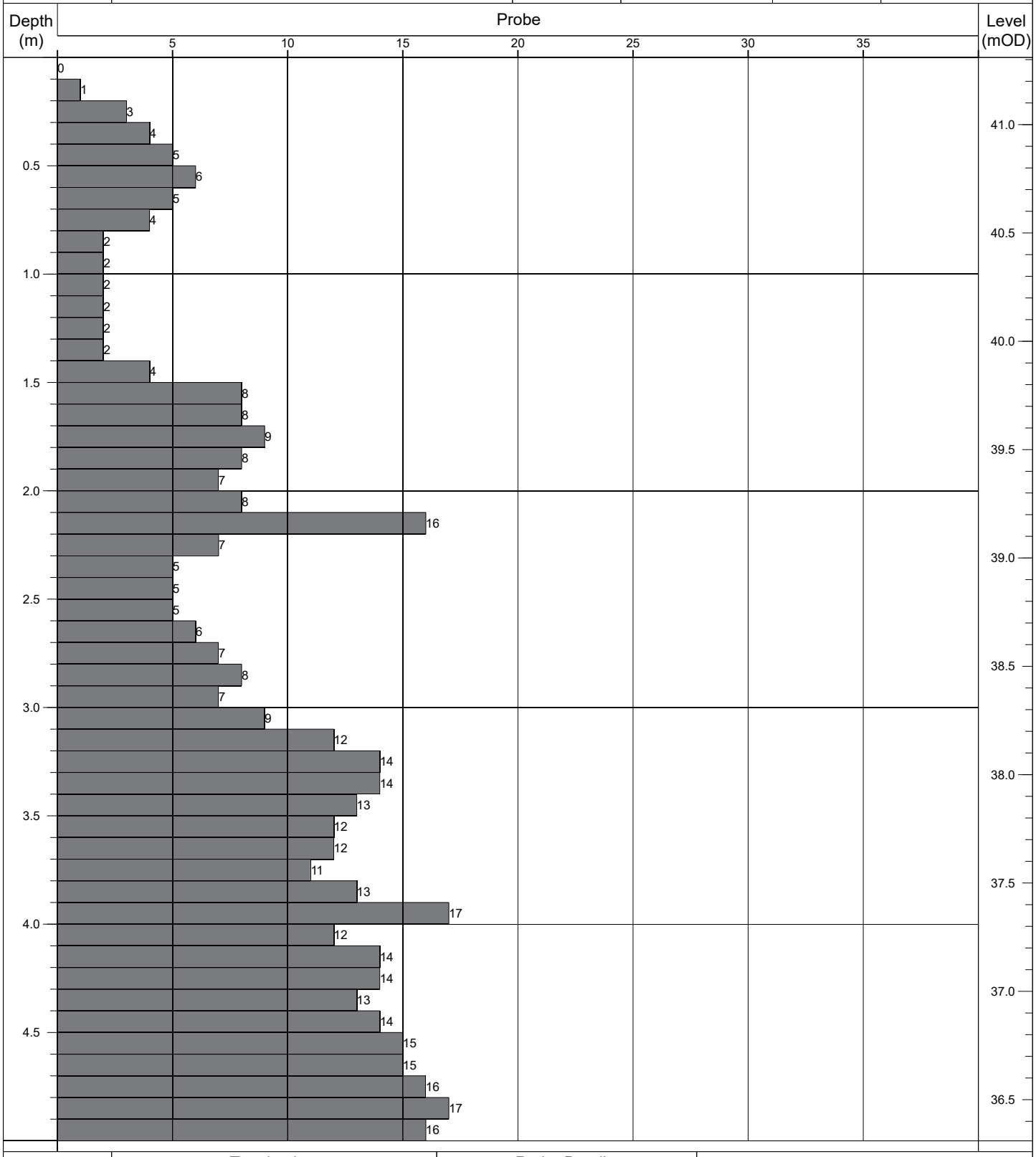
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
6.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP002**
Contract:	Coolagad	Easting:	728214.893	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713282.663	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	40.32	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



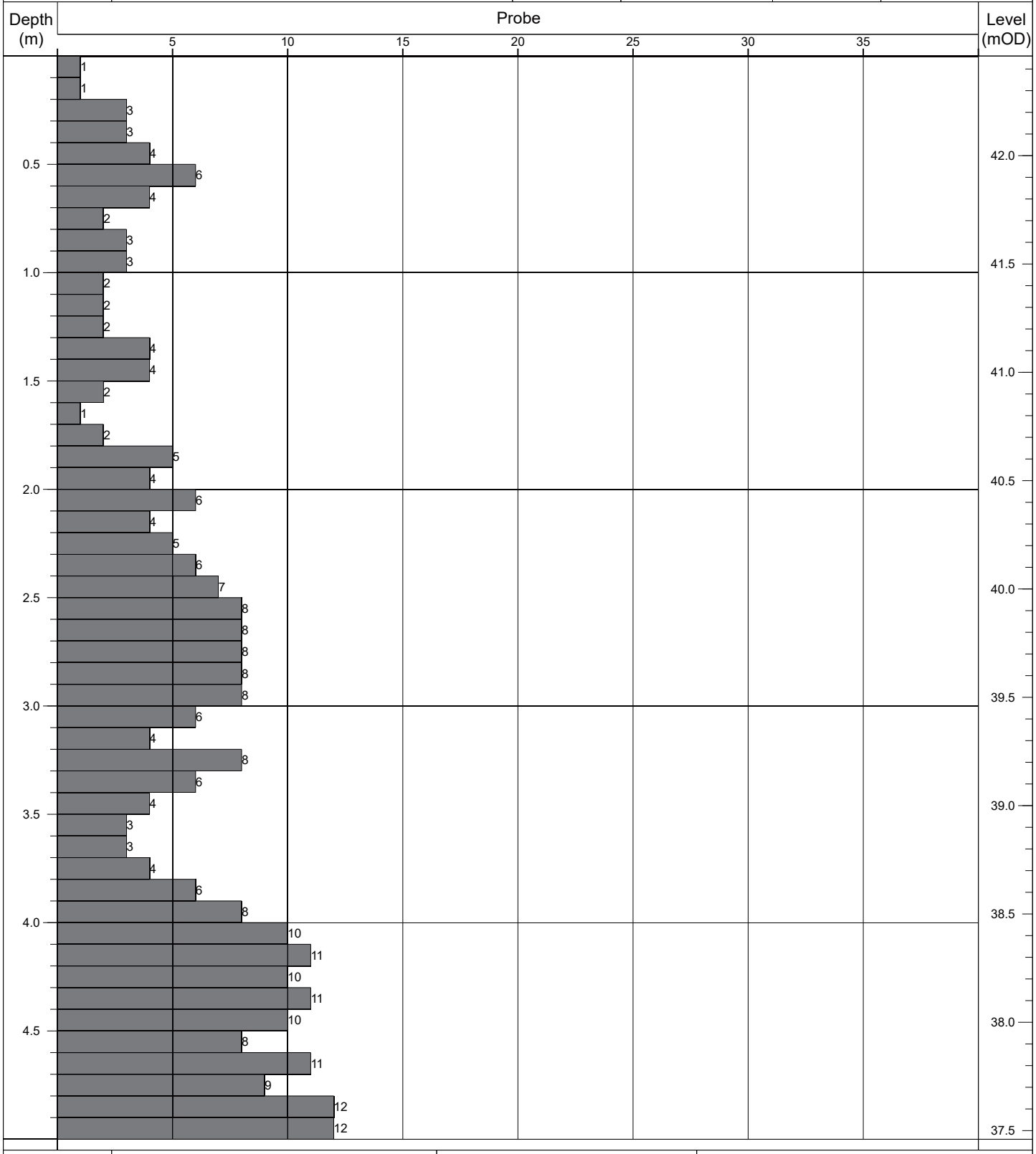
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP003
Contract:	Coolagad	Easting:	728197.570	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713288.893	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	41.31	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



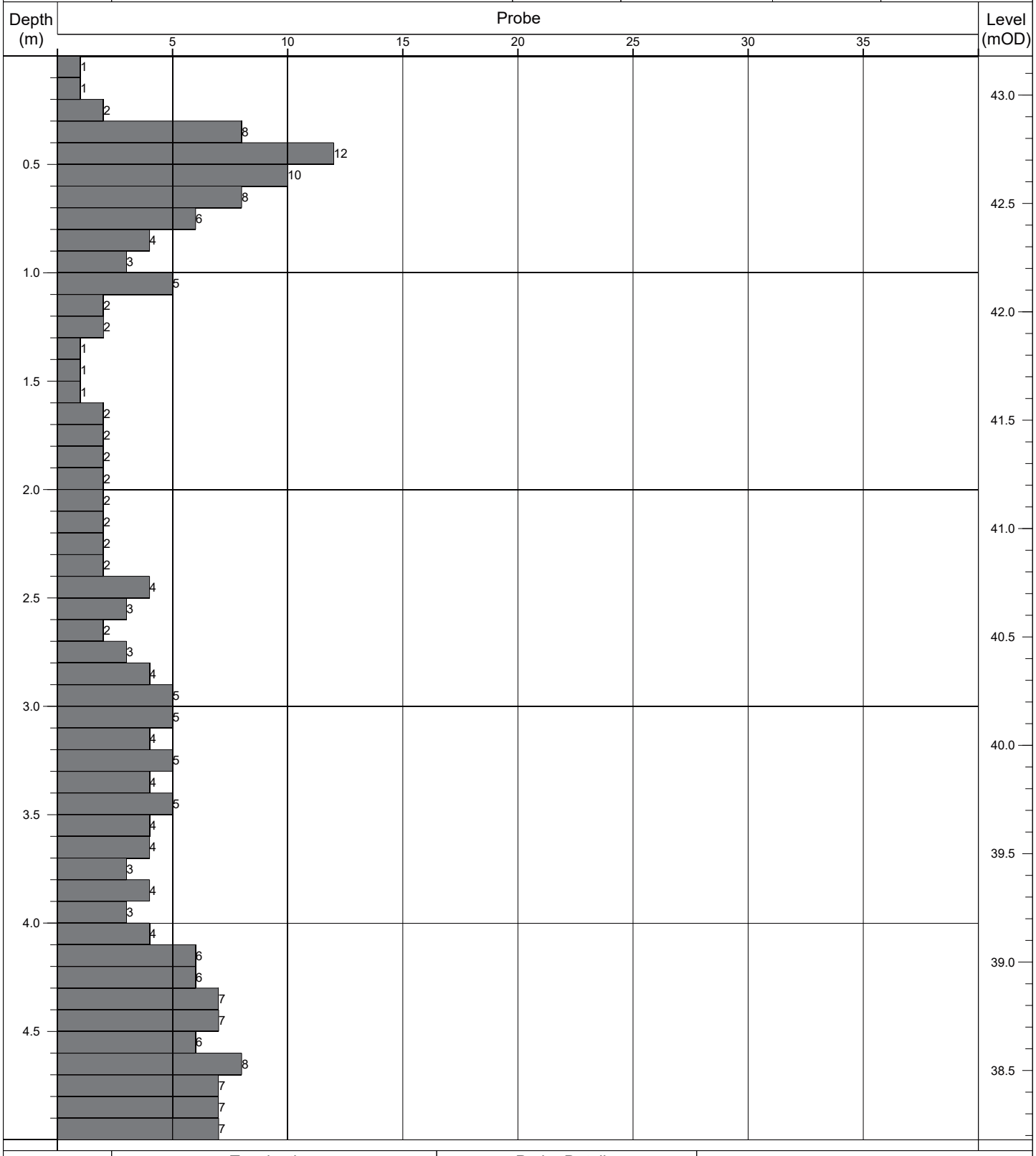
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP004**
Contract:	Coolagad	Easting:	728179.483	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713298.874	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	42.46	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



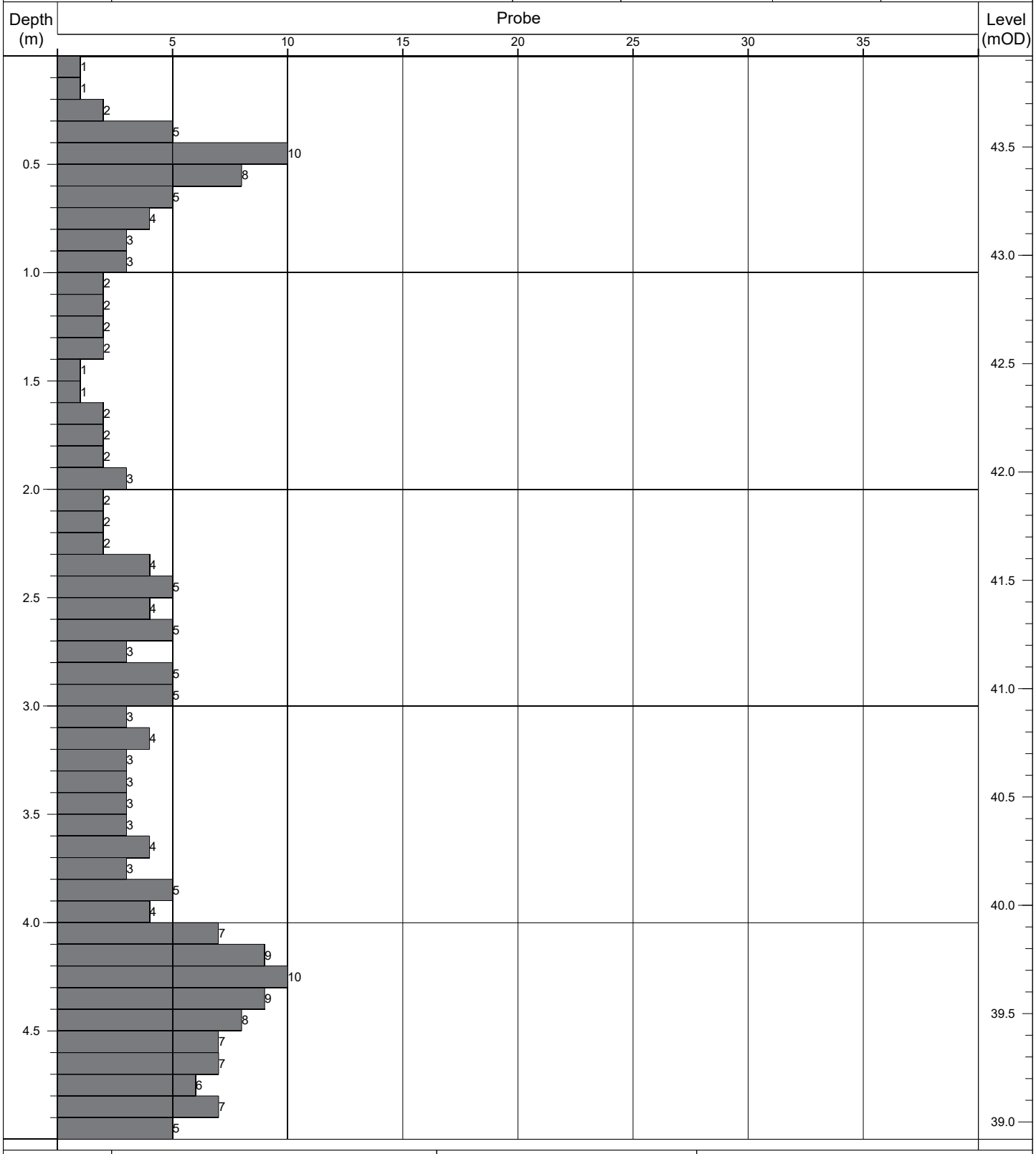
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP005**
Contract:	Coolagad	Easting:	728161.090	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713306.611	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	43.18	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



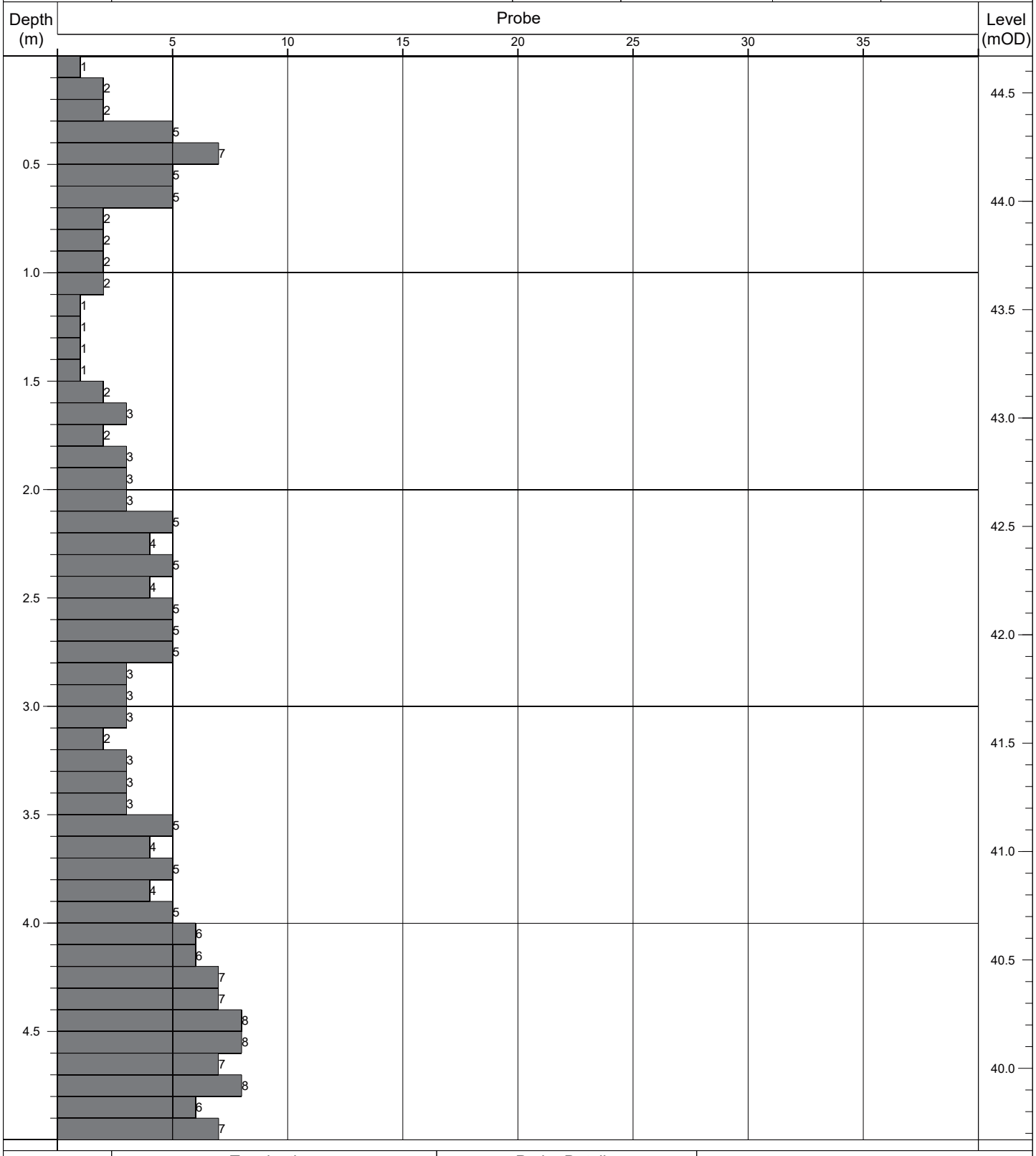
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP006
Contract:	Coolagad	Easting:	728140.776	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713309.764	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	43.92	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



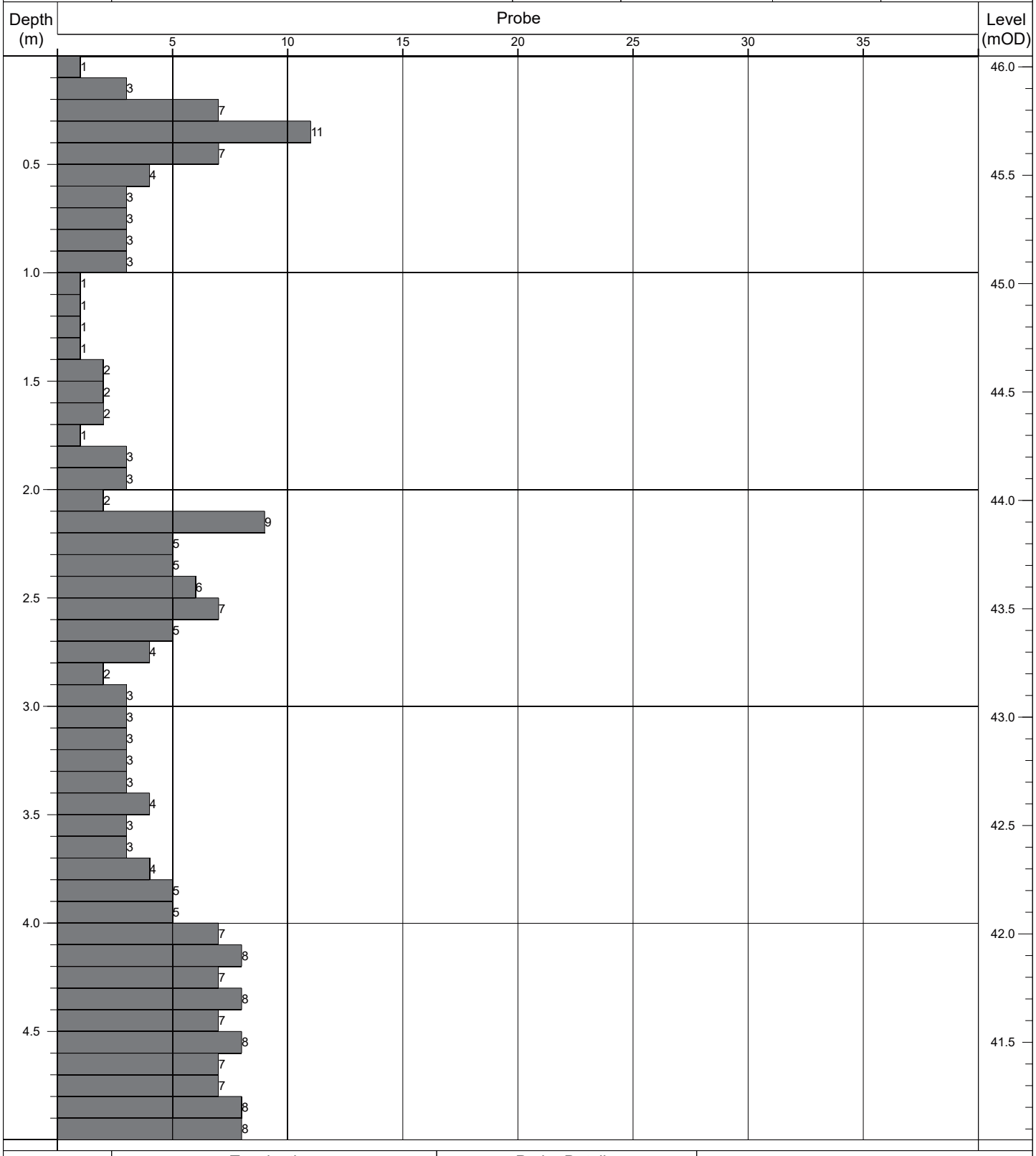
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP007**
Contract:	Coolagad	Easting:	728121.257	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713307.513	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	44.67	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



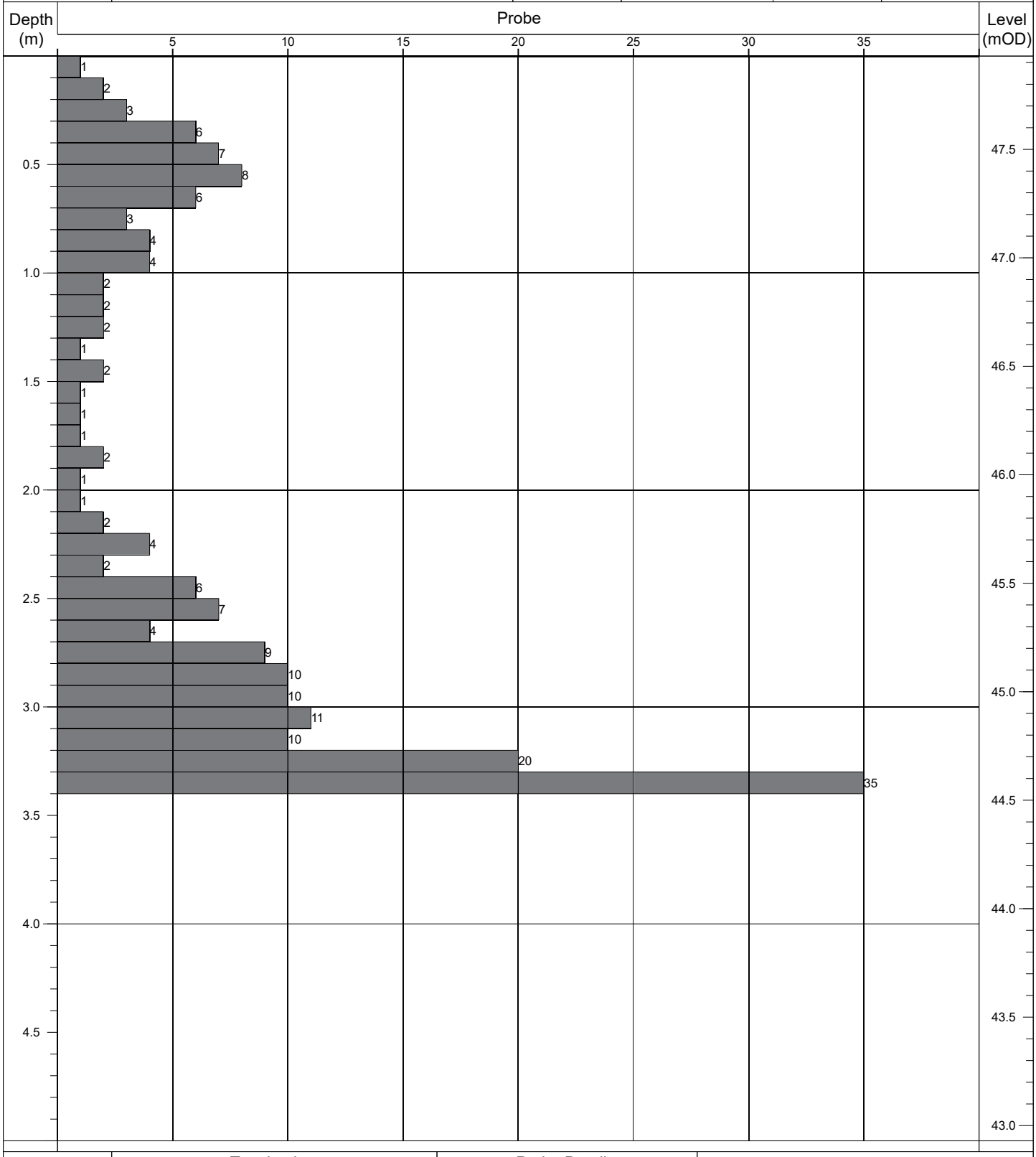
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP008**
Contract:	Coolagad	Easting:	728101.382	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713304.327	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	46.05	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



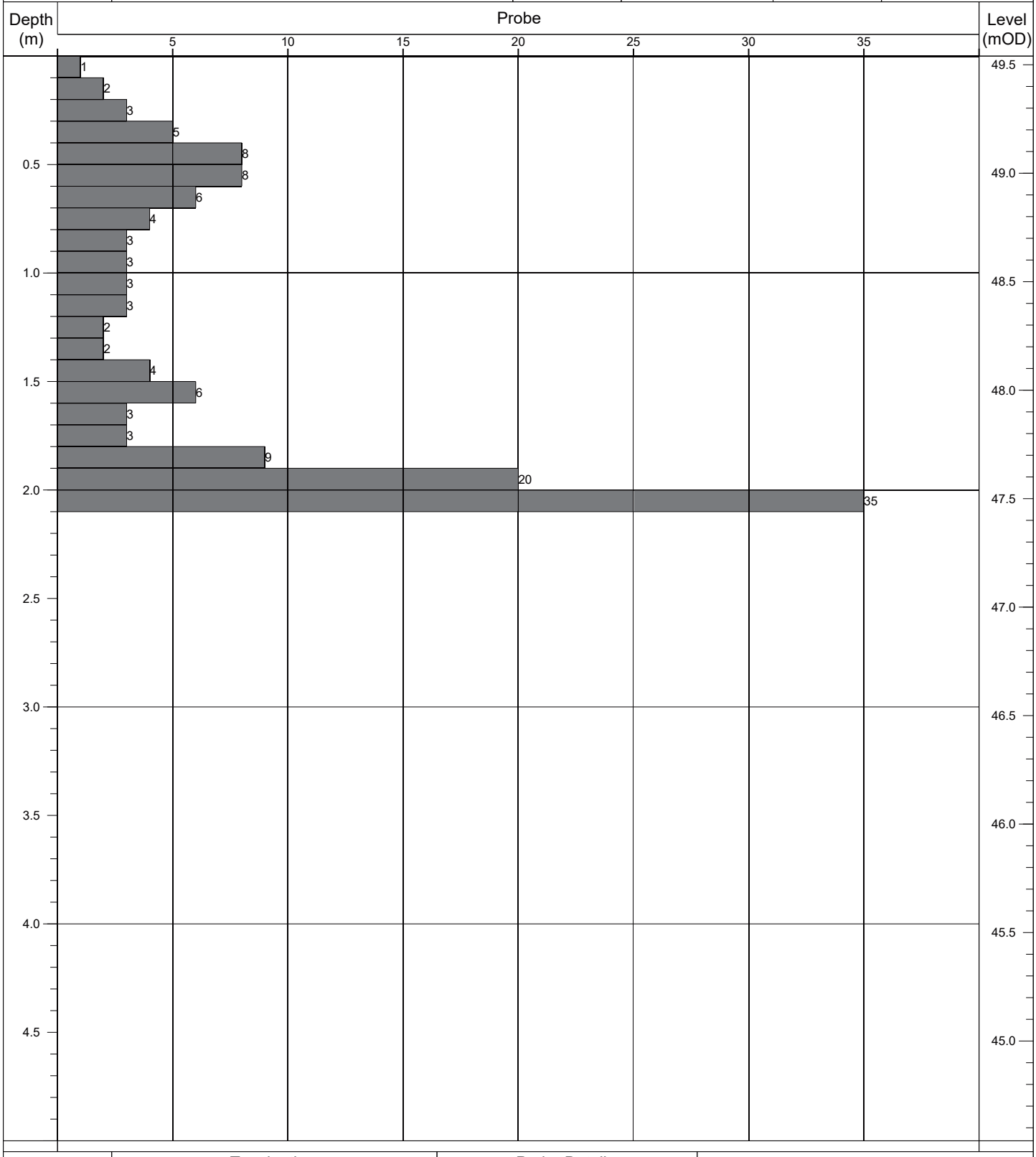
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP009**
Contract:	Coolagad	Easting:	728081.478	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713300.426	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	47.93	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



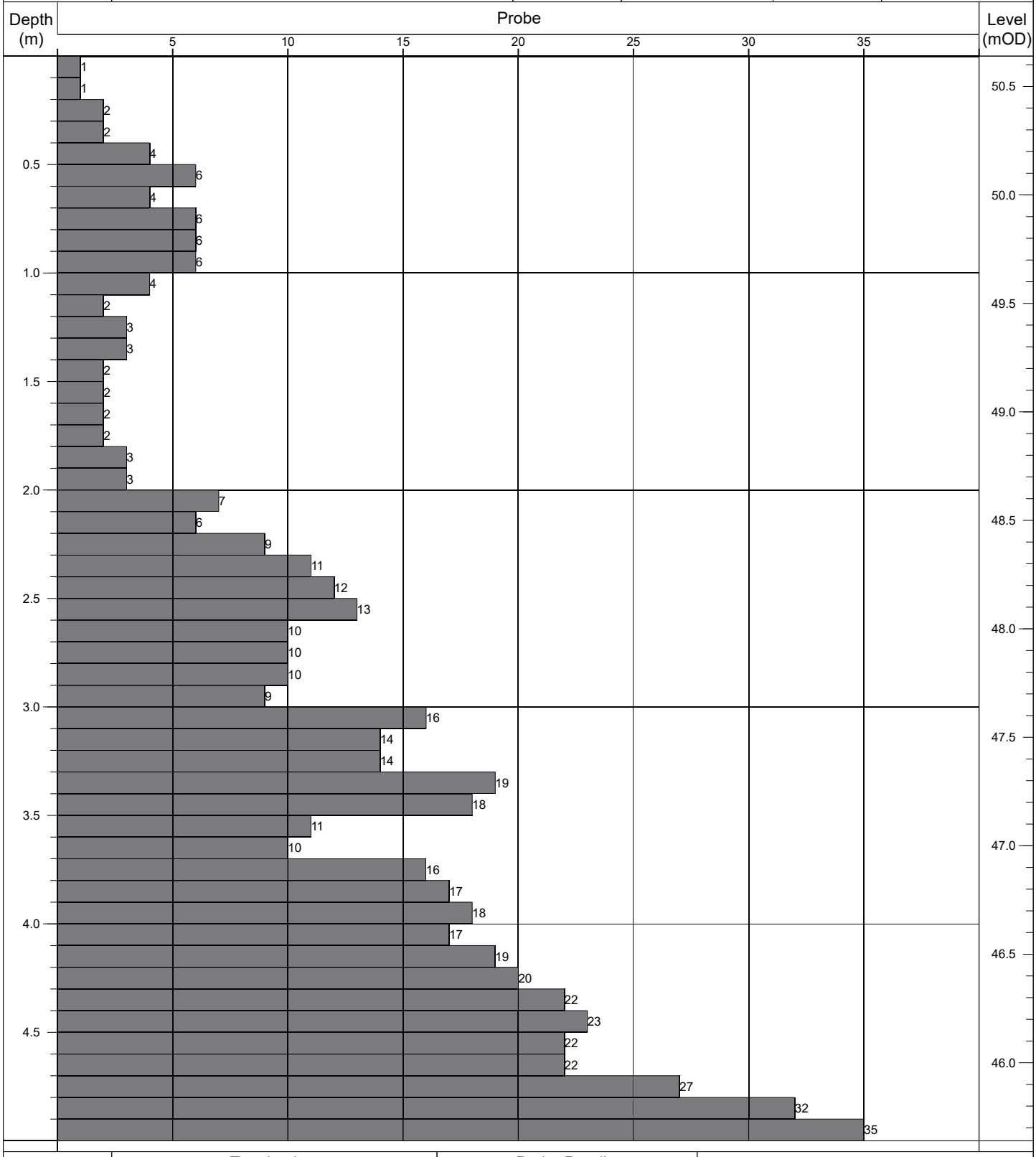
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP010**
Contract:	Coolagad	Easting:	728061.917	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713296.881	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	49.54	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



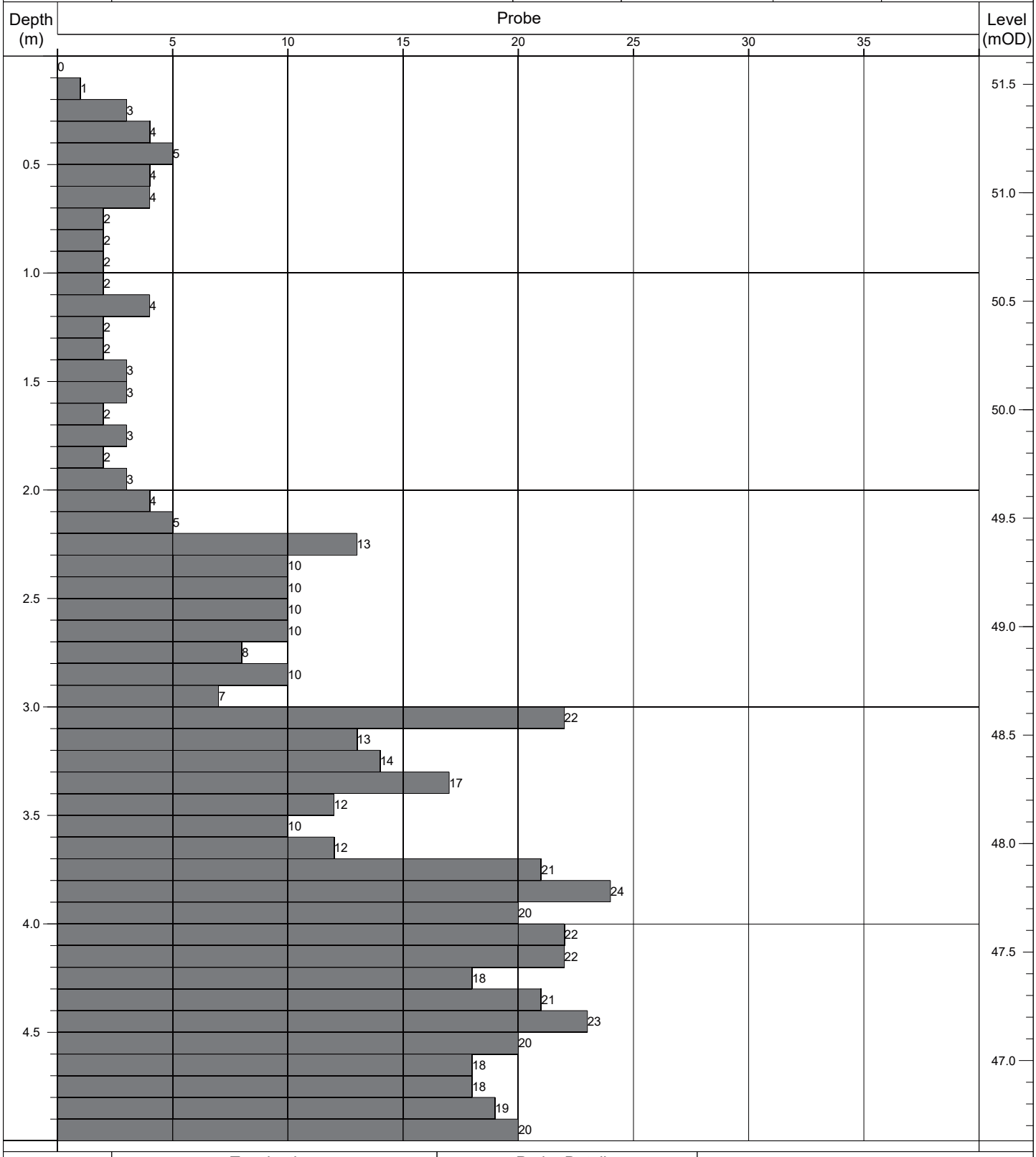
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP011**
Contract:	Coolagad	Easting:	728042.884	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713293.735	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	50.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



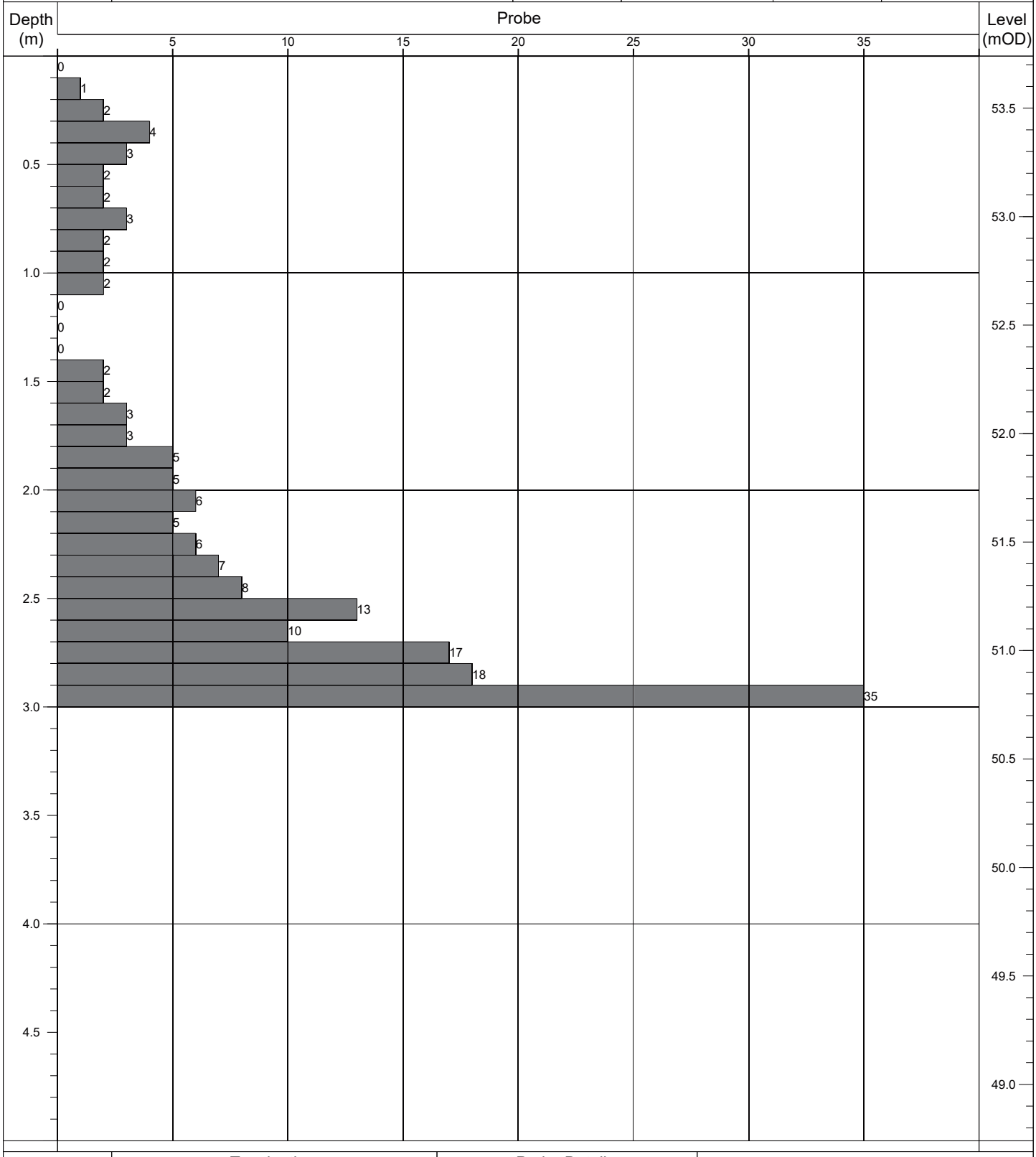
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP012**
Contract:	Coolagad	Easting:	728022.548	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713290.580	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	51.63	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



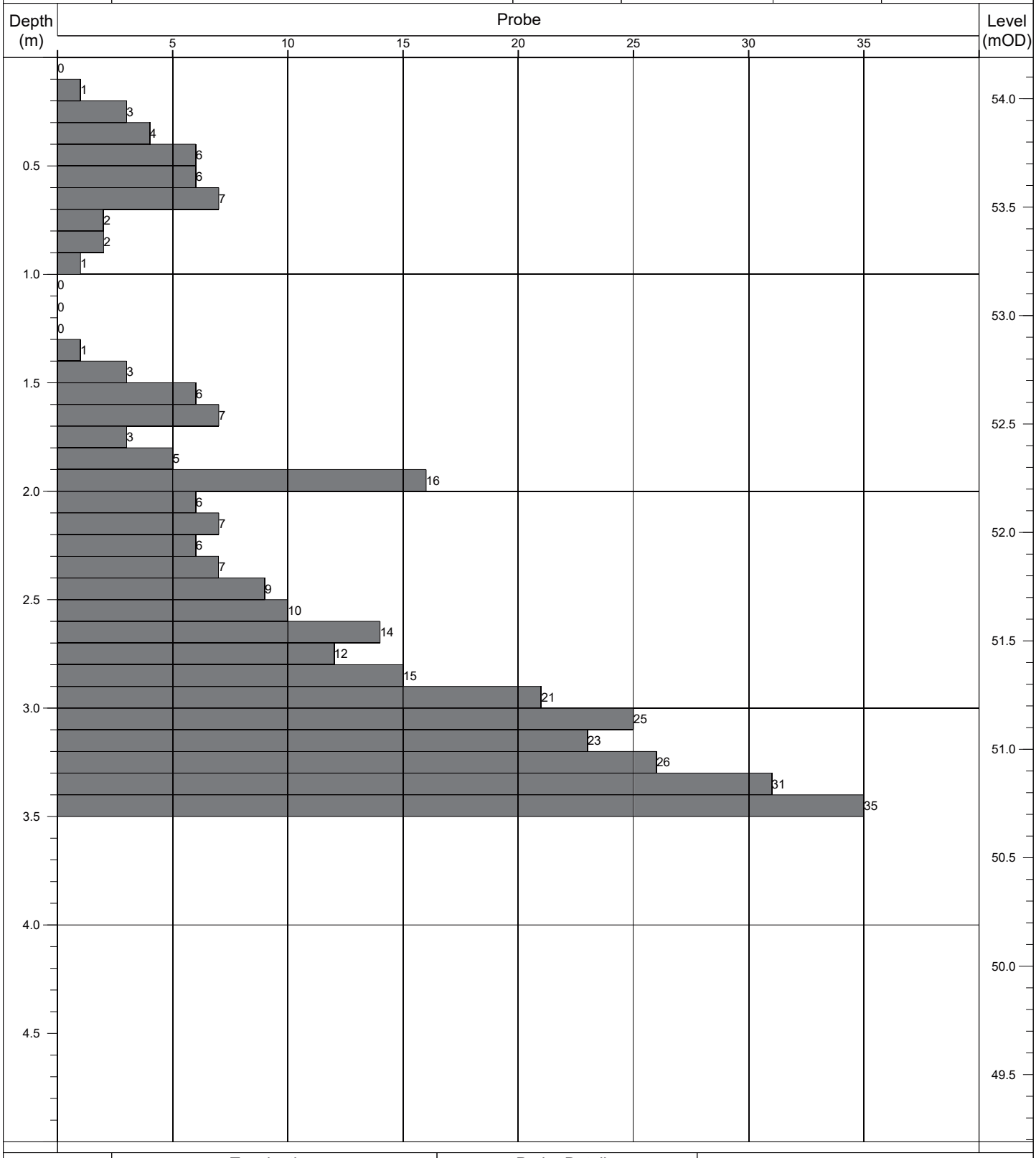
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP013**
Contract:	Coolagad	Easting:	727991.445	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713287.528	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	53.74	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



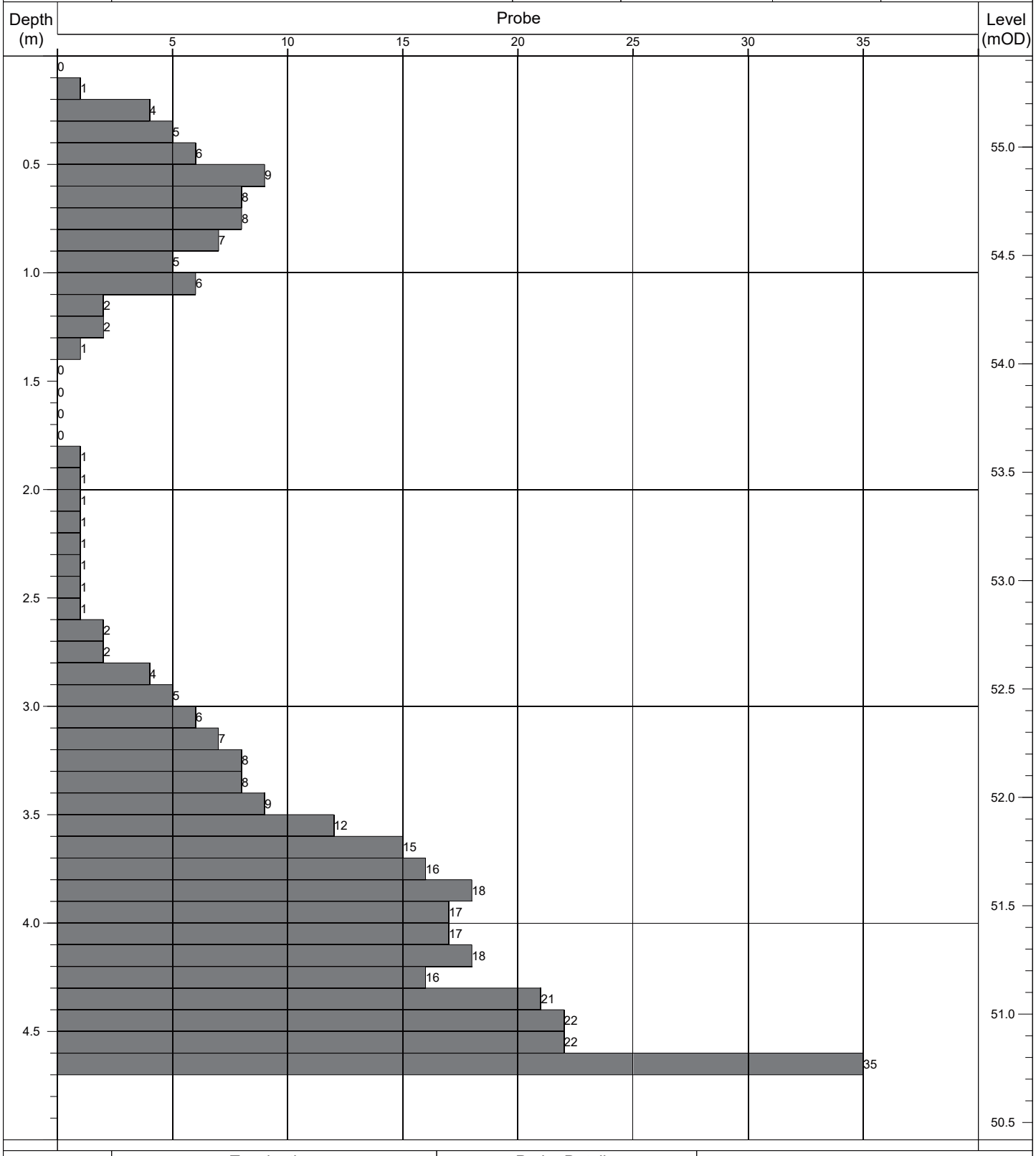
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP014**
Contract:	Coolagad	Easting:	727982.795	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713285.308	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	54.19	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



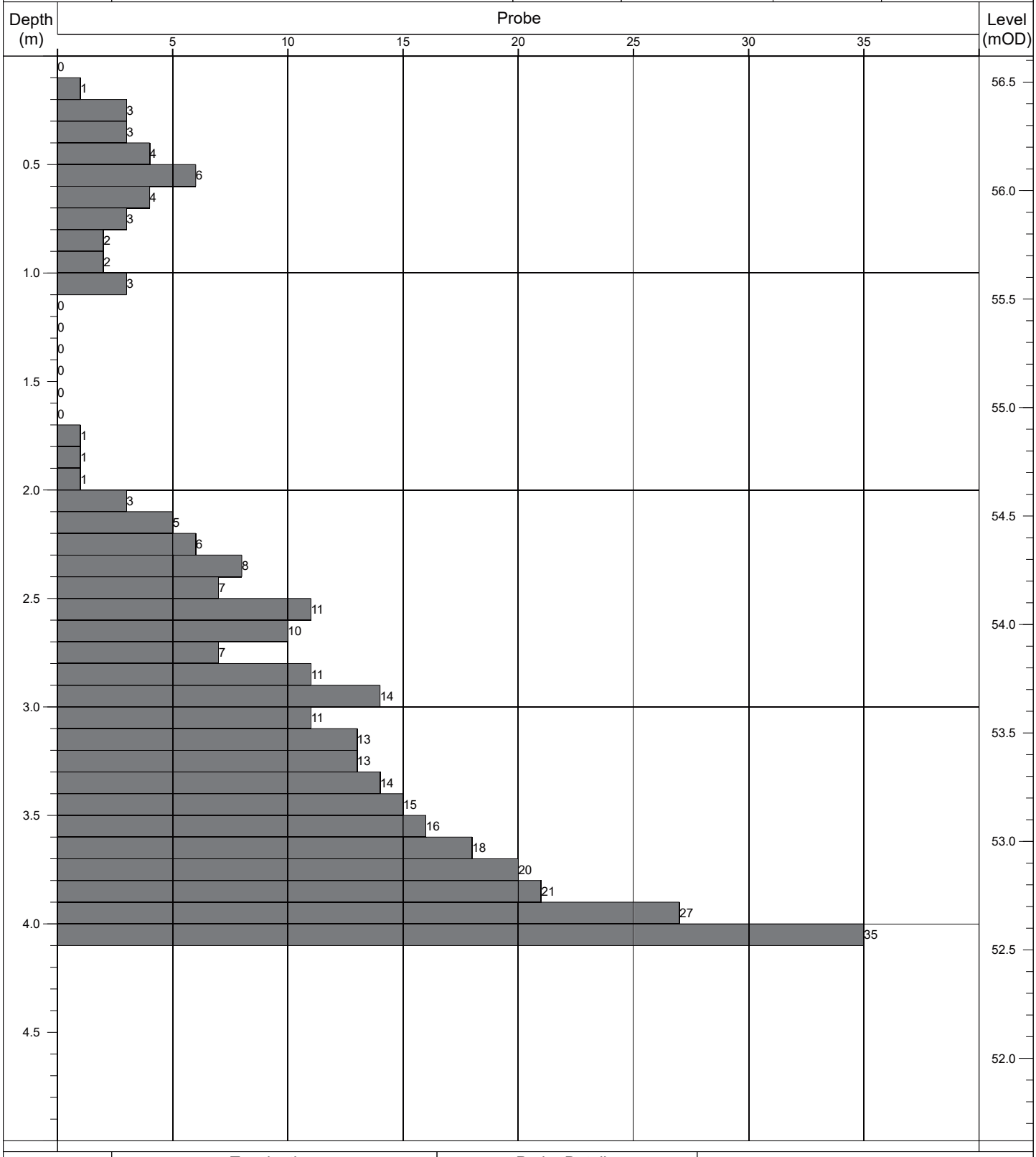
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP015**
Contract:	Coolagad	Easting:	727963.056	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713285.711	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	55.42	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



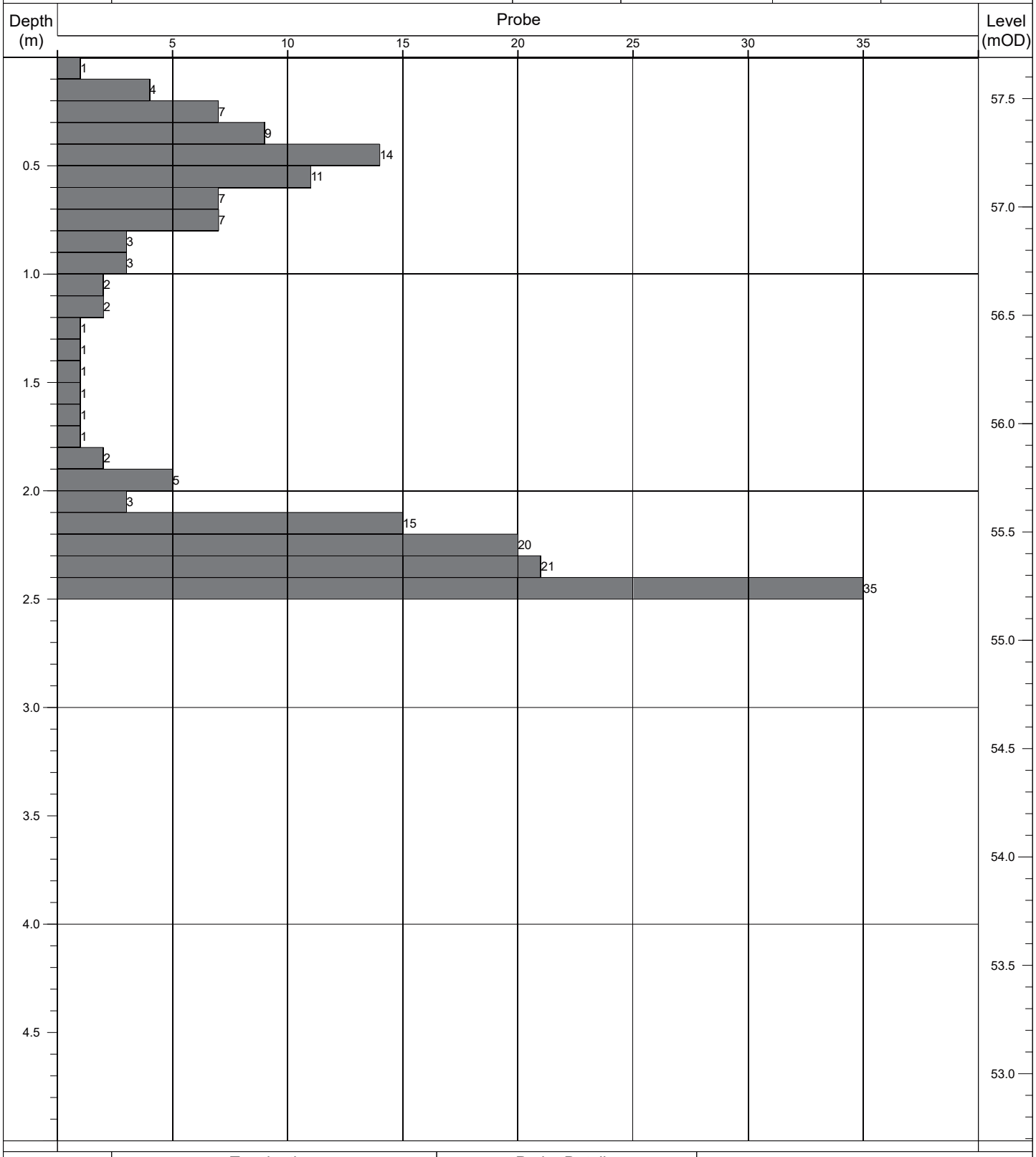
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP016**
Contract:	Coolagad	Easting:	727942.624	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713287.931	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	56.62	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



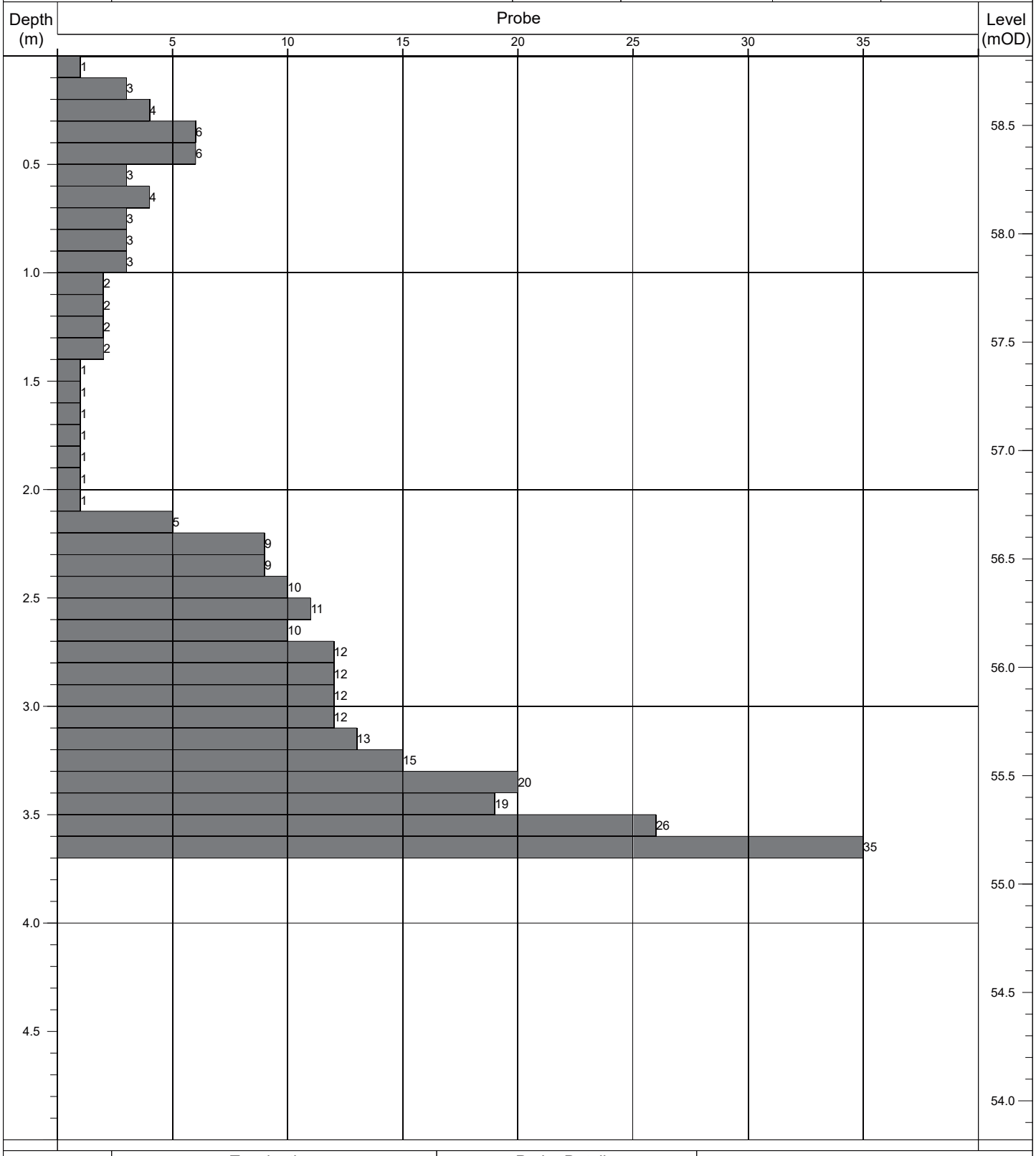
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP017**
Contract:	Coolagad	Easting:	727925.212	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713289.788	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	57.69	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



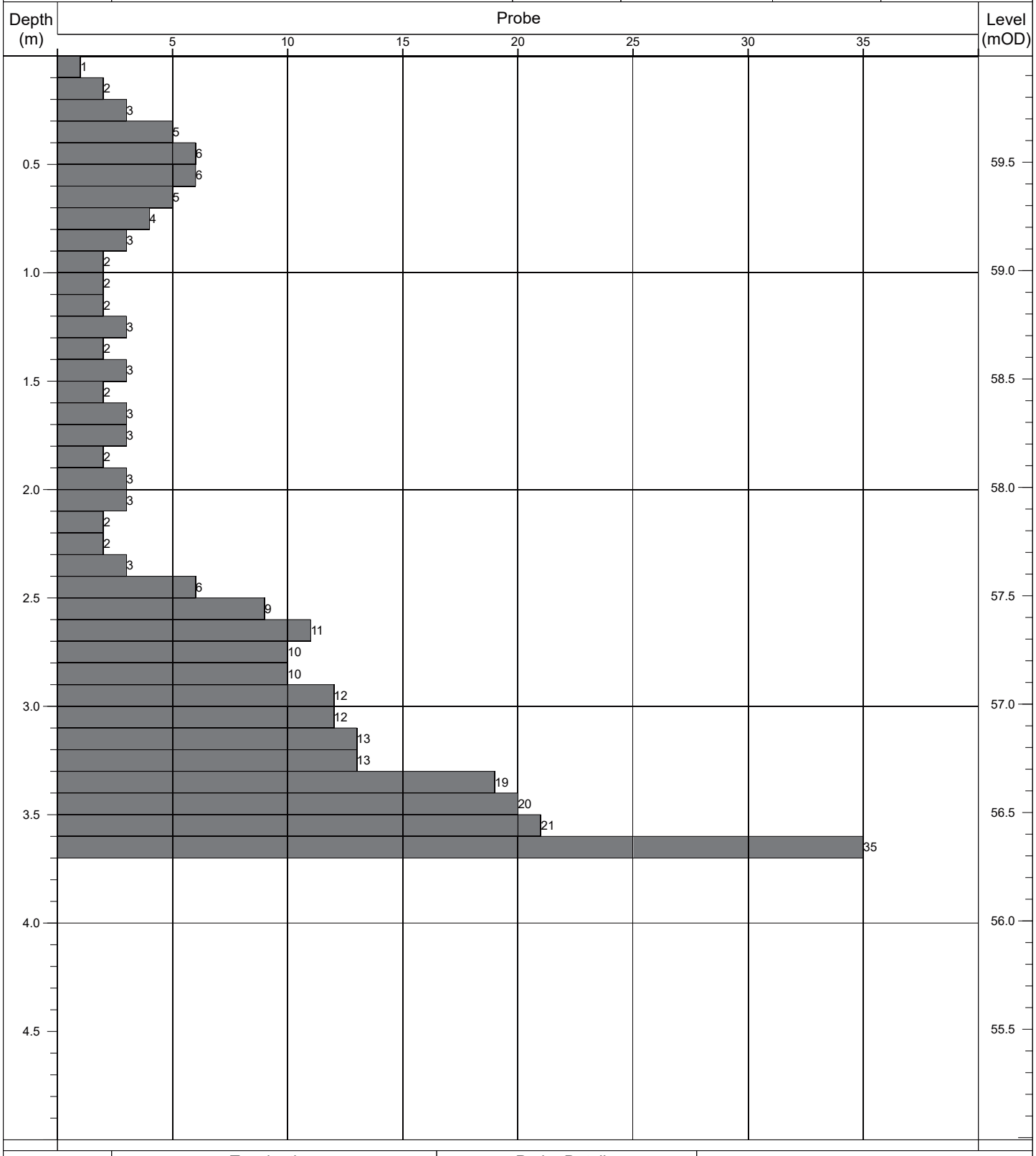
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP018**
Contract:	Coolagad	Easting:	727905.686	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713290.476	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	58.82	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



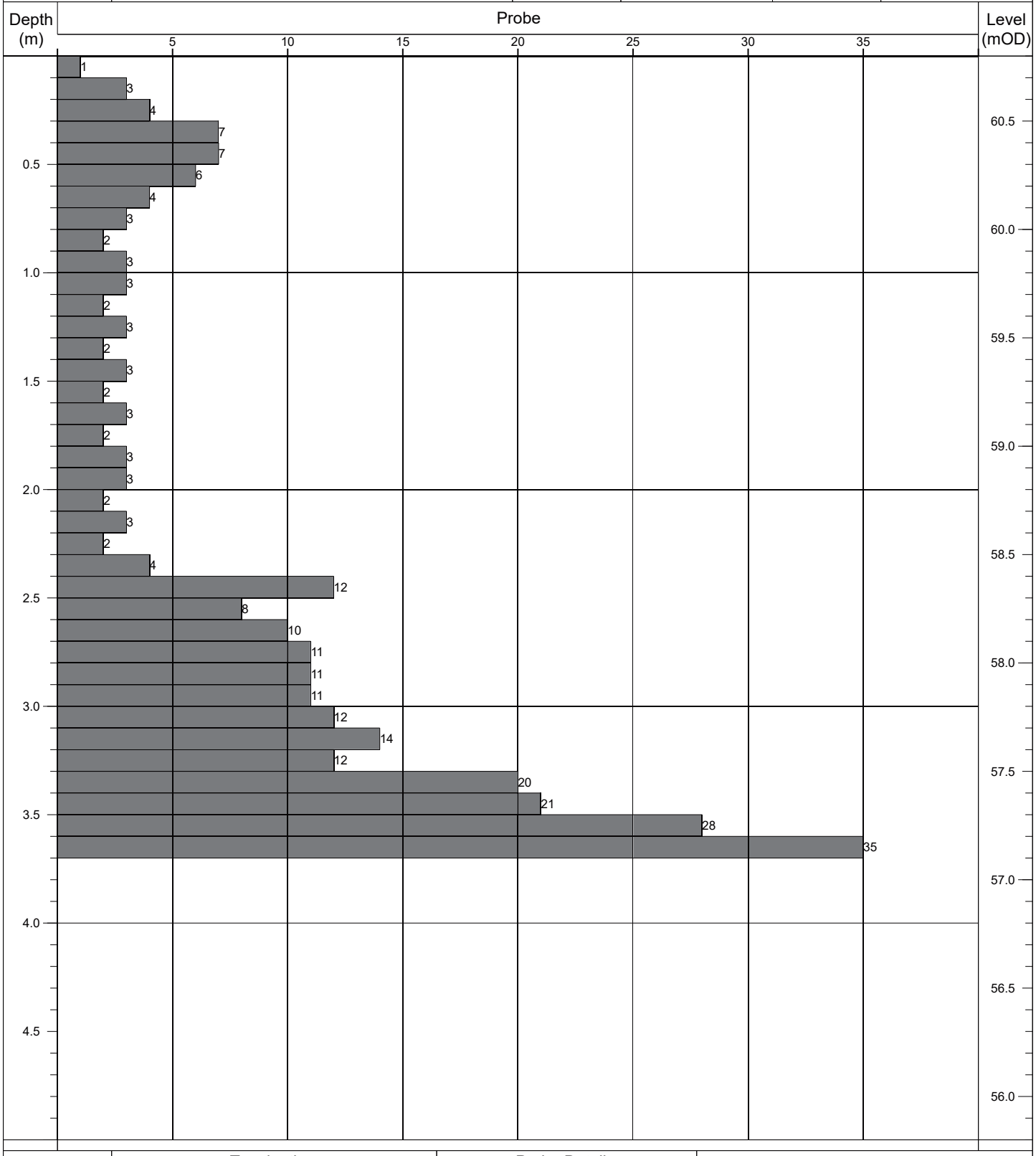
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP019**
Contract:	Coolagad	Easting:	727885.742	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713290.107	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	59.99	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



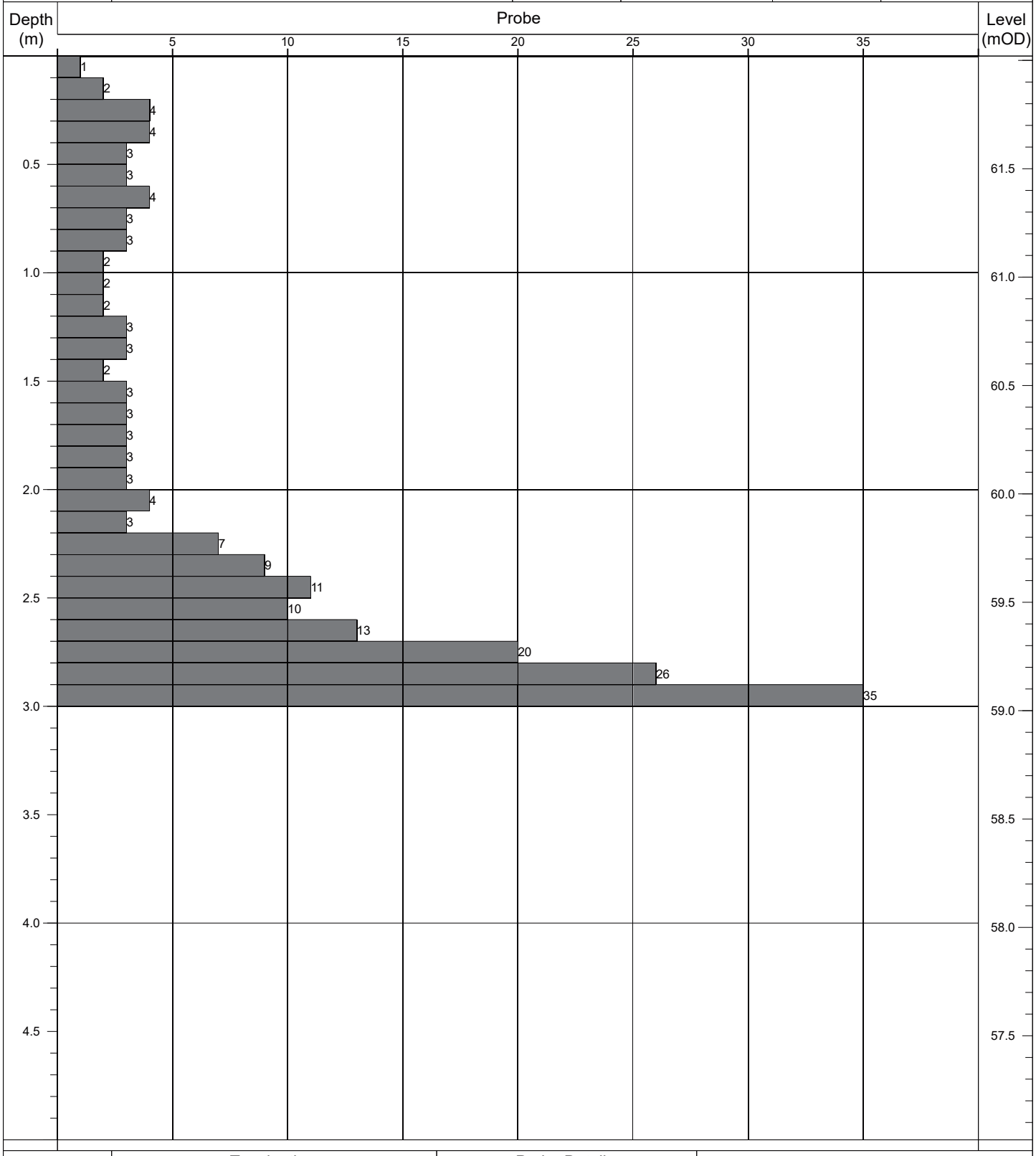
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP020**
Contract:	Coolagad	Easting:	727865.391	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713286.729	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	60.80	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



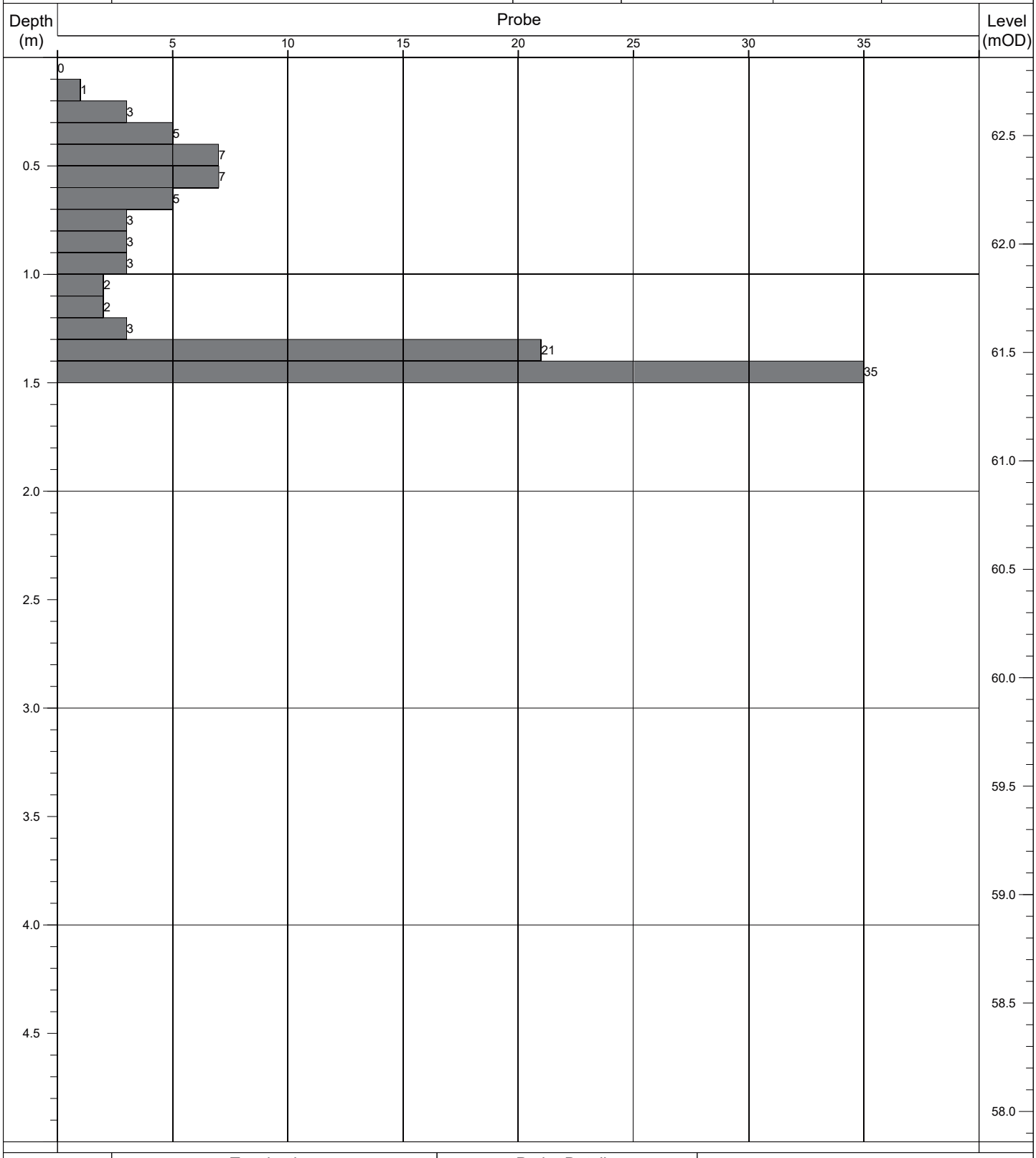
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP021**
Contract:	Coolagad	Easting:	727843.686	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713285.553	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.02	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



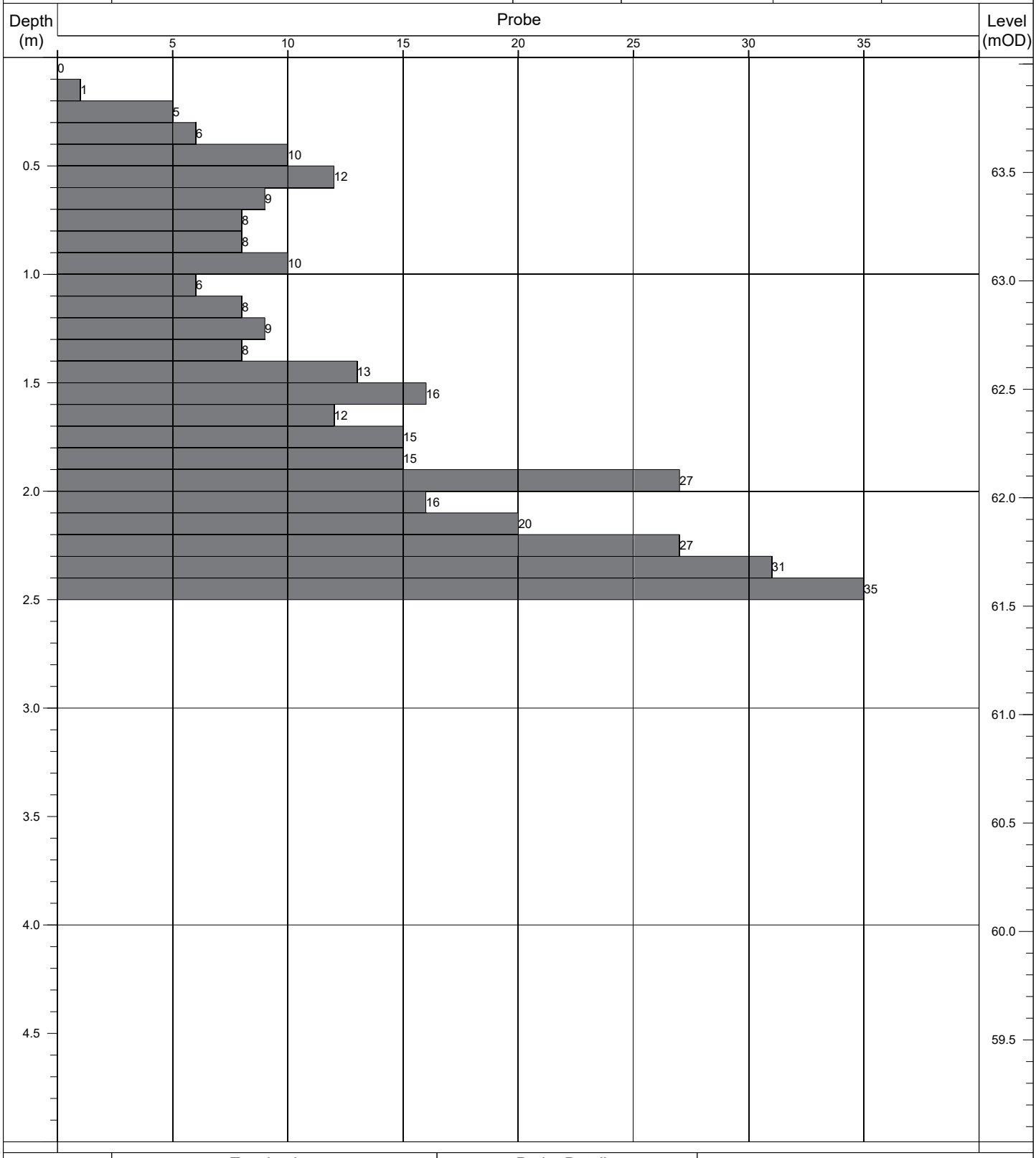
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP022**
Contract:	Coolagad	Easting:	727825.165	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713283.806	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.86	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



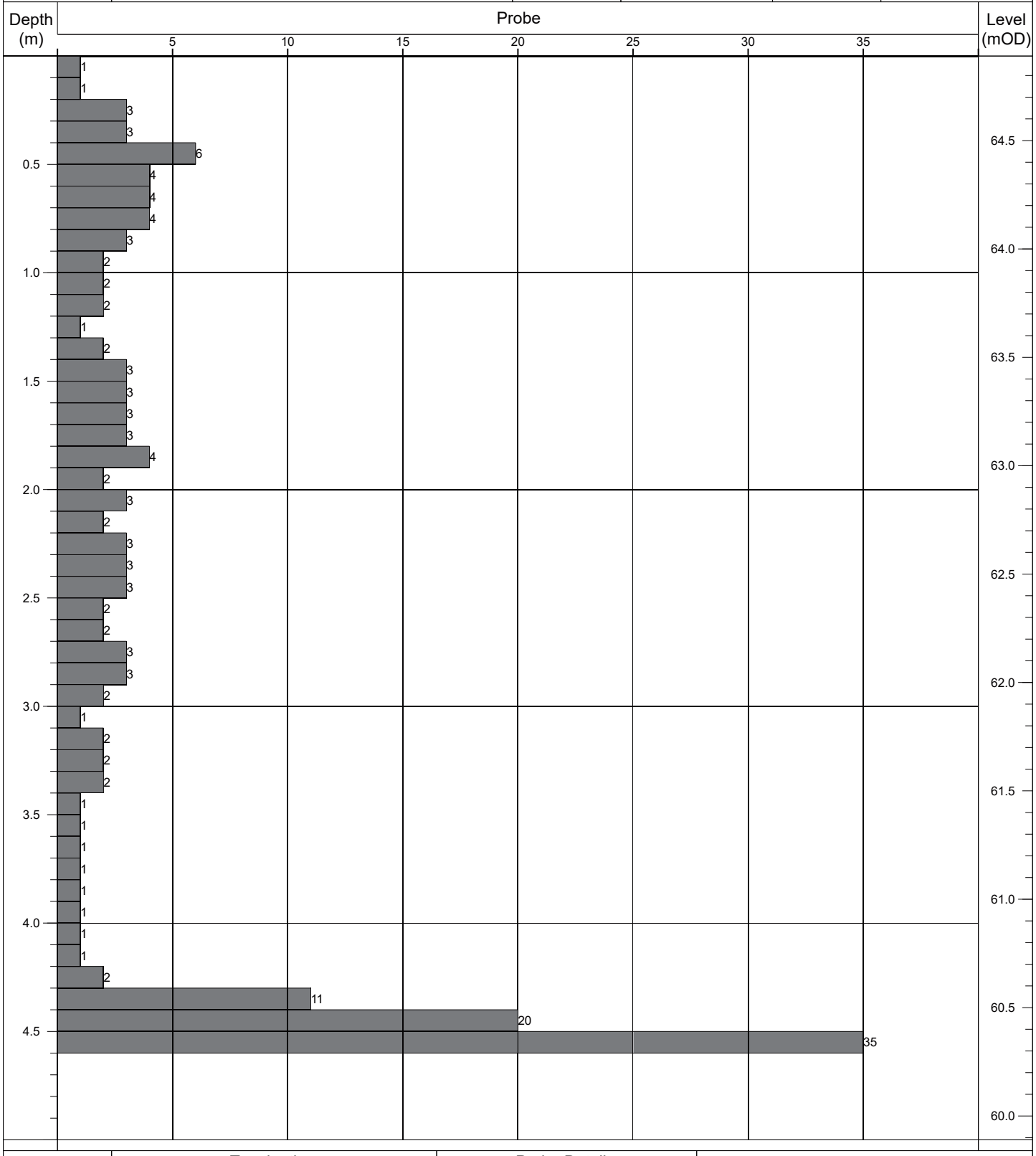
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP023
Contract:	Coolagad	Easting:	727806.243	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713282.792	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.03	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



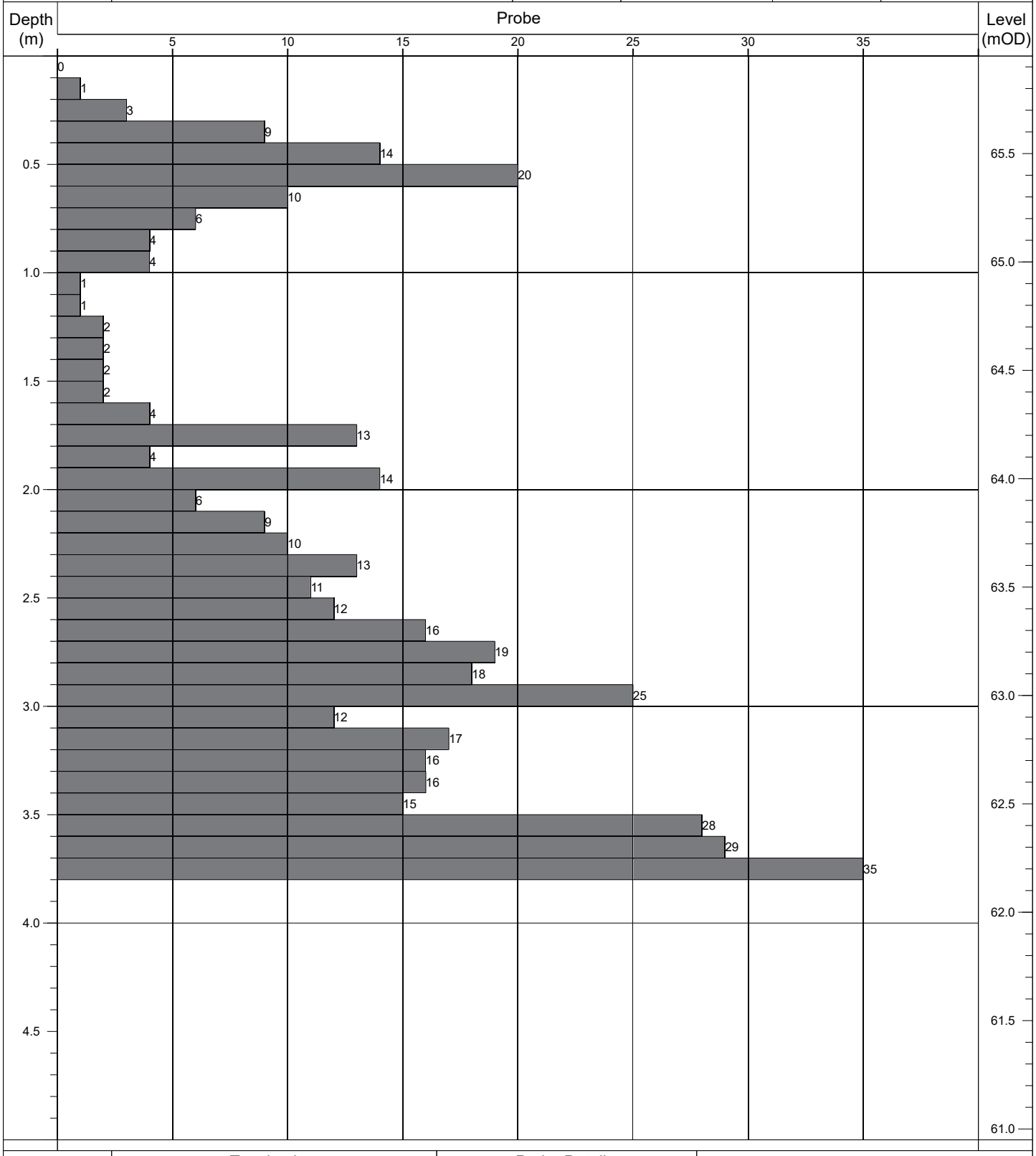
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP024**
Contract:	Coolagad	Easting:	727785.590	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713280.682	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.89	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



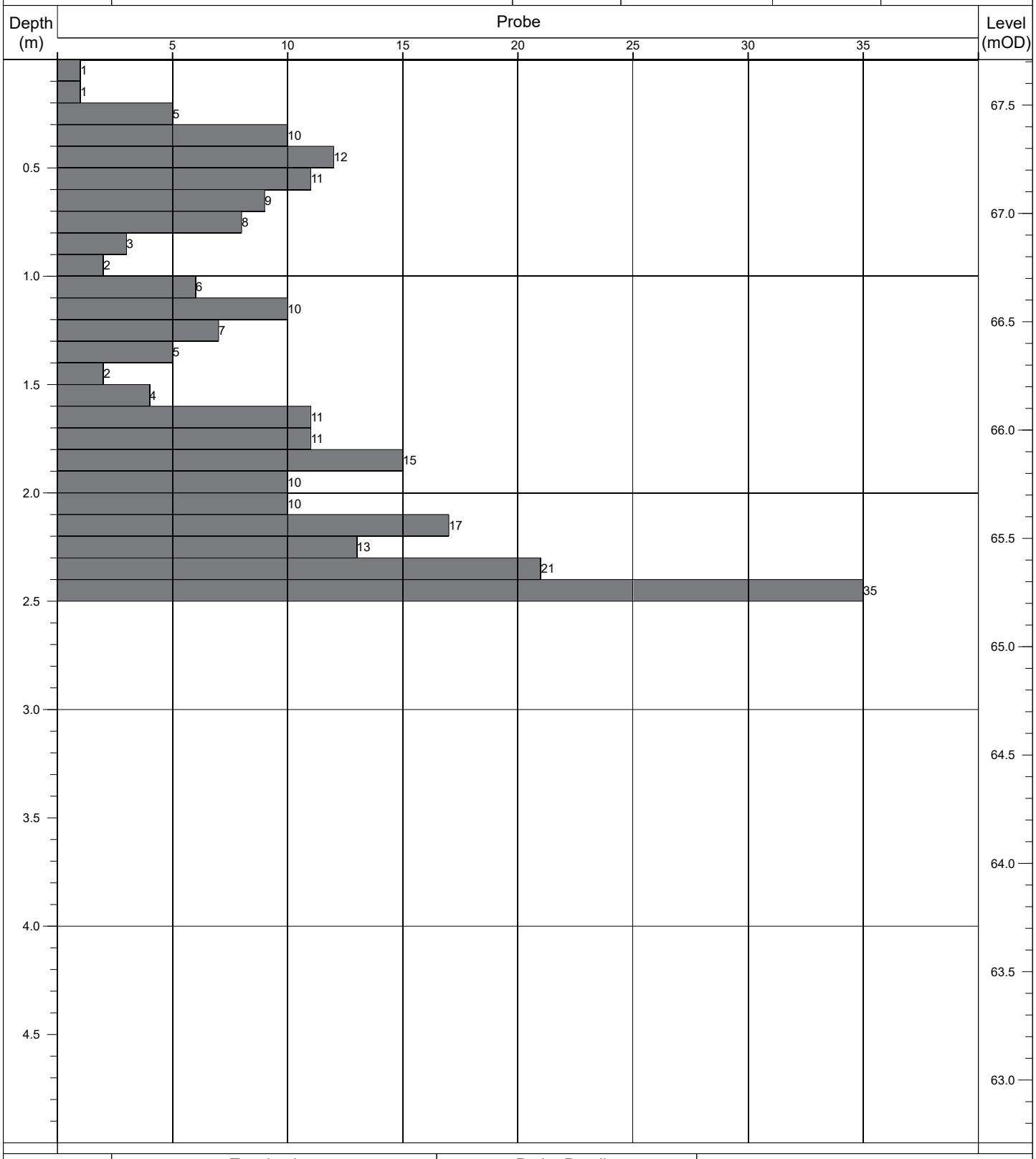
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP025**
Contract:	Coolagad	Easting:	727765.588	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713279.065	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	65.95	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



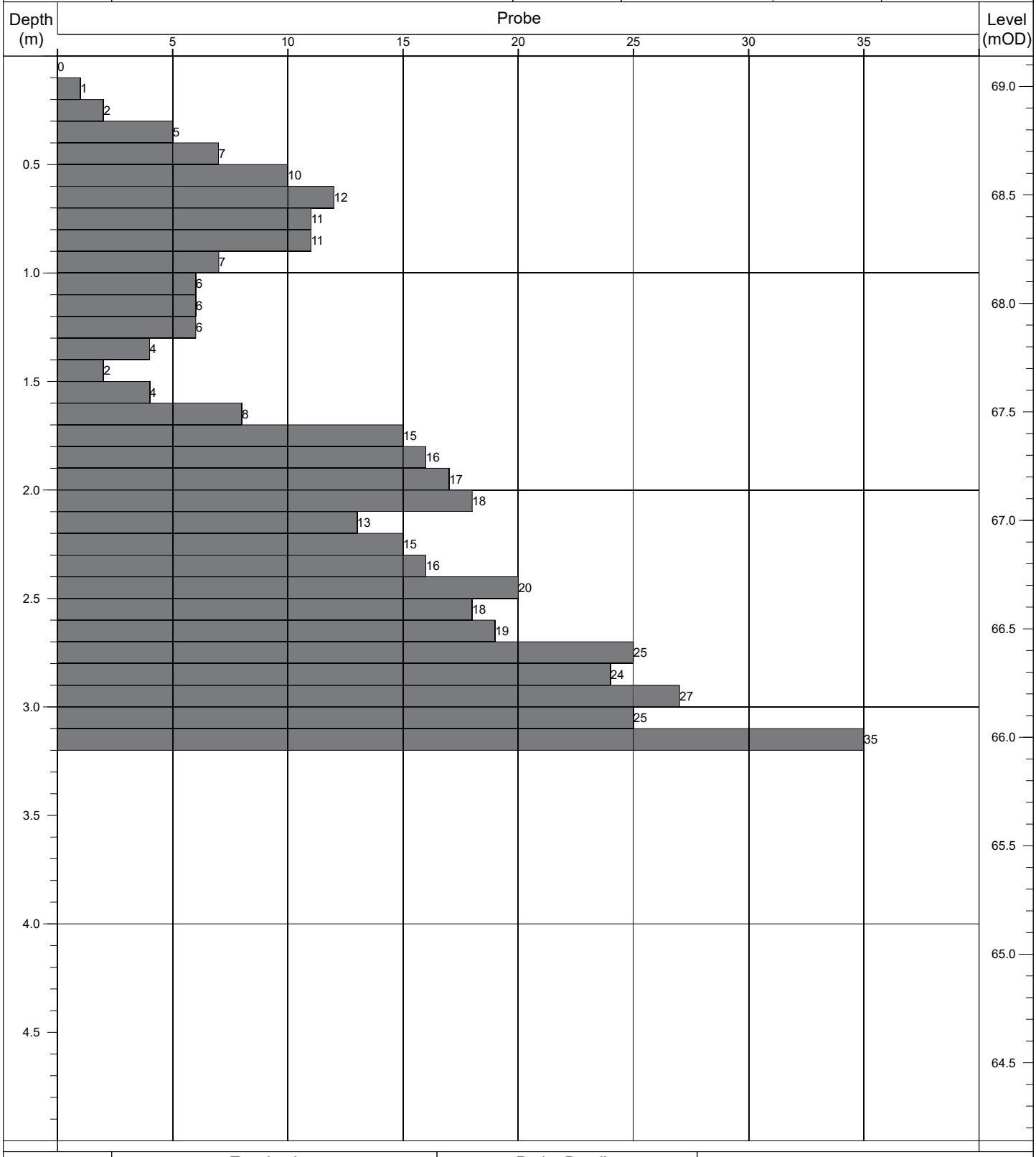
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: **RDP026**
Contract:	Coolagad	Easting:	727745.722	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713278.032	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.71	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



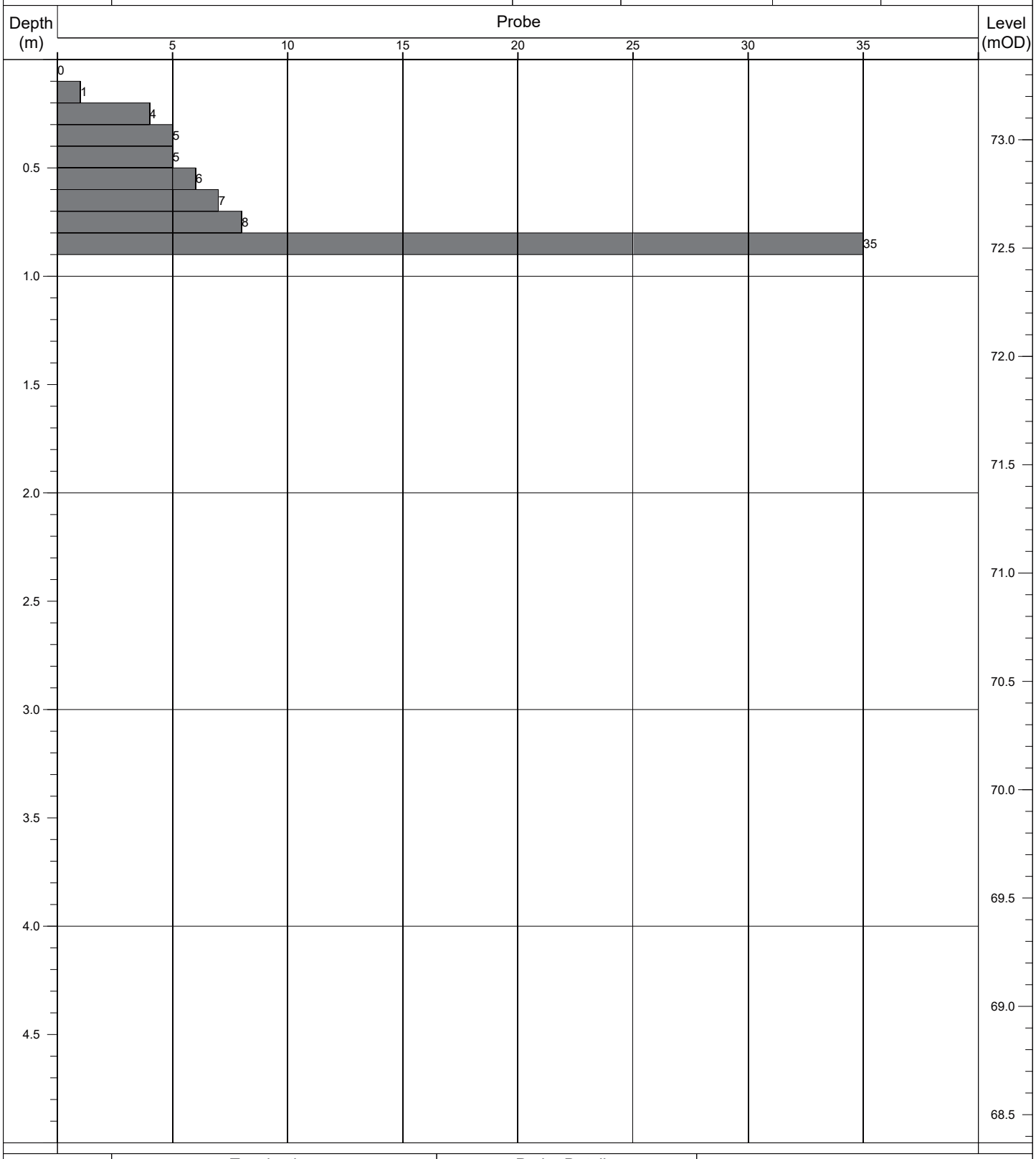
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP027**
Contract:	Coolagad	Easting:	727725.980	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713277.110	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.14	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



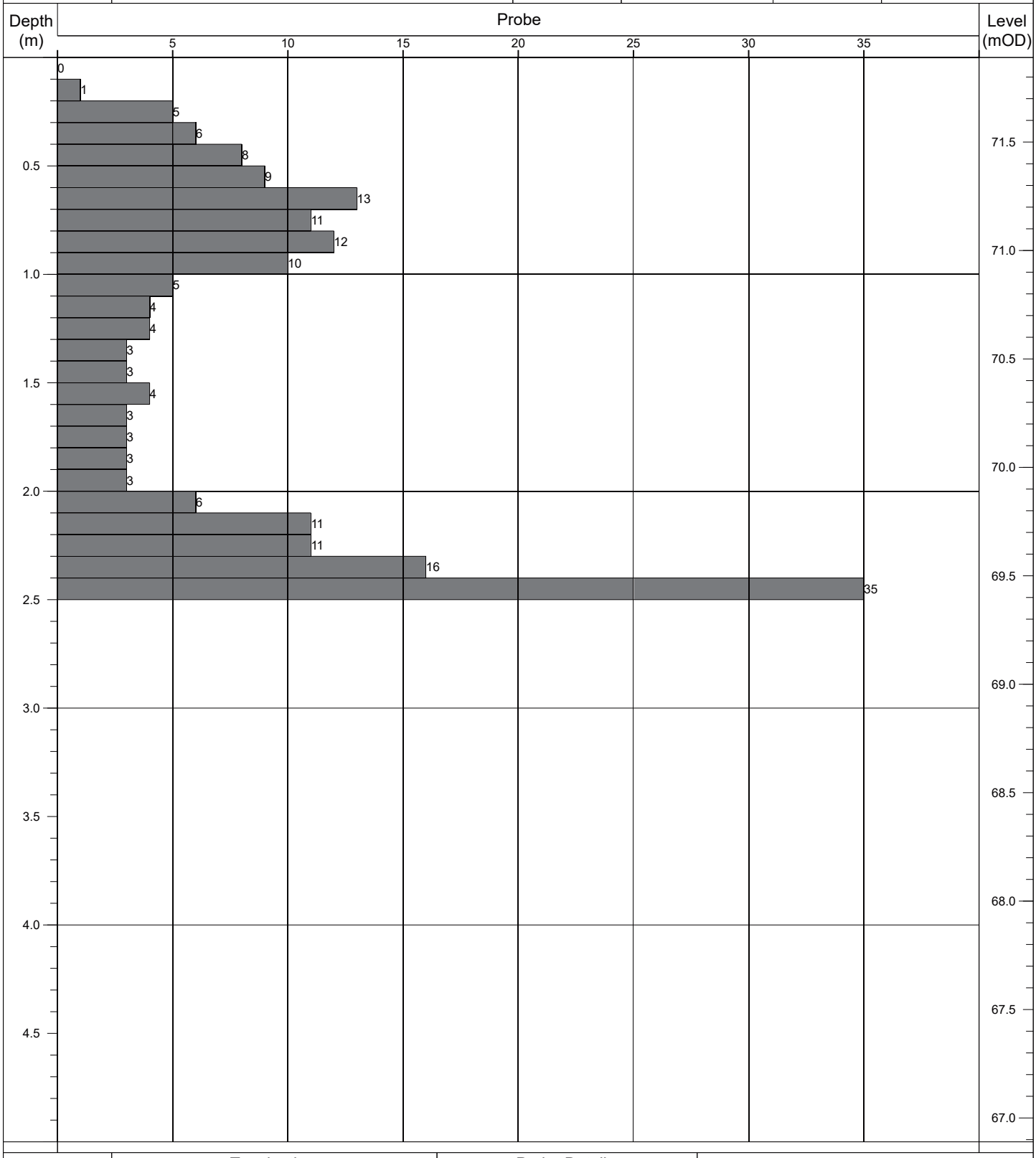
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP028**
Contract:	Coolagad	Easting:	727695.007	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713276.970	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.37	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



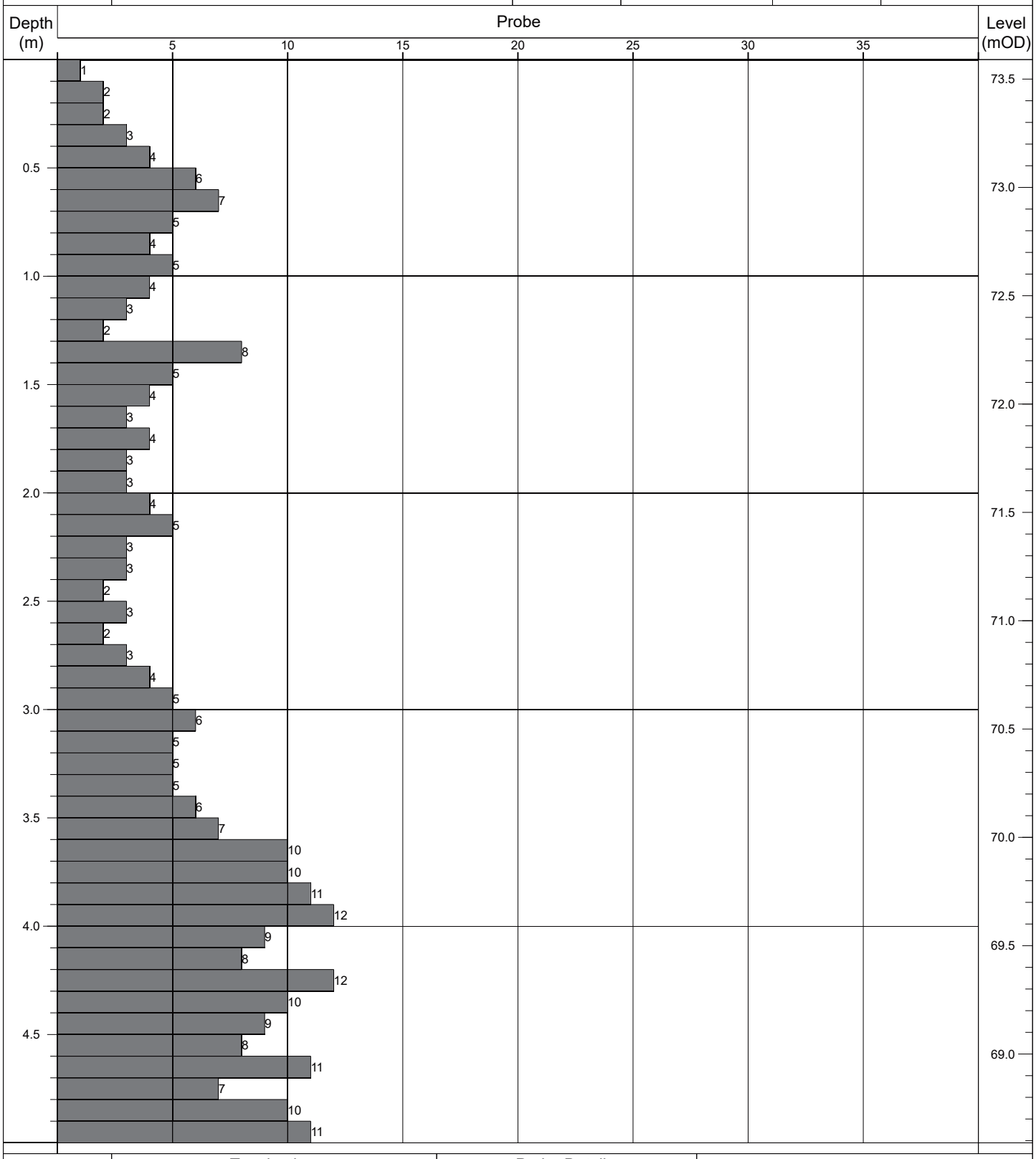
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
0.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP029**
Contract:	Coolagad	Easting:	727686.276	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713280.848	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.89	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



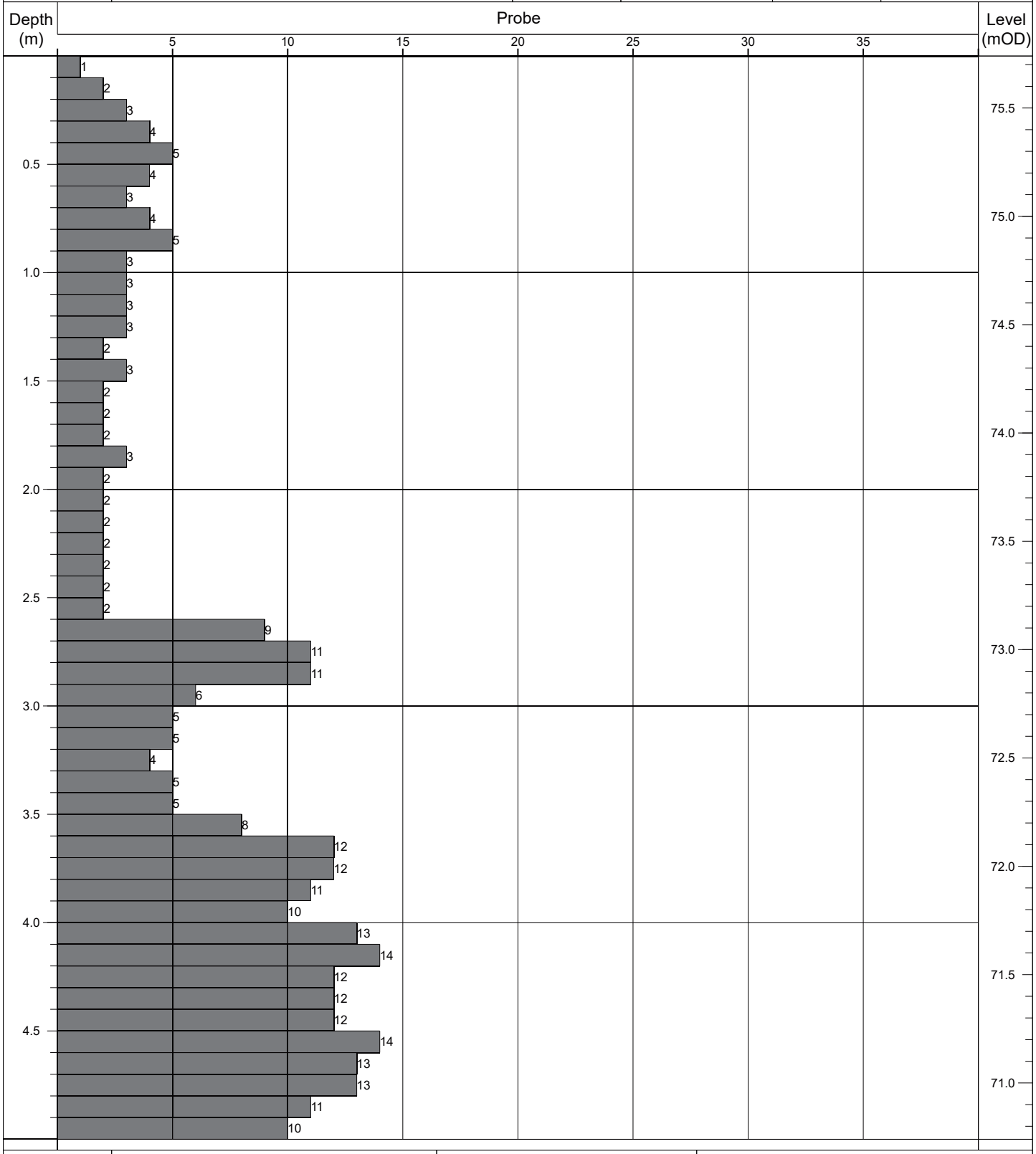
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP030**
Contract:	Coolagad	Easting:	727666.148	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713284.432	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.59	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



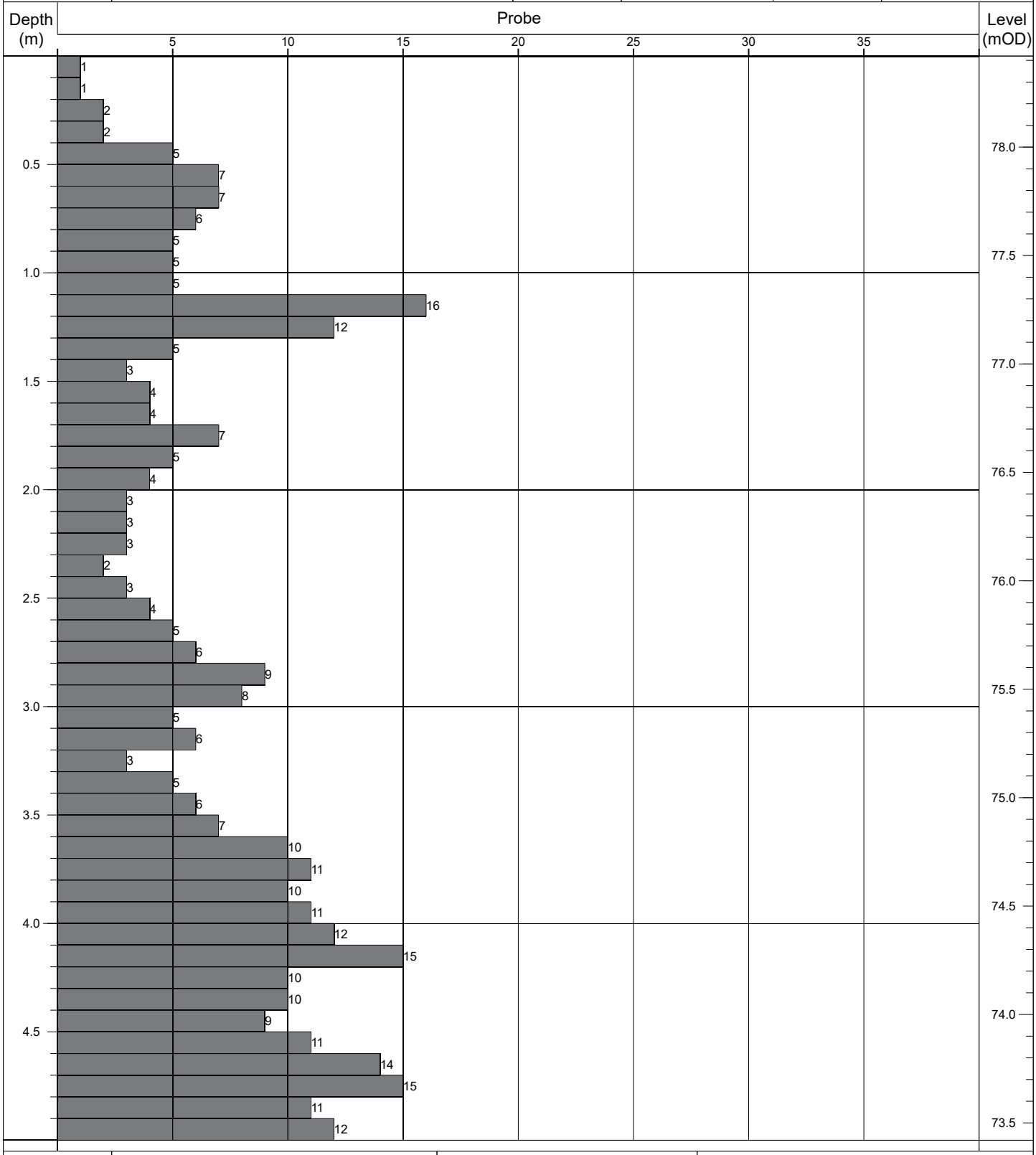
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP031**
Contract:	Coolagad	Easting:	727646.970	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713290.536	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	75.74	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



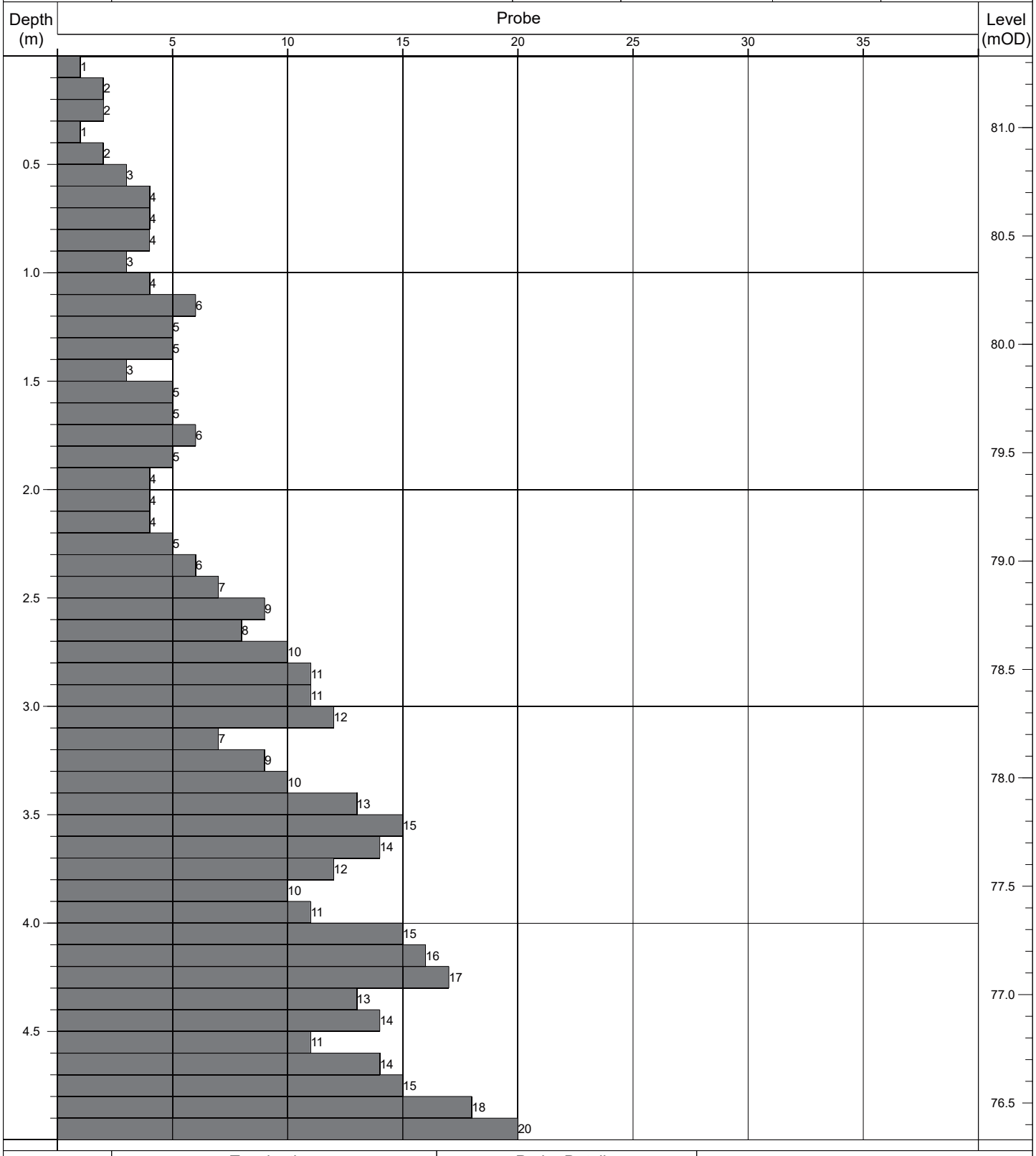
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP032**
Contract:	Coolagad	Easting:	727627.185	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713293.738	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	78.42	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



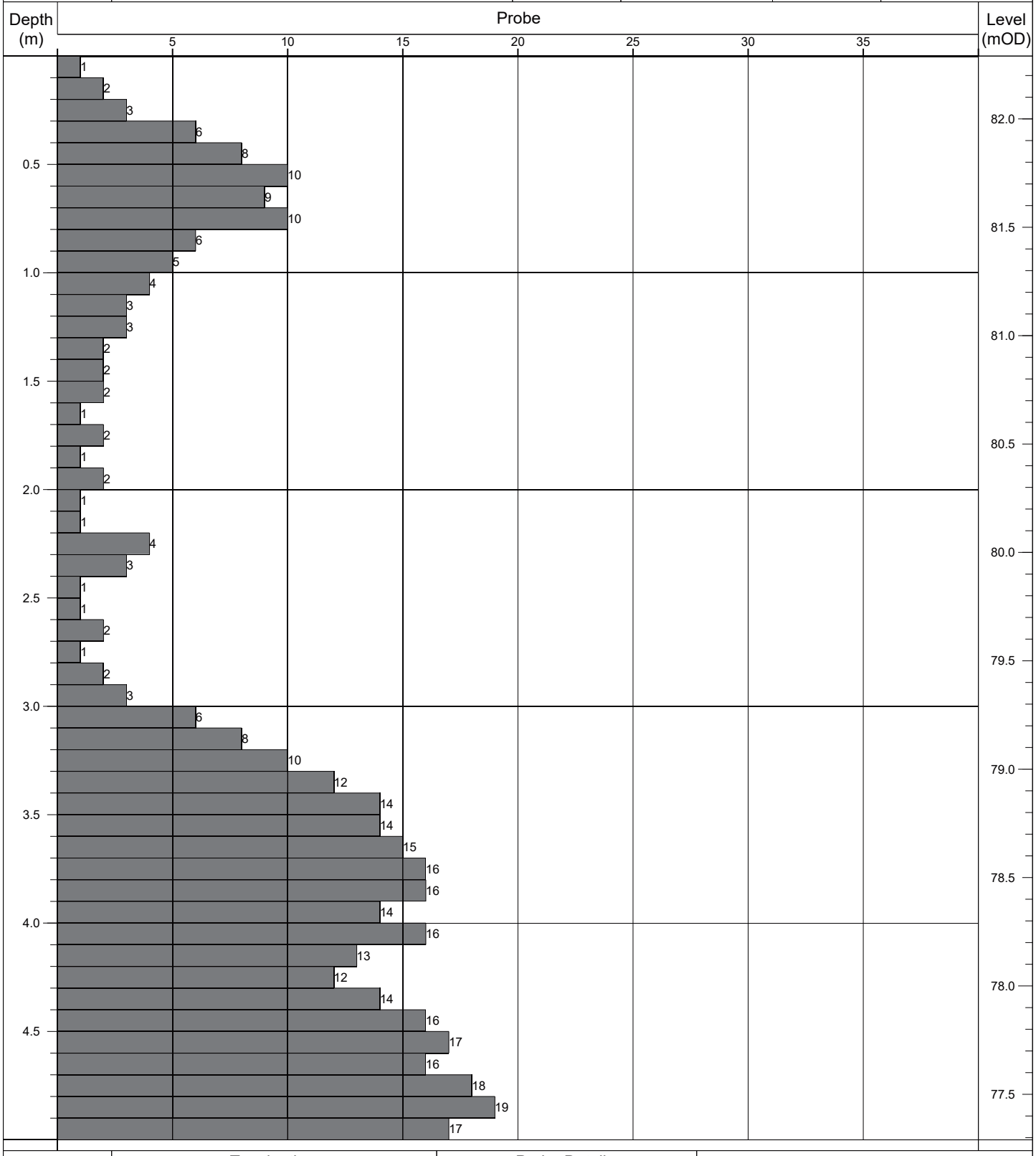
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP033**
Contract:	Coolagad	Easting:	727607.277	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713294.553	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.33	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



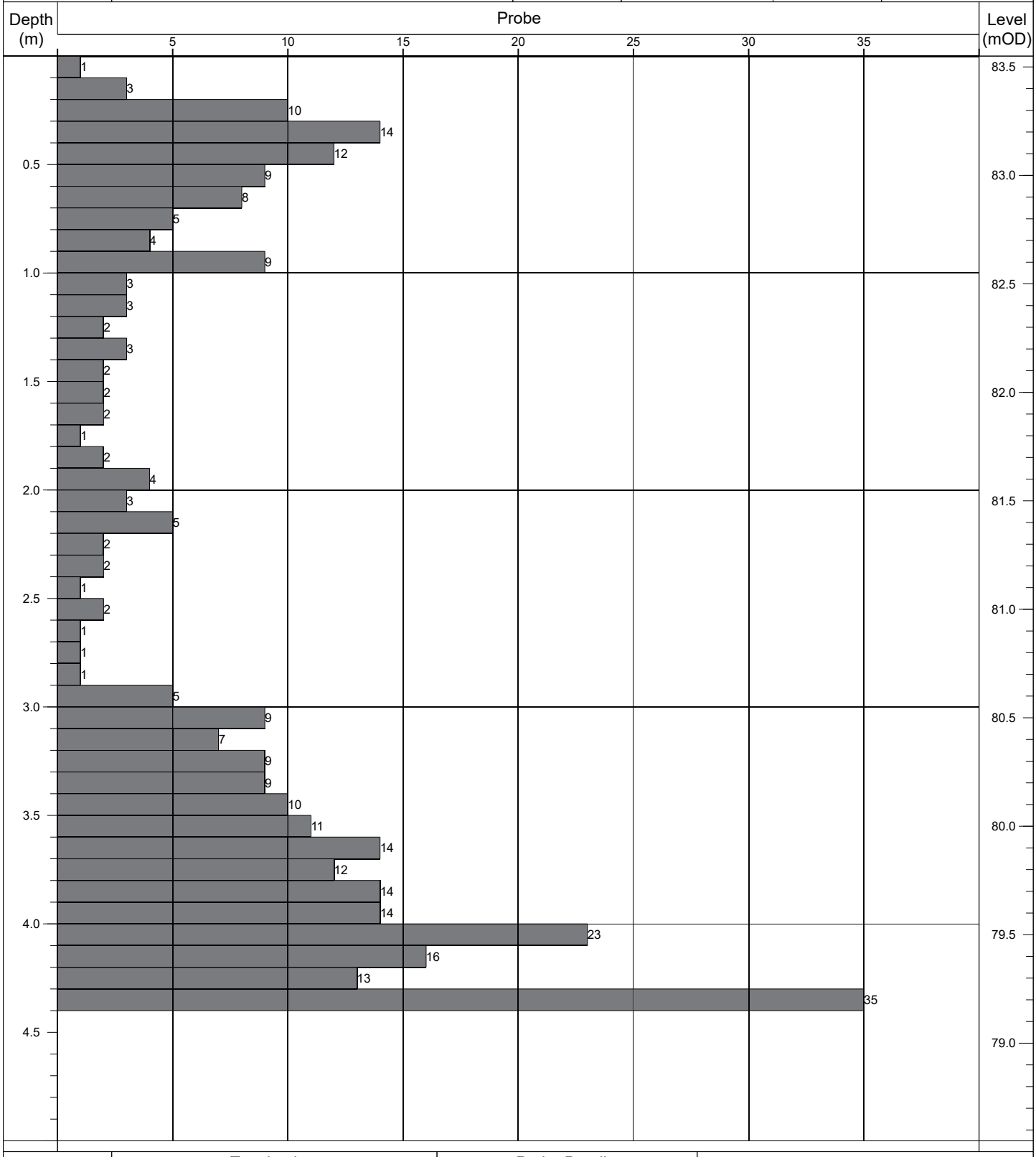
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP034**
Contract:	Coolagad	Easting:	727588.009	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713290.515	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	82.29	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



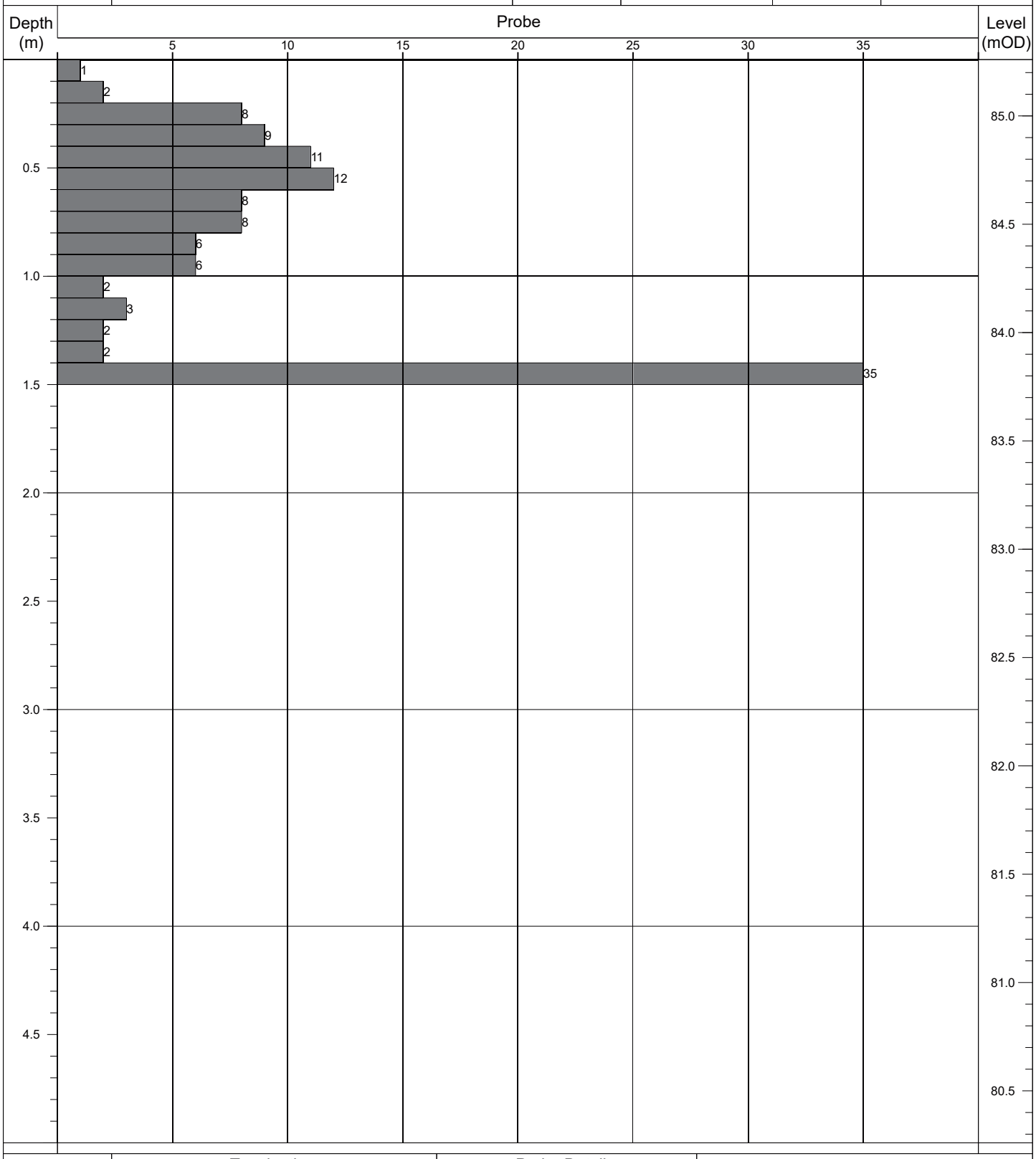
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP035**
Contract:	Coolagad	Easting:	727572.018	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713285.941	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	83.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



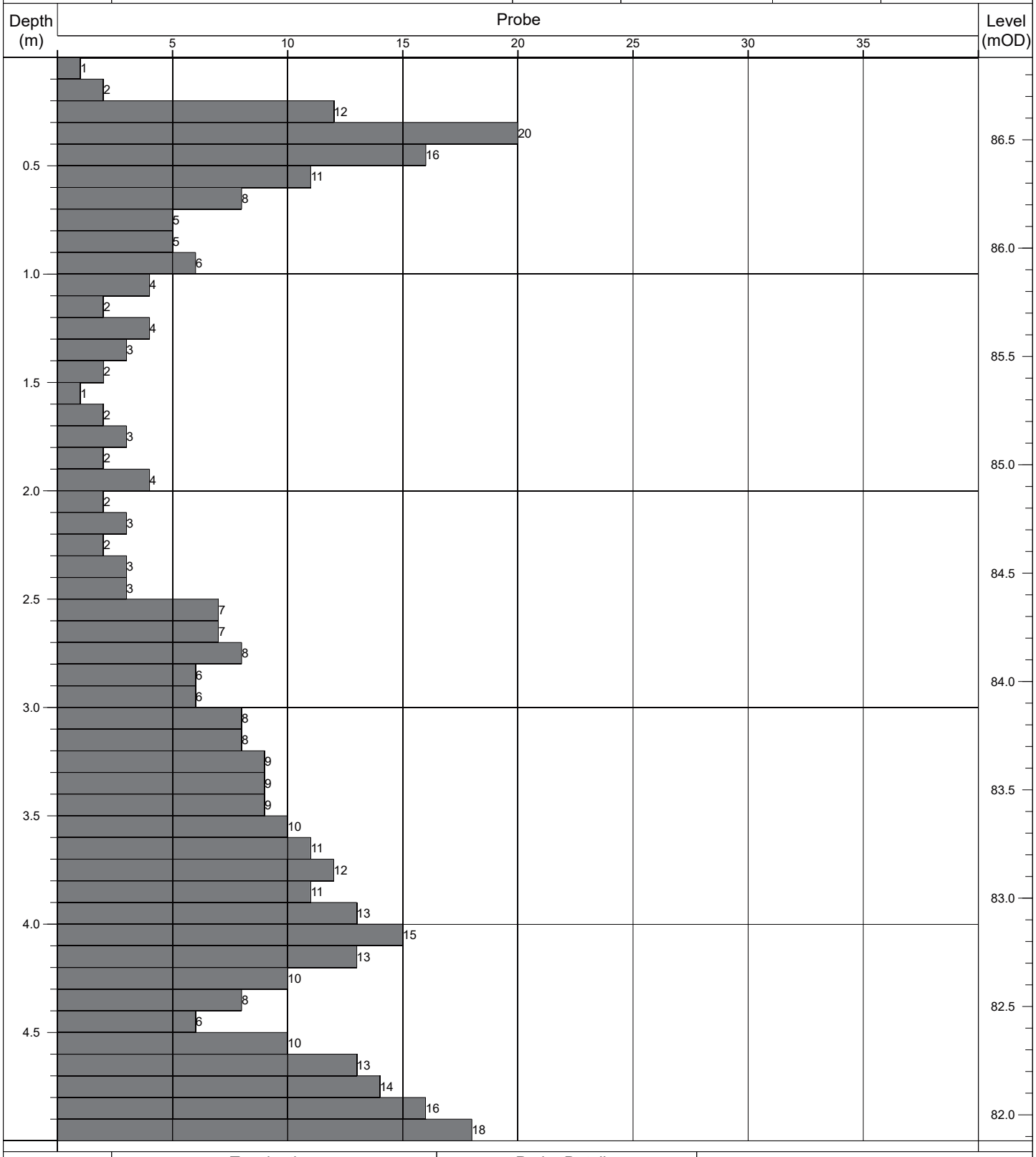
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP036**
Contract:	Coolagad	Easting:	727549.733	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713278.305	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	85.26	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



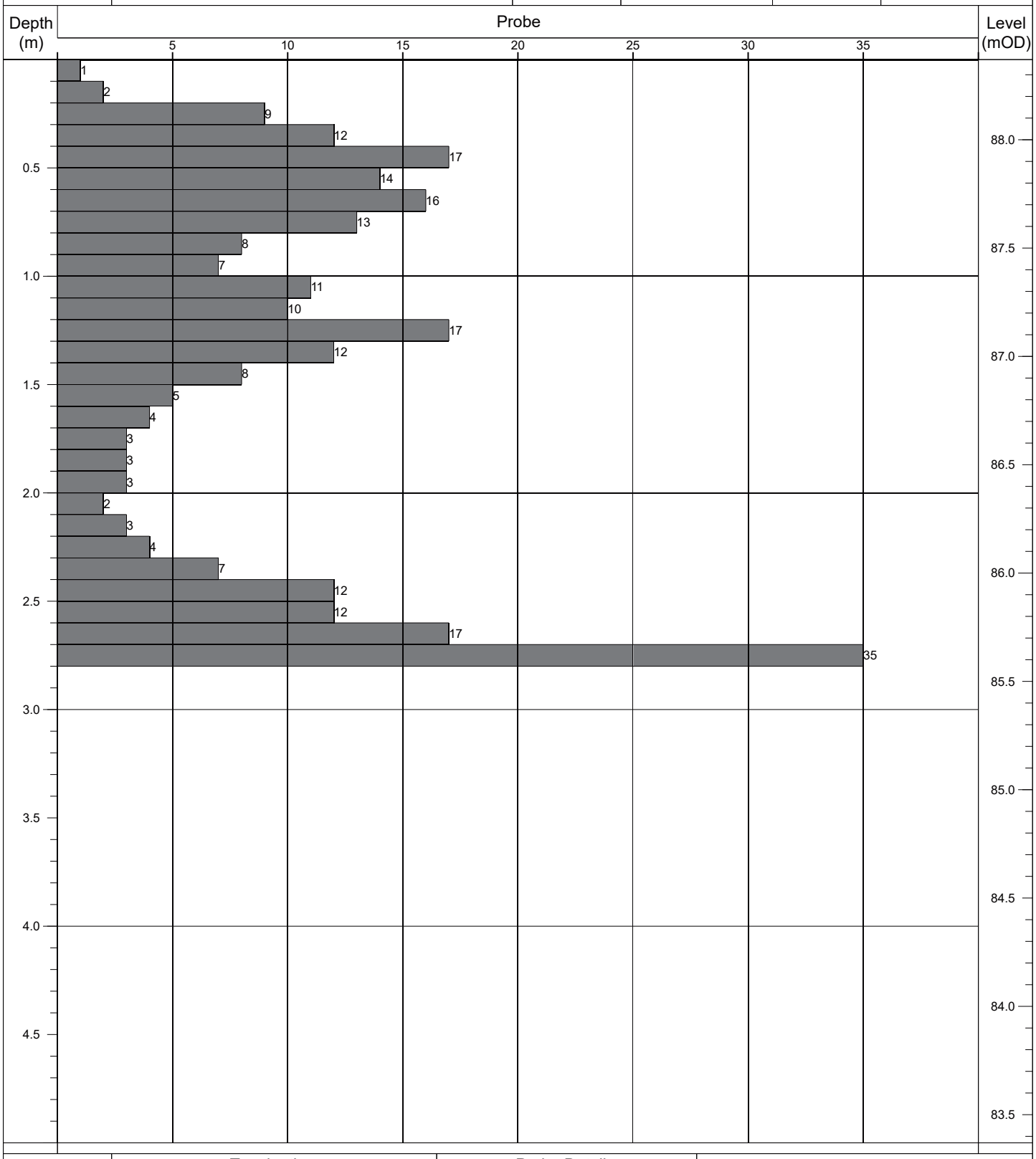
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP037**
Contract:	Coolagad	Easting:	727530.154	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713271.365	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	86.88	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



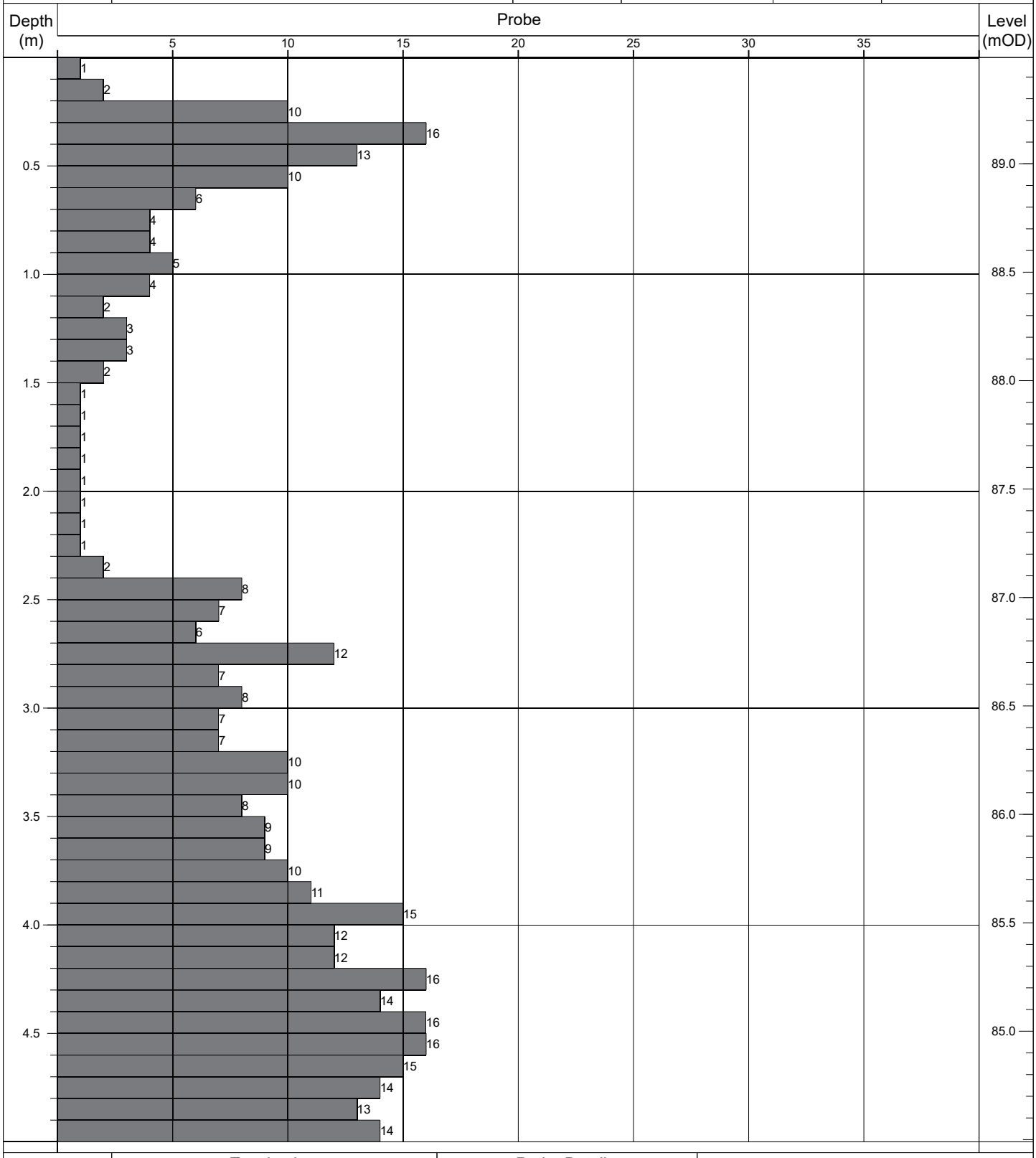
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP038
Contract:	Coolagad	Easting:	727513.611	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713261.362	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	88.37	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



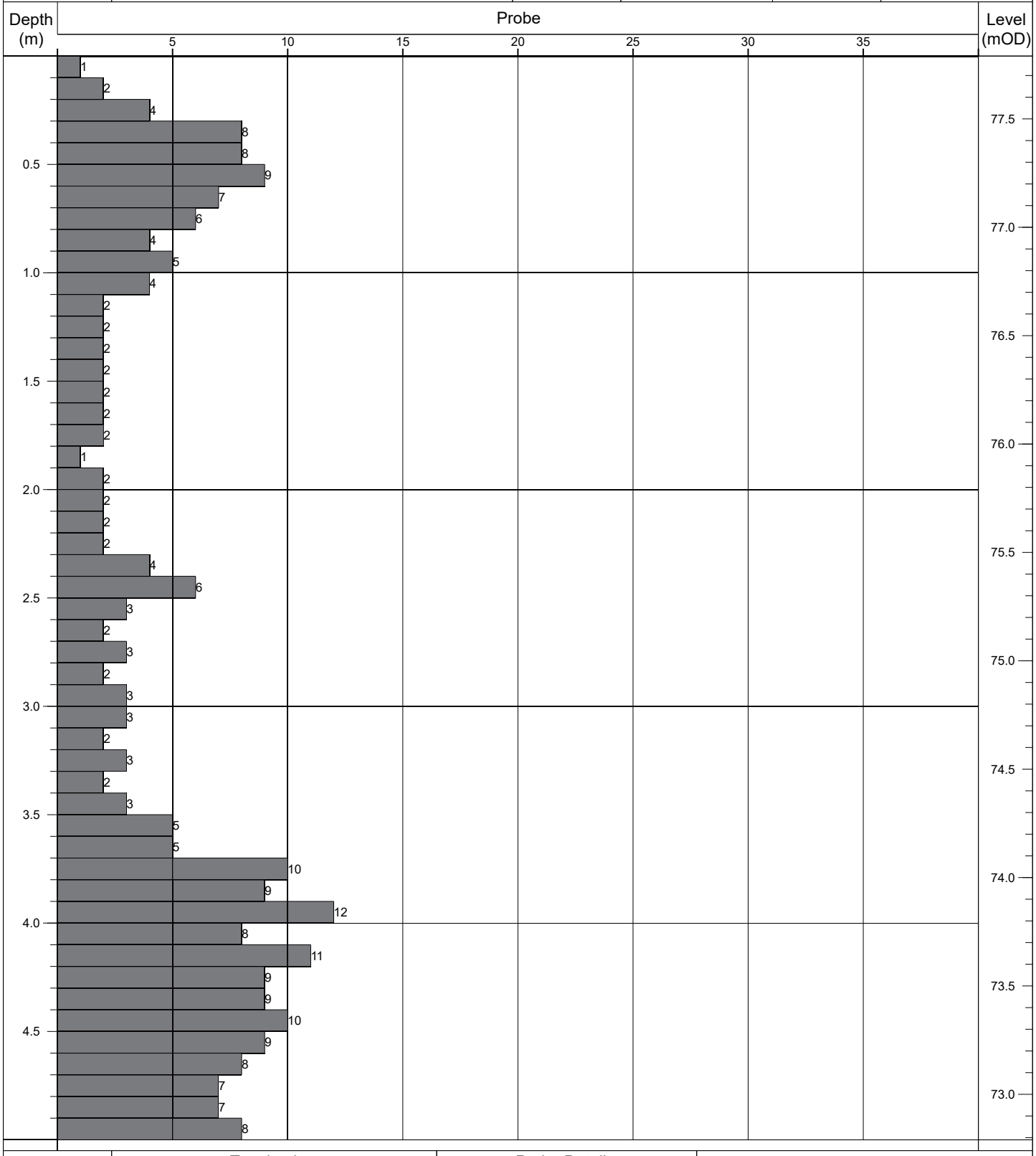
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP039**
Contract:	Coolagad	Easting:	727498.593	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713249.000	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	89.49	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



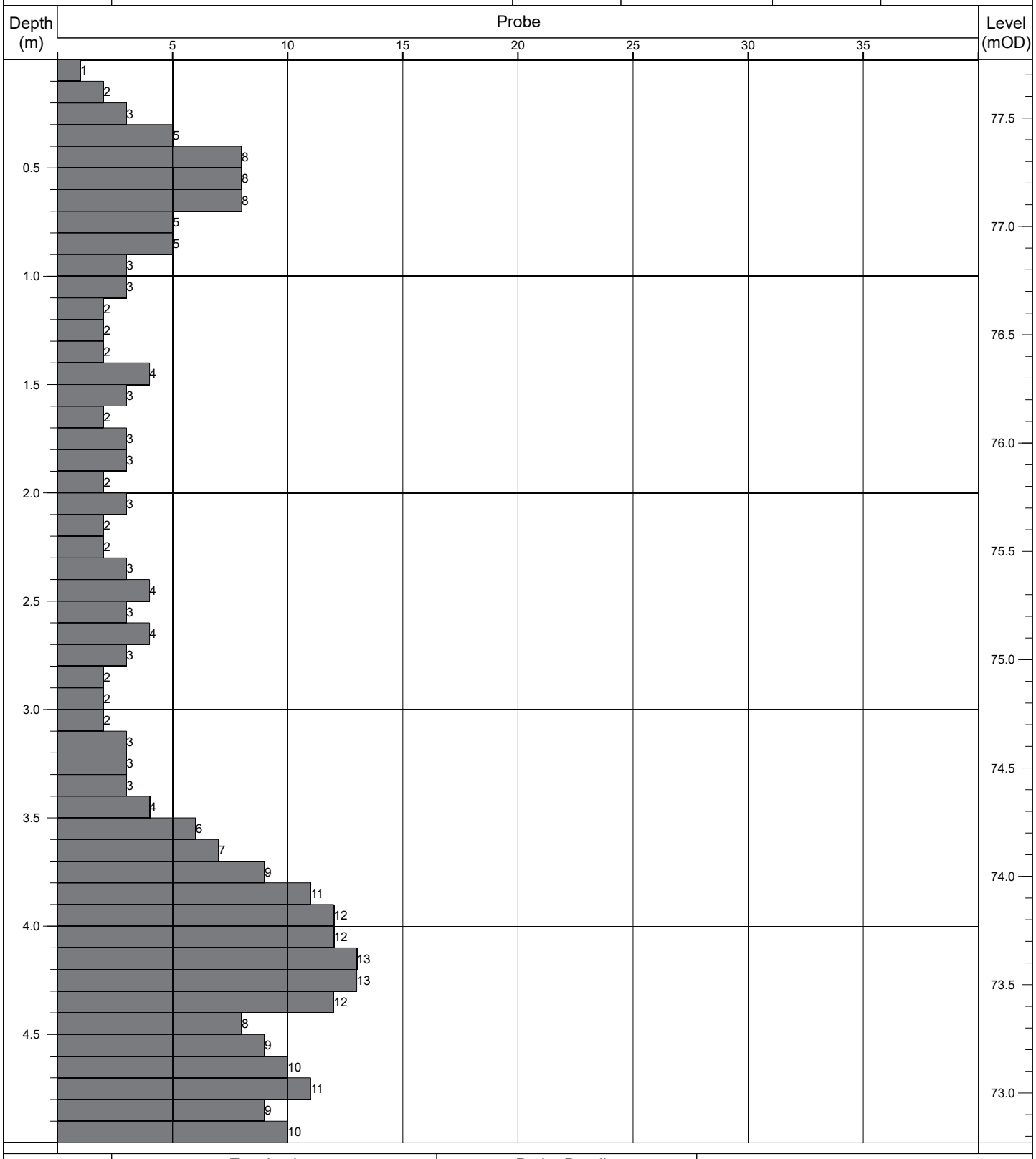
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP040**
Contract:	Coolagad	Easting:	727631.774	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713272.791	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.79	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



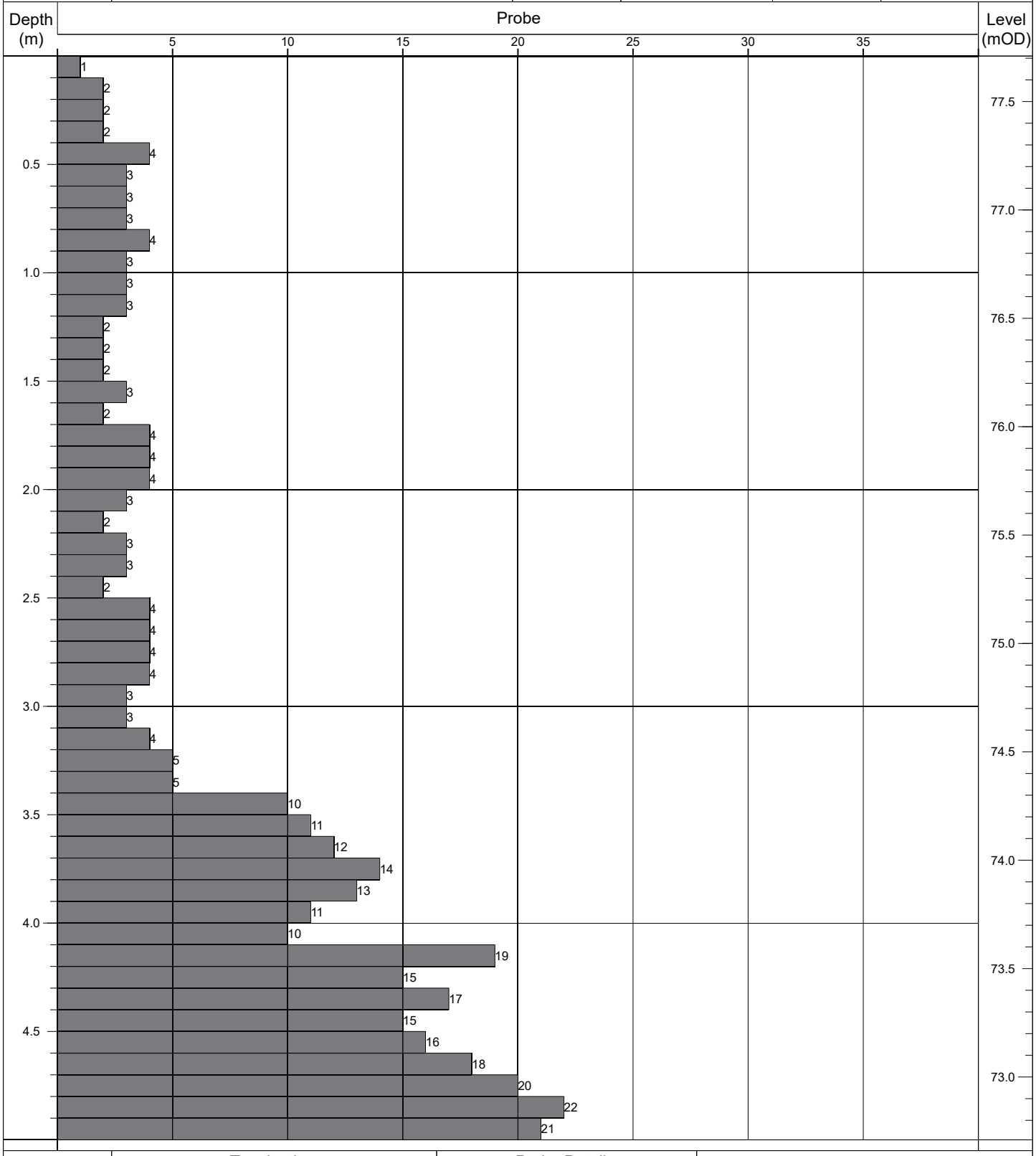
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP041**
Contract:	Coolagad	Easting:	727630.804	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713253.048	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.77	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



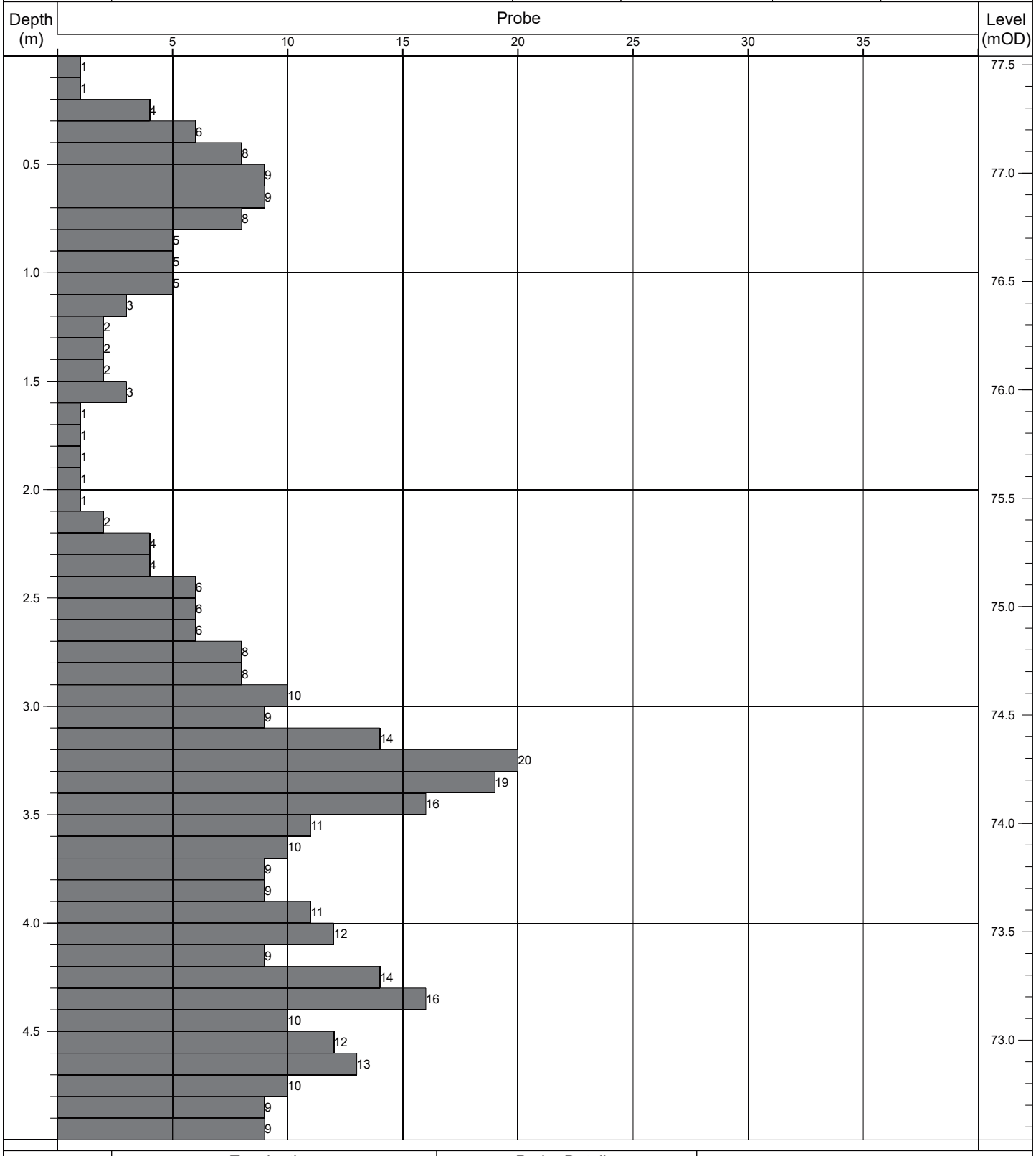
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP042**
Contract:	Coolagad	Easting:	727630.316	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713213.078	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.71	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



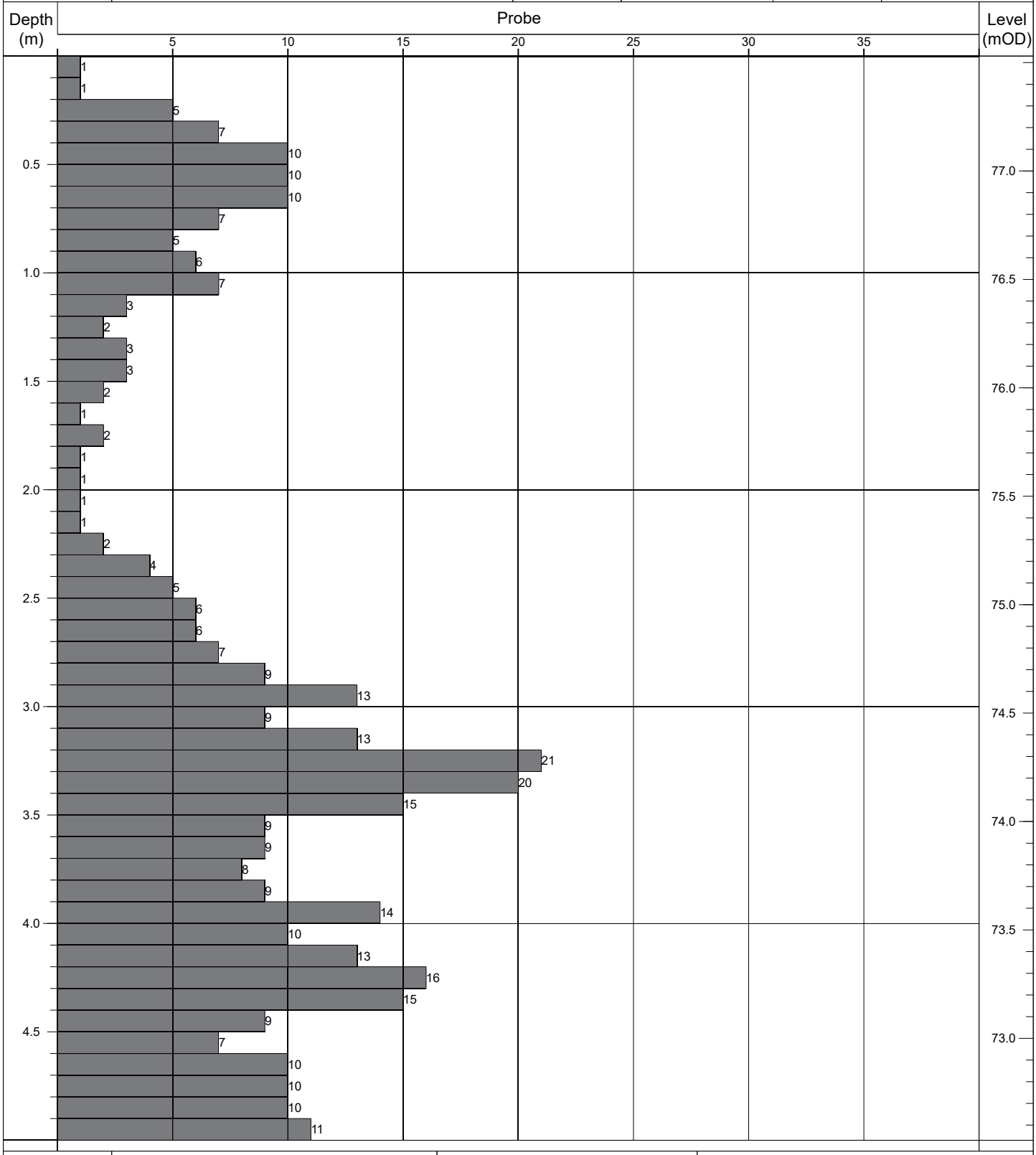
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP043
Contract:	Coolagad	Easting:	727634.254	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713201.043	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.54	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



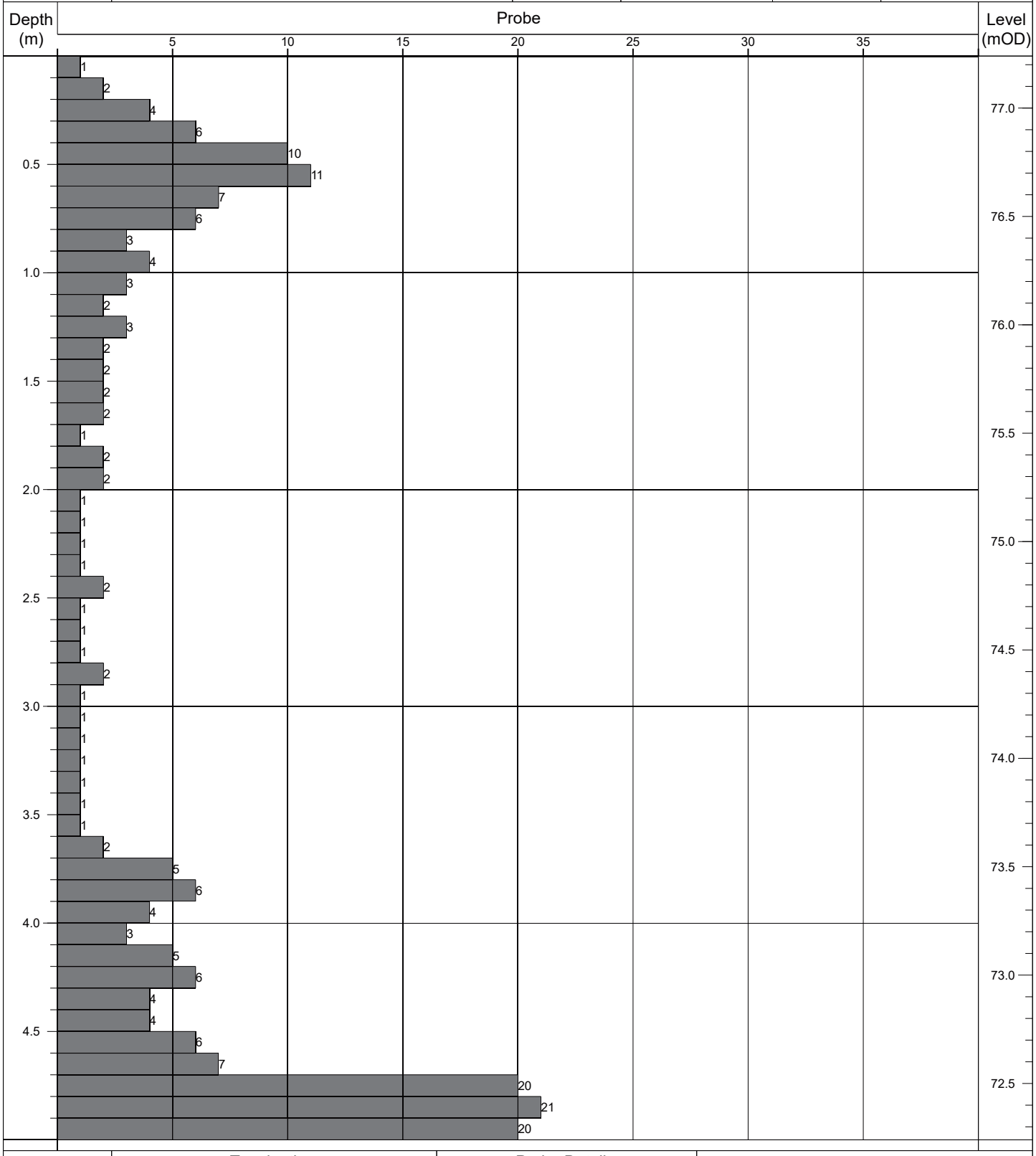
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP044**
Contract:	Coolagad	Easting:	727636.233	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713188.975	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.53	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



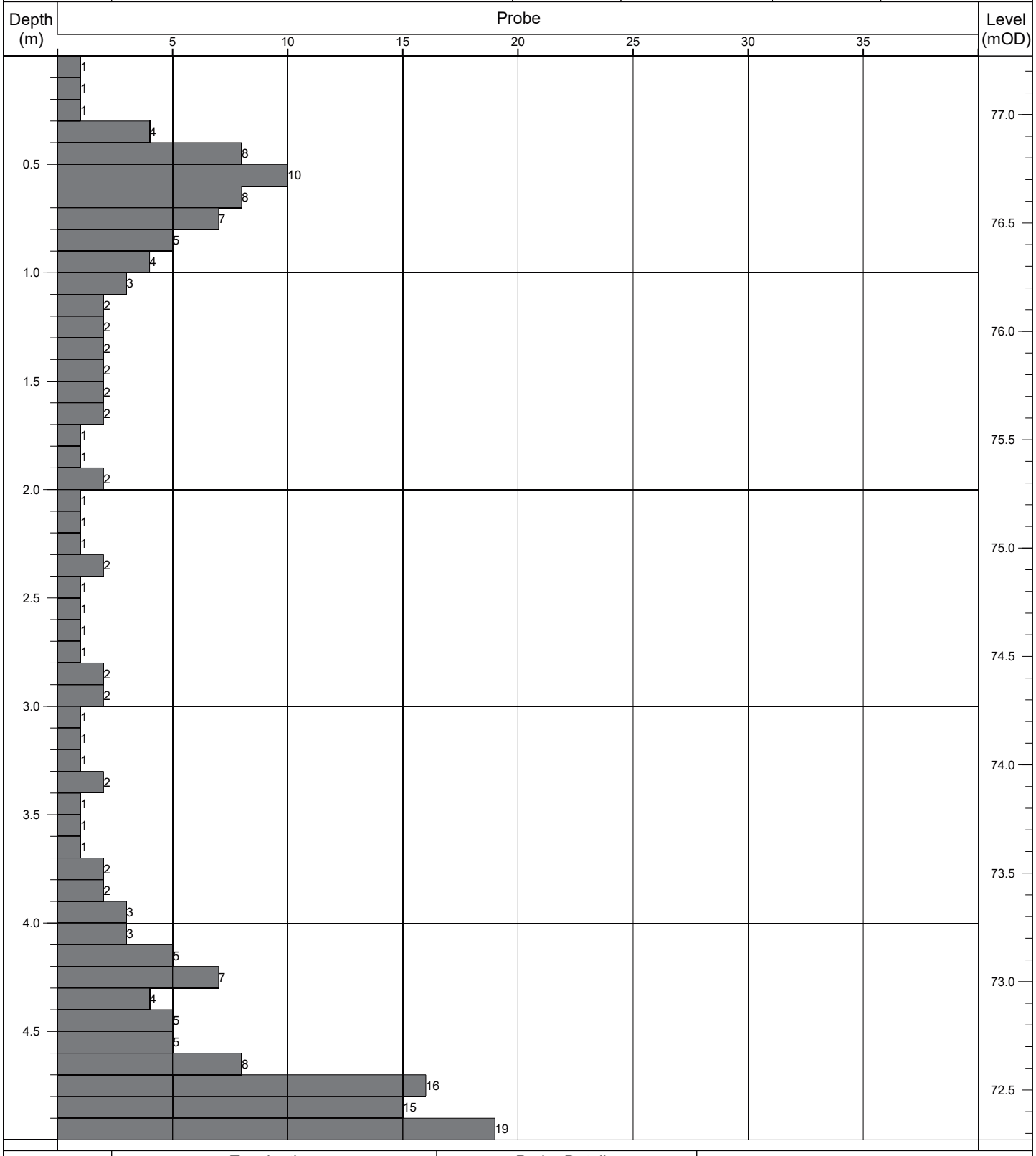
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP045**
Contract:	Coolagad	Easting:	727640.350	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713174.085	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.24	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



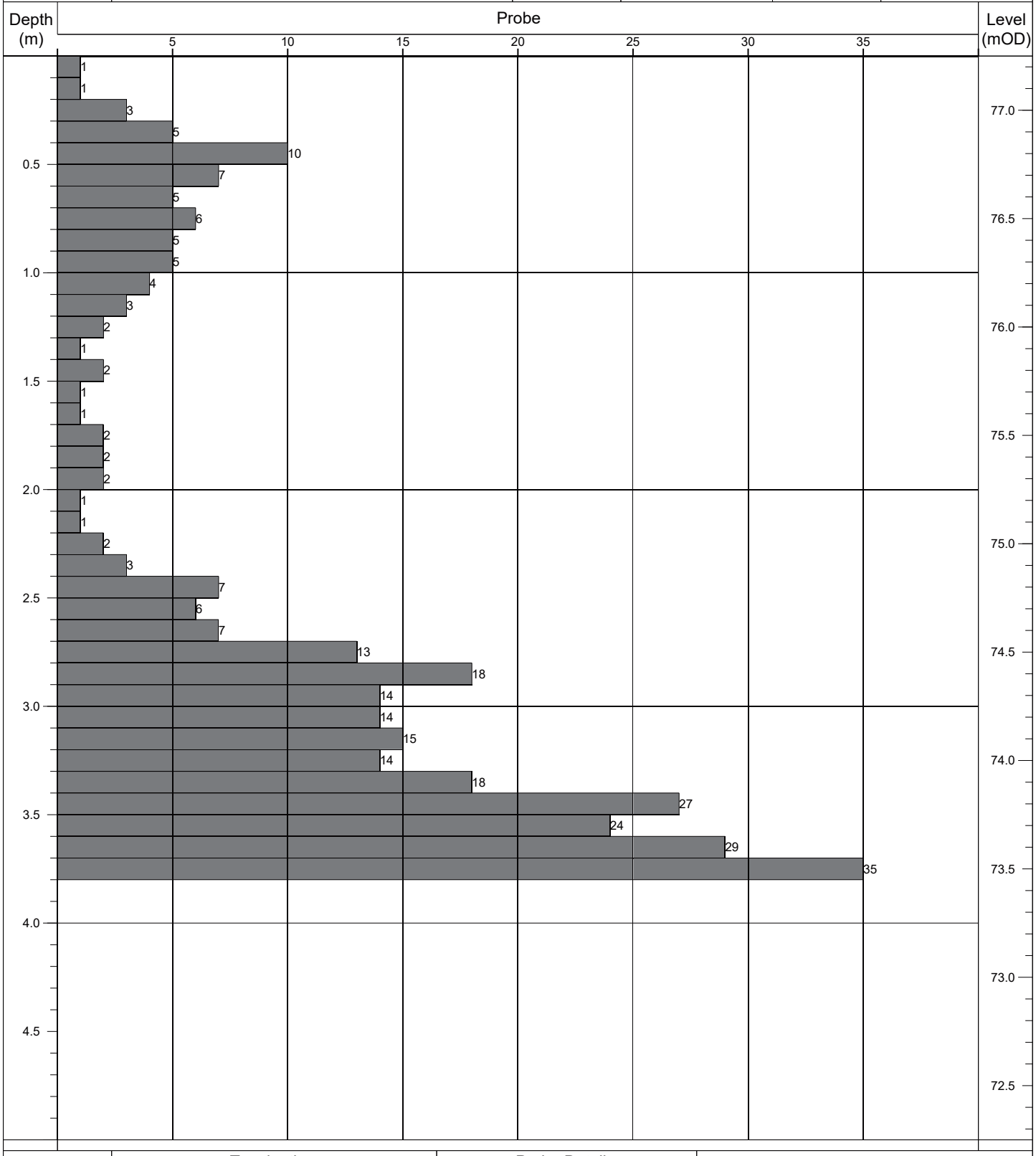
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP046**
Contract:	Coolagad	Easting:	727641.956	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713154.940	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.27	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



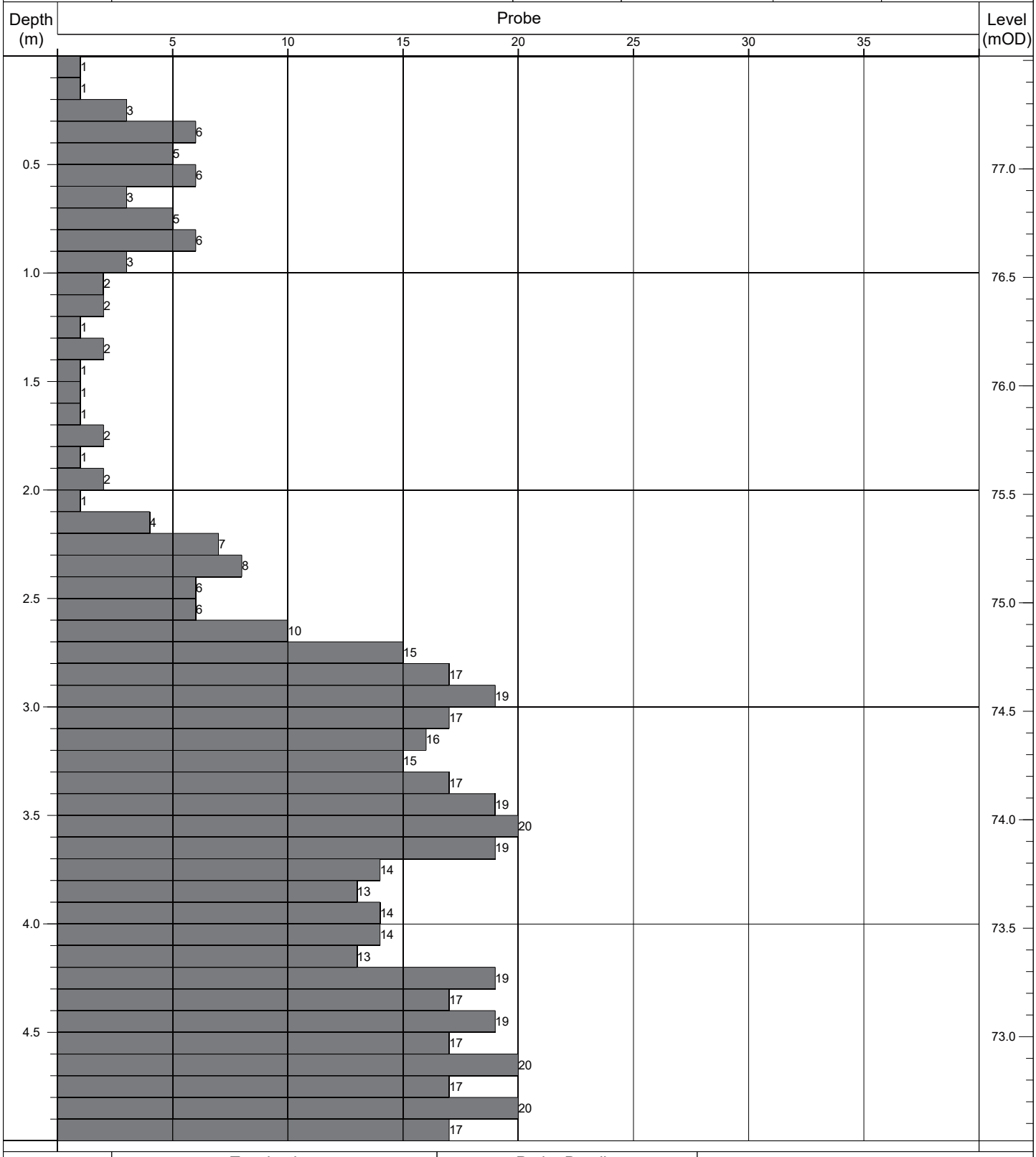
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP047**
Contract:	Coolagad	Easting:	727643.116	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713134.553	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.25	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



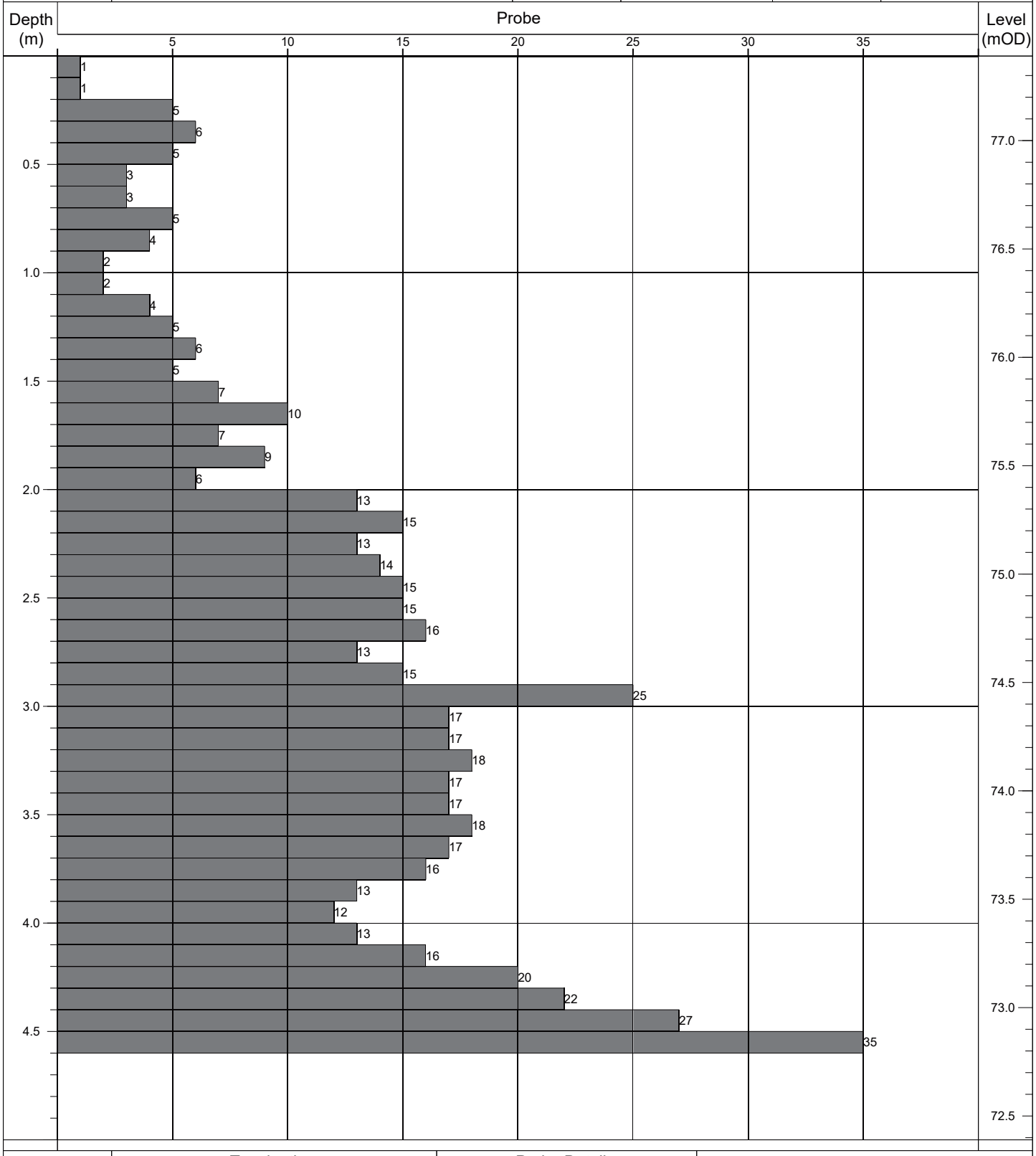
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP048**
Contract:	Coolagad	Easting:	727644.584	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713114.762	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.52	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



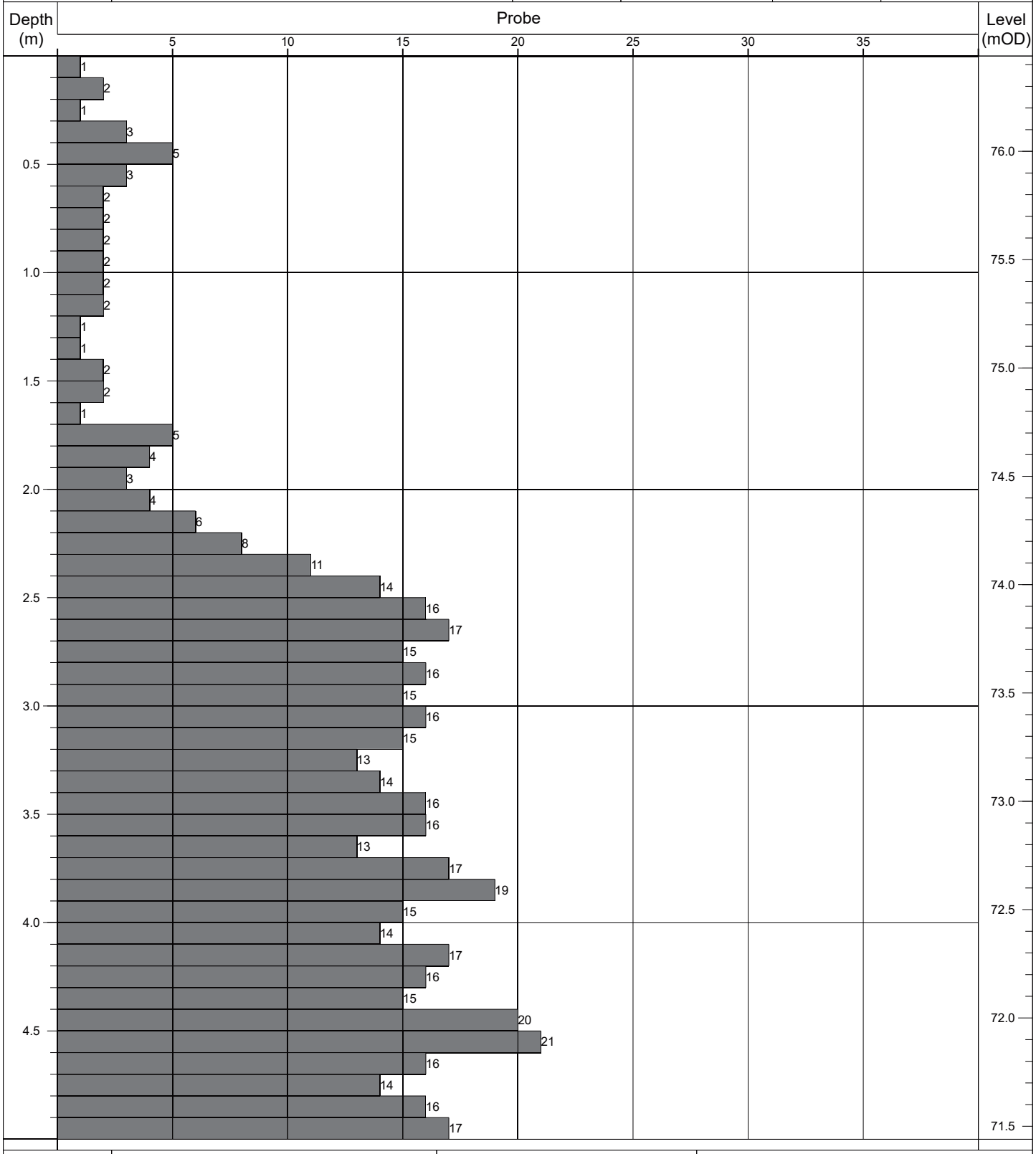
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP049
Contract:	Coolagad	Easting:	727647.102	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713094.819	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	77.39	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



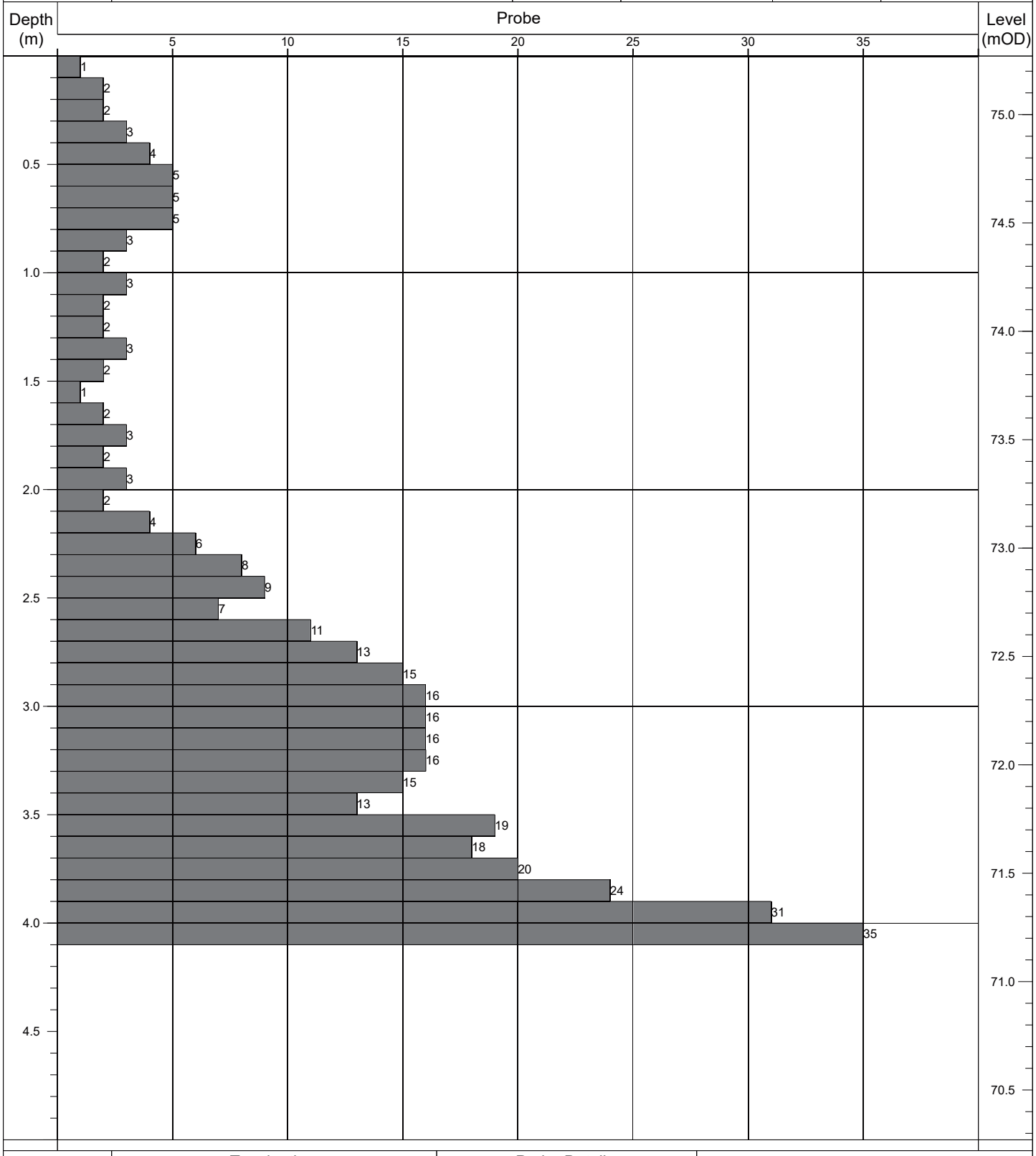
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP050**
Contract:	Coolagad	Easting:	727657.671	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713078.986	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	76.44	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



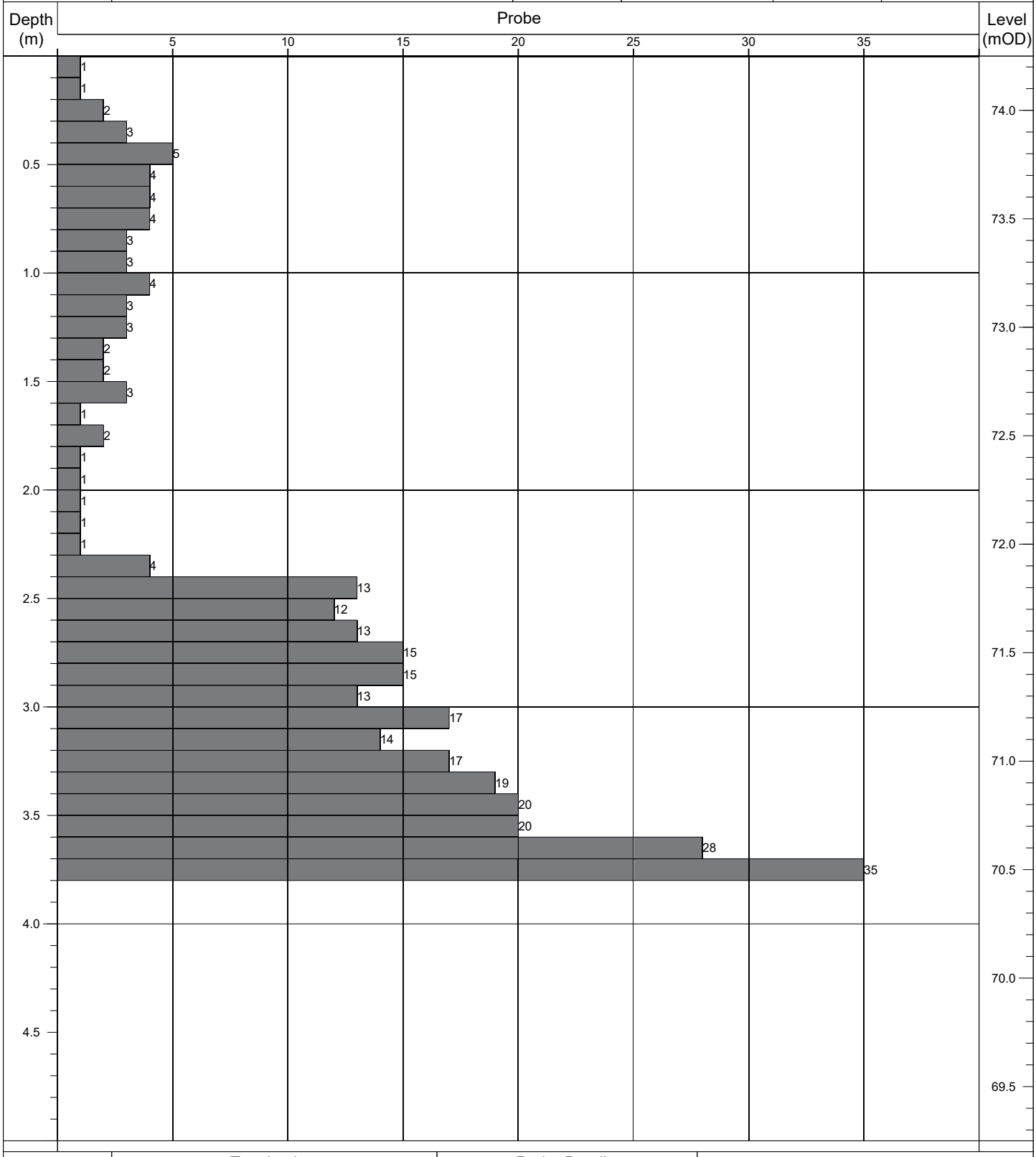
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP051**
Contract:	Coolagad	Easting:	727670.889	Date Started:	19/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713066.939	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	75.27	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



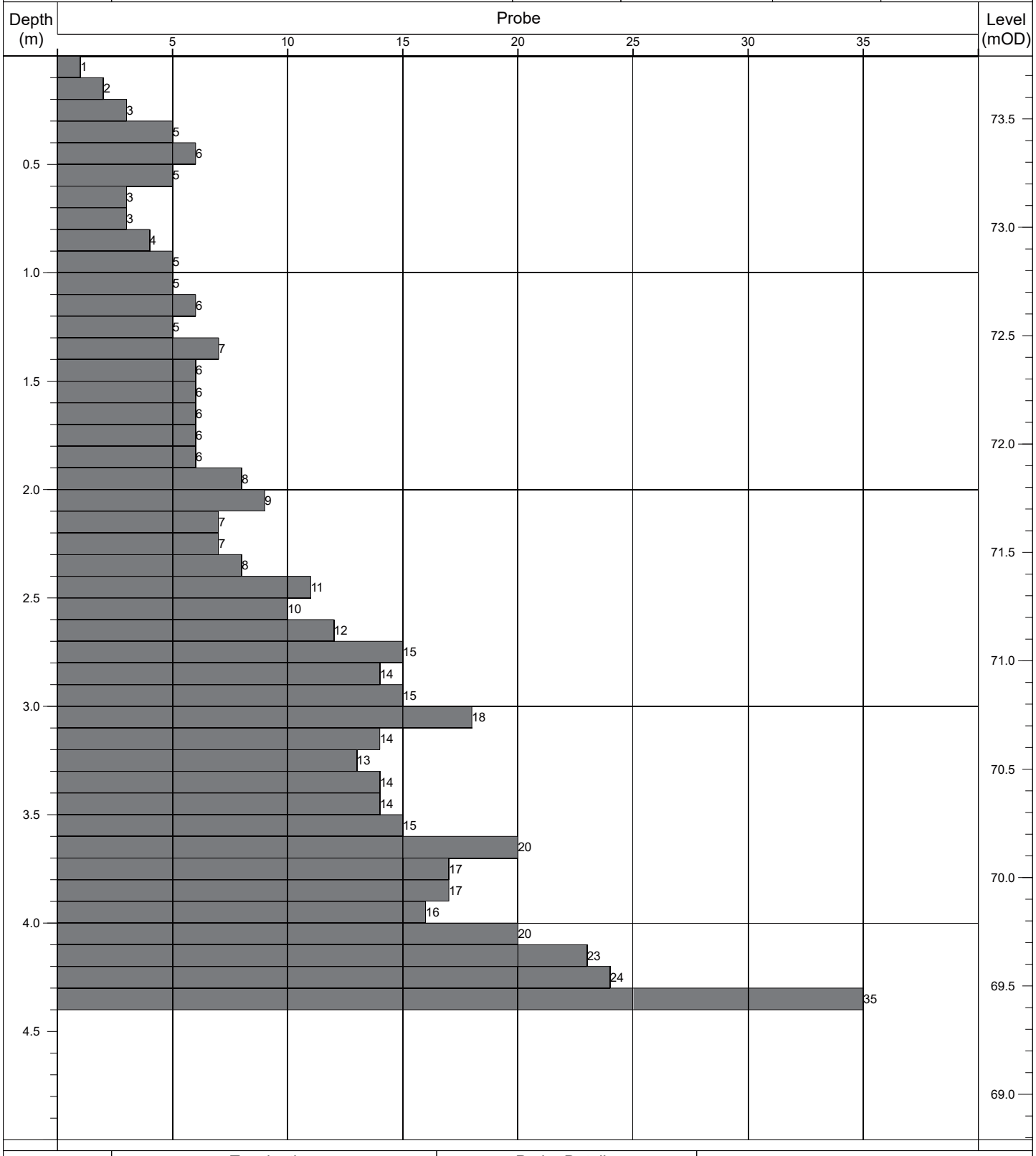
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP052**
Contract:	Coolagad	Easting:	727680.336	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713046.741	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.25	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



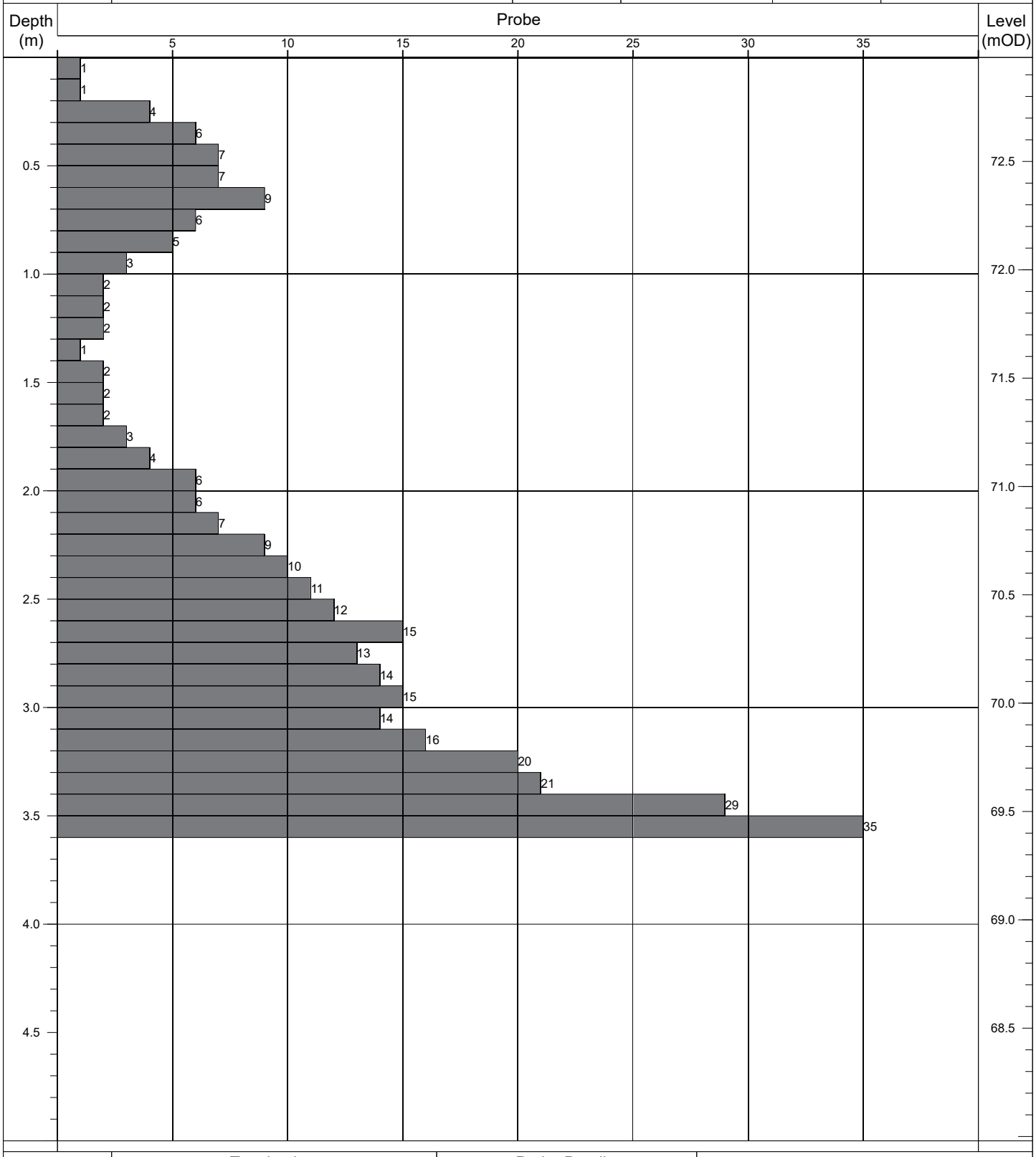
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP053**
Contract:	Coolagad	Easting:	727681.129	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713026.513	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.79	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



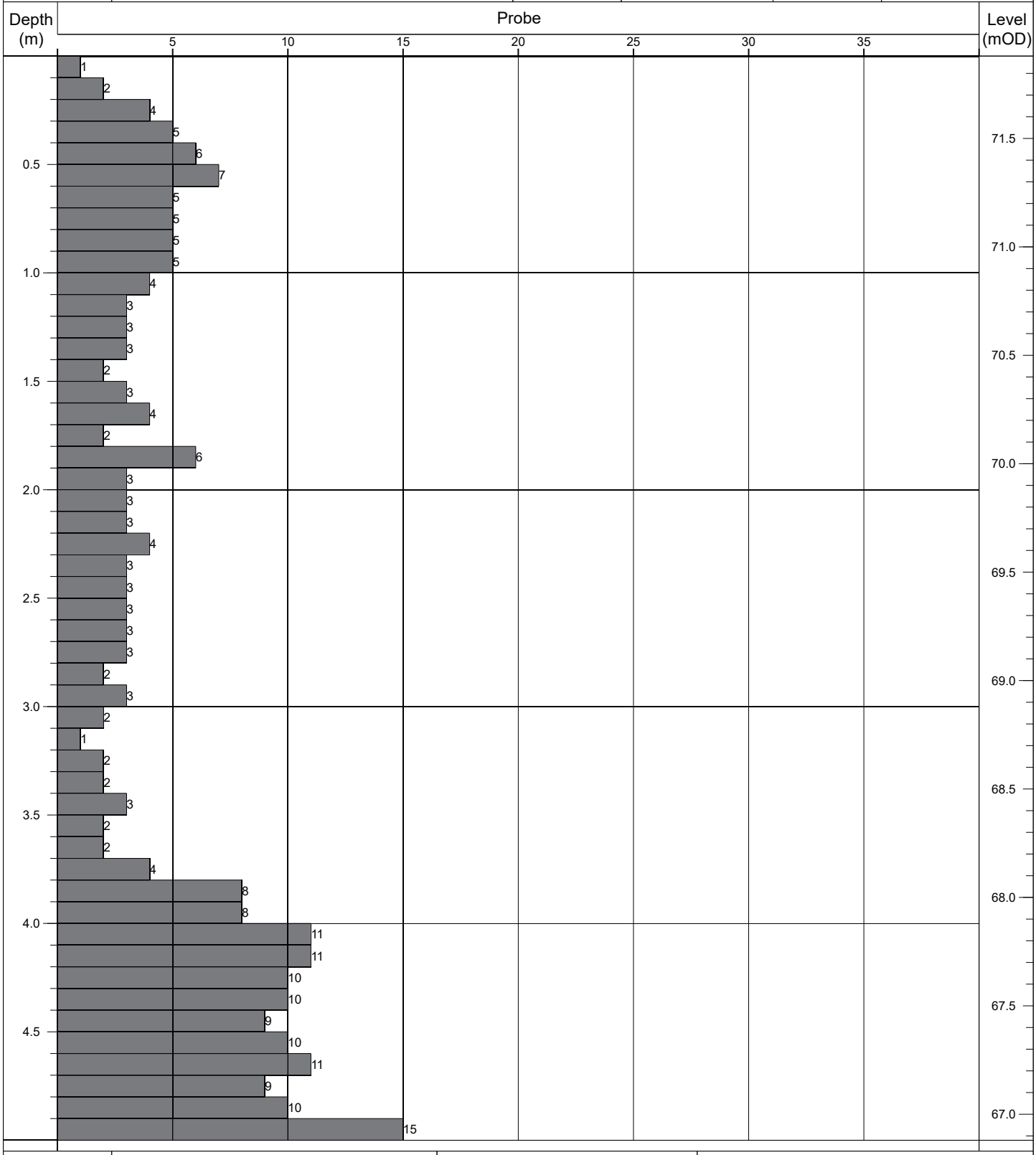
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP054
Contract:	Coolagad	Easting:	727680.569	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713006.345	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.98	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



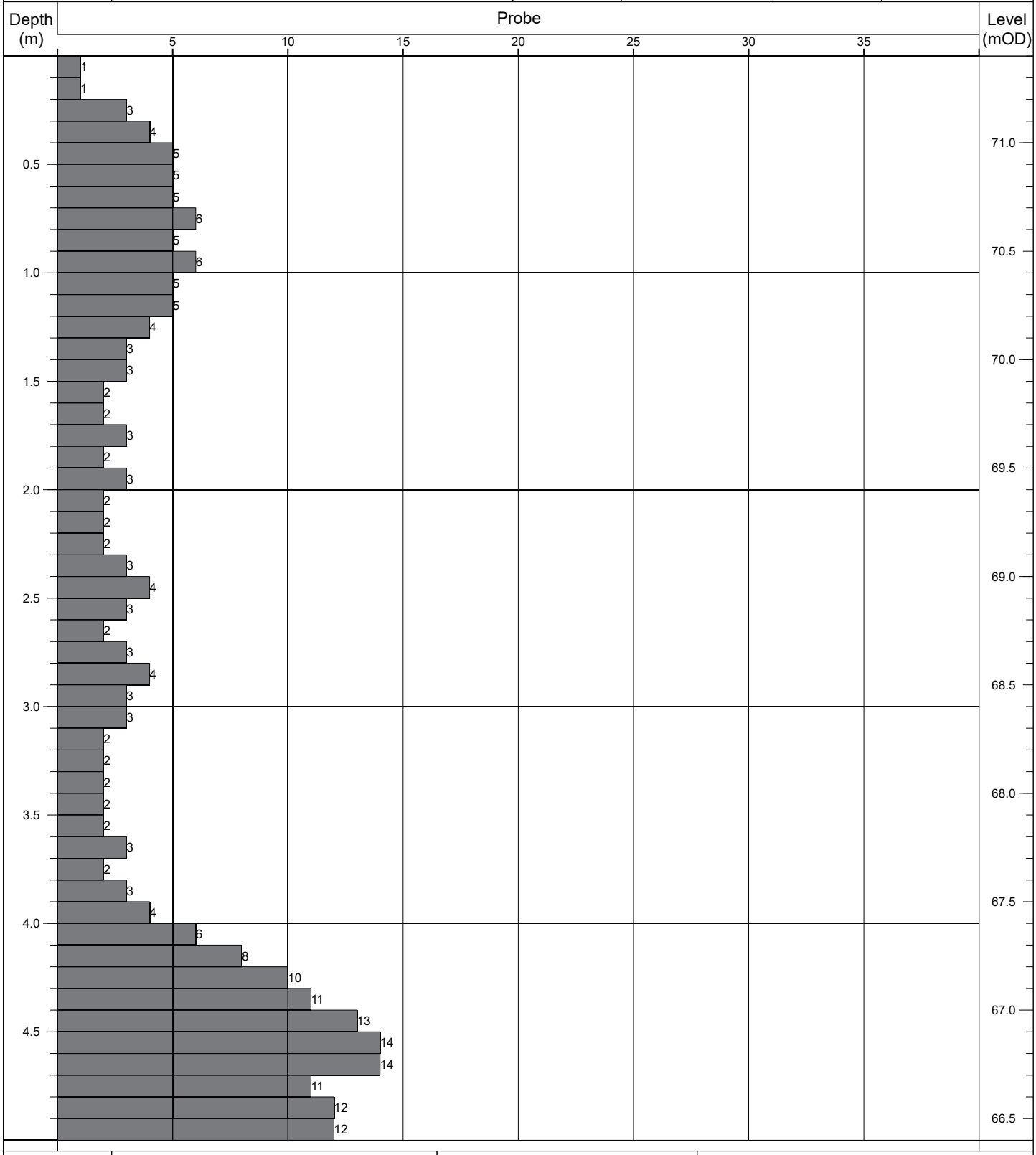
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP055**
Contract:	Coolagad	Easting:	727680.577	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712986.911	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.88	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



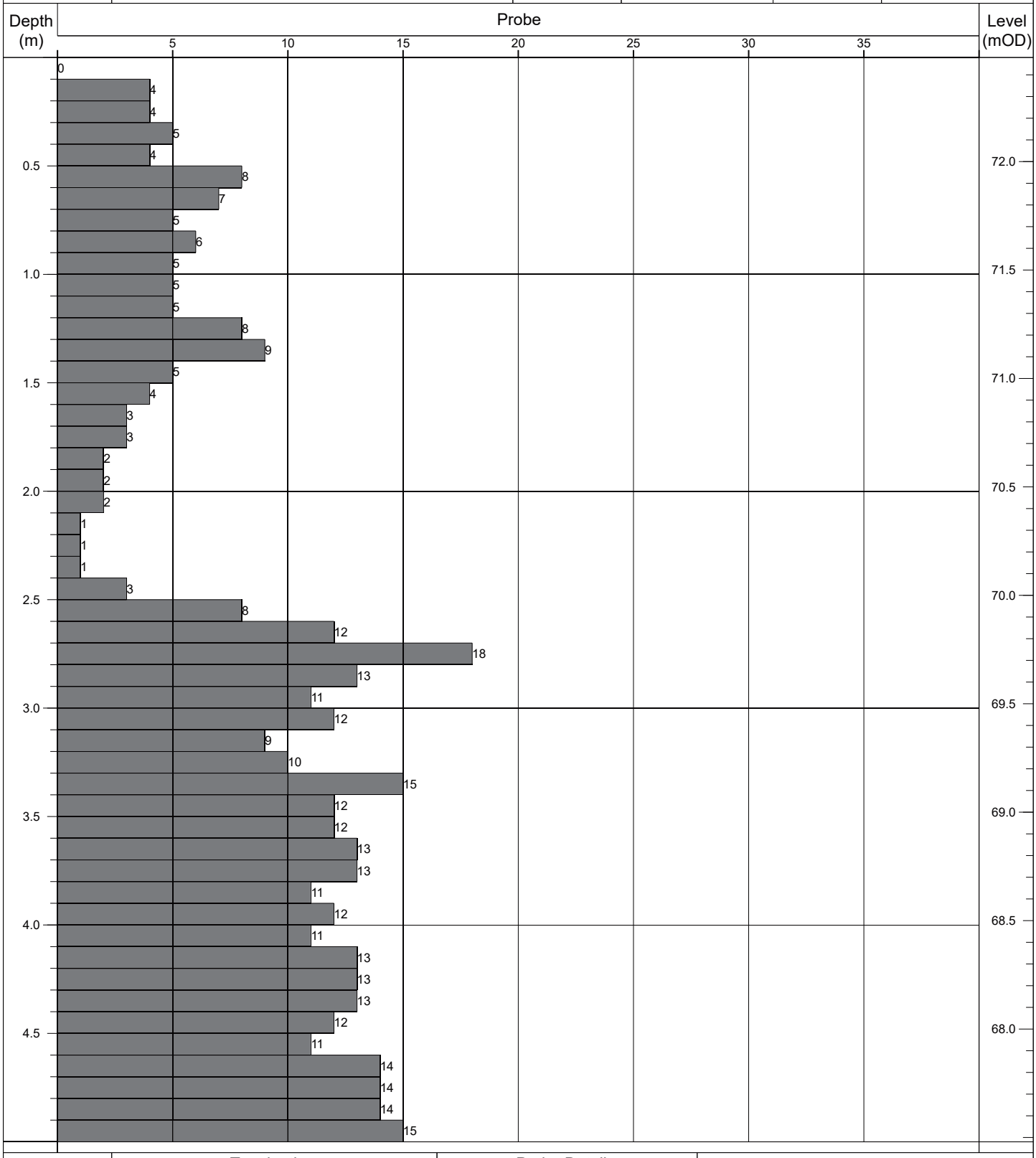
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP056**
Contract:	Coolagad	Easting:	727672.133	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712970.733	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.40	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



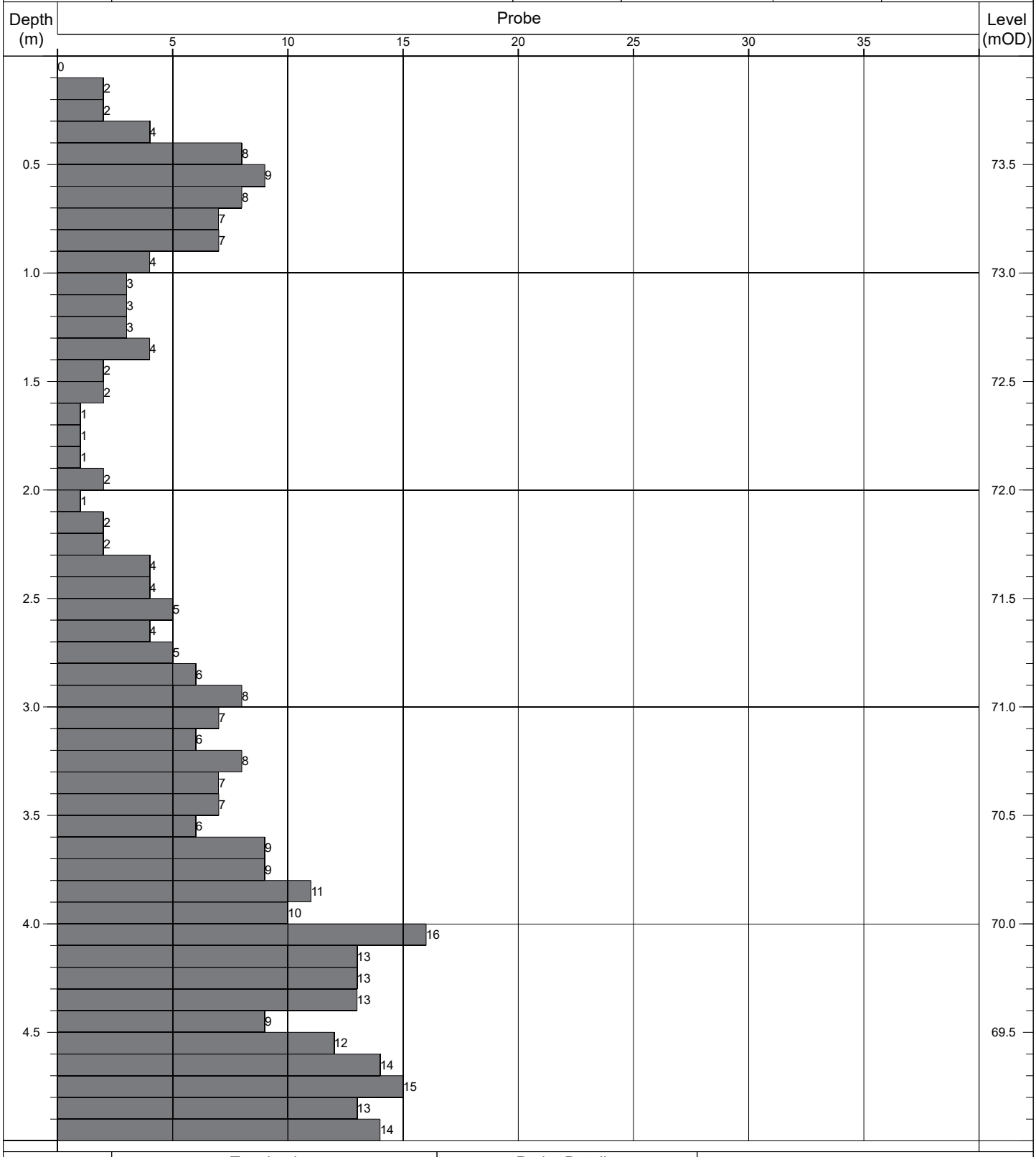
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP057
Contract:	Coolagad	Easting:	727667.403	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712949.163	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.48	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



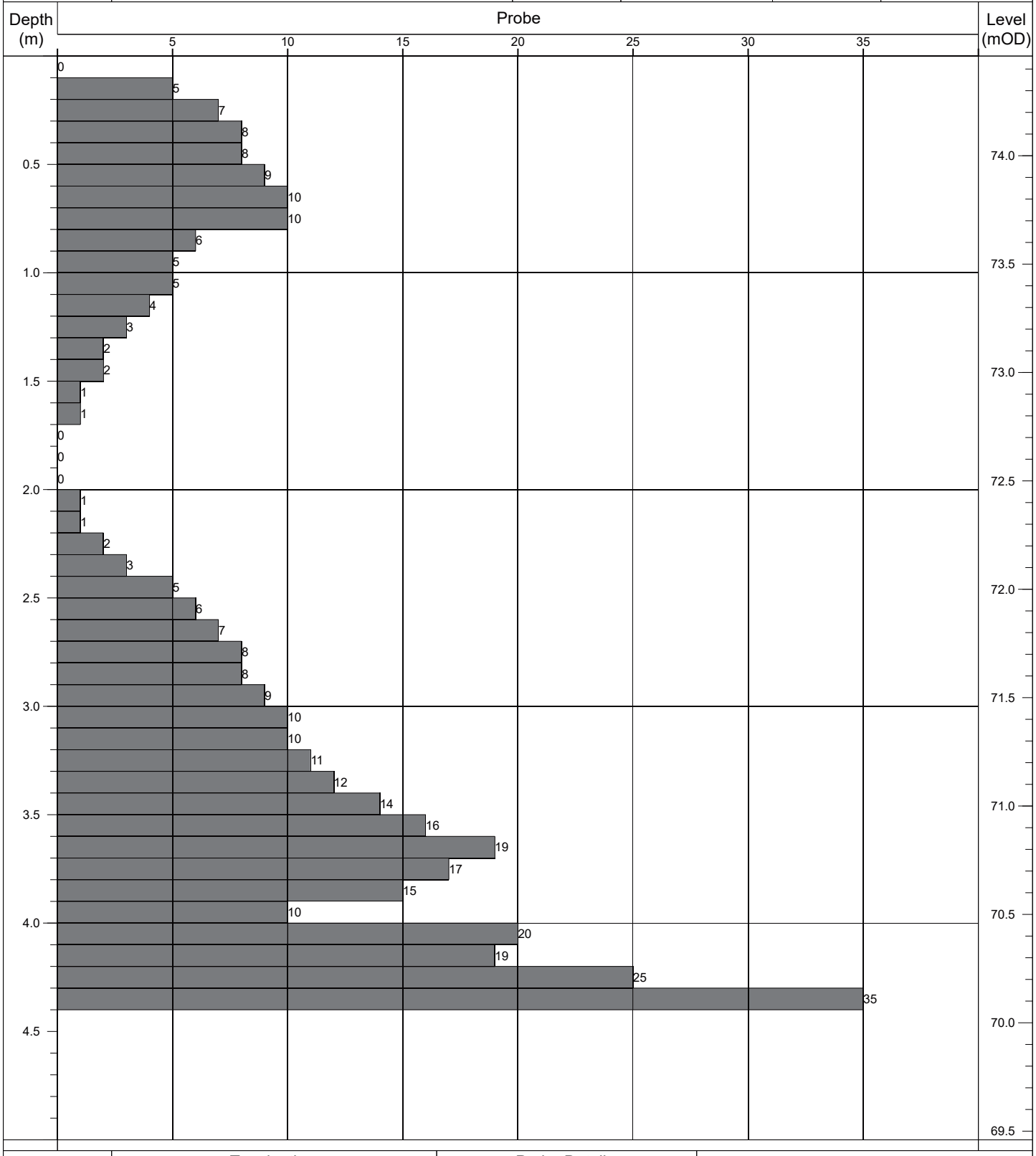
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP058**
Contract:	Coolagad	Easting:	727671.149	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712929.704	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.00	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



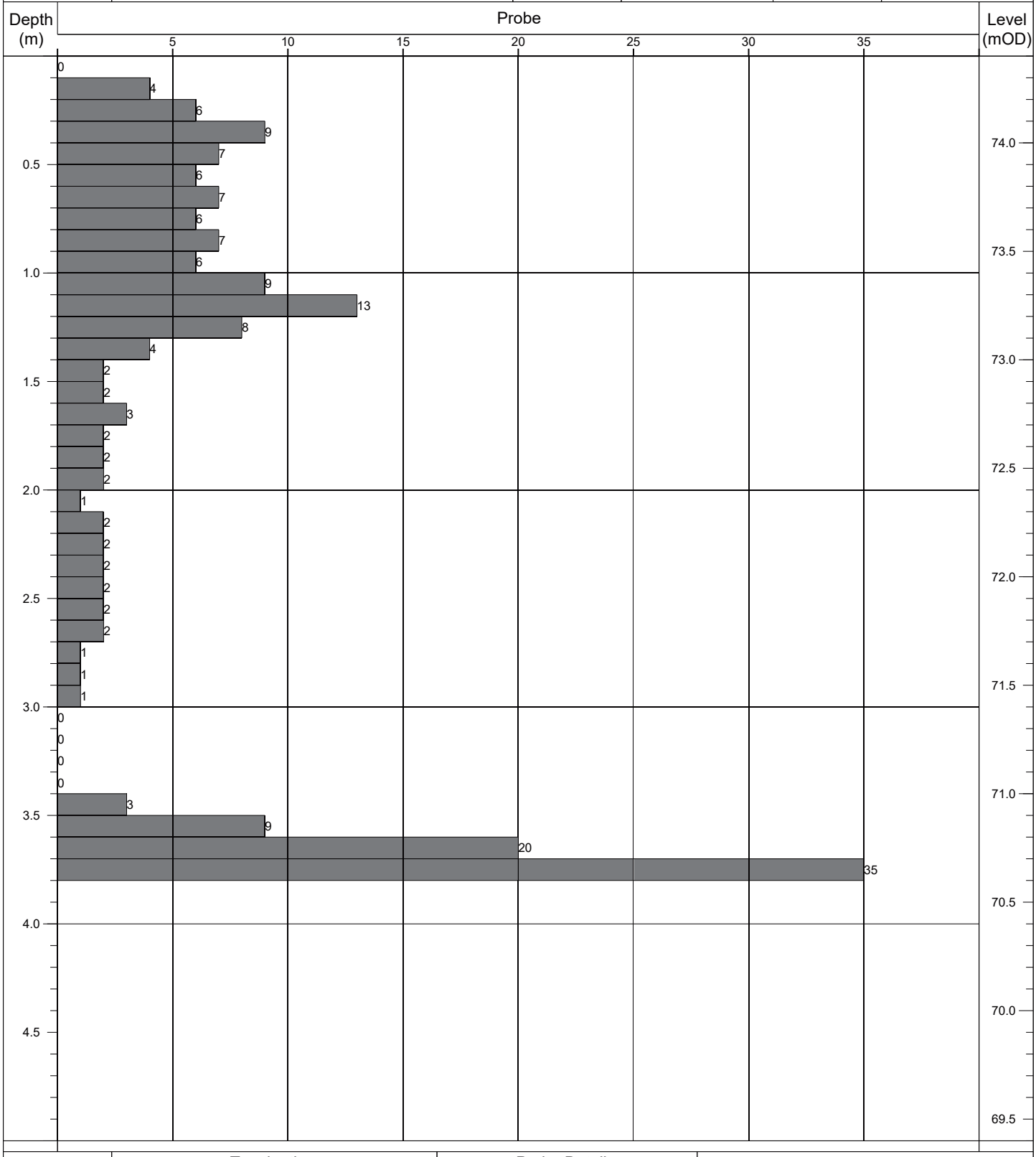
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP059**
Contract:	Coolagad	Easting:	727677.858	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712911.983	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.46	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



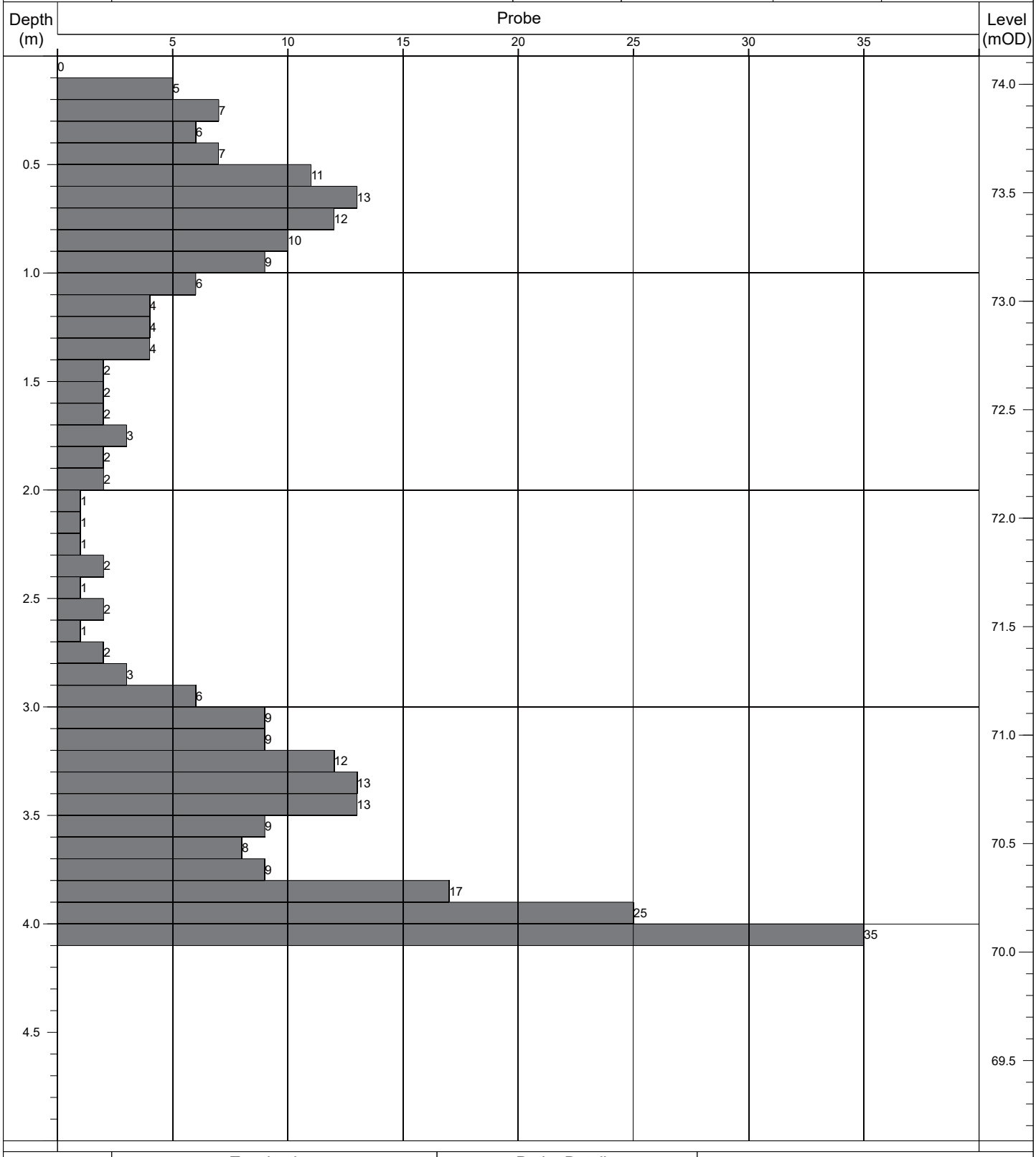
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP060**
Contract:	Coolagad	Easting:	727684.580	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712893.445	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.40	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



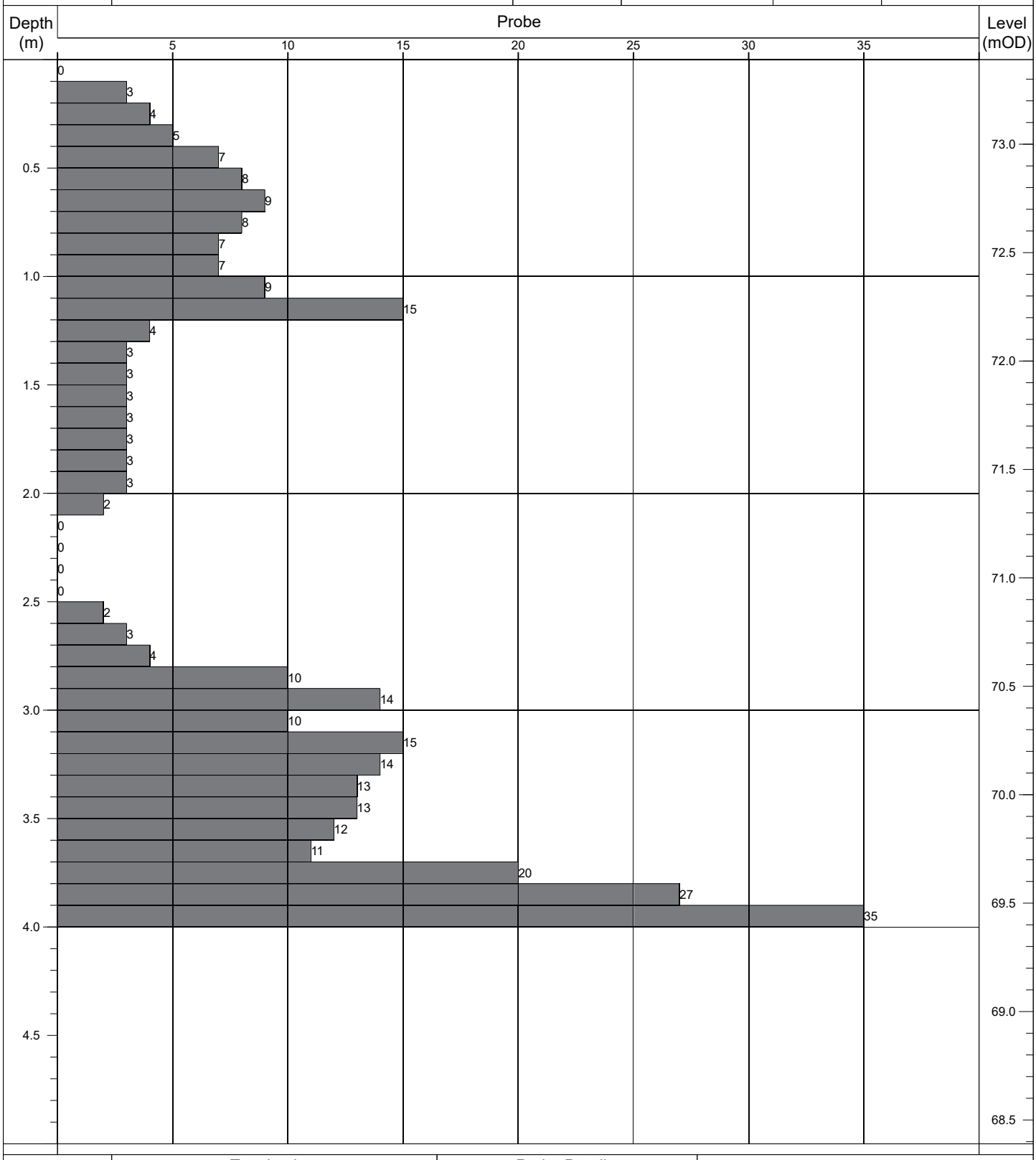
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP061**
Contract:	Coolagad	Easting:	727693.780	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712875.137	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.13	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



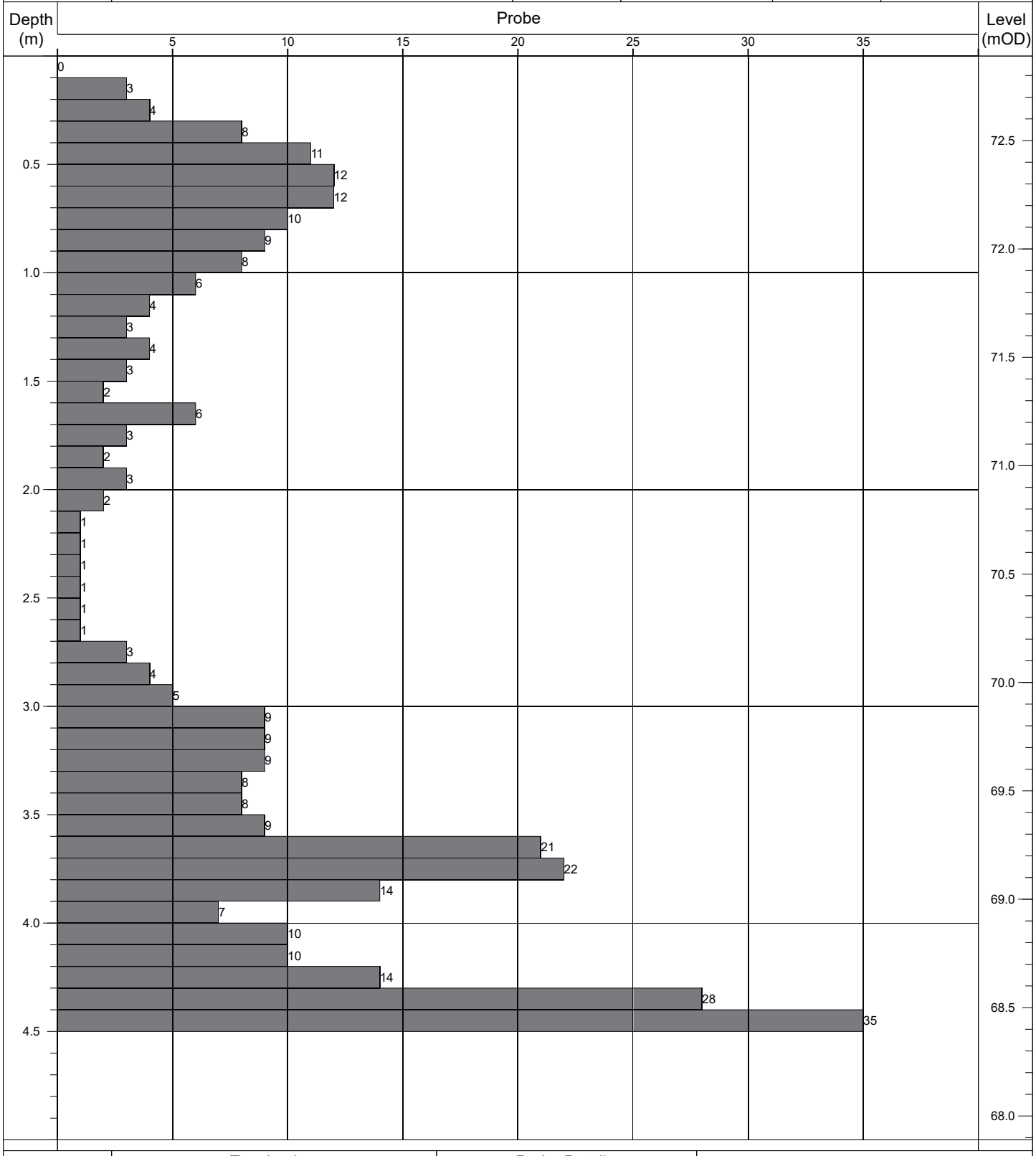
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP062**
Contract:	Coolagad	Easting:	727707.515	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712866.157	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.39	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



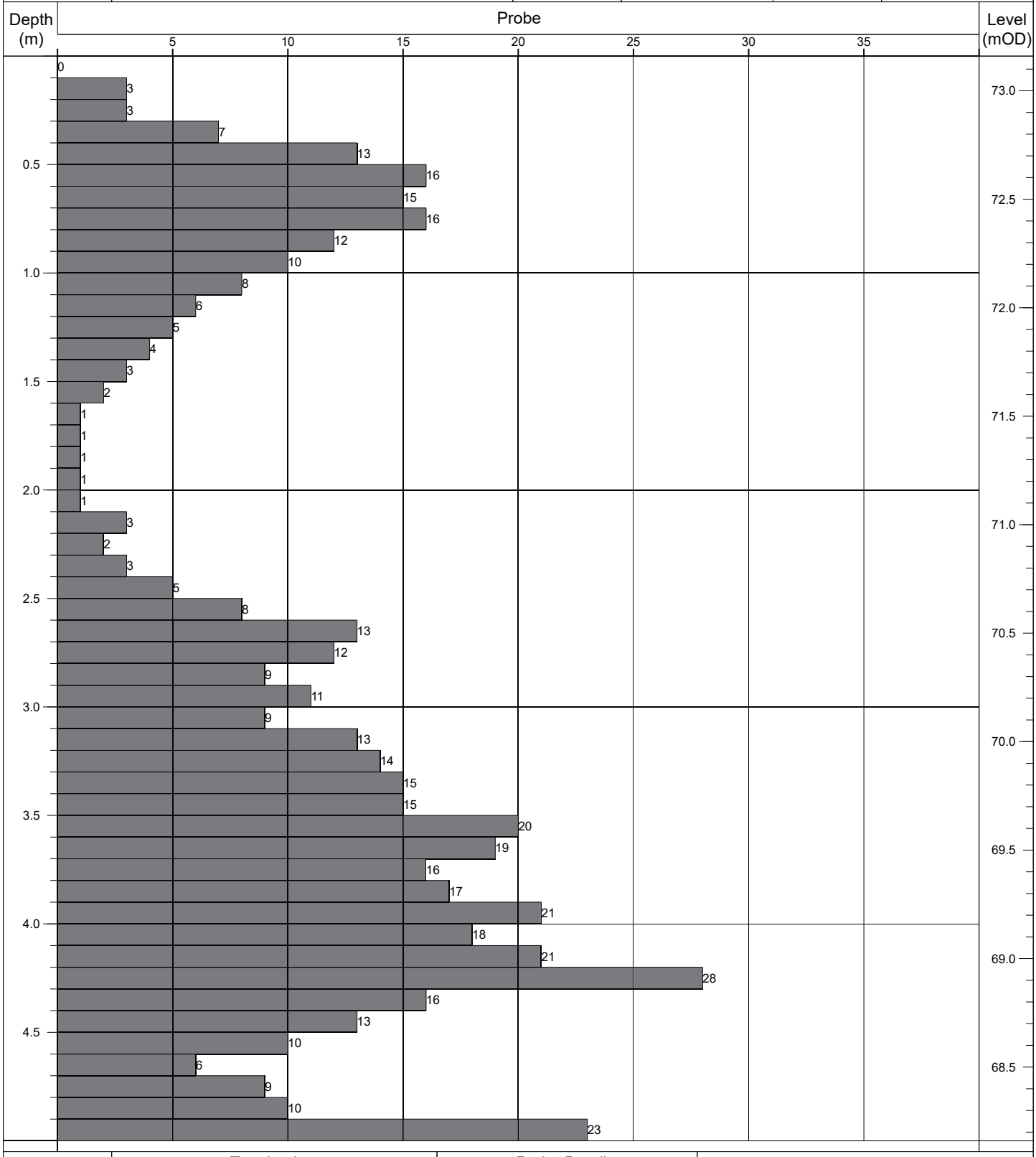
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP063**
Contract:	Coolagad	Easting:	727724.084	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712851.710	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.89	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



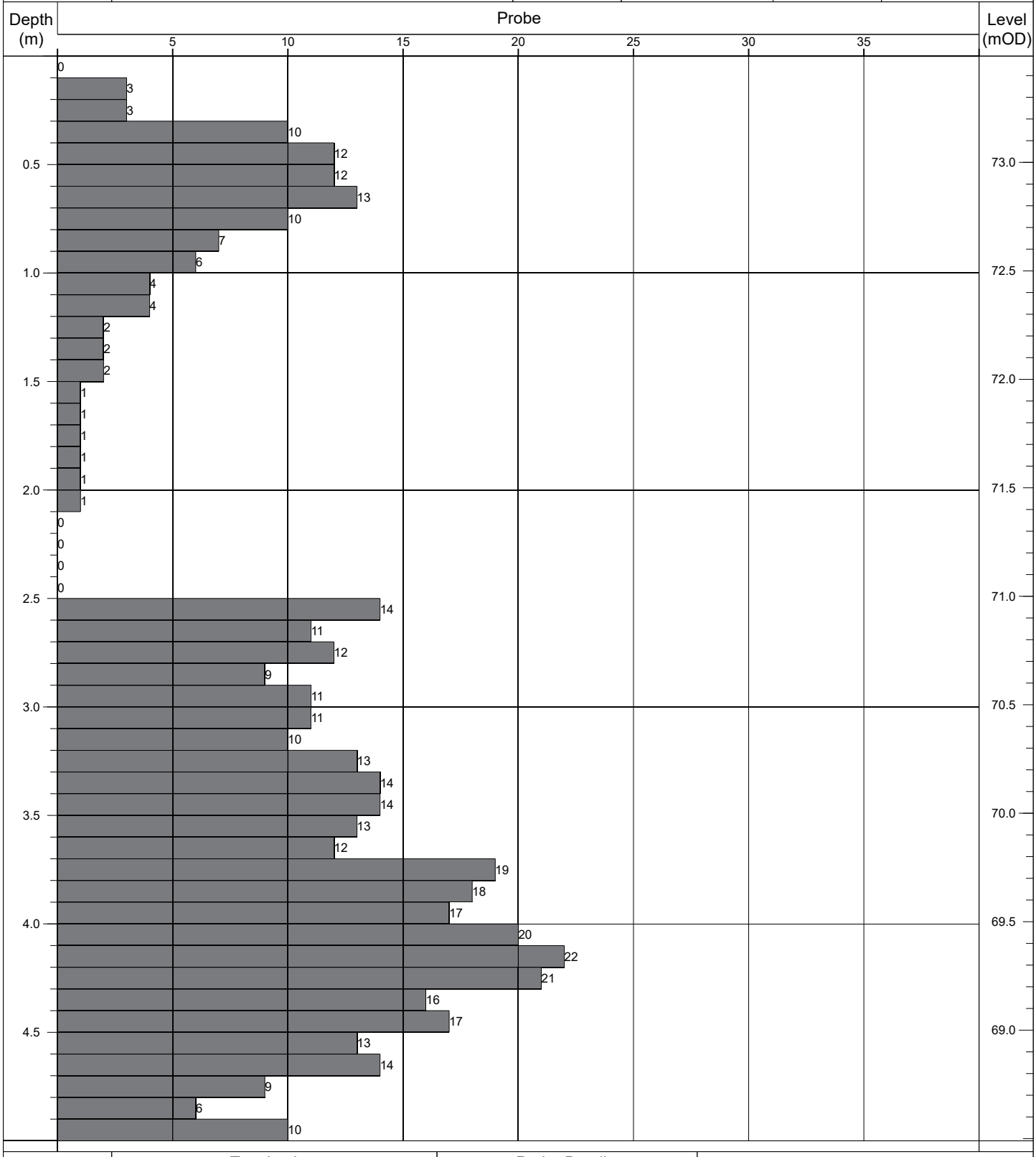
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP064**
Contract:	Coolagad	Easting:	727731.931	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712832.287	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.16	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



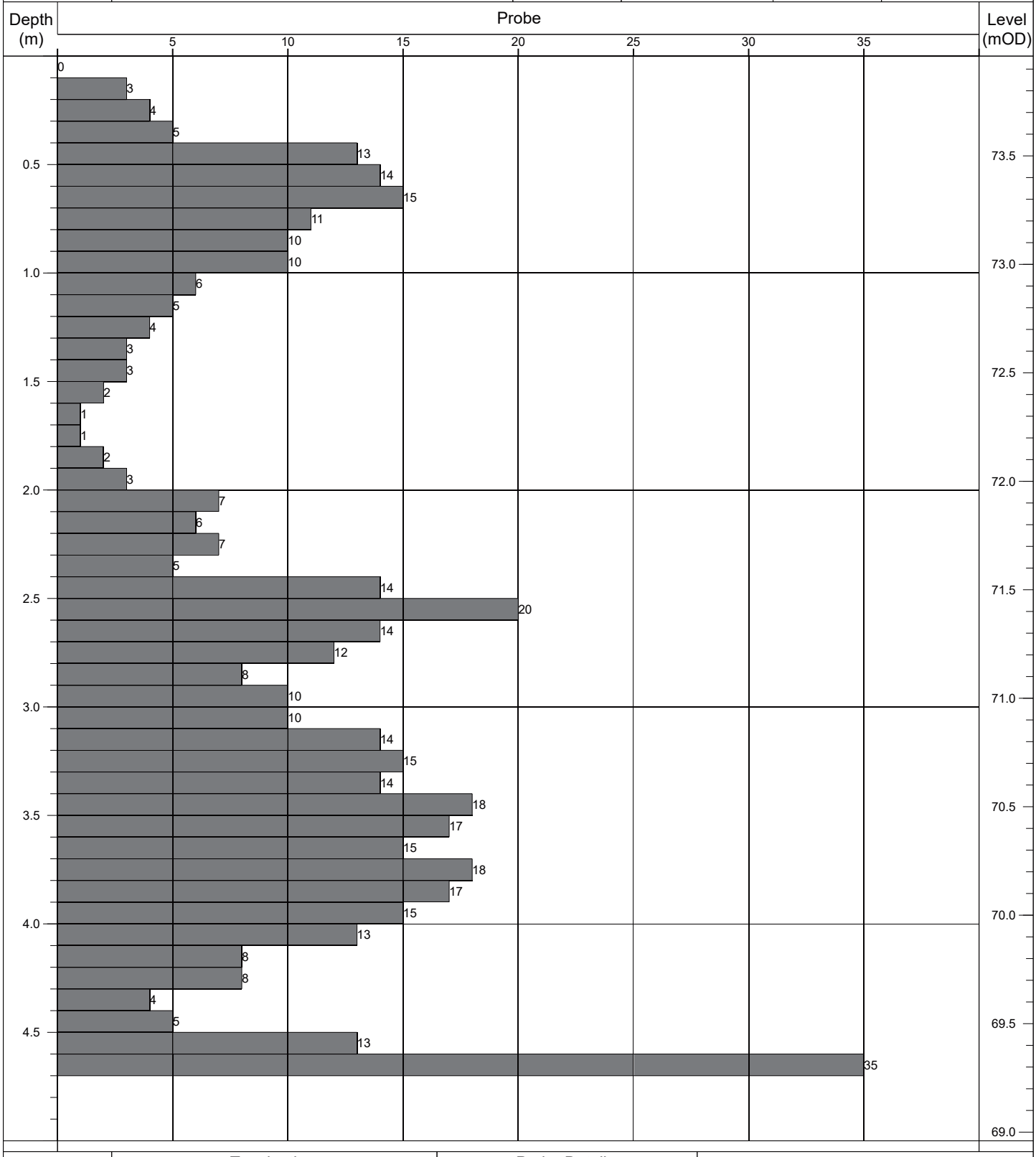
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP065
Contract:	Coolagad	Easting:	727734.773	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712812.251	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.49	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



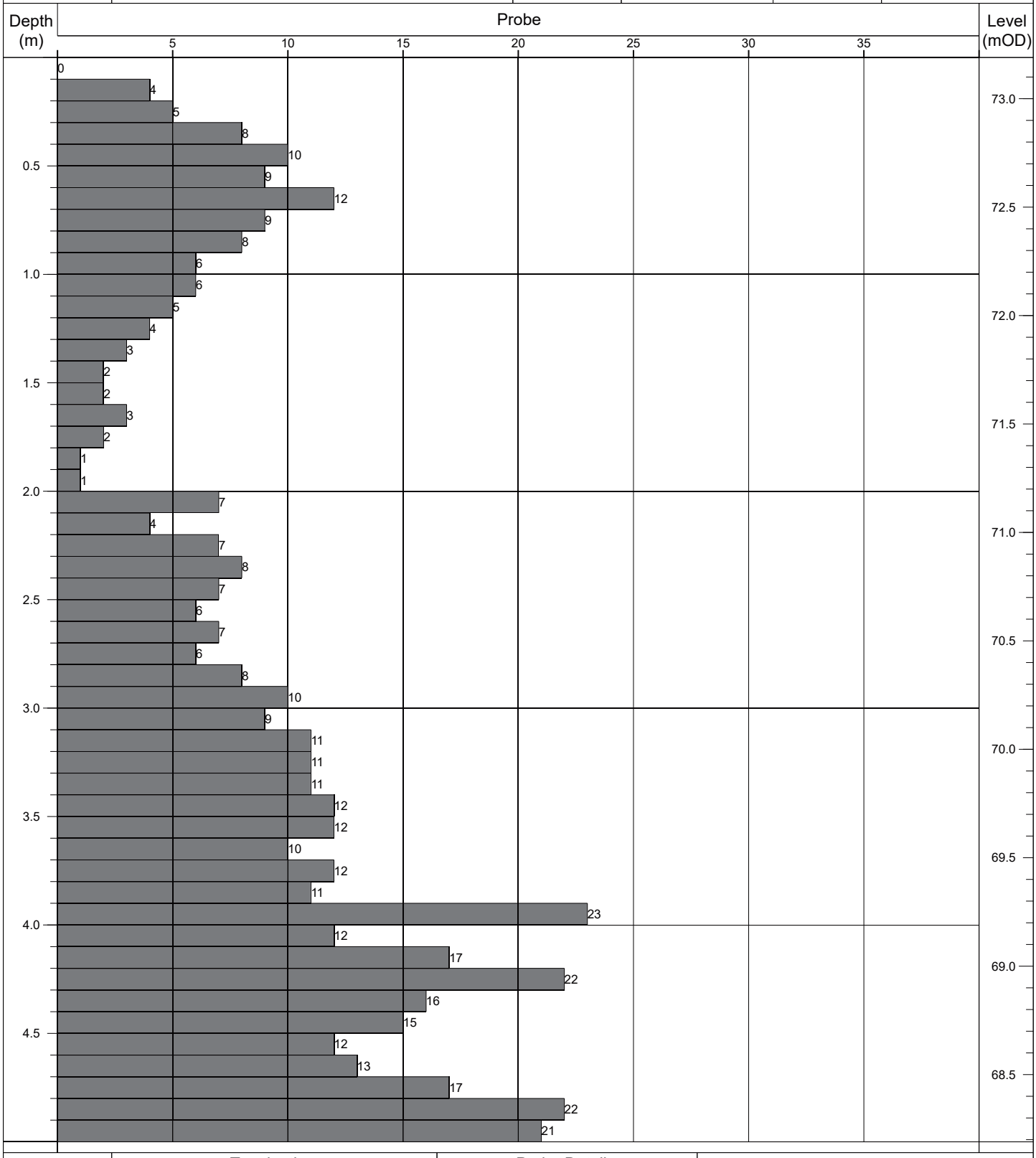
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: **RDP066**
Contract:	Coolagad	Easting:	727731.014	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712793.782	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.96	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



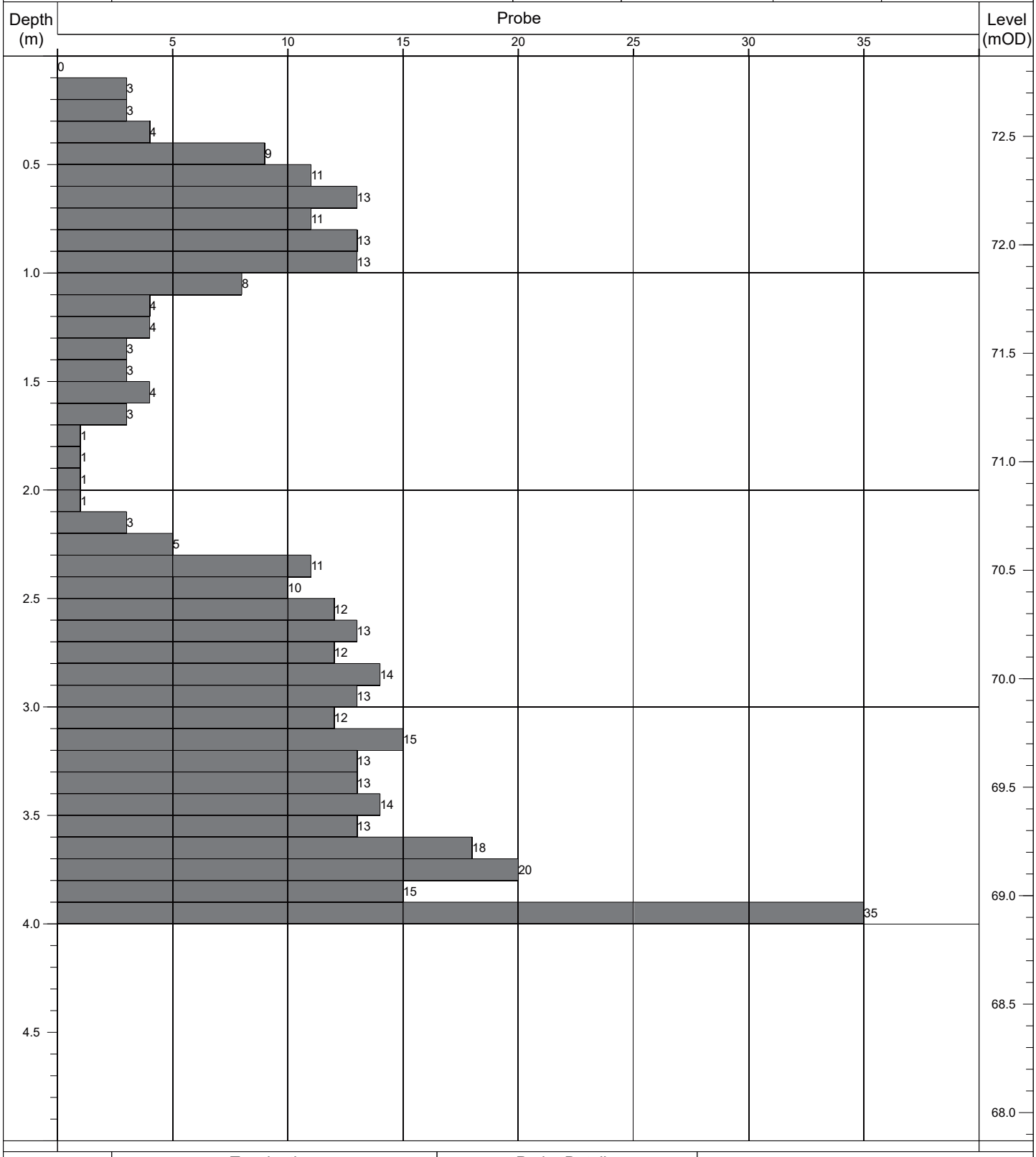
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP067**
Contract:	Coolagad	Easting:	727741.023	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712775.135	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.19	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



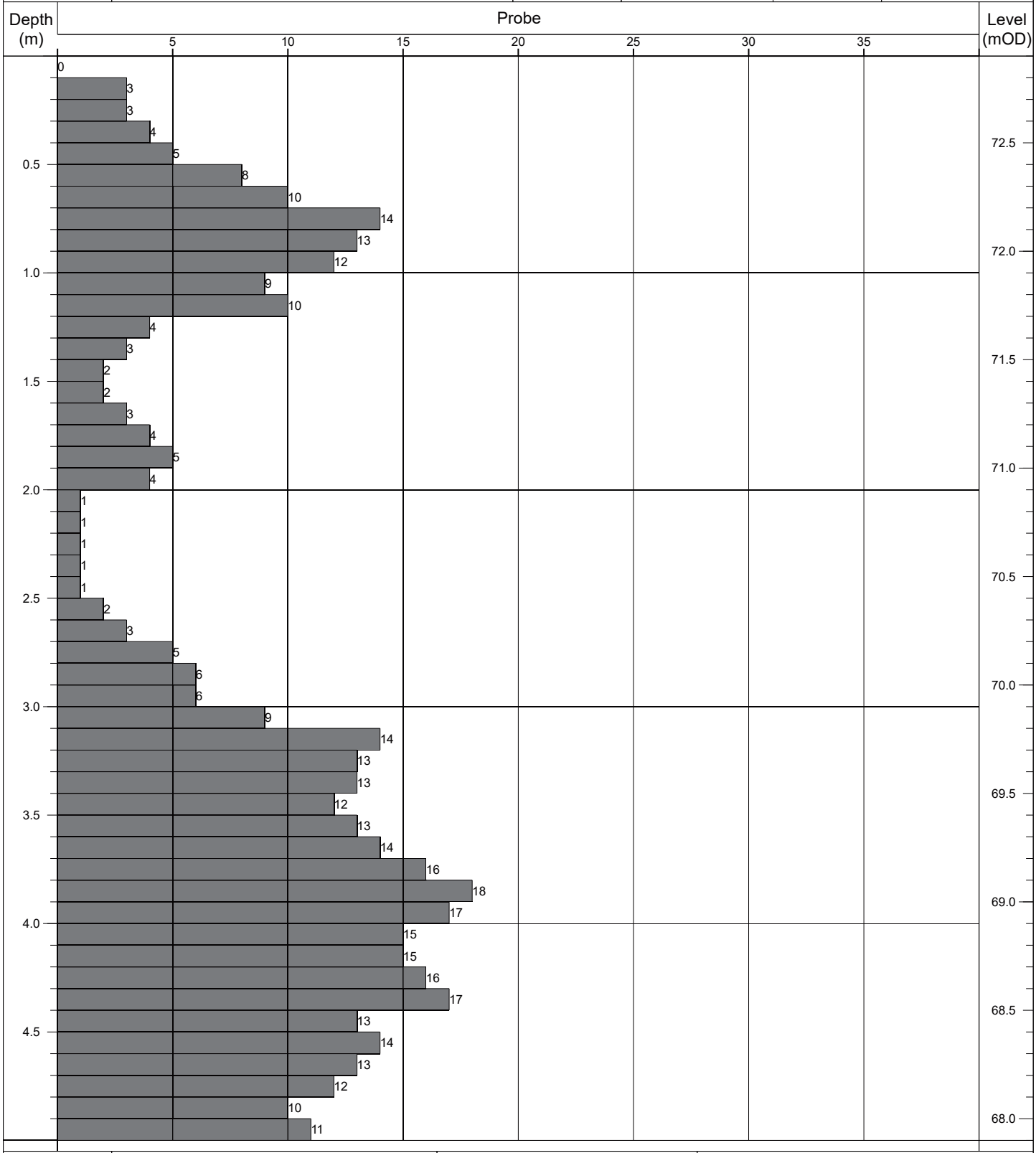
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP068**
Contract:	Coolagad	Easting:	727749.859	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712748.923	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.87	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



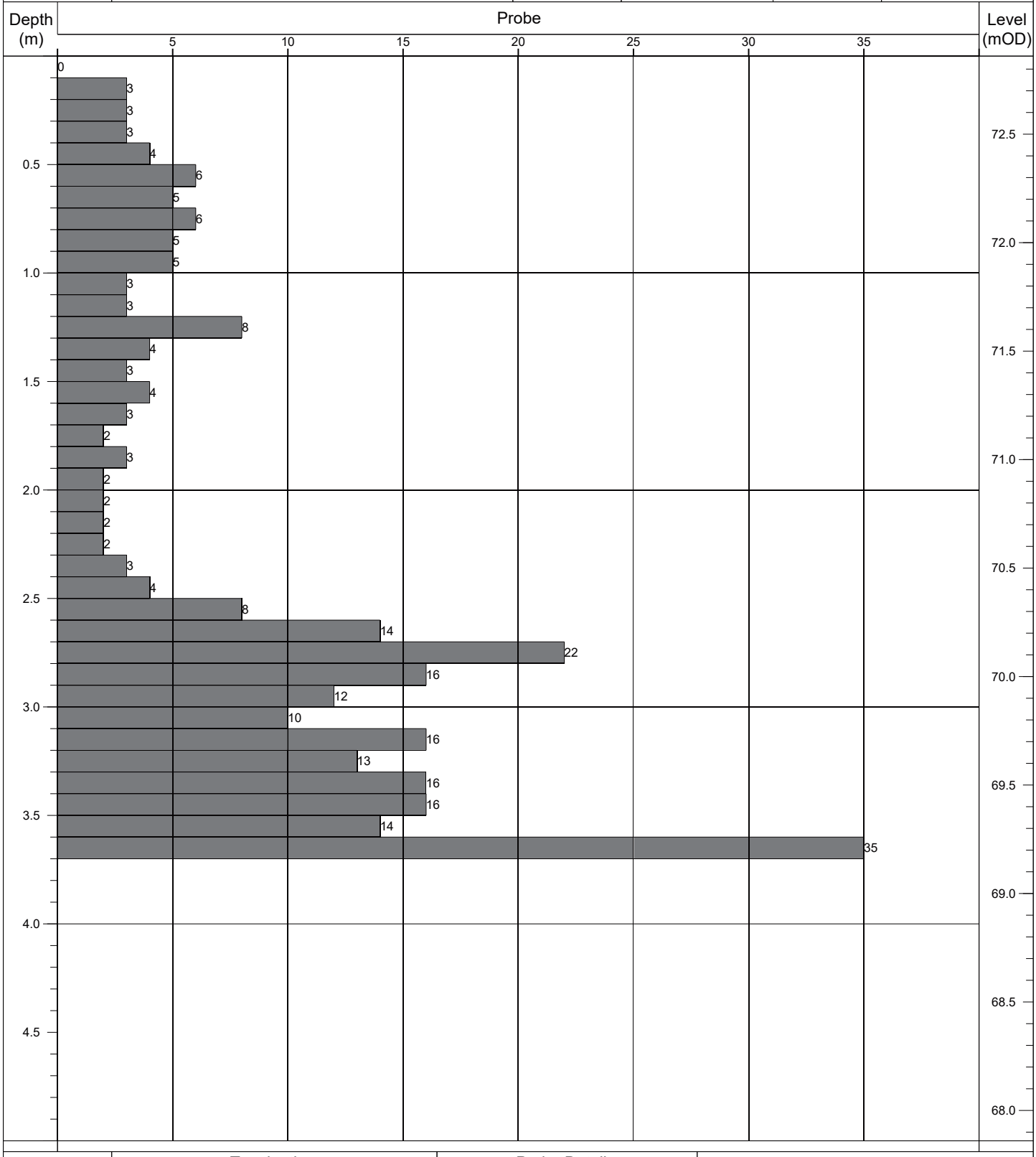
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP069**
Contract:	Coolagad	Easting:	727752.954	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712735.661	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.90	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



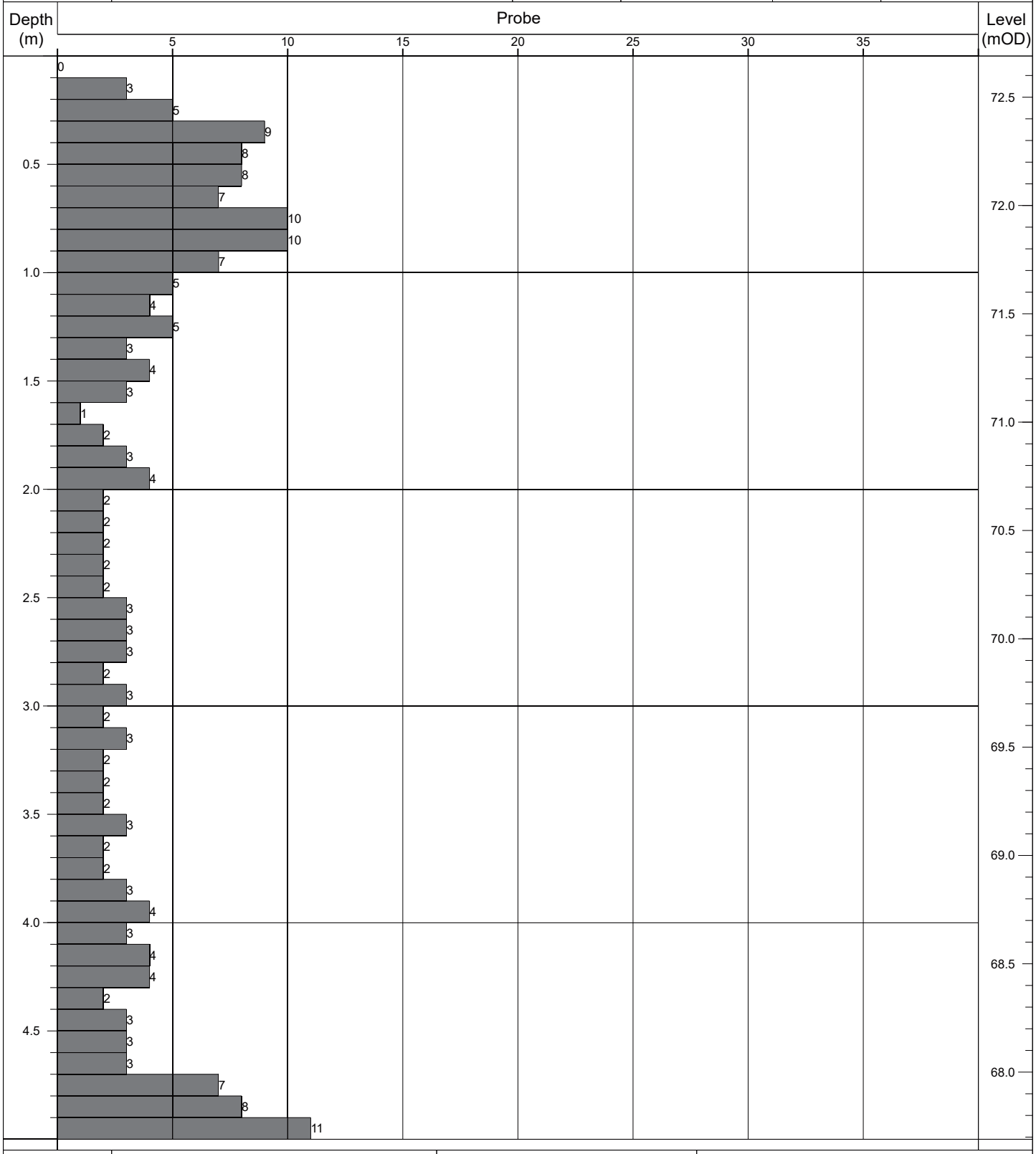
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP070**
Contract:	Coolagad	Easting:	727757.278	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712716.445	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.86	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



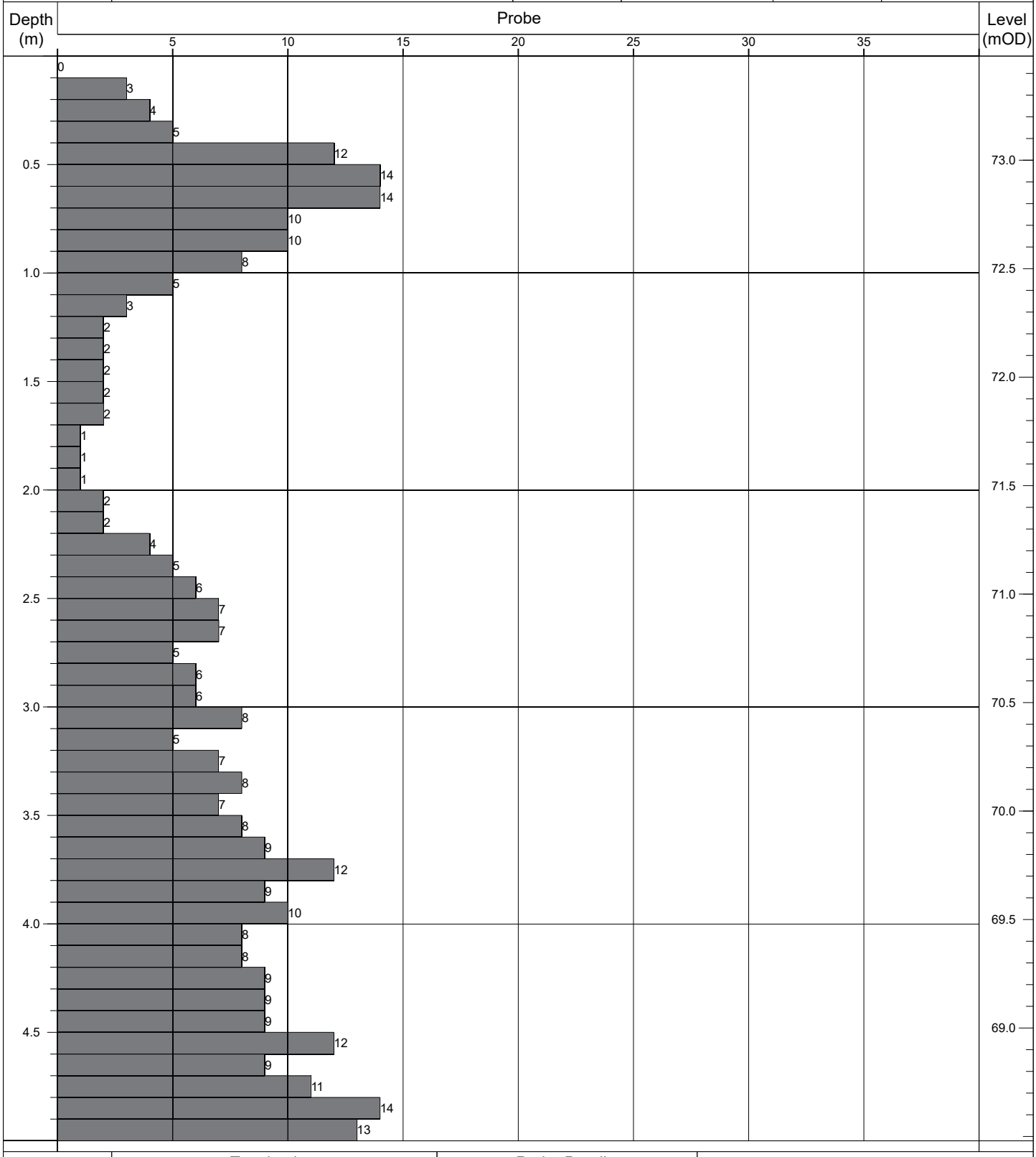
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP071**
Contract:	Coolagad	Easting:	727764.567	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712697.914	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	72.69	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



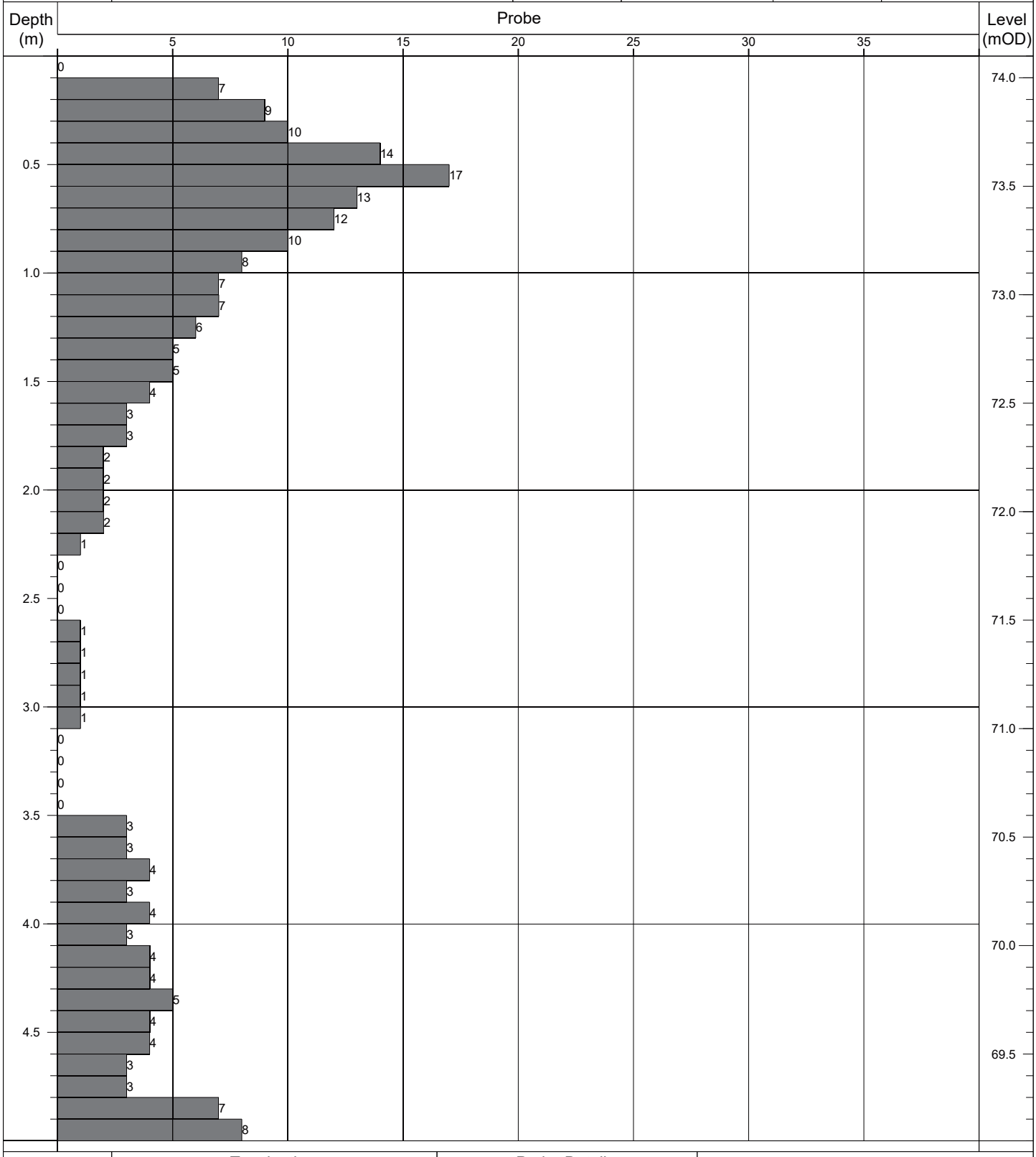
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP072**
Contract:	Coolagad	Easting:	727767.315	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712679.396	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.48	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



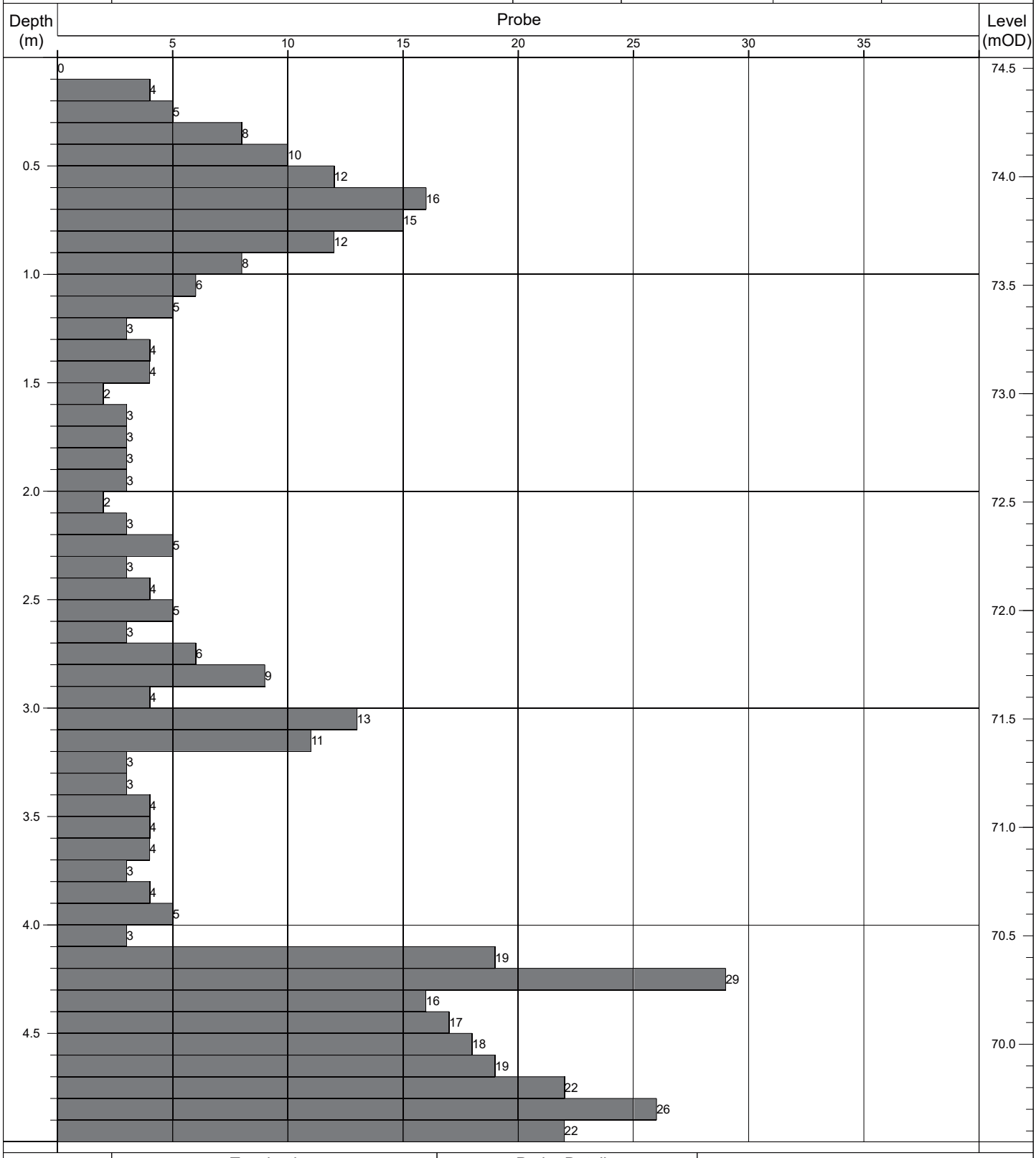
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP073
Contract:	Coolagad	Easting:	727775.917	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712660.553	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.10	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



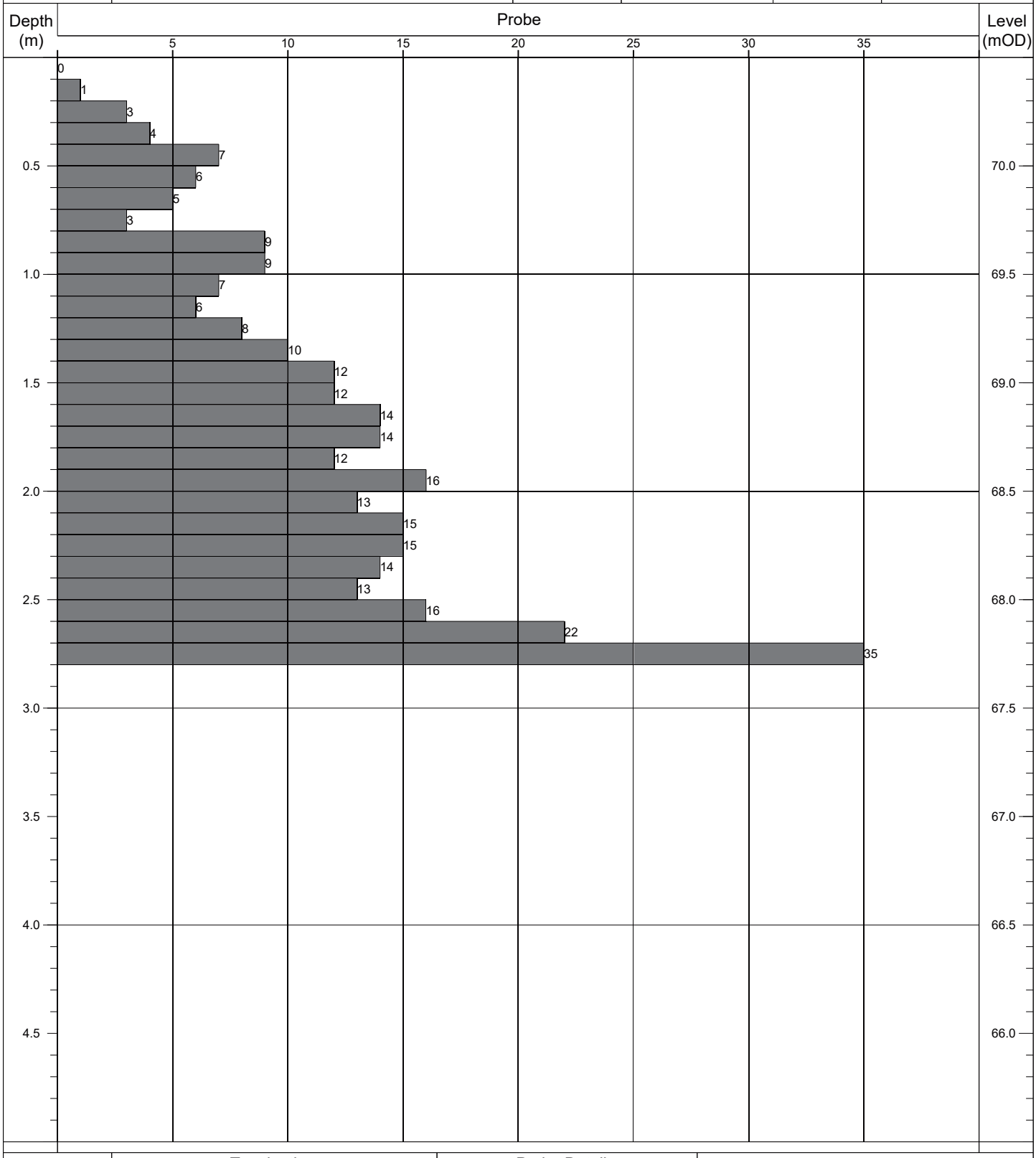
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP074**
Contract:	Coolagad	Easting:	727786.260	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712641.944	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	74.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



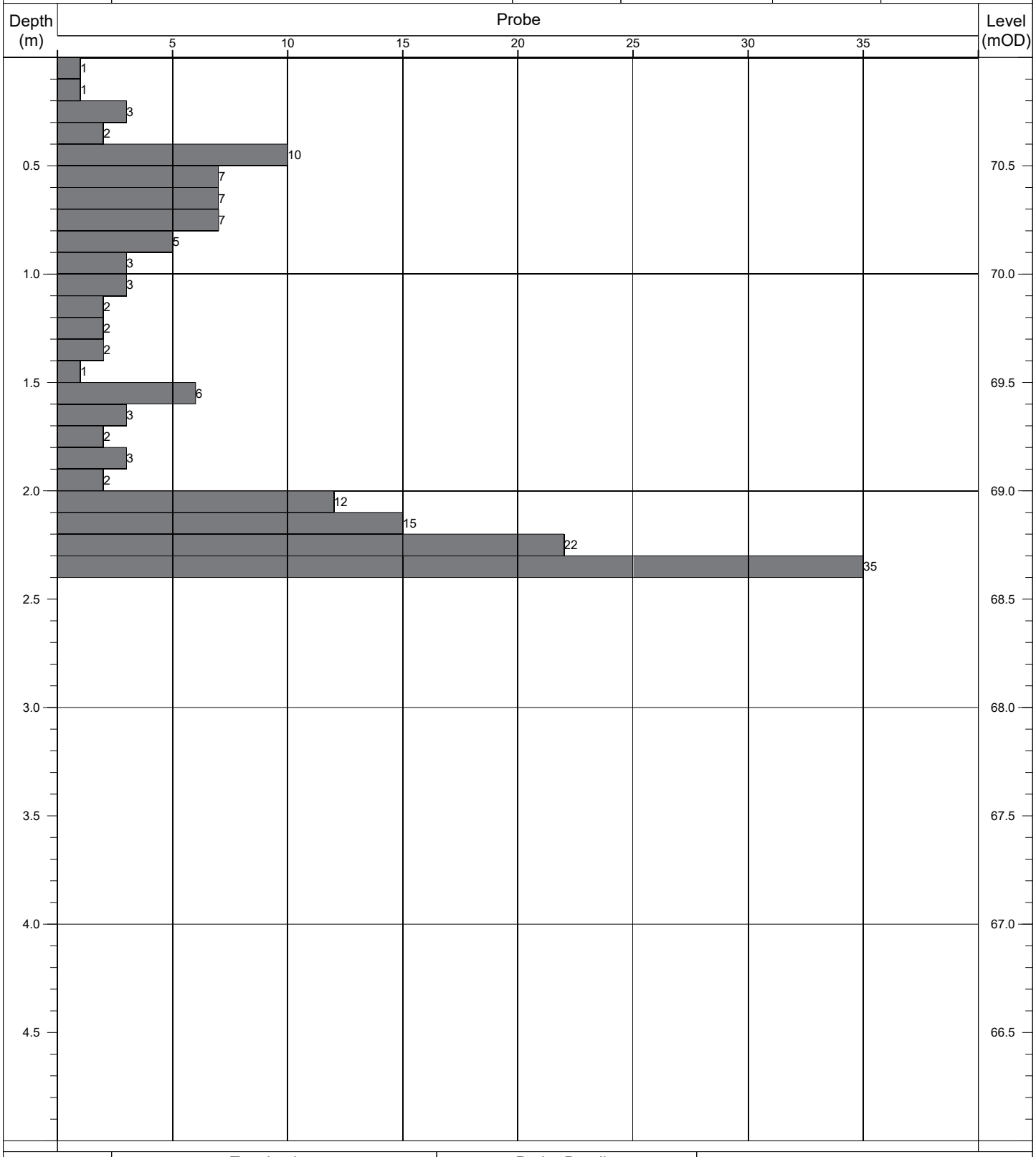
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP075**
Contract:	Coolagad	Easting:	727702.444	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713257.870	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	70.50	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



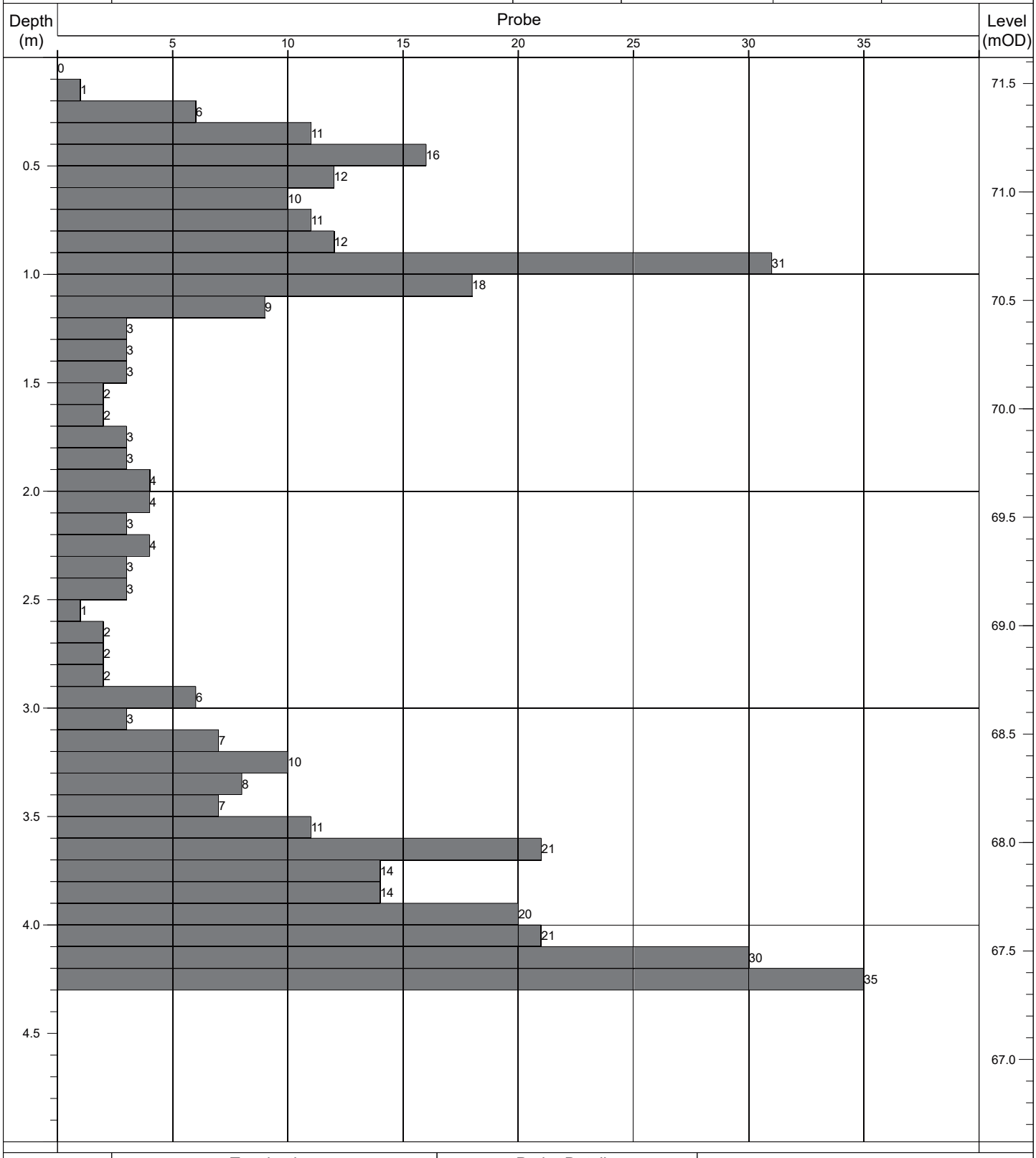
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP076**
Contract:	Coolagad	Easting:	727701.775	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713238.189	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.00	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



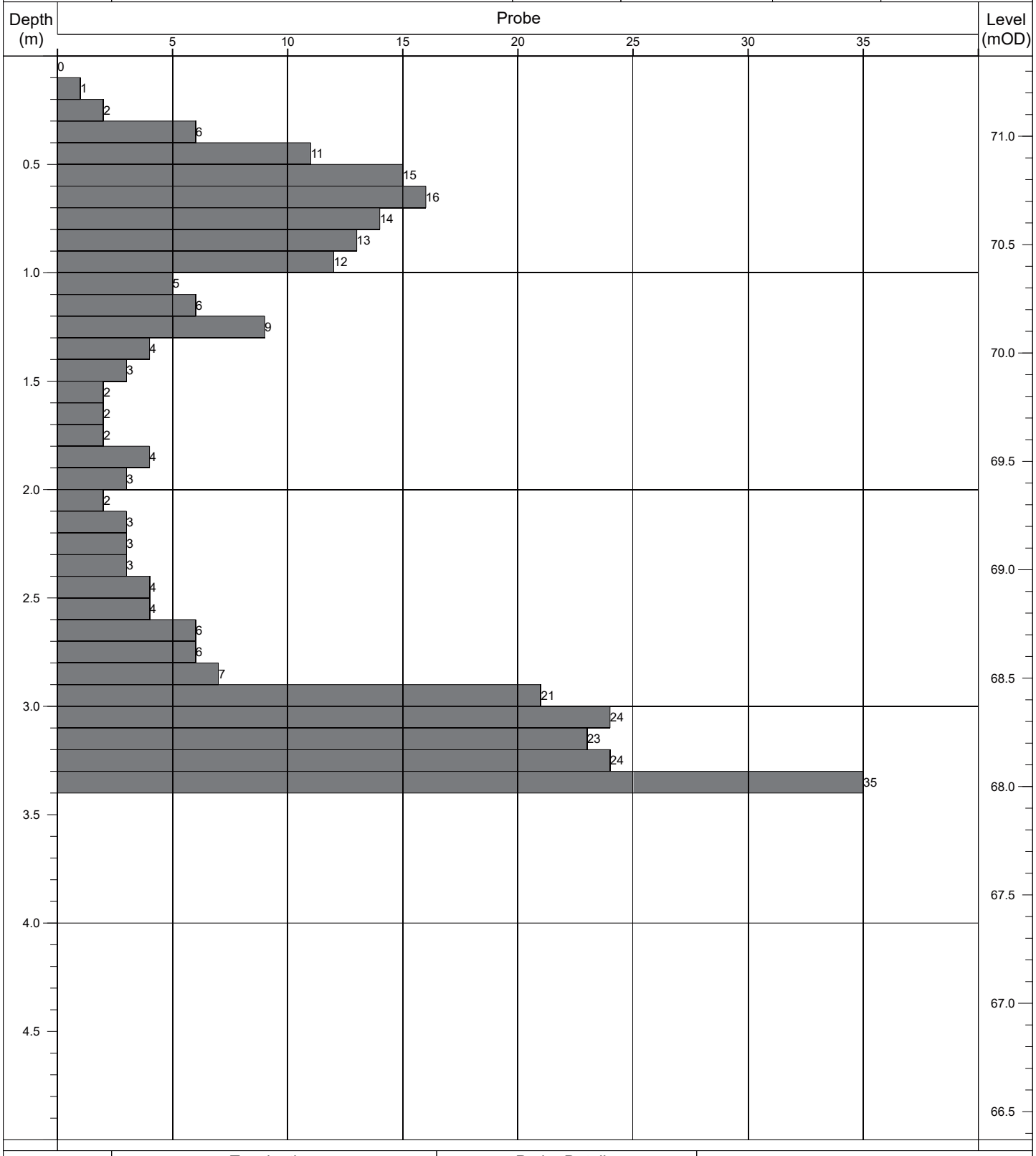
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP077**
Contract:	Coolagad	Easting:	727704.357	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713218.040	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.62	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



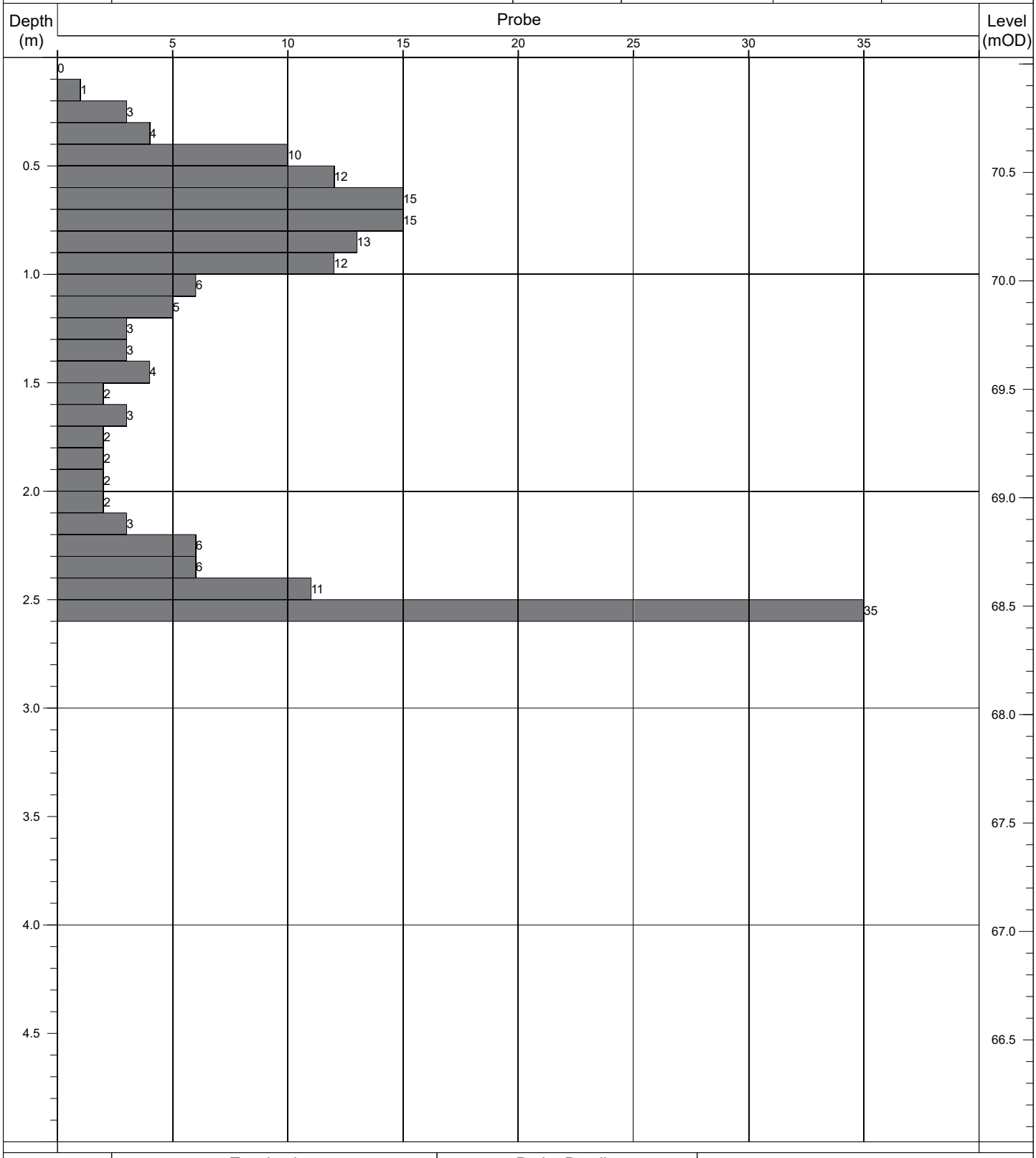
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP078**
Contract:	Coolagad	Easting:	727708.058	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713199.084	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.37	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



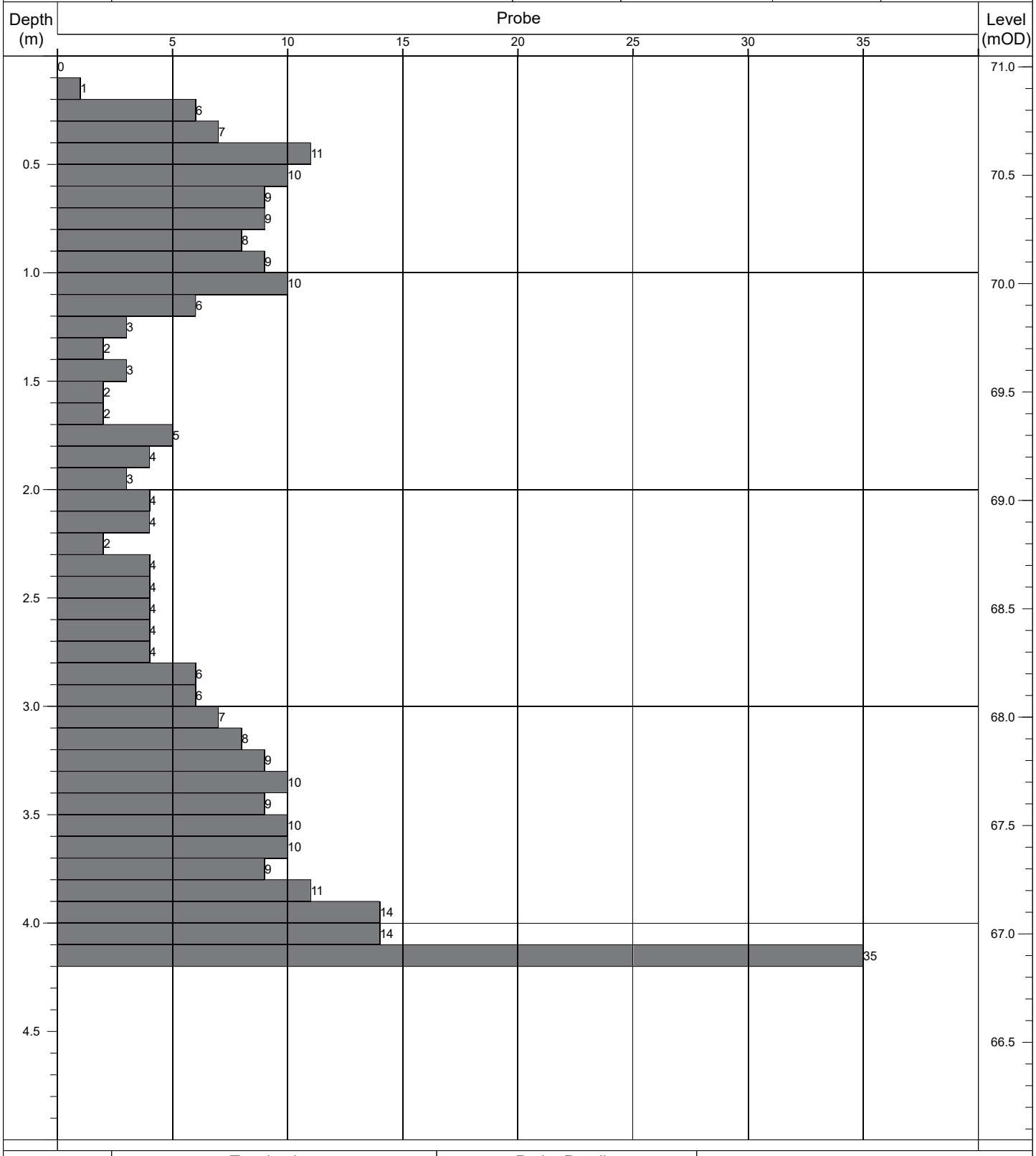
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP079**
Contract:	Coolagad	Easting:	727711.572	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713179.319	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.03	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



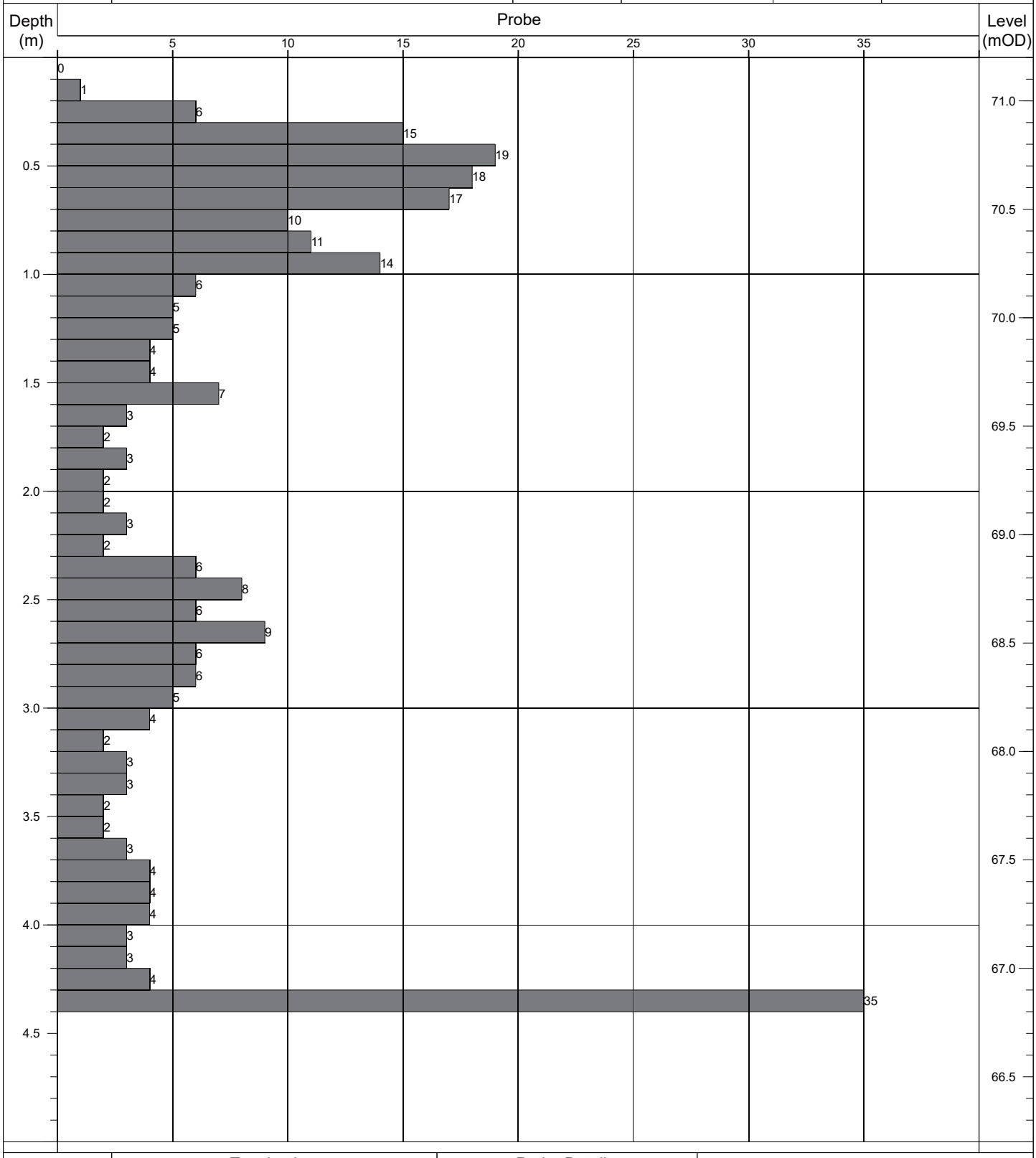
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP080**
Contract:	Coolagad	Easting:	727714.121	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713158.288	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.05	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



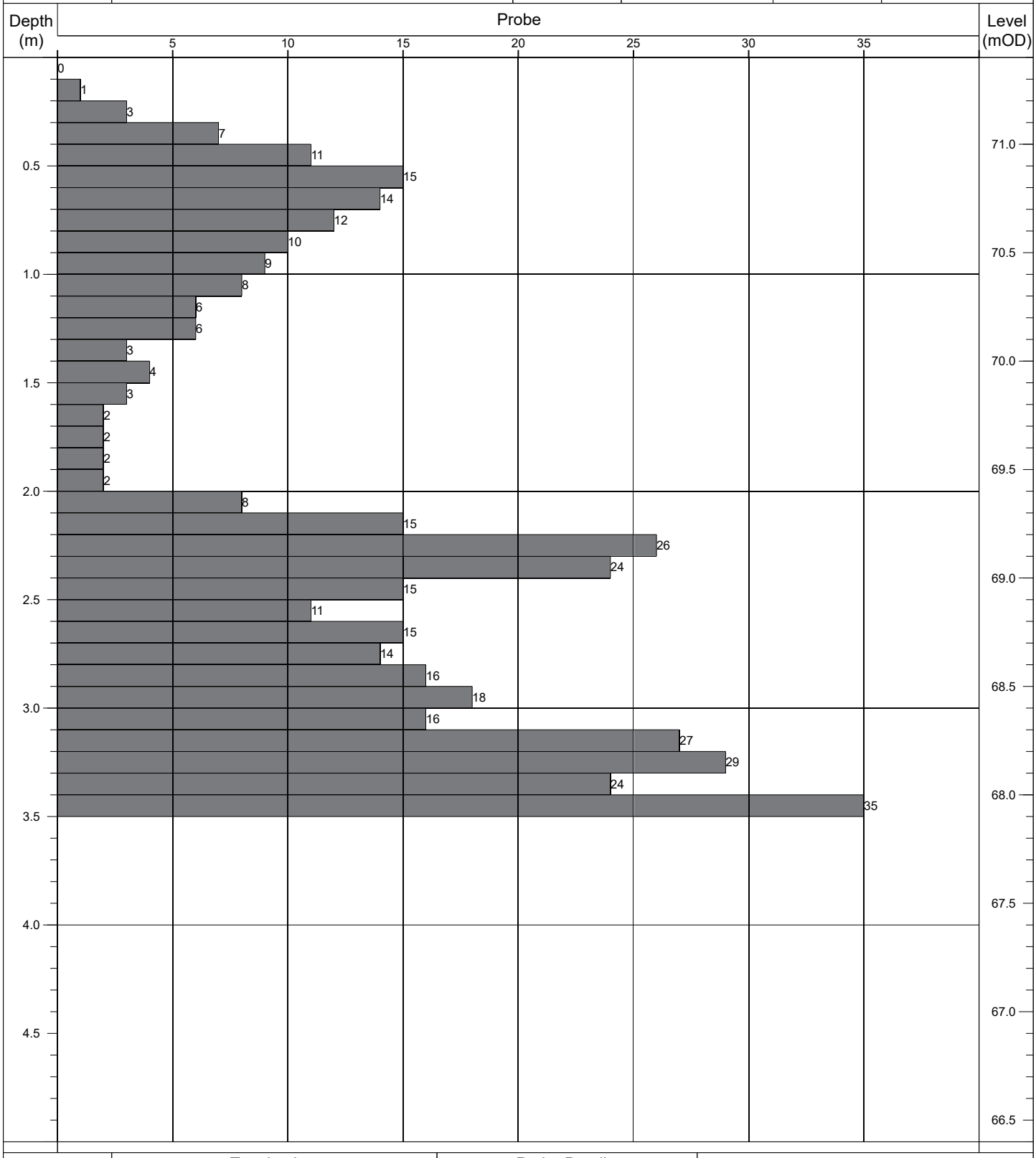
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP081**
Contract:	Coolagad	Easting:	727717.383	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713140.445	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.20	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



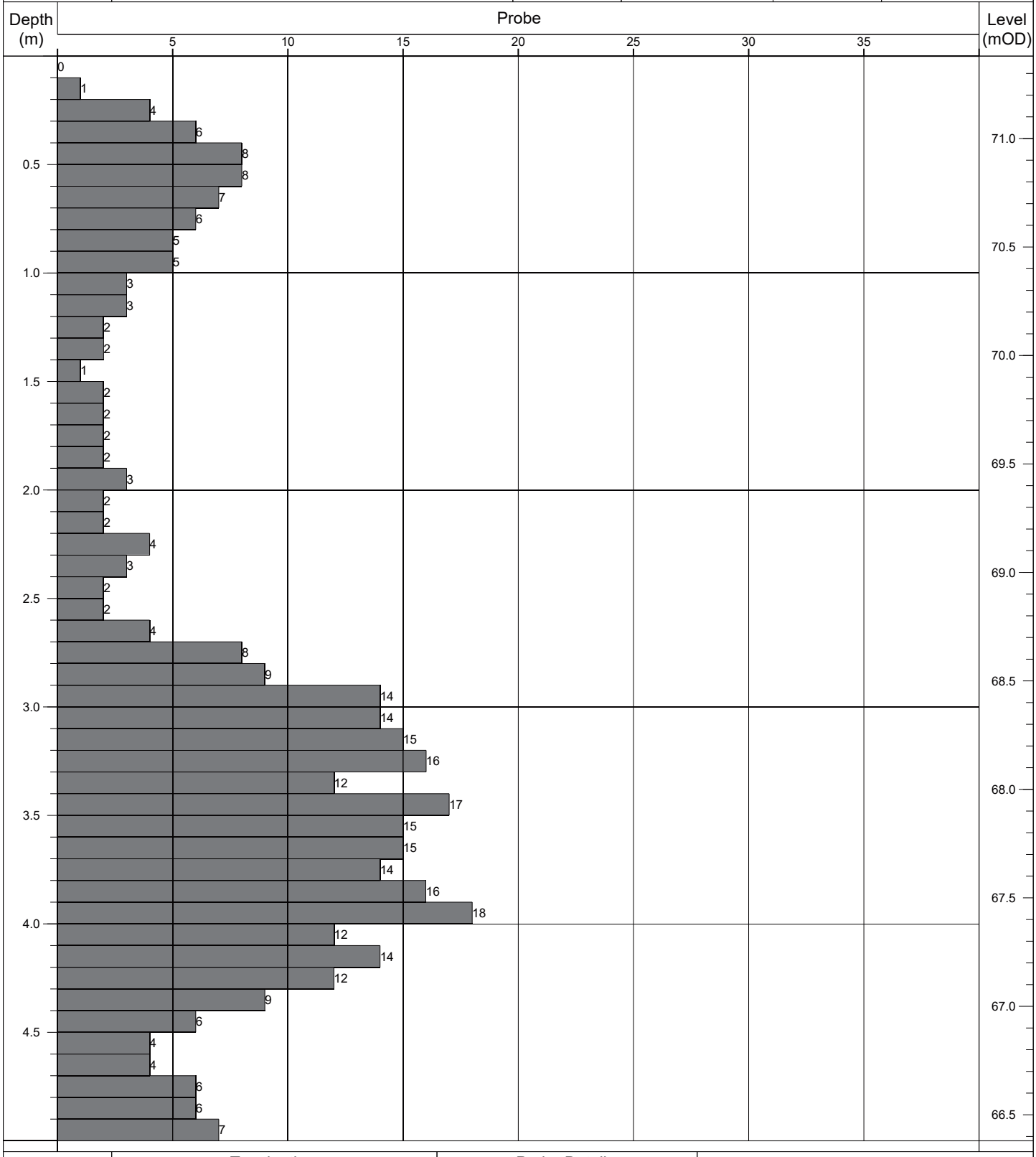
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP082**
Contract:	Coolagad	Easting:	727720.362	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713120.063	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.40	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



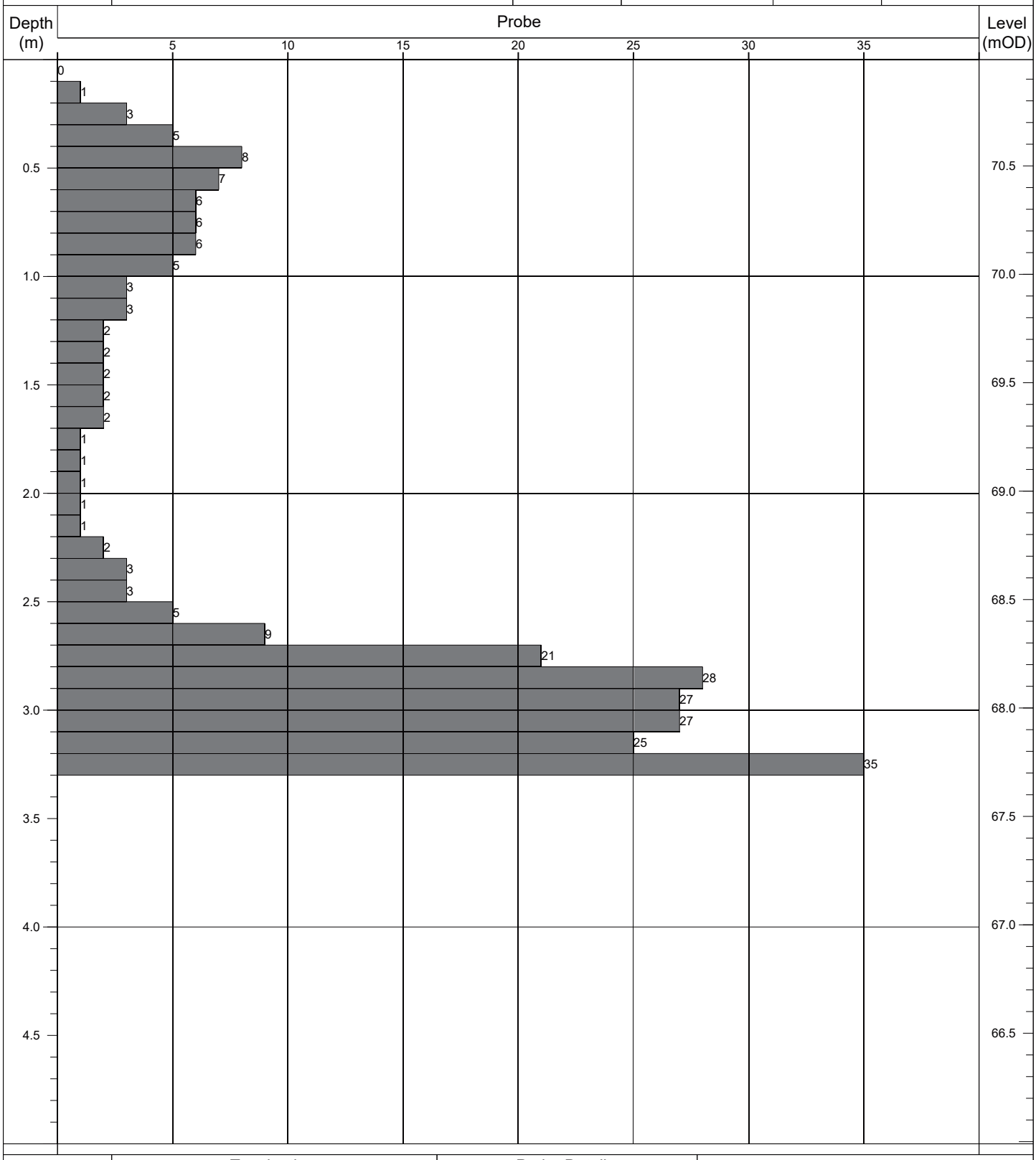
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP083**
Contract:	Coolagad	Easting:	727722.343	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713100.304	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.38	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



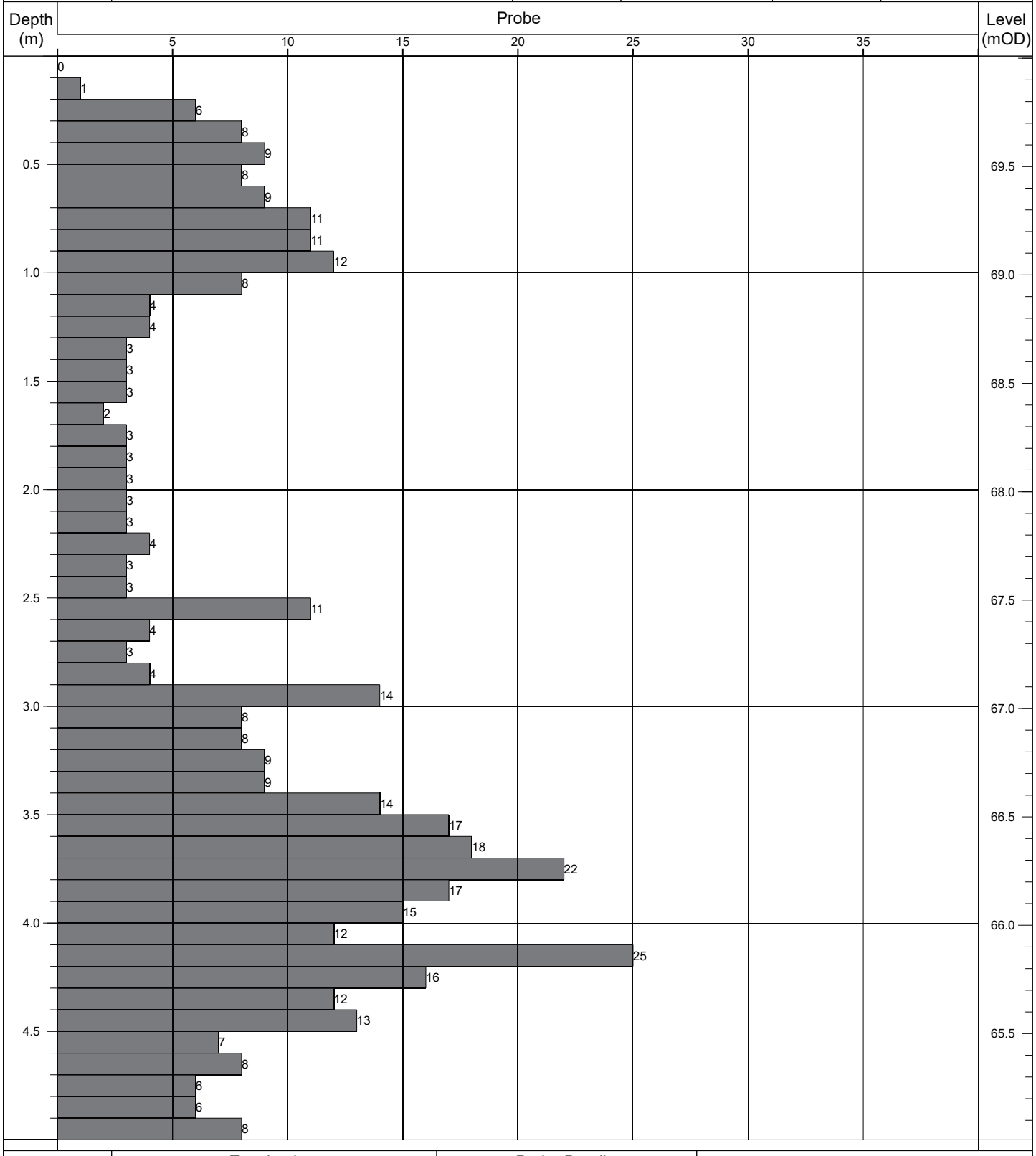
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP084**
Contract:	Coolagad	Easting:	727727.487	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713080.979	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	70.99	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



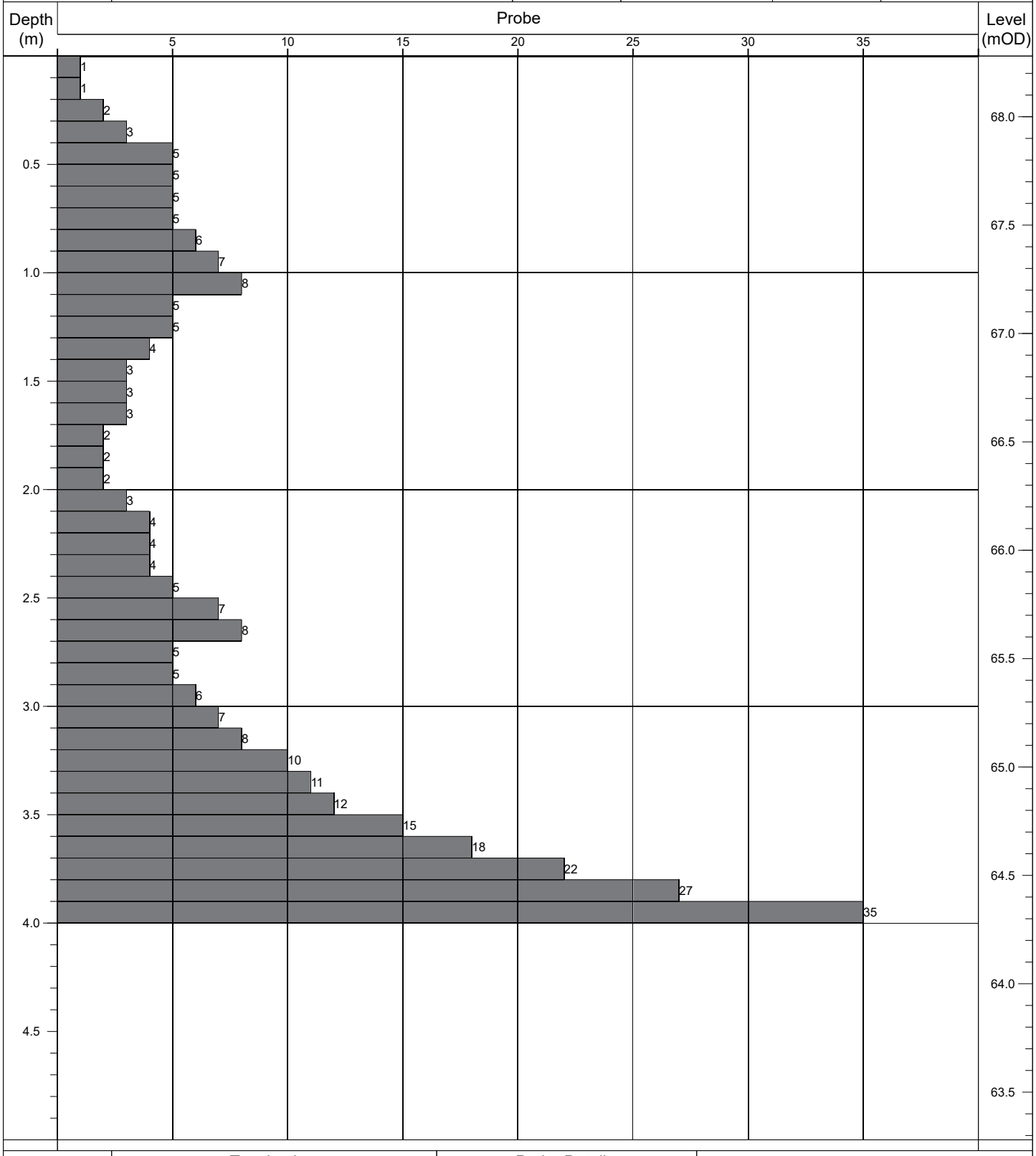
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP085**
Contract:	Coolagad	Easting:	727740.330	Date Started:	16/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713066.222	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	70.01	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



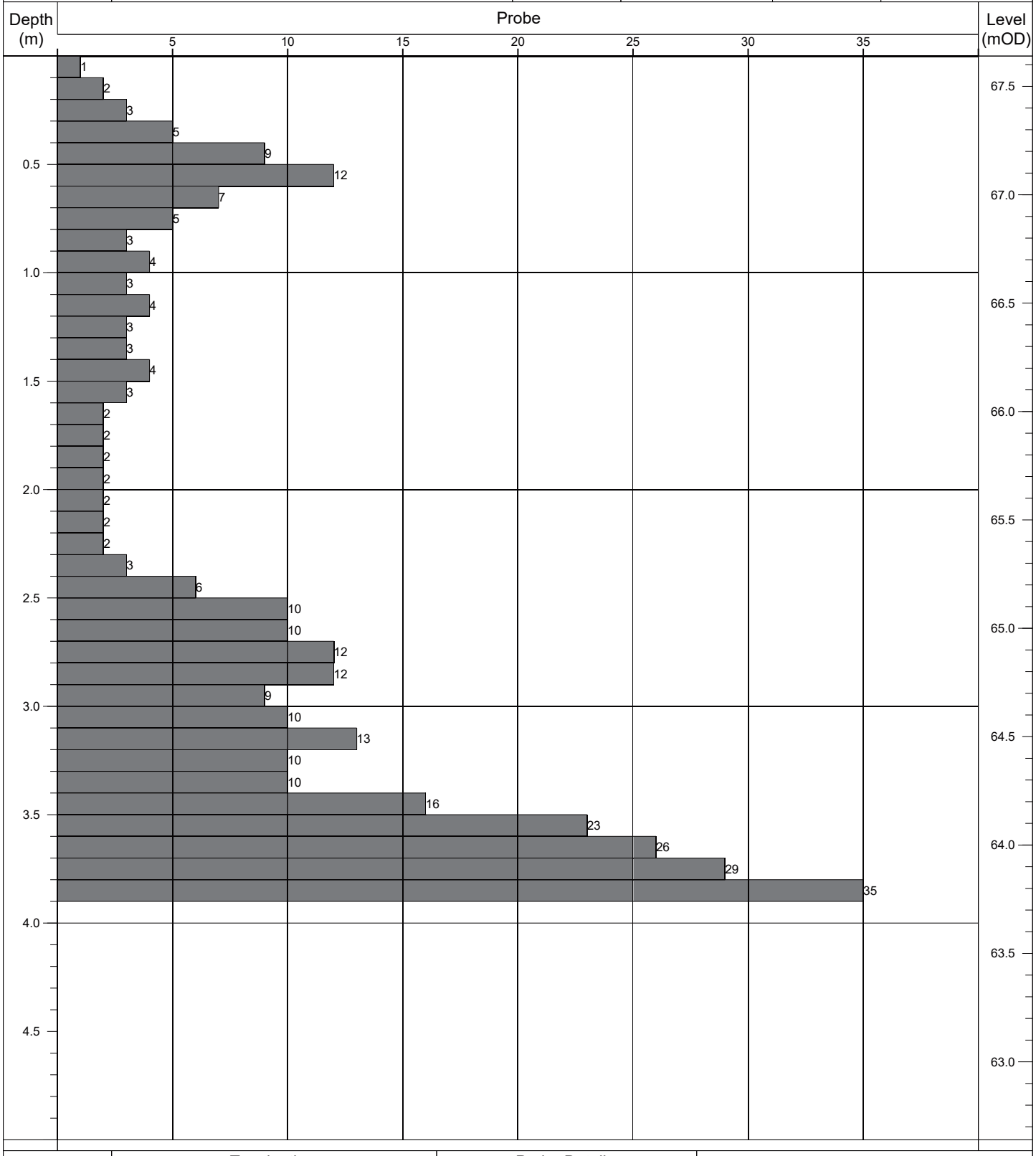
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP086
Contract:	Coolagad	Easting:	727753.949	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713049.624	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	68.28	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



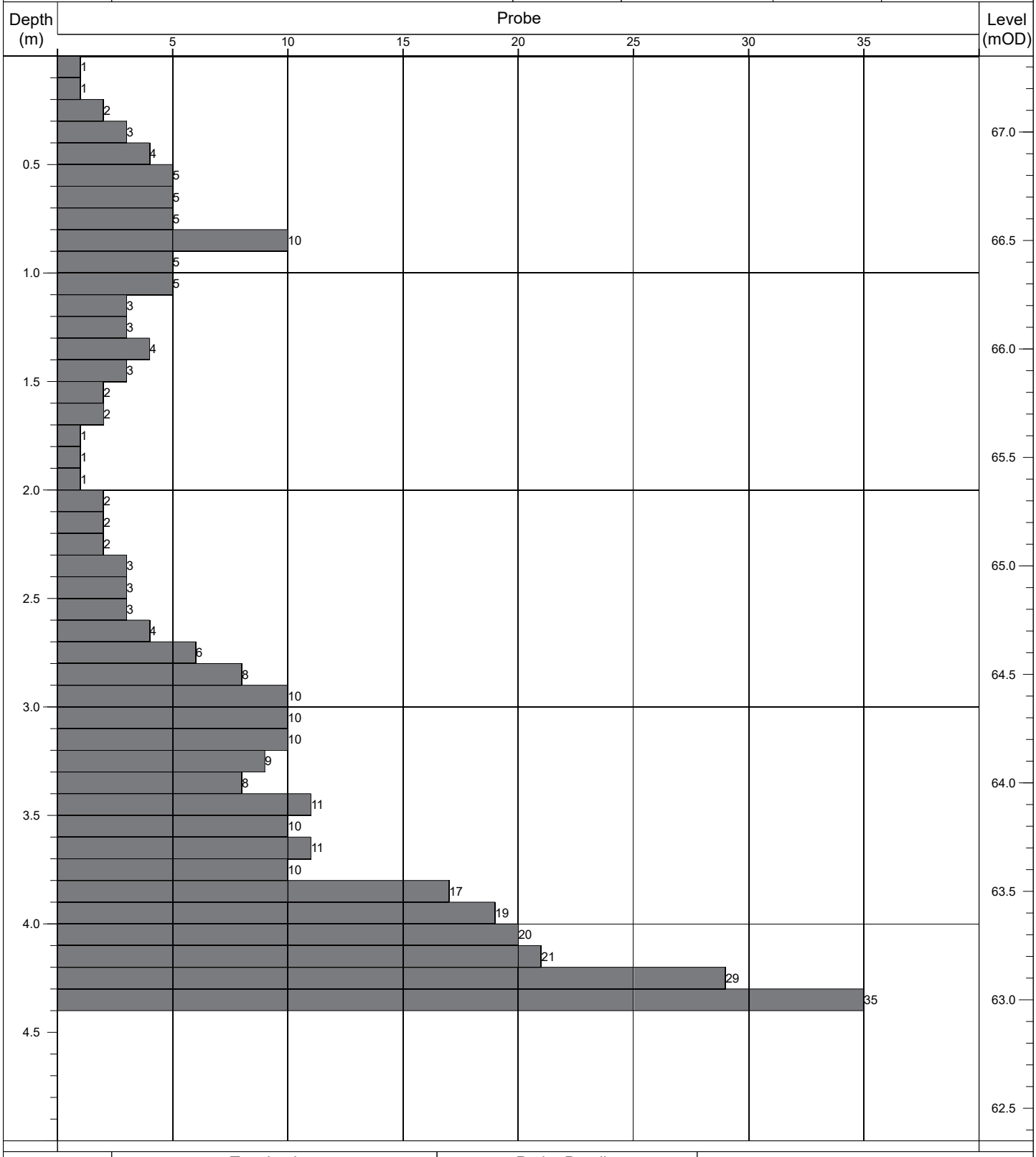
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP087**
Contract:	Coolagad	Easting:	727760.138	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713032.515	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	67.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



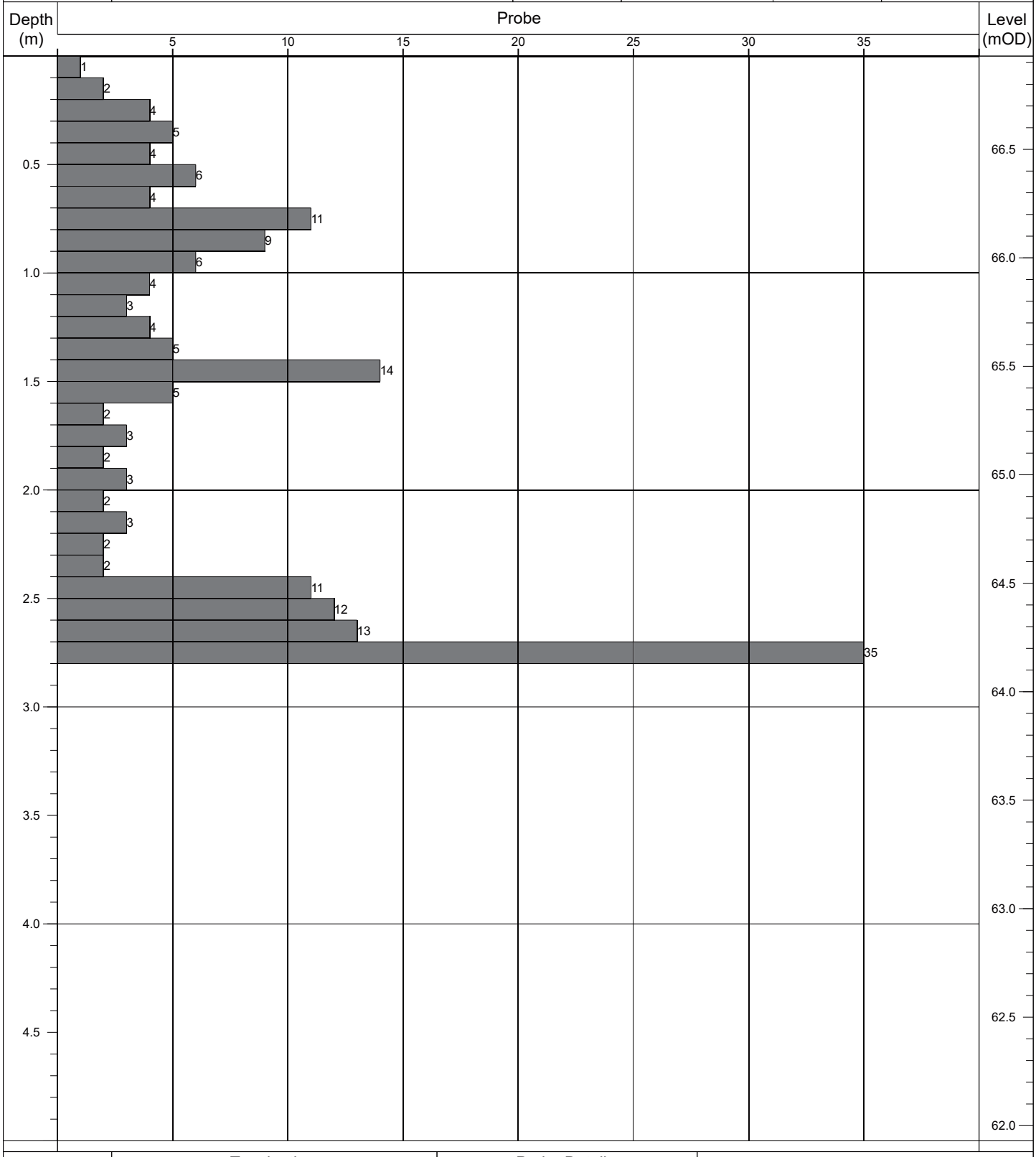
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP088**
Contract:	Coolagad	Easting:	727761.189	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713013.156	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	67.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



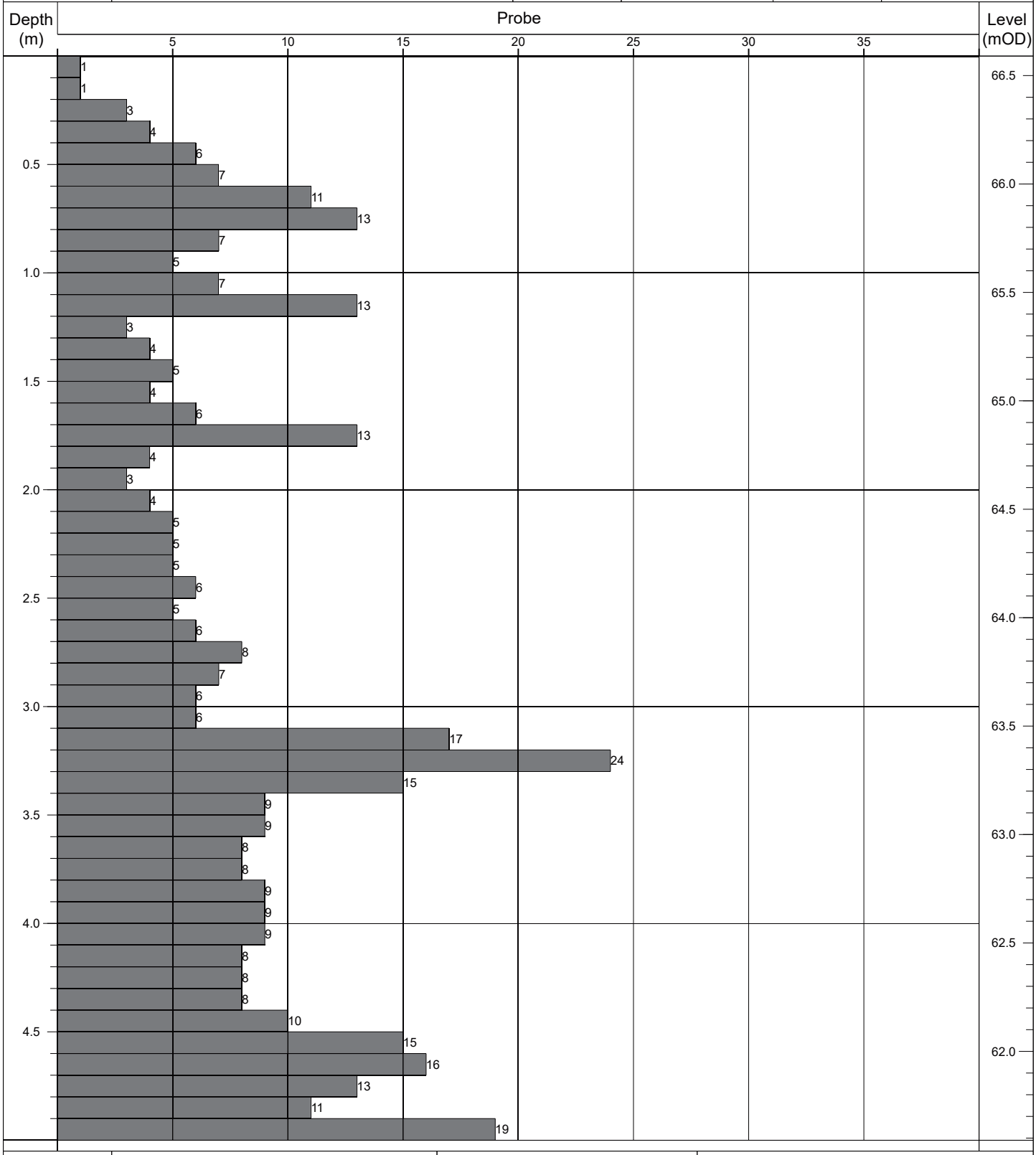
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP089**
Contract:	Coolagad	Easting:	727761.712	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712992.047	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.93	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



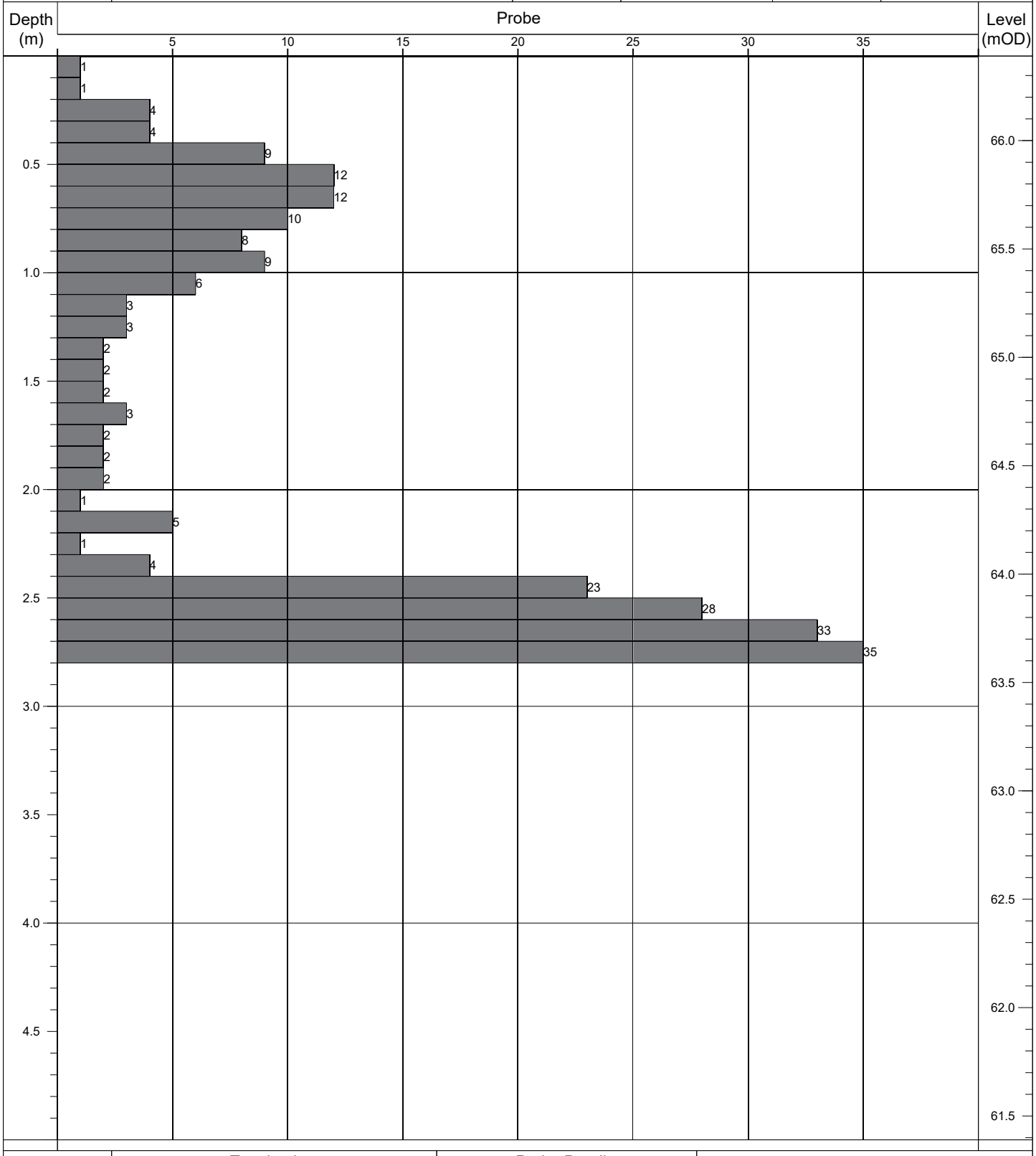
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP090**
Contract:	Coolagad	Easting:	727761.287	Date Started:	21/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712972.420	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.59	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



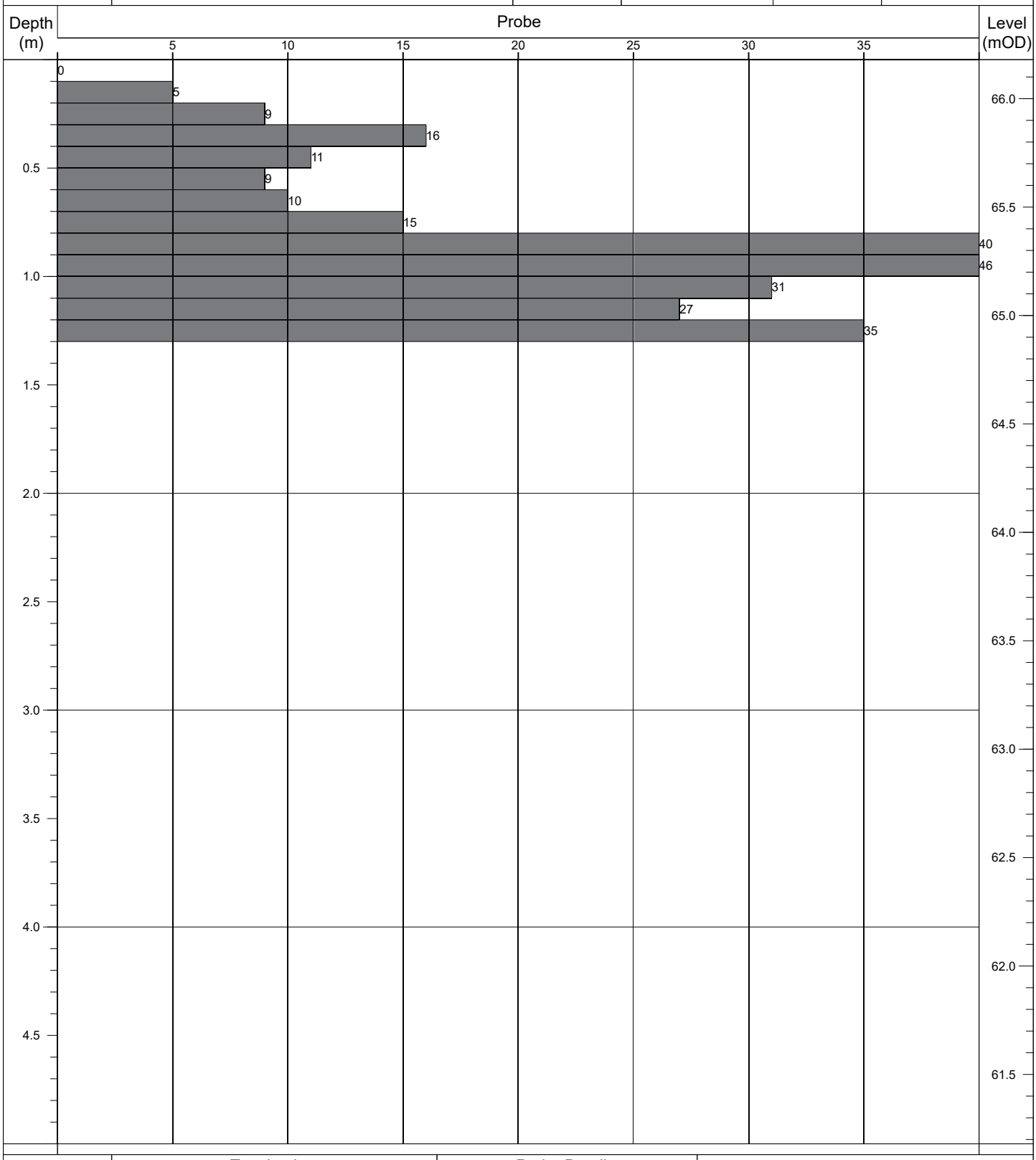
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP091**
Contract:	Coolagad	Easting:	727760.324	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712957.359	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.39	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



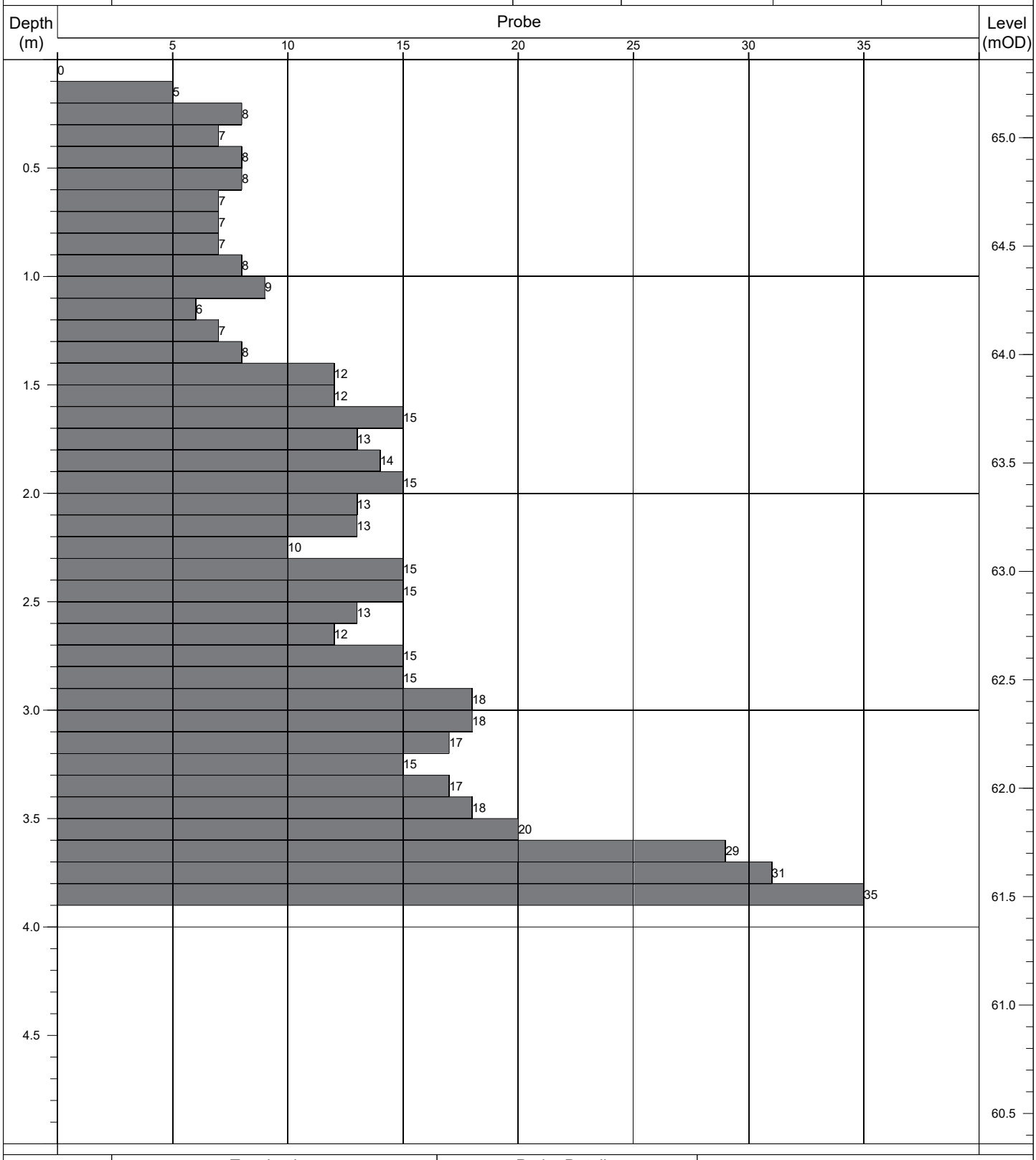
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP092**
Contract:	Coolagad	Easting:	727760.238	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712939.038	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.18	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



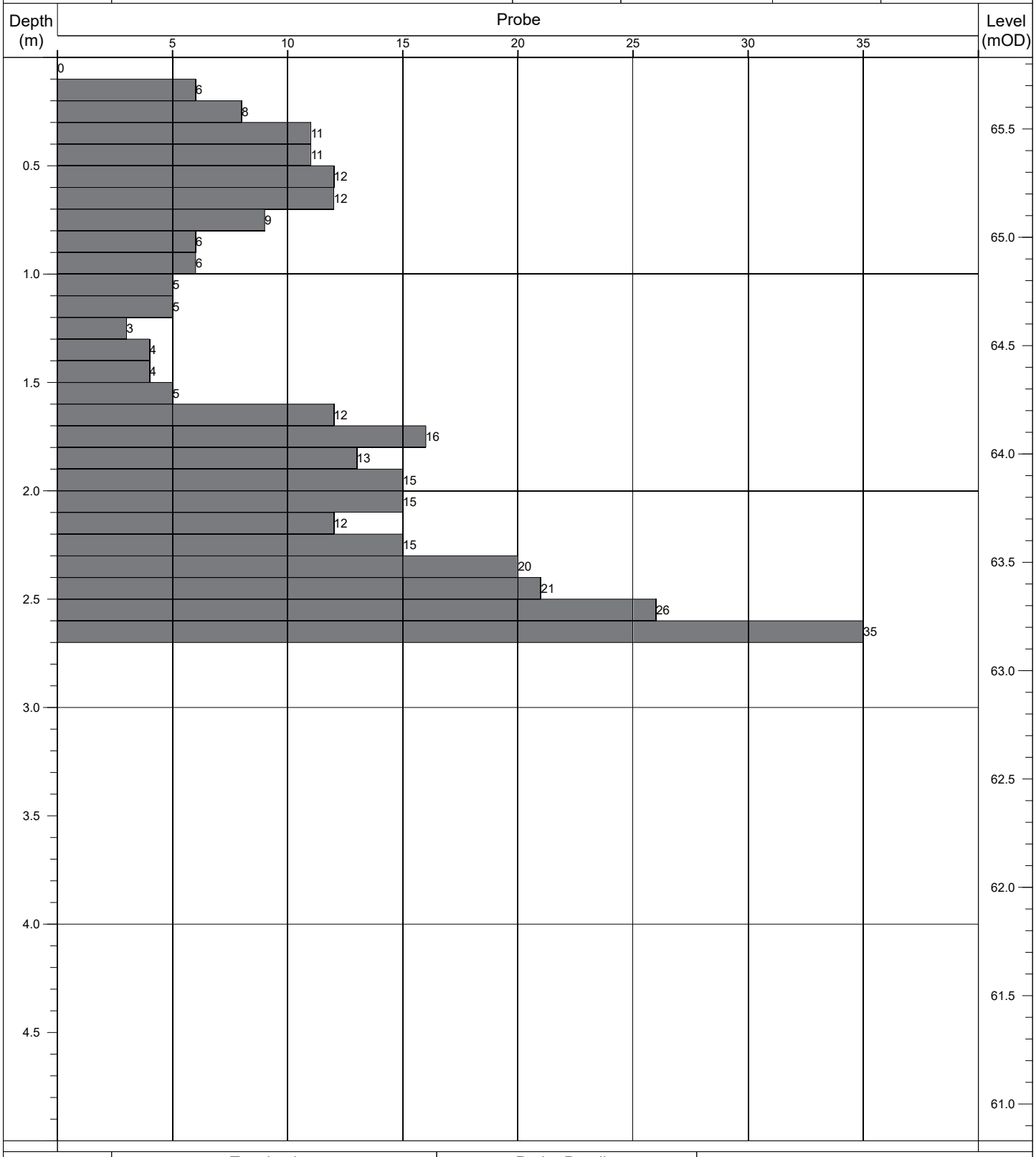
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP093**
Contract:	Coolagad	Easting:	727777.813	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712924.340	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.36	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



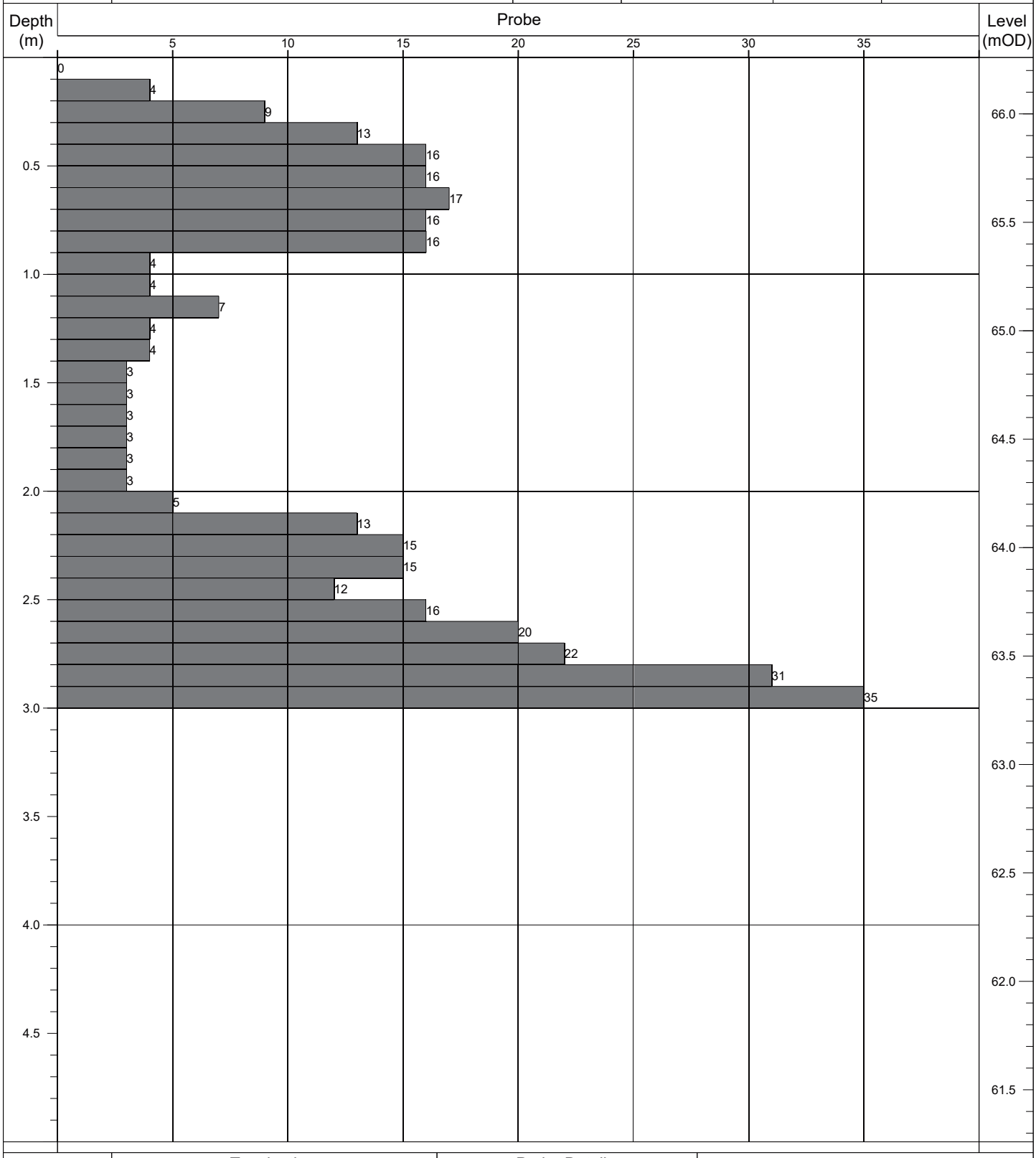
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP094**
Contract:	Coolagad	Easting:	727785.307	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712905.455	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.83	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



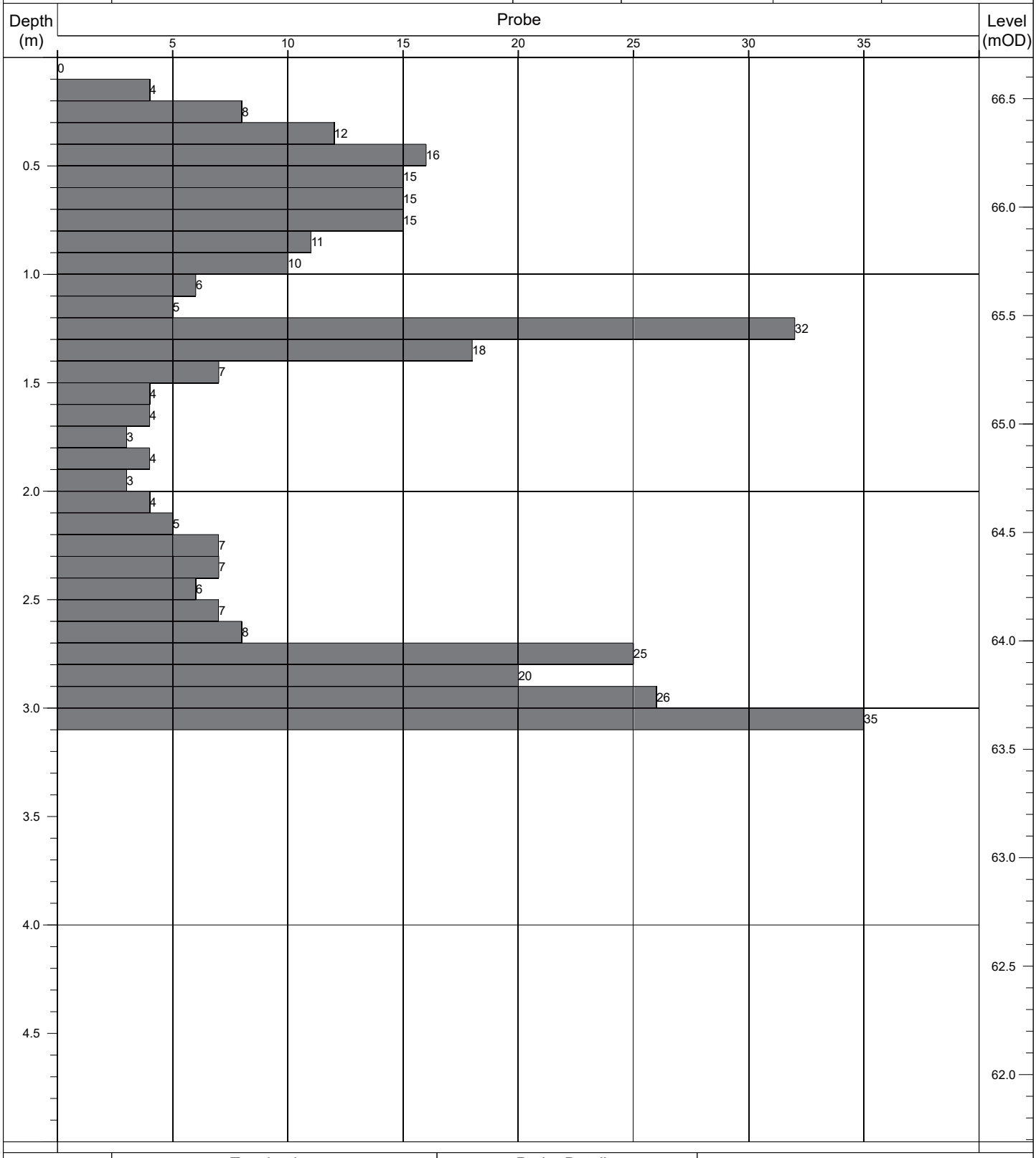
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP095**
Contract:	Coolagad	Easting:	727792.328	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712887.158	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.26	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



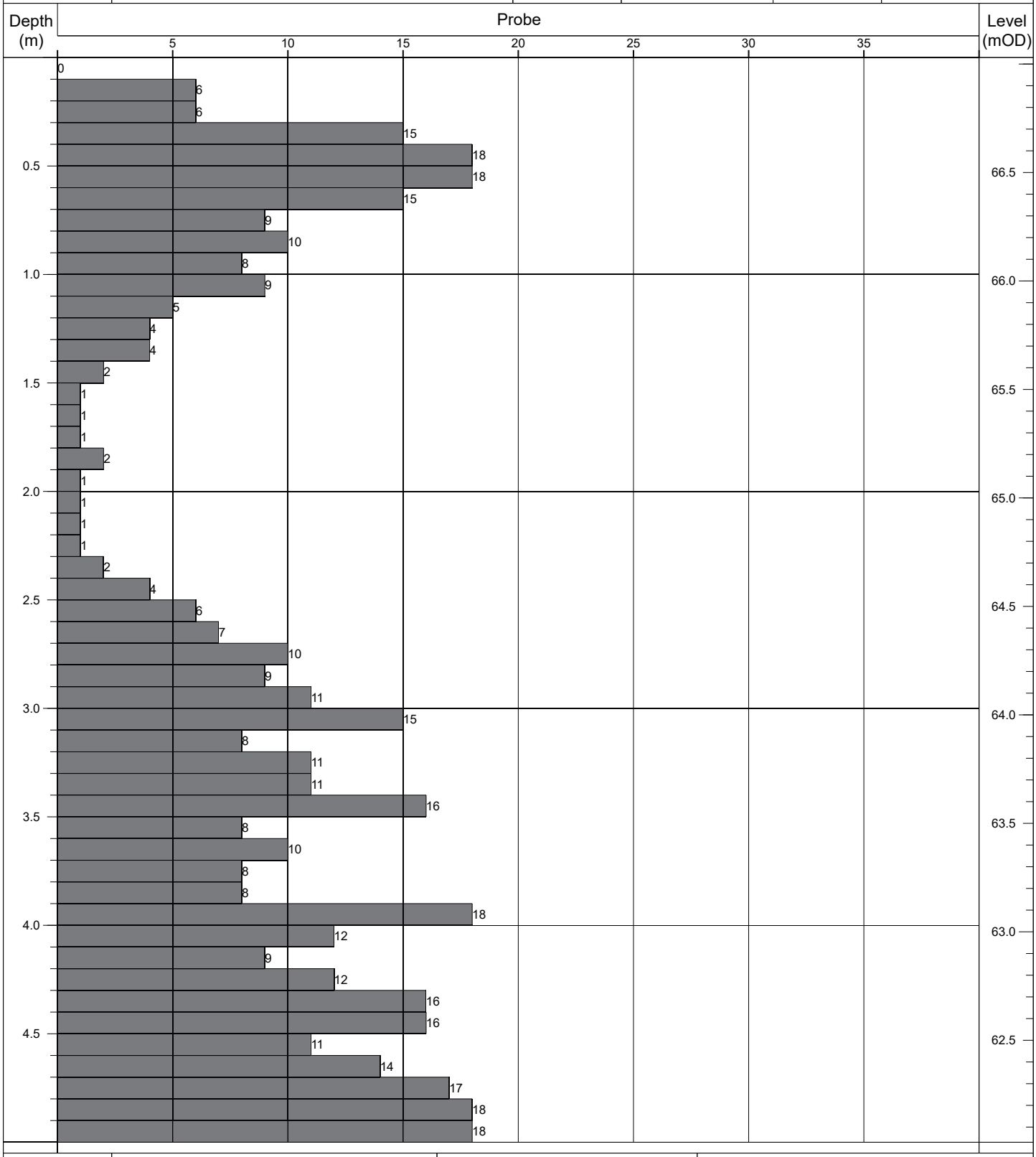
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP096**
Contract:	Coolagad	Easting:	727799.991	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712869.056	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.69	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



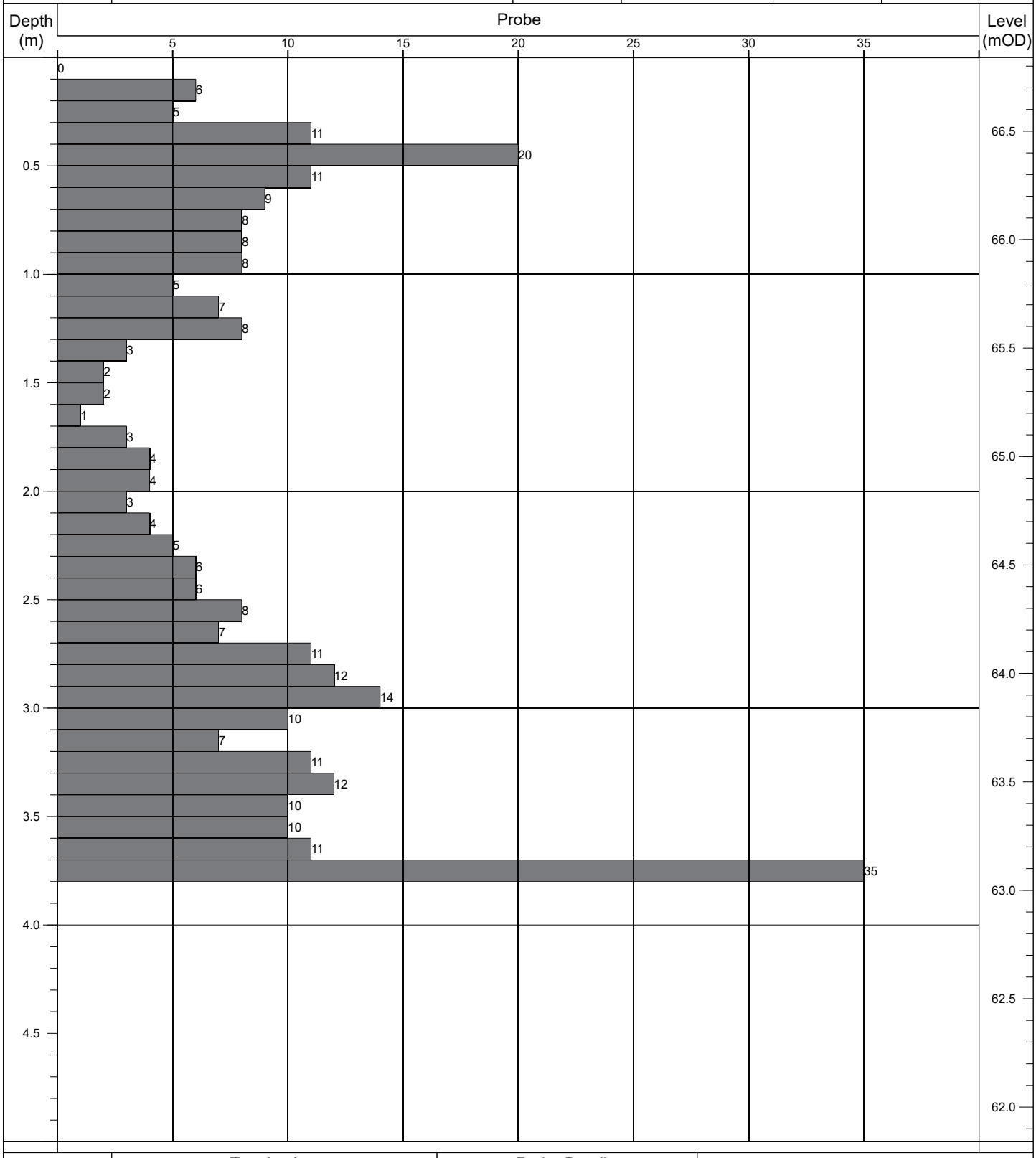
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP097
Contract:	Coolagad	Easting:	727804.043	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712849.071	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	67.03	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



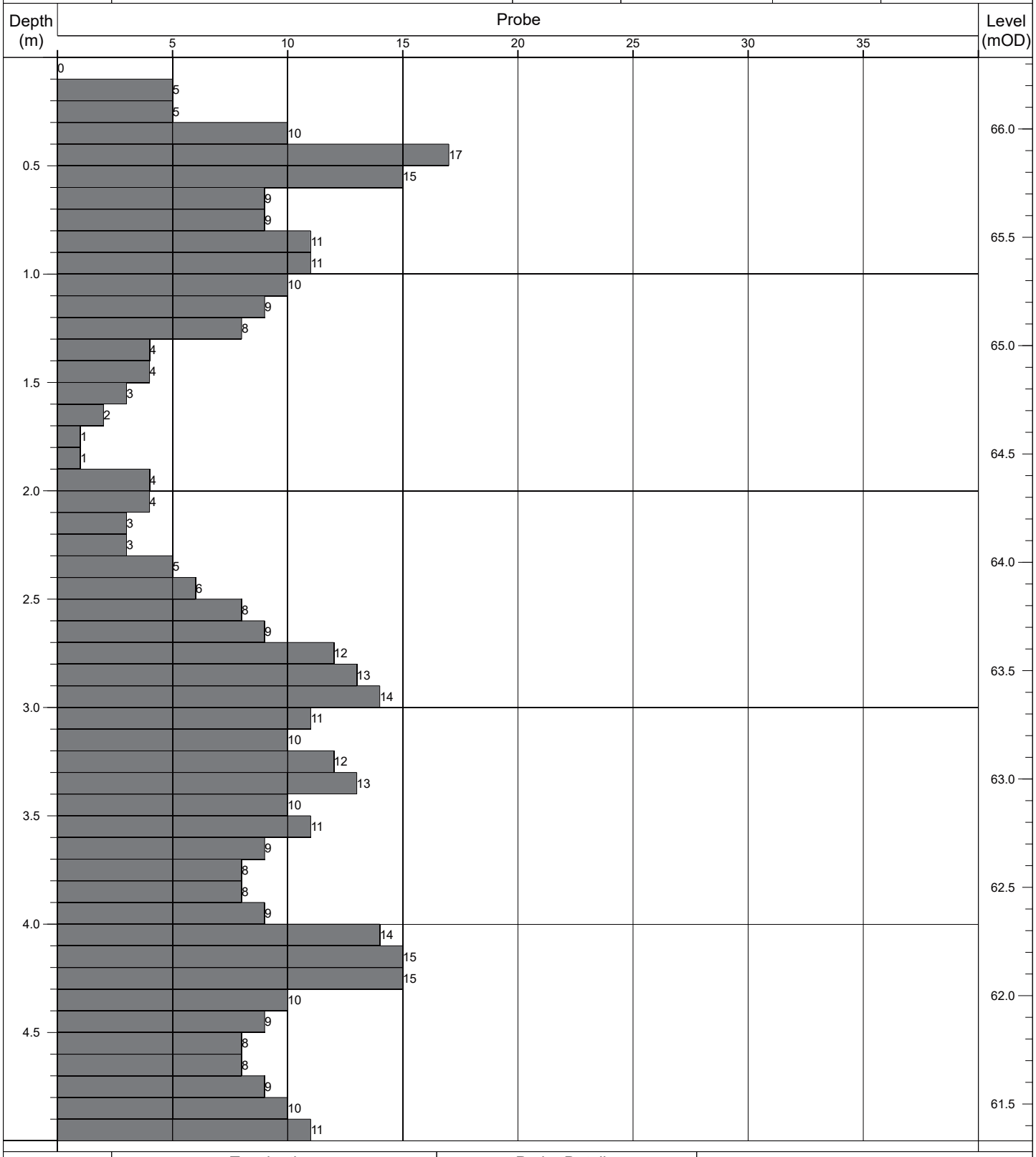
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP098**
Contract:	Coolagad	Easting:	727809.983	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712830.331	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



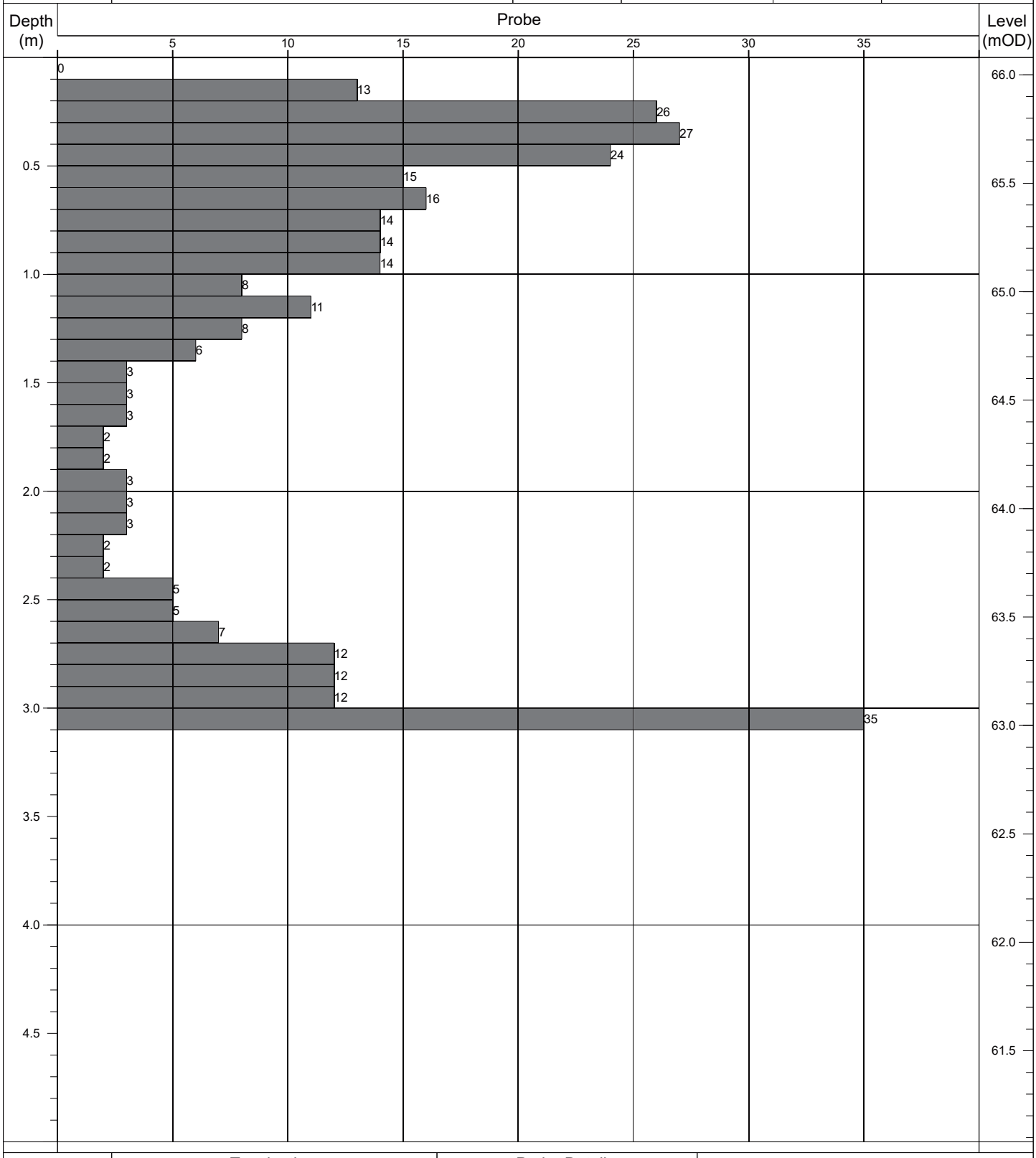
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP099**
Contract:	Coolagad	Easting:	727820.184	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712813.007	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.33	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



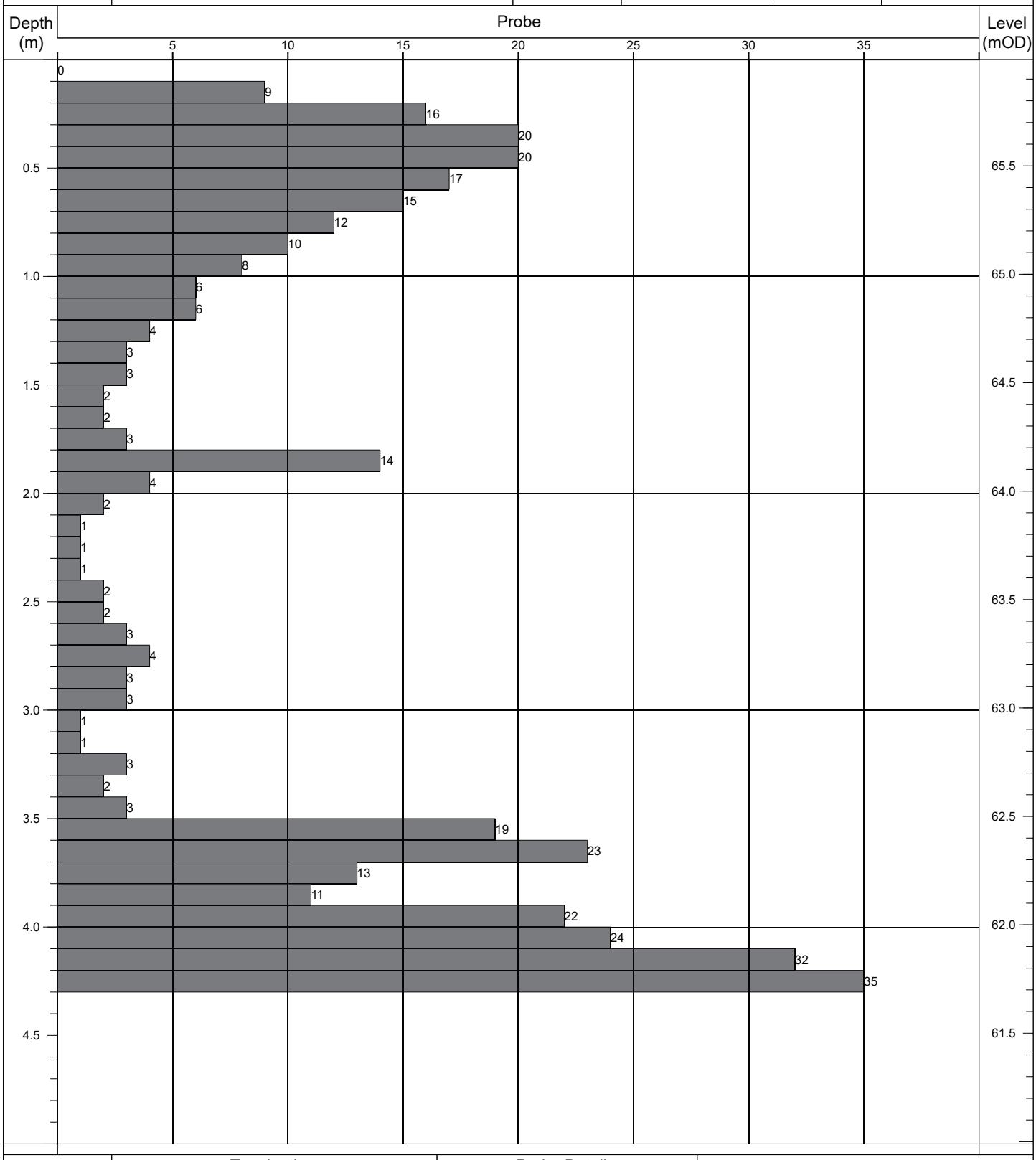
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP100**
Contract:	Coolagad	Easting:	727827.588	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712794.250	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.08	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



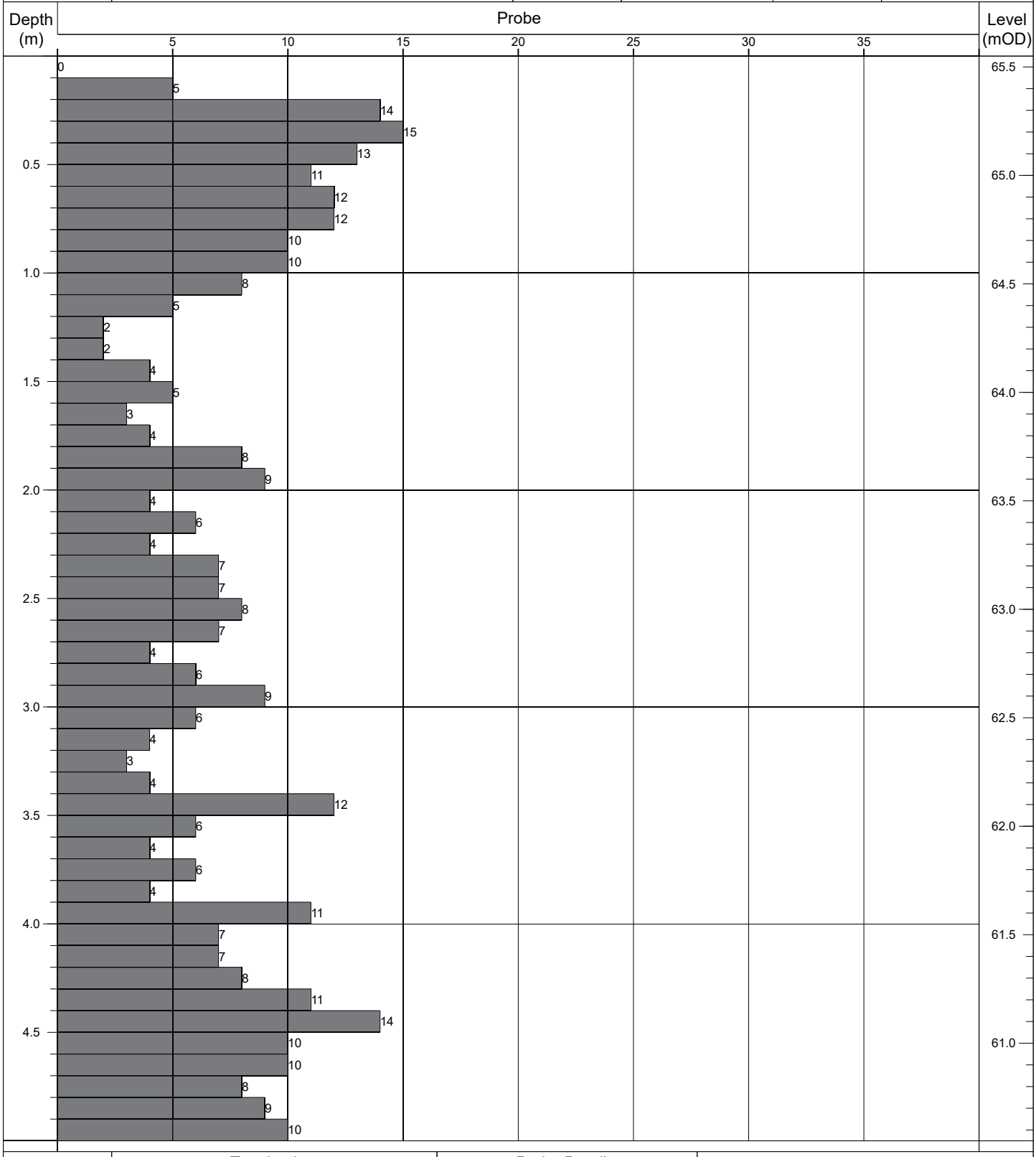
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP101**
Contract:	Coolagad	Easting:	727832.616	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712775.475	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.99	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



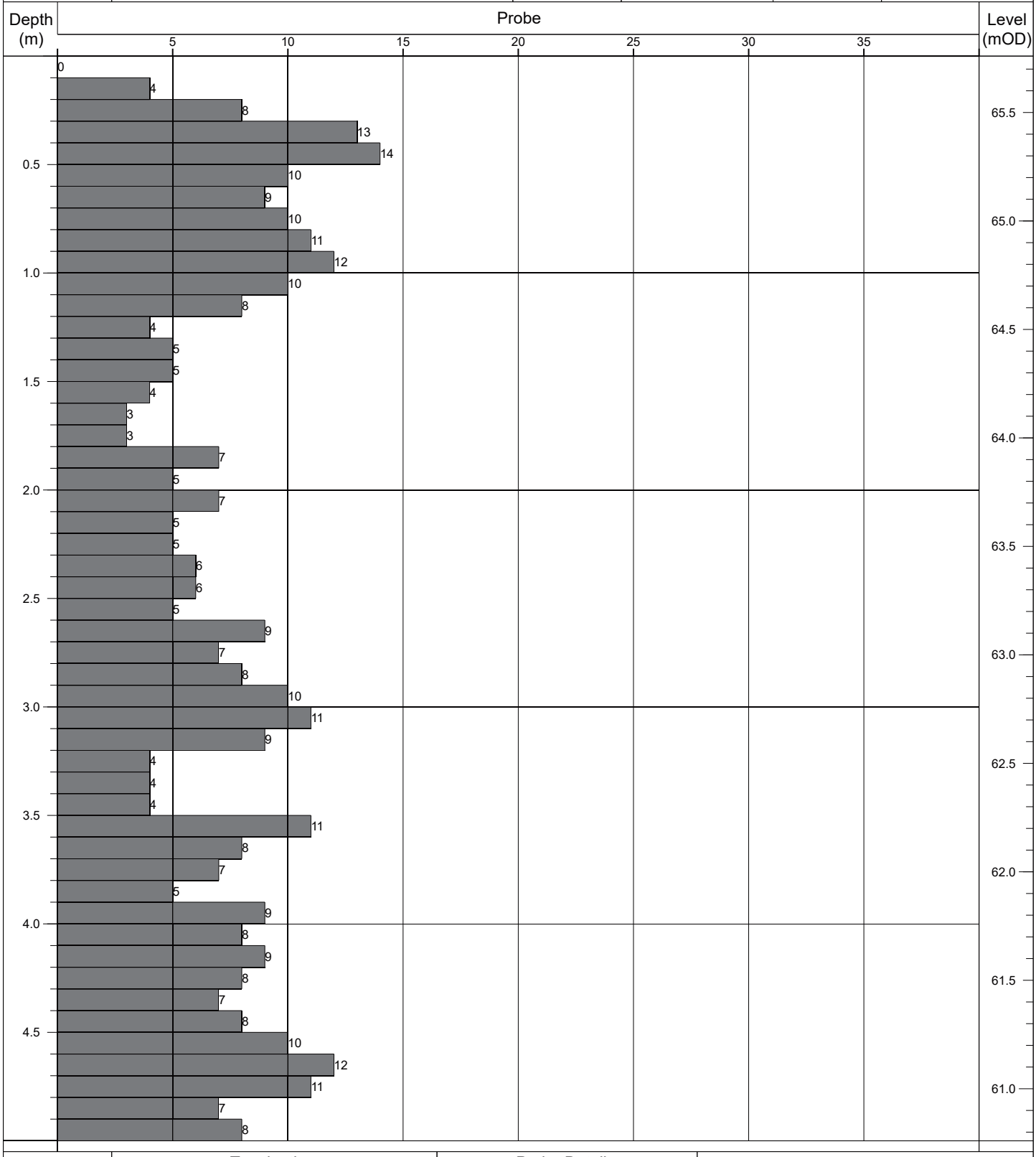
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP102**
Contract:	Coolagad	Easting:	727840.094	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712752.800	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



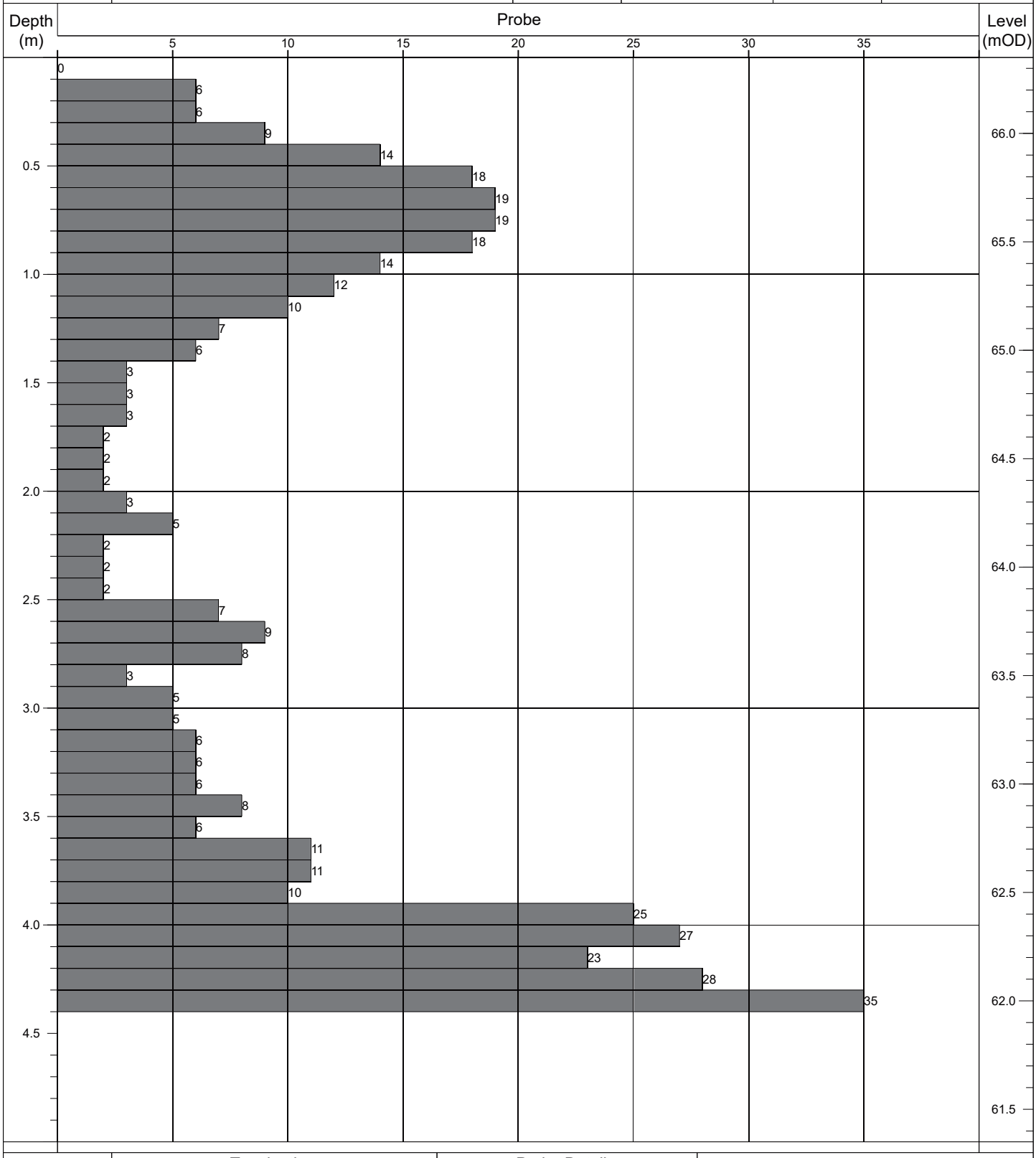
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP103
Contract:	Coolagad	Easting:	727845.227	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712734.496	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.76	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



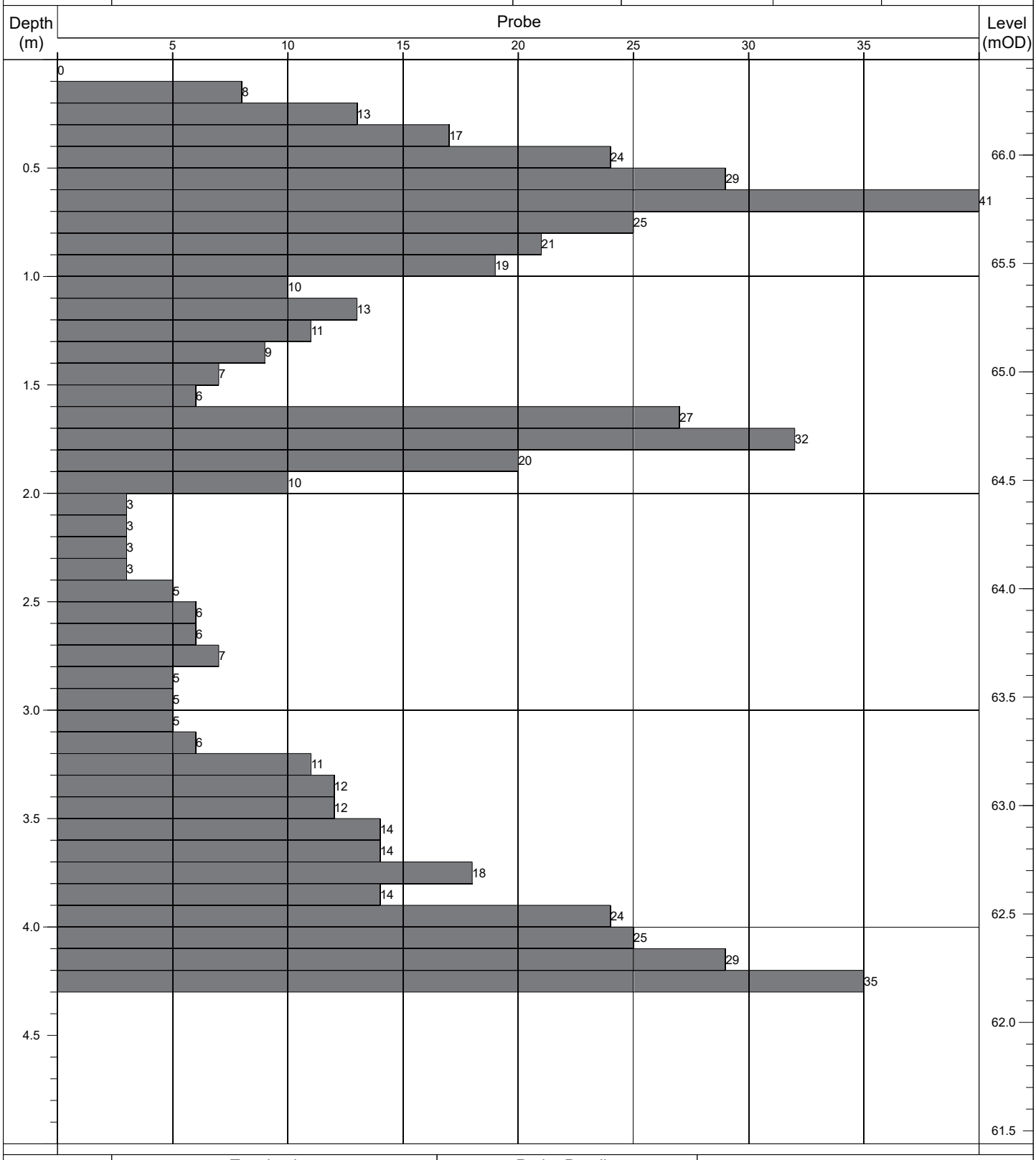
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP104**
Contract:	Coolagad	Easting:	727847.650	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712715.230	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



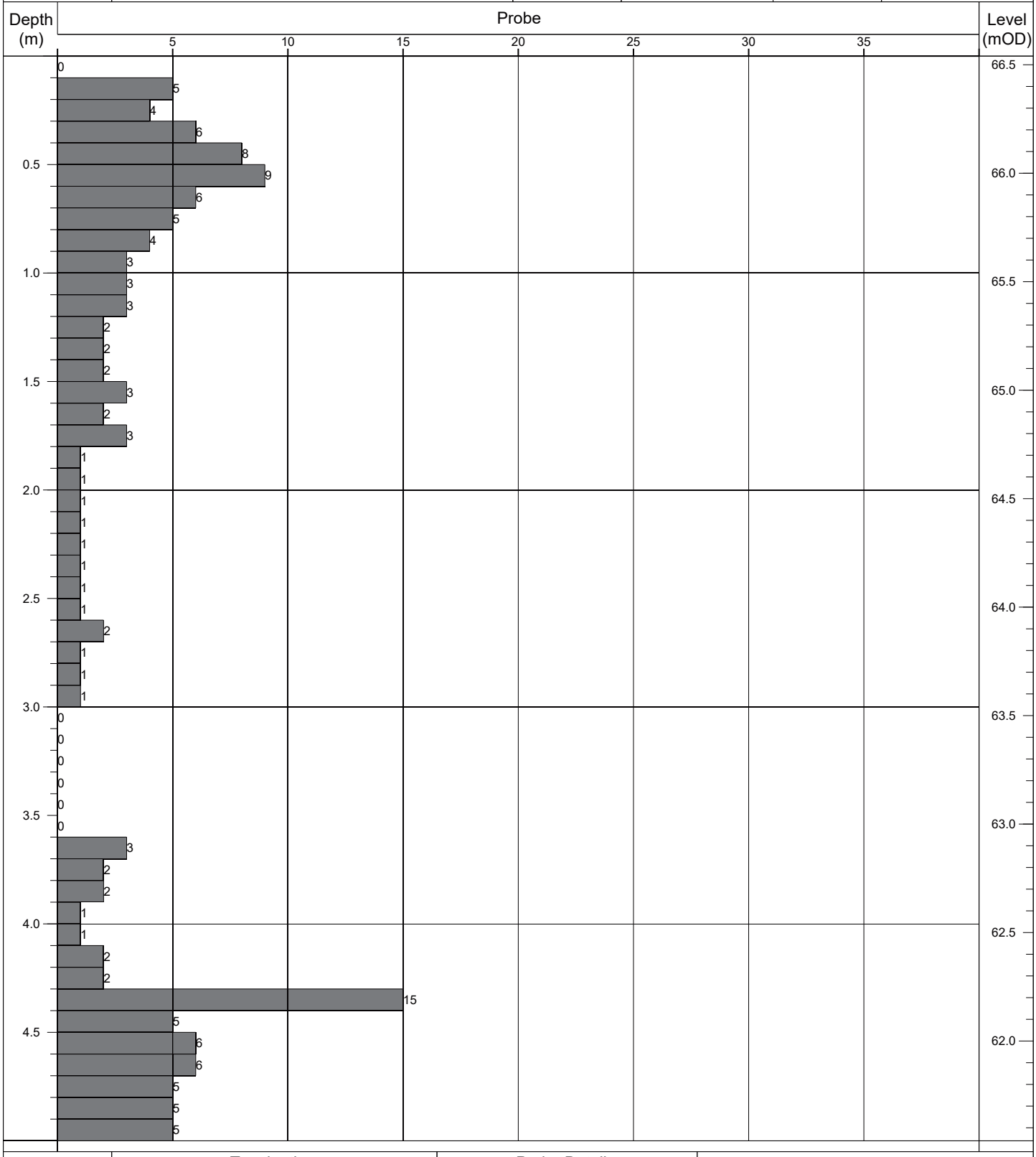
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP105**
Contract:	Coolagad	Easting:	727855.388	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712696.813	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.44	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



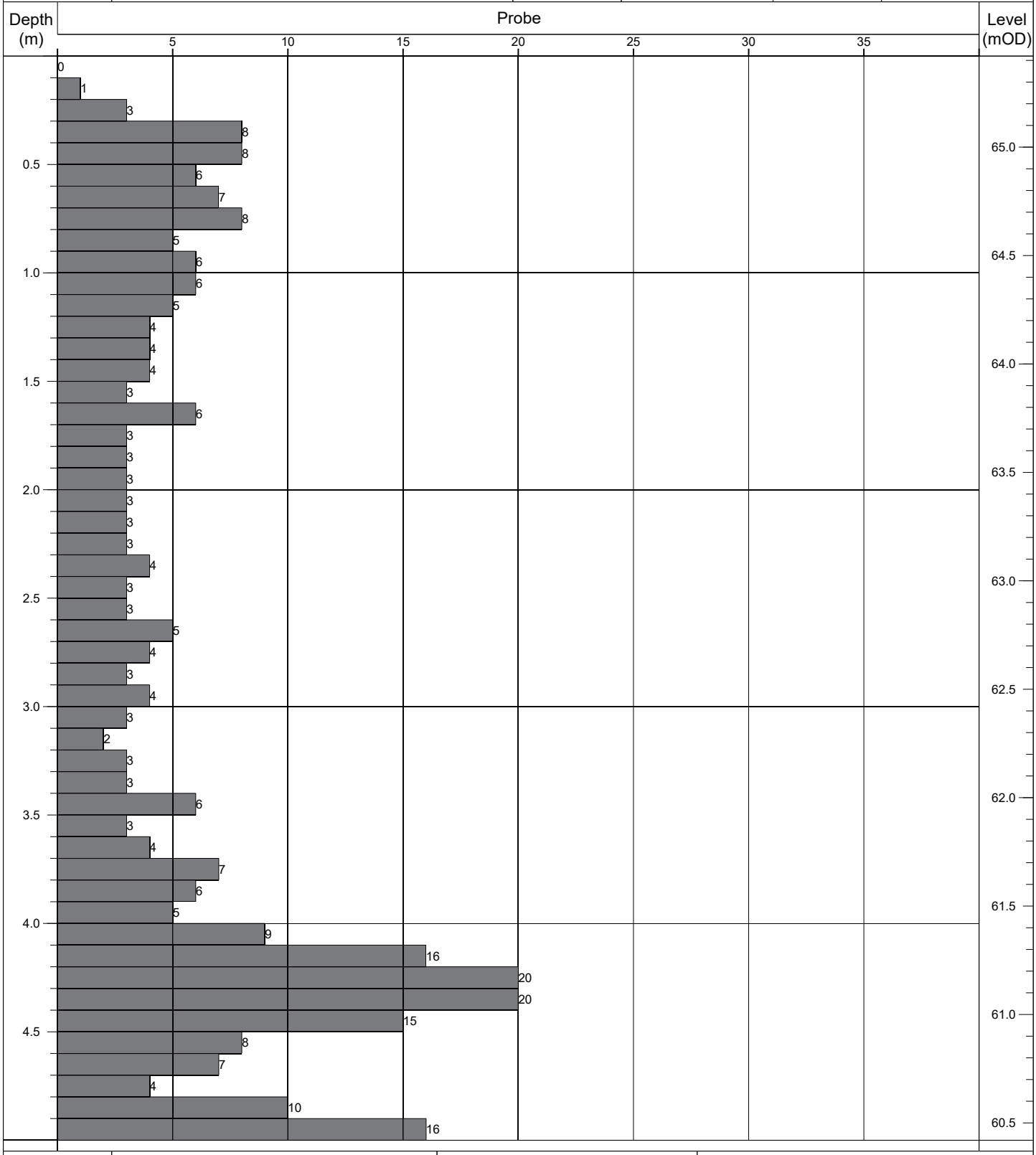
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP106
Contract:	Coolagad	Easting:	727863.694	Date Started:	22/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712678.379	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	66.54	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



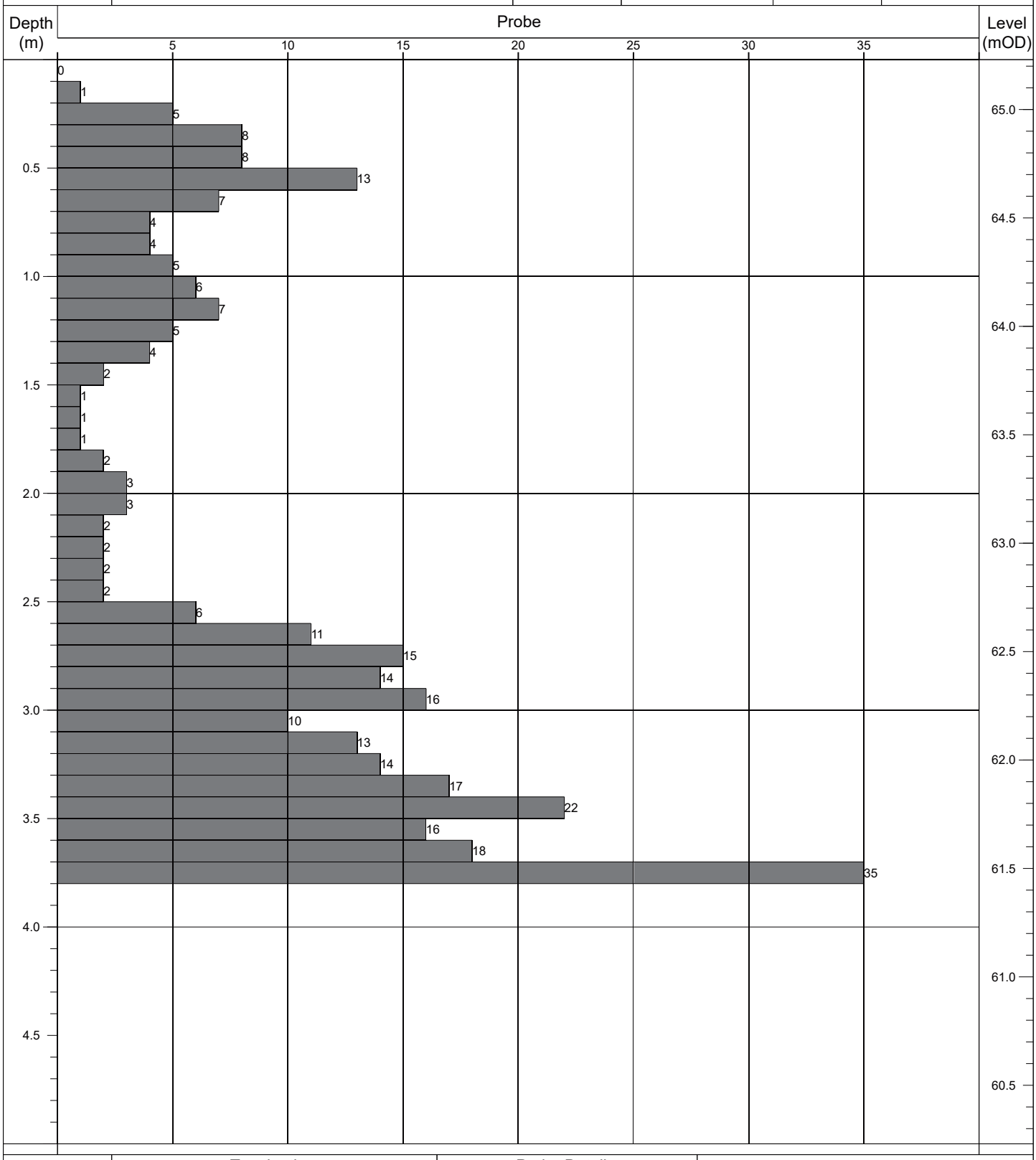
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP107**
Contract:	Coolagad	Easting:	727772.346	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713259.647	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.42	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



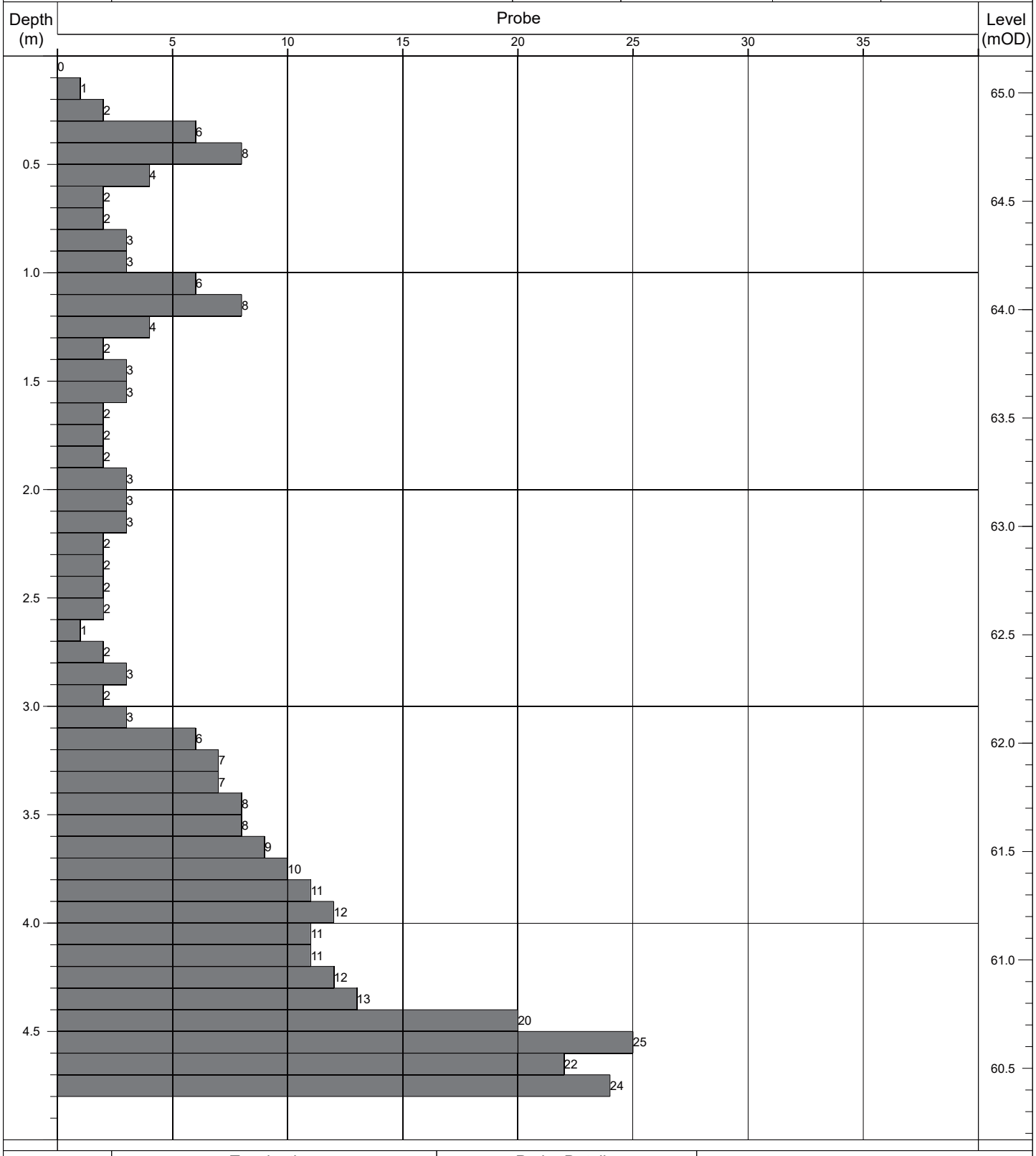
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP108**
Contract:	Coolagad	Easting:	727773.697	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713240.103	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.23	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



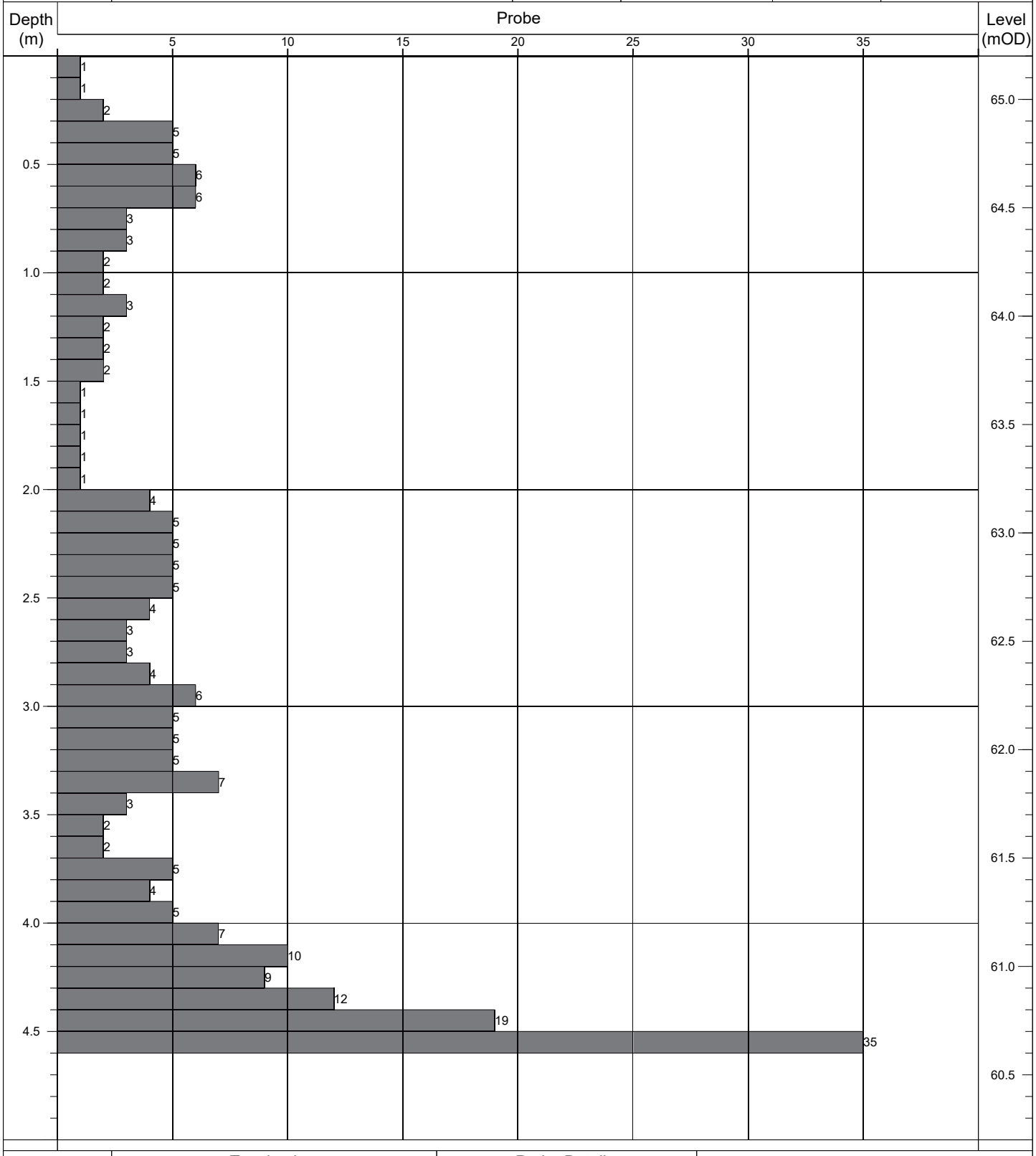
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP109**
Contract:	Coolagad	Easting:	727777.358	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713220.346	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.17	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



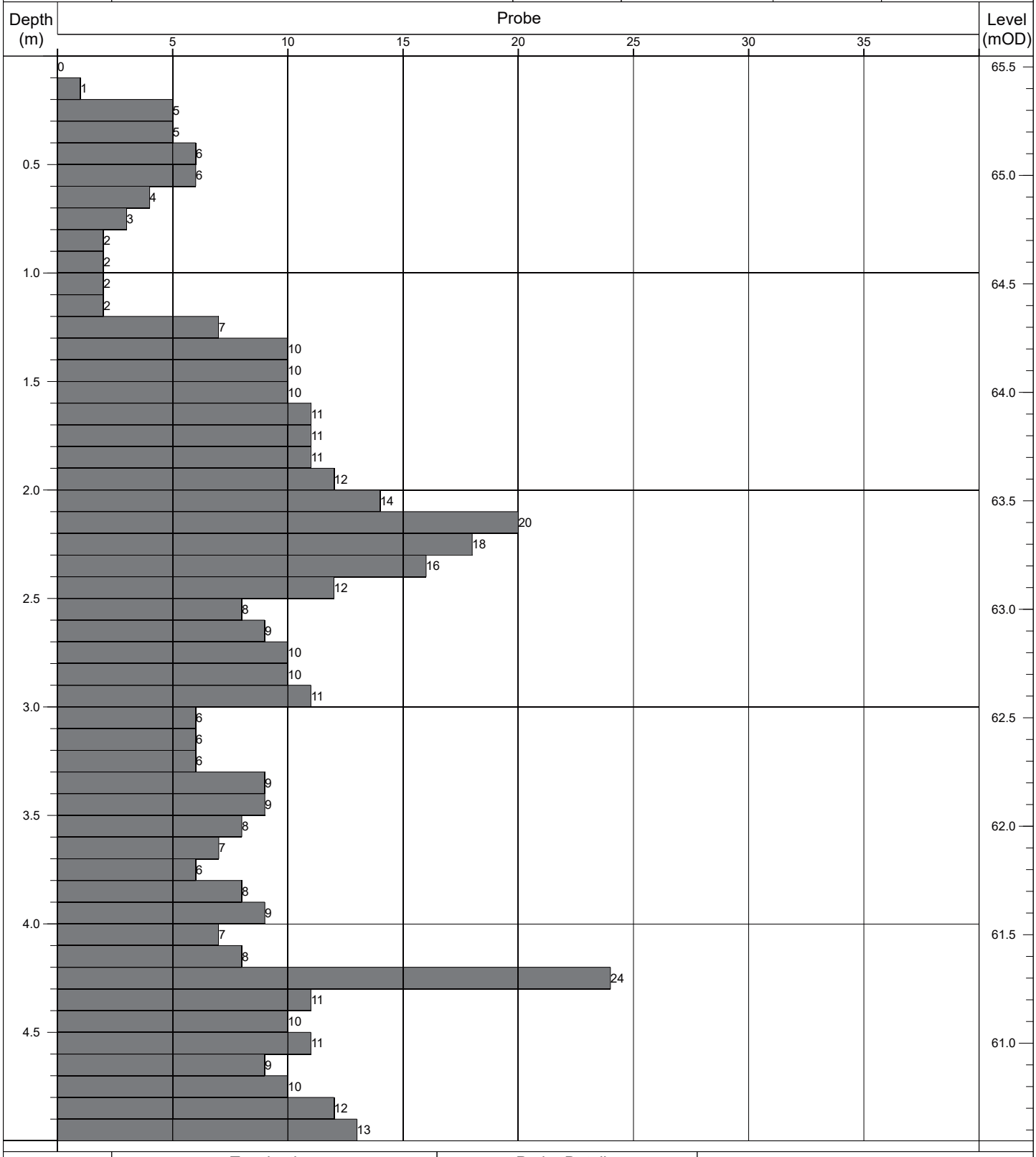
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP110**
Contract:	Coolagad	Easting:	727781.998	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713200.592	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.20	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



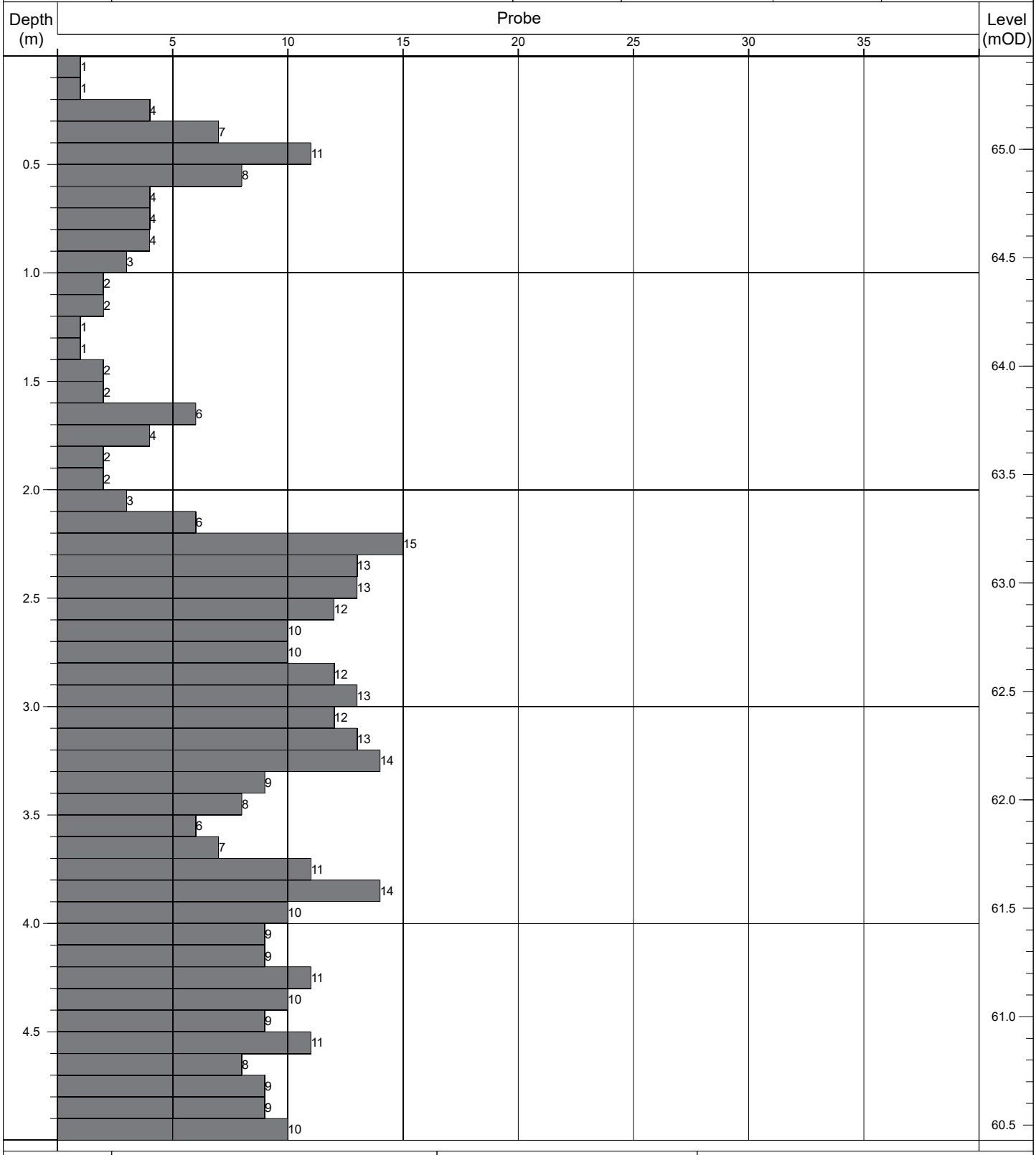
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP111**
Contract:	Coolagad	Easting:	727784.625	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713181.097	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



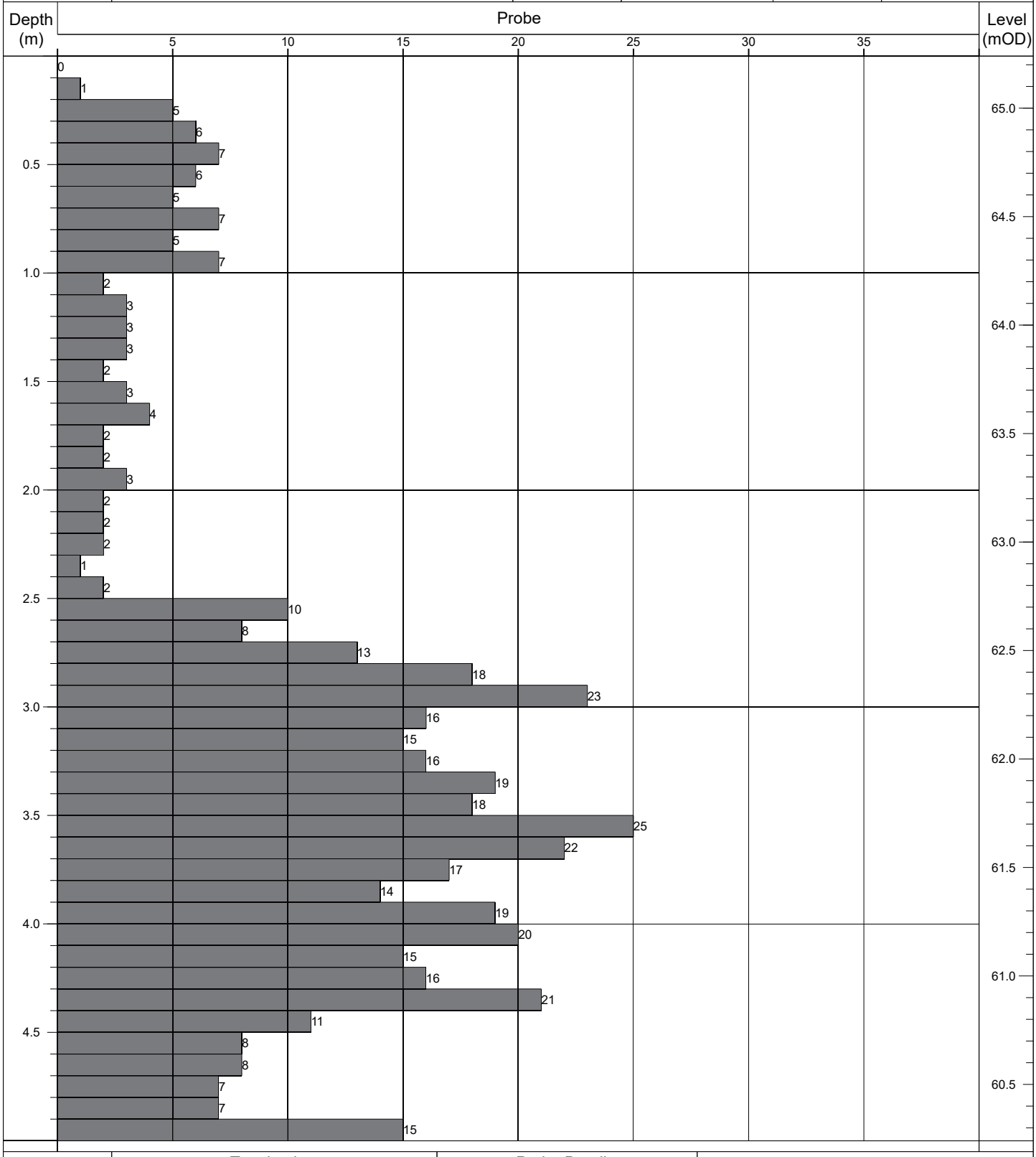
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP112
Contract:	Coolagad	Easting:	727786.713	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713160.908	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.43	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



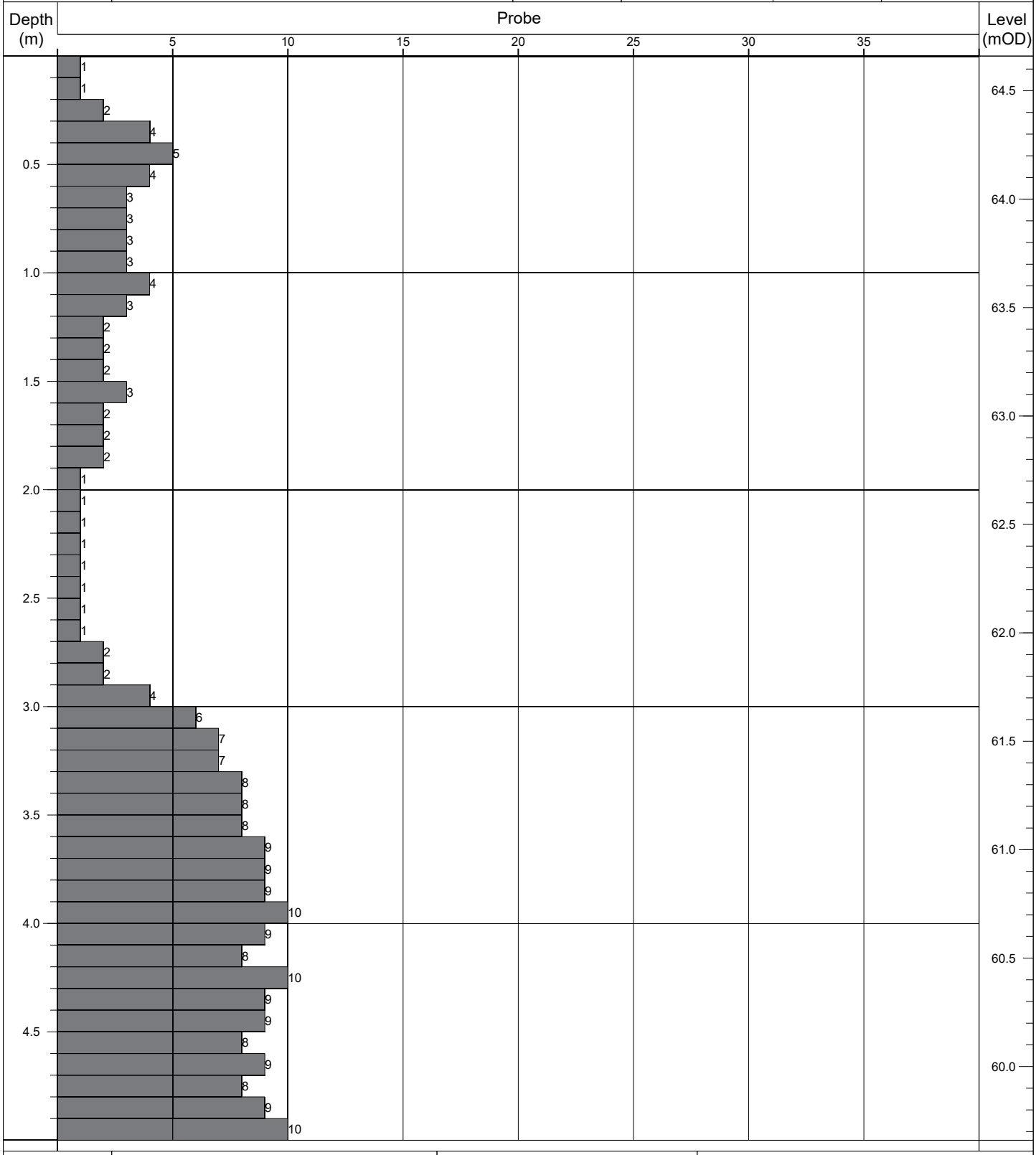
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP113**
Contract:	Coolagad	Easting:	727789.407	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713141.445	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	65.24	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



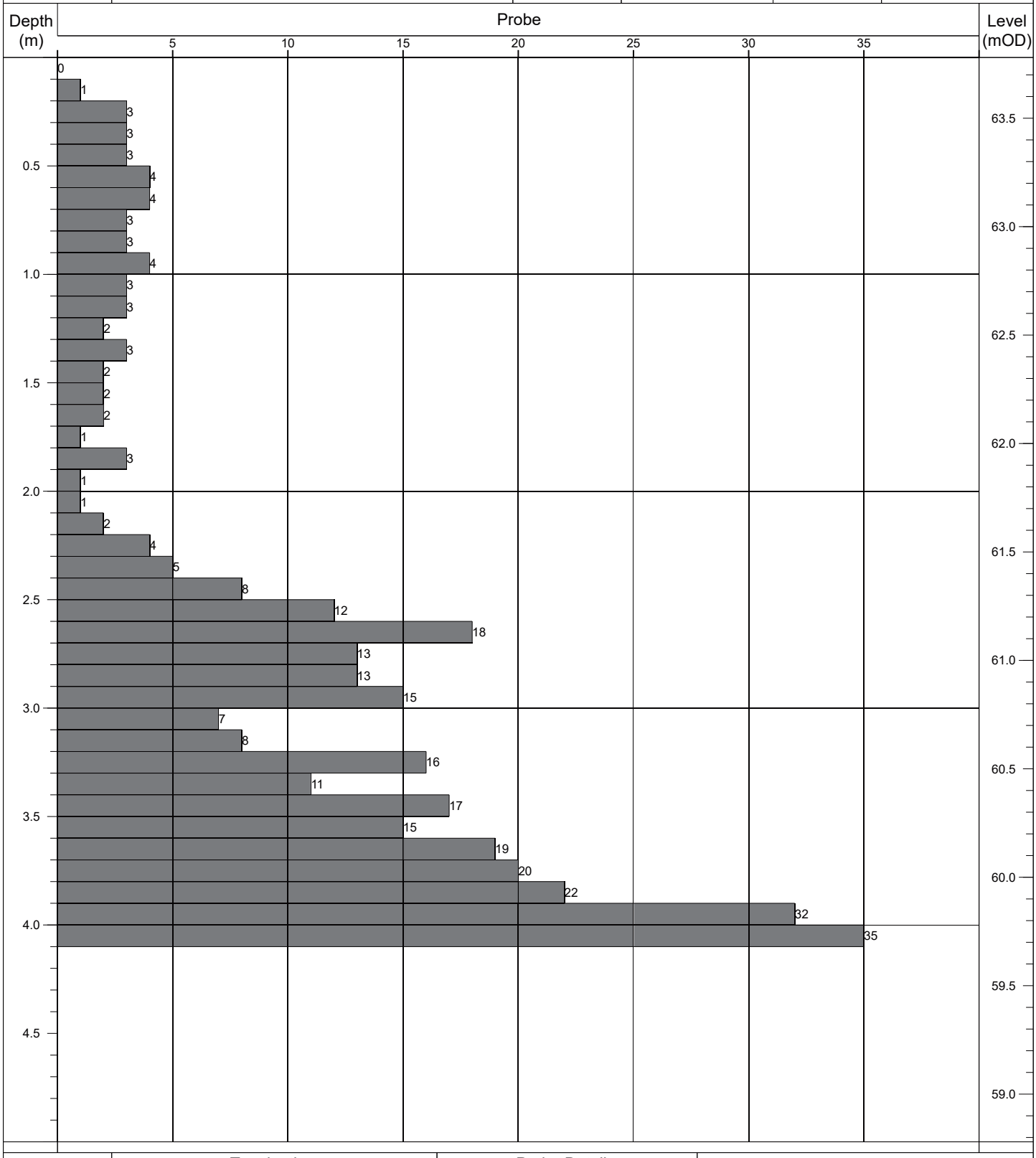
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP114
Contract:	Coolagad	Easting:	727793.142	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713121.324	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	64.66	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



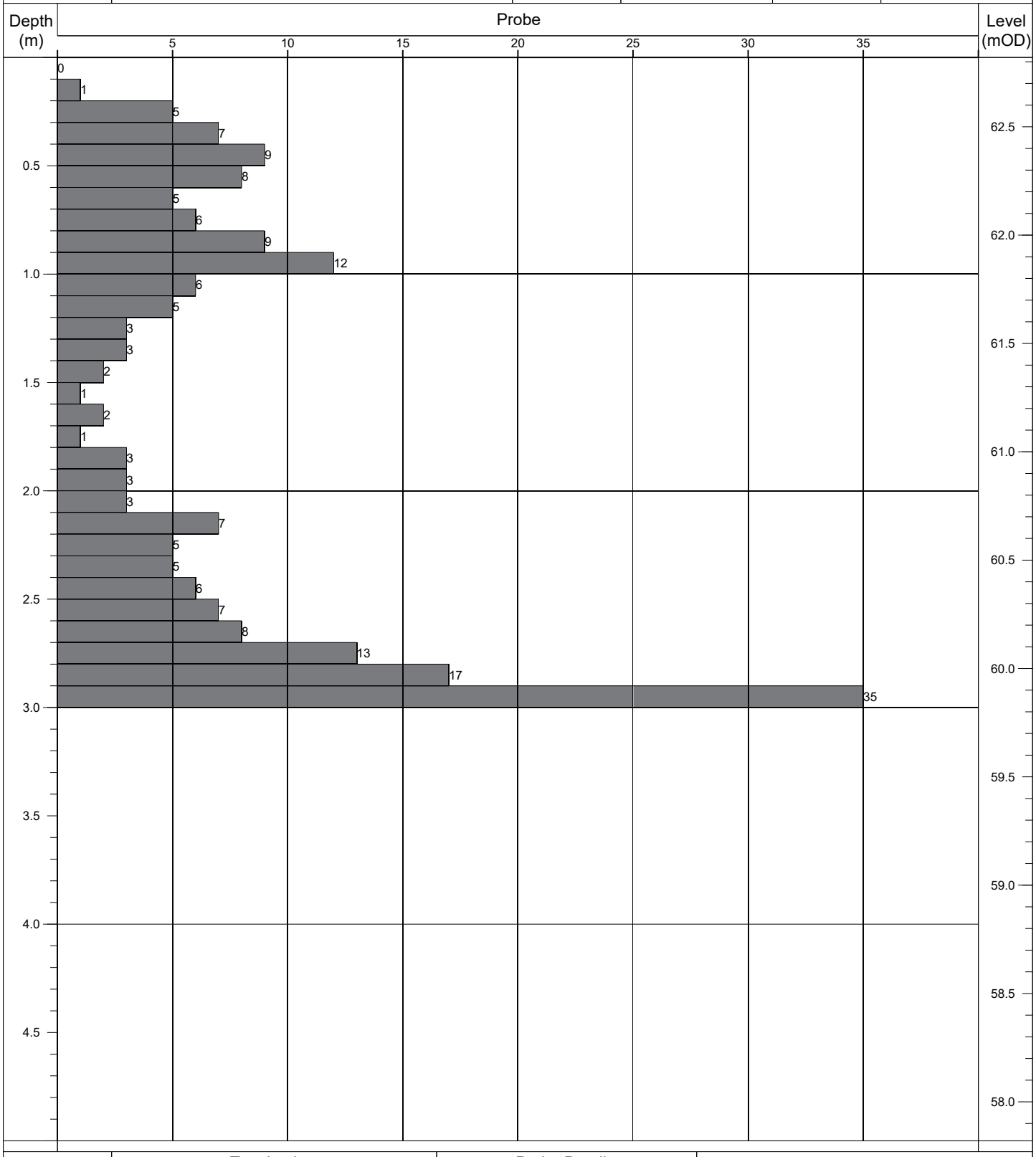
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP115**
Contract:	Coolagad	Easting:	727799.810	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713103.099	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	63.78	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



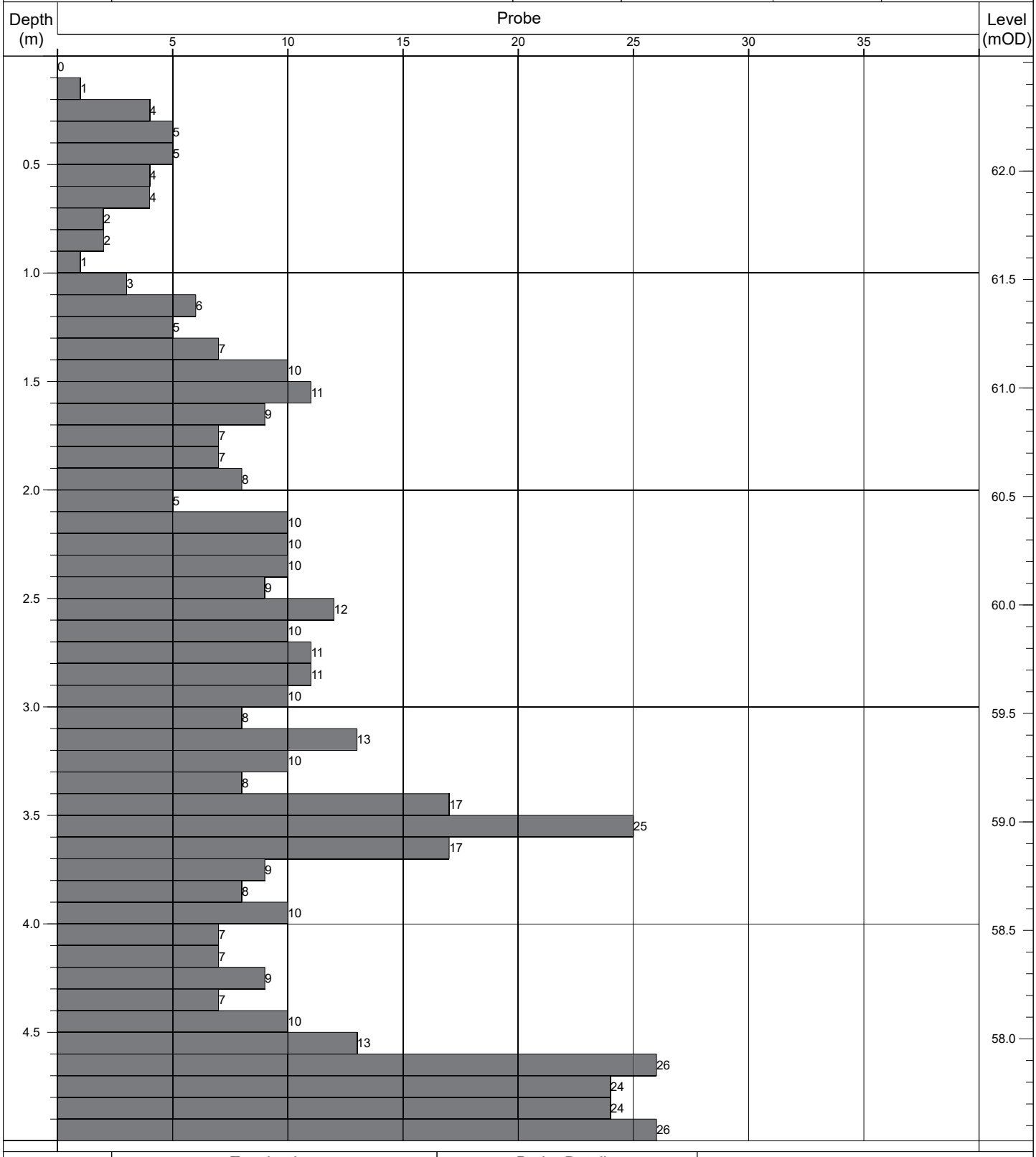
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP116**
Contract:	Coolagad	Easting:	727816.931	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713108.429	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.82	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



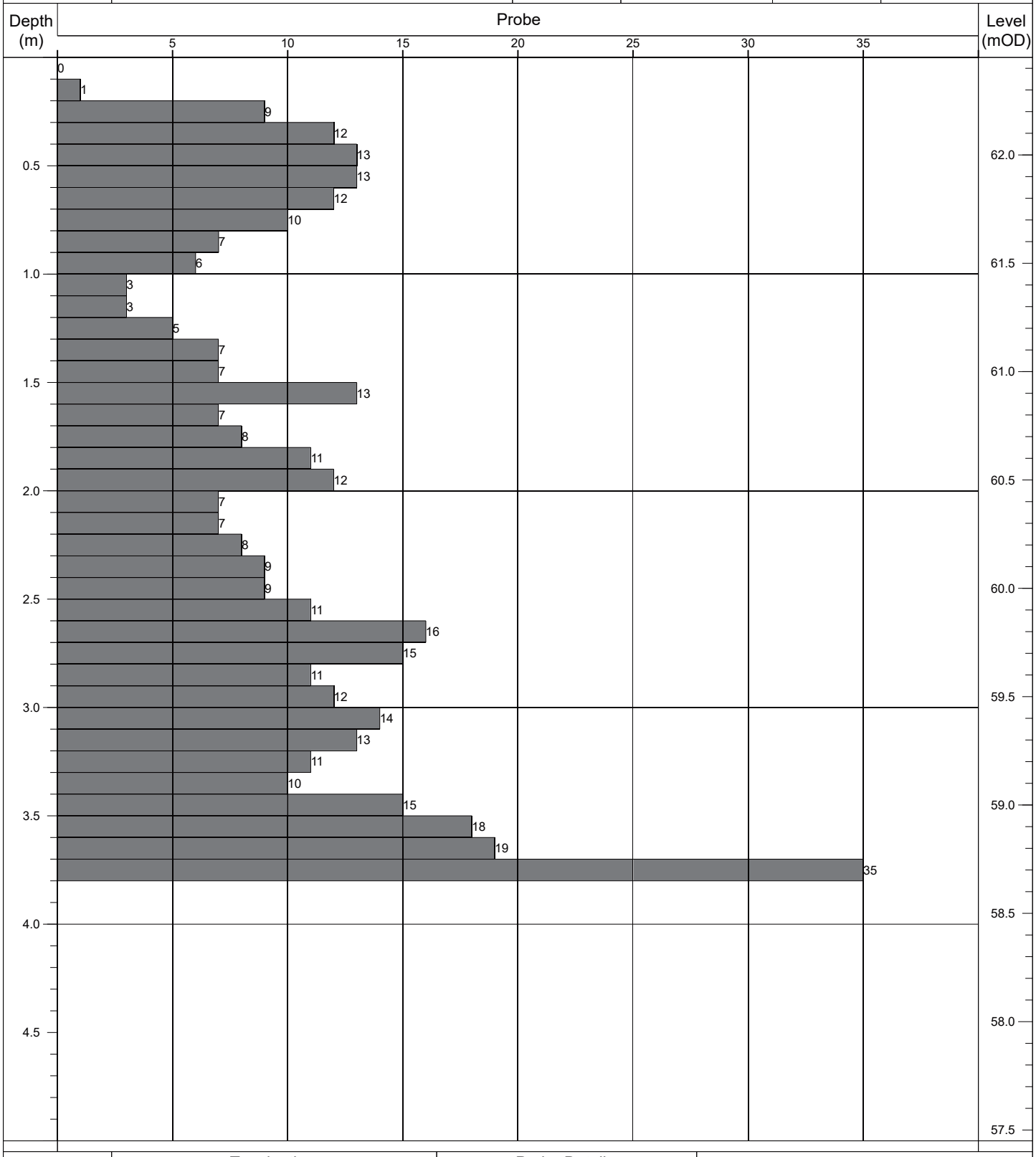
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP117**
Contract:	Coolagad	Easting:	727832.374	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713120.570	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.53	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



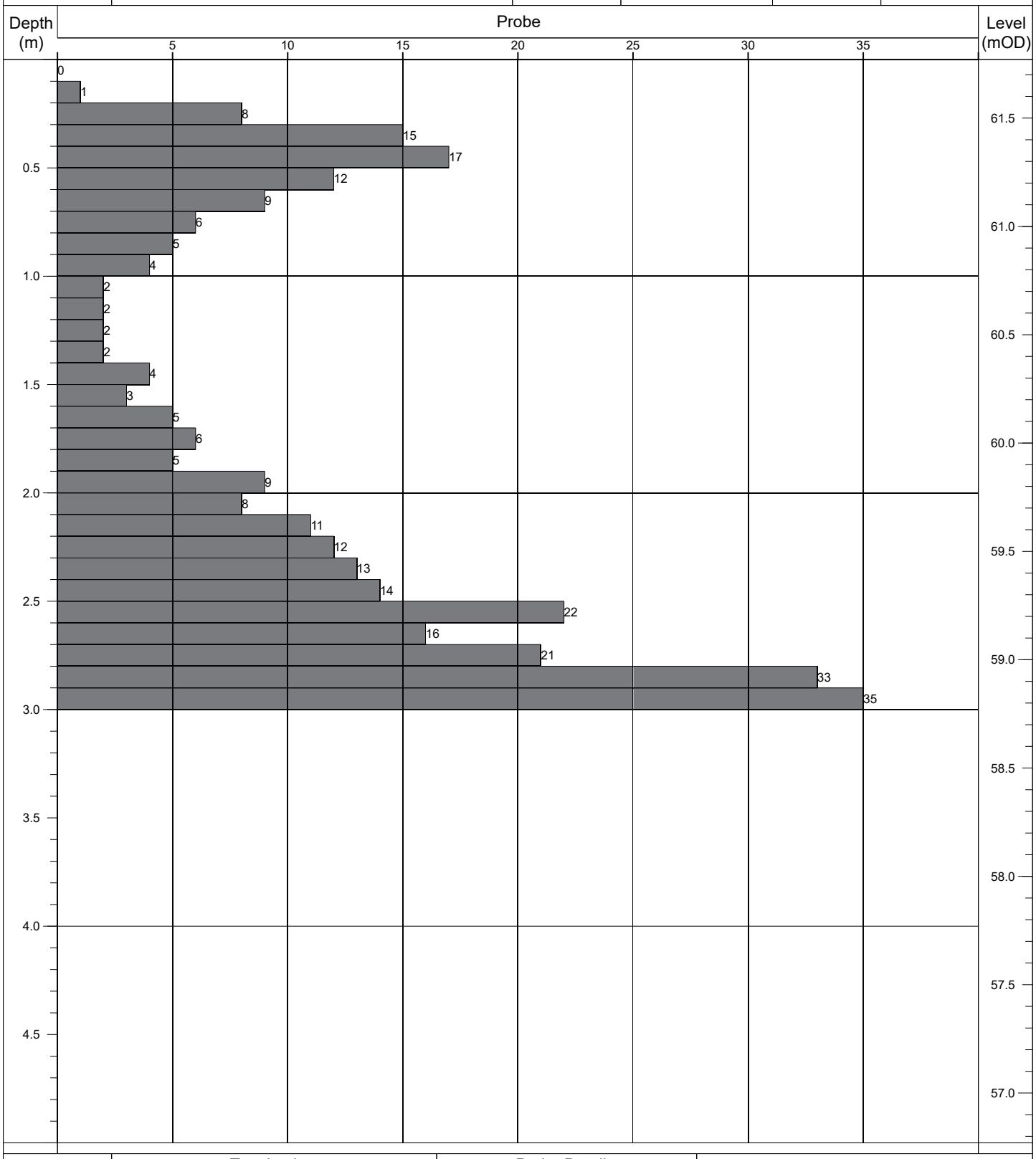
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP118**
Contract:	Coolagad	Easting:	727849.616	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713130.467	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	62.45	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



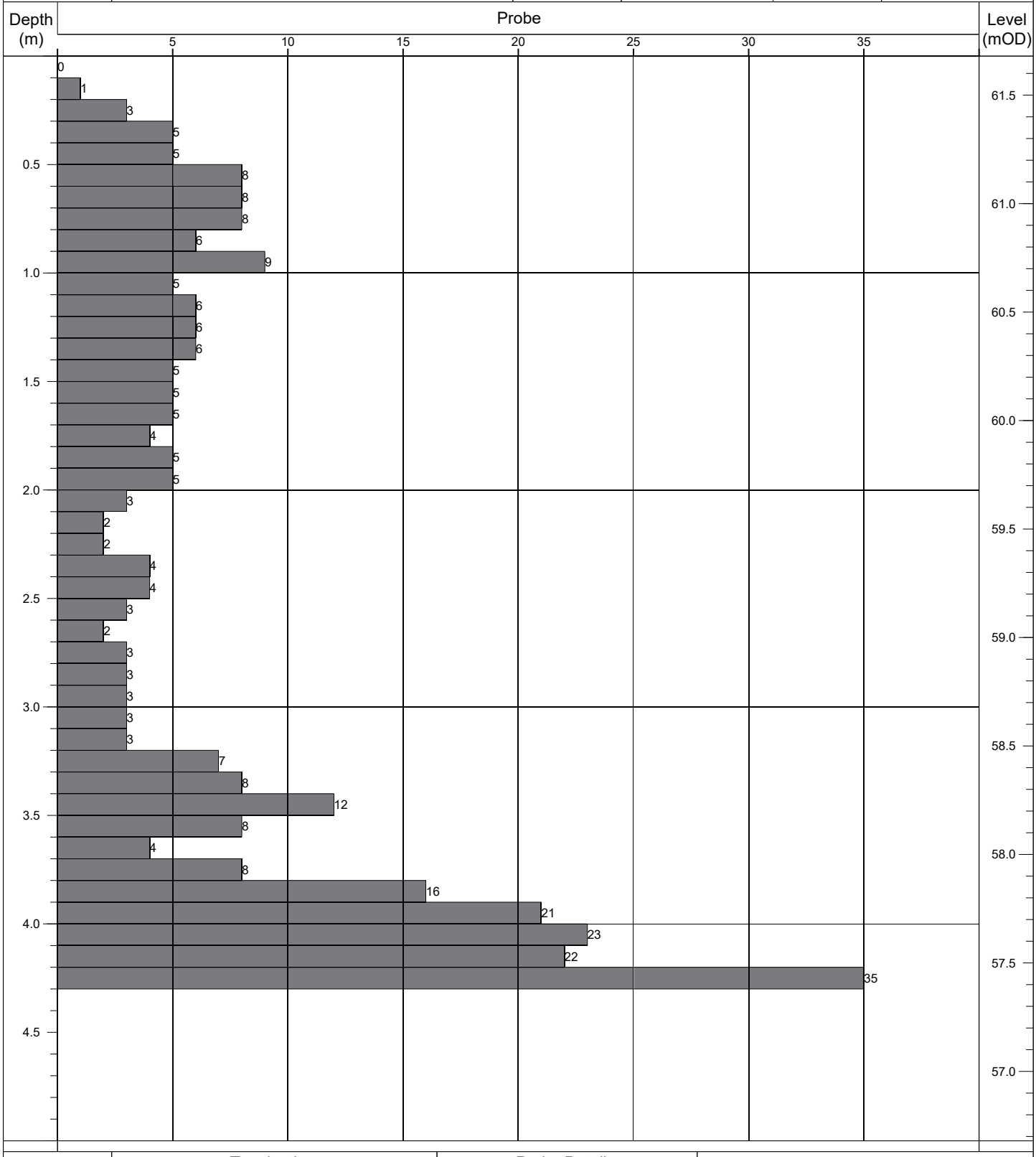
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP119**
Contract:	Coolagad	Easting:	727863.844	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713138.262	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	61.77	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



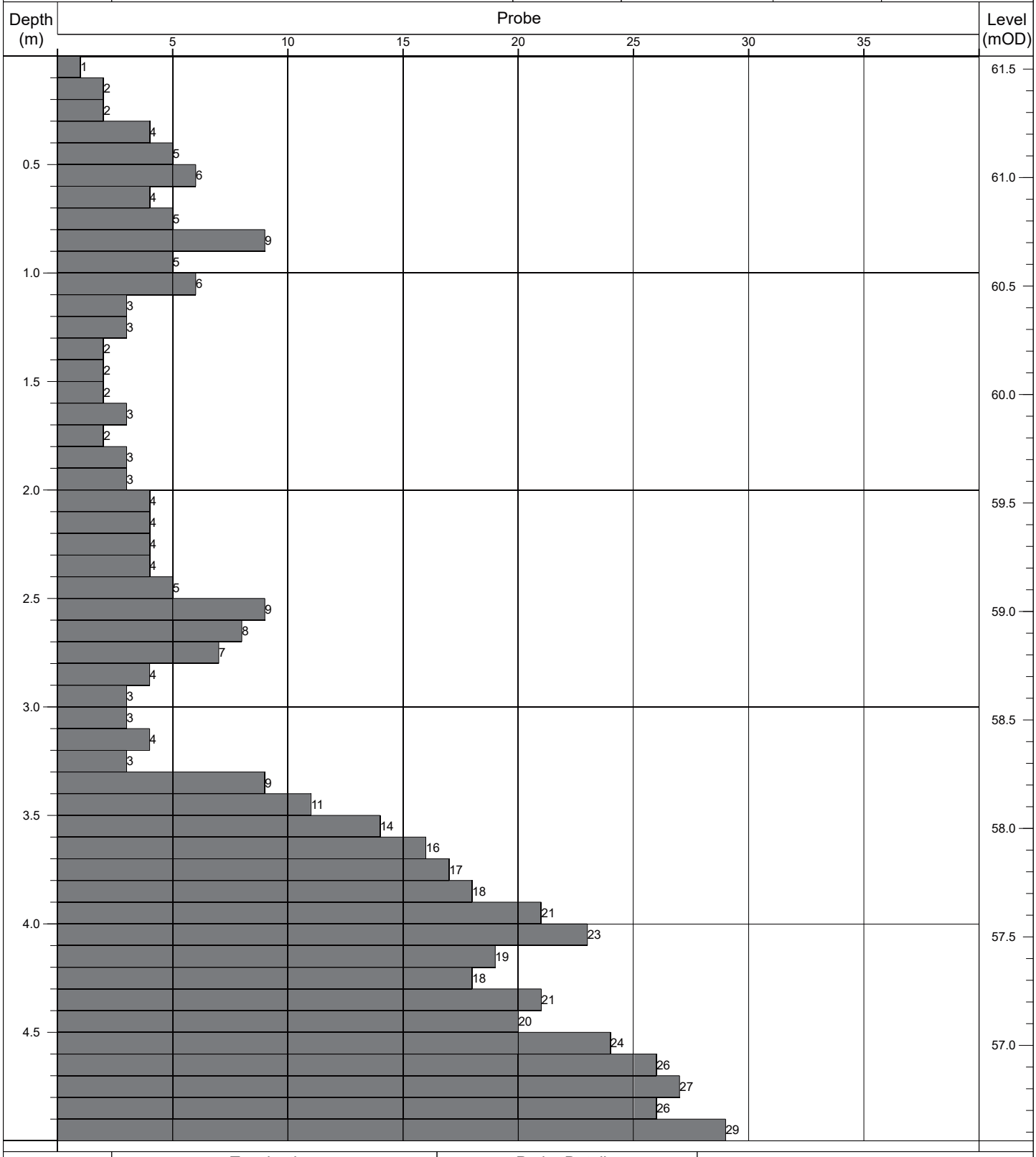
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP120**
Contract:	Coolagad	Easting:	727844.367	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713265.418	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	61.68	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



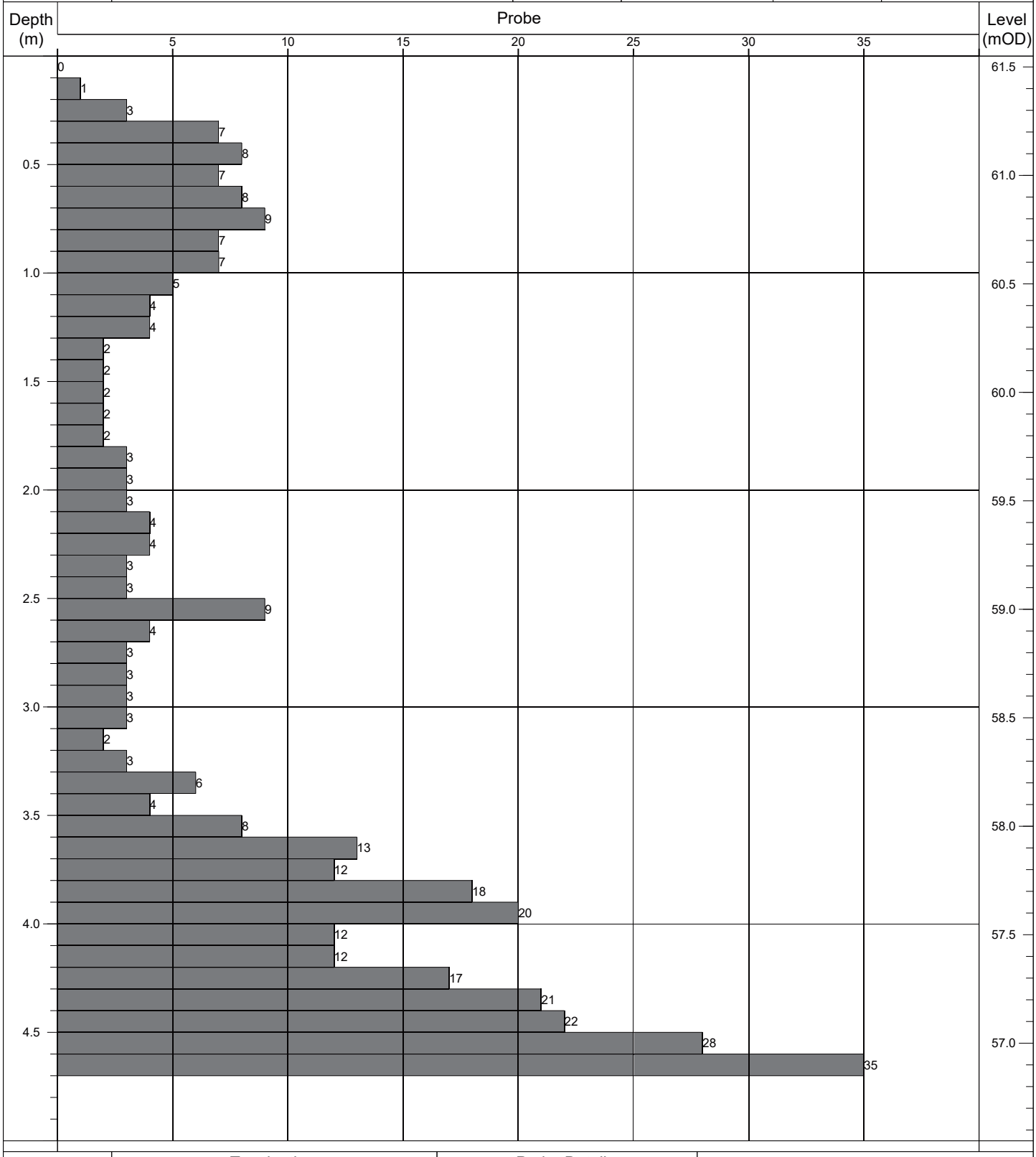
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP121**
Contract:	Coolagad	Easting:	727844.822	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713246.433	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	61.56	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



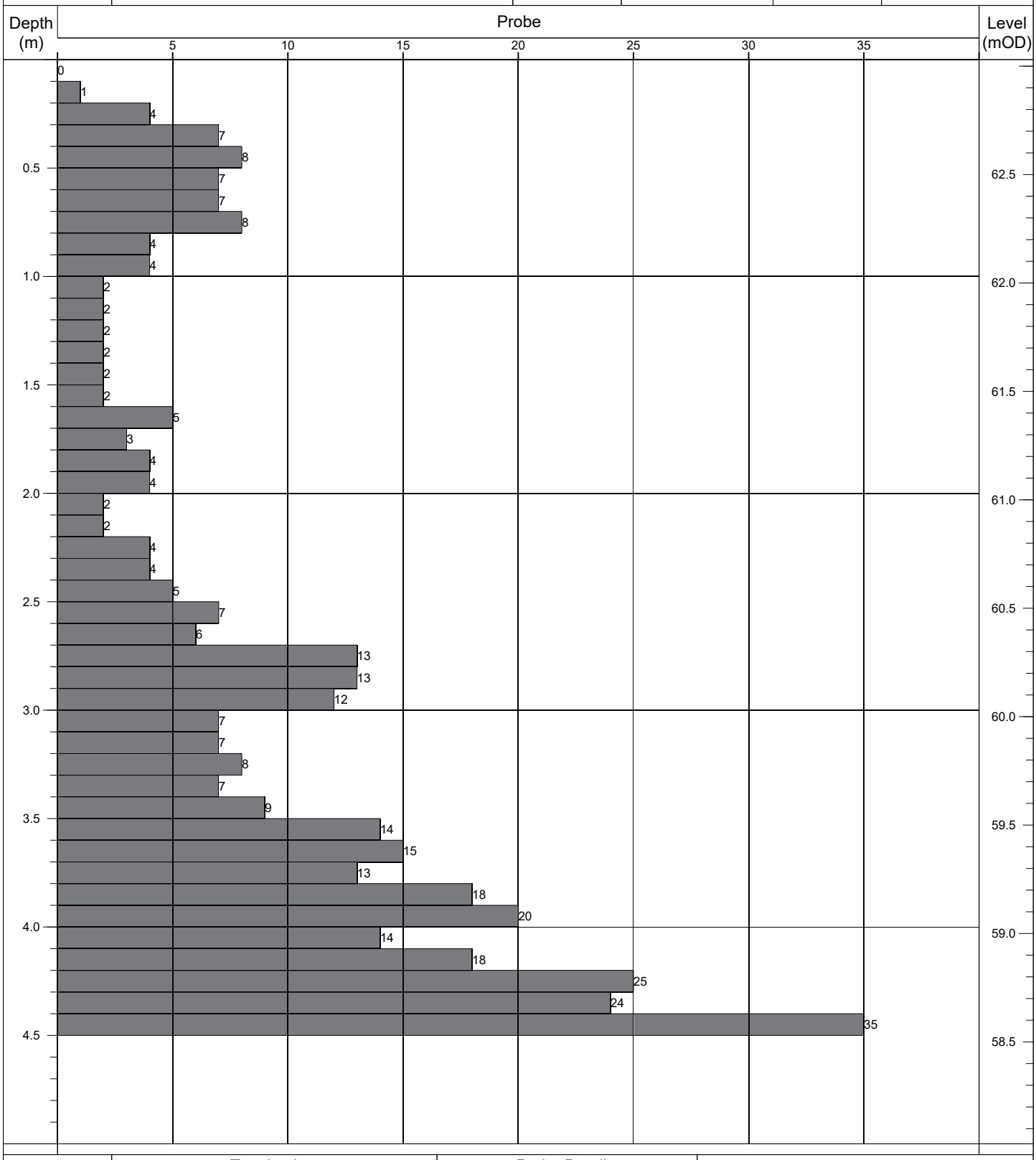
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP122**
Contract:	Coolagad	Easting:	727850.132	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713227.019	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	61.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



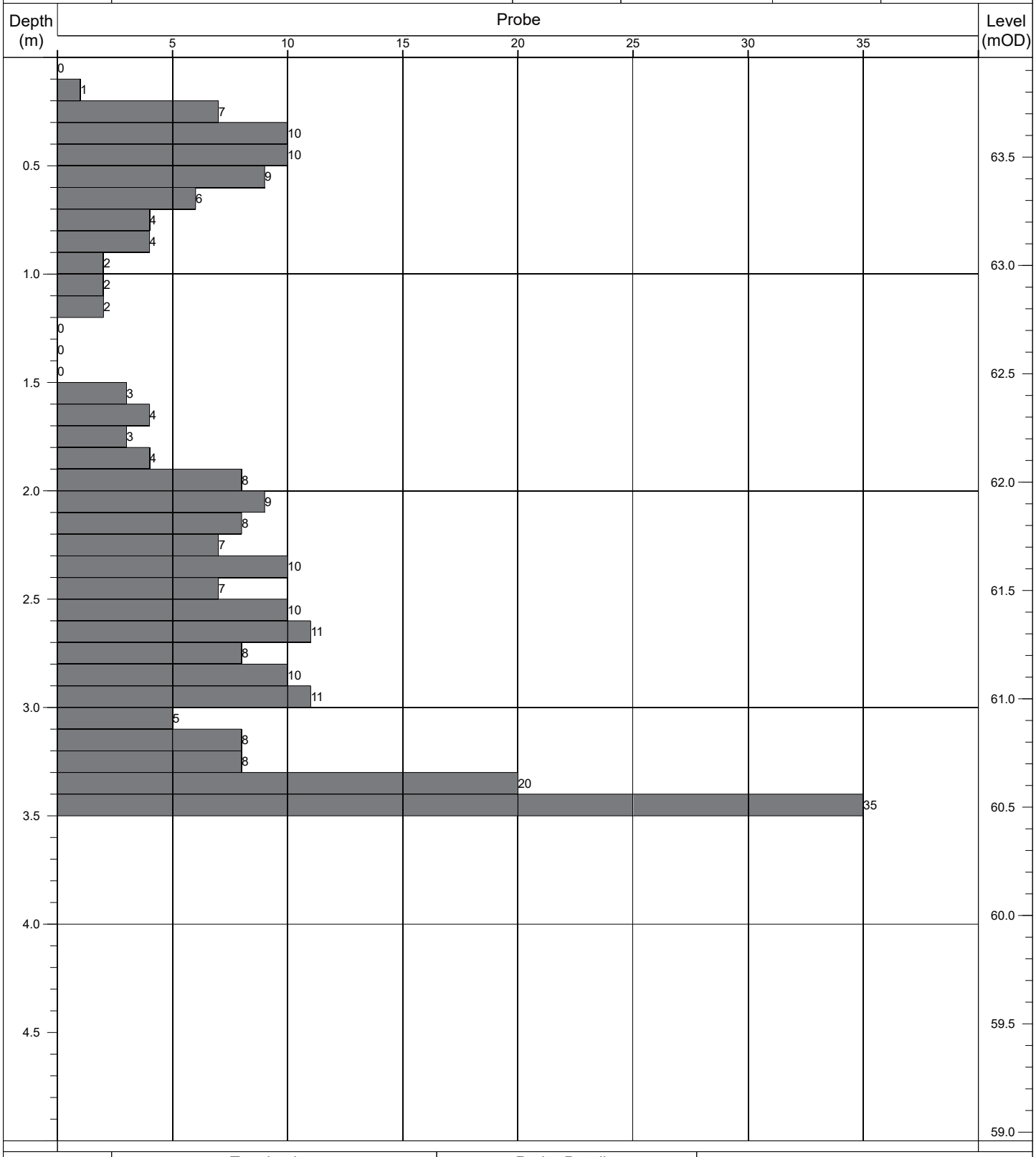
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP123**
Contract:	Coolagad	Easting:	727827.680	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713207.888	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	63.03	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



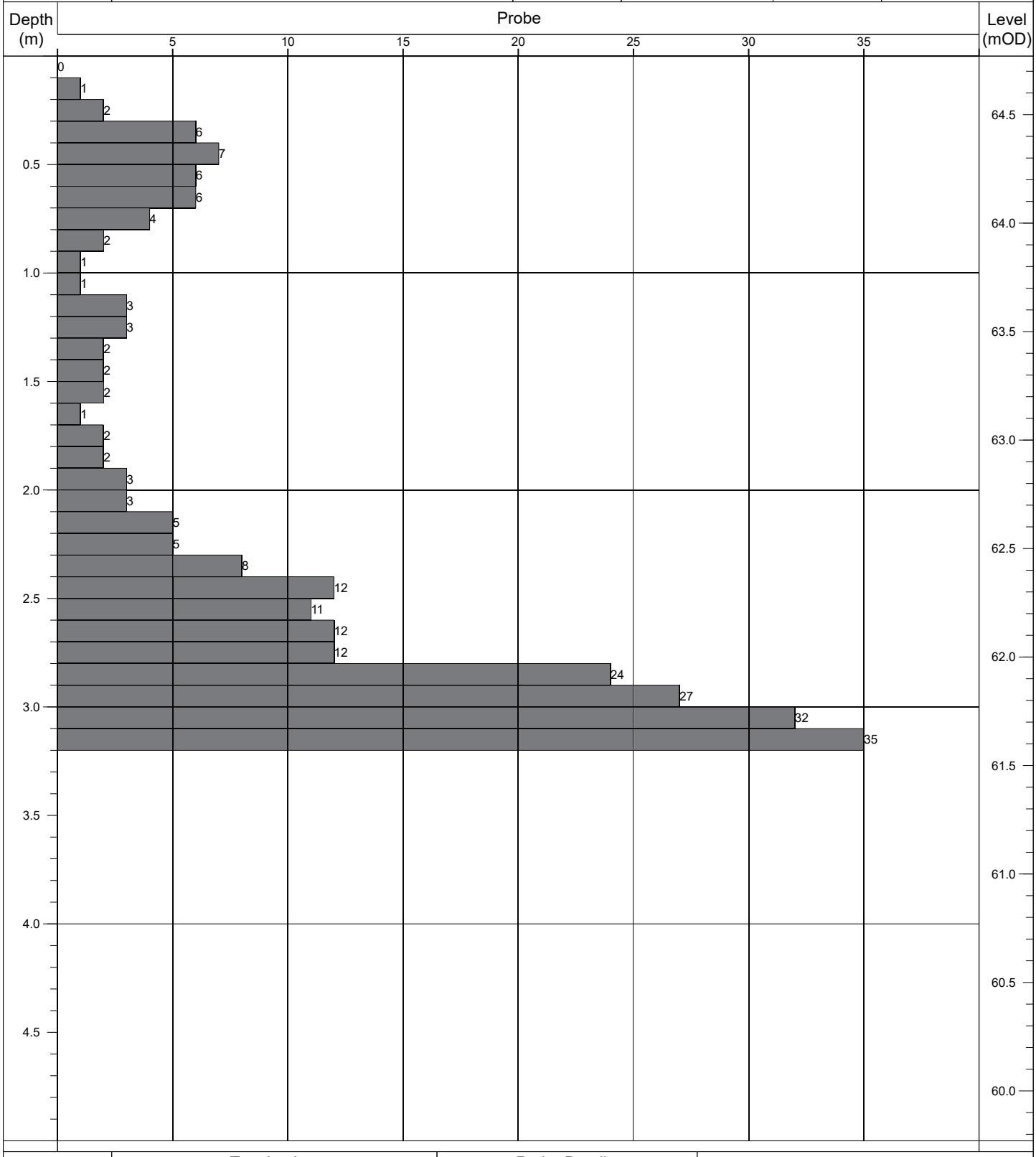
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	# Dynamic Probe Log				Probe No: **RDP124**
Contract:	Coolagad	Easting:	727812.344	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713195.434	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	63.96	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



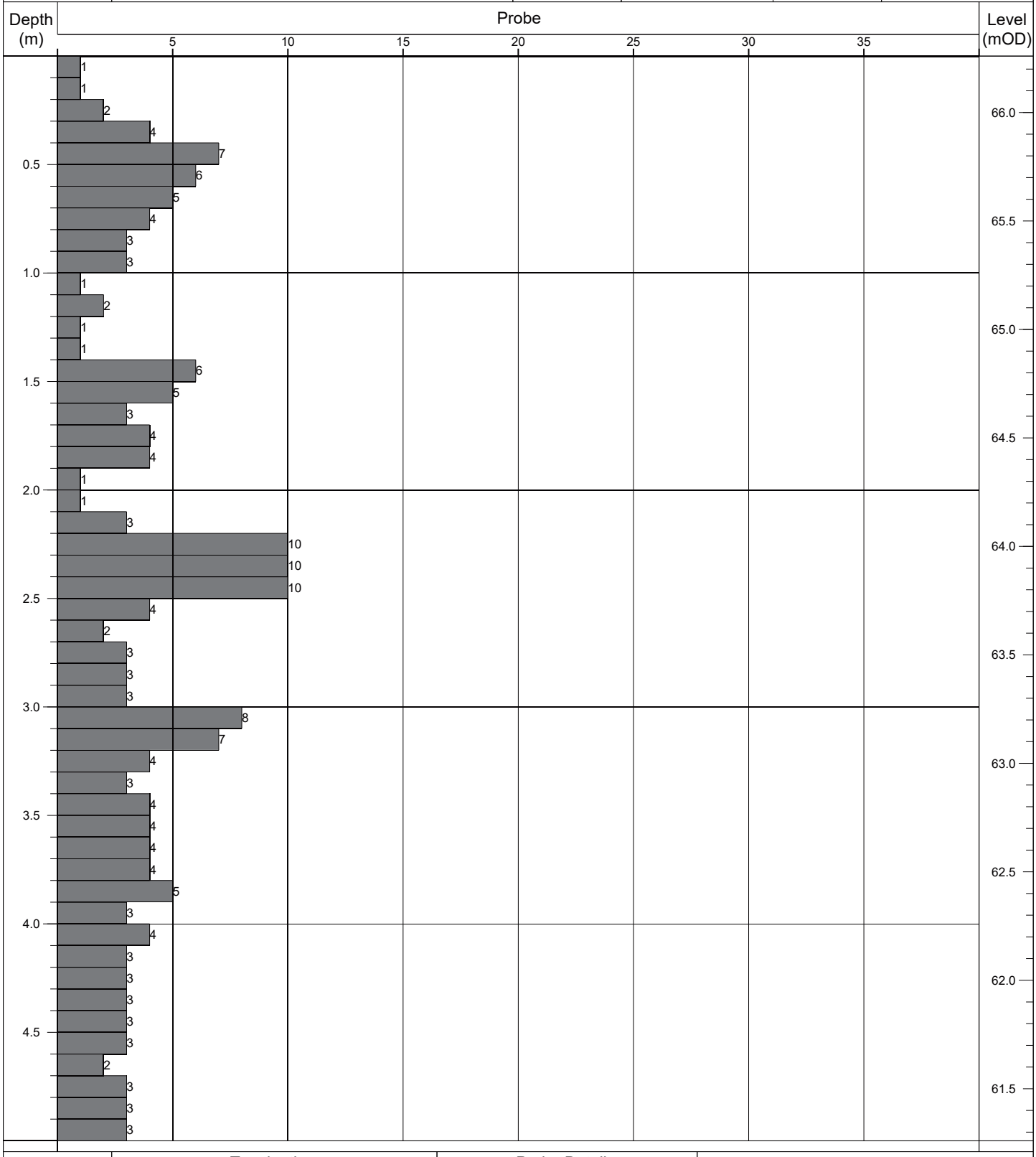
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP125**
Contract:	Coolagad	Easting:	727798.448	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713185.036	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	64.77	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



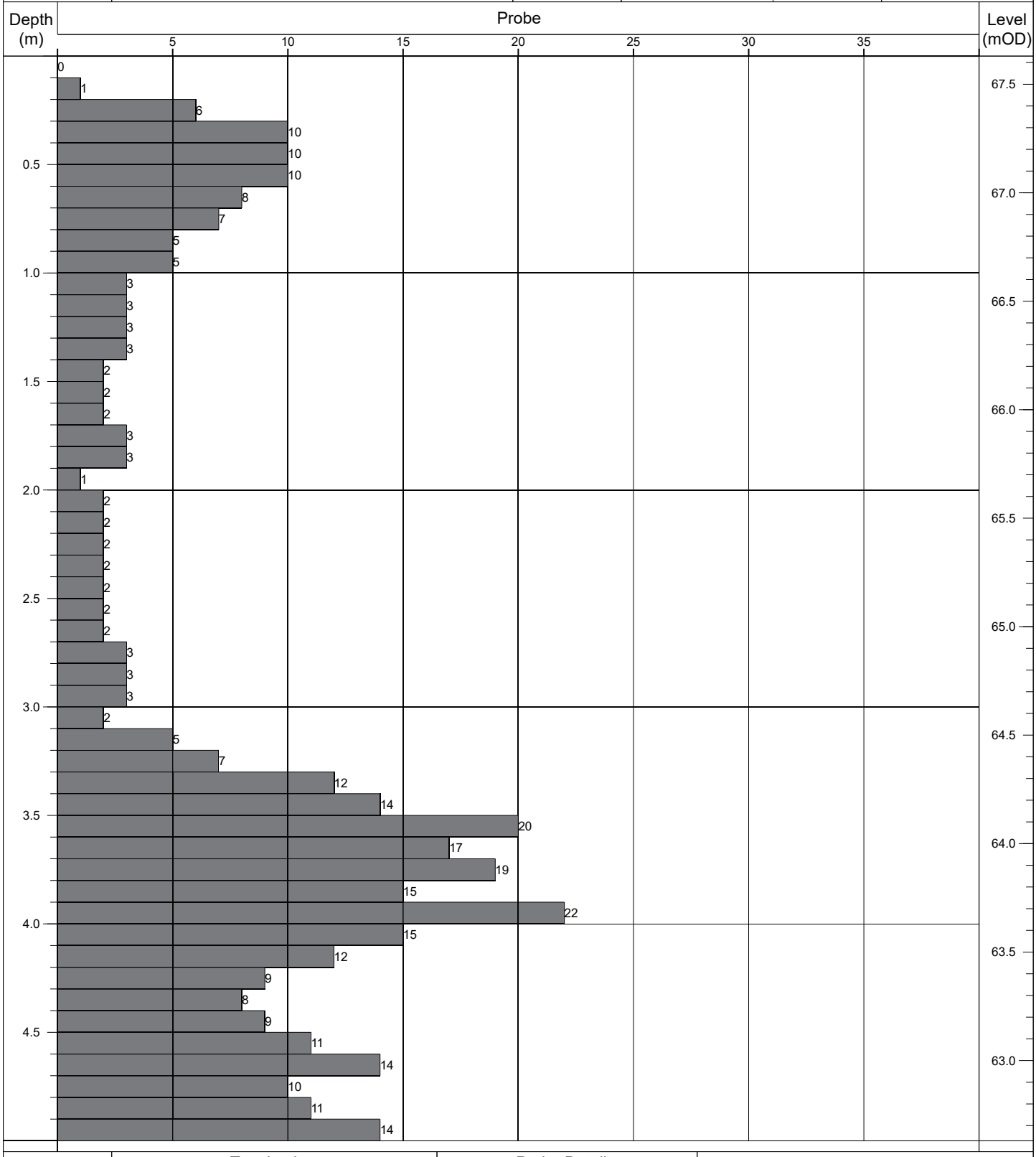
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP126
Contract:	Coolagad	Easting:	727770.680	Date Started:	14/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713187.615	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	66.26	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



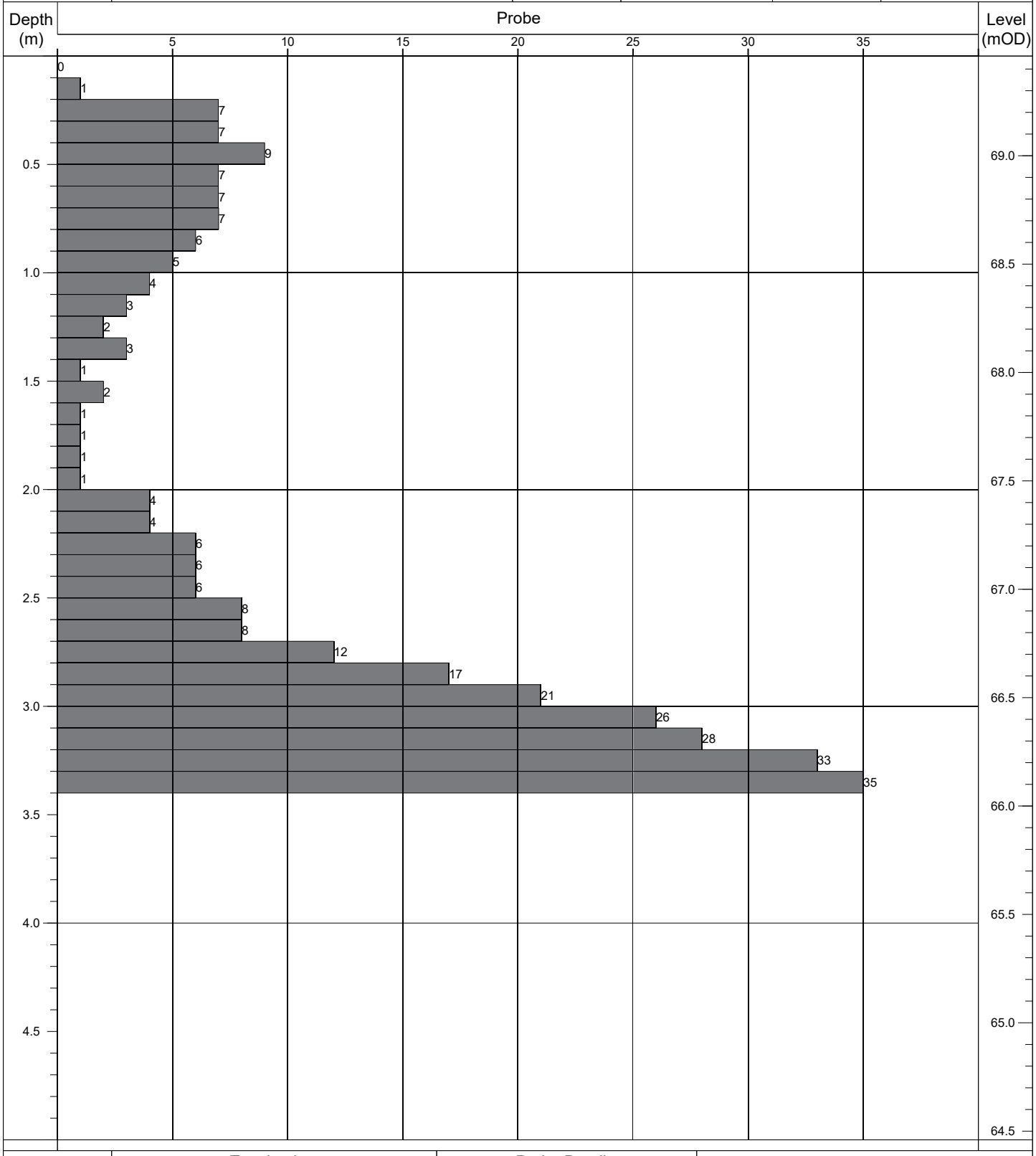
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP127**
Contract:	Coolagad	Easting:	727751.397	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713183.481	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.63	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



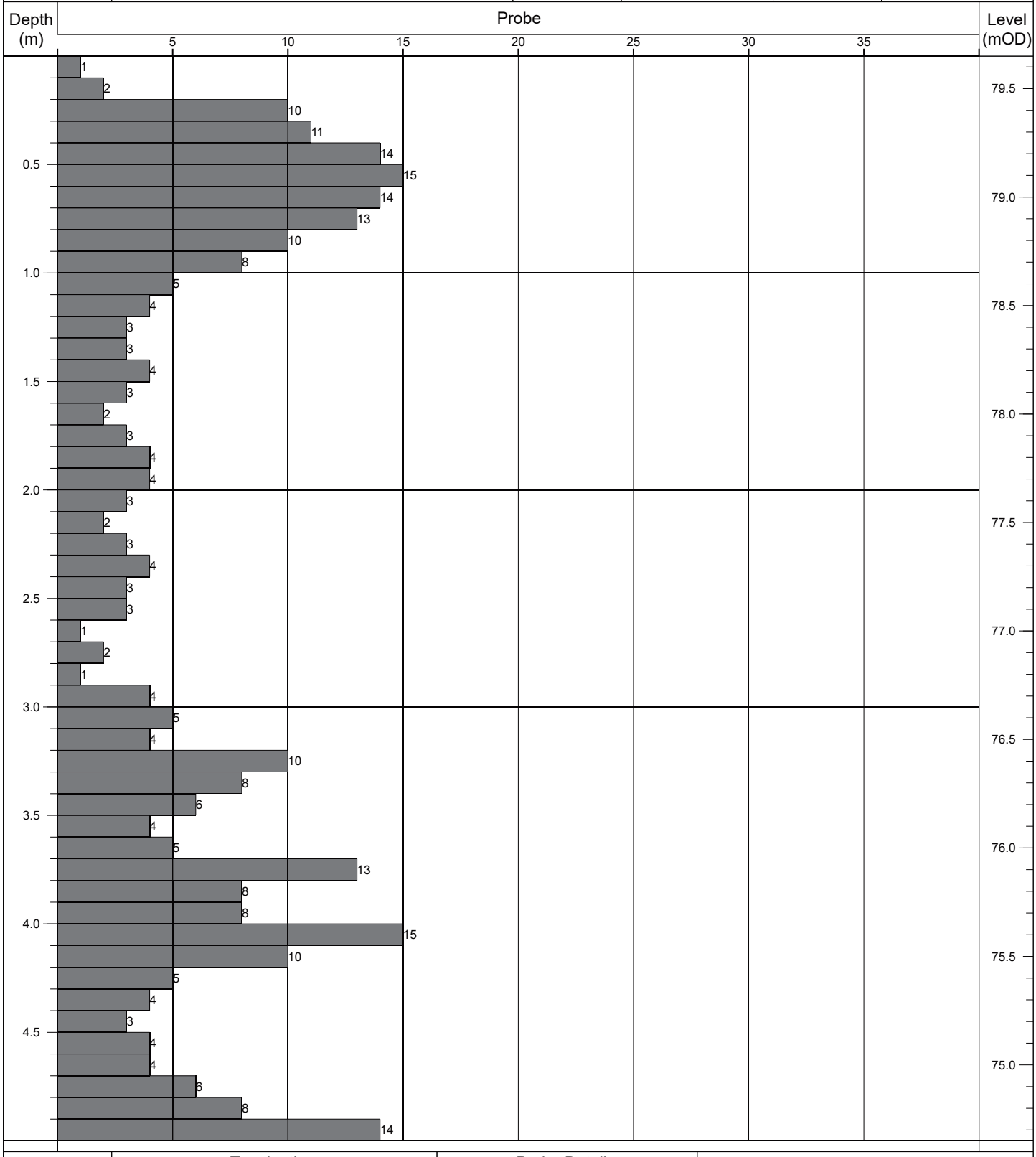
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP128
Contract:	Coolagad	Easting:	727731.743	Date Started:	15/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713179.517	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	69.46	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



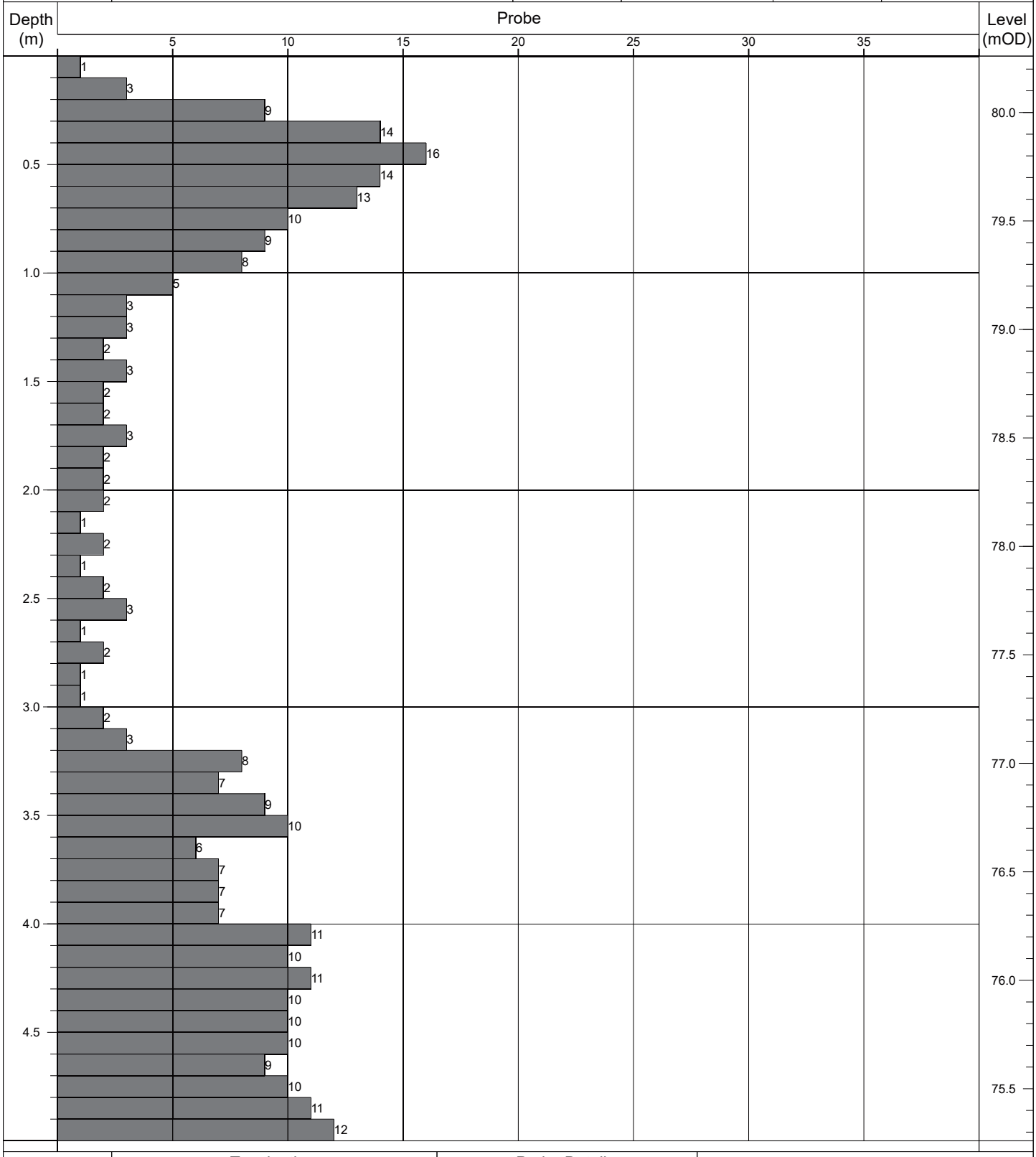
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP129**
Contract:	Coolagad	Easting:	727620.451	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713185.008	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	79.65	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



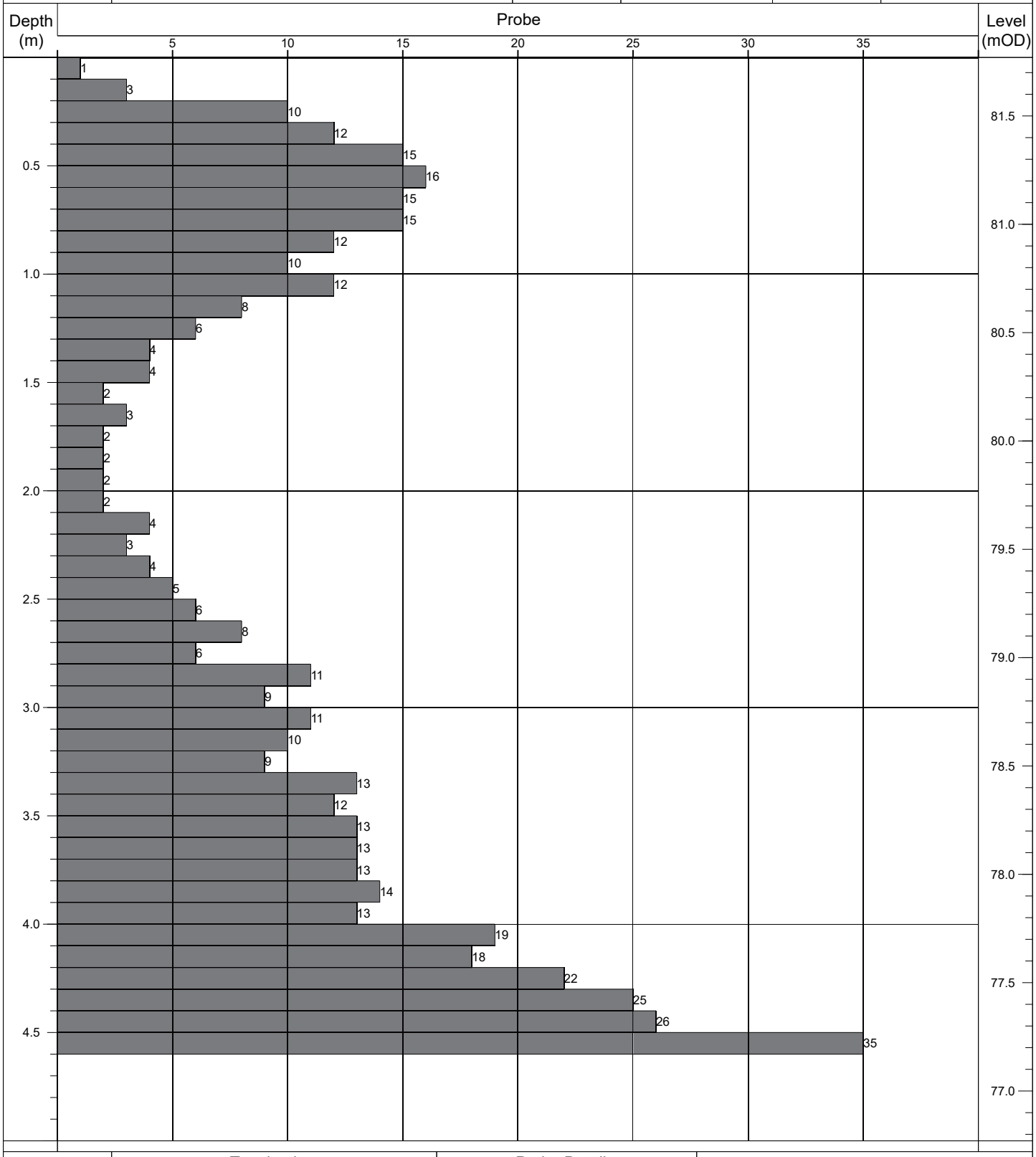
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP130**
Contract:	Coolagad	Easting:	727608.272	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713172.749	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	80.26	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



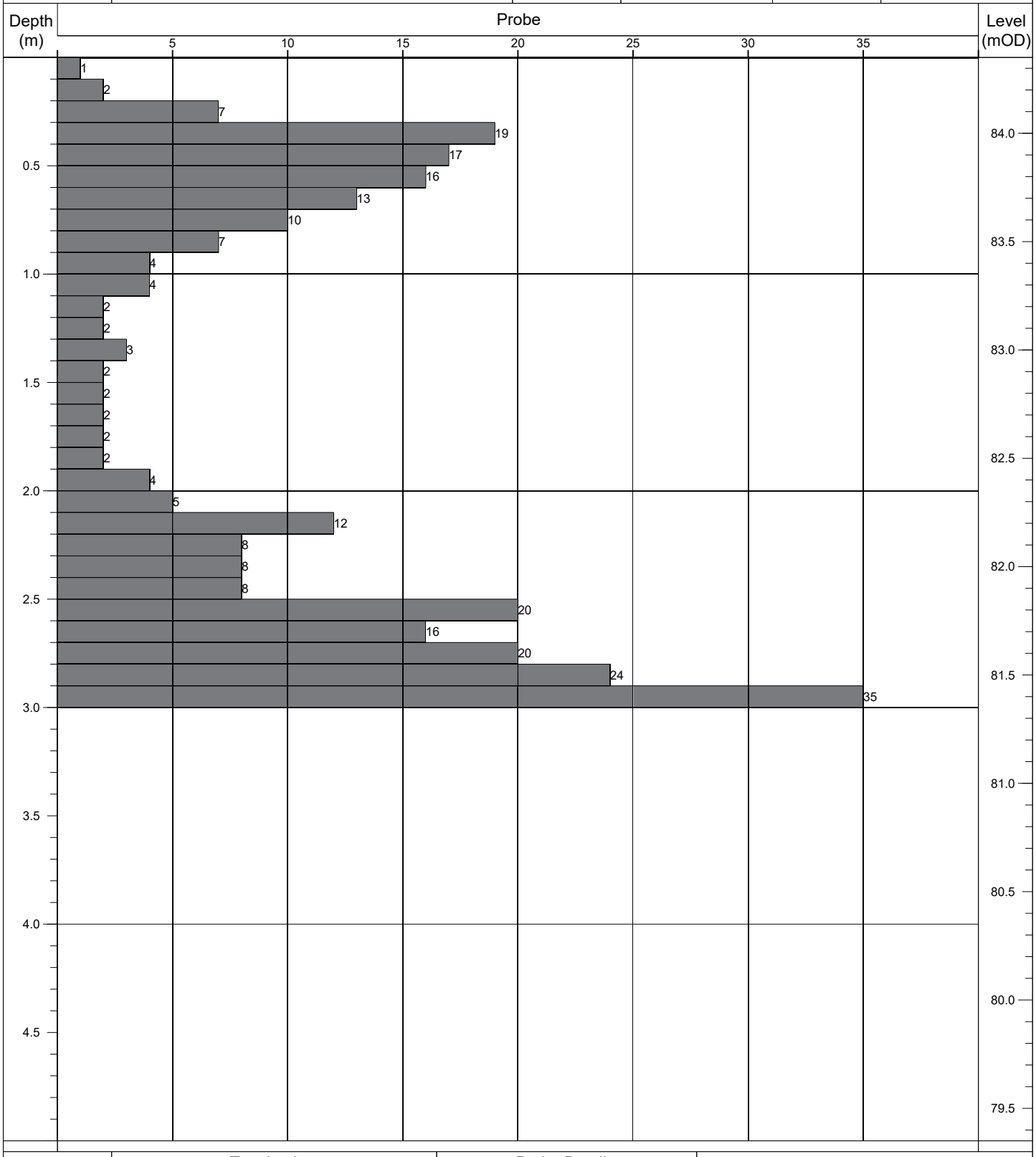
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP131**
Contract:	Coolagad	Easting:	727590.651	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	713164.477	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.77	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



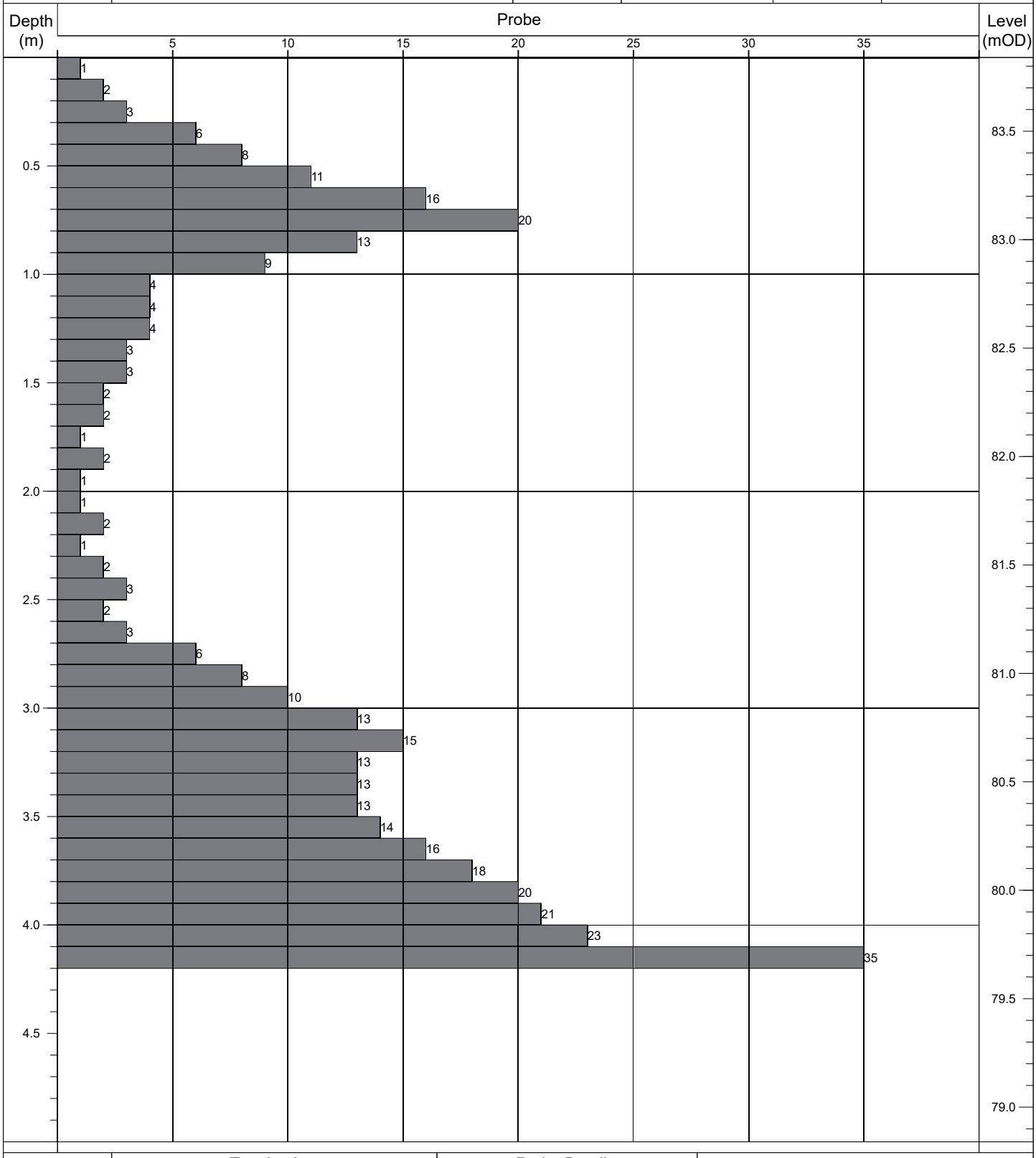
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP132
Contract:	Coolagad	Easting:	727561.694	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713196.229	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	84.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



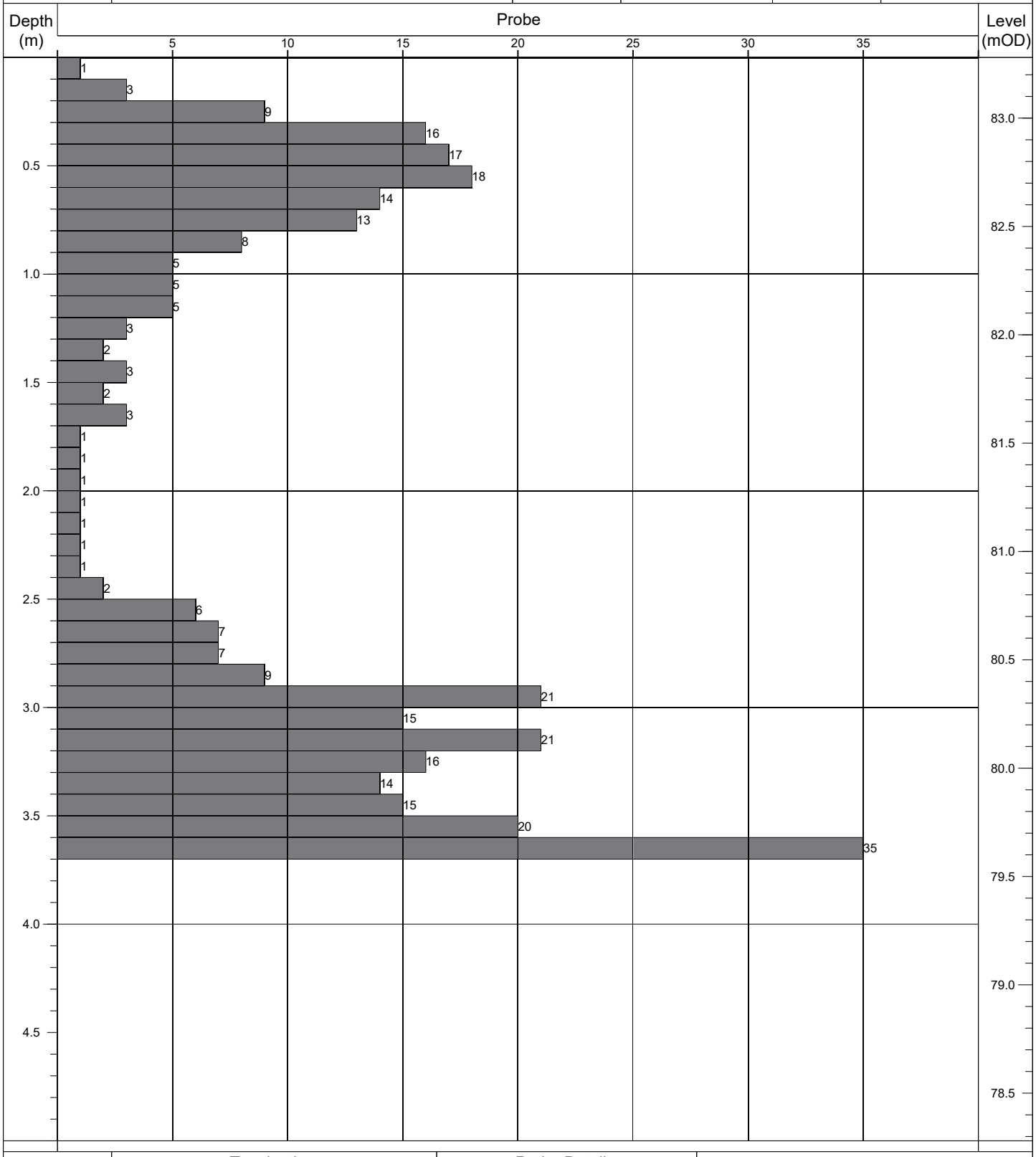
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP133**
Contract:	Coolagad	Easting:	727566.856	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713176.679	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	83.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



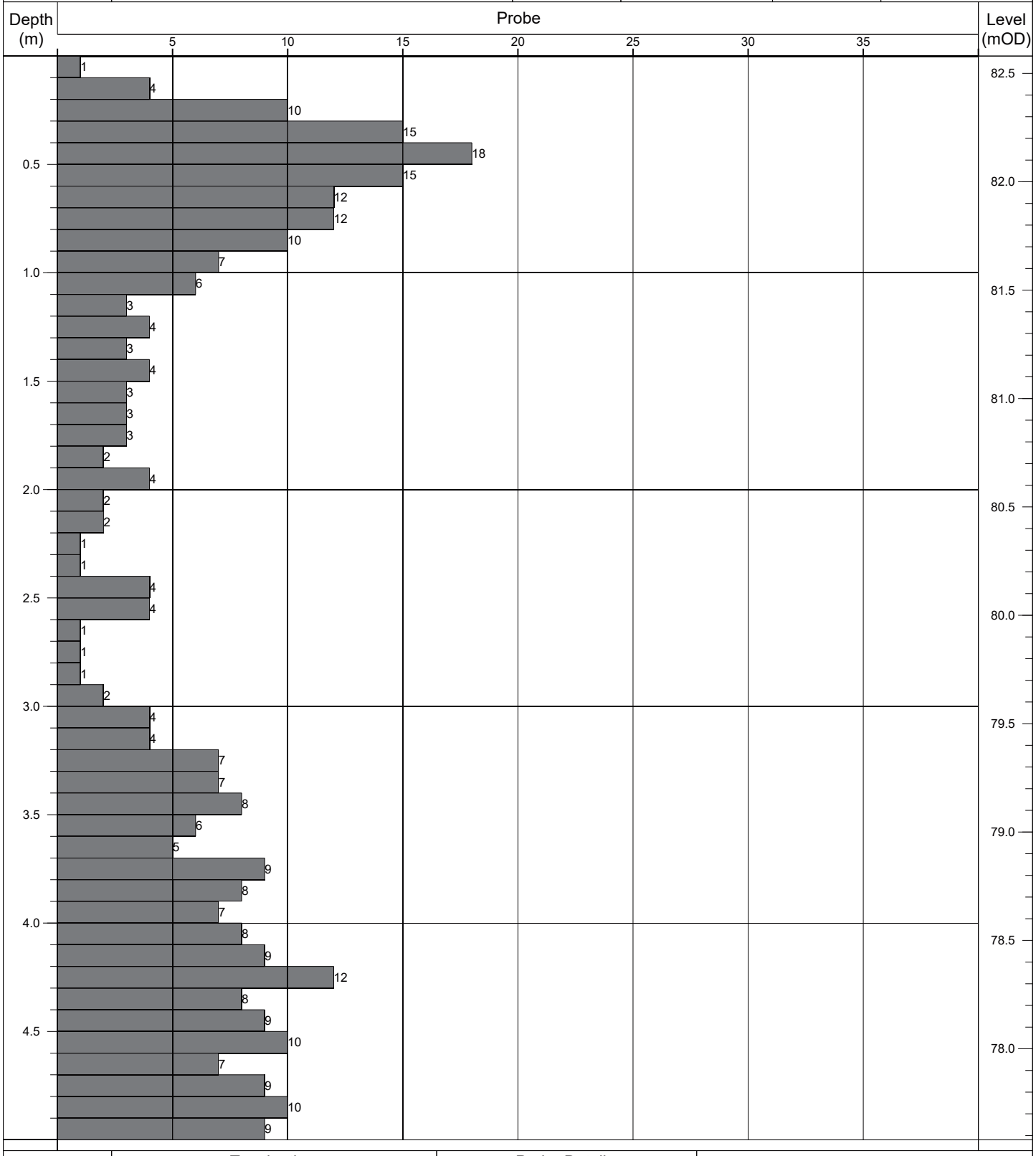
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP134**
Contract:	Coolagad	Easting:	727571.316	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713159.363	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	83.28	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



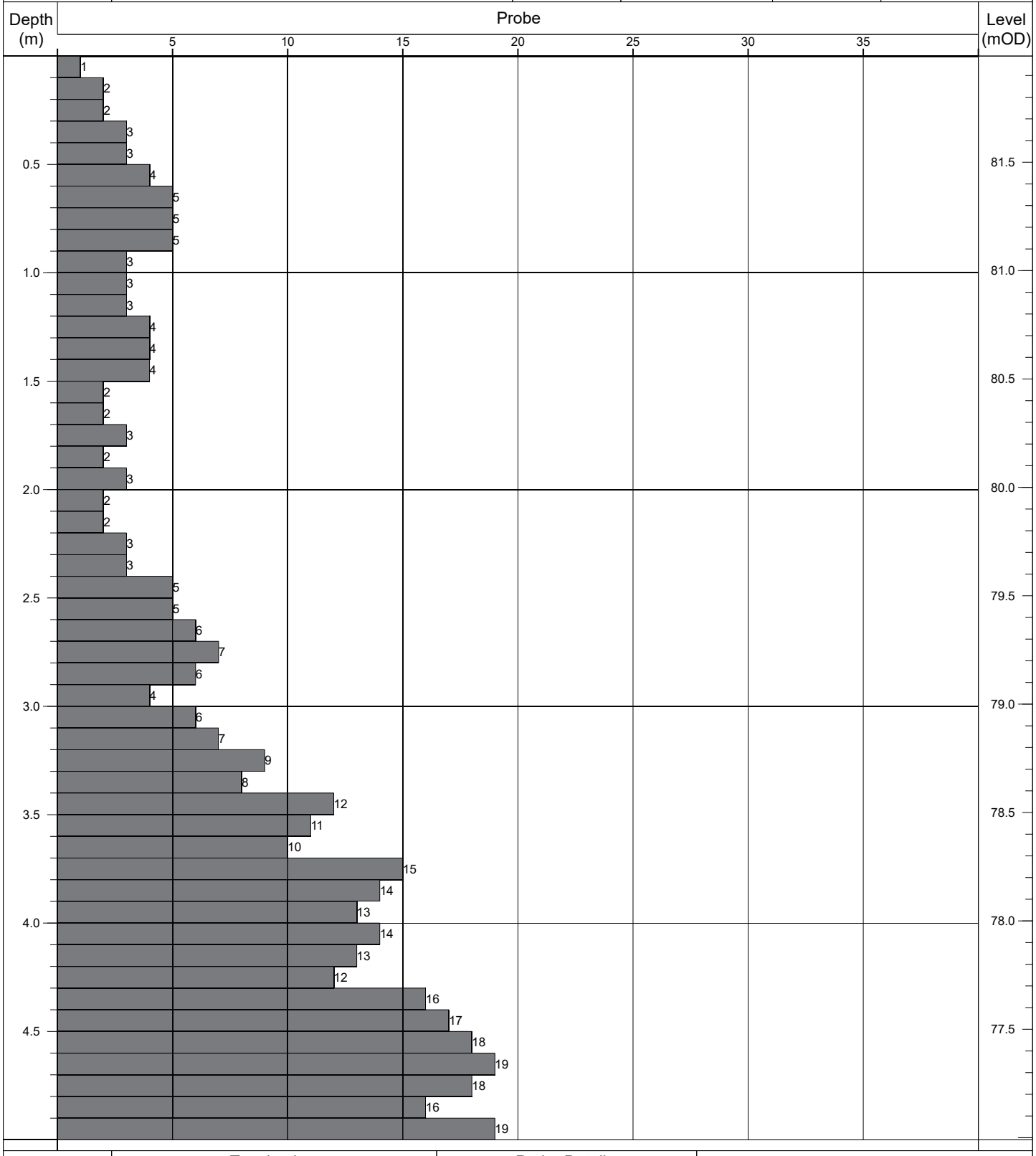
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP135
Contract:	Coolagad	Easting:	727577.207	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713138.284	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	82.58	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



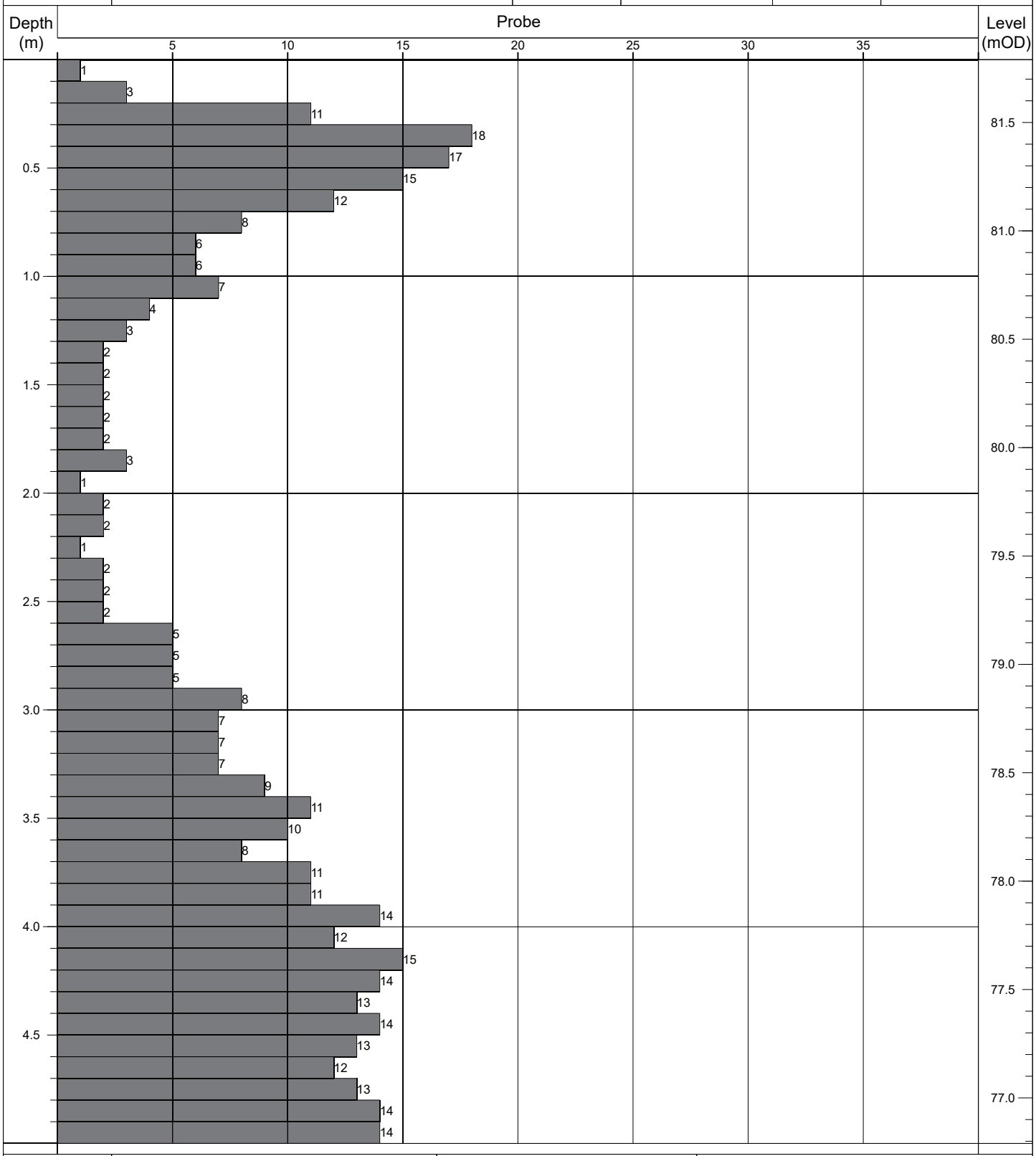
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP136**
Contract:	Coolagad	Easting:	727584.916	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713120.464	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.99	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



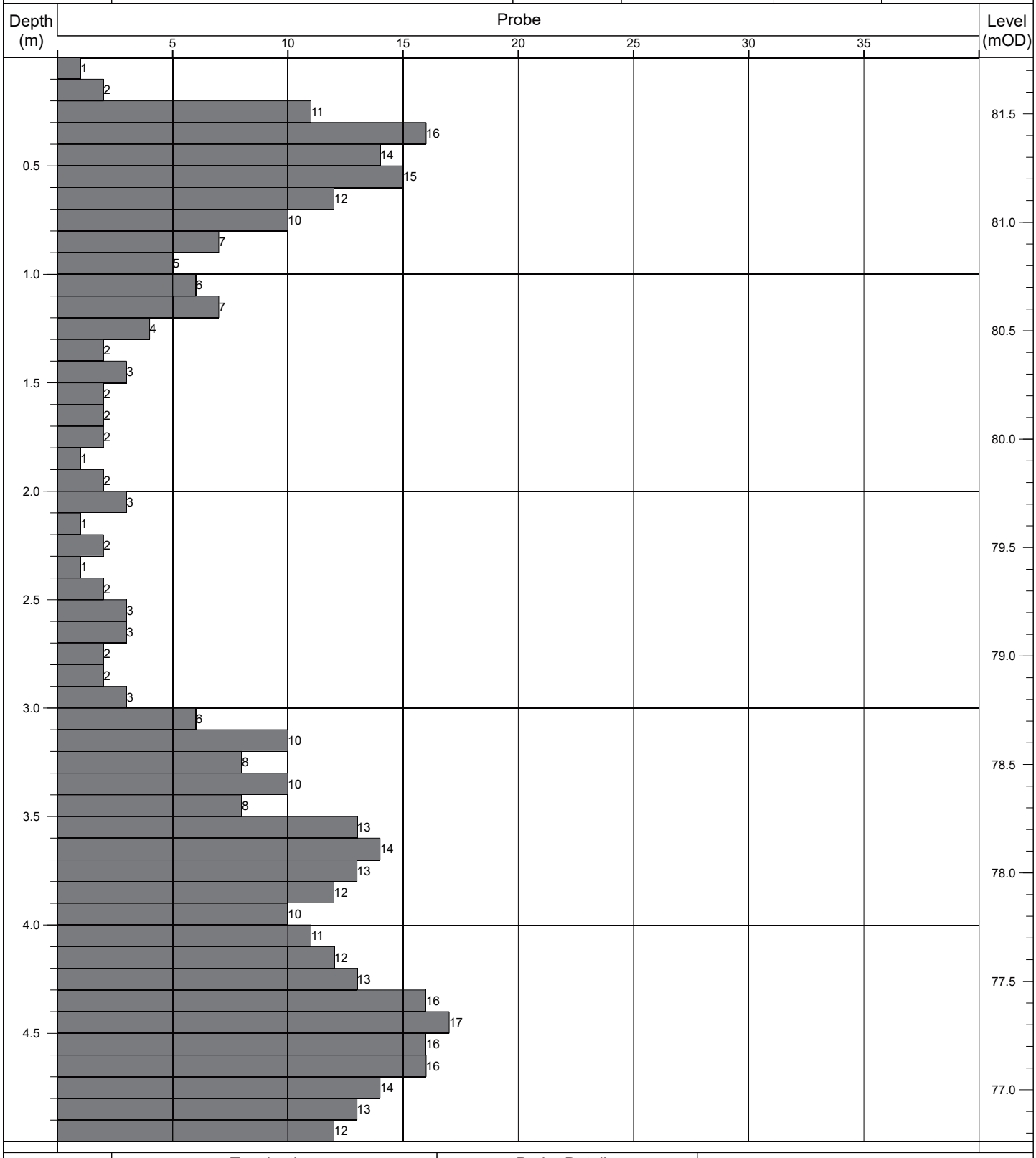
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP137**
Contract:	Coolagad	Easting:	727588.532	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713101.695	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.79	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



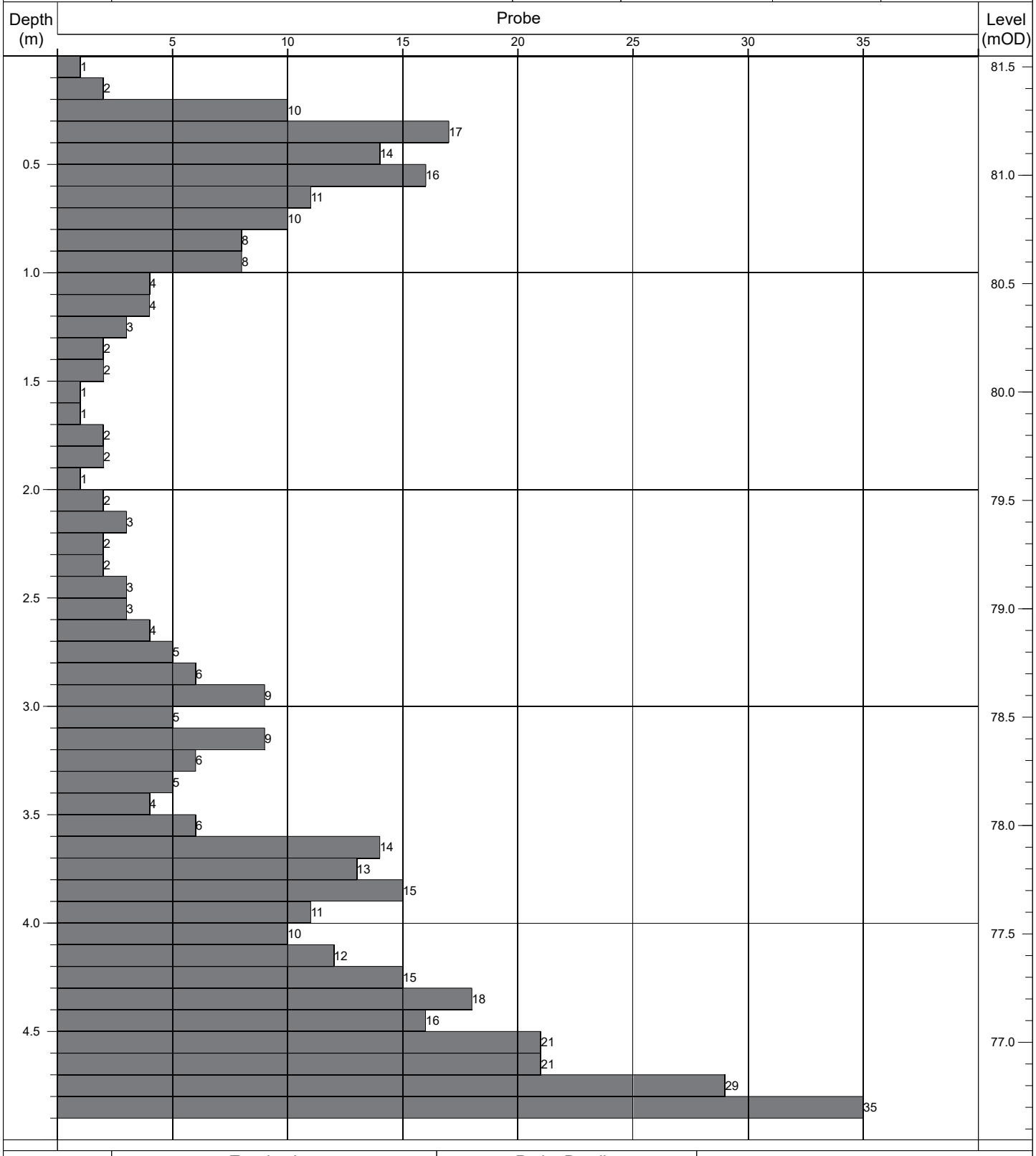
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP138**
Contract:	Coolagad	Easting:	727588.352	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713082.082	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.76	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



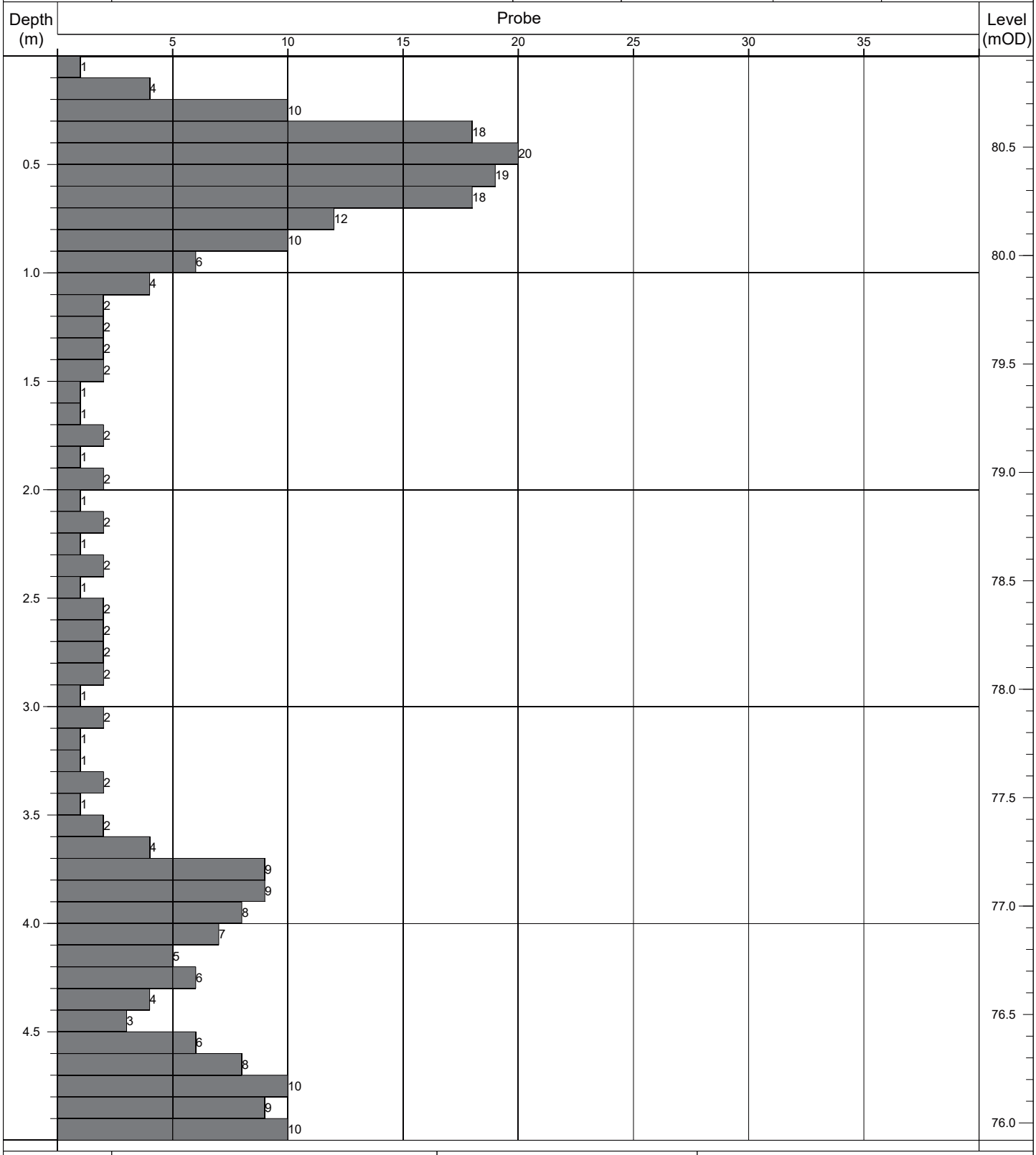
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP139**
Contract:	Coolagad	Easting:	727588.779	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713061.608	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



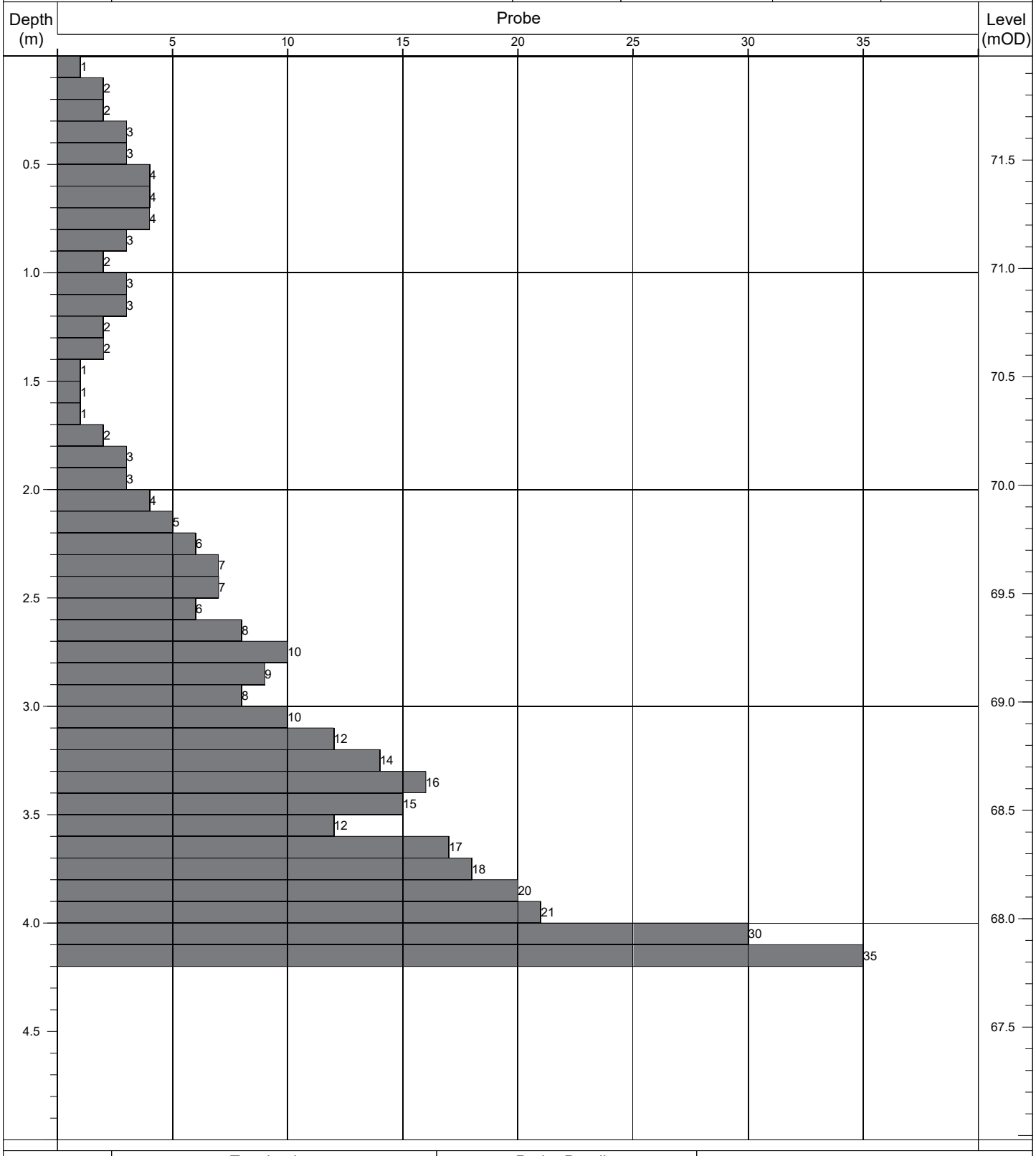
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP140**
Contract:	Coolagad	Easting:	727588.351	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713041.510	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	80.92	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



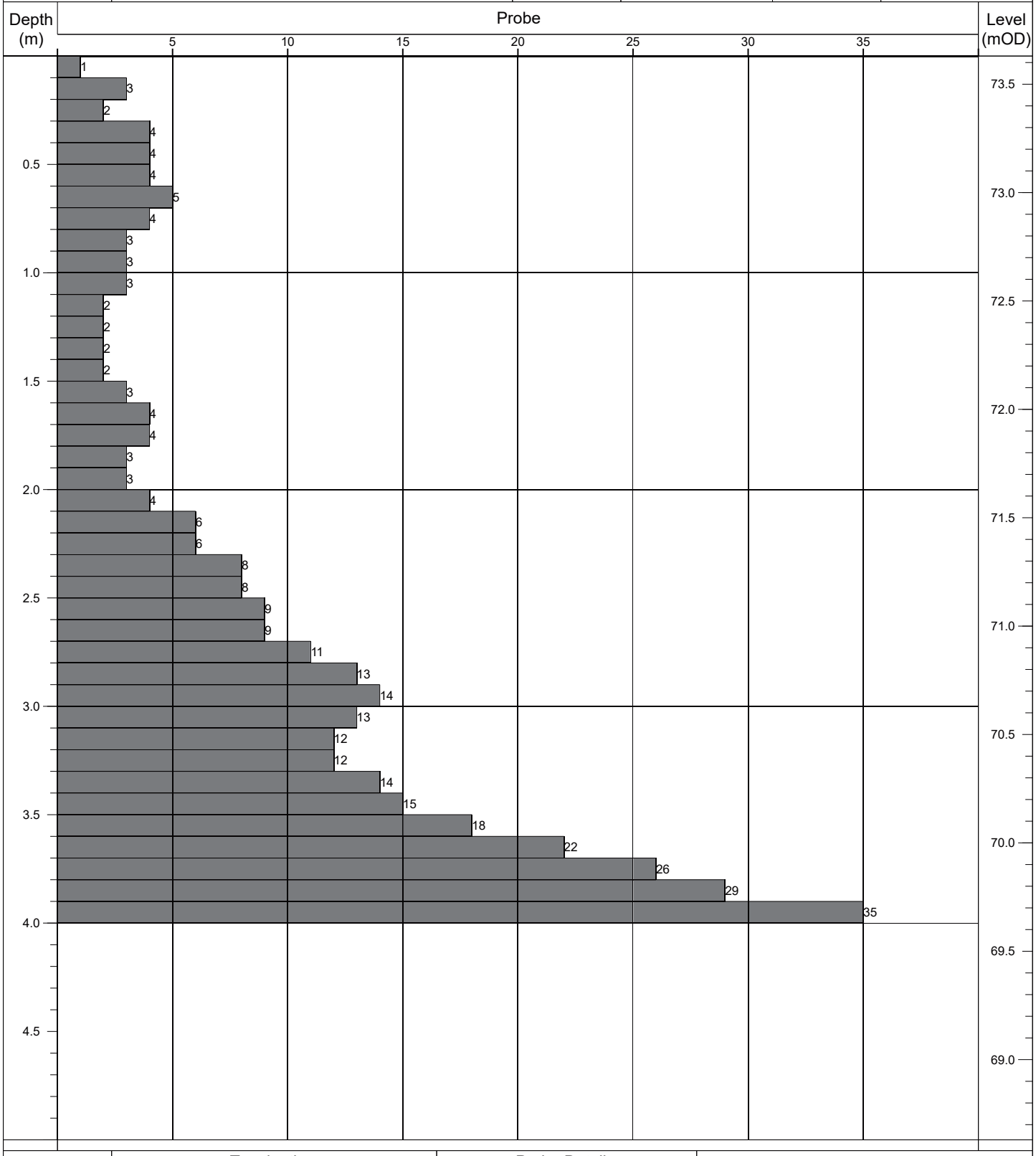
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP141
Contract:	Coolagad	Easting:	727714.181	Date Started:	20/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713069.017	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	71.98	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



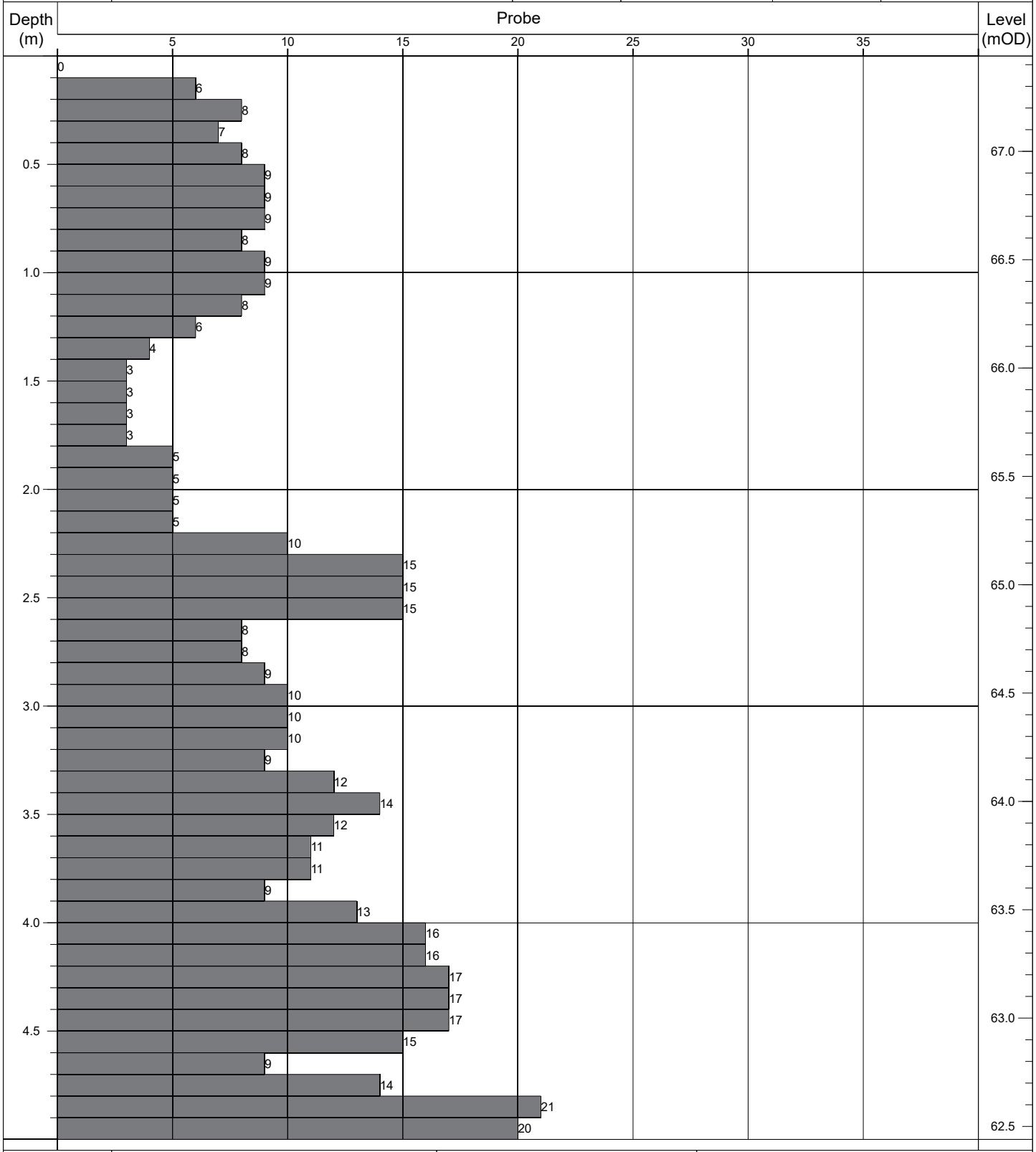
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP142
Contract:	Coolagad	Easting:	727694.166	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713066.040	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	73.63	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



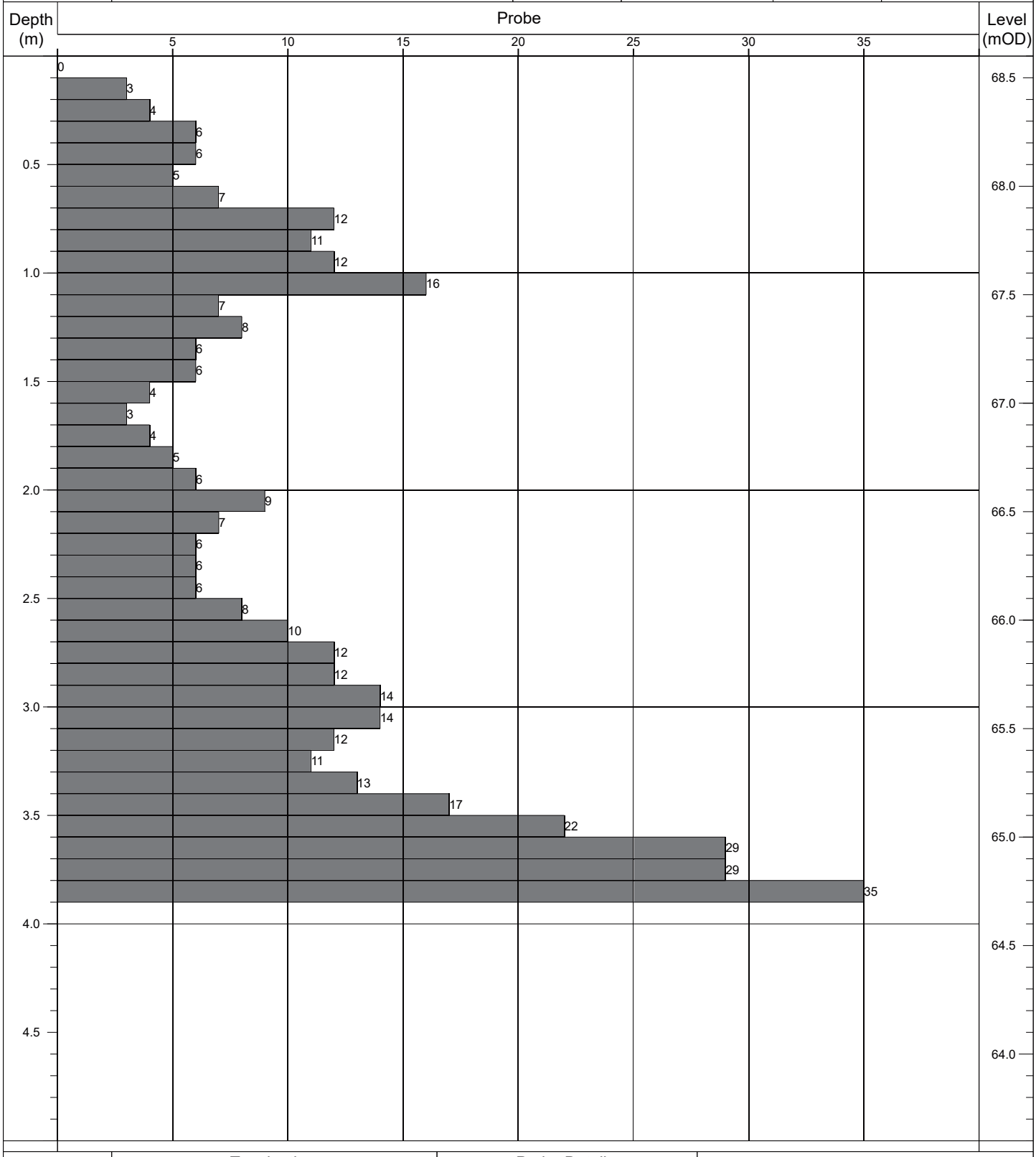
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP143
Contract:	Coolagad	Easting:	727740.271	Date Started:	28/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712940.962	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	67.44	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



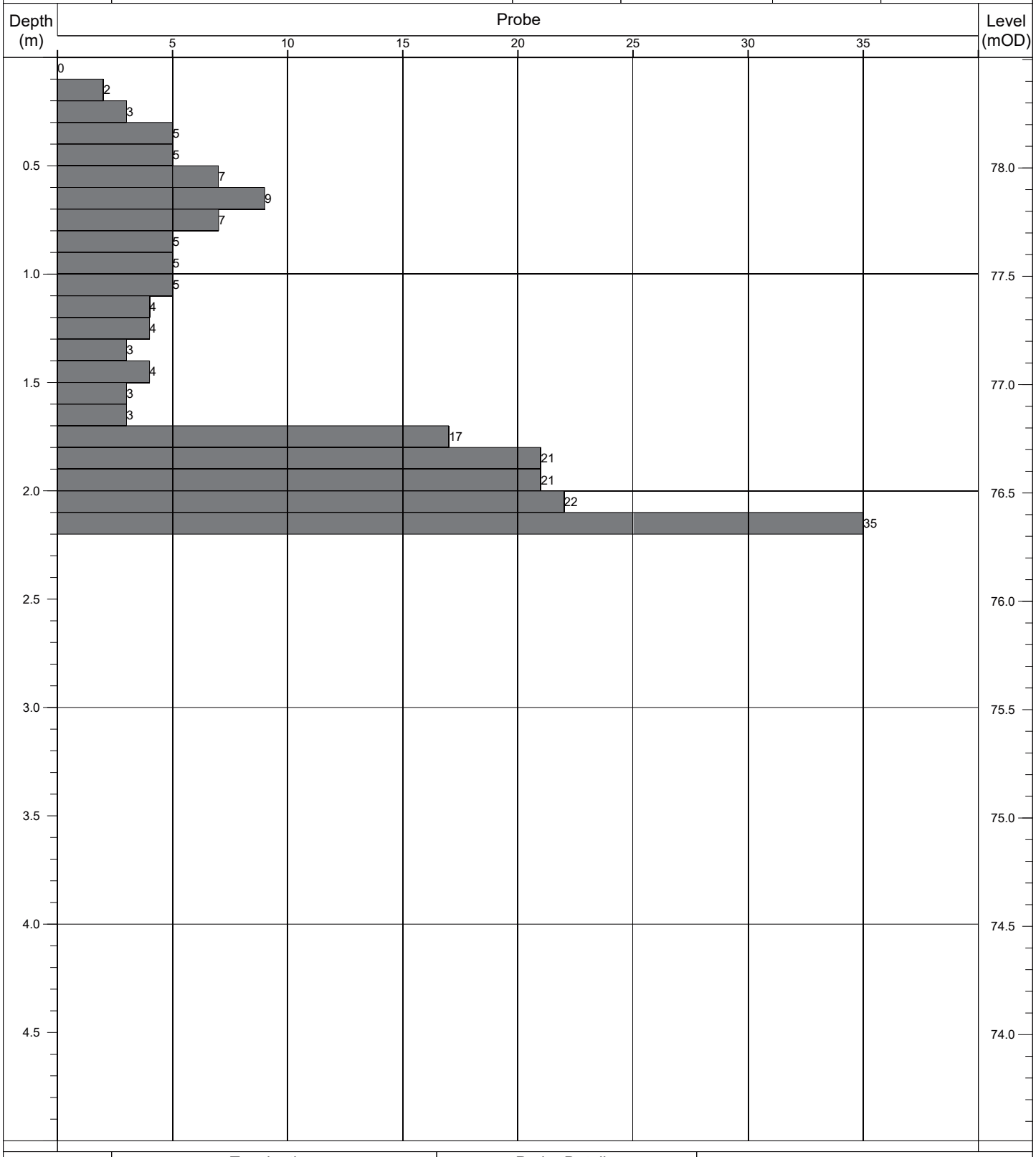
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP144**
Contract:	Coolagad	Easting:	727721.973	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712944.822	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	68.60	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



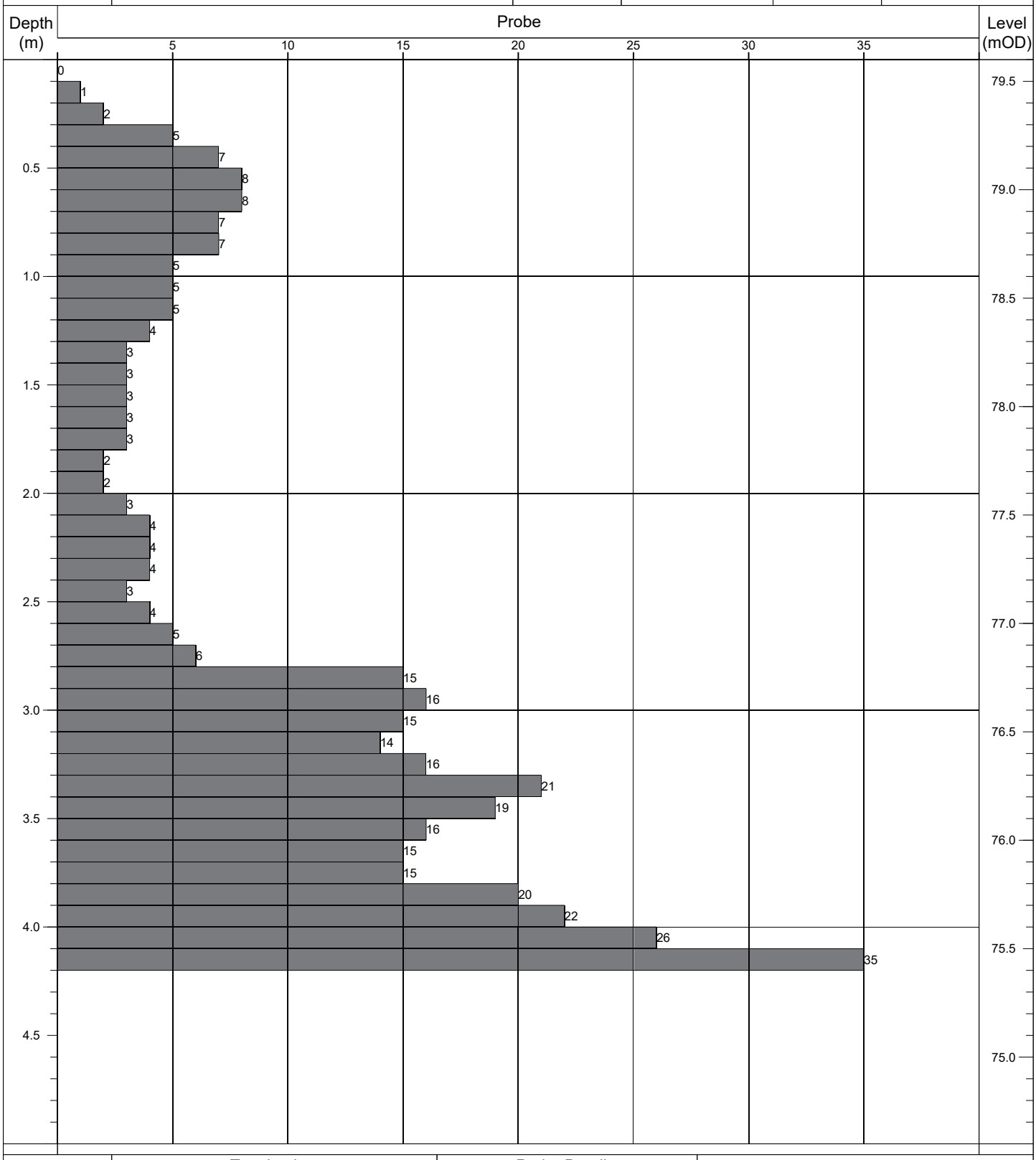
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP145**
Contract:	Coolagad	Easting:	727595.445	Date Started:	05/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712953.170	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	78.51	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



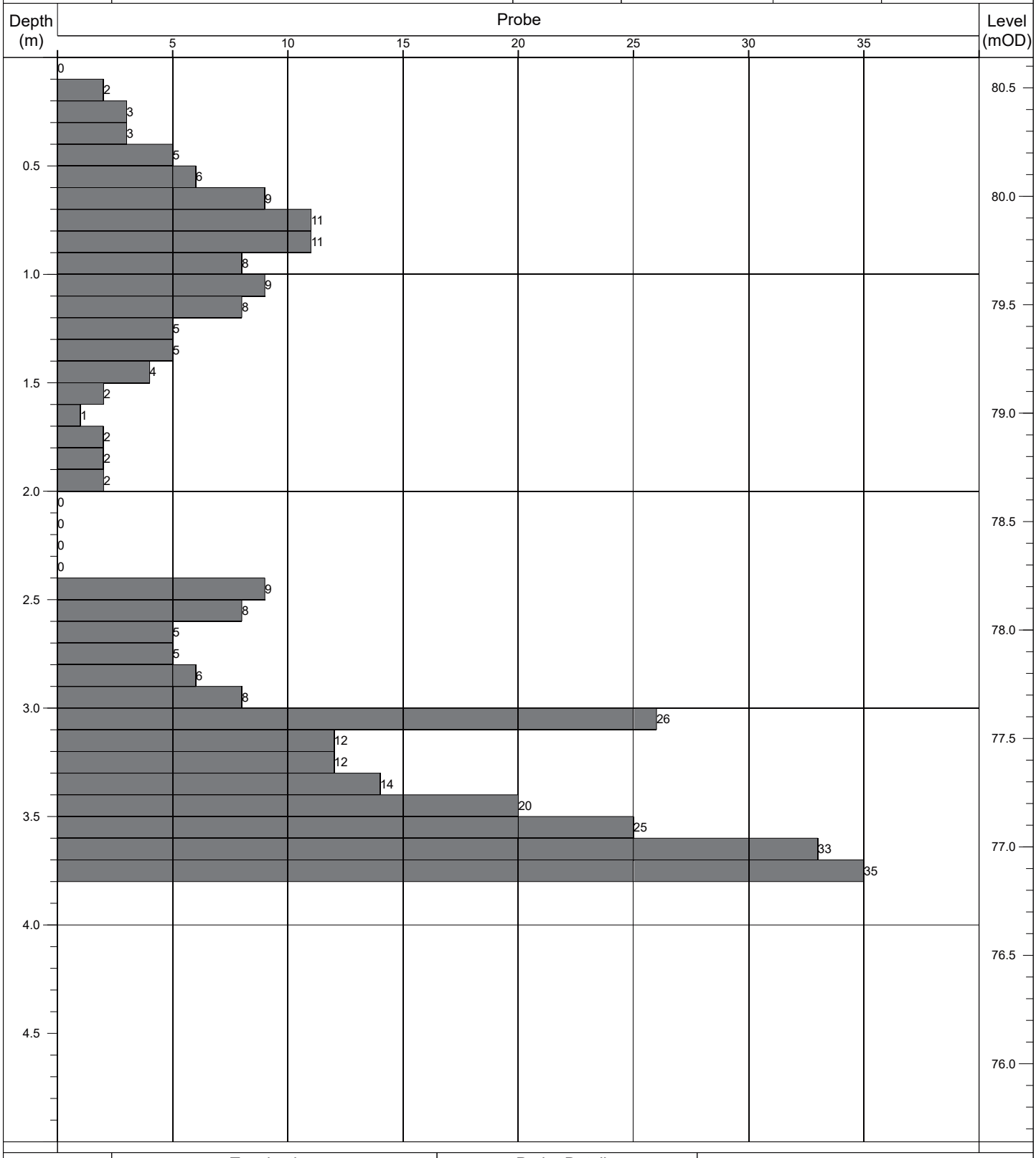
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP146**
Contract:	Coolagad	Easting:	727599.637	Date Started:	05/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712933.647	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	79.60	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



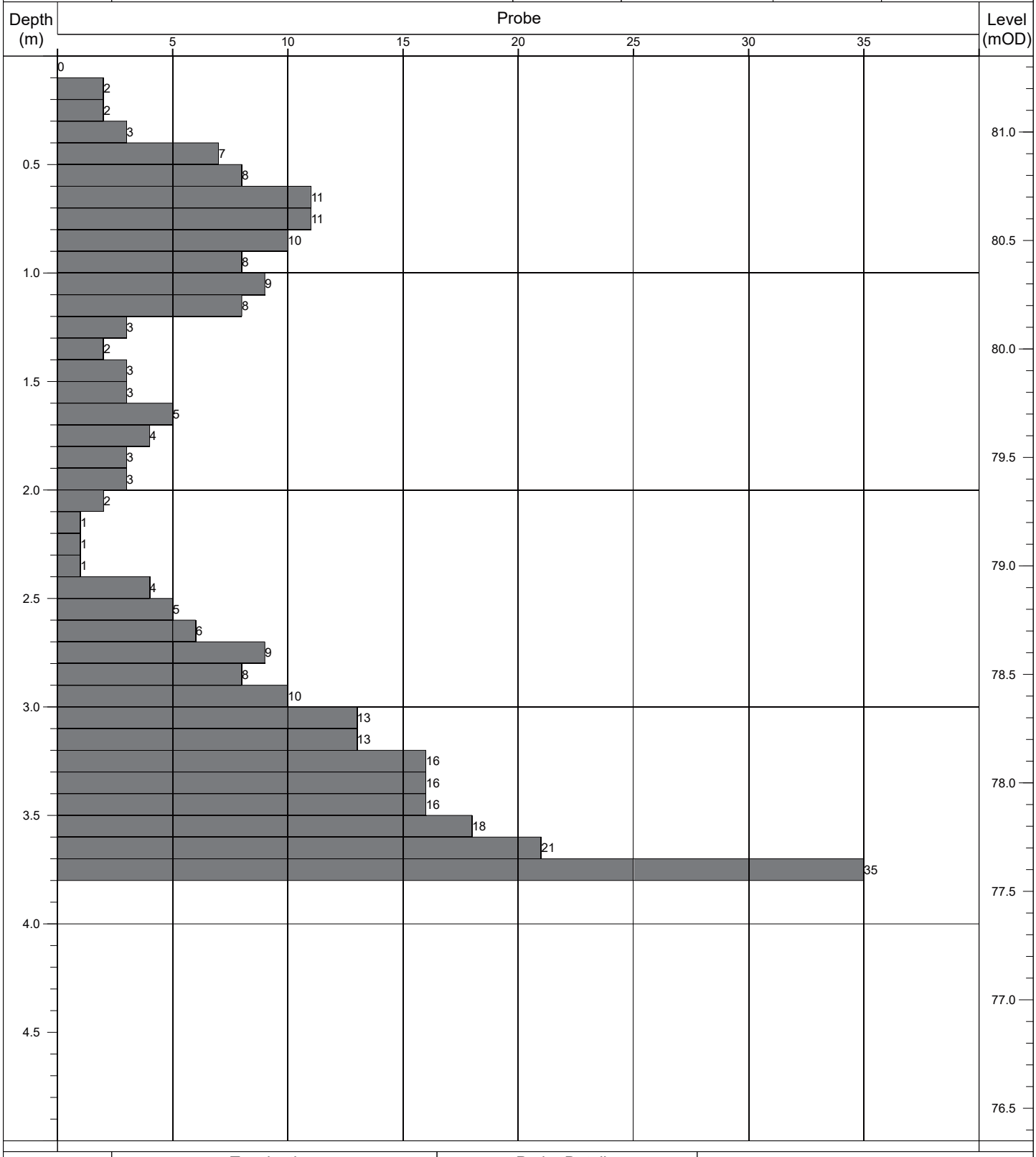
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP147**
Contract:	Coolagad	Easting:	727604.001	Date Started:	05/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712913.740	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	80.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



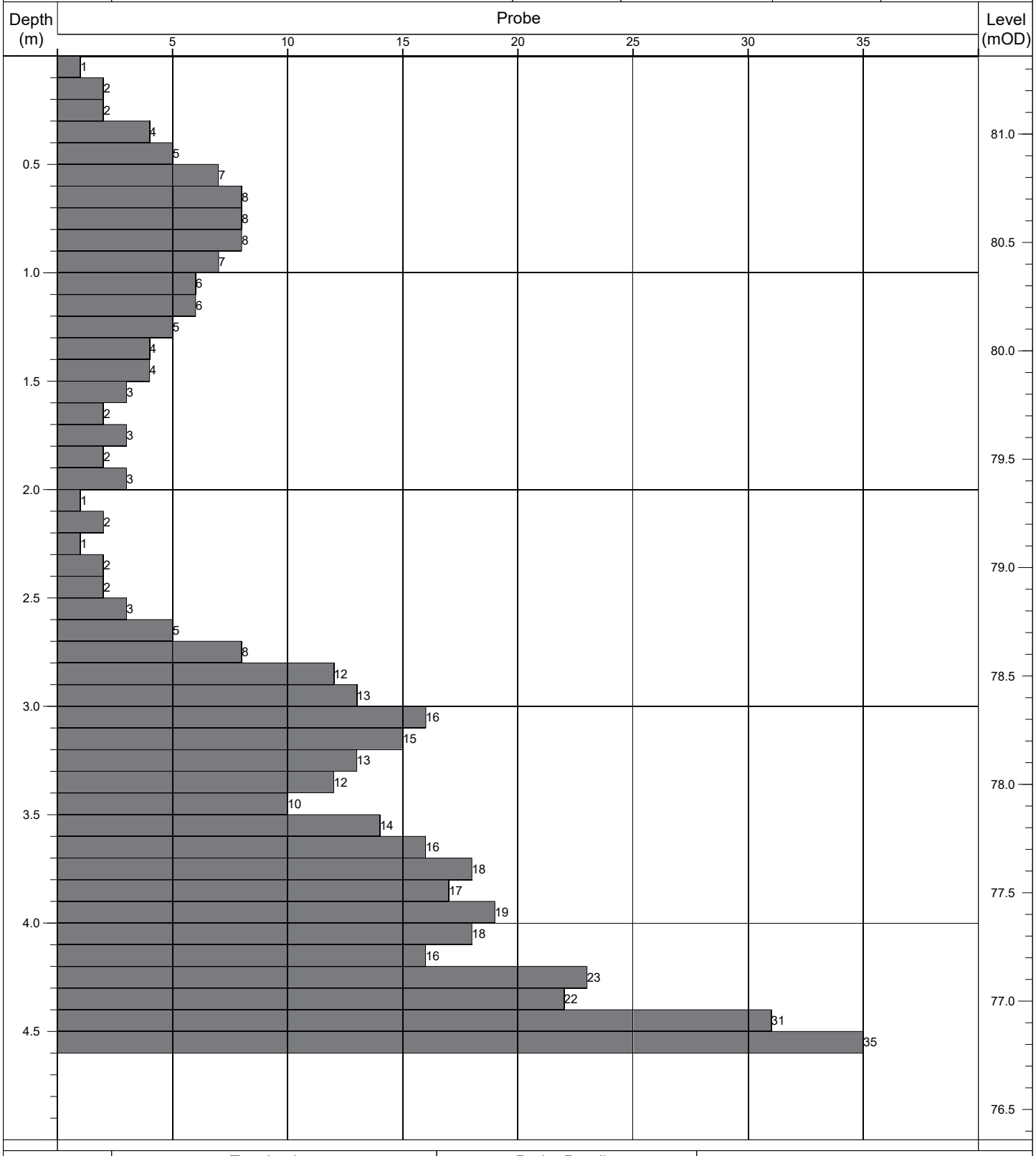
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP148
Contract:	Coolagad	Easting:	727608.266	Date Started:	05/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712894.354	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.35	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



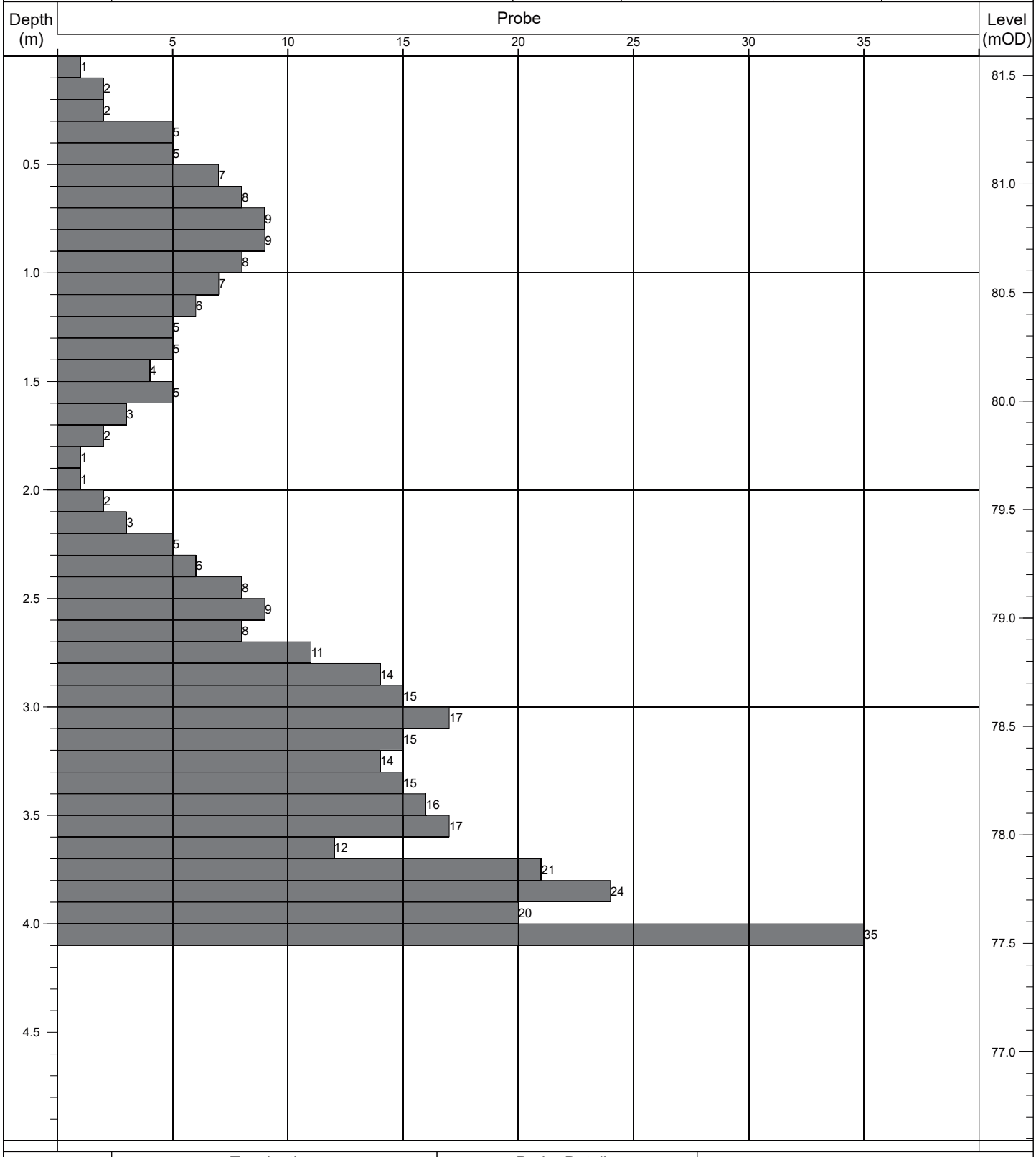
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.80m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP149**
Contract:	Coolagad	Easting:	727616.599	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712876.649	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.36	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



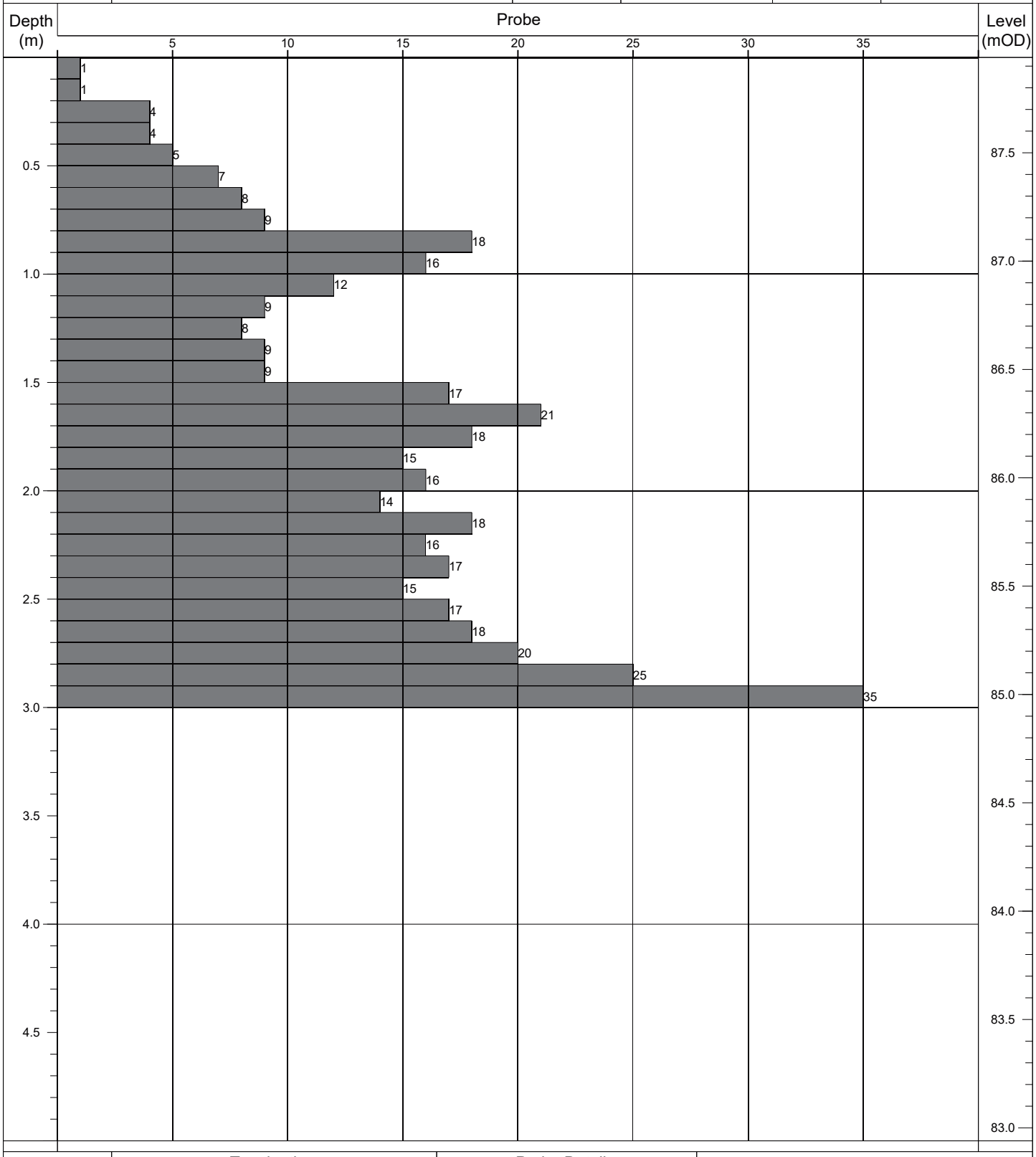
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP150**
Contract:	Coolagad	Easting:	727621.318	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712857.610	Logged By:	E. Magee
Client:	Cairn Homes	Elevation:	81.59	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



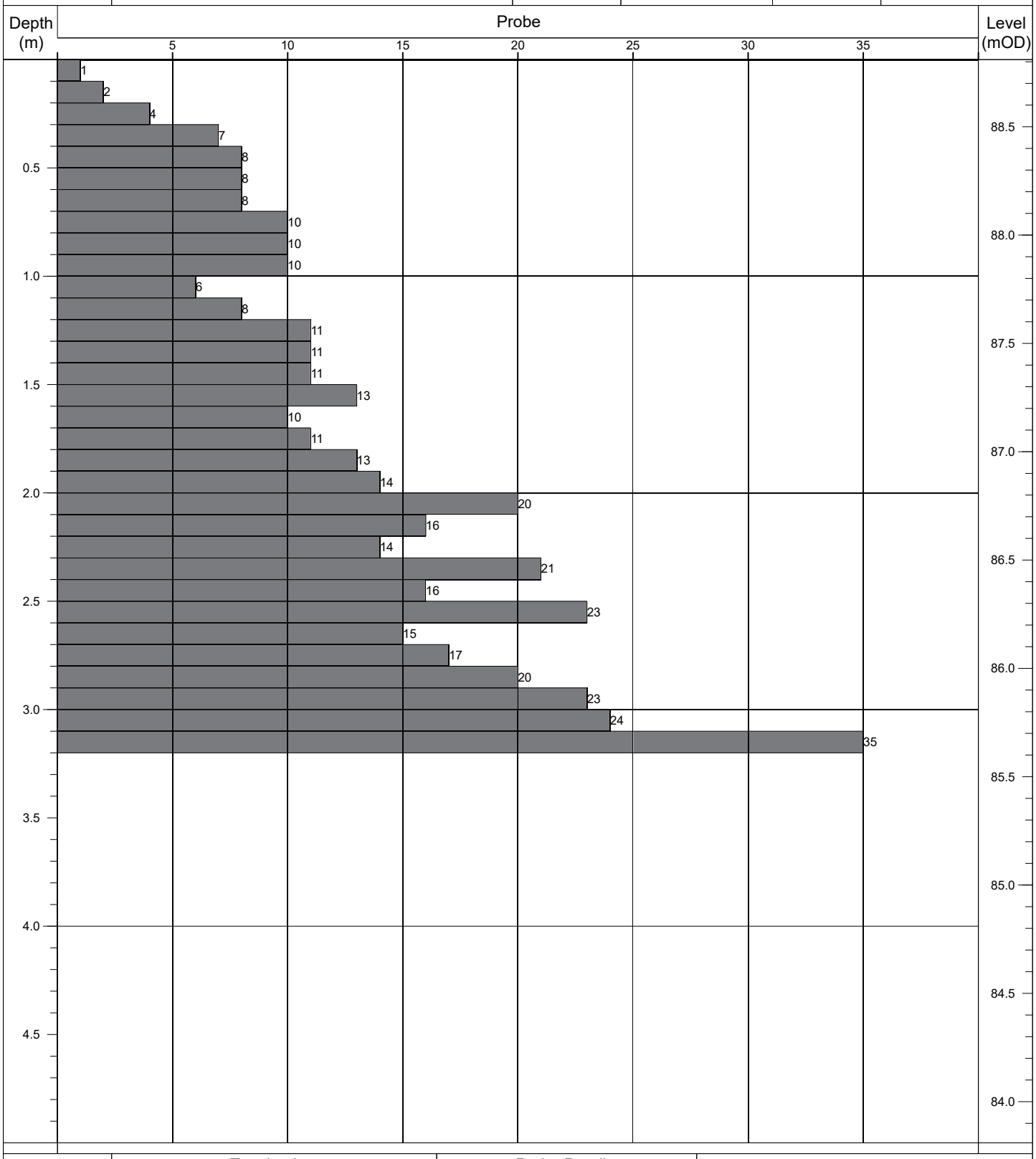
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP151**
Contract:	Coolagad	Easting:	727531.950	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712915.270	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	87.94	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



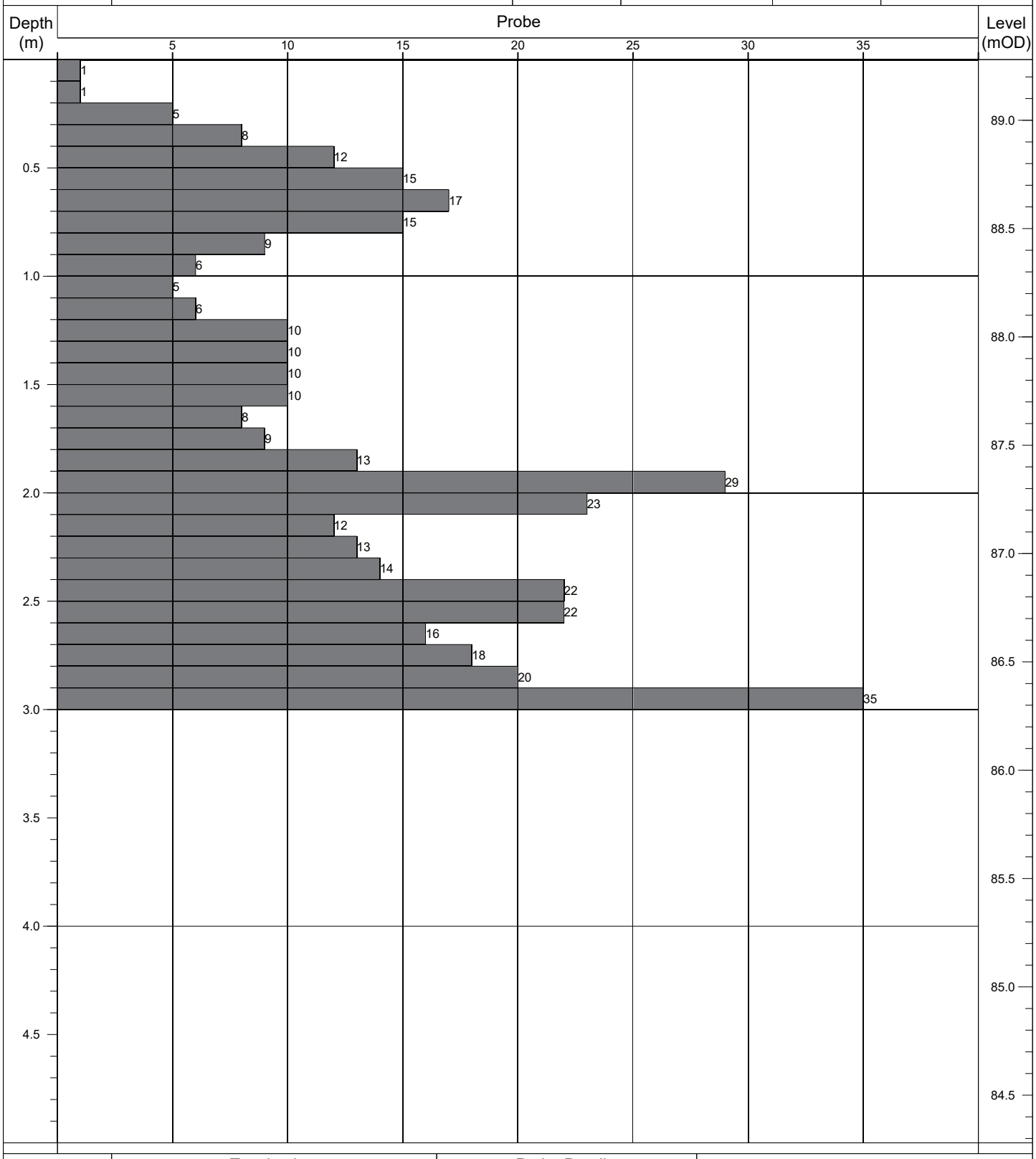
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP152**
Contract:	Coolagad	Easting:	727535.481	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712896.526	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	88.81	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



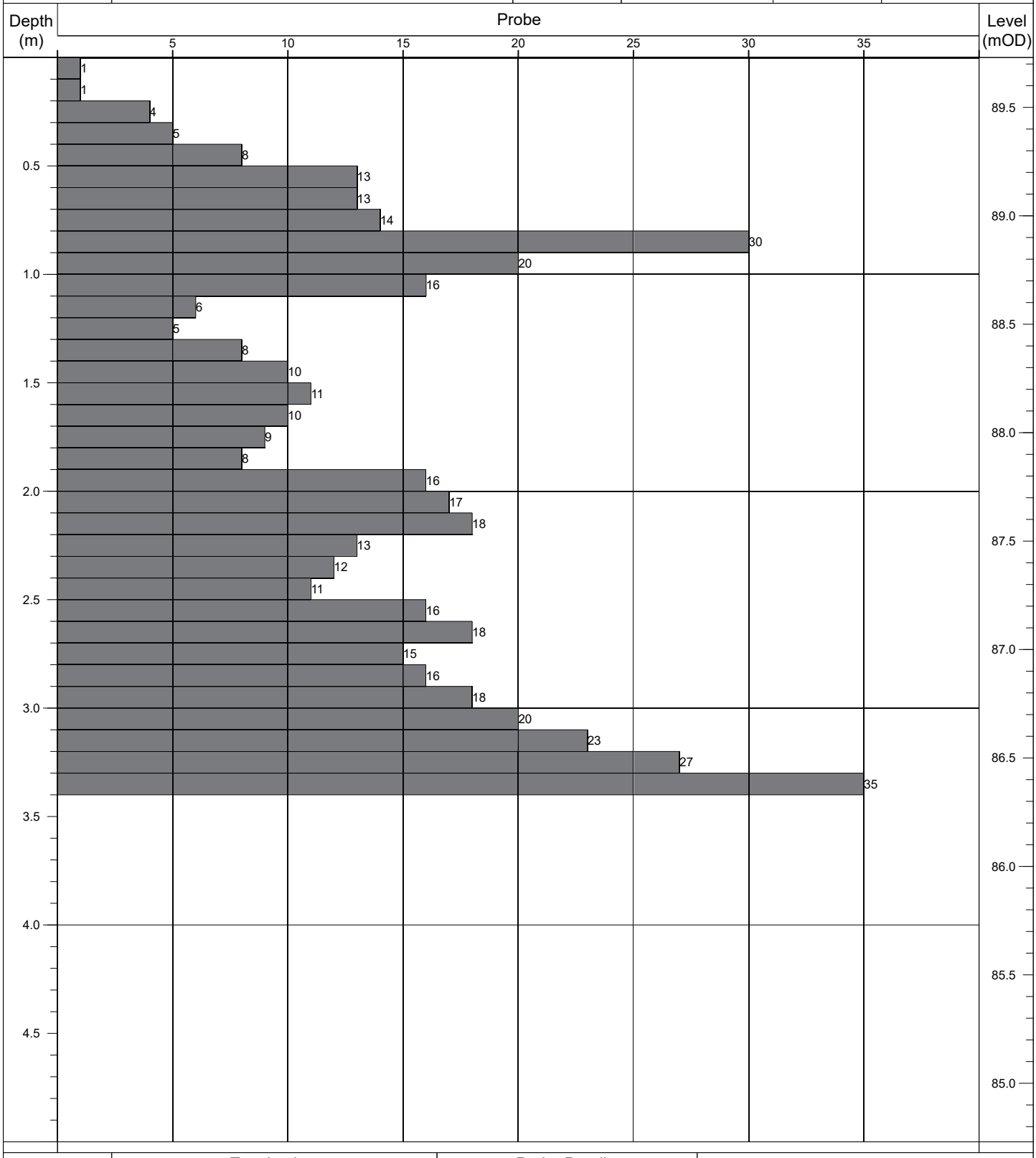
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP153**
Contract:	Coolagad	Easting:	727541.780	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712877.553	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	89.28	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



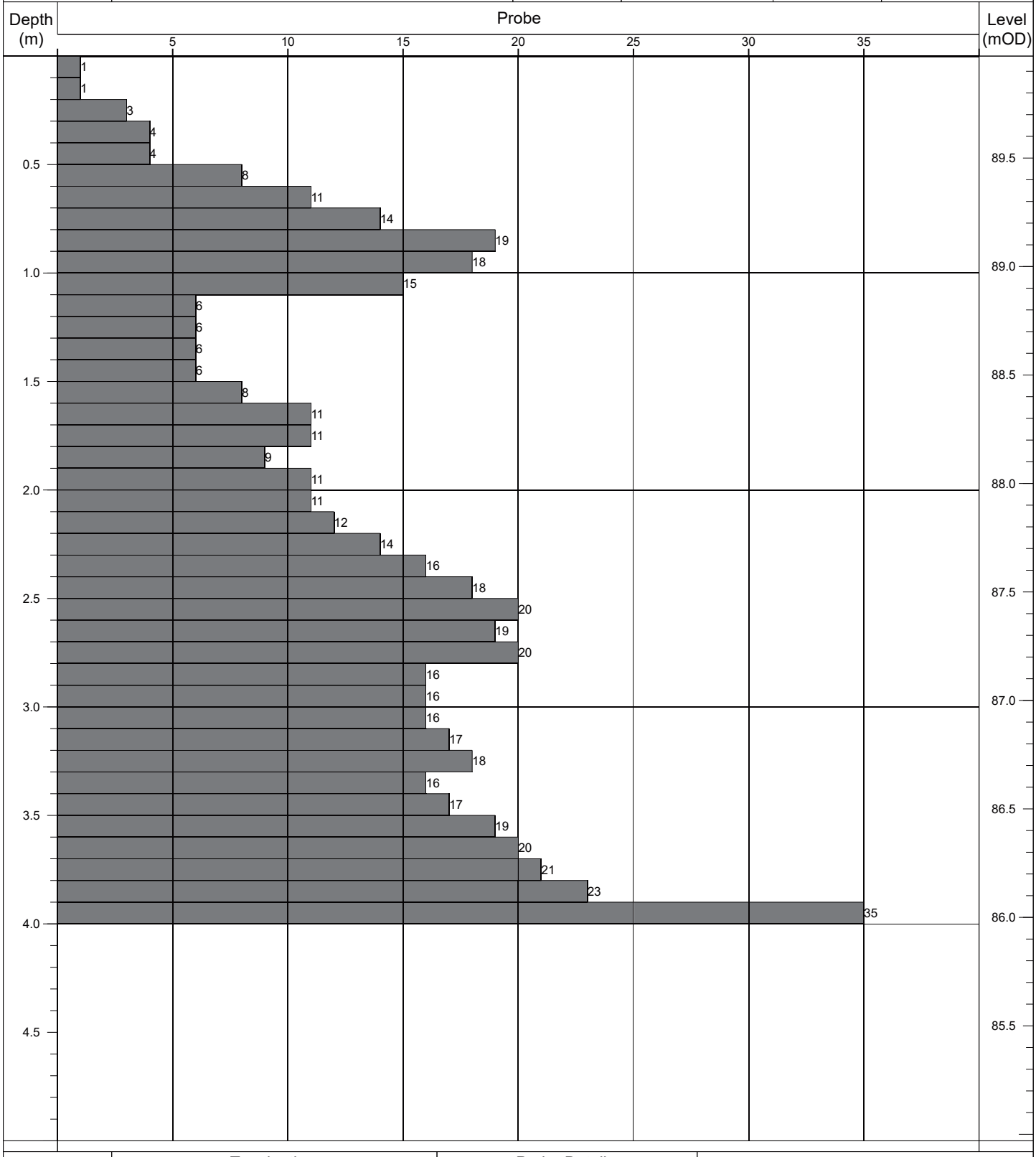
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP154**
Contract:	Coolagad	Easting:	727549.135	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712858.814	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	89.73	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



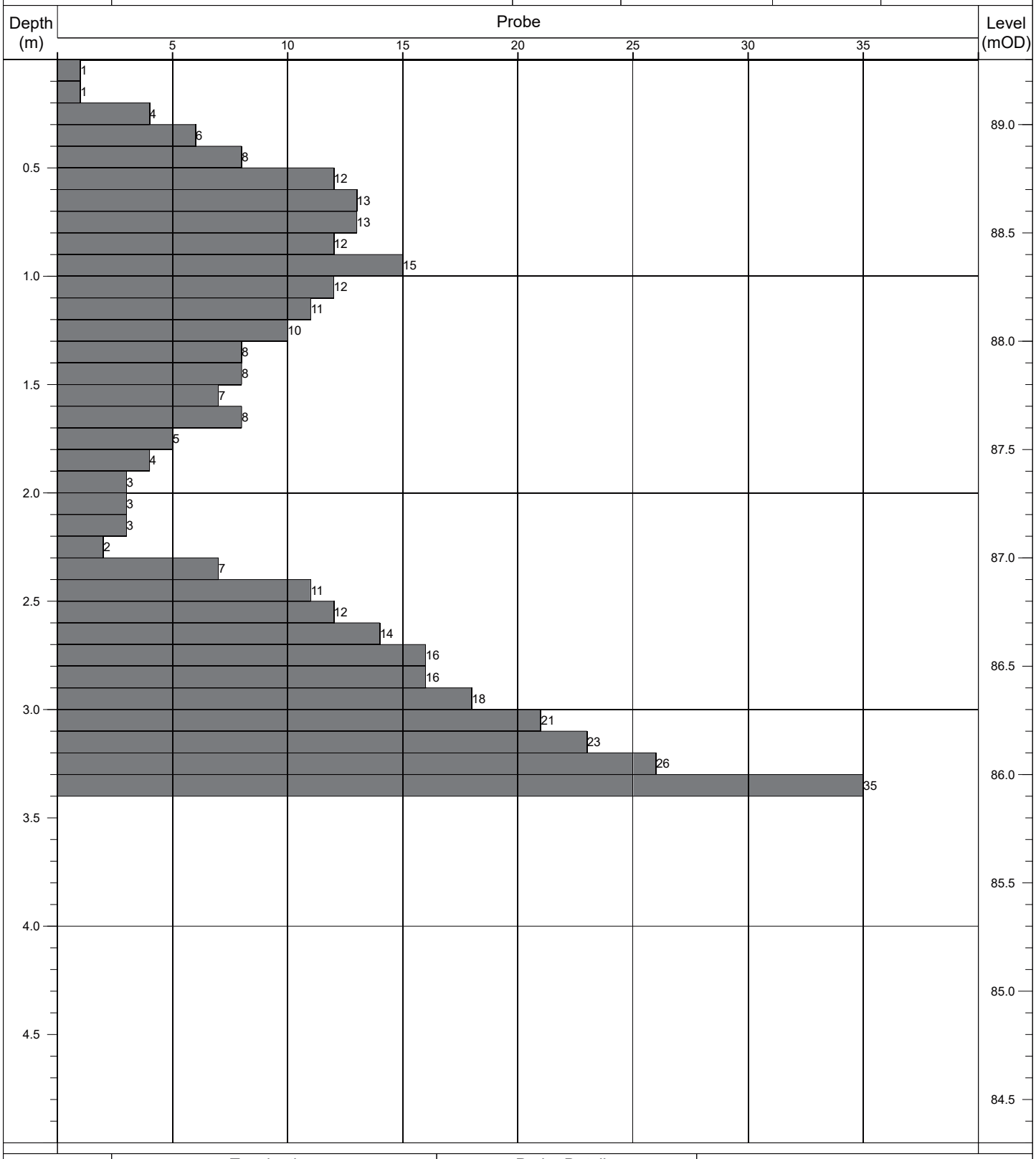
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP155**
Contract:	Coolagad	Easting:	727559.385	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712840.997	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	89.97	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



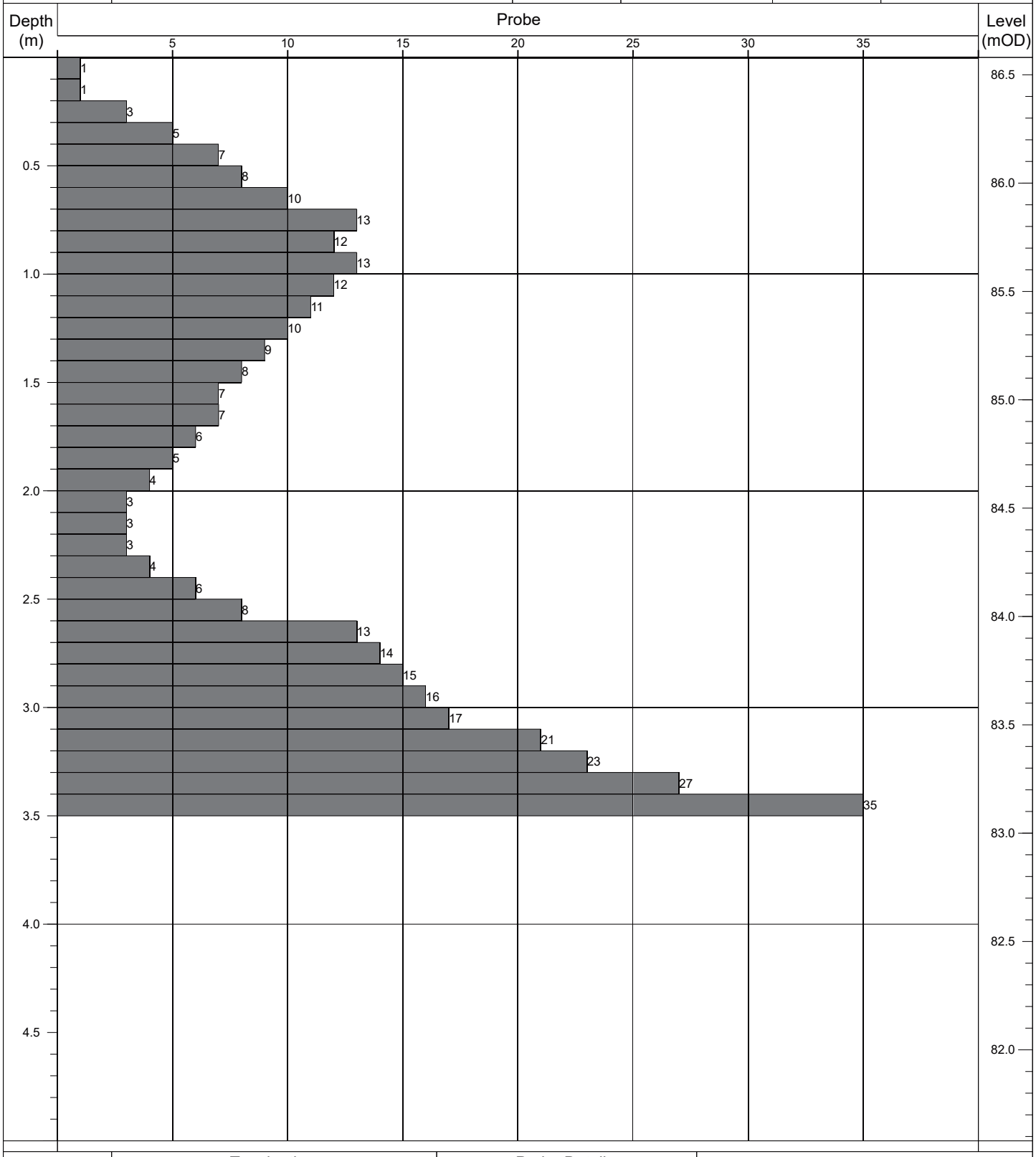
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP156
Contract:	Coolagad	Easting:	727571.306	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712826.155	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	89.30	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



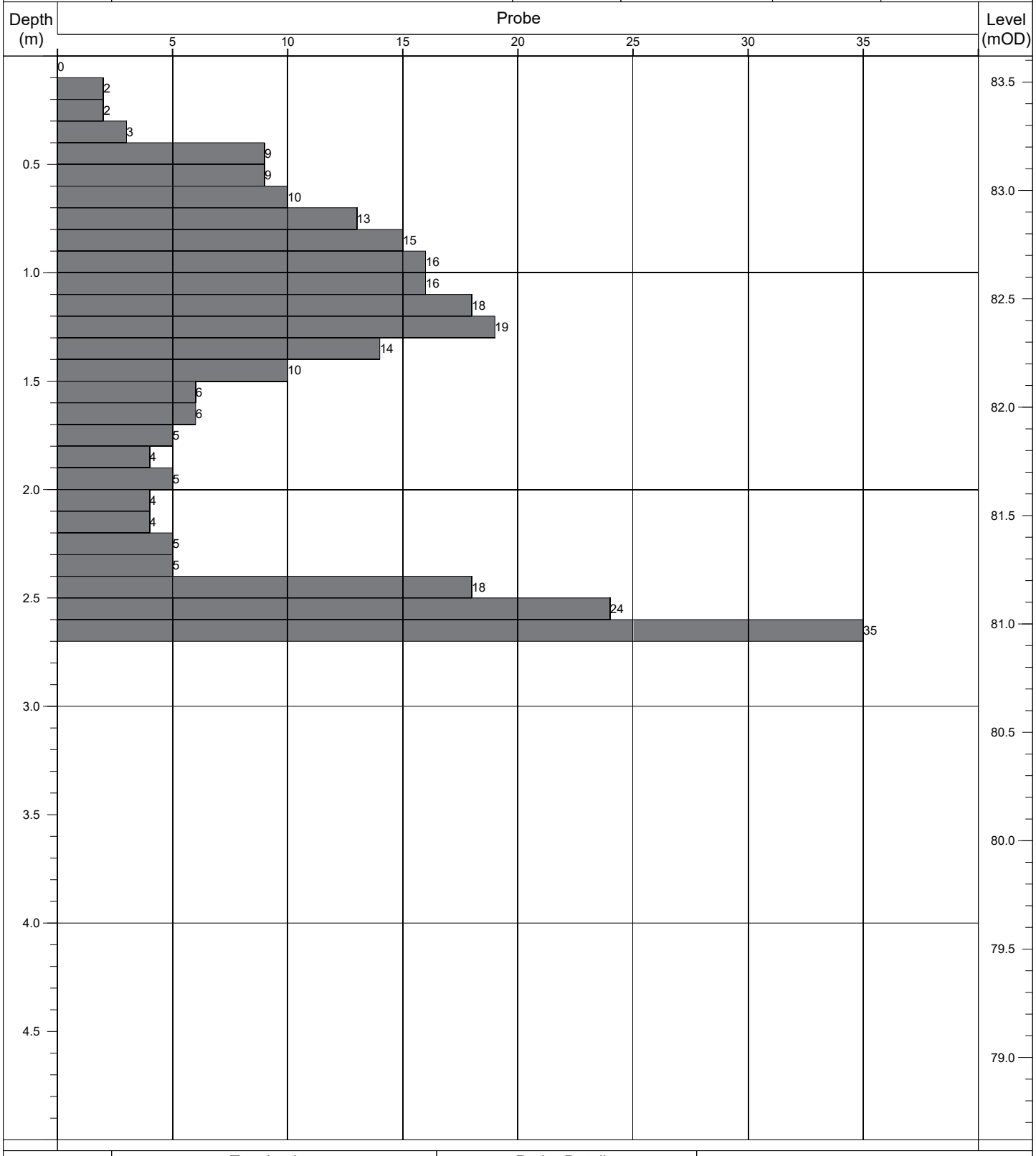
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP157**
Contract:	Coolagad	Easting:	727591.146	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712829.974	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	86.58	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



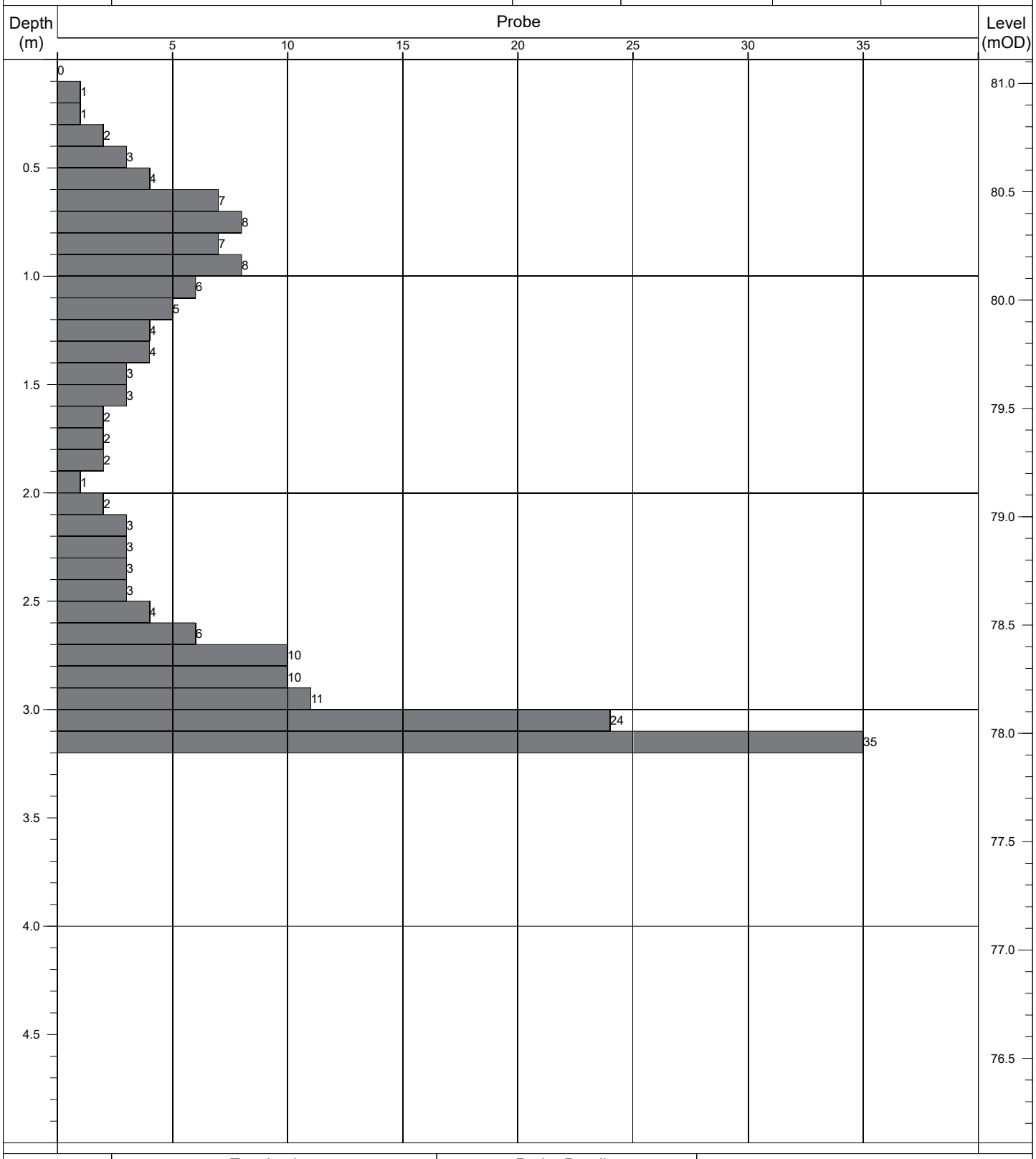
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP158**
Contract:	Coolagad	Easting:	727613.426	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712834.826	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.62	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



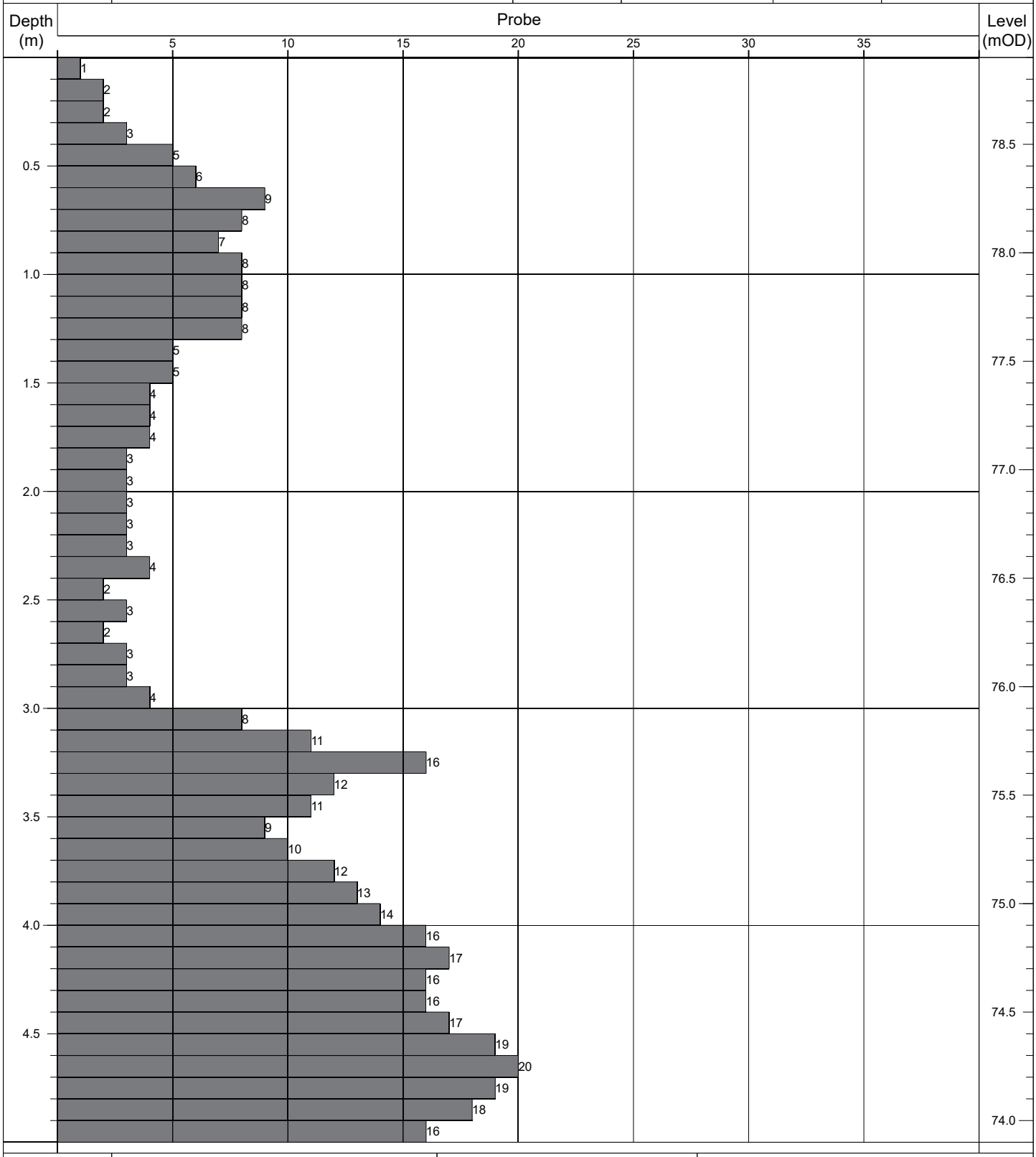
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP159**
Contract:	Coolagad	Easting:	727630.235	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712839.003	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.11	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



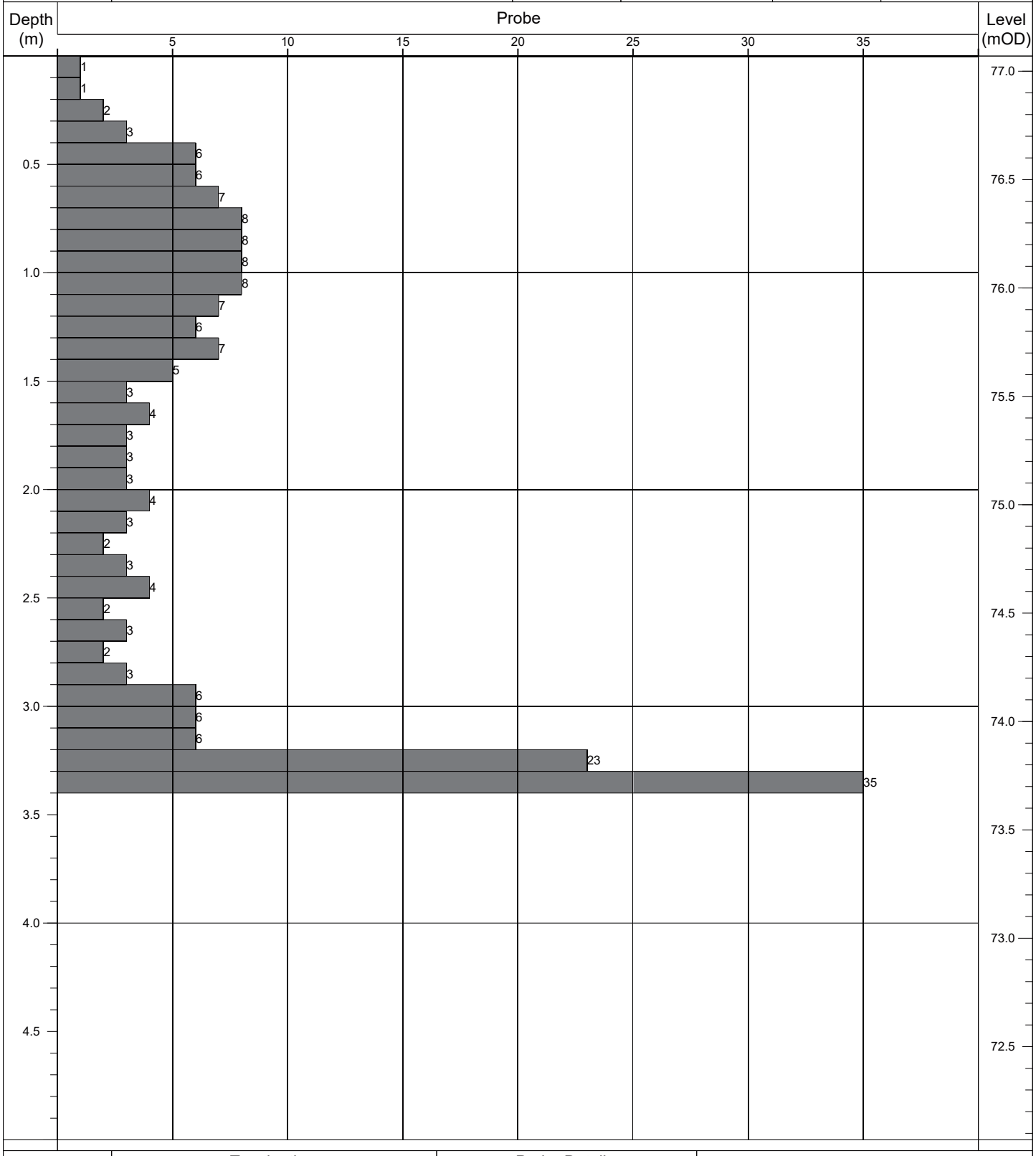
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP160**
Contract:	Coolagad	Easting:	727649.747	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712843.496	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	78.90	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



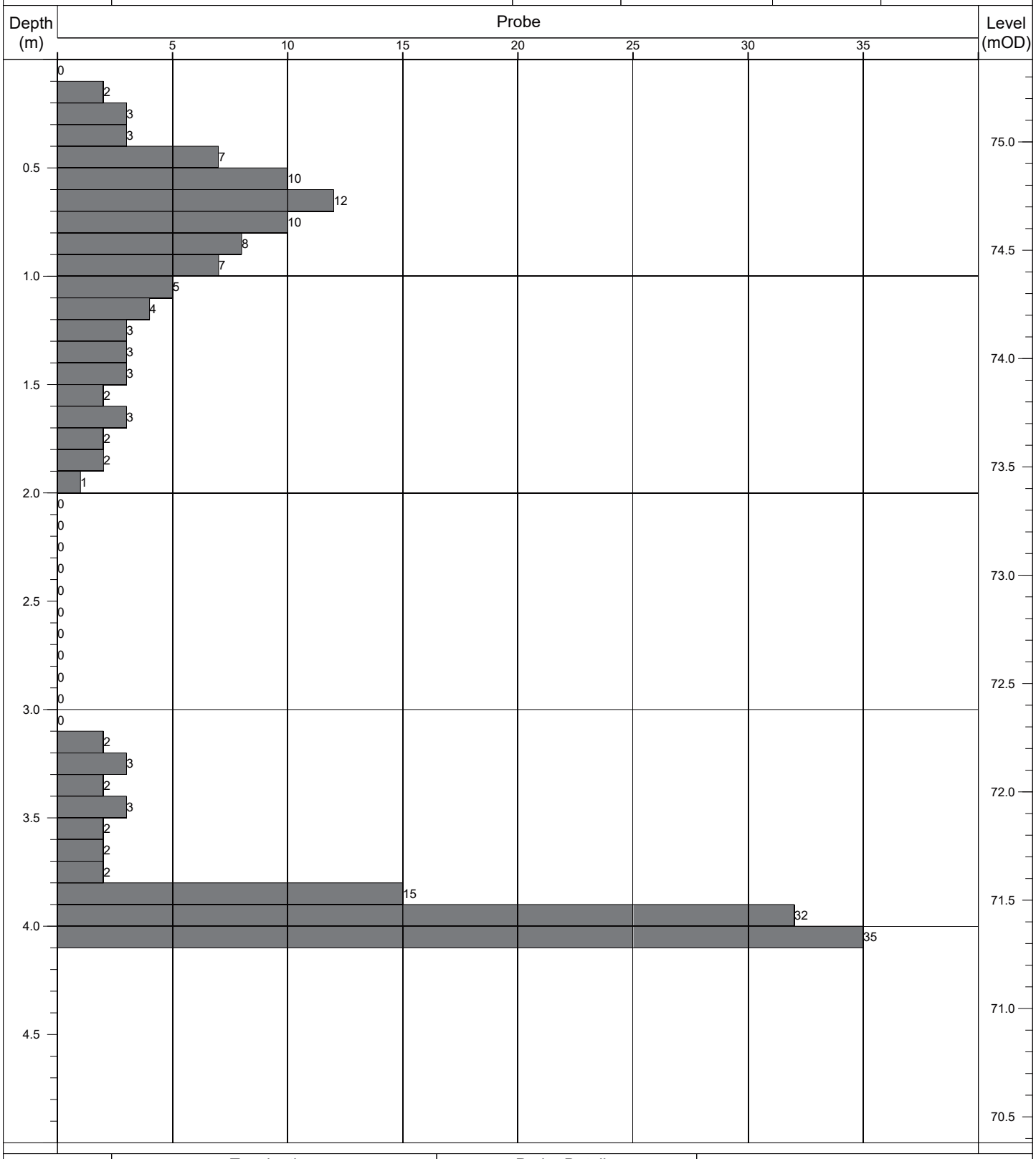
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP161**
Contract:	Coolagad	Easting:	727668.965	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712848.106	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	77.07	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



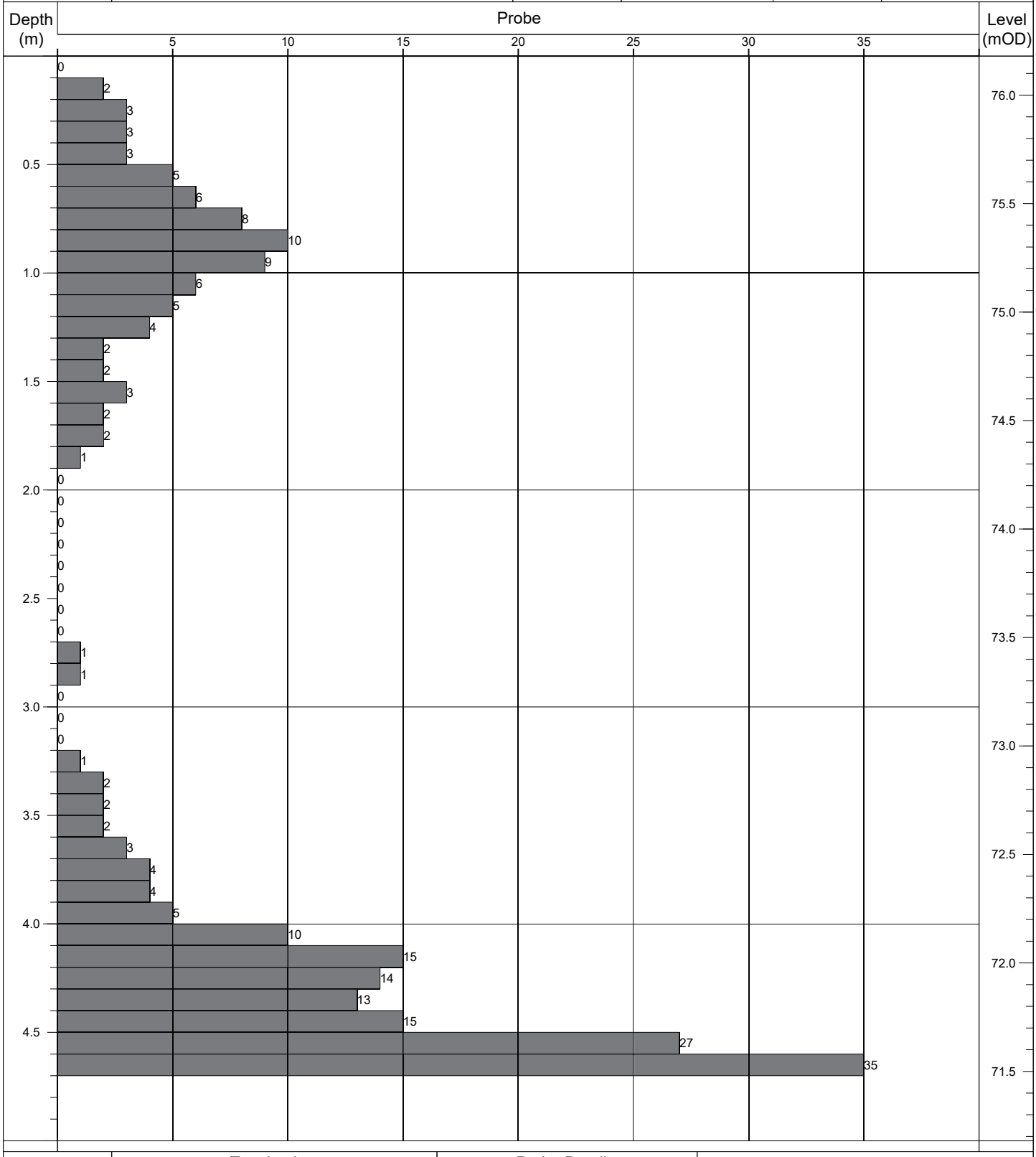
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.40m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP162**
Contract:	Coolagad	Easting:	727687.976	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712854.563	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.38	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



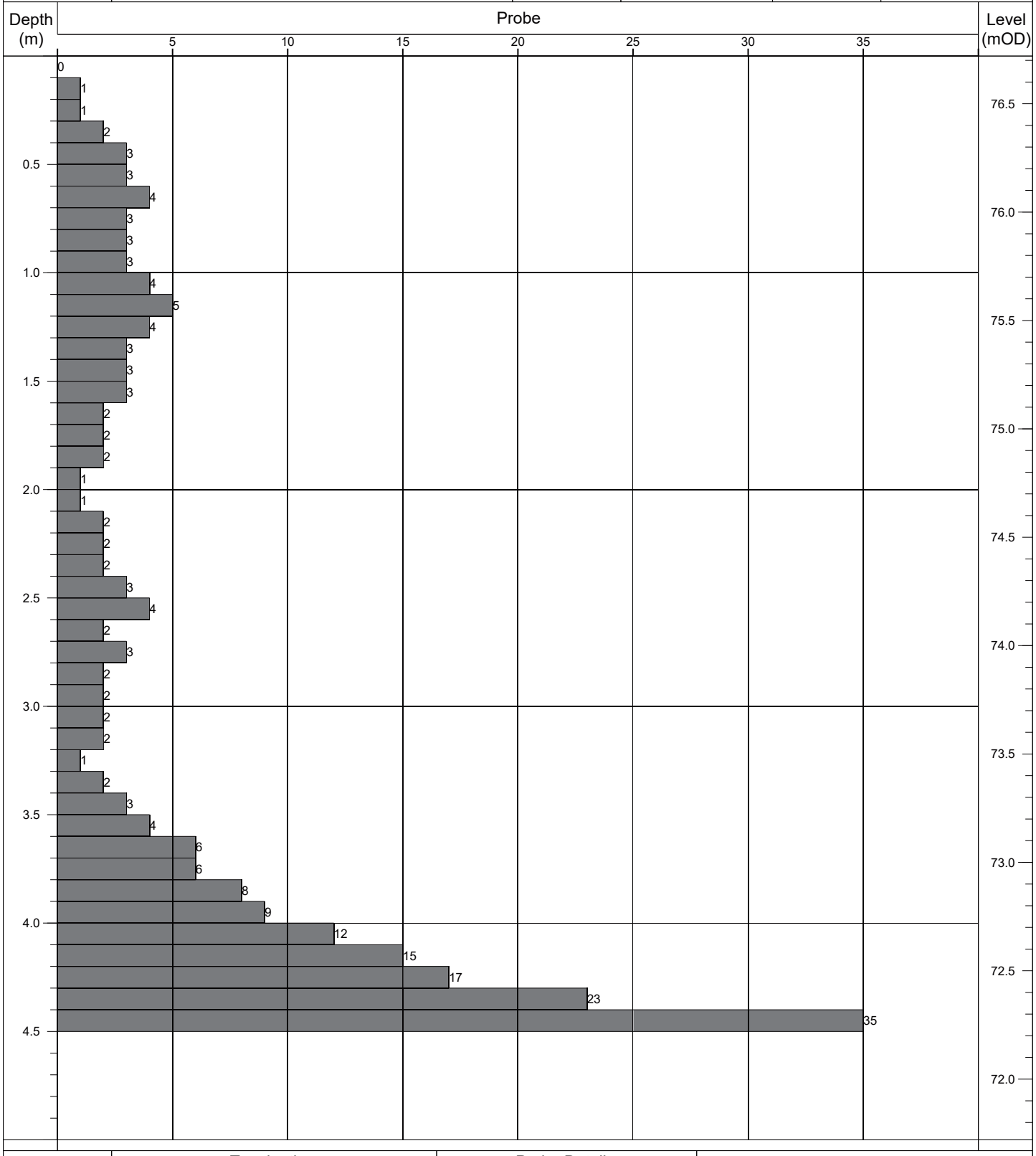
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP163**
Contract:	Coolagad	Easting:	727683.112	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712844.999	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.18	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



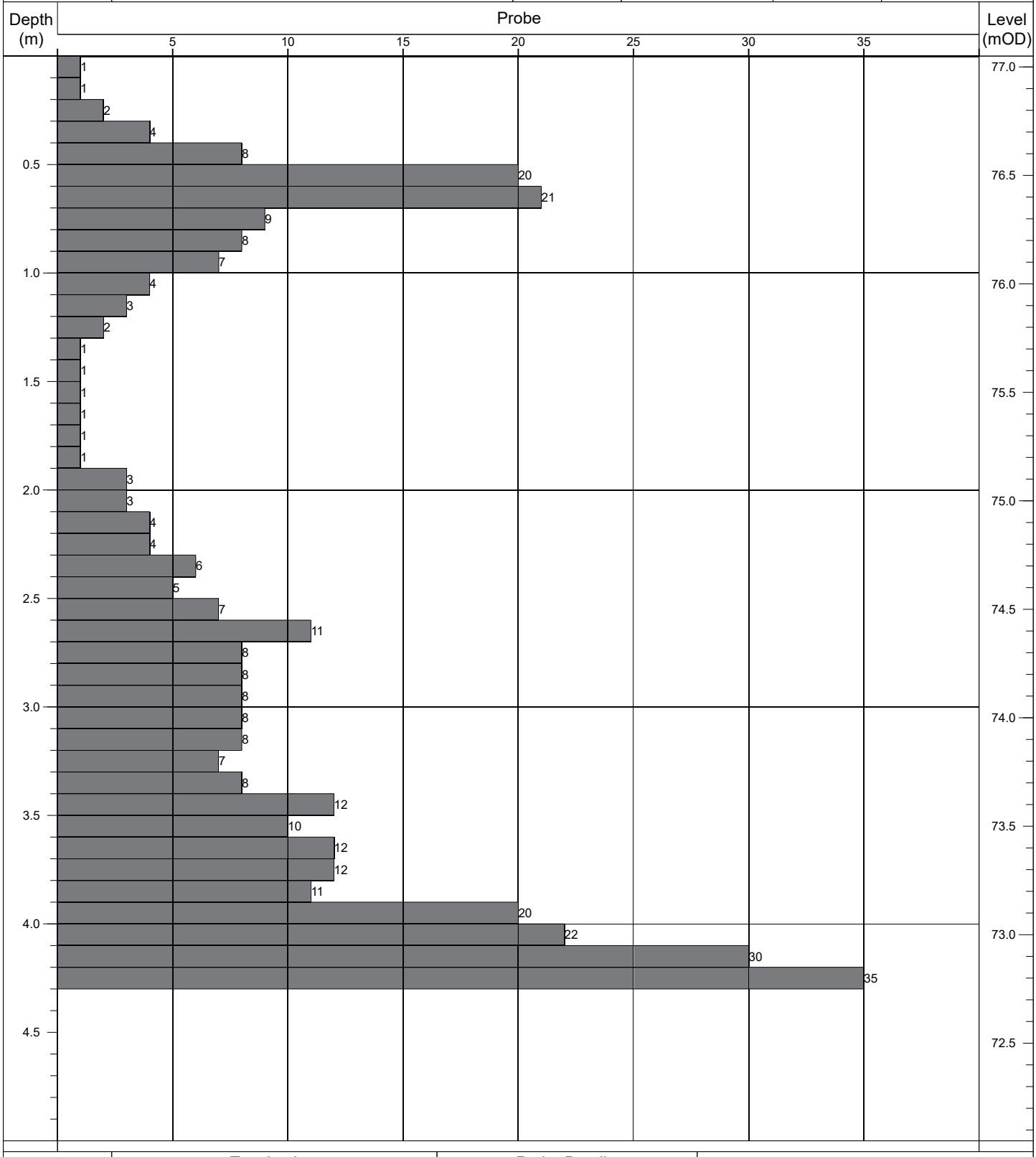
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP164**
Contract:	Coolagad	Easting:	727687.183	Date Started:	28/07/2020
Location:	Greystones, Co. Wicklow	Northing:	712825.731	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.72	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



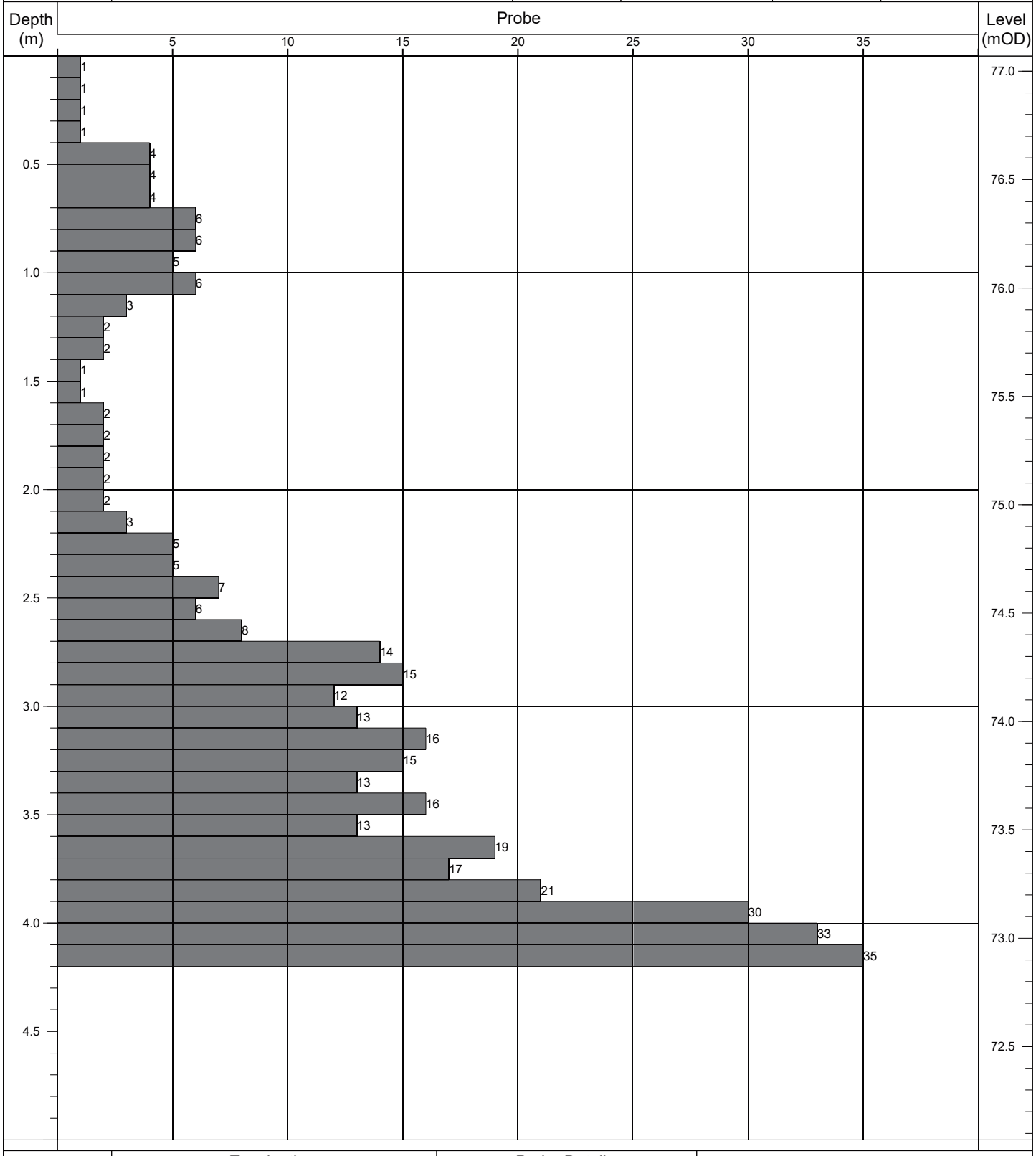
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP165
Contract:	Coolagad	Easting:	727690.997	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712805.670	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	77.05	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



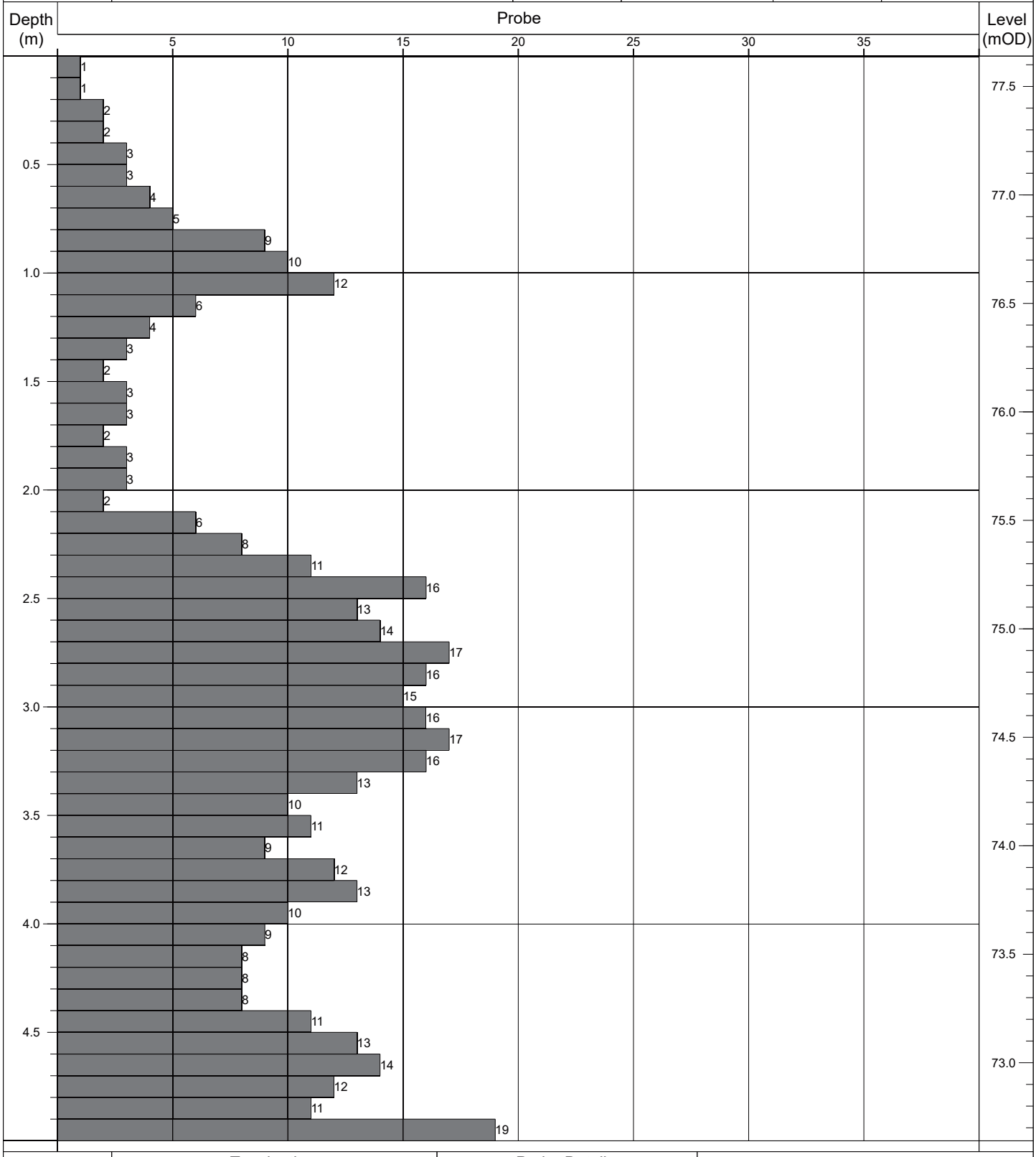
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP166**
Contract:	Coolagad	Easting:	727694.433	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712786.138	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	77.07	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



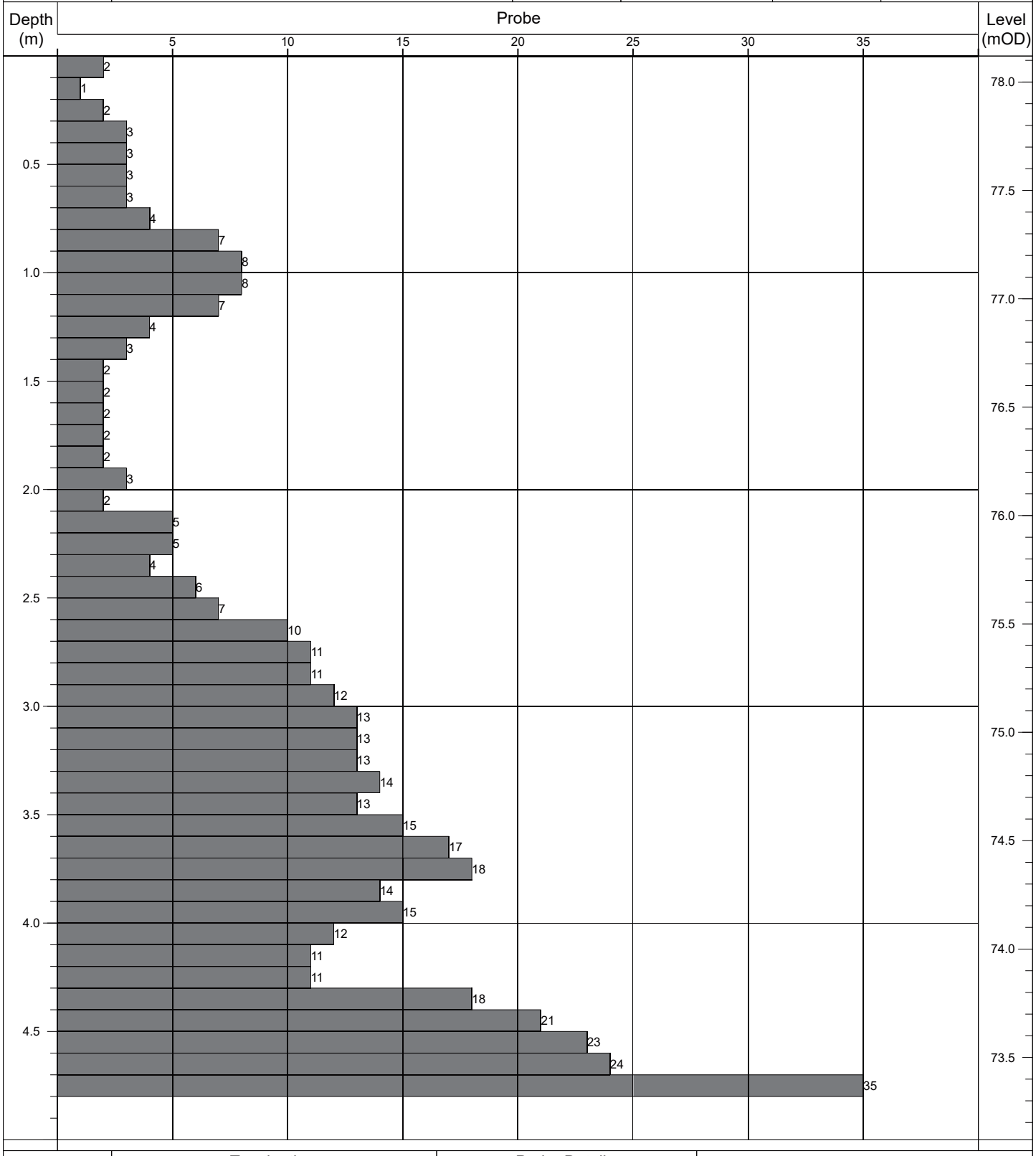
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP167**
Contract:	Coolagad	Easting:	727692.717	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712766.320	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	77.64	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



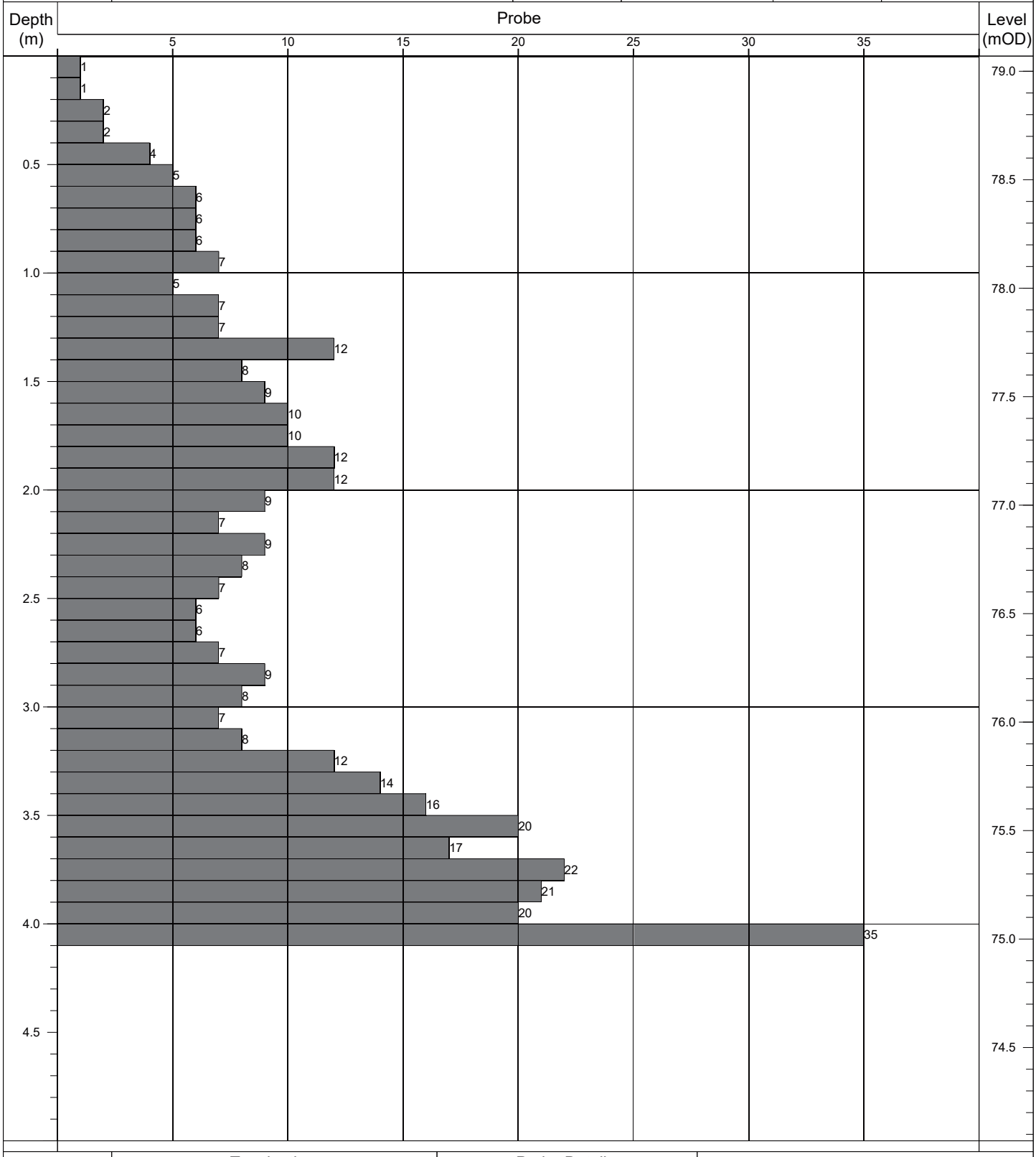
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP168**
Contract:	Coolagad	Easting:	727693.733	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712746.856	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	78.12	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



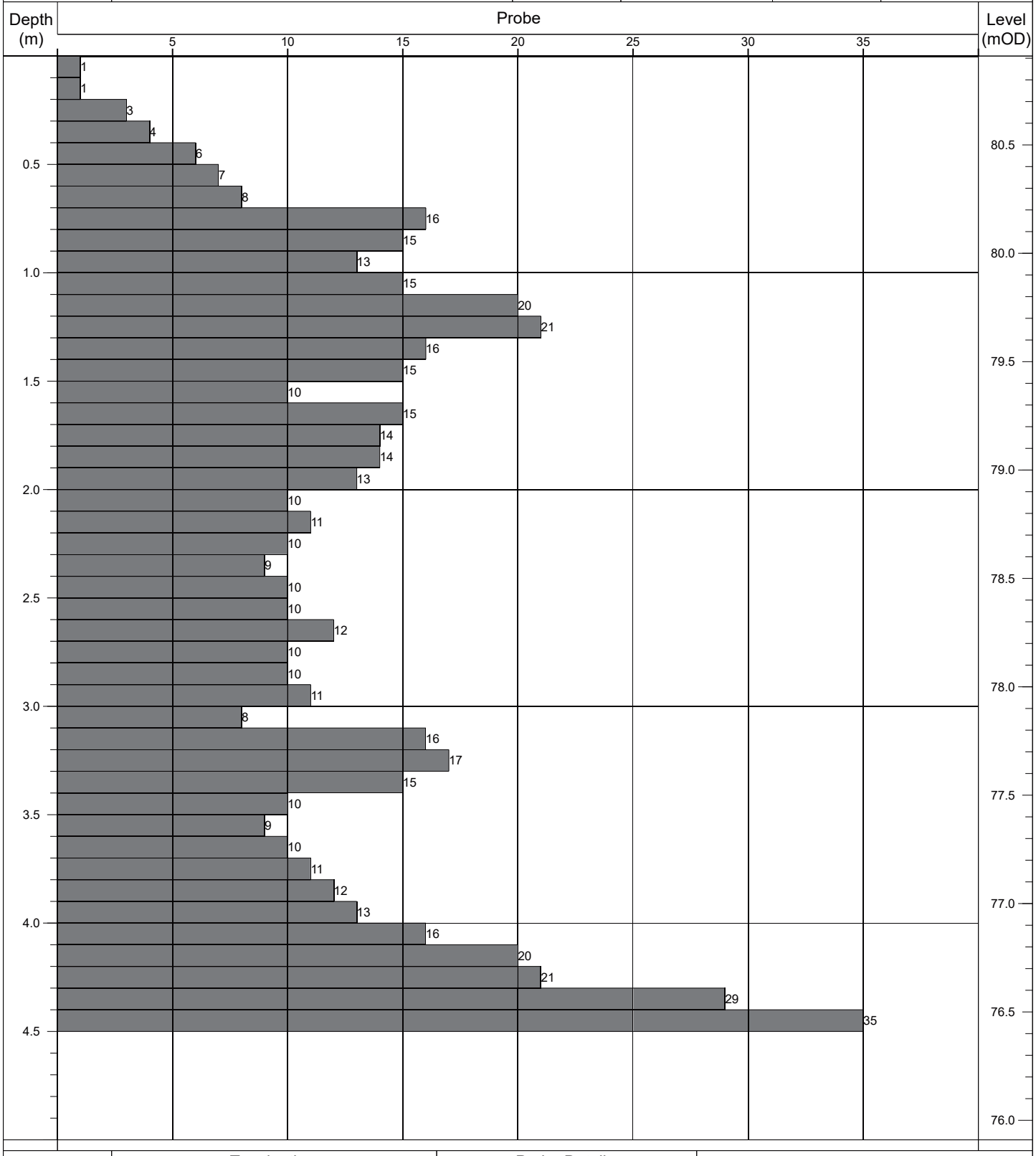
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.80m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP169**
Contract:	Coolagad	Easting:	727692.437	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712725.151	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	79.07	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



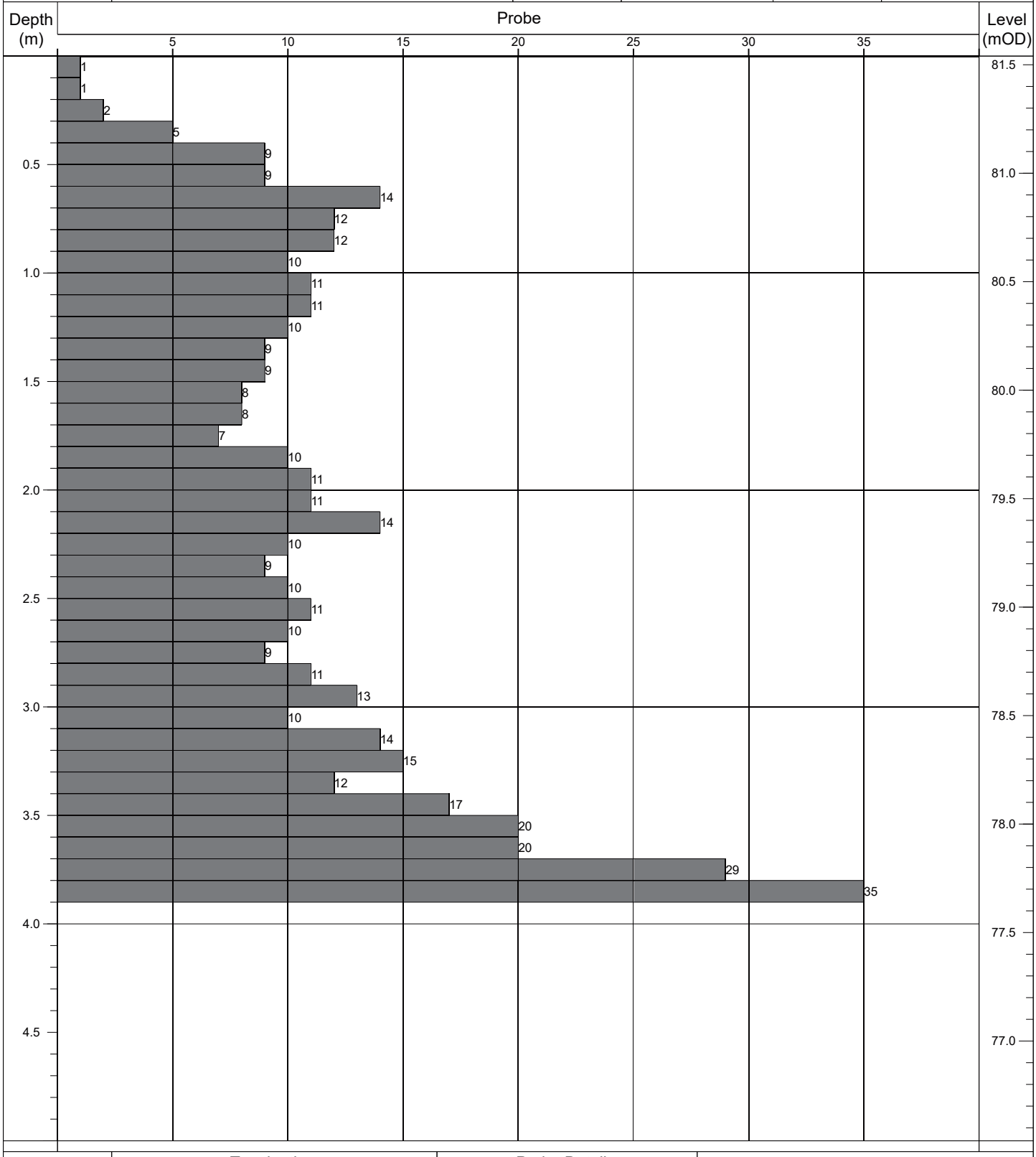
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.10m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP170
Contract:	Coolagad	Easting:	727683.681	Date Started:	06/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712706.937	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	80.91	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



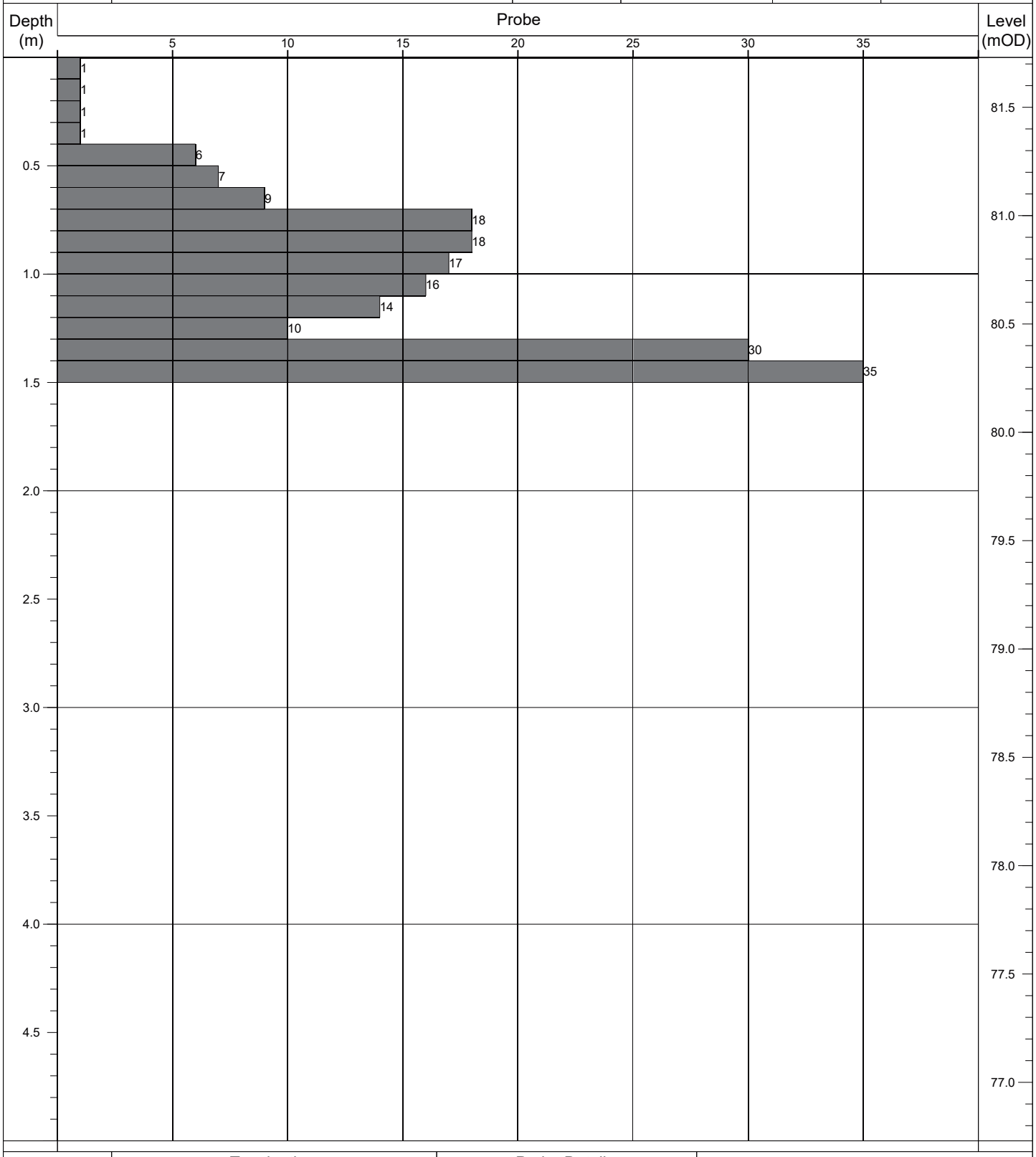
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP171**
Contract:	Coolagad	Easting:	727682.986	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712692.361	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.54	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



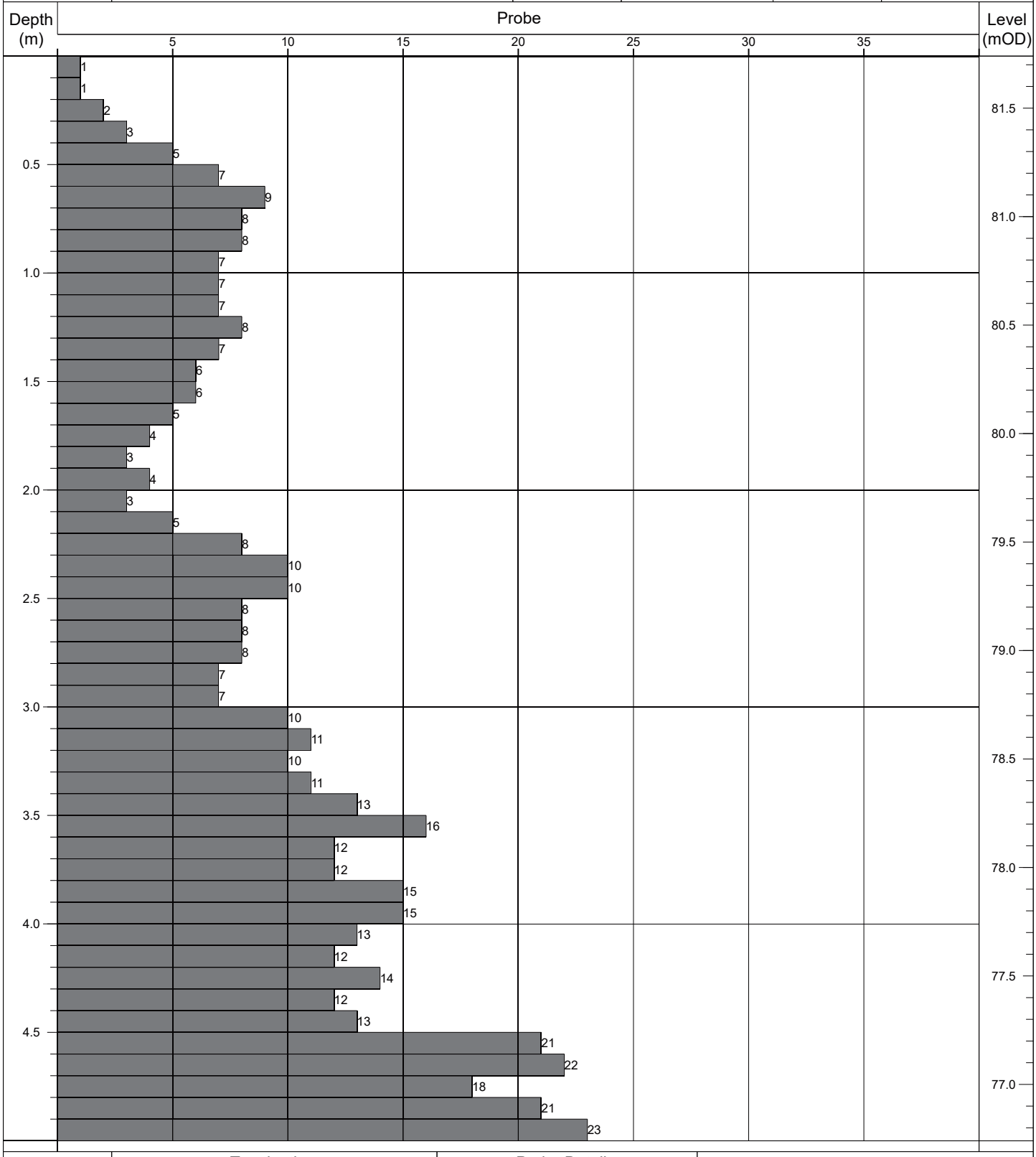
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP172**
Contract:	Coolagad	Easting:	727690.554	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712673.605	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.73	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



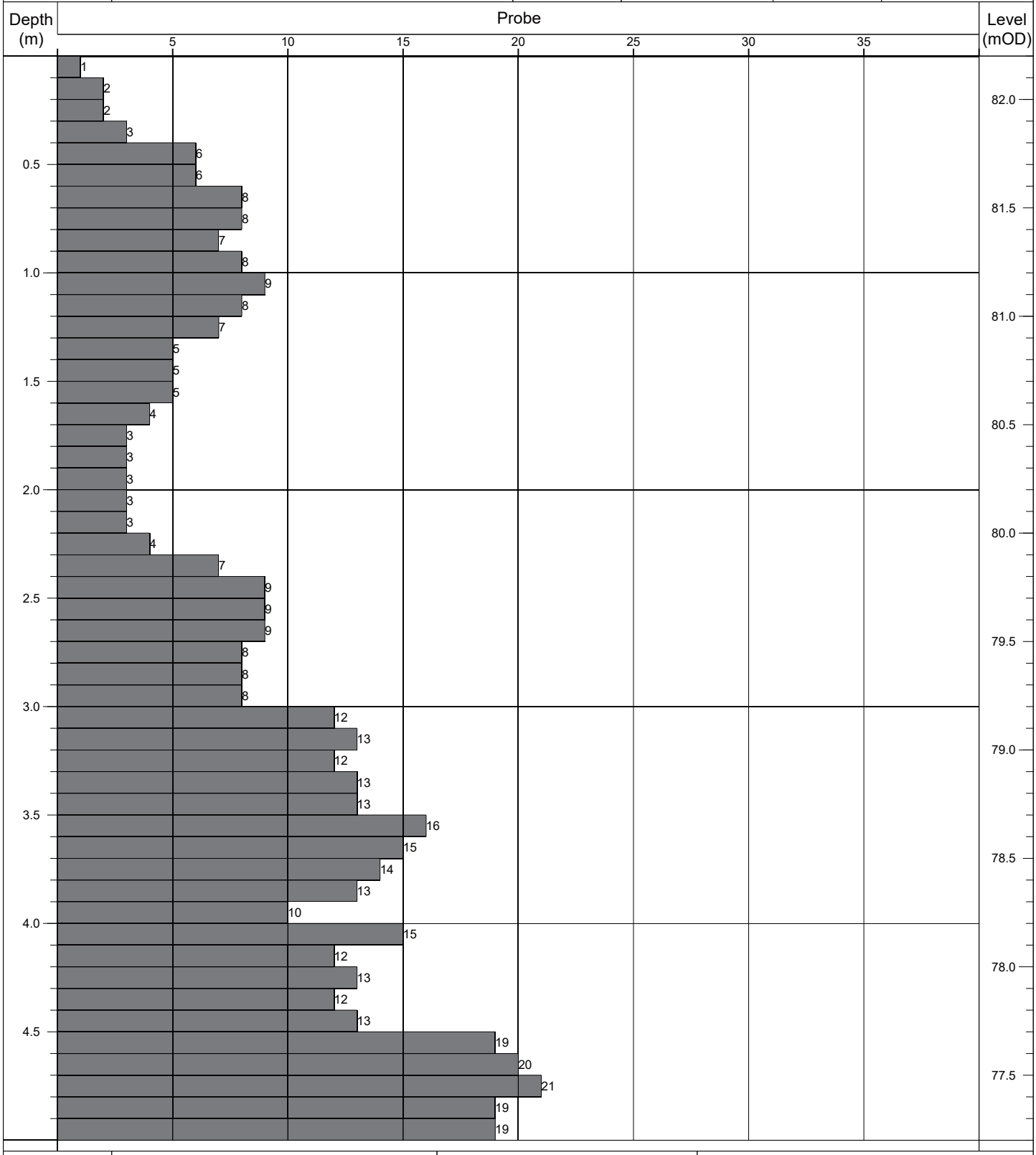
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
1.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP173**
Contract:	Coolagad	Easting:	727697.804	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712655.101	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	81.74	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



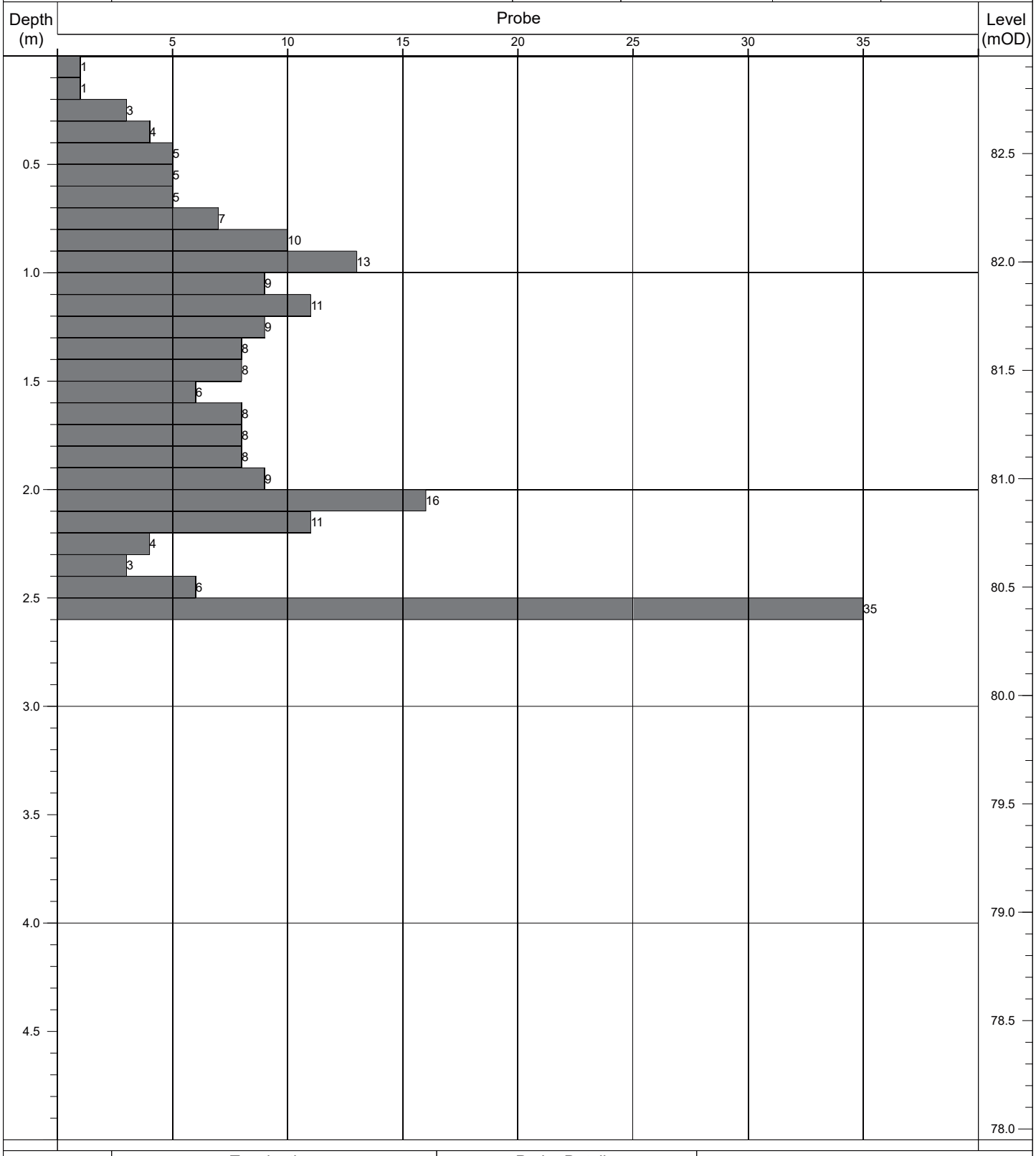
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP174
Contract:	Coolagad	Easting:	727705.066	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712636.607	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.20	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



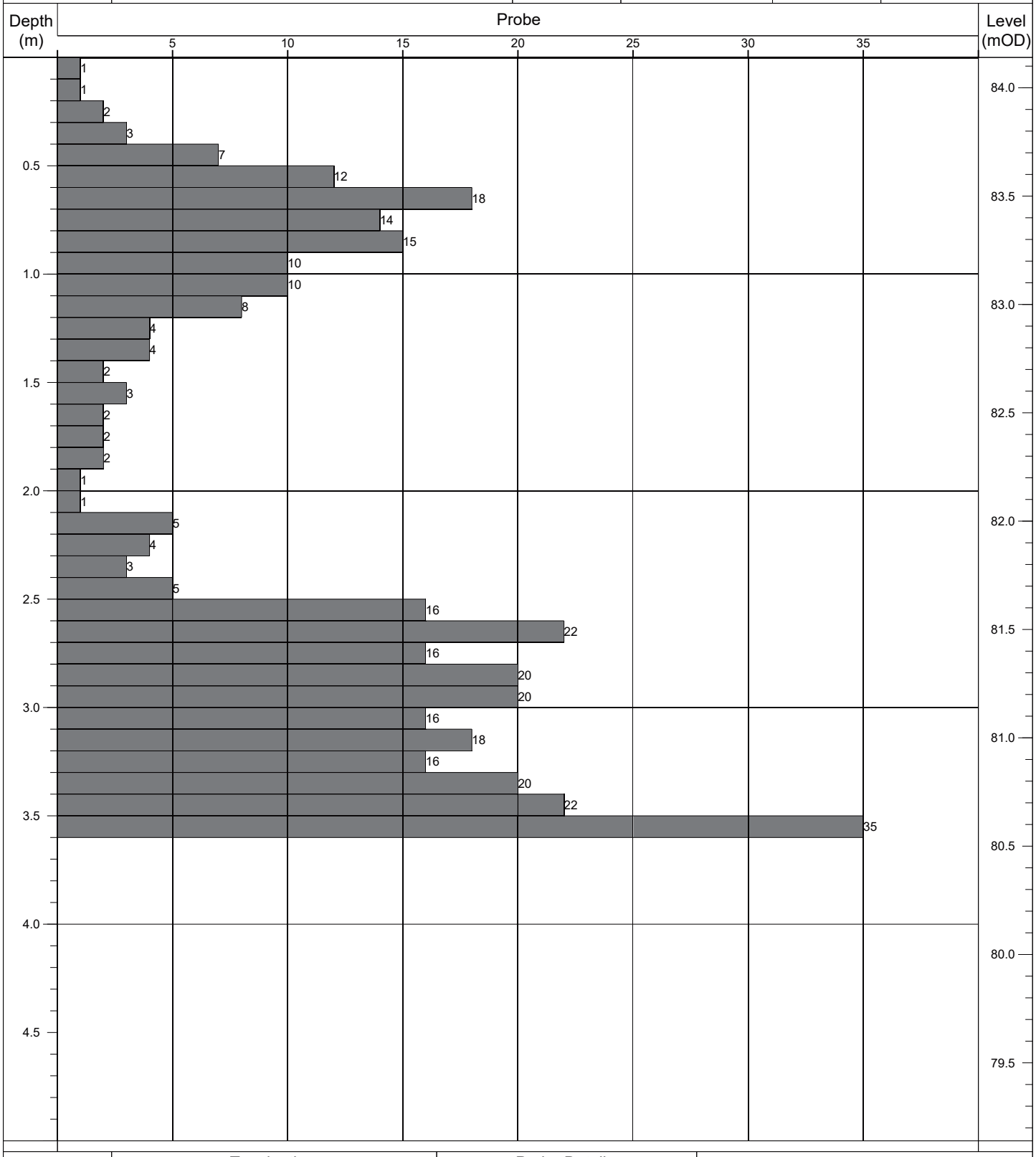
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP175
Contract:	Coolagad	Easting:	727712.058	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712618.031	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	82.95	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



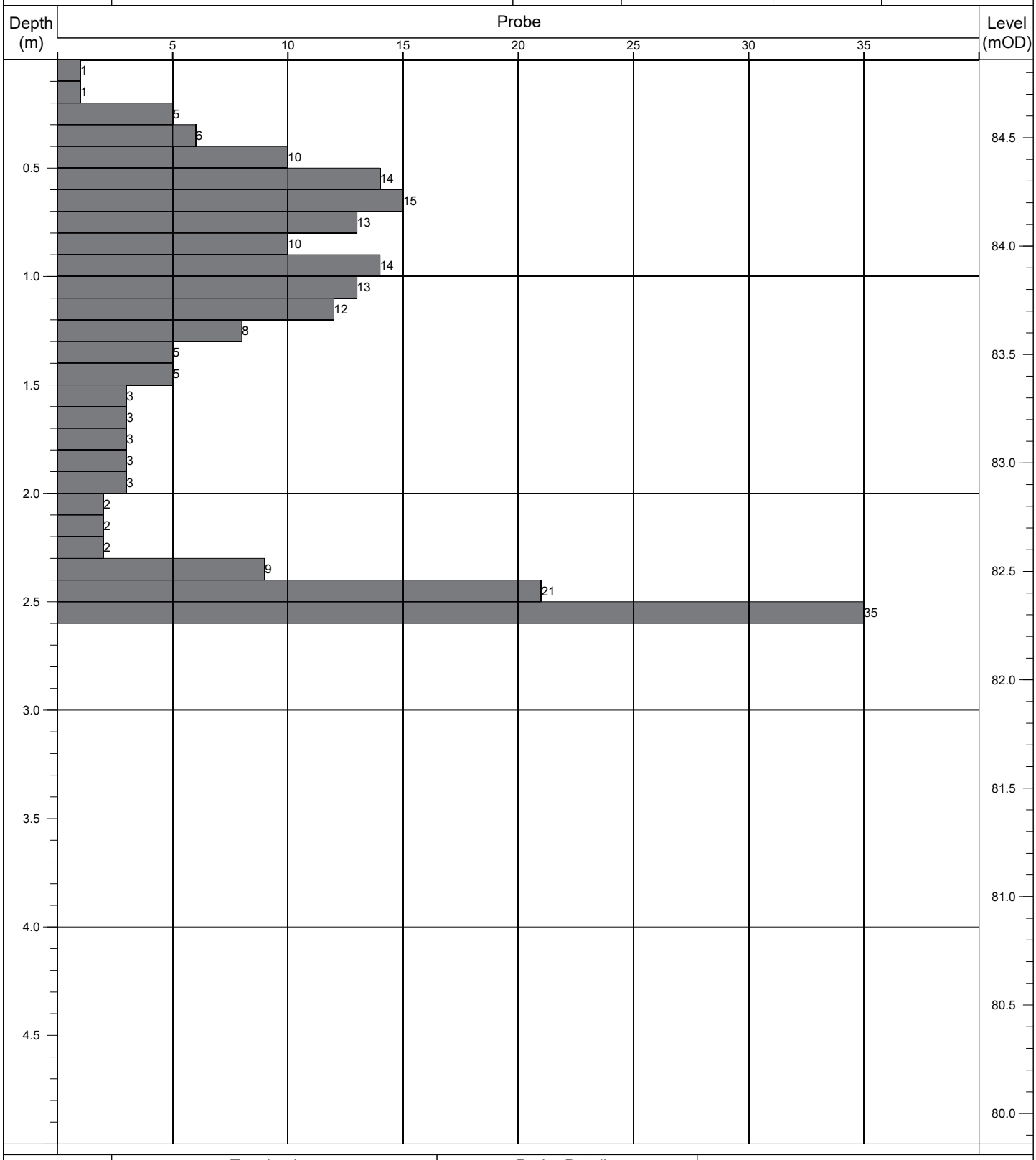
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP176**
Contract:	Coolagad	Easting:	727617.594	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712815.946	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	84.14	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



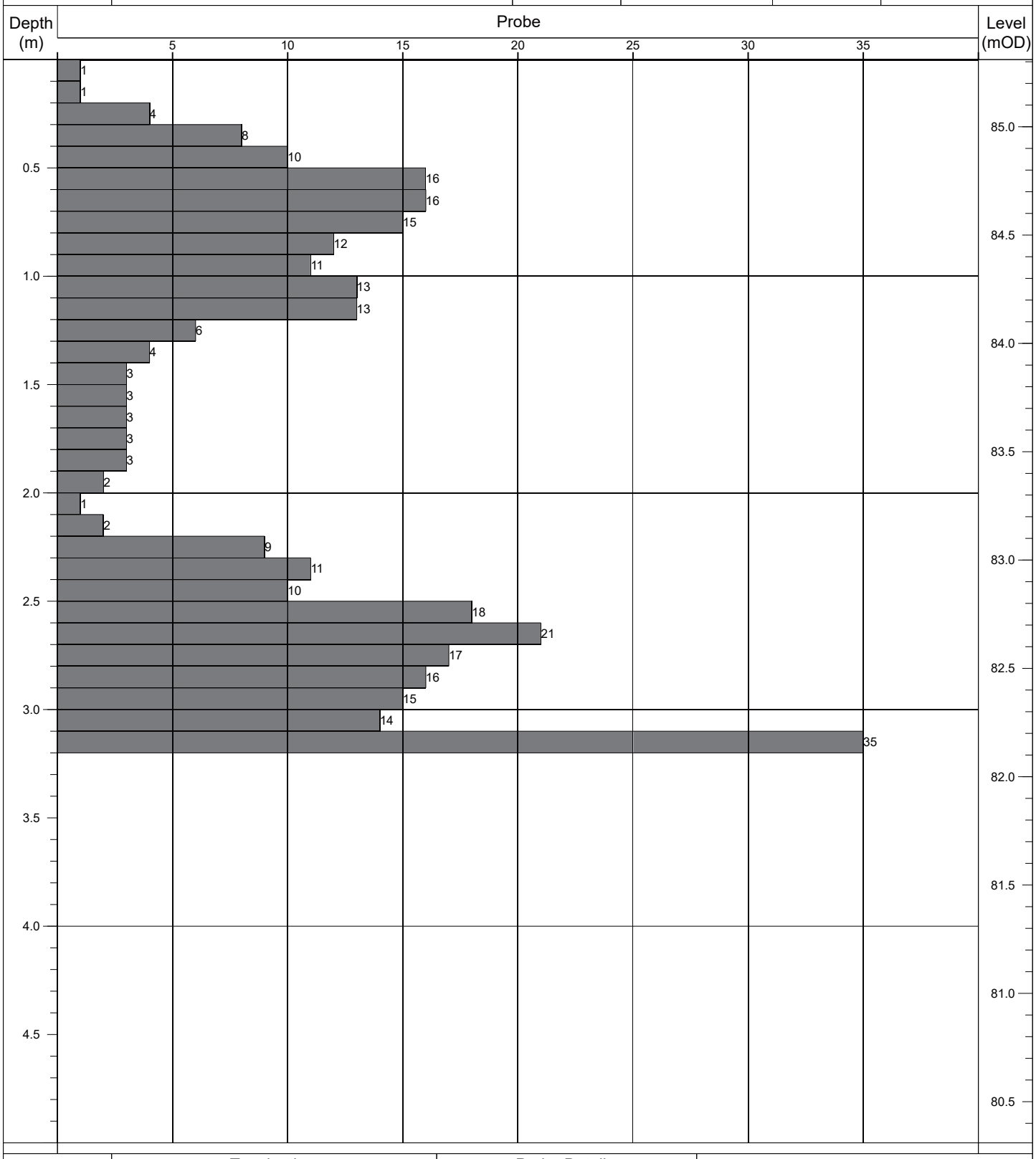
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP177**
Contract:	Coolagad	Easting:	727621.803	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712796.516	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	84.86	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



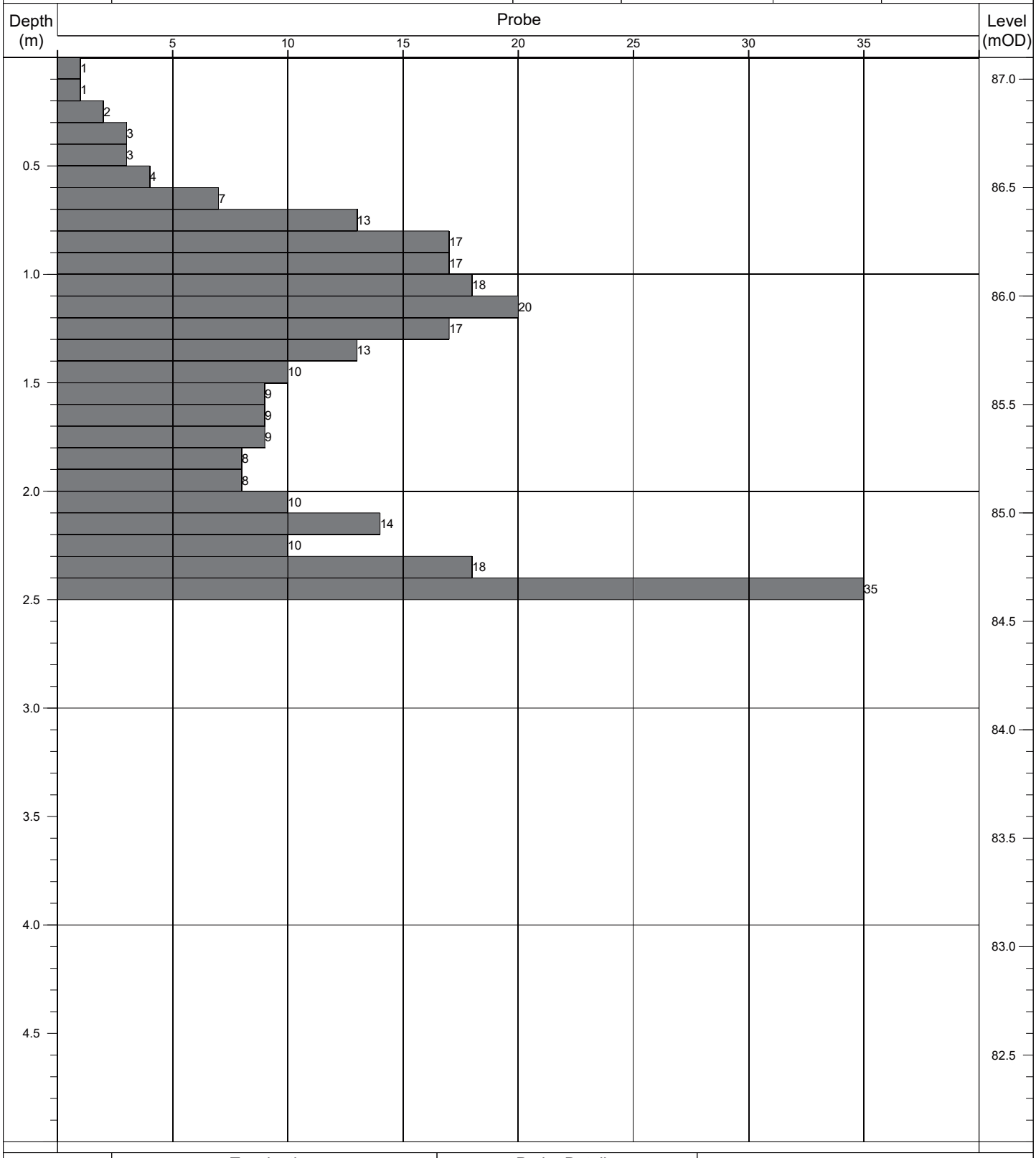
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP178**
Contract:	Coolagad	Easting:	727625.904	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712776.615	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	85.31	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



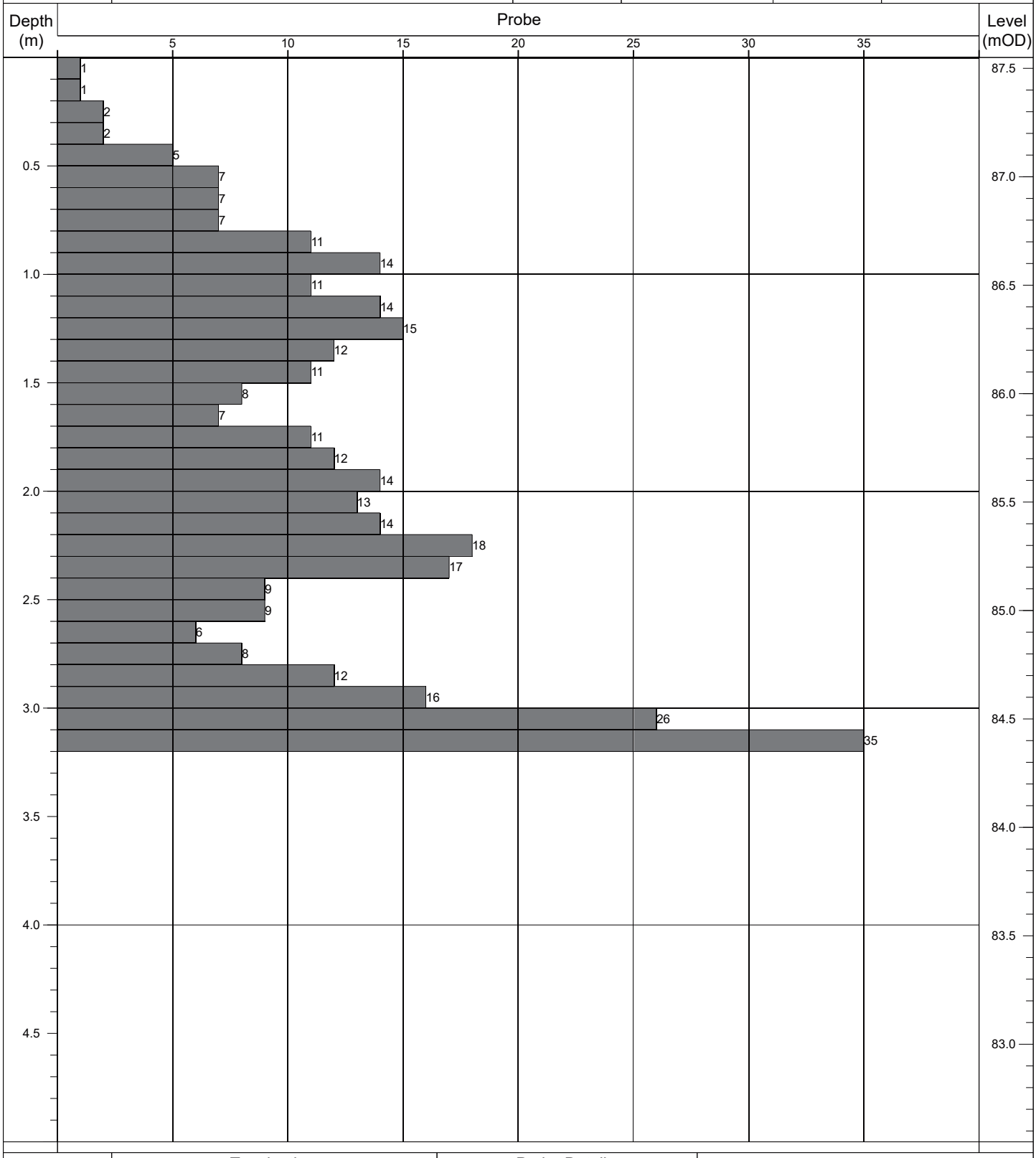
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP179**
Contract:	Coolagad	Easting:	727620.025	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712758.658	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	87.10	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



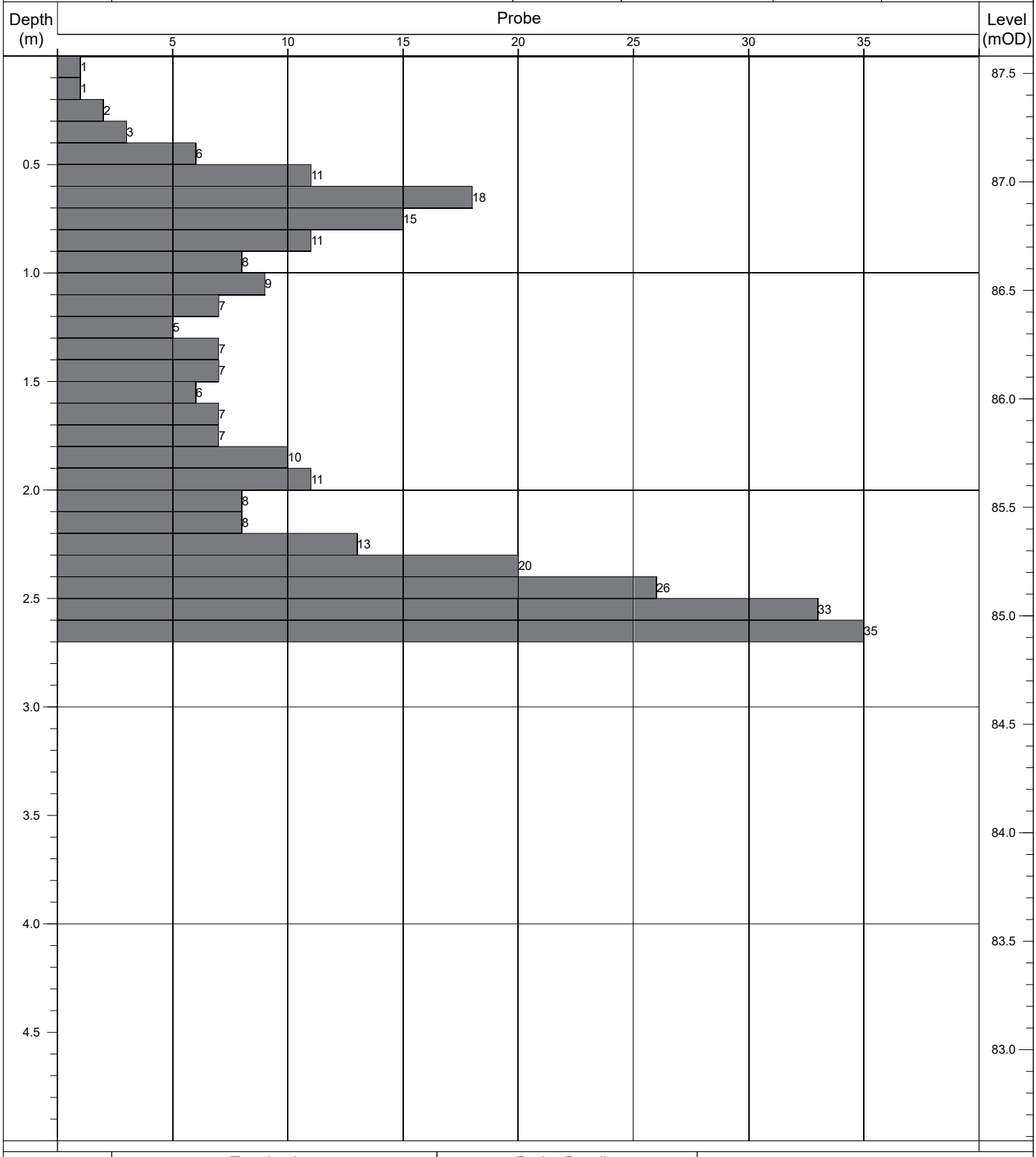
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.50m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP180**
Contract:	Coolagad	Easting:	727624.448	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712739.065	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	87.55	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



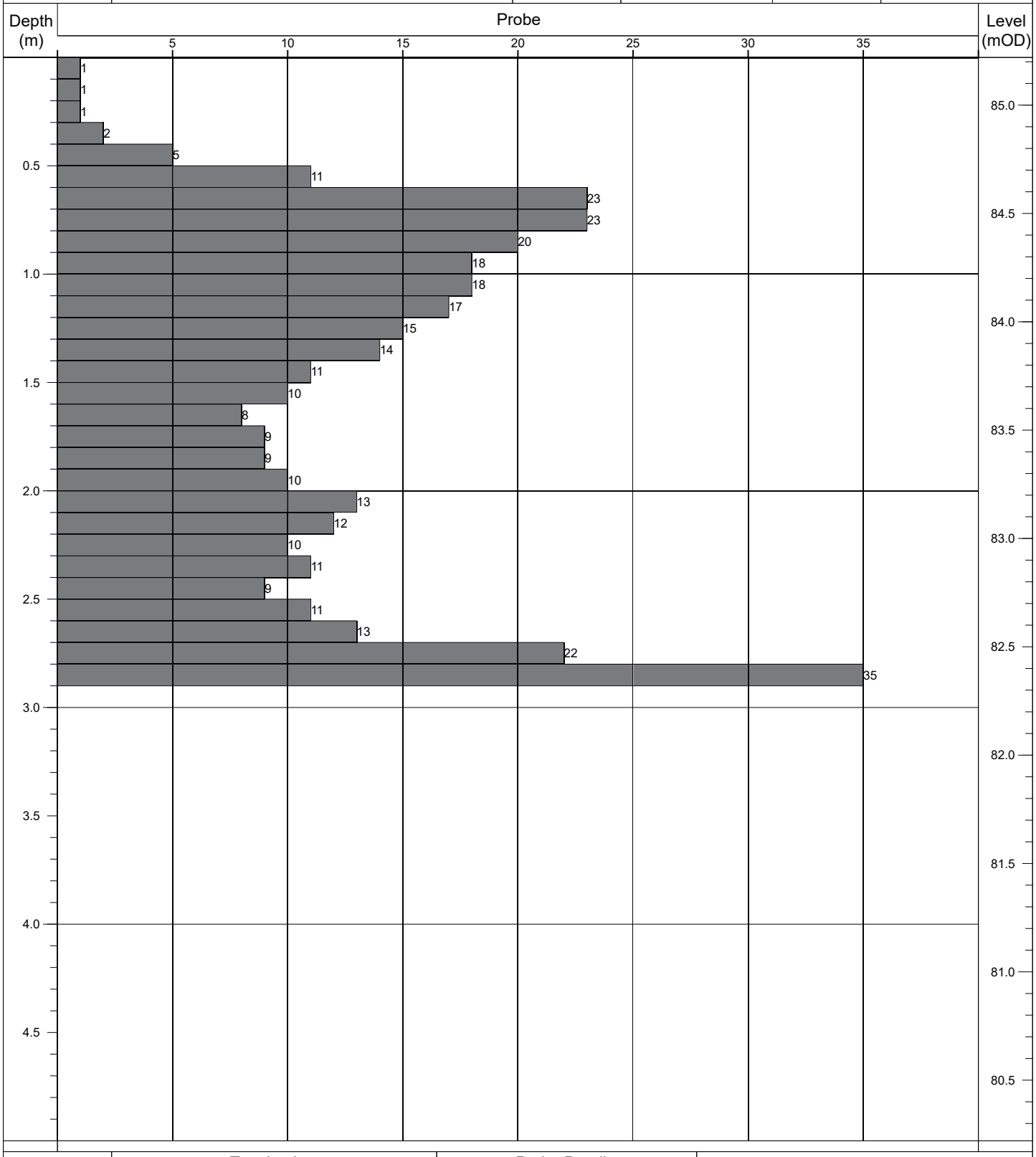
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP181
Contract:	Coolagad	Easting:	727630.870	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712720.579	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	87.58	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



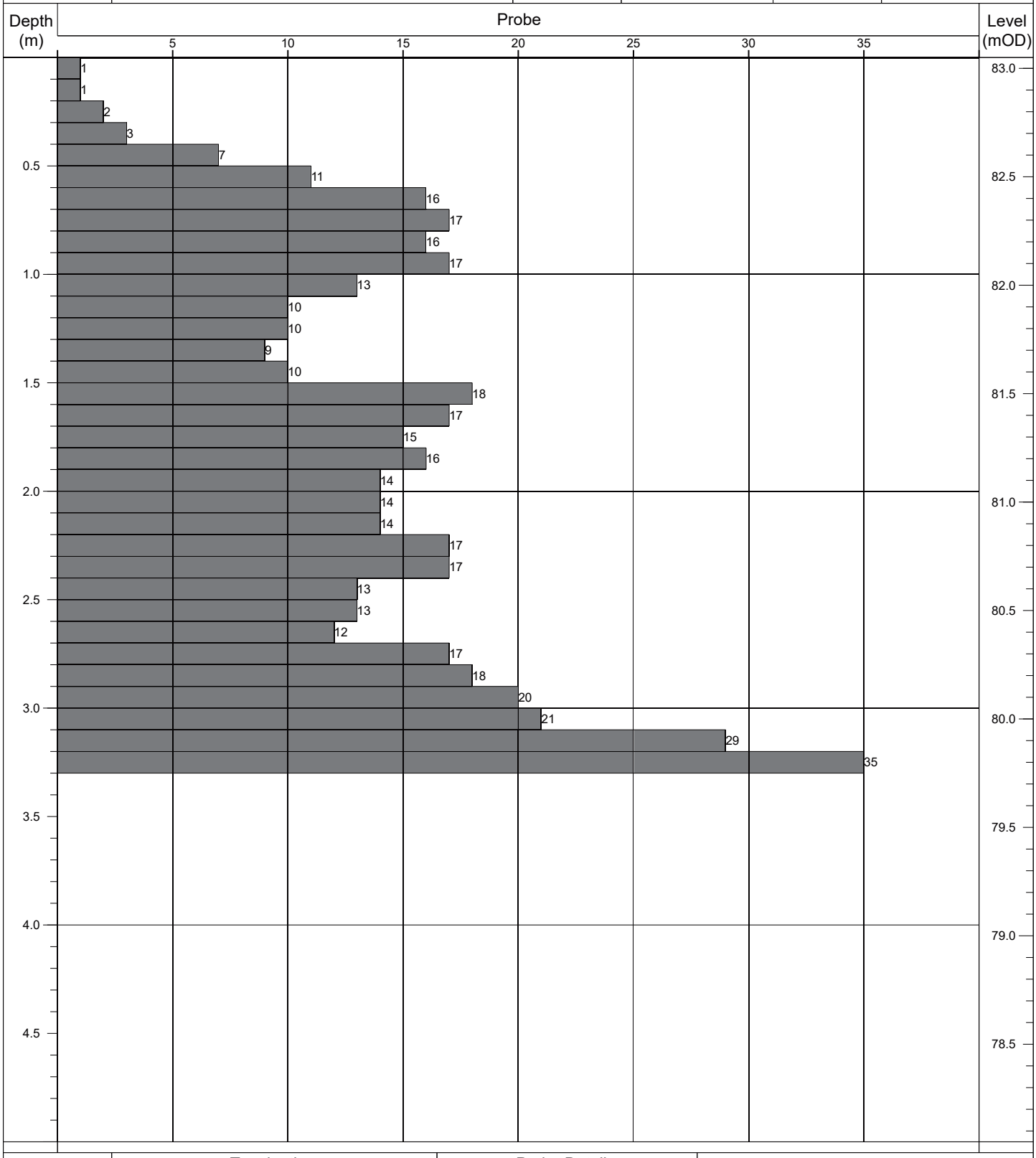
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.70m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP182**
Contract:	Coolagad	Easting:	727649.245	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712712.142	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	85.22	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



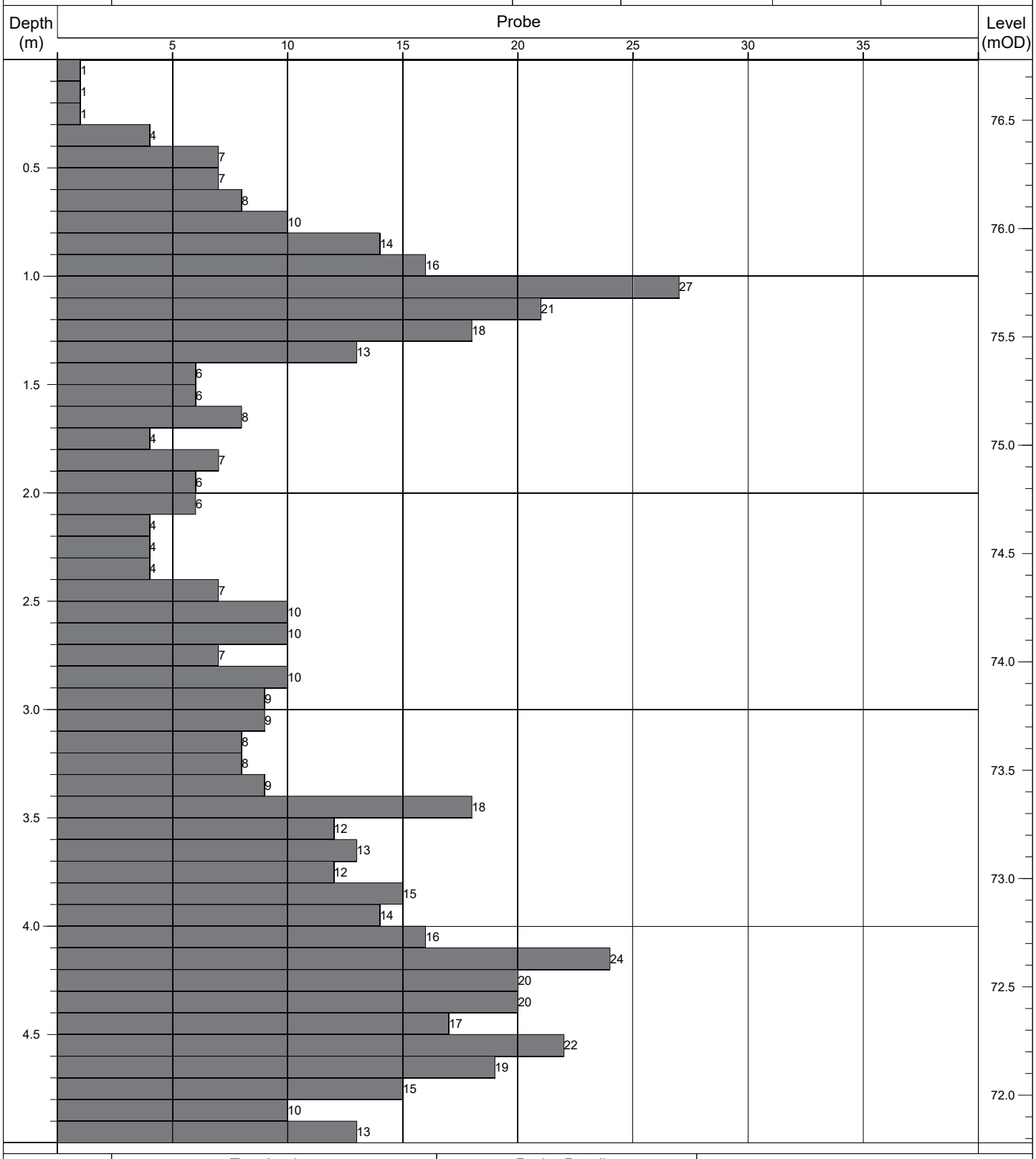
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
2.90m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP183
Contract:	Coolagad	Easting:	727667.436	Date Started:	03/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712703.827	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	83.05	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



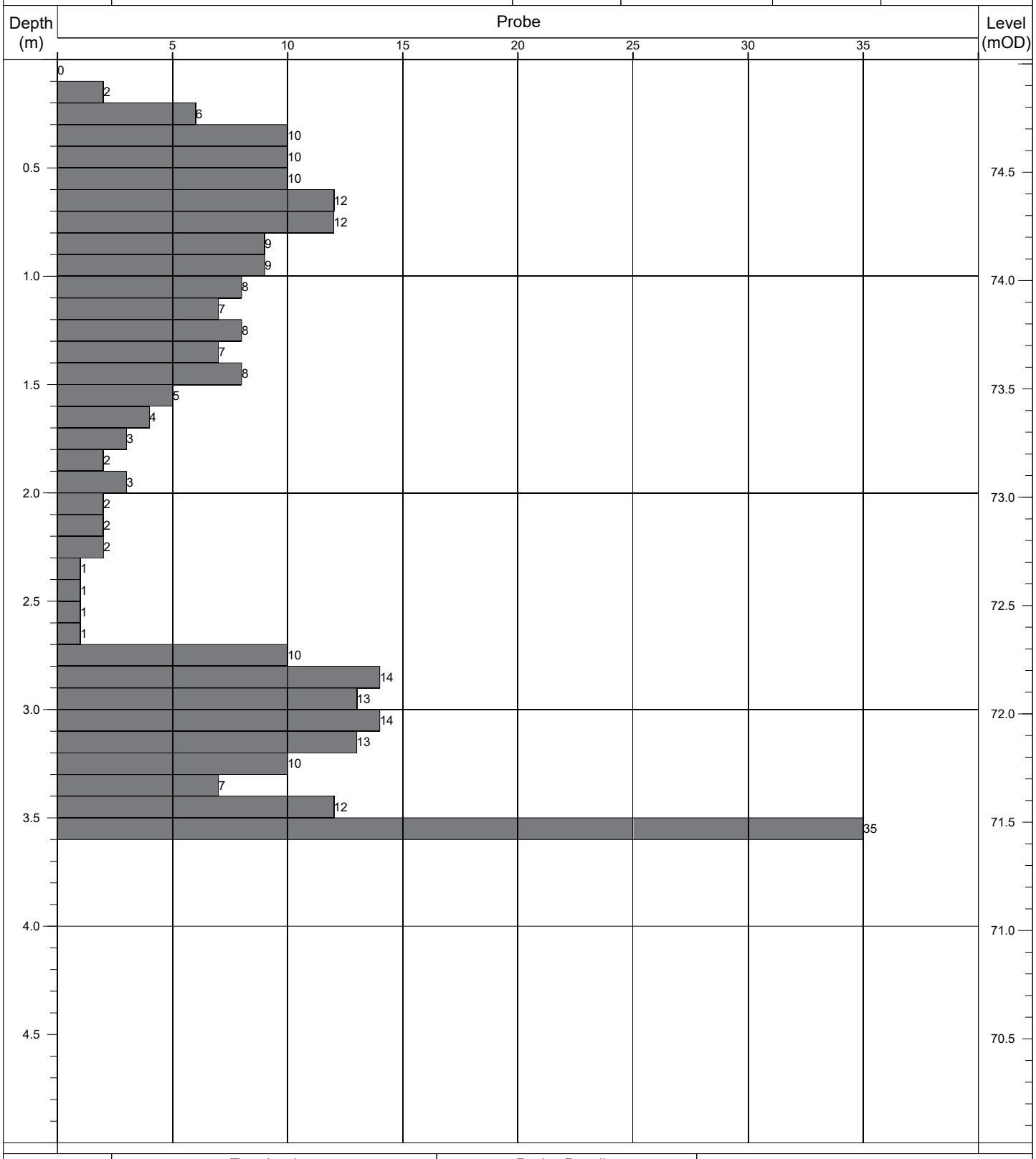
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP184**
Contract:	Coolagad	Easting:	727710.455	Date Started:	04/08/2021
Location:	Greystones, Co. Wicklow	Northing:	712733.136	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	76.78	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



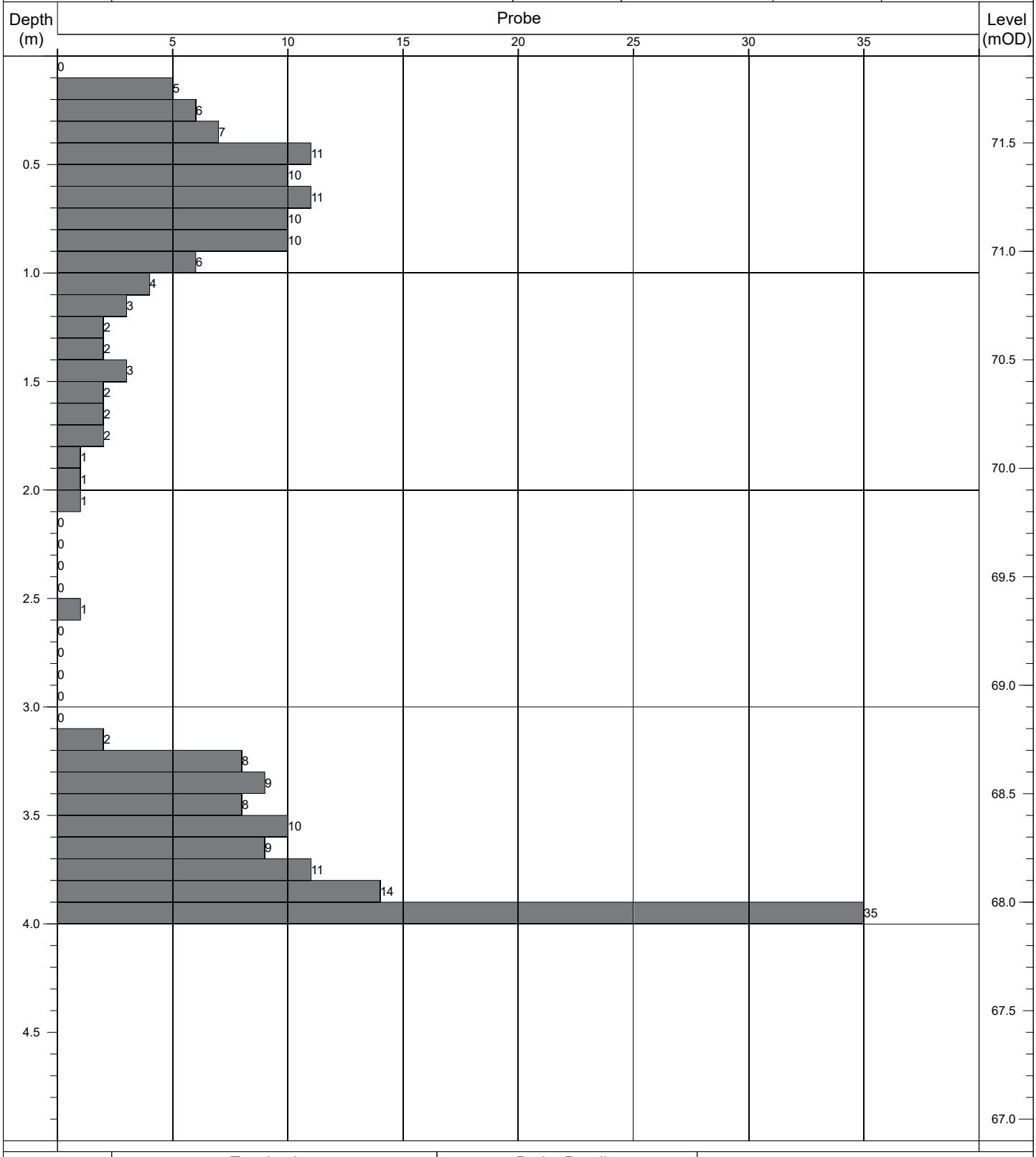
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	Dynamic Probe Log				Probe No: RDP185
Contract:	Coolagad	Easting:	727729.128	Date Started:	29/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712740.522	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	75.02	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



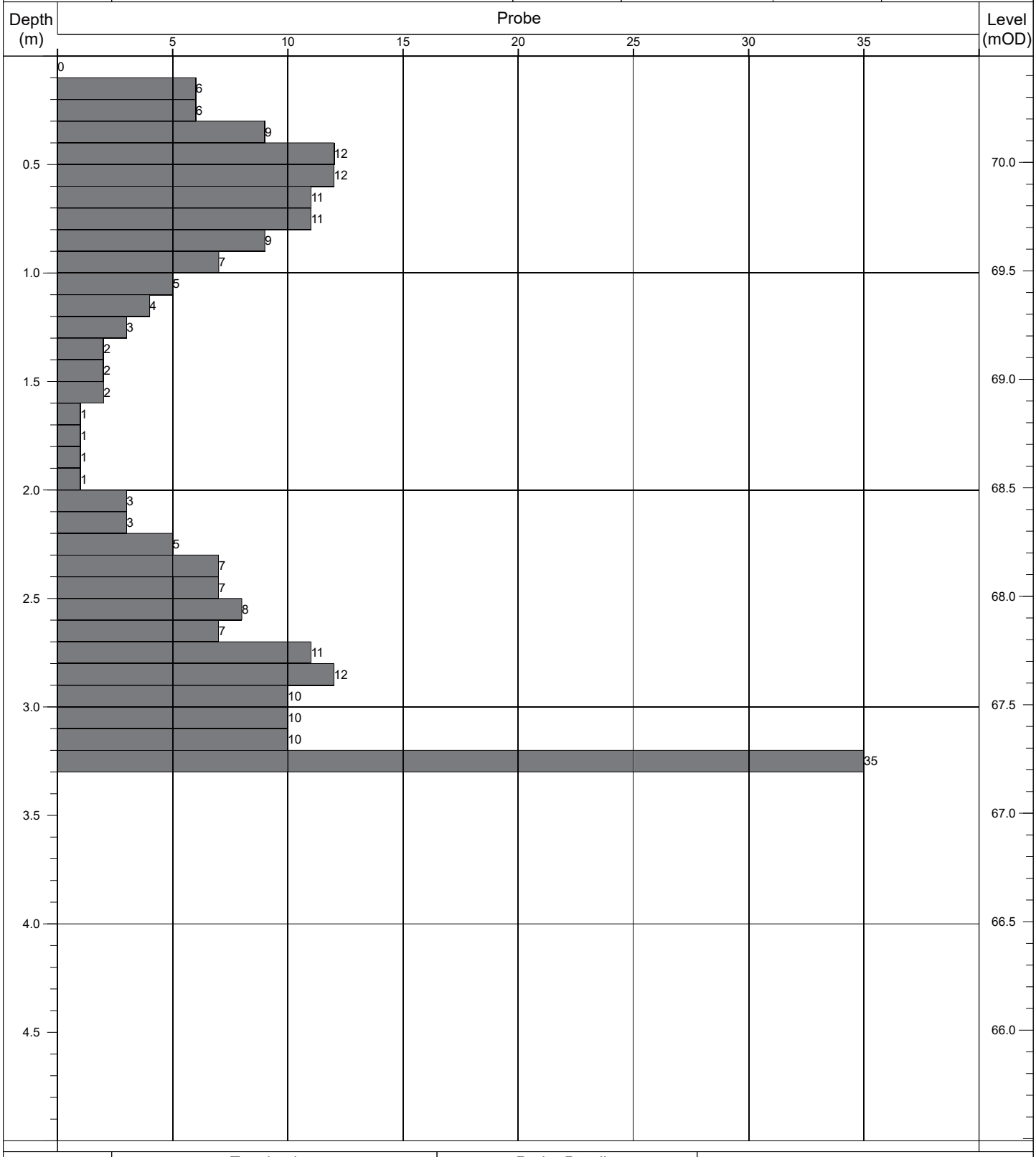
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP186**
Contract:	Coolagad	Easting:	727763.178	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712746.179	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	71.90	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



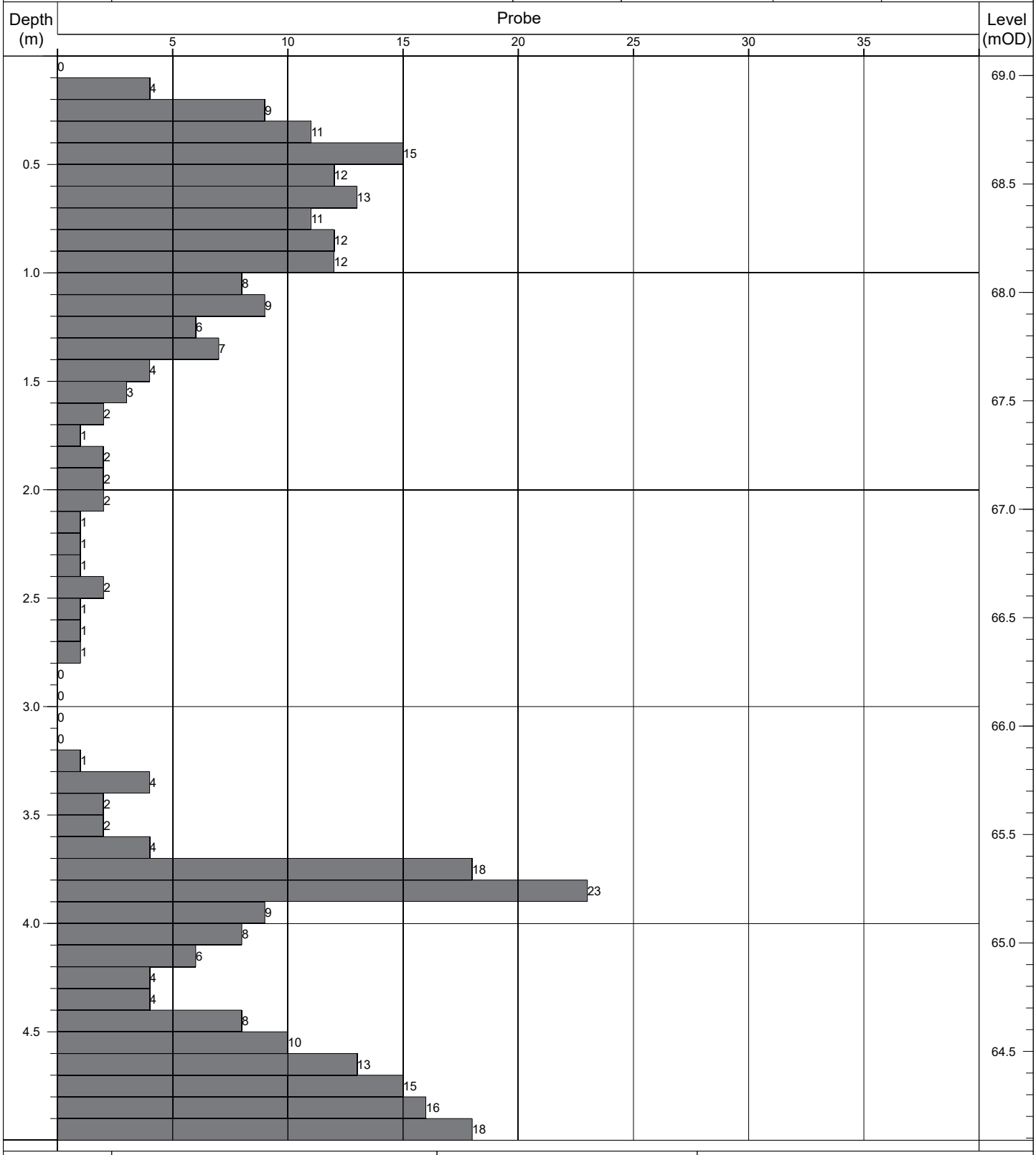
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
4.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP187**
Contract:	Coolagad	Easting:	727781.350	Date Started:	27/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712754.321	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	70.49	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



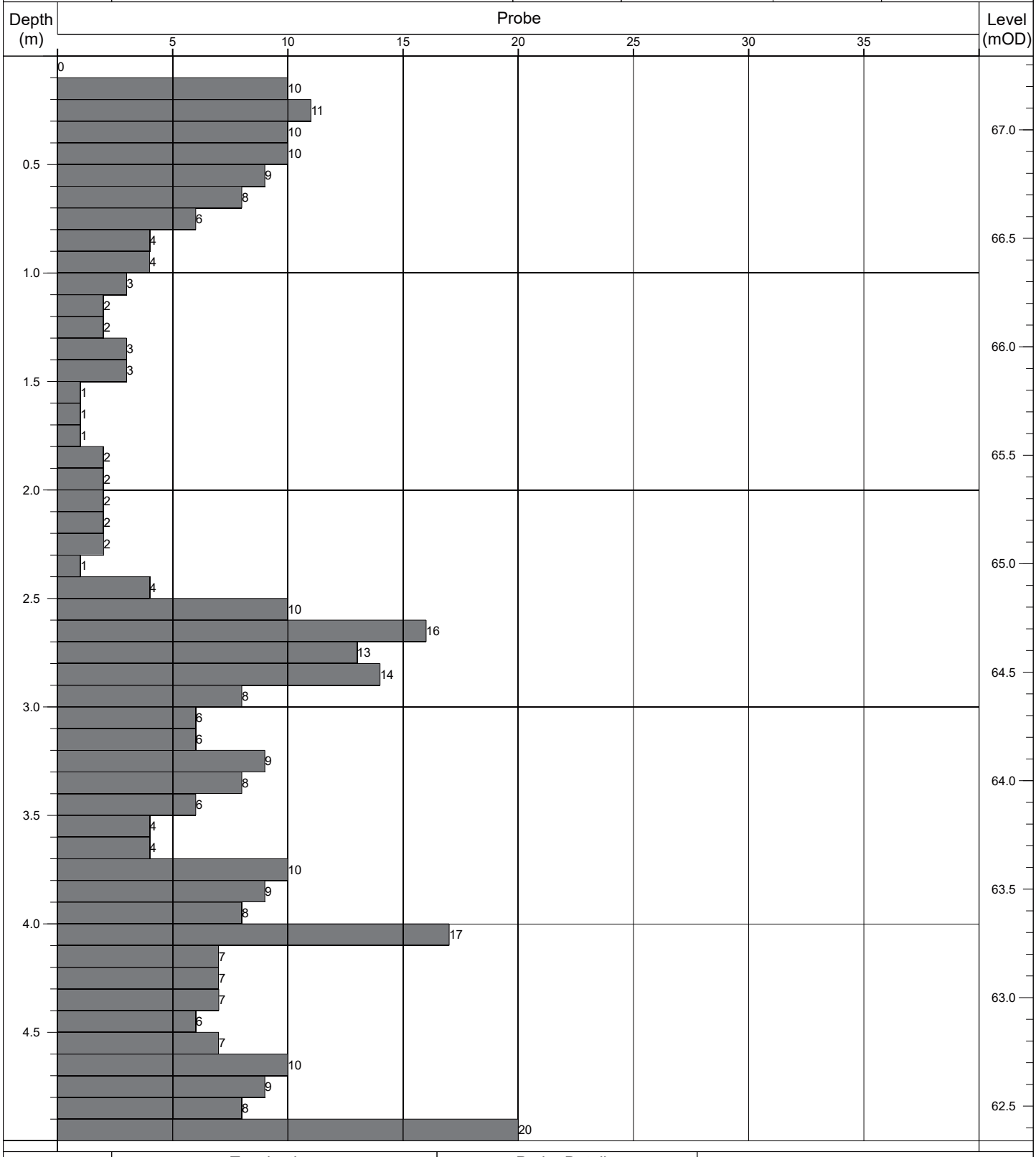
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.30m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP188**
Contract:	Coolagad	Easting:	727800.538	Date Started:	23/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712758.307	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	69.09	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



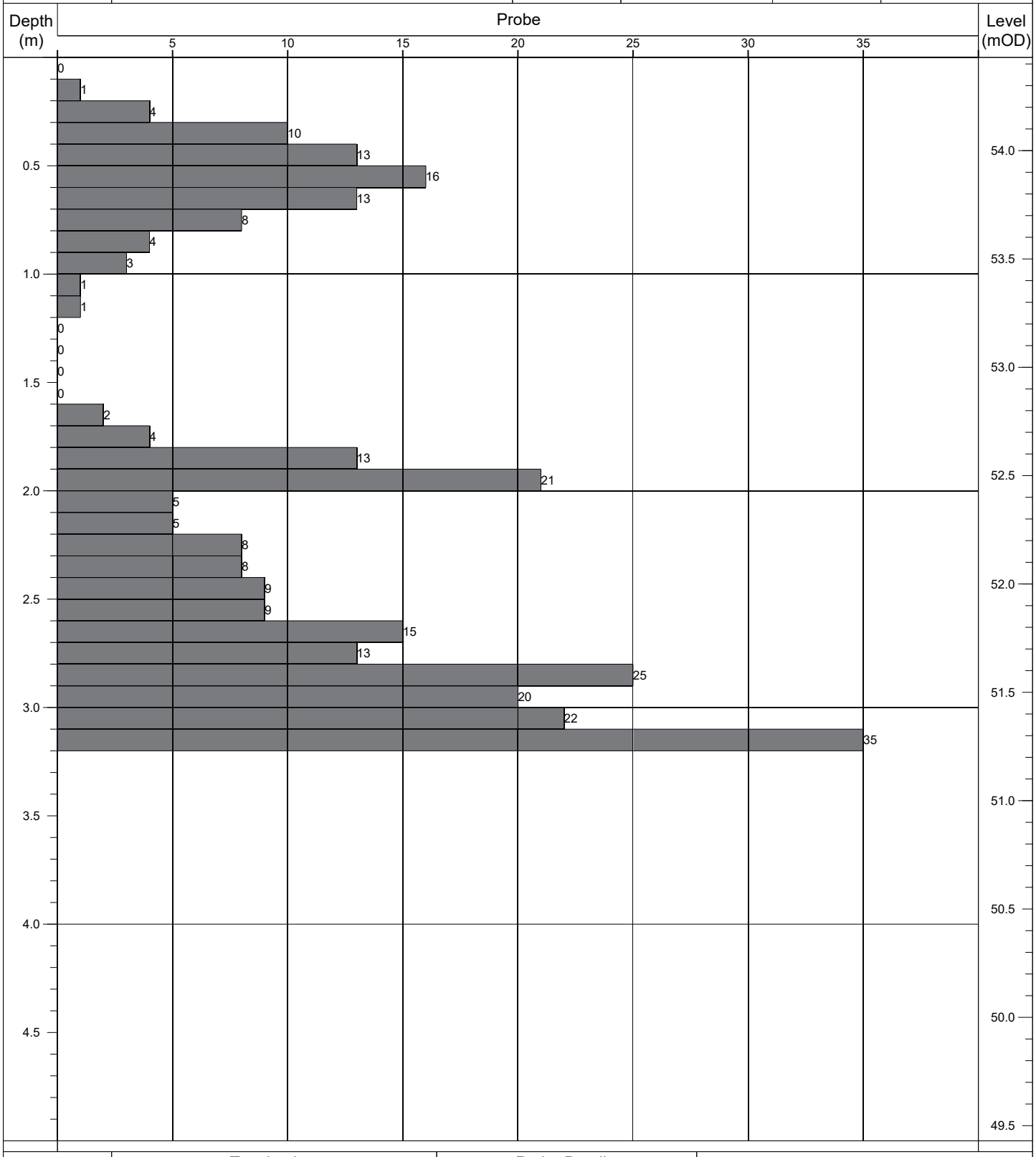
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP189**
Contract:	Coolagad	Easting:	727820.924	Date Started:	26/07/2021
Location:	Greystones, Co. Wicklow	Northing:	712761.979	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	67.34	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



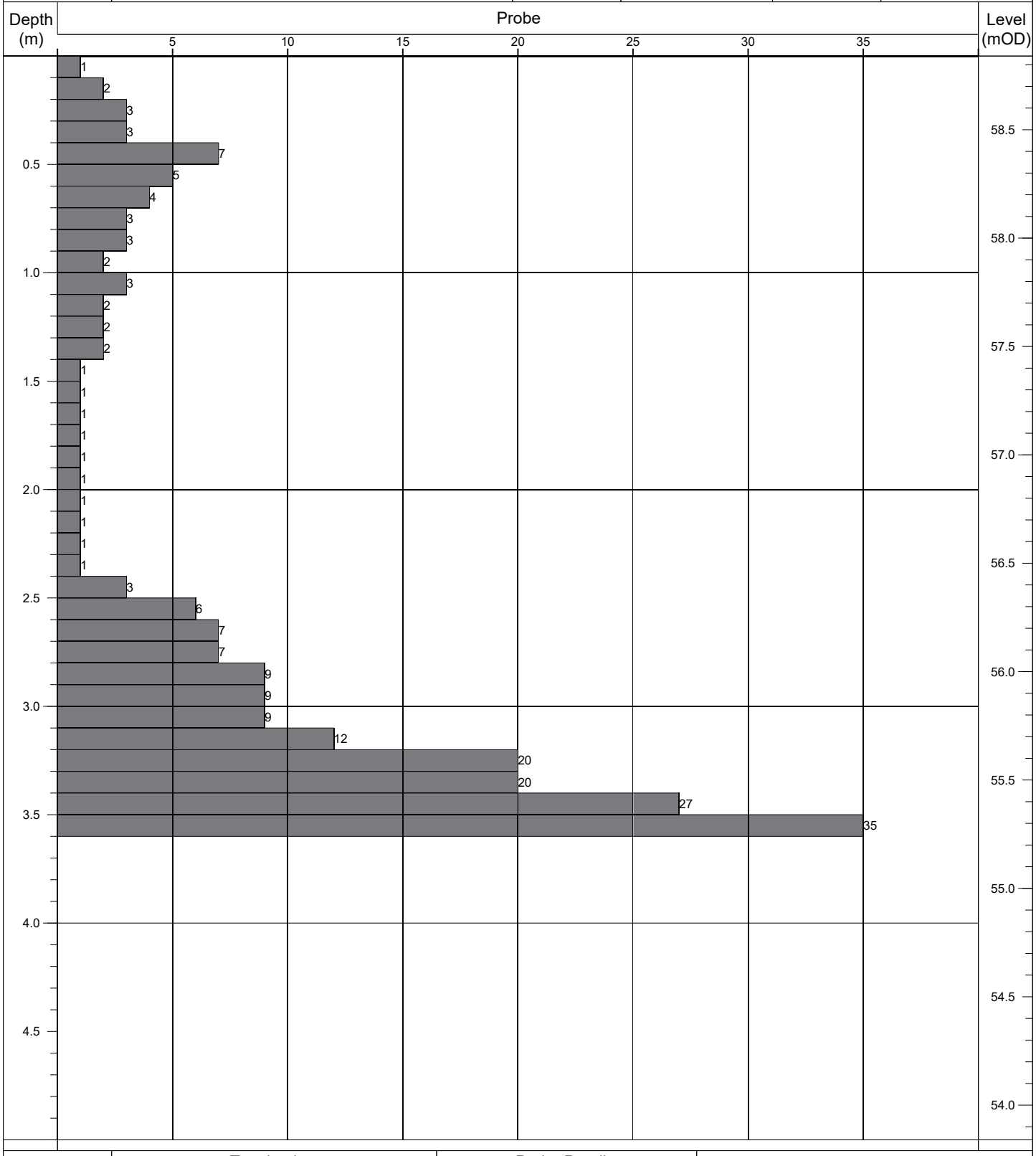
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
5.00m	Scheduled depth.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP190**
Contract:	Coolagad	Easting:	727973.757	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713267.290	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	54.43	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



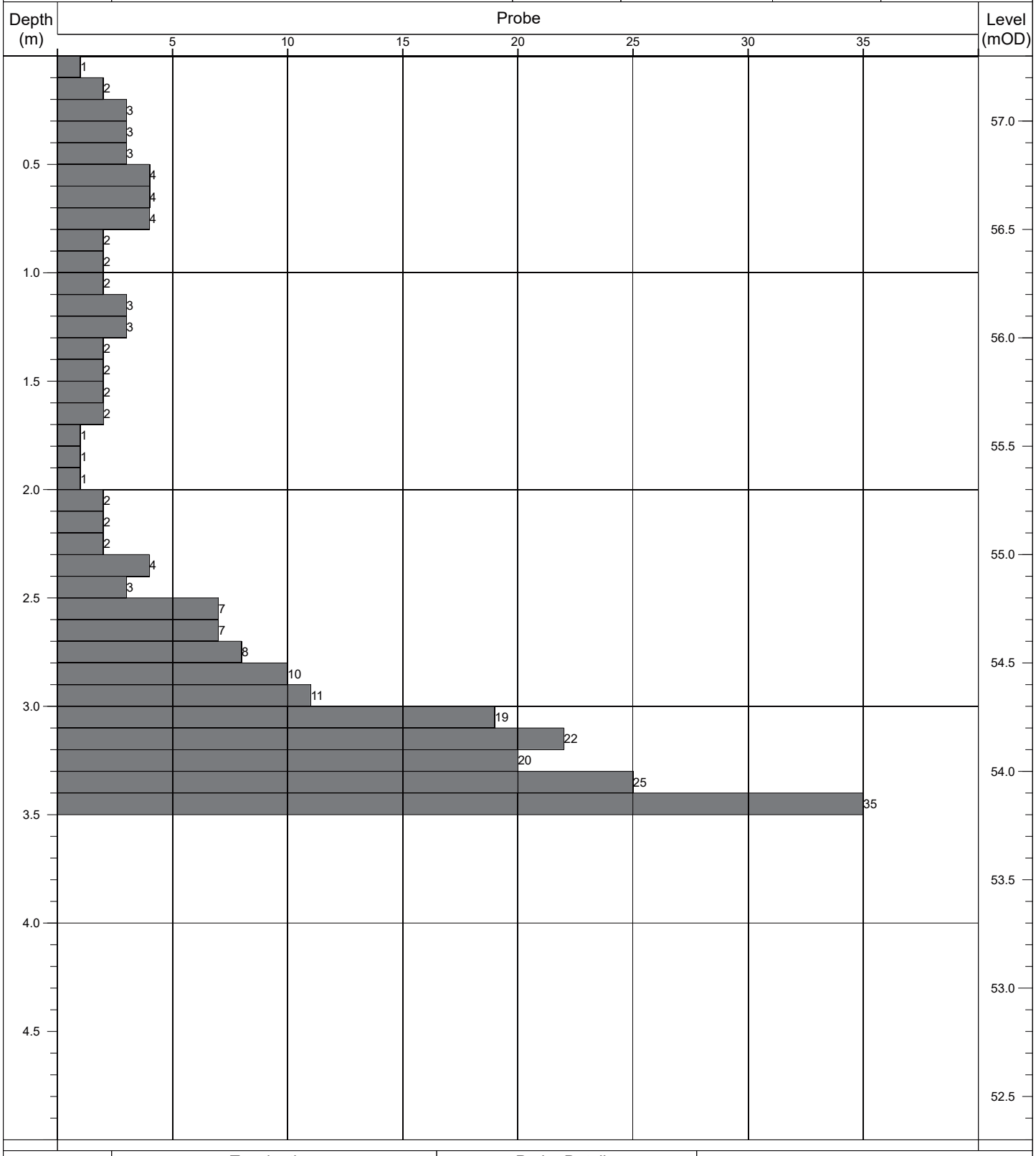
Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.20m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP191**
Contract:	Coolagad	Easting:	727898.708	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713276.449	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	58.84	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.60m	Obstruction - boulders.	DPH	50kg	500mm	

Contract No: 5868	**Dynamic Probe Log**				Probe No: **RDP192**
Contract:	Coolagad	Easting:	727914.528	Date Started:	13/07/2021
Location:	Greystones, Co. Wicklow	Northing:	713214.936	Logged By:	D. Monaghan
Client:	Cairn Homes	Elevation:	57.30	Scale:	1:25
Engineer:	AECOM	Rig Type:	Competitor 130	Sheet No:	Sheet 1 of 1



Termination:		Probe Details:			Remarks:
Depth:	Reason:	Type:	Mass	Drop:	-
3.50m	Obstruction - boulders.	DPH	50kg	500mm	

Appendix 6

Infiltration Test Results and Photographs

SOAKAWAY TEST

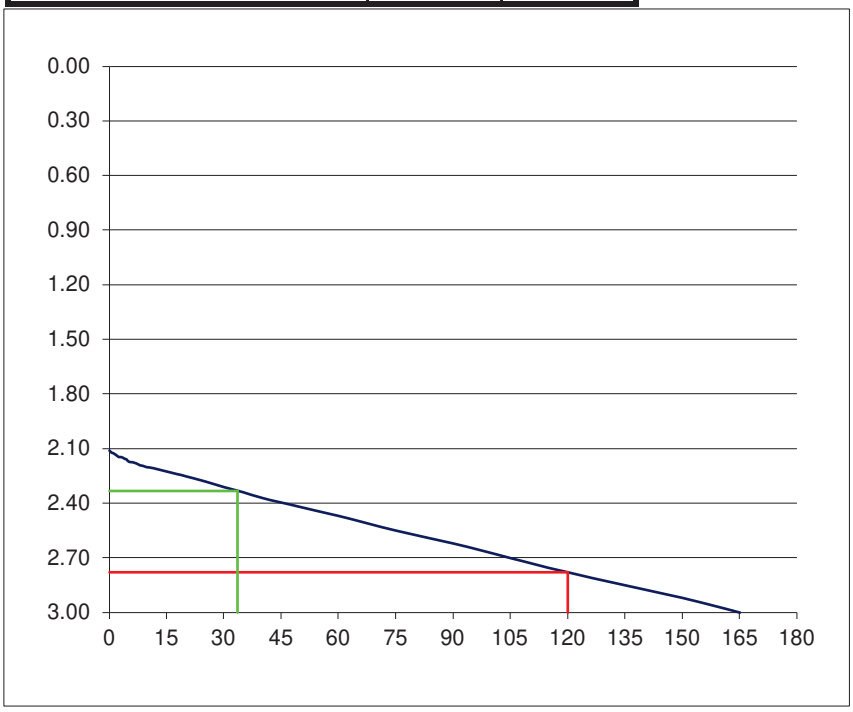
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT01
Date:	12/07/2021

Ground Conditions

From	To	
0.00	0.20	TOPSOIL.
0.40	1.80	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.
1.80	3.00	Firm brown grey sandy slightly gravelly silty CLAY with low cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	2.11
0.5	2.12
1	2.13
1.5	2.13
2	2.14
2.5	2.15
3	2.15
3.5	2.15
4	2.16
4.5	2.16
5	2.17
6	2.18
7	2.18
8	2.19
9	2.20
10	2.20
12	2.21
14	2.22
16	2.23
18	2.24
20	2.25
25	2.28
30	2.31
35	2.34
40	2.37
50	2.42
60	2.47
75	2.55
90	2.62
105	2.70
120	2.78
150	2.92
165	3.00

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	3.00	m
Water		
Start Depth of Water	2.11	m
Depth of Water	0.89	m
75% Full	2.33	m
25% Full	2.78	m
75%-25%	0.45	m
Volume of water (75%-25%)	**1.07**	m3
Area of Drainage	**27.6**	m2
Area of Drainage (75%-25%)	**6.494**	m2
Time		
75% Full	33.5	min
25% Full	120	min
Time 75% to 25%	**86.5**	min
Time 75% to 25% (sec)	**5190**	sec



f = 0.00190 m/min or **3.17E-05 m/s**

SOAKAWAY TEST

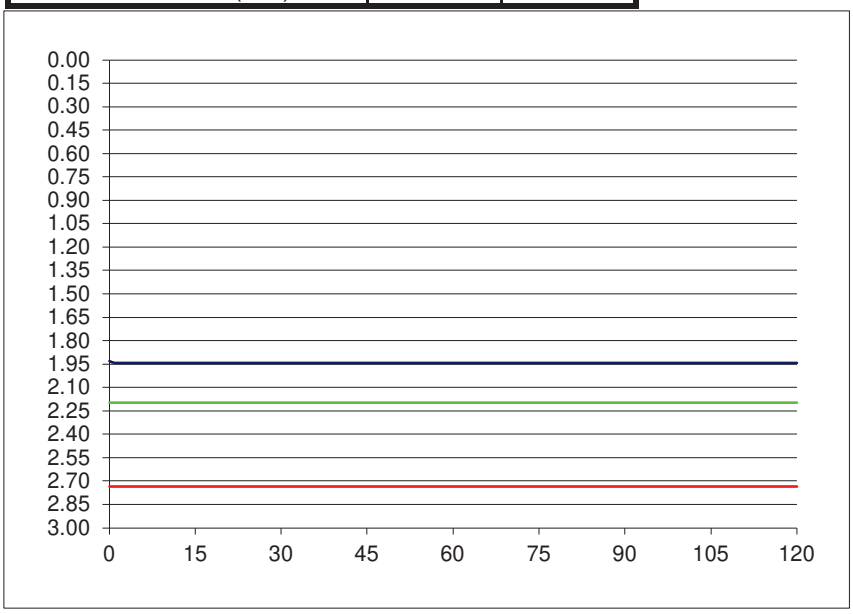
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT02
Date:	12/07/2021

Ground Conditions

From	To	
0.00	0.30	TOPSOIL.
0.30	1.20	Firm light brown slightly sandy slightly gravelly silty CLAY with low cobble content.
1.20	2.50	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.
2.50	3.00	Firm brown grey slightly sandy slightly gravelly silty CLAY with low cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	1.93
0.5	1.94
1	1.94
1.5	1.94
2	1.94
2.5	1.94
3	1.94
3.5	1.94
4	1.94
4.5	1.94
5	1.94
6	1.94
7	1.94
8	1.94
9	1.94
10	1.94
12	1.94
14	1.94
16	1.94
18	1.94
20	1.94
25	1.94
30	1.94
40	1.94
50	1.94
60	1.94
75	1.94
90	1.94
120	1.94

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	3.00	m
Water		
Start Depth of Water	1.93	m
Depth of Water	1.07	m
75% Full	2.20	m
25% Full	2.73	m
75%-25%	0.54	m
Volume of water (75%-25%)	**1.28**	m3
Area of Drainage	**27.60**	m2
Area of Drainage (75%-25%)	**7.32**	m2
Time		
75% Full	N/A	min
25% Full	N/A	min
Time 75% to 25%	**N/A**	min
Time 75% to 25% (sec)	**N/A**	sec



f = **Fail** or **Fail**

m/min **m/s**

SOAKAWAY TEST

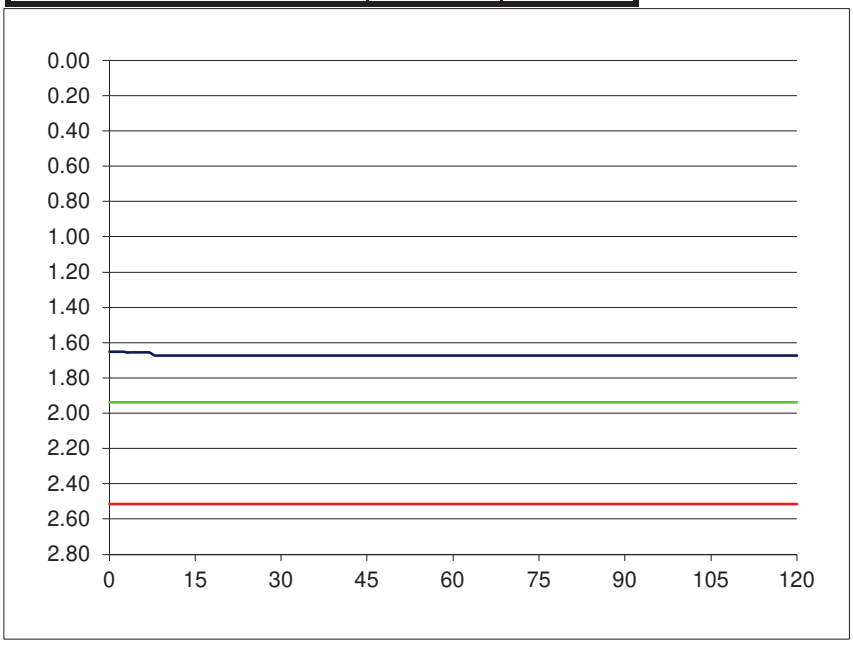
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT03
Date:	12/07/2021

Ground Conditions

From	To	
0.00	0.40	TOPSOIL.
0.40	1.20	Firm light brown slightly sandy slightly gravelly silty CLAY.
1.20	2.10	Firm brown grey slightly sandy slightly gravelly silty CLAY with low cobble content.
2.10	2.80	Firm brown grey sandy slightly gravelly silty CLAY with low cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	1.65
0.5	1.65
1	1.65
1.5	1.65
2	1.65
2.5	1.65
3	1.66
3.5	1.66
4	1.66
4.5	1.66
5	1.66
6	1.66
7	1.66
8	1.67
9	1.67
10	1.67
12	1.67
14	1.67
16	1.67
18	1.67
20	1.67
25	1.67
30	1.67
40	1.67
50	1.67
60	1.67
75	1.67
90	1.67
120	1.67

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	2.80	m
Water		
Start Depth of Water	1.65	m
Depth of Water	1.15	m
75% Full	1.94	m
25% Full	2.51	m
75%-25%	0.58	m
Volume of water (75%-25%)	**1.38**	m3
Area of Drainage	**25.76**	m2
Area of Drainage (75%-25%)	**7.69**	m2
Time		
75% Full	N/A	min
25% Full	N/A	min
Time 75% to 25%	**N/A**	min
Time 75% to 25% (sec)	**N/A**	sec



f = **Fail** or **Fail**

m/min **m/s**

SOAKAWAY TEST

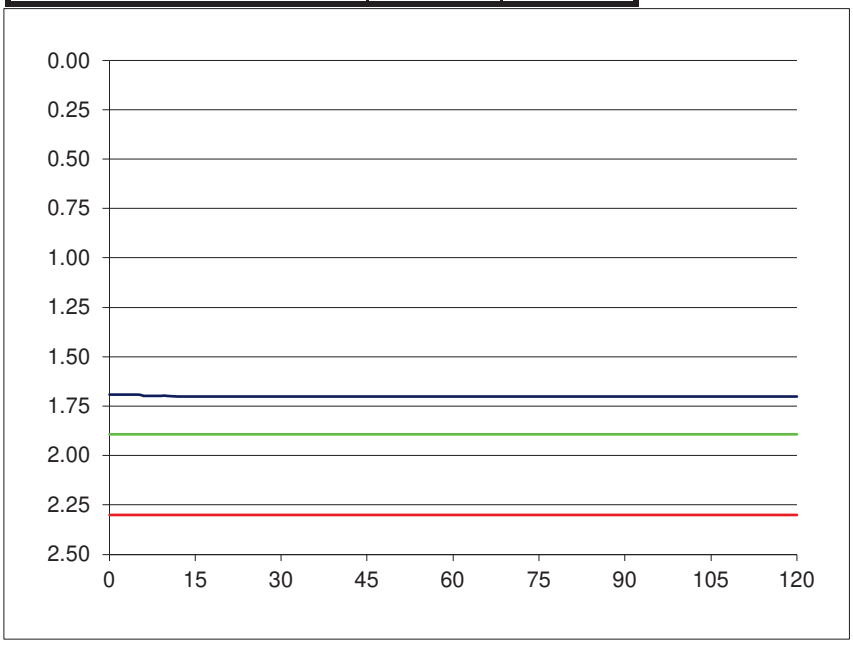
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT04
Date:	12/07/2021

Ground Conditions

From	To	
0.00	0.40	TOPSOIL.
0.40	1.60	Firm light brown slightly sandy slightly gravelly silty CLAY.
1.60	2.20	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.
2.20	2.50	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	1.69
0.5	1.69
1	1.69
1.5	1.69
2	1.69
2.5	1.69
3	1.69
3.5	1.69
4	1.69
4.5	1.69
5	1.69
6	1.70
7	1.70
8	1.70
9	1.70
10	1.70
12	1.70
14	1.70
16	1.70
18	1.70
20	1.70
25	1.70
30	1.70
40	1.70
50	1.70
60	1.70
75	1.70
90	1.70
120	1.70

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	2.50	m
Water		
Start Depth of Water	1.69	m
Depth of Water	0.81	m
75% Full	1.89	m
25% Full	2.30	m
75%-25%	0.41	m
Volume of water (75%-25%)	**0.97**	m3
Area of Drainage	**23.00**	m2
Area of Drainage (75%-25%)	**6.13**	m2
Time		
75% Full	N/A	min
25% Full	N/A	min
Time 75% to 25%	**N/A**	min
Time 75% to 25% (sec)	**N/A**	sec



f = **Fail** m/min or **Fail** m/s

SOAKAWAY TEST

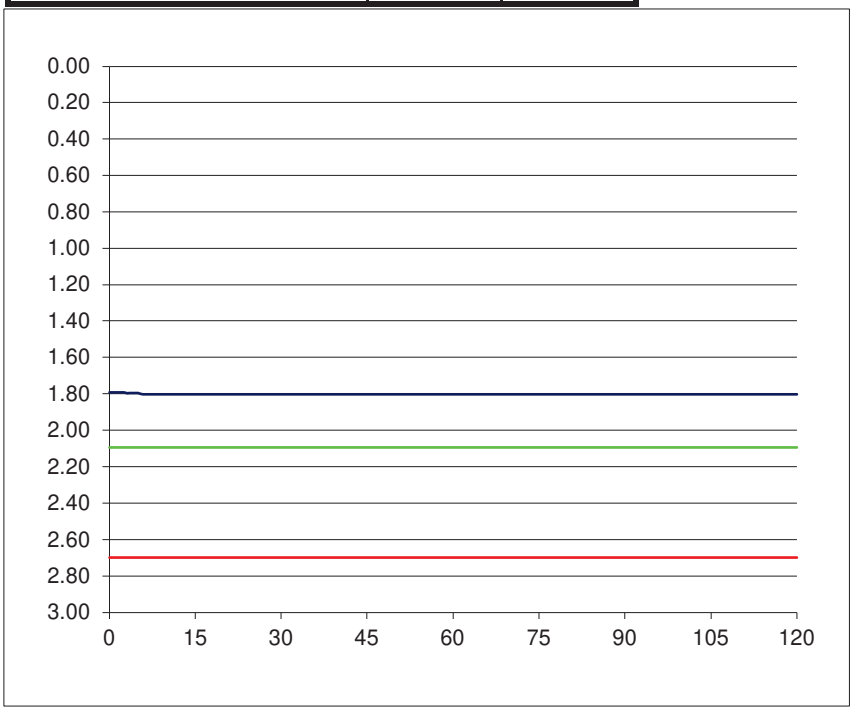
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT05
Date:	12/07/2021

Ground Conditions

From	**To**	
0.00	0.40	TOPSOIL.
0.40	2.40	Firm brown slightly sandy slightly gravelly silty CLAY.
2.40	3.00	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	1.79
0.5	1.79
1	1.79
1.5	1.79
2	1.79
2.5	1.79
3	1.80
3.5	1.80
4	1.80
4.5	1.80
5	1.80
6	1.80
7	1.80
8	1.80
9	1.80
10	1.80
12	1.80
14	1.80
16	1.80
18	1.80
20	1.80
25	1.80
30	1.80
40	1.80
50	1.80
60	1.80
75	1.80
90	1.80
120	1.80

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	3.00	m
Water		
Start Depth of Water	1.79	m
Depth of Water	1.21	m
75% Full	2.09	m
25% Full	2.70	m
75%-25%	0.61	m
Volume of water (75%-25%)	**1.45**	m3
Area of Drainage	**27.60**	m2
Area of Drainage (75%-25%)	**7.97**	m2
Time		
75% Full	N/A	min
25% Full	N/A	min
Time 75% to 25%	**N/A**	min
Time 75% to 25% (sec)	**N/A**	sec



f = Fail (m/min) or **Fail** (m/s)

SOAKAWAY TEST

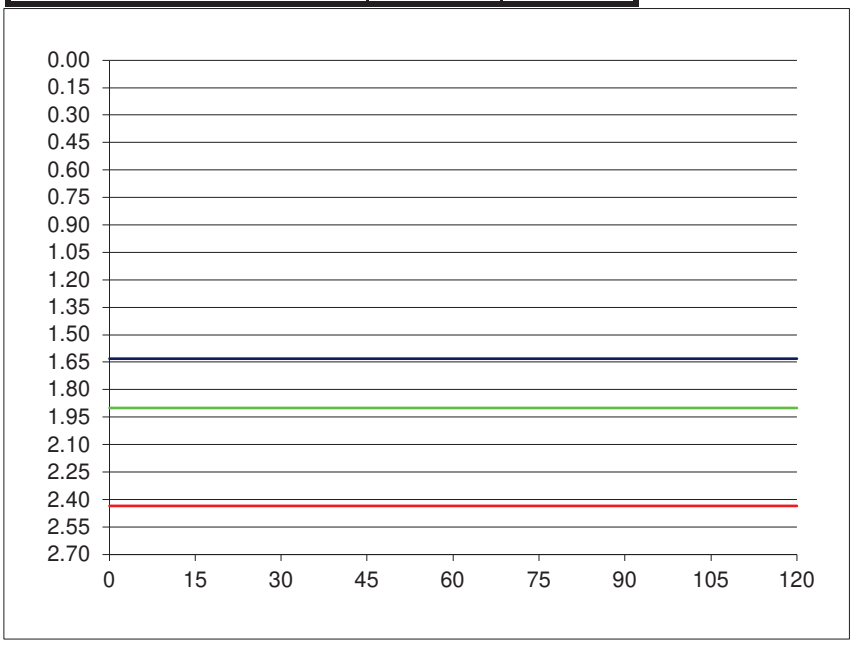
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT06
Date:	12/07/2021

Ground Conditions

From	To	
0.00	0.35	TOPSOIL.
0.35	1.60	Light brown silty gravelly SAND with low cobble content.
1.60	2.20	Firm brown grey slightly sandy slightly gravelly silty CLAY with low cobble content.
2.20	2.70	Orange red silty SAND with bands of brown sandy gravelly clayey silt.

Elapsed Time (mins)	Fall of Water (m)
0	1.63
0.5	1.63
1	1.63
1.5	1.63
2	1.63
2.5	1.63
3	1.63
3.5	1.63
4	1.63
4.5	1.63
5	1.63
6	1.63
7	1.63
8	1.63
9	1.63
10	1.63
12	1.63
14	1.63
16	1.63
18	1.63
20	1.63
25	1.63
30	1.63
40	1.63
50	1.63
60	1.63
75	1.63
90	1.63
120	1.63

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	2.70	m
Water		
Start Depth of Water	1.63	m
Depth of Water	1.07	m
75% Full	1.90	m
25% Full	2.43	m
75%-25%	0.54	m
Volume of water (75%-25%)	**1.28**	m3
Area of Drainage	**24.84**	m2
Area of Drainage (75%-25%)	**7.32**	m2
Time		
75% Full	N/A	min
25% Full	N/A	min
Time 75% to 25%	**N/A**	min
Time 75% to 25% (sec)	**N/A**	sec



f = **Fail** m/min or **Fail** m/s

SOAKAWAY TEST

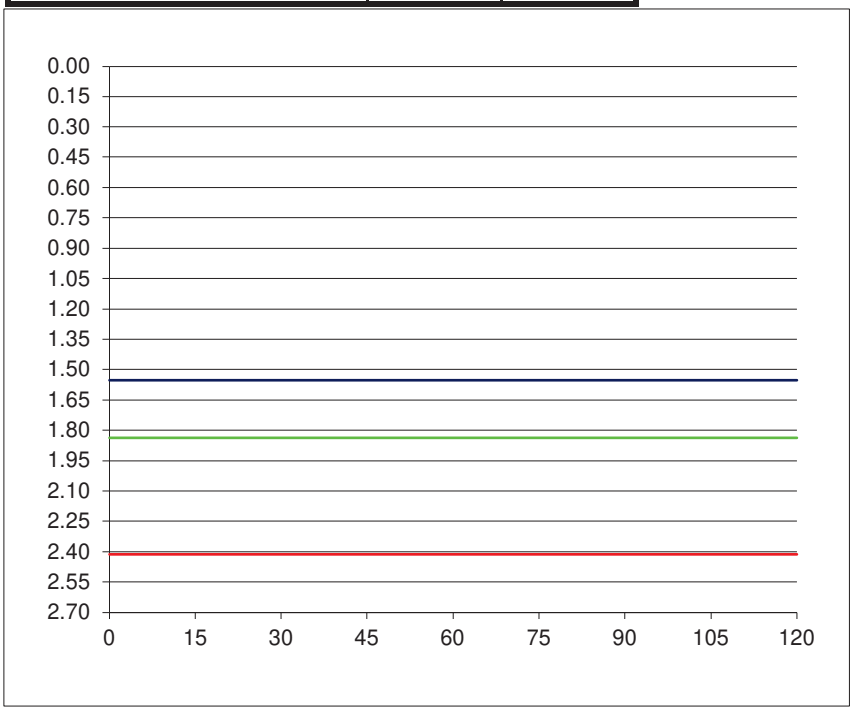
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT07
Date:	12/07/2021

Ground Conditions

From	To	
0.00	0.45	TOPSOIL.
0.45	1.50	Firm brown slightly sandy slightly gravelly silty CLAY.
1.50	2.70	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	1.55
0.5	1.55
1	1.55
1.5	1.55
2	1.55
2.5	1.55
3	1.55
3.5	1.55
4	1.55
4.5	1.55
5	1.55
6	1.55
7	1.55
8	1.55
9	1.55
10	1.55
12	1.55
14	1.55
16	1.55
18	1.55
20	1.55
25	1.55
30	1.55
40	1.55
50	1.55
60	1.55
75	1.55
90	1.55
120	1.55

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	2.70	m
Water		
Start Depth of Water	1.55	m
Depth of Water	1.15	m
75% Full	1.84	m
25% Full	2.41	m
75%-25%	0.58	m
Volume of water (75%-25%)	**1.38**	m3
Area of Drainage	**24.84**	m2
Area of Drainage (75%-25%)	**7.69**	m2
Time		
75% Full	N/A	min
25% Full	N/A	min
Time 75% to 25%	**N/A**	min
Time 75% to 25% (sec)	**N/A**	sec



f = Fail m/min or **Fail** m/s

SOAKAWAY TEST

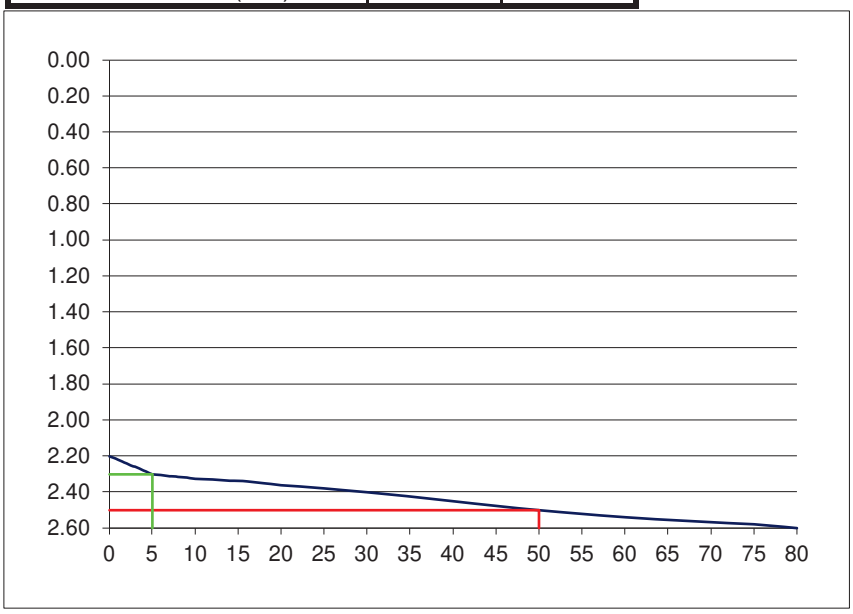
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT08
Date:	12/07/2021

Ground Conditions

From	To	
0.00	0.40	TOPSOIL.
0.40	1.60	Firm light brown slightly sandy slightly gravelly silty CLAY.
1.60	2.30	Firm dark brown slightly sandy slightly gravelly silty CLAY with low cobble content.
2.30	2.60	Firm light brown yellow slightly sandy slightly gravelly silty CLAY with low cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	2.20
0.5	2.21
1	2.22
1.5	2.23
2	2.24
2.5	2.25
3	2.26
3.5	2.27
4	2.28
4.5	2.29
5	2.30
6	2.31
7	2.31
8	2.32
9	2.32
10	2.33
12	2.33
14	2.34
16	2.34
18	2.35
20	2.36
25	2.38
30	2.40
40	2.45
50	2.50
60	2.54
75	2.58
80	2.60

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	2.60	m
Water		
Start Depth of Water	2.20	m
Depth of Water	0.40	m
75% Full	2.30	m
25% Full	2.50	m
75%-25%	0.20	m
Volume of water (75%-25%)	**0.48**	m3
Area of Drainage	**23.92**	m2
Area of Drainage (75%-25%)	**4.24**	m2
Time		
75% Full	5	min
25% Full	50	min
Time 75% to 25%	**45**	min
Time 75% to 25% (sec)	**2700**	sec



f = 0.00252 m/min or **4.19E-05** m/s

SOAKAWAY TEST

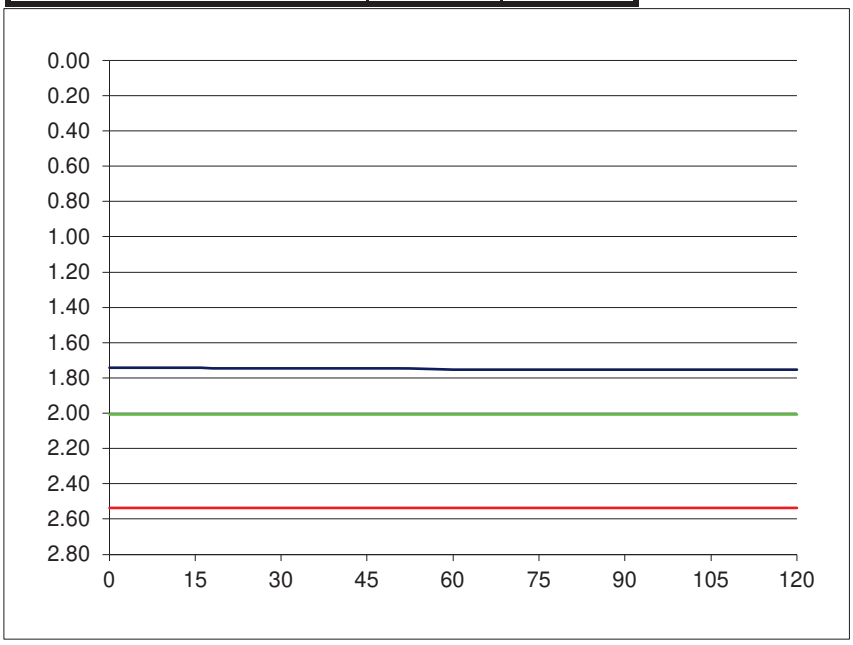
Project Reference:	5868
Contract name:	Coolagad
Location:	Greystones, Co. Wicklow
Test No:	IT09
Date:	12/07/2021

Ground Conditions

From	**To**	
0.00	0.40	TOPSOIL.
0.40	1.90	Firm light brown slightly sandy slightly gravelly silty CLAY with low cobble content.
1.90	2.80	Firm brown slightly sandy slightly gravelly silty CLAY with medium cobble content.

Elapsed Time (mins)	Fall of Water (m)
0	1.74
0.5	1.74
1	1.74
1.5	1.74
2	1.74
2.5	1.74
3	1.74
3.5	1.74
4	1.74
4.5	1.74
5	1.74
6	1.74
7	1.74
8	1.74
9	1.74
10	1.74
12	1.74
14	1.74
16	1.74
18	1.75
20	1.75
25	1.75
30	1.75
40	1.75
50	1.75
60	1.75
75	1.75
90	1.75
120	1.75

Pit Dimensions (m)		
Length (m)	4.00	m
Width (m)	0.60	m
Depth	2.80	m
Water		
Start Depth of Water	1.74	m
Depth of Water	1.06	m
75% Full	2.01	m
25% Full	2.54	m
75%-25%	0.53	m
Volume of water (75%-25%)	**1.27**	m3
Area of Drainage	**25.76**	m2
Area of Drainage (75%-25%)	**7.28**	m2
Time		
75% Full	N/A	min
25% Full	N/A	min
Time 75% to 25%	**N/A**	min
Time 75% to 25% (sec)	**N/A**	sec



f = **Fail** or **Fail**

m/min **m/s**

IT01 Sidewall

IT01 Spoil

IT02 Sidewall

IT02 Spoil

IT03 Sidewall

IT03 Spoil

IT04 Sidewall

IT04 Spoil

IT05 Sidewall

IT05 Spoil

IT06 Sidewall

IT06 Spoil

IT07 Sidewall

IT07 Spoil

IT08 Sidewall

IT08 Spoil

IT09 Sidewall

IT09 Spoil

Appendix 7

Groundwater Monitoring

Coolagad Groundwater Readings

No:	Depth of standpipe	Depth to water - mbgl	Depth to water - mOD
Reading 1 - 03/08/2021			
BH07	9.40	4.77	57.10
RC07	19.06	4.69	57.01
RC16	20.12	7.83	73.11
BH17	9.70	4.75	58.50
BH26	8.00	7.83	58.47
RC26	14.80	8.64	57.67
BH28	7.02	5.98	72.48
BH36	10.00	8.17	56.91
BH53	9.98	6.30	62.88
BH55	9.33	Dry	-
Reading 2 - 12/08/2021			
BH07	9.40	4.30	57.57
RC07	19.06	4.84	56.86
BH10	8.42	8.25	77.75
RC10	14.55	8.45	77.51
BH16	10.12	3.96	76.80
RC16	20.12	8.10	72.84
BH17	9.70	5.53	57.72
RC17	17.08	6.78	56.47
BH26	8.00	7.61	58.69
RC26	14.80	8.77	57.54
BH28	7.02	6.24	72.22
BH36	10.00	8.28	56.80
BH48	6.12	5.49	81.33
BH53	9.98	6.30	62.88
BH55	9.33	Dry	-
Reading 3 - 10/09/2021			
BH07	9.40	5.32	56.55
RC07	19.06	5.28	56.42
BH10	8.42	8.19	77.81
RC10	14.50	8.42	77.54
BH16	10.12	8.56	72.20
RC16	20.12	8.60	72.34
BH17	9.70	5.96	57.29
RC17	17.08	7.11	56.14
BH26	8.00	Dry	-
RC26	14.80	9.15	57.16
BH28	7.02	6.90	71.56
BH36	10.00	8.65	56.43
BH48	6.12	5.67	81.15
BH53	9.98	8.10	61.08
BH55	9.33	Dry	-

Appendix 8

Falling Head Test Results

Falling Head Permeability Test

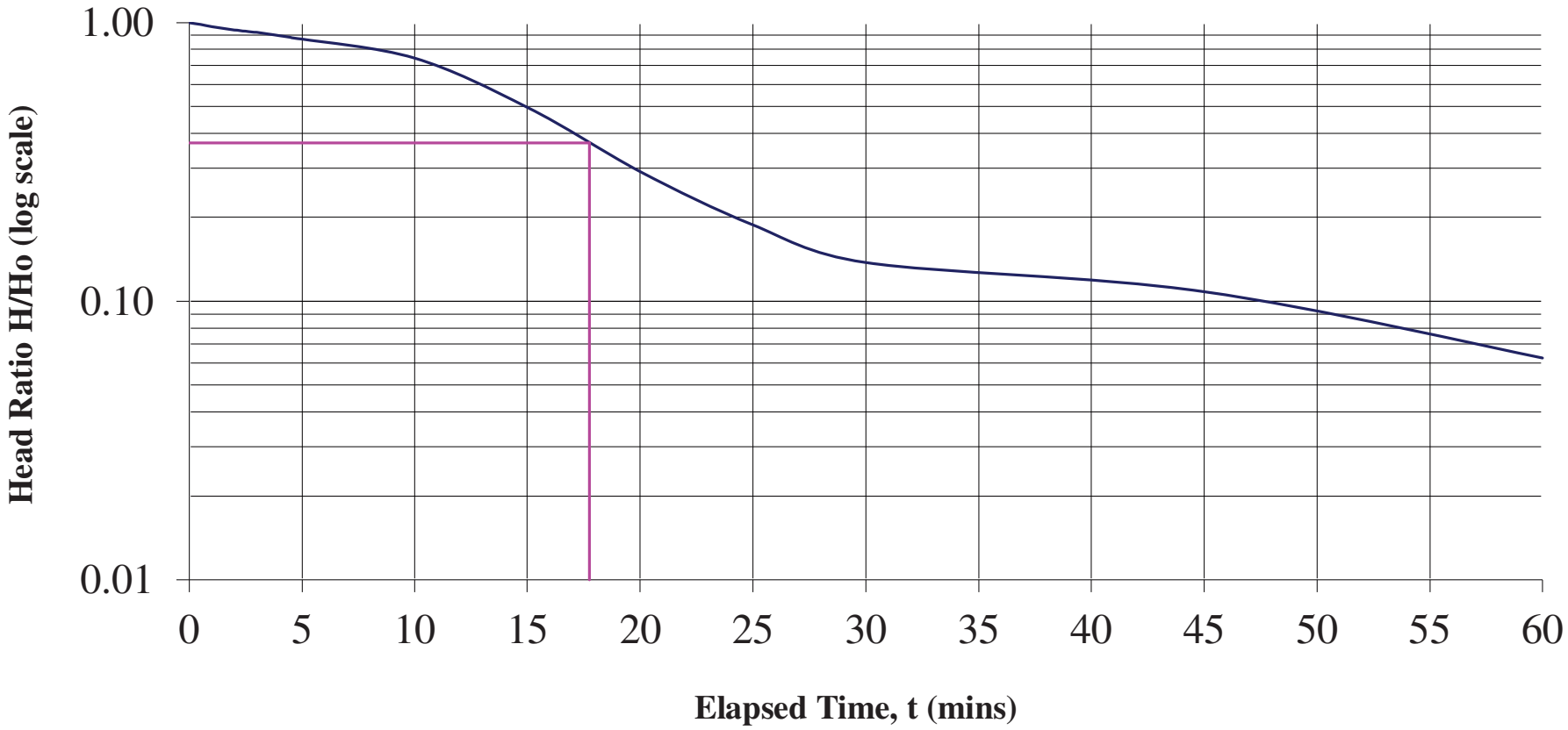
Project:	**Coolagad, Greystones**				
Borehole No:	**BH07**				
Diameter:	**50mm**	**Water Level**	**5.23mbgl**		
Test Base:	**9.32**	**Datum:**	**0.17magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	3.00	5.40	2.40	2.40	1.00
0.5	3.04	5.40	2.36	2.40	0.98
1.0	3.08	5.40	2.32	2.40	0.97
1.5	3.11	5.40	2.29	2.40	0.95
2.0	3.14	5.40	2.26	2.40	0.94
2.5	3.17	5.40	2.23	2.40	0.93
3.0	3.19	5.40	2.21	2.40	0.92
3.5	3.22	5.40	2.18	2.40	0.91
4.0	3.25	5.40	2.15	2.40	0.90
4.5	3.28	5.40	2.12	2.40	0.88
5.0	3.31	5.40	2.09	2.40	0.87
10.0	3.61	5.40	1.79	2.40	0.75
15.0	4.21	5.40	1.19	2.40	0.50
20.0	4.70	5.40	0.70	2.40	0.29
25.0	4.95	5.40	0.45	2.40	0.19
30.0	5.07	5.40	0.33	2.40	0.14
45.0	5.14	5.40	0.26	2.40	0.11
60.0	5.25	5.40	0.15	2.40	0.06

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	6.49	m	Test zone length
F=	7.6074		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	1065	s	H/H0 0.37

k = 2.42E-07 m/s

Falling Head Permeability Test
BH07



Falling Head Permeability Test

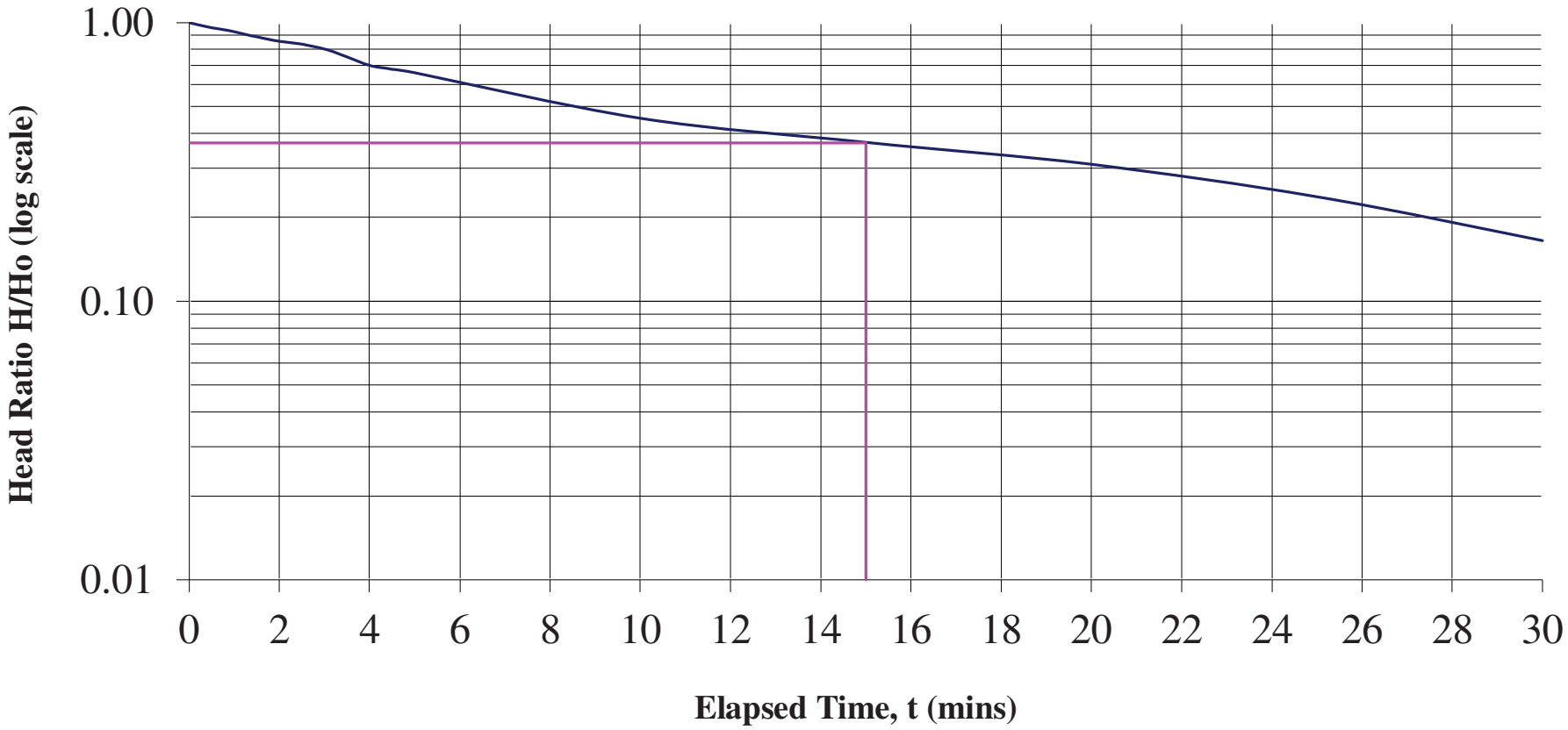
Project:	**Coolagad, Greystones**				
Borehole No:	**RC07**				
Diameter:	**30mm**	**Water Level**	**5.12mbgl**		
Test Base:	**18.86mbgl**	**Datum:**	**0.21magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	4.36	5.33	0.97	0.97	1.00
0.5	4.40	5.33	0.93	0.97	0.96
1.0	4.43	5.33	0.90	0.97	0.93
1.5	4.47	5.33	0.86	0.97	0.89
2.0	4.50	5.33	0.83	0.97	0.86
2.5	4.52	5.33	0.81	0.97	0.84
3.0	4.55	5.33	0.78	0.97	0.80
3.5	4.60	5.33	0.73	0.97	0.75
4.0	4.65	5.33	0.68	0.97	0.70
4.5	4.67	5.33	0.66	0.97	0.68
5.0	4.69	5.33	0.64	0.97	0.66
10.0	4.89	5.33	0.44	0.97	0.45
15.0	4.97	5.33	0.36	0.97	0.37
20.0	5.03	5.33	0.30	0.97	0.31
25.0	5.10	5.33	0.23	0.97	0.24
30.0	5.17	5.33	0.16	0.97	0.16

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	14.29	m	Test zone length
F=	13.3908		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	900	s	H/H0 0.37

k = 5.87E-08 m/s

Falling Head Permeability Test
RC07



Falling Head Permeability Test

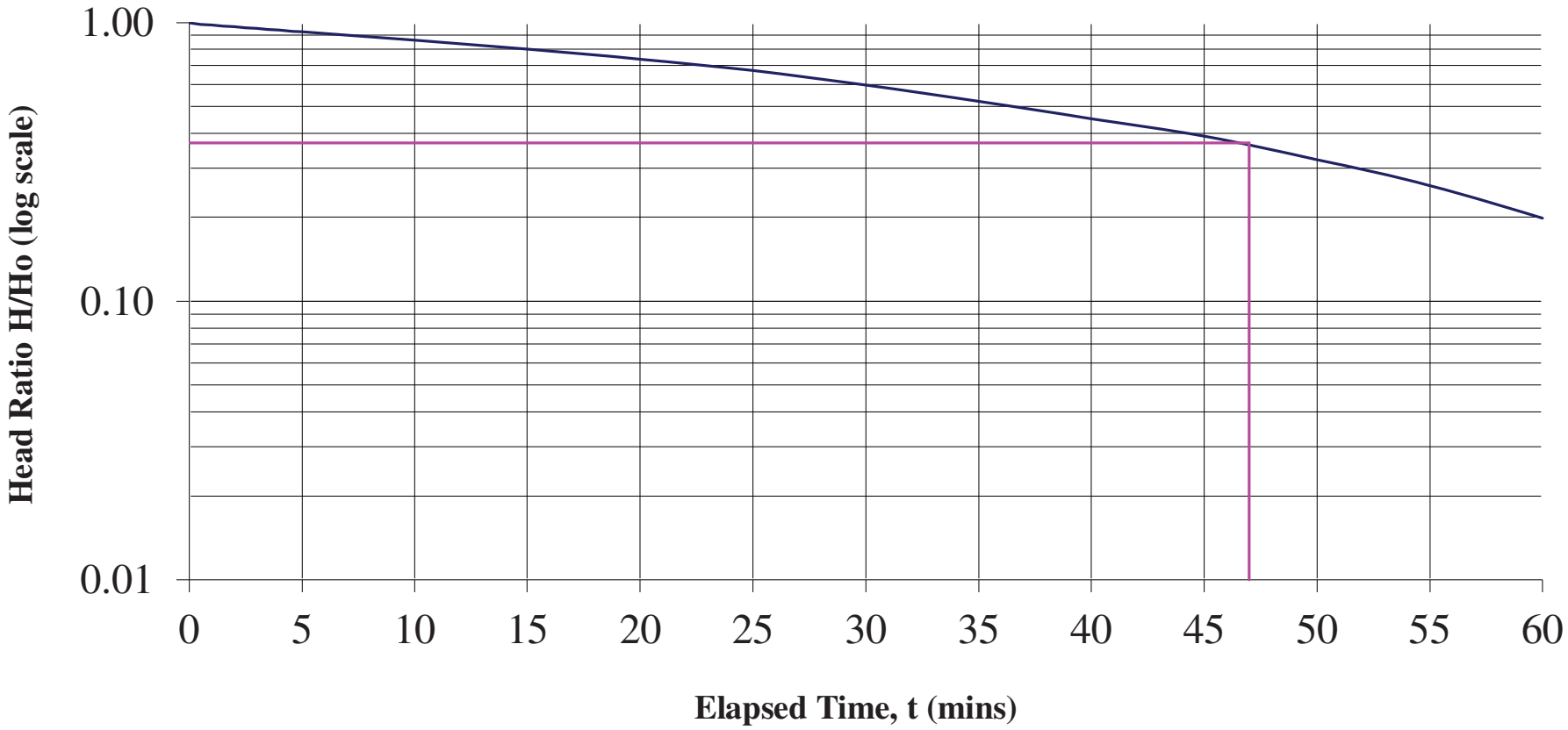
Project:	**Coolagad, Greystones**				
Borehole No:	**BH10**				
Diameter:	**50mm**	**Water Level**	**7.59mbgl**		
Test Base:	**8.51mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	6.13	7.59	1.46	1.46	1.00
0.5	6.15	7.59	1.44	1.46	0.99
1.0	6.16	7.59	1.43	1.46	0.98
1.5	6.17	7.59	1.42	1.46	0.97
2.0	6.18	7.59	1.41	1.46	0.97
2.5	6.19	7.59	1.40	1.46	0.96
3.0	6.20	7.59	1.39	1.46	0.95
3.5	6.21	7.59	1.38	1.46	0.95
4.0	6.22	7.59	1.37	1.46	0.94
4.5	6.23	7.59	1.36	1.46	0.93
5.0	6.24	7.59	1.35	1.46	0.92
10.0	6.33	7.59	1.26	1.46	0.86
15.0	6.42	7.59	1.17	1.46	0.80
20.0	6.51	7.59	1.08	1.46	0.74
25.0	6.61	7.59	0.98	1.46	0.67
30.0	6.72	7.59	0.87	1.46	0.60
35.0	6.83	7.59	0.76	1.46	0.52
40.0	6.93	7.59	0.66	1.46	0.45
45.0	7.02	7.59	0.57	1.46	0.39
50.0	7.12	7.59	0.47	1.46	0.32
55.0	7.21	7.59	0.38	1.46	0.26
60.0	7.30	7.59	0.29	1.46	0.20

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	2.38	m	Test zone length
F=	3.4190		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2820	s	H/H0 0.37

k = 2.04E-07 m/s

Falling Head Permeability Test
BH10



Falling Head Permeability Test

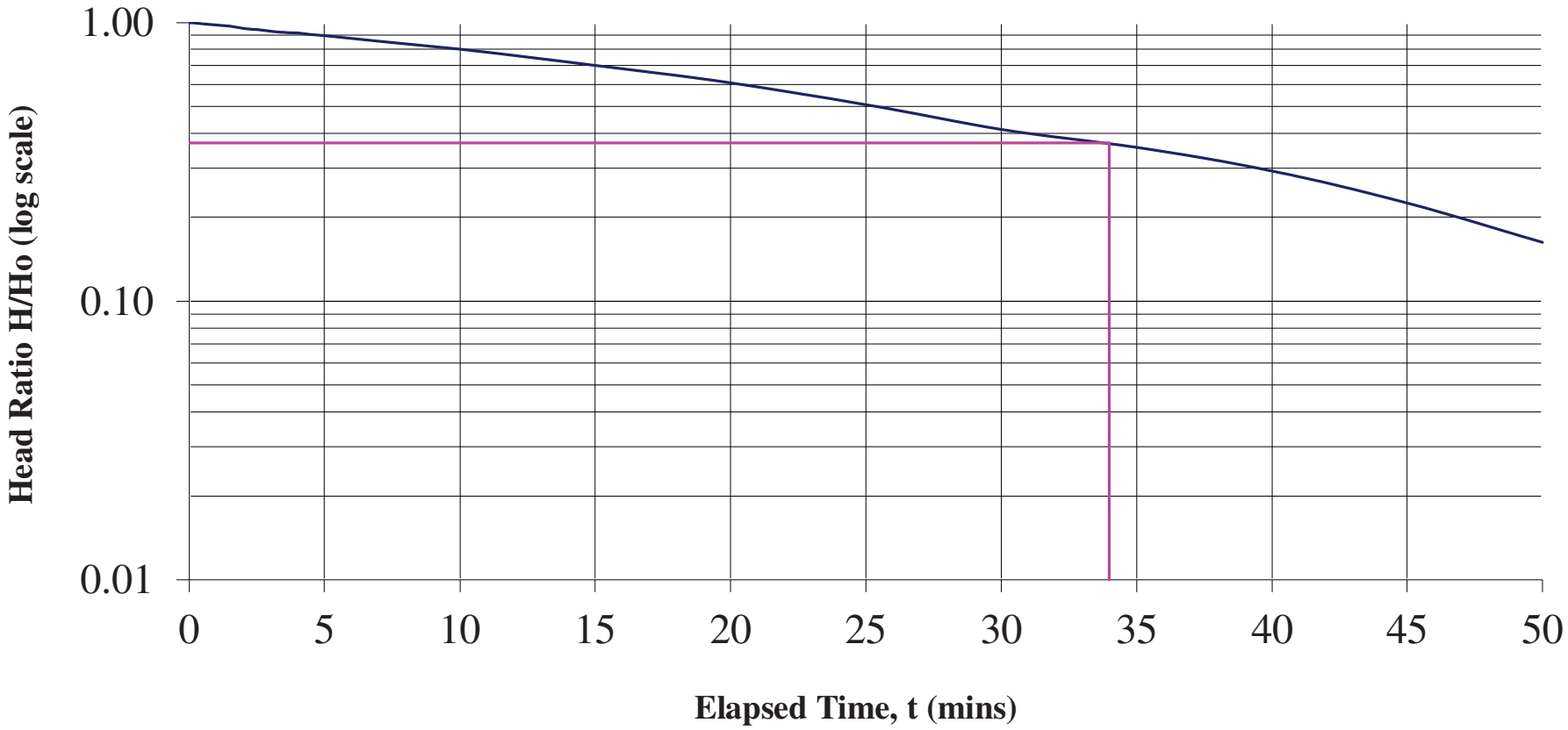
Project:	**Coolagad, Greystones**				
Borehole No:	**RC10**				
Diameter:	**30mm**	**Water Level**	**8.28mbgl**		
Test Base:	**14.55mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	6.37	8.28	1.91	1.91	1.00
0.5	6.39	8.28	1.89	1.91	0.99
1.0	6.41	8.28	1.87	1.91	0.98
1.5	6.43	8.28	1.85	1.91	0.97
2.0	6.46	8.28	1.82	1.91	0.95
2.5	6.48	8.28	1.80	1.91	0.94
3.0	6.50	8.28	1.78	1.91	0.93
3.5	6.52	8.28	1.76	1.91	0.92
4.0	6.53	8.28	1.75	1.91	0.92
4.5	6.55	8.28	1.73	1.91	0.91
5.0	6.57	8.28	1.71	1.91	0.90
10.0	6.75	8.28	1.53	1.91	0.80
15.0	6.94	8.28	1.34	1.91	0.70
20.0	7.12	8.28	1.16	1.91	0.61
25.0	7.31	8.28	0.97	1.91	0.51
30.0	7.49	8.28	0.79	1.91	0.41
35.0	7.60	8.28	0.68	1.91	0.36
40.0	7.72	8.28	0.56	1.91	0.29
45.0	7.85	8.28	0.43	1.91	0.23
50.0	7.97	8.28	0.31	1.91	0.16

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	8.18	m	Test zone length
F=	8.3609		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2040	s	H/H0 0.37

k = 4.14E-08 m/s

Falling Head Permeability Test
RC10



Falling Head Permeability Test

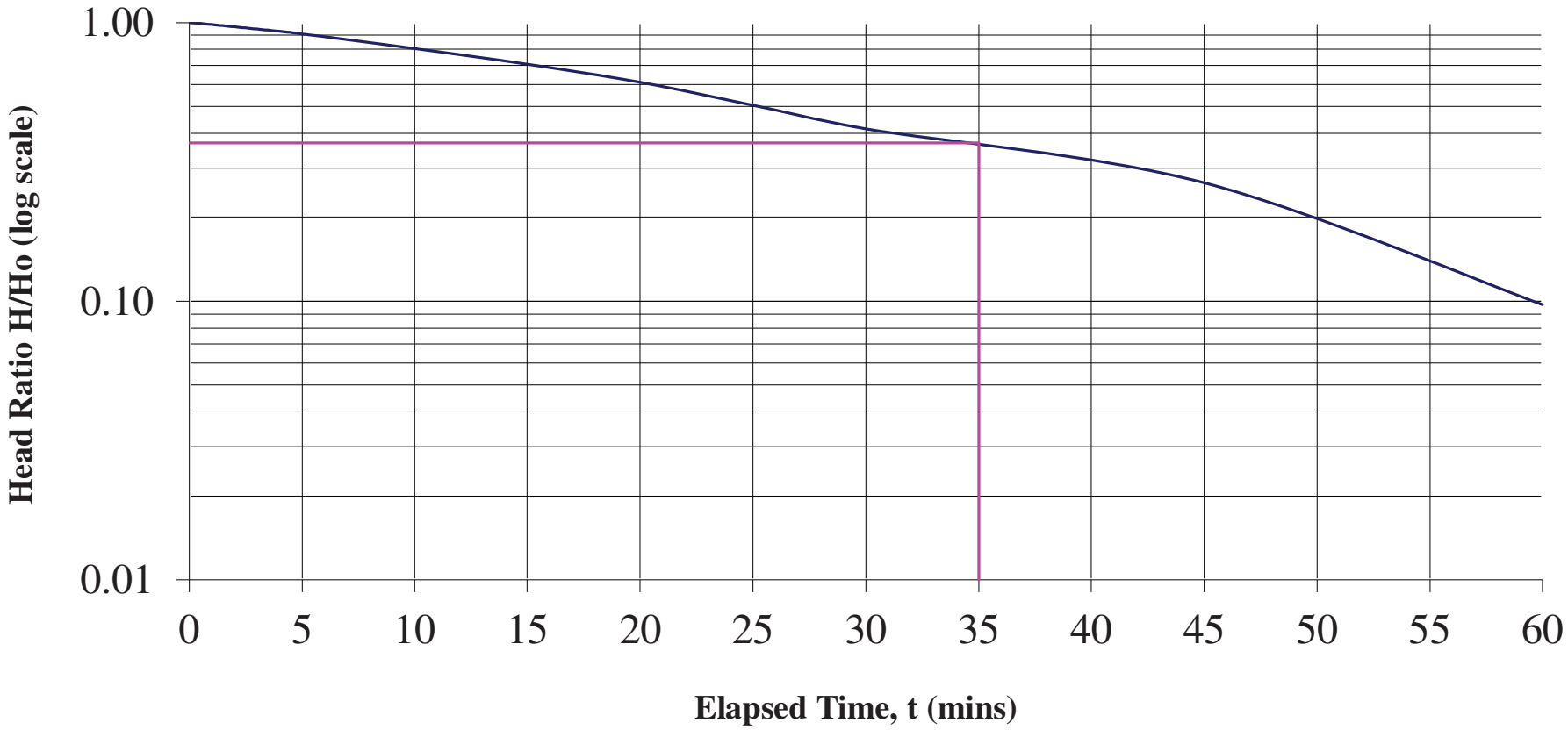
Project:	**Coolagad, Greystones**				
Borehole No:	**BH16**				
Diameter:	**50mm**	**Water Level**	**8.40mbgl**		
Test Base:	**10.03mbgl**	**Datum:**	**0.11magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.16	8.29	1.13	1.13	1.00
0.5	7.17	8.29	1.12	1.13	0.99
1.0	7.18	8.29	1.11	1.13	0.98
1.5	7.19	8.29	1.10	1.13	0.97
2.0	7.20	8.29	1.09	1.13	0.96
2.5	7.21	8.29	1.08	1.13	0.96
3.0	7.22	8.29	1.07	1.13	0.95
3.5	7.23	8.29	1.06	1.13	0.94
4.0	7.24	8.29	1.05	1.13	0.93
4.5	7.25	8.29	1.04	1.13	0.92
5.0	7.26	8.29	1.03	1.13	0.91
10.0	7.38	8.29	0.91	1.13	0.81
15.0	7.49	8.29	0.80	1.13	0.71
20.0	7.60	8.29	0.69	1.13	0.61
25.0	7.72	8.29	0.57	1.13	0.50
30.0	7.82	8.29	0.47	1.13	0.42
45.0	7.99	8.29	0.30	1.13	0.27
60.0	8.18	8.29	0.11	1.13	0.10

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	2.76	m	Test zone length
F=	3.8350		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2100	s	H/H0 0.37

k = 2.44E-07 m/s

Falling Head Permeability Test
BH16



Falling Head Permeability Test

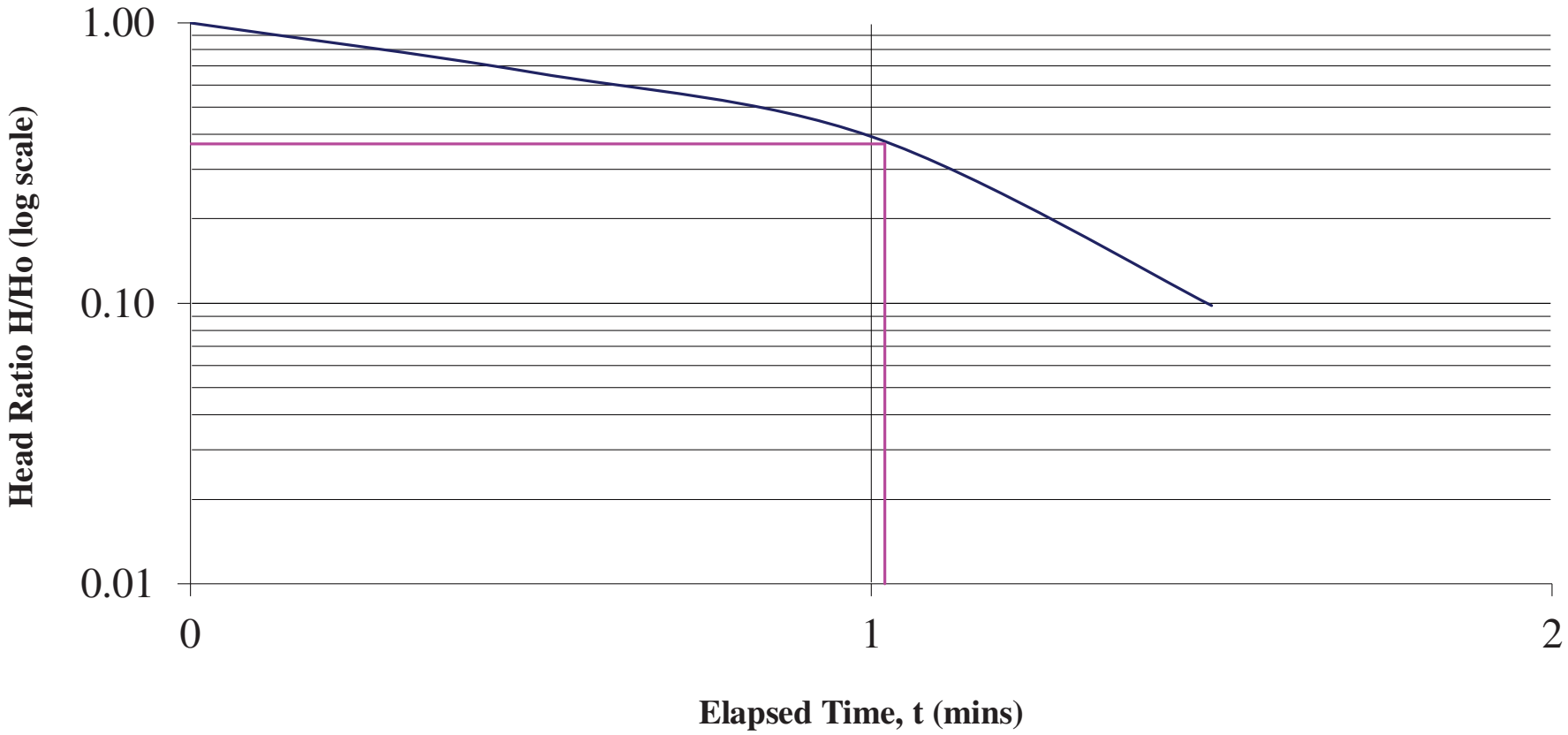
Project:	**Coolagad, Greystones**				
Borehole No:	**RC16**				
Diameter:	**30mm**	**Water Level**	**8.61mbgl**		
Test Base:	**20.03mbgl**	**Datum:**	**0.25magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.95	8.46	0.51	0.51	1.00
0.5	8.12	8.46	0.34	0.51	0.67
1.0	8.26	8.46	0.20	0.51	0.39
1.5	8.41	8.46	0.05	0.51	0.10

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	11.83	m	Test zone length
F=	11.4070		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	61	s	H/H0 0.37

k = 1.02E-06 m/s

Falling Head Permeability Test
RC16



Falling Head Permeability Test

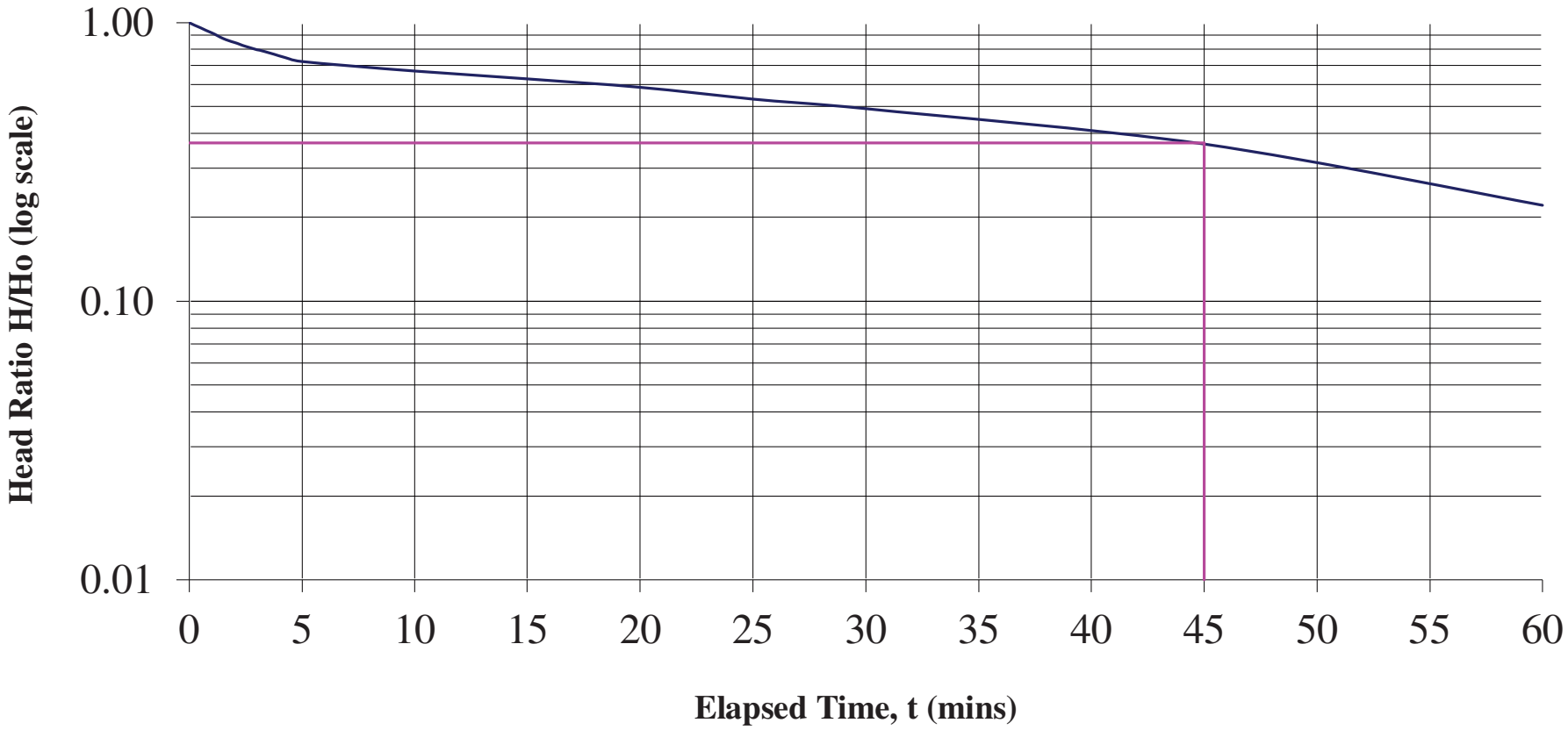
Project:	**Coolagad, Greystones**				
Borehole No:	**BH17**				
Diameter:	**50mm**	**Water Level**	**5.87mbgl**		
Test Base:	**8.43mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	4.42	5.87	1.45	1.45	1.00
0.5	4.48	5.87	1.39	1.45	0.96
1.0	4.54	5.87	1.33	1.45	0.92
1.5	4.60	5.87	1.27	1.45	0.88
2.0	4.64	5.87	1.23	1.45	0.85
2.5	4.68	5.87	1.19	1.45	0.82
3.0	4.71	5.87	1.16	1.45	0.80
3.5	4.74	5.87	1.13	1.45	0.78
4.0	4.77	5.87	1.10	1.45	0.76
4.5	4.80	5.87	1.07	1.45	0.74
5.0	4.82	5.87	1.05	1.45	0.72
10.0	4.90	5.87	0.97	1.45	0.67
15.0	4.96	5.87	0.91	1.45	0.63
20.0	5.02	5.87	0.85	1.45	0.59
25.0	5.10	5.87	0.77	1.45	0.53
30.0	5.16	5.87	0.71	1.45	0.49
45.0	5.34	5.87	0.53	1.45	0.37
60.0	5.55	5.87	0.32	1.45	0.22

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	4.01	m	Test zone length
F=	4.5085		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2700	s	H/H0 0.37

k = 5.81E-08 m/s

Falling Head Permeability Test
BH17



Falling Head Permeability Test

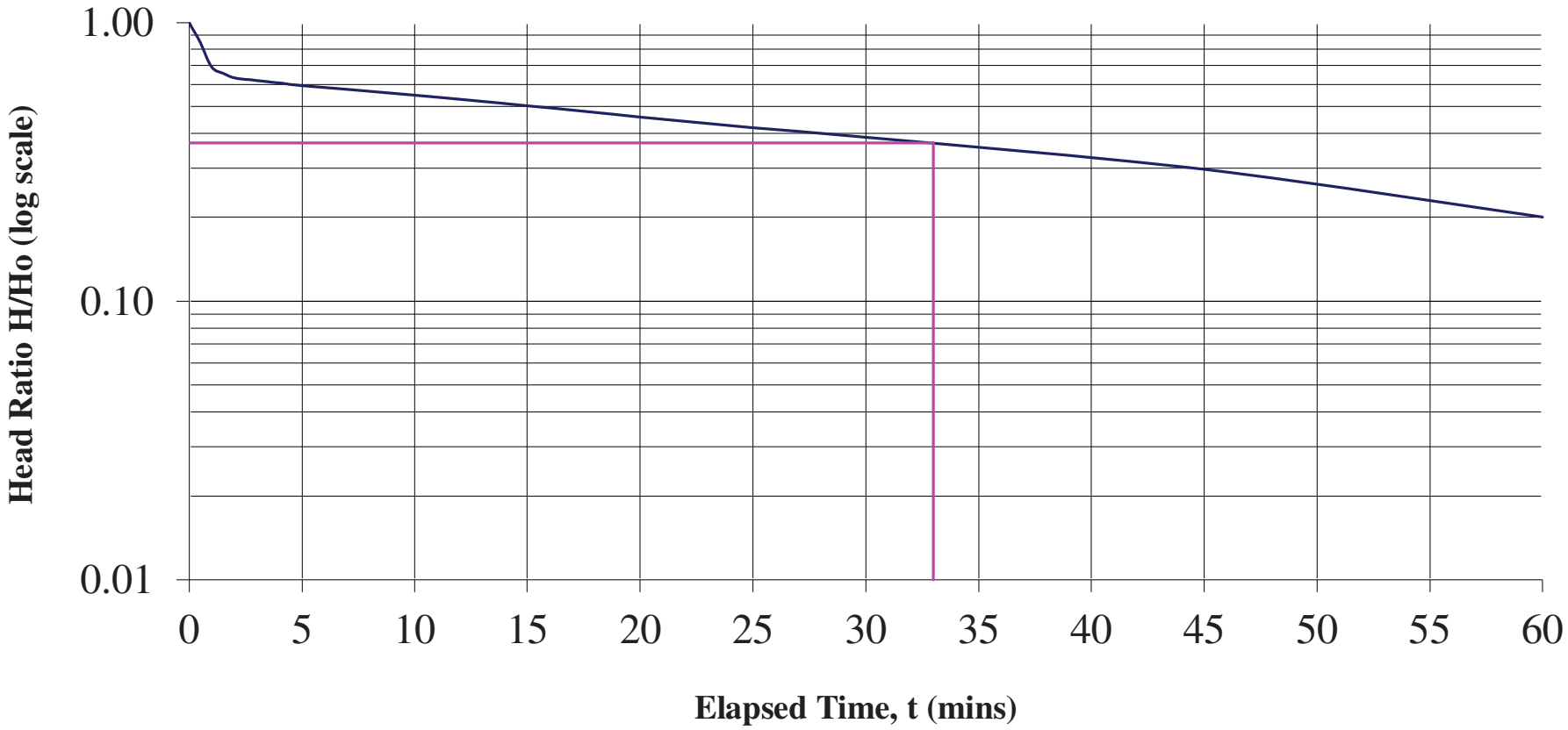
Project:	**Coolagad, Greystones**				
Borehole No:	**RC17**				
Diameter:	**30mm**	**Water Level**	**7.15mbgl**		
Test Base:	**17.60mbgl**	**Datum:**	**0.18magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	5.78	7.33	1.55	1.55	1.00
0.5	6.02	7.33	1.31	1.55	0.85
1.0	6.26	7.33	1.07	1.55	0.69
1.5	6.31	7.33	1.02	1.55	0.66
2.0	6.35	7.33	0.98	1.55	0.63
2.5	6.36	7.33	0.97	1.55	0.63
3.0	6.37	7.33	0.96	1.55	0.62
3.5	6.38	7.33	0.95	1.55	0.61
4.0	6.39	7.33	0.94	1.55	0.61
4.5	6.40	7.33	0.93	1.55	0.60
5.0	6.41	7.33	0.92	1.55	0.59
10.0	6.48	7.33	0.85	1.55	0.55
15.0	6.55	7.33	0.78	1.55	0.50
20.0	6.62	7.33	0.71	1.55	0.46
25.0	6.68	7.33	0.65	1.55	0.42
30.0	6.73	7.33	0.60	1.55	0.39
45.0	6.87	7.33	0.46	1.55	0.30
60.0	7.02	7.33	0.31	1.55	0.20

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	11.64	m	Test zone length
F=	11.2517		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	1980	s	H/H0 0.37

k = 3.17E-08 m/s

Falling Head Permeability Test
RC17



Falling Head Permeability Test

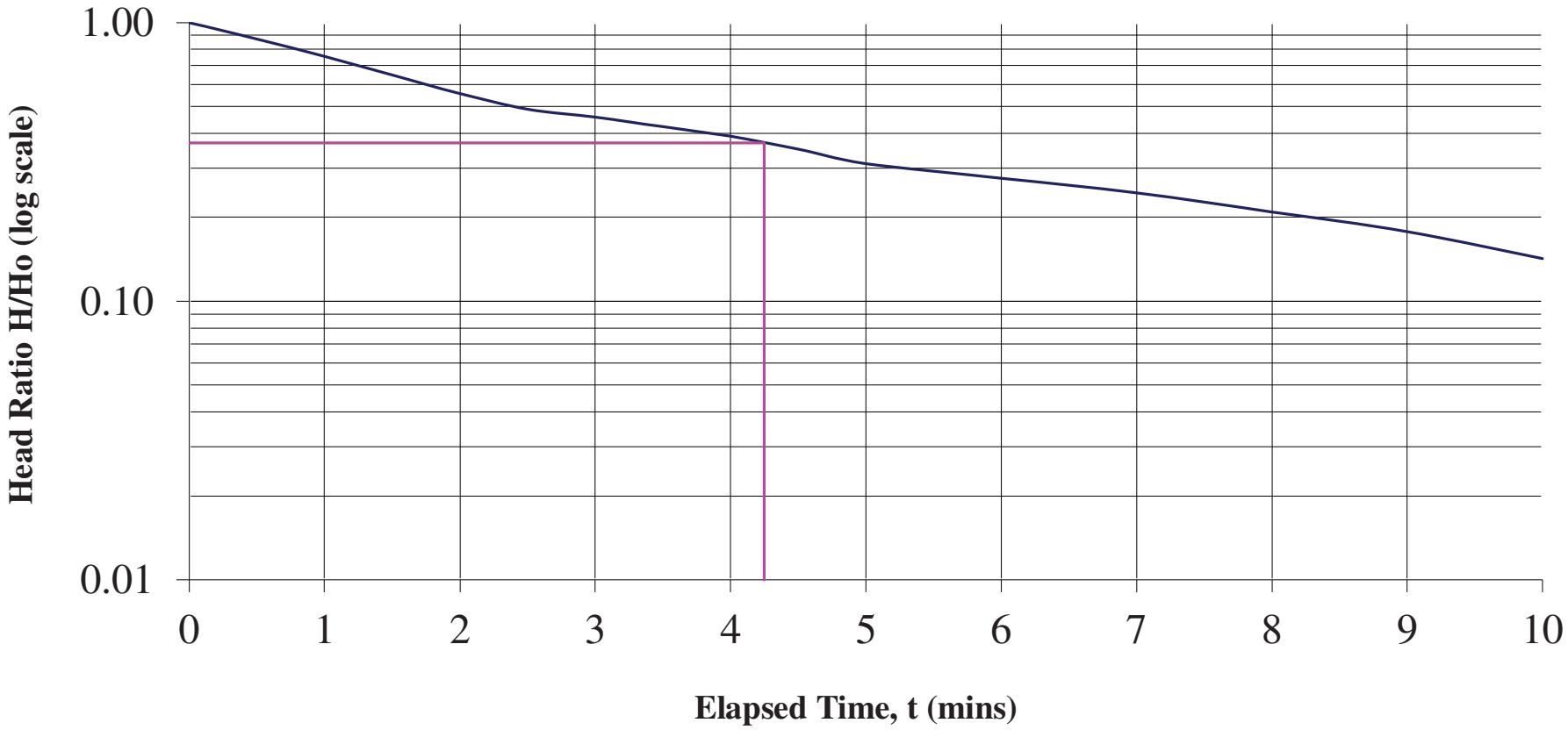
Project:	**Coolagad, Greystones**				
Borehole No:	**BH26**				
Diameter:	**50mm**	**Water Level**	**7.85mbgl**		
Test Base:	**8.00mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	5.03	7.85	2.82	2.82	1.00
0.5	5.39	7.85	2.46	2.82	0.87
1.0	5.72	7.85	2.13	2.82	0.76
1.5	6.02	7.85	1.83	2.82	0.65
2.0	6.28	7.85	1.57	2.82	0.56
2.5	6.47	7.85	1.38	2.82	0.49
3.0	6.56	7.85	1.29	2.82	0.46
3.5	6.66	7.85	1.19	2.82	0.42
4.0	6.75	7.85	1.10	2.82	0.39
4.5	6.86	7.85	0.99	2.82	0.35
5.0	6.97	7.85	0.88	2.82	0.31
6.0	7.07	7.85	0.78	2.82	0.28
7.0	7.16	7.85	0.69	2.82	0.24
8.0	7.26	7.85	0.59	2.82	0.21
9.0	7.35	7.85	0.50	2.82	0.18
10.0	7.45	7.85	0.40	2.82	0.14

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	2.97	m	Test zone length
F=	4.0610		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	255	s	H/H0 0.37

k = 1.90E-06 m/s

Falling Head Permeability Test
BH26



Falling Head Permeability Test

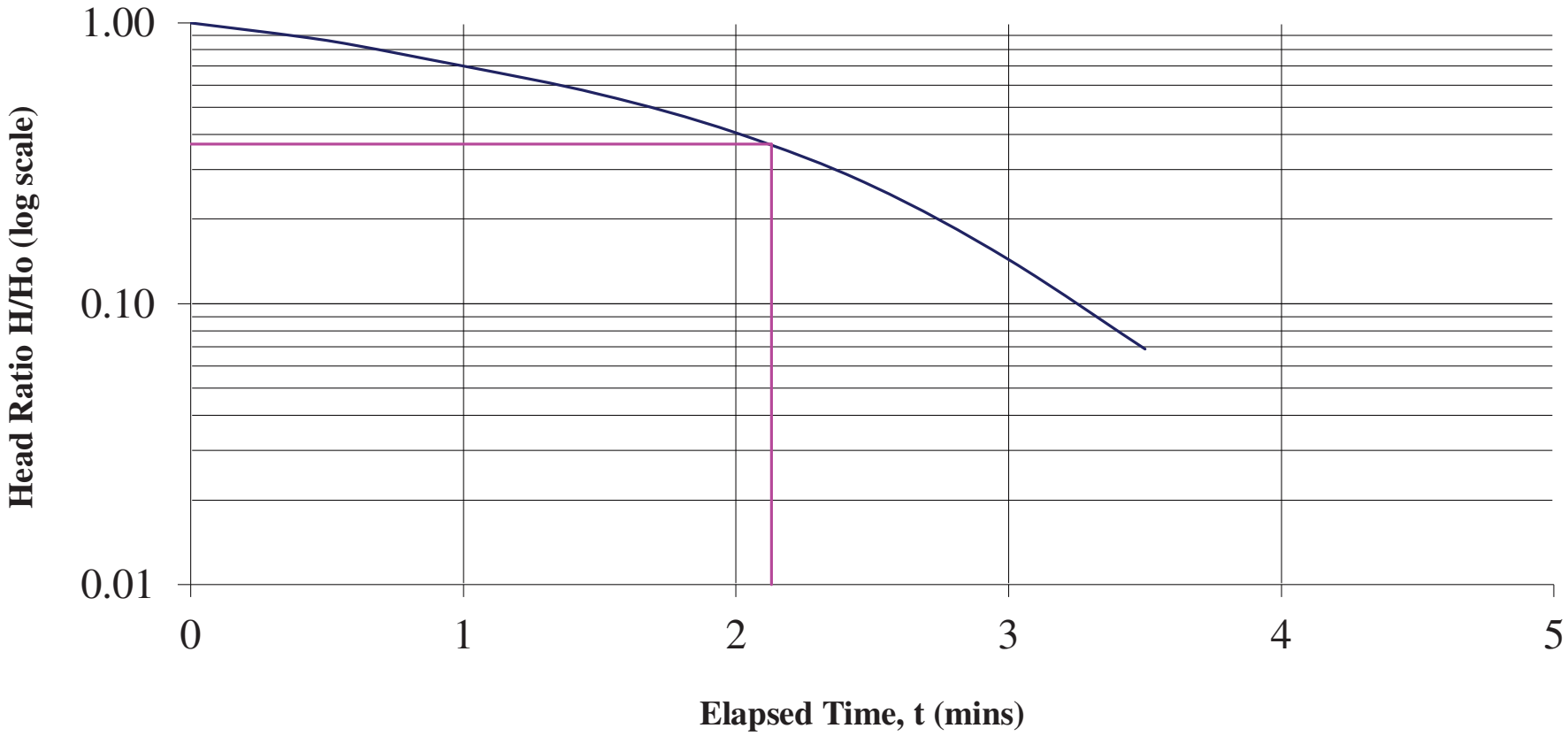
Project:	**Coolagad, Greystones**				
Borehole No:	**RC26**				
Diameter:	**30mm**	**Water Level**	**8.94mbgl**		
Test Base:	**14.80mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.34	8.94	1.60	1.60	1.00
0.5	7.56	8.94	1.38	1.60	0.86
1.0	7.82	8.94	1.12	1.60	0.70
1.5	8.05	8.94	0.89	1.60	0.56
2.0	8.29	8.94	0.65	1.60	0.41
2.5	8.52	8.94	0.42	1.60	0.26
3.0	8.71	8.94	0.23	1.60	0.14
3.5	8.83	8.94	0.11	1.60	0.07

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	7.46	m	Test zone length
F=	7.7410		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	127.8	s	H/H0 0.37

k = 7.15E-07 m/s

Falling Head Permeability Test
RC26



Falling Head Permeability Test

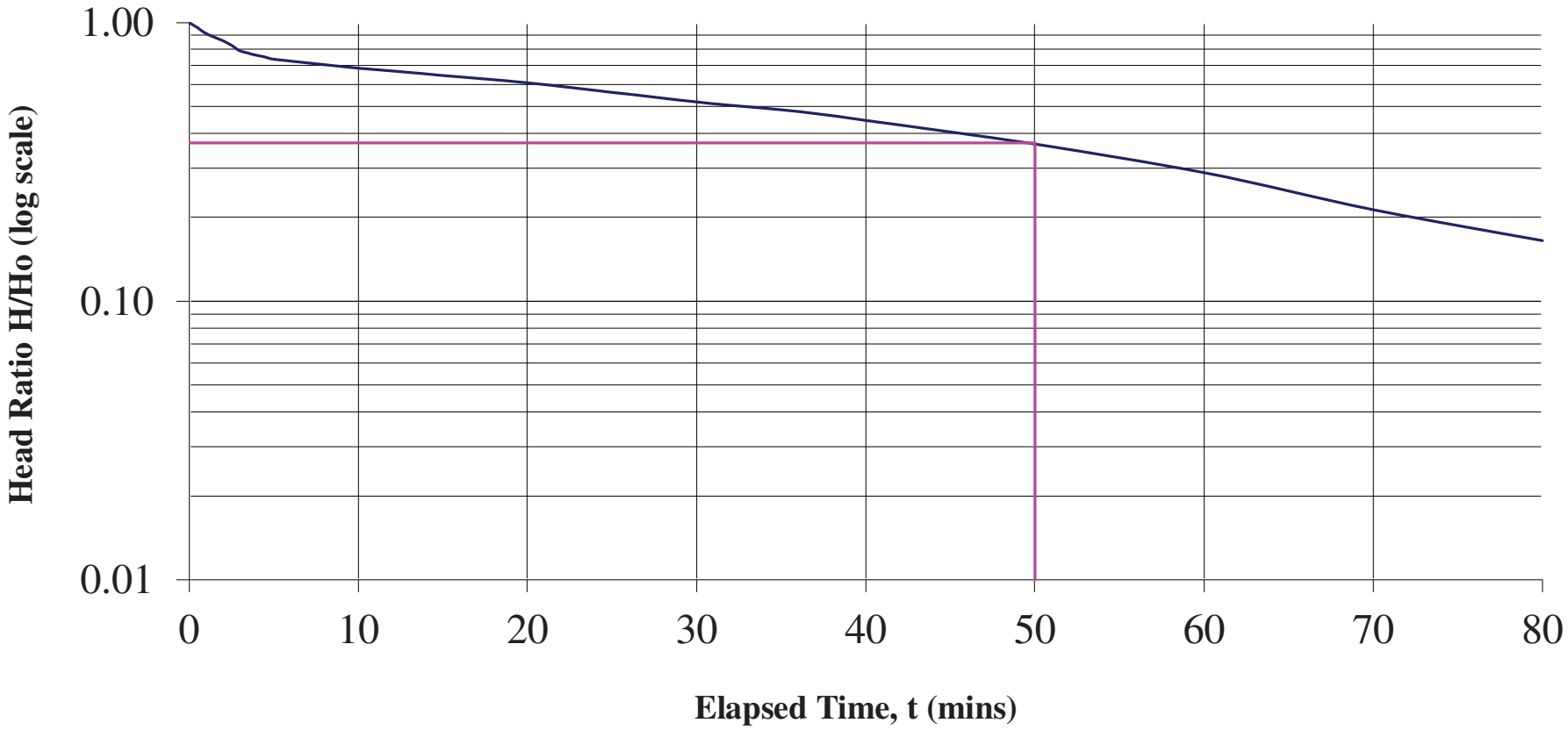
Project:	**Coolagad, Greystones**				
Borehole No:	**BH28**				
Diameter:	**50mm**	**Water Level**	**6.54mbgl**		
Test Base:	**7.02mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	4.05	6.54	2.49	2.49	1.00
0.5	4.16	6.54	2.38	2.49	0.96
1.0	4.27	6.54	2.27	2.49	0.91
1.5	4.34	6.54	2.20	2.49	0.88
2.0	4.40	6.54	2.14	2.49	0.86
2.5	4.48	6.54	2.06	2.49	0.83
3.0	4.57	6.54	1.97	2.49	0.79
3.5	4.61	6.54	1.93	2.49	0.78
4.0	4.64	6.54	1.90	2.49	0.76
4.5	4.67	6.54	1.87	2.49	0.75
5.0	4.70	6.54	1.84	2.49	0.74
10.0	4.83	6.54	1.71	2.49	0.69
15.0	4.93	6.54	1.61	2.49	0.65
20.0	5.03	6.54	1.51	2.49	0.61
25.0	5.14	6.54	1.40	2.49	0.56
30.0	5.25	6.54	1.29	2.49	0.52
35.0	5.33	6.54	1.21	2.49	0.49
40.0	5.43	6.54	1.11	2.49	0.45
50.0	5.63	6.54	0.91	2.49	0.37
60.0	5.82	6.54	0.72	2.49	0.29
70.0	6.01	6.54	0.53	2.49	0.21
80.0	6.13	6.54	0.41	2.49	0.16

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	2.97	m	Test zone length
F=	4.0610		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	3000	s	H/H0 0.37

k = 1.61E-07 m/s

Falling Head Permeability Test
BH28



Falling Head Permeability Test

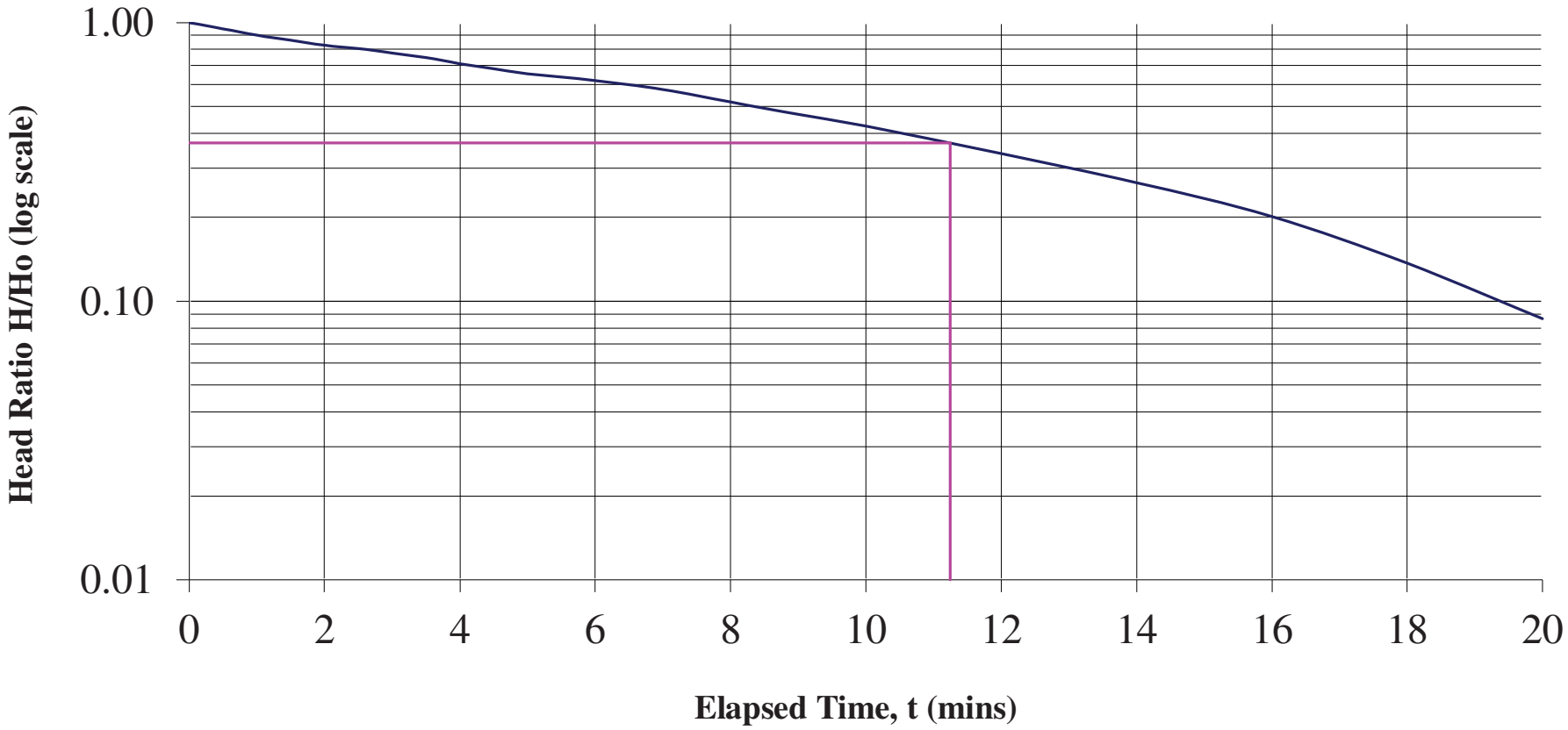
Project:	**Coolagad, Greystones**				
Borehole No:	**BH36**				
Diameter:	**50mm**	**Water Level**	**8.42mbgl**		
Test Base:	**10.01mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.03	8.42	1.39	1.39	1.00
0.5	7.10	8.42	1.32	1.39	0.95
1.0	7.17	8.42	1.25	1.39	0.90
1.5	7.22	8.42	1.20	1.39	0.86
2.0	7.27	8.42	1.15	1.39	0.83
2.5	7.30	8.42	1.12	1.39	0.81
3.0	7.34	8.42	1.08	1.39	0.78
3.5	7.38	8.42	1.04	1.39	0.75
4.0	7.43	8.42	0.99	1.39	0.71
4.5	7.47	8.42	0.95	1.39	0.68
5.0	7.51	8.42	0.91	1.39	0.65
6.0	7.56	8.42	0.86	1.39	0.62
7.0	7.62	8.42	0.80	1.39	0.58
8.0	7.70	8.42	0.72	1.39	0.52
9.0	7.77	8.42	0.65	1.39	0.47
10.0	7.83	8.42	0.59	1.39	0.42
12.0	7.95	8.42	0.47	1.39	0.34
14.0	8.05	8.42	0.37	1.39	0.27
16.0	8.14	8.42	0.28	1.39	0.20
18.0	8.23	8.42	0.19	1.39	0.14
20.0	8.30	8.42	0.12	1.39	0.09

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	2.98	m	Test zone length
F=	4.0717		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	675	s	H/H0 0.37

k = 7.14E-07 m/s

Falling Head Permeability Test
BH36



Falling Head Permeability Test

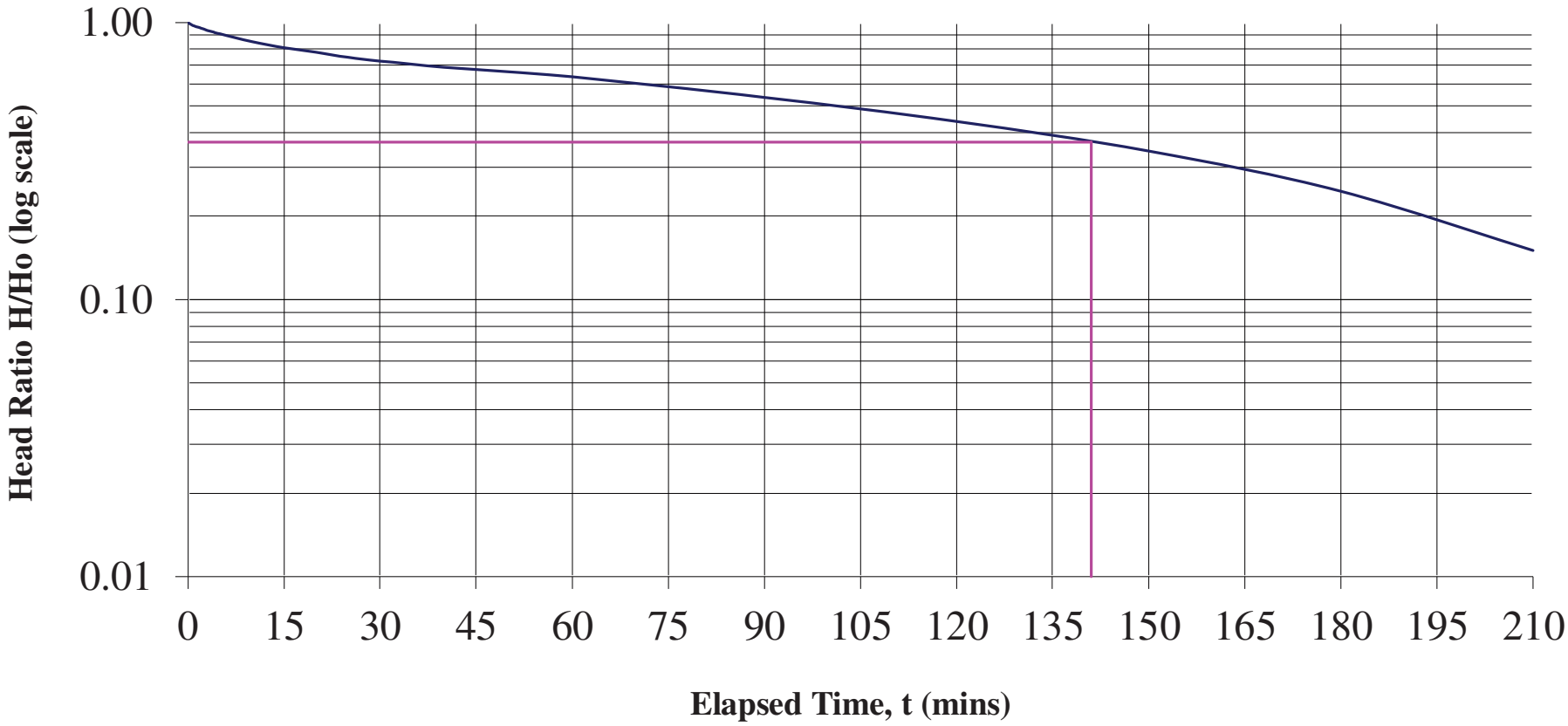
Project:	**Coolagad, Greystones**				
Borehole No:	**BH48**				
Diameter:	**50mm**	**Water Level**	**5.88mbgl**		
Test Base:	**6.07mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	1.28	5.88	4.60	4.60	1.00
1.0	1.42	5.88	4.46	4.60	0.97
2.0	1.49	5.88	4.39	4.60	0.95
3.0	1.57	5.88	4.31	4.60	0.94
4.0	1.64	5.88	4.24	4.60	0.92
5.0	1.70	5.88	4.18	4.60	0.91
10.0	1.96	5.88	3.92	4.60	0.85
15.0	2.16	5.88	3.72	4.60	0.81
20.0	2.29	5.88	3.59	4.60	0.78
25.0	2.44	5.88	3.44	4.60	0.75
30.0	2.54	5.88	3.34	4.60	0.73
40.0	2.71	5.88	3.17	4.60	0.69
50.0	2.83	5.88	3.05	4.60	0.66
60.0	2.96	5.88	2.92	4.60	0.63
90.0	3.41	5.88	2.47	4.60	0.54
120.0	3.86	5.88	2.02	4.60	0.44
150.0	4.30	5.88	1.58	4.60	0.34
180.0	4.75	5.88	1.13	4.60	0.25
210.0	5.19	5.88	0.69	4.60	0.15

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	4.79	m	Test zone length
F=	5.9325		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	8460	s	H/H0 0.37

k = 3.91E-08 m/s

Falling Head Permeability Test
BH48



Falling Head Permeability Test

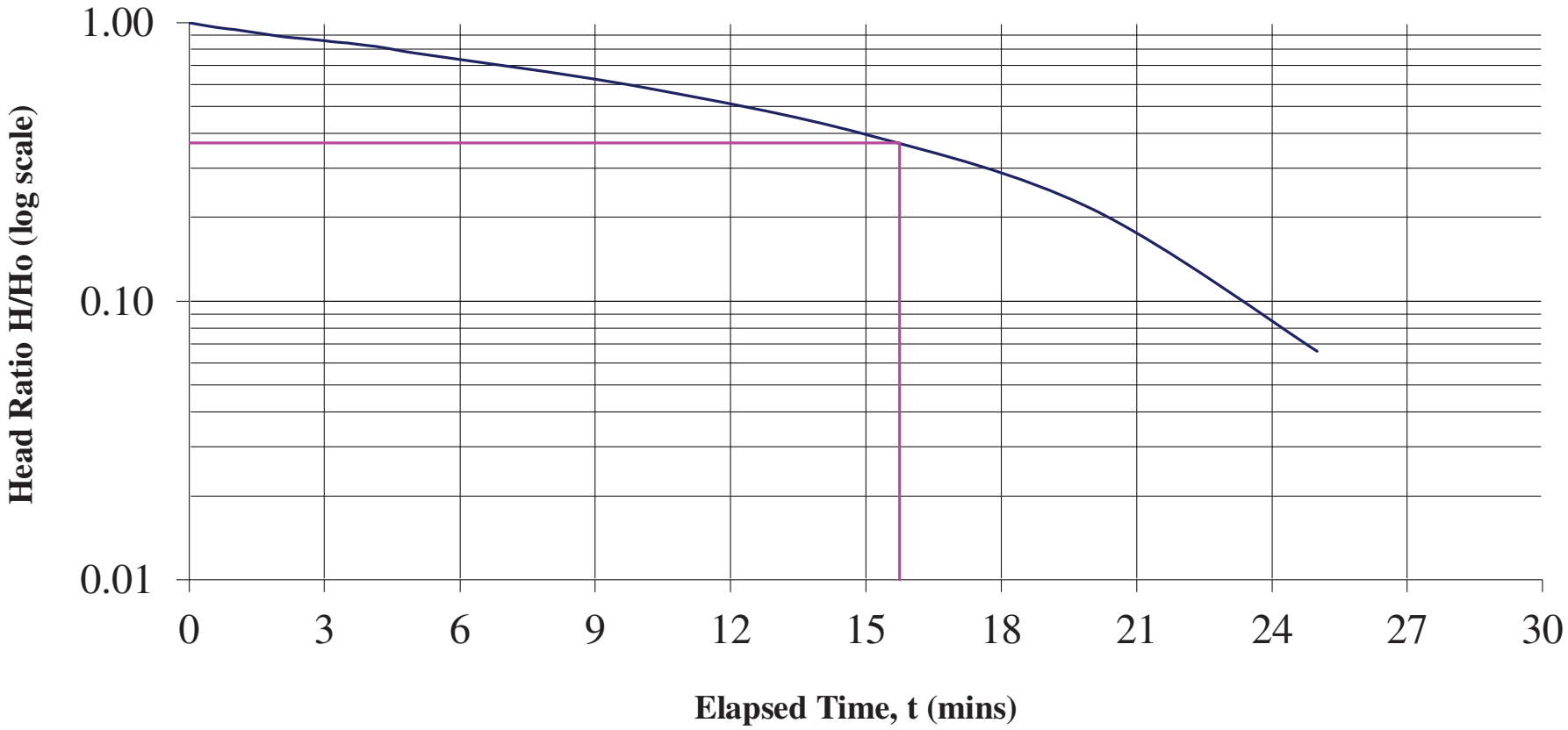
Project:	**Coolagad, Greystones**				
Borehole No:	**BH53**				
Diameter:	**50mm**	**Water Level**	**6.46mbgl**		
Test Base:	**9.98mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	5.25	6.46	1.21	1.21	1.00
0.5	5.29	6.46	1.17	1.21	0.97
1.0	5.32	6.46	1.14	1.21	0.94
1.5	5.35	6.46	1.11	1.21	0.92
2.0	5.38	6.46	1.08	1.21	0.89
2.5	5.40	6.46	1.06	1.21	0.88
3.0	5.42	6.46	1.04	1.21	0.86
3.5	5.44	6.46	1.02	1.21	0.84
4.0	5.46	6.46	1.00	1.21	0.83
4.5	5.49	6.46	0.97	1.21	0.80
5.0	5.52	6.46	0.94	1.21	0.78
10.0	5.75	6.46	0.71	1.21	0.59
15.0	5.98	6.46	0.48	1.21	0.40
20.0	6.20	6.46	0.26	1.21	0.21
25.0	6.38	6.46	0.08	1.21	0.07

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	4.73	m	Test zone length
F=	5.8728		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	945	s	H/H0 0.37

k = 3.54E-07 m/s

Falling Head Permeability Test
BH53



Falling Head Permeability Test

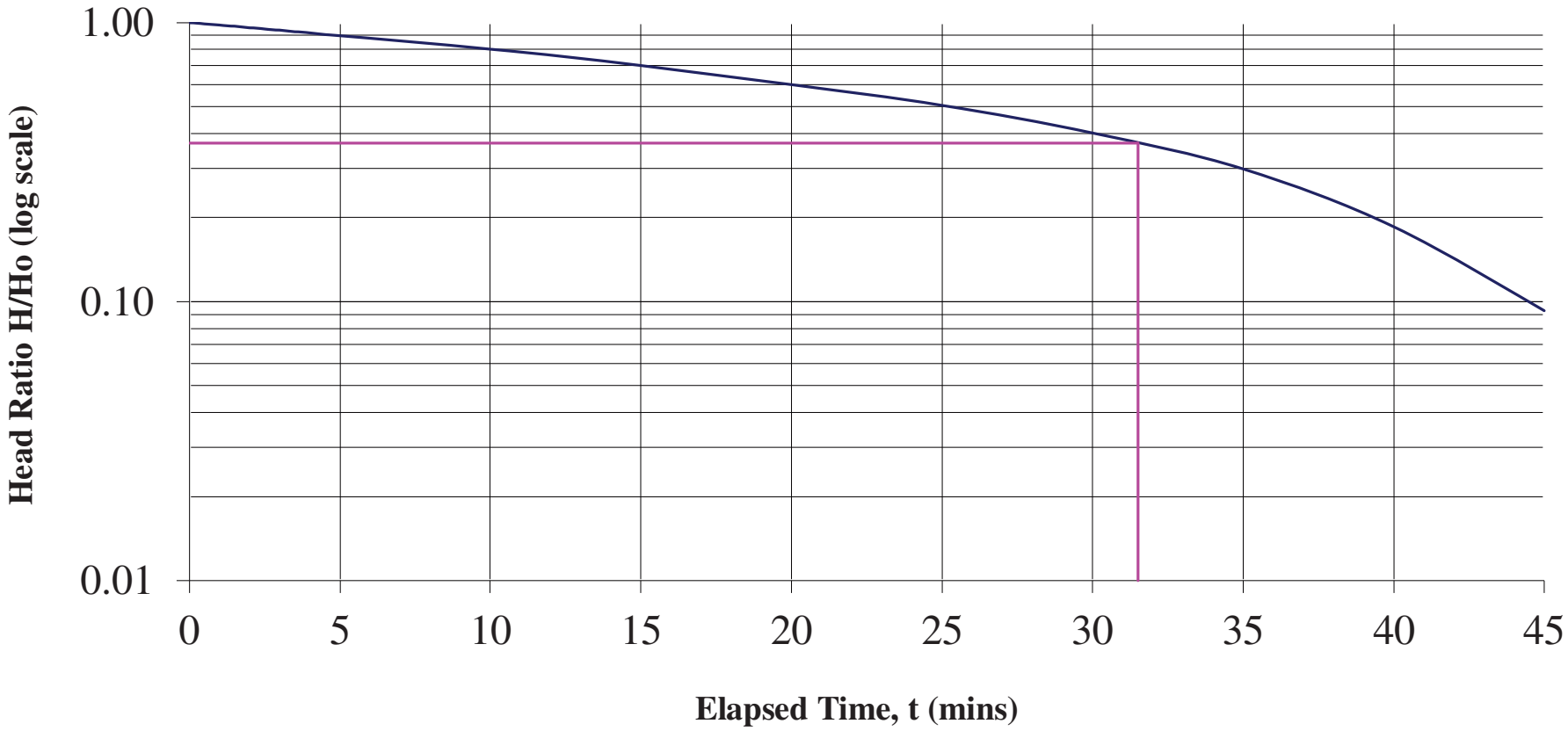
Project:	**Coolagad, Greystones**				
Borehole No:	**BH55**				
Diameter:	**50mm**	**Water Level**	**Dry**		
Test Base:	**9.93mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Falling Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	8.96	9.93	0.97	0.97	1.00
0.5	8.97	9.93	0.96	0.97	0.99
1.0	8.98	9.93	0.95	0.97	0.98
1.5	8.99	9.93	0.94	0.97	0.97
2.0	9.00	9.93	0.93	0.97	0.96
2.5	9.01	9.93	0.92	0.97	0.95
3.0	9.02	9.93	0.91	0.97	0.94
3.5	9.03	9.93	0.90	0.97	0.93
4.0	9.04	9.93	0.89	0.97	0.92
4.5	9.05	9.93	0.88	0.97	0.91
5.0	9.06	9.93	0.87	0.97	0.90
10.0	9.15	9.93	0.78	0.97	0.80
15.0	9.25	9.93	0.68	0.97	0.70
20.0	9.35	9.93	0.58	0.97	0.60
25.0	9.44	9.93	0.49	0.97	0.51
30.0	9.54	9.93	0.39	0.97	0.40
35.0	9.64	9.93	0.29	0.97	0.30
40.0	9.75	9.93	0.18	0.97	0.19
45.0	9.84	9.93	0.09	0.97	0.09

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	0.97	m	Test zone length
F=	1.7528		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	1890	s	H/H0 0.37

k = 5.93E-07 m/s

Falling Head Permeability Test
BH55



Appendix 9

Rising Head Test Results

Rising Head Permeability Test

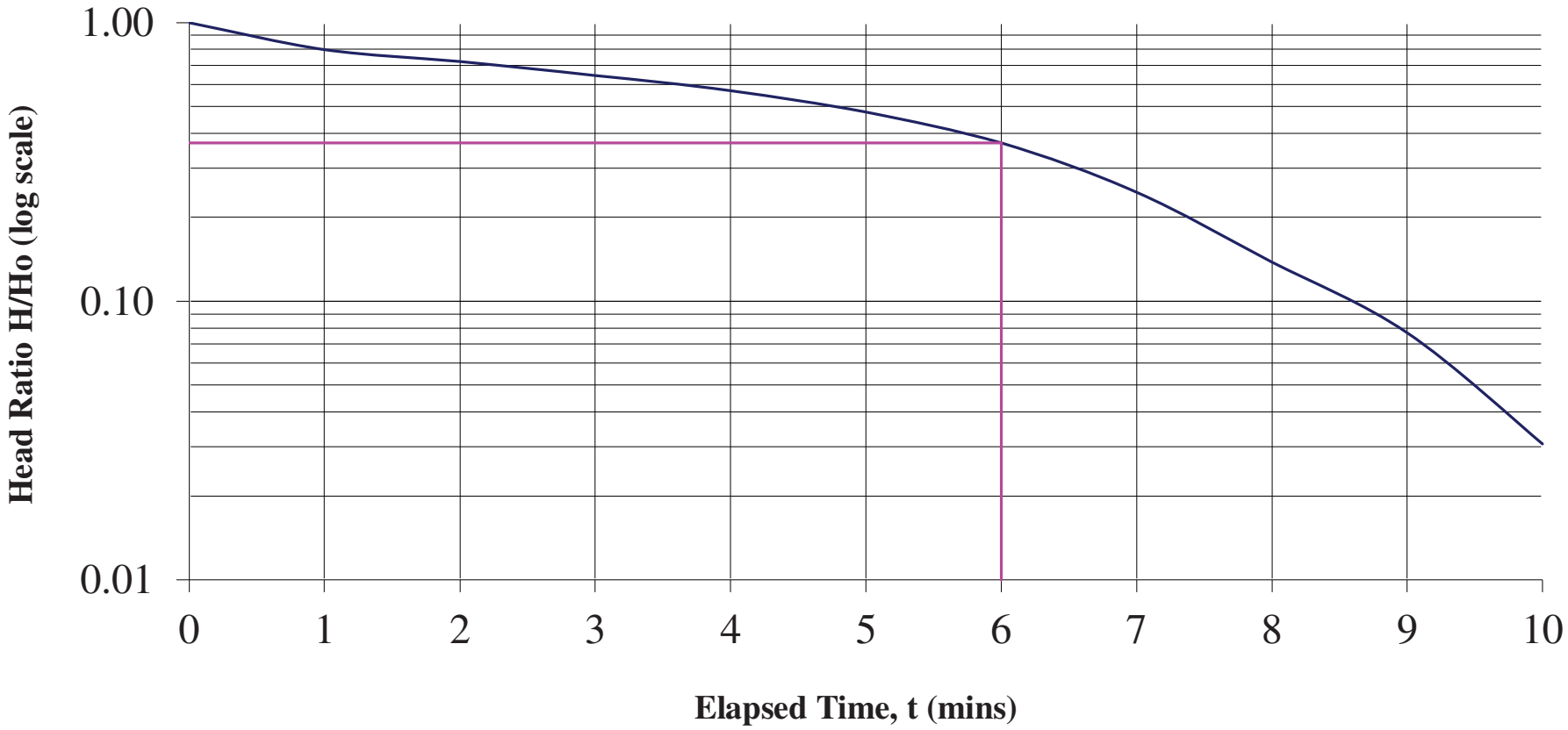
Project:	**Coolagad, Greystones**				
Borehole No:	**BH07**				
Diameter:	**50mm**	**Water Level**	**5.23mbgl**		
Test Base:	**9.32**	**Datum:**	**0.17magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	6.05	5.40	0.65	0.65	1.00
1.0	5.92	5.40	0.52	0.65	0.80
2.0	5.87	5.40	0.47	0.65	0.72
3.0	5.82	5.40	0.42	0.65	0.65
4.0	5.77	5.40	0.37	0.65	0.57
5.0	5.71	5.40	0.31	0.65	0.48
6.0	5.64	5.40	0.24	0.65	0.37
7.0	5.56	5.40	0.16	0.65	0.25
8.0	5.49	5.40	0.09	0.65	0.14
9.0	5.45	5.40	0.05	0.65	0.08
10.0	5.42	5.40	0.02	0.65	0.03

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	4.09	m	Test zone length
F=	5.2460		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	360	s	H/H0 0.37

k = 1.04E-06 m/s

Rising Head Permeability Test
BH07



Rising Head Permeability Test

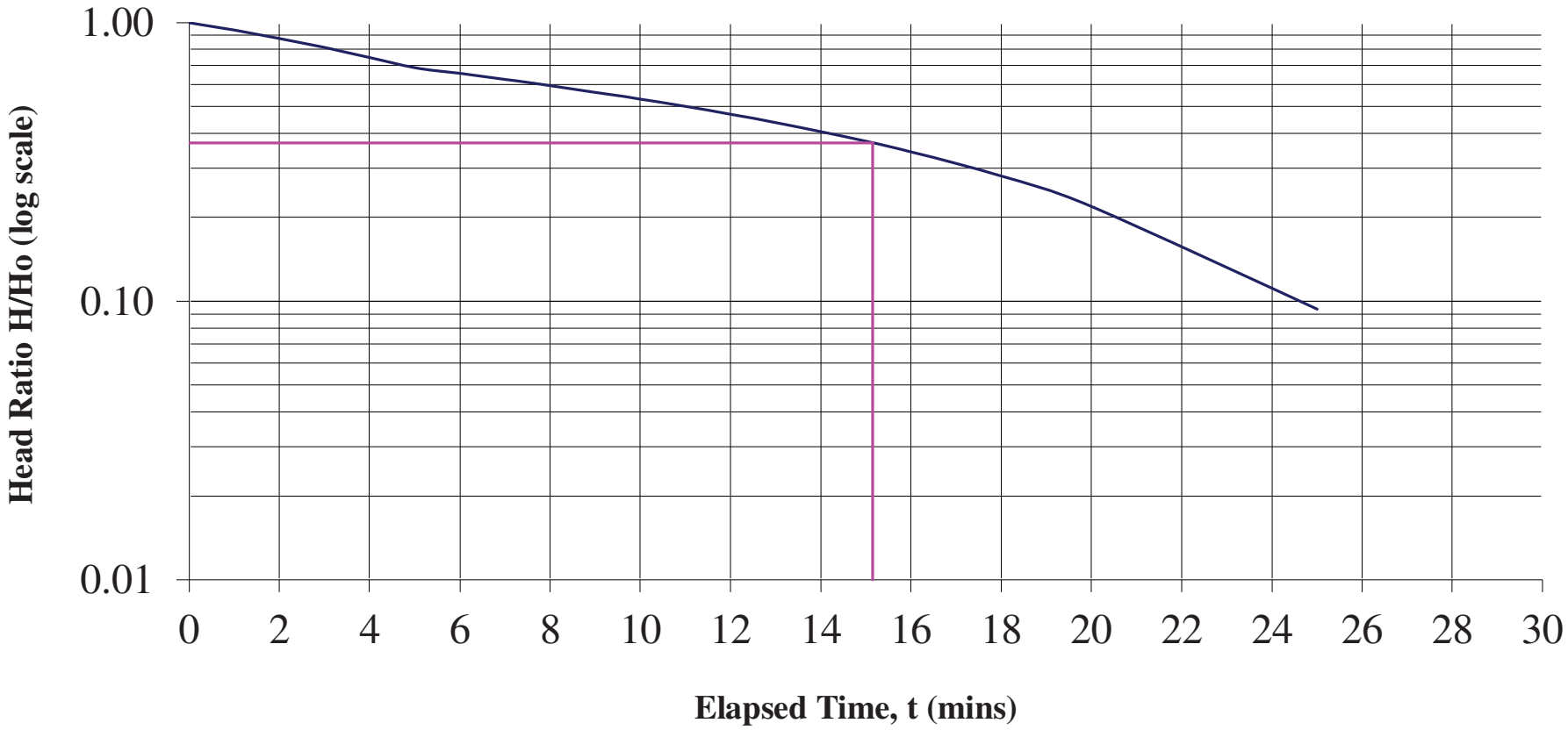
Project:	**Coolagad, Greystones**				
Borehole No:	**RC07**				
Diameter:	**30mm**	**Water Level**	**5.12mbgl**		
Test Base:	**18.86mbgl**	**Datum:**	**0.21magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	5.65	5.33	0.32	0.32	1.00
1.0	5.63	5.33	0.30	0.32	0.94
2.0	5.61	5.33	0.28	0.32	0.88
3.0	5.59	5.33	0.26	0.32	0.81
4.0	5.57	5.33	0.24	0.32	0.75
5.0	5.55	5.33	0.22	0.32	0.69
6.0	5.54	5.33	0.21	0.32	0.66
7.0	5.53	5.33	0.20	0.32	0.63
8.0	5.52	5.33	0.19	0.32	0.59
9.0	5.51	5.33	0.18	0.32	0.56
10.0	5.50	5.33	0.17	0.32	0.53
12.0	5.48	5.33	0.15	0.32	0.47
14.0	5.46	5.33	0.13	0.32	0.41
16.0	5.44	5.33	0.11	0.32	0.34
18.0	5.42	5.33	0.09	0.32	0.28
20.0	5.40	5.33	0.07	0.32	0.22
25.0	5.36	5.33	0.03	0.32	0.09

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	5.00	m	Test zone length
F=	5.5554		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	909	s	H/H0 0.37

k = 1.40E-07 m/s

Rising Head Permeability Test
RC07



Rising Head Permeability Test

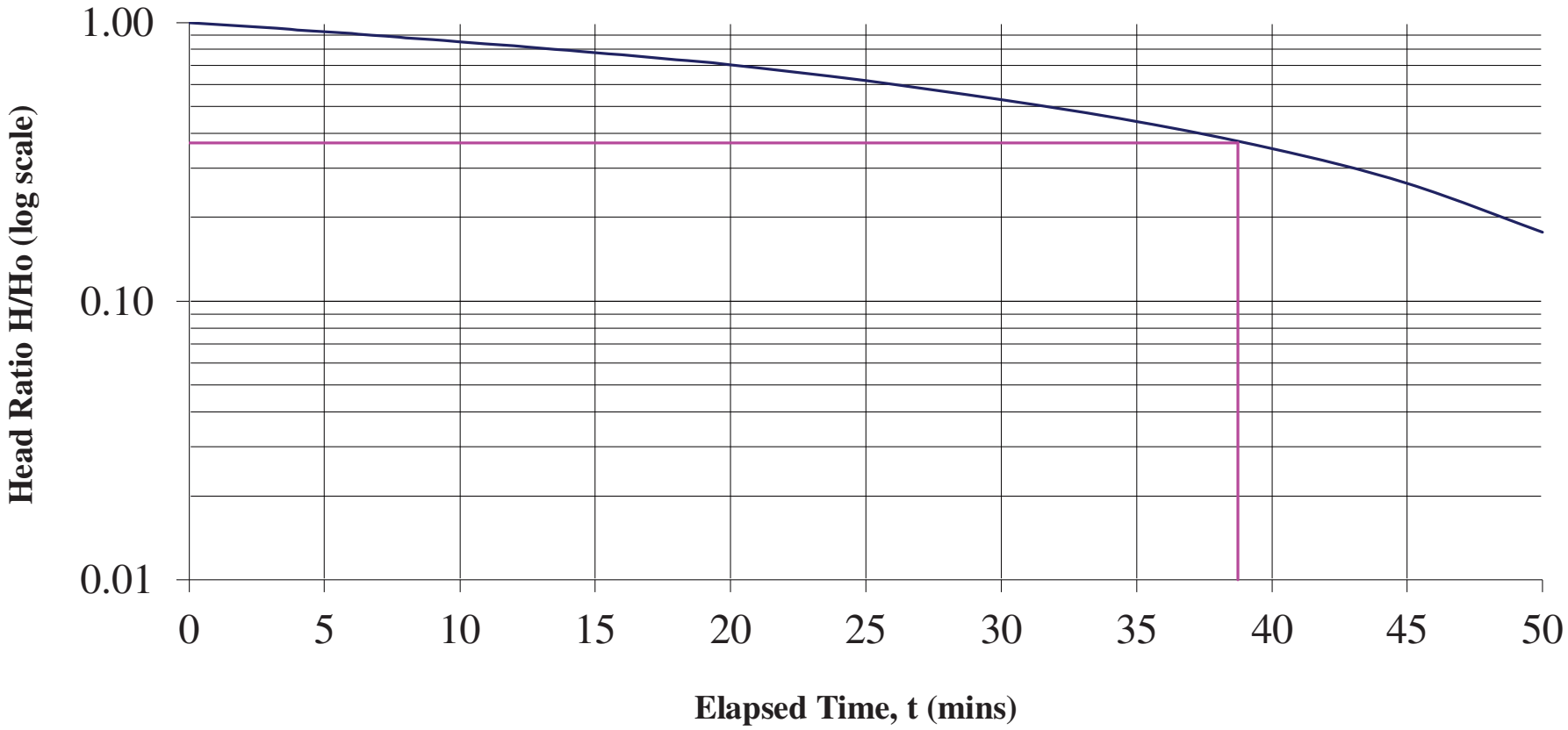
Project:	**Coolagad, Greystones**				
Borehole No:	**BH10**				
Diameter:	**50mm**	**Water Level**	**7.59mbgl**		
Test Base:	**8.51mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.93	7.59	0.34	0.34	1.00
1.0	7.93	7.59	0.34	0.34	0.99
2.0	7.92	7.59	0.33	0.34	0.97
3.0	7.92	7.59	0.33	0.34	0.96
4.0	7.91	7.59	0.32	0.34	0.94
5.0	7.91	7.59	0.32	0.34	0.93
6.0	7.90	7.59	0.31	0.34	0.91
7.0	7.90	7.59	0.31	0.34	0.90
8.0	7.89	7.59	0.30	0.34	0.88
9.0	7.89	7.59	0.30	0.34	0.87
10.0	7.88	7.59	0.29	0.34	0.85
12.0	7.87	7.59	0.28	0.34	0.82
14.0	7.86	7.59	0.27	0.34	0.79
16.0	7.85	7.59	0.26	0.34	0.76
18.0	7.84	7.59	0.25	0.34	0.74
20.0	7.83	7.59	0.24	0.34	0.71
25.0	7.80	7.59	0.21	0.34	0.62
30.0	7.77	7.59	0.18	0.34	0.53
35.0	7.74	7.59	0.15	0.34	0.44
40.0	7.71	7.59	0.12	0.34	0.35
45.0	7.68	7.59	0.09	0.34	0.26
50.0	7.65	7.59	0.06	0.34	0.18

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	0.92	m	Test zone length
F=	1.6881		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2325	s	H/H0 0.37

k = 5.00E-07 m/s

Rising Head Permeability Test
BH10



Rising Head Permeability Test

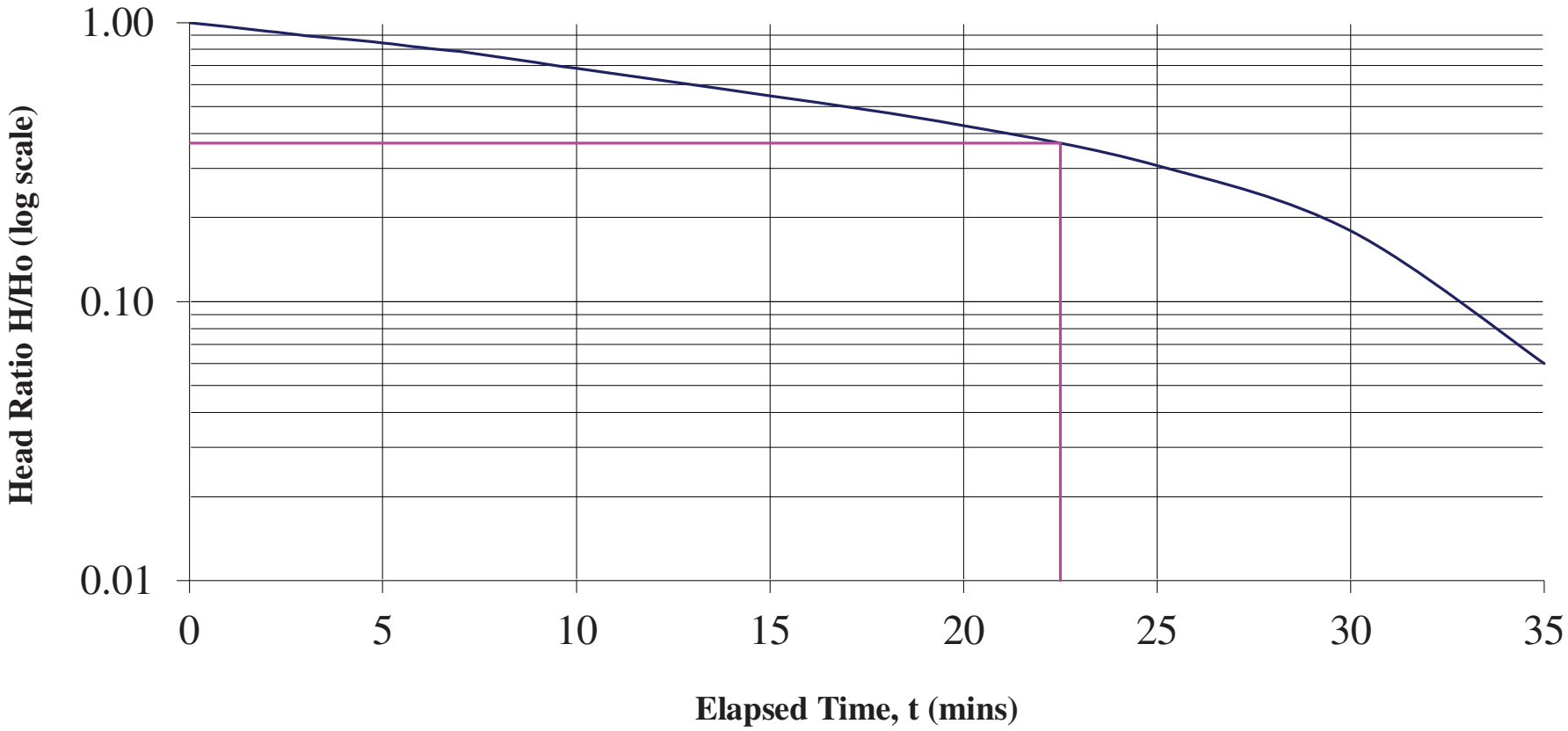
Project:	**Coolagad, Greystones**				
Borehole No:	**RC10**				
Diameter:	**30mm**	**Water Level**	**8.28mbgl**		
Test Base:	**14.55mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	9.45	8.28	1.17	1.17	1.00
1.0	9.41	8.28	1.13	1.17	0.97
2.0	9.37	8.28	1.09	1.17	0.93
3.0	9.33	8.28	1.05	1.17	0.90
4.0	9.30	8.28	1.02	1.17	0.87
5.0	9.27	8.28	0.99	1.17	0.85
6.0	9.23	8.28	0.95	1.17	0.81
7.0	9.20	8.28	0.92	1.17	0.79
8.0	9.16	8.28	0.88	1.17	0.75
9.0	9.12	8.28	0.84	1.17	0.72
10.0	9.08	8.28	0.80	1.17	0.68
15.0	8.92	8.28	0.64	1.17	0.55
20.0	8.78	8.28	0.50	1.17	0.43
25.0	8.64	8.28	0.36	1.17	0.31
30.0	8.49	8.28	0.21	1.17	0.18
35.0	8.35	8.28	0.07	1.17	0.06

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	6.27	m	Test zone length
F=	6.6984		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	1350	s	H/H0 0.37

k = 7.82E-08 m/s

Rising Head Permeability Test
RC10



Rising Head Permeability Test

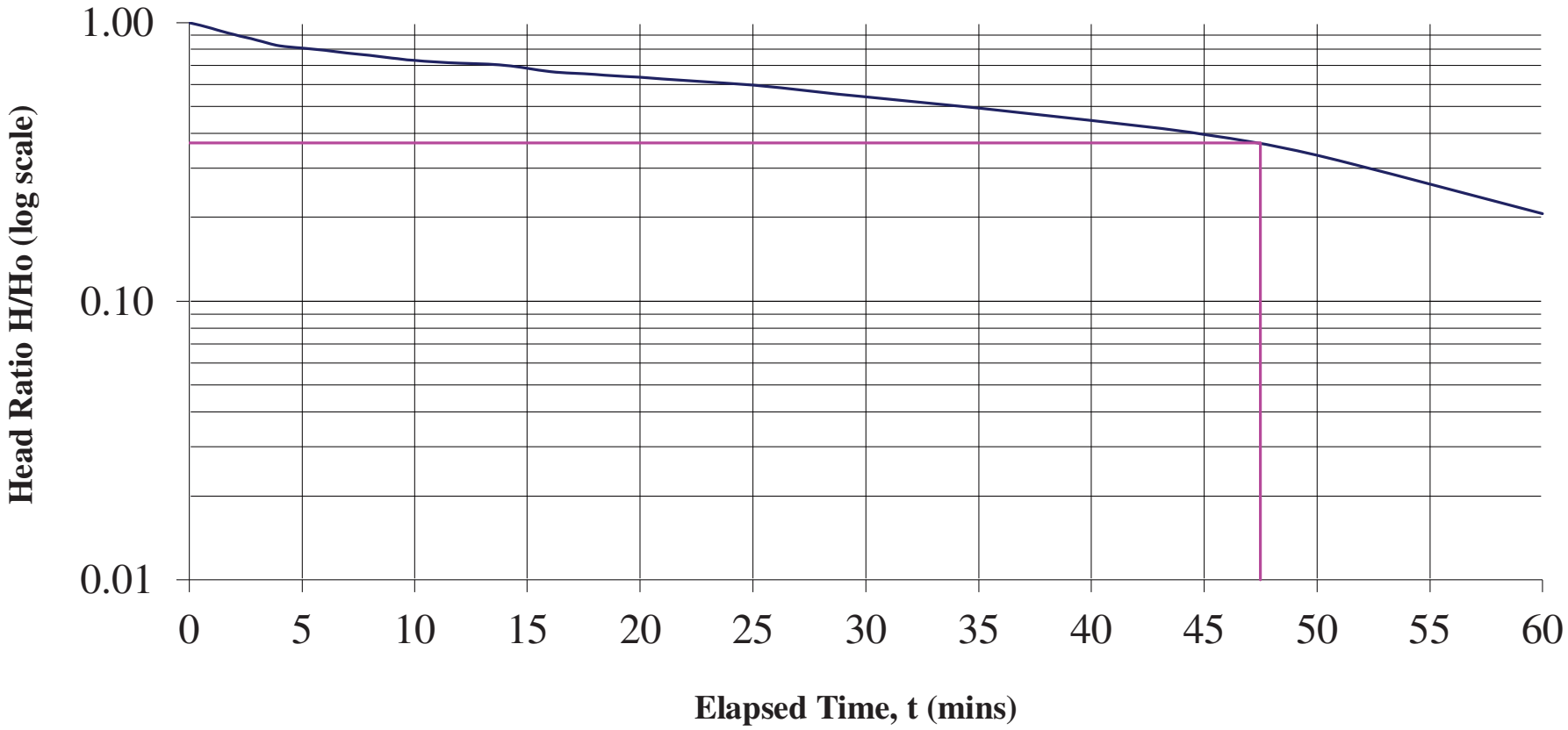
Project:	**Coolagad, Greystones**				
Borehole No:	**BH16**				
Diameter:	**50mm**	**Water Level**	**8.40mbgl**		
Test Base:	**10.03mbgl**	**Datum:**	**0.11magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	8.92	8.29	0.63	0.63	1.00
1.0	8.89	8.29	0.60	0.63	0.95
2.0	8.86	8.29	0.57	0.63	0.90
3.0	8.84	8.29	0.55	0.63	0.87
4.0	8.81	8.29	0.52	0.63	0.83
5.0	8.80	8.29	0.51	0.63	0.81
6.0	8.79	8.29	0.50	0.63	0.79
7.0	8.78	8.29	0.49	0.63	0.78
8.0	8.77	8.29	0.48	0.63	0.76
9.0	8.76	8.29	0.47	0.63	0.75
10.0	8.75	8.29	0.46	0.63	0.73
12.0	8.74	8.29	0.45	0.63	0.71
14.0	8.73	8.29	0.44	0.63	0.70
16.0	8.71	8.29	0.42	0.63	0.67
18.0	8.70	8.29	0.41	0.63	0.65
20.0	8.69	8.29	0.40	0.63	0.63
25.0	8.67	8.29	0.38	0.63	0.60
30.0	8.63	8.29	0.34	0.63	0.54
35.0	8.60	8.29	0.31	0.63	0.49
40.0	8.57	8.29	0.28	0.63	0.44
45.0	8.54	8.29	0.25	0.63	0.40
50.0	8.50	8.29	0.21	0.63	0.33
60.0	8.42	8.29	0.13	0.63	0.21

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	1.63	m	Test zone length
F=	2.5633		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2850	s	H/H0 0.37

k = 2.69E-07 m/s

Rising Head Permeability Test
BH16



Rising Head Permeability Test

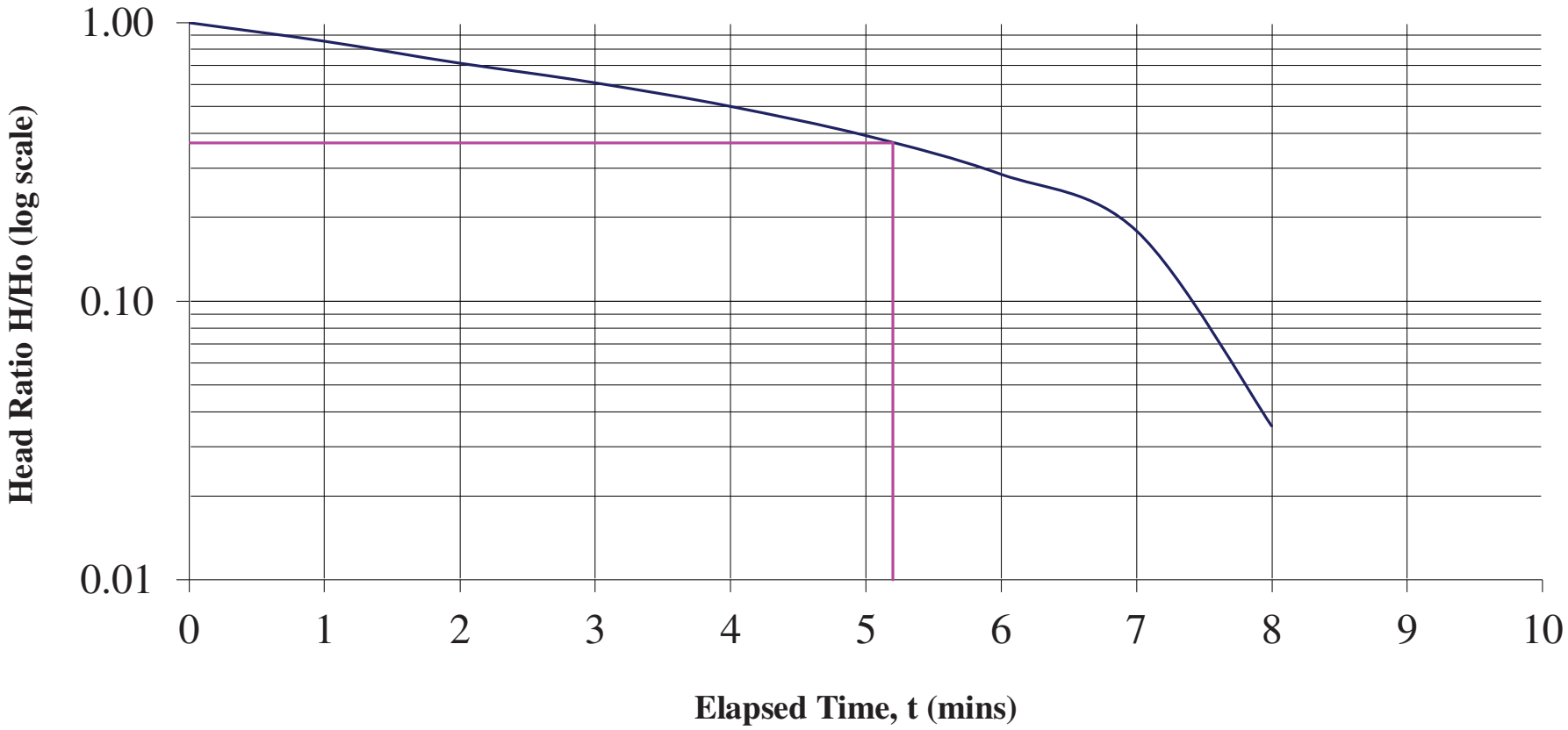
Project:	**Coolagad, Greystones**				
Borehole No:	**RC16**				
Diameter:	**30mm**	**Water Level**	**8.61mbgl**		
Test Base:	**20.03mbgl**	**Datum:**	**0.25magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	8.74	8.46	-0.28	-0.28	1.00
1.0	8.70	8.46	-0.24	-0.28	0.86
2.0	8.66	8.46	-0.20	-0.28	0.71
3.0	8.63	8.46	-0.17	-0.28	0.61
4.0	8.60	8.46	-0.14	-0.28	0.50
5.0	8.57	8.46	-0.11	-0.28	0.39
6.0	8.54	8.46	-0.08	-0.28	0.29
7.0	8.51	8.46	-0.05	-0.28	0.18
8.0	8.47	8.46	-0.01	-0.28	0.04

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	11.42	m	Test zone length
F=	11.0716		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	312	s	H/H0 0.37

k = 2.05E-07 m/s

Rising Head Permeability Test
RC16



Rising Head Permeability Test

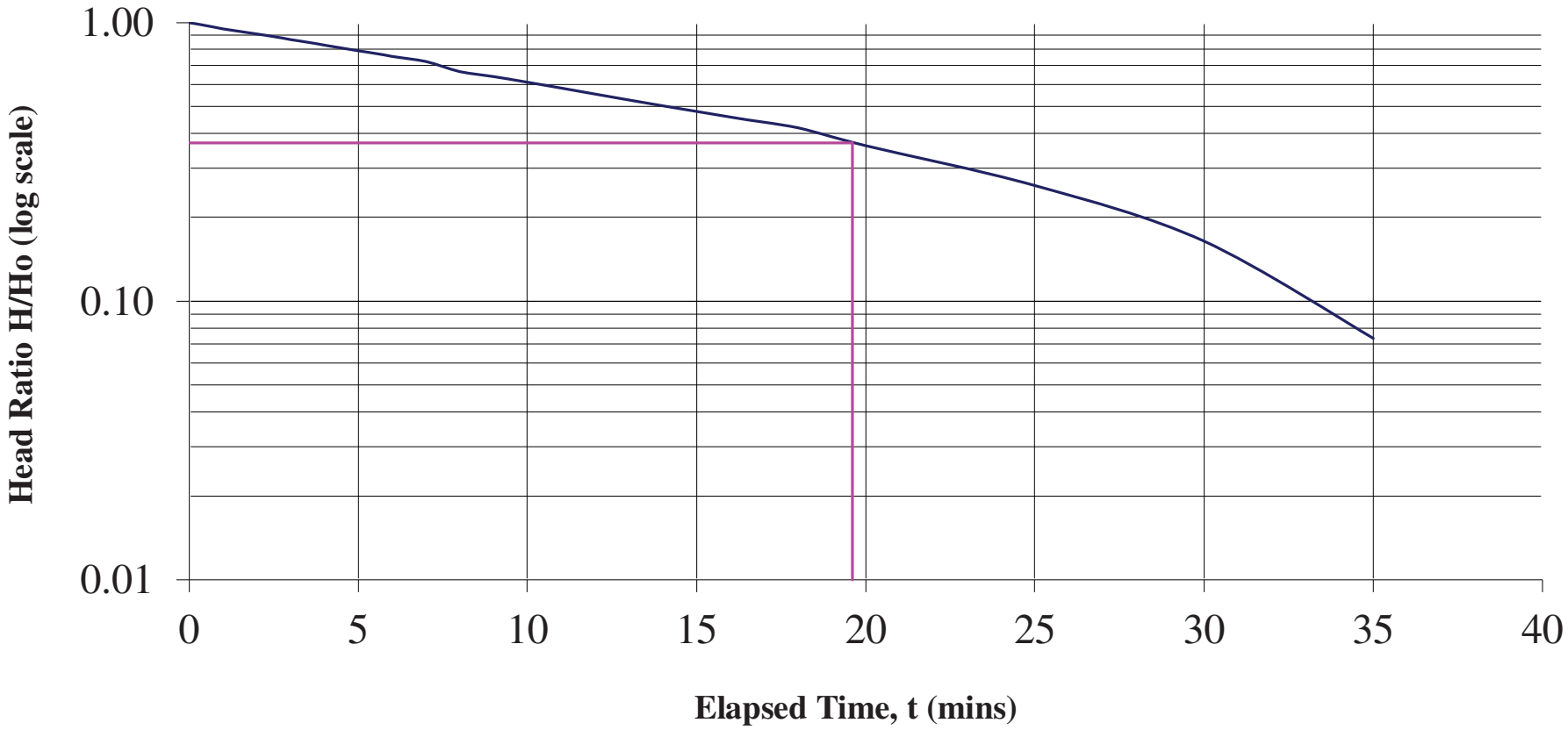
Project:	**Coolagad, Greystones**				
Borehole No:	**BH17**				
Diameter:	**50mm**	**Water Level**	**5.87mbgl**		
Test Base:	**8.43mbgl**	**Datum:**	**0.11magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.64	5.87	1.77	1.77	1.00
1.0	7.55	5.87	1.68	1.77	0.95
2.0	7.48	5.87	1.61	1.77	0.91
3.0	7.41	5.87	1.54	1.77	0.87
4.0	7.34	5.87	1.47	1.77	0.83
5.0	7.27	5.87	1.40	1.77	0.79
6.0	7.21	5.87	1.34	1.77	0.76
7.0	7.15	5.87	1.28	1.77	0.72
8.0	7.05	5.87	1.18	1.77	0.67
9.0	7.00	5.87	1.13	1.77	0.64
10.0	6.95	5.87	1.08	1.77	0.61
12.0	6.85	5.87	0.98	1.77	0.55
14.0	6.76	5.87	0.89	1.77	0.50
16.0	6.68	5.87	0.81	1.77	0.46
18.0	6.61	5.87	0.74	1.77	0.42
20.0	6.51	5.87	0.64	1.77	0.36
25.0	6.33	5.87	0.46	1.77	0.26
30.0	6.16	5.87	0.29	1.77	0.16
35.0	6.00	5.87	0.13	1.77	0.07

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	2.56	m	Test zone length
F=	3.1295		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	1176	s	H/H0 0.37

k = 1.92E-07 m/s

Rising Head Permeability Test
BH17



Rising Head Permeability Test

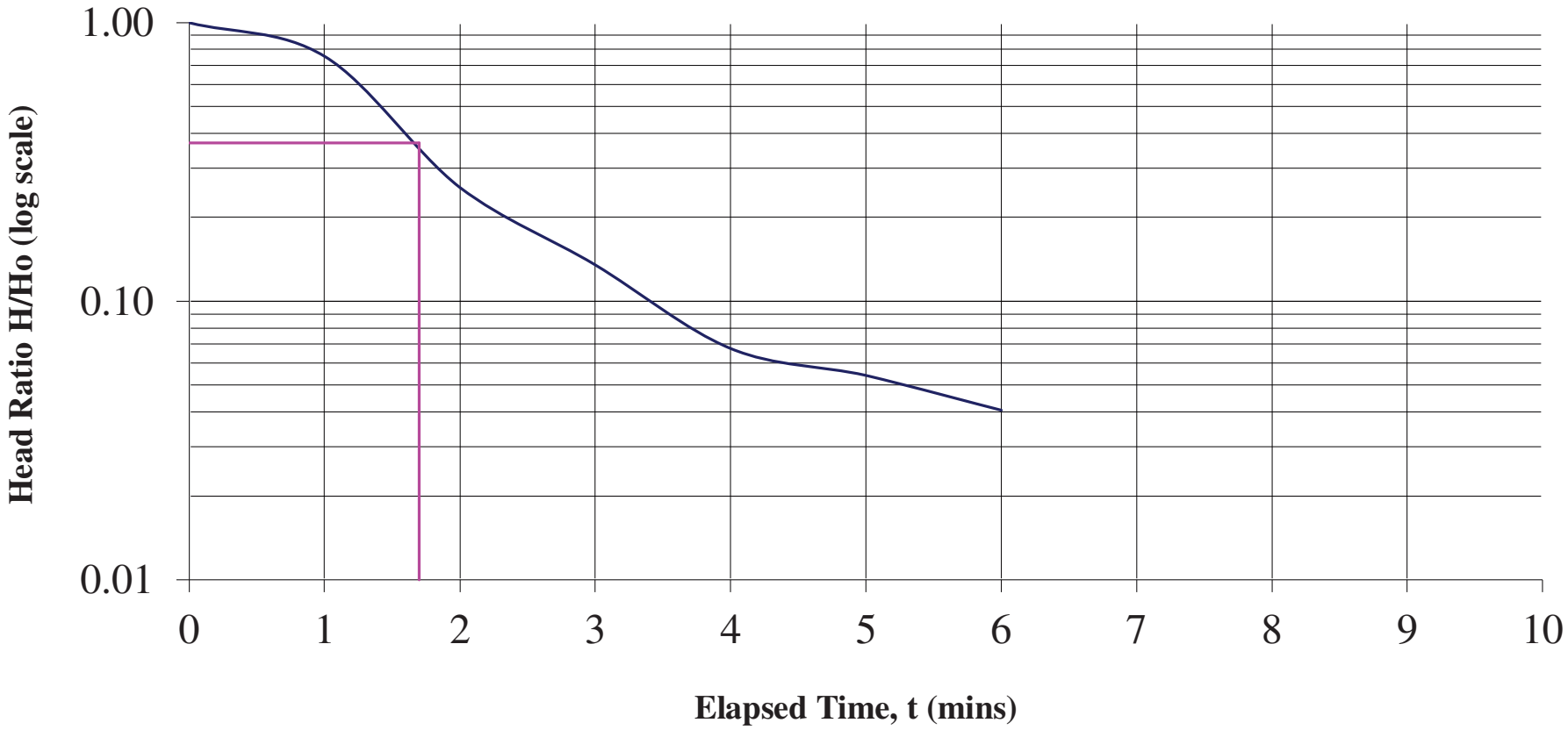
Project:	**Coolagad, Greystones**				
Borehole No:	**RC17**				
Diameter:	**30mm**	**Water Level**	**7.15mbgl**		
Test Base:	**17.60mbgl**	**Datum:**	**0.18magl**		
Elapsed Time (mins)	**Depth to water below top of casing**	**Initial waterlevel below top of casing**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	8.07	7.33	0.74	0.74	1.00
1.0	7.89	7.33	0.56	0.74	0.76
2.0	7.52	7.33	0.19	0.74	0.26
3.0	7.43	7.33	0.10	0.74	0.14
4.0	7.38	7.33	0.05	0.74	0.07
5.0	7.37	7.33	0.04	0.74	0.05
6.0	7.36	7.33	0.03	0.74	0.04

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	5.00	m	Test zone length
F=	5.5554		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	102	s	H/H0 0.37

k = 1.25E-06 m/s

Rising Head Permeability Test
RC17



Rising Head Permeability Test

Project:	**Coolagad, Greystones**				
Borehole No:	**BH26**				
Diameter:	**50mm**	**Water Level**	**7.85mbgl**		
Test Base:	**8.00mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
Water level too low to produce head of water.					

Calculations:

r =	N/A	m	radius of standpipe
A=	N/A	m2	Area of standpipe
L=	N/A	m	Test zone length
F=	N/A		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	N/A	s	H/H0 0.37

k = N/A m/s

Rising Head Permeability Test

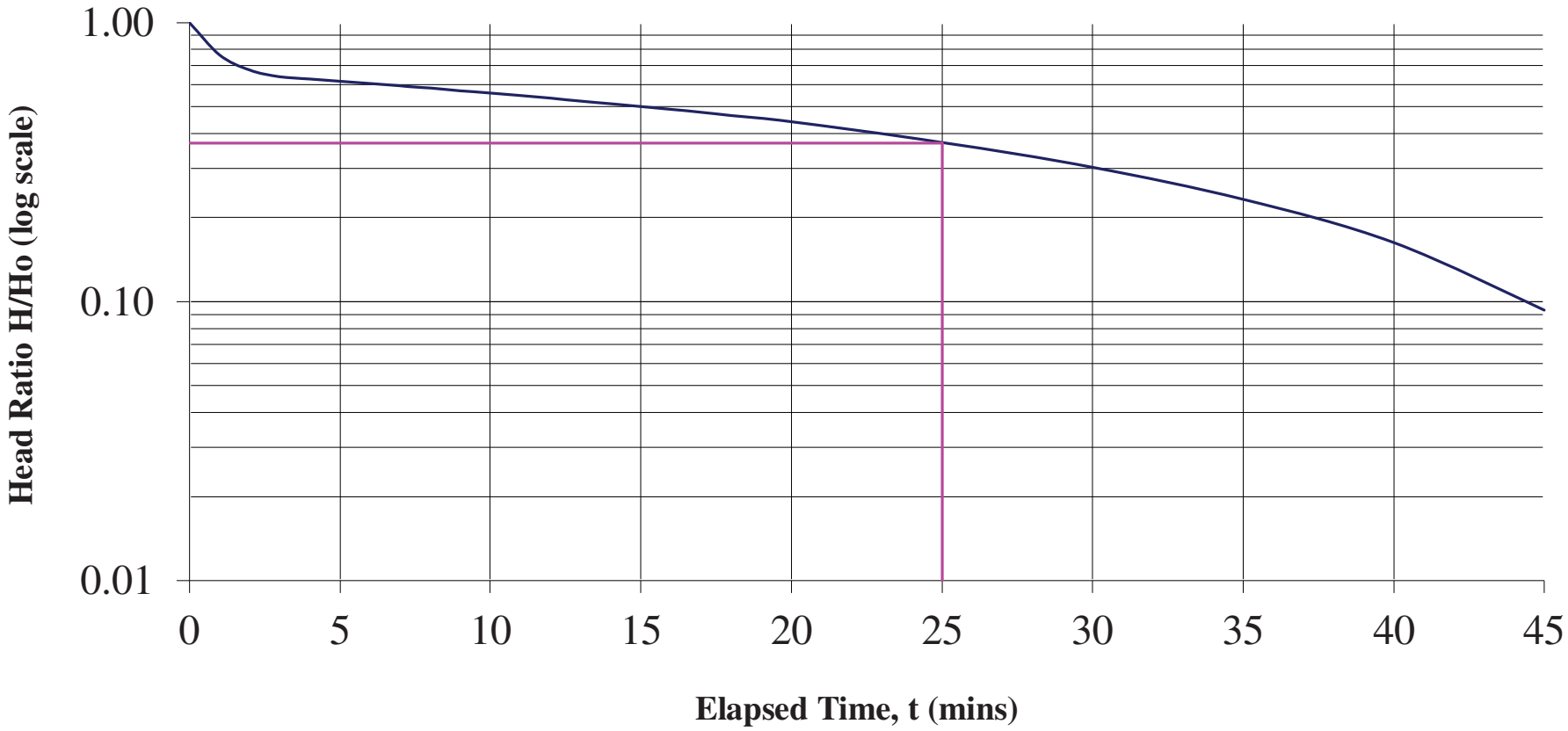
Project:	**Coolagad, Greystones**				
Borehole No:	**RC26**				
Diameter:	**30mm**	**Water Level**	**8.94mbgl**		
Test Base:	**14.80mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	9.37	8.94	0.43	0.43	1.00
1.0	9.27	8.94	0.33	0.43	0.77
2.0	9.23	8.94	0.29	0.43	0.67
3.0	9.22	8.94	0.28	0.43	0.64
4.0	9.21	8.94	0.27	0.43	0.63
5.0	9.21	8.94	0.27	0.43	0.62
6.0	9.20	8.94	0.26	0.43	0.60
7.0	9.20	8.94	0.26	0.43	0.59
8.0	9.19	8.94	0.25	0.43	0.58
9.0	9.19	8.94	0.25	0.43	0.57
10.0	9.18	8.94	0.24	0.43	0.56
12.0	9.17	8.94	0.23	0.43	0.53
14.0	9.16	8.94	0.22	0.43	0.51
16.0	9.15	8.94	0.21	0.43	0.49
18.0	9.14	8.94	0.20	0.43	0.47
20.0	9.13	8.94	0.19	0.43	0.44
25.0	9.10	8.94	0.16	0.43	0.37
30.0	9.07	8.94	0.13	0.43	0.30
35.0	9.04	8.94	0.10	0.43	0.23
40.0	9.01	8.94	0.07	0.43	0.16
45.0	8.98	8.94	0.04	0.43	0.09

Calculations:

r =	0.015	m	radius of standpipe
A=	0.00071	m2	Area of standpipe
L=	5.00	m	Test zone length
F=	5.5554		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	1500	s	H/H0 0.37

k = 8.48E-08 m/s

Rising Head Permeability Test
RC26



Rising Head Permeability Test

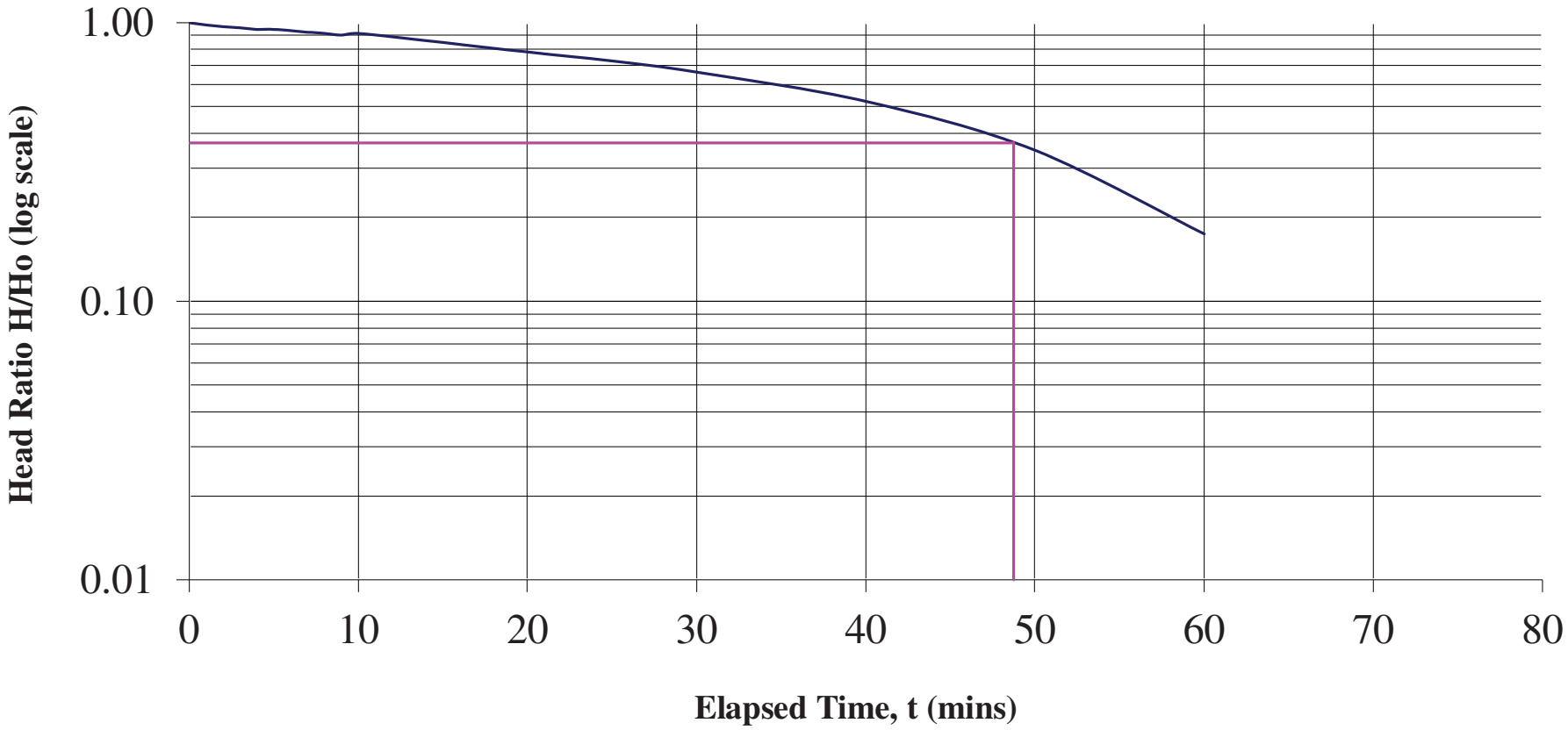
Project:	**Coolagad, Greystones**				
Borehole No:	**BH28**				
Diameter:	**50mm**	**Water Level**	**6.54mbgl**		
Test Base:	**7.02mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.00	6.54	0.46	0.46	1.00
1.0	6.99	6.54	0.45	0.46	0.98
2.0	6.99	6.54	0.45	0.46	0.97
3.0	6.98	6.54	0.44	0.46	0.96
4.0	6.98	6.54	0.44	0.46	0.95
5.0	6.98	6.54	0.44	0.46	0.95
6.0	6.97	6.54	0.43	0.46	0.93
7.0	6.97	6.54	0.43	0.46	0.92
8.0	6.96	6.54	0.42	0.46	0.91
9.0	6.96	6.54	0.42	0.46	0.90
10.0	6.96	6.54	0.42	0.46	0.91
15.0	6.93	6.54	0.39	0.46	0.85
20.0	6.90	6.54	0.36	0.46	0.78
25.0	6.88	6.54	0.34	0.46	0.73
30.0	6.85	6.54	0.31	0.46	0.66
40.0	6.78	6.54	0.24	0.46	0.52
50.0	6.70	6.54	0.16	0.46	0.35
60.0	6.62	6.54	0.08	0.46	0.17

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	0.48	m	Test zone length
F=	1.0862		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2925	s	H/H0 0.37

k = 6.18E-07 m/s

Rising Head Permeability Test
BH28



Rising Head Permeability Test

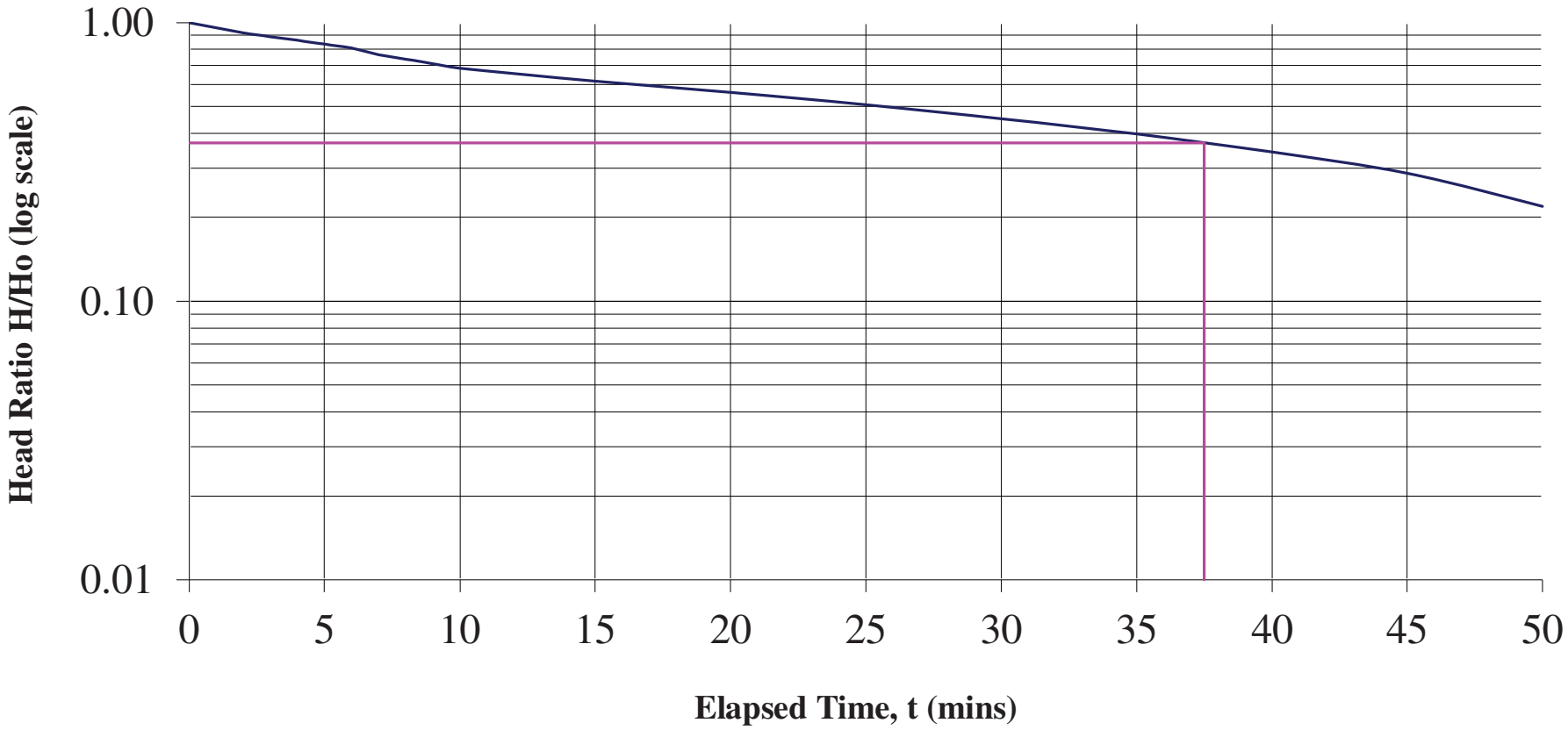
Project:	**Coolagad, Greystones**				
Borehole No:	**BH36**				
Diameter:	**50mm**	**Water Level**	**8.42mbgl**		
Test Base:	**10.01mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	9.15	8.42	0.73	0.73	1.00
1.0	9.12	8.42	0.70	0.73	0.96
2.0	9.09	8.42	0.67	0.73	0.92
3.0	9.07	8.42	0.65	0.73	0.89
4.0	9.05	8.42	0.63	0.73	0.86
5.0	9.03	8.42	0.61	0.73	0.84
6.0	9.01	8.42	0.59	0.73	0.81
7.0	8.98	8.42	0.56	0.73	0.77
8.0	8.96	8.42	0.54	0.73	0.74
9.0	8.94	8.42	0.52	0.73	0.71
10.0	8.92	8.42	0.50	0.73	0.68
15.0	8.87	8.42	0.45	0.73	0.62
20.0	8.83	8.42	0.41	0.73	0.56
25.0	8.79	8.42	0.37	0.73	0.51
30.0	8.75	8.42	0.33	0.73	0.45
35.0	8.71	8.42	0.29	0.73	0.40
40.0	8.67	8.42	0.25	0.73	0.34
45.0	8.63	8.42	0.21	0.73	0.29
50.0	8.58	8.42	0.16	0.73	0.22

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	1.59	m	Test zone length
F=	2.5160		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	2250	s	H/H0 0.37

k = 3.47E-07 m/s

Rising Head Permeability Test
BH36



Rising Head Permeability Test

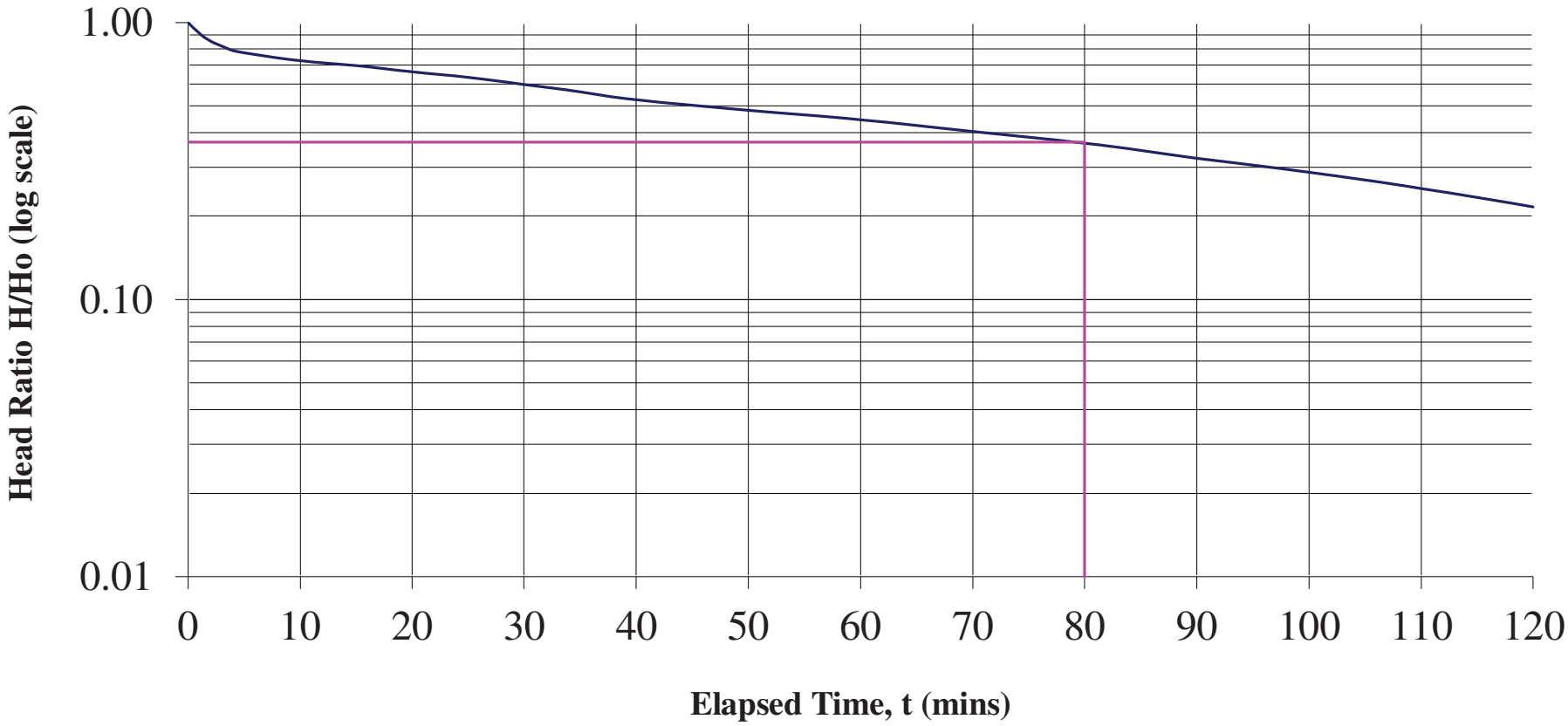
Project:	**Coolagad, Greystones**				
Borehole No:	**BH48**				
Diameter:	**50mm**	**Water Level**	**4.53mbgl**		
Test Base:	**6.07mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	5.92	4.53	1.39	1.39	1.00
1.0	5.80	4.53	1.27	1.39	0.91
2.0	5.72	4.53	1.19	1.39	0.86
3.0	5.67	4.53	1.14	1.39	0.82
4.0	5.63	4.53	1.10	1.39	0.79
5.0	5.61	4.53	1.08	1.39	0.78
10.0	5.54	4.53	1.01	1.39	0.73
15.0	5.50	4.53	0.97	1.39	0.70
20.0	5.45	4.53	0.92	1.39	0.66
25.0	5.41	4.53	0.88	1.39	0.63
30.0	5.36	4.53	0.83	1.39	0.60
35.0	5.31	4.53	0.78	1.39	0.56
40.0	5.26	4.53	0.73	1.39	0.53
50.0	5.20	4.53	0.67	1.39	0.48
60.0	5.15	4.53	0.62	1.39	0.45
70.0	5.09	4.53	0.56	1.39	0.40
80.0	5.04	4.53	0.51	1.39	0.37
90.0	4.98	4.53	0.45	1.39	0.32
100.0	4.93	4.53	0.40	1.39	0.29
110.0	4.88	4.53	0.35	1.39	0.25
120.0	4.83	4.53	0.30	1.39	0.22

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	1.54	m	Test zone length
F=	2.4567		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	4800	s	H/H0 0.37

k = 1.67E-07 m/s

Rising Head Permeability Test
BH48



Rising Head Permeability Test

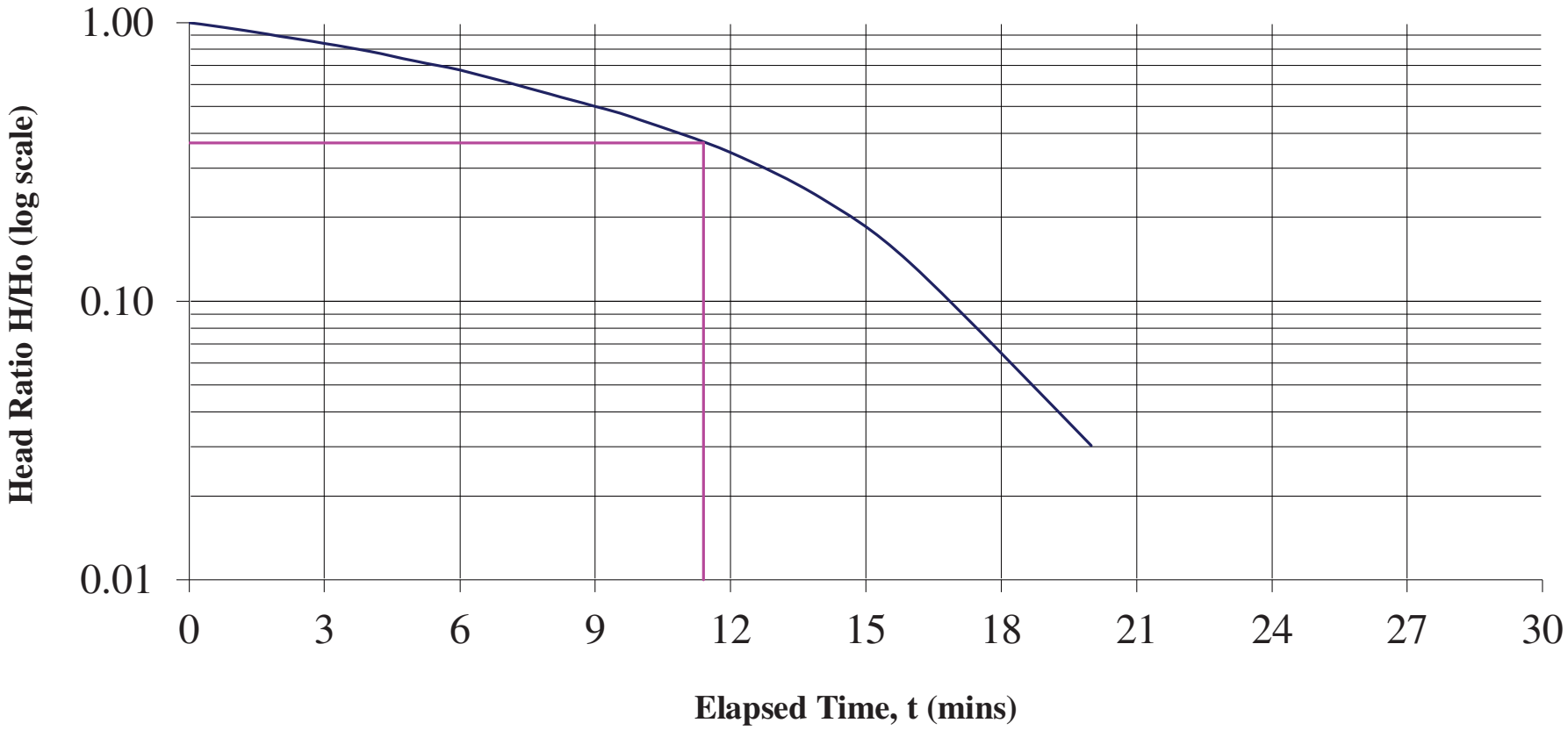
Project:	**Coolagad, Greystones**				
Borehole No:	**BH53**				
Diameter:	**50mm**	**Water Level**	**6.46mbgl**		
Test Base:	**9.98mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
0.0	7.78	6.46	1.32	1.32	1.00
1.0	7.71	6.46	1.25	1.32	0.95
2.0	7.64	6.46	1.18	1.32	0.89
3.0	7.57	6.46	1.11	1.32	0.84
4.0	7.50	6.46	1.04	1.32	0.79
5.0	7.42	6.46	0.96	1.32	0.73
6.0	7.35	6.46	0.89	1.32	0.67
7.0	7.27	6.46	0.81	1.32	0.61
8.0	7.19	6.46	0.73	1.32	0.55
9.0	7.12	6.46	0.66	1.32	0.50
10.0	7.05	6.46	0.59	1.32	0.45
12.0	6.91	6.46	0.45	1.32	0.34
14.0	6.77	6.46	0.31	1.32	0.23
16.0	6.64	6.46	0.18	1.32	0.14
20.0	6.50	6.46	0.04	1.32	0.03

Calculations:

r =	0.025	m	radius of standpipe
A=	0.00196	m2	Area of standpipe
L=	3.52	m	Test zone length
F=	4.6414		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	684	s	H/H0 0.37

k = 6.18E-07 m/s

Rising Head Permeability Test
BH53



Rising Head Permeability Test

Project:	**Coolagad, Greystones**				
Borehole No:	**BH55**				
Diameter:	**50mm**	**Water Level**	**Dry**		
Test Base:	**9.93mbgl**	**Datum:**	**GL**		
Elapsed Time (mins)	**Depth to water below ground level**	**Initial waterlevel below ground level**	**Rising Head H (m)**	**Initial Head H_0 (m)**	**Head Ratio H/H_0**
Standpipe dry and therefore not possible to complete rising head test.					

Calculations:

r =	N/A	m	radius of standpipe
A=	N/A	m2	Area of standpipe
L=	N/A	m	Test zone length
F=	N/A		(Intake Factor - formula from Fig 6, d, pg 50 BS5930:1999)
T =	N/A	s	H/H0 0.37

k = N/A m/s

Appendix 10

Groundwater Analysis

Groundwater Analysis

Date	Well No.	WL	PH	PH mv	Cond	Temp	ORP	Color	Odour	%O	Omg/l
14/09/2021	SW-1	-	7.35	-48.4	218.4us	15.9°C	176.7	Clear	None	93.50%	9.17
14/09/2021	SW-3	-	7.15	-37	537us	13.4°C	197.3	Brown Tint	None	71.30%	7.37
14/09/2021	SW-5	-	8.21	-96.3	573us	14.6°C	180.6	Brown Tint	None	98.50%	9.97
14/09/2021	BH07	5.32m	7.58	-27.6	537.4us	13.0°C	178.3	Brownish	None	-	-
14/09/2021	RC07	5.28m	7.05	1.17	466.6us	12.5°C	193.5	Brown Tint	None	-	-
14/09/2021	BH16	8.56m	7.87	-77.1	495us	12.02°C	199.3	Brown Tint	None	-	-
14/09/2021	RC16	8.60m	6.87	-21.4	358.4us	13.4°C	200.0	Brown Tint	None	-	-
14/09/2021	RC17	7.00m	7.29	-11.8	360.2us	11.9°C	218.4	Brown tint	None	-	-
14/09/2021	BH17	5.96m	7.55	-25	555us	13.0°C	189.4	Brownish	None	-	-
14/09/2021	RC26	9.15m	6.9	9.06	392us	11.3°C	243.0	Brown tint	None	-	-
14/09/2021	BH28	6.90m	No Field Data Due to Lack of Water								
14/09/2021	BH48	5.61m	No Field Data Due to Lack of Water								
14/09/2021	BH53	8.10m	6.8	14	356us	11.4°C	237.0	Brownish	None	-	-

Unit 7-8 Hawarden Business Park
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Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Site Investigations Ltd
The Grange
Carhugar
12th Lock Road
Lucan
Co. Dublin

Attention: Stephen Letch

CERTIFICATE OF ANALYSIS

Date of report Generation:	27 September 2021
Customer:	Site Investigations Ltd
Sample Delivery Group (SDG):	210920-38
Your Reference:	5868
Location:	Coolagad, Greystones
Report No:	614714
Order Number:	

We received 12 samples on Monday September 20, 2021 and 12 of these samples were scheduled for analysis which was completed on Monday September 27, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager

ALS Life Sciences Limited. Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No. 4057291.

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
25008818	BH07			14/09/2021
25008820	BH16			14/09/2021
25008822	BH17			14/09/2021
25008826	BH28			14/09/2021
25008827	BH53			14/09/2021
25008819	RC07			14/09/2021
25008821	RC16			14/09/2021
25008823	RC17			14/09/2021
25008824	RC26			14/09/2021
25008828	SW01			14/09/2021
25008829	SW03			14/09/2021
25008831	SW05			14/09/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 210920-38 **Report Number:** 614714 **Superseded Report:**
Client Ref.: 5868 **Location:** Coolagad, Greystones

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			25008818	25008820	25008822	25008826	25008827	25008819	25008821	25008823	25008824	25008828	25008829	25008831
Customer Sample Reference			BH07	BH16	BH17	BH28	BH53	RC07	RC16	RC17	RC26	SW01	SW03	SW05
AGS Reference														
Depth (m)														
Container			1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)	1lplastic (ALE221)
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 12	X	X	X	X	X	X	X	X	X	X	X	X
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 12	X	X	X	X	X	X	X	X	X	X	X	X
Anions by Kone (w)	All	NDPs: 0 Tests: 12	X	X	X	X	X	X	X	X	X	X	X	X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 12	X	X	X	X	X	X	X	X	X	X	X	X
Fluoride	All	NDPs: 0 Tests: 12	X	X	X	X	X	X	X	X	X	X	X	X
Phosphate by Kone (w)	All	NDPs: 0 Tests: 12	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 210920-38 **Report Number:** 614714 **Superseded Report:**
Client Ref.: 5868 **Location:** Coolagad, Greystones

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	BH07	BH16	BH17	BH28	BH53	RC07
Customer Sample Ref.			BH07	BH16	BH17	BH28	BH53	RC07
Depth (m)			-	-	-	-	-	-
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021
Sample Time			-	-	-	-	-	-
Date Received			20/09/2021	20/09/2021	20/09/2021	20/09/2021	20/09/2021	20/09/2021
SDG Ref			210920-38	210920-38	210920-38	210920-38	210920-38	210920-38
Lab Sample No.(s)			25008818	25008820	25008822	25008826	25008827	25008819
AGS Reference								
Alkalinity, Carbonate as CaCO3	<2 mg/l	TM043	<2	<2	<2	<2	<2	<2
Bicarbonate Alkalinity as HCO3	<2 mg/l	TM043	503	557	319	550	144	310
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2 2	<0.2 2	<0.2 2	1.08 2	<0.2 2	<0.2 2
Ammoniacal Nitrogen as NH3	<0.2 mg/l	TM099	<0.2 2	<0.2 2	<0.2 2	1.31 2	<0.2 2	<0.2 2
Fluoride	<0.5 mg/l	TM104	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium (Dis.Filt)	<0.076 mg/l	TM152	22 2	16.2 2	13.2 2	18.3 2	15 2	12.5 2
Magnesium (Dis.Filt)	<0.036 mg/l	TM152	8.84 2	8.73 2	6.61 2	8.86 2	4.24 2	4.92 2
Potassium (Dis.Filt)	<0.2 mg/l	TM152	0.846 2	1.07 2	1.48 2	1.6 2	0.771 2	0.614 2
Calcium (Dis.Filt)	<0.2 mg/l	TM152	86.4 2	83.2 2	71.1 2	79.1 2	46.5 2	82.7 2
Phosphate (Ortho as PO4)	<0.05 mg/l	TM184	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sulphate	<2 mg/l	TM184	15.4	11.6	11	14.1	10.1	8.9
Chloride	<2 mg/l	TM184	19.3	21.8	19.1	17.8	20.2	19.6
Nitrate as NO3	<0.3 mg/l	TM184	6.55 @	6.76 @	0.62 @	7.01 @	27.7 @	16.9 @

13:00:07 27/09/2021

Validated

CERTIFICATE OF ANALYSIS

SDG: 210920-38 **Report Number:** 614714 **Superseded Report:**
Client Ref.: 5868 **Location:** Coolagad, Greystones

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	RC16	RC17	RC26	SW01	SW03	SW05
Customer Sample Ref.			RC16	RC17	RC26	SW01	SW03	SW05
Depth (m)			-	-	-	-	-	-
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021
Sample Time			-	-	-	-	-	-
Date Received			20/09/2021	20/09/2021	20/09/2021	20/09/2021	20/09/2021	20/09/2021
SDG Ref			210920-38	210920-38	210920-38	210920-38	210920-38	210920-38
Lab Sample No.(s)			25008821	25008823	25008824	25008828	25008829	25008831
AGS Reference								
Alkalinity, Carbonate as CaCO3	<2 mg/l	TM043	<2	<2	<2	<2	<2	30
Bicarbonate Alkalinity as HCO3	<2 mg/l	TM043	166	283	226	44.5	262	250
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2 2	<0.2 2	<0.2 2	<0.2 2	<0.2 2	<0.2 2
Ammoniacal Nitrogen as NH3	<0.2 mg/l	TM099	<0.2 2	<0.2 2	<0.2 2	<0.2 2	<0.2 2	<0.2 2
Fluoride	<0.5 mg/l	TM104	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium (Dis.Filt)	<0.076 mg/l	TM152	15.3 2	11.2 2	13.3 2	14.8 2	13.8 2	15.8 2
Magnesium (Dis.Filt)	<0.036 mg/l	TM152	3.73 2	4.45 2	4.64 2	4.54 2	5.18 2	6.76 2
Potassium (Dis.Filt)	<0.2 mg/l	TM152	0.767 2	0.537 2	0.882 2	0.973 2	0.867 2	1.64 2
Calcium (Dis.Filt)	<0.2 mg/l	TM152	52.1 2	90 2	70.8 2	15.9 2	78.5 2	90.4 2
Phosphate (Ortho as PO4)	<0.05 mg/l	TM184	<0.05	<0.05	<0.05	0.156	0.058	0.072
Sulphate	<2 mg/l	TM184	8	7.3	10	9.3	10	12.4
Chloride	<2 mg/l	TM184	22.5	18.7	21.2	24.7	20.6	24.6
Nitrate as NO3	<0.3 mg/l	TM184	18 @	15.8 @	17.6 @	19.2 @	16.7 @	9.45 @

13:00:07 27/09/2021

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser
TM104	Method 4500F, AWWA/APHA, 20th Ed., 1999	Determination of Fluoride using the Kone Analyser
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

Validated

CERTIFICATE OF ANALYSIS

SDG: 210920-38 **Report Number:** 614714 **Superseded Report:**
Client Ref.: 5868 **Location:** Coolagad, Greystones

Test Completion Dates

Lab Sample No(s)	25008818	25008820	25008822	25008826	25008827	25008819	25008821	25008823	25008824	25008828
Customer Sample Ref.	BH07	BH16	BH17	BH28	BH53	RC07	RC16	RC17	RC26	SW01
AGS Ref.										
Depth										
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Alkalinity as CaCO3	27-Sep-2021	27-Sep-2021	27-Sep-2021	27-Sep-2021	27-Sep-2021	27-Sep-2021	27-Sep-2021	27-Sep-2021	27-Sep-2021	24-Sep-2021
Ammoniacal Nitrogen	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021
Anions by Kone (w)	24-Sep-2021	24-Sep-2021	24-Sep-2021	23-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	24-Sep-2021	23-Sep-2021	24-Sep-2021
Dissolved Metals by ICP-MS	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021
Fluoride	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021
Nitrite by Kone (w)	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021
Phosphate by Kone (w)	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021	23-Sep-2021

Lab Sample No(s)	25008829	25008831
Customer Sample Ref.	SW03	SW05
AGS Ref.		
Depth		
Type	Ground Water	Ground Water
Alkalinity as CaCO3	23-Sep-2021	23-Sep-2021
Ammoniacal Nitrogen	24-Sep-2021	24-Sep-2021
Anions by Kone (w)	24-Sep-2021	24-Sep-2021
Dissolved Metals by ICP-MS	23-Sep-2021	23-Sep-2021
Fluoride	23-Sep-2021	23-Sep-2021
Nitrite by Kone (w)	23-Sep-2021	23-Sep-2021
Phosphate by Kone (w)	23-Sep-2021	23-Sep-2021

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Appendix 11

California Bearing Ratio Results

California Bearing Ratio (CBR) In accordance with BS1377: Part 4: Method 7

Client	Cairn Homes
Site	Coolgad, Greystones
S.I. File No	5868 / 21
Test Lab	Site Investigations Ltd., Carhugar The Grange, 12th Lock Rd., Lucan Co. Dublin. Tel (01) 6108768 Email info@siteinvestigations.ie
Report Date	20th July 2021

CBR No	Depth (mBGL)	Sample No	Sample Type	Lab Ref	Moisture Content (%)	CBR Value (%)	Remarks
01	0.50	MK100	CBR	21/951	12.6	7.3	
02	0.50	MK101	CBR	21/952	12.8	8.5	
03	0.50	MK102	CBR	21/953	8.0	9.1	
04	0.50	MK103	CBR	21/954	9.6	7.7	

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_____Paddy McGonagle
Site Investigations Ltd

Appendix 12

Geotechnical Laboratory Test Results

Classification Tests in accordance with BS1377: Part 4

Client	Cairn Homes
Site	Coolagad, Greystones
S.I. File No	5864 / 21
Test Lab	Site Investigations Ltd., Carhugar The Grange, 12th Lock Rd., Lucan Co. Dublin. Tel (01) 6108768 Email info@siteinvestigations.ie
Report Date	27th August 2021

Hole ID	Depth	Sample No	Lab Ref No.	Sample Type	Natural Moisture Content %	Liquid Limit %	Plastic Limit %	Plastic Index %	Min. Dry Density Mg/m^3	Particle Density Mg/m^3	% passing 425um	Comments	**Remarks** **C**=Clay; **M**=Silt **Plasticity**: **L**=Low; **I**=Intermediate; **H**=High; **V**=Very High; **E**=Extremely High
BH01	1.00	JOT001	21/955	B	19.0	38	21	17			56.7		CI
BH02	2.00	DM011	21/956	B	16.7	37	21	16			58.5		CI
BH03	1.00	JOT010	21/957	B	19.6	35	20	15			49.8		CL/CI
BH04	1.00	JOT016	21/958	B	18.6								
BH05	2.00	JOT124	21/959	B	16.5	33	18	15			67.7		CL
BH06	1.00	JOT021	21/960	B	14.2								
BH07	1.00	JOT091	21/961	B	17.4	35	21	14			65.2		CL/CI
BH08	1.00	JOT142	21/962	B	16.3	37	21	16			70.5		CI
BH09	2.00	JOT027	21/963	B	12.5								
BH10	2.00	JOT115	21/964	B	21.8	36	20	16			60.1		CI
BH11	1.00	JOT031	21/965	B	18.4	36	19	17			63.4		CI
BH12	2.00	DM002	21/966	B	13.6	37	21	16			59.6		CI
BH13	2.00	JOT039	21/967	B	15.4	33	18	15			66.0		CL
BH15	2.00	JOT048	21/969	B	17.6	38	22	16			51.9		CI
BH16	1.00	JOT102	21/970	B	17.9	36	20	16			70.5		CI
BH17	1.00	JOT081	21/971	B	13.3	36	20	16			55.1		CI
BH21	1.00	JOT054	21/972	B	20.7	34	20	14			66.4		CL
BH26	1.00	JOT061	21/973	B	19.1	34	20	14			55.7		CL
BH28	1.00	JOT070	21/974	B	18.1	33	19	14			56.0		CL
BH36	1.00	GM023	21/975	B	21.0	33	19	14			72.2		CL
BH44	2.00	GM092	21/976	B	15.4	36	19	17			54.5		CI
BH48	2.00	GM035	21/977	B	18.7	37	21	16			52.6		CI
BH49	2.00	GM084	21/978	B	16.8	34	19	15			51.5		CL
BH50	1.00	GM071	21/979	B	13.3	32	20	12			68.3		CL
BH52	1.00	GM041	21/985	B	18.3								
BH53	2.00	GM013	21/980	B	19.2	34	19	15			67.2		CL
BH54	2.00	GM050	21/981	B	15.2	34	19	15			61.1		CL

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Classification Tests in accordance with BS1377: Part 4

Client	Cairn Homes
Site	Coolagad, Greystones
S.I. File No	5864 / 21
Test Lab	Site Investigations Ltd., Carhugar The Grange, 12th Lock Rd., Lucan Co. Dublin. Tel (01) 6108768 Email info@siteinvestigations.ie
Report Date	27th August 2021

Hole ID	Depth	Sample No	Lab Ref No.	Sample Type	Natural Moisture Content %	Liquid Limit %	Plastic Limit %	Plastic Index %	Min. Dry Density Mg/m^3	Particle Density Mg/m^3	% passing 425um	Comments	**Remarks** **C**=Clay; **M**=Silt **Plasticity**: **L**=Low; **I**=Intermediate; **H**=High; **V**=Very High; **E**=Extremely High
BH55	2.00	GM002	21/982	B	14.9	31	20	11			51.7		CL
BH56	2.00	JOT135	21/983	B	14.3	32	20	12			32.7		CL
BH57	3.00	GM063	21/984	B	20.5								

_____Paddy McGonagle
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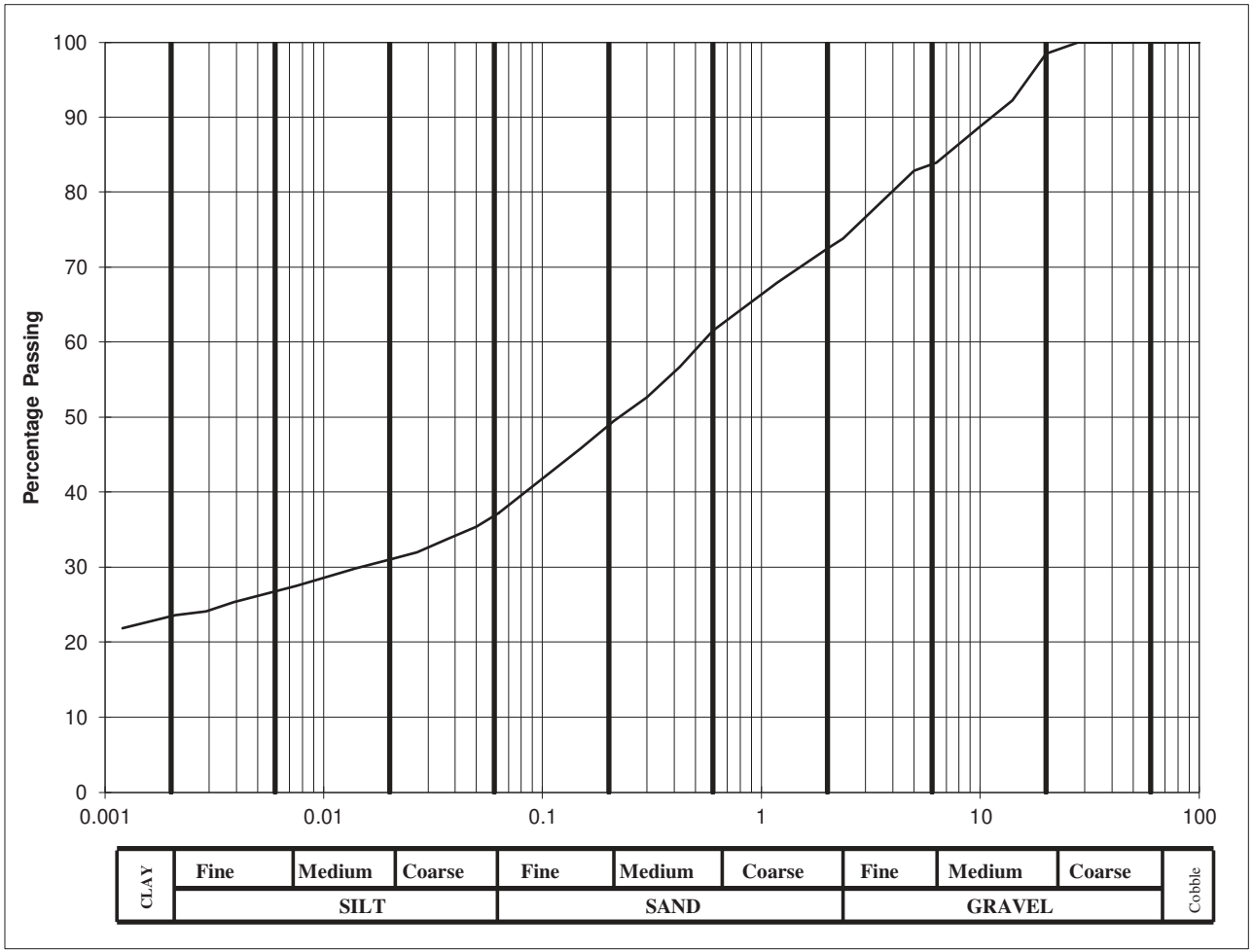
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	37
90	100	**0.0200**	31
75	100	**0.0060**	27
63	100	**0.0020**	23
50	100		
37.5	100		
28	100		
20	98.4		
14	92.2		
10	88.7		
6.3	83.9		
5.0	82.8		
2.36	73.8		
2.00	72.5		
1.18	67.9		
0.600	61.5		
0.425	56.7		
0.300	52.6		
0.212	49.5		
0.150	45.8		
0.063	37		



Cobbles, %	0
Gravel, %	28
Sand, %	36
Silt, %	14
Clay, %	23

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/955
Sample No :	JOT001

Hole ID :	BH 01
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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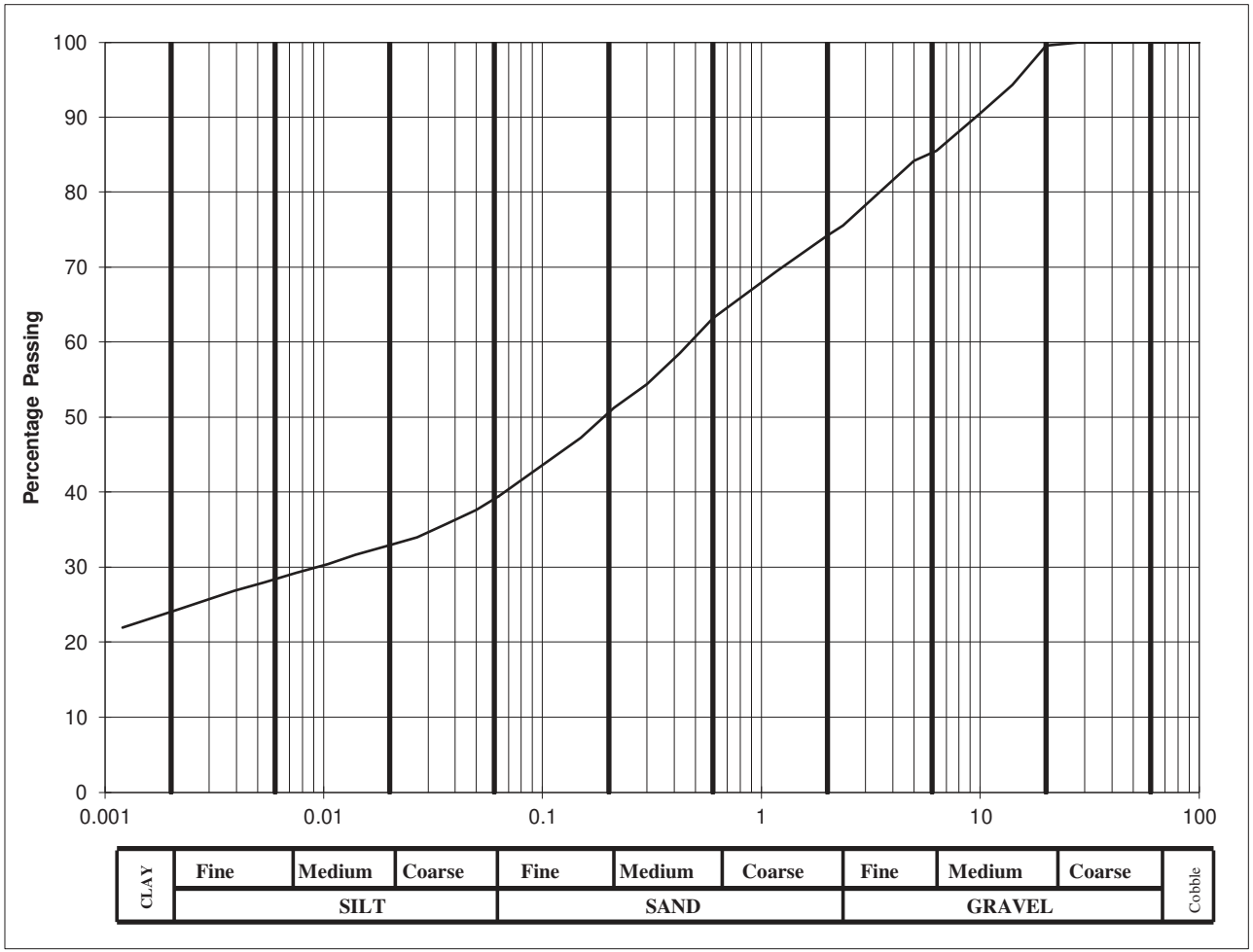
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	40
90	100	**0.0200**	33
75	100	**0.0060**	28
63	100	**0.0020**	24
50	100		
37.5	100		
28	100		
20	99.5		
14	94.3		
10	90.5		
6.3	85.5		
5.0	84.2		
2.36	75.5		
2.00	74.2		
1.18	69.5		
0.600	63.2		
0.425	58.5		
0.300	54.4		
0.212	51.2		
0.150	47.2		
0.063	40		



Cobbles, %	0
Gravel, %	26
Sand, %	34
Silt, %	16
Clay, %	24

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/956
Sample No :	DM011

Hole ID :	BH 02
Depth, m :	2.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

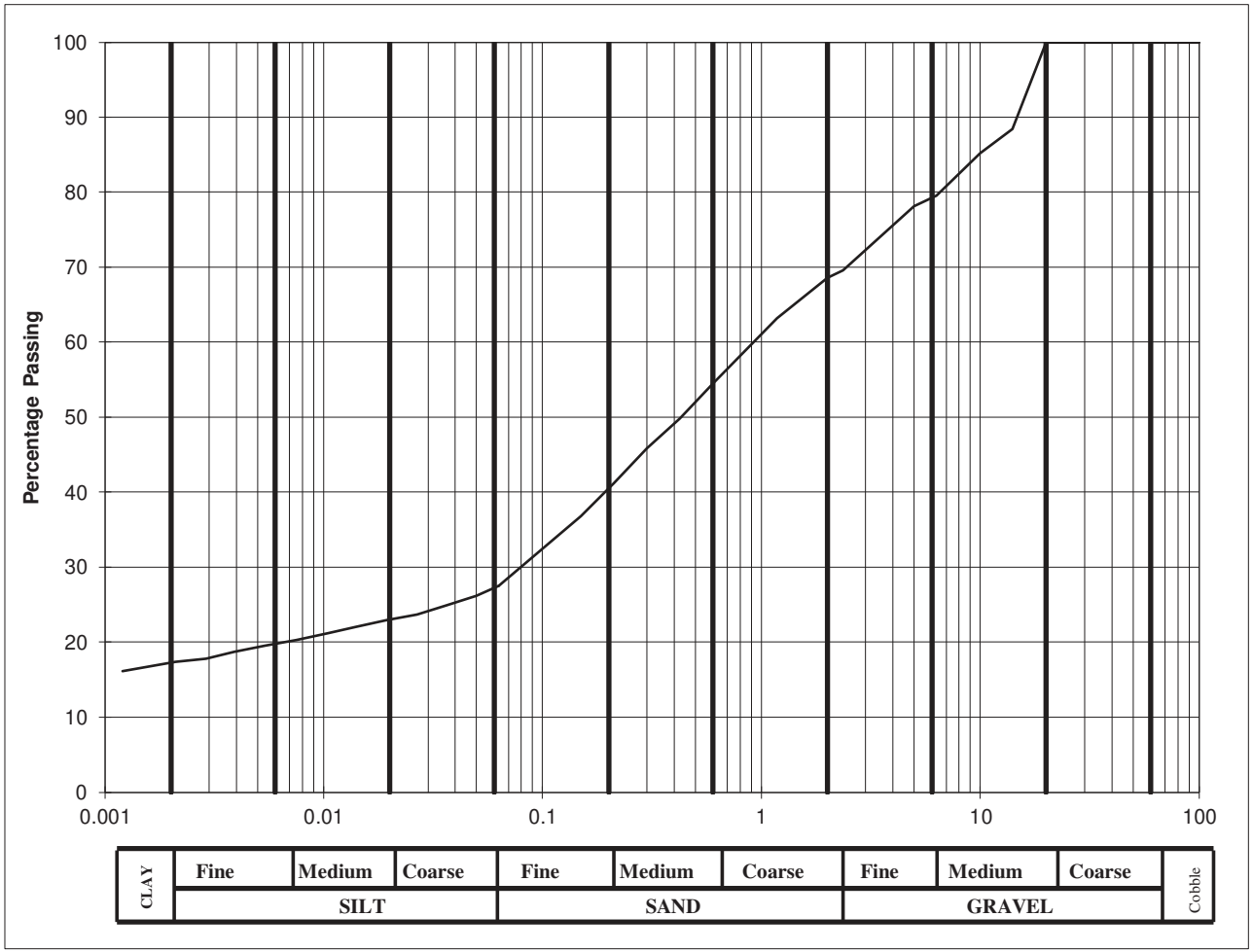
_____Paddy McGonagle
Site Investigations Ltd

Printed 10/09/2021

BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	28
90	100	**0.0200**	23
75	100	**0.0060**	19
63	100	**0.0020**	17
50	100		
37.5	100		
28	100		
20	100		
14	88.4		
10	85.2		
6.3	79.5		
5.0	78.1		
2.36	69.6		
2.00	68.6		
1.18	63.2		
0.600	54.5		
0.425	49.8		
0.300	45.8		
0.212	41.2		
0.150	36.8		
0.063	28		



Cobbles, %	0
Gravel, %	31
Sand, %	41
Silt, %	11
Clay, %	17

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/957
Sample No :	JOT010

Hole ID :	BH 03
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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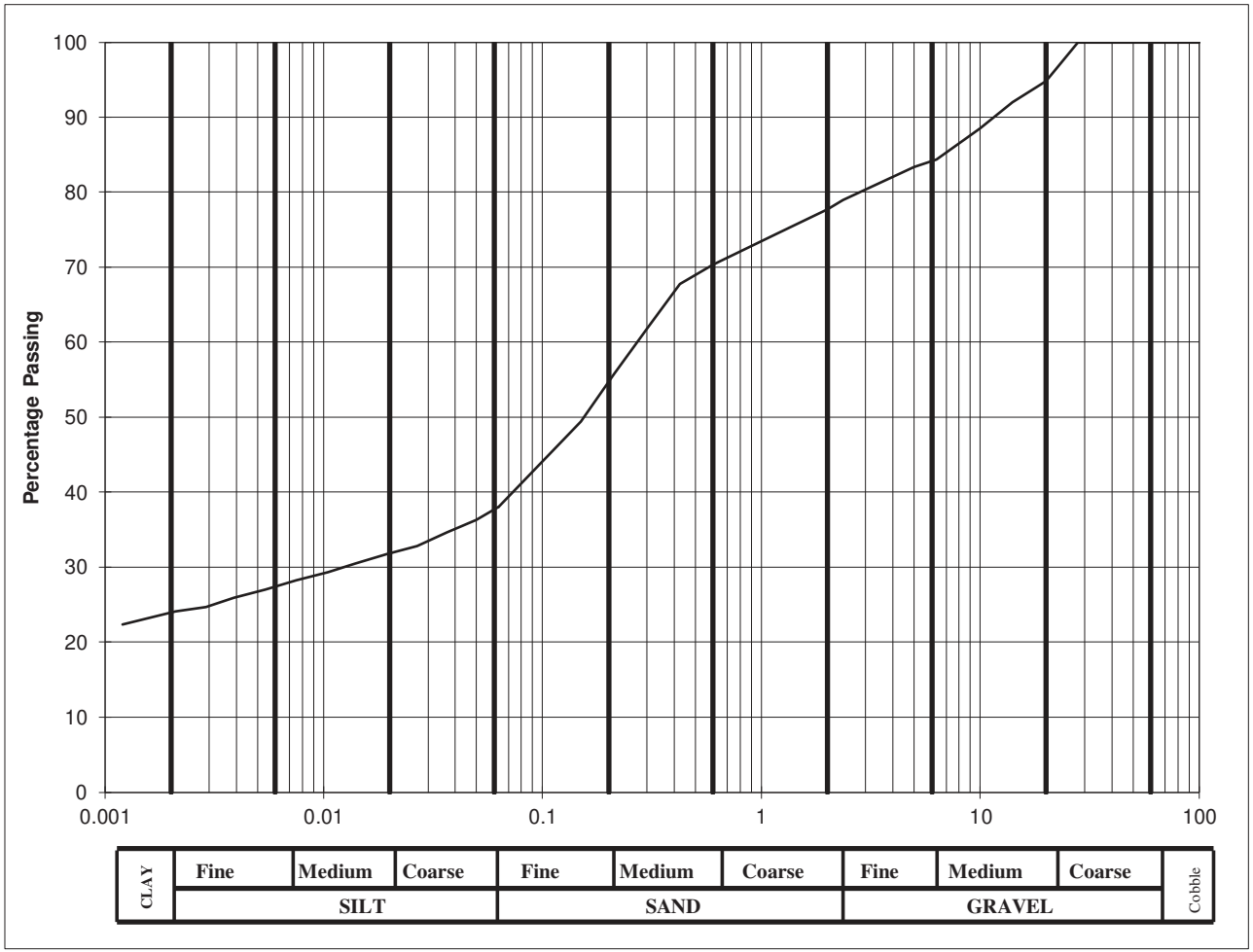
Site Investigations Ltd

Printed 10/09/2021

BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	38
90	100	**0.0200**	32
75	100	**0.0060**	27
63	100	**0.0020**	24
50	100		
37.5	100		
28	100		
20	94.8		
14	92		
10	88.5		
6.3	84.3		
5.0	83.3		
2.36	78.9		
2.00	77.7		
1.18	74.5		
0.600	70.3		
0.425	67.7		
0.300	61.8		
0.212	55.7		
0.150	49.4		
0.063	38		



Cobbles, %	0
Gravel, %	22
Sand, %	40
Silt, %	14
Clay, %	24

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/959
Sample No :	JOT124

Hole ID :	BH 05
Depth, m :	2.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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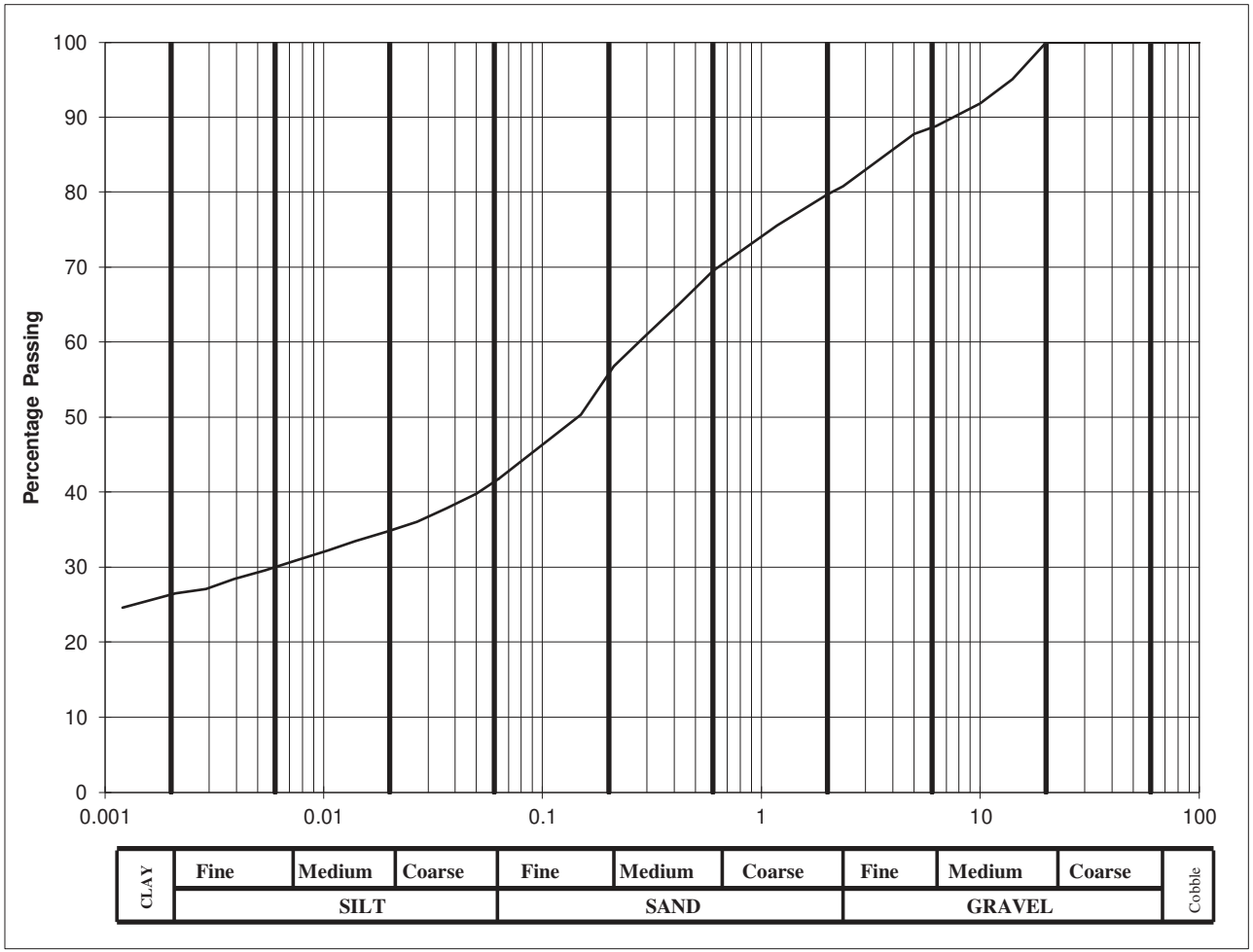
Printed 10/09/2021

BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	42
90	100	**0.0200**	32
75	100	**0.0060**	27
63	100	**0.0020**	24
50	100		
37.5	100		
28	100		
20	100		
14	95		
10	91.8		
6.3	88.8		
5.0	87.7		
2.36	80.8		
2.00	79.7		
1.18	75.5		
0.600	69.5		
0.425	65.2		
0.300	61		
0.212	56.8		
0.150	50.3		
0.063	42		



Cobbles, %	0
Gravel, %	20
Sand, %	38
Silt, %	18
Clay, %	24

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/961
Sample No :	JOT091

Hole ID :	BH 07
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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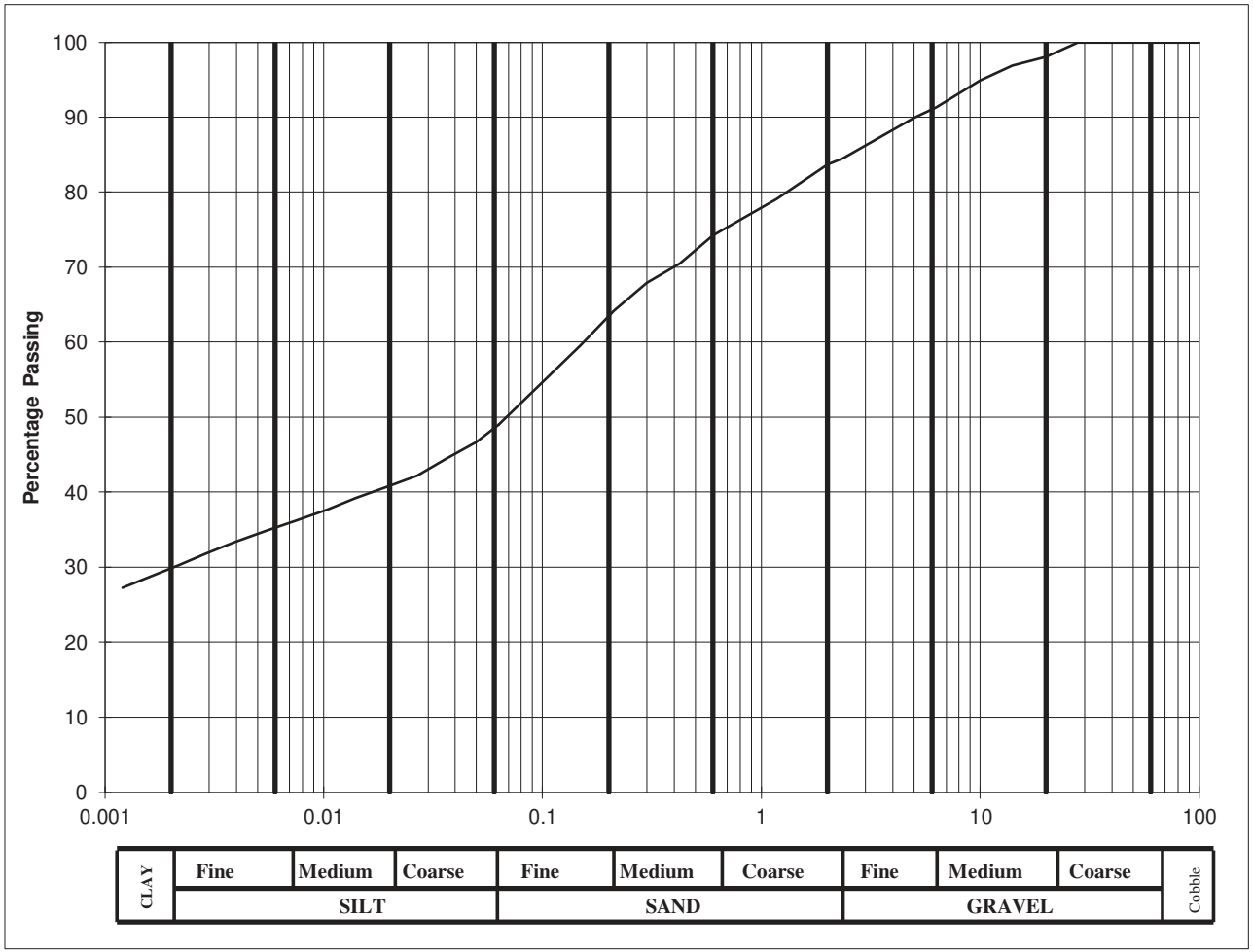
Site Investigations Ltd

Printed 10/09/2021

BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	49
90	100	**0.0200**	41
75	100	**0.0060**	35
63	100	**0.0020**	29
50	100		
37.5	100		
28	100		
20	98		
14	96.9		
10	94.9		
6.3	91.3		
5.0	89.9		
2.36	84.5		
2.00	83.7		
1.18	79.1		
0.600	74.2		
0.425	70.5		
0.300	67.9		
0.212	64.2		
0.150	59.6		
0.063	49		



Cobbles, %	0
Gravel, %	16
Sand, %	35
Silt, %	20
Clay, %	29

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/962
Sample No :	JOT142

Hole ID :	BH 08
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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BS 1377 Particle Size Analysis

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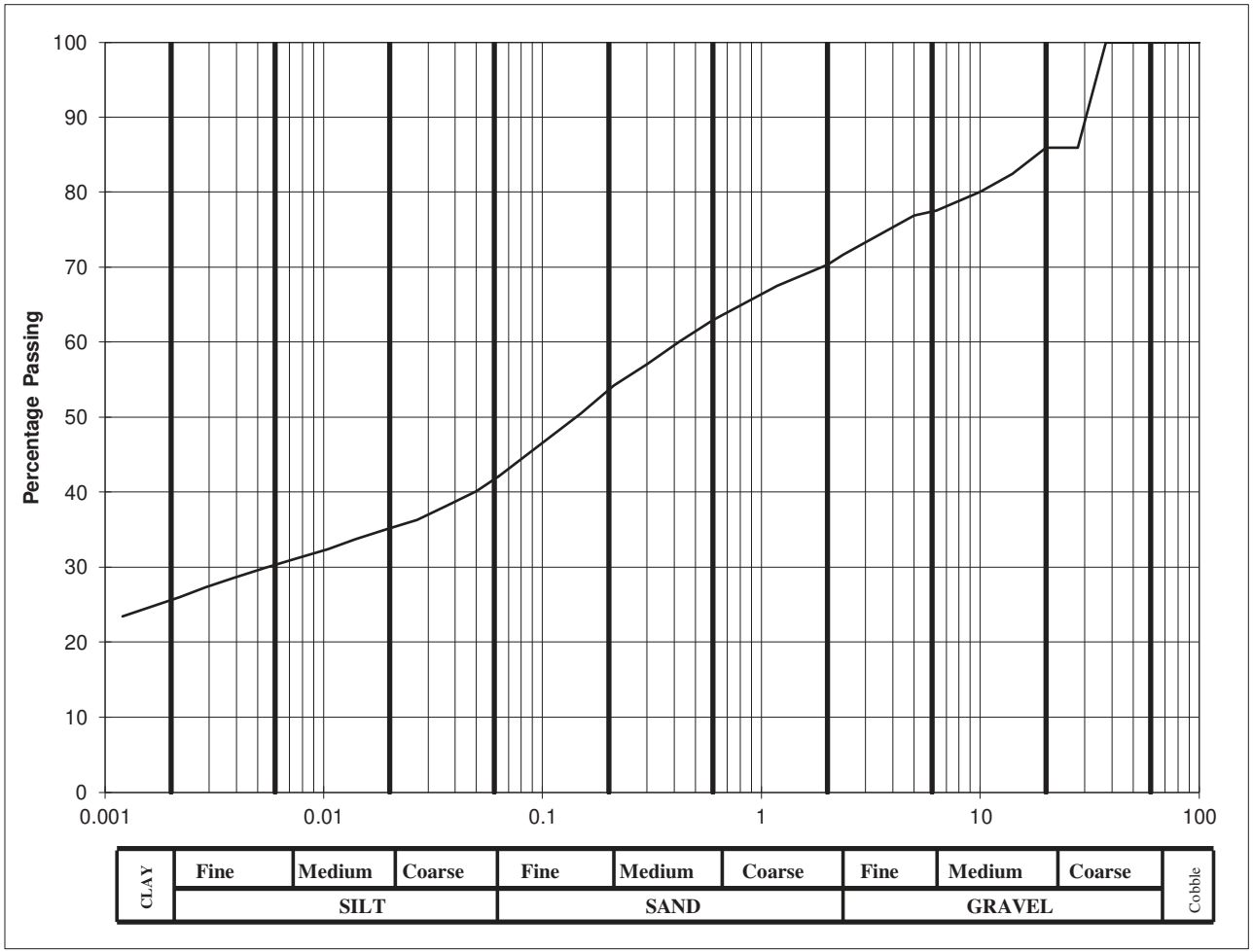
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	42
90	100	**0.0200**	35
75	100	**0.0060**	31
63	100	**0.0020**	25
50	100		
37.5	100		
28	85.9		
20	85.9		
14	82.4		
10	80		
6.3	77.5		
5.0	76.9		
2.36	71.6		
2.00	70.3		
1.18	67.5		
0.600	62.9		
0.425	60.1		
0.300	57		
0.212	54.2		
0.150	50.5		
0.063	42		



Cobbles, %	0
Gravel, %	30
Sand, %	28
Silt, %	17
Clay, %	25

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/964
Sample No :	JOT115

Hole ID :	BH 10
Depth, m :	2.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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BS 1377 Particle Size Analysis

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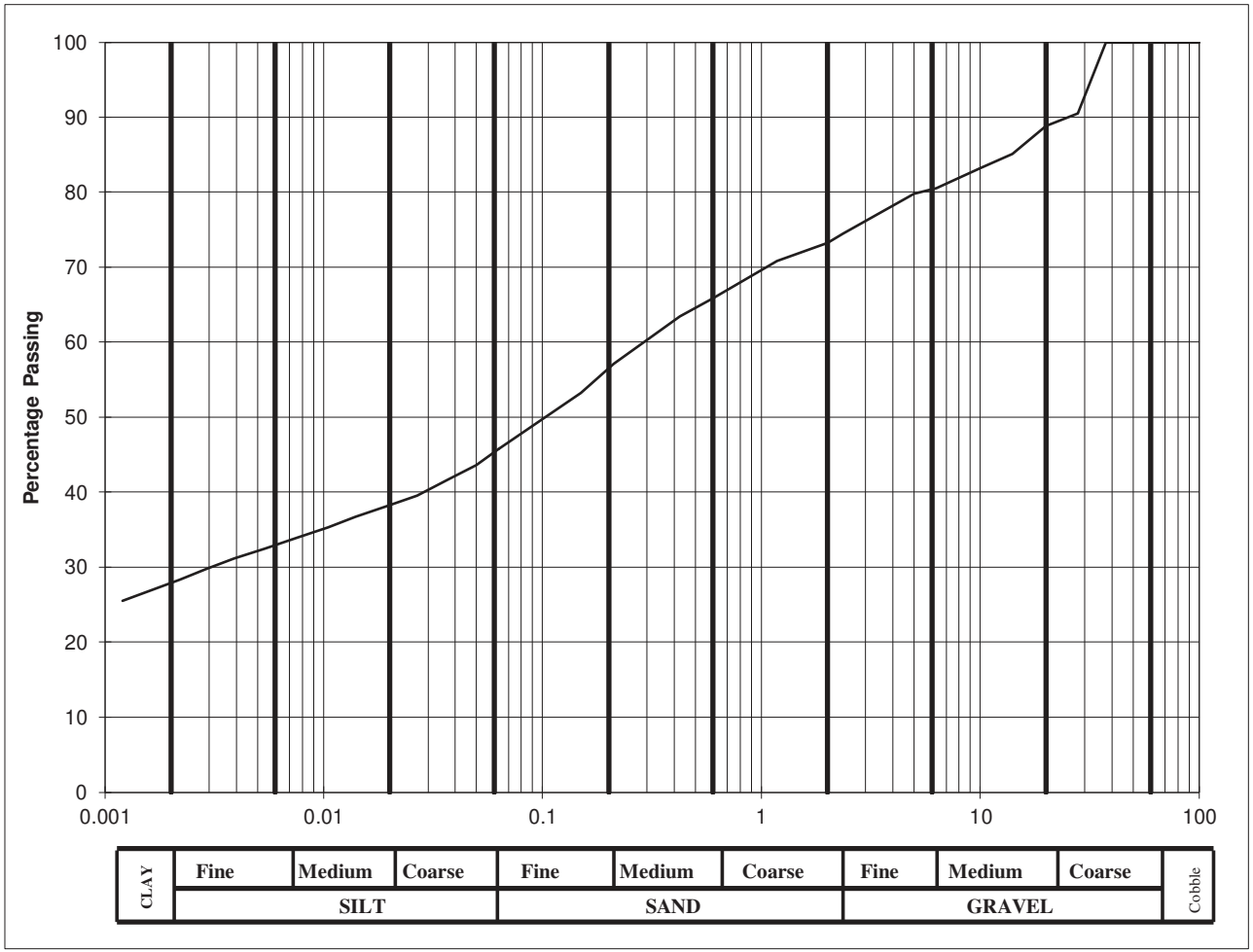
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	46
90	100	**0.0200**	38
75	100	**0.0060**	33
63	100	**0.0020**	27
50	100		
37.5	100		
28	90.5		
20	88.8		
14	85.1		
10	83.2		
6.3	80.5		
5.0	79.8		
2.36	74.5		
2.00	73.2		
1.18	70.8		
0.600	65.8		
0.425	63.4		
0.300	60.3		
0.212	57.1		
0.150	53.2		
0.063	46		



Cobbles, %	0
Gravel, %	27
Sand, %	27
Silt, %	19
Clay, %	27

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/965
Sample No :	JOT031

Hole ID :	BH 11
Depth, m :	1.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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BS 1377 Particle Size Analysis

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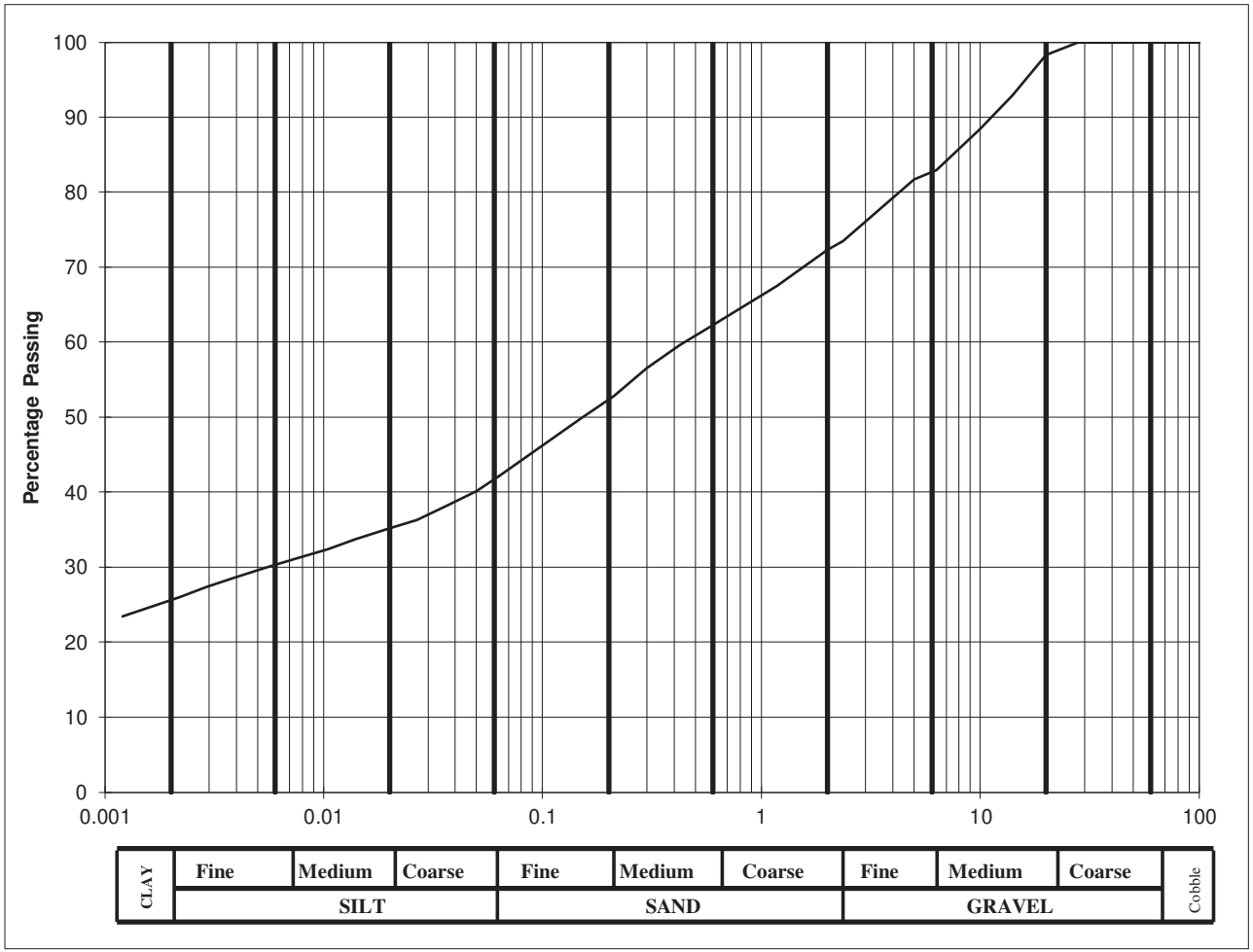
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	42
90	100	**0.0200**	35
75	100	**0.0060**	31
63	100	**0.0020**	25
50	100		
37.5	100		
28	100		
20	98.3		
14	92.9		
10	88.4		
6.3	82.9		
5.0	81.7		
2.36	73.5		
2.00	72.3		
1.18	67.5		
0.600	62.3		
0.425	59.6		
0.300	56.5		
0.212	52.8		
0.150	49.8		
0.063	42		



Cobbles, %	0
Gravel, %	28
Sand, %	30
Silt, %	17
Clay, %	25

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/966
Sample No :	DM002

Hole ID :	BH 12
Depth, m :	2.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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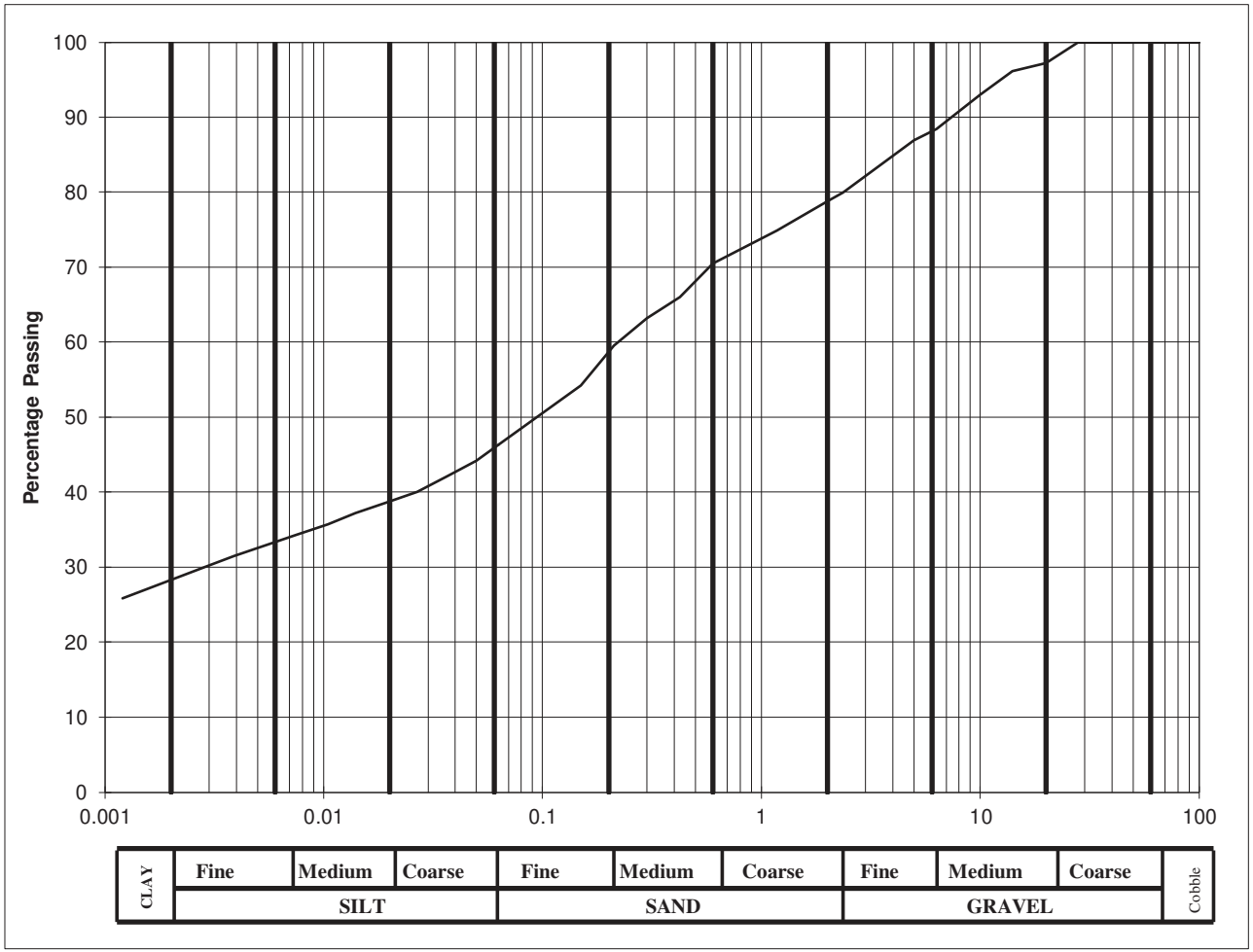
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	46
90	100	**0.0200**	39
75	100	**0.0060**	33
63	100	**0.0020**	28
50	100		
37.5	100		
28	100		
20	97.2		
14	96.1		
10	93		
6.3	88.4		
5.0	86.9		
2.36	79.9		
2.00	78.8		
1.18	74.9		
0.600	70.5		
0.425	66		
0.300	63.2		
0.212	59.5		
0.150	54.2		
0.063	46		



Cobbles, %	0
Gravel, %	21
Sand, %	33
Silt, %	18
Clay, %	28

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/967
Sample No :	JOT039

Hole ID :	BH 13
Depth, m :	2.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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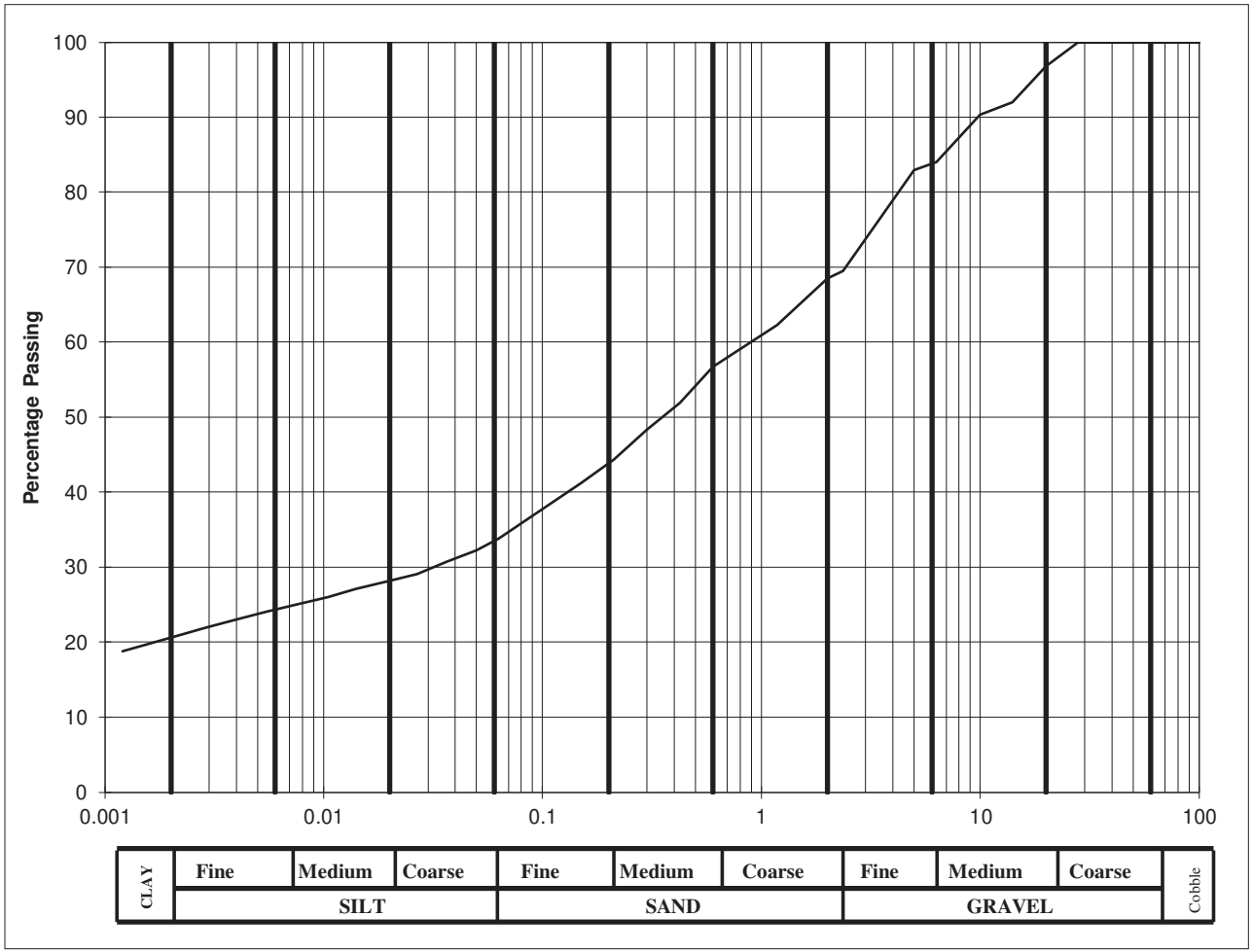
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	34
90	100	**0.0200**	28
75	100	**0.0060**	24
63	100	**0.0020**	21
50	100		
37.5	100		
28	100		
20	96.8		
14	92		
10	90.3		
6.3	84		
5.0	82.9		
2.36	69.5		
2.00	68.5		
1.18	62.3		
0.600	56.7		
0.425	51.9		
0.300	48.3		
0.212	44.3		
0.150	41.2		
0.063	34		



Cobbles, %	0
Gravel, %	32
Sand, %	35
Silt, %	13
Clay, %	21

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/969
Sample No :	JOT048

Hole ID :	BH 15
Depth, m :	2.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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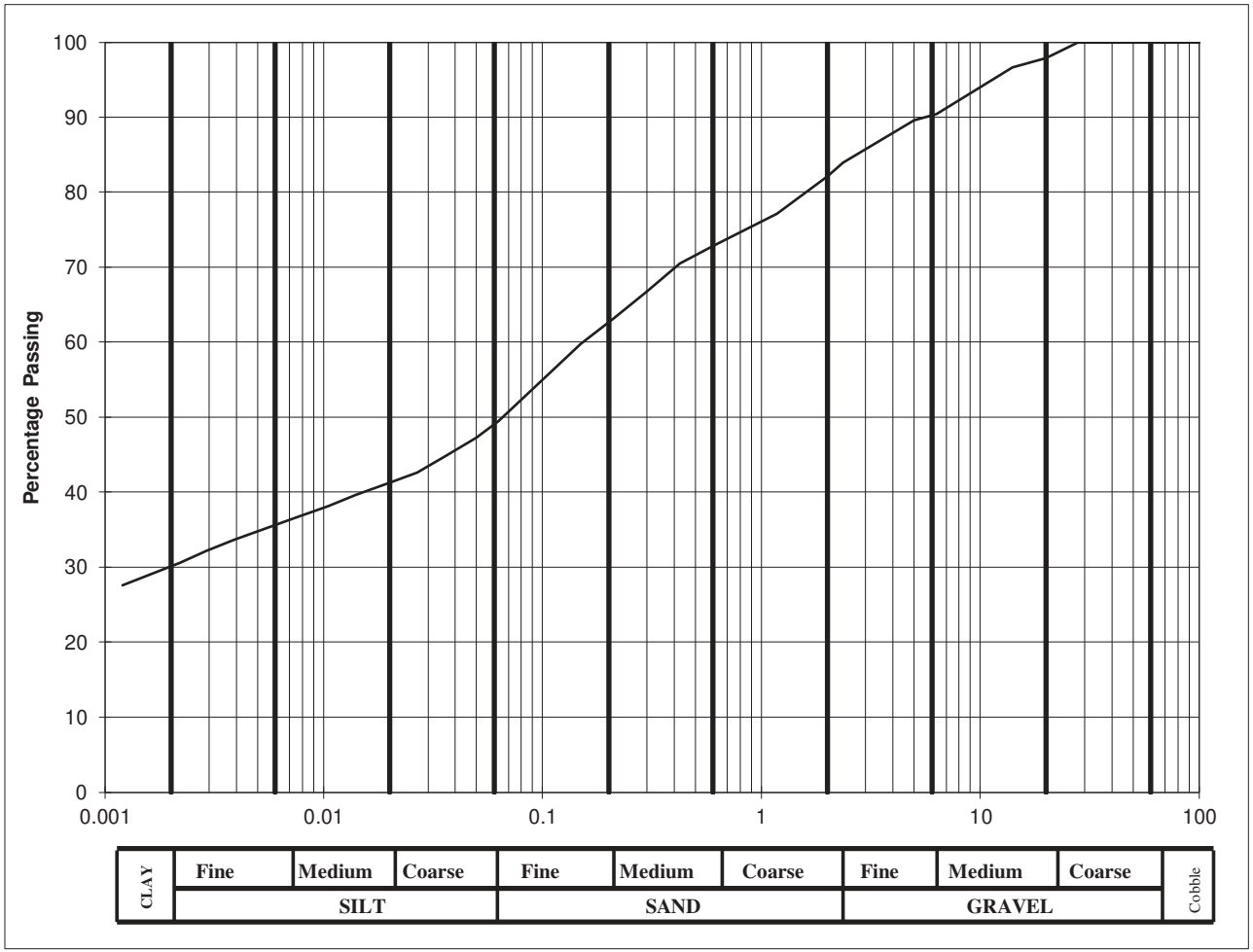
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	50
90	100	**0.0200**	41
75	100	**0.0060**	36
63	100	**0.0020**	30
50	100		
37.5	100		
28	100		
20	97.9		
14	96.6		
10	94		
6.3	90.4		
5.0	89.6		
2.36	83.9		
2.00	82.1		
1.18	77.1		
0.600	72.8		
0.425	70.5		
0.300	66.7		
0.212	63.2		
0.150	59.8		
0.063	50		



Cobbles, %	0
Gravel, %	18
Sand, %	32
Silt, %	20
Clay, %	30

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/970
Sample No :	JOT102

Hole ID :	BH 16
Depth, m :	1.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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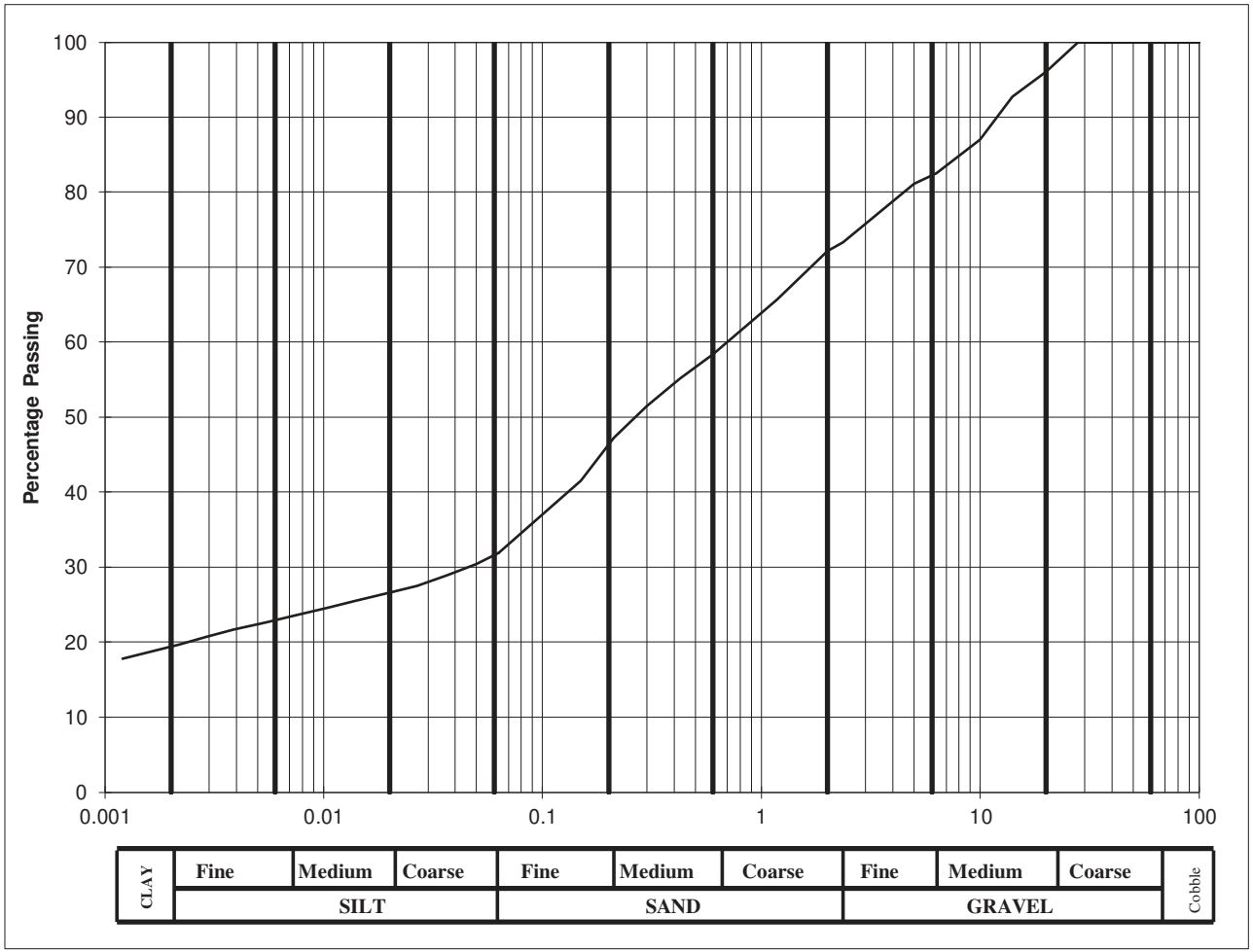
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	32
90	100	**0.0200**	27
75	100	**0.0060**	23
63	100	**0.0020**	19
50	100		
37.5	100		
28	100		
20	96		
14	92.7		
10	87		
6.3	82.5		
5.0	81.1		
2.36	73.3		
2.00	72.1		
1.18	65.7		
0.600	58.4		
0.425	55.1		
0.300	51.5		
0.212	47.2		
0.150	41.5		
0.063	32		



Cobbles, %	0
Gravel, %	28
Sand, %	40
Silt, %	13
Clay, %	19

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/971
Sample No :	JOT081

Hole ID :	BH 17
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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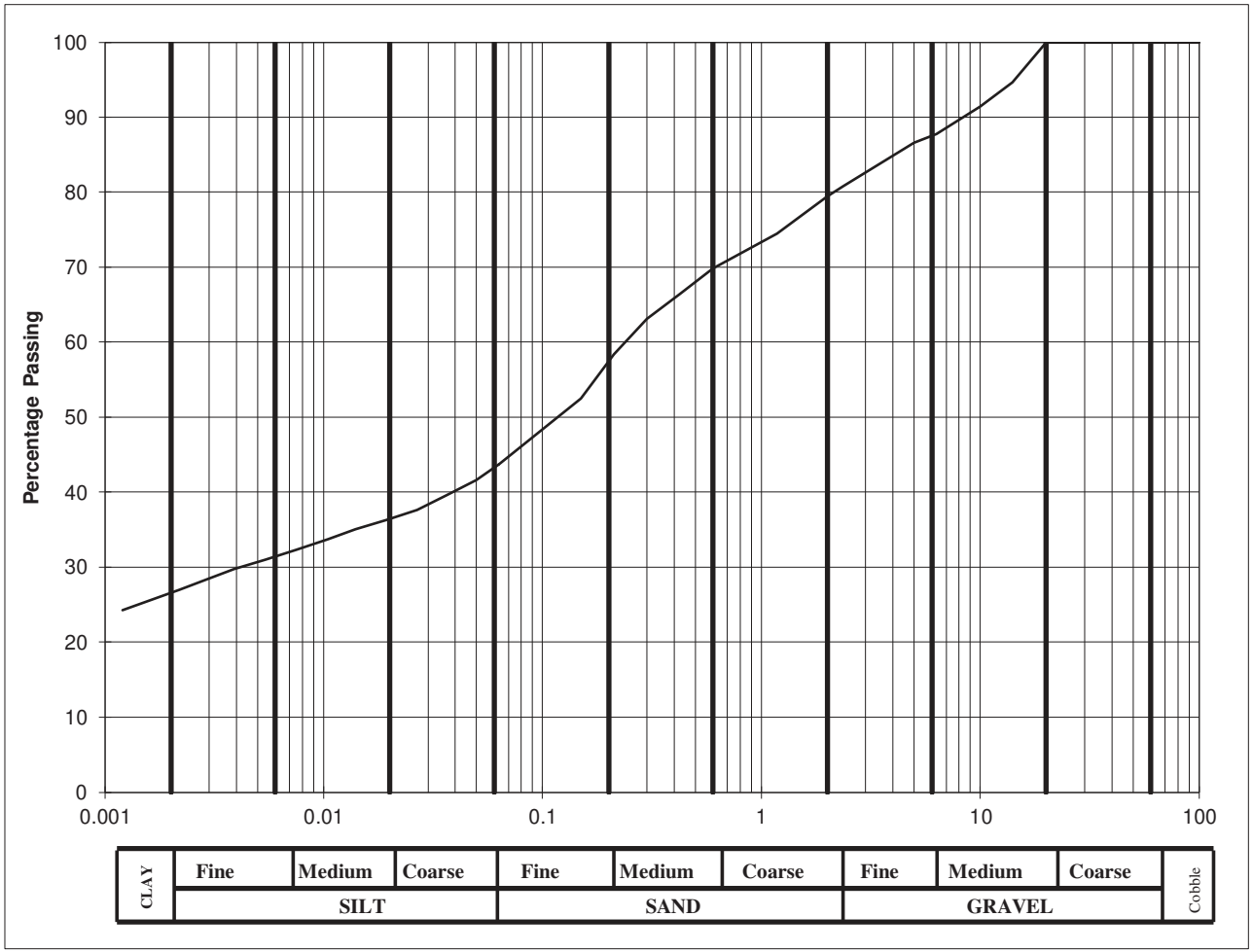
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	44
90	100	**0.0200**	37
75	100	**0.0060**	32
63	100	**0.0020**	27
50	100		
37.5	100		
28	100		
20	100		
14	94.6		
10	91.4		
6.3	87.7		
5.0	86.6		
2.36	80.8		
2.00	79.4		
1.18	74.5		
0.600	69.8		
0.425	66.4		
0.300	63.1		
0.212	58.4		
0.150	52.5		
0.063	44		



Cobbles, %	0
Gravel, %	21
Sand, %	35
Silt, %	17
Clay, %	27

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/972
Sample No :	JOT054

Hole ID :	BH 21
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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BS 1377 Particle Size Analysis

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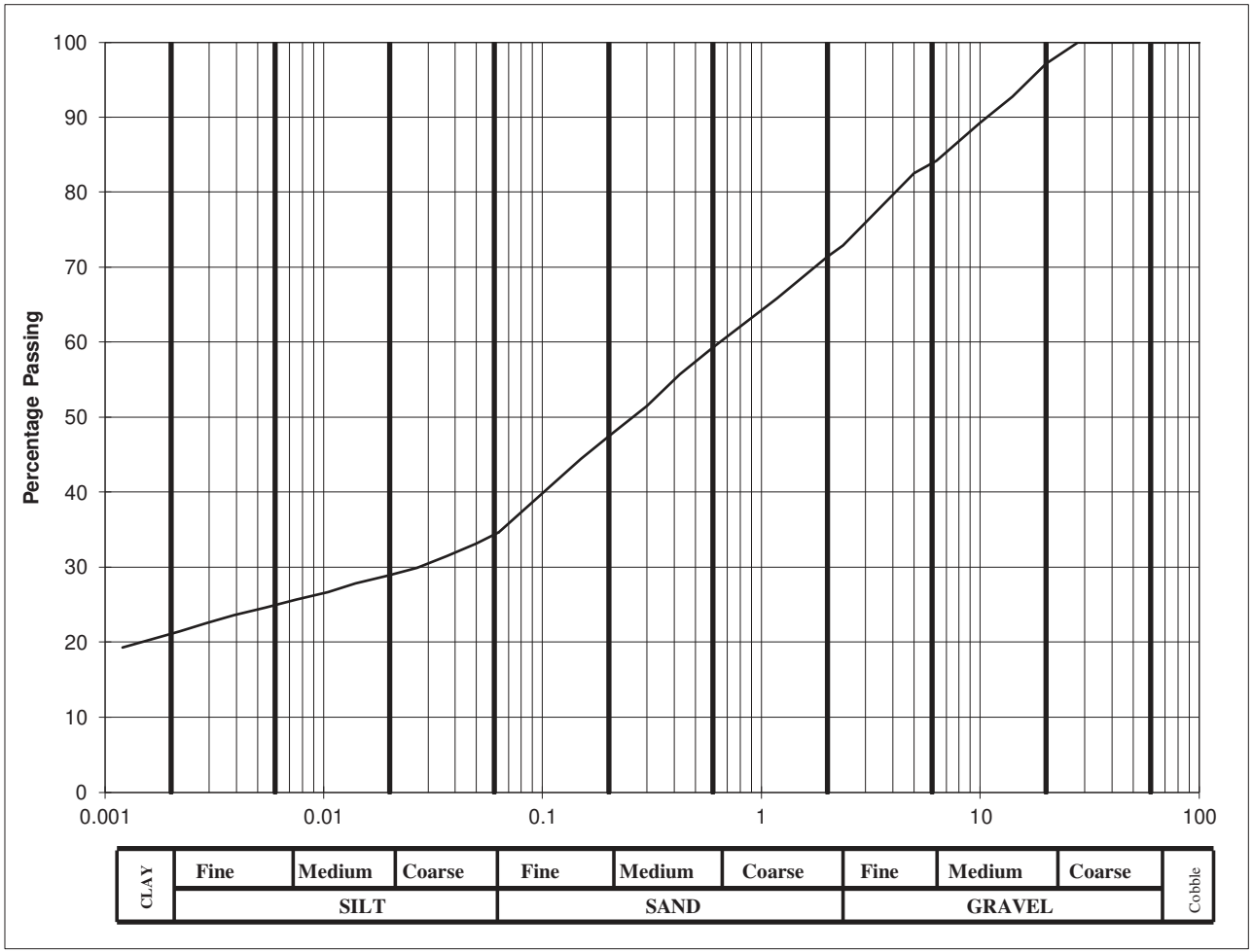
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	35
90	100	**0.0200**	29
75	100	**0.0060**	25
63	100	**0.0020**	21
50	100		
37.5	100		
28	100		
20	97.1		
14	92.7		
10	89.2		
6.3	84.2		
5.0	82.5		
2.36	72.9		
2.00	71.4		
1.18	65.8		
0.600	59.3		
0.425	55.7		
0.300	51.5		
0.212	48		
0.150	44.4		
0.063	35		



Cobbles, %	0
Gravel, %	29
Sand, %	36
Silt, %	14
Clay, %	21

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/973
Sample No :	JOT061

Hole ID :	BH 26
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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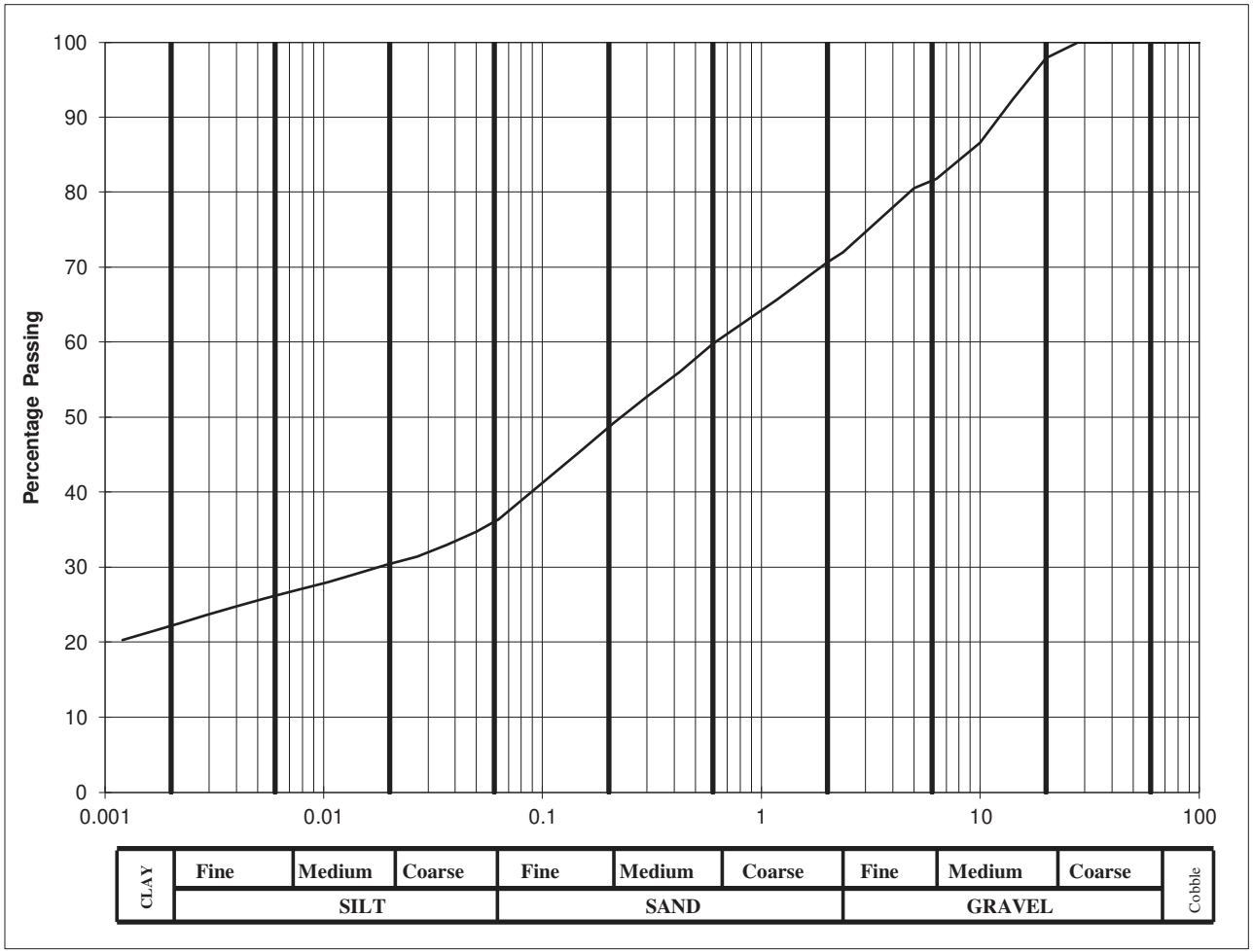
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	36
90	100	**0.0200**	31
75	100	**0.0060**	27
63	100	**0.0020**	22
50	100		
37.5	100		
28	100		
20	97.9		
14	92.3		
10	86.6		
6.3	81.8		
5.0	80.5		
2.36	72		
2.00	70.6		
1.18	65.7		
0.600	59.8		
0.425	56		
0.300	52.7		
0.212	49.2		
0.150	45.5		
0.063	36		



Cobbles, %	0
Gravel, %	29
Sand, %	35
Silt, %	14
Clay, %	22

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/974
Sample No :	JOT070

Hole ID :	BH 28
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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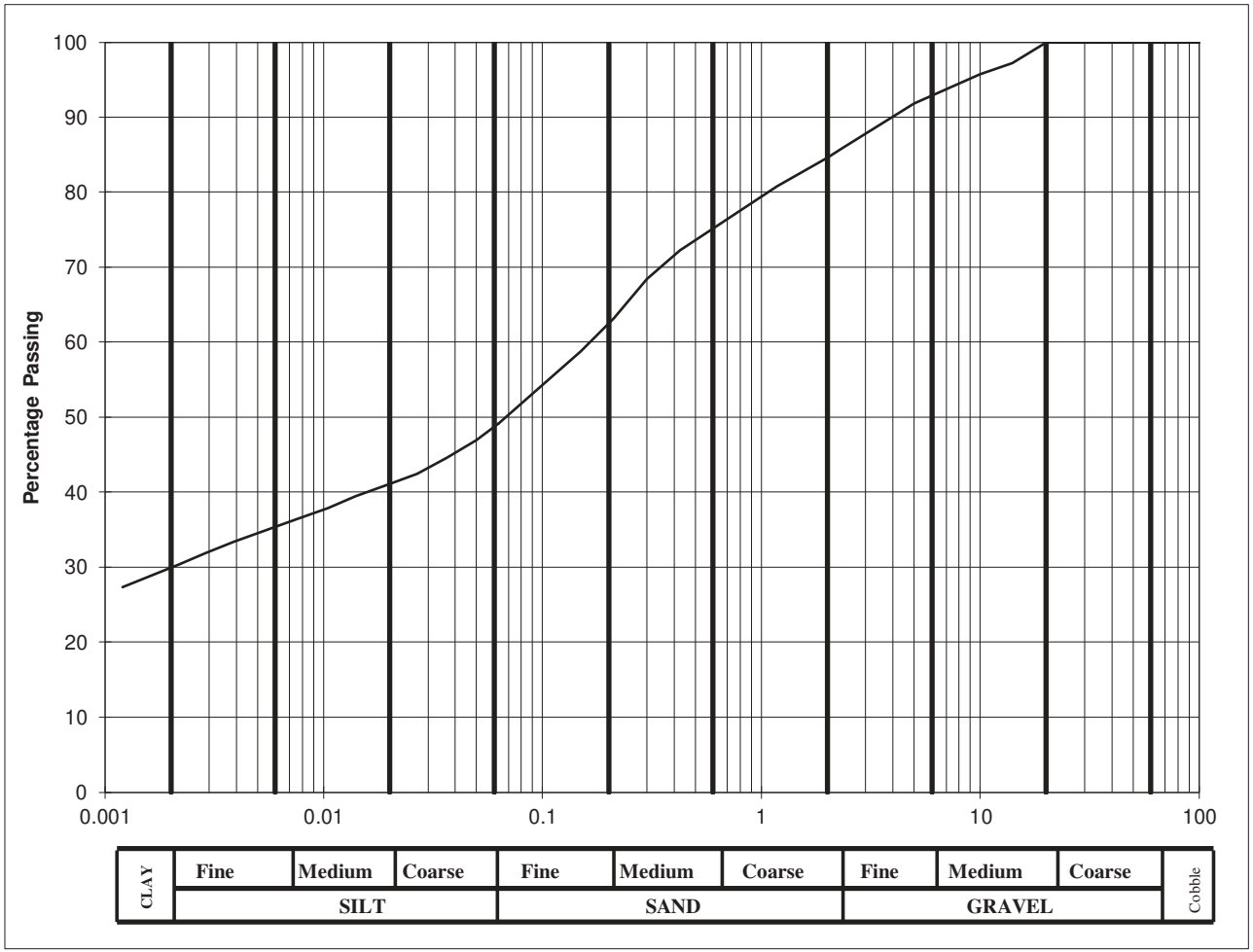
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	49
90	100	**0.0200**	41
75	100	**0.0060**	36
63	100	**0.0020**	30
50	100		
37.5	100		
28	100		
20	100		
14	97.2		
10	95.7		
6.3	93.1		
5.0	91.8		
2.36	85.9		
2.00	84.6		
1.18	80.8		
0.600	75.1		
0.425	72.2		
0.300	68.4		
0.212	63.2		
0.150	58.8		
0.063	49		



Cobbles, %	0
Gravel, %	15
Sand, %	36
Silt, %	19
Clay, %	30

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/975
Sample No :	GM023

Hole ID :	BH 36
Depth, m :	1.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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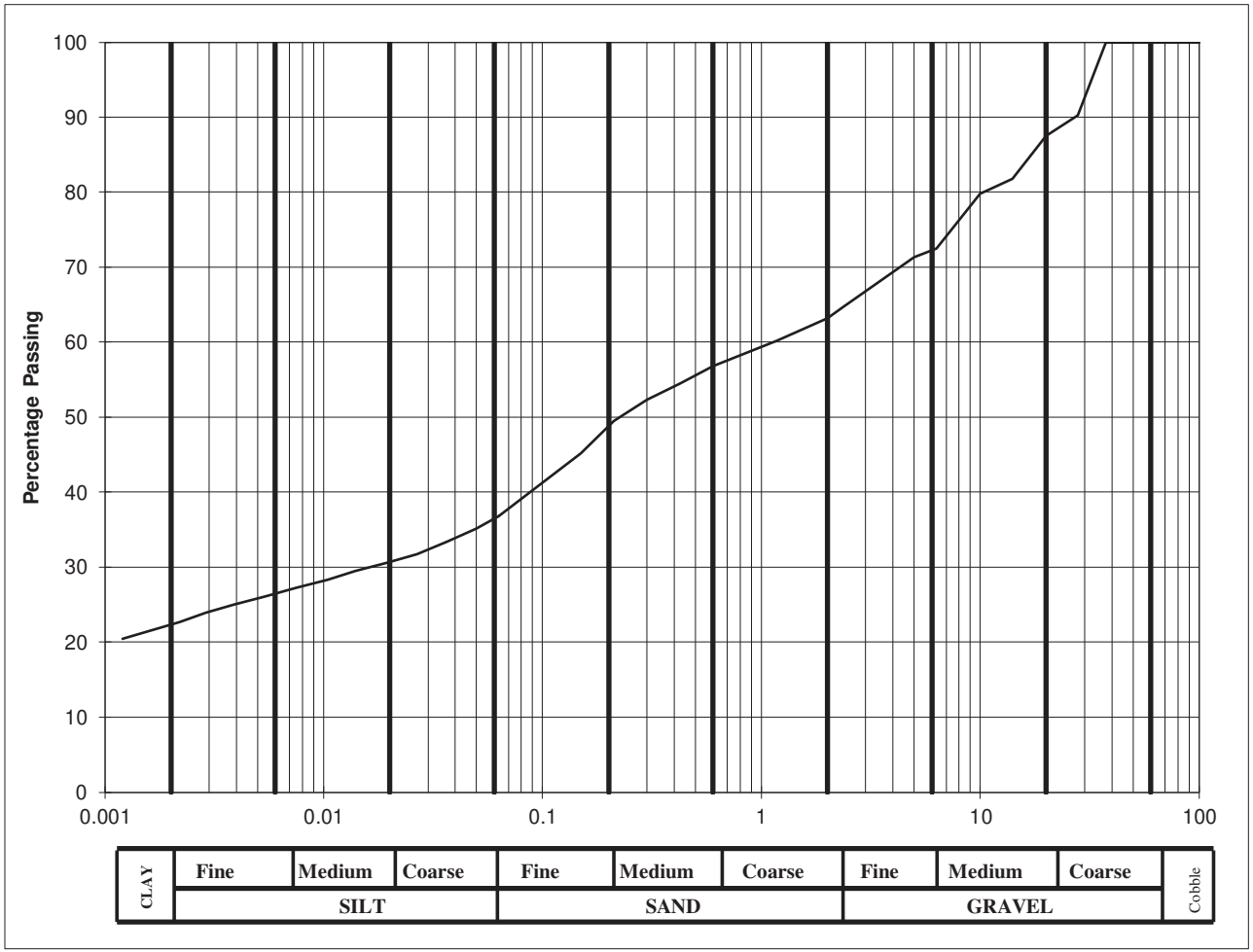
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	37
90	100	**0.0200**	31
75	100	**0.0060**	26
63	100	**0.0020**	22
50	100		
37.5	100		
28	90.2		
20	87.5		
14	81.8		
10	79.8		
6.3	72.5		
5.0	71.3		
2.36	64.7		
2.00	63.2		
1.18	60.2		
0.600	56.8		
0.425	54.5		
0.300	52.3		
0.212	49.5		
0.150	45.2		
0.063	37		



Cobbles, %	0
Gravel, %	37
Sand, %	26
Silt, %	15
Clay, %	22

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/976
Sample No :	GM092

Hole ID :	BH 44
Depth, m :	2.00

Material description :	slightly sandy gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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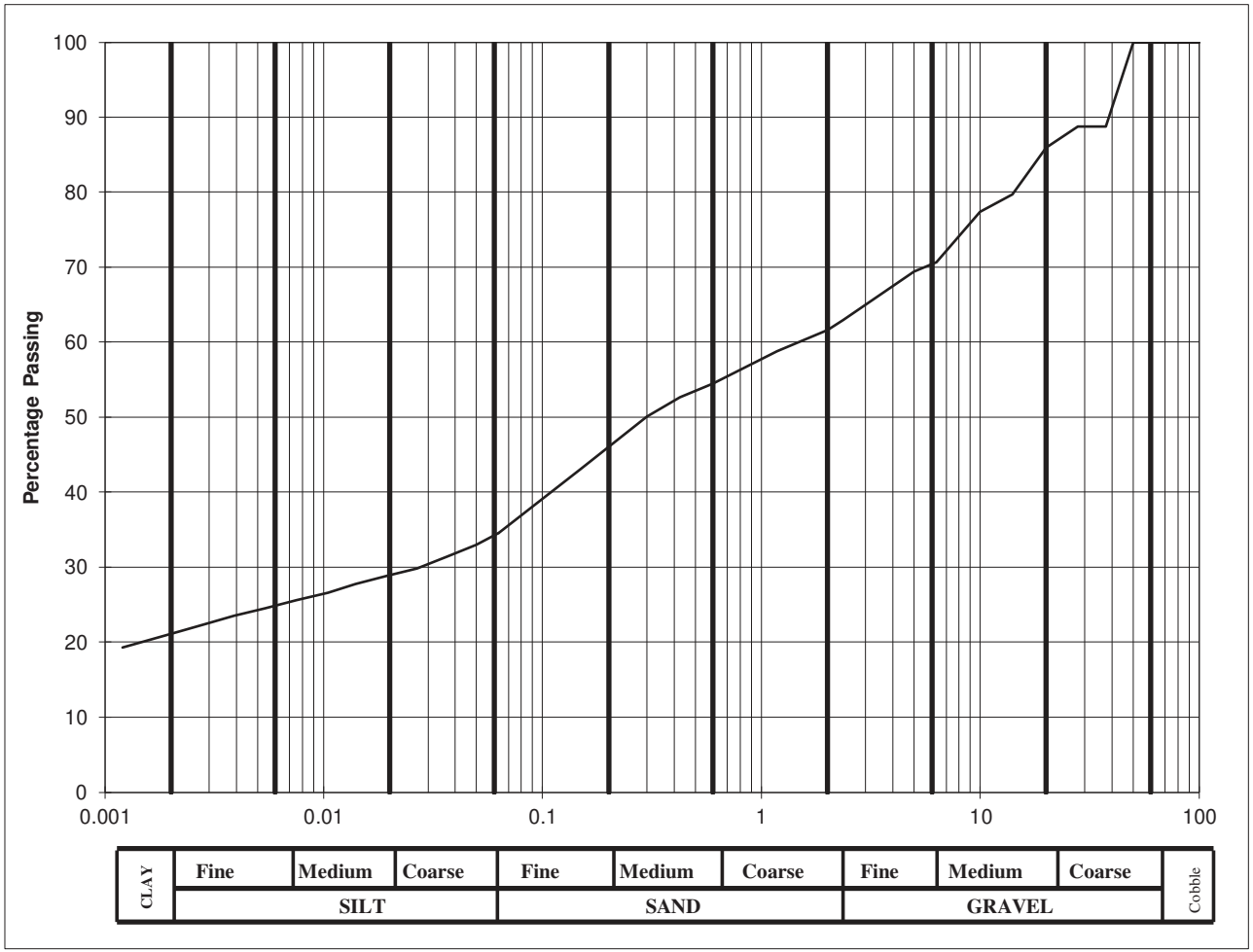
BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	37
90	100	**0.0200**	31
75	100	**0.0060**	26
63	100	**0.0020**	22
50	100		
37.5	88.7		
28	88.7		
20	85.9		
14	79.7		
10	77.4		
6.3	70.6		
5.0	69.4		
2.36	62.9		
2.00	61.6		
1.18	58.8		
0.600	54.5		
0.425	52.6		
0.300	50.1		
0.212	46.6		
0.150	43.1		
0.063	35		



Cobbles, %	0
Gravel, %	38
Sand, %	27
Silt, %	13
Clay, %	22

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/977
Sample No :	GM035

Hole ID :	BH 48
Depth, m :	2.00

Material description :	slightly sandy gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

_____Paddy McGonagle
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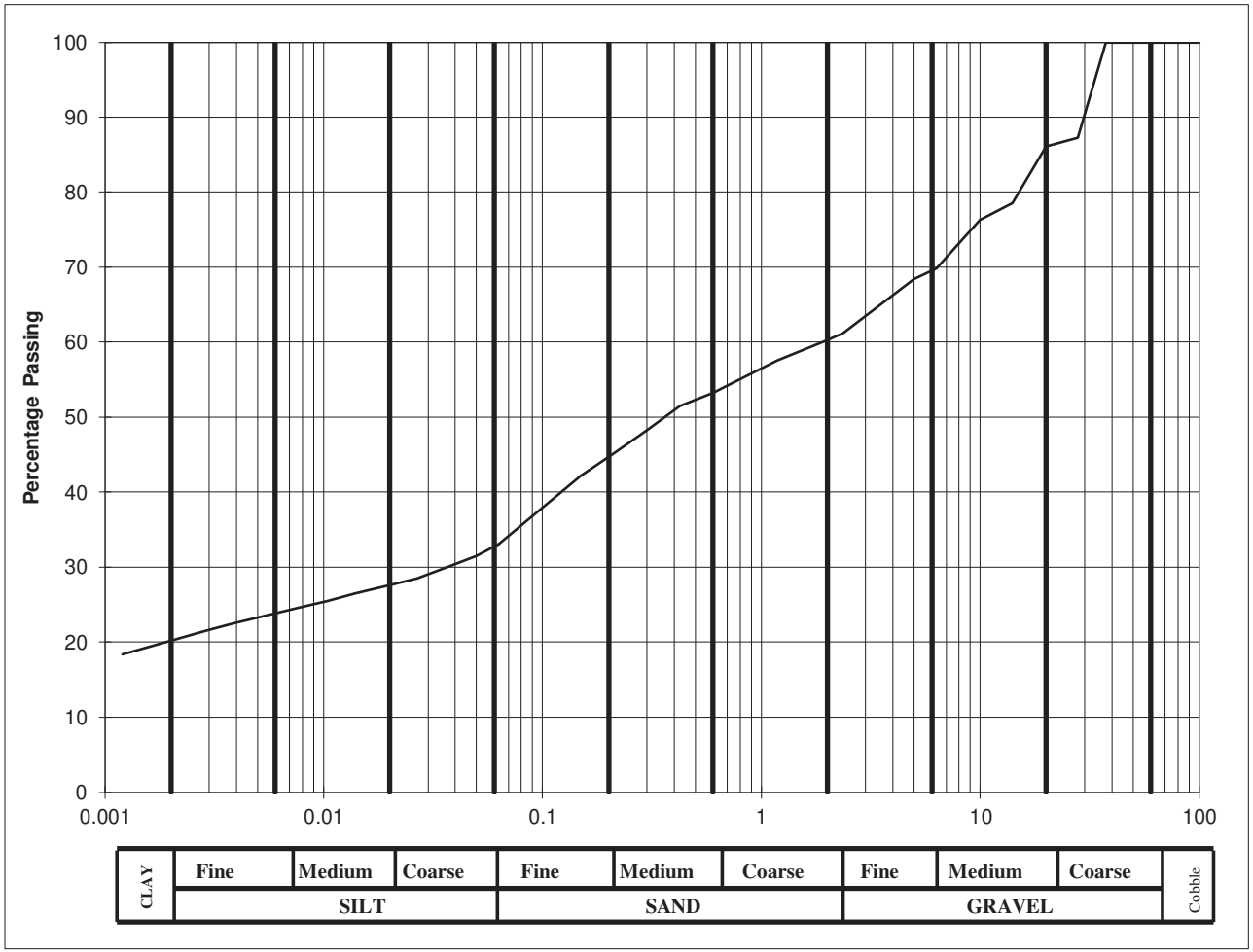
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	33
90	100	**0.0200**	27
75	100	**0.0060**	23
63	100	**0.0020**	20
50	100		
37.5	100		
28	87.2		
20	86.1		
14	78.5		
10	76.3		
6.3	69.8		
5.0	68.4		
2.36	61.2		
2.00	60.3		
1.18	57.5		
0.600	53.2		
0.425	51.5		
0.300	48.2		
0.212	45.2		
0.150	42.2		
0.063	33		



Cobbles, %	0
Gravel, %	40
Sand, %	27
Silt, %	13
Clay, %	20

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/978
Sample No :	GM084

Hole ID :	BH 49
Depth, m :	2.00

Material description :	slightly sandy gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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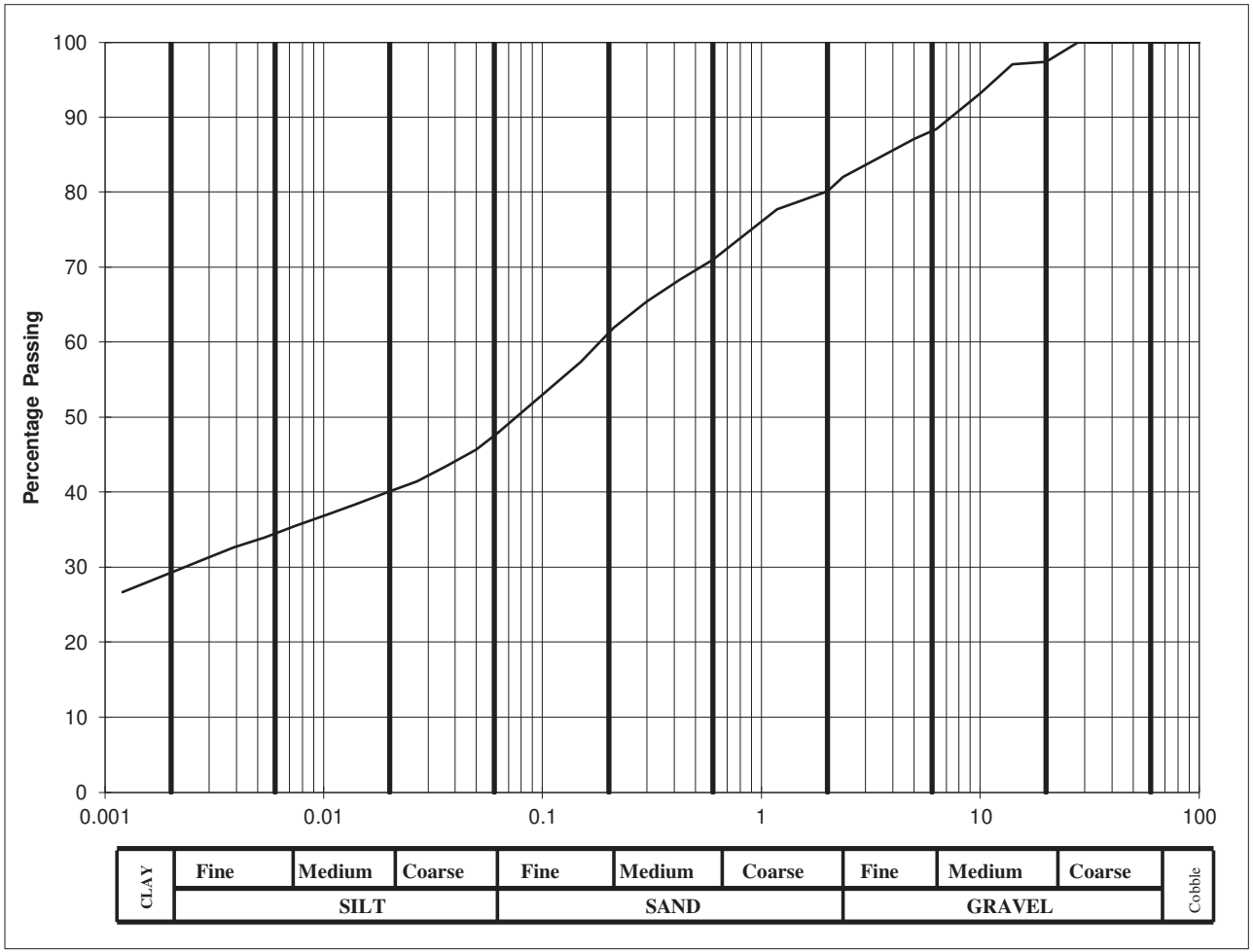
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	48
90	100	**0.0200**	41
75	100	**0.0060**	34
63	100	**0.0020**	29
50	100		
37.5	100		
28	100		
20	97.4		
14	97		
10	93.1		
6.3	88.4		
5.0	87.1		
2.36	82		
2.00	80.1		
1.18	77.7		
0.600	71		
0.425	68.3		
0.300	65.4		
0.212	61.9		
0.150	57.4		
0.063	48		



Cobbles, %	0
Gravel, %	20
Sand, %	32
Silt, %	19
Clay, %	29

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/979
Sample No :	GM071

Hole ID :	BH 50
Depth, m :	1.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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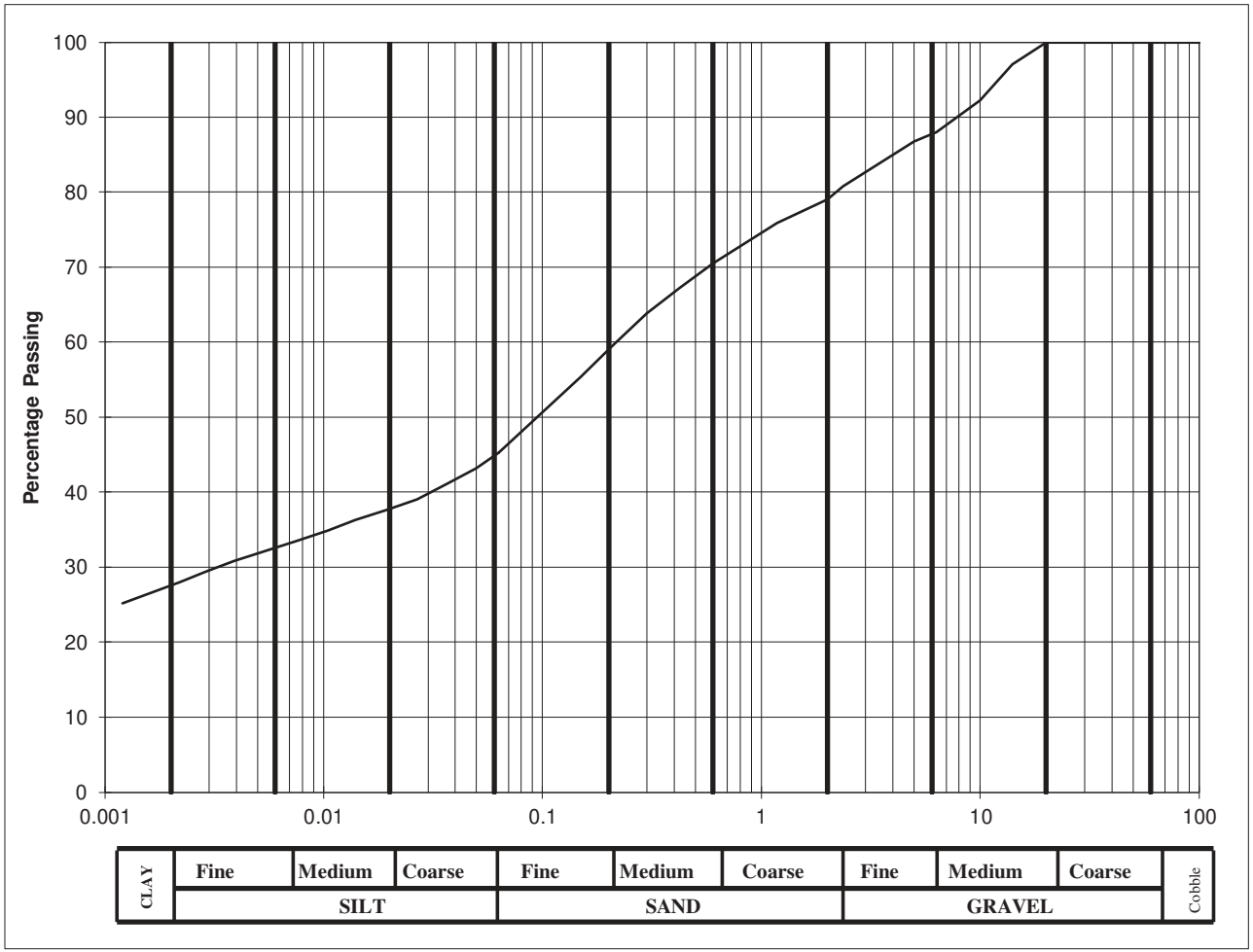
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	45
90	100	**0.0200**	38
75	100	**0.0060**	32
63	100	**0.0020**	28
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	92.2		
6.3	88		
5.0	86.7		
2.36	80.8		
2.00	79		
1.18	75.9		
0.600	70.5		
0.425	67.2		
0.300	63.8		
0.212	59.7		
0.150	55.4		
0.063	45		



Cobbles, %	0
Gravel, %	21
Sand, %	34
Silt, %	17
Clay, %	28

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/980
Sample No :	GM013

Hole ID :	BH 53
Depth, m :	2.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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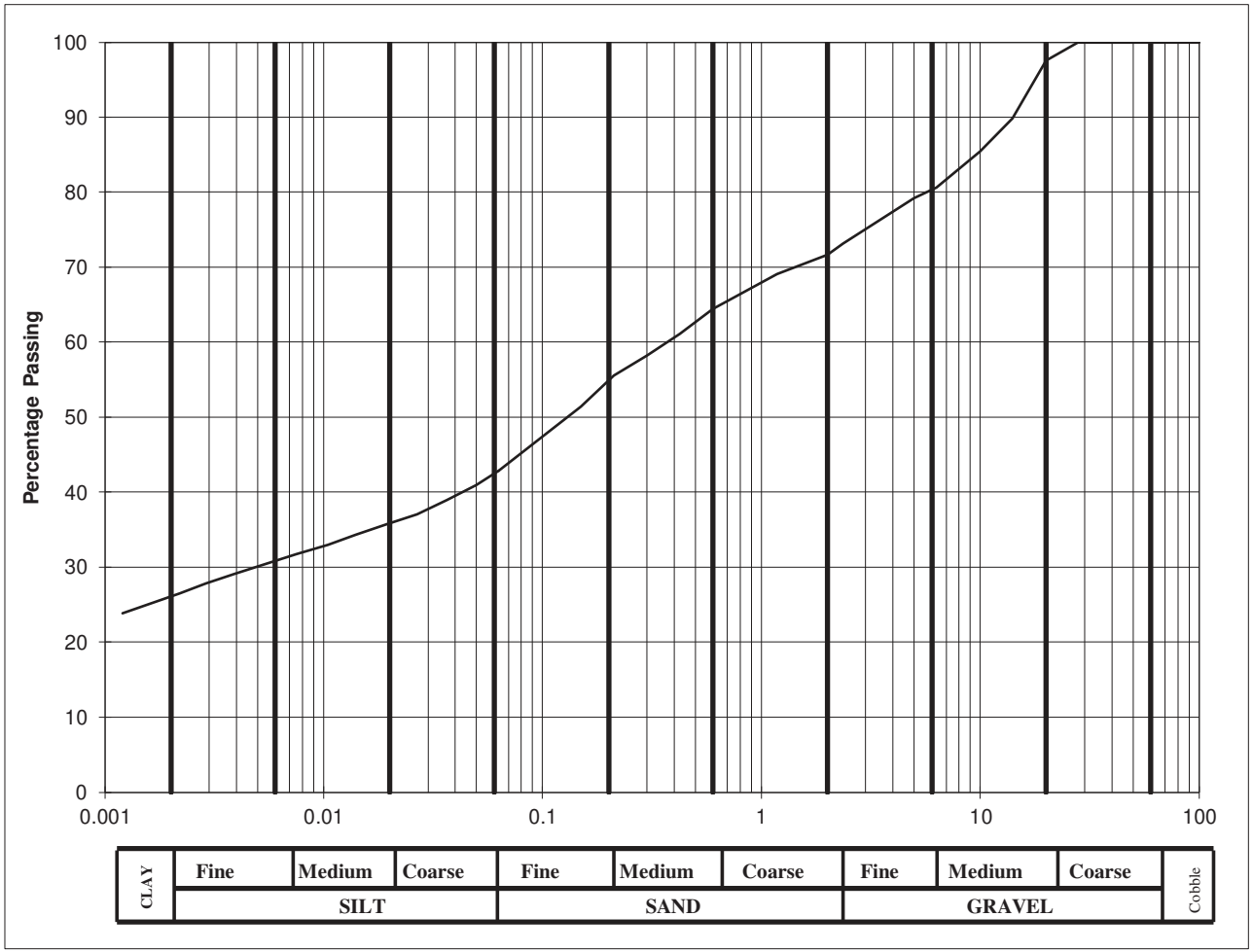
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	43
90	100	**0.0200**	36
75	100	**0.0060**	31
63	100	**0.0020**	27
50	100		
37.5	100		
28	100		
20	97.5		
14	89.8		
10	85.4		
6.3	80.6		
5.0	79.2		
2.36	73.1		
2.00	71.6		
1.18	69.1		
0.600	64.4		
0.425	61.1		
0.300	58.2		
0.212	55.5		
0.150	51.4		
0.063	43		



Cobbles, %	0
Gravel, %	28
Sand, %	29
Silt, %	16
Clay, %	27

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/981
Sample No :	GM050

Hole ID :	BH 54
Depth, m :	2.00

Material description :	slightly sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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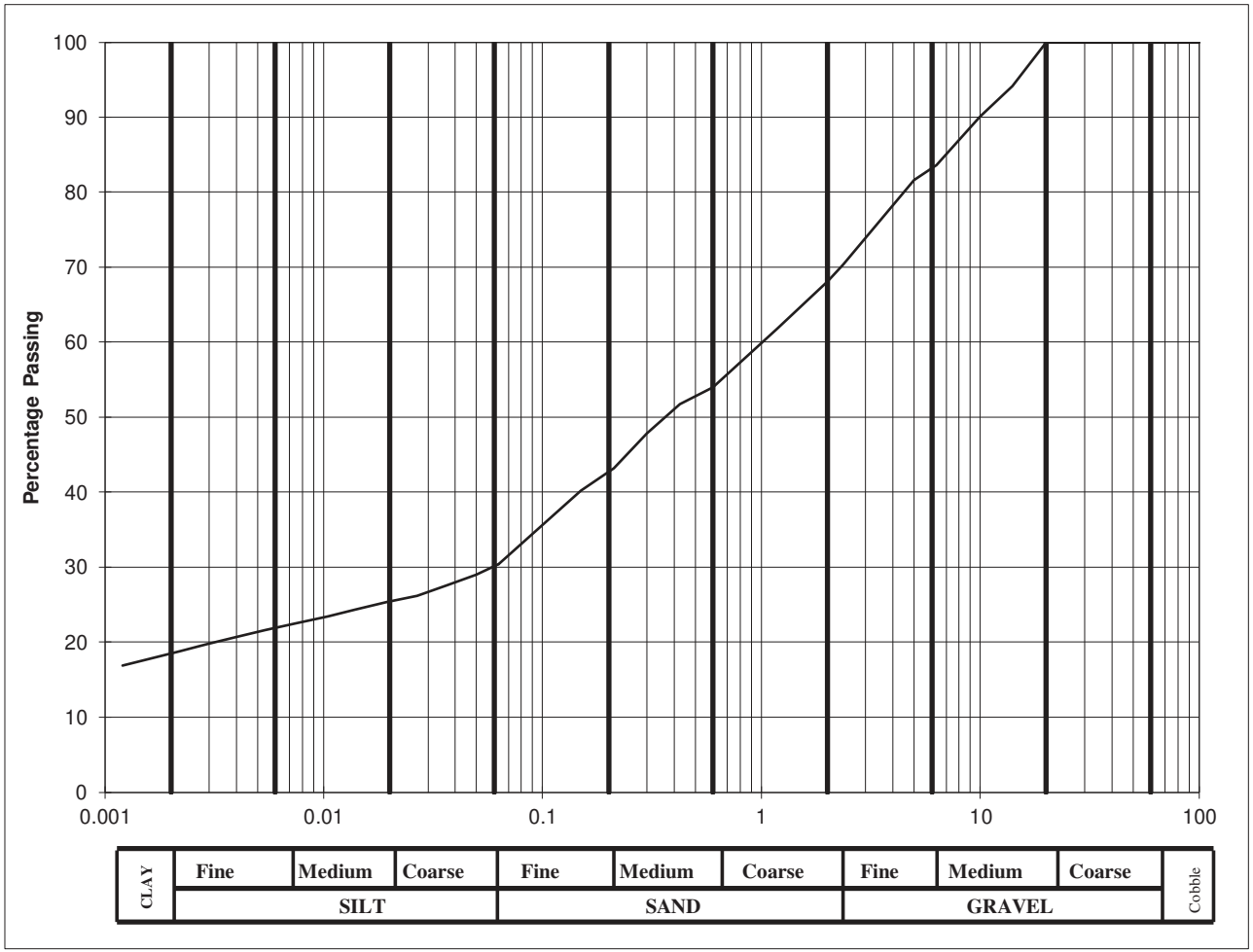
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	30
90	100	**0.0200**	25
75	100	**0.0060**	22
63	100	**0.0020**	18
50	100		
37.5	100		
28	100		
20	100		
14	94.1		
10	90.1		
6.3	83.6		
5.0	81.6		
2.36	70.3		
2.00	68.1		
1.18	61.8		
0.600	54		
0.425	51.7		
0.300	47.8		
0.212	43.2		
0.150	40.2		
0.063	30		



Cobbles, %	0
Gravel, %	32
Sand, %	38
Silt, %	12
Clay, %	18

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/982
Sample No :	GM002

Hole ID :	BH 55
Depth, m :	2.00

Material description :	sandy slightly gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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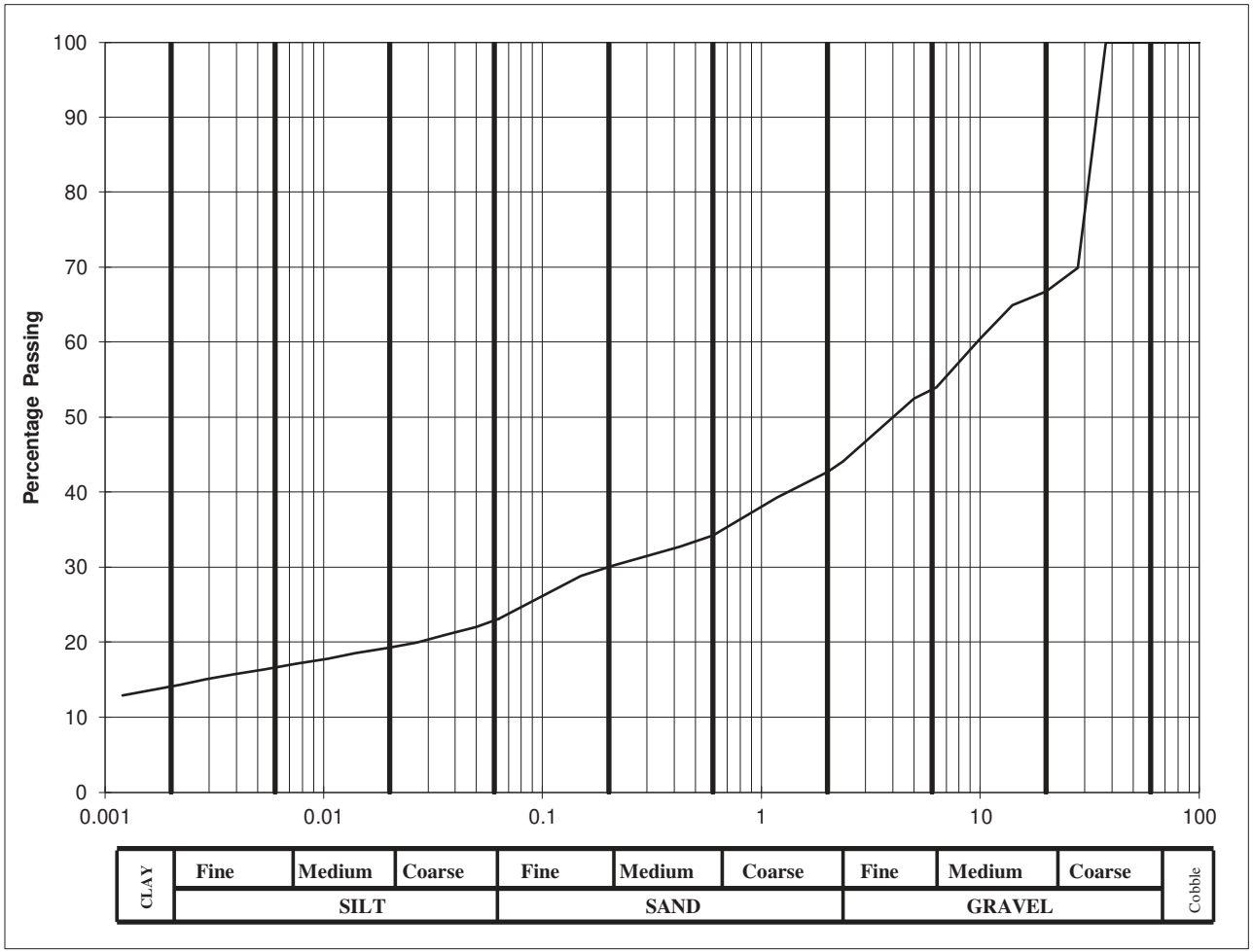
BS 1377 Particle Size Analysis

Site Investigations Limited

BS Sieve size, mm	Percent passing	Hydrometer analysis	
		Diameter, mm	% passing
100	100	**0.0630**	23
90	100	**0.0200**	19
75	100	**0.0060**	17
63	100	**0.0020**	14
50	100		
37.5	100		
28	69.9		
20	66.7		
14	64.9		
10	60.4		
6.3	54		
5.0	52.5		
2.36	44.1		
2.00	42.7		
1.18	39.3		
0.600	34.2		
0.425	32.7		
0.300	31.5		
0.212	30.2		
0.150	28.8		
0.063	23		



Cobbles, %	0
Gravel, %	57
Sand, %	20
Silt, %	9
Clay, %	14

Client :	Cairn Homes
Project :	Coolagad, Greystones

Lab. No :	21/983
Sample No :	JOT135

Hole ID :	BH 56
Depth, m :	2.00

Material description :	slightly sandy gravelly silty CLAY
Remarks :	Soils with clay or silt content between 15% - 35% can be classified as clay or silt depending on the field Engineers assessment of in-situ behaviour. Where material is for re-use and therefore disturbed, only soils with clay or silt >35% are classified as clay or silt

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Chemical Testing
In accordance with BS 1377: Part 3

Client	Cairn Homes
Site	Coolagad, Greystones
S.I. File No	5875 / 21
Test Lab	Site Investigations Ltd., Carhugar The Grange, 12th Lock Rd., Lucan Co. Dublin. Tel (01) 6108768 Email:info@siteinvestigations.ie
Report Date	27th August 2021

Hole Id	Depth (mBGL)	Sample No	Lab Ref	pH Value	Water Soluble Sulphate Content (2:1 Water-soil extract) (SO_3) g/L	Water Soluble Sulphate Content (2:1 Water-soil extract) (SO_3) %	Loss on Ignition (Organic Content) %	Chloride ion Content (water:soil ratio 2:1) %	% passing 2mm	Remarks
BH01	1.00	JOT001	21/955	8.13	0.126	0.091		0.26	72.5	
BH02	2.00	DM011	21/956	8.22	0.127	0.094		0.25	74.2	
BH03	1.00	JOT010	21/957	8.00				0.19	68.6	
BH05	2.00	JOT124	21/959	7.59	0.126	0.098		0.27	67.7	
BH07	1.00	JOT091	21/961	7.58				0.26	79.7	
BH08	1.00	JOT142	21/962	8.08	0.126	0.105		0.24	83.7	
BH10	2.00	JOT115	21/964	7.68	0.127	0.089		0.27	70.3	
BH11	1.00	JOT031	21/965	7.77	0.126	0.092		0.22	73.2	
BH12	2.00	DM002	21/966	7.95	0.124	0.090		0.22	72.3	
BH13	2.00	JOT039	21/967	7.59	0.123	0.097		0.25	78.8	
BH15	2.00	JOT048	21/969	7.96	0.126	0.086		0.25	68.5	
BH16	1.00	JOT102	21/970	7.59	0.124	0.102		0.18	82.1	
BH17	1.00	JOT081	21/971	7.68				0.22	72.1	
BH21	1.00	JOT054	21/972	7.85	0.124	0.099		0.23	79.4	
BH26	1.00	JOT061	21/973	7.77	0.127	0.091		0.18	71.4	
BH28	1.00	JOT070	21/974	7.39	0.120	0.085		0.26	70.6	
BH36	1.00	GM023	21/975	7.63	0.126	0.106		0.25	84.6	
BH44	2.00	GM092	21/976	7.85	0.124	0.079		0.26	63.2	
BH48	2.00	GM035	21/977	7.96	0.126	0.076		0.29	61.6	
BH49	2.00	GM084	21/978	7.88				0.28	60.3	
BH50	1.00	GM071	21/979	7.32	0.123	0.099		0.28	80.1	
BH53	2.00	GM013	21/980	8.32	0.122	0.096		0.27	79.0	
BH54	2.00	GM050	21/981	8.21	0.126	0.090		0.28	71.6	
BH55	2.00	GM002	21/982	7.39				0.26	68.1	
BH56	2.00	JOT135	21/983	7.49	0.120	0.051		0.22	42.7	

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Appendix 13

Specialist Geotechnical Test Results

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Light brown slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		86.65
Bulk density (Mg/m3)		2.21
Particle density	(Assumed)	2.70

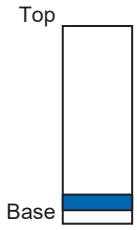
Initial conditions

Settlement Channel	1107
Moisture content (%)	15.27
Dry density (Mg/m3)	1.91
Initial Voids Ratio	0.41
Deg of Saturation (%)	100.4
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	13.0
Dry Density (Mg/m3)	1.99
Final voids ratio	0.35
Final degree of saturation (%)	99.1
Final settlement	0.793

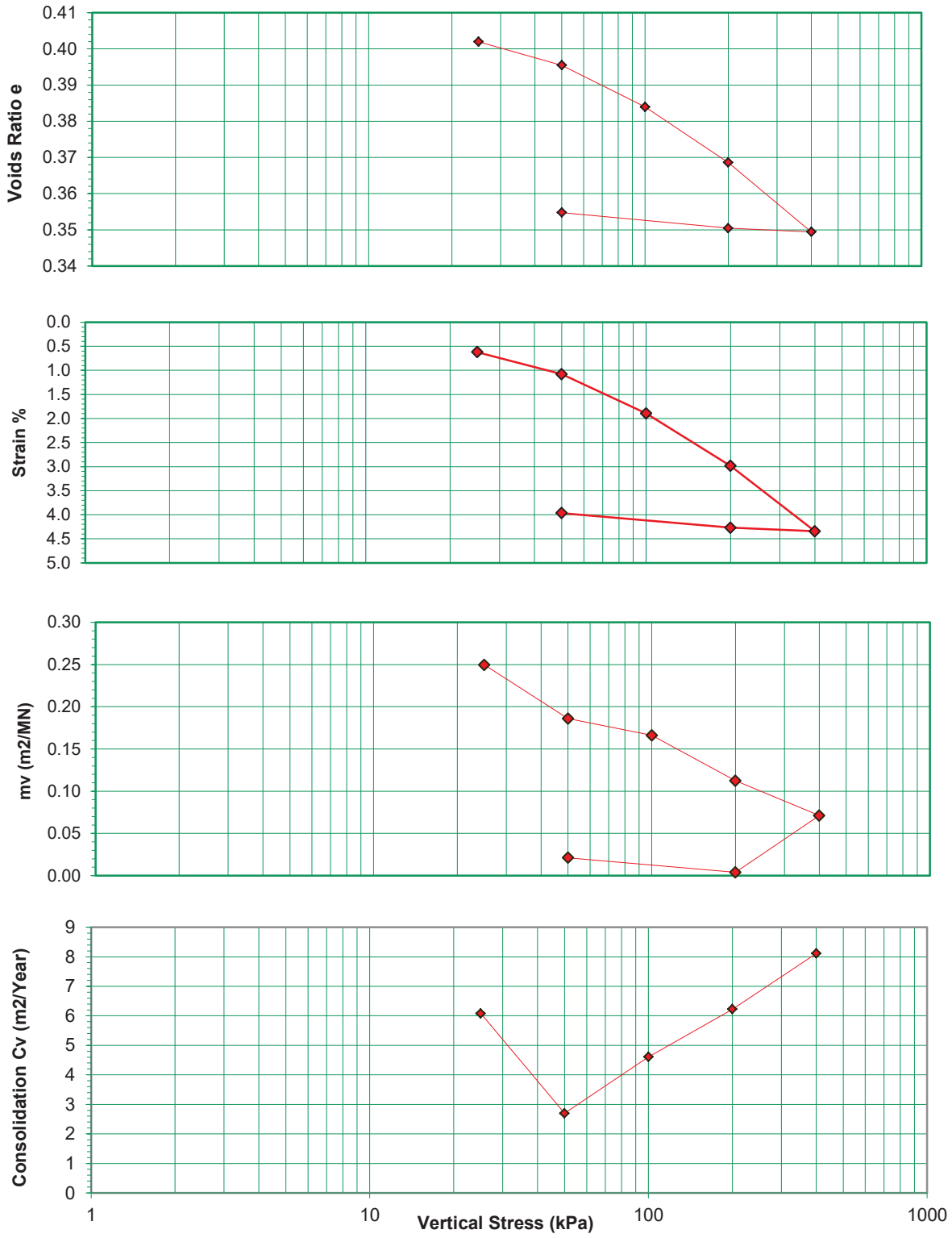
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH04
		Sample No.	JOT015
		Depth m.	0.60m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH04 Sample No. JOT015 Depth m. 0.60m

Oedometer Test

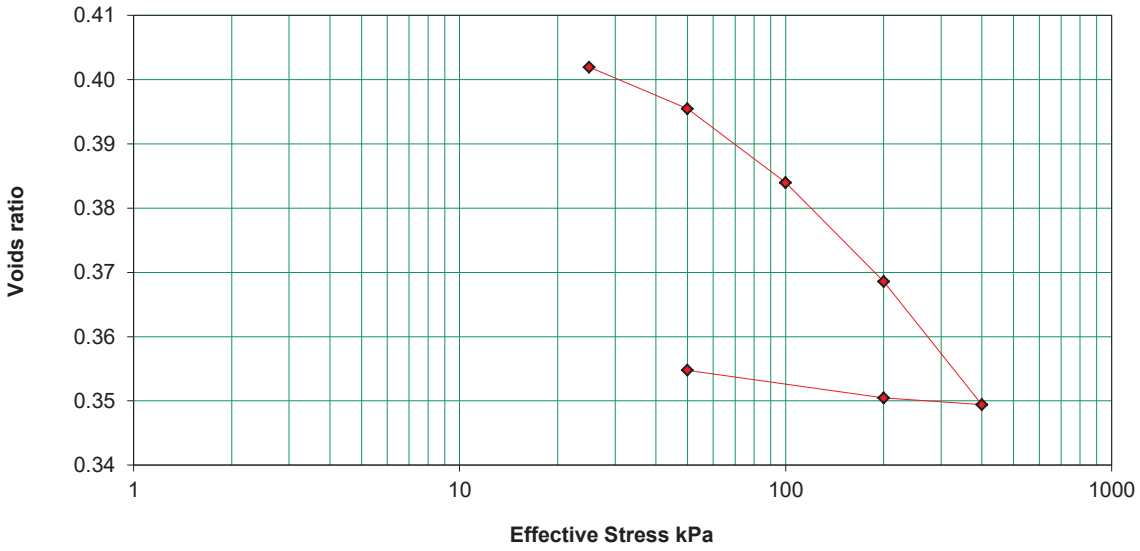
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Light brown slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		86.65
Bulk Density (mg/m3)		2.206
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	15.3	13.0	%
Dry Density	1.91	1.99	Mg/m3
Initial Voids Ratio	0.4107	0.3548	
Degree of Saturation	100.40	99.12	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	0.620	0.4020	0.250	6.080	0.124
2	50	1.080	0.3955	0.186	2.699	0.216
3	100	1.895	0.3840	0.166	4.606	0.379
4	200	2.985	0.3686	0.112	6.225	0.597
5	400	4.345	0.3494	0.071	8.114	0.869
6	200	4.270	0.3505	0.004		0.854
7	50	3.965	0.3548	0.021		0.793

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH04
		Sample No.	JOT015
		Depth m.	0.60m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Grey brown slightly sandy silty with traces of fine gravel.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		82.56
Bulk density (Mg/m3)		2.10
Particle density	(Assumed)	2.70

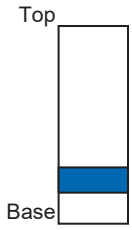
Initial conditions

Settlement Channel	1109
Moisture content (%)	17.81
Dry density (Mg/m3)	1.78
Initial Voids Ratio	0.5132
Deg of Saturation (%)	93.7
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	17.3
Dry Density (Mg/m3)	1.84
Final voids ratio	0.4656
Final degree of saturation (%)	100.3
Final settlement	0.629

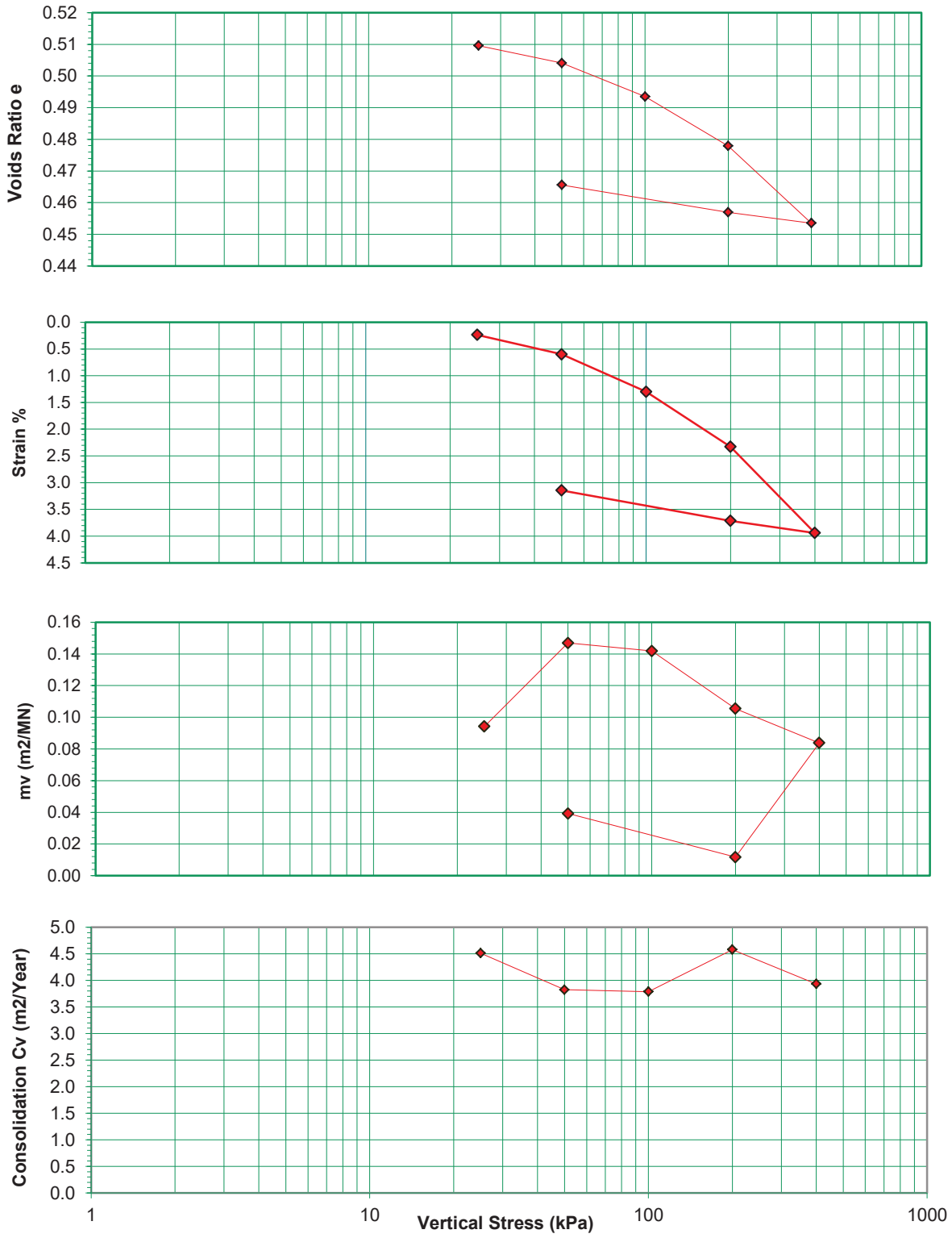
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH07
		Sample No.	JOT094
		Depth m.	4.00m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH07 Sample No. JOT094 Depth m. 4.00m

Oedometer Test

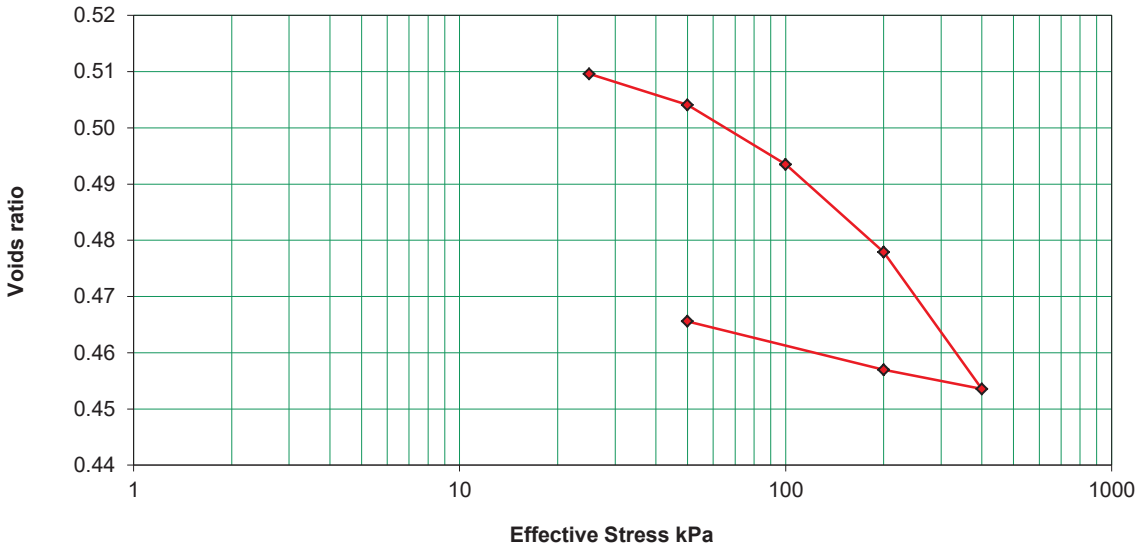
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Grey brown slightly sandy silty with traces of fine gravel.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		82.56
Bulk Density (mg/m3)		2.102
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	17.8	17.3	%
Dry Density	1.78	1.84	Mg/m3
Initial Voids Ratio	0.5132	0.4656	
Degree of Saturation	93.70	100.30	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	0.235	0.5096	0.094	4.511	0.047
2	50	0.600	0.5041	0.147	3.824	0.120
3	100	1.300	0.4935	0.142	3.788	0.260
4	200	2.330	0.4779	0.105	4.579	0.466
5	400	3.940	0.4535	0.084	3.934	0.788
6	200	3.715	0.4569	0.012		0.743
7	50	3.145	0.4656	0.039		0.629

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH07
		Sample No.	JOT094
		Depth m.	4.00m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Light brown slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		83.38
Bulk density (Mg/m3)		2.12
Particle density	(Assumed)	2.70

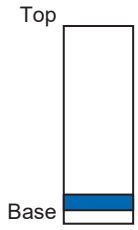
Initial conditions

Settlement Channel	1110
Moisture content (%)	16.63
Dry density (Mg/m3)	1.82
Initial Voids Ratio	0.4833
Deg of Saturation (%)	92.9
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	14.8
Dry Density (Mg/m3)	1.91
Final voids ratio	0.4100
Final degree of saturation (%)	97.4
Final settlement	0.988

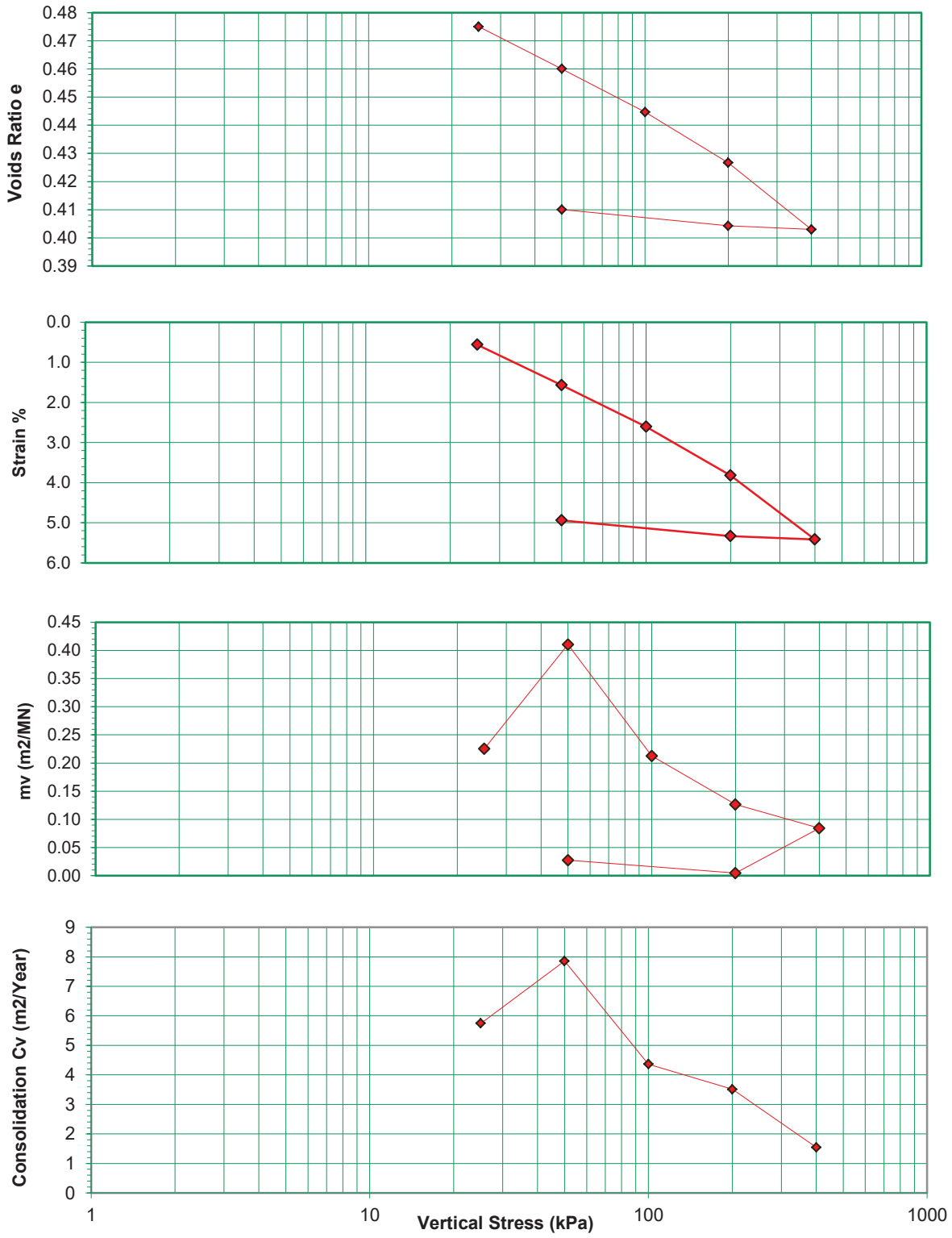
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH10
		Sample No.	JOT114
		Depth m.	1.40m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	Project Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH10 Sample No. JOT114 Depth m. 1.40m

Oedometer Test

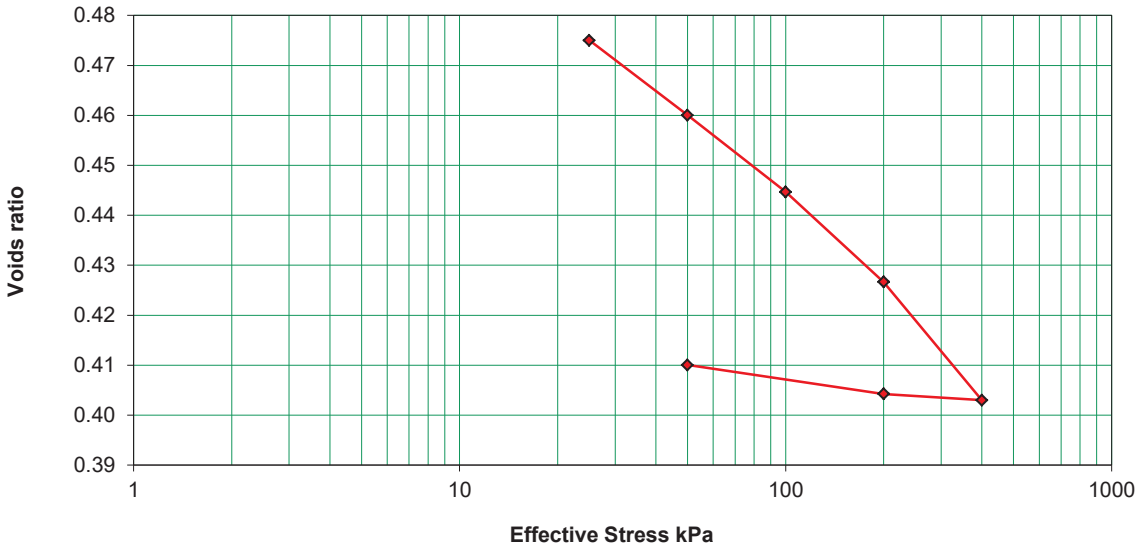
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Light brown slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		83.38
Bulk Density (mg/m3)		2.123
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	16.6	14.8	%
Dry Density	1.82	1.91	Mg/m3
Initial Voids Ratio	0.4833	0.4100	
Degree of Saturation	92.91	97.45	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	0.560	0.4750	0.225	5.745	0.112
2	50	1.570	0.4600	0.410	7.853	0.314
3	100	2.605	0.4447	0.213	4.364	0.521
4	200	3.820	0.4267	0.126	3.510	0.764
5	400	5.415	0.4030	0.084	1.543	1.083
6	200	5.330	0.4043	0.004		1.066
7	50	4.940	0.4100	0.027		0.988

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH10
		Sample No.	JOT114
		Depth m.	1.40m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Brown/red slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		84.54
Bulk density (Mg/m3)		2.15
Particle density	(Assumed)	2.70

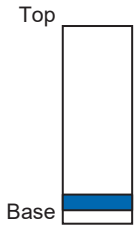
Initial conditions

Settlement Channel	1107
Moisture content (%)	16.62
Dry density (Mg/m3)	1.85
Initial Voids Ratio	0.4629
Deg of Saturation (%)	97.0
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	12.5
Dry Density (Mg/m3)	2.02
Final voids ratio	0.3346
Final degree of saturation (%)	100.5
Final settlement	1.754

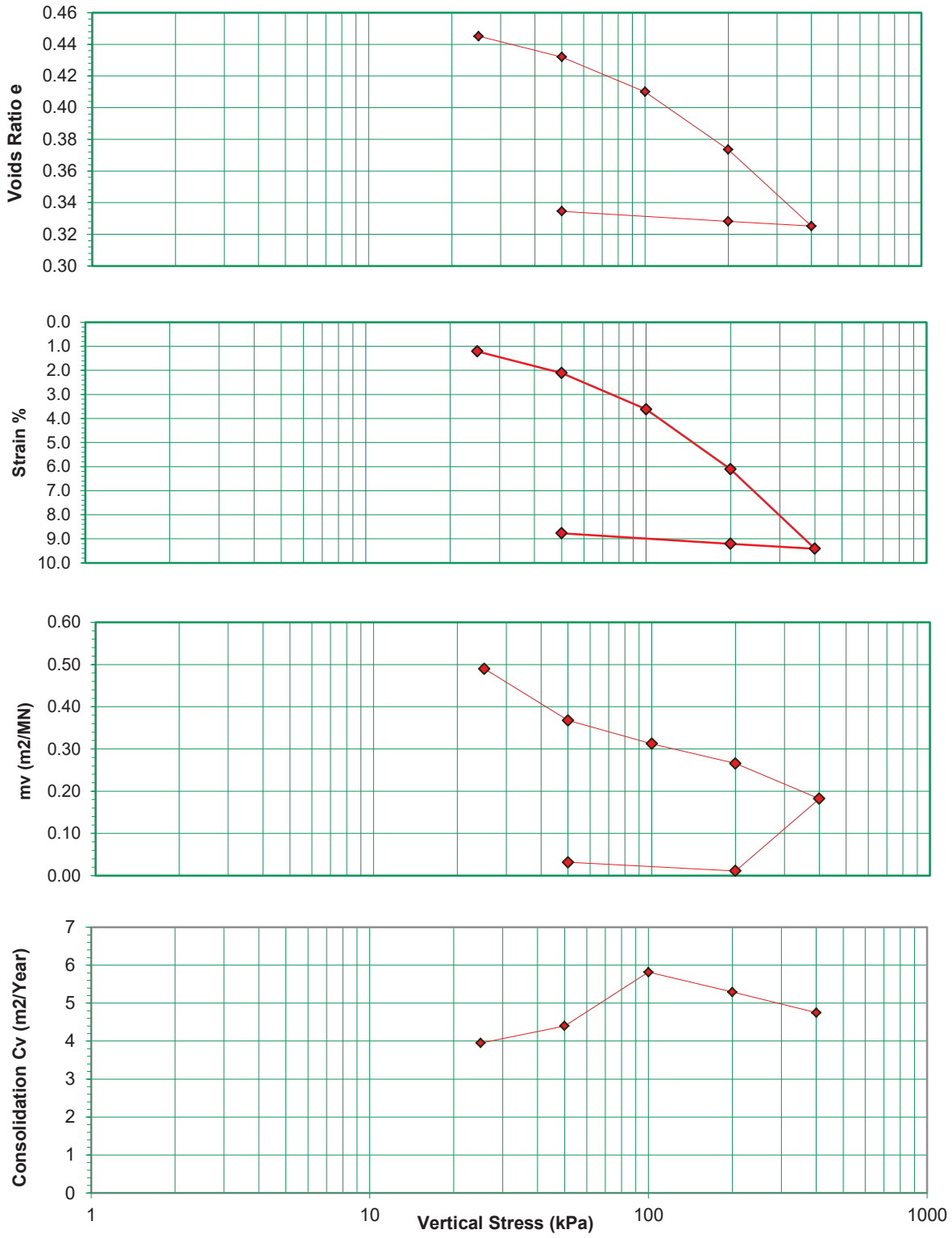
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH15
		Sample No.	JOT047
		Depth m.	1.30m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH15 Sample No. JOT047 Depth m. 1.30m

Oedometer Test

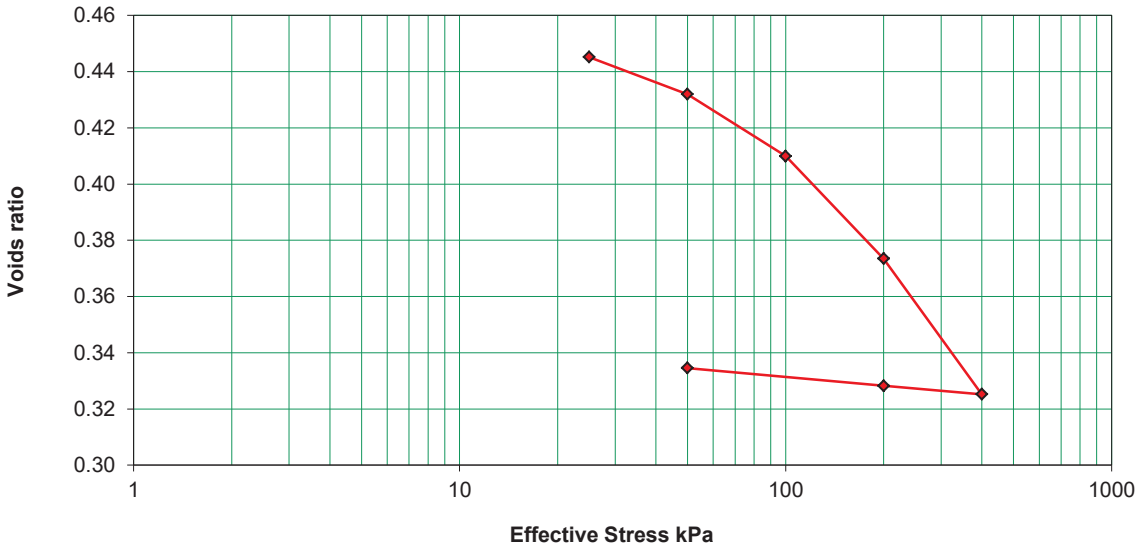
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Brown/red slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		84.54
Bulk Density (mg/m3)		2.153
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	16.6	12.5	%
Dry Density	1.85	2.02	Mg/m3
Initial Voids Ratio	0.4629	0.3346	
Degree of Saturation	96.97	100.53	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	1.210	0.4452	0.490	3.952	0.242
2	50	2.110	0.4320	0.368	4.400	0.422
3	100	3.615	0.4100	0.312	5.817	0.723
4	200	6.110	0.3735	0.266	5.292	1.222
5	400	9.410	0.3252	0.182	4.749	1.882
6	200	9.205	0.3282	0.011		1.841
7	50	8.770	0.3346	0.032		1.754

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH15
		Sample No.	JOT047
		Depth m.	1.30m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Light brown slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		85.43
Bulk density (Mg/m3)		2.18
Particle density	(Assumed)	2.70

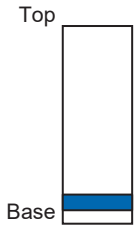
Initial conditions

Settlement Channel	SB2
Moisture content (%)	17.20
Dry density (Mg/m3)	1.86
Initial Voids Ratio	0.4548
Deg of Saturation (%)	102.1
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	13.5
Dry Density (Mg/m3)	1.97
Final voids ratio	0.3673
Final degree of saturation (%)	99.3
Final settlement	1.203

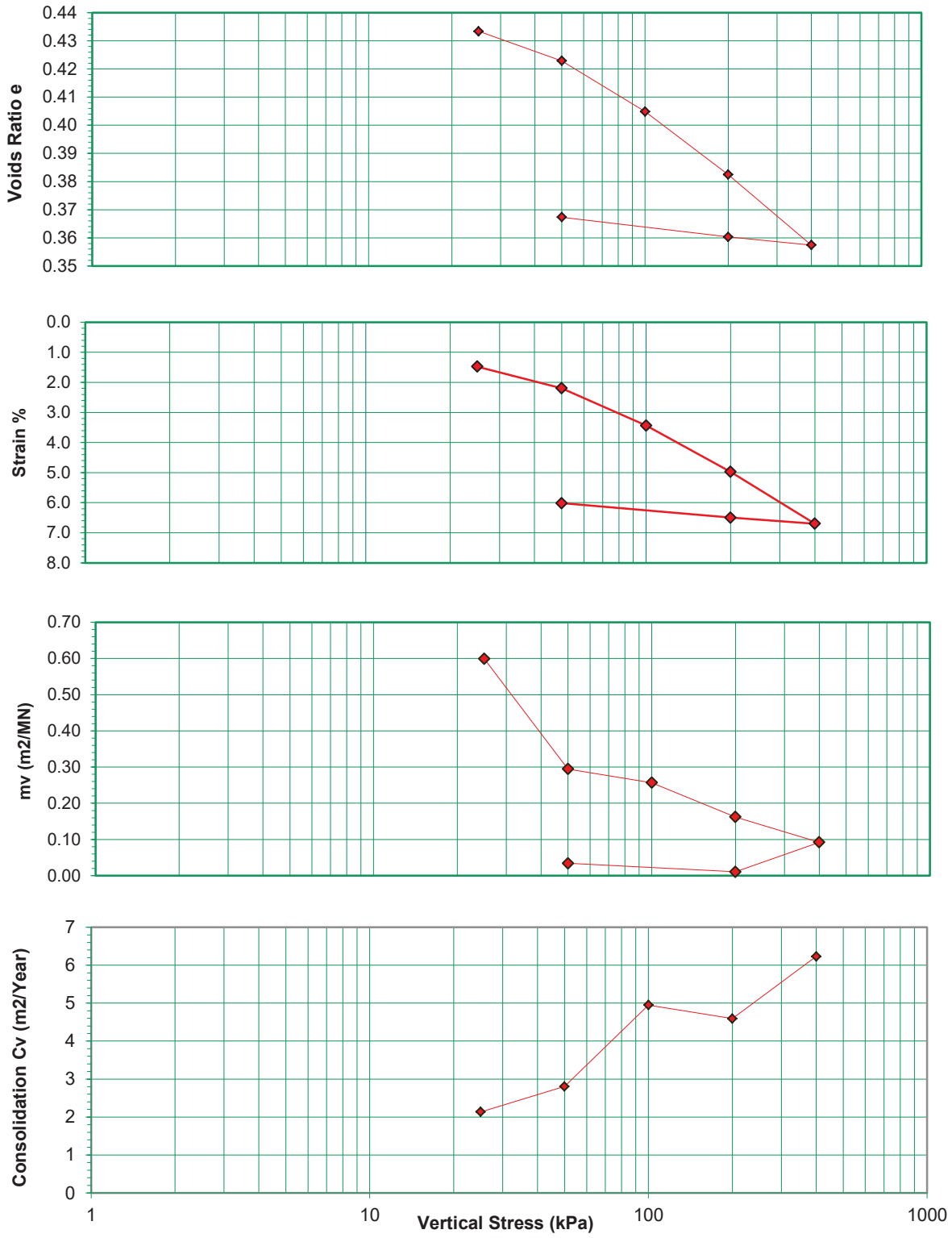
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH17
		Sample No.	JOT082
		Depth m.	1.60m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH17 Sample No. JOT082 Depth m. 1.60m

Oedometer Test

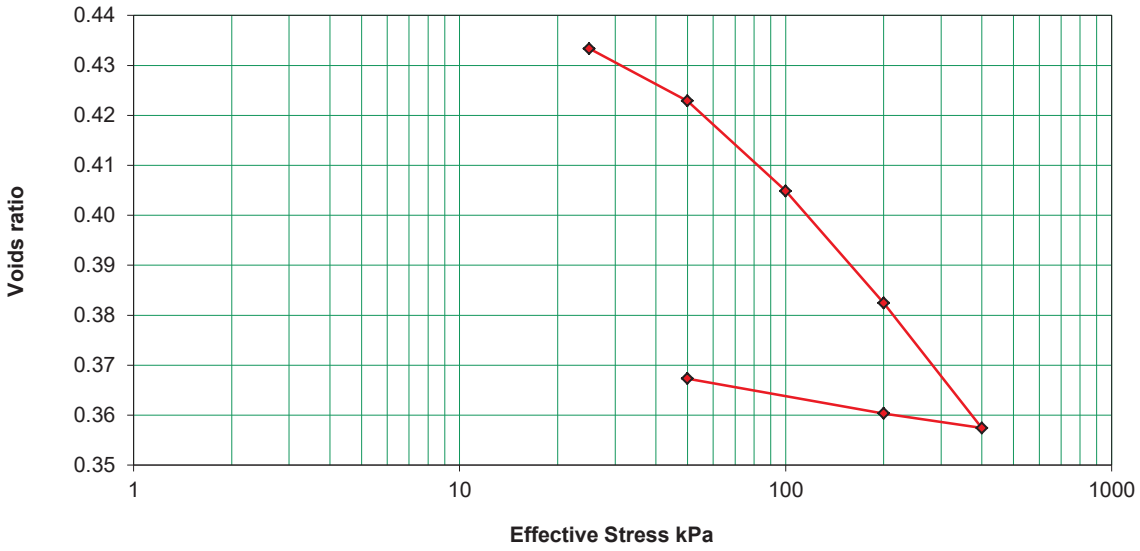
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Light brown slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		85.43
Bulk Density (mg/m3)		2.175
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	17.2	13.5	%
Dry Density	1.86	1.97	Mg/m3
Initial Voids Ratio	0.4548	0.3673	
Degree of Saturation	102.13	99.33	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	1.475	0.4334	0.599	2.135	0.295
2	50	2.195	0.4229	0.294	2.805	0.439
3	100	3.435	0.4049	0.257	4.948	0.687
4	200	4.975	0.3825	0.162	4.591	0.995
5	400	6.695	0.3574	0.092	6.231	1.339
6	200	6.495	0.3603	0.011		1.299
7	50	6.015	0.3673	0.034		1.203

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH17
		Sample No.	JOT082
		Depth m.	1.60m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Brown slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		81.85
Bulk density (Mg/m3)		2.08
Particle density	(Assumed)	2.70

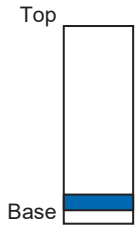
Initial conditions

Settlement Channel	1107
Moisture content (%)	20.07
Dry density (Mg/m3)	1.74
Initial Voids Ratio	0.5556
Deg of Saturation (%)	97.5
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	17.4
Dry Density (Mg/m3)	1.84
Final voids ratio	0.4656
Final degree of saturation (%)	100.8
Final settlement	1.157

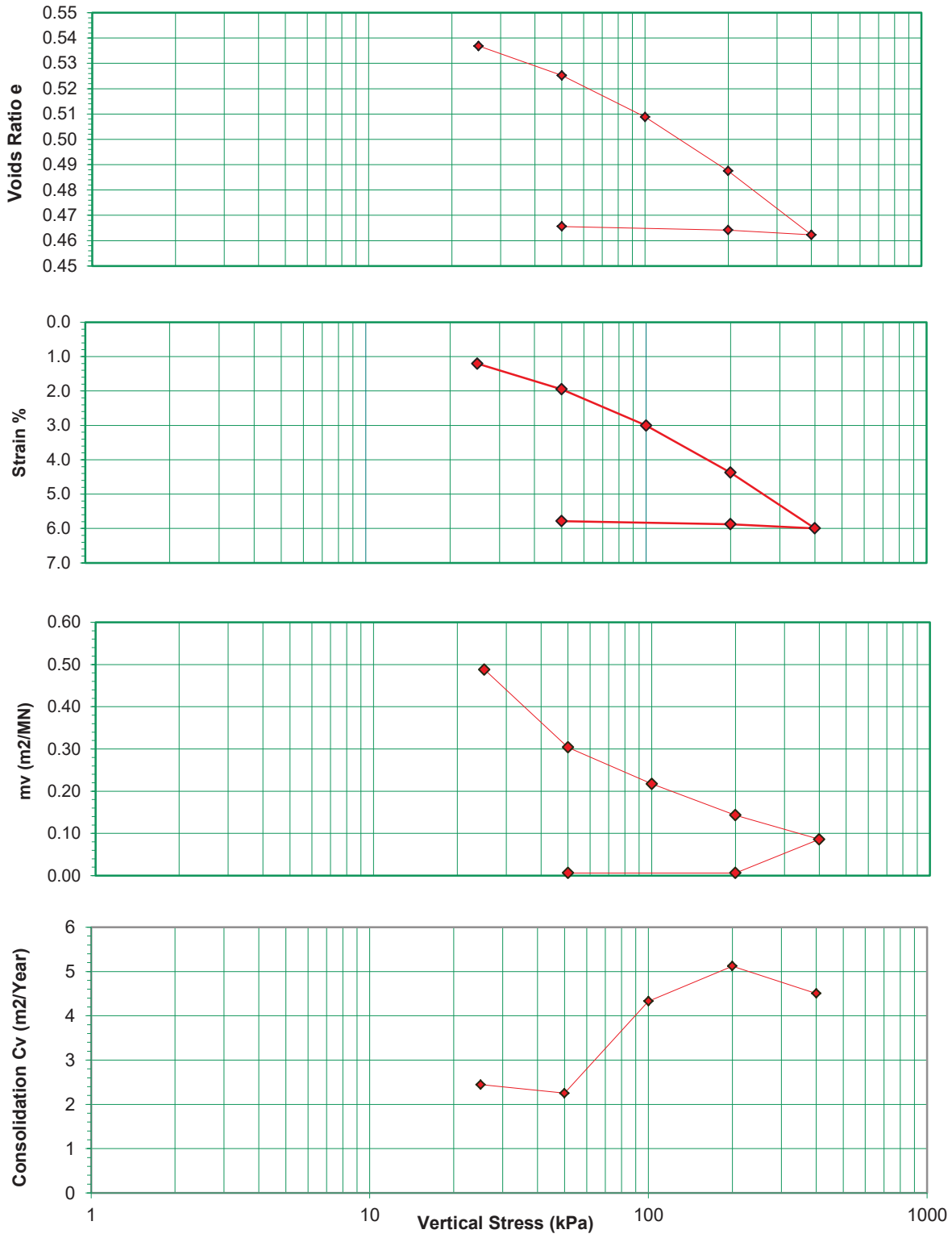
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH28
		Sample No.	JOT071
		Depth m.	1.40m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH28 Sample No. JOT071 Depth m. 1.40m

Oedometer Test

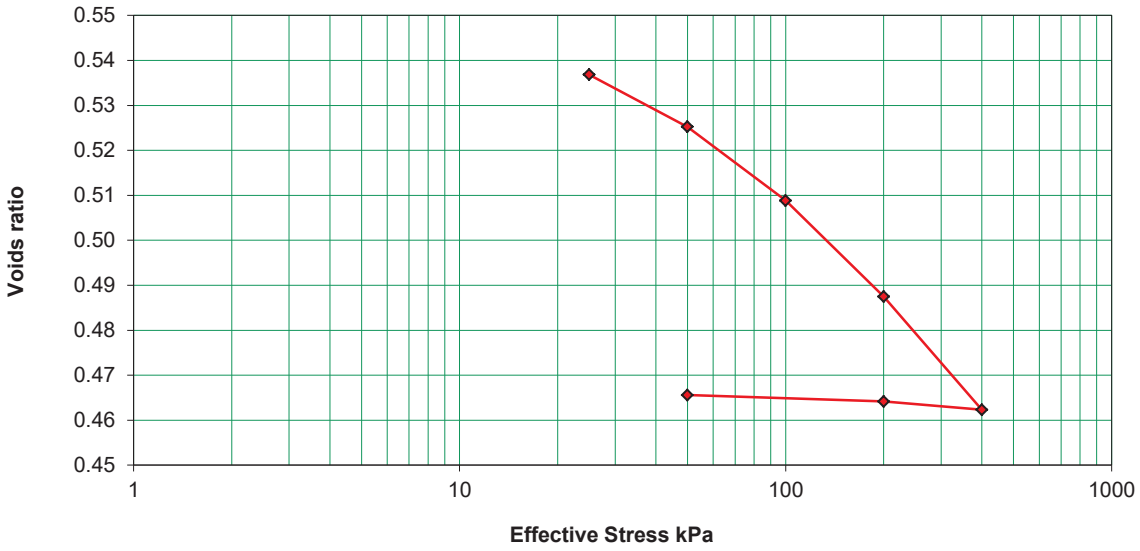
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Brown slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		81.85
Bulk Density (mg/m3)		2.084
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	20.1	17.4	%
Dry Density	1.74	1.84	Mg/m3
Initial Voids Ratio	0.5556	0.4656	
Degree of Saturation	97.53	100.81	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	1.205	0.5368	0.488	2.446	0.241
2	50	1.950	0.5252	0.304	2.252	0.390
3	100	3.005	0.5088	0.218	4.330	0.601
4	200	4.375	0.4875	0.143	5.123	0.875
5	400	5.995	0.4623	0.086	4.505	1.199
6	200	5.875	0.4642	0.006		1.175
7	50	5.785	0.4656	0.006		1.157

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH28
		Sample No.	JOT071
		Depth m.	1.40m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Red/brown slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		86.07
Bulk density (Mg/m3)		2.19
Particle density	(Assumed)	2.70

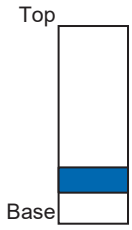
Initial conditions

Settlement Channel	1110
Moisture content (%)	16.53
Dry density (Mg/m3)	1.88
Initial Voids Ratio	0.4357
Deg of Saturation (%)	102.4
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	13.5
Dry Density (Mg/m3)	1.98
Final voids ratio	0.3669
Final degree of saturation (%)	99.2
Final settlement	0.959

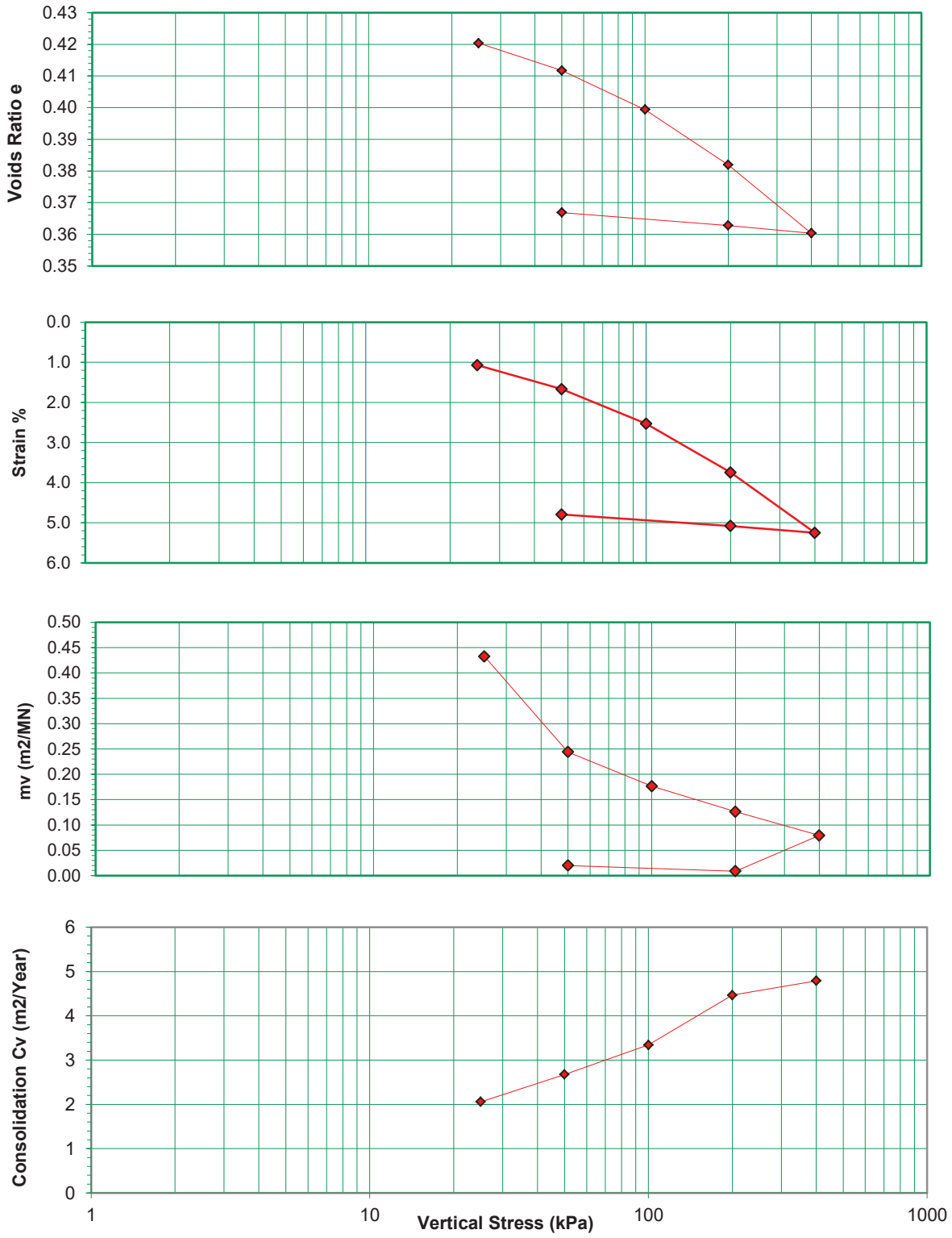
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH46
		Sample No.	GM119
		Depth m.	3.0m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH46 Sample No. GM119 Depth m. 3.0m

Oedometer Test

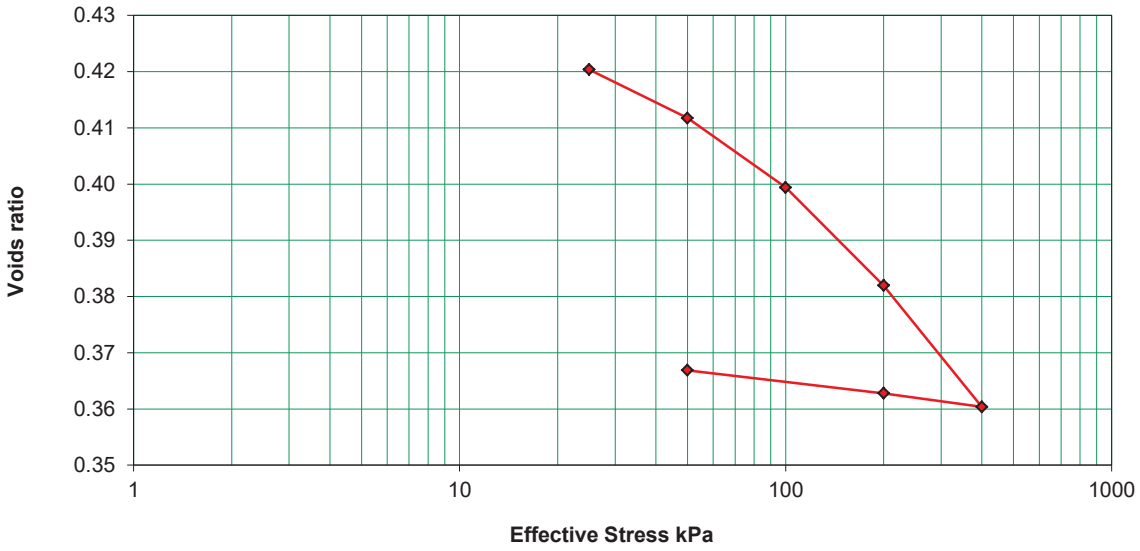
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Red/brown slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		86.07
Bulk Density (mg/m3)		2.191
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	16.5	13.5	%
Dry Density	1.88	1.98	Mg/m3
Initial Voids Ratio	0.4357	0.3669	
Degree of Saturation	102.44	99.24	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	1.070	0.4204	0.433	2.058	0.214
2	50	1.670	0.4117	0.244	2.677	0.334
3	100	2.530	0.3994	0.176	3.342	0.506
4	200	3.745	0.3820	0.126	4.468	0.749
5	400	5.250	0.3603	0.079	4.791	1.050
6	200	5.080	0.3628	0.009		1.016
7	50	4.795	0.3669	0.020		0.959

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH46
		Sample No.	GM119
		Depth m.	3.0m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Light brown slightly sandy slightly gravelly clayey SILT
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		74.23
Bulk density (Mg/m3)		1.89
Particle density	(Assumed)	2.70

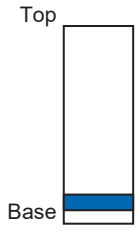
Initial conditions

Settlement Channel	1108
Moisture content (%)	16.81
Dry density (Mg/m3)	1.62
Initial Voids Ratio	0.6686
Deg of Saturation (%)	67.9
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	19.1
Dry Density (Mg/m3)	1.76
Final voids ratio	0.5356
Final degree of saturation (%)	96.1
Final settlement	1.595

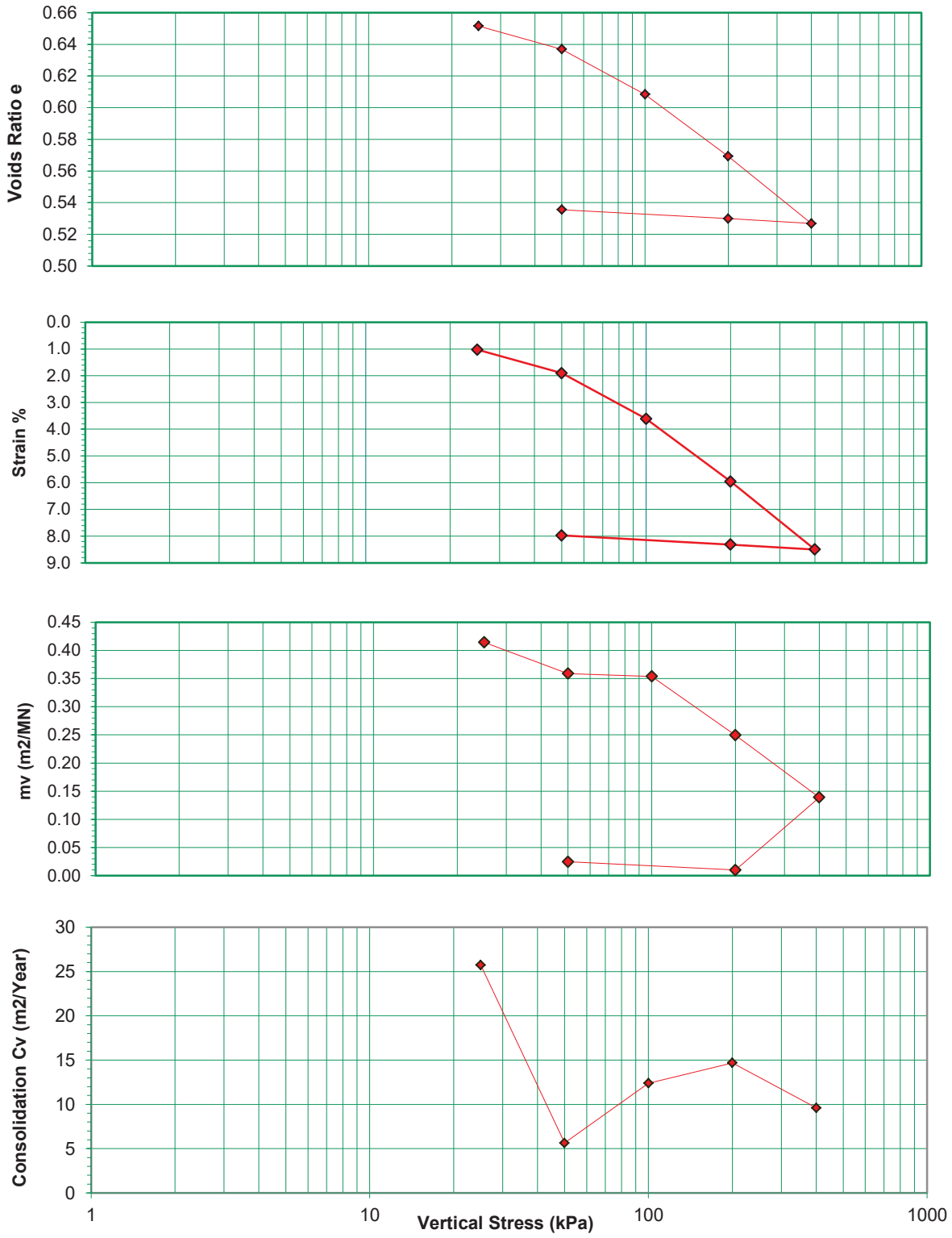
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH48
		Sample No.	JOT036
		Depth m.	3.00m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH48 Sample No. JOT036 Depth m. 3.00m

Oedometer Test

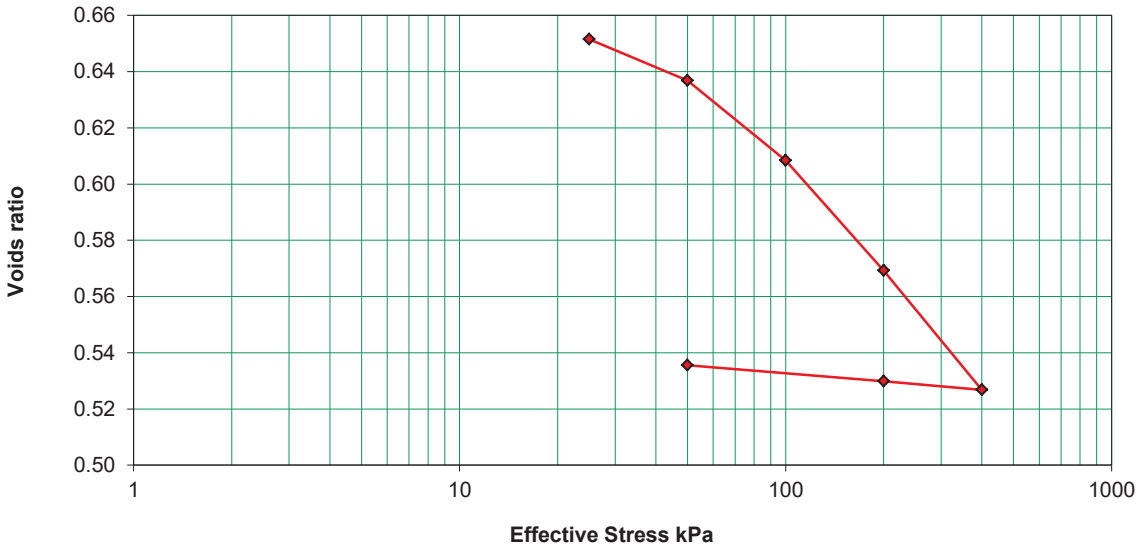
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Light brown slightly sandy slightly gravelly clayey SILT

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		74.23
Bulk Density (mg/m3)		1.890
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	16.8	19.1	%
Dry Density	1.62	1.76	Mg/m3
Initial Voids Ratio	0.6686	0.5356	
Degree of Saturation	67.86	96.07	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	1.025	0.6515	0.414	25.734	0.205
2	50	1.905	0.6369	0.359	5.639	0.381
3	100	3.610	0.6084	0.354	12.381	0.722
4	200	5.955	0.5693	0.249	14.690	1.191
5	400	8.500	0.5268	0.139	9.603	1.700
6	200	8.315	0.5299	0.010		1.663
7	50	7.975	0.5356	0.025		1.595

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH48
		Sample No.	JOT036
		Depth m.	3.00m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Brown slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		83.74
Bulk density (Mg/m3)		2.13
Particle density	(Assumed)	2.70

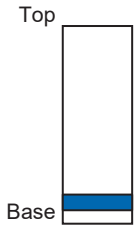
Initial conditions

Settlement Channel	SB1
Moisture content (%)	18.53
Dry density (Mg/m3)	1.80
Initial Voids Ratio	0.5010
Deg of Saturation (%)	99.9
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	16.3
Dry Density (Mg/m3)	1.87
Final voids ratio	0.4422
Final degree of saturation (%)	99.4
Final settlement	0.783

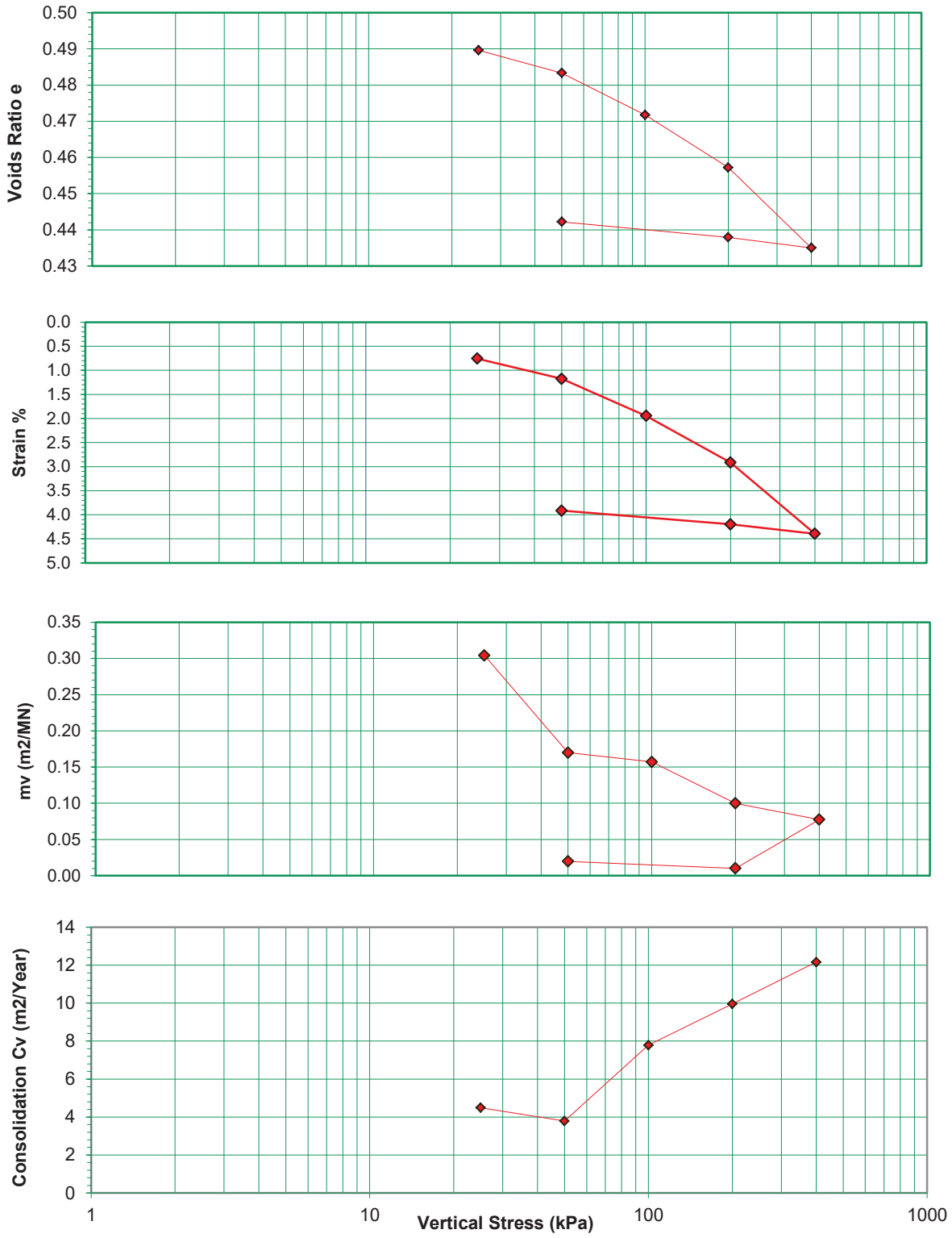
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH49
		Sample No.	JOT083
		Depth m.	3.00m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH49 Sample No. JOT083 Depth m. 3.00m

Oedometer Test

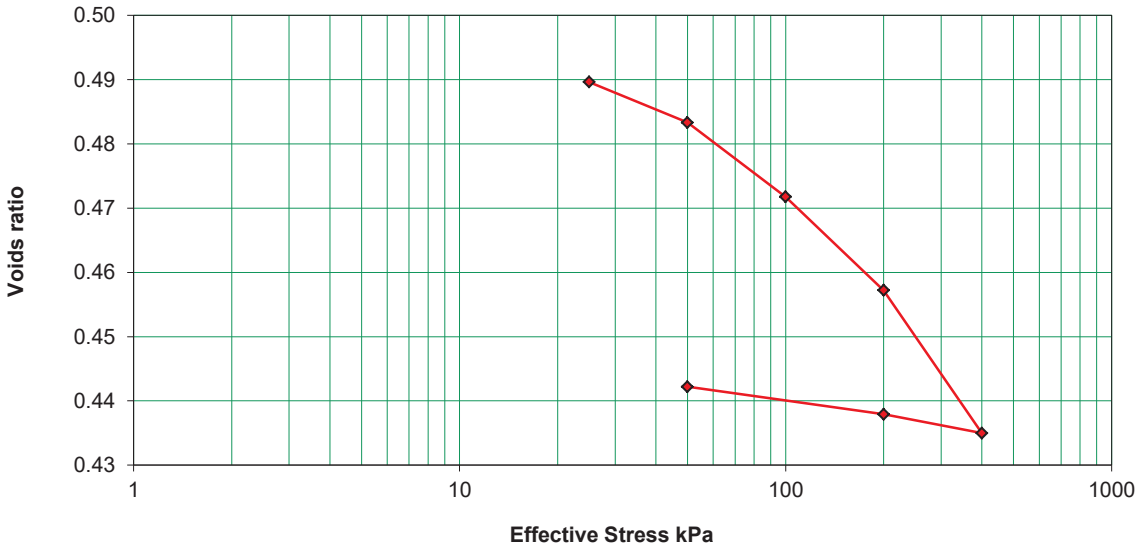
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Brown slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		83.74
Bulk Density (mg/m3)		2.132
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	18.5	16.3	%
Dry Density	1.80	1.87	Mg/m3
Initial Voids Ratio	0.5010	0.4422	
Degree of Saturation	99.86	99.39	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	0.755	0.4896	0.304	4.488	0.151
2	50	1.175	0.4833	0.170	3.792	0.235
3	100	1.945	0.4718	0.157	7.784	0.389
4	200	2.915	0.4572	0.100	9.960	0.583
5	400	4.395	0.4350	0.077	12.165	0.879
6	200	4.200	0.4379	0.010		0.840
7	50	3.915	0.4422	0.020		0.783

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH49
		Sample No.	JOT083
		Depth m.	3.00m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Light brown slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		84.01
Bulk density (Mg/m3)		2.14
Particle density	(Assumed)	2.70

Initial conditions

Settlement Channel	SB1
Moisture content (%)	18.59
Dry density (Mg/m3)	1.80
Initial Voids Ratio	0.4969
Deg of Saturation (%)	101.0
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	14.3
Dry Density (Mg/m3)	1.94
Final voids ratio	0.3889
Final degree of saturation (%)	99.2
Final settlement	1.443

Notes:

1) Log time method used for t50 time
2) Tested at 20°c
3) Specimen for consolidation test taken from the middle of U4 sample as this section of sample was more suitable for consolidation test specimen

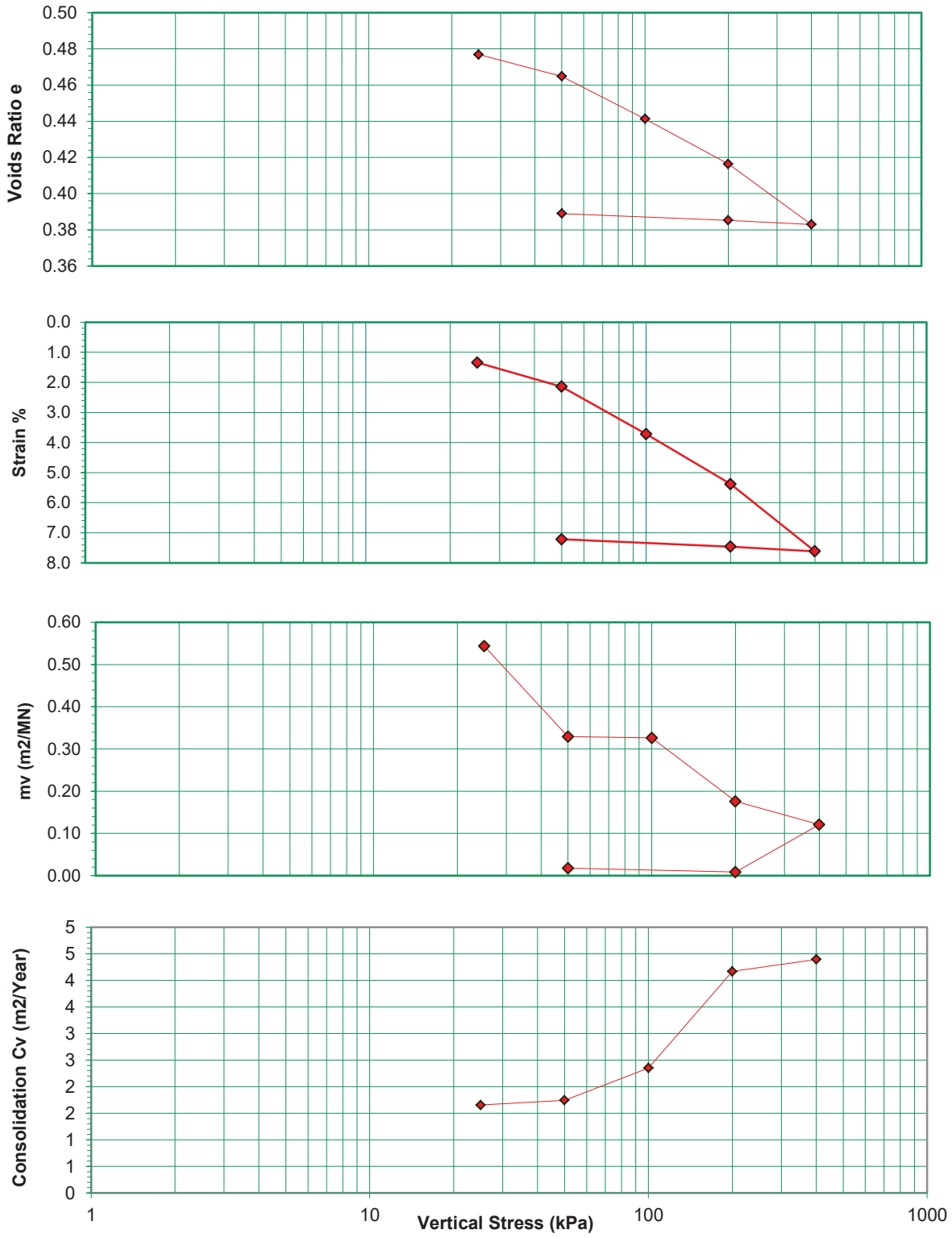
Top

Base

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH53
		Sample No.	JOT014
		Depth m.	3.00m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	Project Coolagad, Greystones	Job No. NMTL-3430 Borehole No. BH53 Sample No. JOT014 Depth m. 3.00m

Oedometer Test

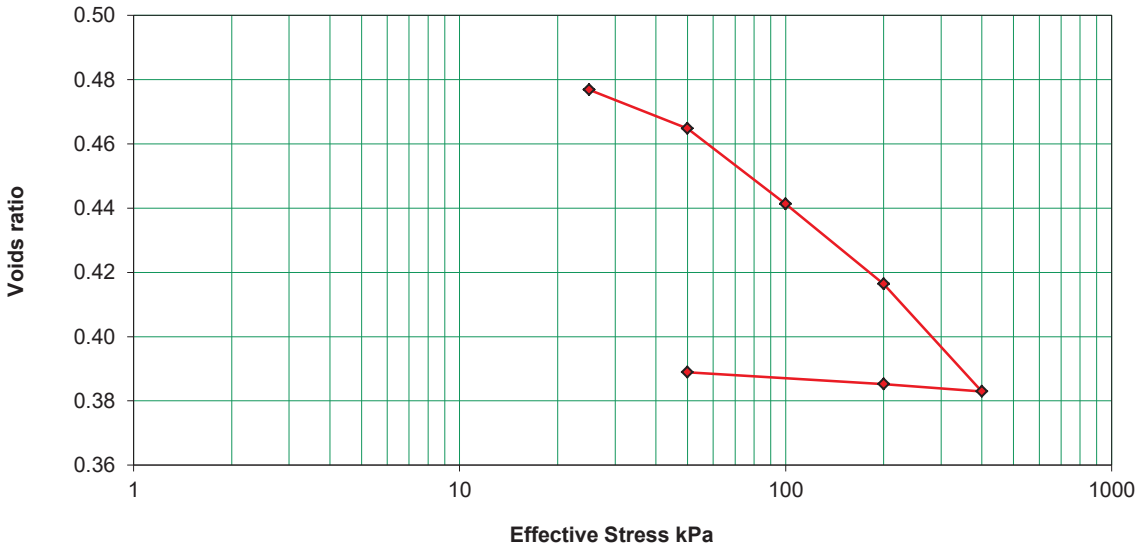
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Light brown slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		84.01
Bulk Density (mg/m3)		2.139
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	18.6	14.3	%
Dry Density	1.80	1.94	Mg/m3
Initial Voids Ratio	0.4969	0.3889	
Degree of Saturation	101.01	99.17	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	1.340	0.4769	0.543	1.655	0.268
2	50	2.145	0.4648	0.329	1.743	0.429
3	100	3.715	0.4413	0.326	2.351	0.743
4	200	5.380	0.4164	0.176	4.170	1.076
5	400	7.615	0.3829	0.121	4.395	1.523
6	200	7.460	0.3853	0.008		1.492
7	50	7.215	0.3889	0.018		1.443

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3430
		Borehole No.	BH53
		Sample No.	JOT014
		Depth m.	3.00m

Oedometer Settlement Tests

Test Method: BS1377 : Part 5 : 1990 Clause 3

Sample Details

Soil description:		Brown/grey slightly sandy slightly gravelly silty CLAY.
Initial height (mm)		20.0
Diameter (mm)		50
Initial wet weight of specimen (gms)		88.39
Bulk density (Mg/m3)		2.25
Particle density	(Assumed)	2.70

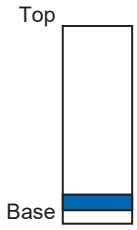
Initial conditions

Settlement Channel	GD036
Moisture content (%)	12.97
Dry density (Mg/m3)	1.99
Initial Voids Ratio	0.36
Deg of Saturation (%)	98.6
Swelling pressure (kPa)	n/a

Final conditions

Moisture Content (%)	11.0
Dry Density (Mg/m3)	2.08
Final voids ratio	0.30
Final degree of saturation (%)	99.9
Final settlement	0.868

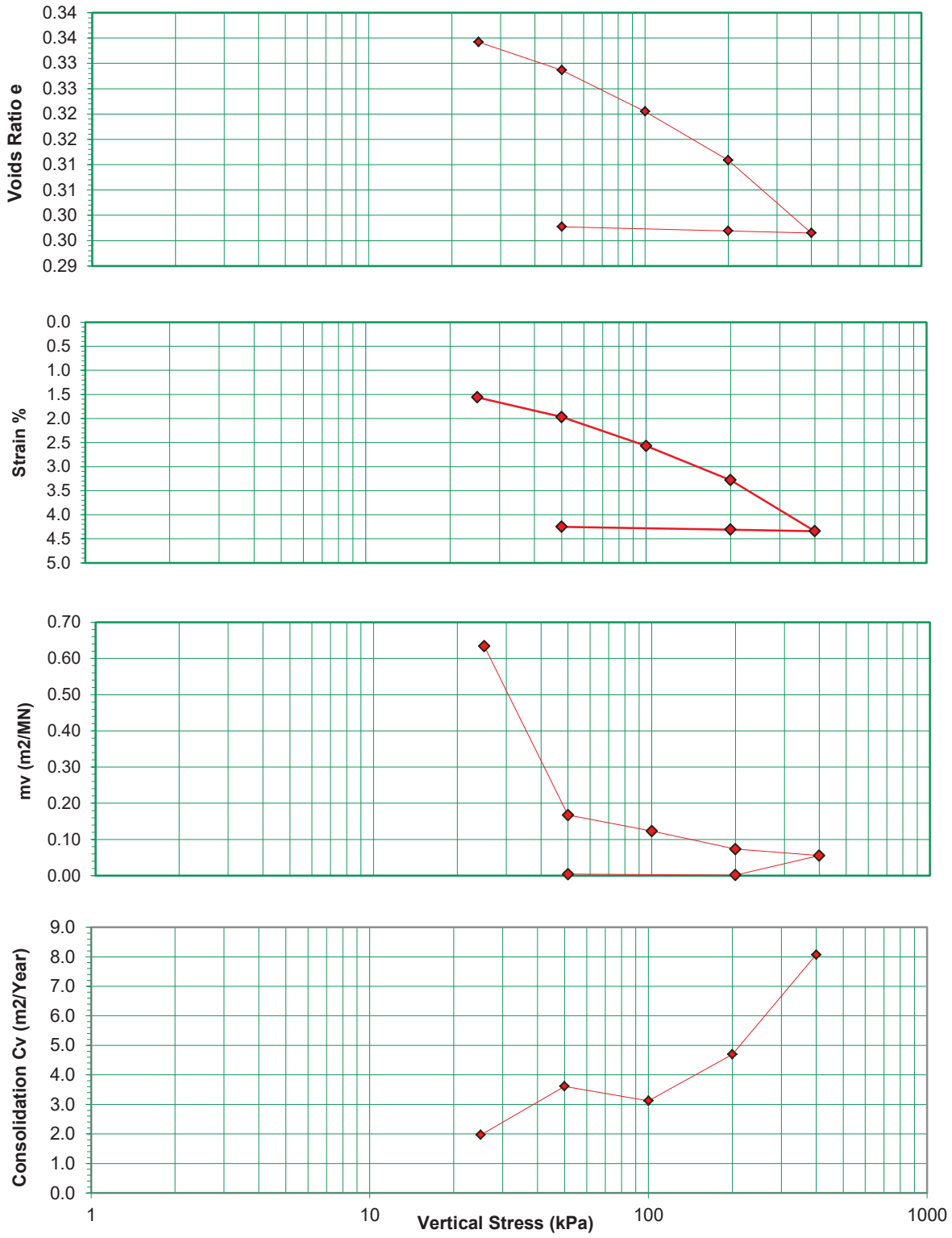
Notes:
1) Log time method used for t50 time
2) Tested at 20°c



NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3340
		Borehole No.	BH57
		Sample No.	GM062
		Depth m.	3.0m

Oedometer settlement Tests

Test Method: BS 1377 : Part 5: 1990 Clause 3



NM TL Ltd Standard	**Project** Coolagad, Greystones	Job No. NMTL-3340 Borehole No. BH57 Sample No. GM062 Depth m. 3.0m

Oedometer Test

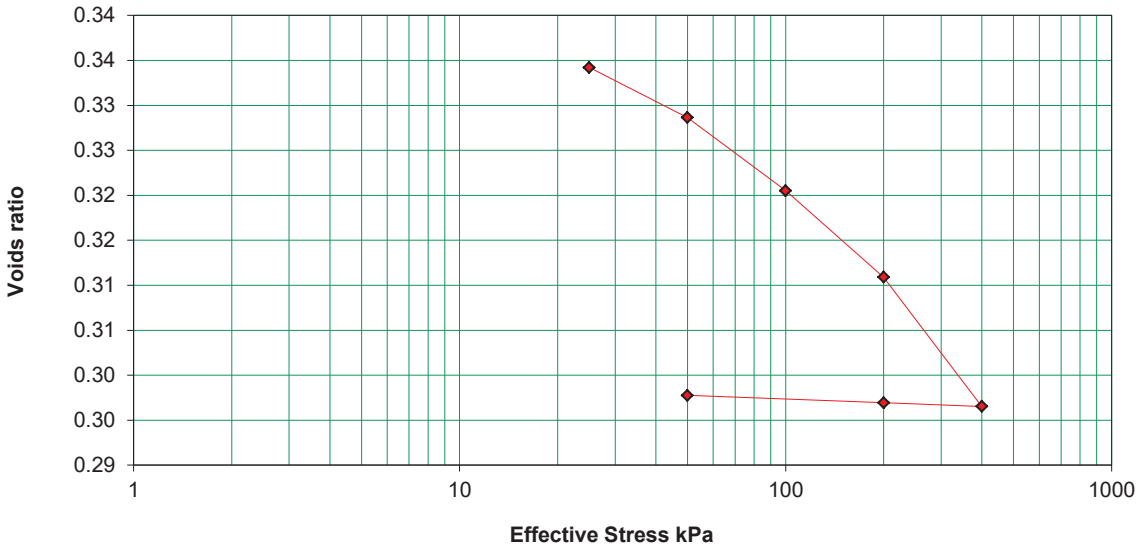
Test Method: BS 1377 : Part 5 1990 Clause 3

Sample Details

Description: Brown/grey slightly sandy slightly gravelly silty CLAY.

Initial height (mm)		20.00
Diameter (mm)		50.00
Initial weight of specimen (gms)		88.39
Bulk Density (mg/m3)		2.251
Particle Density	Assumed	2.70

Initial Conditions		Final Conditions	
Moisture content	13.0	11.0	%
Dry Density	1.99	2.08	Mg/m3
Initial Voids Ratio	0.3553	0.2977	
Degree of Saturation	98.57	99.91	%



Stage No.	Effective Stress kPa	Strain %	Voids Ratio	Mv m2/MN	CV m2/Year	Settlement mm
1	25	1.560	0.3342	0.634	1.969	0.312
2	50	1.970	0.3286	0.167	3.613	0.394
3	100	2.570	0.3205	0.123	3.123	0.514
4	200	3.280	0.3109	0.073	4.696	0.656
5	400	4.340	0.2965	0.055	8.073	0.868
6	200	4.310	0.2969	0.002		0.862
7	50	4.250	0.2977	0.004		0.850

NM TL Ltd Standard	Project Coolagad, Greystones	Job No.	NMTL-3340
		Borehole No.	BH57
		Sample No.	GM062
		Depth m.	3.0m

National Materials Testing Laboratory Ltd
Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

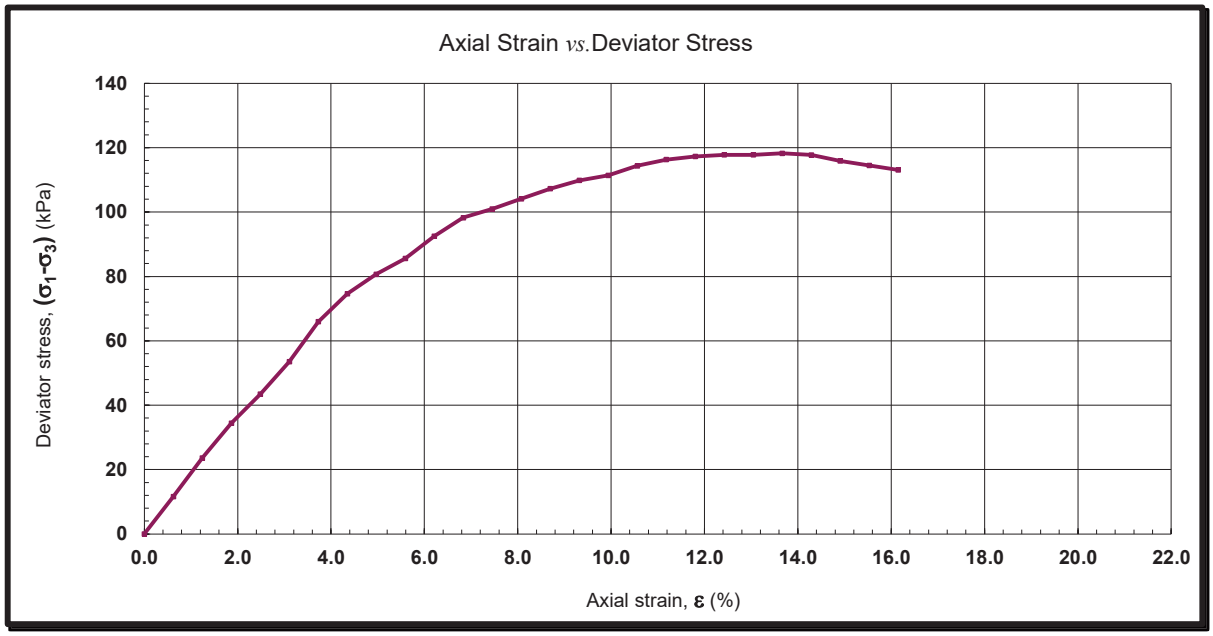
Determination of the Undrained Shear Strength in Triaxial Compression

BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Grestones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH05 JOT123** Depth: **1.50m**	File Reference:	**NMTL 3430**
Sample Description:	**Brown slightly sandy slightly gravelly silty CLAY**		
Location:	**Coolagad, Grestones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH05-JOT123-1.50m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**19 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**161.0**	mm	Diameter:	**101.5**	mm	Membrane type:	**Latex**	
Area:	**8091.4**	mm^2	Volume:	**1302.7**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**2699.1**	g				Membrane correction:	**1.91**	
Moisture content:	**11.5**	%				Sample state:	**Disturbed**	
Bulk density:	**2.07**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.86**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**118.2**	**kPa**
Strain at Failure:	ε	**13.66**	**%**
Maximum Cohesion / Shear Strength:	C_u	**59.1**	**kPa**
Type of Failure:		**Plastic**	

Signed

Authorised Signatories
☐ N Chana
☐ B Chana

For NMTL Ltd

22 September 2021

Remarks: Sample was disturbed, therefore remoulded with 2.5kg rammer to obtain a test specimen

Original to: **Client Rep.**
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National Materials Testing Laboratory Ltd

Unit 18C Tullow Industrial Estate

Tel.: 059 9180822

Certificate of Test

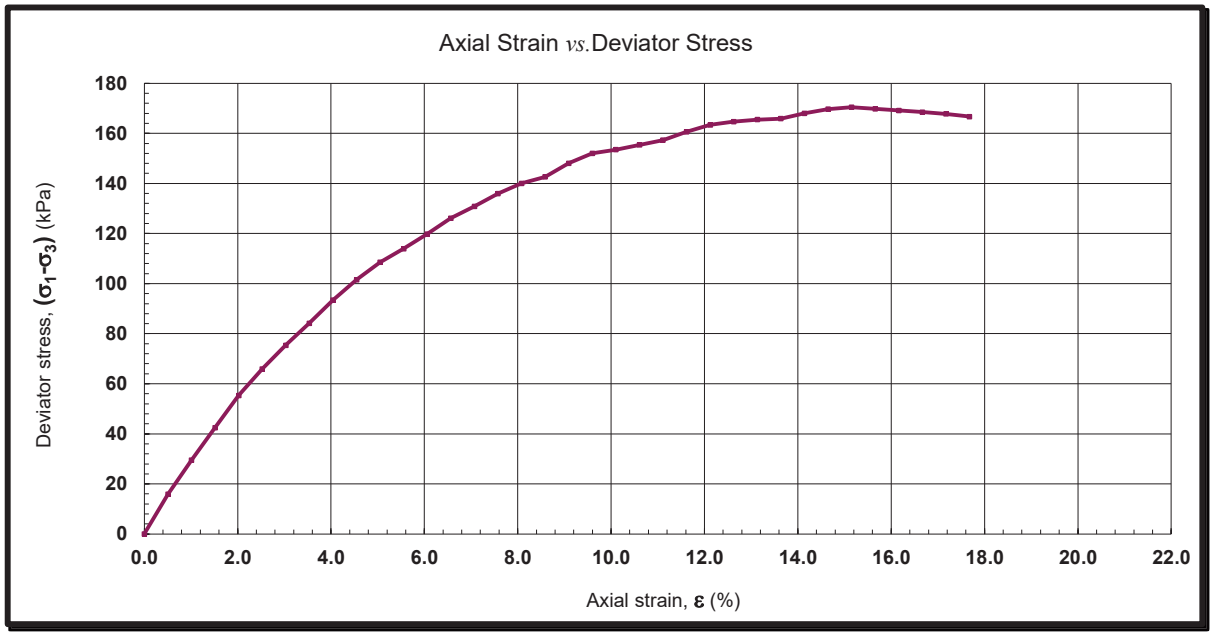
Determination of the Undrained Shear Strength in Triaxial Compression

BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Grestones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH08 -JOT143** Depth: **1.40m**	File Reference:	**NMTL 3430**
Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Grestones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH08-JOT143-1.40m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**19 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**198.0**	mm	Diameter:	**101.5**	mm	Membrane type:	**Latex**	
Area:	**8091.4**	mm^2	Volume:	**1602.1**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3358.7**	g				Membrane correction:	**2.12**	
Moisture content:	**16.8**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.10**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.80**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**170.4**	**kPa**
Strain at Failure:	ε	**15.15**	**%**
Maximum Cohesion / Shear Strength:	C_u	**85.2**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

☐ N Chana

☐ B Chana

22 September 2021

For NMTL Ltd

Original to: **Client Rep.**

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National Materials Testing Laboratory Ltd
Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

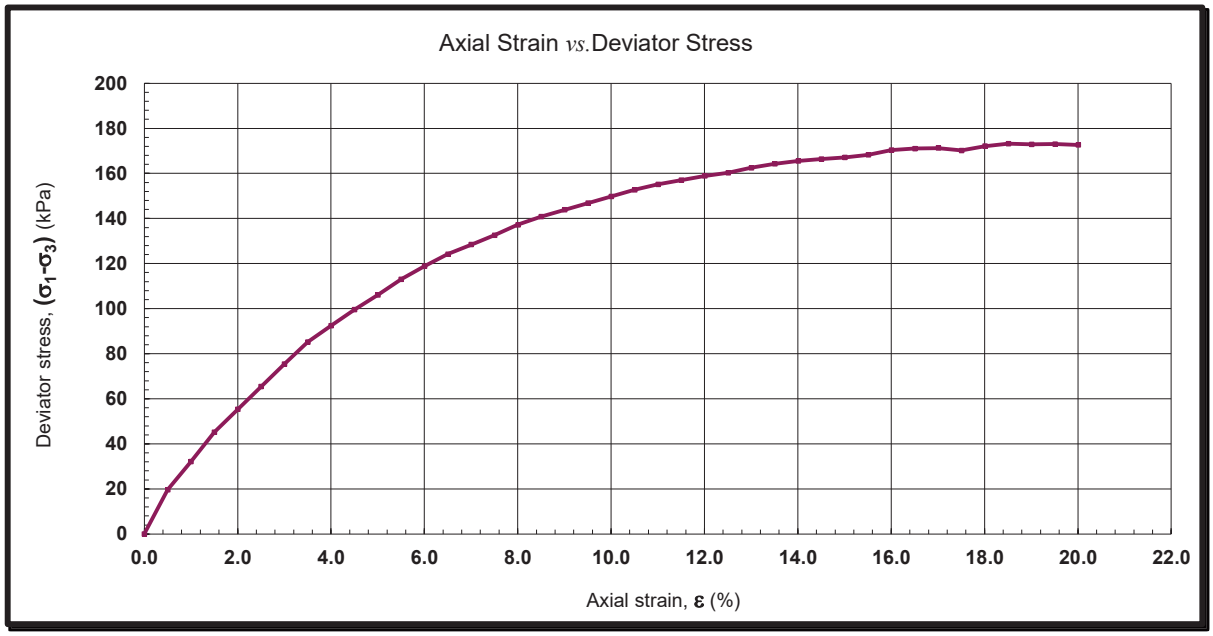
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Grestones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH11-JOT030**	Depth:	**0.60m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Grestones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH11-JOT030-0.60m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**199.9**	mm	Diameter:	**101.5**	mm	Membrane type:	**Latex**	
Area:	**8091.4**	mm^2	Volume:	**1617.5**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3463.3**	g				Membrane correction:	**2.59**	
Moisture content:	**17.6**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.14**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.82**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**173.2**	**kPa**
Strain at Failure:	ε	**18.51**	**%**
Maximum Cohesion / Shear Strength:	C_u	**86.6**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

☐ N Chana

☐ B Chana

22 September 2021

For NMTL Ltd

Original to: **Client Rep.**

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National Materials Testing Laboratory Ltd
Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

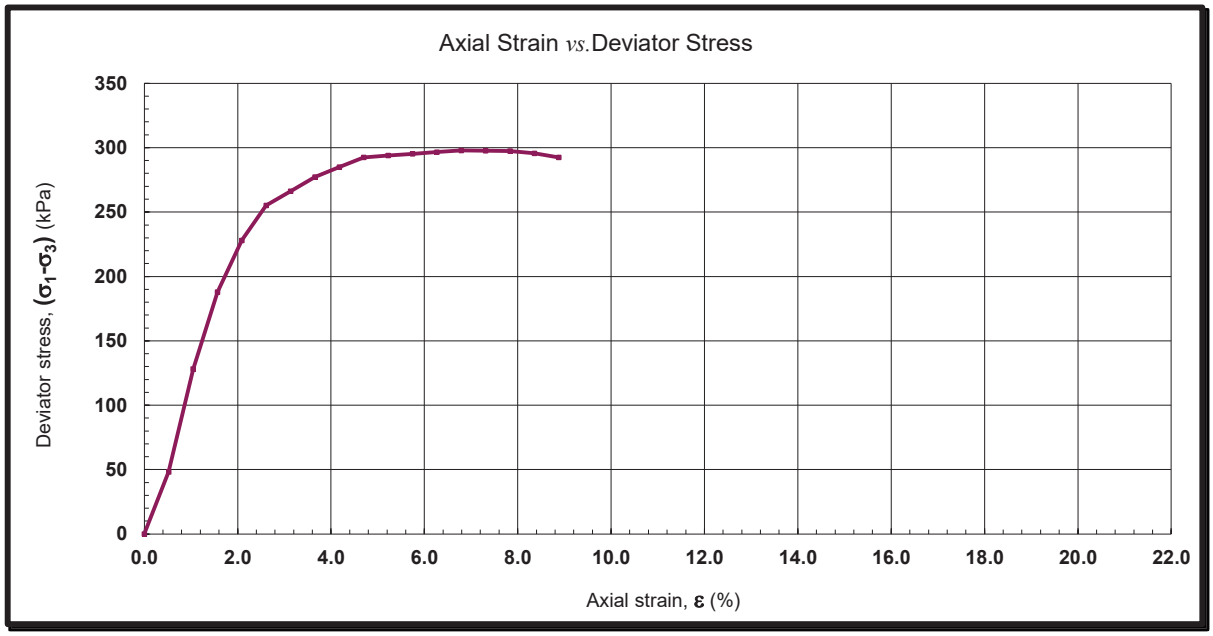
Determination of the Undrained Shear Strength in Triaxial Compression

BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH13 - JOT038** Depth: **1.40m**	File Reference:	**NMTL 3430**
Sample Description:	**Brown slightly sandy slightly gravelly CLAY/SILT**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH13-JOT038-1.40m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**18 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**191.5**	mm	Diameter:	**102.0**	mm	Membrane type:	**Latex**	
Area:	**8171.3**	mm^2	Volume:	**1564.8**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3221.6**	g				Membrane correction:	**0.95**	
Moisture content:	**14.4**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.06**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.80**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**297.9**	**kPa**
Strain at Failure:	ε	**6.79**	**%**
Maximum Cohesion / Shear Strength:	C_u	**148.9**	**kPa**
Type of Failure:		**Brittle**	

Signed

Remarks: Undisturbed

Authorised Signatories

☐ N Chana

☐ B Chana

22 September 2021

For NMTL Ltd

Original to: **Client Rep.**

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Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

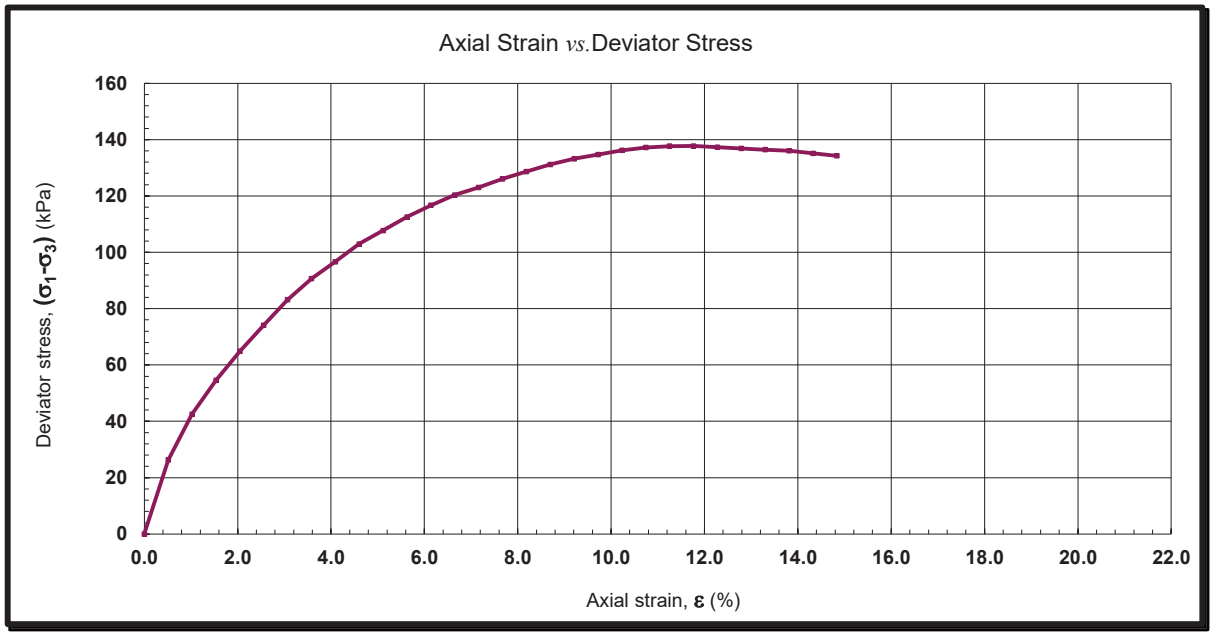
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH18-JOT163**	Depth:	**1.00m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH18-JOT163-1.00m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**195.5**	mm	Diameter:	**103.0**	mm	Membrane type:	**Latex**	
Area:	**8332.3**	mm^2	Volume:	**1629.0**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3325.3**	g				Membrane correction:	**1.65**	
Moisture content:	**15.2**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.04**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.77**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**137.7**	**kPa**
Strain at Failure:	ε	**11.76**	**%**
Maximum Cohesion / Shear Strength:	C_u	**68.9**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

☐ N Chana

☐ B Chana

22 September 2021

For NMTL Ltd

Original to: **Client Rep.**

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National Materials Testing Laboratory Ltd
Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

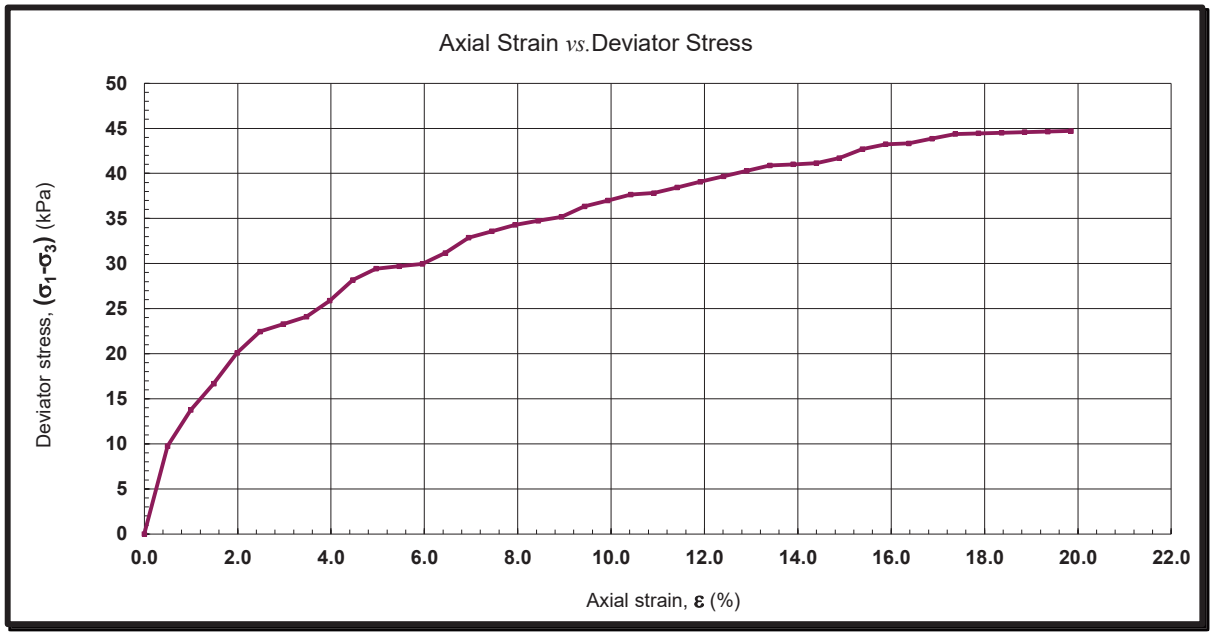
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH21-JOT055**	Depth:	**1.40m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH21-JOT055-1.40m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**18 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**201.5**	mm	Diameter:	**103.0**	mm	Membrane type:	**Latex**	
Area:	**8332.3**	mm^2	Volume:	**1679.0**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3502.7**	g				Membrane correction:	**2.43**	
Moisture content:	**18.8**	%				Sample state:	**Disturbed**	
Bulk density:	**2.09**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.76**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**44.6**	**kPa**
Strain at Failure:	ε	**17.37**	**%**
Maximum Cohesion / Shear Strength:	C_u	**22.3**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Disturbed

Authorised Signatories

☐ N Chana

☐ B Chana

22 September 2021

For NMTL Ltd

Original to: **Client Rep.**

Copy 1 to: **File copy**

National Materials Testing Laboratory Ltd
Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

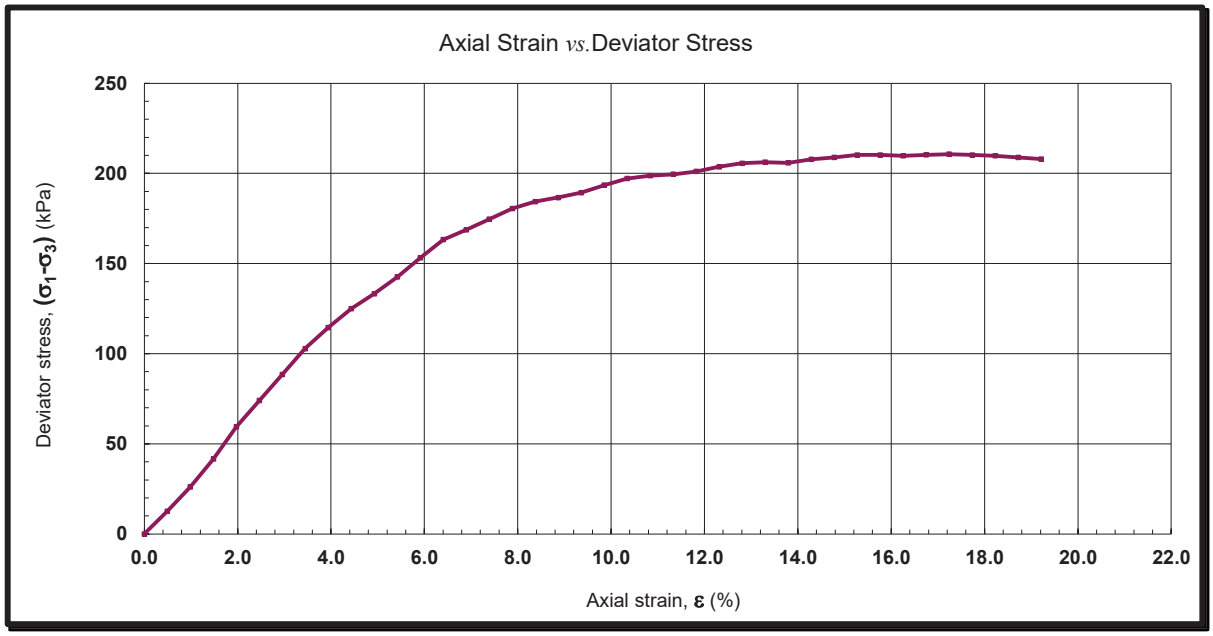
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH22-JOT173**	Depth:	**1.50m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH22-JOT173-1.50m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**203.0**	mm	Diameter:	**102.0**	mm	Membrane type:	**Latex**	
Area:	**8171.3**	mm^2	Volume:	**1658.8**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3667.8**	g				Membrane correction:	**2.41**	
Moisture content:	**13.4**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.21**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.95**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**210.7**	**kPa**
Strain at Failure:	ε	**17.24**	**%**
Maximum Cohesion / Shear Strength:	C_u	**105.4**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

☐ N Chana

☐ B Chana

22 September 2021

For NMTL Ltd

Original to: **Client Rep.**

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National Materials Testing Laboratory Ltd
Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

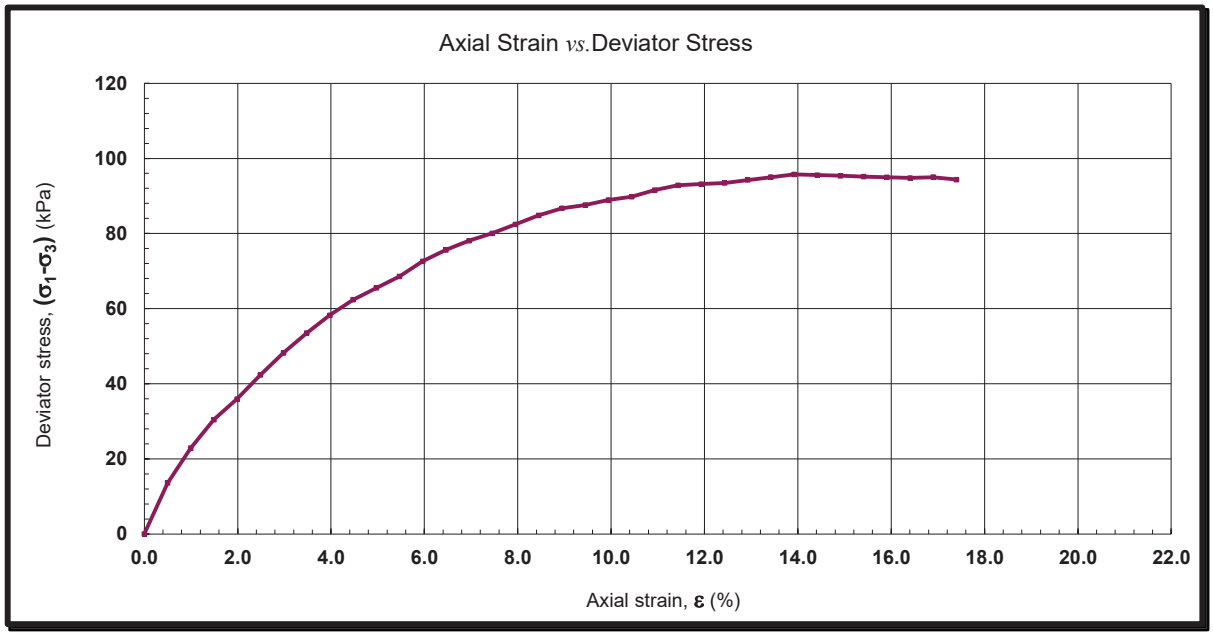
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH24-JOT181**	Depth:	**0.60m**	File Reference:	**NMTL 3430**

Sample Description:	**Light grey/brown slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH24-JOT181-0.60m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**201.2**	mm	Diameter:	**102.2**	mm	Membrane type:	**Latex**	
Area:	**8203.4**	mm^2	Volume:	**1650.5**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3378.8**	g				Membrane correction:	**1.95**	
Moisture content:	**18.0**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.05**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.73**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**95.7**	**kPa**
Strain at Failure:	ε	**13.92**	**%**
Maximum Cohesion / Shear Strength:	C_u	**47.9**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

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Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

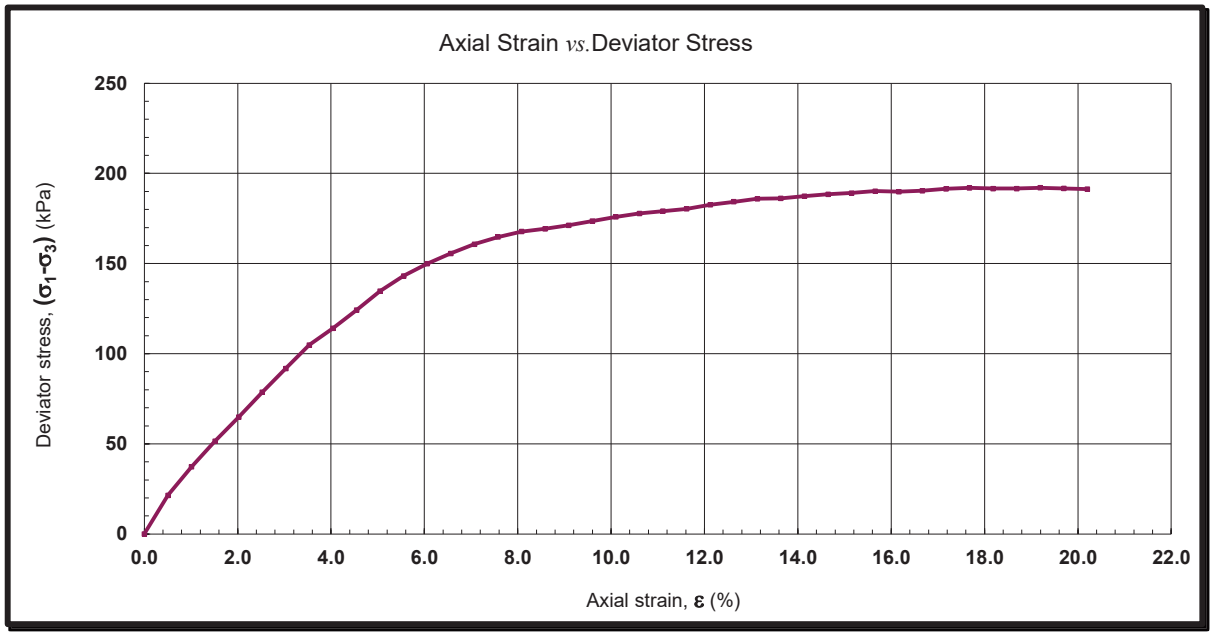
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH29-JOT192**	Depth:	**1.50m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH29-JOT192-1.50m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**07 September 2021**

Specimen						**Test**		
Length:	**198.0**	mm	Diameter:	**101.0**	mm	Membrane type:	**Latex**	
Area:	**8011.8**	mm^2	Volume:	**1586.3**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3391.5**	g				Membrane correction:	**2.69**	
Moisture content:	**16.9**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.14**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.83**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**192.1**	**kPa**
Strain at Failure:	ε	**19.19**	**%**
Maximum Cohesion / Shear Strength:	C_u	**96.0**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

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Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

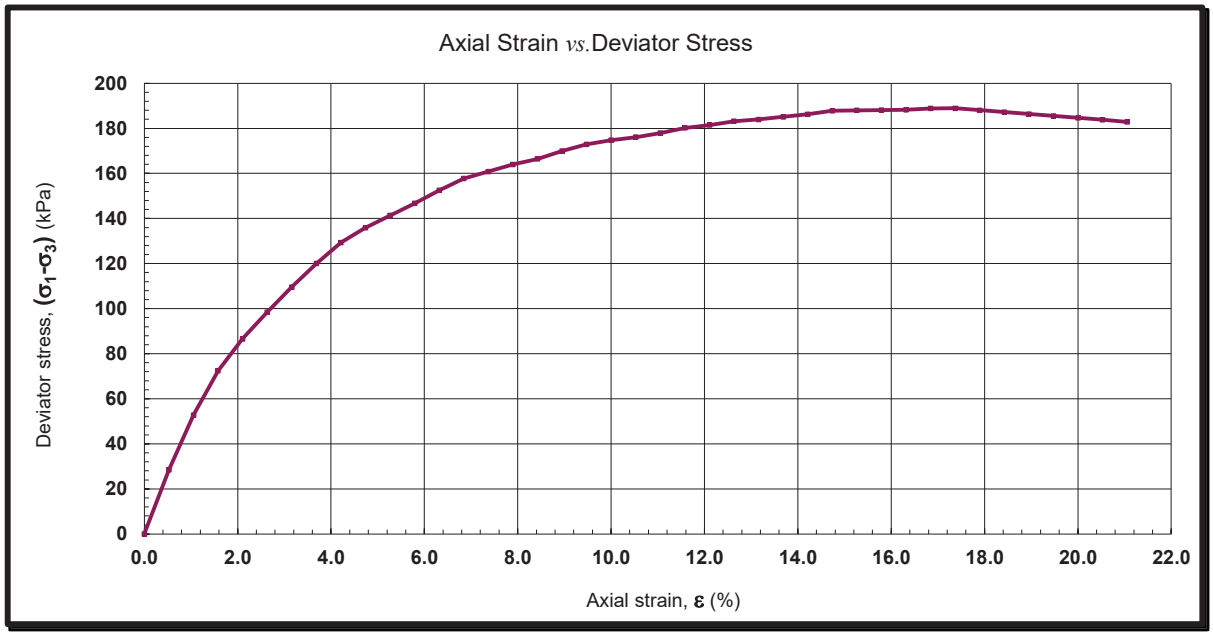
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH31-JOT211**	Depth:	**1.50m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH31-JOT211-0.60m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**07 September 2021**

Specimen						**Test**		
Length:	**190.0**	mm	Diameter:	**100.0**	mm	Membrane type:	**Latex**	
Area:	**7854.0**	mm^2	Volume:	**1492.3**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3189.1**	g				Membrane correction:	**2.43**	
Moisture content:	**15.4**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.14**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.85**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**188.9**	**kPa**
Strain at Failure:	ε	**17.37**	**%**
Maximum Cohesion / Shear Strength:	C_u	**94.5**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

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Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

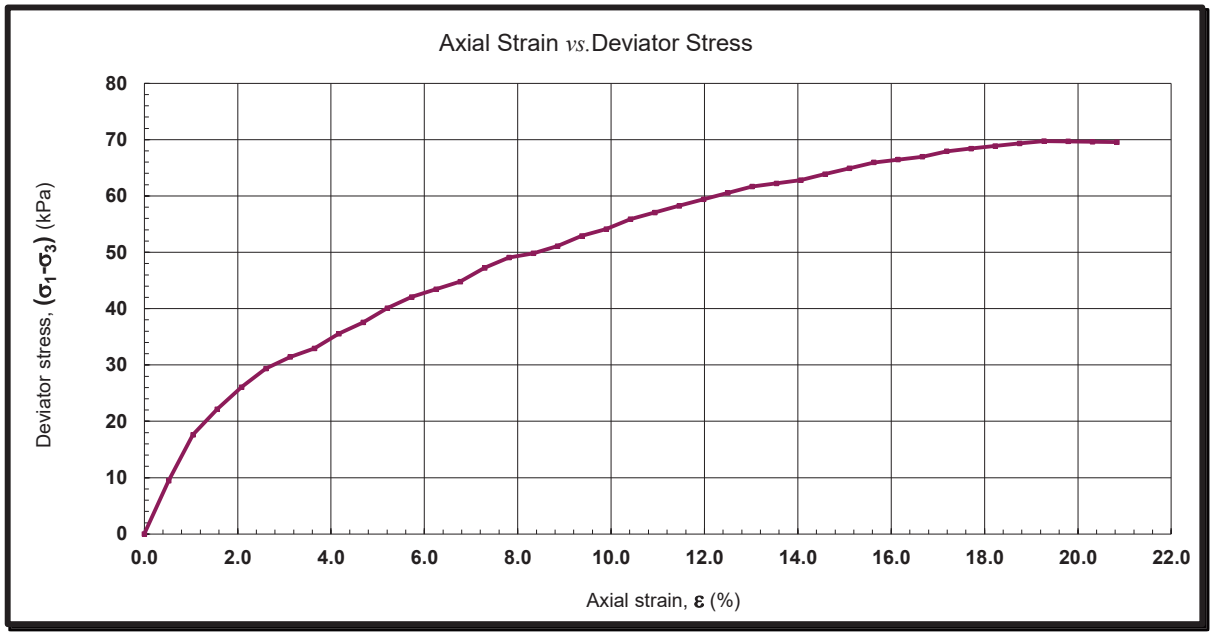
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH36-JOT025**	Depth:	**2.00m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH36-JOT025-2.00m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**18 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**192.0**	mm	Diameter:	**96.0**	mm	Membrane type:	**Latex**	
Area:	**7238.2**	mm^2	Volume:	**1389.7**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**2781.7**	g				Membrane correction:	**2.70**	
Moisture content:	**15.7**	%				Sample state:	**Disturbed**	
Bulk density:	**2.00**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.73**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**69.7**	**kPa**
Strain at Failure:	ε	**19.27**	**%**
Maximum Cohesion / Shear Strength:	C_u	**34.9**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Disturbed

Authorised Signatories

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22 September 2021

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Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

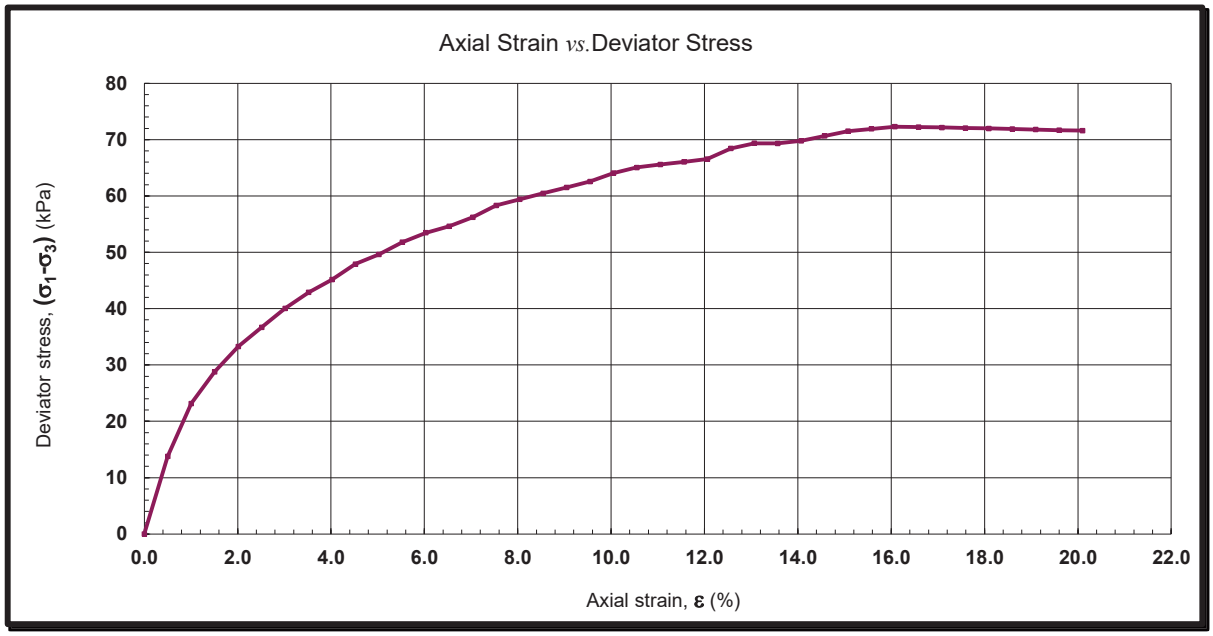
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH40-GM102**	Depth:	**2.00m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH40-GM102-2.00m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**199.0**	mm	Diameter:	**101.5**	mm	Membrane type:	**Latex**	
Area:	**8091.4**	mm^2	Volume:	**1610.2**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3328.9**	g				Membrane correction:	**2.25**	
Moisture content:	**18.6**	%				Sample state:	**Disturbed**	
Bulk density:	**2.07**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.74**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**72.3**	**kPa**
Strain at Failure:	ε	**16.08**	**%**
Maximum Cohesion / Shear Strength:	C_u	**36.1**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Disturbed

Authorised Signatories
☐ N Chana
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22 September 2021

For NMTL Ltd

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National Materials Testing Laboratory Ltd
Unit 18C Tullow Industrial Estate
Tel.: 059 9180822

Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

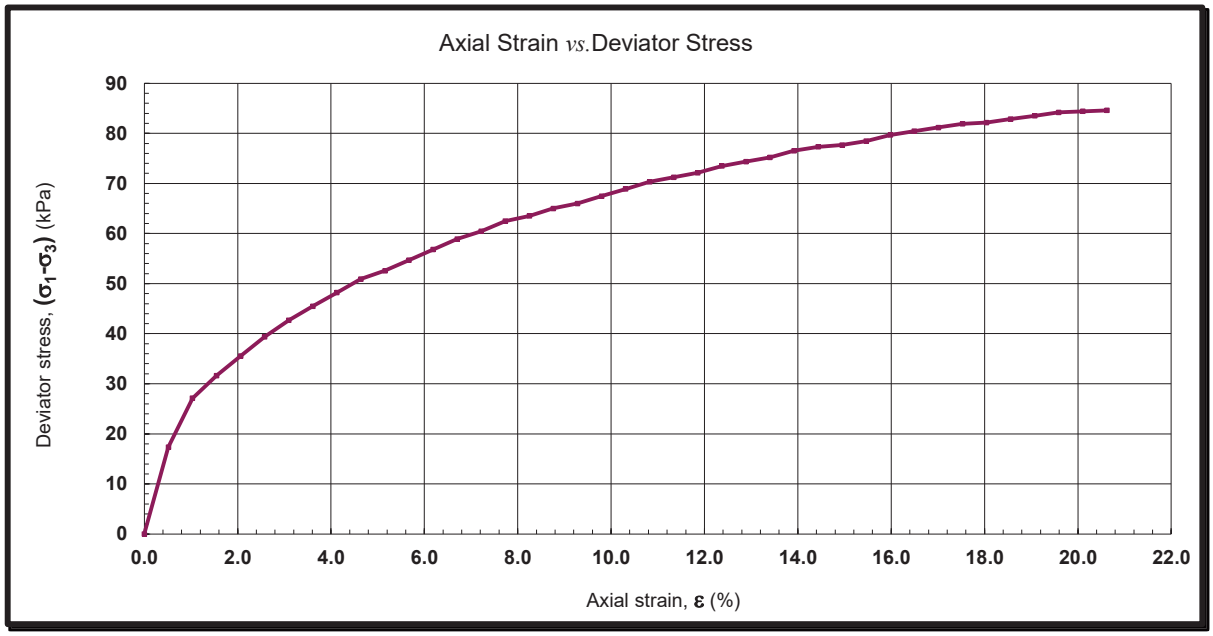
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH44-JOT091**	Depth:	**2.00m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH44-JOT091-2.00m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**18 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**194.0**	mm	Diameter:	**102.0**	mm	Membrane type:	**Latex**	
Area:	**8171.3**	mm^2	Volume:	**1585.2**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3111.6**	g				Membrane correction:	**2.89**	
Moisture content:	**17.1**	%				Sample state:	**Undisturbed**	
Bulk density:	**1.96**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.68**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**84.6**	**kPa**
Strain at Failure:	ε	**20.62**	**%**
Maximum Cohesion / Shear Strength:	C_u	**42.3**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

☐ N Chana

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22 September 2021

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Original to: **Client Rep.**

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Unit 18C Tullow Industrial Estate
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Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

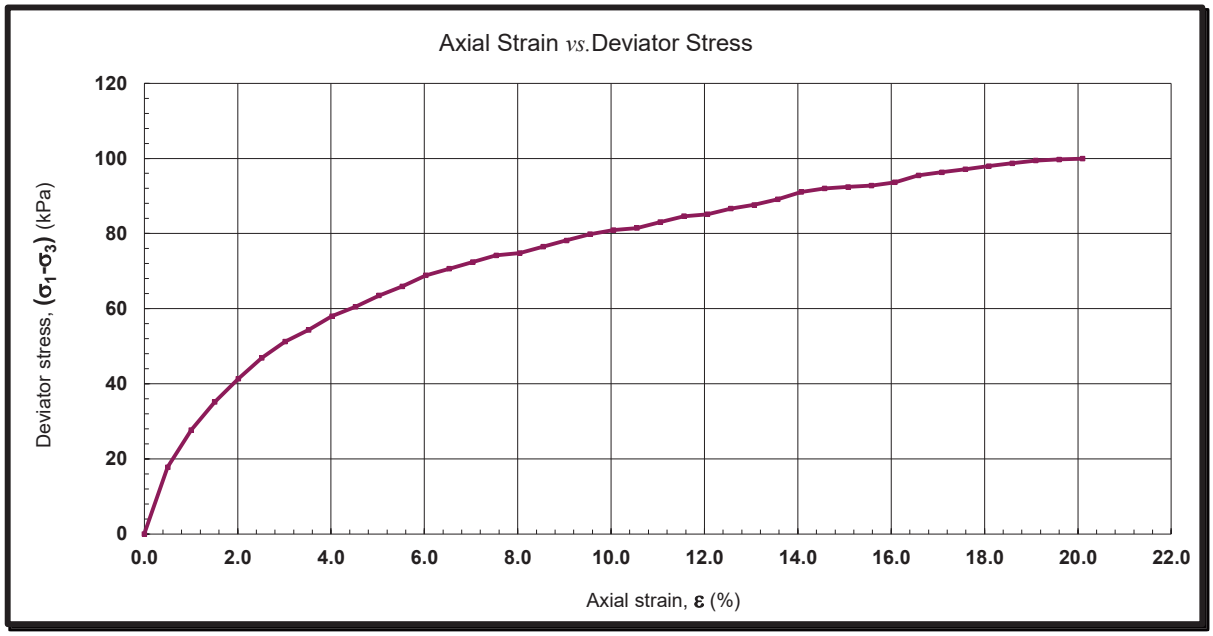
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH47-GM111**	Depth:	**2.00m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH47-GM111-2.00m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**03 September 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**07 September 2021**

Specimen						**Test**		
Length:	**199.0**	mm	Diameter:	**96.0**	mm	Membrane type:	**Latex**	
Area:	**7238.2**	mm^2	Volume:	**1440.4**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3190.1**	g				Membrane correction:	**2.81**	
Moisture content:	**15.0**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.21**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.93**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**99.9**	**kPa**
Strain at Failure:	ε	**20.10**	**%**
Maximum Cohesion / Shear Strength:	C_u	**50.0**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

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22 September 2021

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Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

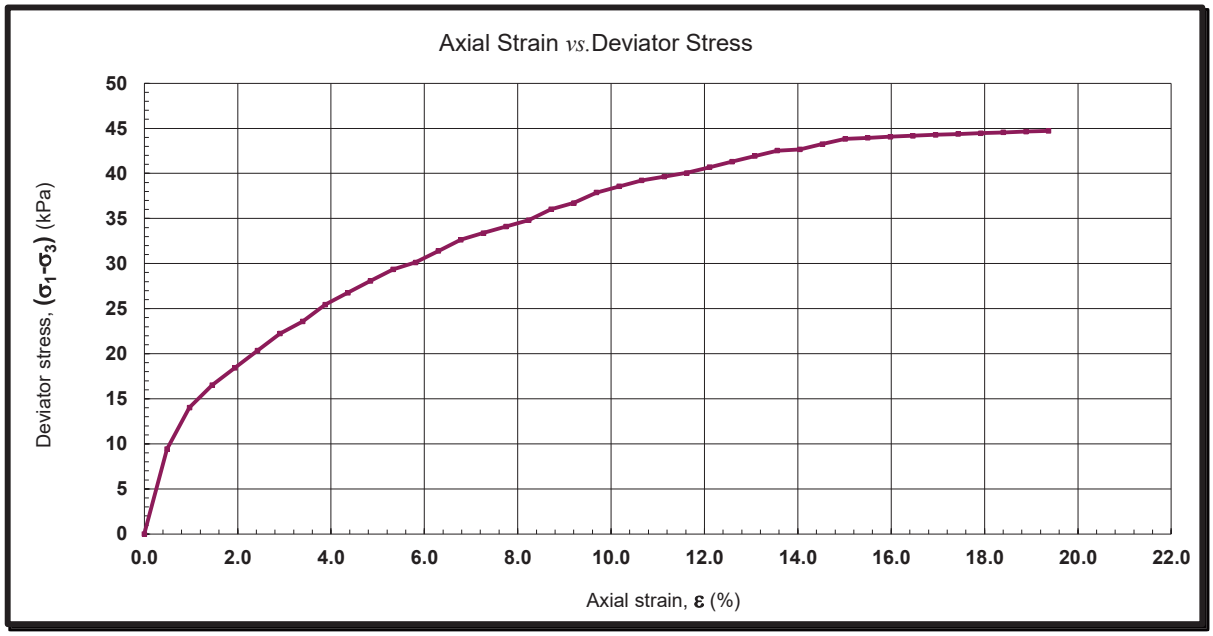
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH55-GM003**	Depth:	**2.00m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH55-GM003-2.0m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**18 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**206.5**	mm	Diameter:	**102.0**	mm	Membrane type:	**Latex**	
Area:	**8171.3**	mm^2	Volume:	**1687.4**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3653.4**	g				Membrane correction:	**2.71**	
Moisture content:	**20.1**	%				Sample state:	**Disturbed**	
Bulk density:	**2.17**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.80**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**44.7**	**kPa**
Strain at Failure:	ε	**19.37**	**%**
Maximum Cohesion / Shear Strength:	C_u	**22.4**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Disturbed

Authorised Signatories

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Certificate of Test

Determination of the Undrained Shear Strength in Triaxial Compression

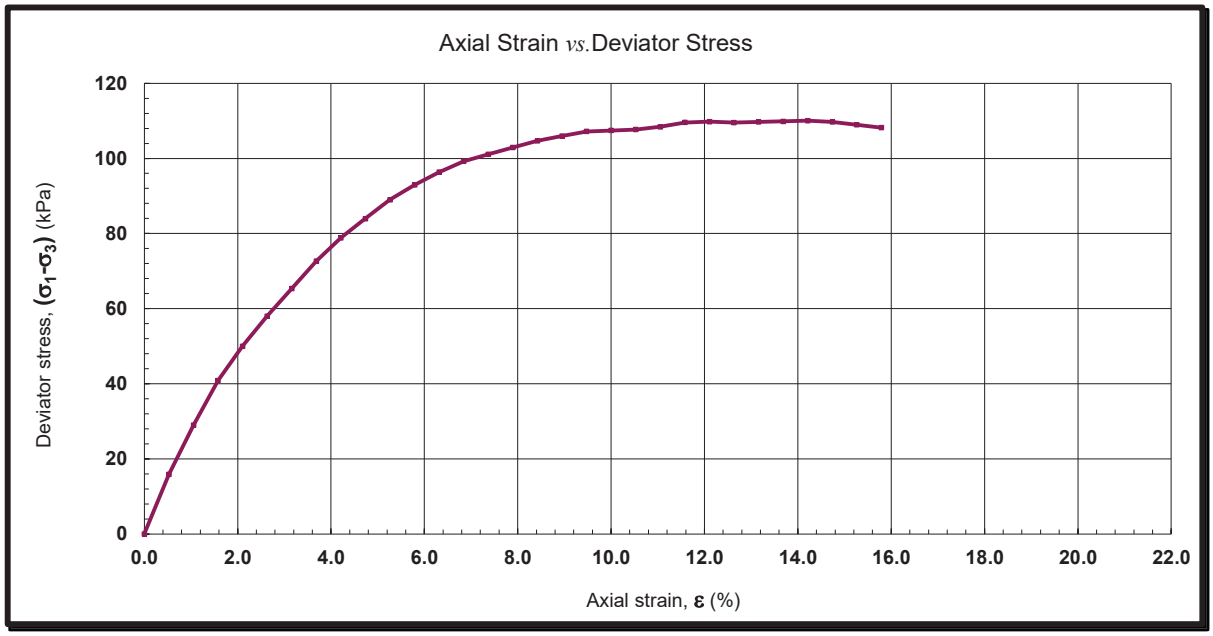
BS 1377 : Part 7 : 1990 Clause 8

Client Name:	**Site Investigations ltd**	Contract:	**Coolagad, Greystones**
Address:	**Carhugar the Grange** **12th Lock Road** **Lucan, Co. Dublin**	Site Address:	**N/A** **SIL Project ID- 5868/21**

Sample No.:	**BH56-JOT134**	Depth:	**1.40m**	File Reference:	**NMTL 3430**

Sample Description:	**Brown/red slightly sandy slightly gravelly silty CLAY.**		
Location:	**Coolagad, Greystones**	Date Sampled:	**N/A**
Sample Type:	**U4**	Sampled by:	**Site Investigations Ltd**
Client Sample Ref.:	**BH56-JOT134-1.40m**	Sampling Cert. Recd.:	**No**
Source / Supplier:	**SIL**	Date Received:	**18 August 2021**
Specification:	**BS 1377: Part 7: 1990 Clause 8**	Date Tested:	**06 September 2021**

Specimen						**Test**		
Length:	**190.0**	mm	Diameter:	**101.5**	mm	Membrane type:	**Latex**	
Area:	**8091.4**	mm^2	Volume:	**1537.4**	cm^3	Membrane thickness:	**0.3**	mm
Mass:	**3219.7**	g				Membrane correction:	**1.99**	
Moisture content:	**17.3**	%				Sample state:	**Undisturbed**	
Bulk density:	**2.09**	$Mg\ m^{-3}$				Number of stages:	**Single**	
Dry density:	**1.79**	$Mg\ m^{-3}$				Rate of strain:	**1.0**	$\%\ min^{-1}$
Preparation Method:	**BS 1377: Part 1: 1990 Clause 8 .3.1**					Cell pressure: σ_3	**50**	kPa



Maximum Corrected Deviator Stress at Failure:	$(\sigma_1-\sigma_3)_f$	**110.0**	**kPa**
Strain at Failure:	ε	**14.21**	**%**
Maximum Cohesion / Shear Strength:	C_u	**55.0**	**kPa**
Type of Failure:		**Plastic**	

Signed

Remarks: Undisturbed

Authorised Signatories

☐ N Chana

☐ B Chana

22 September 2021

For NMTL Ltd

Original to: **Client Rep.**

Copy 1 to: **File copy**

Appendix 14

Chemical Laboratory Test Results

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

2183

Final Report

Report No.:	21-30268-1		
Initial Date of Issue:	07-Sep-2021		
Client	Site Investigations Ltd		
Client Address:	The Grange12th, Lock Road Lucan Co Dublin IRELAND		
Contact(s):	Stephen Letch		
Project	5868 Coolagad Greystones		
Quotation No.:		**Date Received:**	01-Sep-2021
Order No.:	48/A/21	**Date Instructed:**	01-Sep-2021
No. of Samples:	20		
Turnaround (Wkdays):	5	**Results Due:**	07-Sep-2021
Date Approved:	07-Sep-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: 5868 Coolagad Greystones

Client: Site Investigations Ltd				**Chemtest Job No.:**	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268
Quotation No.:				**Chemtest Sample ID.:**	1270662	1270663	1270664	1270665	1270666	1270667	1270668	1270669	1270670
Order No.: 48/A/21				Client Sample Ref.:	Jot 001	BM 011	Jot124	Jot142	Jot115	Jot 031	DM 002	Jot 039	Jot 048
				Client Sample ID.:	BH01	BH02	BH05	BH08	BH10	BH11	BH12	BH13	BH15
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	2.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00
				Bottom Depth (m):	1.00	2.00	2.00	1.00	2.00	1.00	2.00	2.00	2.00
				Date Sampled:	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Moisture	N	2030	%	0.020	5.1	15	14	15	16	15	12	14	16
Loss on Ignition 440 (Fines)	U	2620	%	0.20	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S
Group 1 & 2 Material > 20mm	N	2620	%	0.10	I/S	I/S	I/S	I/S	I/S	I/S	I/S	I/S	I/S

Results - Soil

Project: 5868 Coolagad Greystones

Client: Site Investigations Ltd				**Chemtest Job No.:**	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268	21-30268
Quotation No.:				**Chemtest Sample ID.:**	1270671	1270672	1270673	1270674	1270675	1270676	1270677	1270678	1270679
Order No.: 48/A/21				Client Sample Ref.:	Jot 102	Jot 054	Jot 061	Jot 070	GM 023	GM 092	GM 035	GM 071	GM 013
				Client Sample ID.:	BH16	BH21	BH26	BH28	BH36	BH44	BH48	BH50	BH53
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	2.00
				Bottom Depth (m):	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00
				Date Sampled:	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021	19-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Moisture	N	2030	%	0.020	14	17	15	15	16	15	16	12	16
Loss on Ignition 440 (Fines)	U	2620	%	0.20	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S	[E] I/S
Group 1 & 2 Material > 20mm	N	2620	%	0.10	I/S	I/S	I/S	I/S	I/S	I/S	I/S	I/S	I/S

Results - Soil

Project: 5868 Coolagad Greystones

Client: Site Investigations Ltd				**Chemtest Job No.:**	21-30268	21-30268
Quotation No.:				**Chemtest Sample ID.:**	1270680	1270681
Order No.: 48/A/21				Client Sample Ref.:	GM 050	Jot 135
				Client Sample ID.:	BH54	BH56
				Sample Type:	SOIL	SOIL
				Top Depth (m):	2.00	2.00
				Bottom Depth (m):	2.00	2.00
				Date Sampled:	19-Aug-2021	19-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Moisture	N	2030	%	0.020	9.5	12
Loss on Ignition 440 (Fines)	U	2620	%	0.20	[E] I/S	[E] I/S
Group 1 & 2 Material > 20mm	N	2620	%	0.10	I/S	I/S

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:
1270662	Jot 001	BH01		19-Aug-2021	E	Amber Glass 60ml
1270663	BM 011	BH02		19-Aug-2021	E	Amber Glass 60ml
1270664	Jot124	BH05		19-Aug-2021	E	Amber Glass 60ml
1270665	Jot142	BH08		19-Aug-2021	E	Amber Glass 60ml
1270666	Jot115	BH10		19-Aug-2021	E	Amber Glass 60ml
1270667	Jot 031	BH11		19-Aug-2021	E	Amber Glass 60ml
1270668	DM 002	BH12		19-Aug-2021	E	Amber Glass 60ml
1270669	Jot 039	BH13		19-Aug-2021	E	Amber Glass 60ml
1270670	Jot 048	BH15		19-Aug-2021	E	Amber Glass 60ml
1270671	Jot 102	BH16		19-Aug-2021	E	Amber Glass 60ml
1270672	Jot 054	BH21		19-Aug-2021	E	Amber Glass 60ml
1270673	Jot 061	BH26		19-Aug-2021	E	Amber Glass 60ml
1270674	Jot 070	BH28		19-Aug-2021	E	Amber Glass 60ml
1270675	GM 023	BH36		19-Aug-2021	E	Amber Glass 60ml
1270676	GM 092	BH44		19-Aug-2021	E	Amber Glass 60ml
1270677	GM 035	BH48		19-Aug-2021	E	Amber Glass 60ml
1270678	GM 071	BH50		19-Aug-2021	E	Amber Glass 60ml
1270679	GM 013	BH53		19-Aug-2021	E	Amber Glass 60ml
1270680	GM 050	BH54		19-Aug-2021	E	Amber Glass 250ml
1270681	Jot 135	BH56		19-Aug-2021	E	Amber Glass 250ml

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
2620	LOI 440	LOI 440 Trommel Fines	Determination of the proportion by mass that is lost from a soil by ignition at 440°C.

Report Information

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

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

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

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

Sample Deviation Codes

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

Sample Retention and Disposal

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

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

Appendix 15

Survey Data

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
Boreholes					
BH01	727988.757	713274.995	53.95	328065.948	213244.264
BH02	727926.097	713212.480	56.75	328003.275	213181.735
BH03	727809.453	713256.565	63.46	327886.606	213225.828
BH04	727738.102	713253.588	67.66	327815.239	213222.850
BH05	727524.123	713250.084	87.67	327601.214	213219.344
BH06	727664.422	713255.380	73.56	327741.543	213224.642
BH07	727842.524	713223.275	61.87	327919.684	213192.531
BH08	727601.900	713198.929	80.99	327679.008	213168.178
BH09	727784.390	713188.093	65.38	327861.538	213157.341
BH10	727542.423	713185.099	86.00	327619.519	213154.345
BH11	727711.894	713179.696	71.01	327789.026	213148.942
BH12	727826.584	713160.449	63.46	327903.741	213129.692
BH13	727648.270	713122.994	77.18	327725.389	213092.227
BH14	727552.326	713122.376	84.67	327629.424	213091.608
BH15	727728.241	713114.586	70.87	327805.377	213083.818
BH16	727603.543	713111.735	80.76	327680.653	213080.965
BH17	727805.647	713101.471	63.25	327882.800	213070.701
BH18	727562.943	713055.449	83.15	327640.044	213024.667
BH19	727718.799	713044.011	71.34	327795.934	213013.227
BH20	727647.685	713041.451	76.73	327724.805	213010.666
BH21	727794.489	713039.697	64.74	327871.640	213008.913
BH22	727613.995	713036.553	78.93	327691.108	213005.767
BH23	727719.201	712995.982	70.14	327796.337	212965.188
BH24	727571.563	712985.336	79.19	327648.667	212954.539
BH25	727651.482	712987.415	73.31	327728.603	212956.619
BH26	727766.985	712972.557	66.30	327844.131	212941.758
BH27	727668.672	712958.666	71.73	327745.797	212927.863
BH28	727597.606	712952.485	78.46	327674.716	212921.681
BH29	727735.823	712941.177	67.81	327812.963	212910.371
BH30	727807.218	712936.673	63.29	327884.373	212905.867
BH31	727645.342	712922.064	76.59	327722.462	212891.253
BH32	727544.431	712908.378	87.14	327621.530	212877.564
BH33	727702.504	712899.735	72.48	327779.637	212868.920
BH34	727768.697	712885.620	67.93	327845.844	212854.802
BH35	727603.776	712875.198	82.94	327680.888	212844.377
BH36	727827.542	712861.665	65.08	327904.702	212830.842
BH37	727683.349	712847.152	76.05	327760.478	212816.325
BH38	727555.653	712844.507	90.15	327632.755	212813.679
BH39	727765.031	712835.224	70.28	327842.178	212804.395
BH40	727850.137	712822.546	64.47	327927.303	212791.715
BH41	727623.236	712820.242	83.13	327700.353	212789.409
BH42	727746.817	712771.976	72.66	327823.961	212741.133
BH43	727689.794	712772.965	77.82	327766.925	212742.122
BH44	727845.855	712772.307	64.66	327923.020	212741.465
BH45	727632.793	712772.347	84.52	327709.912	212741.504
BH46	727726.512	712732.434	75.48	327803.652	212701.583
BH47	727797.232	712723.788	69.69	327874.387	212692.935
BH48	727634.367	712724.075	86.82	327711.487	212693.221
BH49	727866.921	712709.726	65.36	327944.091	212678.871
BH50	727799.940	712676.945	71.42	327877.096	212646.082
BH51	727753.423	712675.401	75.13	327830.569	212644.537
BH52	727695.355	712672.943	81.16	327772.489	212642.078
BH53	727847.535	712655.579	69.18	327924.702	212624.712

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
BH54	727770.093	712632.424	76.64	327847.243	212601.551
BH55	727699.644	712620.008	84.37	327776.779	212589.132
BH56	727584.586	713272.967	82.83	327661.690	213242.232
BH57	727798.593	712790.746	68.58	327875.748	212759.908
Rotary Coreholes					
RC05	727524.123	713250.084	87.67	327601.214	213219.344
RC07	727846.065	713223.472	61.70	327923.226	213192.728
RC10	727542.628	713185.116	85.96	327619.724	213154.362
RC11	727711.894	713179.696	71.01	327789.026	213148.942
RC16	727602.824	713108.575	80.94	327679.933	213077.805
RC17	727806.472	713100.625	63.25	327883.625	213069.854
RC26	727766.571	712971.436	66.31	327843.717	212940.637
RC37	727683.349	712847.152	76.05	327760.478	212816.325
RC38	727555.653	712844.507	90.15	327632.755	212813.679
Trial Pits					
TP016	727750.024	713264.596	67.00	327827.164	213233.861
TP025	727725.241	713205.878	69.99	327802.376	213175.130
TP043	727583.746	713257.471	82.89	327660.850	213226.733
TP058	727556.076	713128.982	84.38	327633.175	213098.216
TP070	727609.454	713041.049	79.46	327686.565	213010.264
TP075	727699.702	713121.721	72.97	327776.832	213090.954
TP107	727785.272	713018.521	65.17	327862.422	212987.732
TP115	727700.088	713024.068	72.46	327777.219	212993.280
TP130	727812.412	712904.163	64.52	327889.569	212873.350
TP137	727842.132	712807.283	64.61	327919.296	212776.449
TP142	727864.438	712738.933	65.09	327941.607	212708.084
TP160	727591.589	712844.665	85.84	327668.699	212813.837
TP165	727652.459	712934.032	75.15	327729.581	212903.224
TP174	727671.049	712875.021	76.10	327748.175	212844.200
TP186	727750.802	712827.183	71.73	327827.946	212796.352
TP191	727767.977	712758.202	71.33	327845.125	212727.356
TP226	727735.120	712722.356	74.97	327812.262	212691.502
TP240	727726.408	712625.460	80.96	327803.549	212594.585
TP246	727820.130	712717.385	68.25	327897.290	212686.531
RTP044	727636.233	713188.975	77.53	327713.349	213158.222
RTP073	727775.917	712660.553	74.10	327853.068	212629.686
RTP106	727863.694	712678.379	66.54	327940.864	212647.517
RTP115	727799.810	713103.099	63.78	327876.962	213072.329
RTP122	727850.132	713227.019	61.55	327927.294	213196.276
RTP144	727721.973	712944.822	68.60	327799.110	212914.017
RTP151	727531.950	712915.270	87.94	327609.046	212884.457
RTP165	727690.997	712805.670	77.05	327768.128	212774.834
RTP171	727682.986	712692.361	81.54	327760.117	212661.500
RTP179	727620.025	712758.658	87.10	327697.142	212727.812
RTP190	727973.757	713267.290	54.43	328050.945	213236.557
RTP191	727898.708	713276.449	58.84	327975.880	213245.717
RTP192	727914.528	713214.936	57.30	327991.704	213184.191
Dynamic Probes - Structural					
DP001	728197.344	713320.195	41.33	328274.580	213289.475
DP002	728212.444	713321.312	40.47	328289.683	213290.592
DP003	728220.210	713307.304	40.21	328297.451	213276.581
DP004	728232.678	713317.073	39.64	328309.921	213286.353
DP005	728222.604	713269.477	39.81	328299.846	213238.746
DP006	728224.386	713255.106	39.71	328301.628	213224.372

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
DP007	727826.674	713267.269	62.53	327903.830	213236.535
DP008	727791.028	713267.425	64.55	327868.176	213236.691
DP009	727825.050	713254.338	62.48	327902.206	213223.601
DP010	727791.026	713252.590	64.37	327868.175	213221.852
DP011	727792.770	713237.457	64.37	327869.919	213206.716
DP012	727828.285	713235.171	62.54	327905.442	213204.430
DP013	727796.173	713221.844	64.27	327873.323	213191.100
DP014	727832.030	713219.805	62.59	327909.188	213189.061
DP015	727799.789	713206.851	64.32	327876.940	213176.103
DP016	727750.024	713264.596	67.00	327827.164	213233.861
DP017	727733.291	713264.166	68.10	327810.427	213233.431
DP018	727718.060	713264.011	68.91	327795.193	213233.275
DP019	727719.216	713247.311	69.12	327796.349	213216.572
DP020	727754.785	713245.016	66.56	327831.926	213214.276
DP021	727715.137	713232.023	70.46	327792.269	213201.280
DP022	727756.417	713230.732	66.61	327833.558	213199.989
DP023	727720.642	713220.880	70.27	327797.776	213190.135
DP024	727758.765	713214.756	66.54	327835.907	213184.010
DP025	727725.241	713205.878	69.99	327802.376	213175.130
DP026	727762.077	713200.782	66.58	327839.220	213170.033
DP027	727728.045	713195.608	69.78	327805.181	213164.858
DP028	727649.179	713270.931	75.44	327726.297	213240.196
DP029	727684.693	713269.364	71.83	327761.818	213238.629
DP030	727648.871	713255.533	75.45	327725.989	213224.795
DP031	727683.270	713253.298	71.91	327760.395	213222.560
DP032	727649.189	713244.279	75.57	327726.307	213213.539
DP033	727683.565	713240.428	72.45	327760.691	213209.687
DP034	727648.562	713229.477	75.86	327725.680	213198.733
DP035	727685.130	713228.297	72.92	327762.256	213197.553
DP036	727687.307	713213.909	73.02	327764.434	213183.162
DP037	727650.214	713210.715	75.91	327727.333	213179.967
DP038	727688.935	713204.710	72.94	327766.062	213173.961
DP039	727654.499	713199.328	75.70	327731.619	213168.578
DP040	727691.229	713189.292	72.77	327768.357	213158.540
DP041	727655.316	713183.652	75.99	327732.436	213152.898
DP042	727579.799	713271.945	83.22	327656.902	213241.210
DP043	727583.746	713257.471	82.89	327660.850	213226.733
DP044	727588.172	713243.297	82.36	327665.277	213212.556
DP045	727591.898	713228.664	81.95	327669.004	213197.920
DP046	727597.680	713214.535	81.38	327674.787	213183.788
DP047	727581.256	713211.012	82.86	327658.360	213180.264
DP048	727600.422	713198.866	81.10	327677.530	213168.115
DP049	727584.417	713195.182	82.47	327661.522	213164.430
DP050	727531.376	713253.598	86.91	327608.469	213222.859
DP051	727535.287	713239.209	86.55	327612.381	213208.467
DP052	727539.095	713224.922	86.27	327616.190	213194.177
DP053	727543.059	713210.602	85.97	327620.154	213179.854
DP054	727546.468	713196.064	85.65	327623.564	213165.312
DP055	727545.539	713170.177	85.66	327622.635	213139.420
DP056	727548.992	713155.110	85.19	327626.089	213124.349
DP057	727552.553	713142.058	84.77	327629.651	213111.295
DP058	727556.076	713128.982	84.38	327633.175	213098.216
DP059	727566.507	713101.109	83.44	327643.609	213070.337
DP060	727566.446	713087.511	83.35	327643.548	213056.736

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
DP061	727566.498	713073.453	83.13	327643.600	213042.675
DP062	727566.426	713058.452	82.98	327643.528	213027.670
DP063	727609.150	713156.139	80.18	327686.260	213125.379
DP064	727609.225	713140.032	80.20	327686.335	213109.269
DP065	727609.450	713127.832	80.29	327686.561	213097.066
DP066	727609.341	713112.456	80.44	327686.452	213081.687
DP067	727610.004	713087.493	80.41	327687.115	213056.718
DP068	727609.592	713068.594	80.27	327686.703	213037.815
DP069	727609.322	713054.886	80.07	327686.433	213024.104
DP070	727609.454	713041.049	79.46	327686.565	213010.264
DP071	727697.406	713153.319	72.45	327774.535	213122.559
DP072	727660.349	713148.340	75.75	327737.470	213117.579
DP073	727699.604	713136.589	72.61	327776.734	213105.825
DP074	727661.924	713132.764	75.93	327739.046	213101.999
DP075	727699.702	713121.721	72.97	327776.832	213090.954
DP076	727663.460	713117.480	76.08	327740.582	213086.712
DP077	727702.058	713105.706	72.81	327779.189	213074.936
DP078	727664.550	713101.112	76.03	327741.673	213070.340
DP079	727670.353	713087.418	75.54	327747.477	213056.644
DP080	727704.459	713086.402	72.66	327781.591	213055.628
DP081	727681.048	713075.020	74.58	327758.175	213044.243
DP082	727767.450	713172.547	66.82	327844.594	213141.792
DP083	727730.319	713165.124	69.72	327807.455	213134.367
DP084	727770.226	713161.691	66.59	327847.371	213130.933
DP085	727733.574	713149.317	69.73	327810.711	213118.556
DP086	727770.314	713146.764	66.64	327847.459	213116.003
DP087	727771.417	713138.045	66.58	327848.562	213107.282
DP088	727736.982	713133.526	69.82	327814.120	213102.762
DP089	727773.688	713123.131	66.40	327850.834	213092.365
DP090	727738.910	713116.437	69.92	327816.049	213085.669
DP091	727774.343	713110.722	66.17	327851.489	213079.953
DP092	727740.669	713101.621	69.87	327817.808	213070.850
DP093	727779.625	713097.102	65.56	327856.773	213066.330
DP094	727746.525	713086.734	69.22	327823.666	213055.960
DP095	727834.231	713189.692	62.97	327911.390	213158.941
DP096	727846.218	713180.918	62.36	327923.379	213150.165
DP097	727822.380	713180.018	63.63	327899.536	213149.265
DP098	727810.064	713170.956	64.20	327887.218	213140.201
DP099	727796.749	713164.677	64.90	327873.900	213133.920
DP100	727854.812	713154.598	62.21	327931.975	213123.839
DP101	727798.797	713149.815	64.70	327875.948	213119.055
DP102	727841.989	713148.028	62.85	327919.150	213117.268
DP103	727830.707	713141.266	63.21	327907.865	213110.504
DP104	727817.802	713133.560	63.43	327894.958	213102.797
DP105	727804.604	713126.215	63.84	327881.757	213095.450
DP106	727784.790	713046.988	65.47	327861.939	213016.206
DP107	727785.272	713018.521	65.17	327862.422	212987.732
DP108	727784.830	713004.595	65.03	327861.980	212973.803
DP109	727784.891	712990.864	64.98	327862.041	212960.069
DP110	727786.302	712977.627	64.79	327863.452	212946.829
DP111	727735.894	713041.194	69.94	327813.033	213010.410
DP112	727712.752	713038.248	71.78	327789.886	213007.463
DP113	727697.820	713038.682	72.88	327774.951	213007.897
DP114	727736.374	713025.952	69.70	327813.513	212995.165

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
DP115	727700.088	713024.068	72.46	327777.219	212993.280
DP116	727741.003	713017.442	69.18	327818.143	212986.653
DP117	727699.641	713009.323	72.01	327776.772	212978.532
DP118	727741.364	713002.000	68.82	327818.504	212971.207
DP119	727700.182	712994.368	71.21	327777.314	212963.573
DP120	727735.781	712993.515	68.96	327812.920	212962.721
DP121	727697.972	712979.121	70.45	327775.103	212948.323
DP122	727714.883	712977.638	69.51	327792.018	212946.840
DP123	727736.122	712977.376	68.36	327813.261	212946.578
DP124	727657.145	713034.952	75.87	327734.267	213004.166
DP125	727656.764	713019.510	75.31	327733.886	212988.721
DP126	727657.119	713005.101	74.30	327734.241	212974.308
DP127	727656.938	712990.828	73.35	327734.060	212960.032
DP128	727801.714	712931.922	63.87	327878.868	212901.115
DP129	727807.357	712918.300	64.12	327884.512	212887.490
DP130	727812.412	712904.163	64.52	327889.569	212873.350
DP131	727817.597	712889.719	64.84	327894.755	212858.902
DP132	727833.823	712870.189	64.49	327910.985	212839.368
DP133	727821.178	712862.149	65.38	327898.337	212831.326
DP134	727823.778	712847.443	65.43	327900.938	212816.617
DP135	727829.071	712833.371	65.02	327906.232	212802.542
DP136	727836.790	712820.750	64.81	327913.953	212789.919
DP137	727842.132	712807.283	64.61	327919.296	212776.449
DP138	727847.703	712792.861	64.55	327924.868	212762.024
DP139	727858.349	712778.973	64.45	327935.517	212748.133
DP140	727860.399	712764.066	64.71	327937.567	212733.222
DP141	727857.153	712753.286	64.75	327934.321	212722.440
DP142	727864.438	712738.933	65.09	327941.607	212708.084
DP143	727860.507	712728.403	65.30	327937.676	212697.552
DP144	727865.658	712714.946	65.40	327942.828	212684.092
DP145	727869.089	712703.705	65.43	327946.260	212672.848
DP146	727567.195	712939.444	82.55	327644.298	212908.637
DP147	727584.918	712939.471	80.69	327662.025	212908.664
DP148	727585.009	712927.480	81.68	327662.116	212896.670
DP149	727548.905	712918.148	86.14	327626.005	212887.336
DP150	727588.217	712912.142	82.47	327665.325	212881.329
DP151	727590.193	712901.667	82.82	327667.302	212870.851
DP152	727551.807	712902.799	86.78	327628.907	212871.983
DP153	727593.529	712889.313	83.23	327670.639	212858.495
DP154	727556.236	712888.808	87.00	327633.337	212857.989
DP155	727596.737	712874.615	83.73	327673.847	212843.794
DP156	727561.375	712874.536	87.40	327638.478	212843.714
DP157	727604.119	712861.545	83.64	327681.231	212830.721
DP158	727567.457	712860.704	87.63	327644.561	212829.879
DP159	727609.143	712847.679	83.65	327686.256	212816.852
DP160	727591.589	712844.665	85.84	327668.699	212813.837
DP161	727571.884	712838.947	88.55	327648.989	212808.118
DP162	727624.933	712950.972	76.08	327702.049	212920.167
DP163	727648.459	712948.456	74.17	327725.580	212917.651
DP164	727611.616	712943.250	77.76	327688.729	212912.444
DP165	727652.459	712934.032	75.15	327729.581	212903.224
DP166	727618.208	712928.404	78.29	327695.322	212897.595
DP167	727653.473	712923.075	75.95	327730.595	212892.265
DP168	727621.824	712913.146	78.91	327698.939	212882.333

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
DP169	727658.817	712908.730	76.24	327735.940	212877.916
DP170	727661.935	712901.019	76.28	327739.059	212870.204
DP171	727624.791	712899.449	79.36	327701.907	212868.633
DP172	727667.494	712886.904	76.10	327744.620	212856.086
DP173	727631.700	712885.259	79.34	327708.818	212854.440
DP174	727671.049	712875.021	76.10	327748.175	212844.200
DP175	727636.483	712871.894	79.32	327713.602	212841.072
DP176	727654.266	712857.096	77.99	327731.389	212826.271
DP177	727639.415	712854.038	79.50	327716.535	212823.212
DP178	727684.467	712941.029	71.87	327761.596	212910.223
DP179	727690.450	712925.125	72.50	327767.580	212894.315
DP180	727697.806	712907.085	72.70	327774.938	212876.271
DP181	727705.256	712893.596	72.40	327782.390	212862.780
DP182	727727.410	712886.928	70.85	327804.548	212856.110
DP183	727732.799	712872.997	71.11	327809.939	212842.176
DP184	727740.318	712859.136	71.25	327817.460	212828.312
DP185	727749.691	712841.766	71.35	327826.835	212810.939
DP186	727750.802	712827.183	71.73	327827.946	212796.352
DP187	727753.726	712813.560	71.82	327830.871	212782.726
DP188	727751.519	712800.814	72.19	327828.663	212769.978
DP189	727755.248	712786.798	71.95	327832.393	212755.959
DP190	727761.874	712772.231	71.52	327839.021	212741.388
DP191	727767.977	712758.202	71.33	327845.125	212727.356
DP192	727721.694	712924.188	69.62	327798.831	212893.378
DP193	727737.647	712922.901	68.44	327814.787	212892.091
DP194	727754.686	712925.661	67.03	327831.830	212894.852
DP195	727768.230	712919.607	66.32	327845.377	212888.797
DP196	727767.559	712902.778	67.26	327844.706	212871.964
DP197	727770.731	712891.288	67.53	327847.879	212860.471
DP198	727776.514	712875.092	67.92	327853.663	212844.272
DP199	727761.859	712868.281	69.22	327839.005	212837.459
DP200	727787.118	712852.693	68.09	327864.270	212821.868
DP201	727772.282	712851.819	69.19	327849.430	212820.994
DP202	727790.599	712834.453	68.32	327867.752	212803.624
DP203	727794.575	712821.779	68.32	327871.729	212790.947
DP204	727800.490	712807.494	68.10	327877.645	212776.659
DP205	727808.090	712794.640	67.71	327885.247	212763.803
DP206	727817.957	712780.111	67.22	327895.116	212749.271
DP207	727803.248	712769.165	68.65	327880.404	212738.322
DP208	727669.934	712826.451	78.07	327747.061	212795.620
DP209	727649.177	712823.422	80.06	327726.299	212792.590
DP210	727635.416	712819.807	81.72	327712.535	212788.974
DP211	727673.663	712812.548	78.34	327750.791	212781.714
DP212	727639.269	712802.546	82.39	327716.389	212771.709
DP213	727677.108	712797.789	78.45	327754.236	212766.951
DP214	727641.535	712788.854	82.76	327718.656	212758.014
DP215	727677.690	712782.695	78.78	327754.819	212751.854
DP216	727644.665	712774.286	82.94	327721.787	212743.443
DP217	727676.059	712769.260	79.42	327753.188	212738.416
DP218	727638.303	712761.290	84.30	327715.423	212730.444
DP219	727676.281	712756.137	79.98	327753.410	212725.290
DP220	727641.440	712746.660	84.69	327718.561	212715.811
DP221	727682.777	712740.545	79.78	327759.907	212709.695
DP222	727645.078	712735.066	84.90	327722.200	212704.215

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
DP223	727676.825	712726.718	81.07	327753.954	212695.865
DP224	727655.304	712721.095	84.07	327732.428	212690.241
DP225	727668.865	712713.830	82.64	327745.992	212682.974
DP226	727735.120	712722.356	74.97	327812.262	212691.502
DP227	727717.394	712716.265	76.85	327794.532	212685.410
DP228	727702.902	712712.226	78.43	327780.037	212681.370
DP229	727696.330	712698.585	79.62	327773.464	212667.726
DP230	727739.028	712691.359	75.84	327816.171	212660.499
DP231	727704.917	712681.845	79.68	327782.053	212650.982
DP232	727744.706	712677.091	75.88	327821.850	212646.228
DP233	727709.507	712667.361	79.79	327786.644	212636.495
DP234	727750.235	712663.207	76.23	327827.381	212632.341
DP235	727715.322	712653.732	79.84	327792.460	212622.863
DP236	727755.975	712649.719	76.65	327833.122	212618.850
DP237	727720.588	712639.414	80.37	327797.727	212608.542
DP238	727760.646	712635.225	77.34	327837.794	212604.353
DP239	727746.679	712629.062	78.96	327823.824	212598.188
DP240	727726.408	712625.460	80.96	327803.549	212594.585
DP241	727823.516	712750.719	67.33	327900.677	212719.872
DP242	727799.770	712739.936	69.29	327876.925	212709.087
DP243	727827.819	712736.041	67.25	327904.981	212705.191
DP244	727785.999	712733.651	70.37	327863.152	212702.800
DP245	727769.942	712728.195	71.63	327847.091	212697.343
DP246	727820.130	712717.385	68.25	327897.290	212686.531
DP247	727826.219	712706.033	68.35	327903.381	212675.176
DP248	727785.895	712703.222	71.00	327863.048	212672.365
DP249	727831.520	712690.845	68.64	327908.683	212659.985
DP250	727790.791	712690.793	71.34	327867.945	212659.933
DP251	727795.118	712677.572	71.71	327872.273	212646.709
DP252	727837.093	712676.599	68.73	327914.257	212645.736
DP253	727801.962	712663.756	71.93	327879.119	212632.890
DP254	727841.004	712662.169	69.24	327918.169	212631.303
DP255	727816.675	712648.419	71.67	327893.835	212617.550
Dynamic Probes - Road					
RDP001	728234.958	713282.775	39.24	328312.202	213252.047
RDP002	728214.893	713282.663	40.32	328292.133	213251.935
RDP003	728197.570	713288.893	41.31	328274.806	213258.166
RDP004	728179.483	713298.874	42.46	328256.715	213268.149
RDP005	728161.090	713306.611	43.18	328238.318	213275.888
RDP006	728140.776	713309.764	43.92	328218.000	213279.041
RDP007	728121.257	713307.513	44.67	328198.476	213276.790
RDP008	728101.382	713304.327	46.05	328178.597	213273.603
RDP009	728081.478	713300.426	47.93	328158.689	213269.701
RDP010	728061.917	713296.881	49.54	328139.124	213266.155
RDP011	728042.884	713293.735	50.64	328120.087	213263.008
RDP012	728022.548	713290.580	51.63	328099.746	213259.852
RDP013	727991.445	713287.528	53.74	328068.637	213256.799
RDP014	727982.795	713285.308	54.19	328059.985	213254.579
RDP015	727963.056	713285.711	55.42	328040.241	213254.982
RDP016	727942.624	713287.931	56.62	328019.805	213257.202
RDP017	727925.212	713289.788	57.69	328002.389	213259.059
RDP018	727905.686	713290.476	58.82	327982.859	213259.747
RDP019	727885.742	713290.107	59.99	327962.911	213259.378
RDP020	727865.391	713286.729	60.80	327942.555	213255.999

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
RDP021	727843.686	713285.553	62.02	327920.846	213254.823
RDP022	727825.165	713283.806	62.86	327902.321	213253.075
RDP023	727806.243	713282.792	64.03	327883.395	213252.061
RDP024	727785.590	713280.682	64.89	327862.737	213249.950
RDP025	727765.588	713279.065	65.95	327842.731	213248.333
RDP026	727745.722	713278.032	67.71	327822.861	213247.300
RDP027	727725.980	713277.110	69.14	327803.114	213246.377
RDP028	727695.007	713276.970	73.37	327772.135	213246.237
RDP029	727686.276	713280.848	71.89	327763.402	213250.116
RDP030	727666.148	713284.432	73.59	327743.269	213253.700
RDP031	727646.970	713290.536	75.74	327724.087	213259.806
RDP032	727627.185	713293.738	78.42	327704.298	213263.008
RDP033	727607.277	713294.553	81.33	327684.386	213263.823
RDP034	727588.009	713290.515	82.29	327665.113	213259.784
RDP035	727572.018	713285.941	83.55	327649.119	213255.209
RDP036	727549.733	713278.305	85.26	327626.829	213247.571
RDP037	727530.154	713271.365	86.88	327607.246	213240.630
RDP038	727513.611	713261.362	88.37	327590.700	213230.624
RDP039	727498.593	713249.000	89.49	327575.679	213218.260
RDP040	727631.774	713272.791	77.79	327708.888	213242.057
RDP041	727630.804	713253.048	77.77	327707.918	213222.309
RDP042	727630.316	713213.078	77.71	327707.430	213182.331
RDP043	727634.254	713201.043	77.54	327711.369	213170.293
RDP044	727636.233	713188.975	77.53	327713.349	213158.222
RDP045	727640.350	713174.085	77.24	327717.467	213143.329
RDP046	727641.956	713154.940	77.27	327719.073	213124.180
RDP047	727643.116	713134.553	77.25	327720.234	213103.789
RDP048	727644.584	713114.762	77.52	327721.702	213083.993
RDP049	727647.102	713094.819	77.39	327724.221	213064.046
RDP050	727657.671	713078.986	76.44	327734.793	213048.210
RDP051	727670.889	713066.939	75.27	327748.013	213036.160
RDP052	727680.336	713046.741	74.25	327757.463	213015.958
RDP053	727681.129	713026.513	73.79	327758.256	212995.725
RDP054	727680.569	713006.345	72.98	327757.696	212975.553
RDP055	727680.577	712986.911	71.88	327757.704	212956.115
RDP056	727672.133	712970.733	71.40	327749.259	212939.933
RDP057	727667.403	712949.163	72.48	327744.528	212918.358
RDP058	727671.149	712929.704	74.00	327748.275	212898.895
RDP059	727677.858	712911.983	74.46	327754.986	212881.170
RDP060	727684.580	712893.445	74.40	327761.709	212862.628
RDP061	727693.780	712875.137	74.13	327770.911	212844.316
RDP062	727707.515	712866.157	73.39	327784.649	212835.335
RDP063	727724.084	712851.710	72.89	327801.222	212820.885
RDP064	727731.931	712832.287	73.16	327809.071	212801.457
RDP065	727734.773	712812.251	73.49	327811.914	212781.417
RDP066	727731.014	712793.782	73.96	327808.154	212762.944
RDP067	727741.023	712775.135	73.19	327818.165	212744.293
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RDP069	727752.954	712735.661	72.90	327830.099	212704.810
RDP070	727757.278	712716.445	72.86	327834.425	212685.590
RDP071	727764.567	712697.914	72.69	327841.715	212667.055
RDP072	727767.315	712679.396	73.48	327844.464	212648.533
RDP073	727775.917	712660.553	74.10	327853.068	212629.686
RDP074	727786.260	712641.944	74.55	327863.414	212611.073

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
RDP075	727702.444	713257.870	70.50	327779.573	213227.133
RDP076	727701.775	713238.189	71.00	327778.904	213207.448
RDP077	727704.357	713218.040	71.62	327781.487	213187.294
RDP078	727708.058	713199.084	71.37	327785.189	213168.334
RDP079	727711.572	713179.319	71.03	327788.704	213148.565
RDP080	727714.121	713158.288	71.05	327791.254	213127.529
RDP081	727717.383	713140.445	71.20	327794.517	213109.682
RDP082	727720.362	713120.063	71.40	327797.497	213089.296
RDP083	727722.343	713100.304	71.38	327799.478	213069.533
RDP084	727727.487	713080.979	70.99	327804.624	213050.204
RDP085	727740.330	713066.222	70.01	327817.469	213035.443
RDP086	727753.949	713049.624	68.28	327831.092	213018.842
RDP087	727760.138	713032.515	67.64	327837.282	213001.729
RDP088	727761.189	713013.156	67.35	327838.334	212982.366
RDP089	727761.712	712992.047	66.93	327838.857	212961.252
RDP090	727761.287	712972.420	66.59	327838.432	212941.621
RDP091	727760.324	712957.359	66.39	327837.469	212926.557
RDP092	727760.238	712939.038	66.18	327837.383	212908.232
RDP093	727777.813	712924.340	65.36	327854.962	212893.531
RDP094	727785.307	712905.455	65.83	327862.458	212874.642
RDP095	727792.328	712887.158	66.26	327869.480	212856.341
RDP096	727799.991	712869.056	66.69	327877.145	212838.235
RDP097	727804.043	712849.071	67.03	327881.198	212818.245
RDP098	727809.983	712830.331	66.84	327887.140	212799.501
RDP099	727820.184	712813.007	66.33	327897.343	212782.174
RDP100	727827.588	712794.250	66.08	327904.749	212763.413
RDP101	727832.616	712775.475	65.99	327909.778	212744.634
RDP102	727840.094	712752.800	65.55	327917.258	212721.954
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RDP109	727777.358	713220.346	65.17	327854.504	213189.601
RDP110	727781.998	713200.592	65.20	327859.145	213169.843
RDP111	727784.625	713181.097	65.55	327861.773	213150.344
RDP112	727786.713	713160.908	65.43	327863.862	213130.150
RDP113	727789.407	713141.445	65.24	327866.556	213110.683
RDP114	727793.142	713121.324	64.66	327870.292	213090.558
RDP115	727799.810	713103.099	63.78	327876.962	213072.329
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RDP117	727832.374	713120.570	62.53	327909.533	213089.804
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RDP122	727850.132	713227.019	61.55	327927.294	213196.276
RDP123	727827.680	713207.888	63.03	327904.837	213177.141
RDP124	727812.344	713195.434	63.96	327889.498	213164.684
RDP125	727798.448	713185.036	64.77	327875.599	213154.284
RDP126	727770.680	713187.615	66.26	327847.825	213156.863
RDP127	727751.397	713183.481	67.63	327828.538	213152.728
RDP128	727731.743	713179.517	69.46	327808.880	213148.763

Survey Data

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	Easting	Northing		Easting	Northing
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RDP131	727590.651	713164.477	81.77	327667.757	213133.719
RDP132	727561.694	713196.229	84.35	327638.794	213165.478
RDP133	727566.856	713176.679	83.84	327643.957	213145.923
RDP134	727571.316	713159.363	83.28	327648.418	213128.604
RDP135	727577.207	713138.284	82.58	327654.311	213107.520
RDP136	727584.916	713120.464	81.99	327662.021	213089.696
RDP137	727588.532	713101.695	81.79	327665.638	213070.923
RDP138	727588.352	713082.082	81.76	327665.459	213051.306
RDP139	727588.779	713061.608	81.55	327665.886	213030.827
RDP140	727588.351	713041.510	80.92	327665.458	213010.725
RDP141	727714.181	713069.017	71.98	327791.315	213038.239
RDP142	727694.166	713066.040	73.63	327771.296	213035.261
RDP143	727740.271	712940.962	67.44	327817.412	212910.156
RDP144	727721.973	712944.822	68.60	327799.110	212914.017
RDP145	727595.445	712953.170	78.51	327672.554	212922.366
RDP146	727599.637	712933.647	79.60	327676.747	212902.839
RDP147	727604.001	712913.740	80.64	327681.113	212882.927
RDP148	727608.266	712894.354	81.35	327685.379	212863.537
RDP149	727616.599	712876.649	81.36	327693.714	212845.828
RDP150	727621.318	712857.610	81.59	327698.434	212826.785
RDP151	727531.950	712915.270	87.94	327609.046	212884.457
RDP152	727535.481	712896.526	88.81	327612.578	212865.709
RDP153	727541.780	712877.553	89.28	327618.878	212846.732
RDP154	727549.135	712858.814	89.73	327626.235	212827.989
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RDP156	727571.306	712826.155	89.30	327648.411	212795.323
RDP157	727591.146	712829.974	86.58	327668.256	212799.143
RDP158	727613.426	712834.826	83.62	327690.540	212803.996
RDP159	727630.235	712839.003	81.11	327707.353	212808.174
RDP160	727649.747	712843.496	78.90	327726.869	212812.668
RDP161	727668.965	712848.106	77.07	327746.091	212817.279
RDP162	727687.976	712854.563	75.38	327765.106	212823.738
RDP163	727683.112	712844.999	76.18	327760.241	212814.172
RDP164	727687.183	712825.731	76.72	327764.313	212794.900
RDP165	727690.997	712805.670	77.05	327768.128	212774.834
RDP166	727694.433	712786.138	77.07	327771.565	212755.298
RDP167	727692.717	712766.320	77.64	327769.849	212735.476
RDP168	727693.733	712746.856	78.12	327770.866	212716.007
RDP169	727692.437	712725.151	79.07	327769.569	212694.298
RDP170	727683.681	712706.937	80.91	327760.812	212676.080
RDP171	727682.986	712692.361	81.54	327760.117	212661.500
RDP172	727690.554	712673.605	81.73	327767.687	212642.740
RDP173	727697.804	712655.101	81.74	327774.938	212624.232
RDP174	727705.066	712636.607	82.20	327782.202	212605.734
RDP175	727712.058	712618.031	82.95	327789.196	212587.154
RDP176	727617.594	712815.946	84.14	327694.709	212785.112
RDP177	727621.803	712796.516	84.86	327698.920	212765.678
RDP178	727625.904	712776.615	85.31	327703.022	212745.772
RDP179	727620.025	712758.658	87.10	327697.142	212727.812
RDP180	727624.448	712739.065	87.55	327701.566	212708.214
RDP181	727630.870	712720.579	87.58	327707.989	212689.724
RDP182	727649.245	712712.142	85.22	327726.368	212681.286

Survey Data

Location	Irish Transverse Mercator		Elevation	Irish National Grid	
	Easting	Northing		Easting	Northing
RDP183	727667.436	712703.827	83.05	327744.563	212672.969
RDP184	727710.455	712733.136	76.78	327787.591	212702.285
RDP185	727729.128	712740.522	75.02	327806.268	212709.672
RDP186	727763.178	712746.179	71.90	327840.326	212715.331
RDP187	727781.350	712754.321	70.49	327858.501	212723.475
RDP188	727800.538	712758.307	69.09	327877.693	212727.462
RDP189	727820.924	712761.979	67.34	327898.084	212731.135
RDP190	727973.757	713267.290	54.43	328050.945	213236.557
RDP191	727898.708	713276.449	58.84	327975.880	213245.717
RDP192	727914.528	713214.936	57.30	327991.704	213184.191
Infiltration Tests					
IT01	728173.167	713267.619	41.84	328250.398	213236.887
IT02	728060.586	713273.689	49.64	328137.793	213242.958
IT03	727902.875	713199.725	58.55	327980.048	213168.977
IT04	727610.925	713249.917	80.63	327688.035	213219.178
IT05	727774.734	713080.539	66.00	327851.881	213049.764
IT06	727620.923	712990.337	75.24	327698.037	212959.541
IT07	727710.694	712825.266	75.01	327787.829	212794.435
IT08	727589.265	712798.723	89.26	327666.374	212767.885
IT09	727667.234	712678.112	84.02	327744.361	212647.248
California Bearing Ratio Tests					
CBR01	727859.108	713287.587	61.01	327936.271	213256.857
CBR02	727679.640	713282.347	72.48	327756.764	213251.615
CBR03	727679.820	712902.370	74.67	327756.948	212871.555
CBR04	727702.570	712734.993	77.43	327779.705	212704.142

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Engineer :	AECOM		
Project :	Coolagad, Greystones, Co. Wicklow		
Date :	31-08-2021	**Scale :**	Not to Scale
Description :	Site Investigation	**Rev :**	1
Drawing	**SIL5868:01/01**	**Drawn by :**	DM

Legend:

- Cable Percussion Borehole
- California Bearing Ratio
- Roadway Dynamic Probe
- Dynamic Probe
- Trial Pit with Dynamic Probe
- Infiltration Test
- Rotary Core Drilling

N

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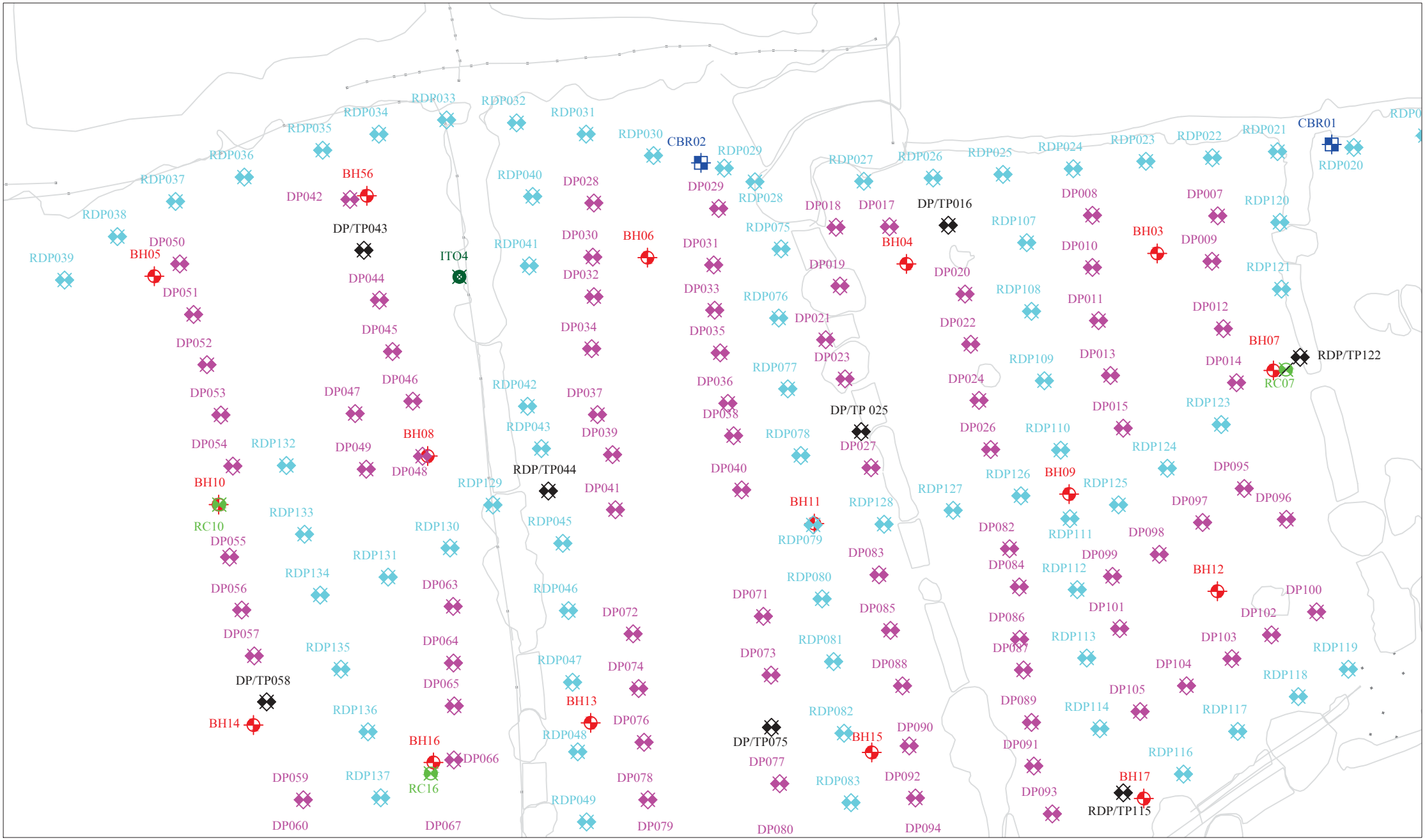
Drawing	**SIL5868:01/05**	**Drawn by :**	DM

Legend:

- Cable Percussion Borehole
- California Bearing Ratio
- Roadway Dynamic Probe
- Dynamic Probe
- Trial Pit with Dynamic Probe
- Infiltration Test
- Rotary Core Drilling

N



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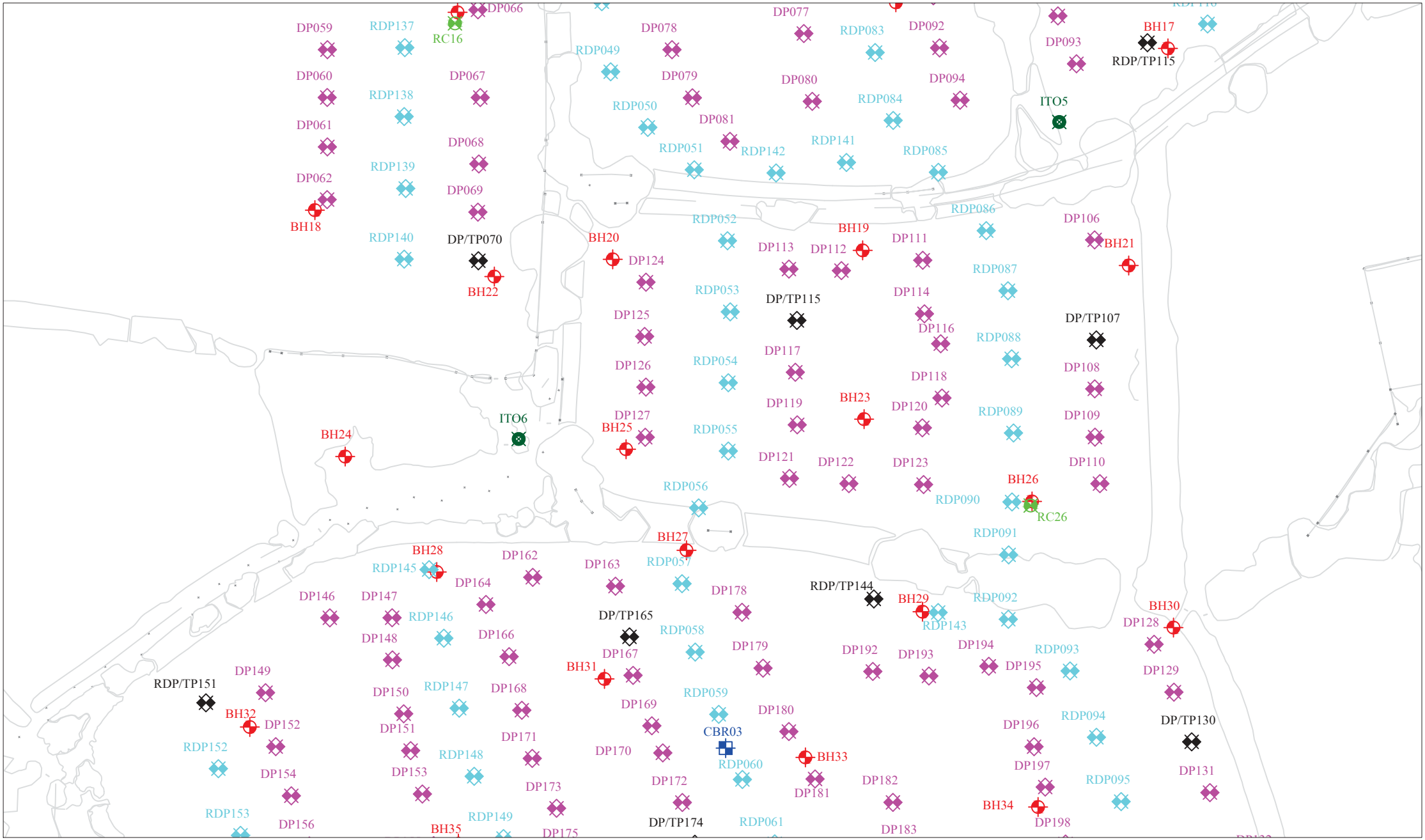
Drawing	**SIL5868:02/05**	**Drawn by :**	DM

Legend:

- Cable Percussion Borehole
- California Bearing Ratio
- Roadway Dynamic Probe
- Dynamic Probe
- Trial Pit with Dynamic Probe
- Infiltration Test
- Rotary Core Drilling

N



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Legend:

- Cable Percussion Borehole
- California Bearing Ratio
- Roadway Dynamic Probe
- Dynamic Probe
- Trial Pit with Dynamic Probe
- Infiltration Test
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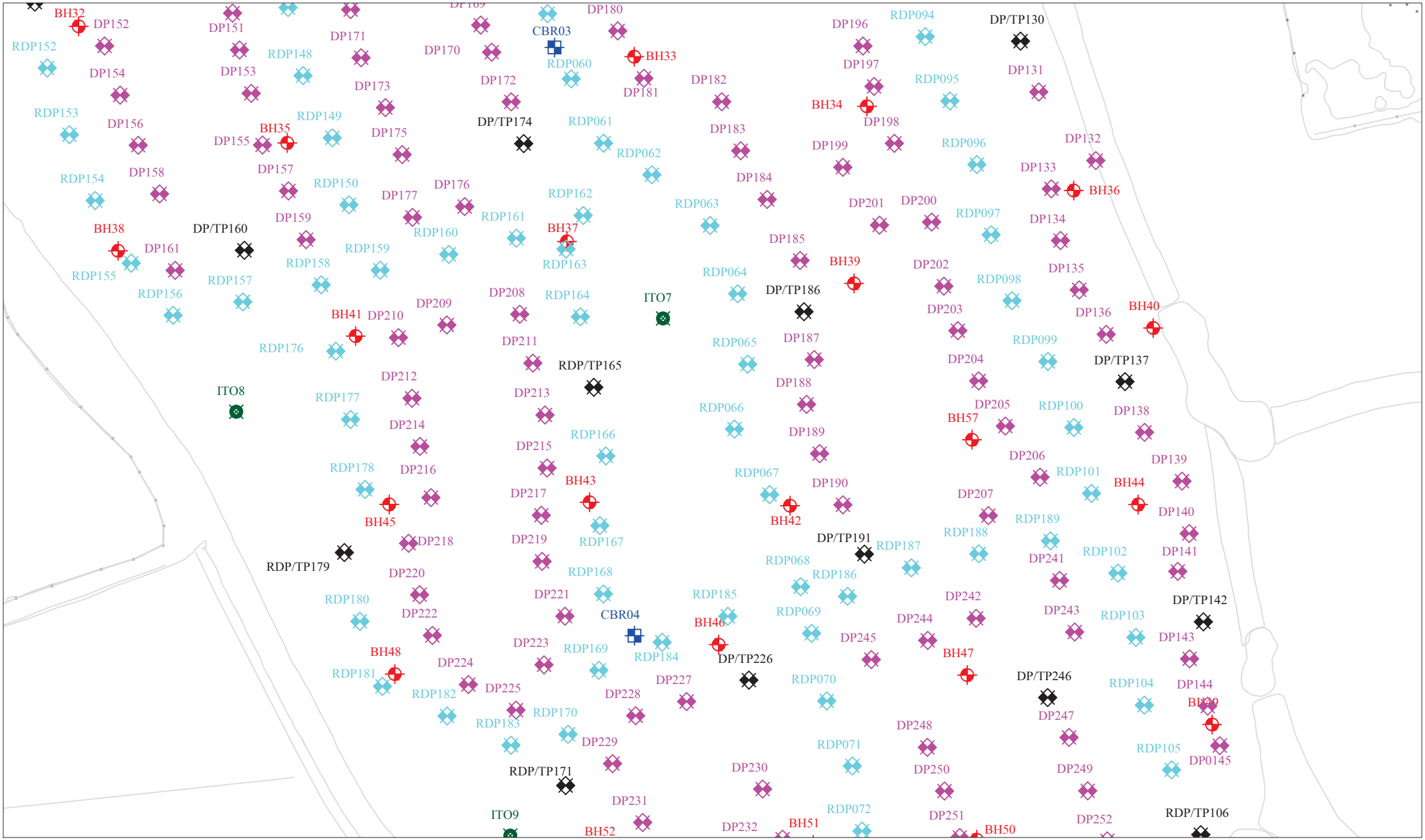
N



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Description :	Site Investigation	**Rev :**	1
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Legend:

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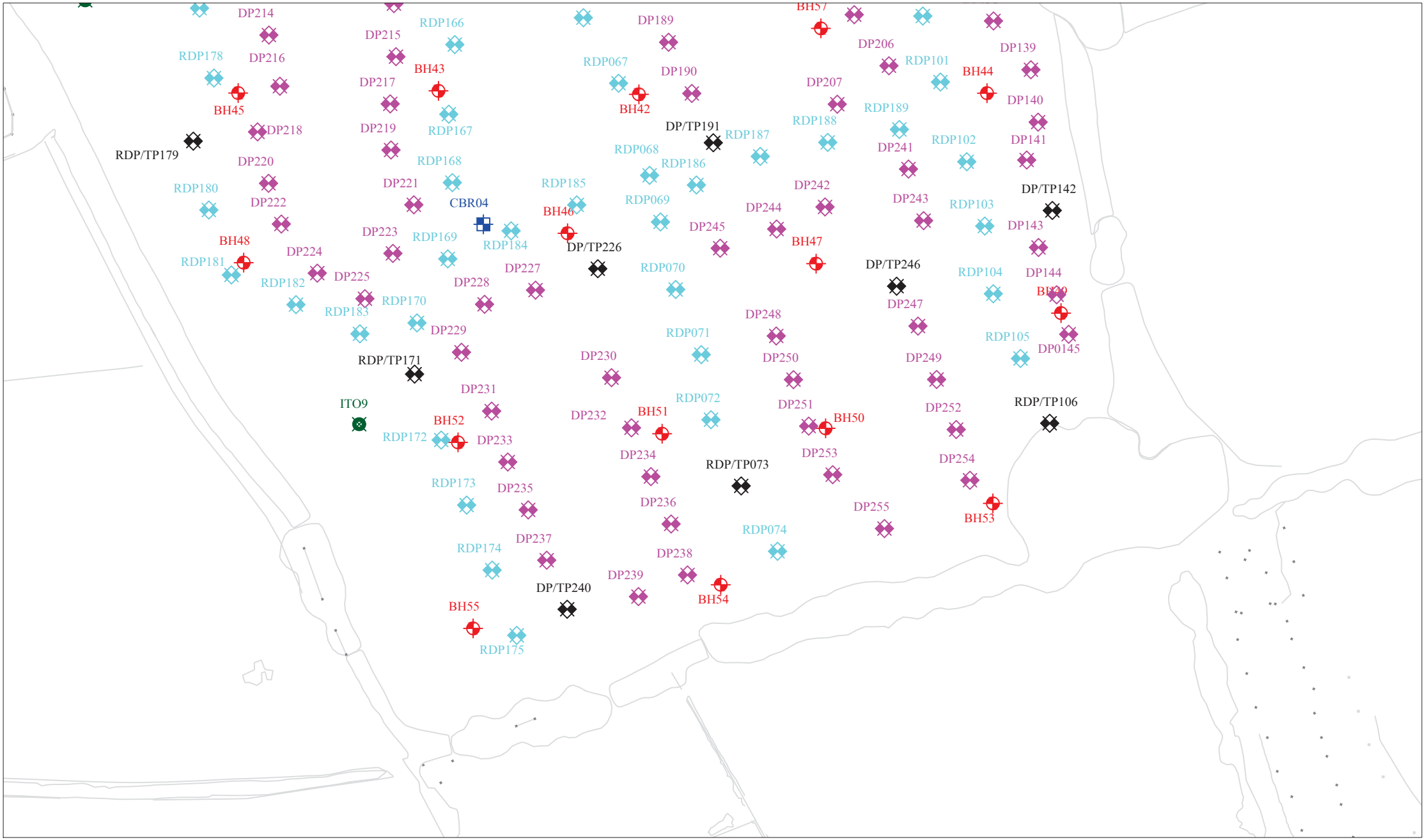
- California Bearing Ratio
- Roadway Dynamic Probe
- Dynamic Probe
- Trial Pit with Dynamic Probe
- Infiltration Test
- Rotary Core Drilling

N



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Ground Investigations Ireland

Coolagad, Co. Wicklow

Ground Investigation Report

DOCUMENT CONTROL SHEET

Project Title	Coolagad, Co. Wicklow
Engineer	Roughan O'Donovan
Client	Cairn Homes Ltd
Project No	6994-08-17
Document Title	Ground Investigation Report

Rev.	Status	Author(s)	Reviewed By	Approved By	Office of Origin	Issue Date
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APPENDICES

Appendix 1 Site Location Plan
Appendix 2 Trial Pit Records
Appendix 3 Infiltration Test Records
Appendix 4 Dynamic Probe Records
Appendix 5 Plate Test Records
Appendix 6 Cable Percussion Borehole Records
Appendix 7 Laboratory Testing

1.0 Preamble

On the instructions of Roughan O'Donovan Consulting Engineers, a site investigation was carried out by Ground Investigations Ireland Ltd., between August and September 2017 at the site of the proposed residential development at Coolagad, Co. Wicklow.

2.0 Overview

2.1. Background

It is proposed to construct a new residential development with associated services, access roads and car parking at the proposed site. The site spans eight fields which are currently used for agricultural purposes. The proposed construction is envisaged to consist of conventional foundations and pavement make up with some local excavations for services and plant.

2.2. Purpose and Scope

The purpose of the site investigation was to investigate subsurface conditions utilising a variety of investigative methods in accordance with the project specification. The scope of the work undertaken for both these projects included the following:

- Visit project site to observe existing conditions
- Carry out 37 No. Trial Pits to a maximum depth of 3.5m BGL
- Carry out 12 No. Soakaways to determine a soil infiltration value to BRE digest 365
- Carry out 16 No. Dynamic Probes to determine soil strength/density characteristics
- Carry out 14 No Plate Bearing tests to determine subgrade modulus & CBR parameters
- Carry out 8 No. Cable Percussion boreholes to a maximum depth of 7.6m BGL
- Geotechnical & Environmental Laboratory testing
- Factual & Interpretative Reporting

3.0 Subsurface Exploration

3.1. General

During the ground investigation, a programme of intrusive investigation specified by the Consulting Engineer was undertaken to determine the sub surface conditions at the proposed site. Regular sampling and in-situ testing was undertaken in the exploratory holes to facilitate the geotechnical descriptions and to enable laboratory testing to be carried out on the soil samples recovered during excavation and drilling.
The procedures used in this site investigation are in accordance with Eurocode 7 Part 2: Ground Investigation and testing (ISEN 1997 – 2:2007) and B.S. 5930:2015.

3.2. Trial Pits

The trial pits were excavated using a tracked excavator at the locations shown in the exploratory hole location plan in Appendix 1. The locations were checked using a CAT scan to minimise the potential for encountering services during the excavation. The trial pits were sampled, logged and photographed by a Geotechnical Engineer prior to backfilling with arisings. Notes were made of any services, inclusions, pit stability, groundwater encountered and the characteristics of the strata encountered and are presented on the trial pit logs which are provided in Appendix 2 of this Report.

3.3. Soakaway Testing

The soakaway testing was carried out in selected trial pits at the locations shown in the exploratory hole location plan in Appendix 1. These pits were carefully excavated and filled with water to assess the infiltration characteristics of the proposed site. The pits were allowed to drain and the drop in water level was recorded over time as required by BRE Digest 365. The pits were logged prior to completing the infiltration test and were backfilled with arising's upon completion. The infiltration test results are provided in Appendix 3 of this Report.

3.4. Dynamic Probing

The dynamic probe tests (DPH) were carried out at the locations shown in the location plan in Appendix 1 in accordance with B.S. 1377: Part 9 1990. The test consists of mechanically driving a cone with a 50kg weight in 100mm intervals and monitoring the number of blows required. An equivalent Standard Penetration Test (SPT) 'N' value may be calculated by dividing the total number of blows over a 300mm drive length by 1.5. The dynamic probe logs are provided in Appendix 4 of this Report.

3.5. Insitu Plate Bearing Test

The plate bearing tests were carried out using a 450mm diameter plate at the locations shown on the site plan in Appendix 1. The plate was loaded in increments using a hydraulic jack and an excavator to provide a reaction and the displacement was monitored in accordance with BS1377 Part 9 using independently mounted digital strain gauges. The constrained modulus and equivalent CBR are calculated in accordance with HD29/75 and are provided on the test reports in Appendix 5 of this Report.

3.6. Cable Percussion Boreholes

The Cable Percussion Boreholes were drilled using a Dando 2000 drilling rig with regular in-situ testing and sampling undertaken to facilitate the production of geotechnical logs and laboratory testing.
The standard method of boring in soil for site investigation is known as the Cable Percussion method. It consists of using a Shell in non cohesive soils and a clay cutter in cohesive soils, both operated on a wire

cable. Very hard soils, boulders and other hard obstructions are broken up by chiselling and the fragments removed with the Shell. Where ground conditions made it necessary, the borehole was lined with 200mm diameter steel casing. While the use of the Cable Percussion method of boring gives the maximum data on soil conditions, some mixing of laminated soil is inevitable. For this reason, thin lenses of granular material may not be noticed.

Disturbed samples were taken from the boring tools at suitable depths, so that there is a representative sample at the top of each change in stratum and thereafter at regular intervals down the borehole until the next stratum was encountered. The disturbed samples were then sealed and sent to the laboratory where they were visually examined to confirm the description of the relevant strata.

Standard Penetration Tests were carried out in the boreholes. The results of these tests, together with the depths at which the tests were taken are shown on the accompanying borehole records. The test consists of a thick wall sampler tube, 50mm external diameter, being driven into the soil by a monkey weighing 63.5kg and with a free drop of 760mm. For gravels and glacial till the driving shoe was replaced by a solid 60º cone.

The Standard Penetration Test number referred to as the 'N' value is the number of blows required to drive the tube 300mm, after an initial penetration of 150mm. The number gives a guide to the consistency of the soil and can also be used to estimate the relative strength/density at the depth of the test and also to estimate the bearing capacity and compressibility of the soil.

The cable percussion borehole logs are provided in Appendix 6 of this Report.

3.7. Groundwater Monitoring Installations

Groundwater Monitoring Installation were installed upon the completion of the boreholes to enable sampling and the determination of the equilibrium groundwater level. The typical groundwater monitoring installation consists of a 50mm HDPE slotted pipe with a pea gravel response zone and bentonite seal installed to the Engineers specification. Where required the standpipe is sealed with a gas tap and finished with a durable steel cover fixed in place with a concrete surround. The installation details are provided on the exploratory hole logs in the appendices of this Report.

3.8. Surveying

The exploratory hole locations have been recorded using a Trimble R10 GNSS System which records the coordinates and elevation of the locations to ITM or Irish National Grid as required by the project specification. The coordinates and elevations are provided on the exploratory hole logs in the appendices of this Report.

3.9. Laboratory Testing

Samples were selected from the exploratory holes for a range of geotechnical and environmental testing to assist in the classification of soils and to provide information for the proposed design.

Environmental testing, including Waste Acceptance Criteria (WAC) testing was carried out by Jones Environmental Laboratory in the UK. Geotechnical testing consisting of moisture content, Atterberg limits, Particle Size Distribution (PSD), hydrometer, CBR, MCV and compaction testing was carried out in GSTL's Geotechnical Laboratory in Wales. The results of the laboratory testing are included in Appendix 7 of this Report.

4.0 Ground Conditions

4.1. General

The ground conditions encountered during the investigation are summarised below with reference to insitu and laboratory test results. The full details of the strata encountered during the ground investigation are provided in the exploratory hole logs included in the appendices of this report.

The strata encountered are generally described below, however reference should be made to the exploratory hole logs in the appendices of this report.

- Topsoil/Surfacing
- Cohesive Deposits
- Granular Deposits
- Presumed Bedrock

TOPSOIL: Topsoil was encountered in all the exploratory holes and was present to a maximum depth of 0.2m to 0.4m BGL.

COHESIVE DEPOSITS: Cohesive deposits were encountered typically below the topsoil and were described typically as *brown, grey brown, reddish brown or grey sandy gravelly silty CLAY with occasional cobbles or brown sandy gravelly clayey SILT with occasional cobbles.* The secondary sand and gravel constituents varied across the site and with depth, with granular lenses occasionally present in the cohesive matrix. Granular deposits were occasionally encountered below or within the cohesive deposits. A stiff black or grey sandy gravelly CLAY with cobbles and boulders was encountered below the upper softer cohesive deposits in some of the trial pits. Lenses or pockets of black sandy Silt were noted in many of the trial pits (TP24 to TP29, TP31 to TP32 and TP35). The strength of the cohesive deposits typically increased with depth and was soft, soft to firm or firm becoming firm to stiff with depth in the majority of the exploratory holes. The strength of the cohesive deposits in the trial pit logs was based on a visual and tactile examination of the deposits by the logging engineer during excavation. The dynamic probing indicates soft to firm cohesive deposits extending to depths of 3.0m BGL in some places and should be consulted to verify the choice of strengths for foundation design. These deposits had some, occasional or frequent cobble and boulder content where noted on the exploratory hole logs.

GRANULAR DEPOSITS: The granular deposits were encountered below or within the cohesive deposits in TP1, TP2, TP4, TP16, TP22 and TP37 and were typically described as *grey or brown silty/clayey gravelly fine to coarse SAND with occasional/frequent cobbles.* The secondary silt/clay and gravel constituents varied across the site and with depth with rare or occasional cobble content also present where noted on the exploratory hole logs. It should be noted that many of the trial pits where granular deposits or groundwater were encountered, may be prone to instability during excavation if left open for an extended duration.

WEATHERED BEDROCK: In the trial pits TP2, TP17, TP19, TP21, TP22, TP24, TP28 & TP34 weathered rock was encountered which was digable with the excavator to a depth between 0.3m to 1.0m below the top of the stratum. The trial pits were terminated upon encountering the more competent bedrock, in which further excavation became more difficult or on encountering the scheduled depth. This material was recovered typically as angular gravel and cobbles of Sandstone however there was some variability in the fracture spacing and the ease at which the excavator could progress. Some clay and sand were also present with the rock mass either from weathering or as infilling to fractures which were opened upon excavation.

4.2. Insitu Strength Testing

The correlated DPH blow counts indicate that the cohesive overburden deposits are soft or soft to firm to depths of 2.0m to 3.0m BGL below which the strength increased to firm and stiff with depth. DP9, DP11, DP14 and DP15 indicate stiffer deposits from a shallower depth with a lesser depth of soft or soft to firm cohesive deposits encountered. The SPT N values on the cable percussion boreholes confirm the probes results with soft or firm cohesive deposits generally present to depths of 2.0m to 3.0m BGL with the strength generally increasing with depth.

4.3. Groundwater

Groundwater was noted during the investigation in TP20 and BH08 however we would point out that these exploratory holes did not remain open for sufficiently long periods of time to establish the hydrogeological regime and groundwater levels would be expected to vary with the time of year, rainfall, nearby construction and other factors. For this reason, standpipes were installed in selected boreholes to allow the equilibrium groundwater level to be determined.

4.4. Laboratory Testing

The geotechnical testing carried out on soil samples recovered from the trial pits and boreholes generally confirm the descriptions on the logs with the primary constituent of the cohesive deposits to be a CLAY of low to intermediate plasticity. The Particle Size Distribution tests confirm that generally the cohesive deposits are well-graded with percentages of sands and gravels ranging between 20% and 40% with a fines contents of 30 to 50%. The well graded nature of these deposits with significant silt and clay components mean that the PSD indicates the sample to be a Sand or Gravel based on the percentage

passing by weight however these would behave as cohesive materials. The descriptions on the logs are based on the Engineers assessment of the stratum and this should be borne in mind when assessing the data. The granular samples (TP21 & TP37) typically graded as a silty gravelly SAND or a silty sandy GRAVEL with the Atterberg limits indicating these deposits are non-plastic to low plasticity. The moisture content of the samples tested range between 10% and 27% with the average of all moisture content data of 18%.

The majority of samples tested classify as Class 2 General Cohesive Fill due to the fines content exceeding 15%. The MCV testing indicates the cohesive deposits are not recommended as suitable for reuse at the current moisture content as all ten samples were below 6.4%, with the values generally recommended as suitable are above 8 with 7-8 considered marginal for this testing. The majority of samples showed an increase in moisture content with decreasing moisture content.

The compaction testing carried out indicates the Optimum Moisture Content (OMC) to range between 8% and 14% for the samples tested while the samples tested had a natural moisture content of 11 to 21% and were outside of the typically recommended +/-2% of OMC for reuse. TP1 at 0.5m and TP36 were both within 3% of the OMC and could be considered as suitable for reuse.

The pH results range between 6.5 and 8.0 and the sulphate testing carried out indicate that the water soluble sulphate results are low when compared to the guideline values from BRE Special Digest 1:2005. The samples tested classify the soil as a Design Sulphate Level DS-1. The organic content of the samples tested ranged between 0.5% and 1.1%. The Acid Soluble sulphates range from 0.08 to 0.74% SO4 while the Total Sulphur ranged between 0.04 and 0.26%.

The results of the Waste Acceptance Criteria Test Suite I are presented with the individual parameter limits for “Inert” “Non Hazardous” and “Hazardous” as outlined within European Council Directive 1999 131/EC Article 16 Annex II, “Criteria and procedures for the acceptance of waste at landfills”. The intended disposal site should be consulted to ensure compliance with their specific requirements.

The results indicate that the results from BH4 at 2.0m and BH8 at 0.5m BGL were above the inert limits for the total dissolved solids parameters only, with the other samples tested below the inert limits, all spoil disposed of off-site should be sent to a suitably licenced facility.

The possibility for contamination, not revealed by the testing undertaken should be borne in mind particularly where Made Ground deposits are present or the previous site use or location indicate a risk of environmental variation. To complete an assessment of the results a Waste Classification Report is recommended to be carried out by a specialised Environmental Consultant in accordance with the EPA guidelines and using a hazwaste online tool or other approved software.

The results from the completed laboratory testing is included in Appendix 7 of this report.

5.0 Recommendations & Conclusions

5.1. General

The recommendations given and opinions expressed in this report are based on the findings as detailed in the exploratory hole records. Where an opinion is expressed on the material between exploratory hole locations, this is for guidance only and no liability can be accepted for its accuracy. No responsibility can be accepted for conditions which have not been revealed by the exploratory holes. Limited information has been provided at the ground investigation stage and any designs based on the recommendations or conclusions should be completed in accordance with the current design codes, taking into account the variation and the specific details contained within the exploratory hole logs.

5.2. Foundations

The distribution of the insitu testing consisting of dynamic probing and SPT N values in the boreholes make it possible to recommend a general allowable bearing pressure indicative for the area, and it is recommended that the final design bearing pressures are confirmed with dynamic probing prior to construction. The depth of the soft or soft to firm cohesive deposits which typically extend to depths of 2.0m to 3.5m BGL which indicates that piled or vibro stone column foundations may be more appropriate if the volume of excavation and the constructability of the foundations make that foundation type more economically advantageous. In places where the soft deposits extend below 2.0m BGL, it is thought that piling would offer a better technical solution. Where possible the allowable bearing capacities recommended for conventional strip or pad foundations on the loose to medium dense granular deposits or firm cohesive are outlined in the Table below. The depths recommended have been kept as shallow as possible with a lower allowable bearing capacity to make construction more practical.

Allowable Bearing Capacities (ABC) - Dynamic Probe/Borehole Locations							
Probe	ABC	Depth	Comment	Probe	ABC	Depth	Comment
DPH	kN/m2	m BGL		DPH	kN/m2	m BGL	
DP01	100	3.00		DP14	100	1.40	
DP02	100	2.10		DP15	100	1.00	
DP03	70	2.40		DP16	100	2.90	
DP04	100	2.90		BH01	100	3.00	
DP05	100	3.00		BH02	100	3.00	
DP06	100	3.10		BH03	100	3.00	
DP07	100	1.90		BH04	100	1.00	
DP08	70	1.60		BH05	100	3.00	
DP09	100	1.00		BH06	100	1.00	
DP10	70	1.60		BH07	100	1.00	
DP11	100	2.40		BH08	100	1.00	
DP12	100	3.20					
DP13	70	2.40					

Where shallow rock was encountered in the trial pits TP2, TP17, TP19, TP21-22, TP24, TP28 & TP34 an allowable bearing capacity of 200 kN/m^2 is recommended for strip or pad foundations, however caution should be exercised and the foundations for all of any unit where a portion of the foundation is based on rock should be depended to ensure the entire unit bears on the same stratum.
The possibility for variation in the depth of the soft/loose deposits in the vicinity of these foundations should be considered and foundation inspections should be carried out. Any soft spots encountered at the proposed foundation depths should be excavated and replaced with lean mix concrete.

5.3. External Pavements

The proposed pavements are recommended to be designed in accordance with the CBR test results included in the Appendixes of this Report. Plate bearing tests are recommended at the time of construction to verify the design assumptions for the proposed pavement make up and to verify adequate compaction has been achieved. The use of a geogrid and separation membrane may improve the performance of the proposed pavement and enable a more economical pavement design to be achieved, a specialist supplier is recommended to advise of the required strength, depth and type of geotextile for the proposed design.

5.4. Excavations

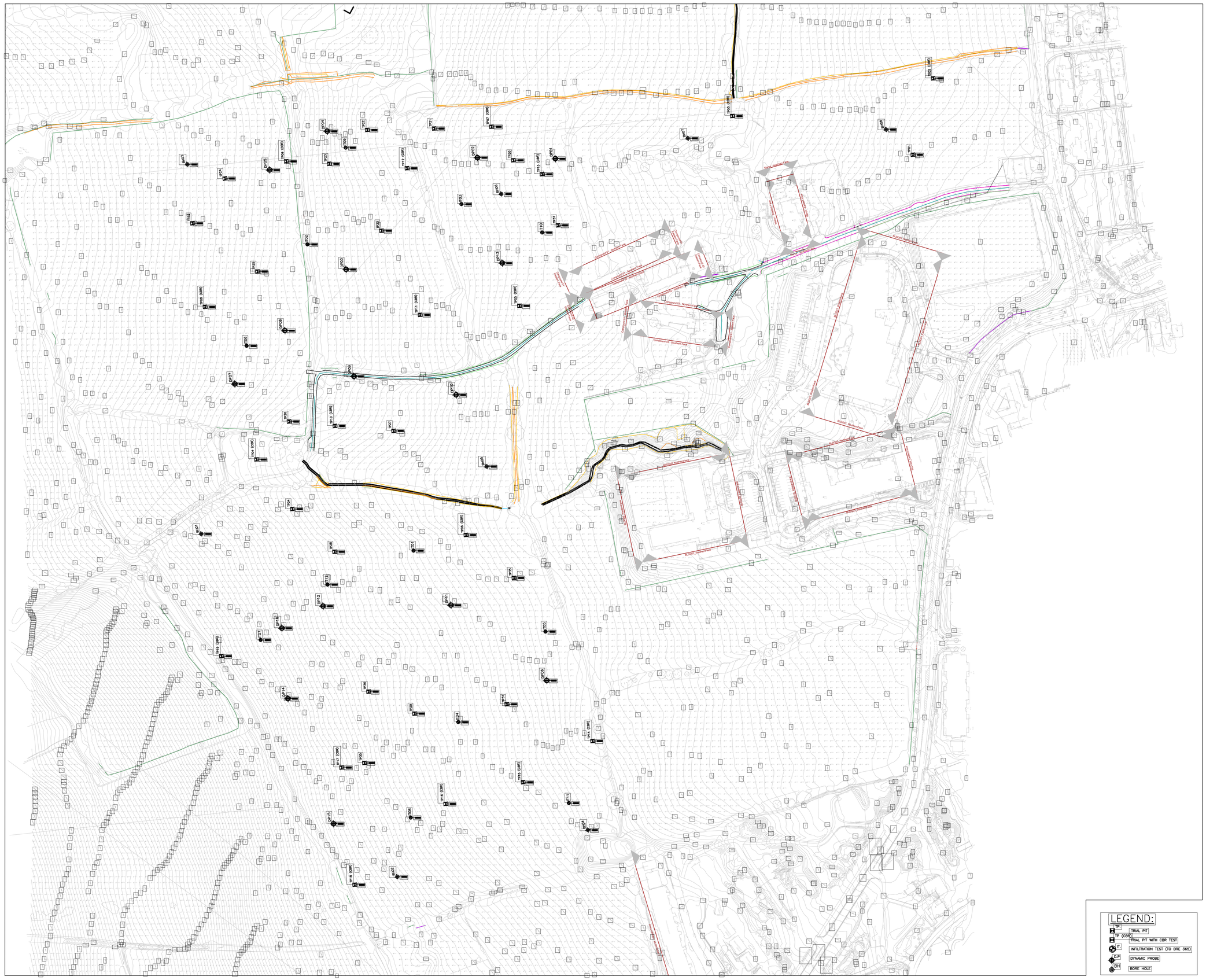
Short term temporary excavations in the granular and cohesive deposits will remain stable for a limited time only and will require to be appropriately battered or the sides supported if the excavation is below 1.25m BGL or is required to permit man entry. Any excavations which within the loose granular or soft cohesive deposits or where groundwater was noted on the trial pit logs will require to be appropriately battered or the sides. The groundwater and stability noted on the trial pit logs should be consulted when determining the most appropriate construction methods for excavations. Excavations in the overburden and weathered rock deposits are expected to be excavatable with conventional excavation equipment, with zones of more intact bedrock below this depth requiring rock breaking techniques. The excavator used to complete the trial pits was generally able to excavate to depths of 0.2m to 1.1m below the top of the weathered rock, and became difficult to excavate within the confines of the trial pit on encountering the more competent rock.

5.5. Infiltration Design

At the locations of SA01 to SA12 the water level dropped too slowly to allow calculation of ‘f’ the soil infiltration rate. These locations are therefore not recommended as suitable for soakaway design and construction.

The recommendations provided in this report should be verified in the design of the proposed buildings, using the full details of the loading conditions and taking into consideration the allowable tolerable settlements/movements that the building can accommodate. The founding strata should be inspected and verified by a suitably qualified engineer prior to construction of the building foundations.

APPENDIX 1 - Site Location Plan



NOTES:

1. ALL LEVELS ARE IN METRES TO ORDNANCE DATUM, MALIN HEAD.
2. TRIAL PITS TO BE NOT LESS THAN 1.5m² IN PLAN AREA AND 3.5m DEEP
3. DYNAMIC PROBES TO THE GREATER OF 6M OR REFUSAL IN DEPTH
4. BOREHOLES TO 15M UNLESS OTHERWISE NOTED IN THE SCHEDULE IN PART 3: THE SCOPE.
5. INFILTRATION TEST TO BRE 365

TRIAL PIT COORDINATES		
TP.01	X = 728139.7553	Y = 713246.1766
TP.02 (CBR)	X = 728156.9679	Y = 713310.8057
TP.03 (CBR)	X = 727986.8954	Y = 713278.9565
TP.04 (CBR)	X = 727584.0291	Y = 712988.2917
TP.05 (CBR)	X = 727806.6147	Y = 713118.2929
TP.06 (CBR)	X = 728156.9679	Y = 712924.3768
TP.07 (CBR)	X = 727783.0043	Y = 713269.9033
TP.08 (CBR)	X = 727540.4958	Y = 713117.4607
TP.09 (CBR)	X = 727609.2577	Y = 713240.6284
TP.10 (CBR)	X = 727650.4884	Y = 713016.6514
TP.11 (CBR)	X = 727722.5767	Y = 713110.6895
TP.12 (CBR)	X = 727711.4073	Y = 713234.7830
TP.13 (CBR)	X = 727825.8938	Y = 713229.7112
TP.14 (CBR)	X = 727868.5946	Y = 712749.9992
TP.15 (CBR)	X = 727809.7738	Y = 712715.1310
TP.16 (CBR)	X = 727744.2248	Y = 712696.7715
TP.17 (CBR)	X = 727656.0865	Y = 712727.5127
TP.18 (CBR)	X = 727667.1921	Y = 712628.3412
TP.19 (CBR)	X = 727554.3550	Y = 712621.8039
TP.20	X = 727801.5069	Y = 713241.5050
TP.21	X = 727734.5225	Y = 713268.3703
TP.22	X = 727677.7967	Y = 713267.1958
TP.23	X = 727645.5834	Y = 713238.5102
TP.24	X = 727557.2464	Y = 713226.0636
TP.25	X = 727584.8388	Y = 713147.3381
TP.26	X = 727611.6313	Y = 713020.3856
TP.27	X = 727700.1120	Y = 713012.4728
TP.28	X = 727650.1410	Y = 712910.1792
TP.29	X = 727717.8724	Y = 712773.1548
TP.30	X = 727675.4478	Y = 712731.4301
TP.31	X = 727796.0181	Y = 712781.0849
TP.32	X = 727529.8979	Y = 713188.1524
TP.33	X = 727689.8323	Y = 713181.8950
TP.34	X = 727614.4132	Y = 712946.3265
TP.35	X = 727801.9868	Y = 712888.0129
TP.36	X = 727678.9200	Y = 712791.7750
TP.37	X = 727839.3244	Y = 713186.4469

INFILTRATION TEST COORDINATES		
I.T.01	X = 727716.9356	Y = 712911.0838
I.T.02	X = 727627.0452	Y = 713170.2946
I.T.03	X = 727757.4102	Y = 713204.3520
I.T.04	X = 727754.7605	Y = 712765.9899
I.T.05	X = 727828.6034	Y = 712842.5365
I.T.06	X = 727575.5621	Y = 713084.4064
I.T.07	X = 727587.4591	Y = 712835.5135
I.T.08	X = 727714.5478	Y = 712685.1246
I.T.09	X = 727659.4808	Y = 713252.1384
I.T.10	X = 727825.8134	Y = 7713180.3009
I.T.11	X = 727848.4466	Y = 712697.4496
I.T.12	X = 727644.1250	Y = 712882.2927

DYNAMIC PROBE COORDINATES		
D.P.01	X = 727836.9542	Y = 713242.8653
D.P.02	X = 727770.9705	Y = 713243.7121
D.P.03	X = 727659.8006	Y = 713149.1336
D.P.04	X = 727643.8396	Y = 713266.1062
D.P.05	X = 727595.0742	Y = 713233.2951
D.P.06	X = 727829.6644	Y = 712801.1584
D.P.07	X = 727565.5098	Y = 713052.1542
D.P.08	X = 727607.9529	Y = 713097.3646
D.P.09	X = 727666.4201	Y = 713058.5790
D.P.10	X = 727752.9861	Y = 713042.9587
D.P.11	X = 727748.5352	Y = 712864.9806
D.P.12	X = 727640.2663	Y = 712864.1174
D.P.13	X = 727792.0001	Y = 713154.5201
D.P.14	X = 727610.5238	Y = 712785.8353
D.P.15	X = 727649.1829	Y = 712679.9532
D.P.16	X = 727605.3876	Y = 712845.4906

BOREHOLE COORDINATES		
B.H.01	X = 727537.1271	Y = 712925.2905
B.H.02	X = 727703.1617	Y = 712635.0872
B.H.03	X = 727525.4173	Y = 713238.0641
B.H.04	X = 727864.5385	Y = 712674.6707
B.H.05	X = 727778.8351	Y = 712982.2953
B.H.06	X = 727791.1286	Y = 713212.9563
B.H.07	X = 727949.1967	Y = 713260.0711
B.H.08	X = 728116.9811	Y = 713267.5268

LEGEND:

- TP — TRIAL PIT
- TP (CBR) — TRIAL PIT WITH CBR TEST
- I.T. — INFILTRATION TEST (TO BRE 365)
- D.P. — DYNAMIC PROBE
- BH — BORE HOLE

No.	Revision	Date	By	Chk'd	App'd
T1	TENDER	28/06/17	DK	SM	CMC

Drawing Status

TENDER

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Client

CAIRN HOMES PLC

Project Title

GROUND INVESTIGATION FOR DEVELOPMENT
KILCOOLE ROAD, CO. WICKLOW.

Drawing Title

SITE INVESTIGATION WORKS

Drawing Number: CH-ROD-001-XX-XX-SU-S-GI001 Rev:

Scale:	Date:	Job No:	Cad File:
1:1500 @ A1	28/06/17	16.160	GI-001 T1

Drawn:	Checked:	Approved:
DK	SM	CMC

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APPENDIX 2 – Trial Pit Records

Ground Investigations Ireland Ltd

www.gii.ie

Site	Trial Pit Number
Coolagad, Co. Wicklow	TP01

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 43.08	Client Cairn Homes	Job Number 6994-08-17
	Location 328210.7 E 213213.8 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				42.78	0.30	Soft to firm brown sandy gravelly silty CLAY with occasional cobbles		
0.50	B				(0.60)			
				42.18	0.90	Firm brown grey sandy gravelly silty CLAY with occasional cobbles		
					(0.90)			
1.50	B							
				41.28	1.80	Grey slightly clayey silty gravelly SAND with cobbles		
2.50	B				(1.70)			
				39.58	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP01

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Ground Investigations Ireland Ltd
www.gii.ie

Site	Trial Pit Number
Coolagad, Co. Wicklow	TP02

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 43.28	Client Cairn Homes	Job Number 6994-08-17
	Location 328231.5 E 213279.9 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				42.88	0.40	Firm brown sandy gravelly silty CLAY with occasional cobbles		
0.50	B				(1.50)			
				41.38	1.90	Brown slightly clayey silty gravelly SAND with cobbles		
					(0.70)			
				40.68	2.60	Brown slightly gravelly SAND with rare cobbles		
					(0.90)			
				39.78	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP02

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP03

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 54.19	Client Cairn Homes	Job Number 6994-08-17
	Location 328056.8 E 213248.1 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				53.89	0.30	Firm brown grey sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.80)			
				53.09	1.10	Firm grey gravelly sandy silty CLAY with occasional cobbles		
1.50	B				(1.30)			
				51.79	2.40	Stiff black sandy gravelly CLAY with frequent cobbles		
2.50	B				(1.10)			
				50.69	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP03

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP04
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)**	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30) 0.30	TOPSOIL		
					(0.70) 1.00	Soft brown sandy gravelly silty CLAY with occasional cobbles		
					(0.80) 1.80	Soft to firm brown grey sandy gravelly CLAY with occasional cobbles		
					(1.70) 3.50	Brown gravelly silty SAND with frequent cobbles		
						Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP04

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP05
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)** 63.17	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327888.7 E 213091.3 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				62.97	0.20	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(1.40)			
				61.57	1.60	Soft to firm brown grey clayey gravelly sandy SILT with occasional cobbles		
					(1.90)			
				59.67	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP05

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP06

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 67.99	Client Cairn Homes	Job Number 6994-08-17
	Location 327828.2 E 212881.7 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				67.79	0.20	Soft to firm brown sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(1.90)			
				65.89	2.10	Firm to stiff brown grey sandy gravelly CLAY with occasional cobbles with lenses of grey sand		
					(0.60)			
				65.29	2.70	Firm to stiff brown sandy gravelly CLAY with frequent cobbles		
					(0.80)			
				64.49	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP06

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP07
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)** 64.93	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327855 E 213242 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				64.73	0.20	Soft to firm brown sandy gravelly silty CLAY with frequent cobbles		
					(1.10)			
				63.63	1.30	Firm brown slightly clayey gravelly sandy SILT with occasional cobbles		
					(1.50)			
				62.13	2.80	Firm brown slightly sandy gravelly silty CLAY with occasional cobbles		
					(0.70)			
				61.43	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP07

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP08

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 85.39	Client Cairn Homes	Job Number 6994-08-17
	Location 327618.4 E 213083.9 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				85.09	0.30	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(0.80)			
				84.29	1.10	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(1.40)	becomming firm below 2.0		
				82.89	2.50	Firm to stiff brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(1.00)			
				81.89	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP08

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP09

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 80.49	Client Cairn Homes	Job Number 6994-08-17
	Location 327685.6 E 213212.6 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				80.19	0.30	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(0.90)			
				79.29	1.20	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(0.80)			
				78.49	2.00	Soft to firm brown slightly gravelly clayey sandy SILT with occasional cobbles		
					(0.60)			
				77.89	2.60	Firm brown sandy gravelly silty CLAY with occasional cobbles		
					(0.90)			
				76.99	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP09

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP10

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 74.16	Client Cairn Homes	Job Number 6994-08-17
	Location 327724.9 E 212968.6 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				73.76	0.40	Soft brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.70)			
				73.06	1.10	Soft to firm grey brown sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
1.50	B				(0.70)			
				72.36	1.80	Firm to stiff brown sandy gravelly CLAY with occasional cobbles with pockets of black sandy silt		
2.50	B				(1.70)			
				70.66	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP09

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP11

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 71.18	Client Cairn Homes	Job Number 6994-08-17
	Location 327799.8 E 213080.4 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				70.98	0.20	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.70)			
				70.28	0.90	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
1.50	B				(1.40)			
				68.88	2.30	Firm to stiff brown sandy gravelly CLAY with occasional cobbles		
2.50	B				(1.20)			
				67.68	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP11

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP12
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)** 70.76	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327783 E 213205.6 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				70.56	0.20	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(1.20)			
				69.36	1.40	Firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(1.00)			
				68.36	2.40	WEATHERED ROCK: Light brown SANDSTONE recovered as angular to sub angular gravels and cobbles with some sandy gravelly clay infill		
					(1.10)			
				67.26	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP12

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP13
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)** 63.00	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327897.7 E 213204.4 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				62.60	0.40	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(0.80)			
				61.80	1.20	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(0.70)			
				61.10	1.90	Firm to stiff slightly sandy gravelly CLAY with occasional cobbles		
					(1.60)			
				59.50	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP13

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP14

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 62.86	Client Cairn Homes	Job Number 6994-08-17
	Location 327943.9 E 212720.5 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				62.56	0.30	Soft brown slightly gravelly sandy CLAY with rare cobbles		
0.50	B				(1.00)			
				61.56	1.30	Firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
1.50	B							
					(2.20)			
2.50	B							
				59.36	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP14

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP15
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)** 68.87	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327886.8 E 212688.9 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				68.57	0.30	Soft brown slightly gravelly sandy CLAY with rare cobbles		
					(0.50)			
				68.07	0.80	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(1.40)			
				66.67	2.20	Firm to stiff grey sandy gravelly CLAY with occasional cobbles with pockets of black sandy silt		
					(1.30)			
				65.37	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP15

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP16

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 75.46	Client Cairn Homes	Job Number 6994-08-17
	Location 327816.7 E 212666 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				75.16	0.30	Soft brown slightly gravelly sandy CLAY with rare cobbles		
0.50	B				(0.90)			
				74.26	1.20	Soft to firm grey sandy gravelly silty CLAY with occasional cobbles		
1.50	B				(1.10)			
				73.16	2.30	Grey slightly clayey gravelly silty SAND		
2.50	B				(0.40)			
				72.76	2.70	Firm to stiff grey sandy gravelly CLAY with occasional cobbles with pockets of black sandy silt		
					(0.80)			
				71.96	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP16

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP17
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)** 84.40	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327729.1 E 212694.5 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				84.00	0.40	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(1.20)			
				82.80	1.60	Firm brown grey sandy gravelly silty CLAY with occasional cobbles		
					(0.40)			
				82.40	2.00	WEATHERED ROCK: Light brown SANDSTONE recovered as angular to sub angular gravels and cobbles.		
					(0.40)			
				82.00	2.40	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP17

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP18

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 87.02	Client Cairn Homes	Job Number 6994-08-17
	Location 327746.1 E 212594.5 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				86.72	0.30	Firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.70)			
				86.02	1.00	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles		
1.50	B				(0.90)			
				85.12	1.90	Soft brown orange slightly gravelly clayey sandy SILT with occasional cobbles		
					(0.50)			
				84.62	2.40	Firm brown orange sandy gravelly CLAY with occasional cobbles		
2.50	B				(1.10)			
				83.52	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP18

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP19
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 1.70	**Ground Level (mOD)** 91.55	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327633.2 E 212795.4 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				91.25	0.30	Firm brown sandy gravelly CLAY with frequent cobbles		
					(0.70)			
				90.55	1.00	WEATHERED ROCK: Light brown SANDSTONE recovered as angular to sub angular gravels and cobbles.		
					(0.70)			
				89.85	1.70	Complete at 1.70m		

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
No water observed in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP19

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP20

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 64.02	Client Cairn Homes	Job Number 6994-08-17
	Location 327875.5 E 213213.8 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				63.62	0.40	Soft to firm brown sandy gravelly silty CLAY with occasional cobbles		
					(1.20)			
				62.42	1.60	Firm to stiff brown grey slightly sandy gravelly silty CLAY with occasional cobbles		
					(1.20)			
				61.22	2.80	Stiff brown sandy gravelly CLAY with occasional cobbles		
					(0.70)			
			Slow(1) at 3.50m.	60.52	3.50	Complete at 3.50m		∇1

Plan

Remarks

TP terminated at 3.50m BGL - Scheduled depth
Side walls stable
Water observed in TP at 3.50m - Slow flow
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP20

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP21

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 68.32	Client Cairn Homes	Job Number 6994-08-17
	Location 327808 E 213237.4 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				67.92	0.40	Soft brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.70)			
				67.22	1.10	Soft to firm brown sandy gravelly silty CLAY with frequent cobbles		
1.50	B				(1.90)			
2.50	B							
				65.32	3.00	Weathered Rock		
					(0.20)			
				65.12	3.20	Complete at 3.20m		

Plan

Remarks

TP terminated at 3.20m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP21

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP22

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 72.24	Client Cairn Homes	Job Number 6994-08-17
	Location 327755.2 E 213227.8 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				71.84	0.40	Soft brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.90)			
				70.94	1.30	Brown slightly clayey gravelly silty SAND with occasional cobbles		
1.50	B				(0.80)			
				70.14	2.10	Soft brown clayey gravelly sandy SILT with frequent cobbles		
					(0.20)			
				69.94	2.30	Weathered Rock. Recovered as angular to subangular gravels and cobbles with sandy silty Clay infill		
2.50	B				(0.60)			
				69.34	2.90	Complete at 3.20m		

Plan

Remarks

TP terminated at 3.20m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP22

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP23

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 76.77	Client Cairn Homes	Job Number 6994-08-17
	Location 327716.5 E 213209.5 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				76.47	0.30	Soft brown sandy gravelly CLAY with frequent cobbles		
0.50	B				(1.00)			
				75.47	1.30	Soft to firm brown grey sandy gravelly silty CLAY with frequent cobbles		
1.50	B							
					(2.20)			
2.50	B							
				73.27	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP23

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Site Coolagad, Co. Wicklow			**Trial Pit Number** TP24
Machine : 13T Tracked Excavotor **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 3.50	**Ground Level (mOD)** 84.41	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327638 E 213196 N	**Dates** 23/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				84.01	0.40	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(1.00)			
				83.01	1.40	Soft to firm brown grey sandy gravelly silty CLAY with frequent cobbles with lenses of black sandy silt		
1.50	B				(0.50)			
				82.51	1.90	Stiff brown slightly sandy gravelly CLAY with frequent cobbles		
					(0.90)			
2.50	B							
				81.61	2.80	Weathered Rock		
					(0.30)			
				81.31	3.10	Complete at 3.10m		

Plan

Remarks

TP terminated at 3.10m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP24

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP25

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 82.29	Client Cairn Homes	Job Number 6994-08-17
	Location 327657.9 E 213119.9 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				82.09	0.20	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(0.50)			
0.50	B			81.59	0.70	Firm brown sandy gravelly silty CLAY with frequent cobbles and pockets of black sandy SILT		
1.50	B							
					(2.80)	Soft to firm to 2.0m BGL		
2.50	B							
				78.79	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP25

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP26

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 77.94	Client Cairn Homes	Job Number 6994-08-17
	Location 327680.4 E 212986.1 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				77.54	0.40	Soft brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.80)			
				76.74	1.20	Soft to firm brown grey sandy gravelly silty CLAY with frequent cobbles with pockets of black sandy silt		
1.50	B				(1.10)			
				75.64	2.30	Firm to stiff brown grey sandy gravelly CLAY with frequent cobbles		
2.50	B				(1.20)			
				74.44	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP26

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP27

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 71.79	Client Cairn Homes	Job Number 6994-08-17
	Location 327776.4 E 212976.3 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				71.49	0.30	Soft to firm brown sandy gravelly CLAY with occasional cobbles with pockets of black sandy silt		
0.50	B							
1.50	B							
					(3.20)			
2.50	B							
				68.29	3.50	Firm brown sandy gravelly CLAY with occasional cobbles with pockets of black sandy silt		
				68.29	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP27

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP28

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 78.18	Client Cairn Homes	Job Number 6994-08-17
	Location 327680.8 E 212914.6 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				77.88	0.30	Firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.90)			
				76.98	1.20	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles with pocket of black sandy silt		
1.50	B				(0.50)			
				76.48	1.70	Firm brown sandy gravelly CLAY with occasional cobbles		
2.50	B				(1.10)			
				75.38	2.80	OBSTRUCTION - Presumed Rock		
					(0.30)			
				75.08	3.10	Complete at 3.10m		

Plan

Remarks

TP terminated at 3.10m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP28

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP29

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 75.20	Client Cairn Homes	Job Number 6994-08-17
	Location 327792.4 E 212742.3 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				74.90	0.30	Soft to firm brown sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy SILT		
0.50	B							
					(1.60)			
1.50	B							
				73.30	1.90	Firm brown grey sandy gravelly silty CLAY with frequent cobbles		
2.50	B							
					(1.60)			
				71.70	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP29

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP30

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 80.89	Client Cairn Homes	Job Number 6994-08-17
	Location 327753.3 E 212702 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				80.69	0.20	Soft to firm brown sandy gravelly silty CLAY with occasional cobbles		
0.50	B				(0.90)			
				79.79	1.10	Firm brown sandy gravelly silty CLAY with occasional cobbles		
1.50	B				(0.80)			
				78.99	1.90	Firm to stiff brown sandy gravelly CLAY/SILT with frequent cobbles		
2.50	B				(1.20)			
				77.79	3.10	Complete at 3.10m		

Plan

Remarks

TP terminated at 3.10m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP30

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP31

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 68.65	Client Cairn Homes	Job Number 6994-08-17
	Location 327874.2 E 212753.4 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				68.45	0.20	Soft to firm brown sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy SILT		
0.50	B							
					(1.90)			
1.50	B							
				66.55	2.10	Firm brown grey slightly sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy SILT		
2.50	B							
					(1.40)			
				65.15	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP31

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP32

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 87.05	Client Cairn Homes	Job Number 6994-08-17
	Location 327605.3 E 213156 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				86.75	0.30	Soft to firm brown sandy gravelly silty CLAY with frequent cobbles with pockets of black sandy SILT		
0.50	B							
					(1.90)			
1.50	B							
				84.85	2.20	Firm to stiff brown sandy gravelly silty CLAY with frequent cobbles		
2.50	B							
					(1.30)			
				83.55	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP32

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP33

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 73.32	Client Cairn Homes	Job Number 6994-08-17
	Location 327761.4 E 213152.2 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				73.02	0.30	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(1.10)			
				71.92	1.40	Firm to stiff brown grey sandy gravelly silty CLAY with frequent cobbles		
1.50	B							
					(2.10)			
2.50	B							
				69.82	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP33

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP34

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 79.80	Client Cairn Homes	Job Number 6994-08-17
	Location 327659 E 212926.1 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				79.40	0.40	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(1.10)			
1.50	B			78.30	1.50	Firm brown grey sandy gravelly silty CLAY with occasional cobbles		
					(0.90)			
				77.40	2.40	Complete at 2.90m		
2.50	B							

Plan

Remarks

TP terminated at 2.90m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP34

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP35

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 65.47	Client Cairn Homes	Job Number 6994-08-17
	Location 327877 E 212860.9 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				65.17	0.30	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.50)			
				64.67	0.80	Firm brown sandy gravelly silty CLAY with occasional cobbles with pockets of soft black sandy SILT		
1.50	B							
					(2.70)			
2.50	B							
				61.97	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP35

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP36

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 78.27	Client Cairn Homes	Job Number 6994-08-17
	Location 327756 E 212764.5 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				77.97	0.30	Firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.90)			
				77.07	1.20	Soft to firm brown sandy gravelly silty CLAY with cobbles with pockets of sandy silt		
1.50	B				(1.40)			
2.50	B			75.67	2.60	Firm red brown gravelly sandy SILT/CLAY with occasional cobbles		
					(0.90)			
				74.77	3.50	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP36

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Site	Trial Pit Number
Coolagad, Co. Wicklow	TP37

Machine : 13T Tracked Excavotor Method : Trial Pit	Dimensions (L x W x D) 2.70 x 0.70 x 3.50	Ground Level (mOD) 62.77	Client Cairn Homes	Job Number 6994-08-17
	Location 327912.8 E 213155.5 N	Dates 23/08/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				62.37	0.40	Soft brown slightly sandy gravelly CLAY with occasional cobbles		
0.50	B				(0.80)			
				61.57	1.20	Soft to firm brown sandy gravelly silty CLAY with occasional cobbles		
1.50	B				(0.90)			
				60.67	2.10	Brown silty gravelly SAND with frequent cobbles		
2.50	B				(1.00)			
				59.67	3.10	Complete at 3.50m		

Plan

Remarks

TP terminated at 3.50m BGL
Side walls stable
No water encountered in TP
TP backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.TP37

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Trial Pit Photographs – Coolagad

TP01

TP01

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APPENDIX 3 – Infiltration Test Records

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA01
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 70.29	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327795.9 E 212880.3 N	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				70.09	0.20	Firm brown/grey sandy gravelly silty CLAY with occasional cobbles and pockets of black sandy silt		
					(1.80)			
				68.29	2.00	Complete at 2.00m		

Plan

Remarks

No groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA01

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA02
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 79.34	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327698.7 E 213133.8 N	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				79.04	0.30	Firm brown sandy gravelly CLAY with occasional cobbles		
					(1.70)			
				77.34	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA02

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA03
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 67.03	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327830.6 E 213176.1 N	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				66.73	0.30	Firm brown sandy gravelly CLAY with occasional cobbles		
					(0.40)			
				66.33	0.70	Firm brown sandy gravelly silty CLAY with occasional cobbles		
					(1.30)			
				65.03	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA03

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA04
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 72.42	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327828.5 E 212731 N	**Dates** 28/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				72.12	0.30	Firm brown sandy gravelly CLAY with occasional cobbles		
					(1.40)			
				70.72	1.70	Firm brown sandy gravelly silty CLAY with occasional cobbles and pockets of black sandy silt		
					(0.30)			
				70.42	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered.
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA04

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA05
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x H) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 65.05	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327904.3 E 212808.2 N	**Dates** 28/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				64.75	0.30	Firm brown sandy gravelly CLAY with occasional cobbles		
					(0.90)			
				63.85	1.20	Firm brown grey sandy gravelly silty CLAY with occasional cobbles with pockets of black sandy silt		
					(0.80)			
				63.05	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA05

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA06
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 82.10	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327657.9 E 213047.6 N	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				81.80	0.30	Soft brown sandy gravelly SILT/CLAY with occasional cobbles		
					(1.00)			
				80.80	1.30	Firm brown sandy gravelly SILT/CLAY		
					(0.70)			
				80.10	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA06

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA07
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 86.50	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327667 E 212801.2 N	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL		
				86.10	0.40	Firm brown sandy gravelly CLAY with occasional cobbles		
					(1.60)			
				84.50	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA07

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA08
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 78.57	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327788.8 E 212656.1 N	**Dates** 28/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				78.37	0.20	Soft to firm brown sandy gravelly CLAY with occasional cobbles		
					(1.80)			
				76.57	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA08

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA09
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 74.06	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327737.2 E 213221.9 N	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				73.76	0.30	Soft brown sandy gravelly CLAY with occasional cobbles		
					(0.60)			
				73.16	0.90	Firm brown sandy gravelly silty CLAY with occasional cobbles		
					(1.10)			
				72.06	2.00	Complete at 2.00m		

Plan

Remarks

No groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA09

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA10
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)**	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30) 0.30	TOPSOIL		
					(0.80) 1.10	Soft brown slightly sandy gravelly CLAY with occasional cobbles		
					(0.90) 2.00	Soft to firm brown silty sandy gravelly CLAY with occasional cobbles		
						Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA10

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA11
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 66.65	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327928.3 E 212667 N	**Dates** 28/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL		
				66.45	0.20	Firm brown slightly sandy gravelly CLAY with occasional cobbles		
					(1.20)			
				65.25	1.40	Firm brown sandy gravelly silty CLAY with occasional cobbles and pockets of black sandy silt		
					(0.60)			
				64.65	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA11

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Site Coolagad, Co. Wicklow			**Trial Pit Number** SA12
Machine : 13T Tracked Excavator **Method :** Trial Pit	**Dimensions** (L x W x D) 2.70 x 0.70 x 2.00	**Ground Level (mOD)** 76.23	**Client** Cairn Homes	**Job Number** 6994-08-17
	Location 327711 E 212906.4 N	**Dates** 24/08/2017	**Engineer** Roughan and O'Donovan	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
				75.93	0.30	Soft to firm brown grey sandy gravelly silty CLAY with occasional cobbles and pockets of black sandy silt		
					(1.70)			
				74.23	2.00	Complete at 2.00m		

Plan

Remarks

No Groundwater encountered
Trial Pit stable
Trial Pit terminated at 2.00m for soakaway test
Trial Pit backfilled on completion

Scale (approx)	Logged By	Figure No.
1:25	RO'T	6994-08-17.SA12

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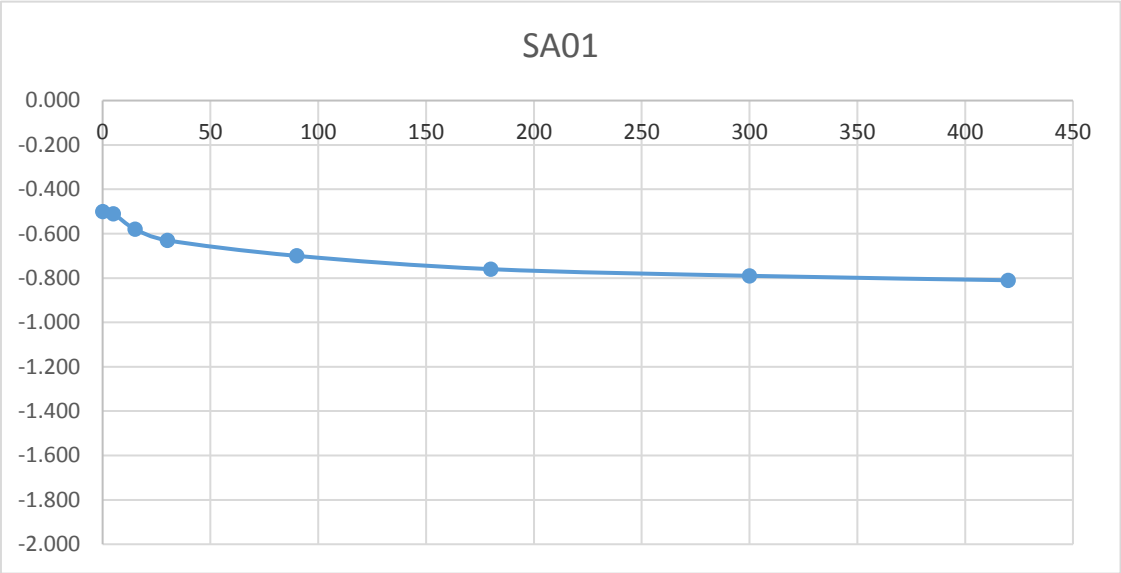
SA01

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
24/08/2017	0	-0.500
24/08/2017	5	-0.510
24/08/2017	15	-0.580
24/08/2017	30	-0.630
24/08/2017	90	-0.700
24/08/2017	180	-0.760
24/08/2017	300	-0.790
24/08/2017	420	-0.810

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



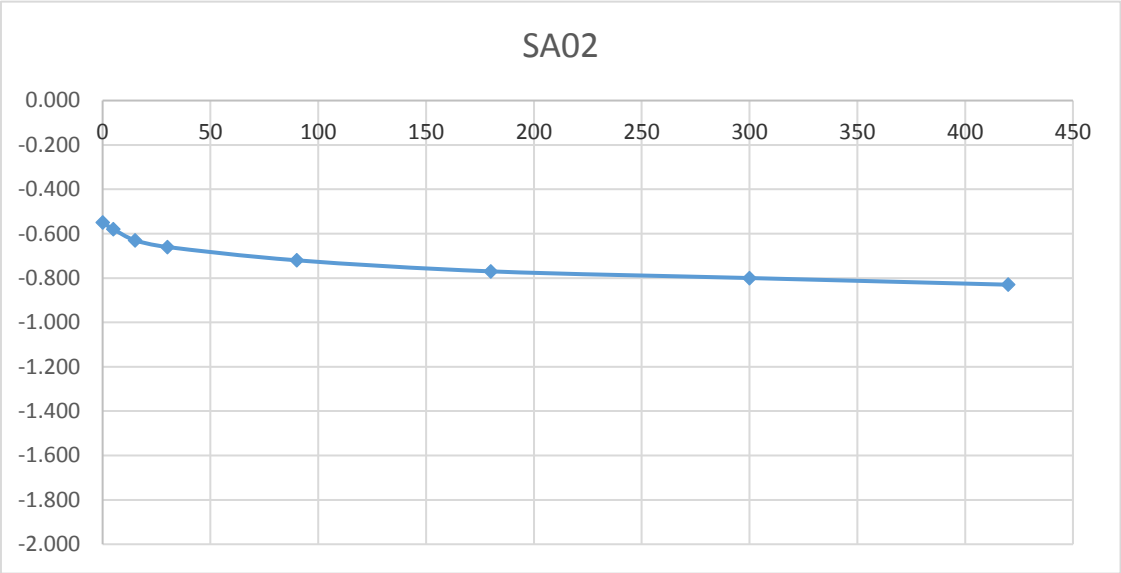
SA02

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
24/08/2017	0	-0.550
24/08/2017	5	-0.580
24/08/2017	15	-0.630
24/08/2017	30	-0.660
24/08/2017	90	-0.720
24/08/2017	180	-0.770
24/08/2017	300	-0.800
24/08/2017	420	-0.830

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



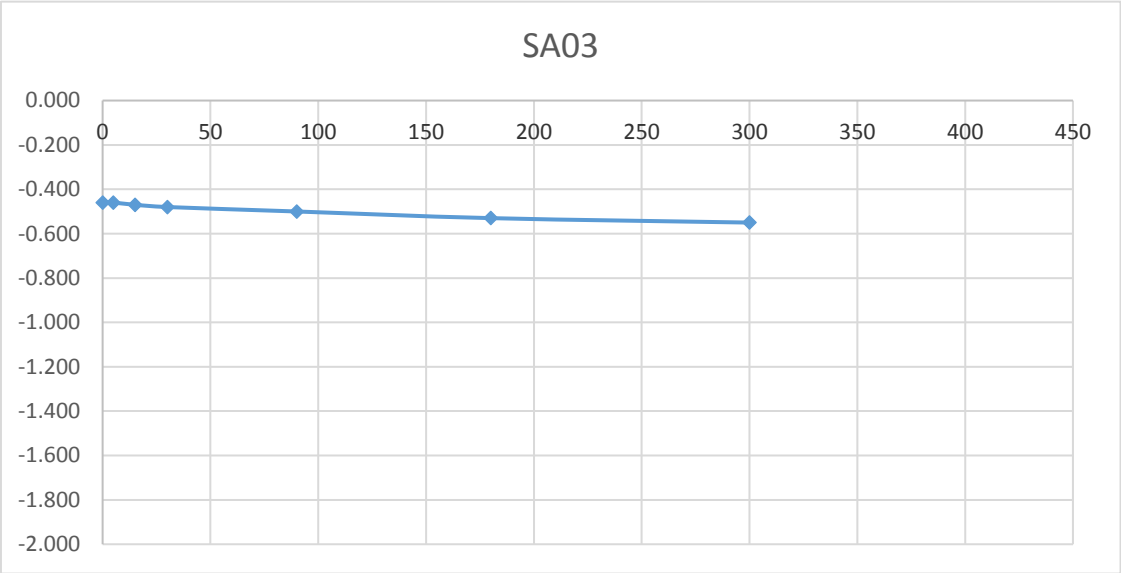
SA03

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
24/08/2017	0	-0.460
24/08/2017	5	-0.460
24/08/2017	15	-0.470
24/08/2017	30	-0.480
24/08/2017	90	-0.500
24/08/2017	180	-0.530
24/08/2017	300	-0.550
24/08/2017	420	

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



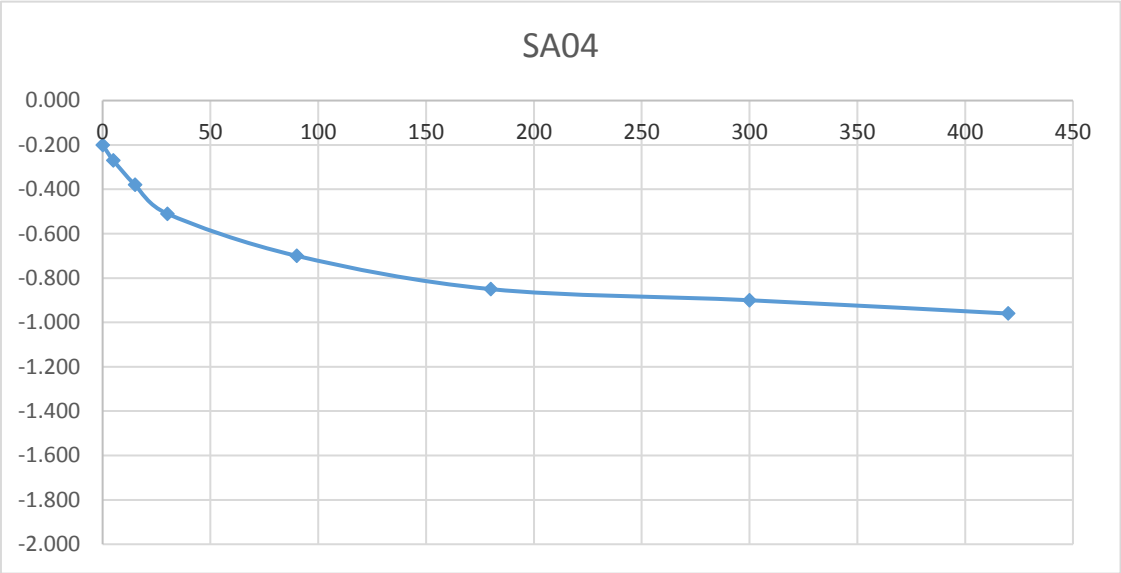
SA04

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
28/08/2017	0	-0.200
28/08/2017	5	-0.270
28/08/2017	15	-0.380
28/08/2017	30	-0.510
28/08/2017	90	-0.700
28/08/2017	180	-0.850
28/08/2017	300	-0.900
28/08/2017	420	-0.960

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



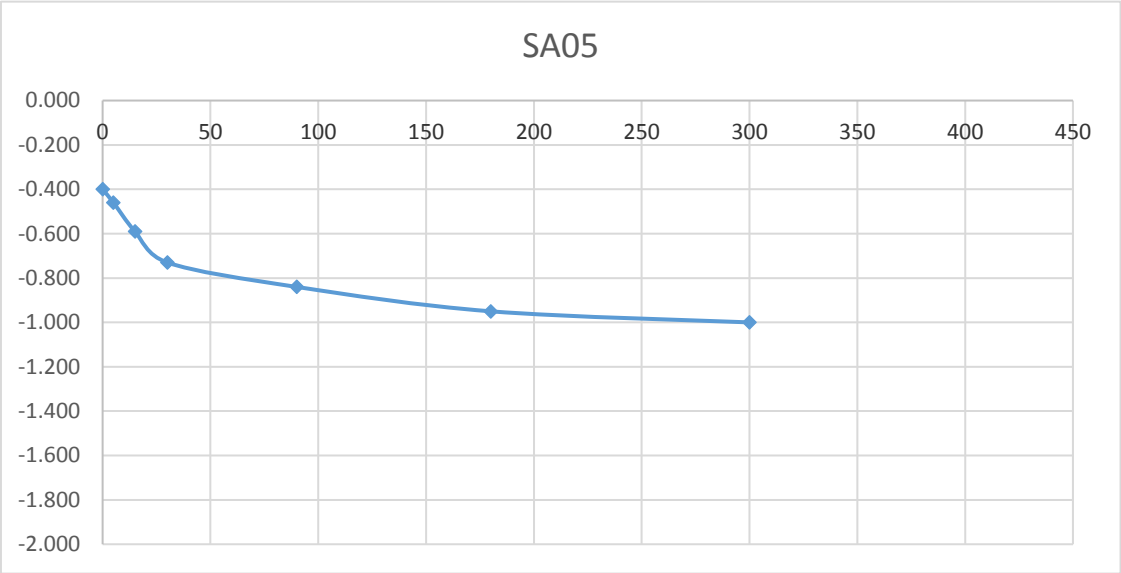
SA05

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
28/08/2017	0	-0.400
28/08/2017	5	-0.460
28/08/2017	15	-0.590
28/08/2017	30	-0.730
28/08/2017	90	-0.840
28/08/2017	180	-0.950
28/08/2017	300	-1.000
28/08/2017	420	

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



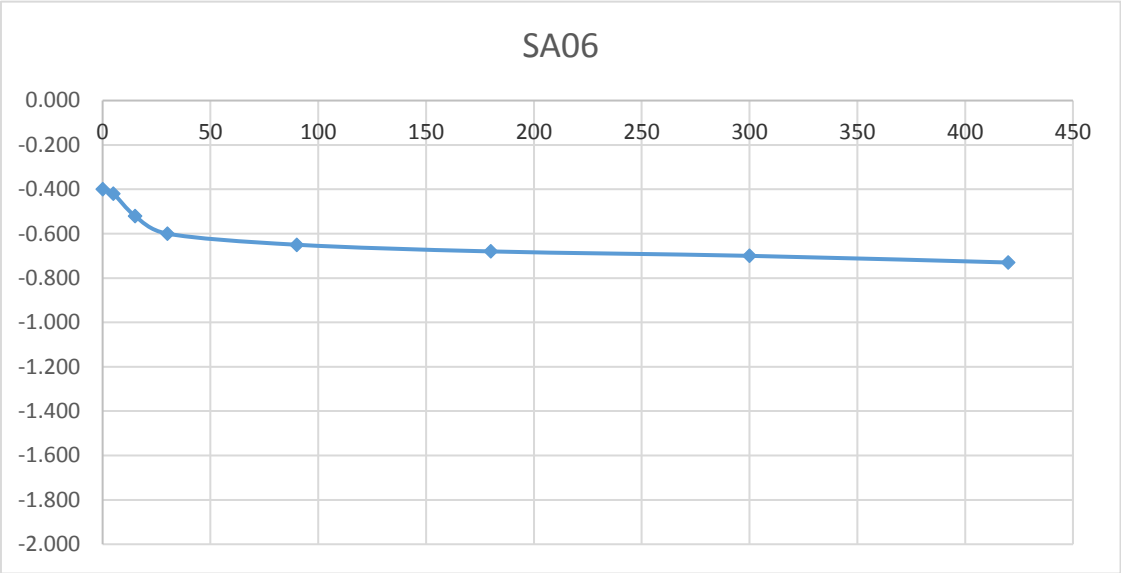
SA06

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
28/08/2017	0	-0.400
28/08/2017	5	-0.420
28/08/2017	15	-0.520
28/08/2017	30	-0.600
28/08/2017	90	-0.650
28/08/2017	180	-0.680
28/08/2017	300	-0.700
28/08/2017	420	-0.730

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



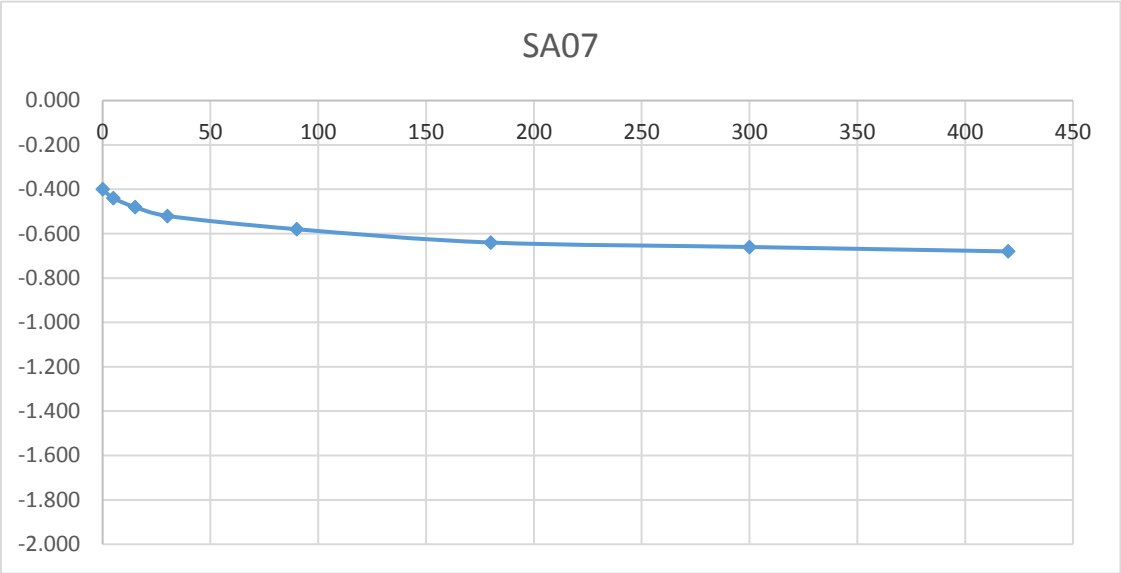
SA07

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
24/08/2017	0	-0.400
24/08/2017	5	-0.440
24/08/2017	15	-0.480
24/08/2017	30	-0.520
24/08/2017	90	-0.580
24/08/2017	180	-0.640
24/08/2017	300	-0.660
24/08/2017	420	-0.680

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



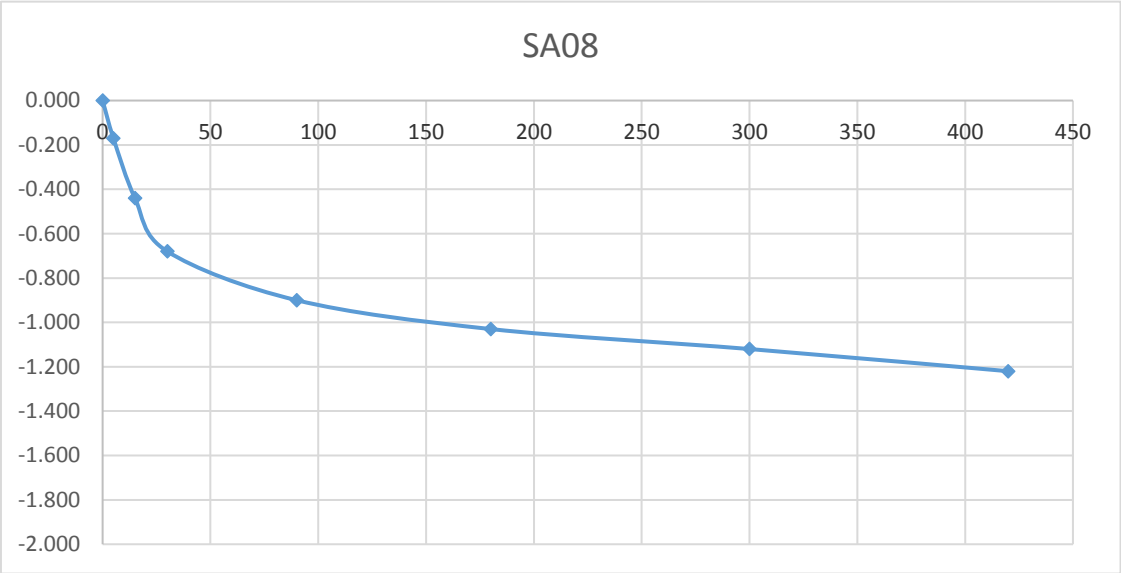
SA08

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
28/08/2017	0	0.000
28/08/2017	5	-0.170
28/08/2017	15	-0.440
28/08/2017	30	-0.680
28/08/2017	90	-0.900
28/08/2017	180	-1.030
28/08/2017	300	-1.120
28/08/2017	420	-1.220

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



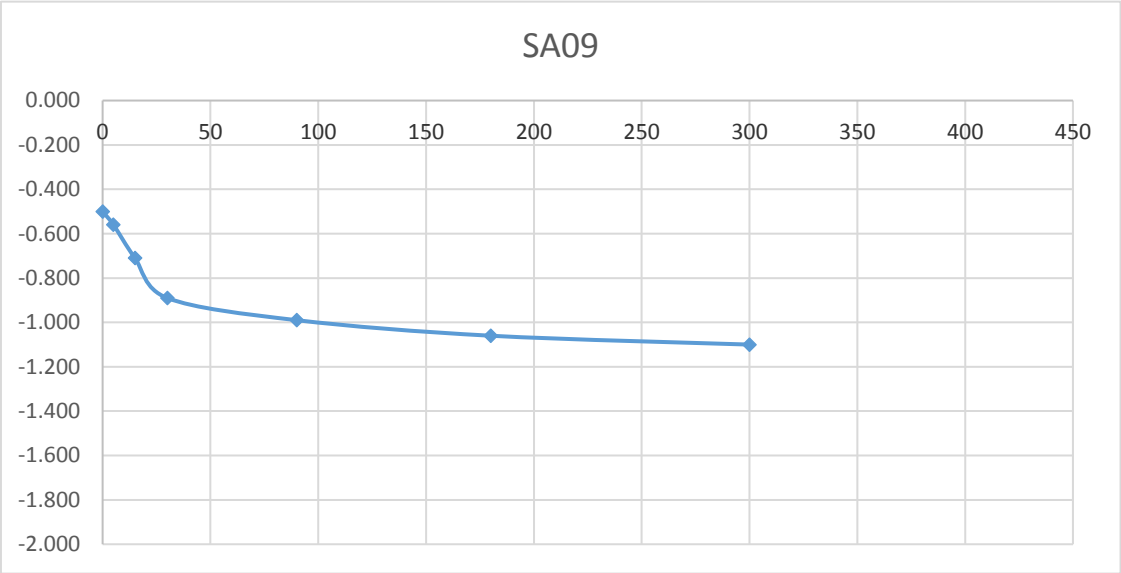
SA09

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
24/08/2017	0	-0.500
24/08/2017	5	-0.560
24/08/2017	15	-0.710
24/08/2017	30	-0.890
24/08/2017	90	-0.990
24/08/2017	180	-1.060
24/08/2017	300	-1.100
24/08/2017	420	

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



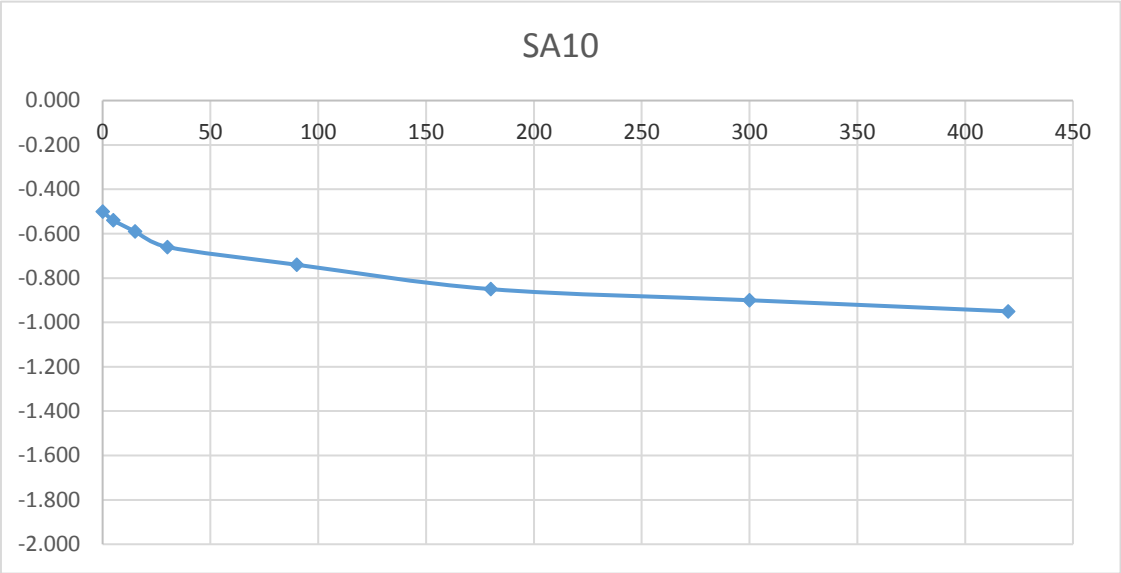
SA10

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
24/08/2017	0	-0.500
24/08/2017	5	-0.540
24/08/2017	15	-0.590
24/08/2017	30	-0.660
24/08/2017	90	-0.740
24/08/2017	180	-0.850
24/08/2017	300	-0.900
24/08/2017	420	-0.950

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



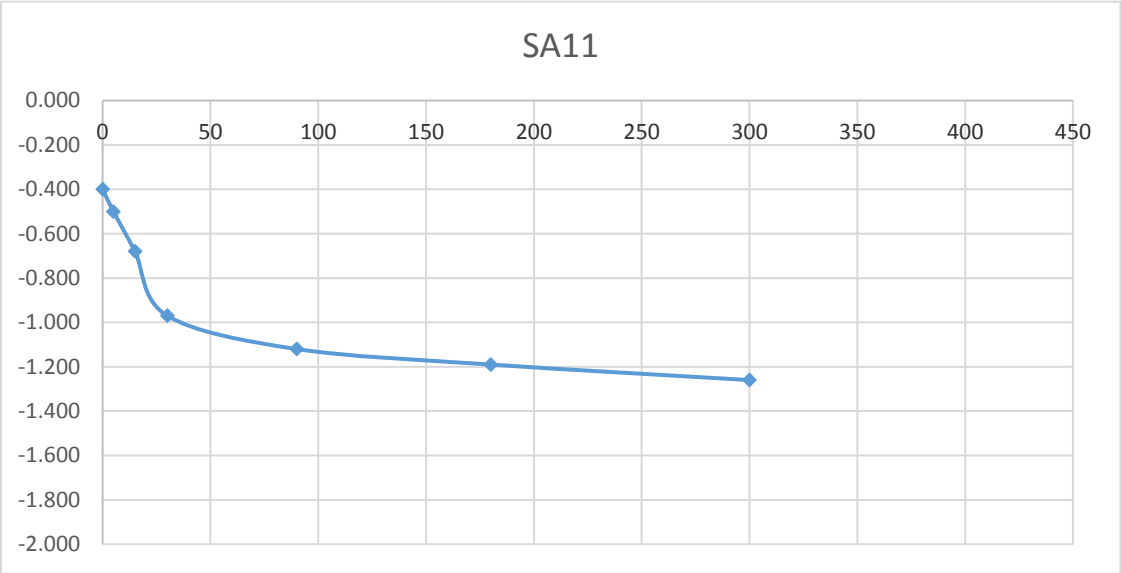
SA11

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
28/08/2017	0	-0.400
28/08/2017	5	-0.500
28/08/2017	15	-0.680
28/08/2017	30	-0.970
28/08/2017	90	-1.120
28/08/2017	180	-1.190
28/08/2017	300	-1.260
28/08/2017	420	

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



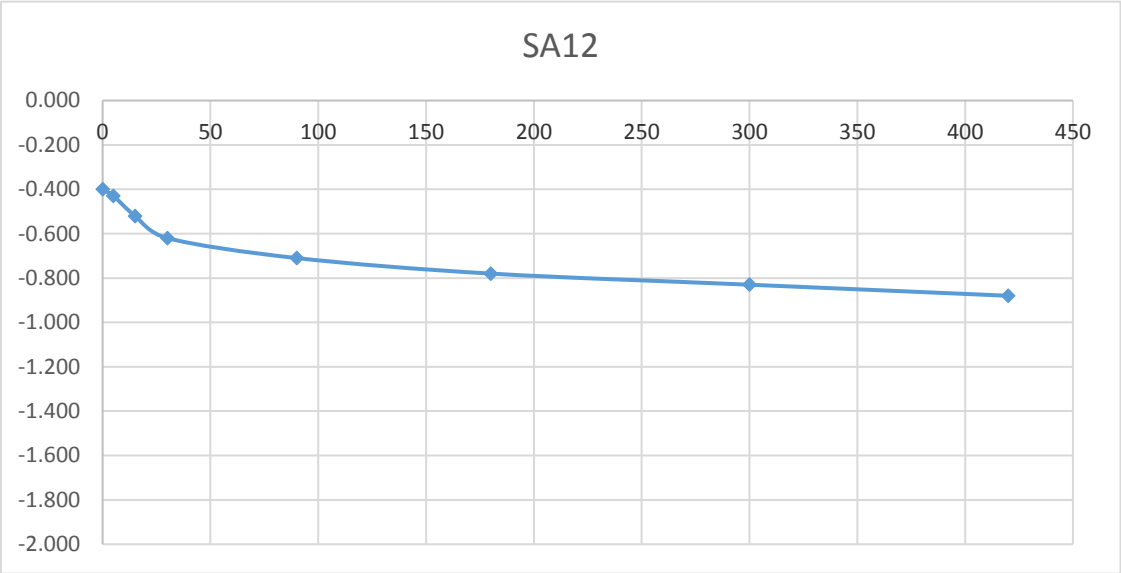
SA12

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.5m x 0.50m 2.0m (L x W x D)

Date	Time	Water level (m bgl)
24/08/2017	0	-0.400
24/08/2017	5	-0.430
24/08/2017	15	-0.520
24/08/2017	30	-0.620
24/08/2017	90	-0.710
24/08/2017	180	-0.780
24/08/2017	300	-0.830
24/08/2017	420	-0.880

***Soakaway failed - Pit backfilled**

Start depth	Depth of Pit	Diff	75% full	25%full
0.50	2.000	1.500	0.875	1.625



APPENDIX 4 - Dynamic Probe Records

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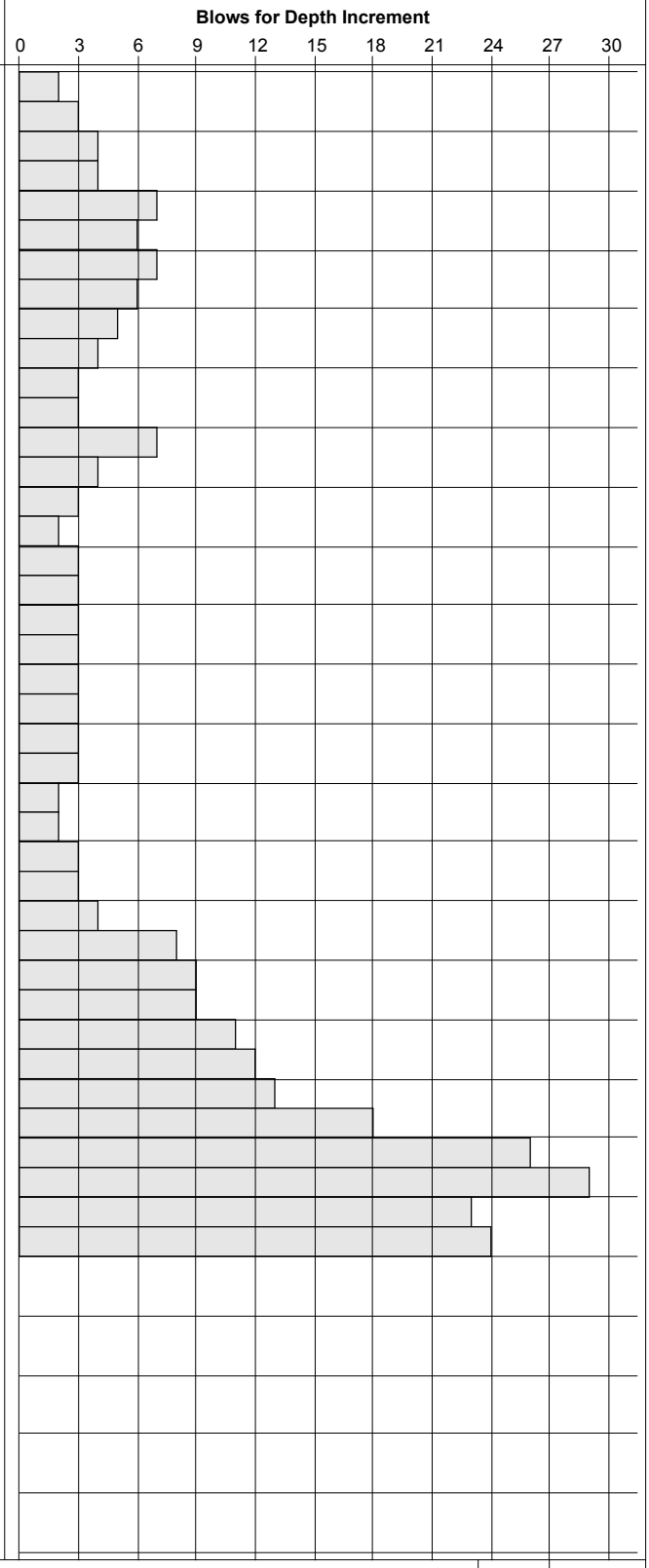
Site	Probe Number
Coolagad, Co. Wicklow	DPH01

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	61.70	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327912.5 E 213212.8 N	21/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	2		61.70	0.00
0.10-0.20	3			
0.20-0.30	4			
0.30-0.40	4			
0.40-0.50	7			
0.50-0.60	6		61.20	0.50
0.60-0.70	7			
0.70-0.80	6			
0.80-0.90	5			
0.90-1.00	4			
1.00-1.10	3		60.70	1.00
1.10-1.20	3			
1.20-1.30	7			
1.30-1.40	4			
1.40-1.50	3			
1.50-1.60	2		60.20	1.50
1.60-1.70	3			
1.70-1.80	3			
1.80-1.90	3			
1.90-2.00	3			
2.00-2.10	3		59.70	2.00
2.10-2.20	3			
2.20-2.30	3			
2.30-2.40	3			
2.40-2.50	2			
2.50-2.60	2		59.20	2.50
2.60-2.70	3			
2.70-2.80	3			
2.80-2.90	4			
2.90-3.00	8			
3.00-3.10	9		58.70	3.00
3.10-3.20	9			
3.20-3.30	11			
3.30-3.40	12			
3.40-3.50	13			
3.50-3.60	18		58.20	3.50
3.60-3.70	26			
3.70-3.80	29			
3.80-3.90	23			
3.90-4.00	24			
			57.70	4.00
			57.20	4.50
			56.70	5.00



Remarks
Refusal at 4.00 BGL 24 blows

Scale (approx)	Logged By
1:25	ROT

Figure No.
6994-08-17.DPH01

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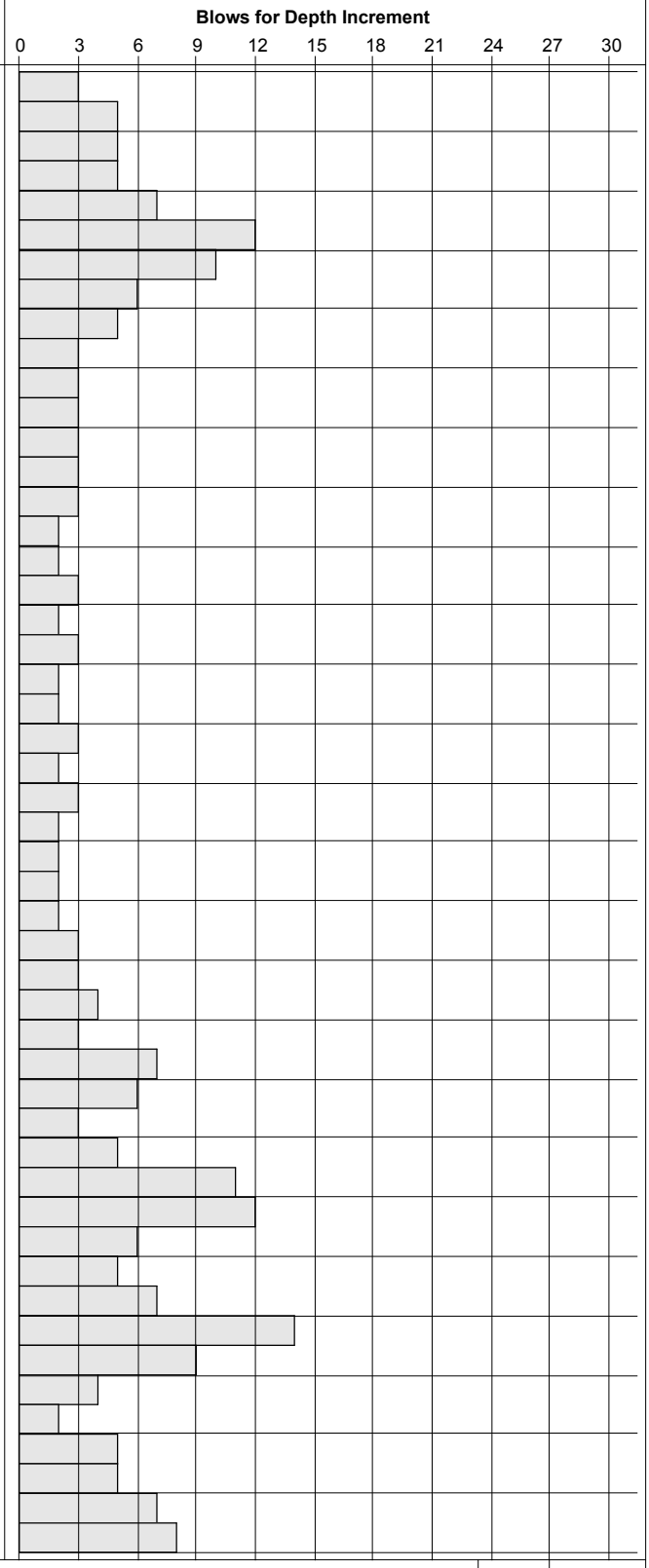
Site	Probe Number
Coolagad, Co. Wicklow	DPH02

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	65.22	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327848.1 E 213212.9 N	20/09/2017	Roughan and O'Donovan	1/2

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	3		65.22	0.00
0.10-0.20	5			
0.20-0.30	5			
0.30-0.40	5			
0.40-0.50	7			
0.50-0.60	12		64.72	0.50
0.60-0.70	10			
0.70-0.80	6			
0.80-0.90	5			
0.90-1.00	3			
1.00-1.10	3		64.22	1.00
1.10-1.20	3			
1.20-1.30	3			
1.30-1.40	3			
1.40-1.50	3			
1.50-1.60	2		63.72	1.50
1.60-1.70	2			
1.70-1.80	3			
1.80-1.90	2			
1.90-2.00	3			
2.00-2.10	2		63.22	2.00
2.10-2.20	2			
2.20-2.30	3			
2.30-2.40	2			
2.40-2.50	3			
2.50-2.60	2		62.72	2.50
2.60-2.70	2			
2.70-2.80	2			
2.80-2.90	2			
2.90-3.00	3			
3.00-3.10	3		62.22	3.00
3.10-3.20	4			
3.20-3.30	3			
3.30-3.40	7			
3.40-3.50	6			
3.50-3.60	3		61.72	3.50
3.60-3.70	5			
3.70-3.80	11			
3.80-3.90	12			
3.90-4.00	6			
4.00-4.10	5		61.22	4.00
4.10-4.20	7			
4.20-4.30	14			
4.30-4.40	9			
4.40-4.50	4			
4.50-4.60	2		60.72	4.50
4.60-4.70	5			
4.70-4.80	5			
4.80-4.90	7			
4.90-5.00	8			
			60.22	5.00



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH02

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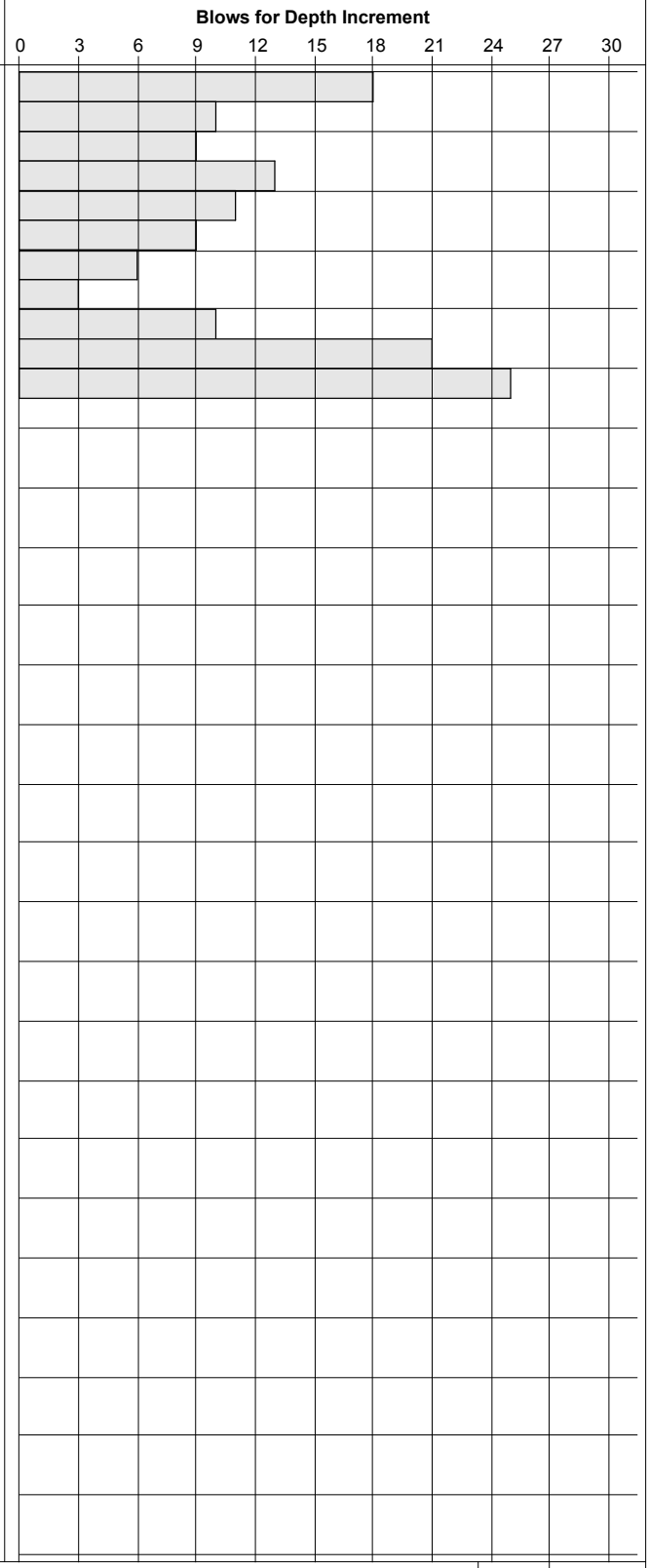
Site	Probe Number
Coolagad, Co. Wicklow	DPH02

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	65.22	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327848.1 E 213212.9 N	20/09/2017	Roughan and O'Donovan	2/2

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
5.00-5.10	18		60.22	5.00
5.10-5.20	10			
5.20-5.30	9			
5.30-5.40	13			
5.40-5.50	11			
5.50-5.60	9		59.72	5.50
5.60-5.70	6			
5.70-5.80	3			
5.80-5.90	10			
5.90-6.00	21			
6.00-6.10	25		59.22	6.00
			58.72	6.50
			58.22	7.00
			57.72	7.50
			57.22	8.00
			56.72	8.50
			56.22	9.00
			55.72	9.50
			55.22	10.00



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH02

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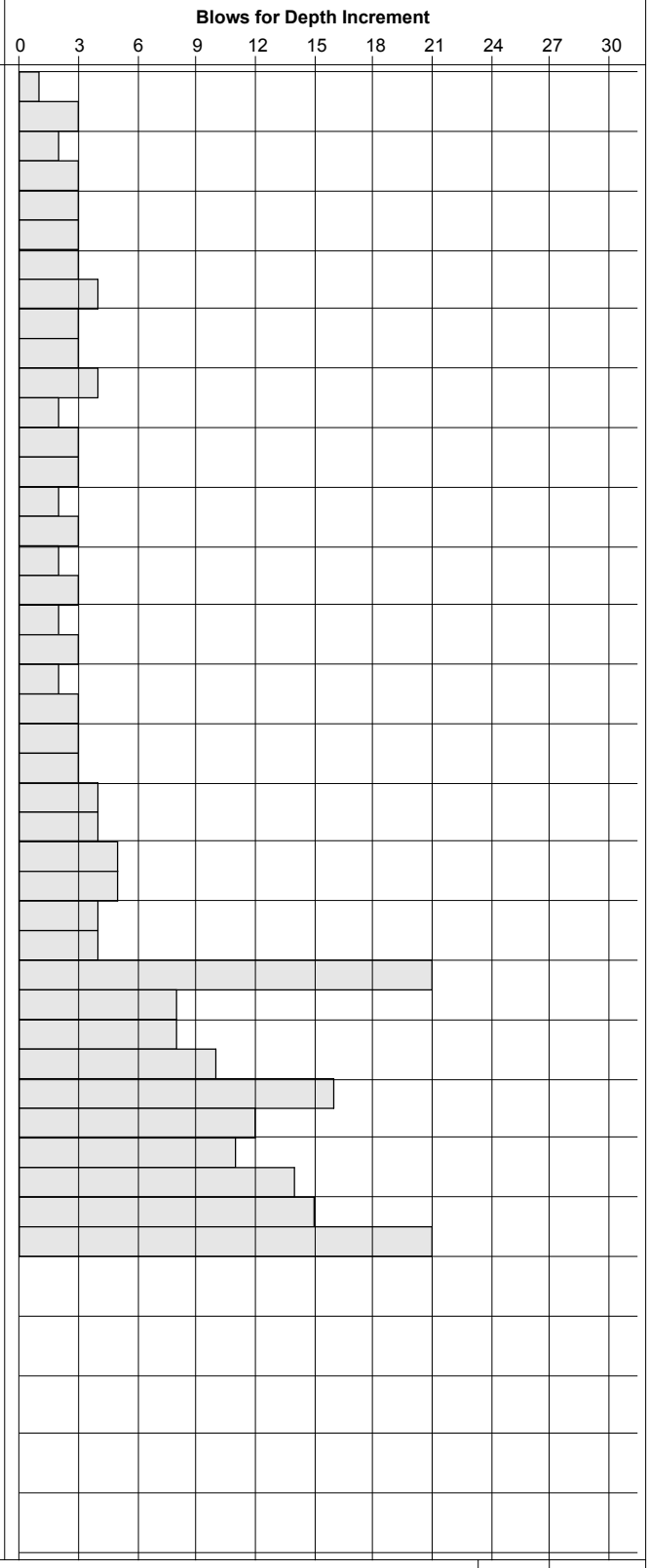
Site	Probe Number
Coolagad, Co. Wicklow	DPH03

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	75.67	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327736.9 E 213118.4 N	24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	1		75.67	0.00
0.10-0.20	3			
0.20-0.30	2			
0.30-0.40	3			
0.40-0.50	3			
0.50-0.60	3		75.17	0.50
0.60-0.70	3			
0.70-0.80	4			
0.80-0.90	3			
0.90-1.00	3			
1.00-1.10	4		74.67	1.00
1.10-1.20	2			
1.20-1.30	3			
1.30-1.40	3			
1.40-1.50	2			
1.50-1.60	3		74.17	1.50
1.60-1.70	2			
1.70-1.80	3			
1.80-1.90	2			
1.90-2.00	3			
2.00-2.10	2		73.67	2.00
2.10-2.20	3			
2.20-2.30	3			
2.30-2.40	3			
2.40-2.50	4			
2.50-2.60	4		73.17	2.50
2.60-2.70	5			
2.70-2.80	5			
2.80-2.90	4			
2.90-3.00	4			
3.00-3.10	21		72.67	3.00
3.10-3.20	8			
3.20-3.30	8			
3.30-3.40	10			
3.40-3.50	16			
3.50-3.60	12		72.17	3.50
3.60-3.70	11			
3.70-3.80	14			
3.80-3.90	15			
3.90-4.00	21			
			71.67	4.00
			71.17	4.50
			70.67	5.00



Remarks

Refusal at 4.00m BGL 25 blows for 25mm

Scale (approx)	Logged By
1:25	ROT

Figure No.

6994-08-17.DPH03

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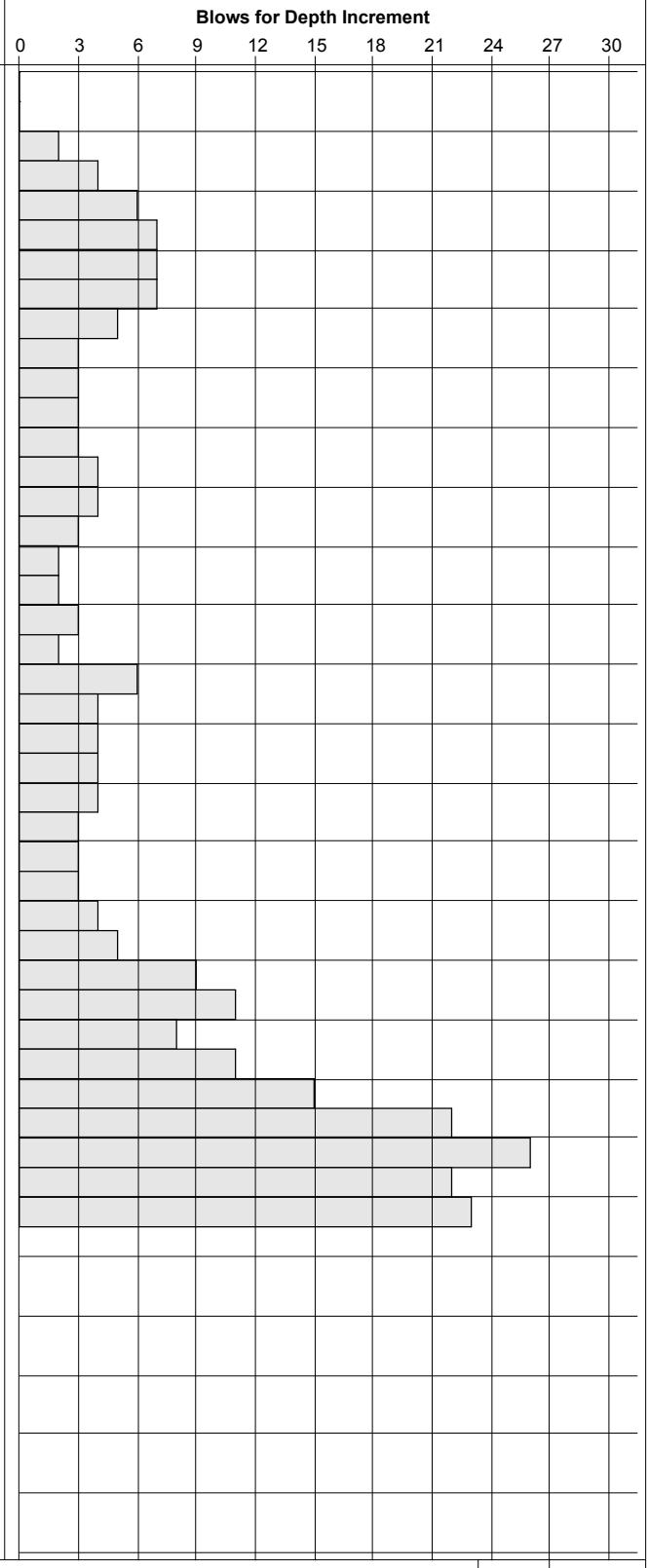
Site	Probe Number
Coolagad, Co. Wicklow	DPH04

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	76.21	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327719.7 E 213236.6 N	24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	0		76.21	0.00
0.10-0.20	0			
0.20-0.30	2			
0.30-0.40	4			
0.40-0.50	6			
0.50-0.60	7		75.71	0.50
0.60-0.70	7			
0.70-0.80	7			
0.80-0.90	5			
0.90-1.00	3			
1.00-1.10	3		75.21	1.00
1.10-1.20	3			
1.20-1.30	3			
1.30-1.40	4			
1.40-1.50	4			
1.50-1.60	3		74.71	1.50
1.60-1.70	2			
1.70-1.80	2			
1.80-1.90	3			
1.90-2.00	2			
2.00-2.10	6		74.21	2.00
2.10-2.20	4			
2.20-2.30	4			
2.30-2.40	4			
2.40-2.50	4			
2.50-2.60	3		73.71	2.50
2.60-2.70	3			
2.70-2.80	3			
2.80-2.90	4			
2.90-3.00	5			
3.00-3.10	9		73.21	3.00
3.10-3.20	11			
3.20-3.30	8			
3.30-3.40	11			
3.40-3.50	15			
3.50-3.60	22		72.71	3.50
3.60-3.70	26			
3.70-3.80	22			
3.80-3.90	23			
			72.21	4.00
			71.71	4.50
			71.21	5.00



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH04

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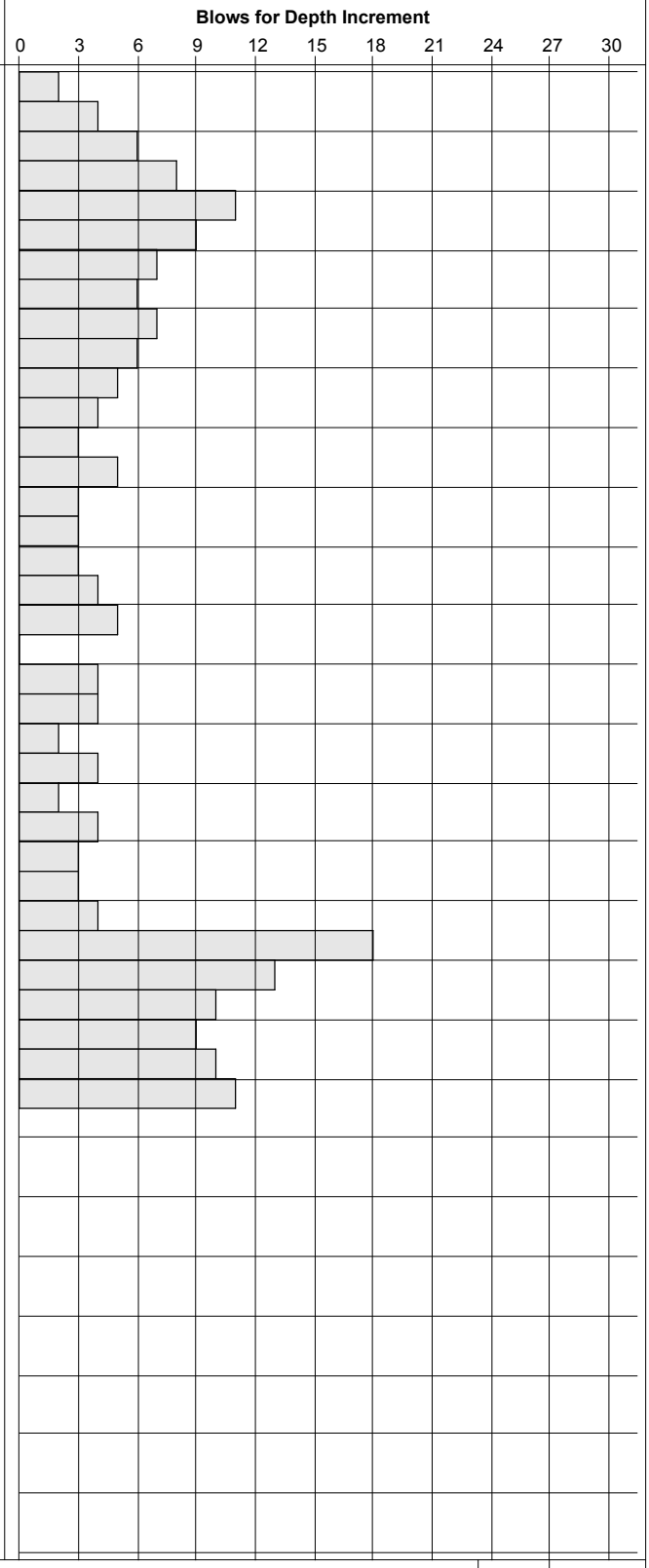
Site	Probe Number
Coolagad, Co. Wicklow	DPH05

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	81.47	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327672.1 E 213202.1 N	24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records
0.00-0.10	2	
0.10-0.20	4	
0.20-0.30	6	
0.30-0.40	8	
0.40-0.50	11	
0.50-0.60	9	
0.60-0.70	7	
0.70-0.80	6	
0.80-0.90	7	
0.90-1.00	6	
1.00-1.10	5	
1.10-1.20	4	
1.20-1.30	3	
1.30-1.40	5	
1.40-1.50	3	
1.50-1.60	3	
1.60-1.70	3	
1.70-1.80	4	
1.80-1.90	5	
1.90-2.00	0	
2.00-2.10	4	
2.10-2.20	4	
2.20-2.30	2	
2.30-2.40	4	
2.40-2.50	2	
2.50-2.60	4	
2.60-2.70	3	
2.70-2.80	3	
2.80-2.90	4	
2.90-3.00	18	
3.00-3.10	13	
3.10-3.20	10	
3.20-3.30	9	
3.30-3.40	10	
3.40-3.50	11	

Level (mOD)	Depth (m)
81.47	0.00
80.97	0.50
80.47	1.00
79.97	1.50
79.47	2.00
78.97	2.50
78.47	3.00
77.97	3.50
77.47	4.00
76.97	4.50
76.47	5.00



Remarks

Refusal at 3.50m BGL 30 blows for 50mm

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH05

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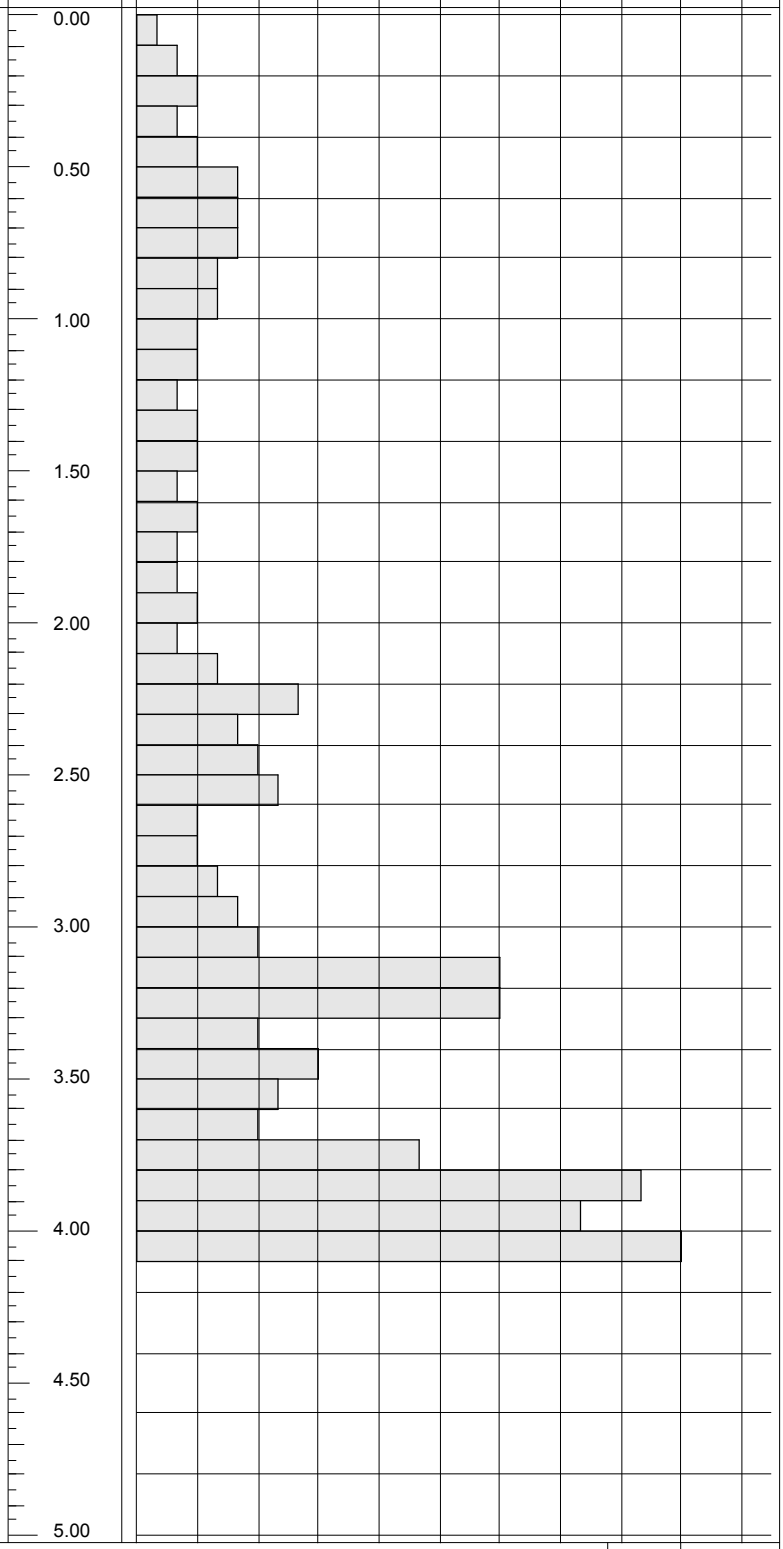
Site	Probe Number
Coolagad, Co. Wicklow	DPH06

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm		Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
		24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	1		
0.10-0.20	2		
0.20-0.30	3		
0.30-0.40	2		
0.40-0.50	3		
0.50-0.60	5		
0.60-0.70	5		
0.70-0.80	5		
0.80-0.90	4		
0.90-1.00	4		
1.00-1.10	3		
1.10-1.20	3		
1.20-1.30	2		
1.30-1.40	3		
1.40-1.50	3		
1.50-1.60	2		
1.60-1.70	3		
1.70-1.80	2		
1.80-1.90	2		
1.90-2.00	3		
2.00-2.10	2		
2.10-2.20	4		
2.20-2.30	8		
2.30-2.40	5		
2.40-2.50	6		
2.50-2.60	7		
2.60-2.70	3		
2.70-2.80	3		
2.80-2.90	4		
2.90-3.00	5		
3.00-3.10	6		
3.10-3.20	18		
3.20-3.30	18		
3.30-3.40	6		
3.40-3.50	9		
3.50-3.60	7		
3.60-3.70	6		
3.70-3.80	14		
3.80-3.90	25		
3.90-4.00	22		
4.00-4.10	27		



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH06

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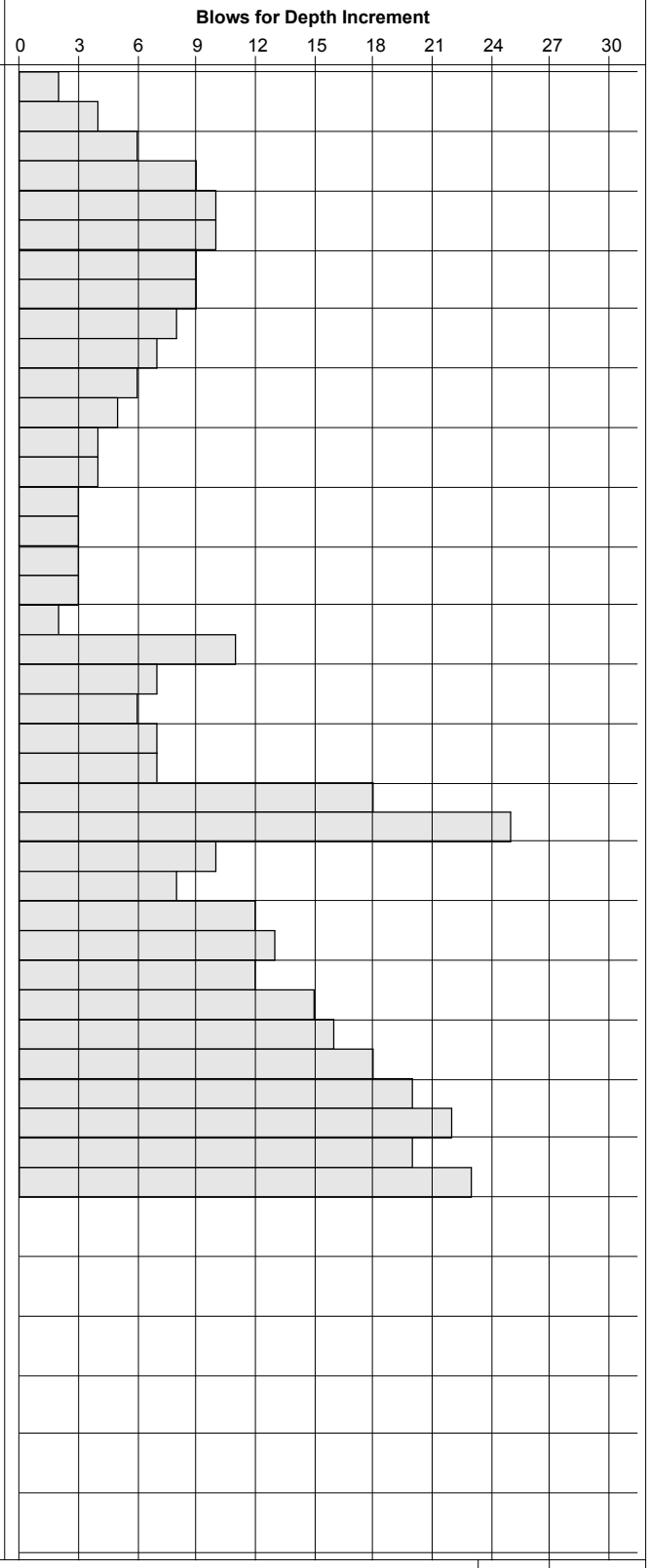
Site	Probe Number
Coolagad, Co. Wicklow	DPH07

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	82.53	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327642.5 E 213020.6 N	24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records
0.00-0.10	2	
0.10-0.20	4	
0.20-0.30	6	
0.30-0.40	9	
0.40-0.50	10	
0.50-0.60	10	
0.60-0.70	9	
0.70-0.80	9	
0.80-0.90	8	
0.90-1.00	7	
1.00-1.10	6	
1.10-1.20	5	
1.20-1.30	4	
1.30-1.40	4	
1.40-1.50	3	
1.50-1.60	3	
1.60-1.70	3	
1.70-1.80	3	
1.80-1.90	2	
1.90-2.00	11	
2.00-2.10	7	
2.10-2.20	6	
2.20-2.30	7	
2.30-2.40	7	
2.40-2.50	18	
2.50-2.60	25	
2.60-2.70	10	
2.70-2.80	8	
2.80-2.90	12	
2.90-3.00	13	
3.00-3.10	12	
3.10-3.20	15	
3.20-3.30	16	
3.30-3.40	18	
3.40-3.50	20	
3.50-3.60	22	
3.60-3.70	20	
3.70-3.80	23	

Level (mOD)	Depth (m)
82.53	0.00
82.03	0.50
81.53	1.00
81.03	1.50
80.53	2.00
80.03	2.50
79.53	3.00
79.03	3.50
78.53	4.00
78.03	4.50
77.53	5.00



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH07

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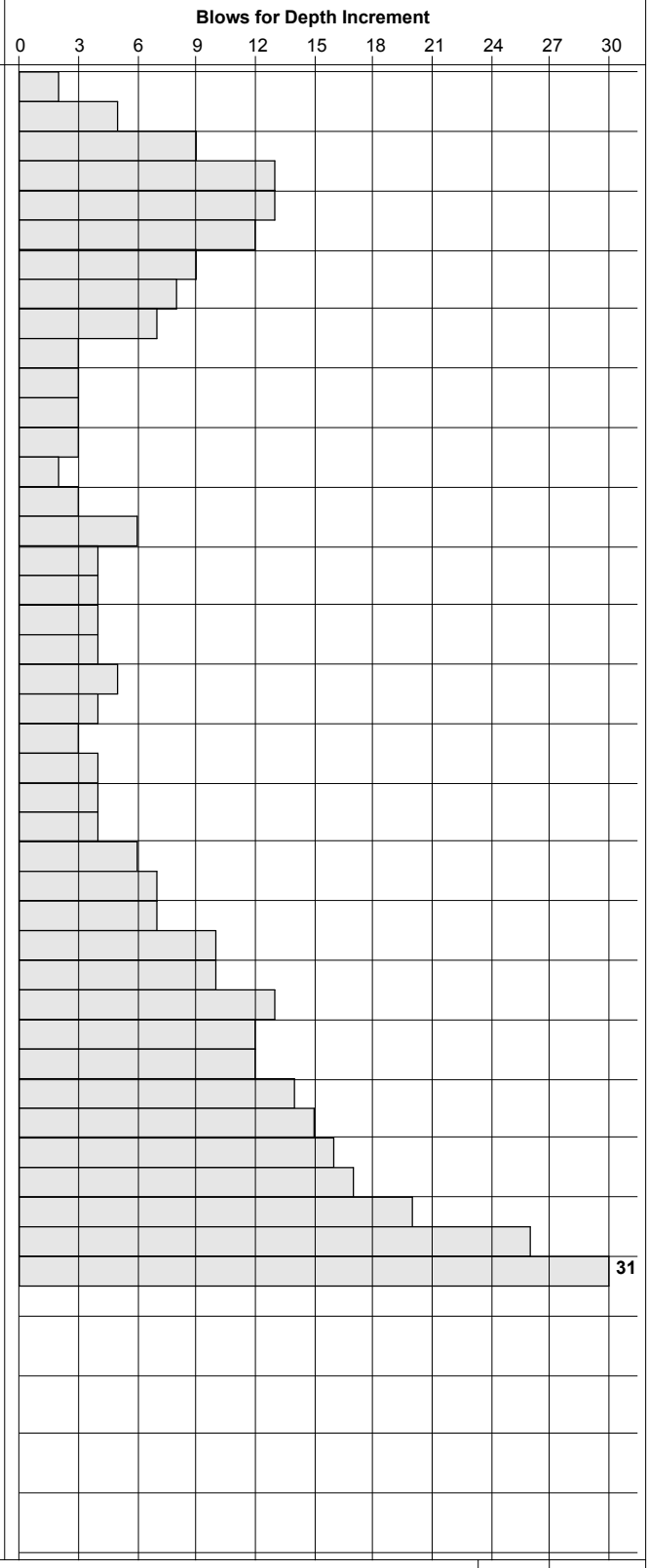
Site	Probe Number
Coolagad, Co. Wicklow	DPH08

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	80.47	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327683.3 E 213067.7 N	24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	2		80.47	0.00
0.10-0.20	5			
0.20-0.30	9			
0.30-0.40	13			
0.40-0.50	13			
0.50-0.60	12		79.97	0.50
0.60-0.70	9			
0.70-0.80	8			
0.80-0.90	7			
0.90-1.00	3			
1.00-1.10	3		79.47	1.00
1.10-1.20	3			
1.20-1.30	3			
1.30-1.40	2			
1.40-1.50	3			
1.50-1.60	6		78.97	1.50
1.60-1.70	4			
1.70-1.80	4			
1.80-1.90	4			
1.90-2.00	4			
2.00-2.10	5		78.47	2.00
2.10-2.20	4			
2.20-2.30	3			
2.30-2.40	4			
2.40-2.50	4			
2.50-2.60	4		77.97	2.50
2.60-2.70	6			
2.70-2.80	7			
2.80-2.90	7			
2.90-3.00	10			
3.00-3.10	10		77.47	3.00
3.10-3.20	13			
3.20-3.30	12			
3.30-3.40	12			
3.40-3.50	14			
3.50-3.60	15		76.97	3.50
3.60-3.70	16			
3.70-3.80	17			
3.80-3.90	20			
3.90-4.00	26			
4.00-4.10	31		76.47	4.00
			75.97	4.50
			75.47	5.00



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH08

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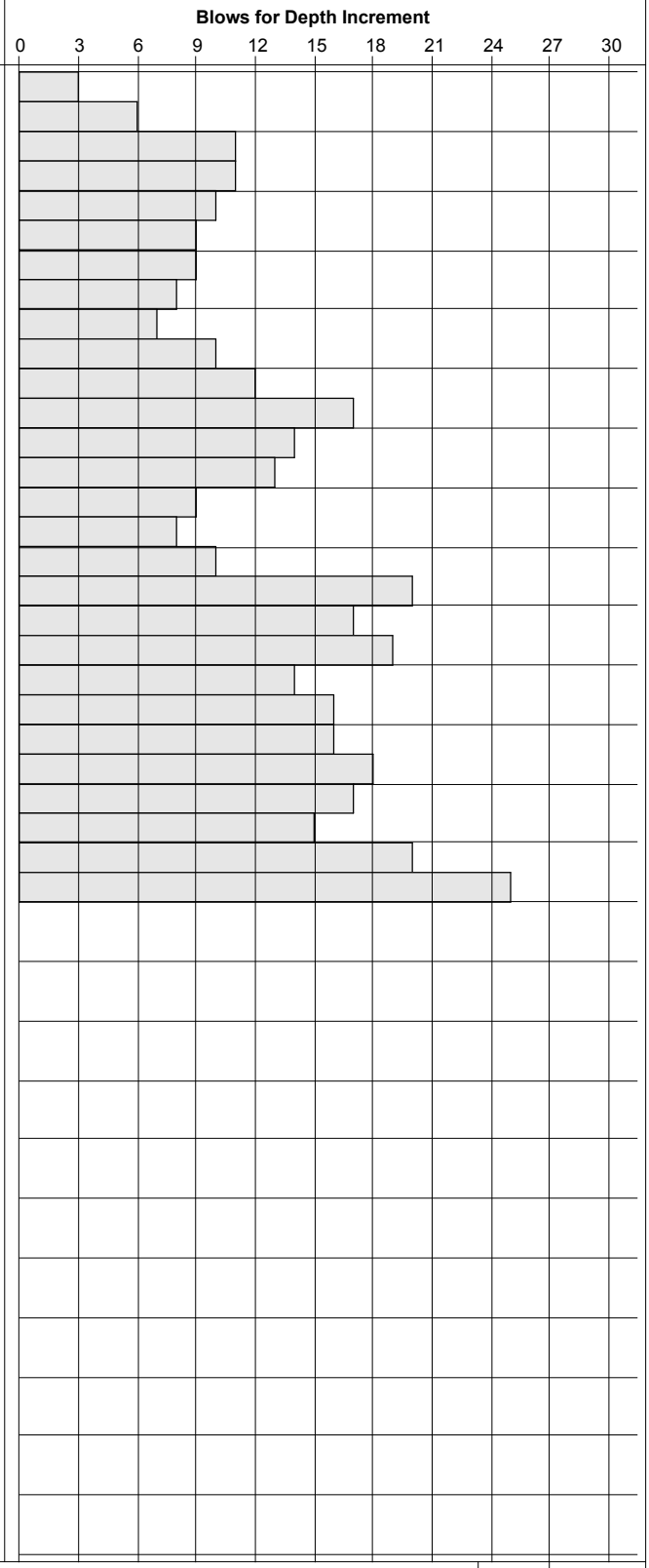
Site	Probe Number
Coolagad, Co. Wicklow	DPH09

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	75.08	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327744.6 E 213022.3 N	20/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	3		75.08	0.00
0.10-0.20	6			
0.20-0.30	11			
0.30-0.40	11			
0.40-0.50	10			
0.50-0.60	9		74.58	0.50
0.60-0.70	9			
0.70-0.80	8			
0.80-0.90	7			
0.90-1.00	10			
1.00-1.10	12		74.08	1.00
1.10-1.20	17			
1.20-1.30	14			
1.30-1.40	13			
1.40-1.50	9			
1.50-1.60	8		73.58	1.50
1.60-1.70	10			
1.70-1.80	20			
1.80-1.90	17			
1.90-2.00	19			
2.00-2.10	14		73.08	2.00
2.10-2.20	16			
2.20-2.30	16			
2.30-2.40	18			
2.40-2.50	17			
2.50-2.60	15		72.58	2.50
2.60-2.70	20			
2.70-2.80	25			
			72.08	3.00
			71.58	3.50
			71.08	4.00
			70.58	4.50
			70.08	5.00



Remarks
Refusal at 2.80m BGL 25 blows for 50mm

Scale (approx)	Logged By
1:25	ROT

Figure No.
6994-08-17.DPH09

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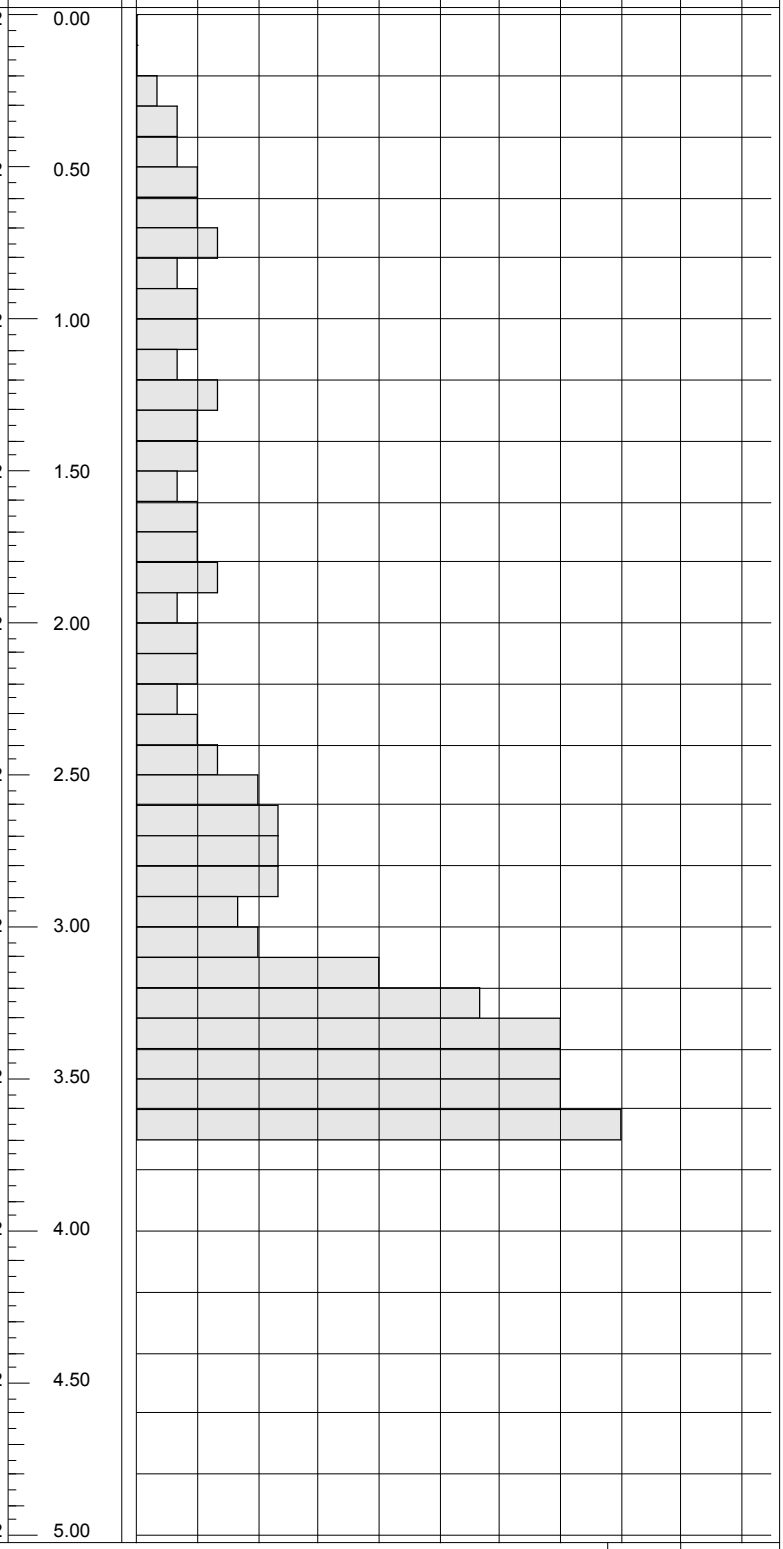
Site	Probe Number
Coolagad, Co. Wicklow	DPH10

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	68.32	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327828.8 E 213012.8 N	20/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records
0.00-0.10	0	
0.10-0.20	0	
0.20-0.30	1	
0.30-0.40	2	
0.40-0.50	2	
0.50-0.60	3	
0.60-0.70	3	
0.70-0.80	4	
0.80-0.90	2	
0.90-1.00	3	
1.00-1.10	3	
1.10-1.20	2	
1.20-1.30	4	
1.30-1.40	3	
1.40-1.50	3	
1.50-1.60	2	
1.60-1.70	3	
1.70-1.80	3	
1.80-1.90	4	
1.90-2.00	2	
2.00-2.10	3	
2.10-2.20	3	
2.20-2.30	2	
2.30-2.40	3	
2.40-2.50	4	
2.50-2.60	6	
2.60-2.70	7	
2.70-2.80	7	
2.80-2.90	7	
2.90-3.00	5	
3.00-3.10	6	
3.10-3.20	12	
3.20-3.30	17	
3.30-3.40	21	
3.40-3.50	21	
3.50-3.60	21	
3.60-3.70	24	



Remarks
Refusal at 3.70m BGL 24 blows

Scale (approx)	Logged By
1:25	ROT

Figure No.
6994-08-17.DPH10

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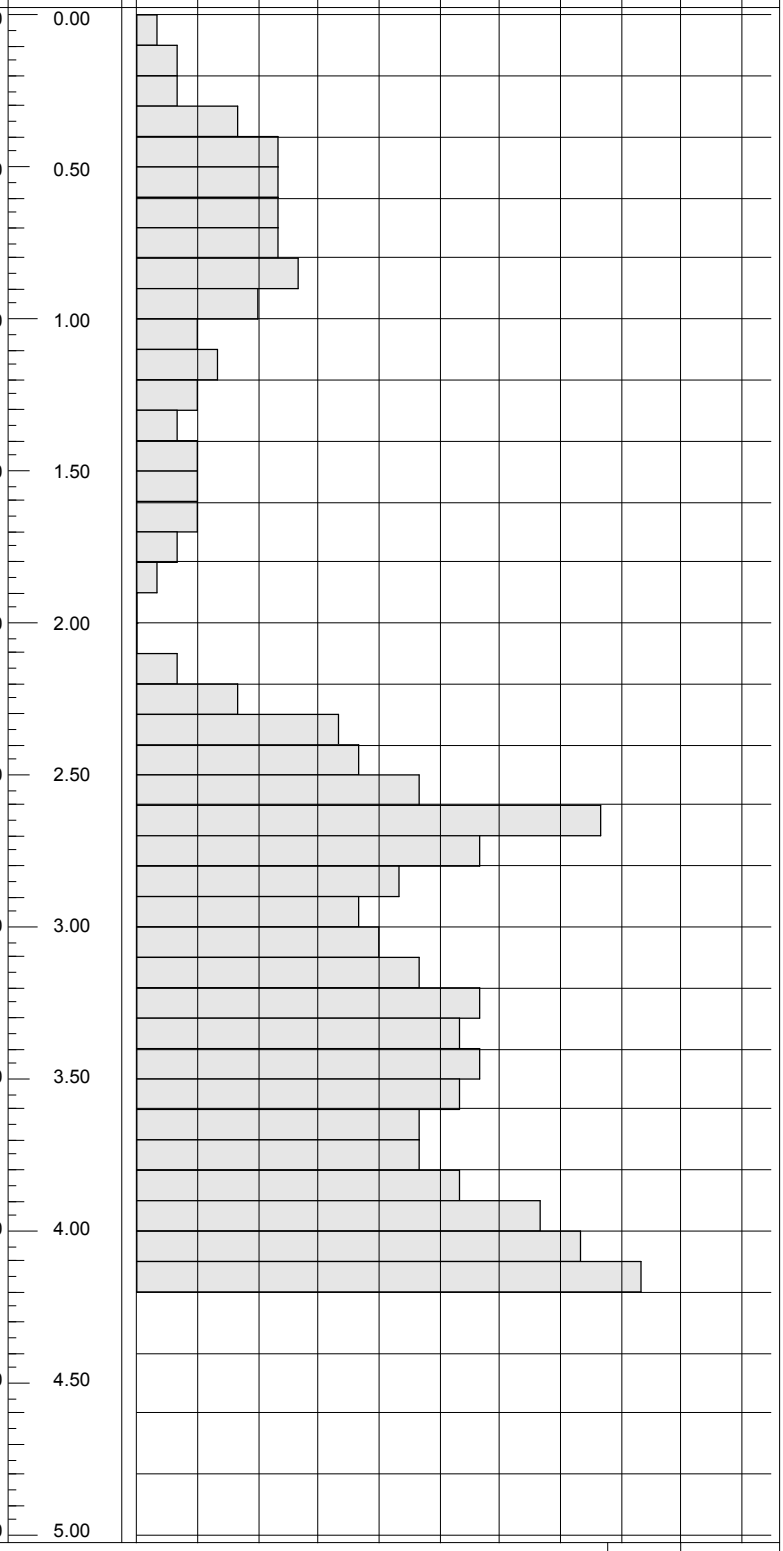
Site	Probe Number
Coolagad, Co. Wicklow	DPH11

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	70.20	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327825.7 E 212833.9 N	24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records
0.00-0.10	1	
0.10-0.20	2	
0.20-0.30	2	
0.30-0.40	5	
0.40-0.50	7	
0.50-0.60	7	
0.60-0.70	7	
0.70-0.80	7	
0.80-0.90	8	
0.90-1.00	6	
1.00-1.10	3	
1.10-1.20	4	
1.20-1.30	3	
1.30-1.40	2	
1.40-1.50	3	
1.50-1.60	3	
1.60-1.70	3	
1.70-1.80	2	
1.80-1.90	1	
1.90-2.00	0	
2.00-2.10	0	
2.10-2.20	2	
2.20-2.30	5	
2.30-2.40	10	
2.40-2.50	11	
2.50-2.60	14	
2.60-2.70	23	
2.70-2.80	17	
2.80-2.90	13	
2.90-3.00	11	
3.00-3.10	12	
3.10-3.20	14	
3.20-3.30	17	
3.30-3.40	16	
3.40-3.50	17	
3.50-3.60	16	
3.60-3.70	14	
3.70-3.80	14	
3.80-3.90	16	
3.90-4.00	20	
4.00-4.10	22	
4.10-4.20	25	



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH11

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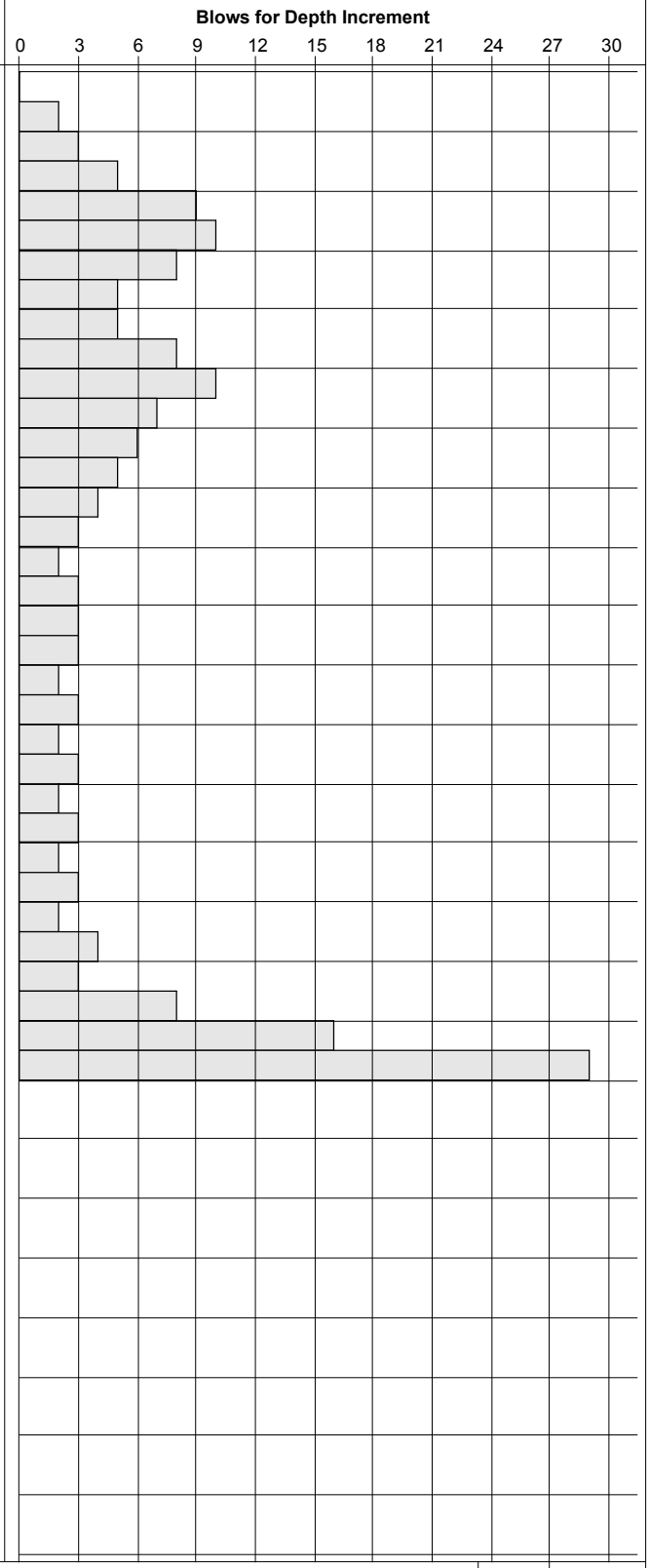
Site	Probe Number
Coolagad, Co. Wicklow	DPH12

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	78.80	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327718.7 E 212834.3 N	24/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records
0.00-0.10	0	
0.10-0.20	2	
0.20-0.30	3	
0.30-0.40	5	
0.40-0.50	9	
0.50-0.60	10	
0.60-0.70	8	
0.70-0.80	5	
0.80-0.90	5	
0.90-1.00	8	
1.00-1.10	10	
1.10-1.20	7	
1.20-1.30	6	
1.30-1.40	5	
1.40-1.50	4	
1.50-1.60	3	
1.60-1.70	2	
1.70-1.80	3	
1.80-1.90	3	
1.90-2.00	3	
2.00-2.10	2	
2.10-2.20	3	
2.20-2.30	2	
2.30-2.40	3	
2.40-2.50	2	
2.50-2.60	3	
2.60-2.70	2	
2.70-2.80	3	
2.80-2.90	2	
2.90-3.00	4	
3.00-3.10	3	
3.10-3.20	8	
3.20-3.30	16	
3.30-3.40	29	

Level (mOD)	Depth (m)
78.80	0.00
78.30	0.50
77.80	1.00
77.30	1.50
76.80	2.00
76.30	2.50
75.80	3.00
75.30	3.50
74.80	4.00
74.30	4.50
73.80	5.00



Remarks

Refusal at 3.40m BGL 25 blows for 50mm

Scale (approx)	Logged By
1:25	ROT

Figure No.

6994-08-17.DPH12

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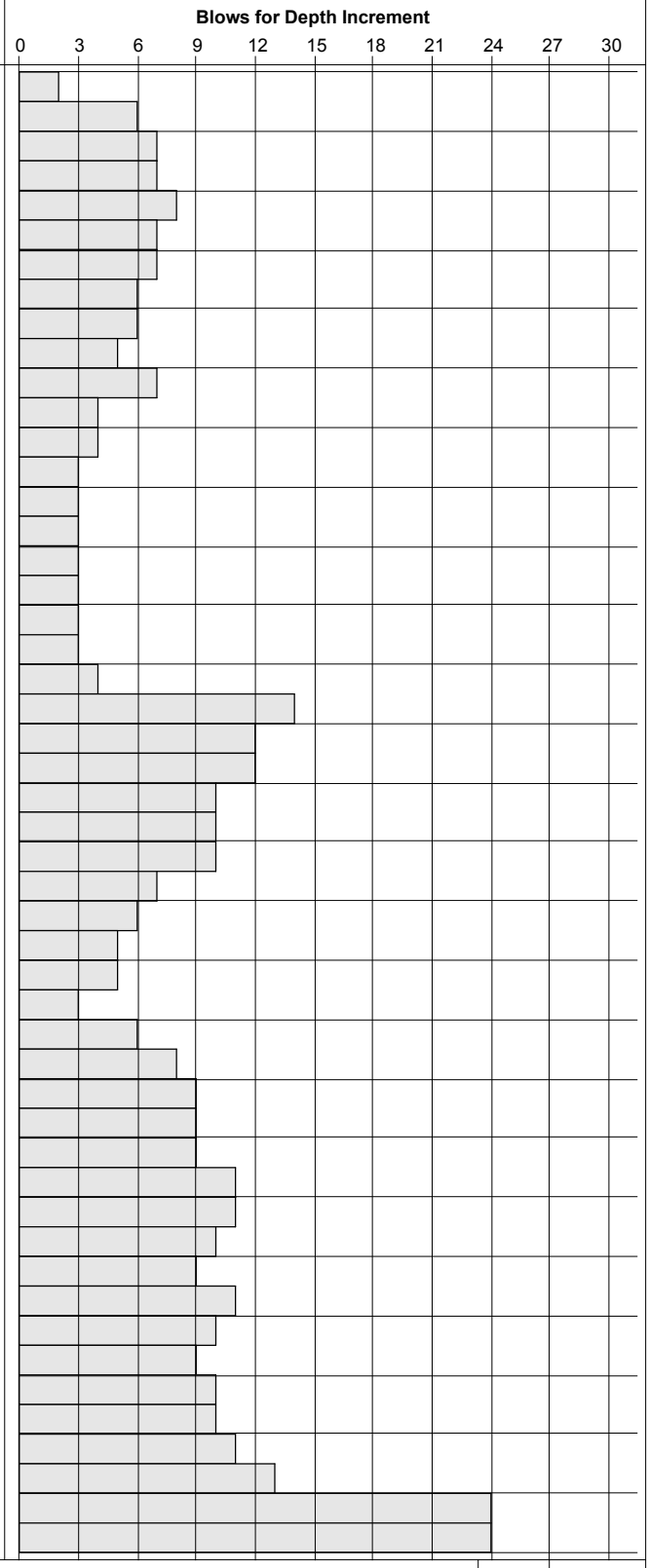
Site	Probe Number
Coolagad, Co. Wicklow	DPH13

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	64.87	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327869.3 E 213124.8 N	24/08/2017	Roughan and O'Donovan	1/2

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	2		64.87	0.00
0.10-0.20	6			
0.20-0.30	7			
0.30-0.40	7			
0.40-0.50	8			
0.50-0.60	7		64.37	0.50
0.60-0.70	7			
0.70-0.80	6			
0.80-0.90	6			
0.90-1.00	5			
1.00-1.10	7		63.87	1.00
1.10-1.20	4			
1.20-1.30	4			
1.30-1.40	3			
1.40-1.50	3			
1.50-1.60	3		63.37	1.50
1.60-1.70	3			
1.70-1.80	3			
1.80-1.90	3			
1.90-2.00	3			
2.00-2.10	4		62.87	2.00
2.10-2.20	14			
2.20-2.30	12			
2.30-2.40	12			
2.40-2.50	10			
2.50-2.60	10		62.37	2.50
2.60-2.70	10			
2.70-2.80	7			
2.80-2.90	6			
2.90-3.00	5			
3.00-3.10	5		61.87	3.00
3.10-3.20	3			
3.20-3.30	6			
3.30-3.40	8			
3.40-3.50	9			
3.50-3.60	9		61.37	3.50
3.60-3.70	9			
3.70-3.80	11			
3.80-3.90	11			
3.90-4.00	10			
4.00-4.10	9		60.87	4.00
4.10-4.20	11			
4.20-4.30	10			
4.30-4.40	9			
4.40-4.50	10			
4.50-4.60	10		60.37	4.50
4.60-4.70	11			
4.70-4.80	13			
4.80-4.90	24			
4.90-5.00	24			
			59.87	5.00



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPh13

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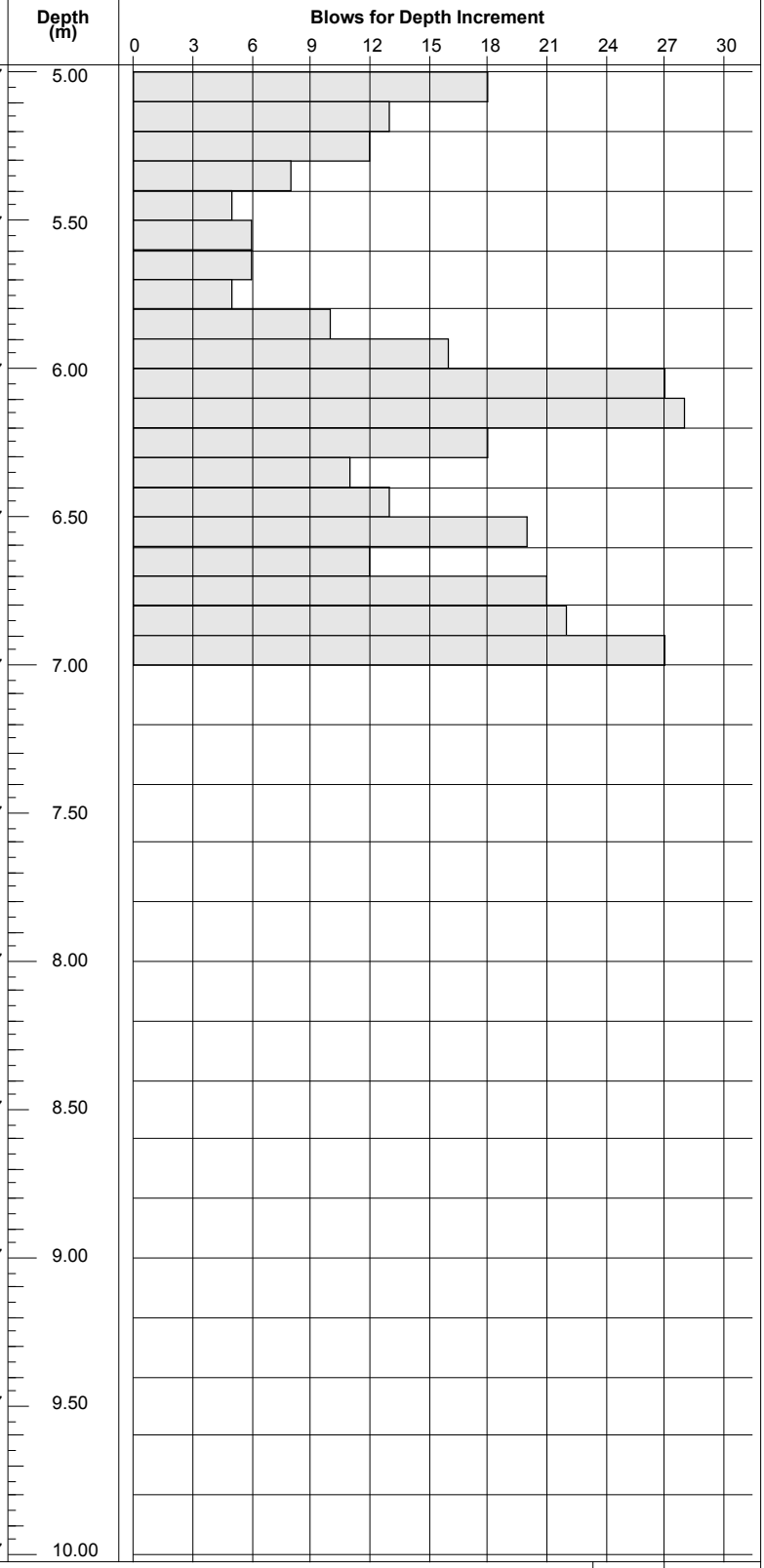
Site	Probe Number
Coolagad, Co. Wicklow	DPH13

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	64.87	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327869.3 E 213124.8 N	24/08/2017	Roughan and O'Donovan	2/2

Depth (m)	Blows for Depth Increment	Field Records
5.00-5.10	18	
5.10-5.20	13	
5.20-5.30	12	
5.30-5.40	8	
5.40-5.50	5	
5.50-5.60	6	
5.60-5.70	6	
5.70-5.80	5	
5.80-5.90	10	
5.90-6.00	16	
6.00-6.10	27	
6.10-6.20	28	
6.20-6.30	18	
6.30-6.40	11	
6.40-6.50	13	
6.50-6.60	20	
6.60-6.70	12	
6.70-6.80	21	
6.80-6.90	22	
6.90-7.00	27	



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPh13

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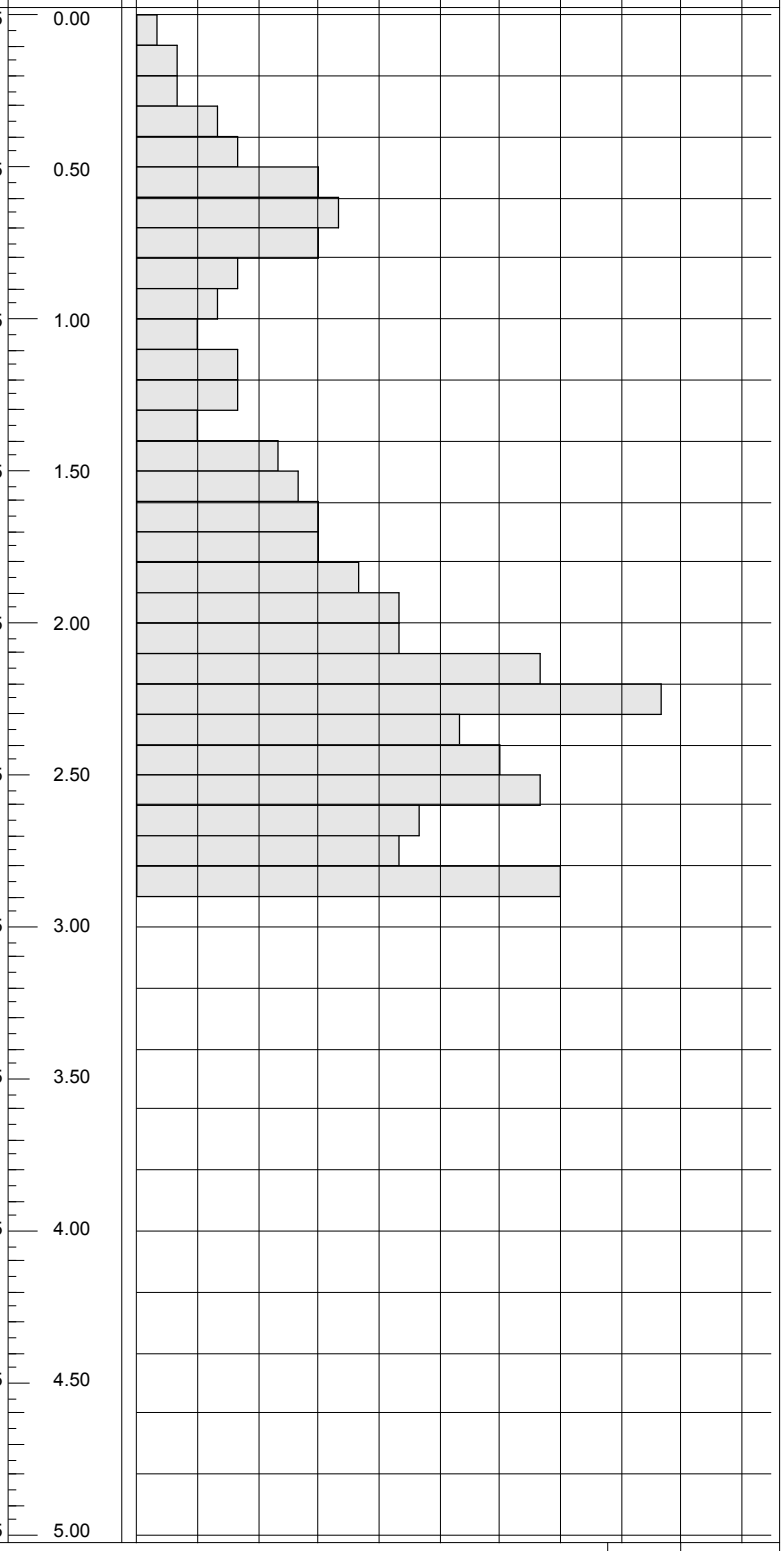
Site	Probe Number
Coolagad, Co. Wicklow	DPH14

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	87.15	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327686.7 E 212753.9 N	25/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records
0.00-0.10	1	
0.10-0.20	2	
0.20-0.30	2	
0.30-0.40	4	
0.40-0.50	5	
0.50-0.60	9	
0.60-0.70	10	
0.70-0.80	9	
0.80-0.90	5	
0.90-1.00	4	
1.00-1.10	3	
1.10-1.20	5	
1.20-1.30	5	
1.30-1.40	3	
1.40-1.50	7	
1.50-1.60	8	
1.60-1.70	9	
1.70-1.80	9	
1.80-1.90	11	
1.90-2.00	13	
2.00-2.10	13	
2.10-2.20	20	
2.20-2.30	26	
2.30-2.40	16	
2.40-2.50	18	
2.50-2.60	20	
2.60-2.70	14	
2.70-2.80	13	
2.80-2.90	21	



Remarks

Refusal at 2.90m BGL 25 blows for 50mm

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH14

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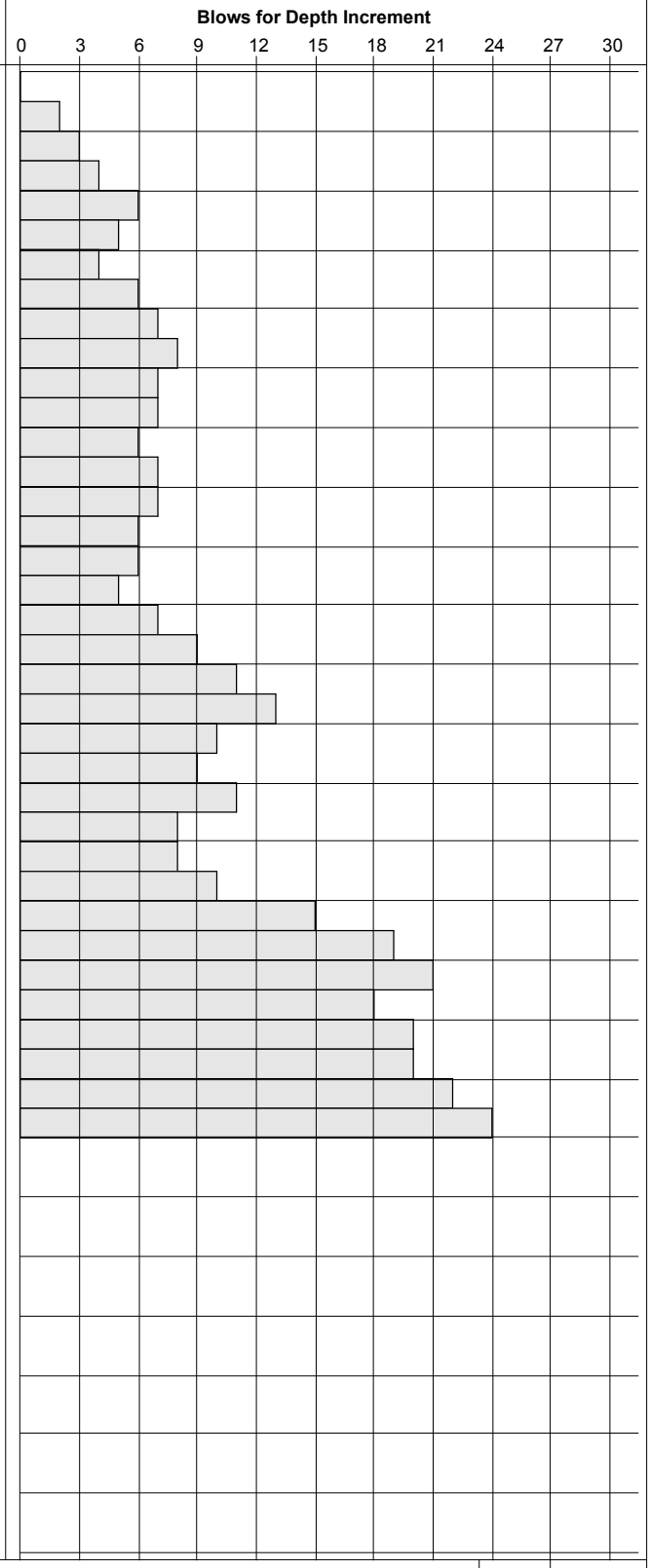
Site	Probe Number
Coolagad, Co. Wicklow	DPH15

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	86.53	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327723.7 E 212647.3 N	25/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)	Depth (m)
0.00-0.10	0		86.53	0.00
0.10-0.20	2			
0.20-0.30	3			
0.30-0.40	4			
0.40-0.50	6			
0.50-0.60	5		86.03	0.50
0.60-0.70	4			
0.70-0.80	6			
0.80-0.90	7			
0.90-1.00	8			
1.00-1.10	7		85.53	1.00
1.10-1.20	7			
1.20-1.30	6			
1.30-1.40	7			
1.40-1.50	7			
1.50-1.60	6		85.03	1.50
1.60-1.70	6			
1.70-1.80	5			
1.80-1.90	7			
1.90-2.00	9			
2.00-2.10	11		84.53	2.00
2.10-2.20	13			
2.20-2.30	10			
2.30-2.40	9			
2.40-2.50	11			
2.50-2.60	8		84.03	2.50
2.60-2.70	8			
2.70-2.80	10			
2.80-2.90	15			
2.90-3.00	19			
3.00-3.10	21		83.53	3.00
3.10-3.20	18			
3.20-3.30	20			
3.30-3.40	20			
3.40-3.50	22			
3.50-3.60	24		83.03	3.50
			82.53	4.00
			82.03	4.50
			81.53	5.00



Remarks

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH15

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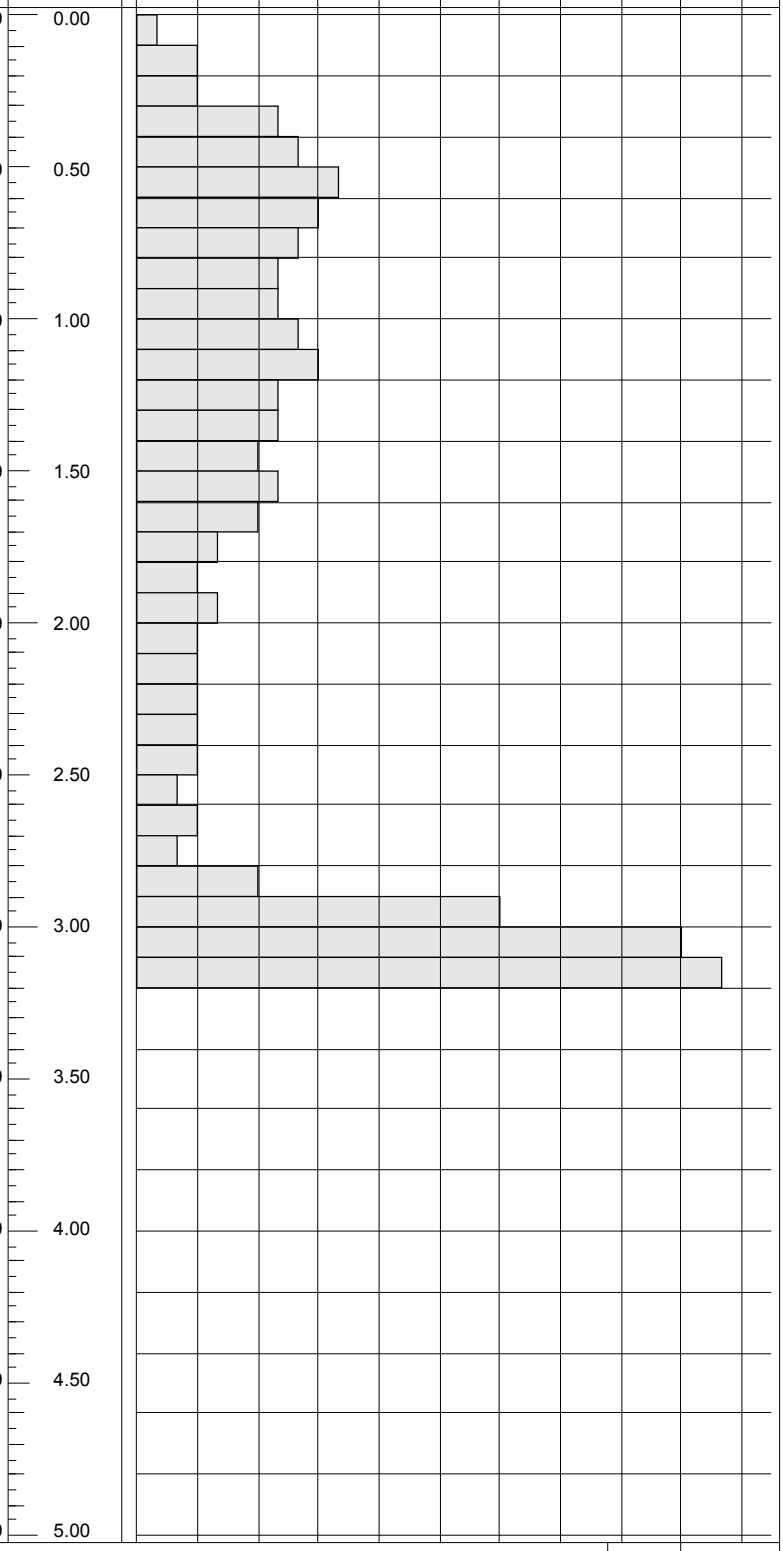
Site	Probe Number
Coolagad, Co. Wicklow	DPH16

Method	Cone Dimensions	Ground Level (mOD)	Client	Job Number
Dynamic Probe DPH, Fall Height 500mm, Hammer wt 50kg.	Diameter 43.7mm	84.09	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327682.6 E 212813.5 N	25/08/2017	Roughan and O'Donovan	1/1

Depth (m)	Blows for Depth Increment	Field Records
0.00-0.10	1	
0.10-0.20	3	
0.20-0.30	3	
0.30-0.40	7	
0.40-0.50	8	
0.50-0.60	10	
0.60-0.70	9	
0.70-0.80	8	
0.80-0.90	7	
0.90-1.00	7	
1.00-1.10	8	
1.10-1.20	9	
1.20-1.30	7	
1.30-1.40	7	
1.40-1.50	6	
1.50-1.60	7	
1.60-1.70	6	
1.70-1.80	4	
1.80-1.90	3	
1.90-2.00	4	
2.00-2.10	3	
2.10-2.20	3	
2.20-2.30	3	
2.30-2.40	3	
2.40-2.50	3	
2.50-2.60	2	
2.60-2.70	3	
2.70-2.80	2	
2.80-2.90	6	
2.90-3.00	18	
3.00-3.10	27	
3.10-3.20	29	



Remarks
Refusal at 3.20m BGL 25 blows for 50mm

Scale (approx)	Logged By
1:25	ROT

Figure No. 6994-08-17.DPH16

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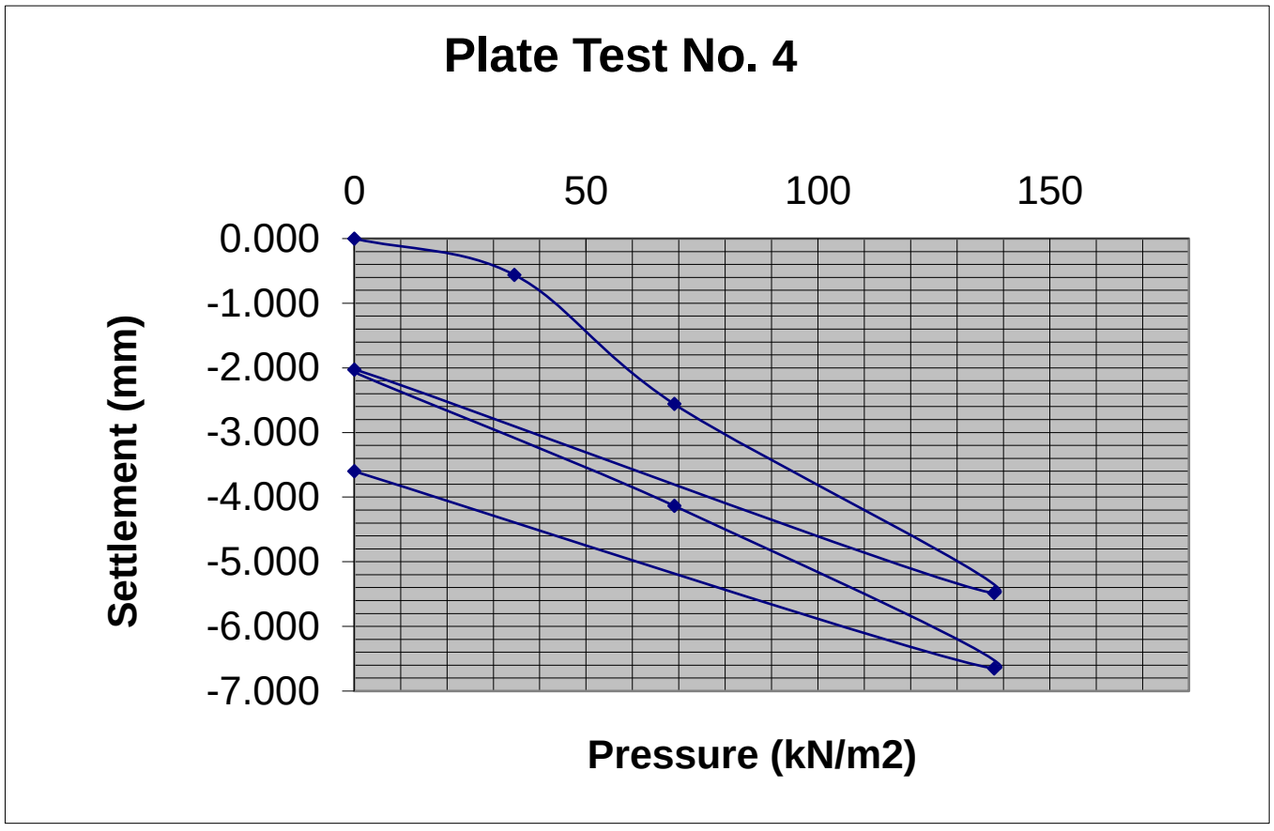
APPENDIX 5 – Plate Test Records

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.56
69	-2.56
138	-5.485
0	-2.025
69	-4.135
138	-6.65
0	-3.6

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 4	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **18.21 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **22.10 MN/m2/m**

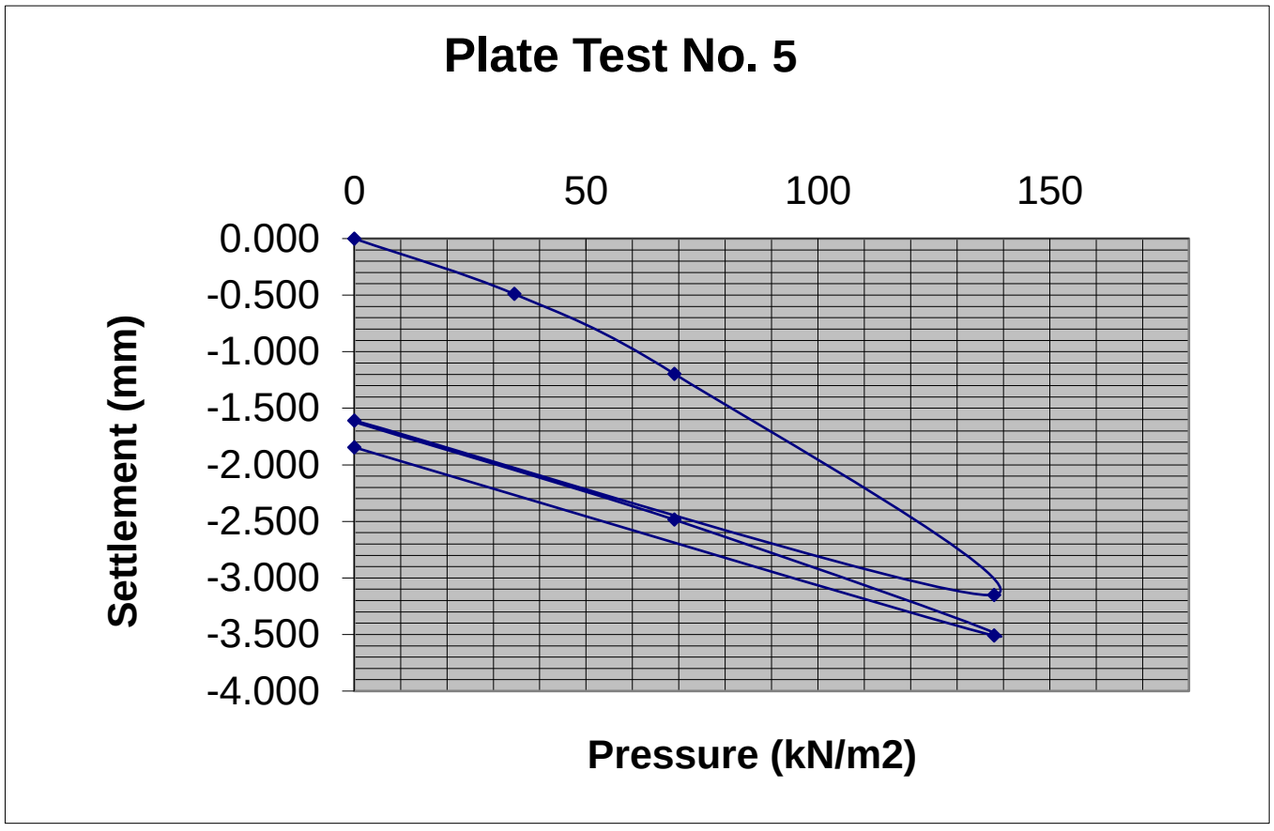
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **1.47 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **2.06 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.49
69	-1.195
138	-3.15
0	-1.61
69	-2.485
138	-3.51
0	-1.845

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 5	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **39.02 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **53.28 MN/m2/m**

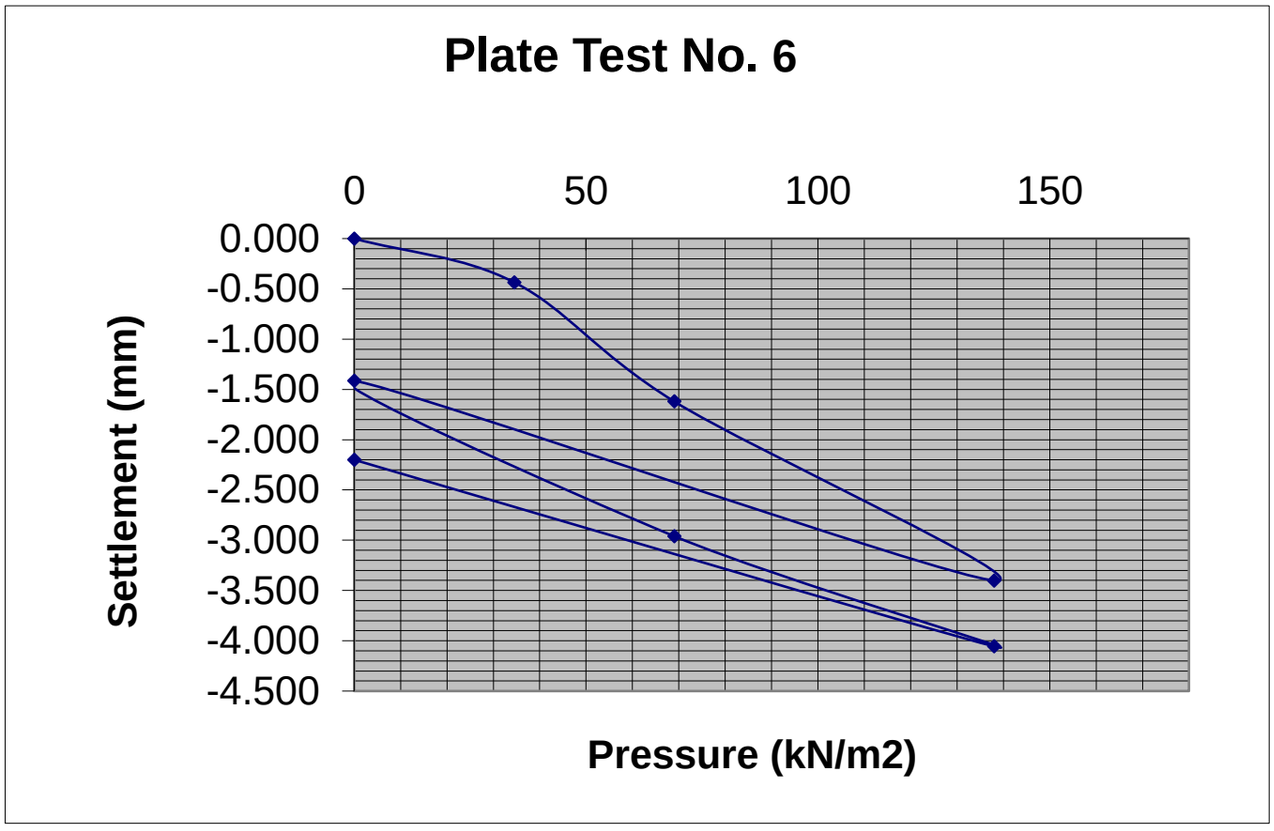
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **5.52 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **9.47 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.435
69	-1.62
138	-3.4
0	-1.415
69	-2.96
138	-4.055
0	-2.2

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 6	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **28.78 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **30.18 MN/m2/m**

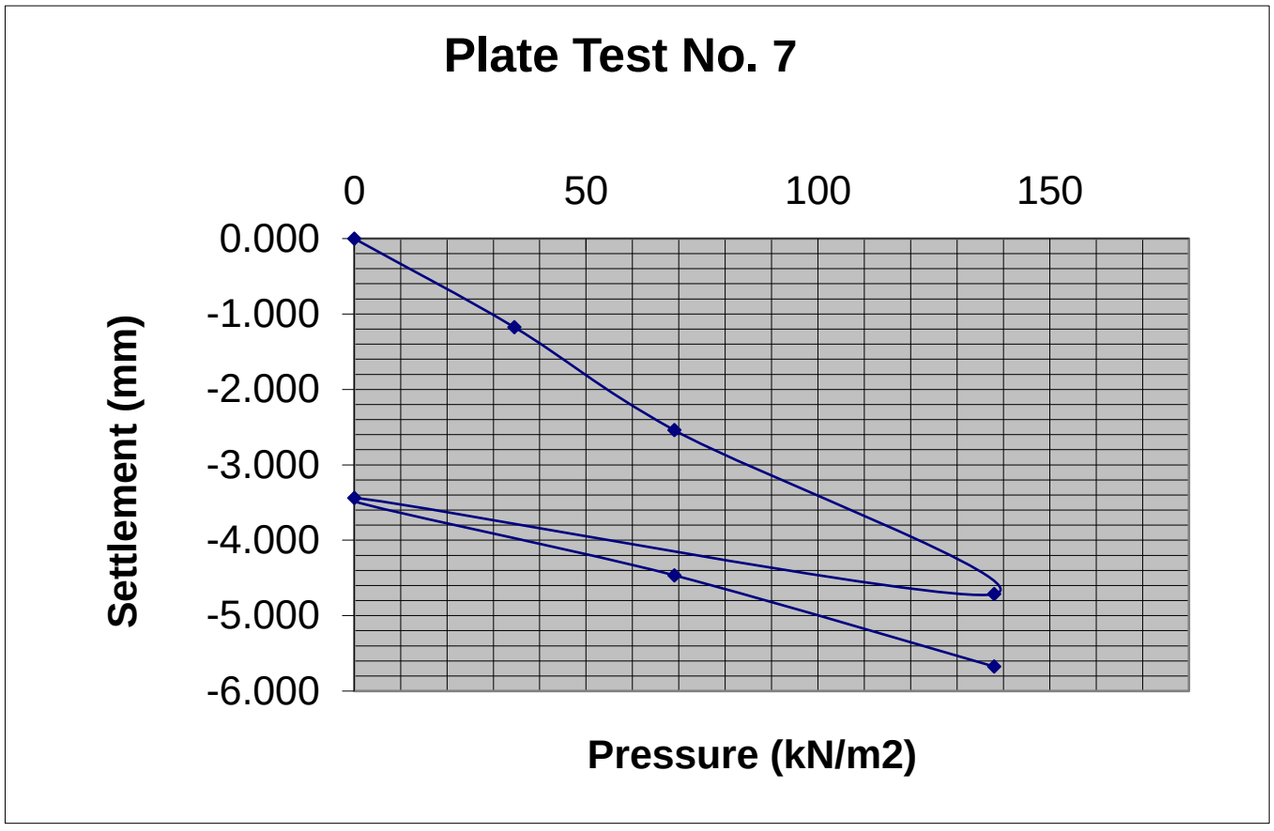
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **3.26 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **3.54 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-1.175
69	-2.54
138	-4.715
0	-3.44
69	-4.465
138	-5.675
0	

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 7	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **18.36 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **45.49 MN/m2/m**

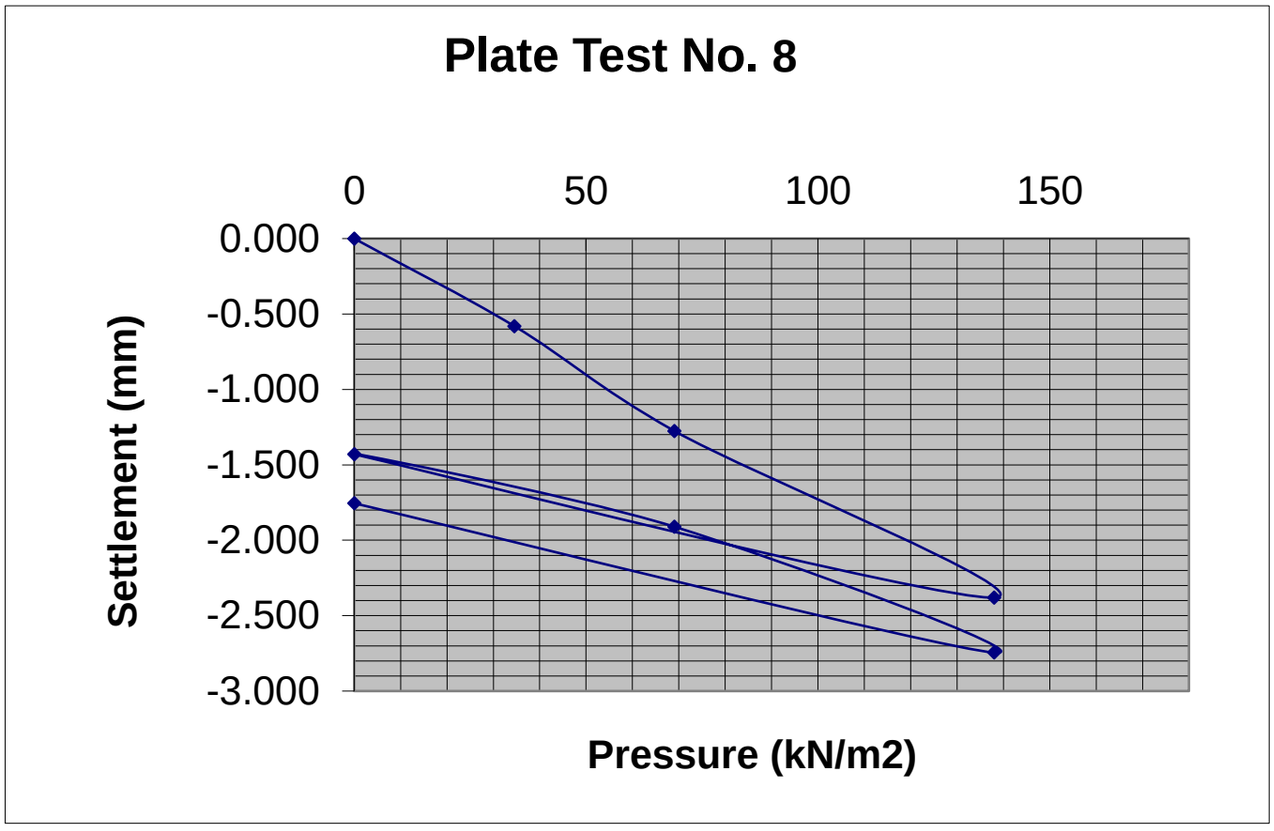
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **1.49 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **7.20 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.58
69	-1.275
138	-2.38
0	-1.43
69	-1.91
138	-2.745
0	-1.755

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 8	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **36.57 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **97.13 MN/m2/m**

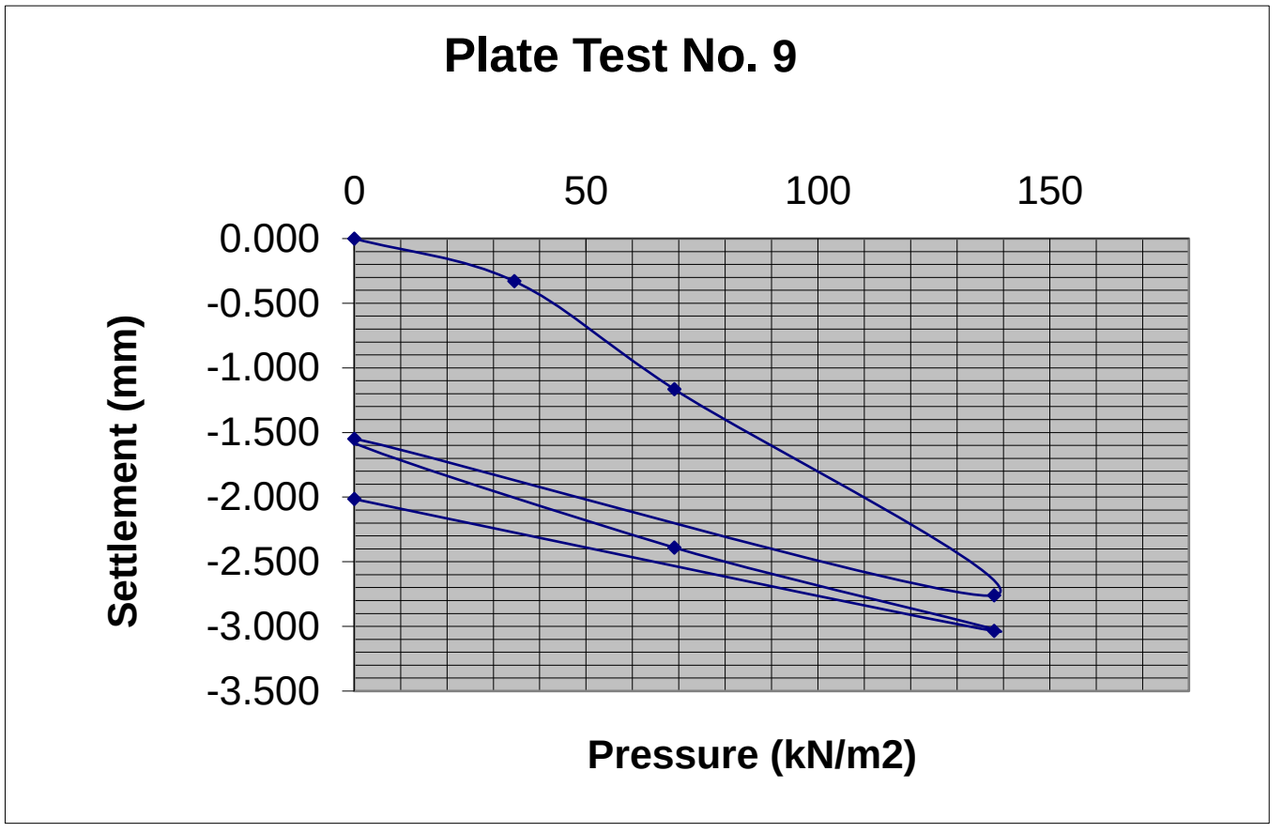
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **4.93 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **26.82 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.33
69	-1.165
138	-2.76
0	-1.55
69	-2.39
138	-3.035
0	-2.015

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 9	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **40.02 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **55.50 MN/m2/m**

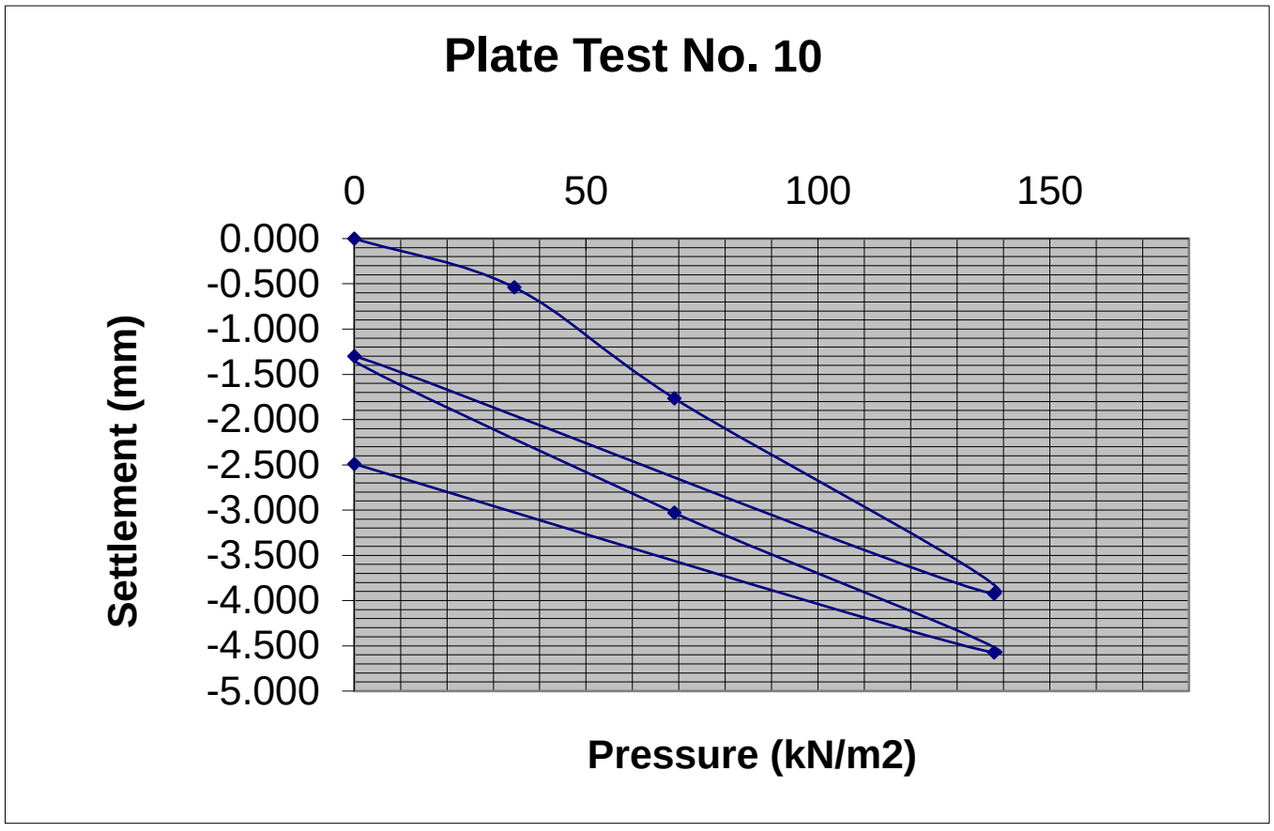
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **5.77 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **10.17 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.54
69	-1.765
138	-3.925
0	-1.3
69	-3.03
138	-4.575
0	-2.49

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 10	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **26.42 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **26.95 MN/m2/m**

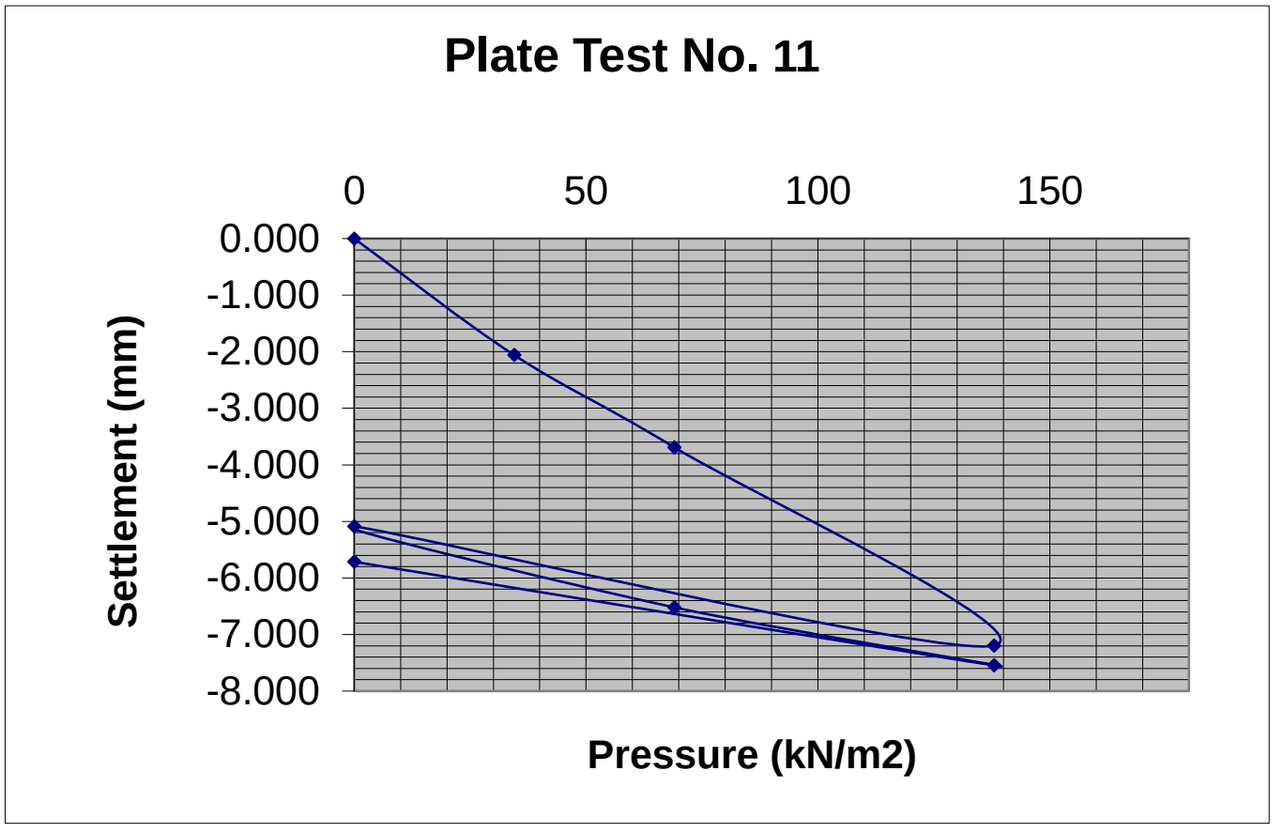
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **2.81 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **2.91 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-2.06
69	-3.69
138	-7.195
0	-5.09
69	-6.52
138	-7.545
0	-5.715

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 11	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **12.64 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **32.60 MN/m2/m**

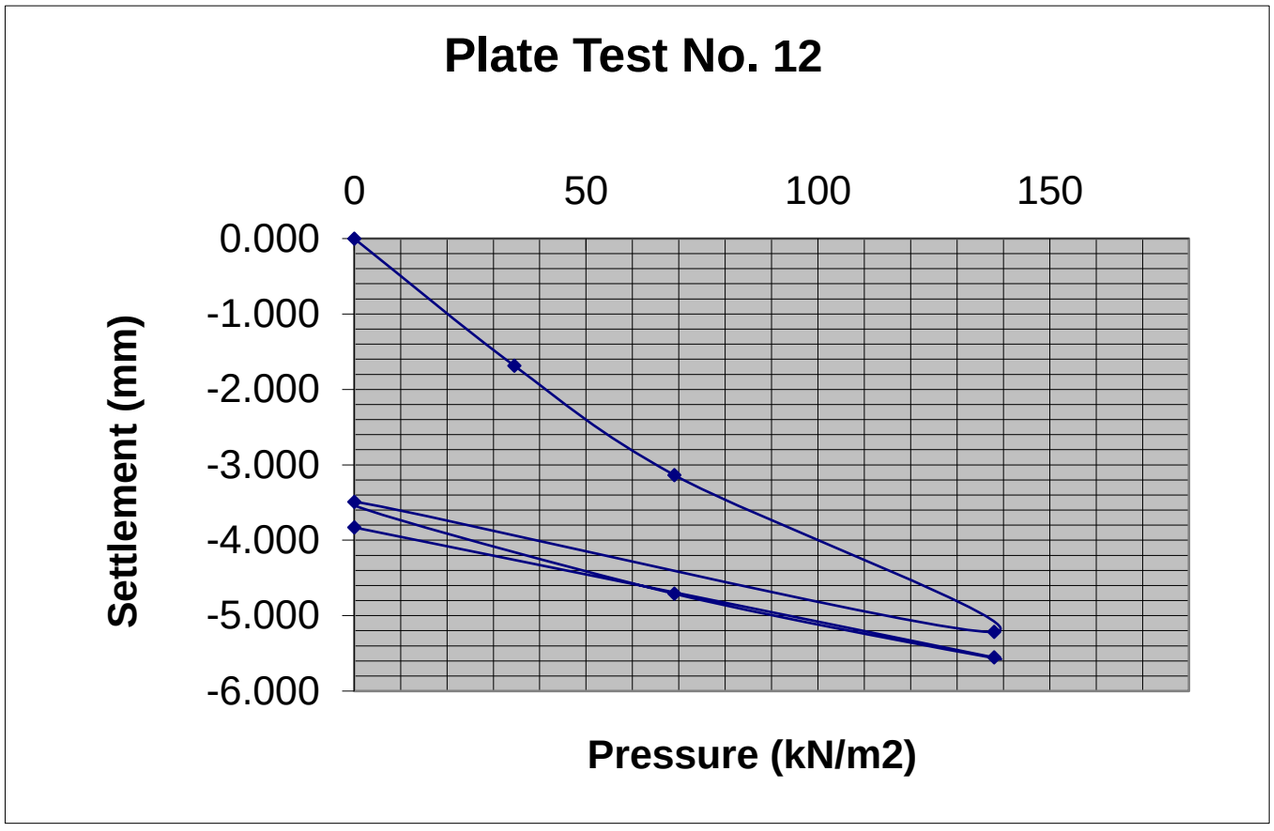
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **0.78 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **4.04 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-1.685
69	-3.135
138	-5.215
0	-3.49
69	-4.71
138	-5.555
0	-3.83

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 12	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **14.87 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **38.22 MN/m2/m**

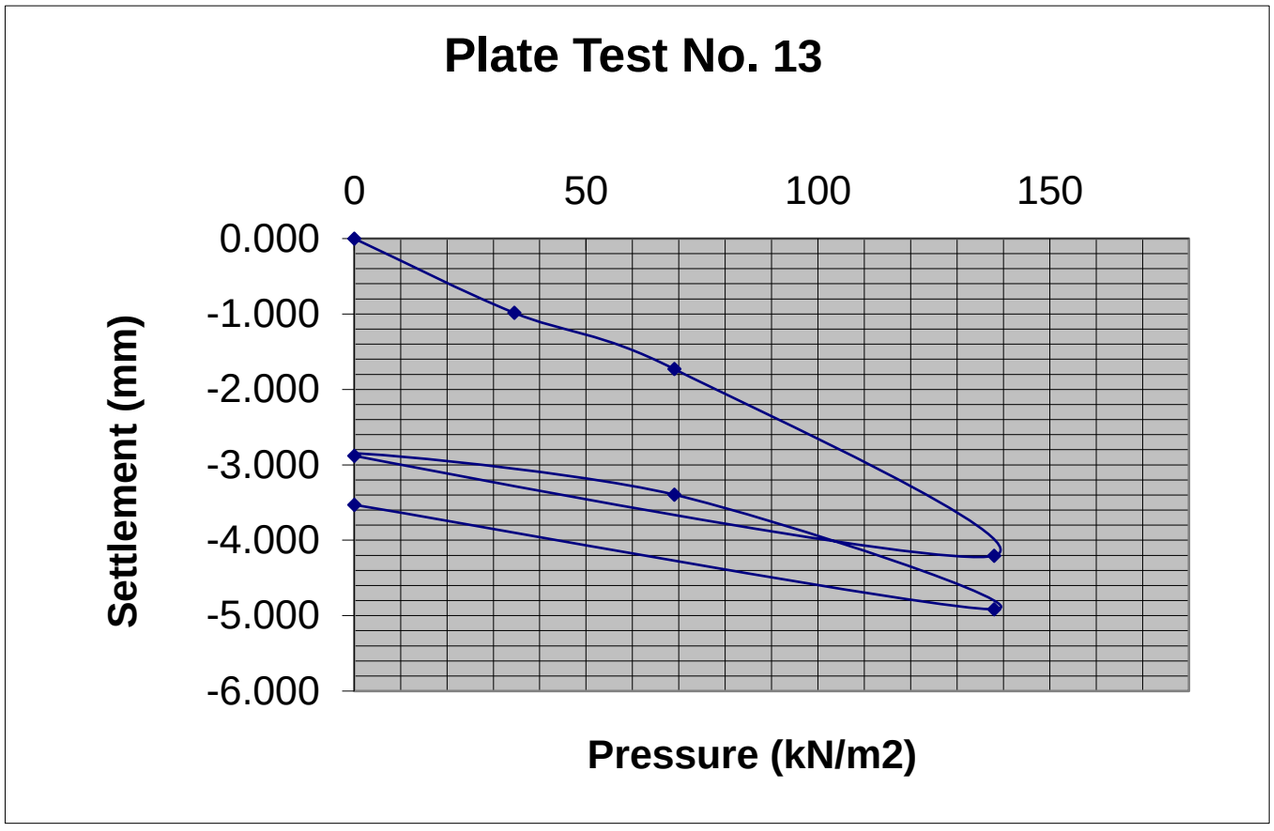
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **1.04 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **5.33 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.985
69	-1.73
138	-4.205
0	-2.88
69	-3.395
138	-4.915
0	-3.53

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 13	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **26.95 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **90.53 MN/m2/m**

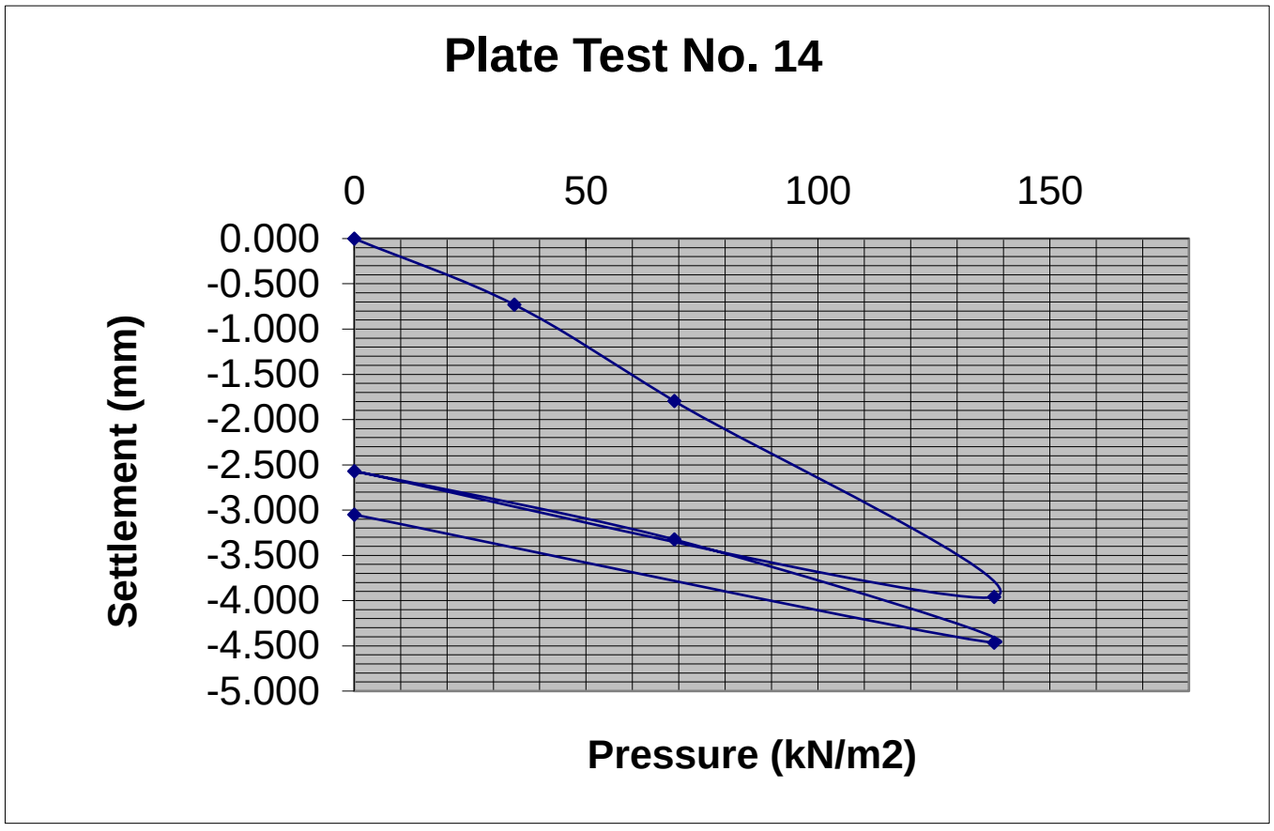
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **2.91 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **23.74 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.73
69	-1.795
138	-3.96
0	-2.57
69	-3.325
138	-4.465
0	-3.05

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 14	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **25.97 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **61.75 MN/m2/m**

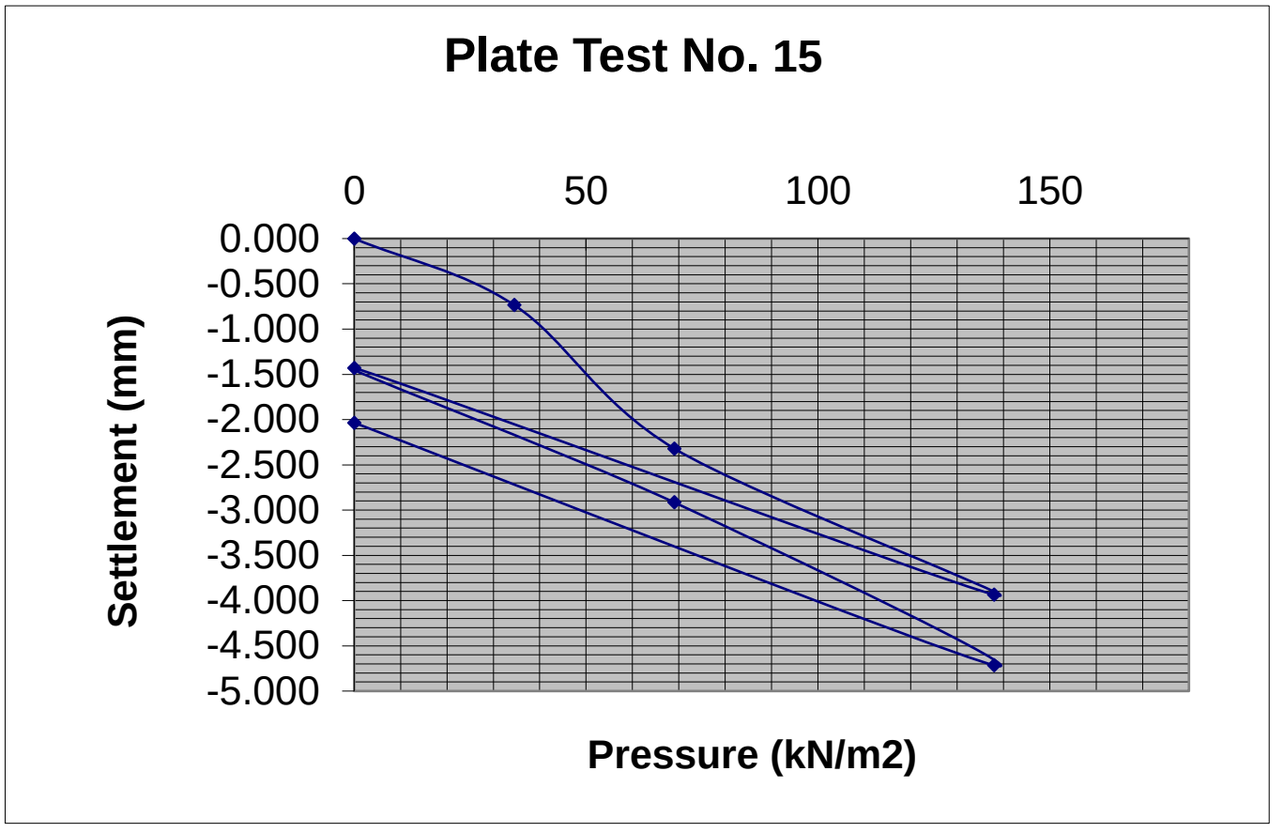
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **2.73 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **12.23 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.735
69	-2.32
138	-3.935
0	-1.43
69	-2.915
138	-4.715
0	-2.035

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 15	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **20.10 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **31.40 MN/m2/m**

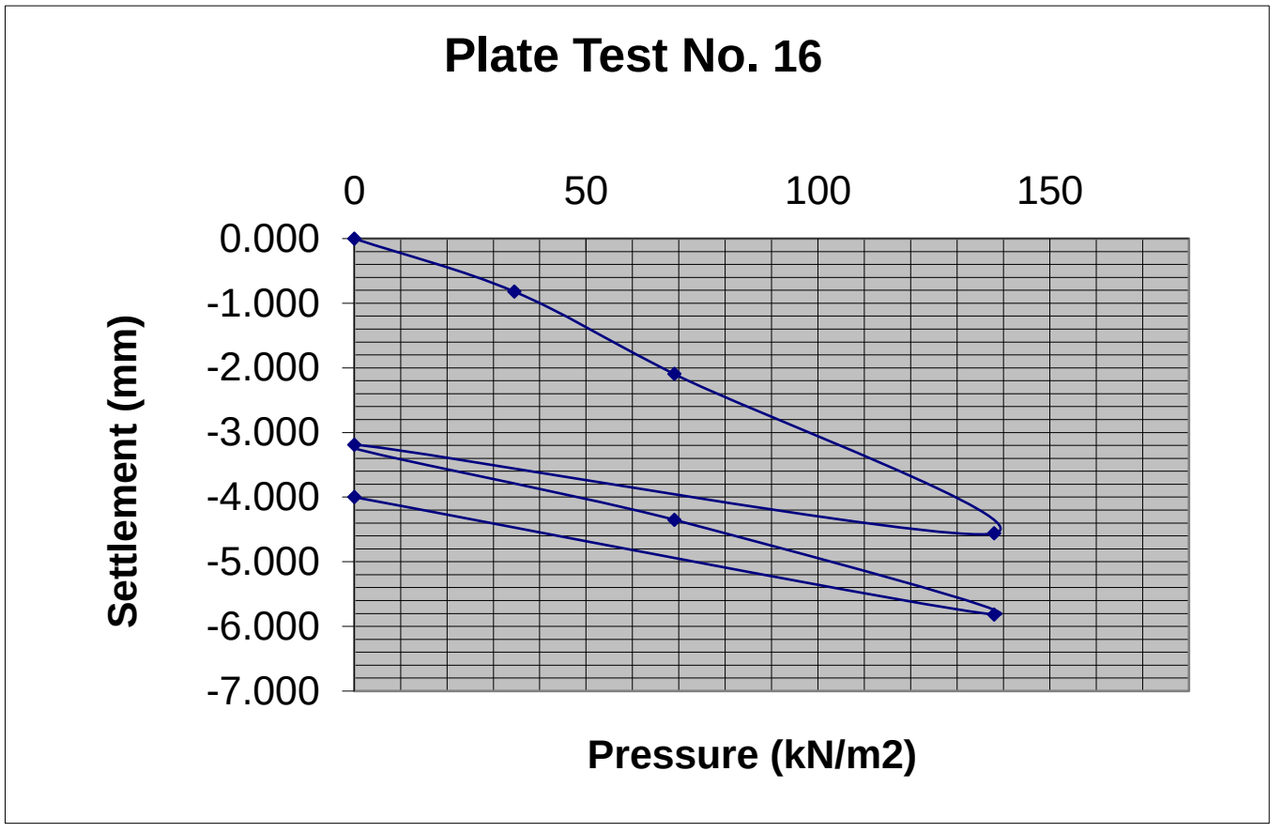
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **1.75 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **3.79 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.82
69	-2.095
138	-4.56
0	-3.19
69	-4.35
138	-5.815
0	-4

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 16	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **22.25 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **40.19 MN/m2/m**

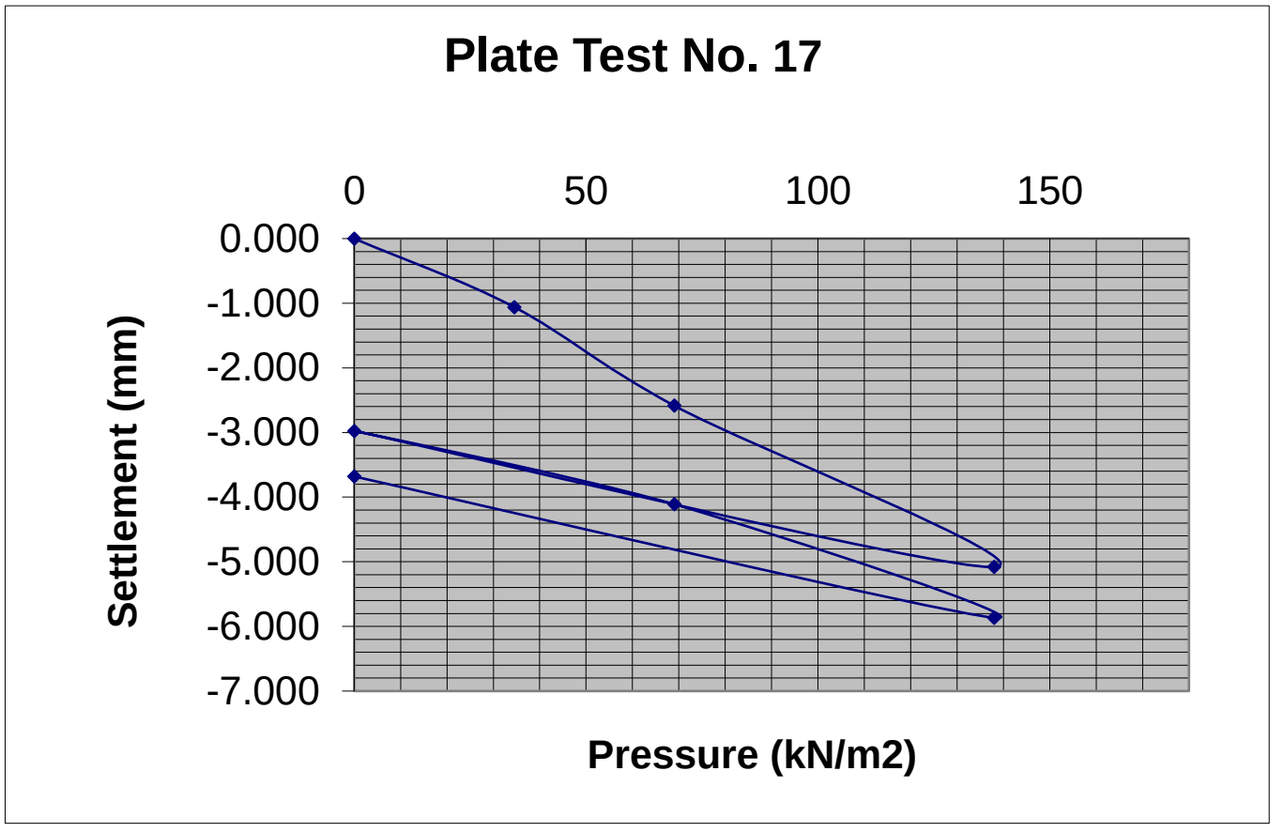
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **2.09 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **5.81 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-1.06
69	-2.585
138	-5.08
0	-2.975
69	-4.11
138	-5.865
0	-3.68

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 17	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **18.04 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **41.08 MN/m2/m**

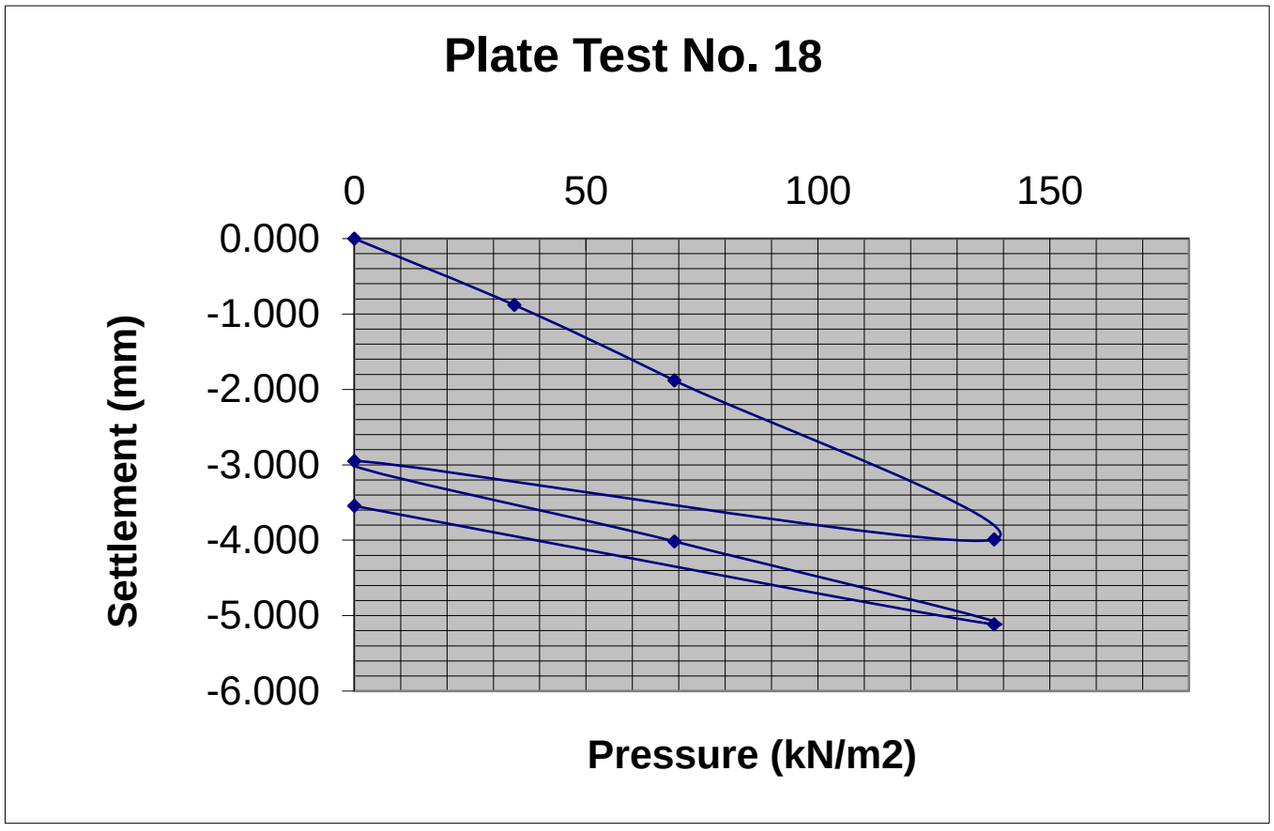
Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **1.45 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **6.04 %**

Coolagad, Co. Wicklow

Applied Load	Gauge settlement
0	**0.000**
34.5	-0.88
69	-1.88
138	-3.99
0	-2.95
69	-4.015
138	-5.115
0	-3.545

LOCATION	Coolagad, Co. Wicklow	**MATERIAL**	Brown sandy gravelly CLAY
CONTRACT NO.	6994-08-17		
DATE			
CLIENT	R.O.D	**DEPTH**	0.30 m BGL
PLATE DIAMETER	457mm	**NOTES**	
TEST NO.	Test 18	**SAMPLES**	



Modulus of subgrade reaction, K (Initial) = **24.80 MN/m2/m**

Modulus of subgrade reaction, K (Reload) = **43.78 MN/m2/m**

Equivalent CBR(initial)in accordance with HD25/94 volume7 section2 = **2.52 %**

Equivalent CBR(reload)in accordance with HD25/94 volume7 section2 = **6.74 %**

APPENDIX 6 – Cable Percussion Borehole Records

Ground Investigations Ireland Ltd
www.gii.ie

Site	Borehole Number
Coolagad, Co. Wicklow	BH01

Machine : Dando 2000	Casing Diameter	Ground Level (mOD)	Client	Job Number
Method : Cable Percussion	200mm cased to 3.50m	86.62	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327613.5 E 212895 N	22/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					86.42	(0.20) 0.20	TOPSOIL		
						(0.80)	Very soft brown sandy gravelly CLAY with occasional cobbles		
1.00-1.45 1.00	SPT(C) N=2 B			1,0/1,0,0,1	85.62	1.00	Soft brown sandy gravelly silty CLAY with frequent cobbles		
2.00-2.45 2.00	SPT(C) N=7 B			1,1/2,1,2,2		(2.00)	becoming soft to firm below 2.0m BGL		
3.00-3.38 3.00	SPT(C) 50/225 B			2,3/3,3,44	83.62	3.00	Stiff brown slightly sandy gravelly CLAY with occasional cobbles		
						(0.45)			
3.50	B				83.17 83.12	3.45 3.50	OBSTRUCTION: Presumed boulder or bedrock		
							Complete at 3.50m		

Remarks
BH terminated at 3.5m BGL - Refusal
No water observed in BH
BH backfilled on completion
Chiselling from 3.40m to 3.50m for 1 hour.

Scale (approx)	Logged By
1:50	BH01

Figure No. 6994-08-17.BH01

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Ground Investigations Ireland Ltd
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Site	Borehole Number
Coolagad, Co. Wicklow	BH02

Machine : Dando 2000	Casing Diameter	Ground Level (mOD)	Client	Job Number
Method : Cable Percussion	200mm cased to 3.80m	82.43	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327780.2 E 212604.6 N	22/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					82.23	(0.20) 0.20	TOPSOIL		
						(0.80)	Soft to firm brown sandy gravelly clayey SILT with occasional cobbles		
1.00-1.15 1.00	SPT(C) 25*/75 50/75 B			25,0/50,0,0,0	81.43	1.00	Soft brown sandy gravelly CLAY with occasional cobbles		
2.00-2.45 2.00	SPT(C) N=5 B			1,0/1,2,1,1		(2.00)			
3.00-3.45 3.00	SPT(C) N=17 B			2,3/3,4,5,5	79.43	3.00	Stiff brown slightly sandy gravelly silty CLAY with occasional cobbles		
						(0.75)			
3.80	B				78.68 78.63	3.75 3.80	OBSTRUCTION: Presumed boulder or bedrock		
							Complete at 3.80m		

Remarks
BH terminated at 3.7m BGL - Refusal
No water observed in BH
BH backfilled on completion
Installation - Slotted pipe with gravel filter - 3.70m - 1.00 m BGL, Plain pipe with bentonite seal - 1.00m - 0.00
Chiselling from 1.00m to 1.30m for 0.5 hours. Chiselling from 3.70m to 3.70m for 1 hour.

Scale (approx)	Logged By
1:50	BH01

Figure No. 6994-08-17.BH02

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Ground Investigations Ireland Ltd
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Site	Borehole Number
Coolagad, Co. Wicklow	BH03

Machine : Dando 2000	Casing Diameter	Ground Level (mOD)	Client	Job Number
Method : Cable Percussion	200mm cased to 3.60m	87.44	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327600.8 E 213207.4 N	19/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					87.34	0.10	TOPSOIL		
						(0.90)	Soft brown slightly sandy gravelly CLAY with occasional cobbles		
1.00-1.45 1.00	SPT(C) N=3 B			1,0/1,0,1,1	86.44	1.00	Soft brown sandy gravelly CLAY with occasional cobbles		
2.00-2.45 2.00	SPT(C) N=12 B			2,2/2,3,4,3		(2.00)			
3.00-3.45 3.00	SPT(C) N=14 B			2,3/3,3,4,4	84.44	3.00	Stiff brown sandy gravelly CLAY with occasional cobbles		
						(0.55)			
					83.89	3.55	OBSTRUCTION: Presumed boulder or bedrock		
					83.84	3.60	Complete at 3.60m		

Remarks
BH terminated at 3.6m BGL - Refusal
No water observed in BH
BH backfilled on completion
Installation - Slotted pipe with gravel filter - 3.60m - 1.00 m BGL, Plain pipe with bentonite seal - 1.00m - 0.00
Chiselling from 3.60m to 3.60m for 1 hour.

Scale (approx)	Logged By
1:50	RO'T

Figure No. 6994-08-17.BH03

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Ground Investigations Ireland Ltd
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Site	Borehole Number
Coolagad, Co. Wicklow	BH04

Machine : Dando 2000 Method : Cable Percussion	Casing Diameter 200mm cased to 5.50m	Ground Level (mOD) 65.94	Client Cairn Homes	Job Number 6994-08-17
	Location 327944.3 E 212651.4 N	Dates 19/09/2017	Engineer Roughan and O'Donovan	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					65.84	0.10	TOPSOIL		
						(0.90)	Firm brown sandy gravelly silty CLAY with occasional cobbles		
					64.94	1.00	Firm brown sandy gravelly CLAY with occasional cobbles		
1.00-1.45 1.00	SPT(C) N=14 B			1,2/2,4,4,4					
2.00-2.45 2.00	SPT(C) N=13 B			2,2/3,3,3,4					
						(3.00)			
3.00-3.45 3.00	SPT(C) N=9 B			1,2/1,2,3,3					
					61.94	4.00	Firm brown sandy gravelly silty CLAY with occasional cobbles		
4.00-4.45 4.00	SPT(C) N=10 B			1,2/2,2,3,3					
						(1.45)			
5.00-5.45 5.00	SPT(C) N=14 B			2,3/3,3,4,4					
					60.49	5.45	OBSTRUCTION: Presumed boulder or bedrock		
					60.44	5.50	Complete at 5.50m		

Remarks
BH terminated at 5.5m BGL - Refusal
No water observed in BH
BH backfilled on completion
Installation - Slotted pipe with gravel filter - 5.50m - 1.00 m BGL, Plain pipe with bentonite seal - 1.00m - 0.00
Chiselling from 5.50m to 5.50m for 1 hour.

Scale (approx)	Logged By
1:50	RO'T

Figure No.
6994-08-17.BH03

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Ground Investigations Ireland Ltd
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Site	Borehole Number
Coolagad, Co. Wicklow	**BH05**

Machine : Dando 2000	Casing Diameter	Ground Level (mOD)	Client	Job Number
Method : Cable Percussion	200mm cased to 3.40m	65.36	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327855.7 E 212950.4 N	20/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					65.26	0.10	TOPSOIL		
						(0.90)	Very soft brown slightly sandy gravelly CLAY with occasional cobbles		
1.00-1.45 1.00	SPT(C) N=3 B			1,0/1,1,0,1	64.36	1.00	Soft brown sandy gravelly CLAY with occasional cobbles		
2.00-2.45 2.00	SPT(C) N=7 B			1,1/2,1,2,2		(2.00)	becoming soft to firm below 2.0m		
3.00-3.45 3.00	SPT(C) N=11 B			2,23/3,2,3,3	62.36	3.00	Firm brown sandy gravelly CLAY with occasional cobbles		
						(0.35)			
					62.01	3.35	OBSTRUCTION: Presumed boulder or bedrock		
					61.96	3.40	Complete at 3.40m		

Remarks
BH terminated at 3.40m BGL - Refusal
No water observed in BH
BH backfilled on completion
Installation - Slotted pipe with gravel filter - 3.40m - 1.00 m BGL, Plain pipe with bentonite seal - 1.00m - 0.00
Chiselling from 3.40m to 3.40m for 1 hour.

Scale (approx)	Logged By
1:50	RO'T

Figure No. 6994-08-17.BH05

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Ground Investigations Ireland Ltd

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Site	Borehole Number
Coolagad, Co. Wicklow	BH06

Machine : Dando 2000	Casing Diameter	Ground Level (mOD)	Client	Job Number
Method : Cable Percussion	200mm cased to 5.40m	64.45	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	327869.2 E 213181.1 N	18/09/2017-19/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					64.35	0.10	TOPSOIL		
						(0.90)	Firm brown sandy gravelly silty CLAY with occasional cobbles		
1.00-1.45 1.00	SPT(C) N=12 B			1,2/2,4,3,3	63.45	1.00	Firm to stiff brown slightly sandy gravelly CLAY with occasional cobbles		
2.00-2.45 2.00	SPT(C) N=16 B			2,2/4,4,4,4		(2.00)			
3.00-3.45 3.00	SPT(C) N=18 B			3,4/5,4,4,5	61.45	3.00	Stiff brown sandy gravelly silty CLAY with occasional cobbles		
4.00-4.23 4.00	SPT(C) 50/75 B			4,8/50		(2.35)			
5.00-5.23 5.00	SPT(C) 50/75 B			6,19/50					
5.40	B				59.10	5.35			
					59.05	5.40	OBSTRUCTION: Presumed boulder or bedrock		
							Complete at 5.40m		

Remarks

BH terminated at 5.4m BGL - Refusal
No water observed in BH
BH backfilled on completion
Installation - Slotted pipe with gravel filter - 5.4m - 1.00 m BGL, Plain pipe with bentonite seal - 1.00m - 0.00
Chiselling from 4.20m to 4.40m for 0.5 hours. Chiselling from 5.40m to 5.40m for 1 hour.

Scale (approx)	Logged By
1:50	RO'T

Figure No. 6994-08-17.BH06

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Site	Borehole Number
Coolagad, Co. Wicklow	BH07

Machine : Dando 2000	Casing Diameter	Ground Level (mOD)	Client	Job Number
Method : Cable Percussion	200mm cased to 2.70m	55.98	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	328026.7 E 213231.4 N	18/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					55.88	0.10	TOPSOIL		
						(0.90)	Firm brown sandy gravelly CLAY with occasional cobbles		
1.00-1.45 1.00	SPT(C) N=10 B			1,2/2,2,3,3	54.98	1.00	Firm brown sandy gravelly silty CLAY with occasional cobbles		
						(1.65)			
2.00-2.45 2.00	SPT(C) N=12 B			1,2/2,3,4,3					
					53.33	2.65	OBSTRUCTION: Presumed boulder or bedrock		
					53.28	2.70	Complete at 2.70m		

Remarks
BH terminated at 2.70m BGL - Refusal
No water observed in BH
BH backfilled on completion
Chiselling from 2.70m to 2.70m for 1 hour.

Scale (approx)	Logged By
1:50	RO'T

Figure No. 6994-08-17.BH07

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Ground Investigations Ireland Ltd
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Site	Borehole Number
Coolagad, Co. Wicklow	BH08

Machine : Dando 2000	Casing Diameter	Ground Level (mOD)	Client	Job Number
Method : Cable Percussion	200mm cased to 7.60m	44.88	Cairn Homes	6994-08-17
	Location	**Dates**	**Engineer**	**Sheet**
	328193.1 E 213237.9 N	15/09/2017	Roughan and O'Donovan	1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					44.78	0.10	TOPSOIL		
						(0.40)	Firm brown sandy gravelly CLAY with occasional cobbles		
0.50	B				44.38	0.50	Firm to stiff brown sandy gravelly silty CLAY with occasional cobbles		
1.00-1.45 1.00	SPT(C) N=12 B			1,1/2,3,3,4					
						(2.50)			
2.00-2.45 2.00	SPT(C) N=14 B			2,2/3,4,3,4					
					41.88	3.00	Stiff brown sandy gravelly CLAY with occasional cobbles		
3.00-3.45 3.00	SPT(C) N=18 B			3,3/4,4,4,6					
						(1.00)			
					40.88	4.00	Stiff brown sandy gravelly silty CLAY with occasional cobbles		
4.00-4.45 4.00	SPT(C) N=21 B			3,4/4,5,6,6					
						(1.00)			▼1
				Water strike(1) at 4.70m, no rise after 20 mins.					
					39.88	5.00	Stiff brown sandy gravelly CLAY with occasional cobbles		
5.00 5.00-5.45	B SPT(C) N=24			3,3/5,6,6,7					
6.00-6.45 6.00	SPT(C) N=27 B			4,4/6,6,7,8					
						(2.55)			
7.00-7.38 7.00	SPT(C) 50/225 B			4,5/5,6,39					
					37.33	7.55	OBSTRUCTION: Presumed boulder or bedrock		
					37.28	7.60	Complete at 7.60m		

Remarks
BH terminated at 7.60m BGL - Refusal
No water observed in BH
BH backfilled on completion
Chiselling from 7.40m to 7.60m for 1 hour.

Scale (approx)	Logged By
1:50	RO'T

Figure No. 6994-08-17.BH08

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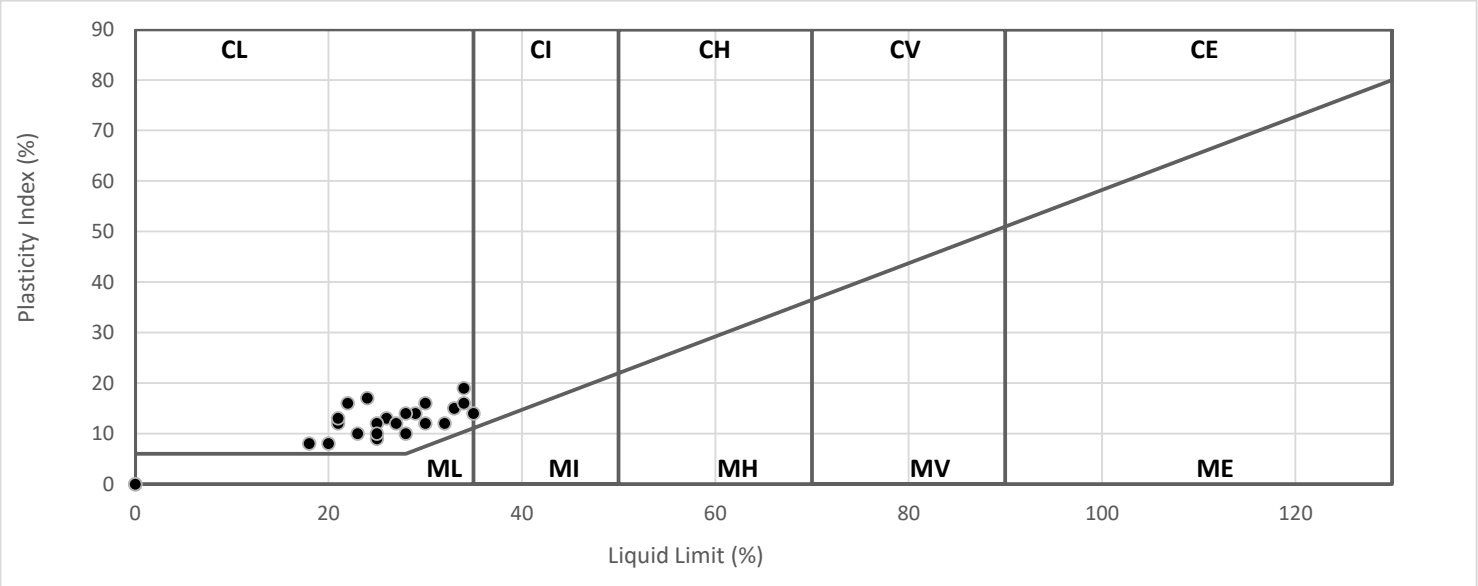
APPENDIX 7 – Laboratory Testing

GSTL	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377 : Part 2 : 1990 Method 5)	
Contract Number	**37411**	
Site Name	**Coolagad**	

Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing .425mm %	Remarks
BH01		B	1.00	-		21	30	18	12	52	CL Low Plasticity
BH01		B	3.50	-		24	35	21	14	52	CL/I Low/Inter. Plasticity
BH02		B	2.00	-		20	33	18	15	55	CL Low Plasticity
BH02		B	3.80	-		27	32	20	12	68	CL Low Plasticity
BH03		B	2.00	-		14	26	13	13	68	CL Low Plasticity
BH04		B	1.00	-		20	28	18	10	65	CL Low Plasticity
BH04		B	4.00	-		13	20	12	8	59	CL Low Plasticity
BH05		B	1.00	-		22	27	15	12	70	CL Low Plasticity
BH05		B	3.00	-		17	30	14	16	73	CL Low Plasticity
BH06		B	2.00	-		13	21	9	12	47	CL Low Plasticity
BH06		B	4.00	-		14	23	13	10	47	CL Low Plasticity
BH07		B	1.00	-		22	25	16	9	57	CL Low Plasticity
BH08		B	1.00	-		11	22	6	16	61	CL Low Plasticity
BH08		B	4.00	-		10	21	8	13	60	CL Low Plasticity
BH08		B	7.00	-		12	24	7	17	48	CL Low Plasticity
TP01		B	0.50	-		23	29	15	14	52	CL Low Plasticity
TP01		B	1.50	-		14	18	10	8	73	CL Low Plasticity
TP02		B	0.50	-		18	34	15	19	72	CL Low Plasticity
TP03		B	0.50	-		20	25	13	12	68	CL Low Plasticity
TP03		B	2.50	-		15					
TP10		B	1.50	-		23	25	15	10	67	CL Low Plasticity
TP11		B	0.50	-		20	28	14	14	61	CL Low Plasticity
TP14		B	0.50	-		24					
TP16		B	0.50	-		23	34	18	16	63	CL Low Plasticity

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:1999+A2:2010



Operators	Checked	06/12/2017	Sean Penn	
DB	Approved	07/12/2017	Ben Sharp	

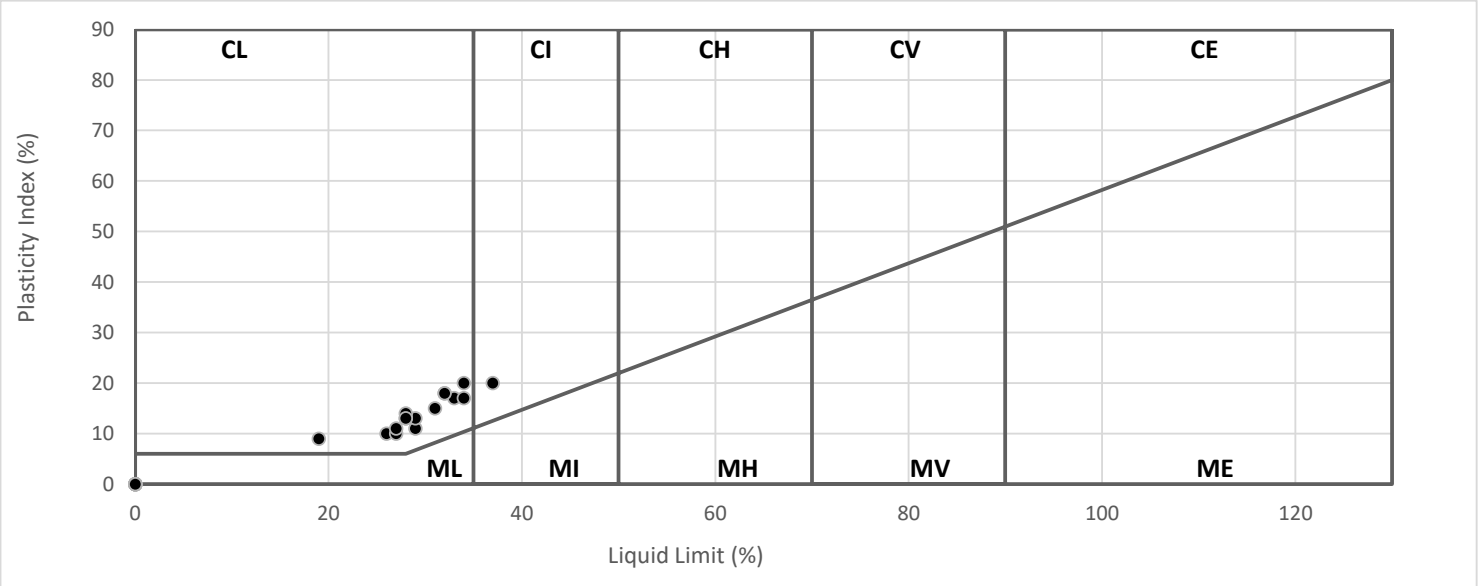
UKAS TESTING 2788

GSTL	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377 : Part 2 : 1990 Method 5)	
Contract Number	**37411**	
Site Name	**Coolagad**	

Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing .425mm %	Remarks
TP18		B	0.50	-		18	26	16	10	59	CL Low Plasticity
TP21		B	1.50	-		16	34	14	20	27	CL Low Plasticity
TP22		B	0.50	-		13					
TP22		B	2.50	-		18					
TP23		B	1.50	-		19	29	18	11	65	CL Low Plasticity
TP24		B	0.50	-		17					
TP24		B	2.50	-		21	29	16	13	78	CL Low Plasticity
TP25		B	2.50	-		14	28	15	13	40	CL Low Plasticity
TP26		B	1.50	-		21	28	14	14	60	CL Low Plasticity
TP27		B	1.50	-		18	32	14	18	65	CL Low Plasticity
TP28		B	0.50	-		22					
TP29		B	0.50	-		12	19	10	9	61	CL Low Plasticity
TP29		B	1.50	-		18	33	16	17	65	CL Low Plasticity
TP30		B	0.50	-		21					
TP30		B	2.50	-		17					
TP31		B	1.50	-		15	34	17	17	74	CL Low Plasticity
TP31		B	2.50	-		19	27	17	10	65	CL Low Plasticity
TP32		B	2.50	-		18					
TP33		B	1.50	-		14	31	16	15	48	CL Low Plasticity
TP33		B	2.50	-		15	32	14	18	78	CL Low Plasticity
TP34		B	1.50	-		20					
TP35		B	1.50	-		17	28	15	13	56	CL Low Plasticity
TP36		B	0.50	-		13	37	17	20	70	CI Intermediate Plasticity
TP37		B	0.50	-		23	27	16	11	31	CL Low Plasticity

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:1999+A2:2010



Operators	Checked	06/12/2017	Sean Penn	
DB	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377 : Part 2 : 1990 Method 5)	
Contract Number	**37411**	
Site Name	**Coolagad**	

Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing .425mm %	Remarks
TP37		B	2.50	-		9.7		NP		49	
				-							
				-							
				-							
				-							
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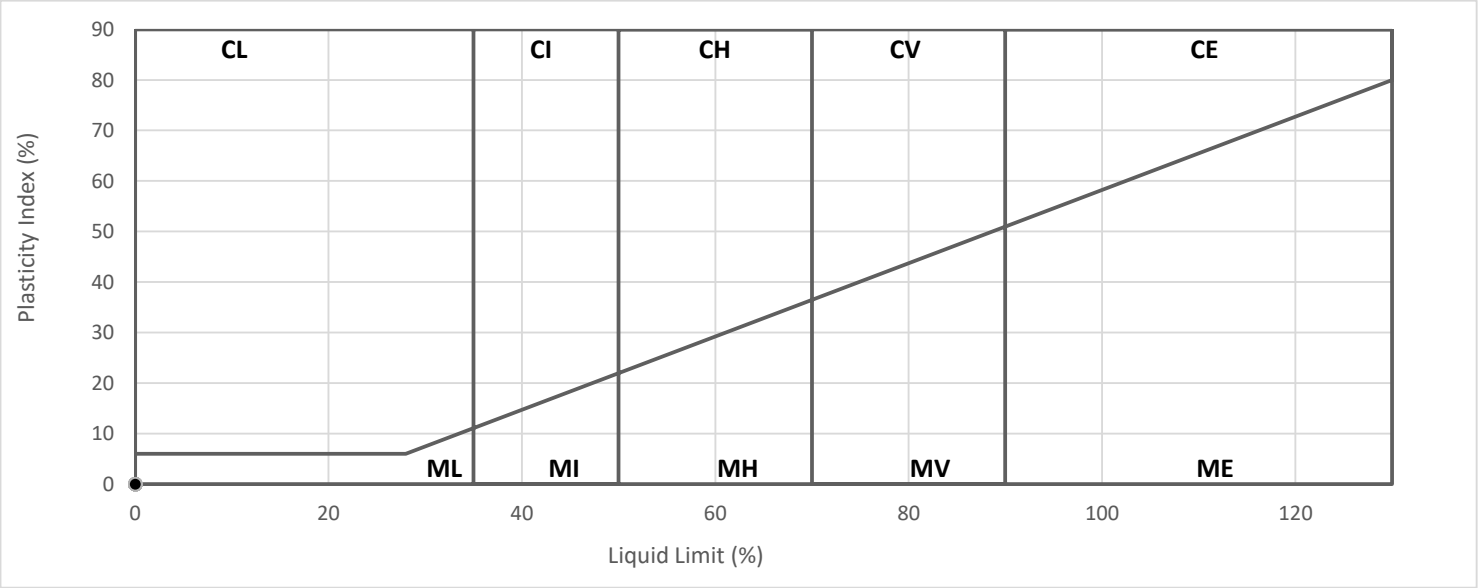
Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

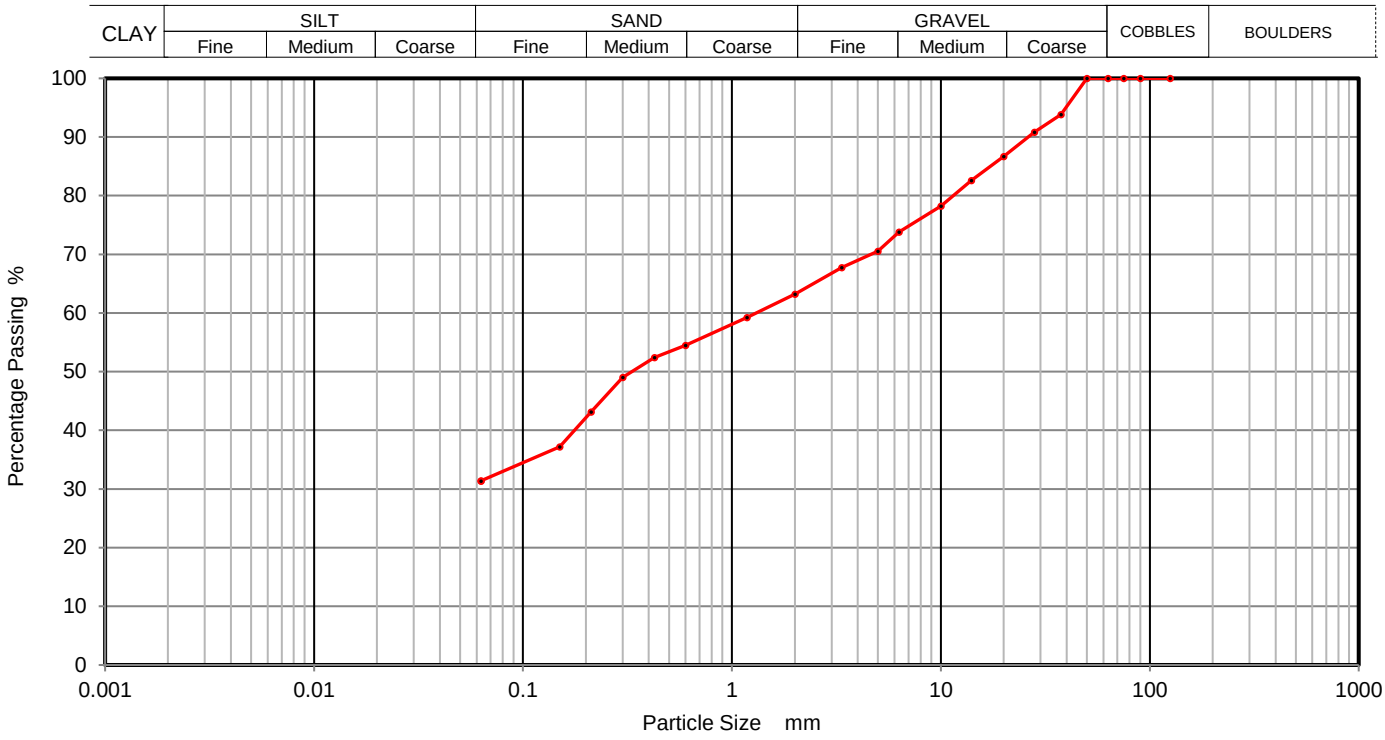
PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:1999+A2:2010



Operators	Checked	06/12/2017	Sean Penn	
DB	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH01
Site Name	Coolagad	Sample No.	
Soil Description	Brown silty clayey fine to coarse sandy fine to coarse GRAVEL	Depth Top	1.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	94		
28	91		
20	87		
14	83		
10	78		
6.3	74		
5	71		
3.35	68		
2	63		
1.18	59		
0.6	55		
0.425	52		
0.3	49		
0.212	43		
0.15	37		
0.063	31		

Sample Proportions	% dry mass
Cobbles	0
Gravel	37
Sand	32
Silt and Clay	31

Grading Analysis	
Uniformity Coefficient	

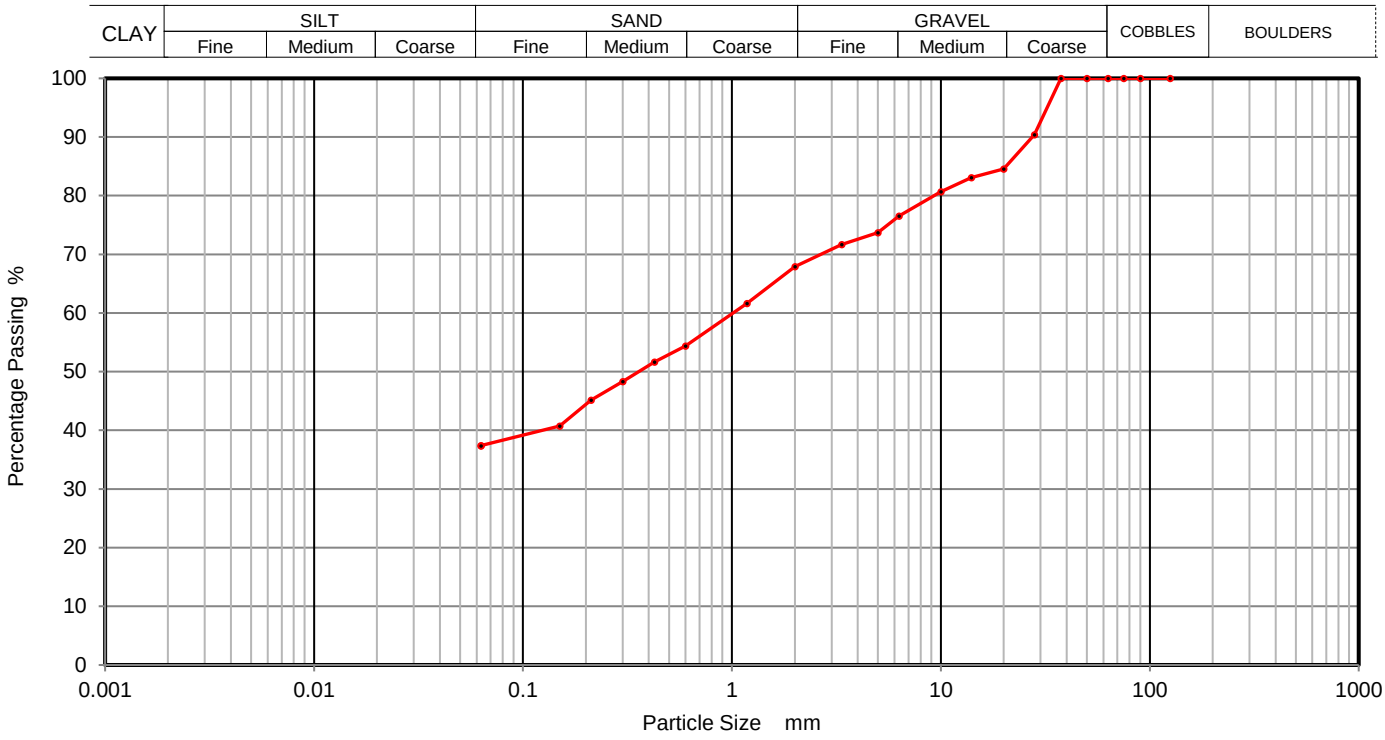
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH01
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy fine to coarse gravelly silty CLAY	Depth Top	3.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	90		
20	85		
14	83		
10	81		
6.3	77		
5	74		
3.35	72		
2	68		
1.18	62		
0.6	54		
0.425	52		
0.3	48		
0.212	45		
0.15	41		
0.063	37		

Sample Proportions	% dry mass
Cobbles	0
Gravel	32
Sand	31
Silt and Clay	37

Grading Analysis	
Uniformity Coefficient	

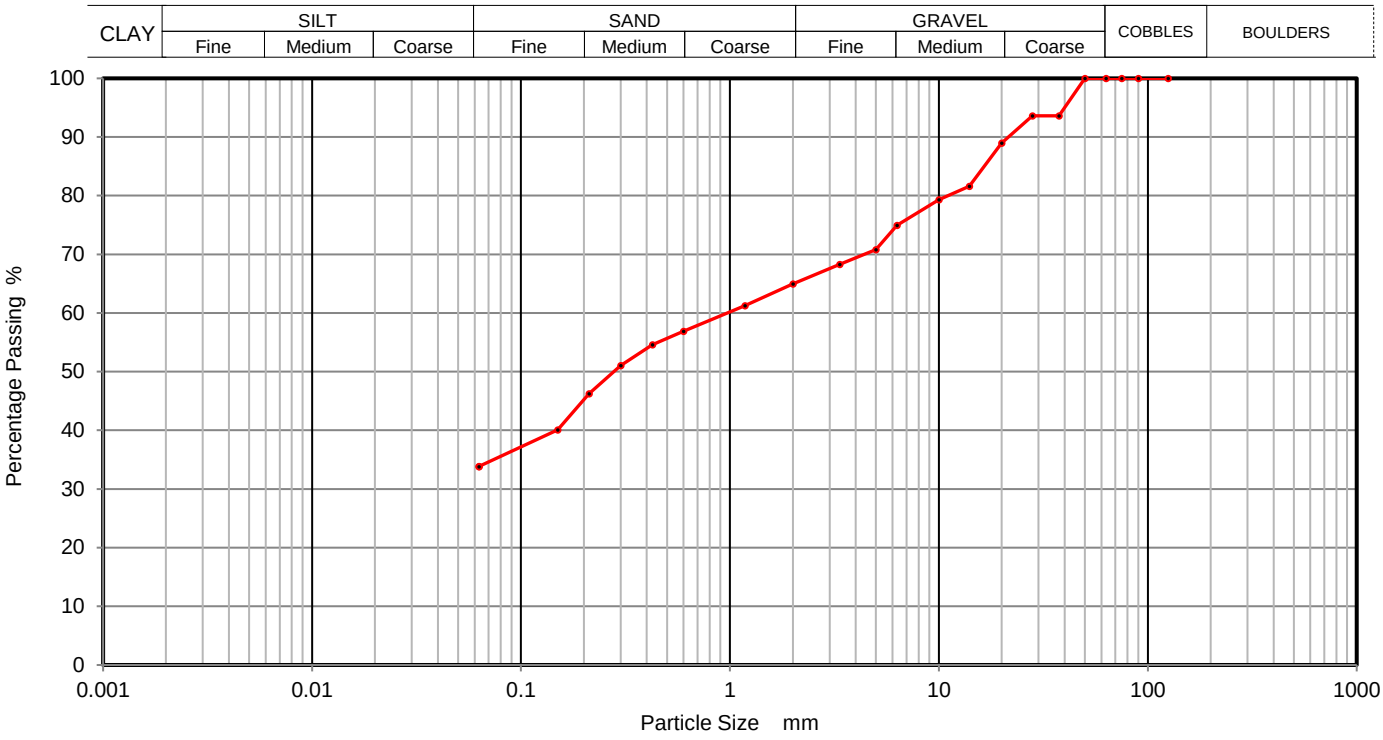
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH02
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy silty clayey fine to coarse GRAVEL	Depth Top	2.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	94		
28	94		
20	89		
14	82		
10	79		
6.3	75		
5	71		
3.35	68		
2	65		
1.18	61		
0.6	57		
0.425	55		
0.3	51		
0.212	46		
0.15	40		
0.063	34		

Sample Proportions	% dry mass
Cobbles	0
Gravel	35
Sand	31
Silt and Clay	34

Grading Analysis	
Uniformity Coefficient	

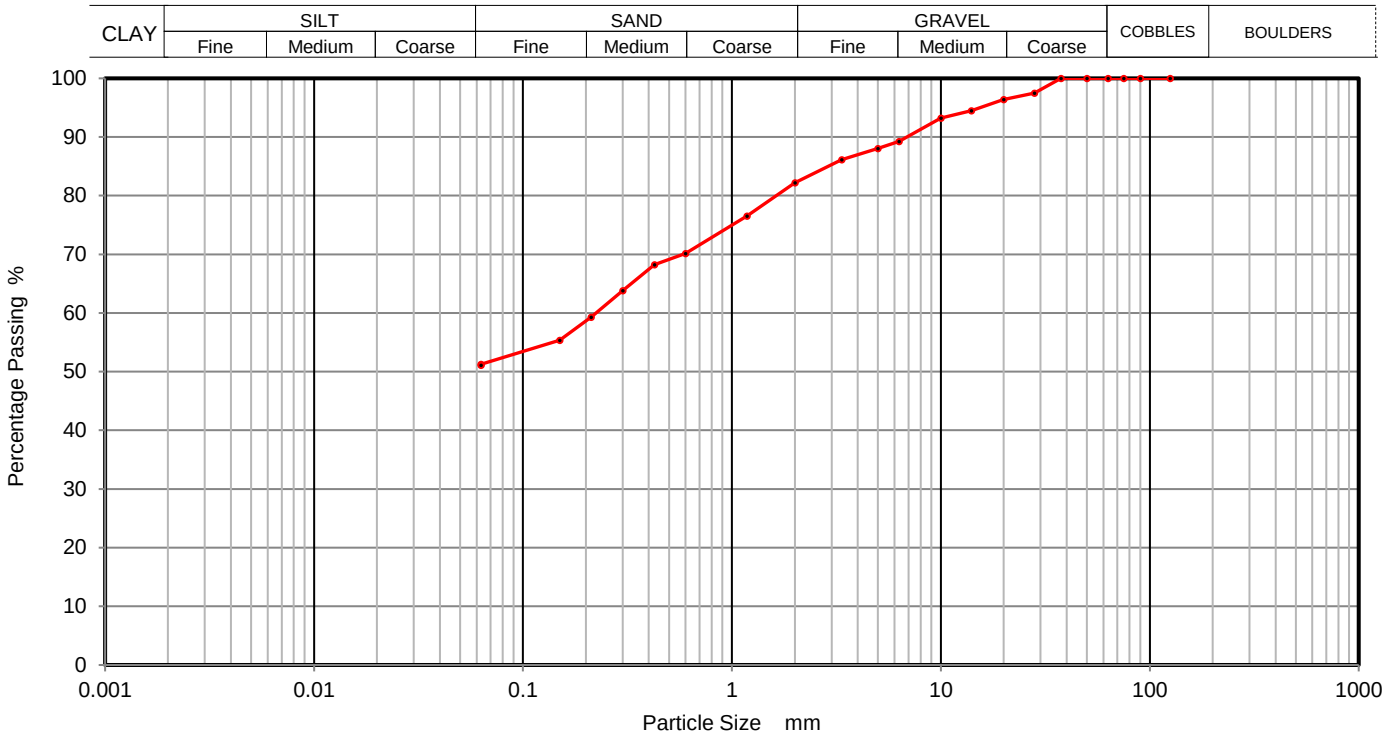
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH02
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	3.80
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	97		
20	96		
14	95		
10	93		
6.3	89		
5	88		
3.35	86		
2	82		
1.18	77		
0.6	70		
0.425	68		
0.3	64		
0.212	59		
0.15	55		
0.063	51		

Sample Proportions	% dry mass
Cobbles	0
Gravel	18
Sand	31
Silt and Clay	51

Grading Analysis	
Uniformity Coefficient	

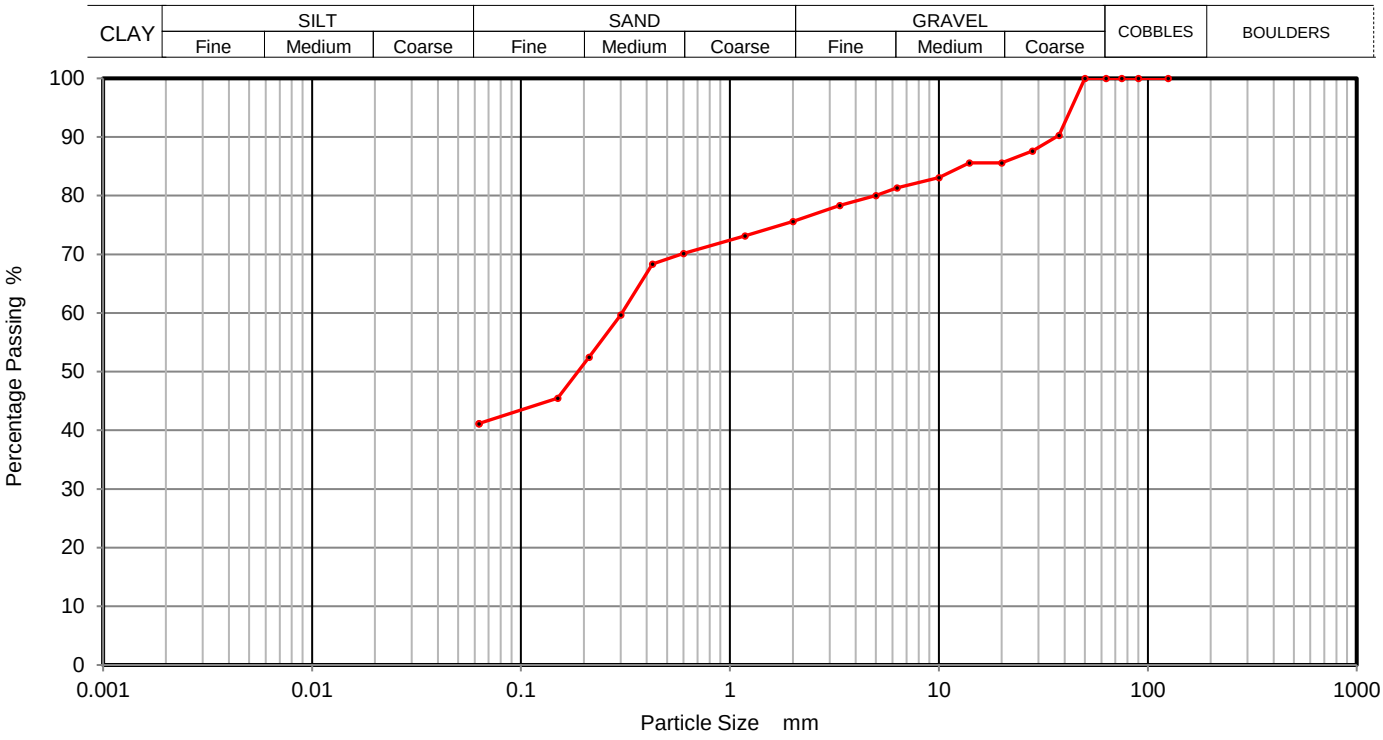
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH03
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	2.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	90		
28	88		
20	86		
14	86		
10	83		
6.3	81		
5	80		
3.35	78		
2	76		
1.18	73		
0.6	70		
0.425	68		
0.3	60		
0.212	52		
0.15	45		
0.063	41		

Sample Proportions	% dry mass
Cobbles	0
Gravel	24
Sand	35
Silt and Clay	41

Grading Analysis	
Uniformity Coefficient	

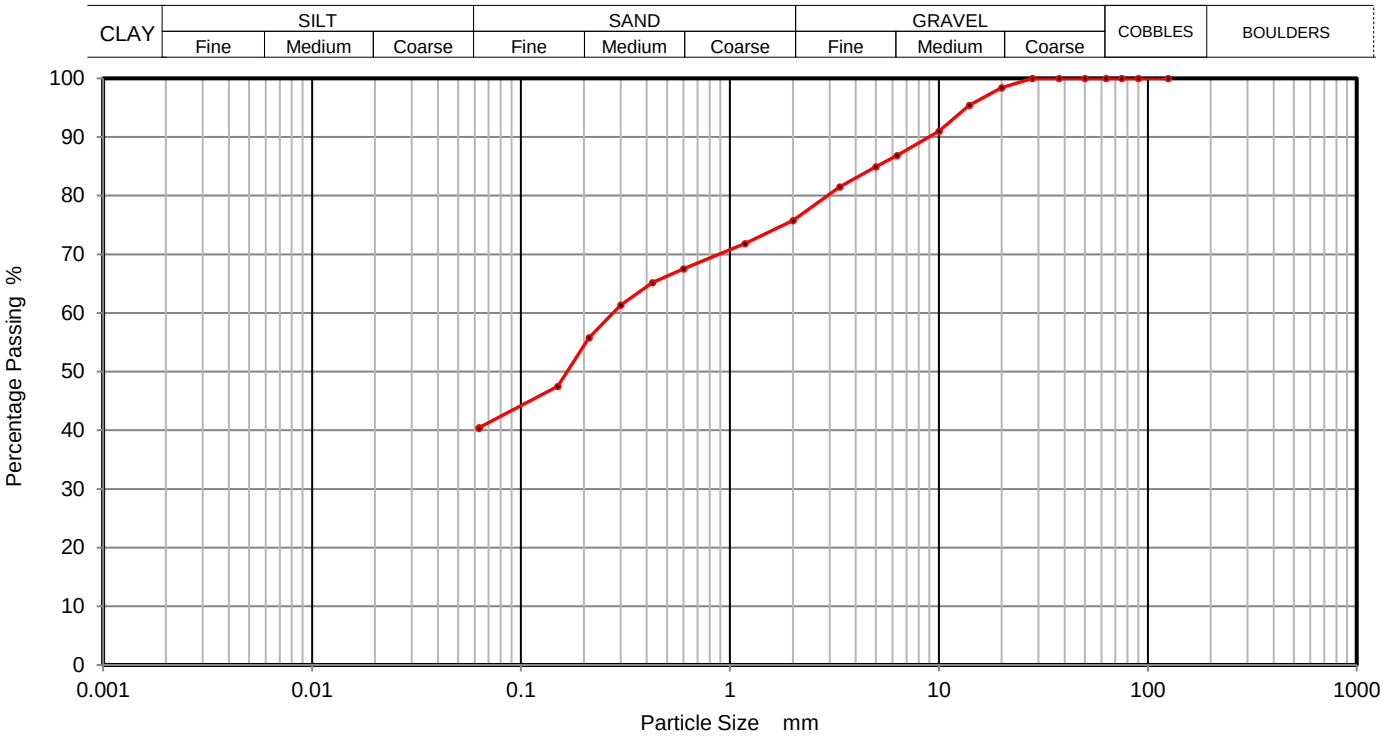
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH04
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	98		
14	95		
10	91		
6.3	87		
5	85		
3.35	81		
2	76		
1.18	72		
0.6	68		
0.425	65		
0.3	61		
0.212	56		
0.15	47		
0.063	40		

Sample Proportions	% dry mass
Cobbles	0
Gravel	24
Sand	36
Silt and Clay	40

Grading Analysis	
Uniformity Coefficient	

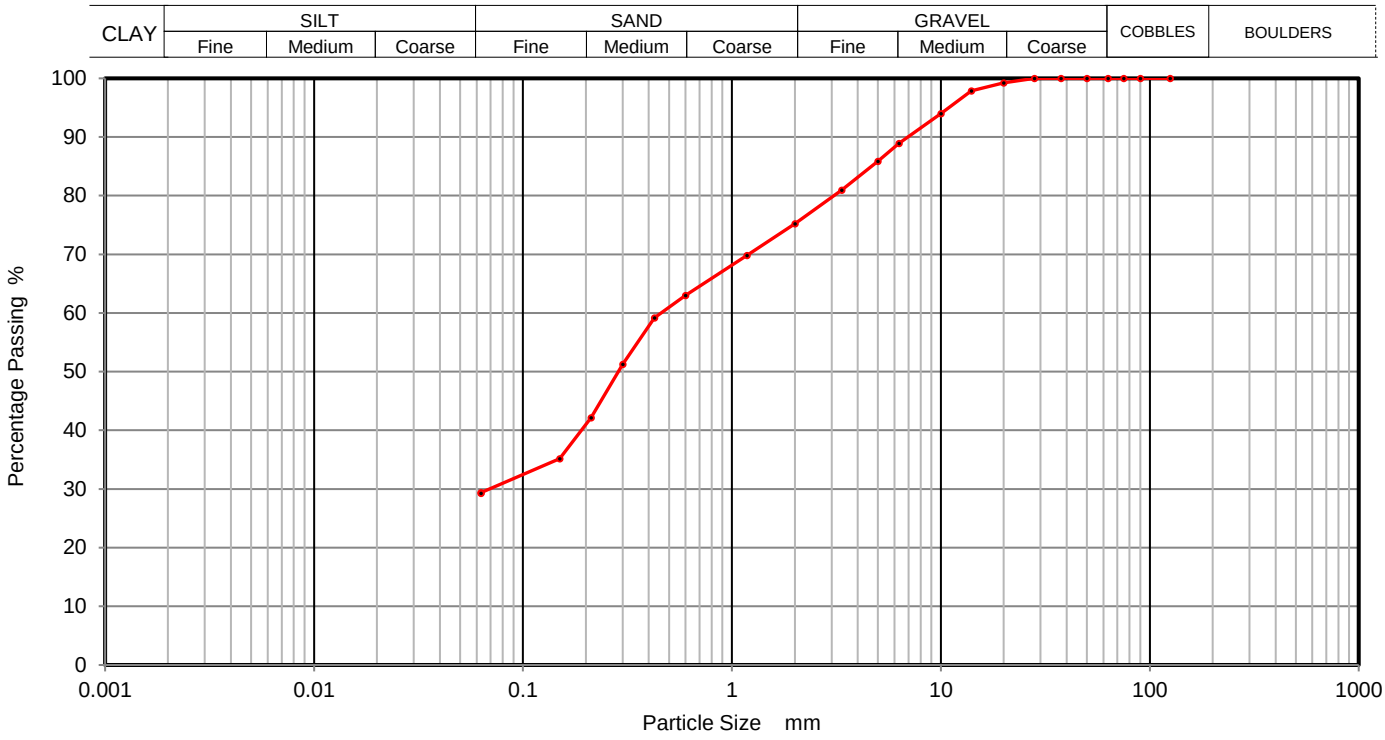
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH04
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly silty clayey fine to coarse SAND	Depth Top	4.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	99		
14	98		
10	94		
6.3	89		
5	86		
3.35	81		
2	75		
1.18	70		
0.6	63		
0.425	59		
0.3	51		
0.212	42		
0.15	35		
0.063	29		

Sample Proportions	% dry mass
Cobbles	0
Gravel	25
Sand	46
Silt and Clay	29

Grading Analysis	
Uniformity Coefficient	

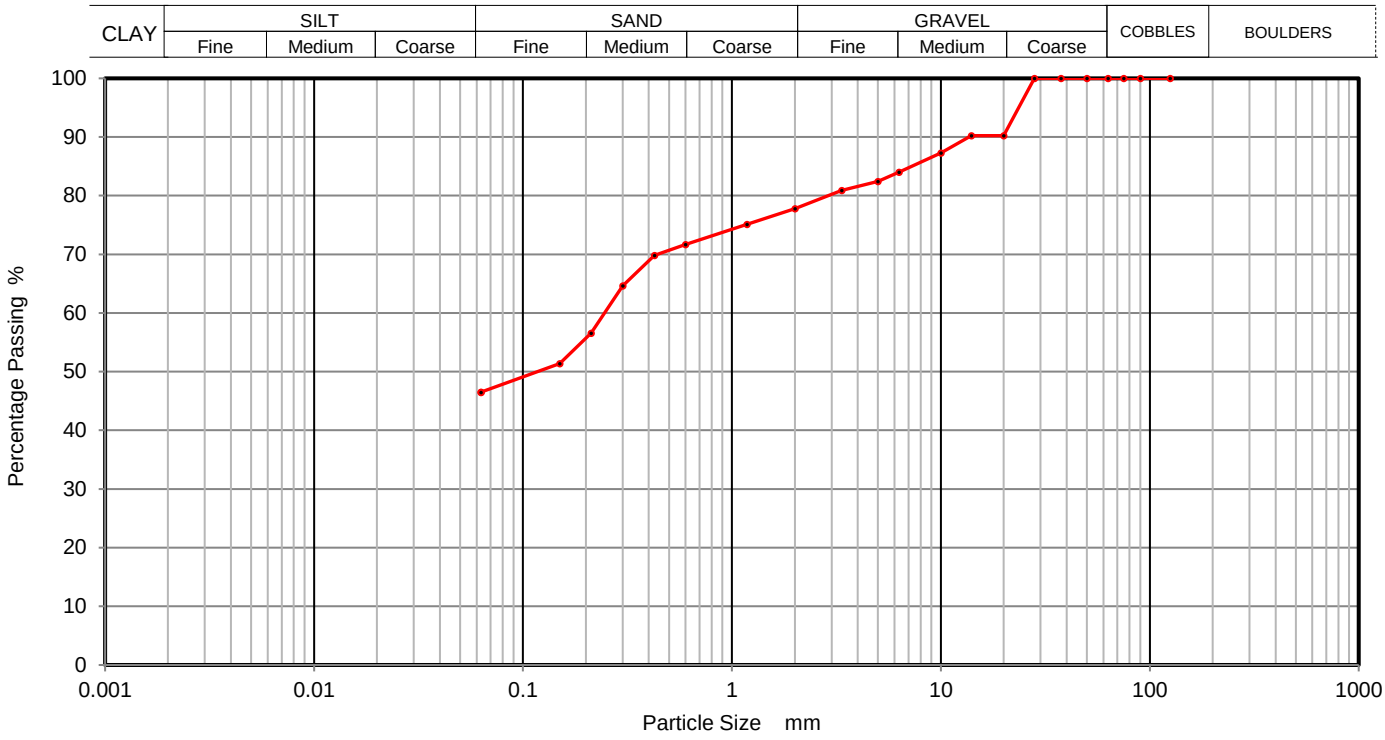
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH05
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	90		
14	90		
10	87		
6.3	84		
5	82		
3.35	81		
2	78		
1.18	75		
0.6	72		
0.425	70		
0.3	65		
0.212	57		
0.15	51		
0.063	47		

Sample Proportions	% dry mass
Cobbles	0
Gravel	22
Sand	31
Silt and Clay	47

Grading Analysis	
Uniformity Coefficient	

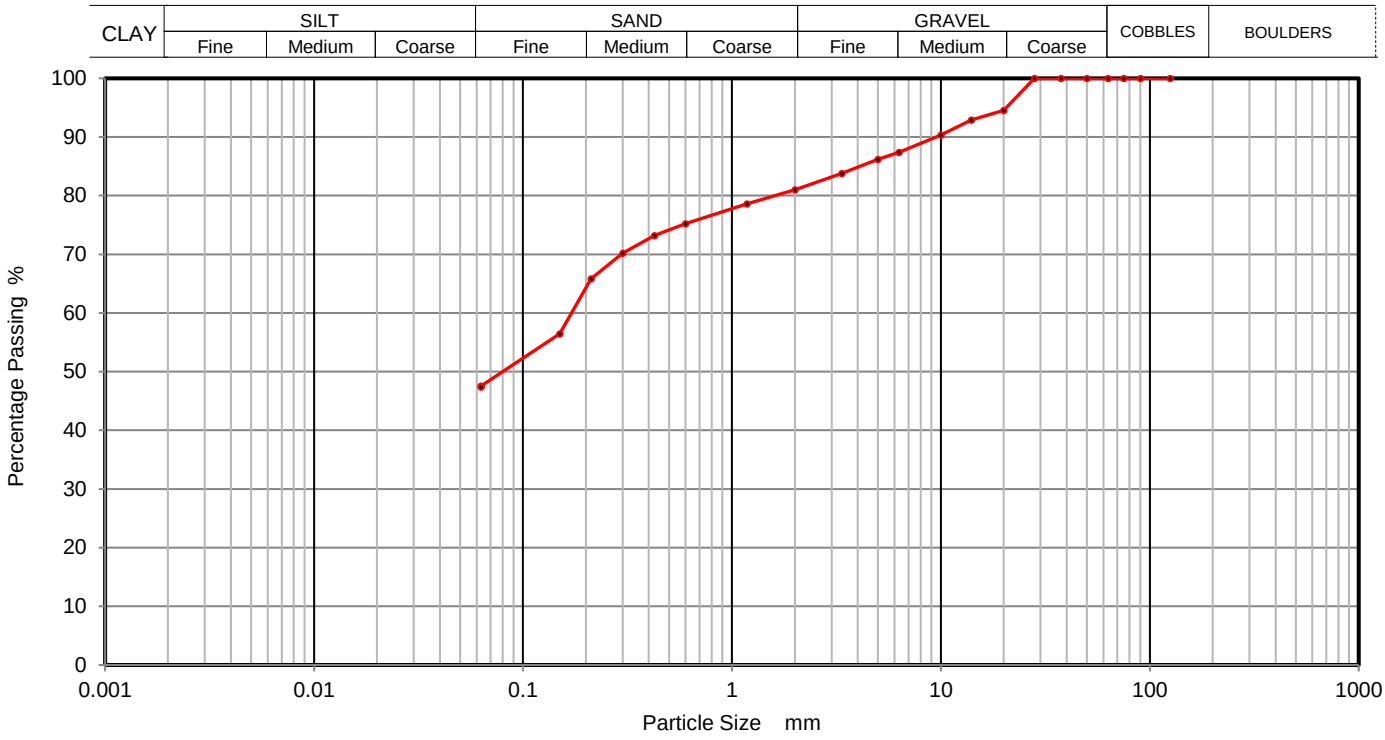
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH05
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	3.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	95		
14	93		
10	90		
6.3	87		
5	86		
3.35	84		
2	81		
1.18	79		
0.6	75		
0.425	73		
0.3	70		
0.212	66		
0.15	56		
0.063	48		

Sample Proportions	% dry mass
Cobbles	0
Gravel	19
Sand	33
Silt and Clay	48

Grading Analysis	
Uniformity Coefficient	

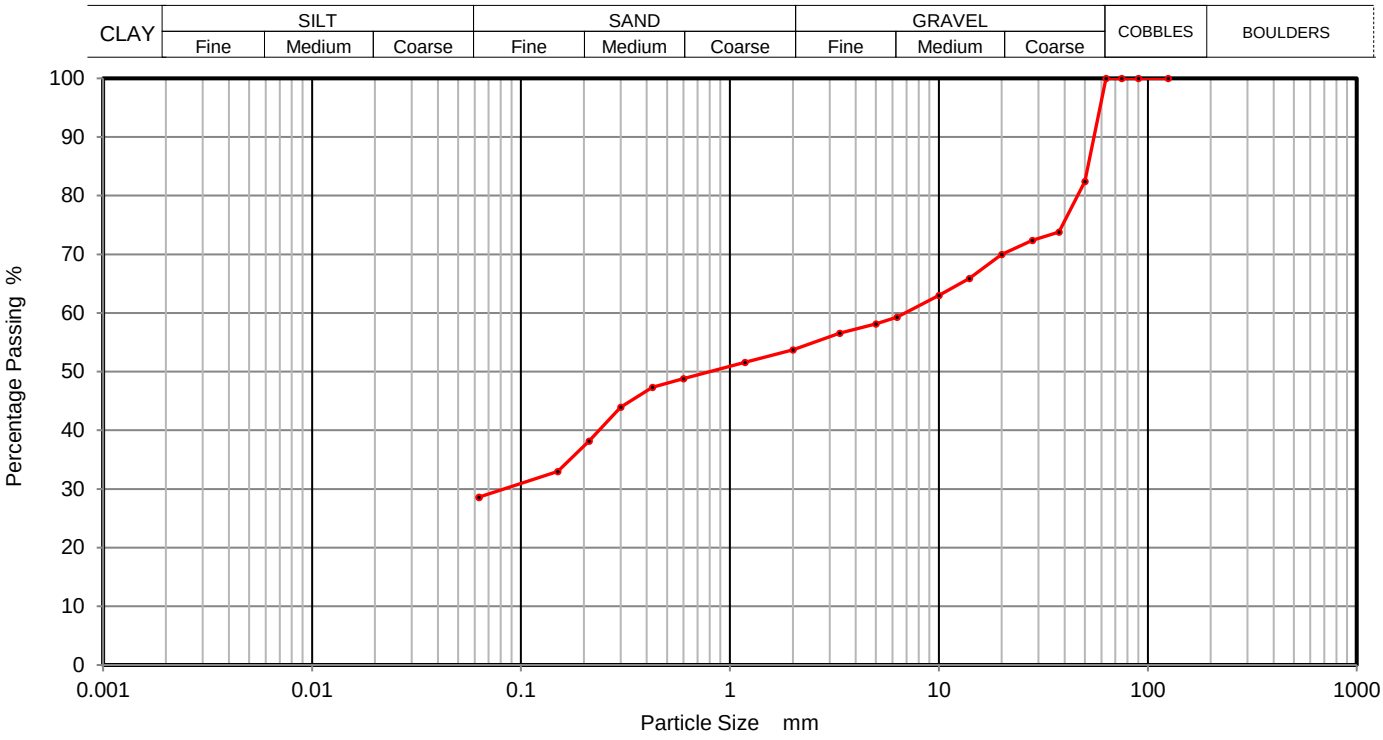
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH06
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy silty clayey fine to coarse GRAVEL	Depth Top	2.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	82		
37.5	74		
28	72		
20	70		
14	66		
10	63		
6.3	59		
5	58		
3.35	57		
2	54		
1.18	52		
0.6	49		
0.425	47		
0.3	44		
0.212	38		
0.15	33		
0.063	29		

Sample Proportions	% dry mass
Cobbles	0
Gravel	46
Sand	25
Silt and Clay	29

Grading Analysis	
Uniformity Coefficient	

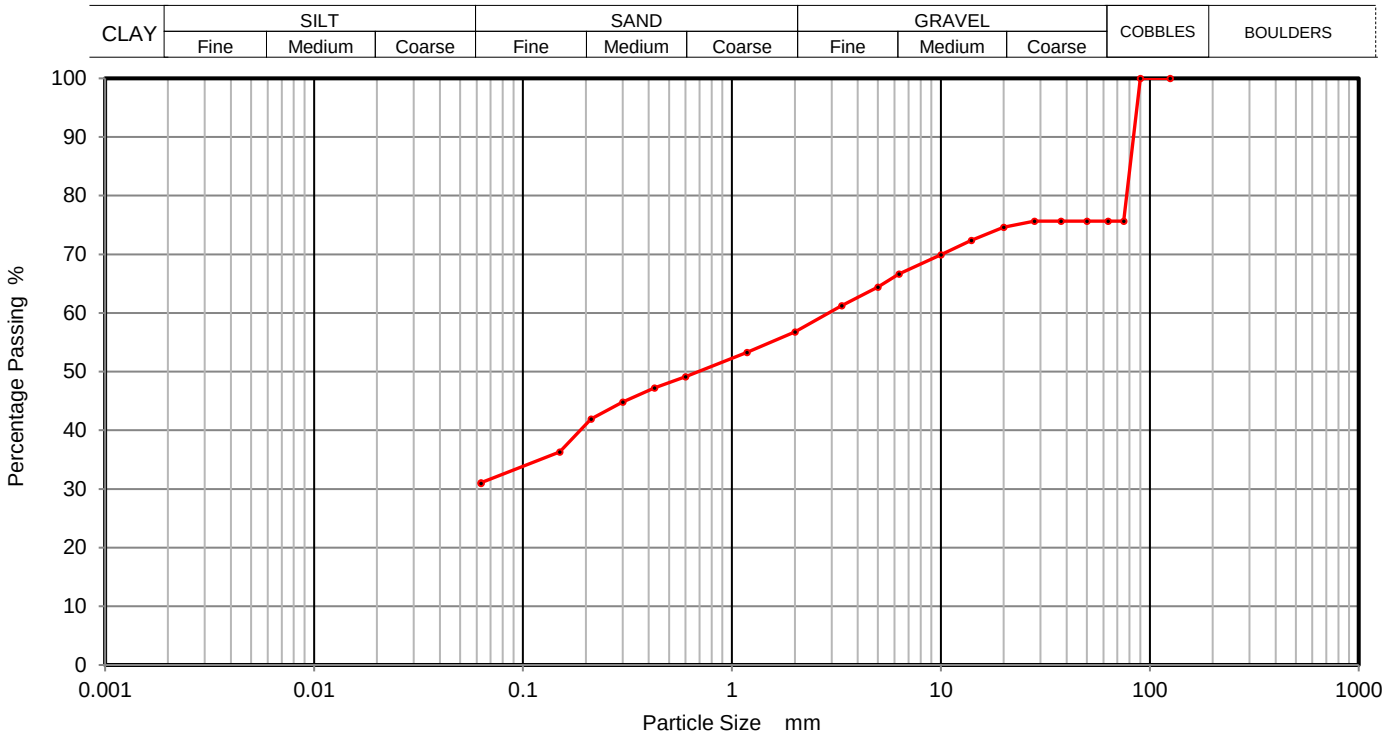
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH06
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy silty clayey fine to coarse GRAVEL.(With some cobbles)	Depth Top	4.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	76	0.0019	
63	76		
50	76		
37.5	76		
28	76		
20	75		
14	72		
10	70		
6.3	67		
5	64		
3.35	61		
2	57		
1.18	53		
0.6	49		
0.425	47		
0.3	45		
0.212	42		
0.15	36		
0.063	31		

Sample Proportions	% dry mass
Cobbles	24
Gravel	19
Sand	26
Silt and Clay	31

Grading Analysis	
Uniformity Coefficient	

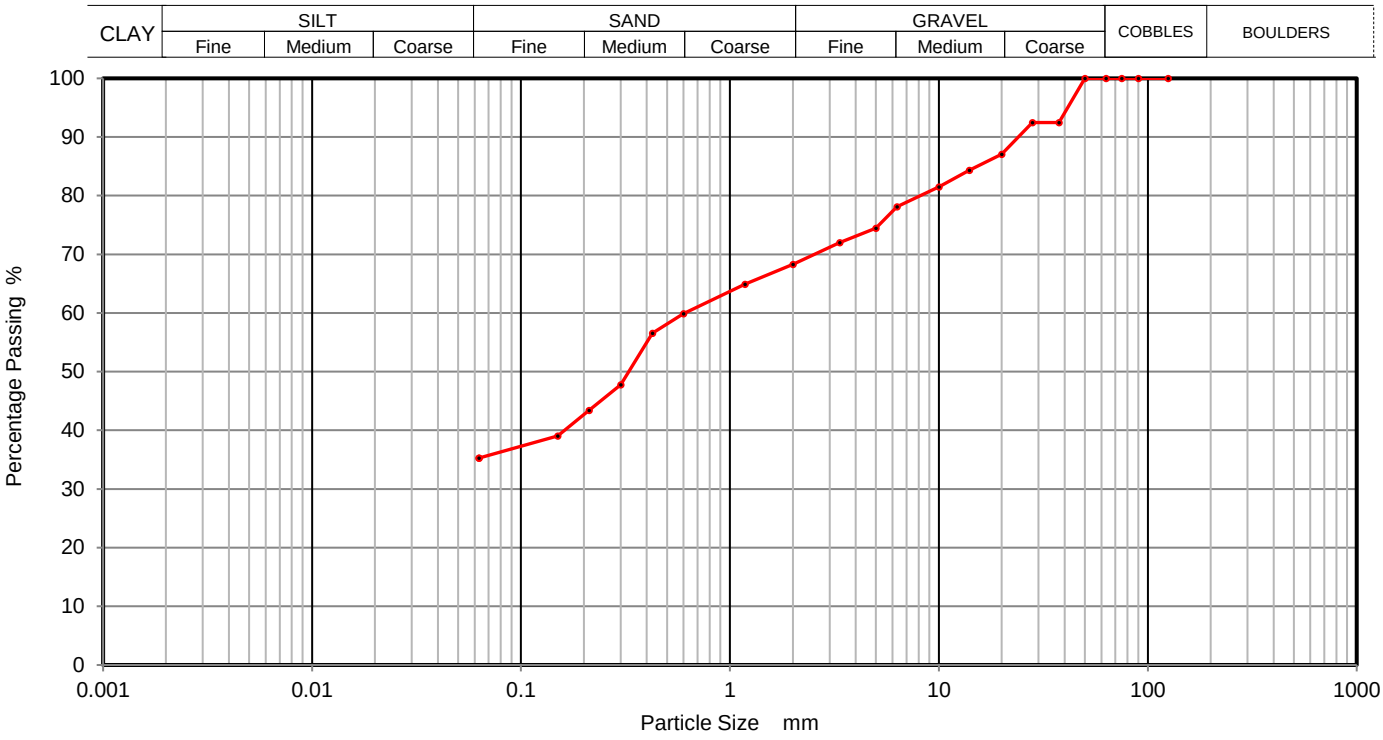
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH07
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	92		
28	92		
20	87		
14	84		
10	82		
6.3	78		
5	74		
3.35	72		
2	68		
1.18	65		
0.6	60		
0.425	57		
0.3	48		
0.212	43		
0.15	39		
0.063	35		

Sample Proportions	% dry mass
Cobbles	0
Gravel	32
Sand	33
Silt and Clay	35

Grading Analysis	
Uniformity Coefficient	

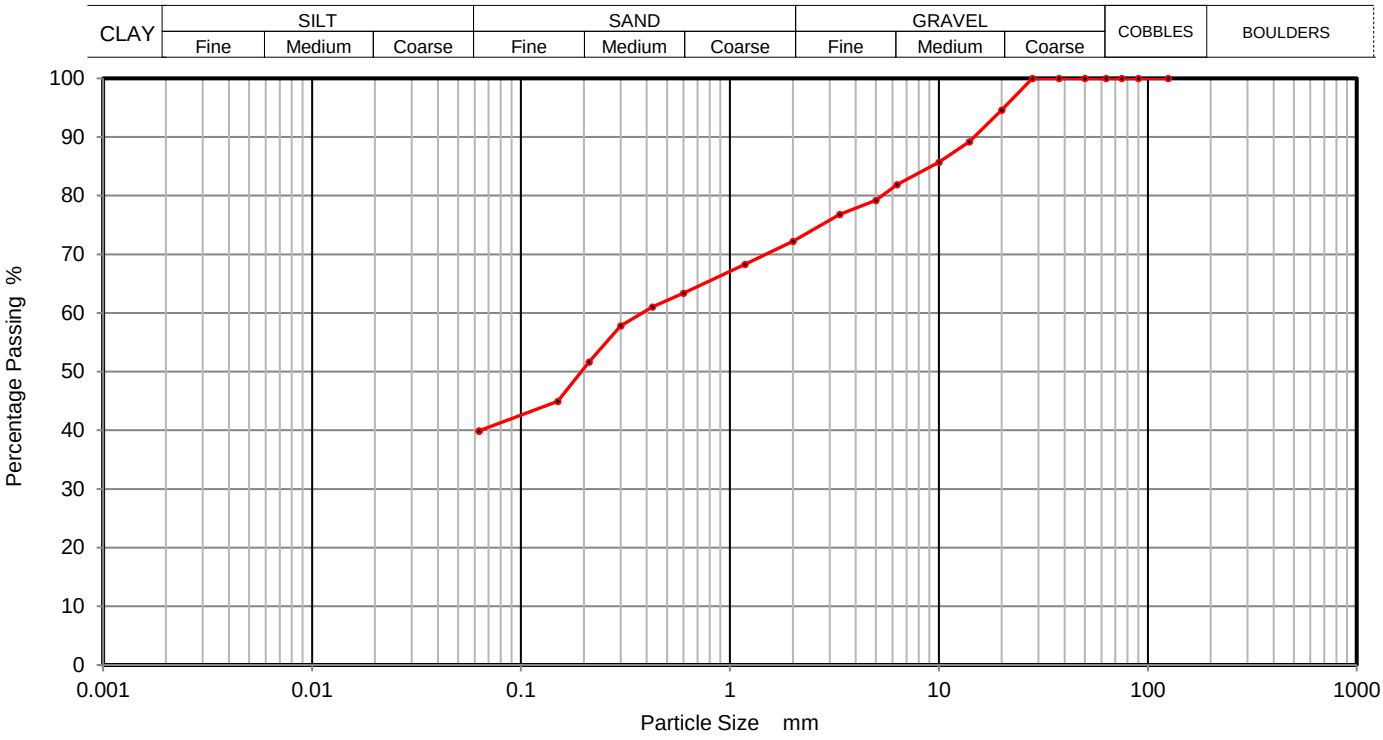
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH08
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	95		
14	89		
10	86		
6.3	82		
5	79		
3.35	77		
2	72		
1.18	68		
0.6	63		
0.425	61		
0.3	58		
0.212	52		
0.15	45		
0.063	40		

Sample Proportions	% dry mass
Cobbles	0
Gravel	28
Sand	32
Silt and Clay	40

Grading Analysis	
Uniformity Coefficient	

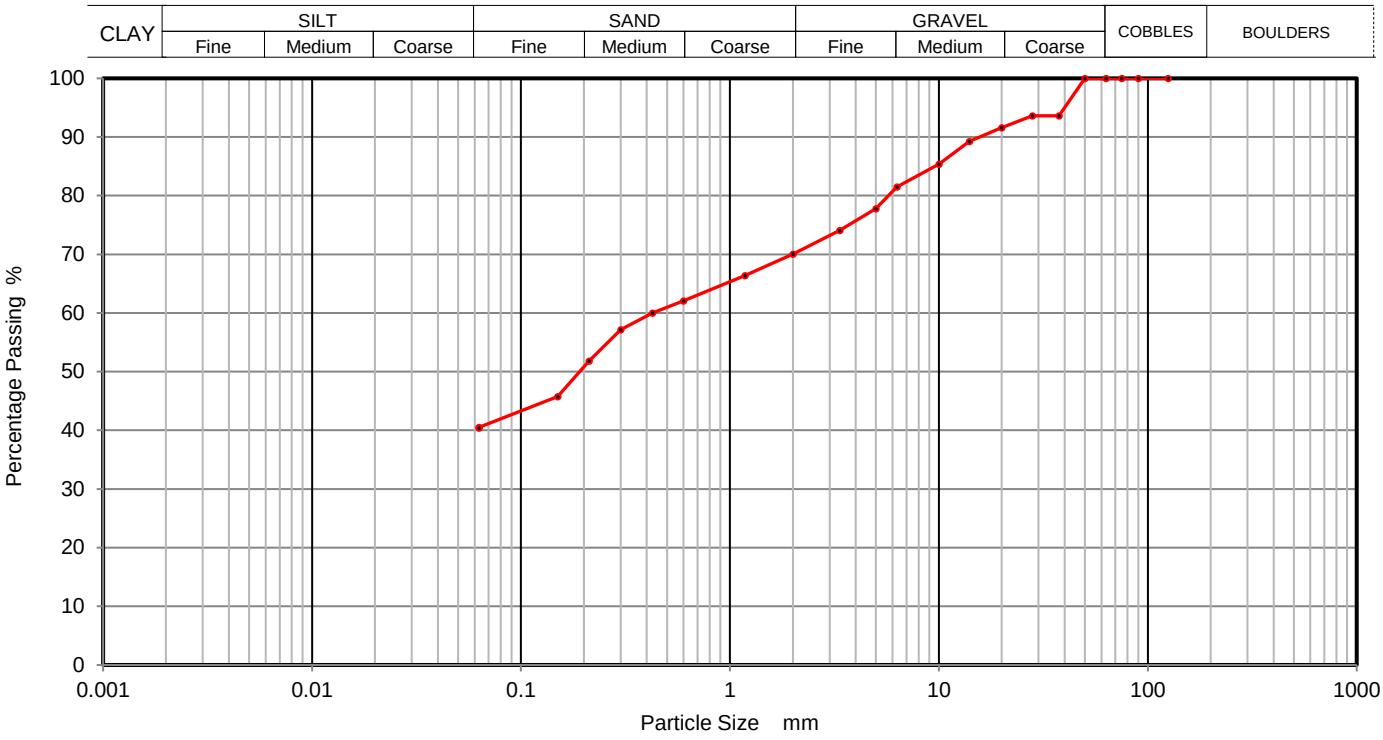
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH08
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy fine to coarse gravelly silty CLAY	Depth Top	4.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	94		
28	94		
20	92		
14	89		
10	85		
6.3	82		
5	78		
3.35	74		
2	70		
1.18	66		
0.6	62		
0.425	60		
0.3	57		
0.212	52		
0.15	46		
0.063	41		

Sample Proportions	% dry mass
Cobbles	0
Gravel	30
Sand	29
Silt and Clay	41

Grading Analysis	
Uniformity Coefficient	

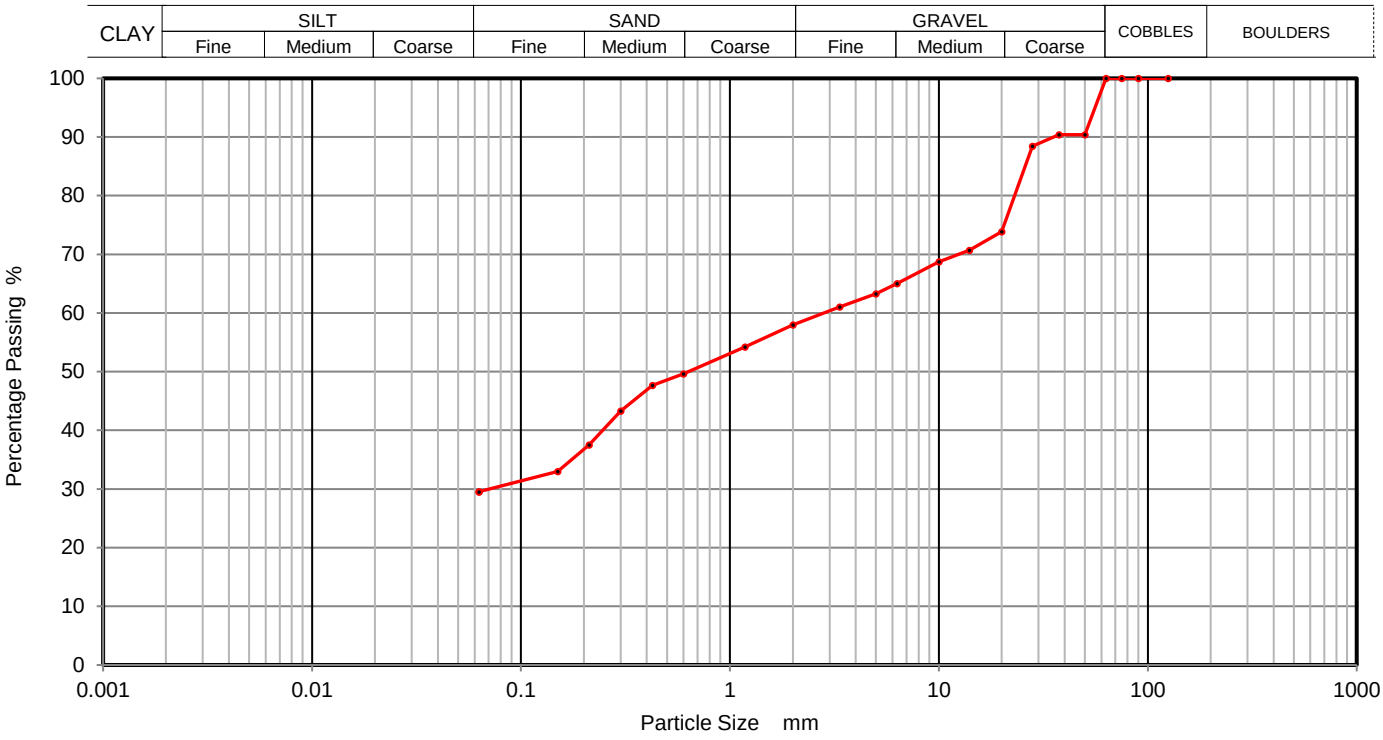
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	BH08
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy silty clayey fine to coarse GRAVEL	Depth Top	7.00
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	90		
37.5	90		
28	88		
20	74		
14	71		
10	69		
6.3	65		
5	63		
3.35	61		
2	58		
1.18	54		
0.6	50		
0.425	48		
0.3	43		
0.212	37		
0.15	33		
0.063	30		

Sample Proportions	% dry mass
Cobbles	0
Gravel	42
Sand	28
Silt and Clay	30

Grading Analysis	
Uniformity Coefficient	

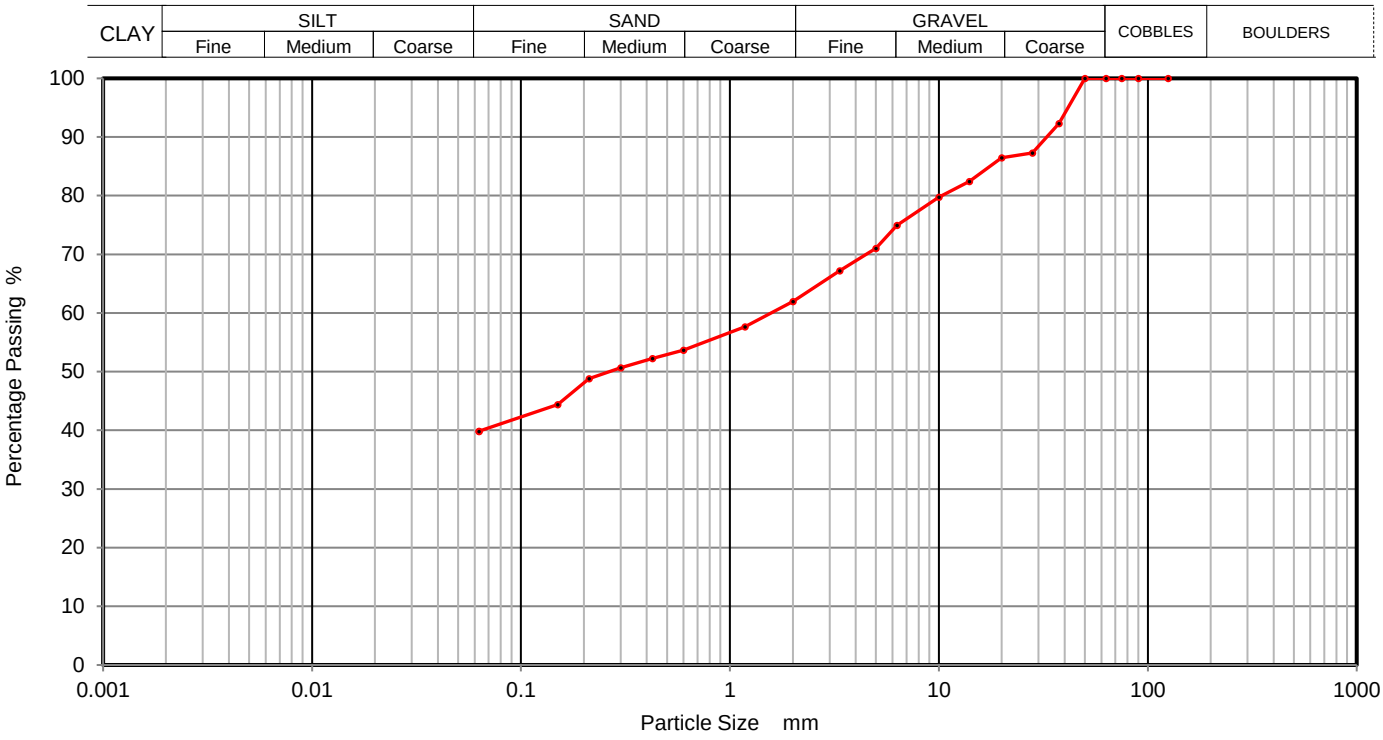
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP01
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy fine to coarse gravelly silty CLAY	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	92		
28	87		
20	86		
14	82		
10	80		
6.3	75		
5	71		
3.35	67		
2	62		
1.18	58		
0.6	54		
0.425	52		
0.3	51		
0.212	49		
0.15	44		
0.063	40		

Sample Proportions	% dry mass
Cobbles	0
Gravel	38
Sand	22
Silt and Clay	40

Grading Analysis	
Uniformity Coefficient	

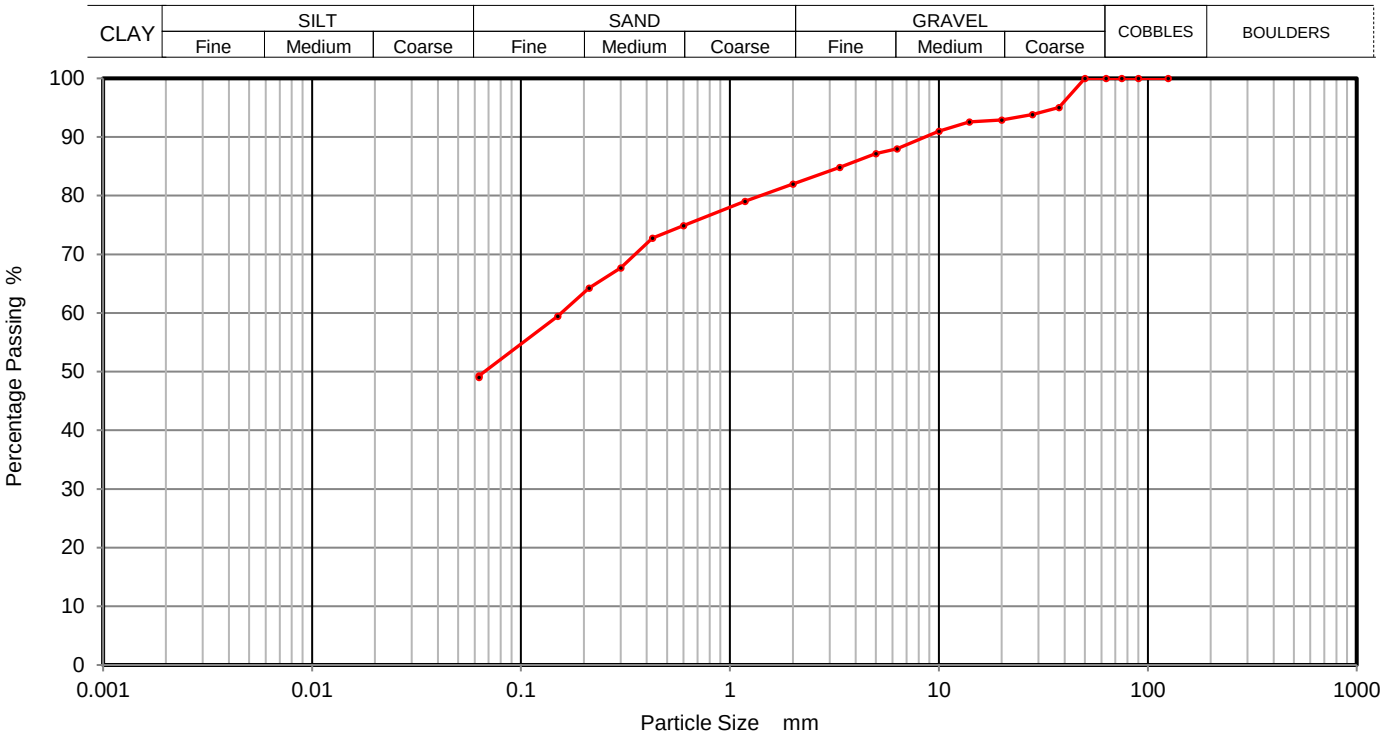
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP01
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	95		
28	94		
20	93		
14	93		
10	91		
6.3	88		
5	87		
3.35	85		
2	82		
1.18	79		
0.6	75		
0.425	73		
0.3	68		
0.212	64		
0.15	59		
0.063	49		

Sample Proportions	% dry mass
Cobbles	0
Gravel	18
Sand	33
Silt and Clay	49

Grading Analysis	
Uniformity Coefficient	

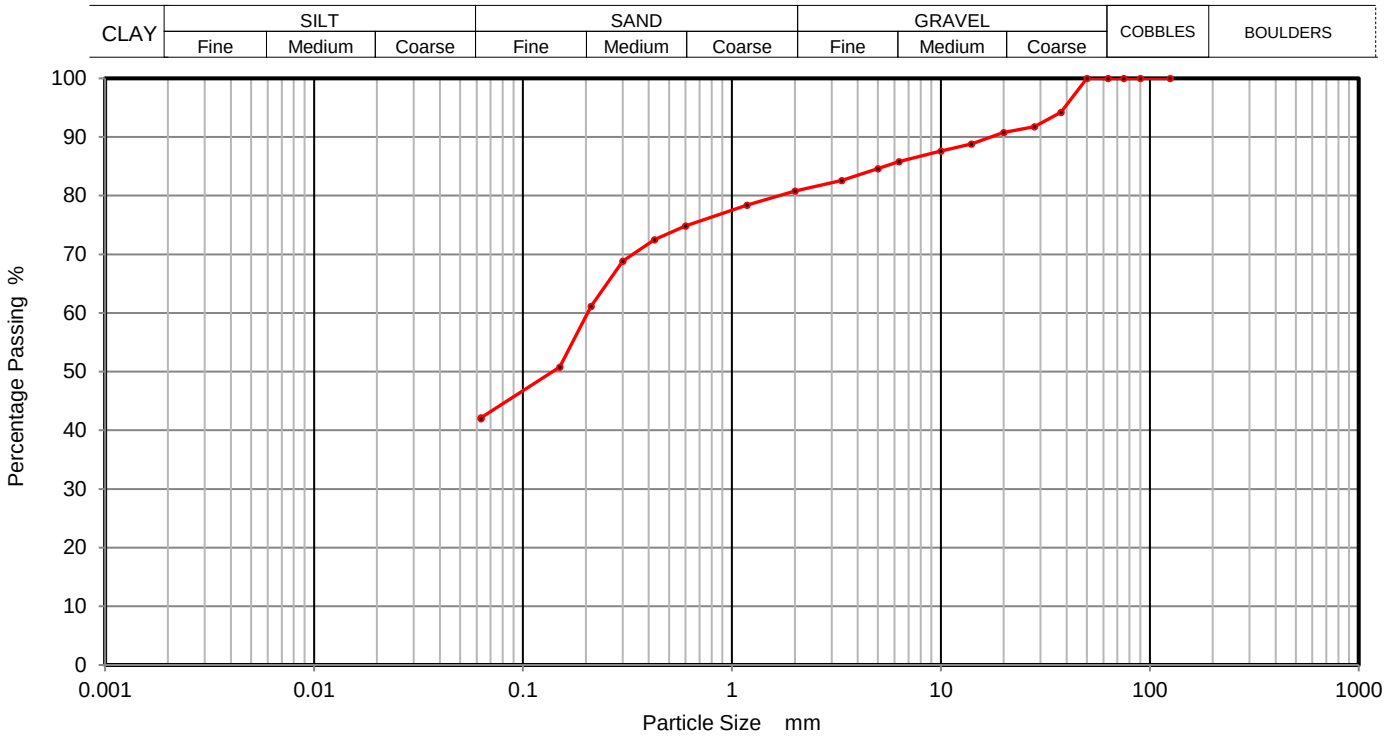
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP02
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	94		
28	92		
20	91		
14	89		
10	88		
6.3	86		
5	85		
3.35	83		
2	81		
1.18	78		
0.6	75		
0.425	72		
0.3	69		
0.212	61		
0.15	51		
0.063	42		

Sample Proportions	% dry mass
Cobbles	0
Gravel	19
Sand	39
Silt and Clay	42

Grading Analysis	
Uniformity Coefficient	

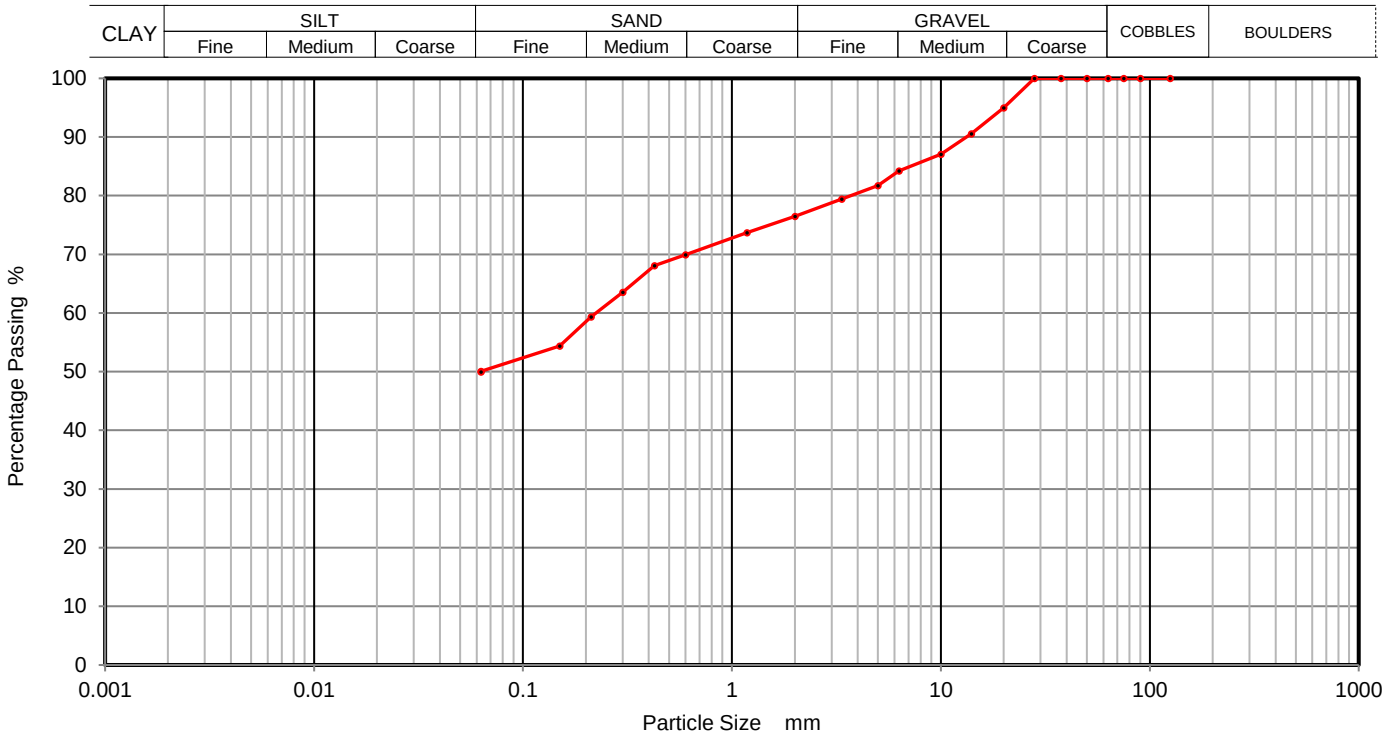
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP03
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	95		
14	91		
10	87		
6.3	84		
5	82		
3.35	79		
2	76		
1.18	74		
0.6	70		
0.425	68		
0.3	64		
0.212	59		
0.15	54		
0.063	50		

Sample Proportions	% dry mass
Cobbles	0
Gravel	24
Sand	26
Silt and Clay	50

Grading Analysis	
Uniformity Coefficient	

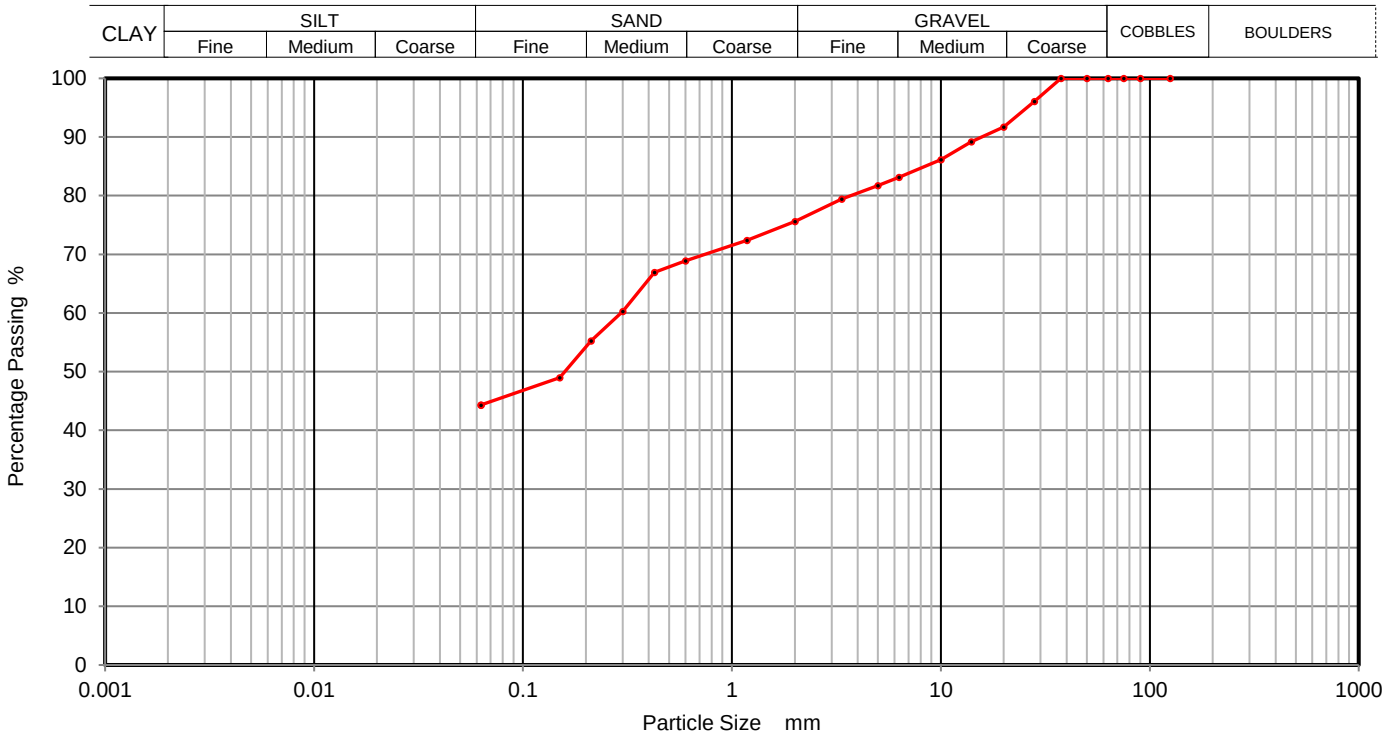
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP10
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	96		
20	92		
14	89		
10	86		
6.3	83		
5	82		
3.35	79		
2	76		
1.18	72		
0.6	69		
0.425	67		
0.3	60		
0.212	55		
0.15	49		
0.063	44		

Sample Proportions	% dry mass
Cobbles	0
Gravel	24
Sand	32
Silt and Clay	44

Grading Analysis	
Uniformity Coefficient	

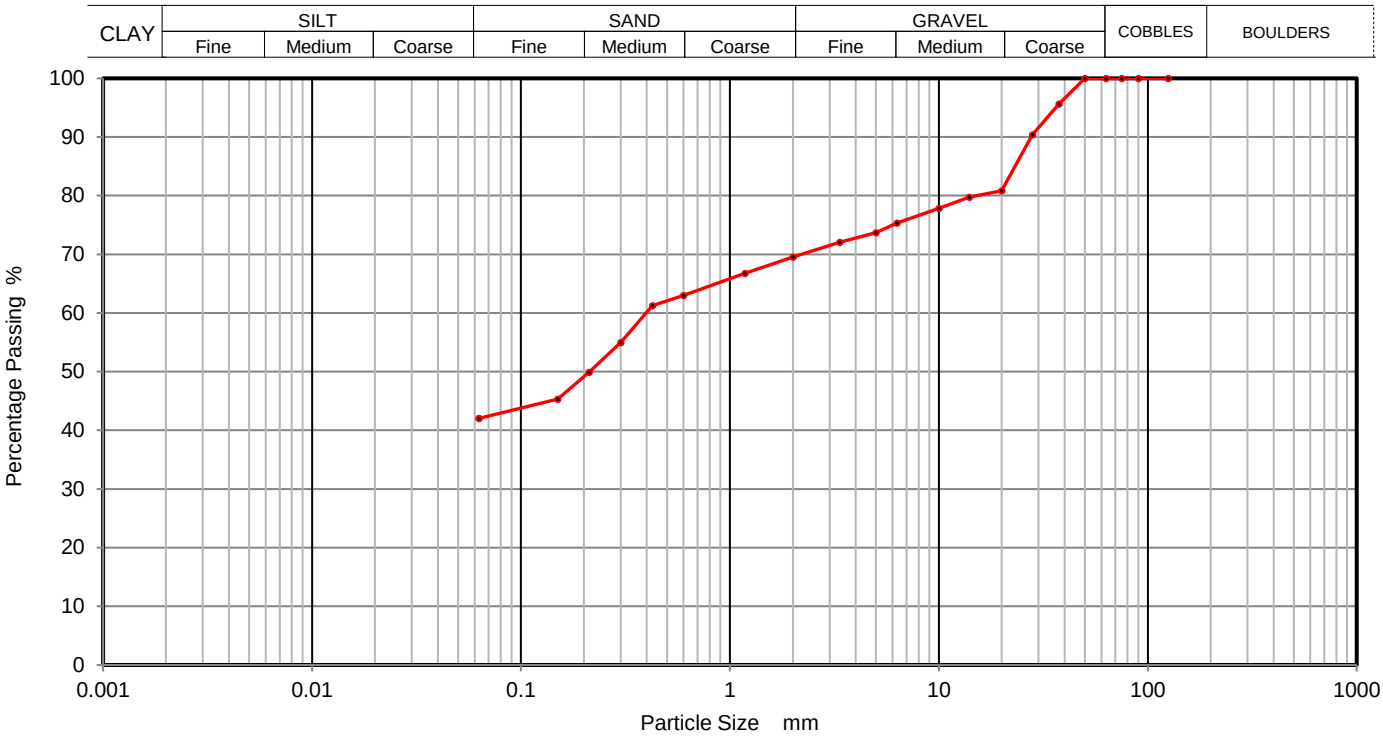
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP11
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy fine to coarse gravelly silty CLAY	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	96		
28	90		
20	81		
14	80		
10	78		
6.3	75		
5	74		
3.35	72		
2	70		
1.18	67		
0.6	63		
0.425	61		
0.3	55		
0.212	50		
0.15	45		
0.063	42		

Sample Proportions	% dry mass
Cobbles	0
Gravel	30
Sand	28
Silt and Clay	42

Grading Analysis	
Uniformity Coefficient	

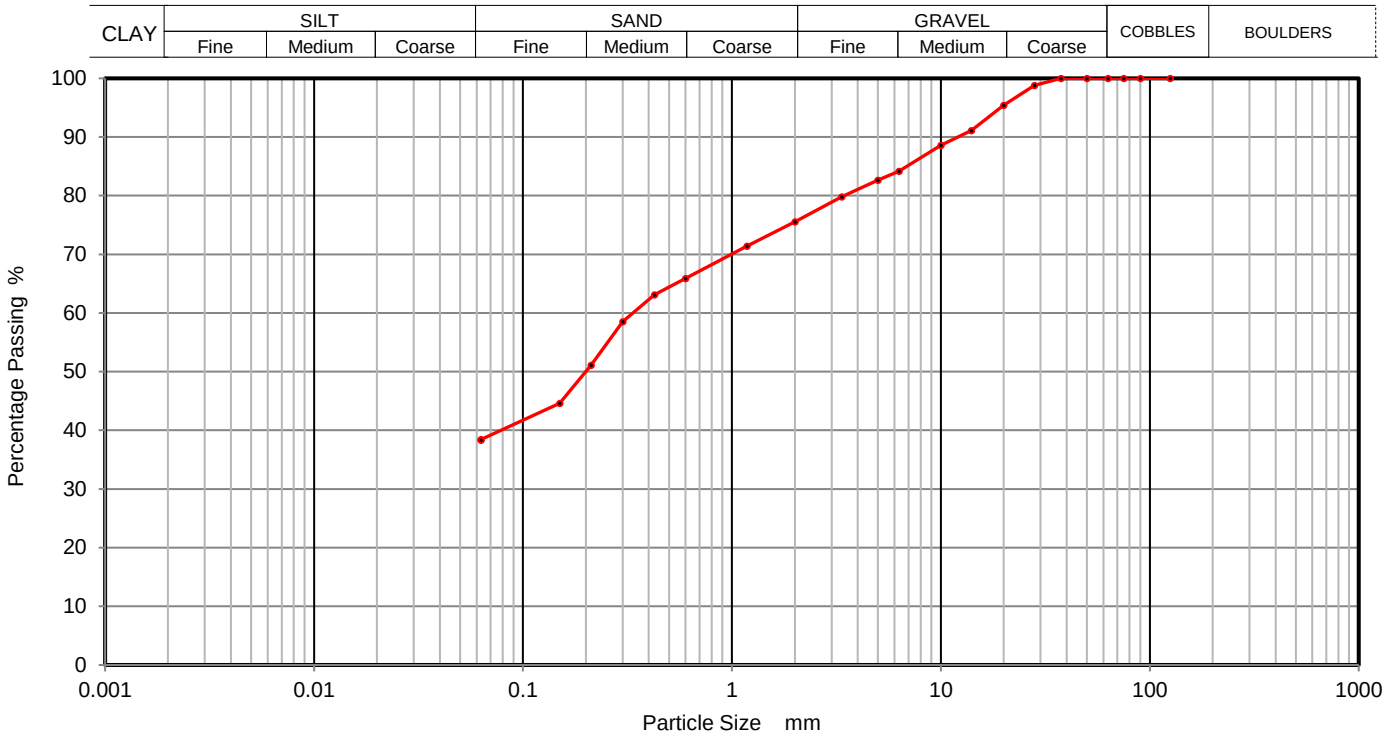
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP16
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly silty clayey fine to coarse SAND	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	99		
20	95		
14	91		
10	89		
6.3	84		
5	83		
3.35	80		
2	76		
1.18	71		
0.6	66		
0.425	63		
0.3	59		
0.212	51		
0.15	45		
0.063	38		

Sample Proportions	% dry mass
Cobbles	0
Gravel	24
Sand	38
Silt and Clay	38

Grading Analysis	
Uniformity Coefficient	

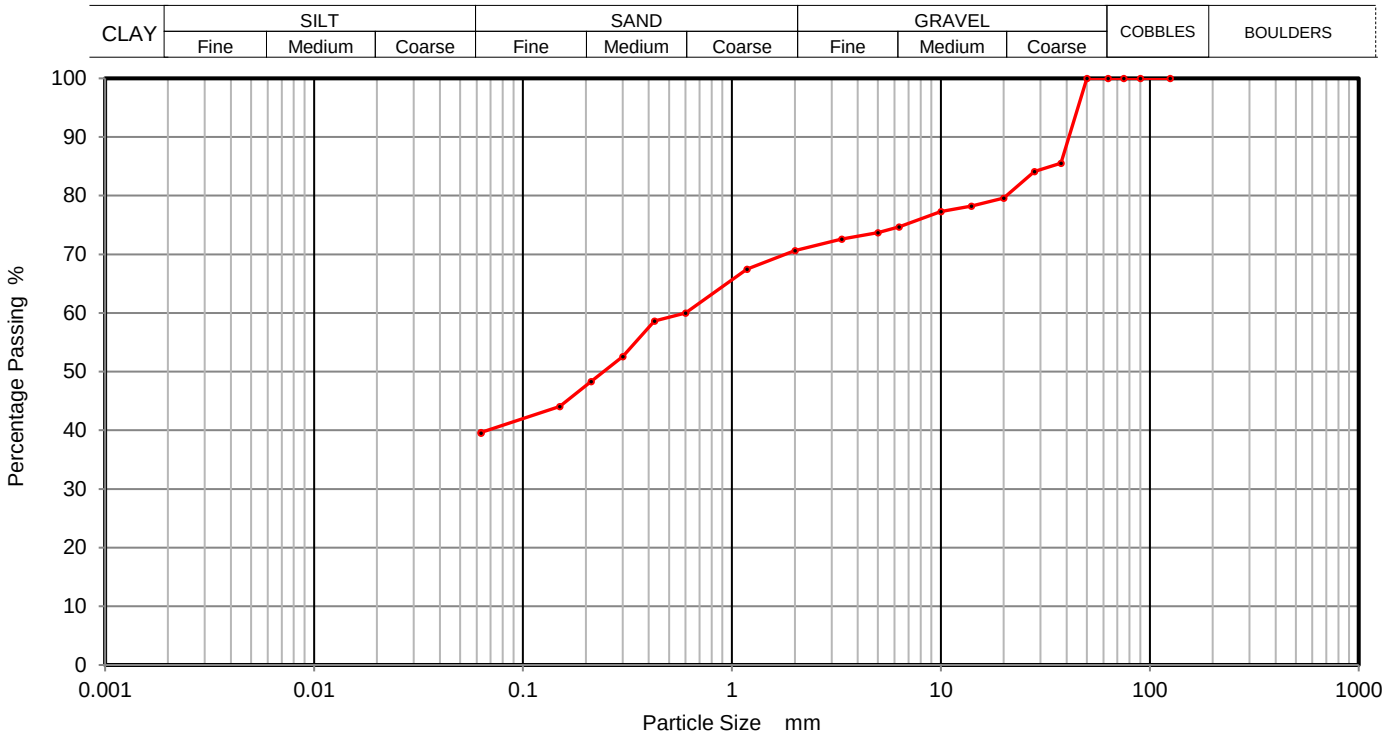
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP18
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	86		
28	84		
20	80		
14	78		
10	77		
6.3	75		
5	74		
3.35	73		
2	71		
1.18	67		
0.6	60		
0.425	59		
0.3	53		
0.212	48		
0.15	44		
0.063	40		

Sample Proportions	% dry mass
Cobbles	0
Gravel	29
Sand	31
Silt and Clay	40

Grading Analysis	
Uniformity Coefficient	

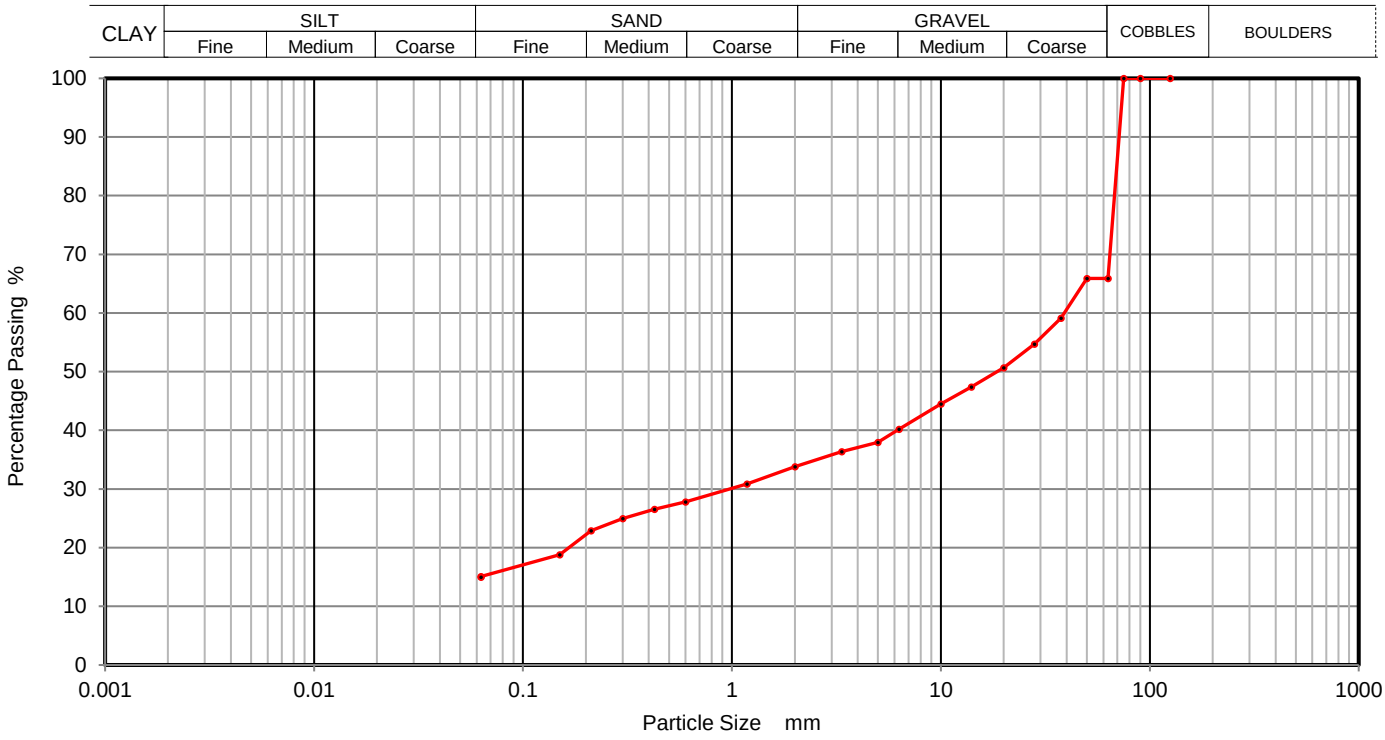
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP21
Site Name	Coolagad	Sample No.	
Soil Description	Brown silty clayey fine to coarse sandy fine to coarse GRAVEL.(With some cobbles)	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	66		
50	66		
37.5	59		
28	55		
20	51		
14	47		
10	45		
6.3	40		
5	38		
3.35	36		
2	34		
1.18	31		
0.6	28		
0.425	27		
0.3	25		
0.212	23		
0.15	19		
0.063	15		

Sample Proportions	% dry mass
Cobbles	34
Gravel	32
Sand	19
Silt and Clay	15

Grading Analysis	
Uniformity Coefficient	

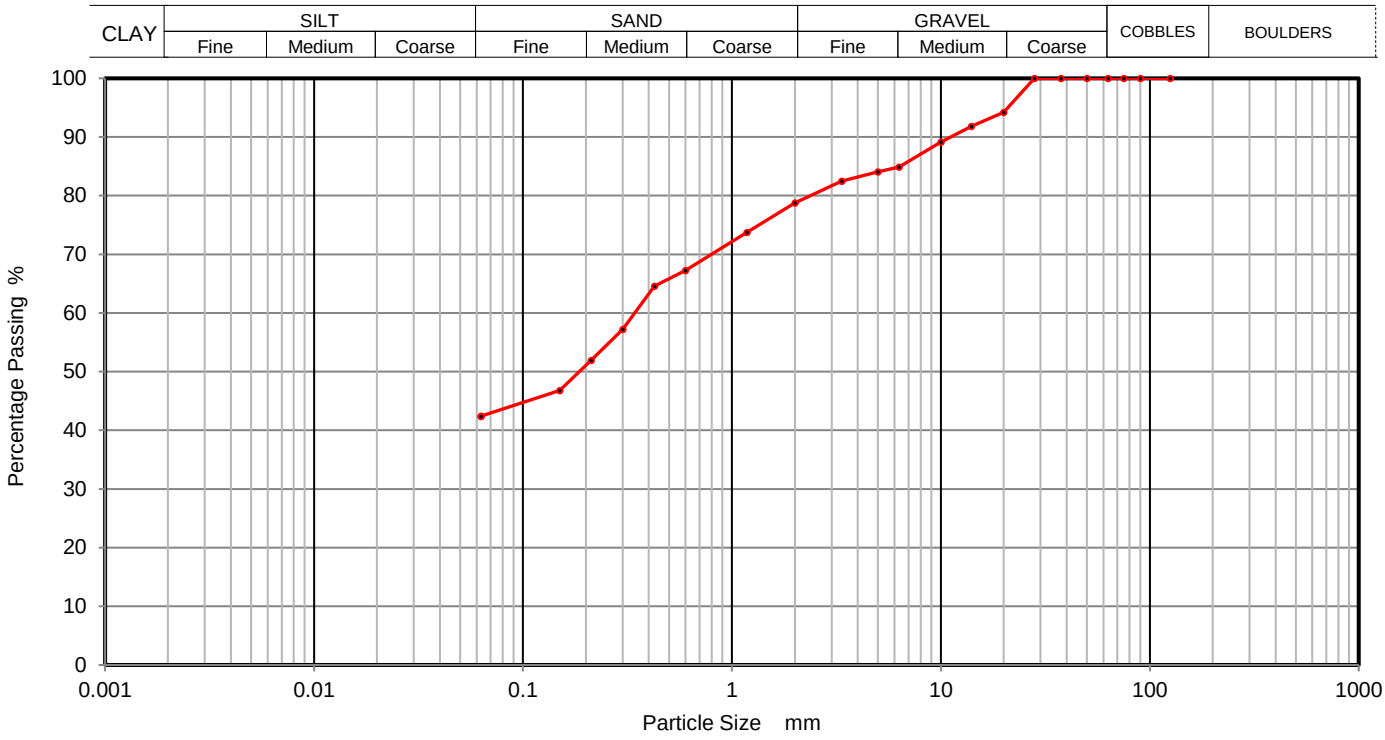
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP23
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	94		
14	92		
10	89		
6.3	85		
5	84		
3.35	82		
2	79		
1.18	74		
0.6	67		
0.425	65		
0.3	57		
0.212	52		
0.15	47		
0.063	42		

Sample Proportions	% dry mass
Cobbles	0
Gravel	21
Sand	37
Silt and Clay	42

Grading Analysis	
Uniformity Coefficient	

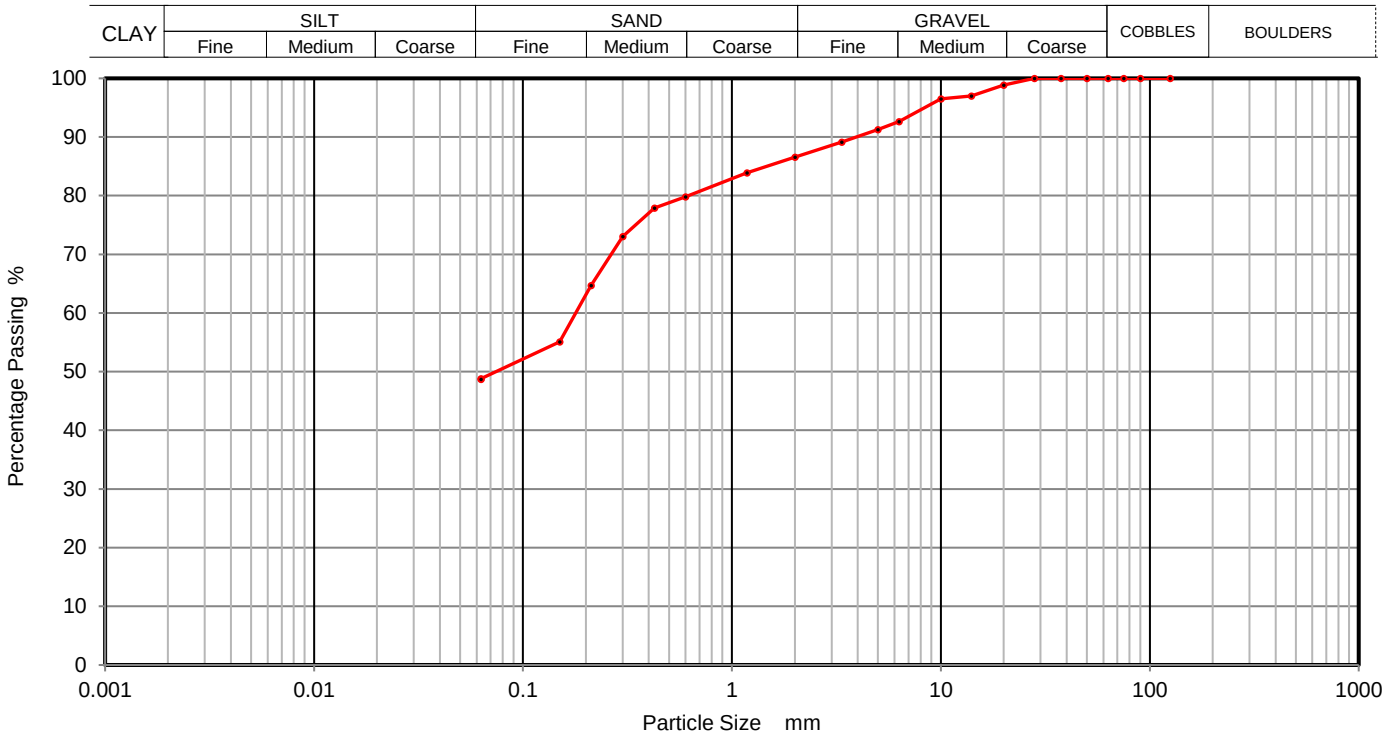
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP24
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	2.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	99		
14	97		
10	96		
6.3	93		
5	91		
3.35	89		
2	87		
1.18	84		
0.6	80		
0.425	78		
0.3	73		
0.212	65		
0.15	55		
0.063	49		

Sample Proportions	% dry mass
Cobbles	0
Gravel	13
Sand	38
Silt and Clay	49

Grading Analysis	
Uniformity Coefficient	

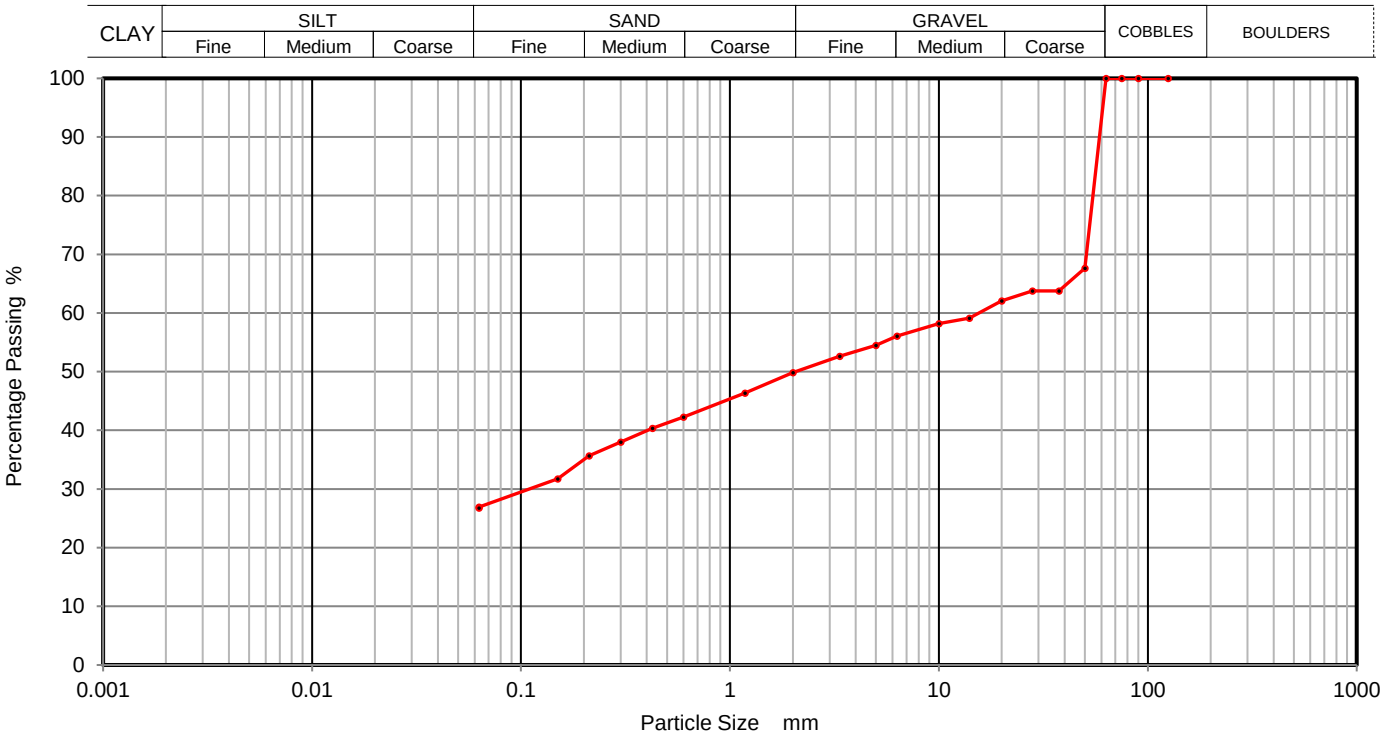
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP25
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy silty clayey fine to coarse GRAVEL	Depth Top	2.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	68		
37.5	64		
28	64		
20	62		
14	59		
10	58		
6.3	56		
5	55		
3.35	53		
2	50		
1.18	46		
0.6	42		
0.425	40		
0.3	38		
0.212	36		
0.15	32		
0.063	27		

Sample Proportions	% dry mass
Cobbles	0
Gravel	50
Sand	23
Silt and Clay	27

Grading Analysis	
Uniformity Coefficient	

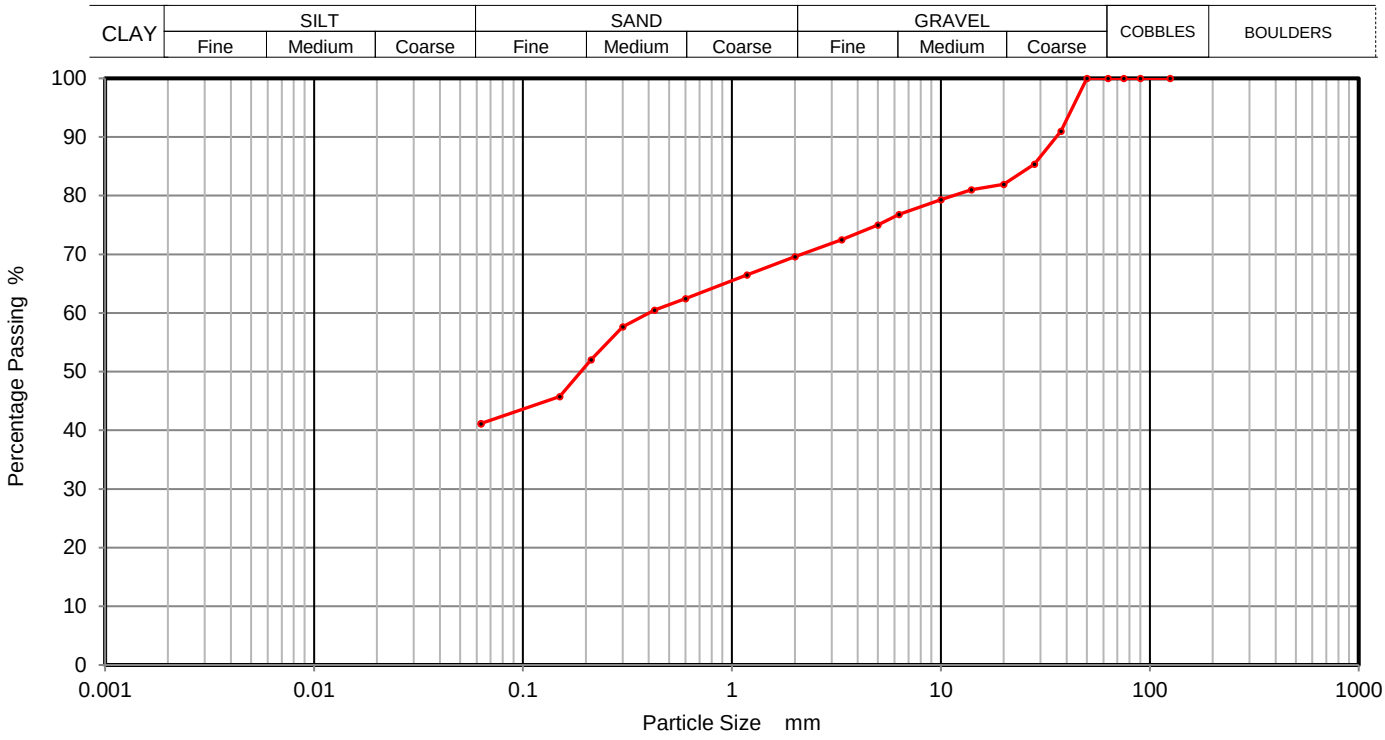
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP26
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy fine to coarse gravelly silty CLAY	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	91		
28	85		
20	82		
14	81		
10	79		
6.3	77		
5	75		
3.35	72		
2	70		
1.18	66		
0.6	62		
0.425	60		
0.3	58		
0.212	52		
0.15	46		
0.063	41		

Sample Proportions	% dry mass
Cobbles	0
Gravel	30
Sand	29
Silt and Clay	41

Grading Analysis	
Uniformity Coefficient	

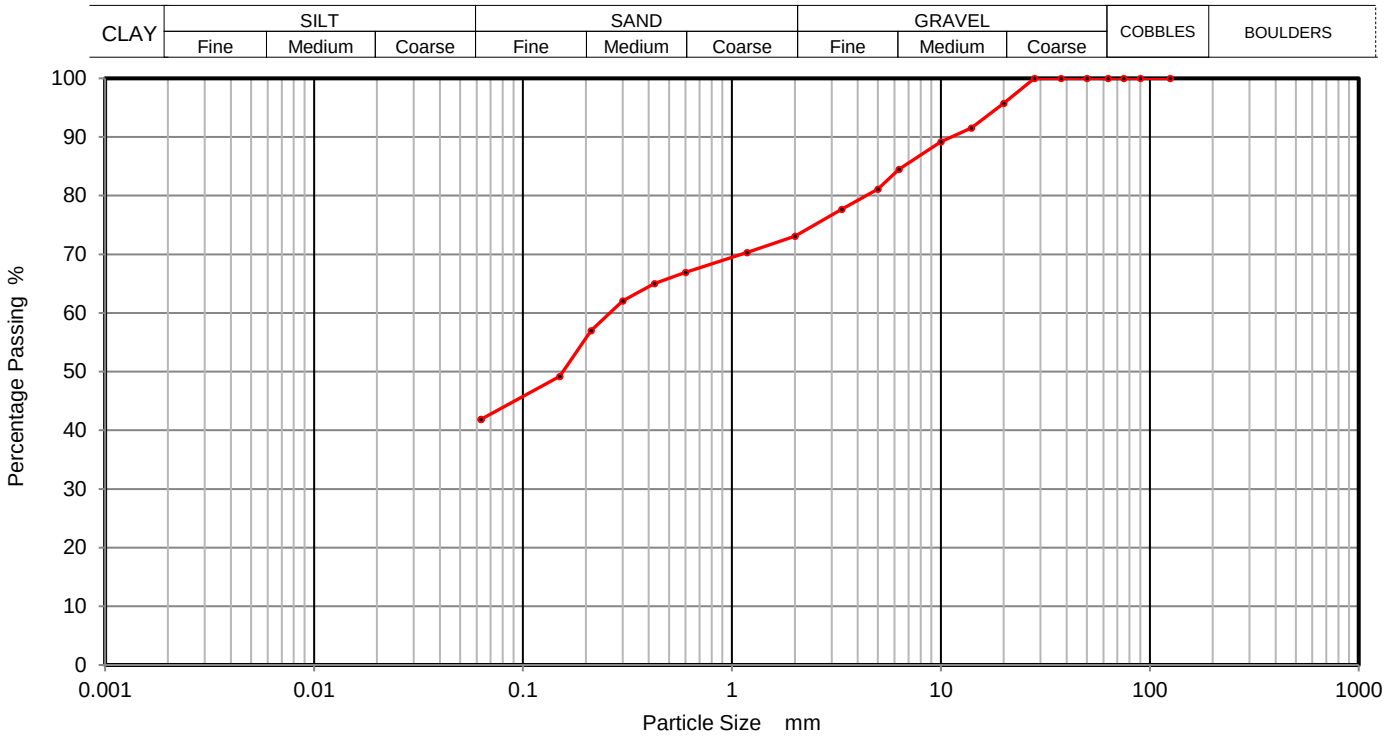
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP27
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	96		
14	92		
10	89		
6.3	84		
5	81		
3.35	78		
2	73		
1.18	70		
0.6	67		
0.425	65		
0.3	62		
0.212	57		
0.15	49		
0.063	42		

Sample Proportions	% dry mass
Cobbles	0
Gravel	27
Sand	31
Silt and Clay	42

Grading Analysis	
Uniformity Coefficient	

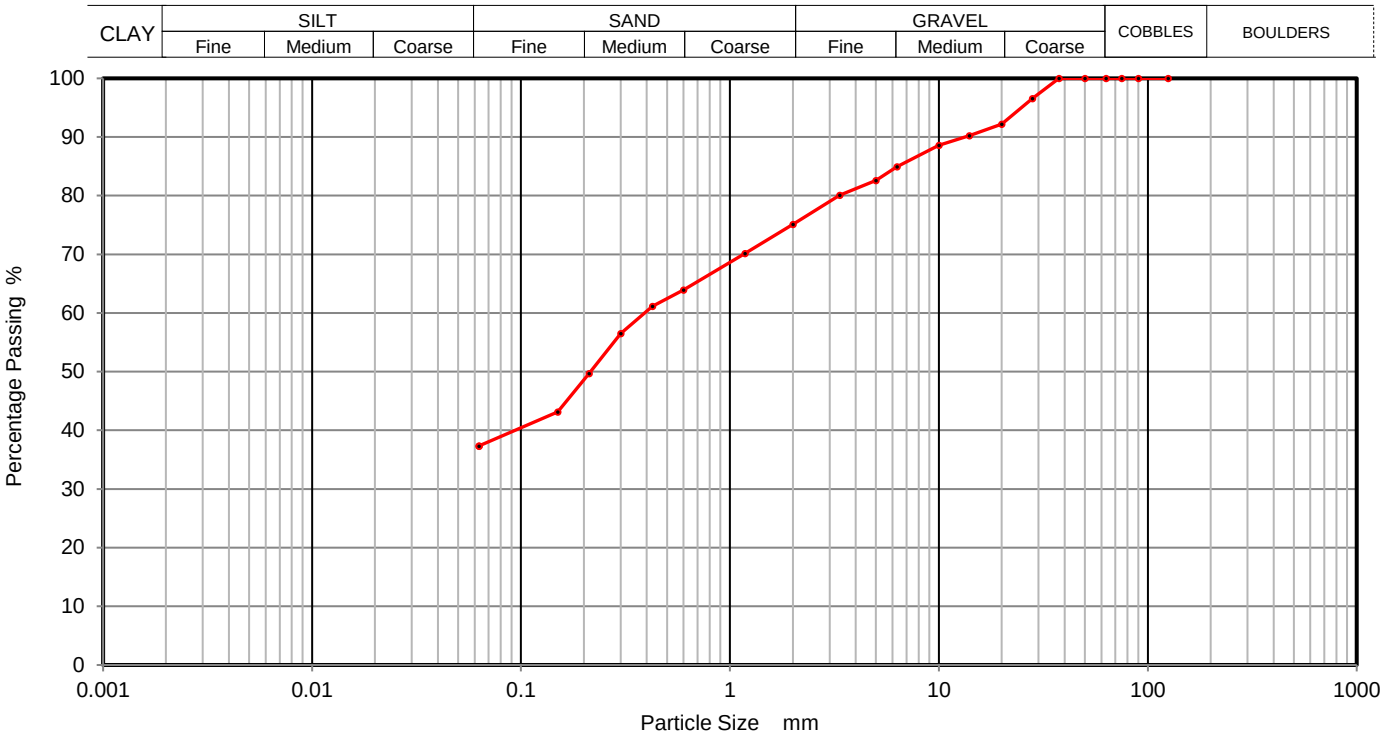
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP29
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly silty clayey fine to coarse SAND	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	97		
20	92		
14	90		
10	89		
6.3	85		
5	83		
3.35	80		
2	75		
1.18	70		
0.6	64		
0.425	61		
0.3	57		
0.212	50		
0.15	43		
0.063	37		

Sample Proportions	% dry mass
Cobbles	0
Gravel	25
Sand	38
Silt and Clay	37

Grading Analysis	
Uniformity Coefficient	

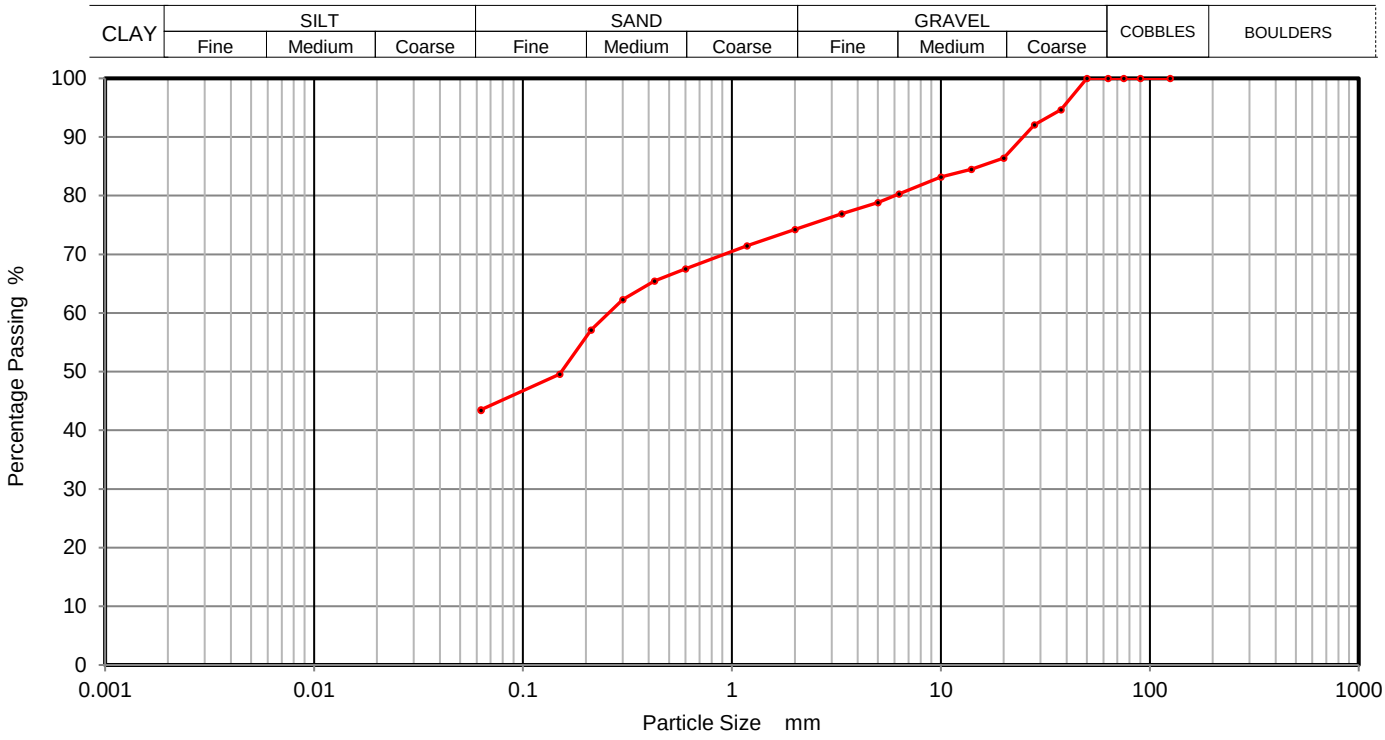
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP29
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	95		
28	92		
20	86		
14	85		
10	83		
6.3	80		
5	79		
3.35	77		
2	74		
1.18	71		
0.6	68		
0.425	65		
0.3	62		
0.212	57		
0.15	50		
0.063	44		

Sample Proportions	% dry mass
Cobbles	0
Gravel	26
Sand	30
Silt and Clay	44

Grading Analysis	
Uniformity Coefficient	

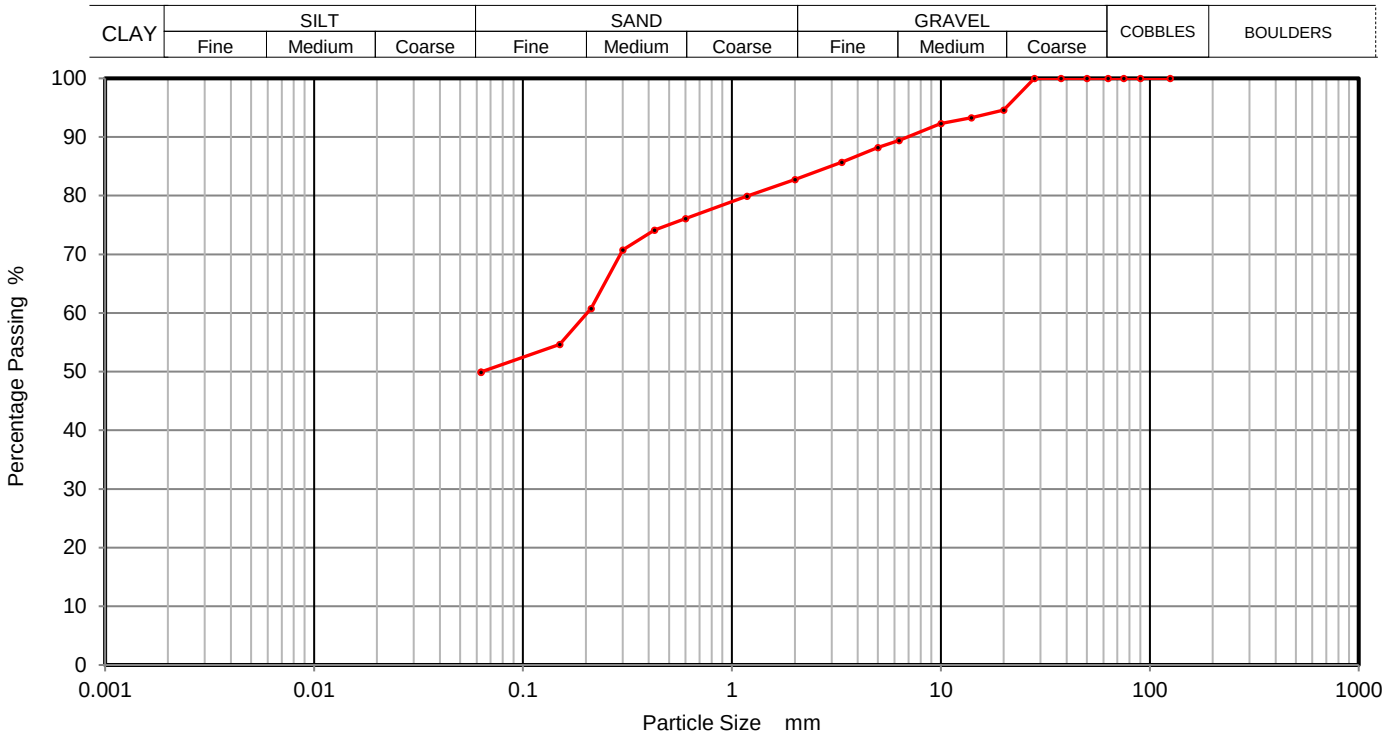
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP31
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	95		
14	93		
10	92		
6.3	89		
5	88		
3.35	86		
2	83		
1.18	80		
0.6	76		
0.425	74		
0.3	71		
0.212	61		
0.15	55		
0.063	50		

Sample Proportions	% dry mass
Cobbles	0
Gravel	17
Sand	33
Silt and Clay	50

Grading Analysis	
Uniformity Coefficient	

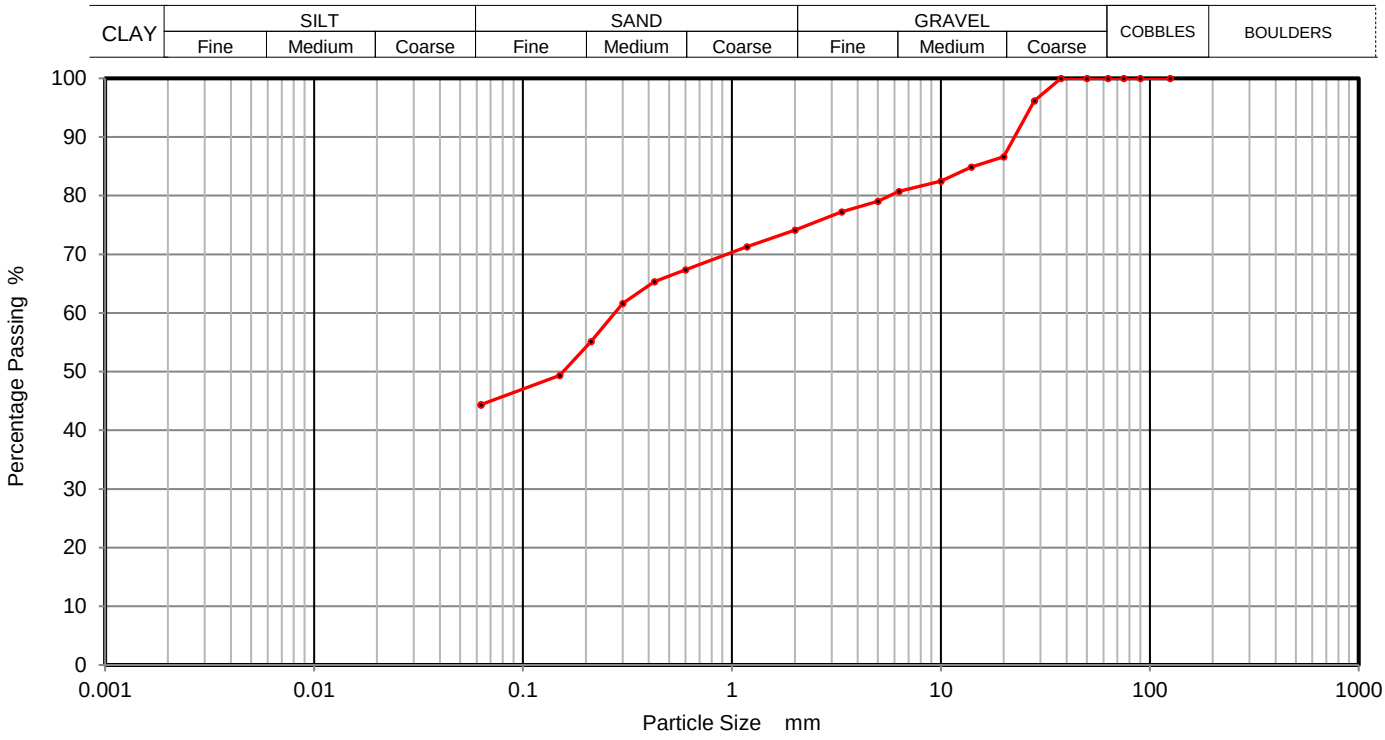
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP31
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	2.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	96		
20	87		
14	85		
10	82		
6.3	81		
5	79		
3.35	77		
2	74		
1.18	71		
0.6	67		
0.425	65		
0.3	62		
0.212	55		
0.15	49		
0.063	44		

Sample Proportions	% dry mass
Cobbles	0
Gravel	26
Sand	30
Silt and Clay	44

Grading Analysis	
Uniformity Coefficient	

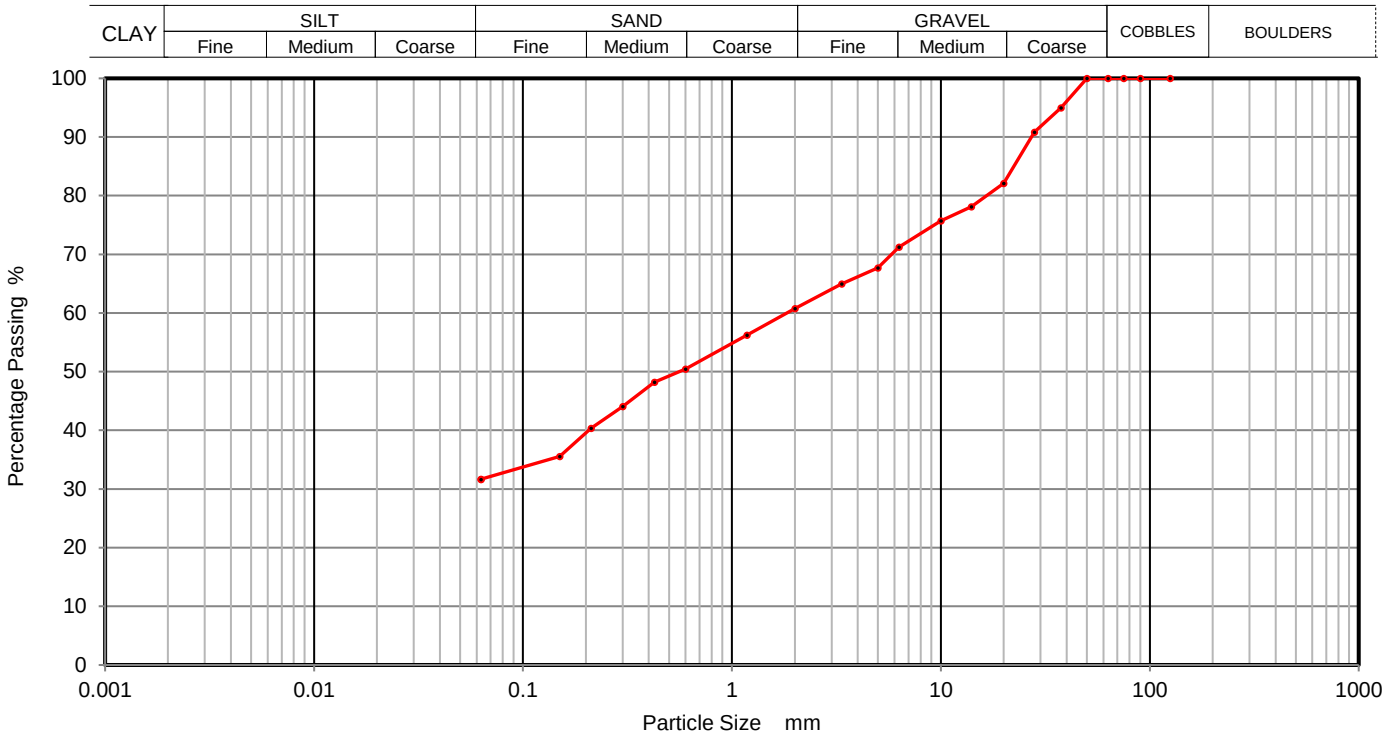
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP33
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy silty clayey fine to coarse GRAVEL	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	95		
28	91		
20	82		
14	78		
10	76		
6.3	71		
5	68		
3.35	65		
2	61		
1.18	56		
0.6	50		
0.425	48		
0.3	44		
0.212	40		
0.15	36		
0.063	32		

Sample Proportions	% dry mass
Cobbles	0
Gravel	39
Sand	29
Silt and Clay	32

Grading Analysis	
Uniformity Coefficient	

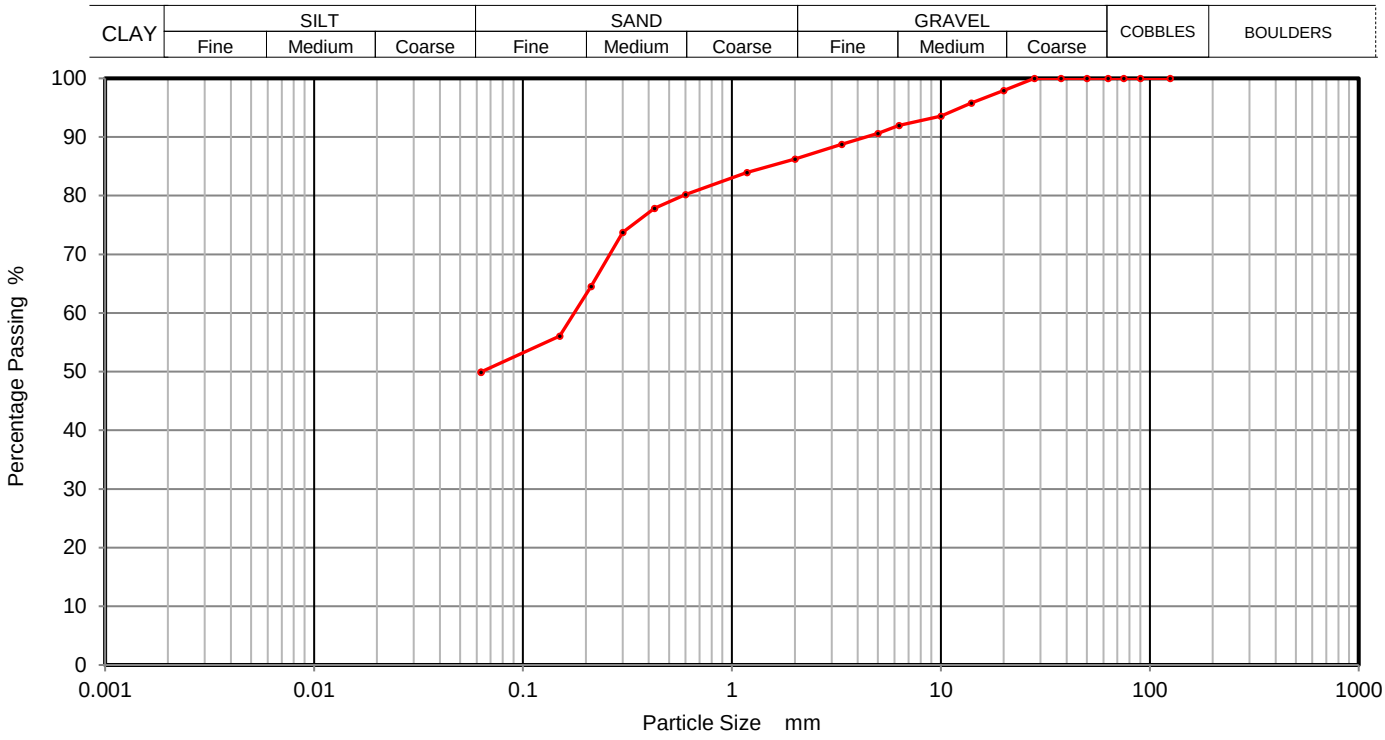
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP33
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	2.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	100		
20	98		
14	96		
10	94		
6.3	92		
5	91		
3.35	89		
2	86		
1.18	84		
0.6	80		
0.425	78		
0.3	74		
0.212	65		
0.15	56		
0.063	50		

Sample Proportions	% dry mass
Cobbles	0
Gravel	14
Sand	36
Silt and Clay	50

Grading Analysis	
Uniformity Coefficient	

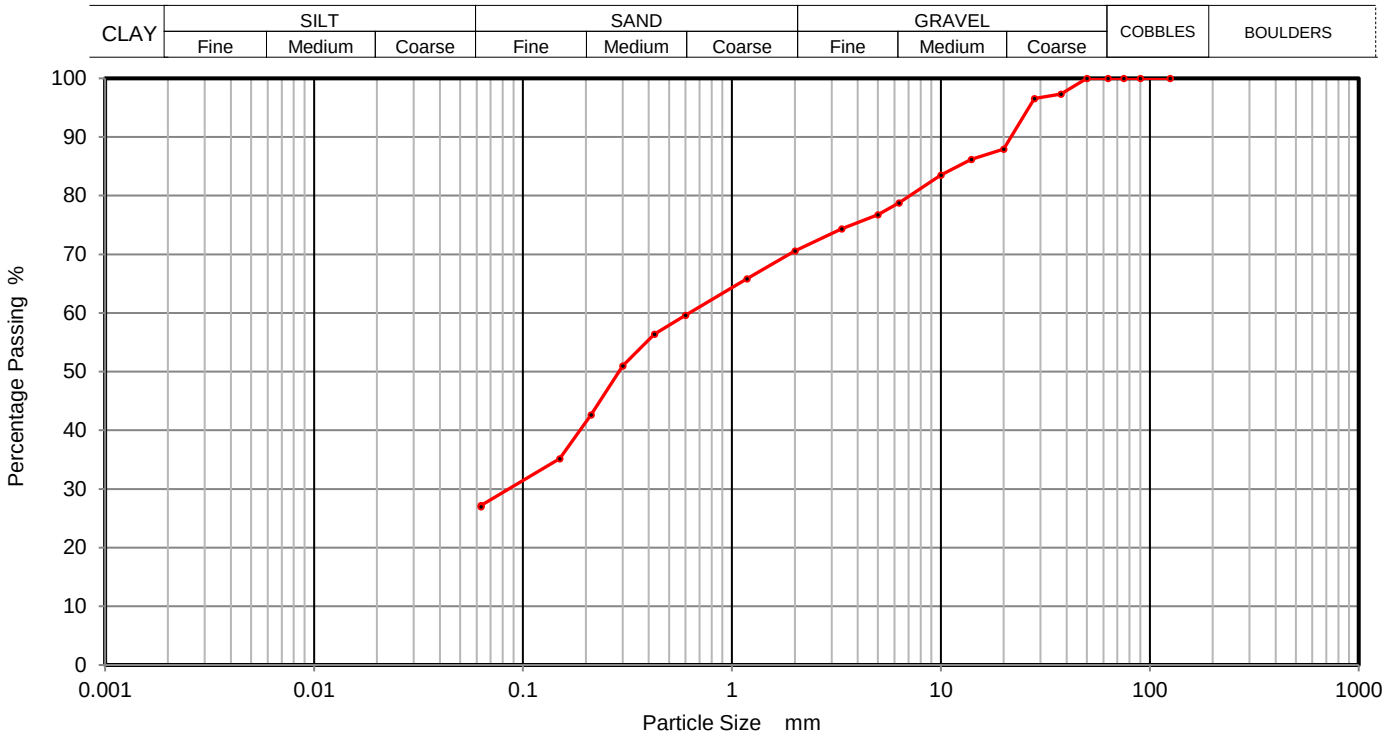
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP35
Site Name	Coolagad	Sample No.	
Soil Description	Brown silty clayey fine to coarse gravelly fine to coarse SAND	Depth Top	1.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	97		
28	97		
20	88		
14	86		
10	84		
6.3	79		
5	77		
3.35	74		
2	71		
1.18	66		
0.6	60		
0.425	56		
0.3	51		
0.212	43		
0.15	35		
0.063	27		

Sample Proportions	% dry mass
Cobbles	0
Gravel	29
Sand	44
Silt and Clay	27

Grading Analysis	
Uniformity Coefficient	

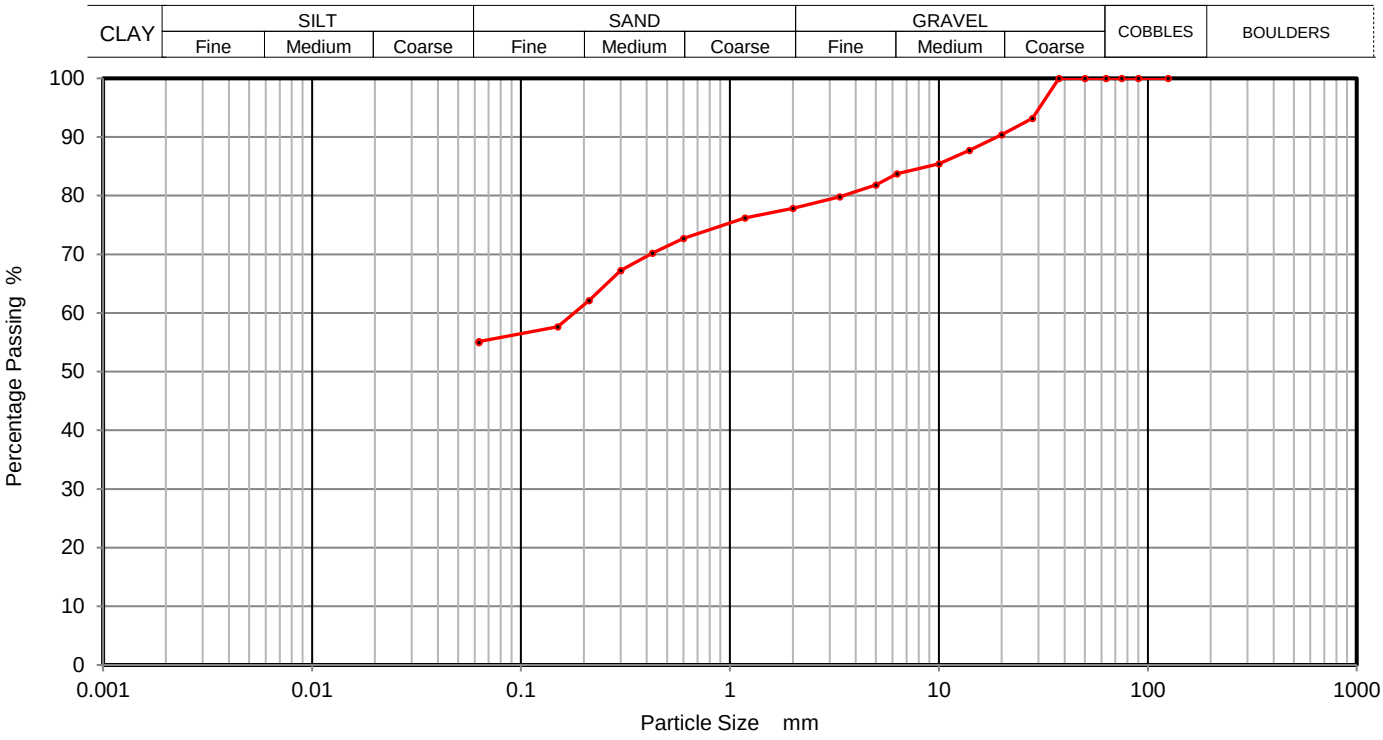
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP36
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse gravelly fine to coarse sandy silty CLAY	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	93		
20	90		
14	88		
10	85		
6.3	84		
5	82		
3.35	80		
2	78		
1.18	76		
0.6	73		
0.425	70		
0.3	67		
0.212	62		
0.15	58		
0.063	55		

Sample Proportions	% dry mass
Cobbles	0
Gravel	22
Sand	23
Silt and Clay	55

Grading Analysis	
Uniformity Coefficient	

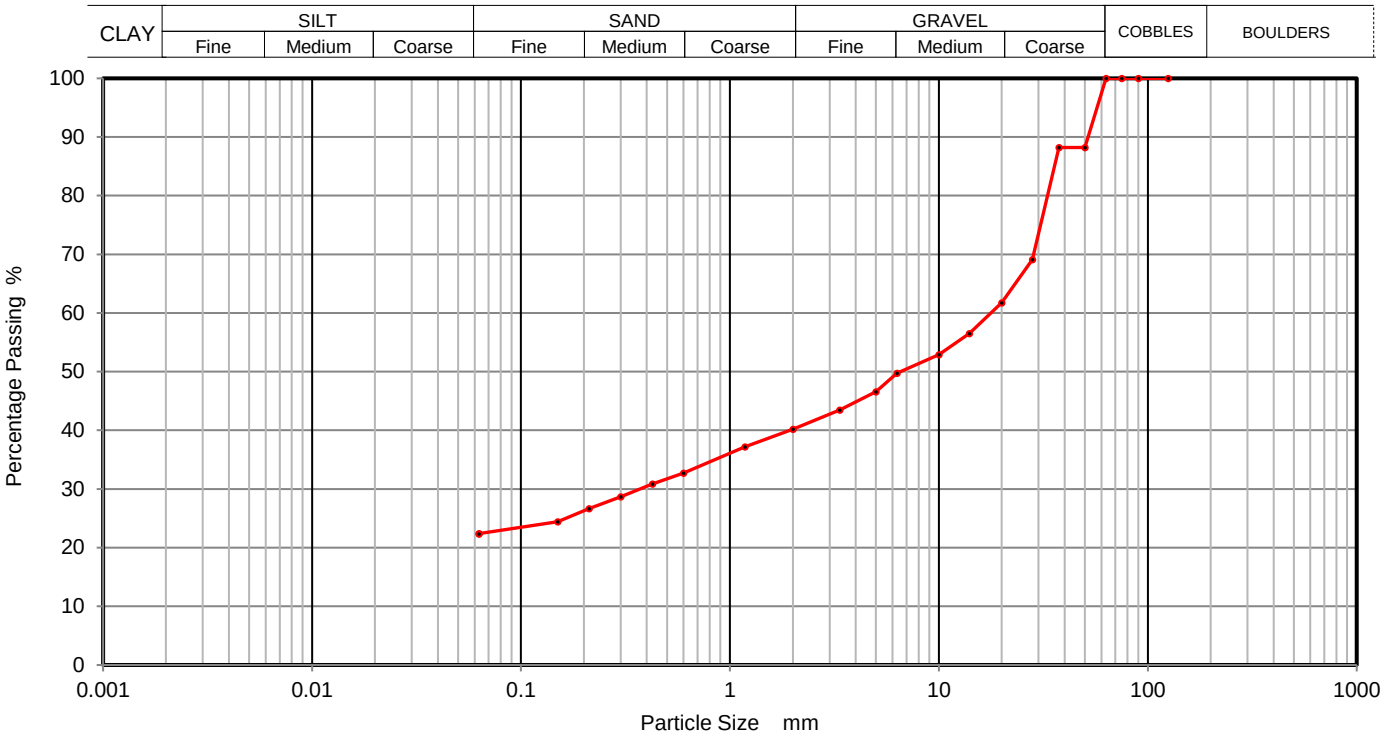
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP37
Site Name	Coolagad	Sample No.	
Soil Description	Brown fine to coarse sandy silty clayey fine to coarse GRAVEL	Depth Top	0.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	88		
37.5	88		
28	69		
20	62		
14	56		
10	53		
6.3	50		
5	47		
3.35	43		
2	40		
1.18	37		
0.6	33		
0.425	31		
0.3	29		
0.212	27		
0.15	24		
0.063	22		

Sample Proportions	% dry mass
Cobbles	0
Gravel	60
Sand	18
Silt and Clay	22

Grading Analysis	
Uniformity Coefficient	

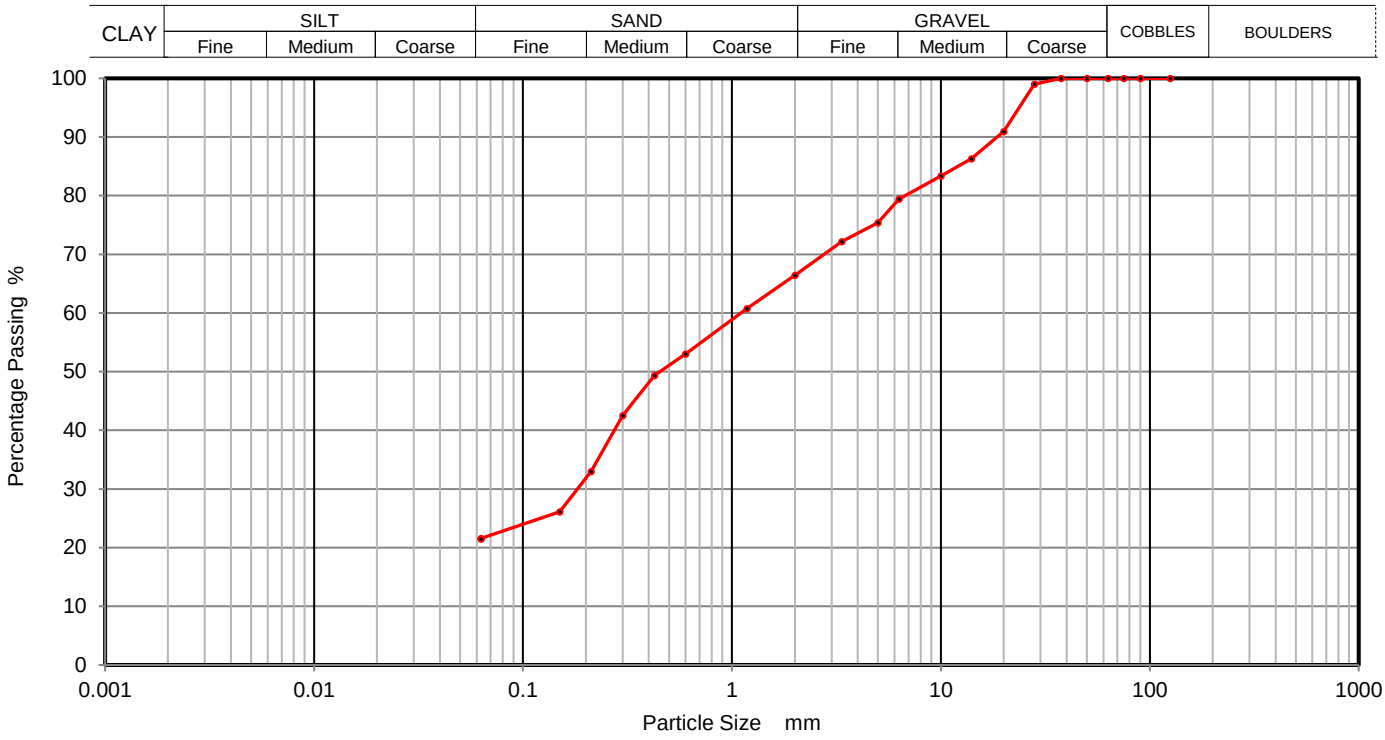
Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	PARTICLE SIZE DISTRIBUTION BS 1377 Part 2:1990 Wet Sieve, Clause 9.2	Contract Number	37411
		Borehole/Pit No.	TP37
Site Name	Coolagad	Sample No.	
Soil Description	Brown slightly clayey silty fine to coarse gravelly fine to coarse SAND	Depth Top	2.50
		Depth Base	
		Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	
90	100	0.0060	
75	100	0.0019	
63	100		
50	100		
37.5	100		
28	99		
20	91		
14	86		
10	83		
6.3	79		
5	75		
3.35	72		
2	66		
1.18	61		
0.6	53		
0.425	49		
0.3	43		
0.212	33		
0.15	26		
0.063	22		

Sample Proportions	% dry mass
Cobbles	0
Gravel	34
Sand	44
Silt and Clay	22

Grading Analysis	
Uniformity Coefficient	

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operators	Checked	06/12/2017	Sean Penn	
RO/MH	Approved	07/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Certificate of Chemical Analysis (BRE BR 279)	Contract Number	37411
		Client Reference	
Client	Ground Investigation Ireland	**Date Received**	
Site Name	Coolagad	**Date Started**	29/11/2017
		Date Completed	07/12/2017
		No. of Samples	10

Hole Number	Sample Number	Sample Type	Depth (m)			Acid Soluble Sulphate	Aqueous Extract Sulphate	Chloride Content	Ph Value	Total Sulphur	Magnesium	Nitrate
TP11		B	1.50	-		0.21	0.02		7.01	0.08		
BH01		B	2.00	-		0.08	0.02		6.53	0.04		
BH02		B	1.00	-		0.14	0.02		6.97	0.06		
BH03		B	1.00	-		0.74	0.05		7.55	0.26		
BH03		B	3.00	-		0.27	0.02		7.38	0.10		
BH04		B	2.00	-		0.33	0.03		7.92	0.12		
BH05		B	2.00	-		0.16	0.02		7.87	0.06		
BH06		B	1.00	-		0.12	0.03		8.01	0.05		
BH07		B	2.00	-		0.16	0.02		7.63	0.06		
BH08		B	0.50	-		0.14	0.02		7.88	0.06		
				-								
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Key	Reported As
Acid Soluble Sulphate	% SO_4
Aqueous Extract Sulphate	g/l SO_4
Chloride Content (Semi)	mg Cl/l
PH Value	@ 25°
Total Sulphur	% S
Magnesium	g/l SO_4
Nitrate	NO_3 mg/l

Remarks

NCP = No Chloride Present

Test Operator	Checked and Authorised by		Ben Sharp	
Darren Bourne	Date	07/12/2017		

GSTL	Certificate of Chemical Analysis (B.S. 1377 : PART 3 : 1990)	Contract Number	37411
		Client Reference	
Client	Ground Investigation Ireland	**Date Received**	
Site Name	Coolagad	**Date Started**	29/11/2017
		Date Completed	07/12/2017
		No. of Samples	10

Hole Number	Sample Number	Sample Type	Depth (m)			Acid Soluble Sulphate	Aqueous Extract Sulphate	Water Soluble Chloride	PH Value	Organic Matter Content	Acid Soluble Chloride	Loss On Ignition
TP11		B	1.50	-						0.8		
BH01		B	2.00	-						1.1		
BH02		B	1.00	-						1		
BH03		B	1.00	-						0.9		
BH03		B	3.00	-						1		
BH04		B	2.00	-						0.9		
BH05		B	2.00	-						0.6		
BH06		B	1.00	-						0.5		
BH07		B	2.00	-						0.7		
BH08		B	0.50	-						0.6		
				-								
				-								
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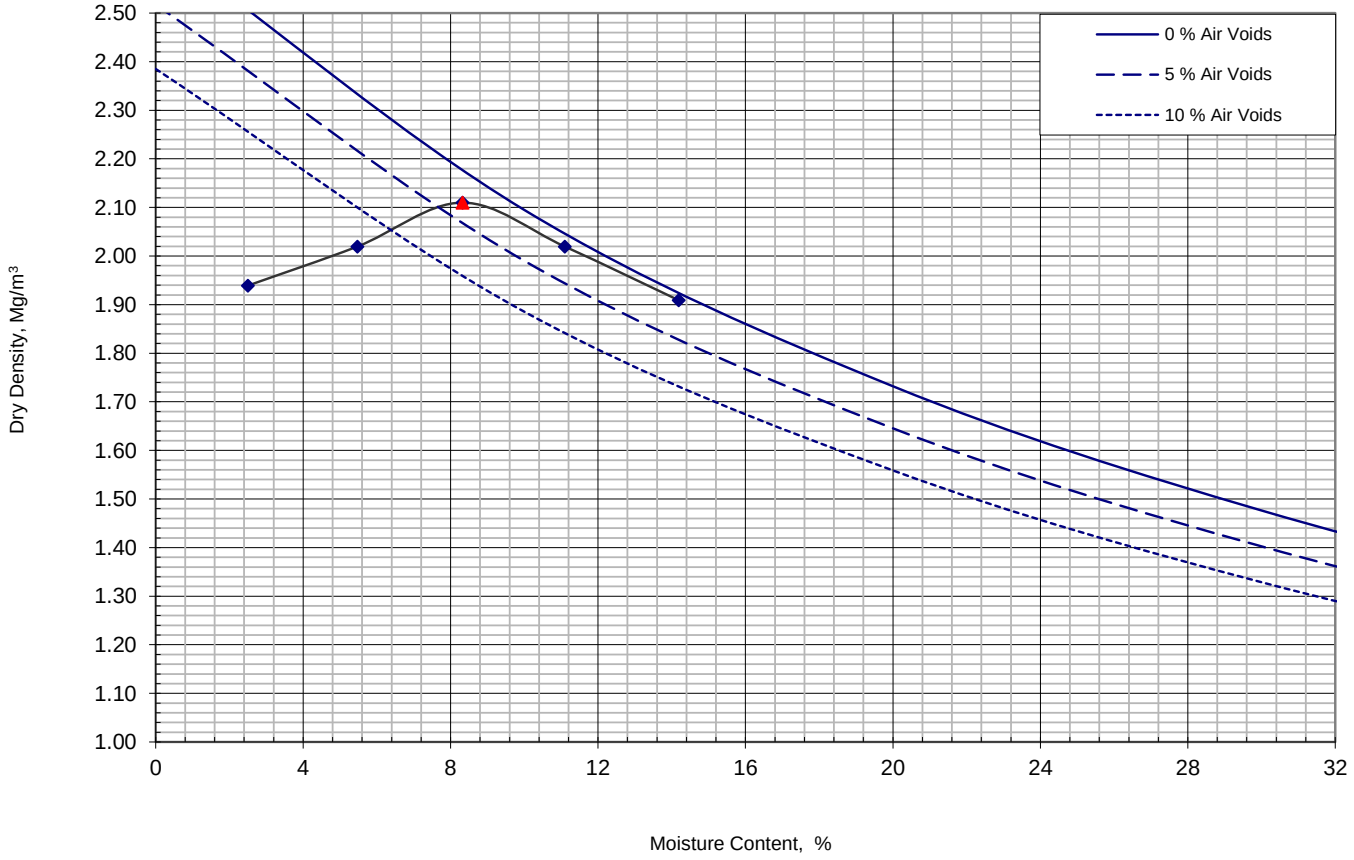
Key	Reported As	Clause
Acid Soluble Sulphate	% SO_3	Clause 5.2 & 5.5
Aqueous Extract Sulphate	g/l SO_3	Clause 5.3 & 5.5
2/1 Chloride	%	Clause 7.2
PH Value	@ 25°	Clause 9.5
Organic	%	Clause 3
Redox Mv	Mv	Clause 4
LOI	%	Clause 4

Remarks

NCP = No Chloride Present

Test Operator	Checked and Authorised by		Ben Sharp	
Darren Bourne	Date	07/12/2017		

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP01
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**1.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.3**	Sample Type	**B**



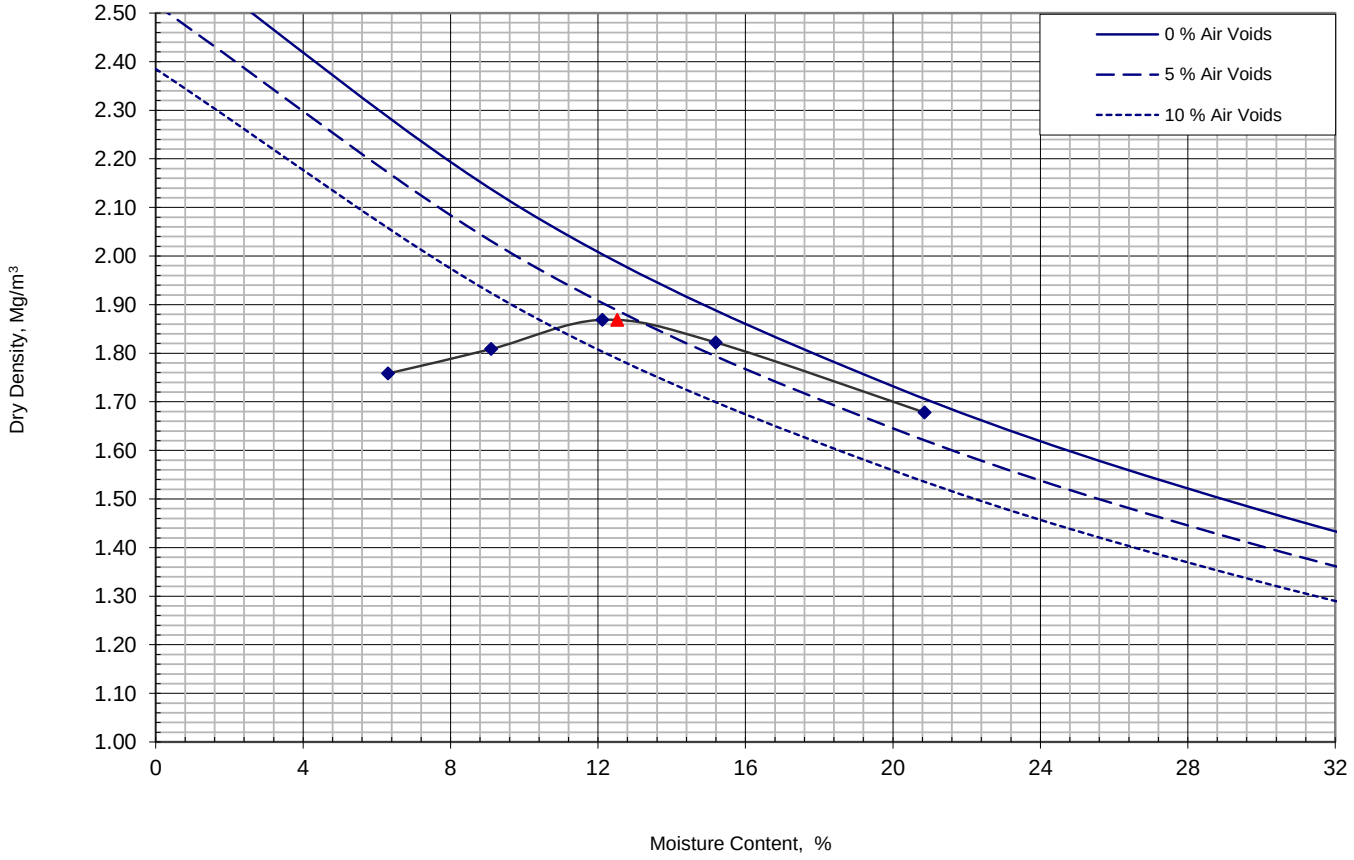
Compaction Point	1	2	3	4	5							
Moisture Content	2.5	5.5	8.3	11	14							
Bulk Density	1.99	2.13	2.29	2.24	2.18							
Dry Density	1.94	2.02	2.11	2.02	1.91							

Initial Moisture Content	11	%
Maximum Dry Density	2.11	Mg/m3
Optimum Moisture Content	8	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	5	%
Material Retained 20mm	2	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP11
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**0.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.3**	Sample Type	**B**



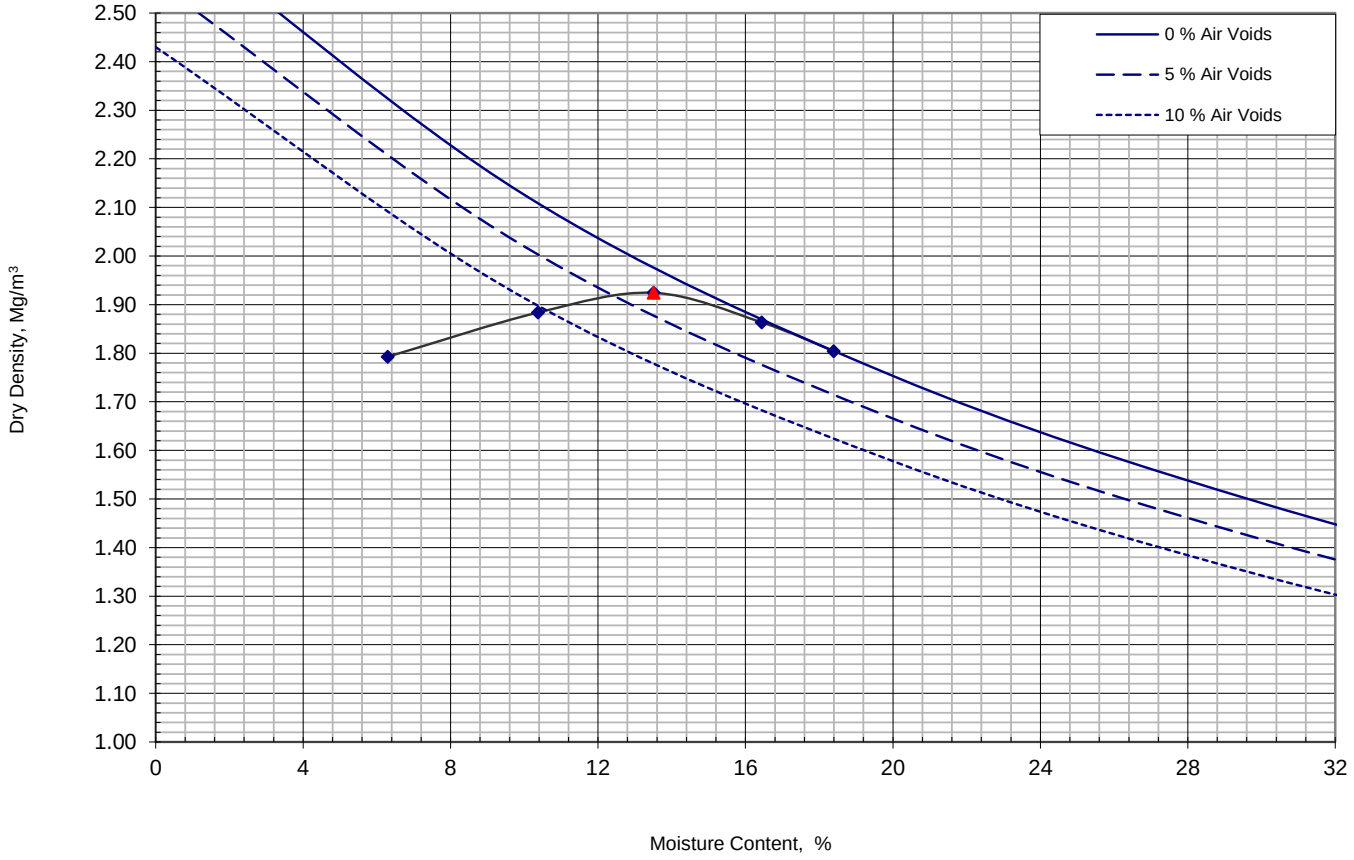
Compaction Point	1	2	3	4	5							
Moisture Content	6.3	9.1	12	15	21							
Bulk Density	1.87	1.97	2.10	2.10	2.03							
Dry Density	1.76	1.81	1.87	1.82	1.68							

Initial Moisture Content	21	%
Maximum Dry Density	1.87	Mg/m3
Optimum Moisture Content	13	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	4	%
Material Retained 20mm	15	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP18
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**0.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.4**	Sample Type	**B**



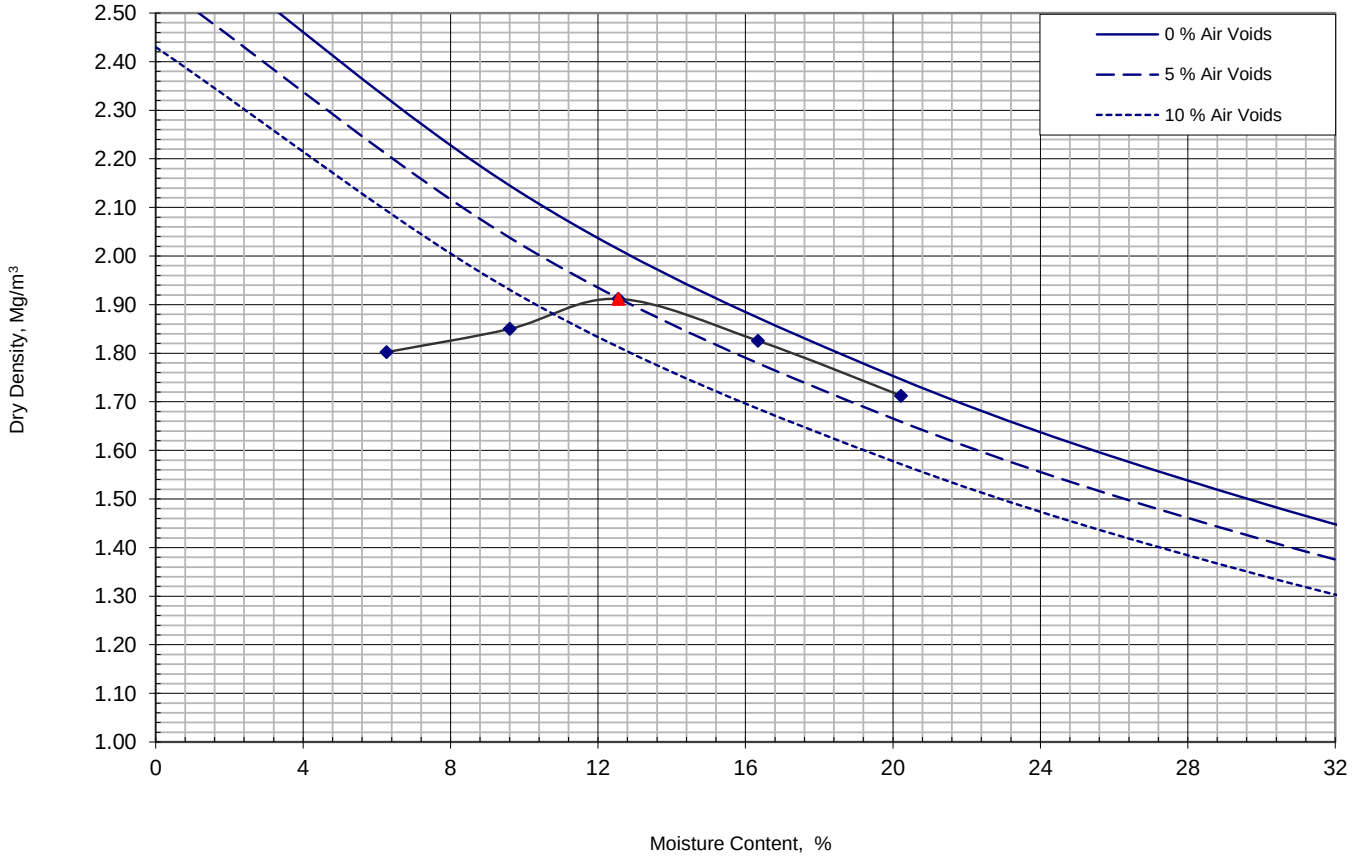
Compaction Point	1	2	3	4	5							
Moisture Content	6.3	10	14	16	18							
Bulk Density	1.91	2.08	2.18	2.17	2.14							
Dry Density	1.79	1.88	1.92	1.86	1.80							

Initial Moisture Content	18	%
Maximum Dry Density	1.92	Mg/m3
Optimum Moisture Content	14	%
Particle Density	2.7 Assumed	Mg/m3
Material Retained 37.5mm	14	%
Material Retained 20mm	6	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP23
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**1.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.4**	Sample Type	**B**



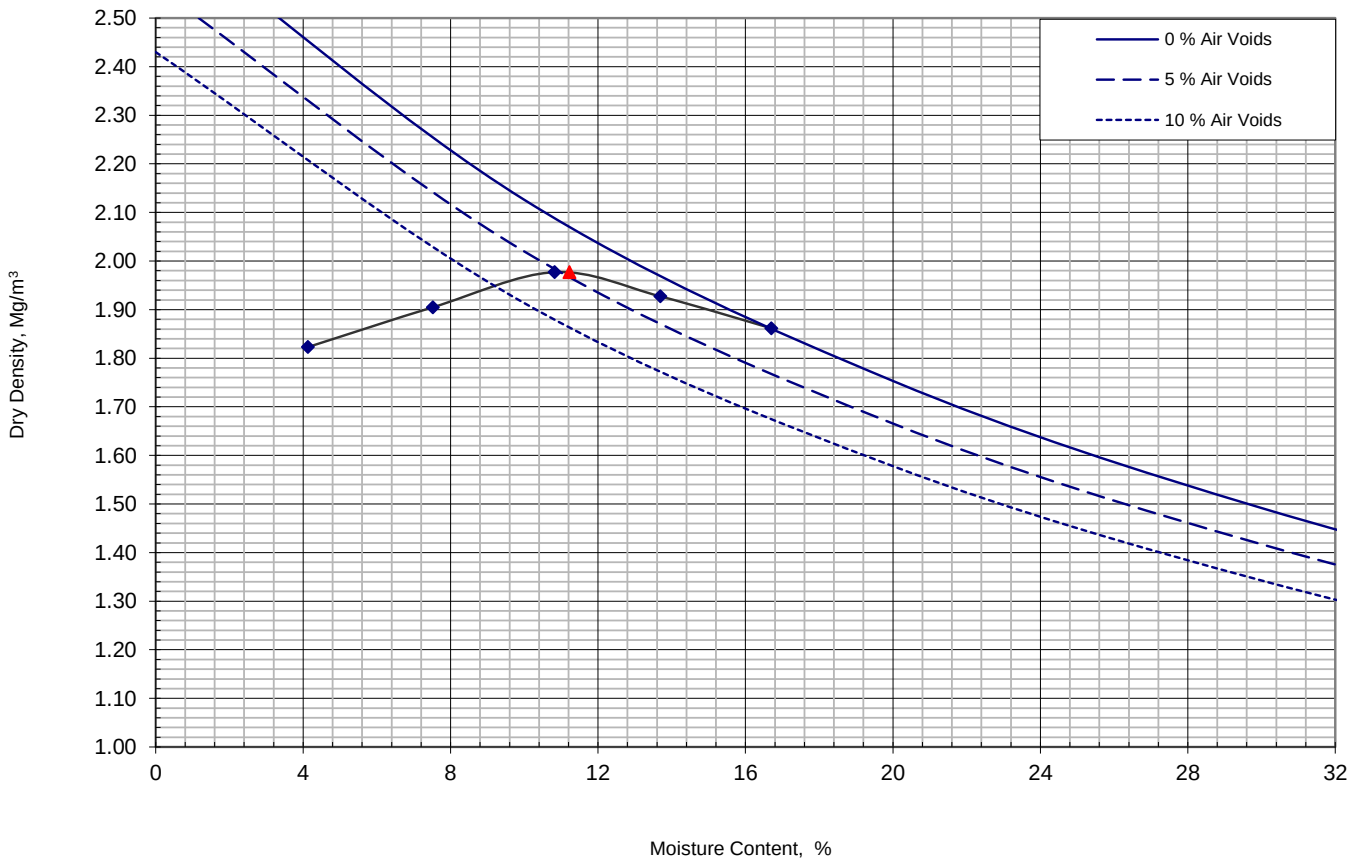
Compaction Point	1	2	3	4	5							
Moisture Content	6.3	9.6	13	16	20							
Bulk Density	1.91	2.03	2.15	2.12	2.06							
Dry Density	1.80	1.85	1.91	1.83	1.71							

Initial Moisture Content	20	%
Maximum Dry Density	1.91	Mg/m3
Optimum Moisture Content	13	%
Particle Density	2.7 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	6	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP25
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**2.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.4**	Sample Type	**B**



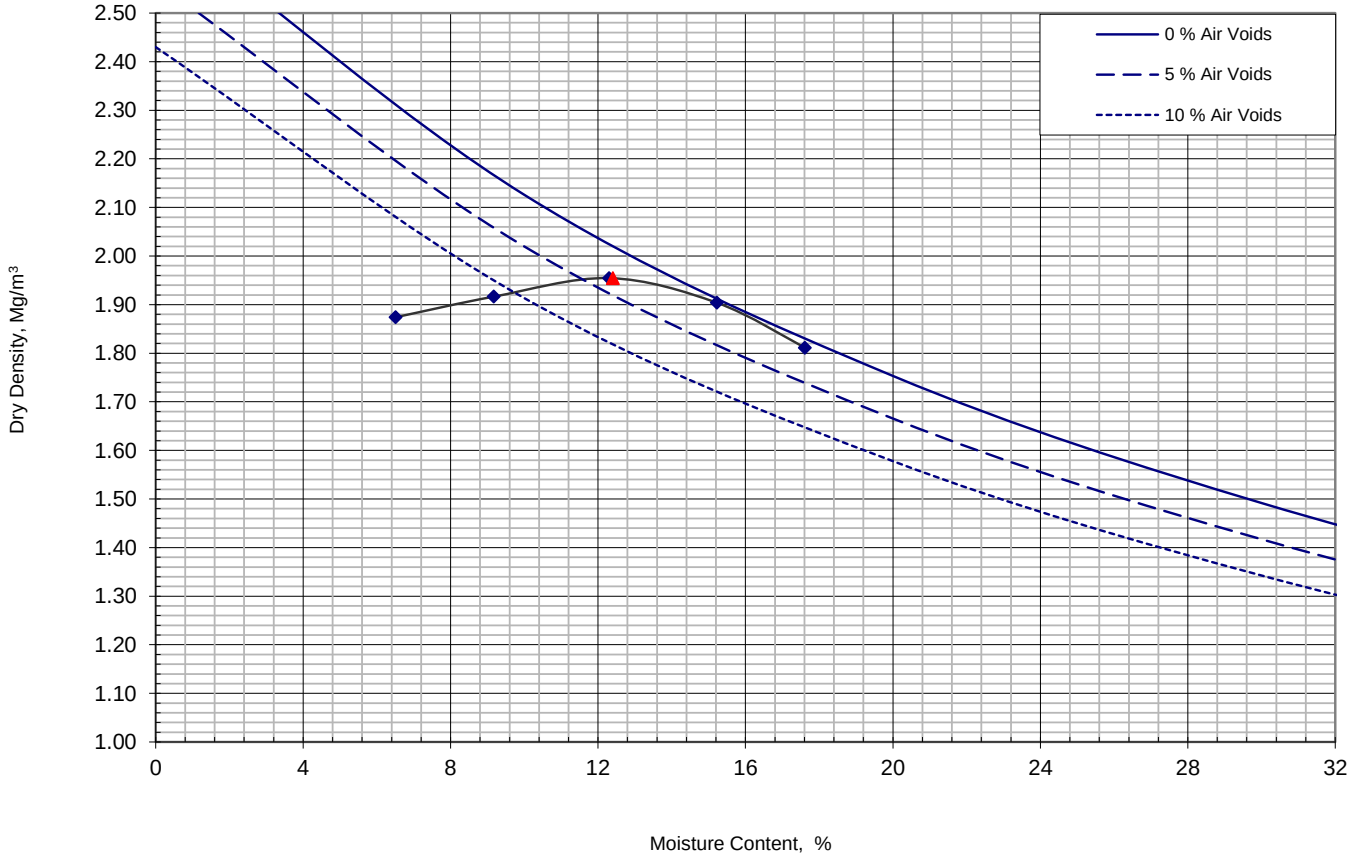
Compaction Point	1	2	3	4	5							
Moisture Content	4.1	7.5	11	14	17							
Bulk Density	1.90	2.05	2.19	2.19	2.17							
Dry Density	1.82	1.90	1.98	1.93	1.86							

Initial Moisture Content	17	%
Maximum Dry Density	1.98	Mg/m3
Optimum Moisture Content	11	%
Particle Density	2.7 Assumed	Mg/m3
Material Retained 37.5mm	36	%
Material Retained 20mm	2	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP27
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**1.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.4**	Sample Type	**B**



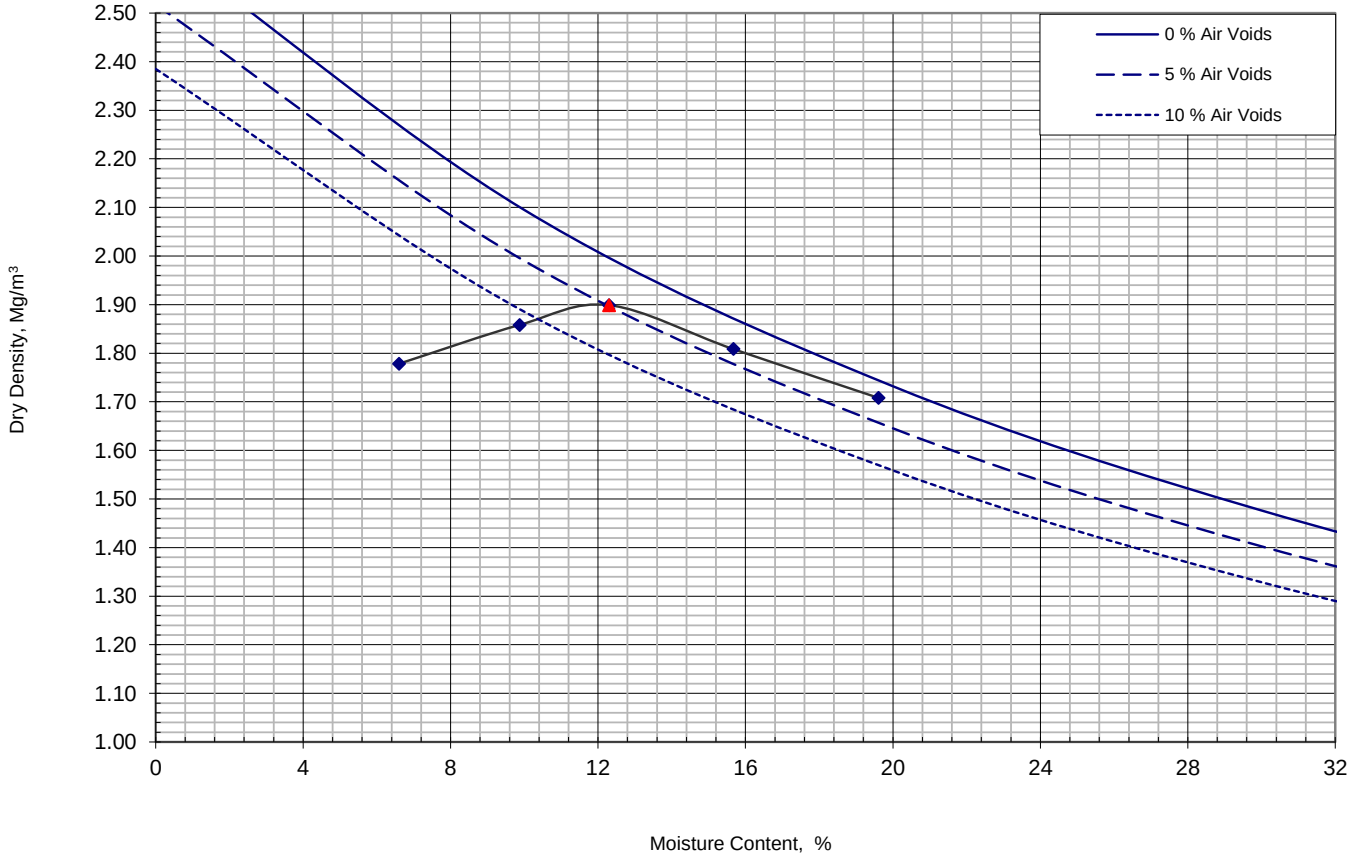
Compaction Point	1	2	3	4	5							
Moisture Content	6.5	9.2	12	15	18							
Bulk Density	2.00	2.09	2.19	2.19	2.13							
Dry Density	1.87	1.92	1.95	1.90	1.81							

Initial Moisture Content	18	%
Maximum Dry Density	1.95	Mg/m3
Optimum Moisture Content	12	%
Particle Density	2.7 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	4	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP29
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**1.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.3**	Sample Type	**B**



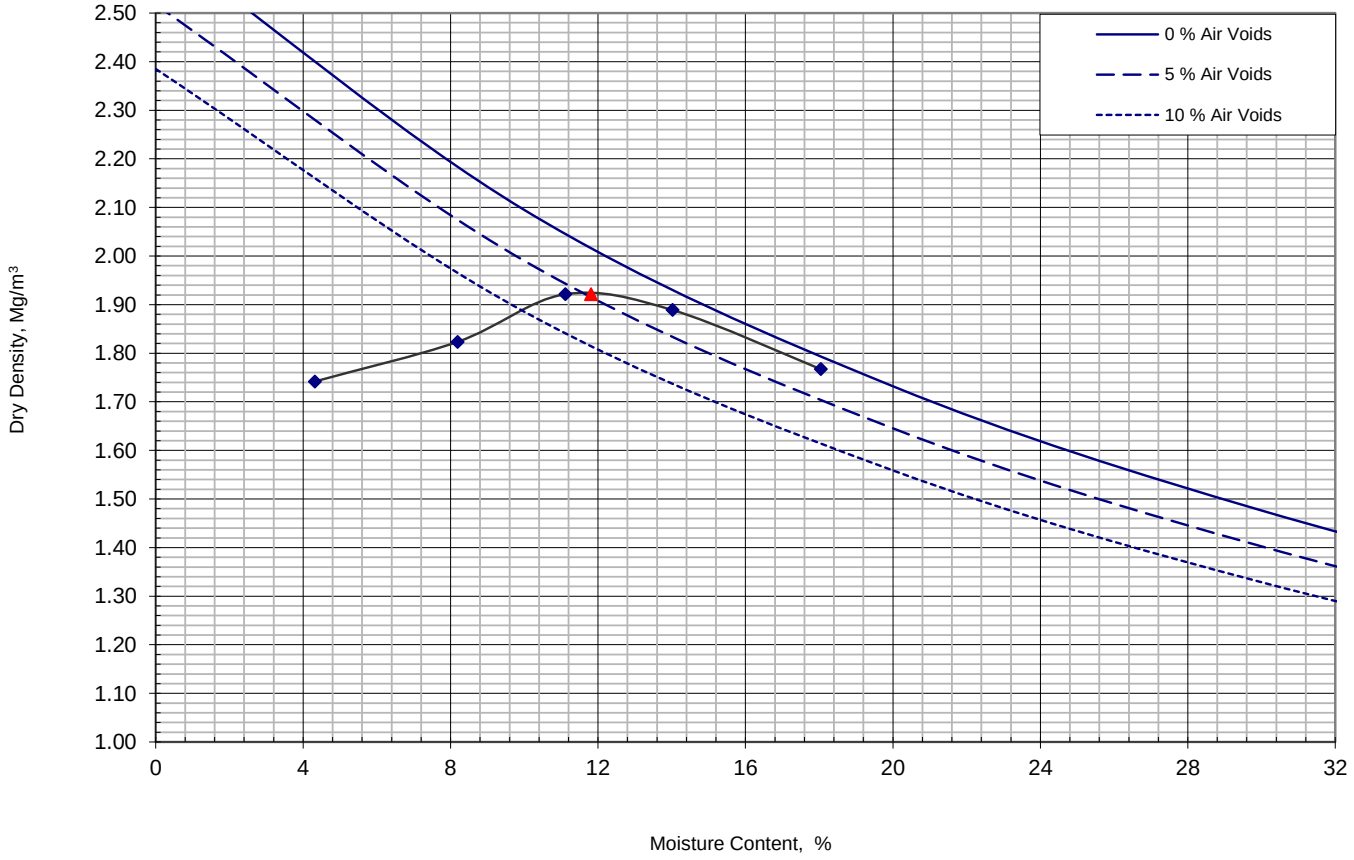
Compaction Point	1	2	3	4	5							
Moisture Content	6.6	9.9	12	16	20							
Bulk Density	1.90	2.04	2.13	2.09	2.04							
Dry Density	1.78	1.86	1.90	1.81	1.71							

Initial Moisture Content	20	%
Maximum Dry Density	1.90	Mg/m3
Optimum Moisture Content	12	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	5	%
Material Retained 20mm	9	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP31
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**2.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.4**	Sample Type	**B**



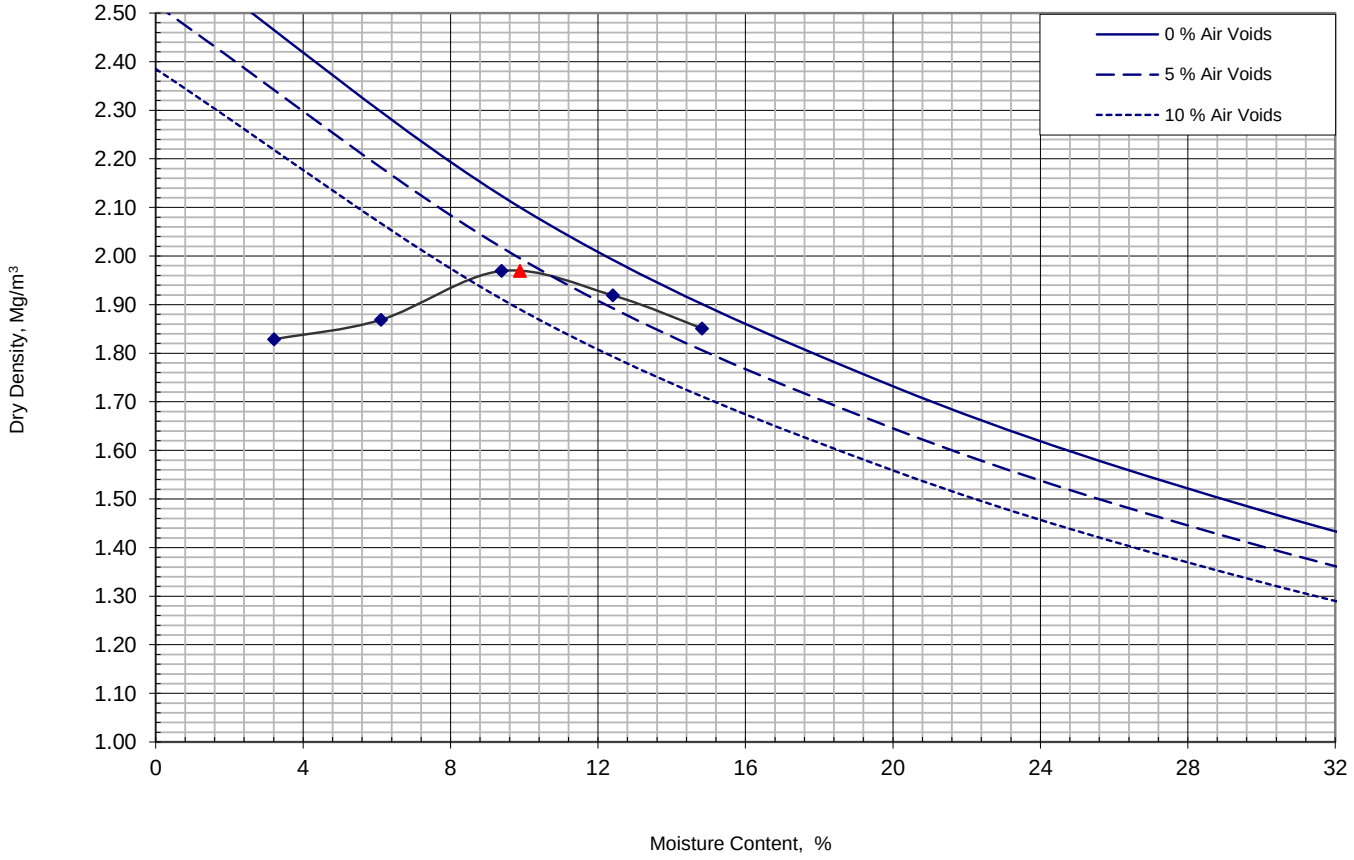
Compaction Point	1	2	3	4	5							
Moisture Content	4.3	8.2	11	14	18							
Bulk Density	1.82	1.97	2.13	2.15	2.09							
Dry Density	1.74	1.82	1.92	1.89	1.77							

Initial Moisture Content	18	%
Maximum Dry Density	1.92	Mg/m3
Optimum Moisture Content	12	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	13	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP33
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**1.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.3**	Sample Type	**B**



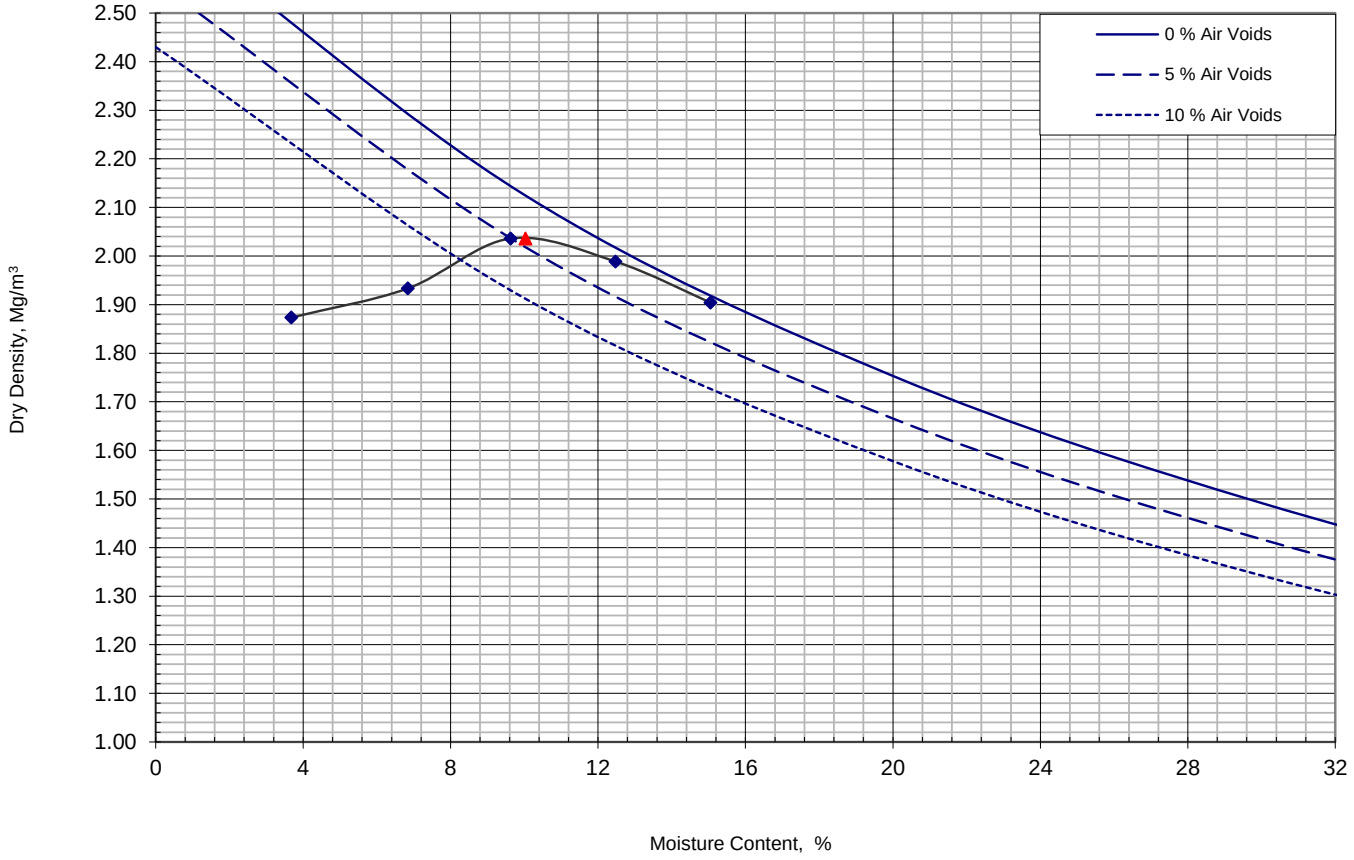
Compaction Point	1	2	3	4	5							
Moisture Content	3.2	6.1	9.4	12	15							
Bulk Density	1.89	1.98	2.15	2.16	2.13							
Dry Density	1.83	1.87	1.97	1.92	1.85							

Initial Moisture Content	15	%
Maximum Dry Density	1.97	Mg/m3
Optimum Moisture Content	10	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	5	%
Material Retained 20mm	13	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	Dry Density / Moisture Content Relationship BS 1377:Part 4:1990	Contract Number	37411
		Borehole / Pit No	TP36
Site Name	**Gate Farm, Bourton on Dunsmore**	Sample No	
		Depth Top	**0.50**
Compaction Method	**2.5 Kg Rammer**	Depth Base	
Compaction Clause	**BS1377:Part 4:1990, Clause 3.4**	Sample Type	**B**



Compaction Point	1	2	3	4	5							
Moisture Content	3.7	6.8	9.6	12	15							
Bulk Density	1.94	2.07	2.23	2.24	2.19							
Dry Density	1.87	1.93	2.04	1.99	1.90							

Initial Moisture Content	12	%
Maximum Dry Density	2.04	Mg/m3
Optimum Moisture Content	10	%
Particle Density	2.7 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	10	%

Operators	Checked	07/12/2017	Sean Penn	
CA	Approved	08/12/2017	Ben Sharp	

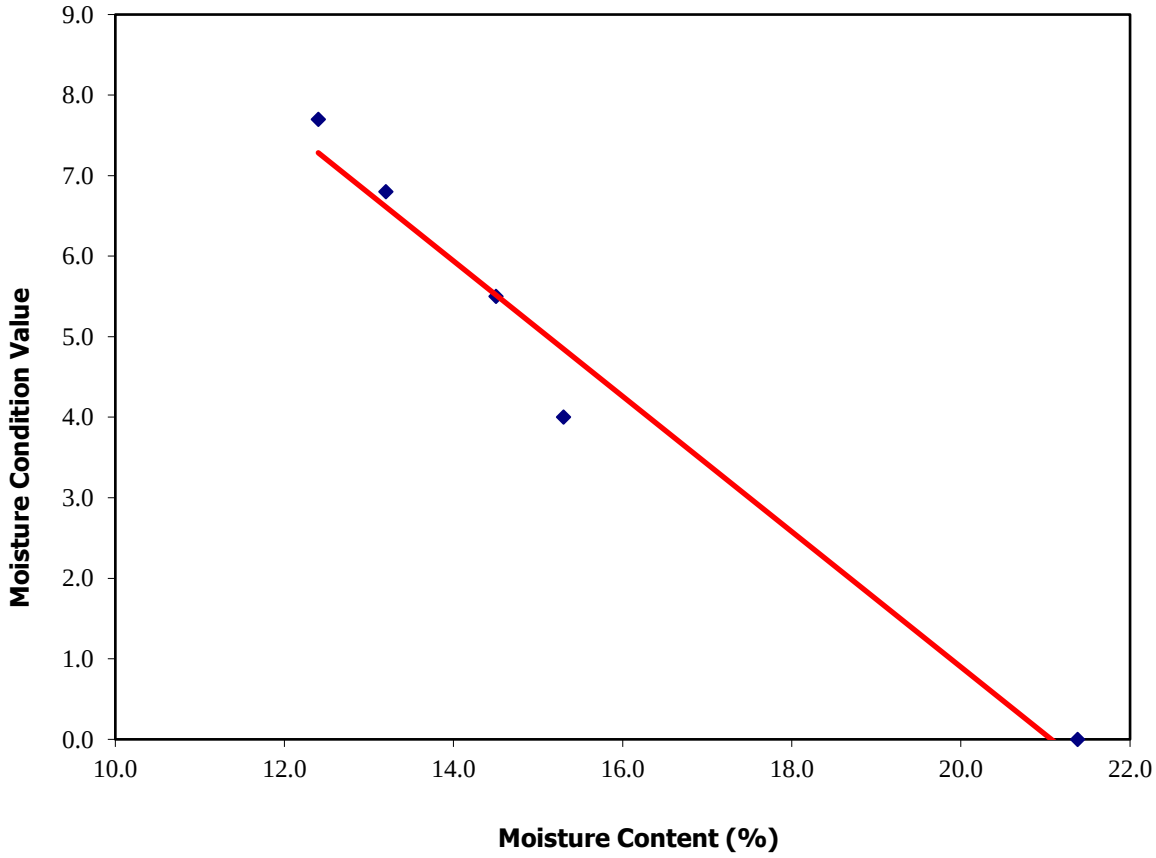
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP10**
Sample Number:	**N/A**
Depth (m) :	**1.5**
Sample Type	**LB**

Initial Moisture Content (%).:	21.4
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	8.37



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	12.4	13.2	14.5	15.3	21.4
MCV	7.7	6.8	5.5	4.0	0.0

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)

Approved by
Paul Evans (Office Manager)

Date approved: **8/12/17**

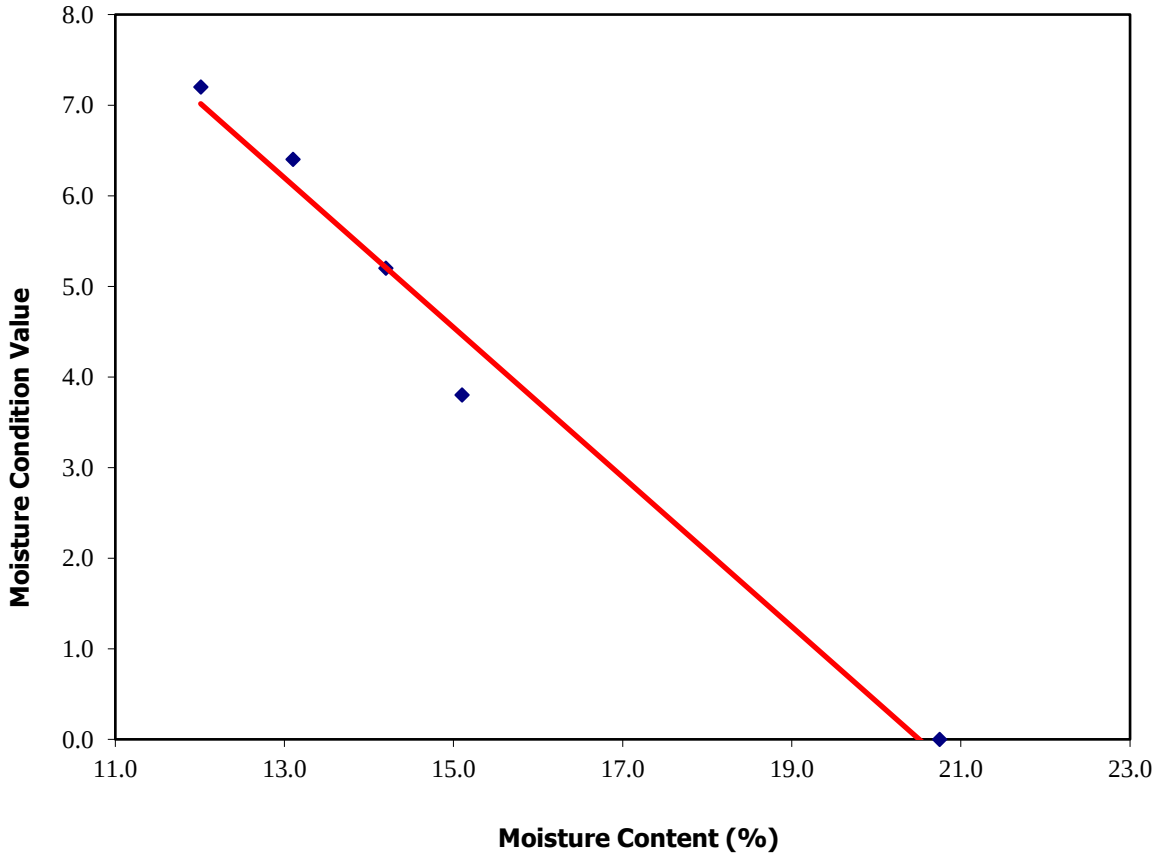
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP16**
Sample Number:	**N/A**
Depth (m) :	**0.5**
Sample Type	**LB**

Initial Moisture Content (%).:	20.8
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	4.88



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	12.0	13.1	14.2	15.1	20.8
MCV	7.2	6.4	5.2	3.8	0.0

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)
Date approved:

Approved by
Paul Evans (Office Manager)
8/12/17

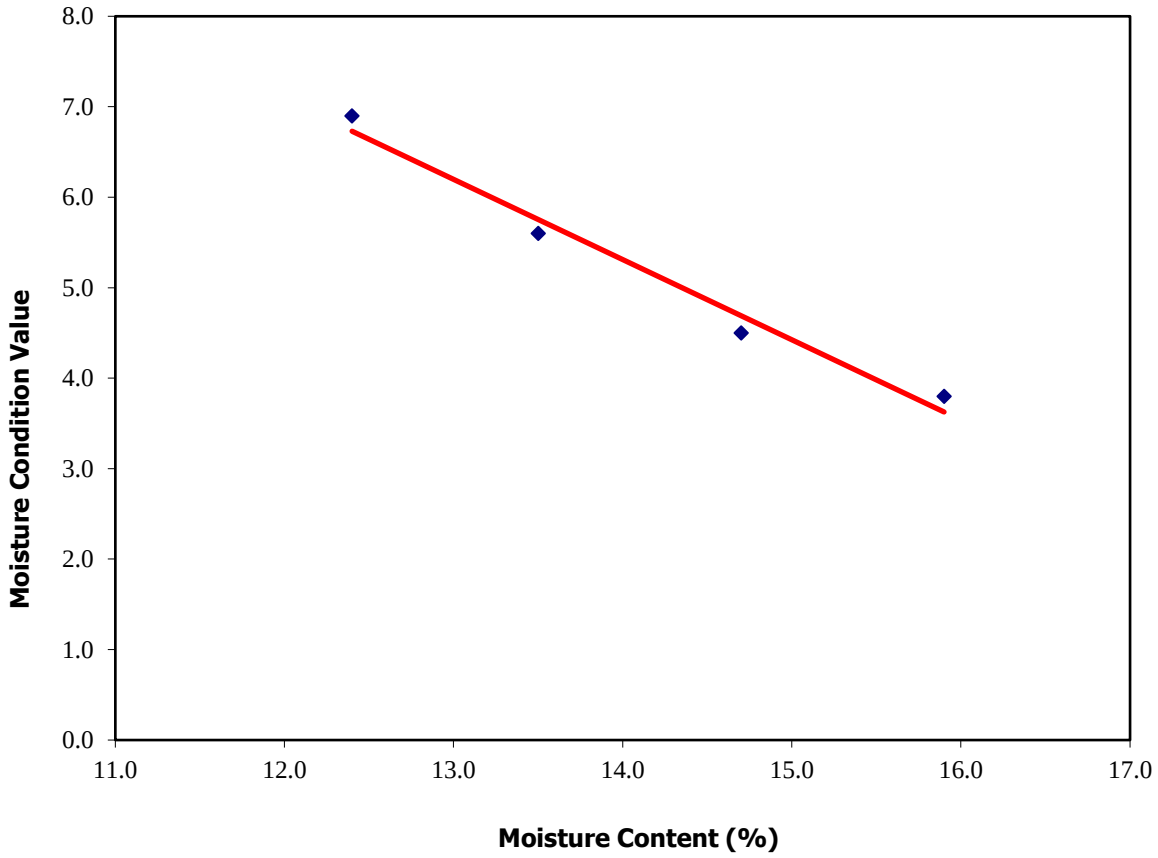
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP21**
Sample Number:	**N/A**
Depth (m) :	**1.5**
Sample Type	**LB**

Initial Moisture Content (%).:	15.9
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	49.36



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	12.4	13.5	14.7	15.9	
MCV	6.9	5.6	4.5	3.8	

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)
Date approved:

Approved by
Paul Evans (Office Manager)
8/12/17

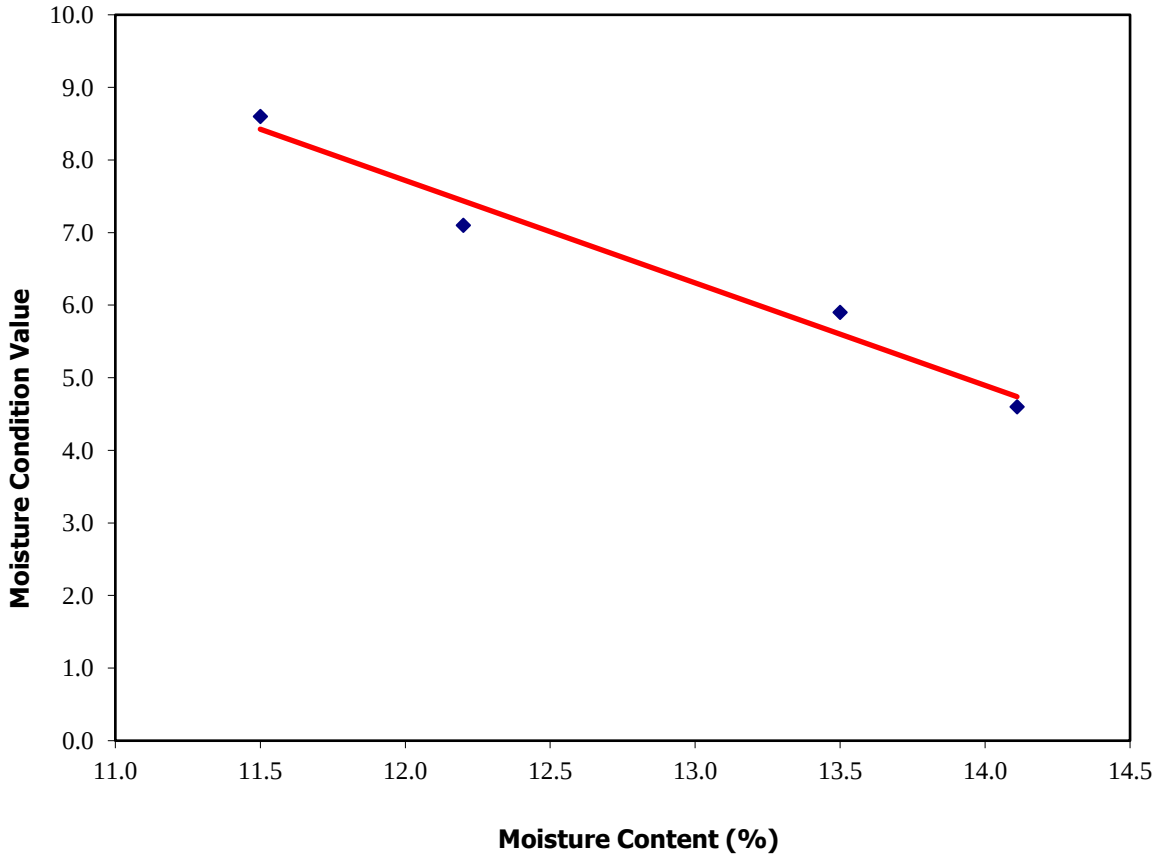
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP24**
Sample Number:	**N/A**
Depth (m) :	**2.5**
Sample Type	**LB**

Initial Moisture Content (%).:	14.1
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	1.12



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	11.5	12.2	13.5	14.1	
MCV	8.6	7.1	5.9	4.6	

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)

Approved by
Paul Evans (Office Manager)

Date approved: **8/12/17**

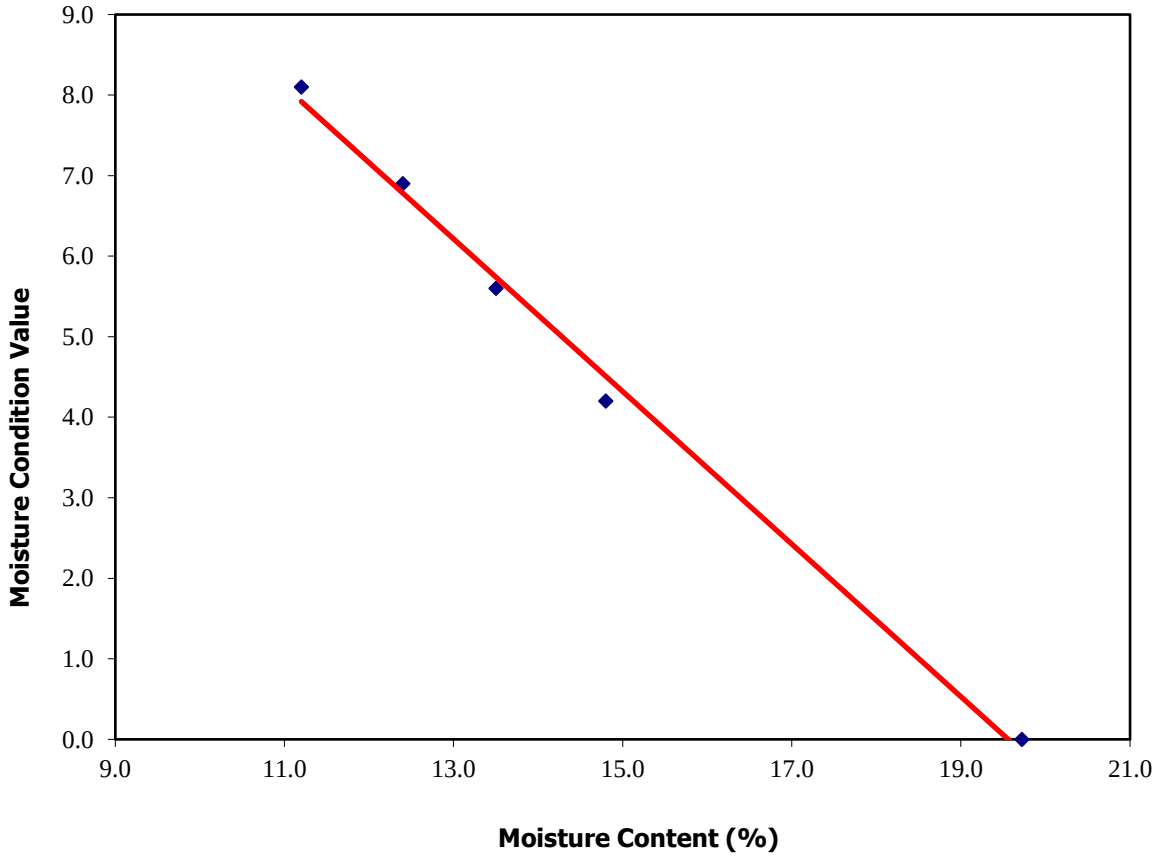
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP26**
Sample Number:	**N/A**
Depth (m) :	**1.5**
Sample Type	**LB**

Initial Moisture Content (%).:	20.8
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	17.55



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	11.2	12.4	13.5	14.8	19.7
MCV	8.1	6.9	5.6	4.2	0.0

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)

Approved by
Paul Evans (Office Manager)

Date approved: **8/12/17**

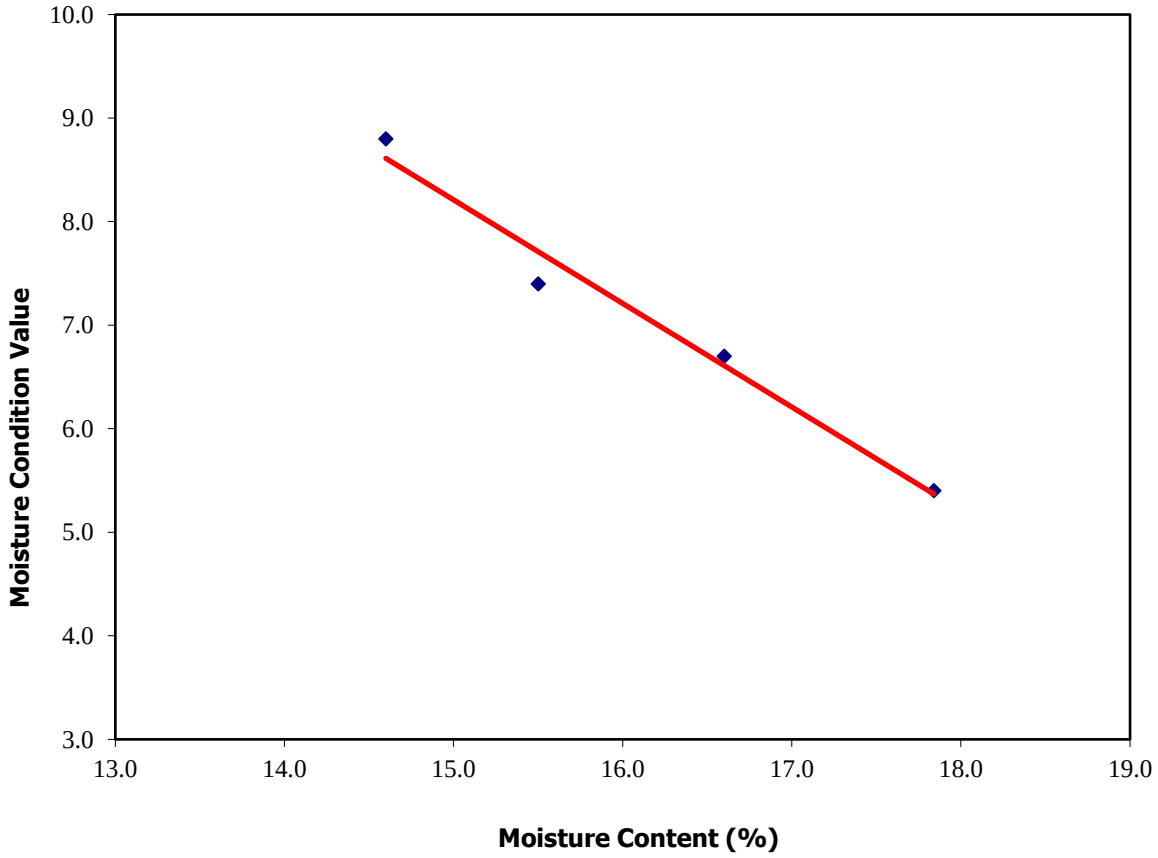
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP29**
Sample Number:	**N/A**
Depth (m) :	**0.5**
Sample Type	**LB**

Initial Moisture Content (%).:	17.8
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	8.12



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	14.6	15.5	16.6	17.8	
MCV	8.8	7.4	6.7	5.4	

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)

Approved by
Paul Evans (Office Manager)

Date approved: **8/12/17**

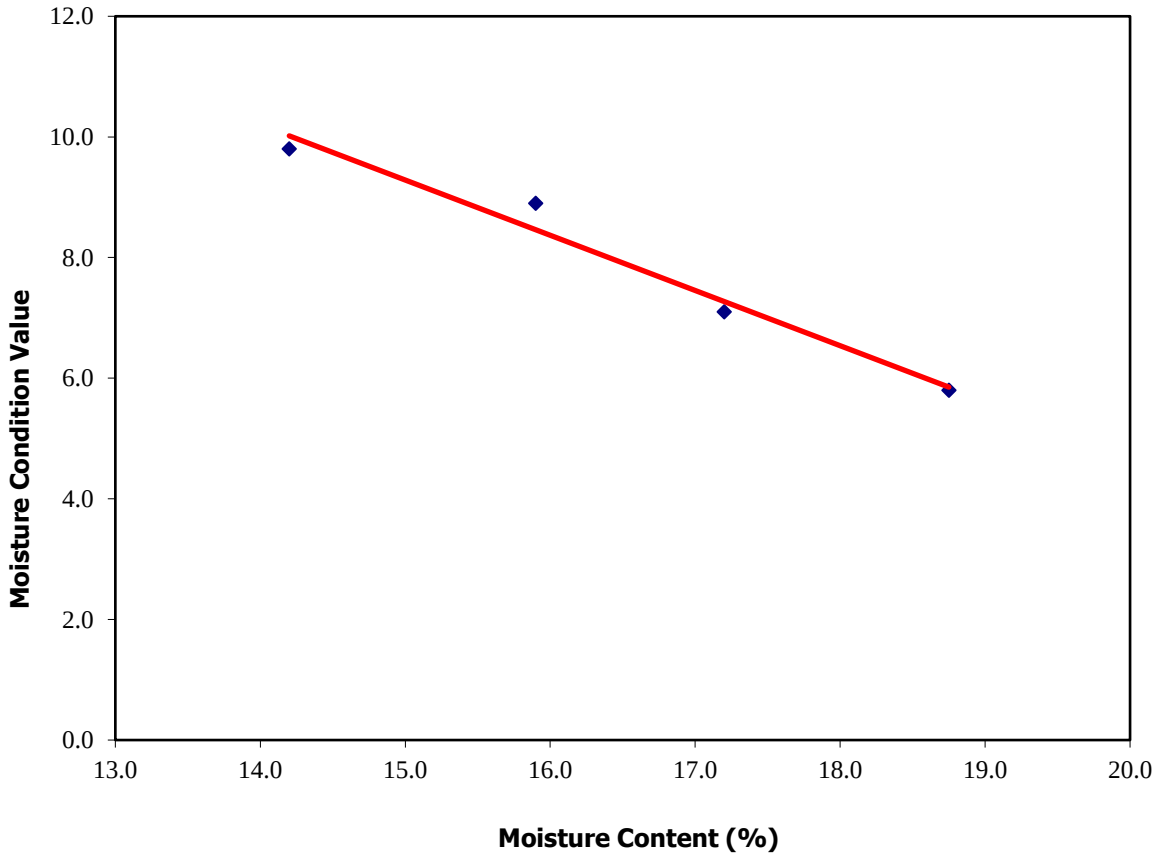
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP31**
Sample Number:	**N/A**
Depth (m) :	**1.5**
Sample Type	**LB**

Initial Moisture Content (%).:	18.8
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	5.36



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	14.2	15.9	17.2	18.8	
MCV	9.8	8.9	7.1	5.8	

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)

Approved by
Paul Evans (Office Manager)

Date approved: **8/12/17**

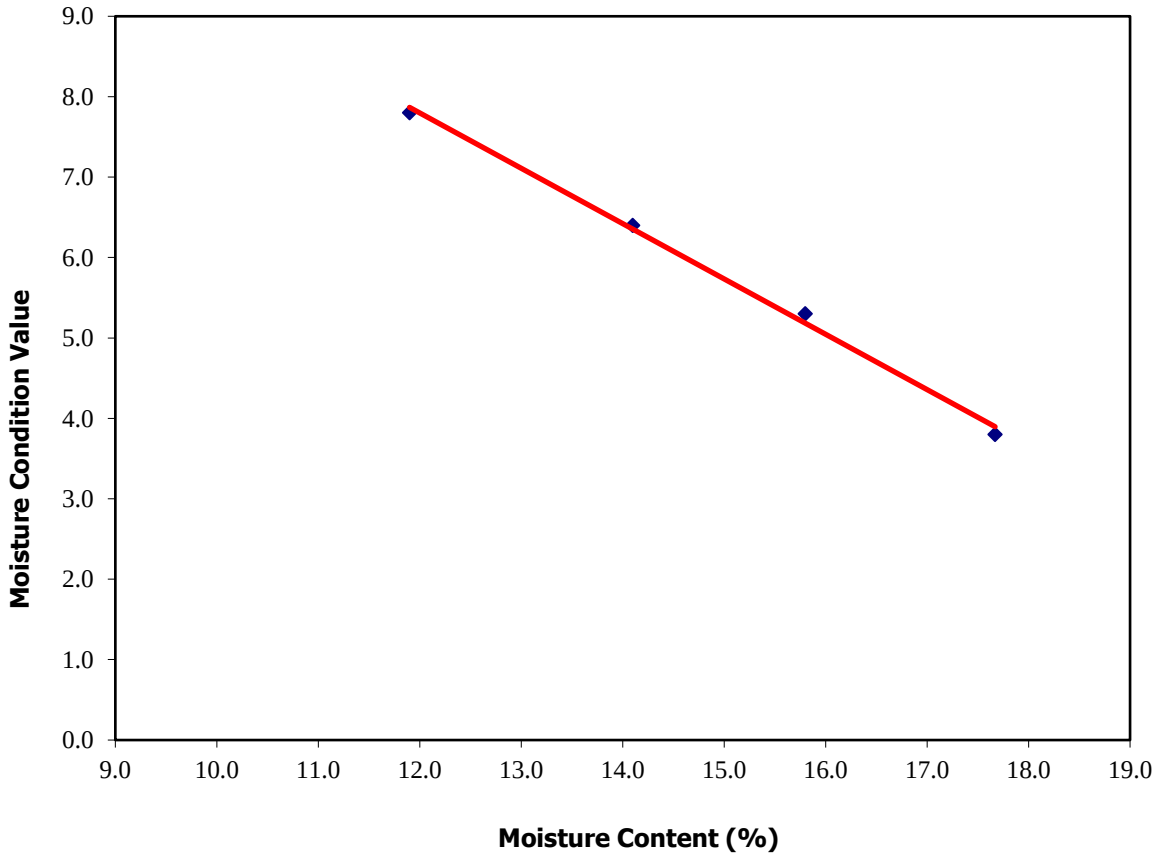
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP33**
Sample Number:	**N/A**
Depth (m) :	**2.5**
Sample Type	**LB**

Initial Moisture Content (%).:	17.7
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	1.56



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	11.9	14.1	15.8	17.7	
MCV	7.8	6.4	5.3	3.8	

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)
Date approved:

Approved by
Paul Evans (Office Manager)
8/12/17

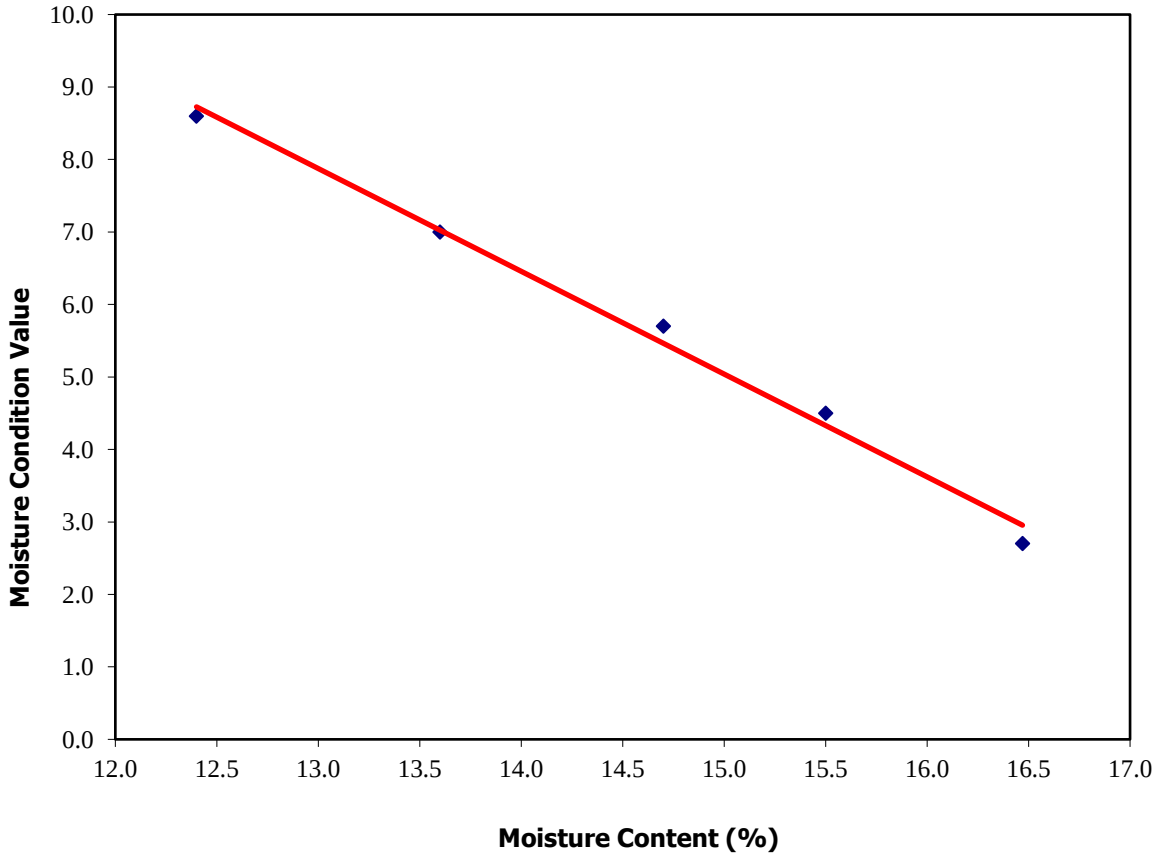
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP35**
Sample Number:	**N/A**
Depth (m) :	**1.5**
Sample Type	**LB**

Initial Moisture Content (%).:	16.5
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	11.97



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	12.4	13.6	14.7	15.5	16.5
MCV	8.6	7.0	5.7	4.5	2.7

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

Checked by
Ben Sharp (Contracts Manager)

Approved by
Paul Evans (Office Manager)

Date approved: **8/12/17**

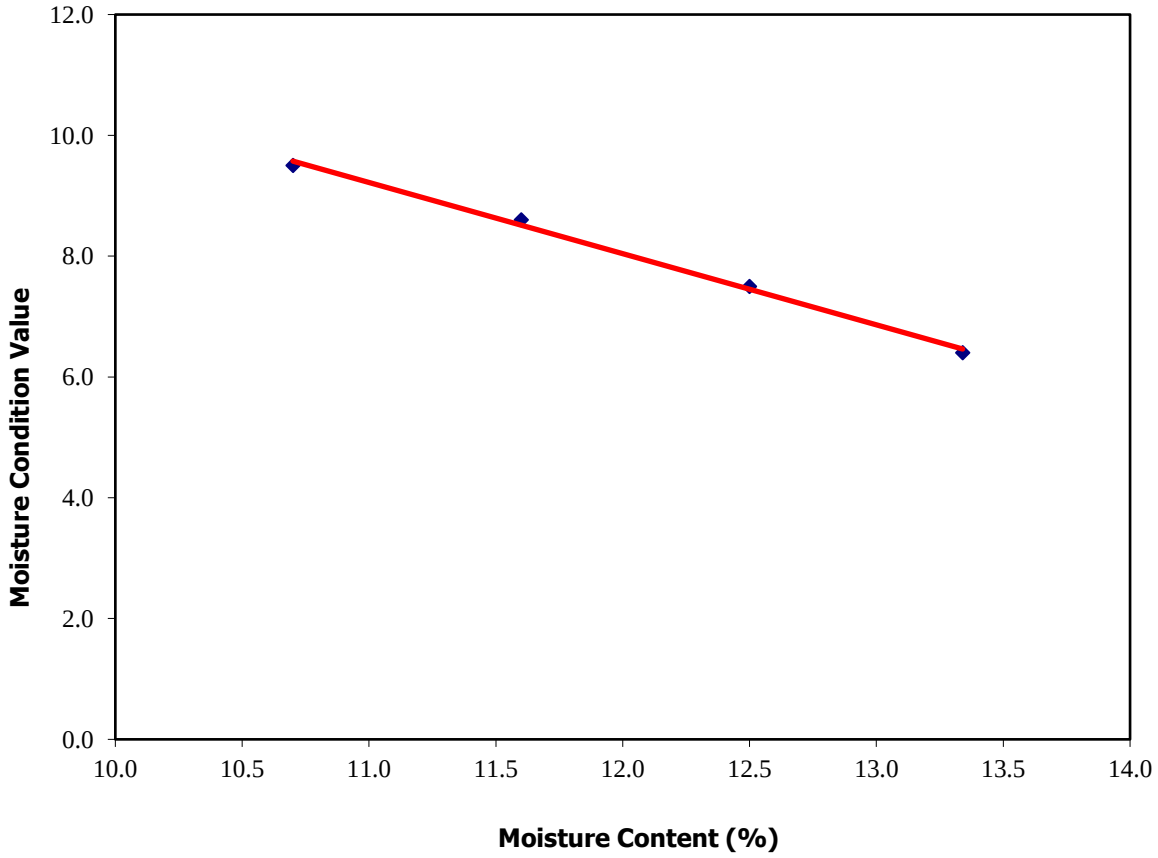
UKAS TESTING 2788

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref:	
Location:	**Coolagad**
Contract Number:	**37411**
Hole Number:	**TP37**
Sample Number:	**N/A**
Depth (m) :	**2.5**
Sample Type	**LB**

Initial Moisture Content (%).:	13.3
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	9.19



Test Results.

Test Number.	**1**	**2**	**3**	**4**	**5**
Moisture Content (%).	10.7	11.6	12.5	13.3	
MCV	9.5	8.6	7.5	6.4	

*** reading unobtainable.**

GSTL
GEO SITE & TESTING SERVICES LTD

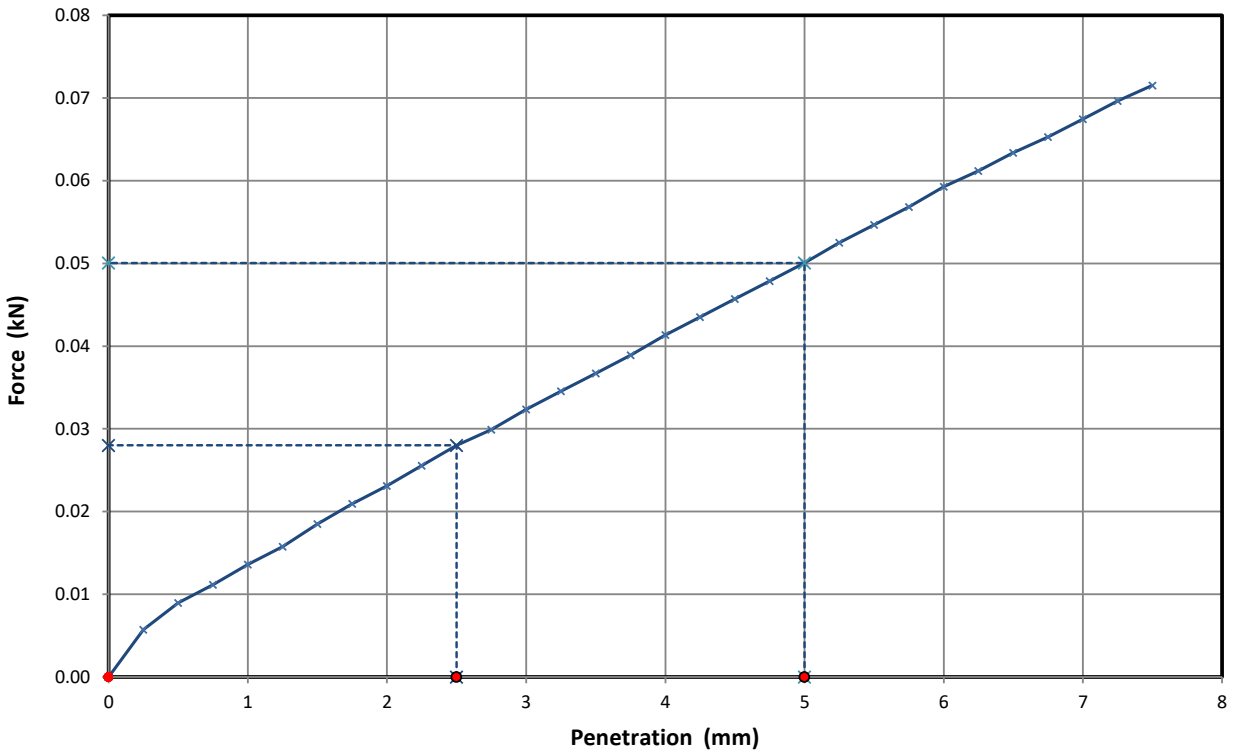
Checked by
Ben Sharp (Contracts Manager)

Approved by
Paul Evans (Office Manager)

Date approved: **8/12/17**

UKAS TESTING 2788

GSTL	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	37411
		Borehole/Pit No.	TP01
Site Name	Coolagad	Sample No.	
		Depth Top	0.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm	14%	Sample Type	B



Initial Sample Conditions	
Moisture Content (%)	18
Moisture Top (%)	18
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.11
Dry Density (Mg/m3)	1.79

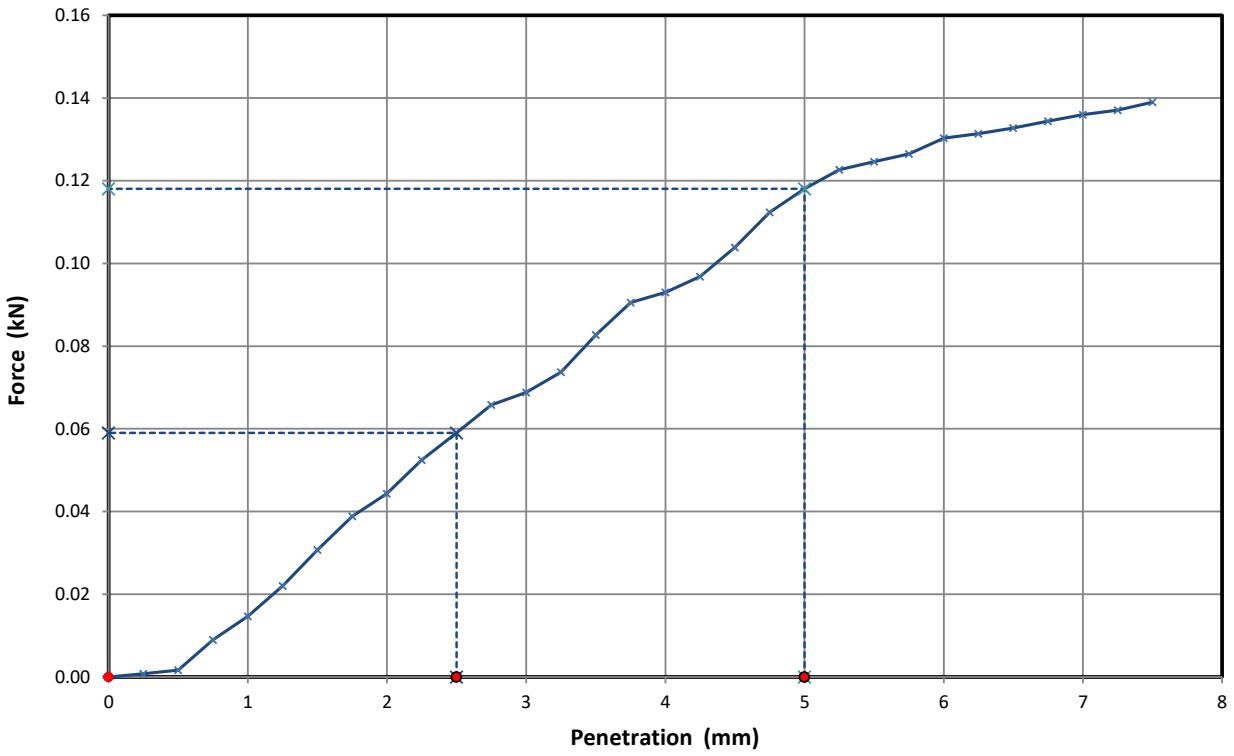
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	0.2	2.5mm Bottom	
5mm Top	0.3	5mm Bottom	
CBR Value %	**0.3**	**CBR Value %**	

Operators	Checked	07/12/2017	Sean Penn	
RO/MH	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	37411
		Borehole/Pit No.	TP02
Site Name	Coolagad	Sample No.	
		Depth Top	0.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm	9%	Sample Type	B



Initial Sample Conditions	
Moisture Content (%)	19
Moisture Top (%)	19
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.12
Dry Density (Mg/m3)	1.79

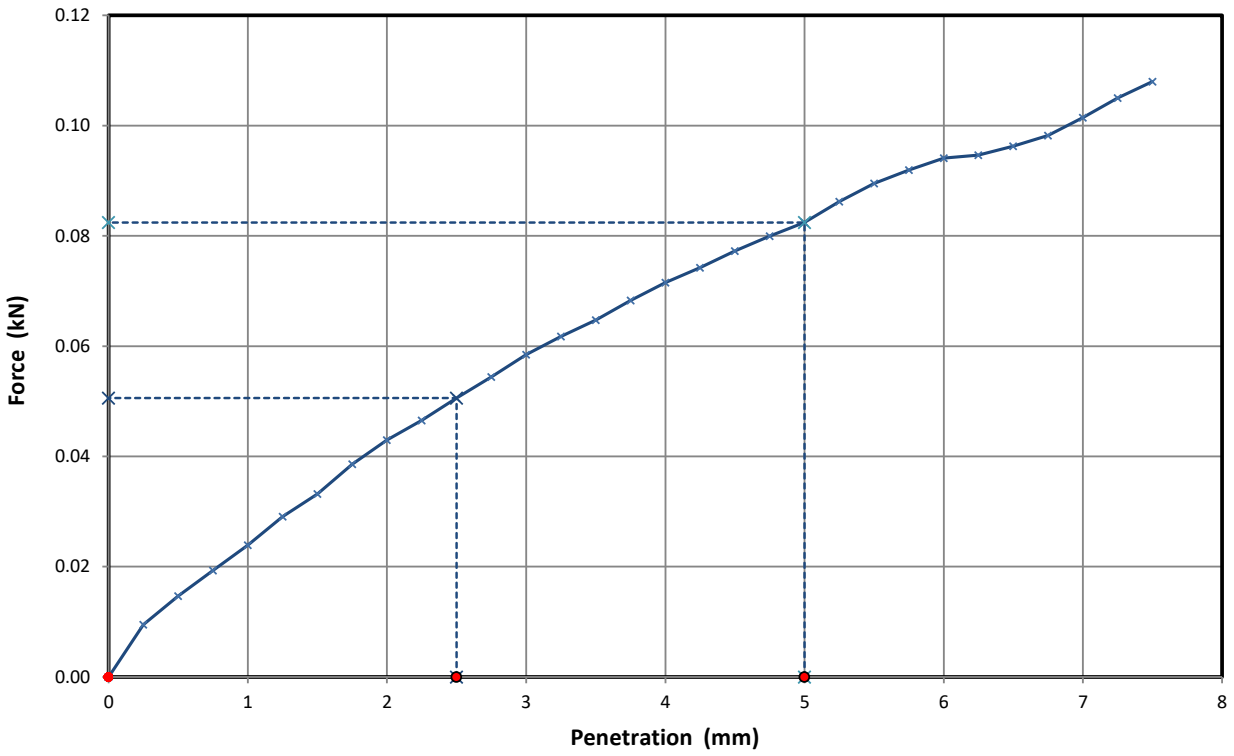
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	0.4	2.5mm Bottom	
5mm Top	0.6	5mm Bottom	
CBR Value %	**0.6**	**CBR Value %**	

Operators	Checked	07/12/2017	Sean Penn	
RO/MH	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

GSTL	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	37411
		Borehole/Pit No.	TP03
Site Name	Coolagad	Sample No.	
		Depth Top	0.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm	5%	Sample Type	B



Initial Sample Conditions	
Moisture Content (%)	18
Moisture Top (%)	18
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.11
Dry Density (Mg/m3)	1.78

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	0.4	2.5mm Bottom	
5mm Top	0.4	5mm Bottom	
CBR Value %	**0.4**	**CBR Value %**	

Operators	Checked	07/12/2017	Sean Penn	
RO/MH	Approved	08/12/2017	Ben Sharp	

UKAS TESTING 2788

Exova Jones Environmental

Registered Address : Exova (UK) Ltd, Lochend Industrial Estate, Newbridge, Midlothian, EH28 8PL

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Deeside
CH5 2UA

Tel: +44 (0) 1244 833780
Fax: +44 (0) 1244 833781

Ground Investigations Ireland
Catherinestown House
Hazelhatch Road
Newcastle
Co. Dublin
Ireland

Attention :	Conor Finnerty
Date :	6th December, 2017
Your reference :	6994-8-17
Our reference :	Test Report 17/19158 Batch 1
Location :	Coolagad
Date samples received :	21st November, 2017
Status :	Final report
Issue :	1

Eight samples were received for analysis on 21st November, 2017 of which eight were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Where Waste Acceptance Criteria Suite (EC Decision of 19 December 2002 (2003/33/EC)) has been requested, all analyses have been performed using the relevant EN methods where they exist.

Compiled By:

Bruce Leslie
Project Co-ordinator

Client Name: Ground Investigations Ireland
Reference: 6994-8-17
Location: Coolagad
Contact: Conor Finnerty
JE Job No.: 17/19158

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24					
Sample ID	TP11	BH02	BH03	BH03	BH04	BH05	BH06	BH08					
Depth	1.50	1.00	1.00	3.00	2.00	2.00	1.00	0.50			Please see attached notes for all abbreviations and acronyms		
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T					
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1			LOD/LOR	Units	Method No.
Date of Receipt	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017					
Antimony	2	2	2	2	2	2	2	2			<1	mg/kg	TM30/PM15
Arsenic #	9.4	5.6	10.7	12.2	10.9	11.8	6.8	10.3			<0.5	mg/kg	TM30/PM15
Barium #	77	93	62	87	93	80	78	75			<1	mg/kg	TM30/PM15
Cadmium #	0.9	0.3	0.3	0.7	0.7	1.0	0.4	0.8			<0.1	mg/kg	TM30/PM15
Chromium #	58.4	67.8	70.4	81.3	78.1	69.8	58.5	72.4			<0.5	mg/kg	TM30/PM15
Copper #	25	14	22	26	23	24	31	22			<1	mg/kg	TM30/PM15
Lead #	13	9	14	14	15	19	9	15			<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM30/PM15
Molybdenum #	2.5	2.7	2.3	4.6	4.6	4.7	2.2	4.8			<0.1	mg/kg	TM30/PM15
Nickel #	40.4	27.3	36.5	41.2	38.8	39.3	35.3	32.3			<0.7	mg/kg	TM30/PM15
Selenium #	1	2	1	<1	<1	1	1	<1			<1	mg/kg	TM30/PM15
Zinc #	91	68	64	84	76	85	72	75			<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06			<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07			<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22			<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64			<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1			<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	85	105	89	80	94	79	85	95			<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	31			<30	mg/kg	TM5/PM16

Client Name: Ground Investigations Ireland
Reference: 6994-8-17
Location: Coolagad
Contact: Conor Finnerty
JE Job No.: 17/19158

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24					
Sample ID	TP11	BH02	BH03	BH03	BH04	BH05	BH06	BH08					
Depth	1.50	1.00	1.00	3.00	2.00	2.00	1.00	0.50			Please see attached notes for all abbreviations and acronyms		
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T					
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1			LOD/LOR	Units	Method No.
Date of Receipt	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017					
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			<0.2	mg/kg	TM5/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4			<4	mg/kg	TM5/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7			<7	mg/kg	TM5/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	31			<7	mg/kg	TM5/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7			<7	mg/kg	TM5/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	31			<26	mg/kg	TM5/TM36/PM12/PM16
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10			<10	mg/kg	TM5/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	36			<10	mg/kg	TM5/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			<0.2	mg/kg	TM5/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4			<4	mg/kg	TM5/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7			<7	mg/kg	TM5/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7			<7	mg/kg	TM5/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7			<7	mg/kg	TM5/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26			<26	mg/kg	TM5/TM36/PM12/PM16
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52			<52	mg/kg	TM5/TM36/PM12/PM16
>EC6-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10			<10	mg/kg	TM5/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10			<10	mg/kg	TM5/PM16
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	<35	<35	<35	<35	<35			<35	ug/kg	TM17/PM8

Exova Jones Environmental

Client Name: Ground Investigations Ireland
Reference: 6994-8-17
Location: Coolagad
Contact: Conor Finnerty
JE Job No.: 17/19158

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24			LOD/LOR	Units	Method No.
Sample ID	TP11	BH02	BH03	BH03	BH04	BH05	BH06	BH08					
Depth	1.50	1.00	1.00	3.00	2.00	2.00	1.00	0.50					
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T					
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017					
Natural Moisture Content	16.8	19.1	21.7	16.5	17.5	15.8	12.3	12.3			<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	14.4	16.0	17.8	14.2	14.9	13.7	11.0	11.0			<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3			<0.3	mg/kg	TM38/PM20
Chromium III	58.4	67.8	70.4	81.3	78.1	69.8	58.5	72.4			<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.07	0.38	0.15	0.11	0.08	0.14	0.07	0.16			<0.02	%	TM21/PM24
pH #	7.89	7.19	8.34	8.28	8.47	8.51	8.64	8.70			<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1105	0.1065	0.1055	0.1049	0.1078	0.108	0.105	0.1037				kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09				kg	NONE/PM17

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 6994-8-17
Location: Coolagad
Contact: Conor Finnerty
JE Job No.: 17/19158

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24			LOD/LOR	Units	Method No.
Sample ID	TP11	BH02	BH03	BH03	BH04	BH05	BH06	BH08					
Depth	1.50	1.00	1.00	3.00	2.00	2.00	1.00	0.50					
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T					
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017					
Dissolved Antimony #	0.005	0.003	0.003	<0.002	0.003	0.003	<0.002	<0.002			<0.002	mg/l	TM30/PM17
Dissolved Antimony (A10) #	0.05	0.03	0.03	<0.02	0.03	0.03	<0.02	<0.02			<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			<0.0025	mg/l	TM30/PM17
Dissolved Arsenic (A10) #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025			<0.025	mg/kg	TM30/PM17
Dissolved Barium #	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			<0.0005	mg/l	TM30/PM17
Dissolved Cadmium (A10) #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	mg/kg	TM30/PM17
Dissolved Chromium #	0.0019	<0.0015	<0.0015	<0.0015	0.0015	<0.0015	<0.0015	<0.0015			<0.0015	mg/l	TM30/PM17
Dissolved Chromium (A10) #	0.019	<0.015	<0.015	<0.015	0.015	<0.015	<0.015	<0.015			<0.015	mg/kg	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007			<0.007	mg/l	TM30/PM17
Dissolved Copper (A10) #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07			<0.07	mg/kg	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	mg/l	TM30/PM17
Dissolved Lead (A10) #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	mg/kg	TM30/PM17
Dissolved Molybdenum #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	0.006			<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	0.06			<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			<0.002	mg/l	TM30/PM17
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			<0.02	mg/kg	TM30/PM17
Dissolved Selenium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003	mg/l	TM30/PM17
Dissolved Selenium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM30/PM17
Dissolved Zinc #	0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003	mg/l	TM30/PM17
Dissolved Zinc (A10) #	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM30/PM17
Mercury Dissolved by CVAF #	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001			<0.00001	mg/l	TM61/PM38
Mercury Dissolved by CVAF #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			<0.0001	mg/kg	TM61/PM38
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	mg/l	TM26/PM0
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM26/PM0
Fluoride	<0.3	<0.3	0.7	0.3	<0.3	0.4	<0.3	<0.3			<0.3	mg/l	TM173/PM0
Fluoride	<3	<3	7	<3	<3	4	<3	<3			<3	mg/kg	TM173/PM0
Sulphate as SO4 #	1.12	1.41	0.63	1.62	0.88	0.60	0.63	0.66			<0.05	mg/l	TM38/PM0
Sulphate as SO4 #	11.2	14.1	6.3	16.2	8.8	6.0	6.3	6.6			<0.5	mg/kg	TM38/PM0
Chloride #	0.5	0.7	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3			<0.3	mg/l	TM38/PM0
Chloride #	5	7	<3	<3	<3	<3	<3	<3			<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	7	5	<2	<2	<2	<2	<2	<2			<2	mg/l	TM60/PM0
Dissolved Organic Carbon	70	50	<20	<20	<20	<20	<20	<20			<20	mg/kg	TM60/PM0
pH	7.04	6.80	7.29	7.38	7.35	7.41	7.36	7.43			<0.01	pH units	TM73/PM0
Total Dissolved Solids #	362	326	226	209	657	277	232	466			<35	mg/l	TM20/PM0
Total Dissolved Solids #	3618	3261	2261	2089	6572	2769	2320	4661			<350	mg/kg	TM20/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 6994-8-17
Location: Coolagad
Contact: Conor Finnerty
JE Job No.: 17/19158

Report : EN12457_2

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

Please see attached notes for all abbreviations and acronyms

J E Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24								
Sample ID	TP11	BH02	BH03	BH03	BH04	BH05	BH06	BH08								
Depth	1.50	1.00	1.00	3.00	2.00	2.00	1.00	0.50								
COC No / misc																
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T								
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>								
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1	1	1	1			Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Date of Receipt	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017	21/11/2017								
Solid Waste Analysis																
Total Organic Carbon #	0.07	0.38	0.15	0.11	0.08	0.14	0.07	0.16			3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025			6	-	-	<0.025	mg/kg	TM31/PM12
Sum of 7 PCBs #	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035			1	-	-	<0.035	mg/kg	TM17/PM8
PAH Sum of 6 #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22			-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64			100	-	-	<0.64	mg/kg	TM4/PM8
CEN 10:1 Leachate																
Arsenic #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025			0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			20	100	300	<0.03	mg/kg	TM30/PM17
Cadmium #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			0.04	1	5	<0.005	mg/kg	TM30/PM17
Chromium #	0.019	<0.015	<0.015	<0.015	0.015	<0.015	<0.015	<0.015			0.5	10	70	<0.015	mg/kg	TM30/PM17
Copper #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07			2	50	100	<0.07	mg/kg	TM30/PM17
Mercury #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			0.01	0.2	2	<0.0001	mg/kg	TM61/PM38
Molybdenum #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	0.06			0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			0.4	10	40	<0.02	mg/kg	TM30/PM17
Lead #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			0.5	10	50	<0.05	mg/kg	TM30/PM17
Antimony #	0.05	0.03	0.03	<0.02	0.03	0.03	<0.02	<0.02			0.06	0.7	5	<0.02	mg/kg	TM30/PM17
Selenium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.1	0.5	7	<0.03	mg/kg	TM30/PM17
Zinc #	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	3618	3261	2261	2089	6572	2769	2320	4661			4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	70	50	<20	<20	<20	<20	<20	<20			500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.1105	0.1065	0.1055	0.1049	0.1078	0.108	0.105	0.1037			-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	81.4	84.7	85.3	85.9	83.1	83.5	85.6	86.4			-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.879	0.884	0.885	0.885	0.882	0.882	0.885	0.886			-	-	-		l	NONE/PM17
Eluate Volume	0.76	0.87	0.8	0.7	0.75	0.78	0.75	0.78			-	-	-		l	NONE/PM17
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	31			-	-	-	<30	mg/kg	TM5/PM16
pH #	7.89	7.19	8.34	8.28	8.47	8.51	8.64	8.70			-	-	-	<0.01	pH units	TM73/PM11
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			1	-	-	<0.1	mg/kg	TM26/PM0
Fluoride	<3	<3	7	<3	<3	4	<3	<3			-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	11.2	14.1	6.3	16.2	8.8	6.0	6.3	6.6			1000	20000	50000	<0.5	mg/kg	TM38/PM0
Chloride #	5	7	<3	<3	<3	<3	<3	<3			800	15000	25000	<3	mg/kg	TM38/PM0

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: Ground Investigations Ireland **Matrix : Solid**
Reference: 6994-8-17
Location: Coolagad
Contact: Conor Finnerty

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	EPH Interpretation
17/19158	1	TP11	1.50	1-3	No interpretation possible
17/19158	1	BH02	1.00	4-6	No interpretation possible
17/19158	1	BH03	1.00	7-9	No interpretation possible
17/19158	1	BH03	3.00	10-12	No interpretation possible
17/19158	1	BH04	2.00	13-15	No interpretation possible
17/19158	1	BH05	2.00	16-18	No interpretation possible
17/19158	1	BH06	1.00	19-21	No interpretation possible
17/19158	1	BH08	0.50	22-24	No interpretation possible

Client Name: Ground Investigations Ireland
Reference: 17/08/6994
Location: Coolagad
Contact: Conor Finnerty

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Jones Environmental Laboratory consultant, Jones Environmental Laboratory cannot be responsible for inaccurate or unrepresentative sampling.

Signed on behalf of Jones Environmental Laboratory:

Ryan Butterworth
Asbestos Team Leader

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
17/19158	1	TP11	1.50	2	27/11/2017	**General Description (Bulk Analysis)**	soil/stones
					27/11/2017	**Asbestos Fibres**	NAD
					27/11/2017	**Asbestos Fibres (2)**	NAD
					27/11/2017	**Asbestos ACM**	NAD
					27/11/2017	**Asbestos ACM (2)**	NAD
					27/11/2017	**Asbestos Type**	NAD
					27/11/2017	**Asbestos Type (2)**	NAD
					27/11/2017	**Asbestos Level Screen**	NAD
17/19158	1	BH02	1.00	5	27/11/2017	**General Description (Bulk Analysis)**	soil/stones
					27/11/2017	**Asbestos Fibres**	NAD
					27/11/2017	**Asbestos Fibres (2)**	NAD
					27/11/2017	**Asbestos ACM**	NAD
					27/11/2017	**Asbestos ACM (2)**	NAD
					27/11/2017	**Asbestos Type**	NAD
					27/11/2017	**Asbestos Type (2)**	NAD
					27/11/2017	**Asbestos Level Screen**	NAD
17/19158	1	BH03	1.00	8	27/11/2017	**General Description (Bulk Analysis)**	soil/stones
					27/11/2017	**Asbestos Fibres**	NAD
					27/11/2017	**Asbestos Fibres (2)**	NAD
					27/11/2017	**Asbestos ACM**	NAD
					27/11/2017	**Asbestos ACM (2)**	NAD
					27/11/2017	**Asbestos Type**	NAD
					27/11/2017	**Asbestos Type (2)**	NAD
					27/11/2017	**Asbestos Level Screen**	NAD
17/19158	1	BH03	3.00	11	28/11/2017	**General Description (Bulk Analysis)**	Soil/Stones
					28/11/2017	**Asbestos Fibres**	NAD
					28/11/2017	**Asbestos Fibres (2)**	NAD
					28/11/2017	**Asbestos ACM**	NAD
					28/11/2017	**Asbestos ACM (2)**	NAD
					28/11/2017	**Asbestos Type**	NAD
					28/11/2017	**Asbestos Type (2)**	NAD
					28/11/2017	**Asbestos Level Screen**	NAD
17/19158	1	BH04	2.00	14	28/11/2017	**General Description (Bulk Analysis)**	Soil/Stones
					28/11/2017	**Asbestos Fibres**	NAD
					28/11/2017	**Asbestos Fibres (2)**	NAD

Client Name: Ground Investigations Ireland
Reference: 17/08/6994
Location: Coolagad
Contact: Conor Finnerty

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
17/19158	1	BH04	2.00	14	28/11/2017	**Asbestos ACM**	NAD
					28/11/2017	**Asbestos ACM (2)**	NAD
					28/11/2017	**Asbestos Type**	NAD
					28/11/2017	**Asbestos Type (2)**	NAD
					28/11/2017	**Asbestos Level Screen**	NAD
17/19158	1	BH05	2.00	17	28/11/2017	**General Description (Bulk Analysis)**	Soil/Stones
					28/11/2017	**Asbestos Fibres**	NAD
					28/11/2017	**Asbestos Fibres (2)**	NAD
					28/11/2017	**Asbestos ACM**	NAD
					28/11/2017	**Asbestos ACM (2)**	NAD
					28/11/2017	**Asbestos Type**	NAD
					28/11/2017	**Asbestos Type (2)**	NAD
					28/11/2017	**Asbestos Level Screen**	NAD
17/19158	1	BH06	1.00	20	27/11/2017	**General Description (Bulk Analysis)**	soil/stones
					27/11/2017	**Asbestos Fibres**	NAD
					27/11/2017	**Asbestos Fibres (2)**	NAD
					27/11/2017	**Asbestos ACM**	NAD
					27/11/2017	**Asbestos ACM (2)**	NAD
					27/11/2017	**Asbestos Type**	NAD
					27/11/2017	**Asbestos Type (2)**	NAD
					27/11/2017	**Asbestos Level Screen**	NAD
17/19158	1	BH08	0.50	23	28/11/2017	**General Description (Bulk Analysis)**	Soil/Stones
					28/11/2017	**Asbestos Fibres**	NAD
					28/11/2017	**Asbestos Fibres (2)**	NAD
					28/11/2017	**Asbestos ACM**	NAD
					28/11/2017	**Asbestos ACM (2)**	NAD
					28/11/2017	**Asbestos Type**	NAD
					28/11/2017	**Asbestos Type (2)**	NAD
					28/11/2017	**Asbestos Level Screen**	NAD

Client Name: Ground Investigations Ireland **Matrix : Solid**
Reference: 6994-8-17
Location: Coolagad
Contact: Conor Finnerty

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
17/19158	1	TP11	1.50	1-3	All analyses	No sampling date given
17/19158	1	TP11	1.50	1-3	GRO	Solid Samples were received at a temperature above 9°C.
17/19158	1	BH02	1.00	4-6	All analyses	No sampling date given
17/19158	1	BH02	1.00	4-6	GRO	Solid Samples were received at a temperature above 9°C.
17/19158	1	BH03	1.00	7-9	All analyses	No sampling date given
17/19158	1	BH03	1.00	7-9	GRO	Solid Samples were received at a temperature above 9°C.
17/19158	1	BH03	3.00	10-12	All analyses	No sampling date given
17/19158	1	BH03	3.00	10-12	GRO	Solid Samples were received at a temperature above 9°C.
17/19158	1	BH04	2.00	13-15	All analyses	No sampling date given
17/19158	1	BH04	2.00	13-15	GRO	Solid Samples were received at a temperature above 9°C.
17/19158	1	BH05	2.00	16-18	All analyses	No sampling date given
17/19158	1	BH05	2.00	16-18	GRO	Solid Samples were received at a temperature above 9°C.
17/19158	1	BH06	1.00	19-21	All analyses	No sampling date given
17/19158	1	BH06	1.00	19-21	GRO	Solid Samples were received at a temperature above 9°C.
17/19158	1	BH08	0.50	22-24	All analyses	No sampling date given
17/19158	1	BH08	0.50	22-24	GRO	Solid Samples were received at a temperature above 9°C.

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.
Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

JE Job No.: 17/19158

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa.
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to a Jones Environmental approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

JE Job No: 17/19158

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.				
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis./Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM17	Modified US EPA method 8270. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3: 1990/USEPA 160.3 Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.	Yes		AR	Yes

JE Job No: 17/19158

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM21	Modified USEPA 415.1. Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM17	Modified method EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM31	Modified USEPA 8015B. Determination of Methyltertbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM31	Modified USEPA 8015B. Determination of Methyltertbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM0	No preparation is required.	Yes		AR	Yes

JE Job No: 17/19158

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM60	Modified USEPA 9060. Determination of TOC by calculation from Total Carbon and Inorganic Carbon using a TOC analyser, the carbon in the sample is converted to CO2 and then passed through a non-dispersive infrared gas analyser (NDIR).	PM0	No preparation is required.			AR	Yes
TM61	Modified US EPA methods 245.7 and 200.7. Determination of Mercury by Cold Vapour Atomic Fluorescence.	PM38	Samples are brominated to reduce all mercury compounds to Mercury (II) which is analysed using method TM061.	Yes		AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 340.2	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AR	Yes
NONE	No Method Code	PM17	Modified method EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM17	Modified method EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.			AR	

JE Job No: 17/19158

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.			AR	

Appendix - Methods used for WAC (2003/33/EC)

Leachate tests	
10l/kg; 4mm	I.S. EN 12457-2:2002 Specified particle size; water added to L/S ratio; capped; agitated for 24 ± 0.5 hours; eluate settled and filtered over 0.45 µm membrane filter.
Eluate analysis	
As	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ba	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cd	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cr total	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cu	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Hg	I.S. EN 13370 rec. EN 1483 (CVAAS)
Mo	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ni	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Pb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Sb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Se	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Zn	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Chloride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Fluoride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Sulphate	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Phenol index	I.S. EN 13370 rec. ISO 6439 (4-Aminoantipyrine spectrometic methods after distillation)* (BY HPLC - Jones Env)
DOC	I.S. EN 1484
TDS	I.S. EN 15216
Compositional analysis	
TOC	I.S. EN 13137 Method B: carbonates removed with acid; TOC by combustion.
BTEX	GC-FID
PCB7**	I.S. EN 15308 analysis by GC-ECD.
Mineral oil	I.S. EN 14039 C10 to C40 analysis by GC-FID.
PAH17***	I.S. EN 15527 PAH17 analysis by GC-MS
Metals	I.S. EN 13657 - Aqua regia digestion: EN ISO 11885 (ICP-OES)
Other	
Dry matter	I.S. EN 14346 sample is dried to a constant mass in an oven at 105 ± 3 °C; Method B Water content by direct Karl-Fischer-titration and either volumetric or coulometric detection.
LOI	I.S. EN 15169 Difference in mass after heating in a furnace up to 550 ± 25 °C.
ANC	CEN/TS 15364 Determined by amouns of acid or base needed to cover the pH range

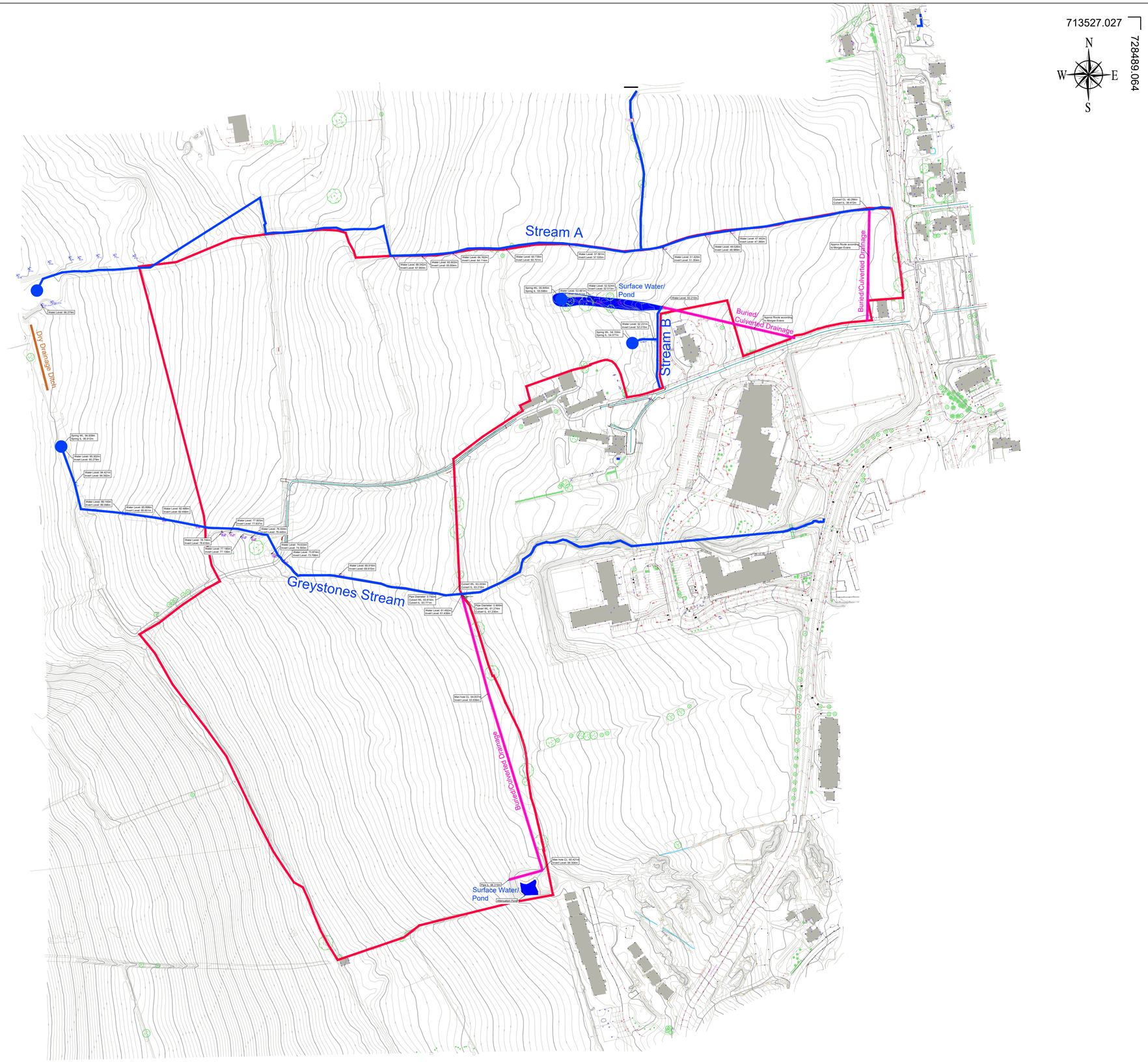
Notes:

*If not suitable due to LOD, precision, etc., any other suitable method can be used, e.g. AFS, ICP-MS

**PCB-28, PCB-52, PCB-101, PCB-118, PCB-138, PCB-153 and PCB-180

***Naphthalene, Acenaphthylene, Acenaphthene, Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Benzo(a)pyrene, Chrysene, Coronene, Dibenzo(a,h)anthracene, Fluorene, Fluoranthene, Indeno(1,2,3-c,d)pyrene, Phenanthrene and Pyrene.

Appendix B



Legend:

- Spring/ Surface Water
- Stream
- Dry Drainage Ditch
- Buried/Culverted Drainage

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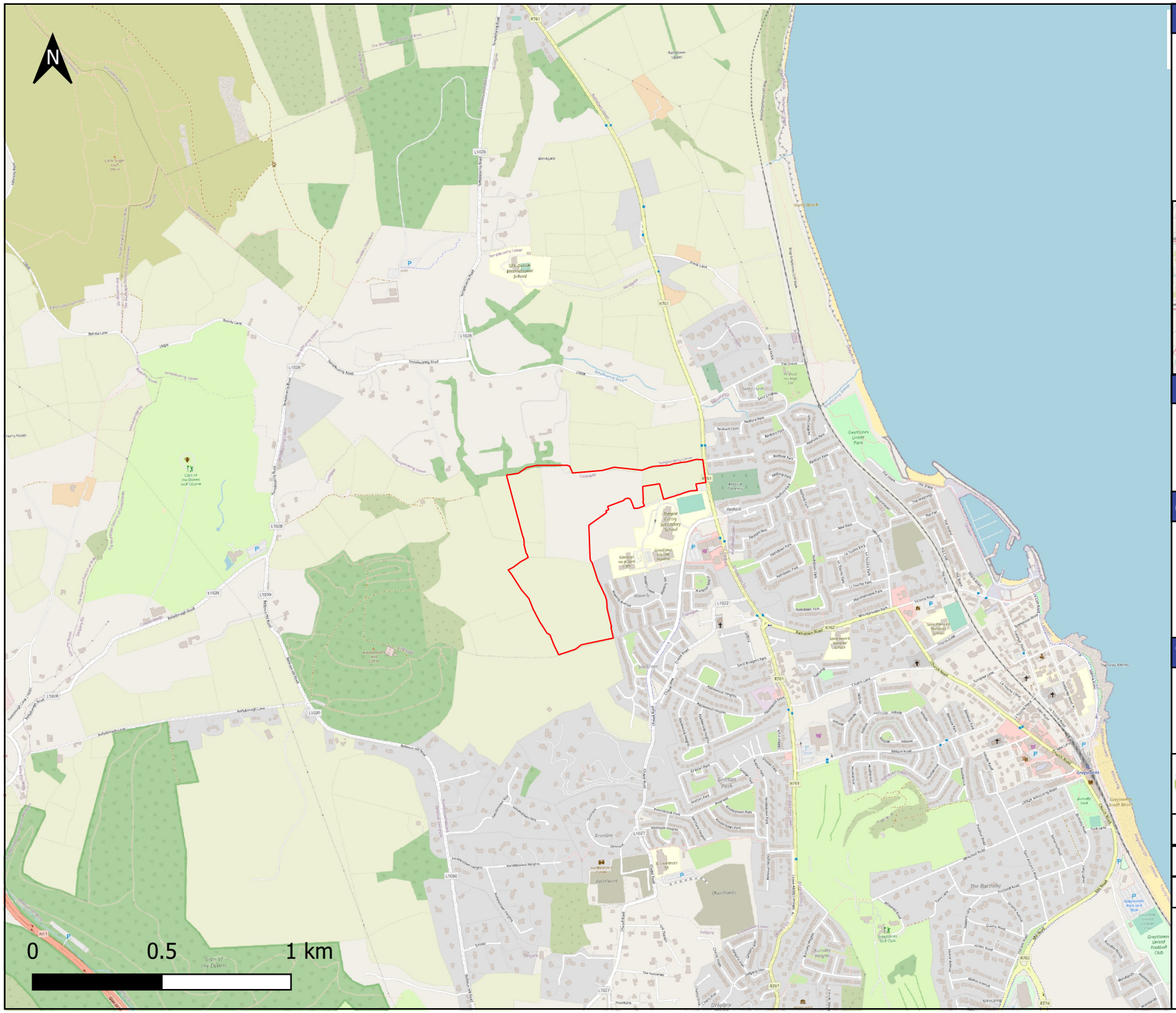
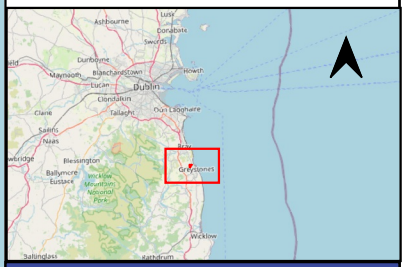
OSi
Engineers Ireland

CLIENT: Cairn Homes Limited			
LOCATION: Coolagad, Greystones, Wicklow			
DRAWING TITLE: Drainage			
SCALE: 1 : 2000 @ A1	DATE: 03 / 12 / 2021	DRN BY: SR	DRG NO: P-01



Legend:

Site boundary



Project:

Coolagad

Client:

Cairn Homes Properties Limited

Title:

Figure 1: Site Location

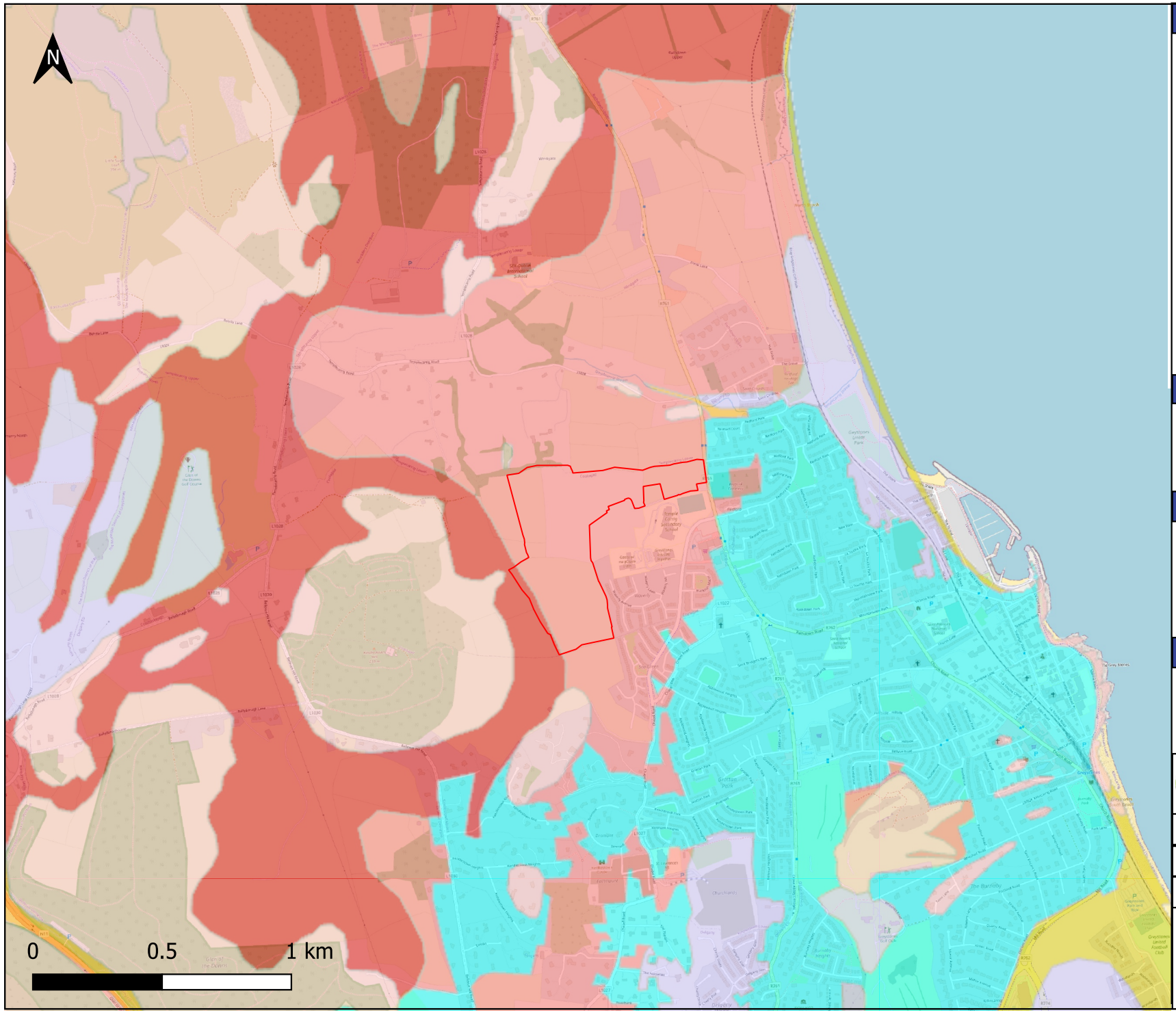
enviroguide consulting
a 3D Core C, Block 71, The Plaza Park West, Dublin 12 D12F9TN
w www.enviroguide.ie
e info@enviroguide.ie
t +353 (0)1 565 4730

Drawn By: FJ	**Projection: IRENET95 / Irish Transverse Mercator**
Checked: CC	
Date: 25/01/2022	**Scale: 1:16000**

Notes:

DRAFT

Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries



Legend:

Site boundary

Teagasc Soils

- AminDW - Deep well drained mineral (Mainly acidic)
- AminPD - Mineral poorly drained (Mainly acidic)
- AminSW - Shallow well drained mineral (Mainly acidic)
- BminSW - Shallow well drained mineral (Mainly basic)
- BminSP - Shallow poorly drained mineral (Mainly basic)
- BminSRPT - Shallow, rocky, peaty/ non-peatymineral complexes (Mainly basic)
- AlluvMIN - Alluvial (mineral)
- MarSands - Marine sand and gravel
- MarSed - Marine/estuarine sediments
- Made - Made ground

Project:

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Client:

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Title:

Figure 2: Soils

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Drawn By: FJ	**Projection: IRENET95 / Irish Transverse Mercator**
Checked: CC	
Date: 25/01/2022	**Scale: 1:16000**

Notes:

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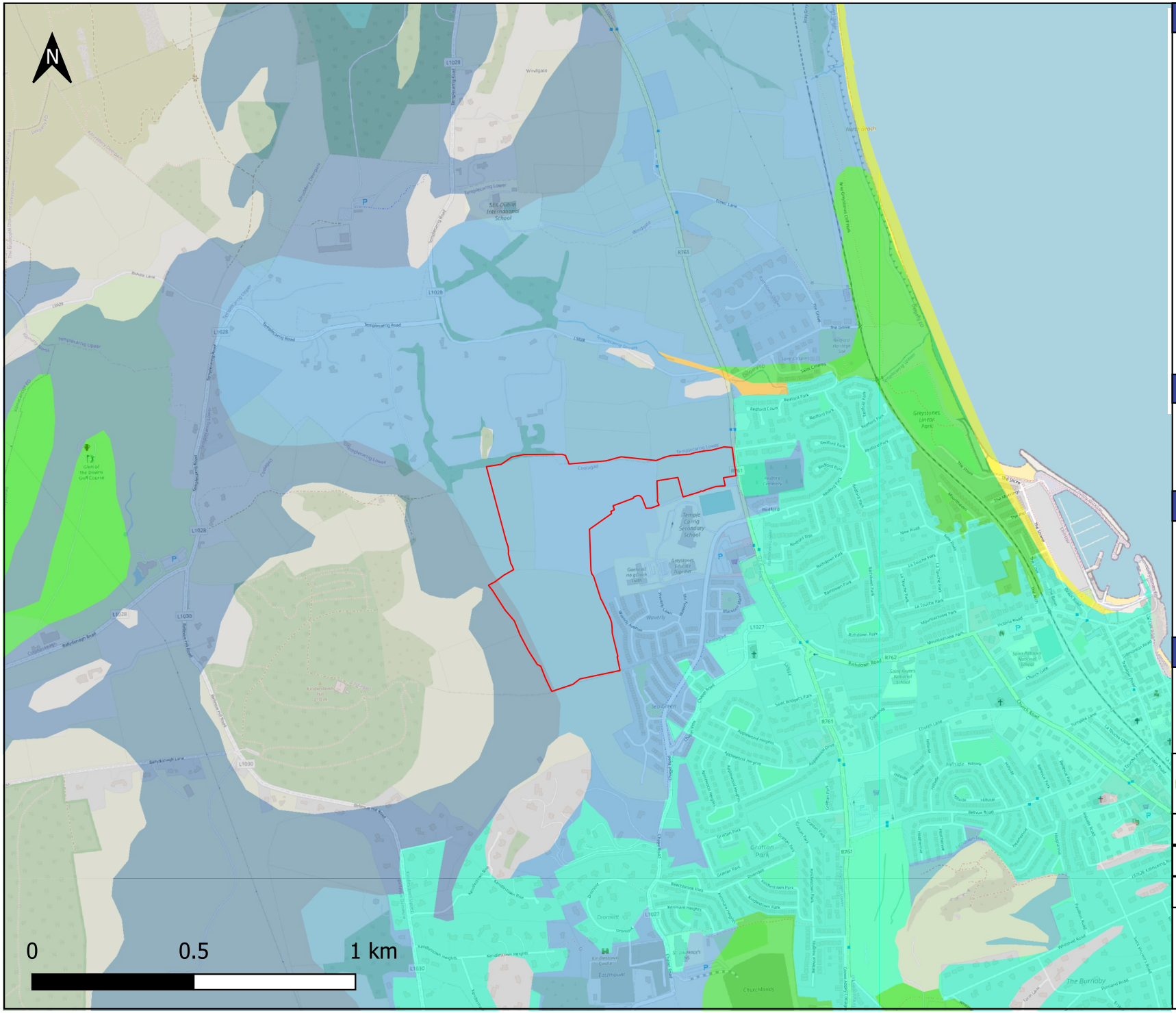

Legend:

- Site boundary

Quaternary Sediments

- A, Alluvium
- GLs, Gravels derived from Limestones
- IrSTCSsS, Irish Sea Till derived from Cambrian sandstones and shales
- Mbs, Marine beach sands
- Rck, Bedrock outcrop or subcrop
- TCSsS, Till derived from Cambrian sandstones and shales
- Urban

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Figure 3. Subsoils (Quaternary)

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Checked: CC	
Date: 25/01/2022	Scale: 1:16000

Notes:

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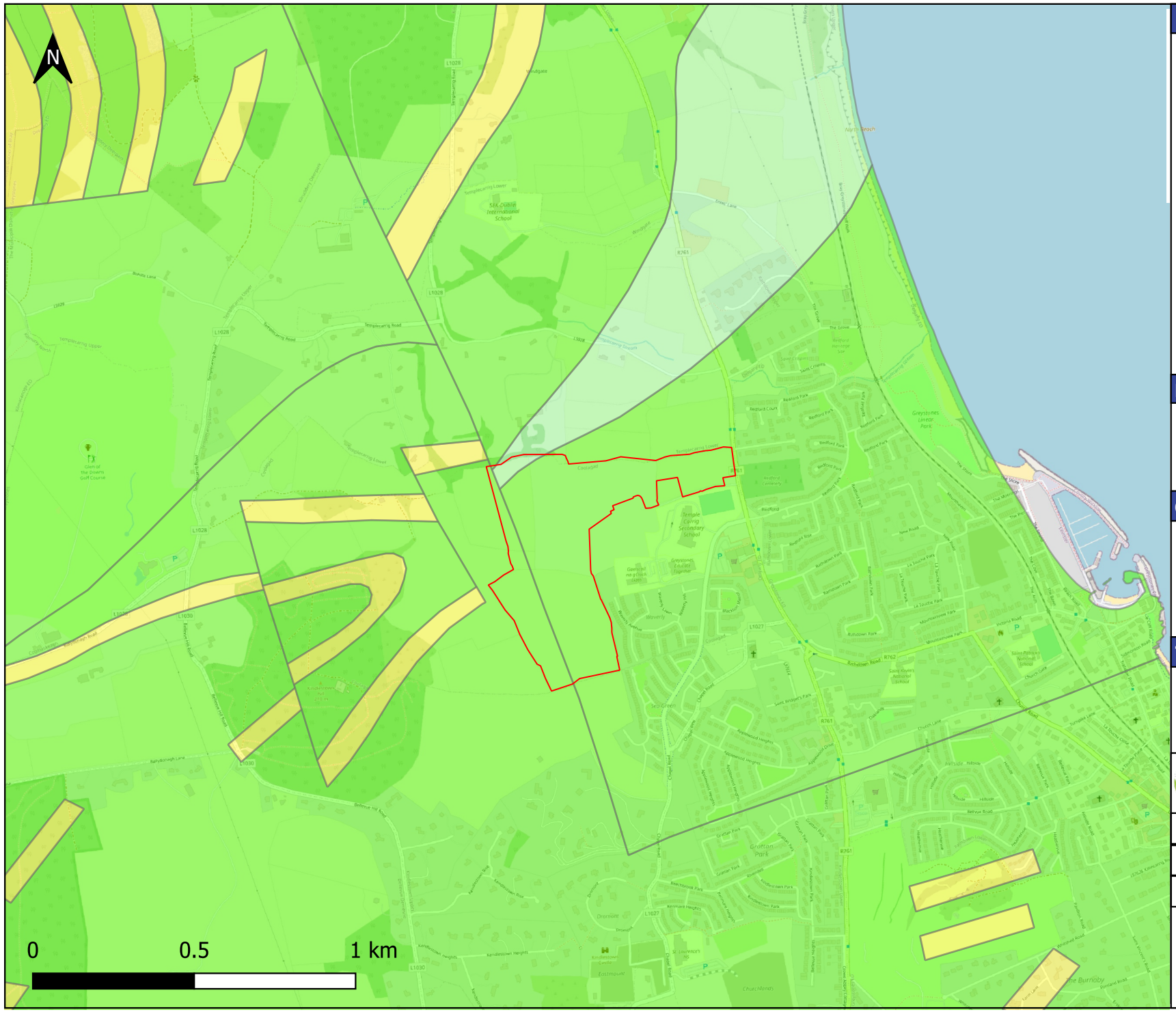
Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries



Legend:

Site boundary

Bedrock

Bray Head Formation

in Bray Head Formation

Devils Glen Formation

Project:

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Client:

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Title:

Figure 4: Bedrock

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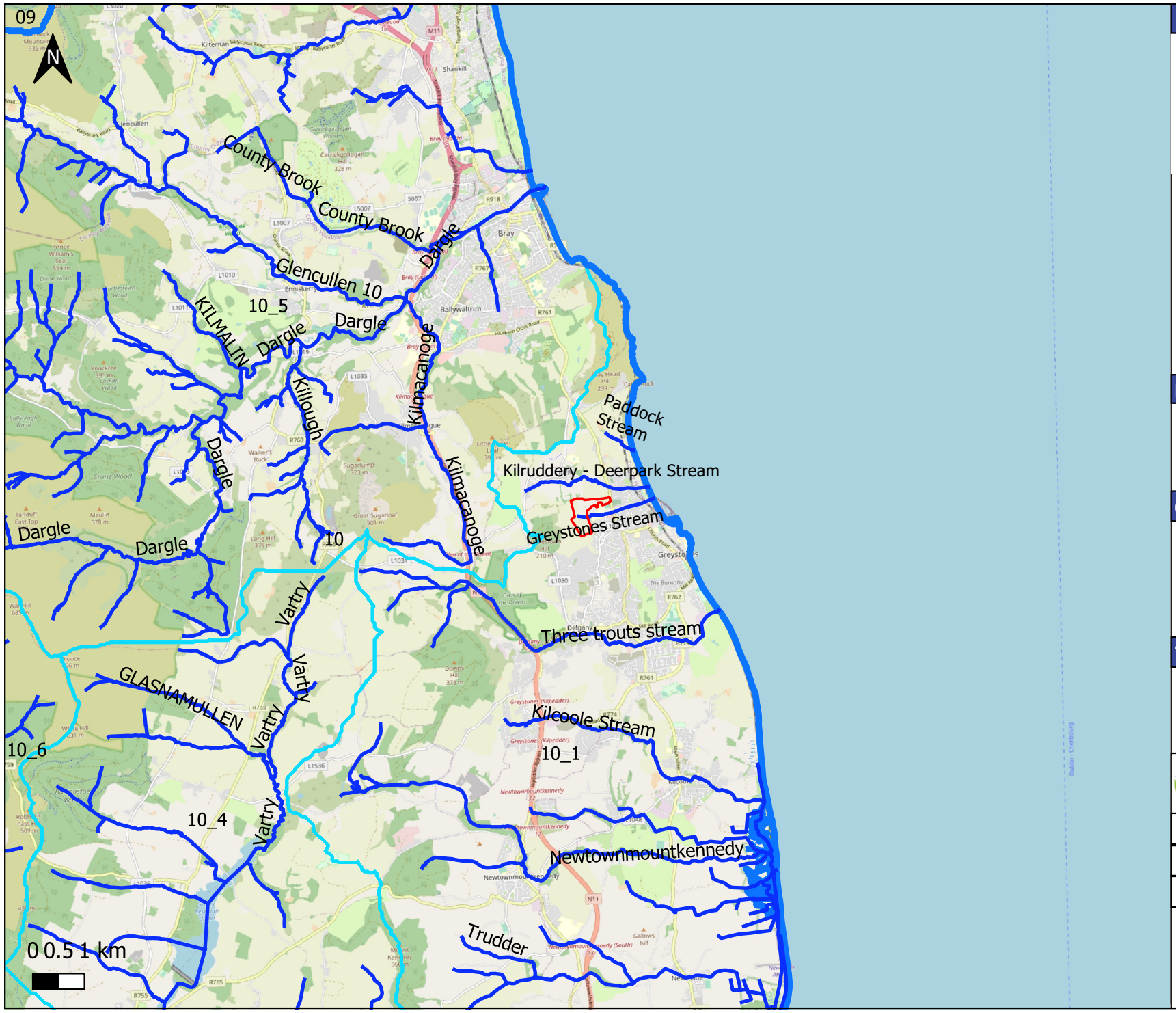
Drawn By: FJ	**Projection: IRENET95 / Irish Transverse Mercator**
Checked: CC	
Date: 25/01/2022	**Scale: 1:16000**

Notes:

DRAFT

Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries



Legend:

- Site boundary
- Catchments
- SubCatchments
- River Network

Project:

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Client:

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Title:

Figure 5: Catchments, sub-catchments and surface waterbodies

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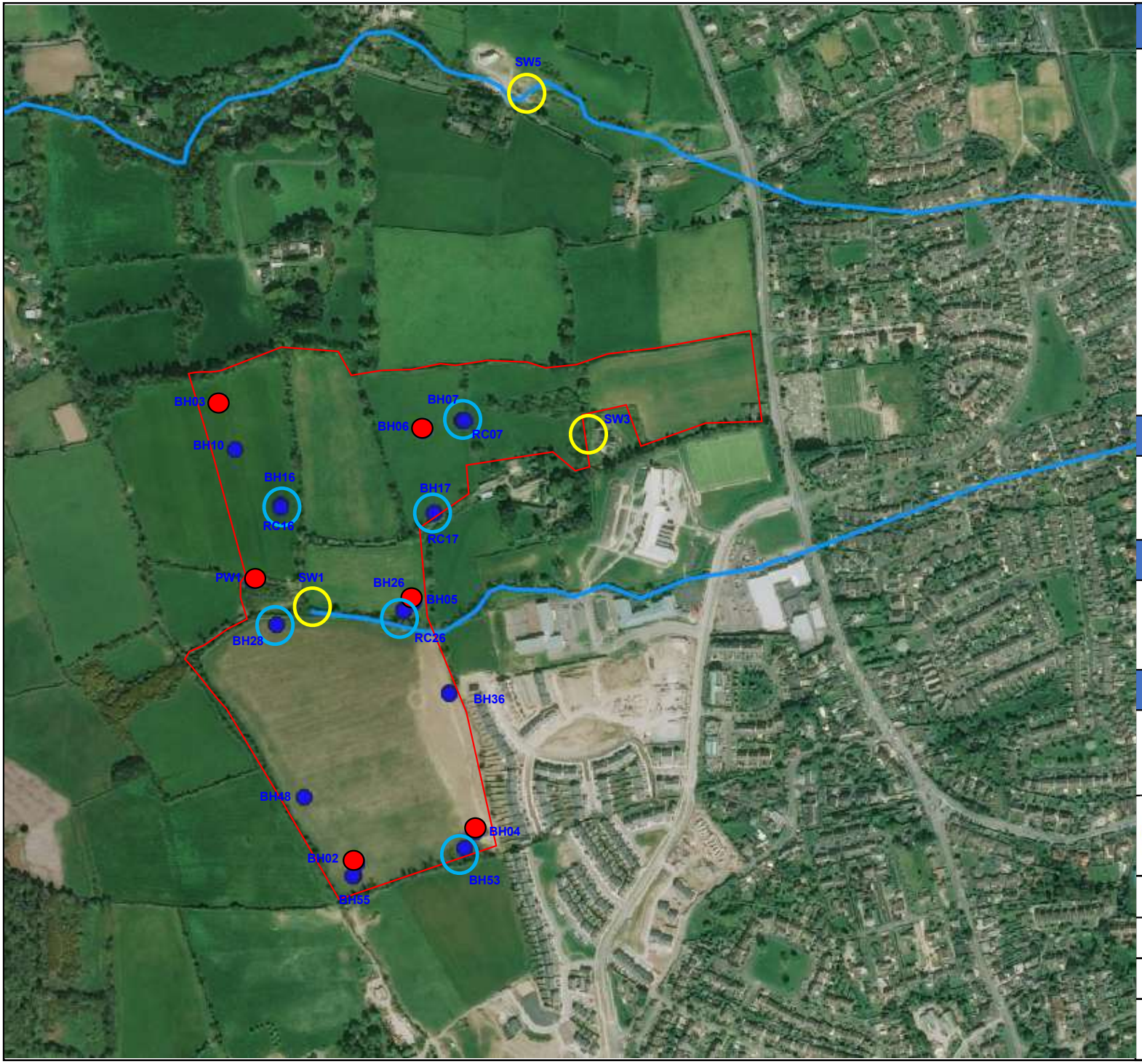
t +353 (0)1 565 4730

Drawn By: FJ	Projection: IRENET95 / Irish Transverse Mercator
Checked:	
Date: 29/03/2022	Scale: 1:100000

Notes:

Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries



Legend

- Site-boundary
- Groundwater Monitoring Location (Ground Investigations Ireland 2018)
- Groundwater Monitoring Location (Enviroguide 2021)
- Sampled Groundwater Sampling Location
- Sampled Surface Water Location
- SW1 Sample Location ID

Project

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Client

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Title

Figure 6: Sampled Locations

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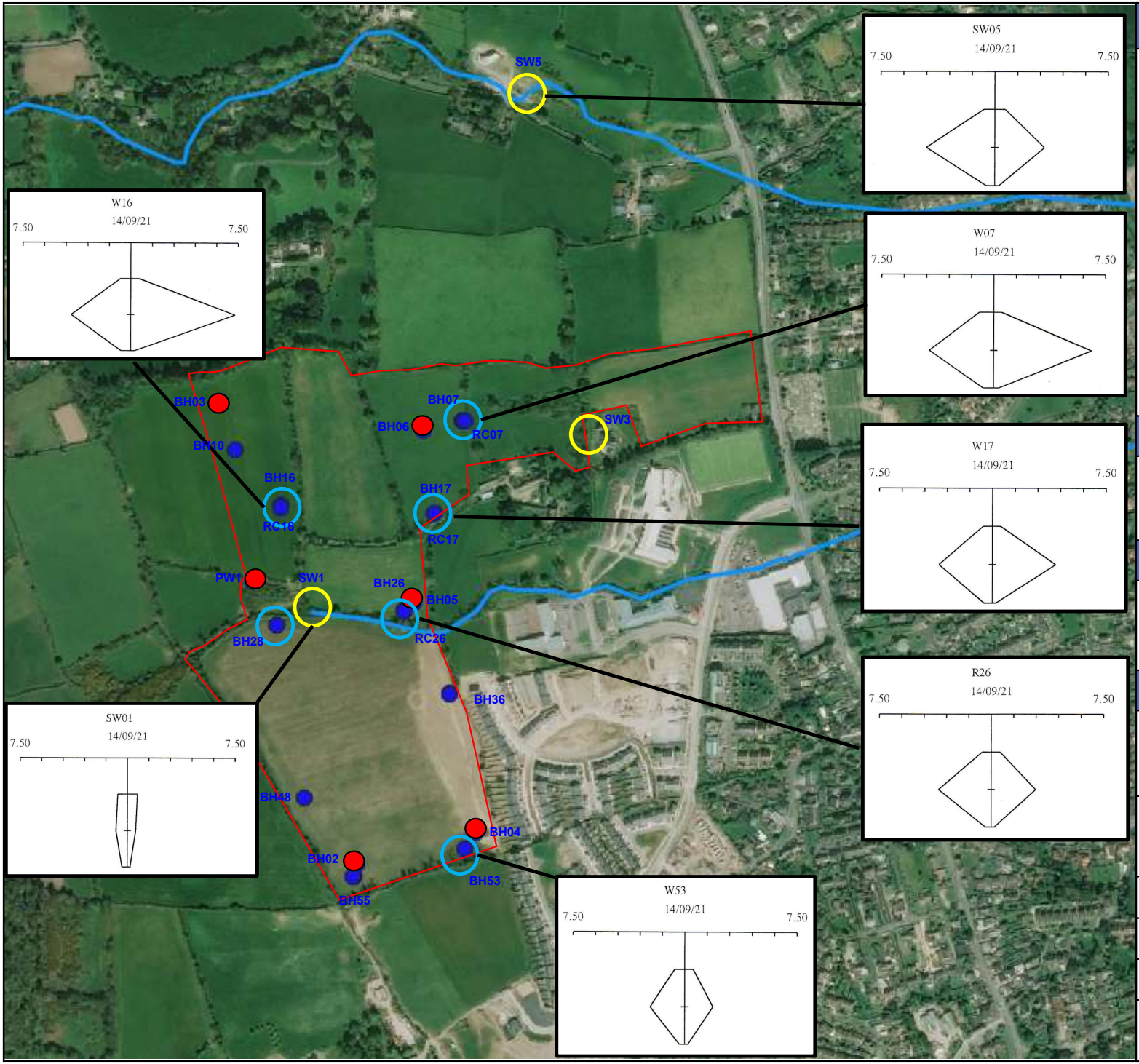
Drawn by: FJ	**Projection:** N/A
Checked: CC	
Date: 31/08/2021	**Scale:** NTS

Notes:
DRAFT Elevations measured as metres above Ordnance Datum. Where no groundwater elevation is specified the well was recorded as dry.



Legend

- Site-boundary
- Groundwater Monitoring Location (Ground Investigations Ireland 2018)
- Groundwater Monitoring Location (Enviroguide 2021)
- Sampled Groundwater Sampling Location
- Sampled Surface Water Location
- SW1 Sample Location ID

< --meq/l -- >

Na + K	Cl
Ca	HCO3
Mg	SO4

Project

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Client

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Title

Figure 7: Sampled Locations with Stiff Diagrams

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Drawn by: FJ	**Projection:** N/A
Checked: CC	
Date: 31/08/2021	**Scale:** NTS

Notes:
DRAFT Elevations measured as metres above Ordnance Datum. Where no groundwater elevation is specified the well was recorded as dry.

Legend:

Site boundary

Bedrock Aquifer

PI - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones

Project:

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Client:

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Title:

Figure 8: Aquifers

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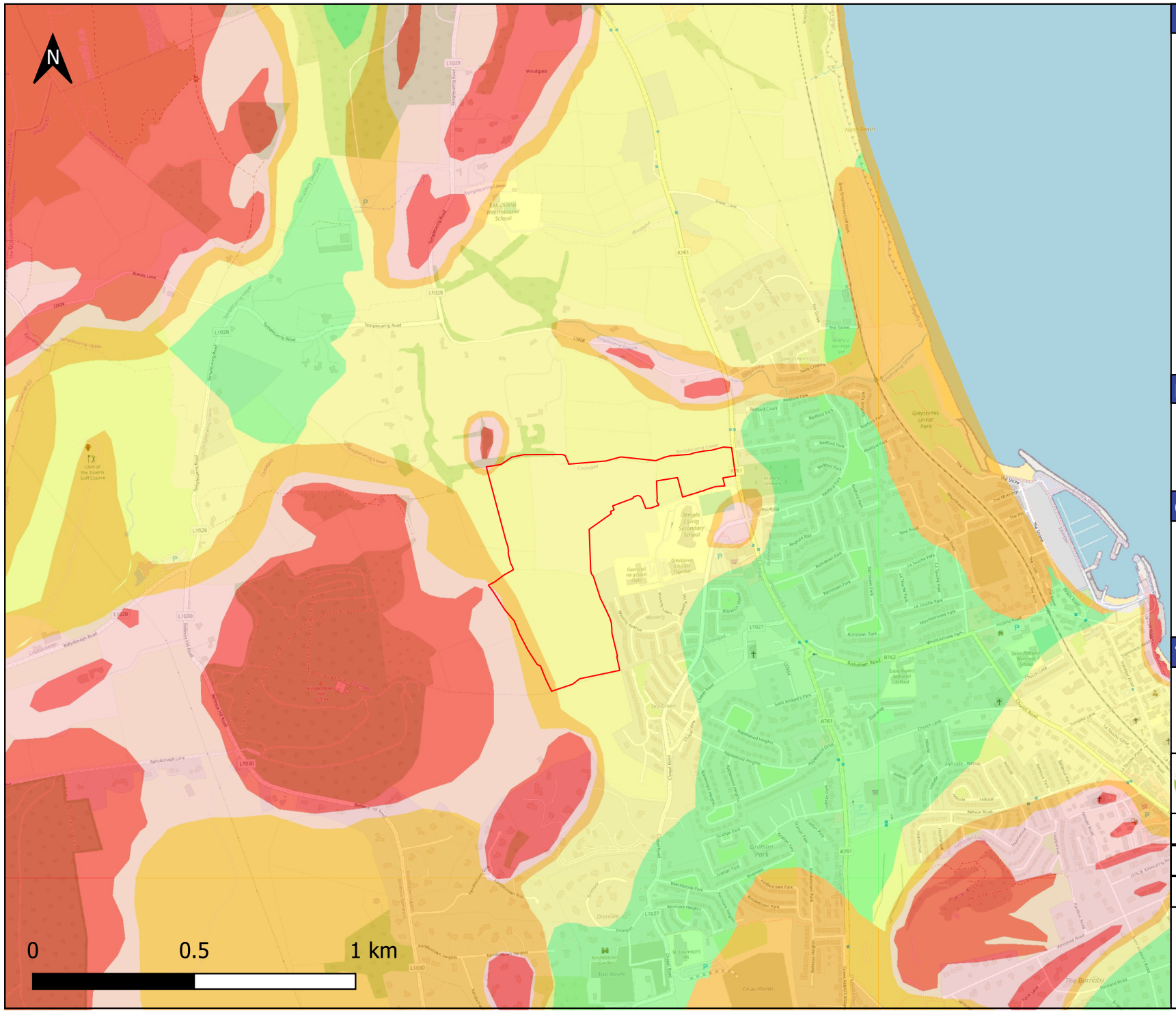
Drawn By: FJ	**Projection: IRENET95 / Irish Transverse Mercator**
Checked: CC	
Date: 25/01/2022	**Scale: 1:16000**

Notes:

DRAFT

Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries



Legend:

Site boundary

National Groundwater Vulnerability Ireland

- Rock at or near Surface or Karst
- Extreme
- High
- Moderate
- Low

Project:

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Client:

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Title:

Figure 9: Groundwater Vulnerability

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Drawn By: FJ	**Projection: IRENET95 / Irish Transverse Mercator**
Checked: CC	
Date: 25/01/2022	**Scale: 1:16000**

Notes:

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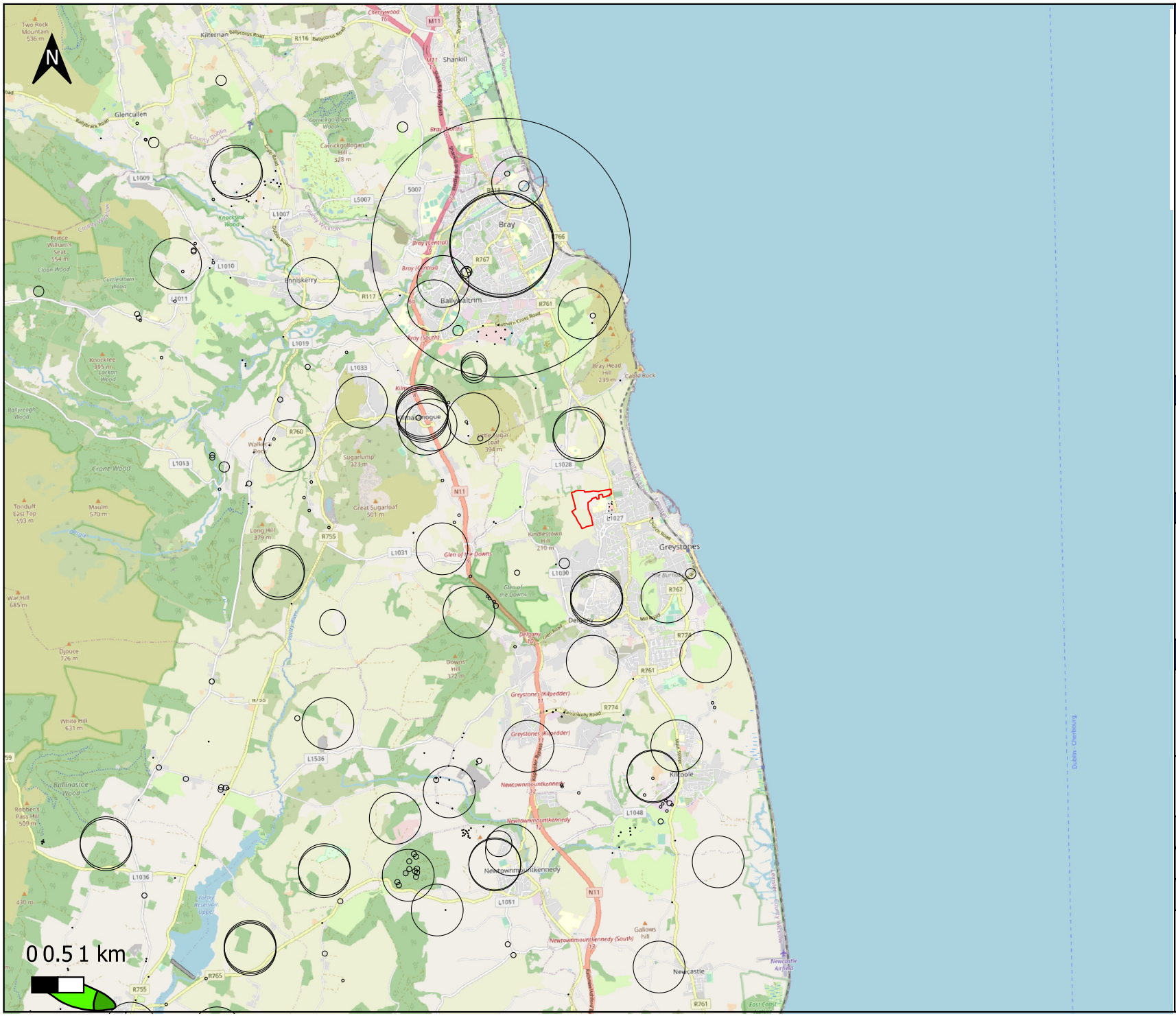
Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries



Legend:

- Site boundary
- 2km site buffer

Public Supply Source Protection Areas

- SI-Inner Protection Area
- SO-Outer Protection Area
- GSI, 2022 recorded Groundwater Wells and Springs

Project:

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Client:

Cairn Homes Properties Limited

Title:

Figure 10: Groundwater Protection Areas, Wells and Springs Lcoated withiun 2km of the Site

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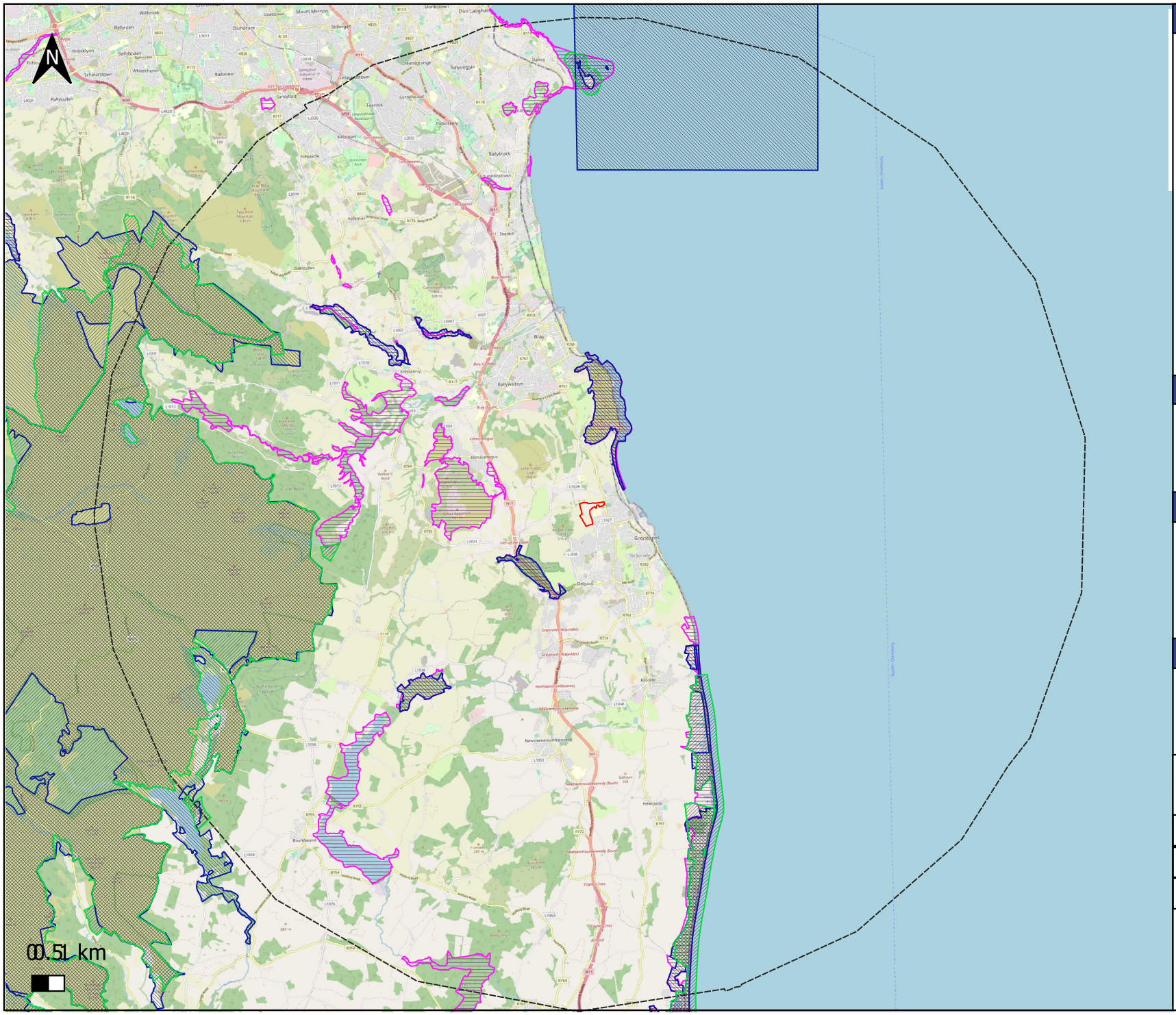
Drawn By: FJ	**Projection: IRENET95 / Irish Transverse Mercator**
Checked: CC	
Date: 25/01/2022	**Scale: 1:100000**

Notes:

DRAFT

Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries

GSI: Geological Survey Ireland, 2021



Legend:

- Site boundary
- 15km site buffer
- SPA Special Protection Area
- SAC Special Area of Conservation
- pNHA Proposed Natural Heritage Area

Project:

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Client:

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Title:

Figure 11: Designated and Protected Areas

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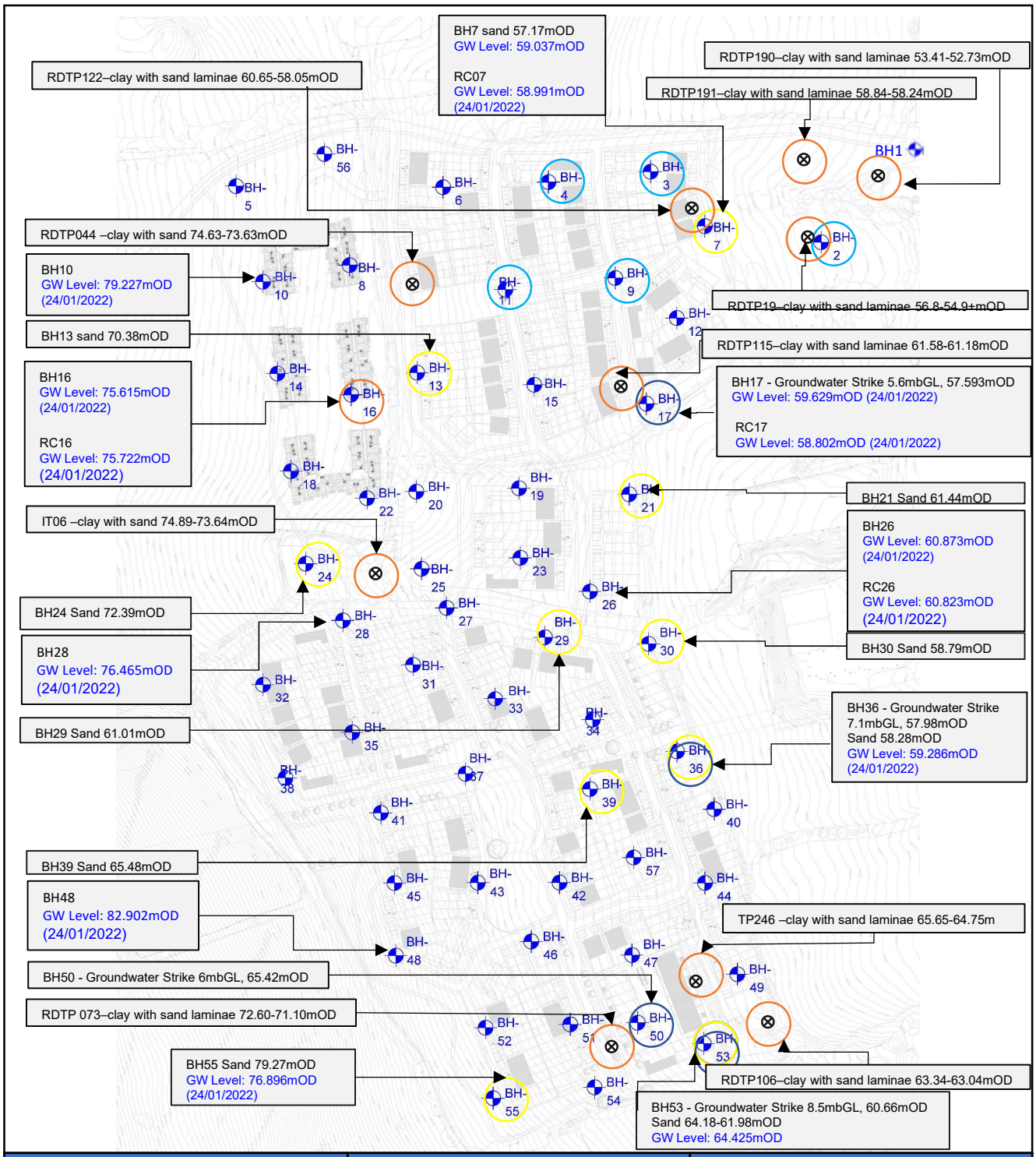
Drawn By: FJ	**Projection: IRENET95 / Irish Transverse Mercator**
Checked: CC	
Date: 25/01/2022	**Scale: 1:160000**

Notes:

DRAFT
Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries



Legend

- Groundwater strike during drilling in upper 5mbGL
- Groundwater strike during drilling at specified depth (>5m)
- Sand strata >1m thick at <6m depth
- Sand laminations in clay at specified depths
- GW Level — Maximum groundwater level recorded at specific location and date recorded
- Site Investigations Ltd., drilled borehole location 2021

Project

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Figure 12: Shallow sand & groundwater in boreholes

Projection

Projection: @A4

Scale: NTS

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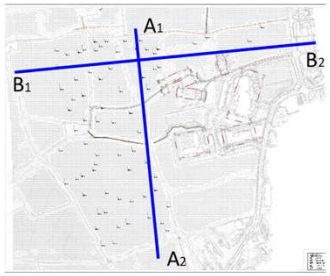
e info@enviroguide.ie
t +353 (0)1 565 4730

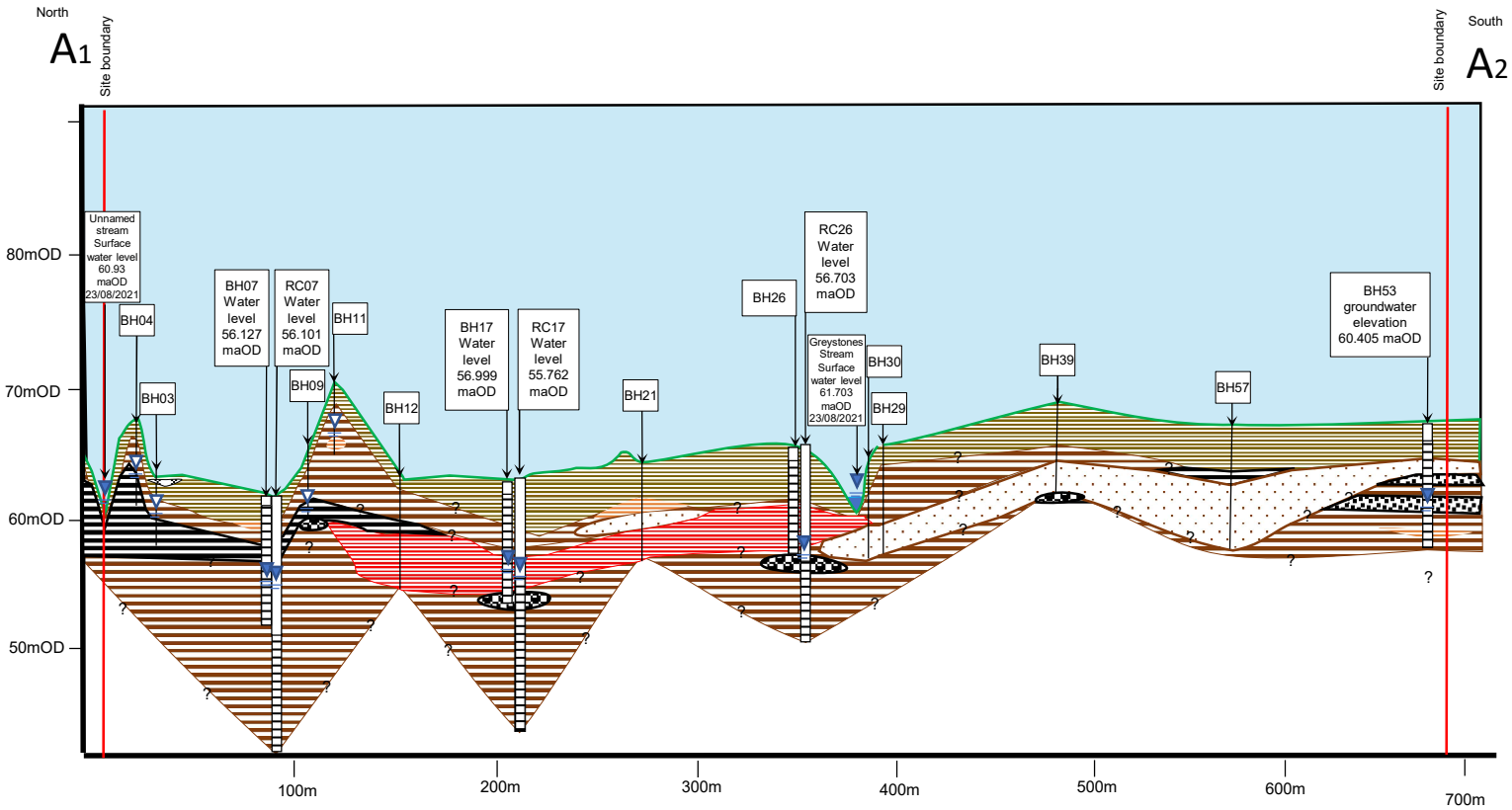
Drawn by: FJ

Checked: CC

Date: 27/01/2022

Notes: DRAFT for indicative purposes only
SOURCE FOR DRAWINGS Site Investigations Limited., 2021
Coolagad Greystones, Co. wicklow Site Investigation Report





Legend

- Groundwater/Surface Water Level measured 14/10/2021
- Measured Groundwater Strike
- ? Inferred Strata boundary
- Topsoil
- MADE GROUND; Grey to orange, sandy, gravelly, silty CLAY
- Brown, sandy, gravelly, silty CLAY with low cobble content
- Stiff, brown, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, grey to black, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, red to brown to orange, sandy, silty, gravelly CLAY
- Orange to brown, silty gravelly CLAY
- Yellow to brown to red, clayey, SILT and SAND
- Brown, silty SAND and GRAVEL
- Boulders

Project

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Client

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Title

Figure 13a: Schematic Cross Section A

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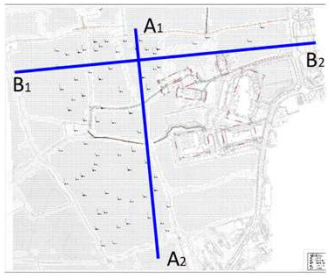
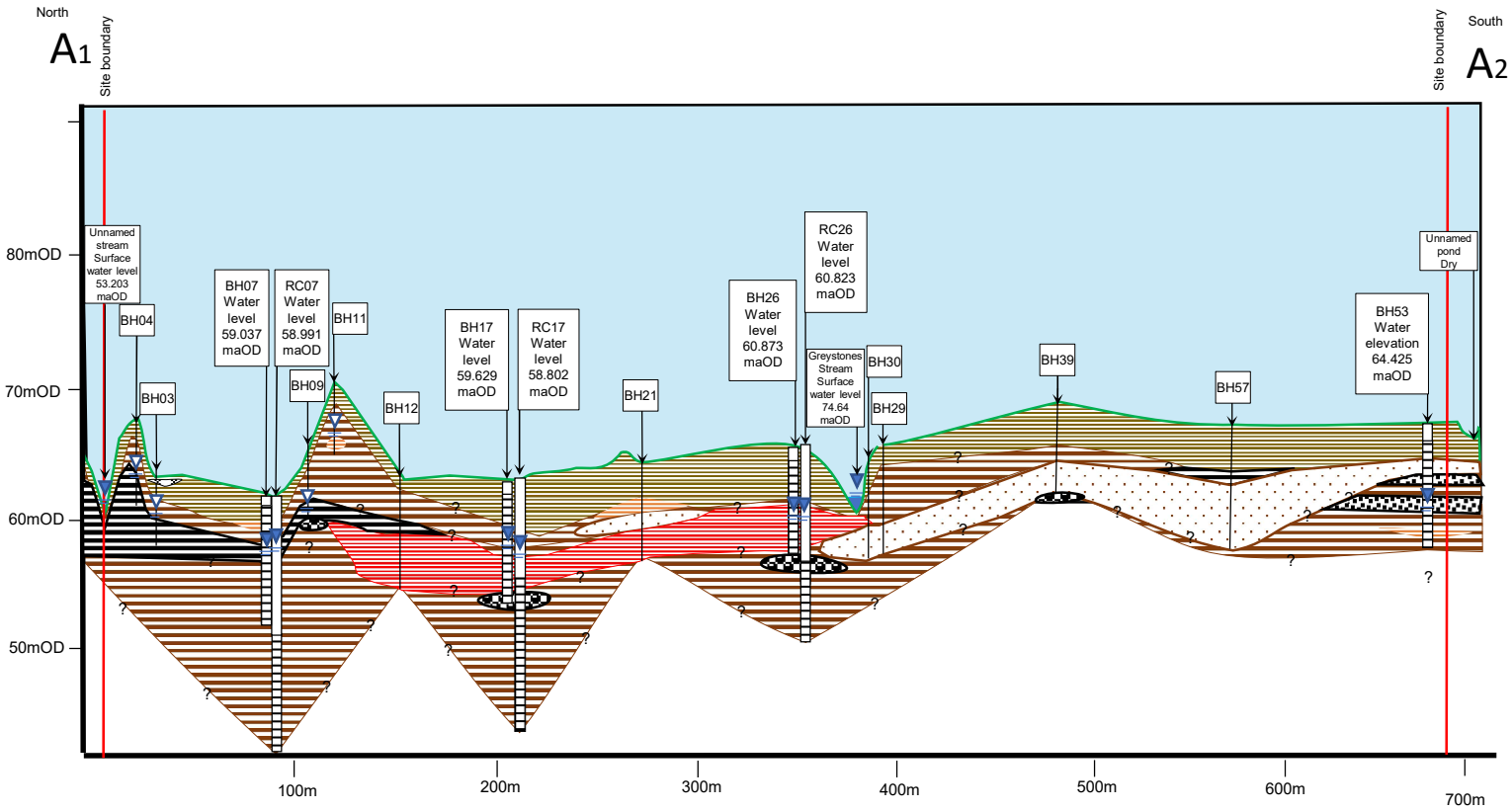
Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 27/01/2022	**Scale:** NTS

Notes:
DRAFT
Schematic for Illustration Purposes ONLY





Legend

- Groundwater/Surface Water Level measured 24/01/2022
- Measured Groundwater Strike
- ? Inferred Strata boundary
- Topsoil
- MADE GROUND; Grey to orange, sandy, gravelly, silty CLAY
- Brown, sandy, gravelly, silty CLAY with low cobble content
- Stiff, brown, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, grey to black, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, red to brown to orange, sandy, silty, gravelly CLAY
- Orange to brown, silty gravelly CLAY
- Yellow to brown to red, clayey, SILT and SAND
- Brown, silty SAND and GRAVEL
- Boulders

Project

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Client

Cairn Homes Properties Limited

Title

Figure 13b: Schematic Cross Section A

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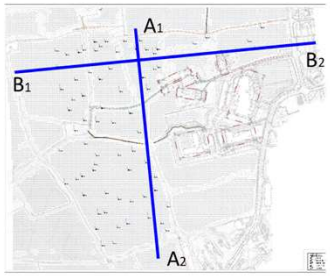
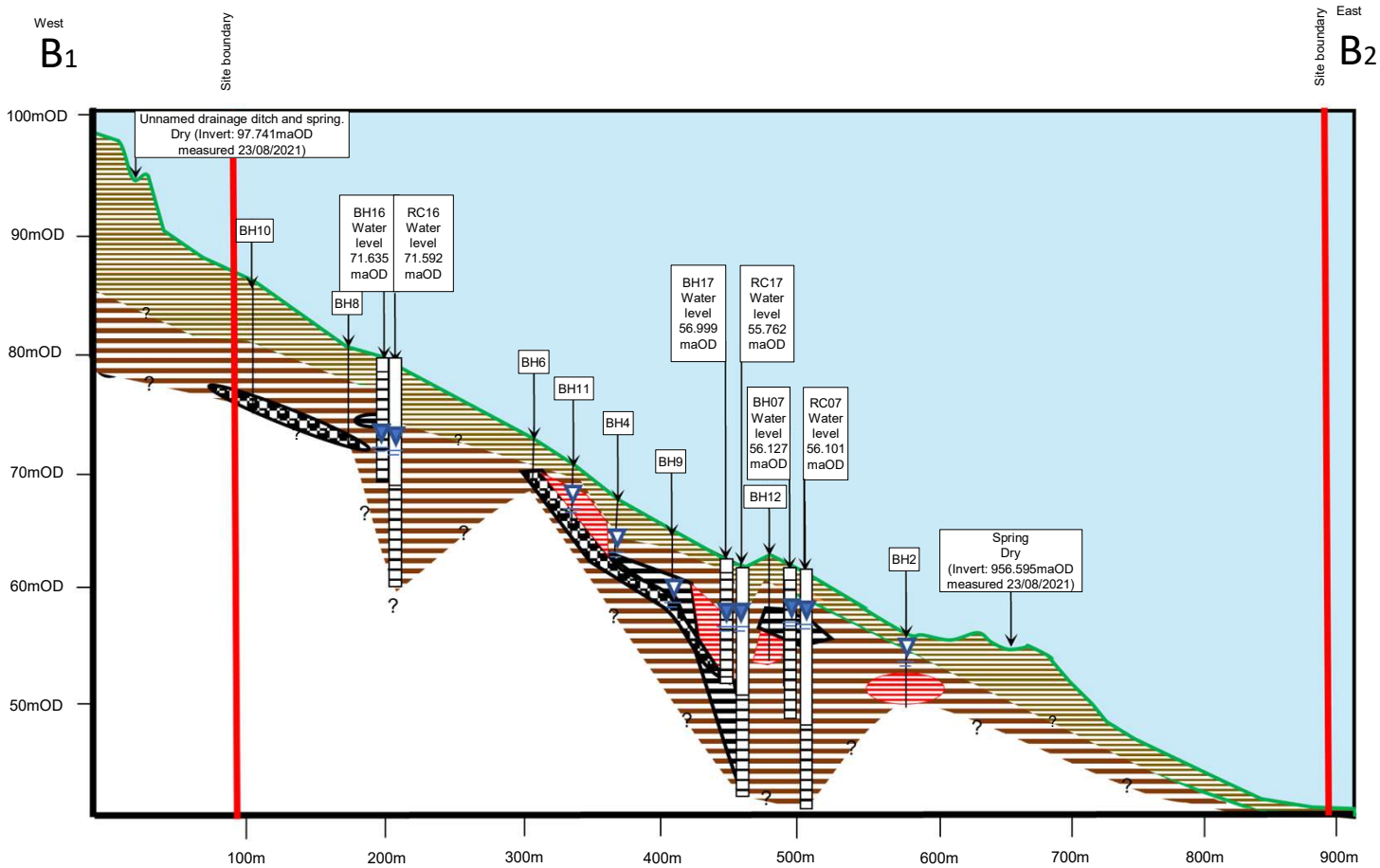
Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 25/01/2022	**Scale:** NTS

Notes:
Schematic for Illustration Purposes ONLY





Legend

- Groundwater/Surface Water Level measured 14/10/2021
- Measured Groundwater Strike
- ? Inferred Strata boundary
- Topsoil
- Brown, sandy, gravelly, silty CLAY with low cobble content
- Stiff, brown, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, grey to black, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, red to brown to orange, sandy, silty, gravelly CLAY
- Orange to brown, silty gravelly CLAY
- Yellow to brown to red, clayey, SILT and SAND
- Boulders

Project

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Client

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Title

Figure 14a: Schematic Cross Section B

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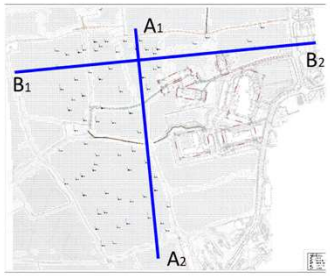
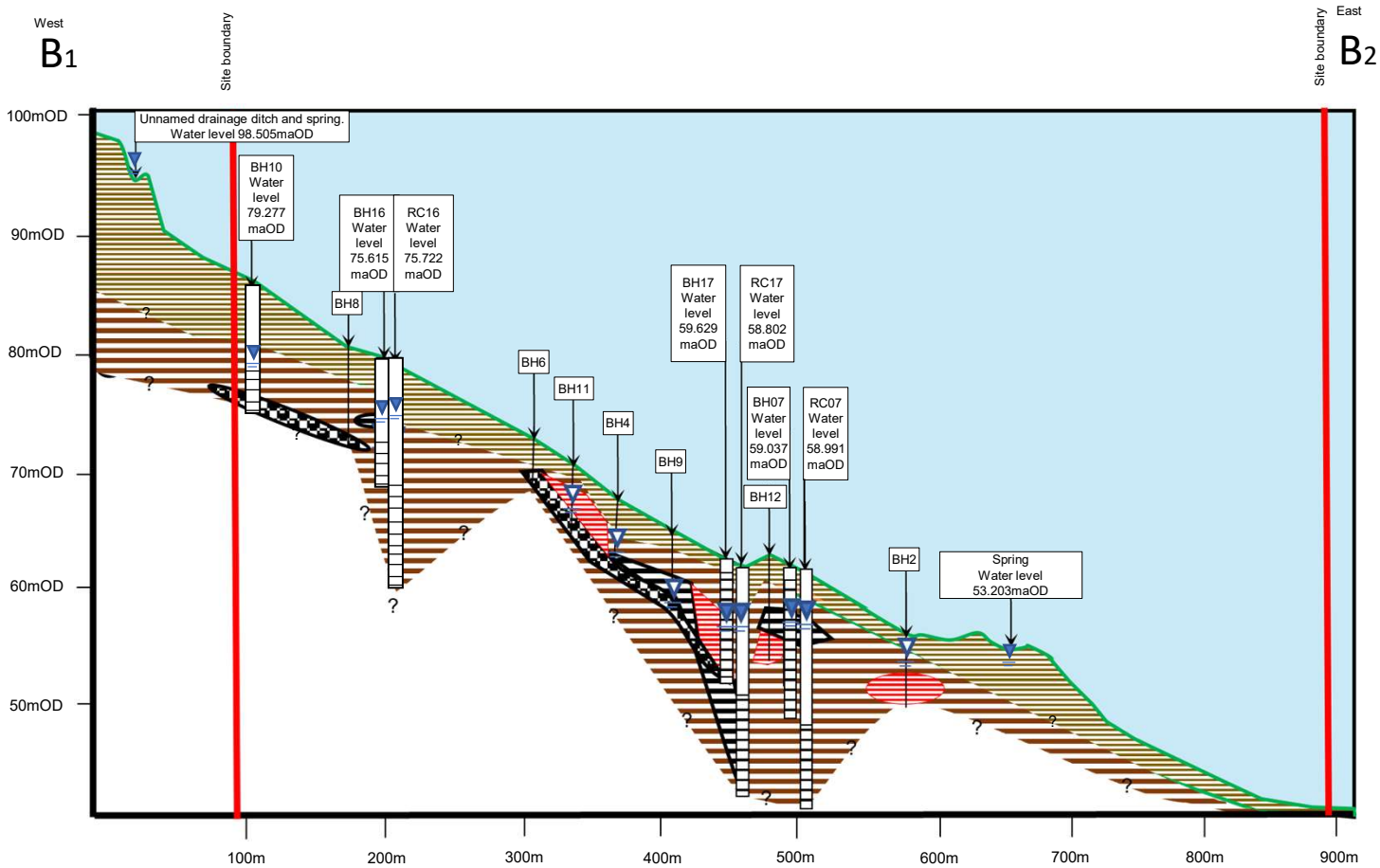
Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 27/01/2022	**Scale:** NTS

Notes:
DRAFT
Schematic for Illustration Purposes ONLY





Legend

- Groundwater/Surface Water Level measured 24/01/2022
- Measured Groundwater Strike
- ? Inferred Strata boundary
- Topsoil
- Brown, sandy, gravelly, silty CLAY with low cobble content
- Stiff, brown, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, grey to black, sandy, gravelly, silty CLAY with occasional cobble content
- Stiff, red to brown to orange, sandy, silty, gravelly CLAY
- Orange to brown, silty gravelly CLAY
- Yellow to brown to red, clayey, SILT and SAND
- Boulders

Project

Coolagad

Client

Cairn Homes Properties Limited

Title

Figure 14b: Schematic Cross Section B

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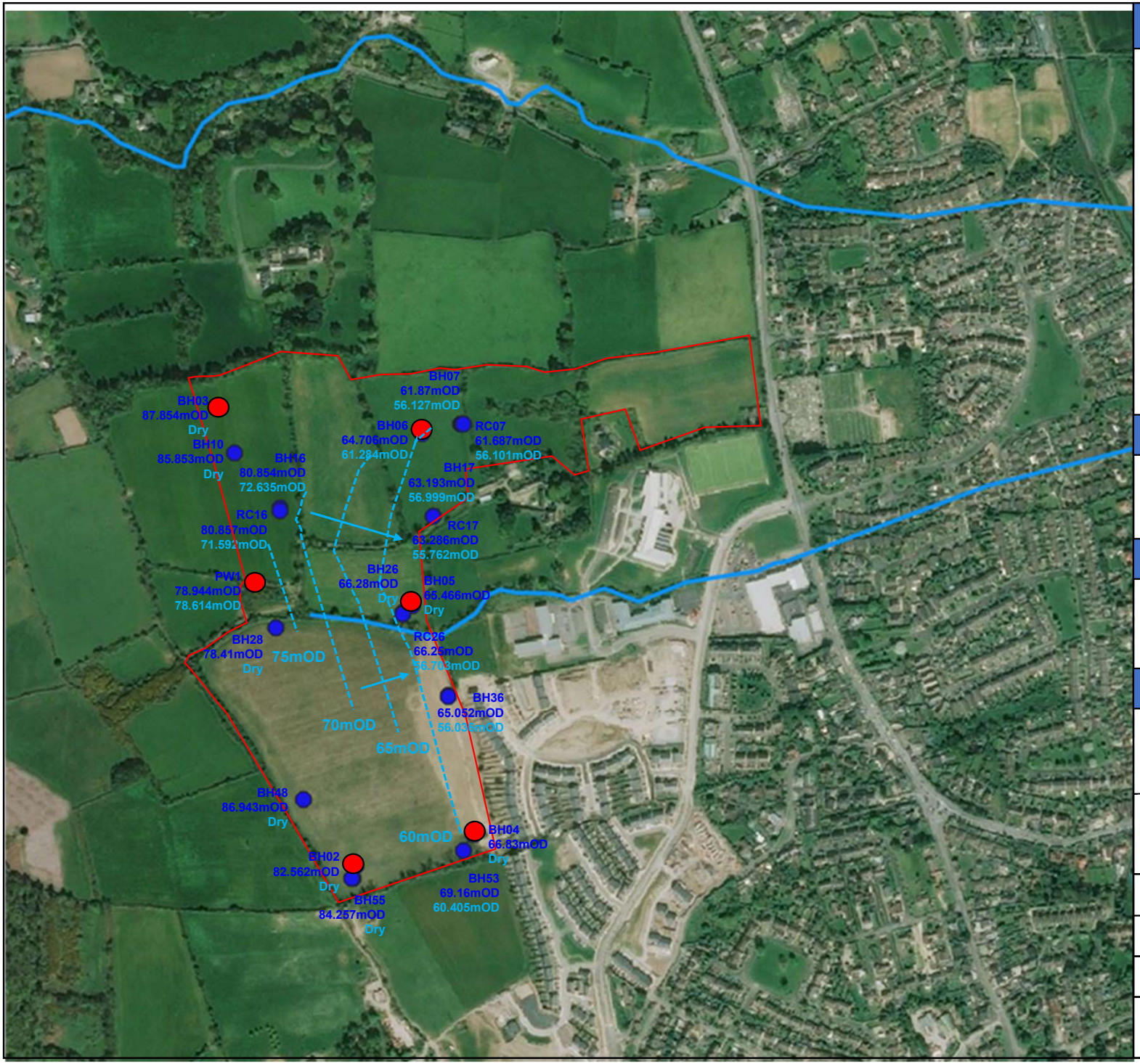
Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 25/01/2022	**Scale:** NTS

Notes:
DRAFT
Schematic for Illustration Purposes ONLY



Legend

- Site-boundary
- Groundwater Monitoring Location (Ground Investigations Ireland 2018)
- Groundwater Monitoring Location (Site Investigations Ltd., 2021)
- BH07 61.87mOD — Borehole ID and Surveyed Ground Level (meters above Ordnance Datum)
- 56.127mOD — Measured Groundwater Level (meters above Ordnance Datum) 14/10/2021
- 65mOD — Inferred Groundwater elevation contours (meters above Ordnance Datum)
- Inferred Groundwater Flow Direction
- Surface waterbodies

Project

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Client

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Title

Figure 15: Groundwater elevation contours (14/10/2021)

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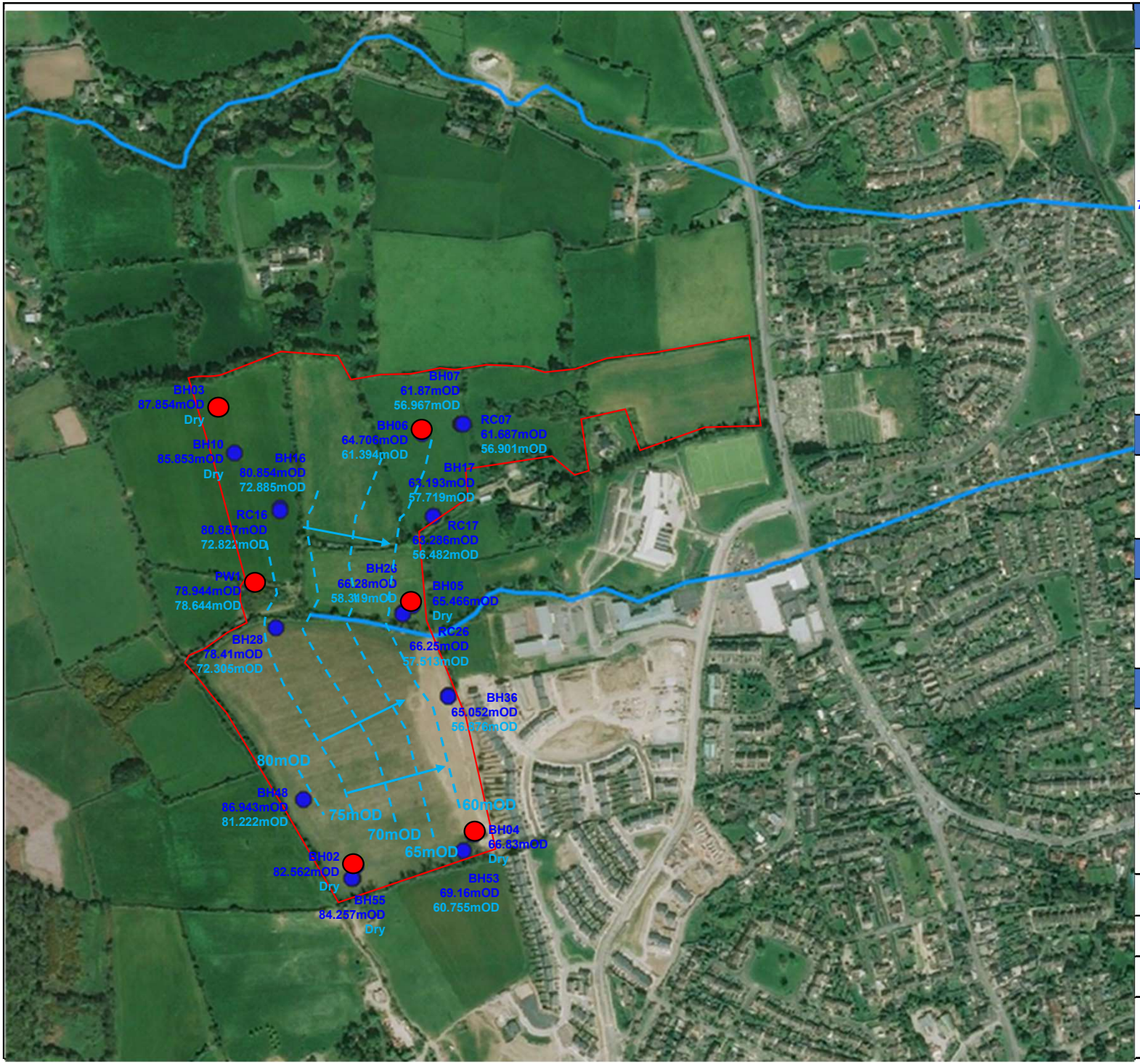
Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 24/11/2021	**Scale:** NTS

Notes: DRAFT
Elevations measured as metres above Ordnance Datum. Where no groundwater elevation is specified the well was recorded as dry.



Legend

- Site-boundary
- Groundwater Monitoring Location (Ground Investigations Ireland 2018)
- Groundwater Monitoring Location (Enviroguide 2021)
- PW1 78.944mOD — Borehole ID and Surveyed Ground Level (meters above Ordnance Datum)
- 78.644mOD — Measured Groundwater Level (meters above Ordnance Datum) 12/08/2021
- 65mOD — Inferred Groundwater elevation contours (meters above Ordnance Datum)
- Inferred Groundwater Flow Direction
- Surface waterbodies

Project

Coolagad Planning Application

Client

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Title

Figure 16: Groundwater elevation contours (12/08/2021)

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Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 24/11/2021	**Scale:** NTS

Notes:
Elevations measured as metres above Ordnance Datum.
Where no groundwater elevation is specified the well was recorded as dry.

Legend

- Site-boundary
- Groundwater Monitoring Location (Ground Investigations Ireland 2018)
- Groundwater Monitoring Location (Enviroguide 2021)
- PW1 78.944mOD — Borehole ID and Surveyed Ground Level (meters above Ordnance Datum)
- 78.654mOD — Measured Groundwater Level (meters above Ordnance Datum) 23/08/2021
- 65mOD — Inferred Groundwater elevation contours (meters above Ordnance Datum)
- Inferred Groundwater Flow Direction
- Surface waterbodies

Project

Coolagad Planning Application

Client

Cairn Homes Properties Limited

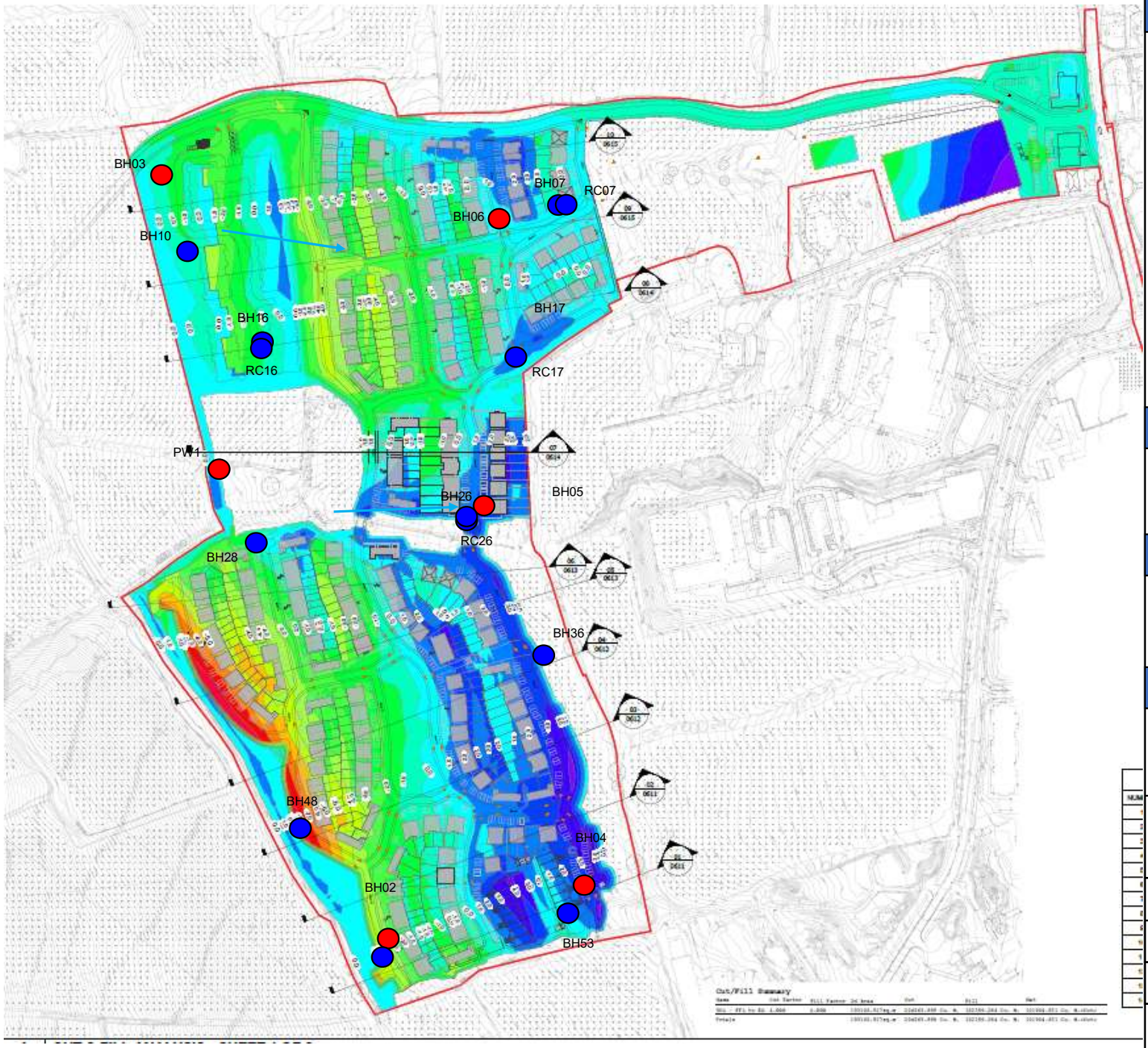
Title

Figure 17: Groundwater elevation contours (23/08/2021)

enviroguide consulting
a 3D Core C, Block 71, The Plaza Park West, Dublin 12 D12F9TN
w www.enviroguide.ie
e info@enviroguide.ie
t +353 (0)1 565 4730

Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 24/11/2021	**Scale:** NTS

Notes:
Elevations measured as metres above Ordnance Datum.
Where no groundwater elevation is specified the well was recorded as dry.



Legend

- Site-boundary
- Monitoring Well Locations (2018)
- Monitoring Well Locations (2021)

Project

Coolagad

Client

Cairn Homes Properties Limited

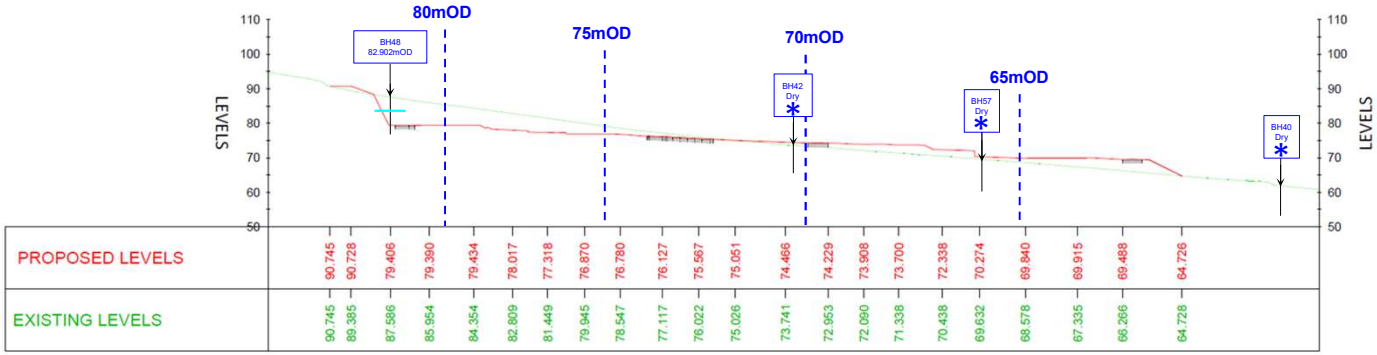
Title

Figure 18: Cut and Fill & Monitoring Well Locations

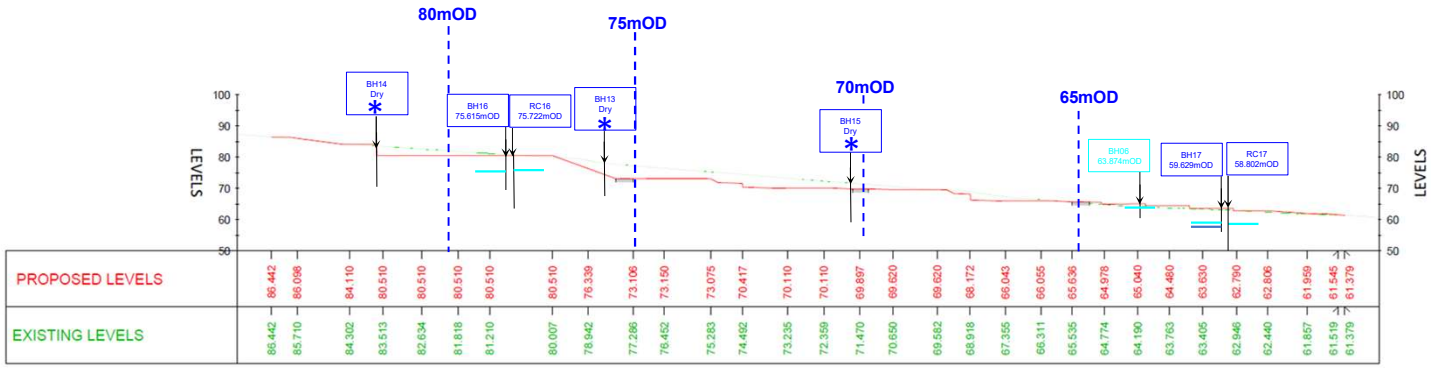
enviroguide consulting
a 3D Core C, Block 71, The Plaza Park West, Dublin 12 D12F9TN
w www.enviroguide.ie
e info@enviroguide.ie
t +353 (0)1 565 4730

Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 23/03/2022	**Scale:** NTS

Notes:
SOURCE FOR DRAWING AND SECTIONS
AECOM , 2022 FINAL
Drawing COO-ACM-00-00-DR-CE-00-0610



SECTION 03
Scale H 1:1000, V 1:1000



SECTION 08
Scale H 1:1000, V 1:1000

Legend

- Groundwater strike recorded during drilling (mOD)
- Maximum Groundwater Level Recorded at specific location (mOD)
- 60mOD — Location of Inferred Groundwater elevation contour (mOD) measured 24/01/2022
- BH04 Dry — Ground Investigations Ireland installed borehole 2018 and maximum groundwater level recorded
- BH40 Dry — Site Investigations Ltd., drilled borehole location 2021 and maximum groundwater level recorded
- * — No groundwater monitoring well installation

Where no groundwater elevation is specified the well was recorded as dry.

Project

Coolagad

Client

Cairn Homes Properties Limited

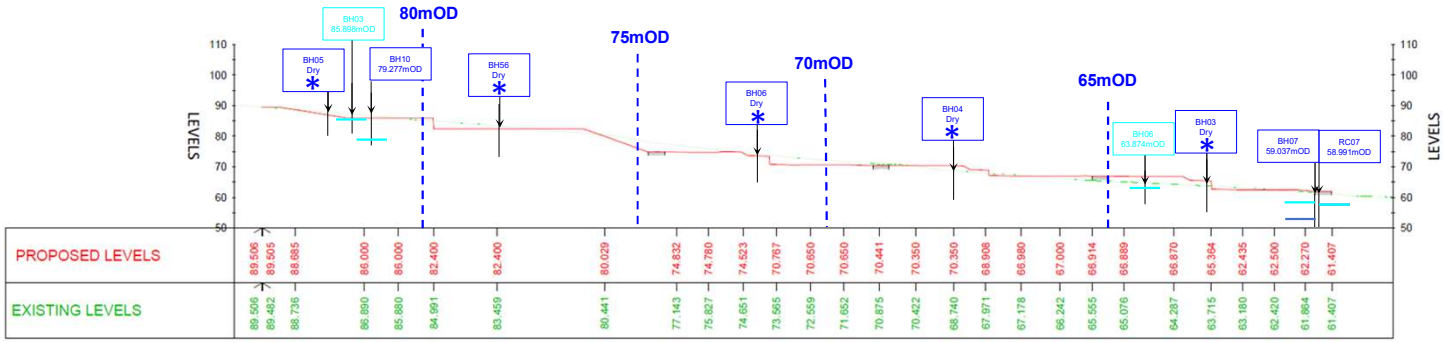
Title

Figure 19: Cut and fill sections and Groundwater Level Data (Section 3 and Section 8)

enviroguide consulting
a 3D Core C, Block 71, The Plaza Park West, Dublin 12 D12F9TN
w www.enviroguide.ie
e info@enviroguide.ie
t +353 (0)1 565 4730

Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 23/03/2022	**Scale:** NTS

Notes: Elevations measured as metres above Ordnance Datum.
Where no groundwater elevation is specified the well was recorded as dry.
SOURCE FOR DRAWING AND SECTIONS
AECOM , 2022 FINAL Drawing COO-ACM-00-00-DR-CE-00-0612
and Drawing COO-ACM-00-00-DR-CE-00-0614



SECTION 10
Scale H 1:1000, V 1:1000

Legend

—	Groundwater strike recorded during drilling (mOD)
—	Maximum Groundwater Level Recorded at specific location (mOD)
- - 60mOD	Location of Inferred Groundwater elevation contour (mOD) measured 24/01/2022
BH04 Dry	Ground Investigations Ireland installed borehole 2018 and maximum groundwater level recorded
BH40 Dry	Site Investigations Ltd., drilled borehole location 2021 and maximum groundwater level recorded
*	No groundwater monitoring well installation
	Where no groundwater elevation is specified the well was recorded as dry.

Project

Coolagad

Client

Cairn Homes Properties Limited

Title

Figure 20: Cut and fill sections and Groundwater Level Data (Section 10)

enviroguide consulting
a 3D Core C, Block 71, The Plaza Park West, Dublin 12 D12F9TN
w www.enviroguide.ie
e info@enviroguide.ie
t +353 (0)1 565 4730

Drawn by: FJ	**Projection:** @A4
Checked: CC	
Date: 23/03/2022	**Scale:** NTS

Notes: Elevations measured as metres above Ordnance Datum.
Where no groundwater elevation is specified the well was recorded as dry.
SOURCE FOR DRAWING AND SECTIONS
AECOM , 2022 FINAL
Drawing COO-ACM-00-00-DR-CE-00-0615

Appendix C

Coolagad

Hydrochemistry

Rotary Bores

Surface Water

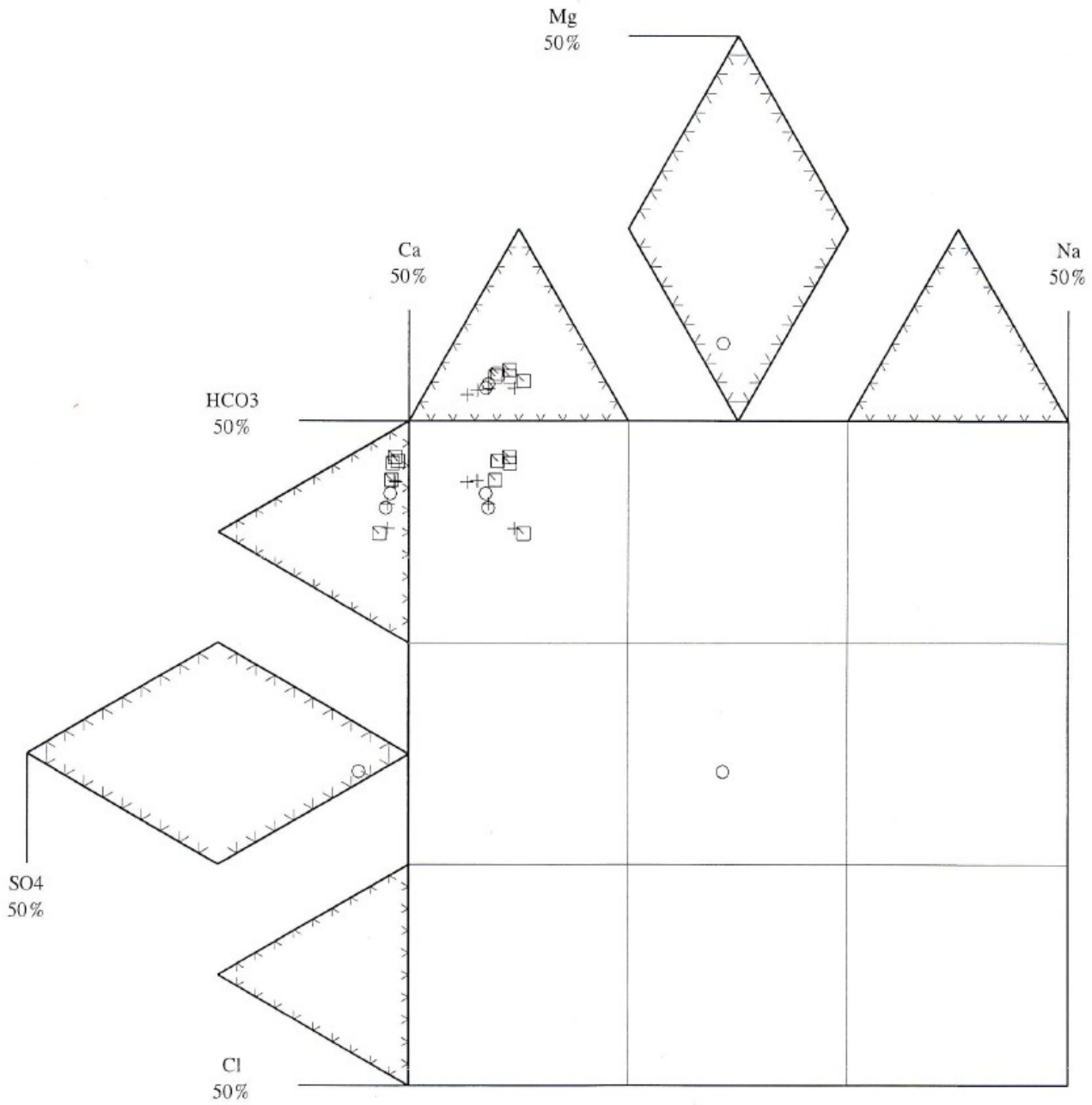
Percussion Bores

DUROV

Hydrochemical

Plots

+ Rotary Bores
○ Surface Water
⊡ Percussion Bores
×
▷



Produced on 13/10/21 at 13:27:21

PIPER

Hydrochemical

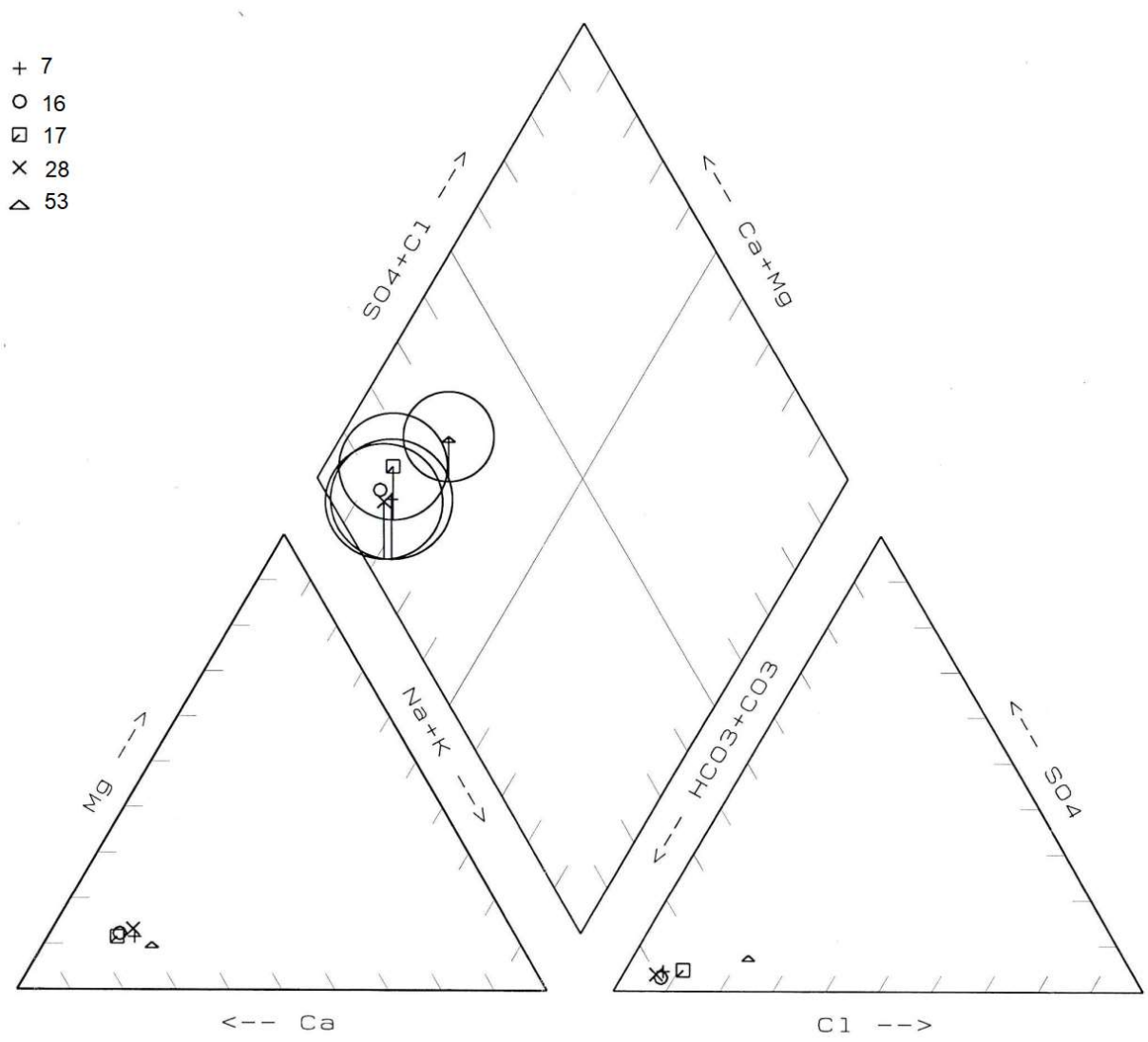
Plots

Coolagad

Percussion

Bores

Hydrochemistry



Ionic Conc. Circles

(meq/l)

0 5.0 30.0

Produced on 13/10/21 at 15:07:32

PIPER Hydrochemical Plots

Coolagad Hydrochemistry

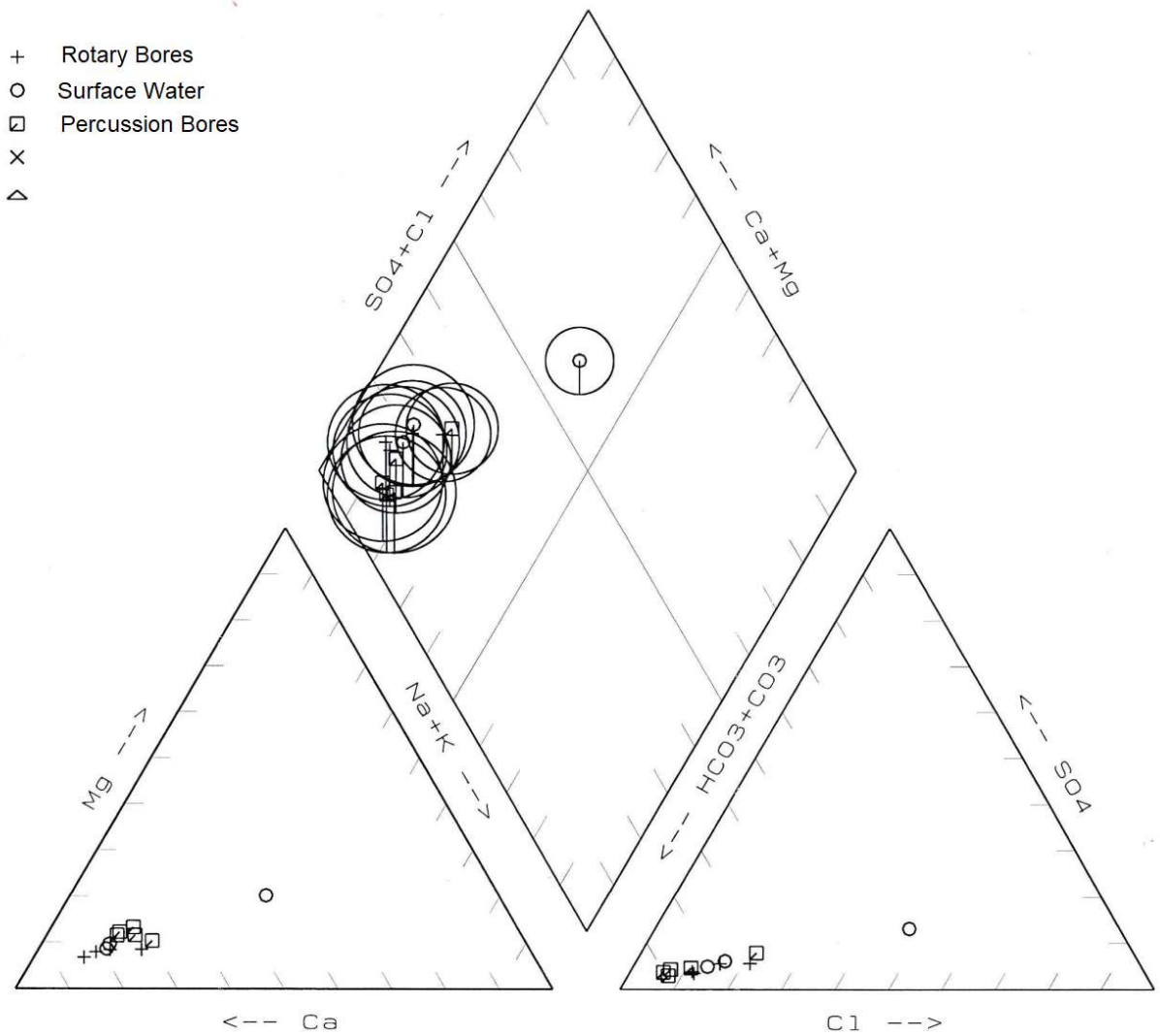
Rotary Bores

Percussion Bores

Surface Water

Ionic Conc. Circles (meq/l)

0 5.0 30.0



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PIPER

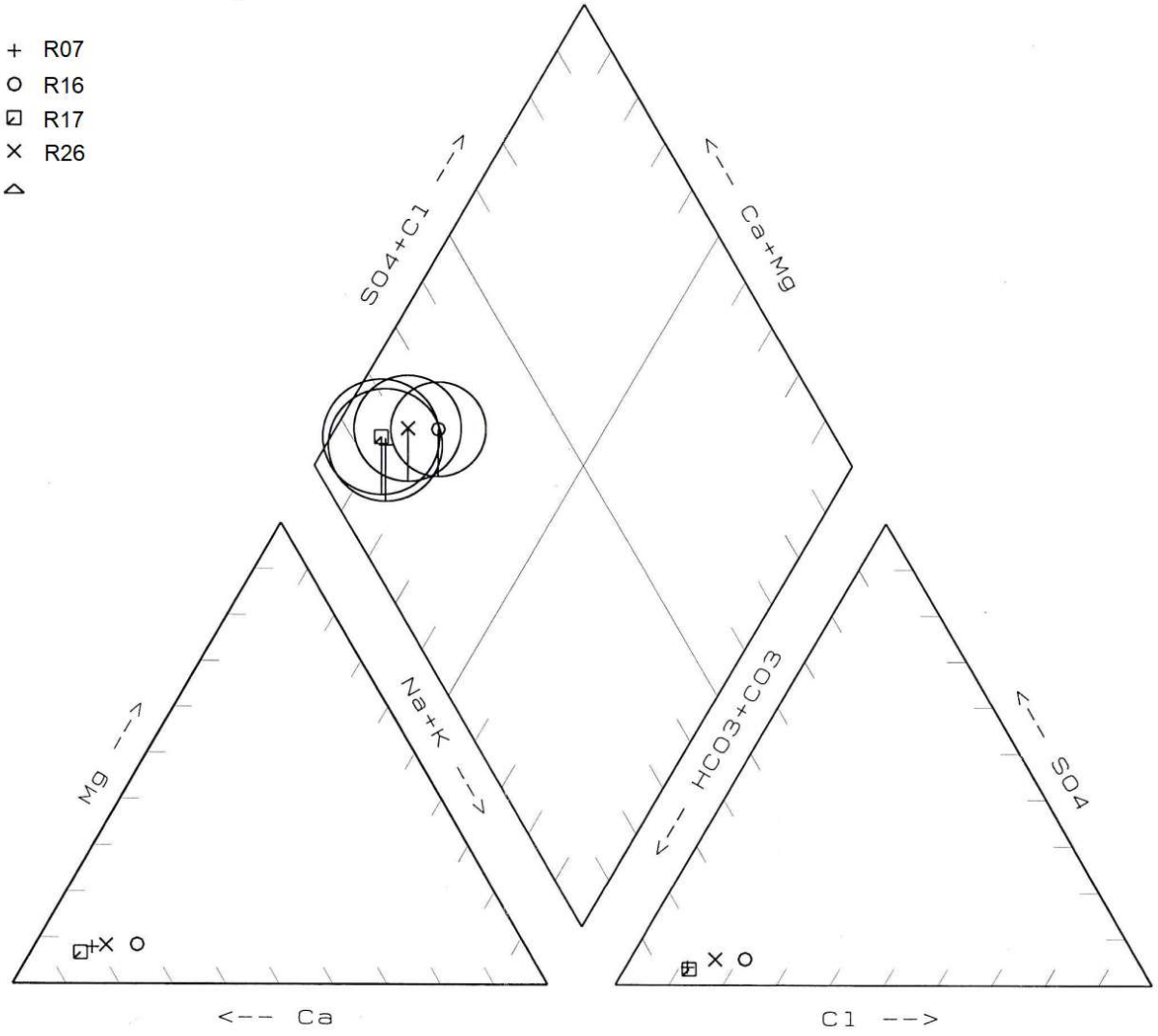
Hydrochemical

Plots

Coolagad

Hydrochemistry

Rotary Bores



Ionic Conc. Circles

(meq/l)

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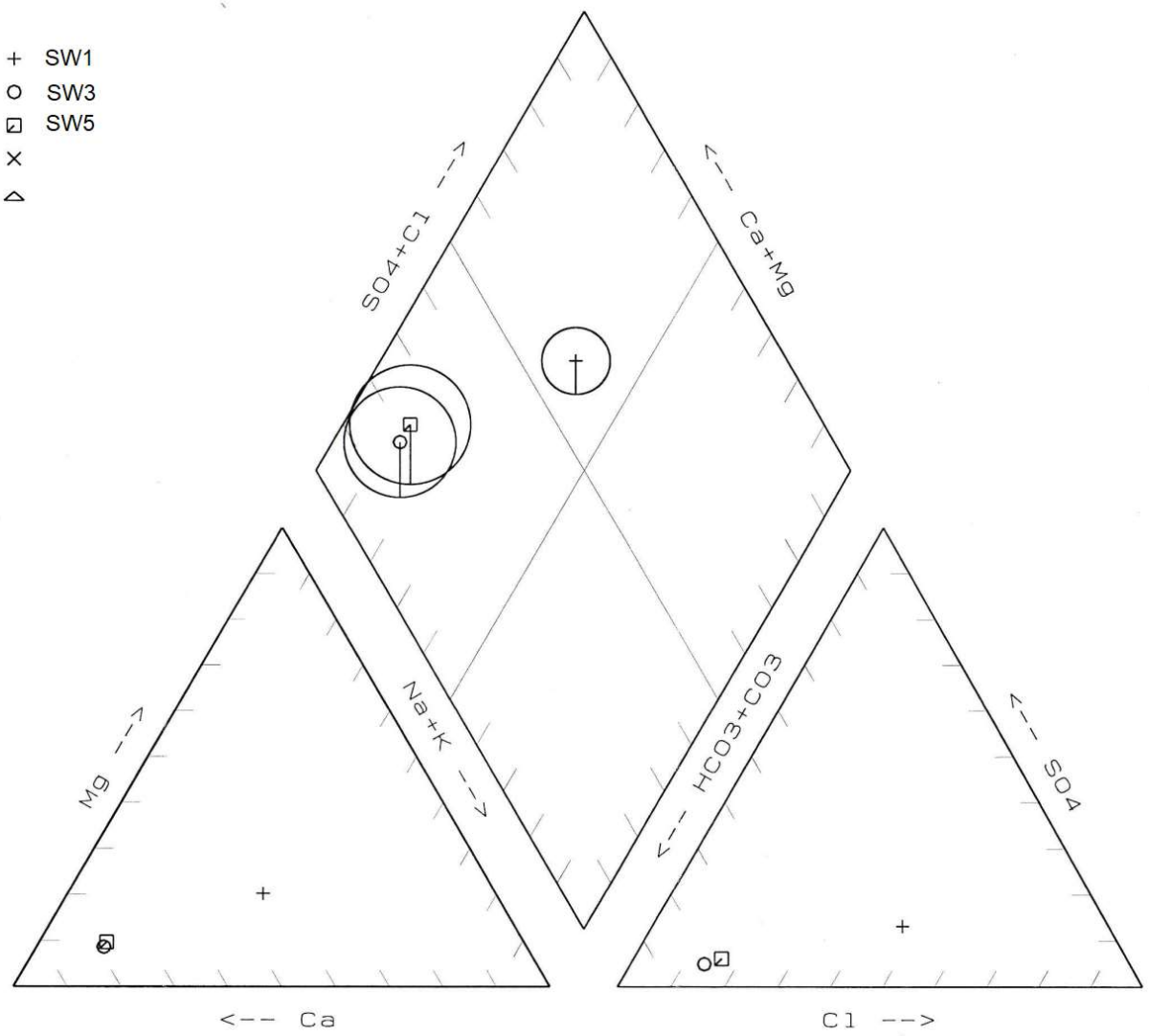
Produced on 13/10/21 at 15:27:20

PIPER Hydrochemical Plots

Coolagad Hydrochemistry

Surface Water



Ionic Conc. Circles
(meq/l)

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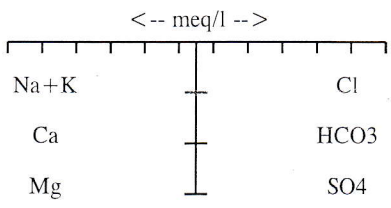
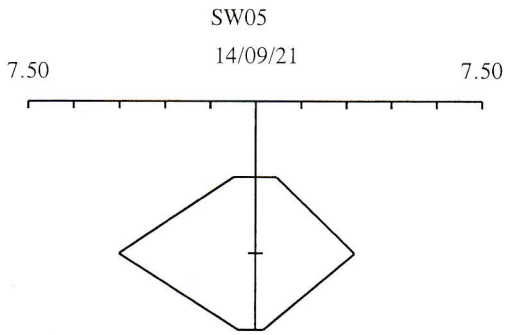
Coolagad

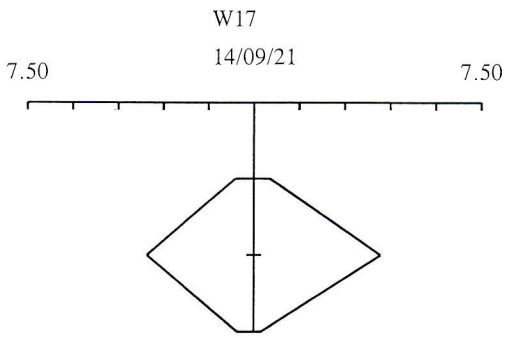
Hydrochemistry

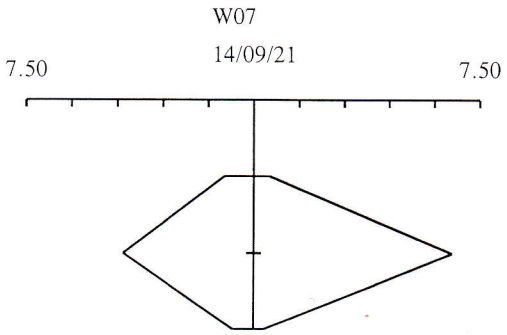
Stiff Plots

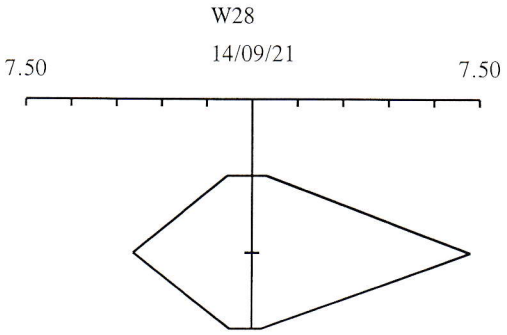
STIFF Hydrochemical Plots

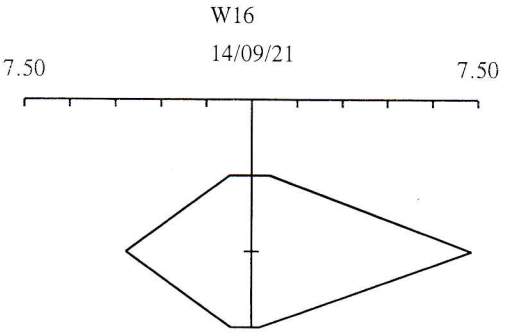


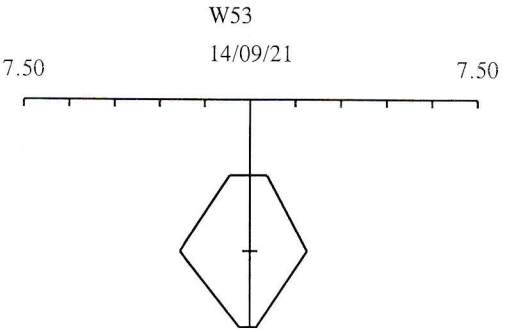












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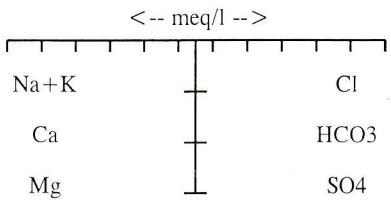
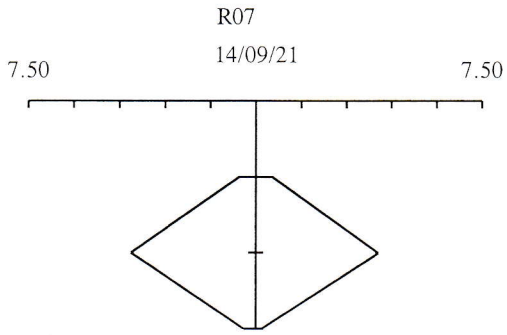
Coolagad

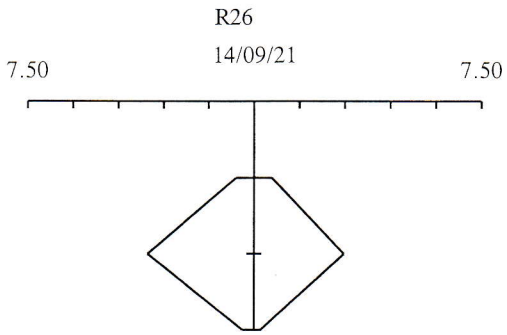
Hydrochemistry

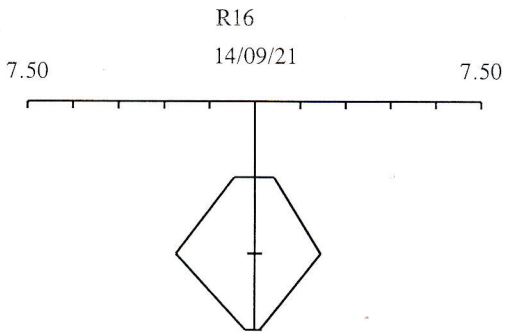
Stiff Plots

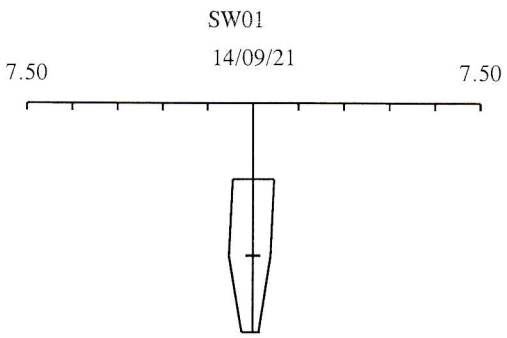
STIFF Hydrochemical Plots

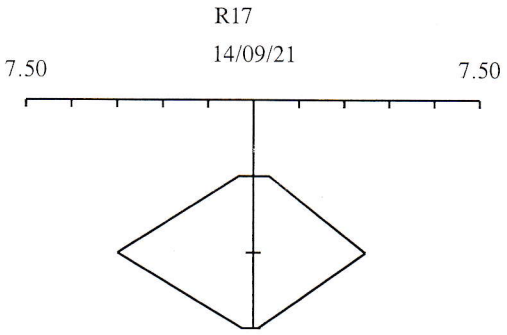


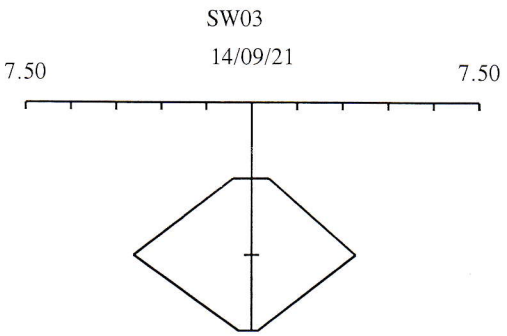












Produced on 13/10/21 at 12:08:09

Appendix D

Client Cairn Homes Properties Limited
Project/Site Coolagad
Date 01/01/2022
Table 1 Groundwater Elevations

Drilling Contractor and Project Reference	Well ID	Well Installation Date	GL mAOD GII/ SIL	GL mAOD EGC	TOCI mAOD	GW Strike (mbgl)	GW Strike (l)	Screen Interval (mBGL)		Screen Interval (mAOD)		Sand top (mAD)	Sand base (mAOD)	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD
														dd/mm/yyyy		dd/mm/yyyy	
														11/03/2021		25/03/2021	
Unknown	Supply Well (PW)	Unknown		78.944	79.394	-	-	-	-	-	-	-	-	0.81	78.584	0.55	78.844
Ground Investigations Ireland Project No.6994-08-17	BH02	22/09/2017	82.43	82.562	82.677	-	-	1	3.7	81.562	78.977	-	-	--	--	--	--
	BH03	19/09/2017	67.44	87.854	88.188	-	-	1	3.6	86.854	84.588	-	-	2.29	85.898	3.1	85.088
	BH04	19/09/2017	65.94	66.83	67.147	-	-	1	5.5	65.83	61.647	-	-	4.13	63.017	--	--
	BH05	20/09/2017	65.36	65.466	65.507	-	-	1	3.4	64.466	62.107	-	-	--	--	--	--
	BH06	19/09/2017	64.45	64.706	64.994	-	-	1	5.4	63.706	59.594	-	-	1.12	63.874	1.32	63.674
Site Investigations Ltd., groundwater monitring wells	BH07	29/07/2021	61.87	61.832	61.927	7.9	53.97	1	10	60.832	51.87	57.17	51.97	--	--	--	--
	RC07	23/07/2021	61.7	61.687	61.781	--	--	14	20	47.687	41.687	41.69	41.69	--	--	--	--
	BH10	04/08/2021	86.95	85.853	86.057	--	--	1	10	84.853	75.853	-	-	--	--	--	--
	BH16	03/08/2021	80.76	80.854	80.935	--	--	1	10	79.854	70.854	-	-	--	--	--	--
	RC16	29/07/2021	80.94	80.857	80.922	-	-	15	20	65.857	60.857	-	-	--	--	--	--
	BH17	28/07/2021	63.25	63.193	63.299	5.6	57.593	0.5	9	62.693	54.193	-	-	--	--	--	--
	RC17	03/08/2021	63.25	63.286	63.302	--	--	15	20	48.286	43.286	-	-	--	--	--	--
	BH26	28/07/2021	66.3	66.28	66.403	--	--	1	8	65.28	58.28	-	-	-	-	-	-
	RC26	29/07/2021	66.31	66.25	66.403	--	--	0.5	15	65.75	51.25	-	-	--	--	--	--
	BH28	28/07/2021	78.46	78.41	78.485	--	--	1	10.1	77.41	68.31	-	-	--	--	--	--
	BH36	28/07/2021	65.08	65.052	65.246	7.1	57.98	1	10	64.052	55.052	58.28	55.08	--	--	--	--
	BH48	29/07/2021	86.82	86.943	87.052	--	--	1	10	85.943	76.943	-	-	--	--	--	--
	BH53	27/07/2021	69.18	69.16	69.255	8.5	60.66	1	10	68.16	59.16	64.18	61.98	--	--	--	--
	BH55	28/07/2021	84.37	84.257	84.376	--	--	0.5	10.1	83.757	74.157	79.27	74.37	--	--	--	--
	BH01	14/07/2021	53.95	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH02	11/08/2021	56.75	-	-	3	53.75	-	-	-	-	-	-	-	-	-	-
	BH03	15/07/2021	63.46	-	-	3.8	59.66	-	-	-	-	-	-	-	-	-	-
	BH04	16/07/2021	67.66	-	-	3.5	64.16	-	-	-	-	-	-	-	-	-	-
	BH05	09/08/2021	87.67	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	RC05	22/07/2021	87.67	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH06	20/07/2021	73.56	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH08	11/08/2021	80.99	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH09	20/07/2021	65.38	-	-	4.8	60.58	-	-	-	-	-	-	-	-	-	-
	RC10	02/08/2021	85.96	-	-	--	--	9	15	76.96	70.96	-	-	-		-	-
	BH11	21/07/2021	71.01	-	-	4	67.01	-	-	-	-	-	-	-	-	-	-
	RC11	22/07/2021	71.01	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH12	10/06/2021	63.46	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH13	21/07/2021	77.18	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH14	12/08/2021	84.67	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH15	22/07/2021	70.87	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH18	13/08/2021	83.15	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH19	12/08/2021	71.34	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH20	13/08/2021	76.73	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH21	23/07/2021	64.74	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH22	16/08/2021	78.93	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH23	17/08/2021	70.14	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH24	17/08/2021	79.19	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH25	16/08/2021	73.31	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH27	19/08/2021	71.73	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH29	18/08/2021	67.81	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH30	18/08/2021	63.29	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH31	20/08/2021	76.59	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH32	23/08/2021	87.14	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH33	25/08/2021	72.48	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH34	19/08/2021	67.93	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH35	26/08/2021	82.94	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH37	24/08/2021	76.05	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	RC37	23/07/2021	76.05	-	-	-	--	-	-	-	-	-	-	-	-	-	-
	BH38	24/08/2021	90.15	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	RC38	22/07/2021	90.15	-	-	-	--	-	-	-	-	-	-	-	-	-	-
	BH39	23/08/2021	70.28	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH40	13/08/2021	64.47	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH41	25/08/2021	83.13	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH42	23/08/2021	72.66	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH43	20/08/2021	77.82	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH44	12/08/2021	64.66	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH45	19/08/2021	84.52	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH46	18/08/2021	75.48	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH47	17/08/2021	69.69	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH49	11/08/2021	65.36	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH50	10/08/2021	71.42	-	-	6	65.42	-	-	-	-	-	-	-	-	-	-
	BH51	24/08/2021	75.13	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH52	05/08/2021	81.16	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH54	06/08/2021	76.64	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH56	10/08/2021	82.83	-	-	--	--	-	-	-	-	-	-	-	-	-	-
	BH57	09/08/2021	68.58	-	-	--	--	-	-	-	-	-	-	-	-	-	-

Notes:

Data sourced from Site Investigations Ltd. 2021, Coolagad, Greystones, Co. Wicklow Site Investigation Report (Contract No. 5868)
*= Data measured by Site Investigations Ireland 14/09/2021
-= no data provided
-- = dry well/ no groundwater level measured
EGC= Enviroguide Consulting Ltd.
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TOCI= Top of casing inner
mb TOCI= meters below top of casing inner
mAOD= meters above Ordnance Datum

Client Cairn Homes Properties Limited
Project/Site Coolagad
Date 01/01/2022
Table 1 Groundwater Elevations

Drilling Contractor and Project Reference	Well ID	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD
		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy	
		15/07/2021		16/07/2021		20/07/2021		23/07/2021		26/07/2021		27/07/2021		28/07/2021		29/07/2021		31/07/2021	
Unknown	Supply Well (PW)	-	-	-	-	-	-	0.71	78.684	0.7	78.694	0.74	78.654	0.77	78.624	0.74	78.654	-	-
Ground Investigations Ireland Project No.6994-08-17	BH02	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH03	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH04	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH05	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH06	-	-	-	-	-	-	2.64	62.354	2.68	62.314	2.7	62.294	2.71	62.284	2.74	62.254	-	-
Site Investigations Ltd., groundwater monitring wells	BH07	-	-	-	-	-	-	--	--	--	--	4.46	57.467	--	--	--	--	* 6.1	55.77
	RC07	-	-	-	-	-	-	--	--	--	--	--	--	4.54	57.241	4.59	57.191	-	-
	BH10	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH16	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	RC16	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH17	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	RC17	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC26	-	-	-	-	-	-	--	--	--	--	--	--	8.65	57.753	8.68	57.723	-	-
	BH28	-	-	-	-	-	-	--	--	--	--	--	--	6.13	72.355	5.94	72.545	-	-
	BH36	-	-	-	-	-	-	--	--	--	--	--	--	--	--	8.07	57.176	-	-
	BH48	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	--	-	-
	BH53	-	-	-	-	-	-	--	--		--	8	61.255	6.36	62.895	6.36	62.895	-	-
	BH55	-	-	-	-	-	-	--	--	--	--	--	--	--	--	--	-	-	-
	BH01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03	* 1.8	61.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04	-	-	* 1.8	65.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09	-	-	-	-	4.6	60.78	-	-	-	-	-	-	-	-	-	-	-	-
	RC10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC11	-	-	-	-	-	-	-	-	-	-	-	-					-	-
	BH12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Data sourced from Site Investigations Ltd. 2021, Coolagad, Greystones, Co. Wicklow Site Investigation Report (Contract No. 5868)
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mb TOCI= meters below top of casing inner
mAOD= meters above Ordnance Datum

Client Cairn Homes Properties Limited
Project/Site Coolagad
Date 01/01/2022
Table 1 Groundwater Elevations

Drilling Contractor and Project Reference	Well ID	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbGL	GW Level mAOD	GW mbTOC	GW Level mAOD	GW mbTOC	GW Level mAOD
		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy		dd/mm/yyyy*		dd/mm/yyyy		dd/mm/yyyy	
		09/08/2021		10/08/2021		11/08/2021		12/08/2021		23/08/2021		14/09/2021		14/10/2021		24/01/2022	
Unknown	Supply Well (PW)	0.71	78.684	-	-	-	-	0.75	78.644	0.74	78.654	-	-	0.78	78.614	0.69	78.704
Ground Investigations Ireland Project No.6994-08-17	BH02	--	--	-	-	-	-	--	--	--	--	-	-	--	--	--	--
	BH03	--	--	-	-	-	-	--	--	--	--	-	-	--	--	2.83	85.358
	BH04	--	--	-	-	-	-	--	--	--	--	-	-	--	--	--	--
	BH05	--	--	-	-	-	-	--	--	--	--	-	-	--	--	--	--
	BH06	2.91	62.084	-	-	-	-	2.9	62.094	3.4	61.594	-	-	3.71	61.284	1.17	63.824
Site Investigations Ltd., groundwater monitring wells	BH07	4.81	57.117	-	-	-	-	4.96	56.967	5.15	56.777	* 5.32	56.512	5.8	56.127	2.89	59.037
	RC07	4.92	56.861	-	-	-	-	4.88	56.901	4.98	56.801	* 5.28	56.407	5.68	56.101	2.79	58.991
	BH10	--	--	-	-	-	-	--	--	--	--	-	-	--	--	6.78	79.277
	BH16	8.07	72.865	-	-	-	-	8.05	72.885	7.75	73.185	* 8.56	72.294	9.3	71.635	5.32	75.615
	RC16	8.08	72.842	-	-	-	-	8.1	72.822	7.75	73.172	* 8.6	72.257	9.33	71.592	5.2	75.722
	BH17	5.55	57.749	-	-	-	-	5.58	57.719	8.39	54.909	* 5.96	57.233	6.3	56.999	3.67	59.629
	RC17	6.8	56.502	-	-	-	-	6.82	56.482	7.11	56.192	* 7	56.286	7.54	55.762	4.5	58.802
	BH26	7.97	-	-	-	-	-	-	-	-	-	-	-	--	--	5.53	60.873
	RC26	8.86	57.543	-	-	-	-	8.89	57.513	9.14	57.263	* 9.15	57.1	9.7	56.703	5.58	60.823
	BH28	6.25	72.235	-	-	-	-	6.18	72.305	6.53	71.955	* 6.9	71.51	--	--	2.02	76.465
	BH36	8.45	56.796	-	-	-	-	8.37	56.876	8.44	56.806	-	-	9.21	56.036	5.96	59.286
	BH48	5.75	81.302	-	-	-	-	5.83	81.222	5.88	81.172	--	--	--	--	4.15	82.902
	BH53	8.44	60.815	-	-	-	-	8.5	60.755	6.73	62.525	* 8.1	61.06	8.85	60.405	4.83	64.425
	BH55	--	--	-	-	-	-	--	--	--	--	-	-	--	--	7.48	76.896
	BH01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02	-	-	-	-	* 2	54.75	-	-	-	-	-	-	-	-	-	-
	BH03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RC38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH50	-	-	* 5	66.42	-	-	-	-	-	-	-	-	-	-	-	-
	BH51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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*= Data measured by Site Investigations Ireland 14/09/2021
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-- = dry well/ no groundwater level measured
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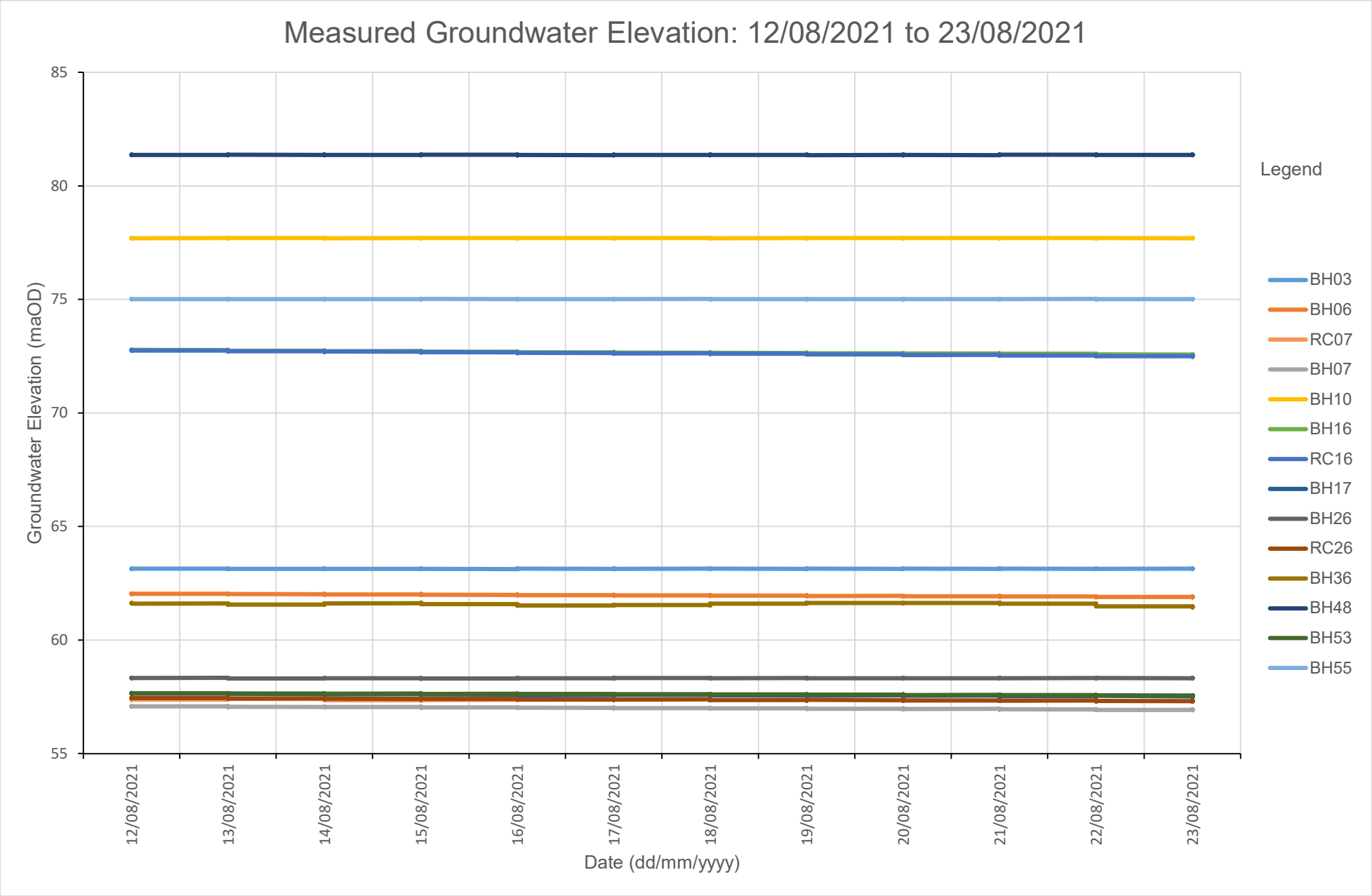
TOCI= Top of casing inner
mb TOCI= meters below top of casing inner
mAOD= meters above Ordnance Datum


Measured Groundwater Elevation: 12/08/2021 to 23/08/2021
Groundwater Elevation (maOD)
85
80
75
70
65
60
55
12/08/2021
13/08/2021
14/08/2021
15/08/2021
16/08/2021
17/08/2021
18/08/2021
19/08/2021
20/08/2021
21/08/2021
22/08/2021
23/08/2021
Date (dd/mm/yyyy)
Legend
BH03
BH06
RC07
BH07
BH10
BH16
RC16
BH17
BH26
RC26
BH36
BH48
BH53
BH55

Appendix E

Client Cairn Homes Properties Limited
Project/Site Coolagad
Date 24/01/2022
Table 2 Groundwater Analytical Results

Parameter	Units	LOD	European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010) and amendments S.I. No. 366/2016	*European Communities Envionmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272/2009 and amendments SI No. 327/2012, 386/2015 and 77/2019*		European Union (Drinking water) Regulations 2014 SI. No. 122/2015 and ammendment S.I. No. 464 of 2017	**Sample ID**	BH07	BH16	BH17	BH28	BH53	RC07	RC16	RC17	RC26
				AA-EQS Inland Surface Waters	*MAC-EQS Inland Surface Waters*		**Sampled Date**	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021
							Laboratory Report Reference	210920-38	210920-38	210920-38	210920-38	210920-38	210920-38	210920-38	210920-38	210920-38
Laboratory measured																
Ammoniacal Nitrogen as N	mg/l	<0.2	–	High status <= 0.04 (mean)or <=0.090 (95%ile) or Good status <= 0.065 (mean) or <= 0.14 (95%ile)		–		<0.2	<0.2	<0.2	*1.08*	<0.2	<0.2	<0.2	<0.2	<0.2
Ammoniacal Nitrogen as NH3	mg/l	<0.2	--	High status <= 0.048 (mean)or <=0.109 (95%ile) or Good status <= 0.079 (mean) or <= 0.17 (95%ile)		–		<0.2	<0.2	<0.2	*1.31*	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrate as NO3	mg/l	<0.3	37.5	–	–	50		6.55	6.76	0.62	7.01	27.7	16.9	18	15.8	17.6
Ortho-Phosphate as PO4	mg/l	<0.05	--	–	–	–		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ortho-Phosphate as P (results by calculation*)	mg/l	-	0.035	High status <= 0.025 (mean) or <= 0.045 (%ile) or Good status <= 0.035 (mean) or <= 0.075 (95%ile)		--		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Major Anions																
Chloride	mg/l	<2	187.5	–	–	250		19.3	21.8	19.1	17.8	20.2	19.6	22.5	18.7	21.2
Fluoride	mg/l	<0.5	–	0.5	–	1.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sulphate as SO_4	mg/l	<2	187.5	–	–	250		15.4	11.6	11	14.1	10.1	8.9	8	7.3	10
Carbonate (CO_3)	mg/l	<2	--	–	–	--		<2	<2	<2	<2	<2	<2	<2	<2	<2
Bicarbonate (HCO_3)	mg/l	<2	--	–	–	--		503	557	319	550	144	310	166	283	226
Major Cations																
Dissolved Calcium	mg/l	<0.2	--	–	–	--		86.4	83.2	71.1	79.1	46.5	82.7	52.1	90	70.8
Dissolved Magnesium	mg/l	<0.036	--	–	–	--		8.84	8.73	6.61	8.86	4.24	4.92	3.73	4.45	4.64
Dissolved Potassium	mg/l	<0.2	--	–	–	--		0.846	1.07	1.48	1.6	0.771	0.614	0.767	0.537	0.882
Dissolved Sodium	mg/l	<0.076	150	–	–	200		22	16.2	13.2	18.3	15	12.5	15.3	11.2	13.3

Notes:
Data sourced from Site Investigations Ltd., 2021. Coolagad, Greystones, Co. Wicklow, Site Investigation Report (Contract No. 5868). Details of sample colour, odour and field measurements identified S.I. Ltd, 2021. Site Investigation Report.
Cells in **BOLD** exceed European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010) and amendments S.I. No. 366/2016
Cells in *ITALICS* exceed European Communities Envionmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272/2009 and amendments SI No. 327/2012, 386/2015 and 77/2019
Cells UNDERLINED exceed SI. No. 122/2015 - European Union (Drinking water) Regs 2014 and ammendment S.I. No. 464 of 2017 (Parametric Values)
* : Relevant results are converted from lab reported parameters (ALS, 2021 Report No.: 614714) by calculation
- : Parameter Not Analysed
– : no applicable standard

Client Cairn Homes Properties Limited
Project/Site Coolagad
Date 24/01/2022
Table 3 Surface Water Analytical Results

Parameter	Units	LOD	*European Communities Envionmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272/2009 and amendments SI No. 327/2012, 386/2015 and 77/2019*		**Sample ID**	SW01	SW03	SW05
			AA-EQS Inland Surface Waters	*MAC-EQS Inland Surface Waters*	**Sampled Date**	14/09/2021	14/09/2021	14/09/2021
					Exova/Element Job Number	210920-38	210920-38	210920-38
Laboratory measured								
Ammoniacal Nitrogen as N	mg/l	<0.2	High status <= 0.04 (mean)or <=0.090 (95%ile) or Good status <= 0.065 (mean) or <= 0.14 (95%ile)			<0.2	<0.2	<0.2
Ammoniacal Nitrogen as NH3	mg/l	<0.2	--	--		<0.2	<0.2	<0.2
Nitrate as NO3	mg/l	<0.3	--	--		19.2	16.7	9.45
Ortho-Phosphate as PO4	mg/l	<0.05	--	--		0.156	0.058	0.072
Ortho-Phosphate as P (results by calculation*)	mg P/l	-	High status <= 0.025 (mean) or <= 0.045 (%ile) or Good status <= 0.035 (mean) or <= 0.075 (95%ile)			*0.051*	0.019	0.023
Major Anions								
Chloride	mg/l	<2	--	--		24.7	20.6	24.6
Fluoride	mg/l	<0.5	0.5	--		<0.5	<0.5	<0.5
Sulphate as SO_4	mg/l	<2	--	--		9.3	10	12.4
Carbonate (CO_3)	mg/l	<2	--	--		<2	<2	30
Bicarbonate (HCO_3)	mg/l	<2	--	--		44.5	262	250
Major Cations								
Dissolved Calcium	mg/l	<0.2	--	--		15.9	78.5	90.4
Dissolved Magnesium	mg/l	<0.036	--	--		4.54	5.18	6.76
Dissolved Potassium	mg/l	<0.2	--	--		0.973	0.867	1.64
Dissolved Sodium	mg/l	<0.076	--	--		14.8	13.8	15.8

Notes:
Data sourced from Site Investigations Ltd., 2021. Coolagad, Greystones, Co. Wicklow, Site Investigation Report (Contract No. 5868). Details of sample colour, odour and field measurements identified S.I. Ltd, 2021. Site Investigation Report.
Cells in *ITALICS* exceed European Communities Envionmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272/2009 and amendments SI No. 327/2012, 386/2015 and 77/2019
* : Relevant results are converted from lab reported parameters (ALS, 2021 Report No.: 614714) by calculation
- : Parameter Not Analysed
-- : no applicable standard