## **APPENDIX 6.4**

# Permitted other projects in within 500 m of site

### Appendix 6.4 Planning database<sup>1</sup> search of projects within 500m of the proposed development site over the last 5 years

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely		
FW20A/ 0126	Grant Permission	The development will comprise the provision of 4 No. warehouses with marshalling offices, ancillary office space, staff facilities and associated development. The buildings will have a maximum principal height of 17.070 No. metres to the top of the parapet above ground floor level and will comprise the following areas: Unit 1 will have a gross floor area of 21,578 sq.m. including a warehouse (20,252 sq.m.), marshalling office (66 sq.m.), ancillary office space (1,216 sq.m.) and plant (44 sq.m.); Unit 2 will have a gross floor area of 9,206 sq.m. including a warehouse (8,347 sq.m.), marshalling office (66 sq.m.), ancillary office space (757 sq.m.) and pant (36 sq.m.); Unit 3 will have a gross floor area of 16,525 sq.m. including a warehouse (15,478 sq.m.), ancillary office space (944 sq.m.) and plant (37 sq.m.); and Unit 4 will have a gross floor area of 7,342 sq.m. including a warehouse (6,648 sq.m.), marshalling office (66 sq.m.), ancillary office space (589 sq.m.) and plant (39 sq.m.). A gate house with a gross floor area of 14 sq.m. will be positioned to the southwest corner of the site.	401,103	This is a large-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.	No	No		
		The development will also include the repositioning of the access from the L3125 Road to the north of the site to provide a new entrance and a second vehicular access will be provided from the R135/Elm Road to the south-west. Road upgrade works are proposed along the L3125 to the north of the site which include the partial upgrade of Kilshane Cross signalised junction to incorporate a left turning lane and upgraded signals on the L3125 Local Road eastern approach arm and the provision of cycle paths and pedestrian footpaths.						

 $<sup>^{1}\,\</sup>underline{\text{https://data-housinggovie.opendata.arcgis.com/datasets/planning-application-sites-2010-onwards;}}\, for \,Kilshane \,Energy\,-\,accessed\,\,5^{th}\,September\,\,2022$ 

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely
		There will also be internal roadways; pedestrian access; 502 No. ancillary car parking spaces; bicycle parking; HGV parking and yards; level access goods doors; hard and soft landscaping; boundary treatments; ESB substations; signage; PV panels; lighting and associated site development works above and below ground. The total gross floor area of the development is 5,763 sq.m. (including warehouse structures, gate house and ESB substations).				
F18A/0 146	Grant Permission	A storage and distribution centre for new imported vehicles with a total capacity for 5,951 no. vehicles and comprises vehicle storage, internal circulation roadways, vehicle loading and unloading area and transporter parking spaces. the surface treatment of the vehicle storage areas comprises recycled plastic modular porous paving. Associated facilities include: a vehicle wash area, fuelling area and valet enclosure (approx. 120 sq.m.). The development also includes a vehicle inspection and fit out building (approx. 2656 sq.m. and 9.14m high) incorporating operation control room, offices, meeting room, canteen, toilets, plant area and building signage. Other site development works include: 1 no. security hut (11 sq.m); staff car parking (28 no. spaces) and staff bicycle parking spaces (14 no. spaces); boundary treatments including landscape berm and boundary fence over wall (approx. 3.33m high) new primary gated vehicular entrance onto the R135; emergency gated vehicular entrance onto Kilshane Road (L3125); lighting and CCTV poles (approx. 12m high); on-site substation (24.6 sq.m); external plant area (76 sq.m.); underground drainage and electricity infrastructure; the removal of existing vegetation and new landscaping works. The development also includes road improvement works to the Kilshane Road (L3125) comprising the reconfiguration of the existing roadway (including extending existing culvert); provision of a left turn lane at the junction with the R135; and dedicated cycle and pedestrian facilities. All development to	376,229	This is a large-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.	No	No

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely
		take place on a site of approx. 13.1 hectares.				
FW17A/ 0012	Grant Permission	The development will comprise an increase in the permitted intake rate of construction and demolition (C&D) waste at the facility from a maximum of 24,950 tonnes per annum at present to 95,000 tonnes per annum in future years.  The application provides for continuation and intensification of waste recovery activity at the established C&D waste recovery facility (Planning Ref. F02A/0602) on a 1.9 hectare site within the Central Quarry, in the immediate near-term (up to 2-3 years).  It also provides for relocation of C&D waste recovery activities to a new waste recovery facility on a 5.2 hectare site in northeastern corner of the Huntstown Quarry Complex and construction of a hardstanding area, waste processing shed, surface water processing shed, surface water management infrastructure and internal access roads at the new recovery facility.  The proposed development requires a review of the existing waste licence (Ref.W0277-01) by the Environmental Protection Agency.  An Environmental Impact Statement (EIS) will be submitted to the planning authority in connection with the application.	239,859	This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.	No	No
FW20A/ 0211	Grant Permission	The development will consist of 3 no. buildings for industrial/warehouse/logistics use (Units 3,4 and 5) with gross floor area of 24,356sq.m. Each building will measure 18.1m high (at parapet level) and have 2 storey ancillary offices. Elevational signage will be provided. The units will form Phase 2 of the Vantage Business Park, with Phase 1 to the south (units 1 and 2) under construction. The proposed development includes 39 HGV parking spaces, 224 car parking spaces, 134 cycle parking spaces, 29 dock levellers and 7 grade loading bays. All associated site works including diversion of existing	187,792	This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed	No	No

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely
		foul rising main, boundary treatments, landscaping, service yards, internal road and footpaths, swales, lighting, 3 no. free standing signs, signage at entrance, refuse storage, substation, foul pumping station, extension of foul infrastructure from Phase 1, modified vehicular entrance off the R135 (including new entrance gate and pillars) and dedicated new footpath and cycleway along the east side of the R135.		development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.		
FW21A/ 0146	Grant Permission	The proposed development consists of the following:  •Construction of 1 no. warehouse / logistics unit, including 16,840 sq.m of warehouse/ logistics floorspace and 1,441 sq.m of ancillary office floorspace (over two levels), resulting in a total GFA of 18,281 sq.m, and with a maximum building height of 17.09 metres. The proposal includes a signage zone for the proposed unit;  • The provision of 181 no. car parking spaces, 60 no. cycle parking spaces, HGV loading bays and service yard area;  • The access to the unit will be provided by extending the existing Kilshane Avenue access road serving Northwest Logistics Park (including alterations to the existing road layout) to a proposed new roundabout within the subject site, which will provide access to the current development proposal, and provide access arrangements for future potential development on adjoining lands;  • The development also includes an ESB substation, a smoking shelter, a sprinkler tank with a pumphouse and valvehouse, landscaping, boundary treatments, entrance gates, site lighting, and all associated site development works, underground foul and storm water drainage services (including a connection to an existing pumphouse to the southwest of the proposed warehouse / logistics unit) and attenuation areas.  An Environmental Impact Assessment Report (EIAR) will be submitted to the Planning Authority with the planning application and the EIAR will be available for inspection or	153,704	This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.	No	No

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely
		purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.				
FW22A/ 0066	Grant Permission	The proposed development consists of the following:  Construction of a high technology manufacturing unit (for the manufacturing of high technology electrical components), with a total gross floor area (GFA) of 23,6000 sq.m (including ancillary office space of 2,318 sq.m. at ground and first floor levels), and with a main parapet height of c. 12 metres and maximum height of 14.5 metres. The proposed unit will be known as Unit 901;  Provision of a link corridor between the proposed high technology manufacturing unit and Unit 900 to the south (logistics/warehouse unit permitted under Reg. Ref. FW21A/0146);  The provision of 562 no. car parking spaces, dedicated bus drop off and 275 no. bicycle parking spaces along with HGV loading bays and a service yard to the west of the proposed unit.  The vehicular access to the unit will be provided via two entrances from the roundabout proposed under Reg. Ref. FW21A/0146, which provides access to Kilshane Avenue to the east.  The development also includes rooftop plant for the proposed unit, an ESB substation with switchroom, 2 no. emergency generators, 2 no. sprinkler/water tanks and 2 no. pumphouses, 2 no. smoking shelters, bicycle shelters, landscaping, boundary treatments, entrance gates, site lighting, all associated site development works, underground foul and storm water drainage services and attenuation areas including connections to existing/permitted services infrastructure and all ancillary works.	58,977	This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.	No	No
		An Environmental Impact Assessment Report (EIAR) will be				

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely
		submitted to the Planning Authority with the planning application and the EIAR will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.  The application site (with an area of c. 5.9 hectares) is located to the north of the warehouse/logistics development (Unit 900) permitted under Reg. Ref. FW21A/0146, to the northeast of Kilshane Avenue, to the south of Bay Lane and is bound by greenfield lands to the west.				
FW17A/ 0238	Grant Permission	Single storey extension (85 sq. m.) to rear of existing industrial building to house loading bay for new dock levellers.  Minor exterior alterations to existing site layout (including 2 new security huts, a bicycle shelter and a smoking shelter and relocation of fencing, kerbing and car parking).	18,018	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.	No	No
FW18A/ 0165	Grant Permission	Permission for alterations to an existing building granted under planning Reg no. F07A/1297 consisting of an increase in internal floor space by the addition of a training room (100sq.m) and storage Room (66sq.m) at first floor level and construction of an internal access stairwell at Unit 622 Phase 3 Northwest Business Park, Kilshane Avenue, Ballycoolin, Dublin 15, D15VN36	17,277	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this	No	No

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely
				project as a result of the proposed development.		
FW21A/ 0233	Grant Permission	Alterations to an existing building granted under planning reg. no. F07A/1297consisting of an external extension of 190 sq.m at ground and first floor level consisting of a training room, stairwell and offices.	15,083	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.	No	No
				This project will also be subject to EIA and AA assessments as required.		
				Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.		
FW20A/ 0219	Grant Permission	Permission for an amendment to the original planning permission, at this site, for a gas peaking facility with 10 no. containerised gas fired generating units, with an export capacity of 20 megawatts (MV) under planning reference FW19A/0090. Amendments are proposed to the gas peaking will consist of the installation of 6 no. battery storage units with an export electricity capacity of 10-15 MV and 4 no. containerised gas fired generating units with an export electricity capacity of 10 MV, in replacement for the 10 no. containerised gas fired generating units, granted under planning reference FW19A/0090. 3 no. inverter transformers will also be added to the site, being the battery storage units. Other elements of the development will remain the same as FW19A/0090 and include an underground cabling route c 1.45km along the R135 road. 1 no. single storey electrical substation building, 1 no. customer switch entrance, security gates gear, electrical inverter/transformer station modules, concrete support structures, heating, ventilation and air conditioning units (HC/AV units), underground gas pipework	12,220	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that have low to negligible long-term impacts with the surrounding environment.  This project will also be subject to EIA and AA assessments as required.  Considering the above, and the lack of any significant impact as a result of the proposed development, it is not considered that there will be any potential for cumulative impacts with this project as a result of the proposed development.	No	No

#### Appendices to EIAR for Kilshane Power Station (Jan 2023)

Project Code	Status	Overview	Project Area (sq m)	Characteristics of the potential interactions between the projects; sources and pathways	Is there a risk of in- combination effects	Are significant in- combination effects likely
		security gates, perimeter security fencing, CCTV security monitoring system, landscaping works, and all associated ancillary infrastructure.				

## **APPENDIX TO SECTION 7**

## LAND, SOILS, GEOLOGY & HYDROGEOLOGY

#### **APPENDIX 7.1**

NRA CRITERIA FOR RATING THE MAGNITUDE AND SIGNIFICANCE OF IMPACTS AT EIA STAGE NATIONAL ROADS AUTHORITY (NRA, 2009)

Table 1 Criteria for Rating Site Attributes – Estimation of Importance of Soil and Geology Attributes (NRA)

Importance	Criteria	Typical Example
Very High	Attribute has a high quality, significance or value on a regional or national scale.  Degree or extent of soil contamination is significant on a national or regional scale.  Volume of peat and/or soft organic soi underlying route is significant on a national or regional scale.	Geological feature rare on a regional or national scale (NHA). Large existing quarry or pit. Proven economically extractable mineral
High	Attribute has a high quality, significance or value on a local scale.  Degree or extent of soil contamination is significant on a local scale.  Volume of peat and/or soft organic soi underlying route is significant on a local scale.	heavy industrial usage. Large recent landfill site for mixed wastes. Geological feature of high value on a local scale (County Geological Site). Well drained and/or high fertility soils. Moderately sized existing quarry or pit.
Medium	Attribute has a medium quality, significance or value on a local scale.  Degree or extent of soil contamination is moderate on a local scale.  Volume of peat and/or soft organic soil underlying route is moderate on a local scale	site for mixed wastes.  Moderately drained and/or moderate fertility soils.
Low	Attribute has a low quality, significance of value on a local scale.  Degree or extent of soil contamination is minor on a local scale.  Volume of peat and/or soft organic soil underlying route is small on a local scale.	construction and demolition wastes.  Small historical and/or recent landfill sites for construction and demolition wastes.  Poorly drained and/or low fertility soils.

Table 2 Criteria for Rating Site Attributes – Estimation of Importance of Hydrogeological Attributes (NRA)

Importance	Criteria	Typical Examples
Extremely High	Attribute has a high quality or value on an international scale	Groundwater supports river, wetland or surface water body ecosystem protected by EU legislation e.g. SAC or SPA status.
Very High	Attribute has a high quality or value on a regional or national scale	Regionally Important Aquifer with multiple well fields. Groundwater supports river, wetland or surface water body ecosystem protected by national legislation – NHA status. Regionally important potable water source supplying >2500 homes. Inner source protection area for regionally important water source.
High	Attribute has a high quality or value on a local scale	Regionally Important Aquifer. Groundwater provides large proportion of baseflow to local rivers. Locally important potable water source supplying >1000 homes. Outer source protection area for regionally important water source. Inner source protection area for locally important water source.
Medium	Attribute has a medium quality or value on a local scale	Locally Important Aquifer.  Potable water source supplying >50 homes.  Outer source protection area for locally important water source.
Low	Attribute has a low quality or value on a local scale	Poor Bedrock Aquifer Potable water source supplying <50 homes



Table 3 Criteria for Rating Impact Significance at EIS Stage — Estimation of Magnitude of Impact on Soil/ Geology Attribute (NRA)

Magnitude of Impact	Criteria	Typical Examples
Large Adverse	Results in loss of attribute	Loss of high proportion of future quarry or pit reserves. Irreversible loss of high proportion of local high fertility soils. Removal of entirety of geological heritage feature. Requirement to excavate/remediate entire waste site. Requirement to excavate and replace high proportion of peat, organic soils and/or soft mineral soils beneath alignment.
Moderate Adverse	Results in impact on integrity of	Loss of moderate proportion of future quarry or pit reserves.  Removal of part of geological heritage feature.  Irreversible loss of moderate proportion of local high fertility soils.  Requirement to excavate/remediate significant proportion of waste site.  Requirement to excavate and replace moderate proportion of peat, organic soils and/or soft mineral soils beneath alignment.
Small Adverse	integrity of attribute or loss of	Loss of small proportion of future quarry or pit reserves. Removal of small part of geological heritage feature. Irreversible loss of small proportion of local high fertility soils and/or high proportion of local low fertility soils. Requirement to excavate/remediate small proportion of waste site. Requirement to excavate and replace small proportion of peat, organic soils and/or soft mineral soils beneath alignment.
Negligible	Results in an impact on attribute but of insufficient magnitude to affect either use or integrity	
Minor Beneficial		Minor enhancement of geological heritage feature
Moderate Beneficial	Results in moderate improvement of attribute quality	Moderate enhancement of geological heritage feature
Major Beneficial		Major enhancement of geological heritage feature

Table 4 Criteria for Rating Impact Significance at EIS Stage — Estimation of Magnitude of Impact on Hydrogeological Attribute (NRA)

Magnitude of Impact	f Criteria	Typical Examples
Large Adverse	Results in loss of attribute and /or quality and integrity of attribute	Removal of large proportion of aquifer.  Changes to aquifer or unsaturated zone resulting in extensive change to existing water supply springs and wells, river baseflow or ecosystems.  Potential high risk of pollution to groundwater from routine run-off.  Calculated risk of serious pollution incident >2% annually.
Moderate Adverse	Results in impact on integrity of attribute or loss of part of attribute	Removal of moderate proportion of aquifer.  Changes to aquifer or unsaturated zone resulting in moderate change to existing water supply springs and wells, river baseflow or ecosystems.  Potential medium risk of pollution to groundwater from routine run-off.  Calculated risk of serious pollution incident > 1% annually.
Small Adverse	Results in minor impact or integrity of attribute or loss of small part of attribute	
Negligible	Results in an impact or attribute but of insufficient magnitude to affect either use or integrity	Calculated risk of serious pollution incident

#### Table 5 Rating of Significant Environmental Impacts at EIS Stage (NRA)

Importance	Magnitude of Importance									
of Attribute	Negligible	Small Adverse	Moderate Adverse	Large Adverse						
Extremely High	Imperceptible	Significant	Profound	Profound						
Very High	Imperceptible	Significant/moderate	Profound/Significant	Profound						
High	Imperceptible	Moderate/Slight	Significant/moderate	Profound/Significant						
Medium	Imperceptible	Slight	Moderate	Significant						
Low	Imperceptible	Imperceptible	Slight	Slight/Moderate						

# APPENDIX 7.2 SITE INVESTIGATION REPORT LOGS

Contra 58		Cable Percussion and	Ro	tar	у	Co	rehole	L	og			rehole BH0	
ontra	ct:	Kilshane	Easti	ng:	7	107	78.385	Dat	e Stan	ted:	03/11/	2021	
catio	n:	Kilshane, Ballycoolin, Dublin 15	North	ing:	7	423	04.266	Dat	e nplete	d:	16/11/	2021	
ient:		Go Power	Eleva	ition:	7	9.66	}		led By		D. McI	Eoin /	MEDL
ngine	er:	Waterman Moylan	Rig T	ype:		Dand	io 150 /	Sta	tus:		FINAL		
epth	(m)	Stratum Description	Legend		evel (OD)		Samples	1		Rock	Indices	5	Dank
cale D	epth	TOPSOIL	Legers		Dep	th	Sampres		TORM	SCRUS	4 RQD/%	Film	Back
- 0	0.20			79.5 -	79.4	6							
		Brown slightly sandy slightly gravelly silty CLAY with low cobble content.	32										
			182										
-			100	79.0									
1			- W.X.										
٦,	1.10		122		78.5		N=15 (2,3/4,4,3 B / 1,00	.4)					
-		Firm grey brown slightly sandy slightly gravelly safty CLAY with high cobble content.	184	78.5	1	"	671.00						
-			Fig. 1										
-			The same										
-			100	78.0									
-			12.5										
1			in a				N=25 (3,6/5.6,7 B / 2.00	,7)					
1,	2.30		142	77.5 -	77.3		072.00						
-		Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble content.	W. S.		111.3	°							
		ingil coope content.	pa X										
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	77.0 -									
			P.										
9-			<b>声</b>		-		N=35 (4,7/9,9,8 B / 3.00	.9)					
			Pro-	78.5 -									
5 -			E S										
	3.60	Moderately strong dark grey calcareous MUDSTONE	Edma, to		76.0	6 5	0 (25 for 5mm/5	0 for	_		-		
		interbedded with very strong grey argillaceous LIMESTONE		76,0 -			5mm)						
, _		with occasional fossils, pyrite crystals and calcite veins (up to 5mm). Fresh to slightly weathered.											
7		Discontinuities - non-intact		75.5 -			3.60 - 4.60		96	30	0	Ni	
				79.5	-								
5 -													
-		Discontinuities - smooth, planer, tight to open, 40-50" dip, occasionally sub-		75.0	-	-					-	-	
1		horizontal clean surfaces.		72.0									
0					1								
-				74.5	-		4.60 - 5.60		100	100	13	26	
-				1.0	-								
5 -													
-		Discontinuities - non-intect		74.0		-			-		-		
7					-								
0					-							Ni	
-				73.5 -			5.60 - 6.60		96	60	0		
-		Discontinuities - smooth, planar, tight to open, 40-50° dip, clean surfaces.			1							F	
5												28	
-	6.60	End of Corehole at 6.60m		73.0 -	73.0	6							
1		Chicallina Mater Chilese Mater Date 1	l level				Dool or				<u></u>		
1	0	Chiselling: Water Strikes: Water Details:  From: To: Time: Strike: Rose: Sealed: Date:   Chief   Chief	From:	To:	Pipe:	From	Backfill:	Cable	Rema			Legend: B. Bulk	
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F F F F F F F F F F

	ract N 898	Cable Percussion and	Ro	tar	y (	Co	ore	hole	L	og			rehole	
Contr	act:	Kilshane	Easti	ng:	7	108	328.05	3	Date	Starte	ed:	02/11/	2021	
ocat	ion:	Kilshane, Ballycoolin, Dublin 15	North	ing:	7	422	78.44	1	Date	e npleted	1:	15/11/	2021	
lient	t	Go Power	Eleva	tion:	7	8.61	1			ed By:		D. Mc	Eoin /	MED
ngin	eer.	Waterman Moylan	Rig T	ype:		Dano	do 150	) /	Stat	us:		FINAL		
Dept	h (m)	Stratum Description	Lanne		vel OD)			amalaa			Rock	Indice	s	Bac
icale	Depth		Legend	Scale	_	th	0	Samples		TCR/%	SCR/	% RODA	Fl/m	Dac
-	0.20	TOPSOIL		78.5 -	78.4									
-	0.20	Brown slightly sandy slightly gravelly silty CLAY with low cobble content.	18 × 1	-	10.4									
1.5 -		COLUMB CONTROLL.	122											
-			2.0	78.0										
	0.80		E-a		77.8	,								
-	0.00	Firm becoming very stiff grey brown slightly sandy slightly	- W (A)	-	11.0									
.0 -		gravelly silty CLAY with high cobble content.	1 × ×	774				(2,2/3,3,4	.4)					
			122	77,5 -			· ·	B / 1.00						
-			122	-										
5 -			22			,								
-			120	77.0										
7			F-2											
-			18.5											
0.1			23.5	70.5 -		1		4,8/10,9,9	,11)					
			32	70.5				B / 2.00						
-			32	-										
5 -			127											
-			2.2	76.0										
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-			A. F. Ca.	-										
3.0 —			The state of	75.5 -		5		0/50 for 80 B / 3.00	mm)					
-				1000										
	3.30	Weak dark grey calcareous MUDSTONE interbedded with			75.3	1 5	50 (25-1	for 5mm/5( 5mm)	0 for				Ni	
3,5 -		moderately strong grey argillaceous LIMESTONE with frequent						omm)					141	-800
		lossils. Fresh to slightly weathered.		75.0									25	
		Discontinuities - smooth, planer, tight to open, 40-50" and 70-80" dip, clean surfaces.					3.	30 - 4.30		100	85	60		
		Discontinuities - smooth, planer, tight to open, 40-50° dip, clean with		-										
4.0 -		occasional brown and grey staining.		74.5										
-				-										
													4	
4.5 -				-										
-				74.0										
							4.	30 - 5.30		95	95	89		
				-										
5.0 —		Discontinuities - amouth, planar, tight to open, 40-50" dip, occasionally sub- vertical, clean with occasional brown and grey staining.		73.5 -										
		The state of the s		-										
5.5 -				-										
				73.0									12	
-				-			5.	30 - 6.30		95	95	60		
5.0 -				-										
-				72.5 -										
	6 10			-	72.5	1								1
	6.30	End of Corehole at 6.30m			72.3	1								
.5 -				77.4										
-				72.0										
-				-		+						-	-	
		Chiselling: Water Strikes: Water Details:	-	illation	-		Back			Rema			Legend. B: Bulk	
1	C.	From: To: Time: Strike: Rose: Sesled: Date:   Hole   Overline:	rom:	To: I	ipe:		n: To:	Arisings 1	emin	percussi sted due	to to	orehole	D: Distur U: Undis	bedtut
1	40	1							obstruc	ction.			ES: Envi	ronme

F

FILE

ntract No 5898	Cable Percussion and	Ro	tar	y (	Corehole	L	og			ehole No 3H03
ntract:	Kilshane	Easti	ng:	7	10874.843	Date	e Start	ed:	03/11/2	021
ation:	Kilshane, Ballycoolin, Dublin 15	North	ing:	74	42327.339	Date	e nplete	d:	16/11/2	021
int:	Go Power	Eleva	ation:	78	3.56		ed By		D. McE	oin / ME
jineer.	Waterman Moylan	Rig T	ype:		ando 150 / ondeq	Stat	us:		FINAL	
pth (m)	Stratum Description	Legend	Lev (mC	rel	Samples			Rock	Indices	Ba
le Depth	TOPSOIL		Scale 78.5 -				TCR/%	SCRA	RODN	
	Brown slightly sandy slightly gravelly silty CLAY with low cobble content.		78.0 —	78,36						
	Stiff grey brown slightly sandy slightly graveily silty CLAY with high cobble content.	The second second	77.5	77.56	N=17 (2,3/4,5,4 B / 1.00	.4)				
			77.0 —		50 (5,9/50 for 40r B / 2.00	mm)				
7 1	Obstruction - boulder, Open hole drilling: driller reports returns of sandy gravelly CLAY with cobbles.		76.0	76.26	50 (25 for 5mm/5 5mm)	0 for				
	Moderately strong dark grey calcareous MUDSTONE	10 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -	75.0	74.86						Ni
	Interbedded with very strong grey argillaceous LIMESTONE with frequent fossils. Fresh to slightly weathered.  Discontinuities - non-intect. Discontinuities - smooth, planar, sphr to open, 40-50° dip, occasionally subvertical, clean with occasional brown and grey staining.		74.5 —		3.70 - 4.70		96	75	14	
			73.5 —		4.70 - 5.70		94	85	27	14
6.70			72.5 —	74 00	5.70 - 6.70		79	79	14	
- 0.70	End of Corehole at 6,70m		-	71,86						
Tr.	Chiselling: Water Strikes: Water Details:   From: To: Time: Strike: Rose: Sealed: Date:   From: Dept: Dept: Dept: 2.20   2.30   01:00   03/11   2.30   Dry	Inst From:	allation:		0.00 6.70 Arisings	Cable termin	ated du	sive bo	orehole [	egend. 8: Bulk 0: Disturbed J. Undisturbe ES: Environm

THE PERSON OF TH

	tract N 898	Cable Percussion and	Ro	ta	ry	C	orehole	L	og		C	BHO	
Contr	ract:	Kilshane	East	ng:		71	0810.778	Date	e Star	ted:	02/11		
oca.	tion:	Kilshane, Ballycoolin, Dublin 15	North	ning:		74		Date	e nplete	d.	15/11	/2021	
lien	t:	Go Power	Eleva	ation	:	80			ed By		D. Mo	Eoin /	MED
ngir	neer.	Waterman Moylan	Rig T	ype:			ando 150 /	Stat	us:		FINA	L	
Dept	th (m)	Stratum Description	Legend		Level mOD)		Samples			Rock	k Indice	15	Bac
cale	Depth	TOPSOIL.	S///S/S	-	le De	_	Campies		TORM	SCR	% RODA	% Film	Dac
	0.30			80.0	70	0.0							
-	0,00	Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.	五二二	9	79.	93							
.5 -		content.	F-5	9	-								
-			II TO SERVICE	79.5	4								
			2×		-								
-0.			100		1		N=15 (3,3/3,4,4,4	4)					
	1.20	h. ald h. E. Lib. J. E. Lib. d. E. Lib.	222	79.0	79.	03	B / 1.00						
-		Very stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content.	2 3 X	19,0	7	-							
5 -			727										
-			2.4		7								
77			N	78,5	-								
0 -			P.		-								
			A STATE				N=36 (5,7/8,9,9,1 B / 2.00	0)					
-			2 ×	78.0			572.00						
			100		-								
5 -			22 W		7								
_			227		-								
-			F. S.	77.5	7								
0-			F		+		N=50 (5,11/50 fo						
-			To the same of		1		235mm)	,,					
			2 4 A	77.0	-		B / 3.00						
_			# 10 m		1								
5 -	3.50	Weak dark grey calcareous MUDSTONE interbedded with	-3.10.toh.		76.7	73	50 (25 for 5mm/50 5mm)	for				+	
-		strong grey argillaceous LIMESTONE with occasional fossils and calcite veins (up to 10mm). Fresh to slightly weathered.		76.5	1		Situri						
		Discontinuities - smooth, planar, tight to open, 40-50" dip, occasionally sub-			+								
0-		horizontal and sub-vertical dip, clean with occasional brown staining			1		3.50 - 4.50		90	90	33	16	
					-								
-				76.0									
5 -					-								
-		Discontinuities - smooth, planer, light to open, 40-50° dip, clean with occasional brown and grey staining.			1								
				75.5	-								
-					1							9	
0-					+		4.50 - 5.50		98	98	60		
-		Discontinuities - amooth, planar light to open, 40-50" dip, occasionally sub-		75.0									
		vertical dip, clean with occasional brown and grey staining and calcite veins.		-	-								
5 -					7	-							
					-							24	
-				74.5									
0					-		5.50 - 6.50		0.0	0.0	25		
-		Discontinuities - smooth, planer light to open, 40-50* dip. clean with occasional brown and grey staining:			1		5.50 - 6.50		98	98	35		
				74,0 -								6	
5	6.50				7								
-	5.50	End of Corehole at 6.50m		73.5	73.7	3							and the second
1		Chiselling: Water Strikes: Water Details:	Insta	Batio	ns:	1	Backfill:		Rema	rks:		egend:	
	12		-	-	-	Fro	The second secon					B: Bulk D: Disturb	and .
6	1	3.50 3.50 01:00 3.20 2.80 NS 02/11 3.50 3				-	00 6.50 Arisings ob	mina struct stary o	ted due	mpleti	1	J. Undista S. Erwin W. Water	ubed

-

Contra 58	98	Trial Pit and Dyna	amic	Pı	obe	Log			Trial Pit N	
Contra	ct	Kilshane	Easting:		710543.	292	Date:	0	2/11/2021	
ocatio	n:	Kilshane, Ballycoolin, Dublin 15	Northing		742183.	245	Excava	ator: Jo	CB 3CX	
Client		Go Power	Elevatio	n:	80.62		Logged	d By: M	I. Kaliski	
ngine	er.	Waterman Moylan	Dimensi (LxWxD		3.90 x 0	0.60 x 2.60	Scale:	1:	25	
Level	(mbgl)	Stratum Description	Legend	-	el (mOD)	Sample	25	Dr	obe	Wat
Scale:	Depth	TOPSOIL.	Legenu	Scale	e: Depth:	Depth 1	уре	PR	obe	Strik
1.0 — 1.5 — 2.0 — 3.5 — 4.0 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 — 4.5 —	2.00	Firm becoming stiff light grey 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 limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).  Stiff becoming very stiff black 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 subangular of limestone. Cobbles and boulders are angular to subangular of limestone (up to 300mm diameter).  Pit terminated at 2.60m		80.5 80.0 79.5 79.0 78.5 77.5	78.62	2.50	В	2 3 3 7 7 7 6 6 7 7 7 8 14 10 8 13 11 10 9	19 28 26 26 21 20 23 35	
		Termination: Pit Wall Stability: Groundwate	r Rate: F	temar	ks:		Ke	sy:		
(		Strength of soil. Pit walls stable. Dry	-				B = CB ES	= Small	isturbed disturbed turbed CBR imental	

Contra 58	98	Trial Pit and Dyn	amio	: Pr	obe	Log			Trial Pit	
Contra	ct	Kilshane	Easting		710642.	756	Date	5:	02/11/2021	
ocatio	n:	Kilshane, Ballycoolin, Dublin 15	Northin	g:	742332.	109	Exc	avator:	JCB 3CX	
Client:		Go Power	Elevation	on:	80.84		Logg	ged By:	M. Kaliski	
ngine	er:	Waterman Moylan	Dimens (LxWxD		3.70 x	0.60 × 2.80	Scal	le:	1:25	
Level Scale:	(mbgl) Depth	Stratum Description	Legend		(mOD)	Samp	les Type		Probe	Wat
2.0	2.10	Firm becoming stiff light grey brown slightly sandy slightly gravelly sitly CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.  Stiff becoming very stiff black slightly sandy slightly gravelly sitly CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles and boulders are angular to subangular of limestone (up to 300mm diameter).  Pit terminated at 2.80m		79.5 78.5 77.5	78.74	2.50	В	1 1 1 2 6 2 2 2 3 8 7 7 6 5 5 5 5	32 20 17 17 15 21 16 16 16 18	
-				76.0 -						
1	-	Termination: Pit Wall Stability: Groundwate	r Rate:	Remark	rs:			Key:		
0		Strength of soil. Pit walls stable. Dry						D = Sm CBR = Ur	lk disturbed nall disturbed ndisturbed CBR fronmental	

Contra 58	98		Trial Pit an	nd Dyna	amic	Pr	obe	Log			Trial Pi	
Contra	ct:	Kilshane			Easting		710596.	166	Date	50	02/11/2021	
ocatio	n:	Kilshane, Ballycoo	olin, Dublin 15		Northing	r.	742470.	886	Exc	avator:	JCB 3CX	
Client:		Go Power			Elevatio	n:	82.85		Log	ged By:	M. Kaliski	
ngine	er.	Waterman Moylan			Dimens (LxWxD		3.80 x (	).65 x 2.5	io Sca	le:	1:25	
	(mbgl)		Stratum Description		Legend	Leve	(mOD)	Samp			Probe	Wate
1.0 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 — 1.5 —	2.10 2.50	gravelly silty CLAY fine to coarse. Gra subrounded of lim subround	y stiff black slightly sa / with high cobble and ne to coarse. Gravel i subangular of limest angular to subangular	andy slightly d low boulder is fine to one. Cobbles		82.5 82.0 81.5 81.0 79.5 79.0	82.55 80.75	0.50 1.00	ES B	1 2 2 3 5 6 5 5 7 6 6 6 6 6 6 6 7 7 7 9	13 22 18 17 18 20 19 18 20 28 27	35
		Termination:	Pit Wall Stability:	Groundwate	r Rate:	Remark	ks:			Key:		
(		Strength of soil.	Pit walls stable.	Dry	-					B = Bu D = Sr CBR = U	ulk disturbed mall disturbed Indisturbed CB vironmental	R

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Contract 58		Т	rial Pit an	d Dyna	amic	Pr	obe	Log			Trial Pit	
ontra	ct:	Kilshane			Easting:		710684.	732	Date	Ε.	02/11/2021	
ocatio	n:	Kilshane, Ballycoolii	n, Dublin 15		Northing		742619.	034	Exc	avator:	JCB 3CX	
lient:		Go Power			Elevation	1:	83.06		Logg	ged By:	M. Kaliski	
ngine	er:	Waterman Moylan			Dimension (LxWxD)		4.20 x (	0.65 x 2.8	0 Scal	e:	1:25	
Level	(mbgl)	Str	ratum Description		Legend	-	(mOD)	Samp	oles		Probe	Wate
Scale:	Depth	TOPSOIL			E C G C III	Scale 83.0 -	: Depth:	Depth	Type	0	7.000	Strik
1.0	0.30	gravelly silty CLAY of fine to coarse. Grave subrounded of limes subrounded of limes subrounded of limes silty CLAY with high Sand is fine to coarse angular to subrounded to 400mm diameter.  Stiff becoming very gravelly silty CLAY of fine to coarse. Grave subangular of limes subangular of limes.	grey brown slightly si cobble and low bould se. Gravel is fine to o ded of limestone. Cob ir to subrounded of limestone of limestone. Cob stiff black slightly sar with high cobble control is fine to coarse, a tone. Cobbles are an	and, Sand is ngular to ngular to ngular to ngular to ngular to and gravelly der content. oarse, obles and mestone (up		82.0 - 81.5 81.0 - 80.0 -	82.76	0.50	ES B	2 2 3 3 2 4 5 6 6 7 9 9 8 8 8 9	1 13 1 1 16 35	
4.0						79.0						
4.5						78.5						
		Maria and a second	Distance and the	Constitution	D-to-		den			Varia		
(		Termination: Strength of soil.	Pit Wall Stability: Pit walls stable.	Groundwate Dry	r Rate: 1	Remar	KS:			D = Sr CBR = U	alk disturbed mall disturbed ndisturbed CBF vironmental	2

Contra 58	98	Trial Pit and Dy	namio	: Pr	obe	Log			Trial Pit	
ontra	ct:	Kilshane	Easting		710828.	477	Date	b:	02/11/2021	
ocatio	n:	Kilshane, Ballycoolin, Dublin 15	Northin	g:	742750.	035	Exc	avator:	JCB 3CX	
lient		Go Power	Elevation	on:	80.65		Log	ged By:	M. Kaliski	
ngine	er:	Waterman Moylan	Dimens (LxWxI		3.50 x (	0.60 x 2.7	0 Sca	le:	1:25	
Level Scale:	(mbgl) Depth	Stratum Description	Legend	1	l (mOD)	Samp	les		Probe	Wate
1.0	1.70	Firm becoming stiff grey brown slightly sandy slight gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.  Stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content and frequent gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.  Obstruction - possible bedrock or boulders.  Pit terminated at 2.76m		80.5 79.5 79.5 78.5 77.5	78.95	2.00	В	0 0 1 1 4 5 8 8 9 8 8 9 9		5
-		Termination: Pit Wall Stability: Groundwi	ater Rate:	Remark	ks:			Key:		
(		Obstruction - possible bedrock or boulders.  Pit walls stable. 1.90 See	epage	-				D = Sr CBR = U	ulk disturbed mall disturbed indisturbed CBI vironmental	2

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Contract 58		Ti	rial Pit and	d Dyna	amic	Pr	obe	Log			Trial P	
ontra	ct:	Kilshane			Easting:		710796.9	998	Date:		02/11/202	1
ocatio	n:	Kilshane, Ballycoolin	, Dublin 15		Northing		742609.2	299	Excava	tor:	JCB 3CX	
lient:		Go Power			Elevation	n:	81.39		Logged	Ву:	M. Kaliski	
ngine	er.	Waterman Moylan			Dimensi (LxWxD)		3.80 x 0	0.60 x 2.40	Scale:		1:25	
evel	(mbgl)	Stra	atum Description		Legend	Leve	l (mOD)	Sample	es	F	Probe	Wate
Scale:	Depth	TOPSOIL			S110,5011050	Scale	: Depth:	Depth	Туре			Strik
1.5	0.30 0.60 1.40 2.30 2.40	Soft becoming firm g gravelly silty CLAY w fine to coarse. Grave subrounded of limest subrounded of limest Firm becoming stiff g silty CLAY with high coarse angular to subrounde boulders are angular to 300mm diameter).  Stiff becoming very s slightly gravelly silty boulder content. San to coarse, angular to Cobbles and boulder limestone (up to 300 Very stiff black slight CLAY with high cobblis fine to coarse. Grasubangular of limest angular to subangular diameter).  Obstruction - possible Pit of the subangular of limest angular to subangular diameter).	with low cobble content is fine to coarse, and tone. Cobbles are artone.  The prey brown slightly succepted and low boulder. Gravel is fine to come of the common striff grey brown slight CLAY with high cobble is fine to coarse. Common diameter).  The same angular to submm diameter.  The same angular to submm diameter.  The same angular to submm diameter of lime to coarse, one. Cobbles and boar of limestone (up to are of limestone).	nt. Sand is negular to nestone (up nestone (up nestone) is fine stone.  I welly silty content. Sand angular to negular to		80.5 80.0 79.5 78.5	79.09	2.00	B B	2 3 10 12 8 9 10 9	16 20 22	35
4.5						77.0	-					
						76.5	-					
(		Termination:  Obstruction -rock or boulders.	Pit Wall Stability: Pit walls stable.	Groundwate Dry	r Rate:	Remai	rks:			= Bull = Sm BR = Un	k disturbed all disturbed disturbed C ronmental	

Contra 58	98	Trial Pit and Dyn	amic	Pr	obe	Log		Trial Pit	
Contra	ct:	Kilshane	Easting		710786.8	841	Date:	02/11/2021	
ocatio	n:	Kilshane, Ballycoolin, Dublin 15	Northing	j:	742471.5	531	Excavato	r: JCB 3CX	
Client:		Go Power	Elevation	n:	80.53		Logged B	By: M. Kaliski	
ngine	er.	Waterman Moylan	Dimens (LxWxD		3.40 x 0	).60 x 2.50	Scale:	1:25	
Level	(mbgl)	Stratum Description	Legend	Leve	el (mOD)	Sample	es	Drobo	Wate
Scale:	Depth	TOPSOIL.	Legeno	Scale	: Depth:	Depth	Туре	Probe	Strik
1.0 — 1.5 — 2.0 — 3.0 — 4.0 —	2.00 2.30 2.50	Soft becoming firm light grey brown slightly sandy slightly gravelly sifty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.  Stiff becoming very stiff grey 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 limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).  Very stiff black 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 subangular of limestone. Cobbles and boulders are angular to subangular of limestone (up to 300mm diameter).  Pit terminated at 2.50m		79.5 79.5 77.5 77.0	78.53 78.23 78.03	2.20	ES 2 2 2 2 3 3 3 5 B	6 6 7 6 6 7 8 12 14 14 14	
-		Termination: Pit Wall Stability: Groundwate	er Rate:	Remar	ks:		Key:		
(		Pit wall instability. Pit walls unstable forcing completion. 2.30 Media					B = D = CBR	Bulk disturbed Small disturbed = Undisturbed CBR Environmental	2

Contra 58	98	Т	rial Pit an	d Dyna	amic	Pr	obe	Log		Trial Pi		
Contract:		Kilshane			Easting:		710953.440		Date:	02/11/2021	02/11/2021	
Location:		Kilshane, Ballycoolin	n, Dublin 15		Northing	\$	742658.661		Excavator:	JCB 3CX		
Client: Engineer: Level (mbgl)		Go Power			Elevatio		on: 78.59		Logged By:	M. Kaliski	M. Kaliski	
		Waterman Moylan			Dimensi (LxWxD)			Scale:	1:25	1:25		
		Ch	atum Description		Lanna	Leve	(mOD)	Sample	es	Decks	Wat	
Scale:	Depth	501	atum Description		Legend	Scale	: Depth:		Туре	Probe	Strik	
0.5	0.30	Firm becoming stiff g silty CLAY with high Sand is fine to coars angular to subround boulders are angular to 400mm diameter)	cobble and low boul e. Gravel is fine to ded of limestone. Cob r to subrounded of li	ider content. coarse, obles and		78.5	78.29		1 1 3 2 3 2 2 2 2			
1.0						77.5		1.00	B 1 1 1 1 2 1 1			
1.5						77.0 -			1 4 4 8	9		
2.0	2.00	Obstruction - possib Pit	le bedrock or boulde terminated at 2.00m	ers.		76.5	76.59	2.00	В	9	35	
2.5 -						76.0 -						
3.0						75.5						
3.5						75.0 -						
4.0						74.5						
4.5						74.0						
							-					
		Termination:	Pit Wall Stability:	Groundwate	Rate I	Remar	ks:		Key:			
(1)		Obstruction - possible bedrock or boulders.	Pit walls stable.	Dry	. 1 1010	Corrigi			B = E D = : CBR =	Bulk disturbed Small disturbed Undisturbed CB nvironmental	IR.	

Contrac 58		Trial Pit and Dyn	amic	Pr	obe	Log			Trial Pit	
Contract		Kilshane	Easting:		710939.386		Date:		02/11/2021	
Location:		Kilshane, Ballycoolin, Dublin 15	Northing	y:	742368.549		Excavator:		JCB 3CX	
Client:		Go Power		Elevation:		78.30		ed By:	M. Kaliski	
Engineer:		Waterman Moylan	Dimens (LxWxD		5.10 x 0.60 x 2.00		Scale:		1:25	
Level (mbgl) Scale: Depth		Stratum Description	Legend		el (mOD) Sample		es Гуре		Probe	Water
1.6 -	0.30	Soft 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 limestone. Cobbles are angular to subrounded of limestone.  Firm grey brown slightly sandy gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.  Firm becoming stiff grey brown slightly sandy gravelly silty CLAY with high cobble and medium boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 400mm diameter).  Obstruction - possible bedrock or boulders.  Pit terminated at 2.00m		78.0 - 77.5 77.0 - 76.5 76.5 76.5 76.5 76.5	77.70	1.00	ES B	1 1 2 2 3 3 2 2 2 3 3 3 3 2 2 2 3 3 3 3		à la companya de la c
4.0		Termination: Pit Wall Stability: Groundwate Obstruction - Pit walls stable. Dry	er Rate:	74.5 74.0 -	ks:		_	Gey:	k disturbed	
pos		Obstruction - possible bedrock or boulders.  Pit walls stable.  Dry						B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental		

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