

APPENDIX 3

TABLES

Table 1 - Original and Construction Phase Borehole Names

Original Borehole Name	Construction Phase Borehole Name	Co-ordinates		Ground Level (m AOD)	Aquifer	Response Zone (m bgl)
-	GW101	489152.6	505656.5	206.8	Moor Grit	2 to 9.75
	GW101A	489152.9	505650.8	206.7	Scarborough formation	10.8 to 13
-	GW102	489150.4	505665.5	207.0	Cloughton Formation	19 to 30
-	GW103	489342.5	505678.8	203.4	Moor Grit	3 to 8.5
HG10	GW104	489333.0	505678.0	203.7	Cloughton Formation	31.0 to 45.0
-	GW105	489449.4	505667.3	197.4	Scarborough formation	8 to 10
-	GW106	489559.6	505668.1	190.0	Cloughton Formation	9 to 14.4
-	GW107	489811.4	505523.0	176.6	Cloughton Formation	6.8 to 14.5
-	GW108	489658.1	505397.3	186.7	Cloughton Formation	7 to 13
-	GW109	489610.1	505119.6	193.4	Scarborough Formation	4.2 to 6.6
HG6	GW111	489761.0	504974.0	188.2	Cloughton Formation	2.5 to 5.4
HG119	GW112	489843.0	504759.0	197.2	Scarborough formation	8.75 - 6.2
-	GW113	Not Drilled			Moor Grit	
-	GW114	Not Drilled			Moor Grit	
-	GW115	489452.9	504645.1	209.3	Scarborough Formation	11 to 14
-	GW116 (SAC8)	489270.5	504711.8	213.0	Moor Grit	2.7 to 9.6
-	GW117	489236.7	505102.8	208.7	Scarborough formation	14.2 to 16.5
-	GW117A	489234.4	505096.9	209.0	Cloughton Formation	24 to 29
HG122	GW118	489230.0	505095.0	208.9	Moor Grit	4.0 to 14.5
HG106	GW121	488934.0	505608.0	212.0	Superficials	1.0 to 4.0
-	GW121A	488928.6	505613.8	211.7	Moor Grit	3.4 to 6.6
HG106A	GW121B	488921.0	505605.0	211.6	Scarborough Formation	4.0 to 14.0
HG105	GW122	489139.0	505500.0	208.3	Superficials	1.0 to 2.5
HG105A	GW122A (SAC1)	489139.0	505494.0	208.3	Moor Grit	3.5 to 13.0
-	GW123 (SAC2)	489177.0	505427.1	208.9	Moor Grit	6 to 12.8
-	GW124 (SAC3)	489184.5	505377.0	209.7	Moor Grit	5 to 13.2
-	GW125 (SAC4)	489215.7	505221.8	206.5	Moor Grit	4.1 to 8.5
HG108	GW126	489128.0	505165.0	203.4	Superficials	1.0 to 3.0
HG108A	GW126A	489128.0	505165.0	203.4	Scarborough Formation	6.5 to 10.0
HG108B	GW126B	489129.0	505167.0	203.4	Superficials	0.0 to 1.0
HG109	GW127	488992.0	505157.0	199.2	Superficials	1.0 to 4.5
HG109B	GW127A	488985.0	505158.0	199.3	Superficials	0.0 to 1.0
HG110	GW128	488834.0	505167.0	196.2	Superficials	1.0 to 2.8
HG110B	GW128B	488836.0	505166.0	196.1	Superficials	0.0 to 1.0
-	GW129 (SAC5)	489219.4	505118.0	207.6	Moor Grit	3.4 to 9
-	GW130 (SAC6)	489236.1	504928.7	209.7	Moor Grit	2 to 10.8
-	GW131 (SAC7)	489246.9	504815.5	211.5	Moor Grit	1.9 to 10.5
HG112	GW132	488934.0	504801.0	197.5	Superficials	1.0 to 2.7
HG112B	GW132B	488941.0	504799.0	197.7	Superficials	0.0 to 1.0
HG112C	GW132C	489042.0	504807.0	201.3	Superficials	0.0 to 1.0
HG112D	GW132D	489039.0	504798.0	201.6	Superficials	0.0 to 1.0
HG112E	GW132E	489036.0	504792.0	201.6	Superficials	0.0 to 1.0
HG111	GW133	489217.2	504714.1	212.7	Superficials	1.0 to 1.5
HG111A	GW133A	489211.0	504706.0	213.0	Moor Grit	2.0 to 10.0
HG111B	GW133B	489210.7	504707.9	212.9	Superficials	0.0 to 1.0
-	GW134	Not Drilled			Moor Grit	
-	GW135	489487.4	505052.2	202.3	Moor Grit	3.4 to 8

Table 1 - Original and Construction Phase Borehole Names

HG118A	GW136A	489400.8	504126.5	224.1	Moor Grit	6.5 to 9.3
HG118C	GW136C	489401.6	504121.0	224.3	Scarborough formation	11.0 to 16.8
HG2	GW137	489498.5	505506.4	193.6	Cloughton Formation	4.0 to 14.0
HG4	GW138	489496.3	505206.9	198.4	Cloughton Formation	23.0 to 33.0
HG5	GW139	489240.4	504965.2	209.2	Scarborough formation	12 to 29.8
HG120	GW140	489606.1	505068.9	194.4	Scarborough formation	3.0 to 5.5 m
HG124	GW141	489412.0	504958.6	207.5	Scarborough formation	11.0 to 15.5 m
HG116		489206.5	505526.0	207.2	Moor Grit	2.0 to 6.0 m
HG119		489842.5	504759.1	197.2	Scarborough formation	
HG135		489335.7	505348.0	203.2	Moor Grit	3.0 to 8.5 m
SS2		489340.8	505315.6	203.0	Moor Grit	4.0 to 7.0 m
BH505		489272.5	505422.8	203.5	Moor Grit	2.50 to 10.05 m
BH507		489305.3	505457.3	203.6	Moor Grit	2.90 to 10.90 m
BH515		489400.2	505469.1	201.0	Moor Grit	2.5 to 9.9 m
BH520		489318.0	505422.0	203.5	Moor Grit	3.5 to 11 m
BH521		489292.0	505328.0	203.0	Moor Grit	3.5 to 8.0 m
BH522		489388.0	505456.0	201.0	Moor Grit	2.5 to 8.0 m

TABLE 2:- EVALUATION OF PROXIMITY OF RECEPTOR TO THE PHYSICAL AND CHEMICAL EFFECTS OF CONSTRUCTION WORKS ASSOCIATED WITH SPECIFIC SITE PREPARATORY WORKS ACTIVITIES

Receptor and Associated Geology		() = overlying	Phase 3 Works Activities And Associated Geology								
			Shaft Platform and Platform Extension	Working Platform & Batching Plant	Bunds and Stockpiles	Site Roads	Diaphragm Walls	NHNI Extractive Material Management Facility	Groundwater Drainage Layer	Reinjection Well & Saline Lagoon	Site Compound
			Superficial Deposits (Moor Grit)	Superficial Deposits (Moor Grit)	Superficial Deposits (Moor Grit)	Superficial Deposits (Moor Grit / Scarborough / Cloughton)	Superficial Deposits / Moor Grit / Scarborough / Cloughton / Saltwick / Whitby Mudstone	Superficial Deposits (Scarborough / Cloughton)	Superficial Deposits (Scarborough / Cloughton)	Superficial Deposits (Moor Grit)	Superficial Deposits (Moor Grit / Scarborough)
Ugglebarnby Moor Northern Dry Heath Area	Dry Heath Ecology	Distance (m) Horizontal Proximity Calculated Proximity	75 High High	210 High High	10 Very High Very High	135 High High	85 High High	385 Medium Medium	385 Medium Medium	560 Low Low	330 Medium Medium
Ugglebarnby Moor Central Wet Heath Area	Wetland Ecology	Distance (m) Horizontal Proximity Calculated Proximity	110 High High	225 High High	40 Very High Very High	180 High High	120 High High	482 Medium Medium	460 Medium Medium	210 High High	290 Medium Medium
Ugglebarnby Moor Southern Dry Heath Area	Dry Heath Ecology	Distance (m) Horizontal Proximity Calculated Proximity	335 Medium Medium	245 High High	30 Very High Very High	505 Low Low	185 High High	760 Very Low Very Low	700 Low Low	160 High High	315 Medium Medium
Ugglebarnby Moor Southern Spring Flush	Wetland Ecology	Distance (m) Horizontal Proximity Calculated Proximity	470 Medium Medium	410 Medium Medium	195 High High	595 Low Low	325 Medium Medium	910 Very Low Very Low	850 Very Low Very Low	315 Medium Medium	490 Medium Medium
Sneaton Low Moor Dry Heath Area	Dry Heath Ecology	Distance (m) Horizontal Proximity Calculated Proximity	528 Low Low	325 Medium Medium	150 High High	685 Low Low	335 Medium Medium	945 Very Low Very Low	885 Very Low Very Low	90 High High	425 Medium Medium
Sneaton Thorpe Beck	Surface Water	Distance (m) Horizontal Proximity Calculated Proximity	470 Low Low	290 High High	470 Low Low	550 Low Low	290 Medium Medium	370 Medium Medium	375 Medium Medium	590 Low Low	370 Medium Medium
Little Beck	Surface Water	Distance (m) Horizontal Proximity Calculated Proximity	1160 Very Low Very Low	1120 Very Low Very Low	950 Very Low Very Low	1230 Very Low Very Low	1110 Very Low Very Low	1500 Very Low Very Low	1500 Very Low Very Low	990 Very Low Very Low	1290 Very Low Very Low
Sneaton Low Moor Caravan Park Cloughton Fm	Drinking Water	Distance (m) Horizontal Proximity Calculated Proximity	1420 Very Low Very Low	665 Low Very Low	1020 Very Low Very Low	1550 Very Low Very Low	1210 Very Low Very Low	1770 Very Low Very Low	1670 Very Low Very Low	870 Very Low Very Low	1200 Very Low Very Low
MF2 Moor Grit	Drinking Water	Distance (m) Horizontal Proximity Calculated Proximity	460 Medium Medium	325 Medium Medium	120 High High	615 Low Low	285 Medium Medium	900 Very Low Very Low	935 Very Low Very Low	205 Medium Medium	430 Medium Medium
SF1 Scarborough Fm	Drinking Water	Distance (m) Horizontal Proximity Calculated Proximity	1150 Very Low Very Low	610 Low Very Low	805 Very Low Very Low	1300 Very Low Very Low	960 Very Low Very Low	1350 Very Low Very Low	1260 Very Low Very Low	785 Very Low Very Low	930 Very Low Very Low
NHF Cloughton Fm	Drinking Water	Distance (m) Horizontal Proximity Calculated Proximity	1260 Very Low Very Low	850 Very Low Very Low	890 Very Low Very Low	1410 Very Low Very Low	1080 Very Low Very Low	1720 Very Low Very Low	1620 Very Low Very Low	860 Very Low Very Low	1180 Very Low Very Low
SP01 Moor Grit	Baseflow	Distance (m) Horizontal Proximity Calculated Proximity	720 Low Low	563 Low Low	400 Medium Medium	865 Very Low Very Low	580 Low Low	1170 Very Low Very Low	915 Very Low Very Low	430 Medium Medium	710 Low Low
SP02, SP03 Cloughton Fm	Baseflow	Distance (m) Horizontal Proximity Calculated Proximity	955 Very Low Very Low	1165 Very Low Very Low	870 Very Low Very Low	1030 Very Low Very Low	1120 Very Low Very Low	1190 Very Low Very Low	1230 Very Low Very Low	1495 Very Low Very Low	1320 Very Low Very Low
SP04 Moor Grit	Baseflow	Distance (m) Horizontal Proximity Calculated Proximity	465 Medium Medium	690 Low Low	350 Medium Medium	535 Low Low	795 Very Low Very Low	405 Medium Medium	505 Low Low	1270 Very Low Very Low	875 Very Low Very Low

DNS1		Distance (m)	115	75	195	260	90	410	310	440	20
Moor Grit	Baseflow	Horizontal Proximity	High	High	High	Medium	High	Medium	Medium	Medium	Very High
		Calculated Proximity	High	High	High	Medium	High	Medium	Medium	Medium	Very High
Knaggy House Farm Spring		Distance (m)	480	700	400	550	800	340	435	1280	855
Scarborough Fm	Baseflow	Horizontal Proximity	Medium	Low	Medium	Low	Very Low	Medium	Medium	Very Low	Very Low
		Calculated Proximity	Low	Very Low	Medium	Low	Very Low	Medium	Medium	Very Low	Very Low
Moor Grit Secondary A Aquifer	"Shallow aquifer/ Drinking water/ Baseflow"	Distance (m)	0	0	0	0	0	70	70	0	0
		Horizontal Proximity	Very High	Very High	Very High	Very High	Very High	High	High	Very High	Very High
		Calculated Proximity	Very High	Very High	Very High	Very High	Very High	High	High	Very High	Very High
Scarborough Fm Secondary A Aquifer	"Shallow aquifer/ Drinking water/ Baseflow"	Distance (m)	0	0	0	0	0	0	0	0	0
		Horizontal Proximity	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High
		Calculated Proximity	High	Very High	Very High	High	Very High	Very High	Very High	High	Very High
Cloughton Fm Secondary A Aquifer	"Moderate depth aquifer/ Drinking water/ Baseflow"	Distance (m)	0	0	0	0	0	0	0	0	0
		Horizontal Proximity	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High
		Calculated Proximity	Medium	Very High	High	Medium	Very High	Very High	Very High	Medium	High
Saltwick Fm Secondary A Aquifer	Moderate depth aquifer	Distance (m)	0	0	0	0	0	0	0	0	0
		Horizontal Proximity	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High
		Calculated Proximity	Low	High	Medium	Low	Very High	High	High	Low	Medium

Calculated Proximity is determined from the Horizontal Proximity and the Vertical Proximity as detailed in Section 6.1.2.

TABLE 4:- Contaminants of Concern from Phase 3 Works

Contaminant of Concern	Source	Receptor
pH	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Conductivity	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Aluminium	NHNI WMF	Groundwater, Surface Waters and Springs
Cobalt	NHNI WMF	Groundwater, Surface Waters and Springs
Sodium	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Chloride	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Sulphate	NHNI WMF	Groundwater, Surface Waters and Springs
Turbidity	Construction Works/NHNI WMF	Surface Waters Only
Suspended Solids	Construction Works/NHNI WMF	Surface Waters Only
Biological Oxygen Demand (BOD)	Construction Works/NHNI WMF	Surface Waters Only
Free Ammonia (NH ₃)	Construction Works/NHNI WMF	Surface Waters Only
Benzene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Toluene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Ethylbenzene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Xylene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Anthracene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Benzo(a)pyrene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Benzo(b)fluoranthene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Benzo(g,h,i)perylene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Benzo(k)fluoranthene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Fluoranthene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Indeno(1,2,3-cd)pyrene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Naphthalene	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aliphatic C5-C6	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aliphatic C6-C8	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aliphatic C8-C10	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aliphatic C10-C12	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aliphatic C12-C16	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aliphatic C16-C21	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aliphatic C21-C35	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aromatic C5-C7	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs

TPH Aromatic C7-C8	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aromatic C8-C10	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aromatic C10-C12	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aromatic C12-C16	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aromatic C16-C21	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
TPH Aromatic C21-C35	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs
Total TPH	Construction Works/NHNI WMF	Groundwater, Surface Waters and Springs