

Date	25/03/2024	Site:	Observer Park, Arborfield					Borehole Number	WS04		
Job Number	64065									Comments	
Depth (m)	N100 Blows		0	5	10	15	20	25			
0.0 - 0.1		0.0 - 0.1							Water at end (casing removed)		
0.1 - 0.2		0.1 - 0.2									
0.2 - 0.3		0.2 - 0.3									
0.3 - 0.4		0.3 - 0.4									
0.4 - 0.5		0.4 - 0.5									
0.5 - 0.6		0.5 - 0.6									
0.6 - 0.7		0.6 - 0.7									
0.7 - 0.8		0.7 - 0.8									
0.8 - 0.9		0.8 - 0.9									
0.9 - 1.0		0.9 - 1.0									
1.0 - 1.1		1.0 - 1.1							Water strike BH Collapsed from		
1.1 - 1.2		1.1 - 1.2									
1.2 - 1.3		1.2 - 1.3									
1.3 - 1.4		1.3 - 1.4									
1.4 - 1.5		1.4 - 1.5									
1.5 - 1.6		1.5 - 1.6									
1.6 - 1.7		1.6 - 1.7									
1.7 - 1.8		1.7 - 1.8									
1.8 - 1.9		1.8 - 1.9									
1.9 - 2.0		1.9 - 2.0									
2.0 - 2.1	3	2.0 - 2.1							Likely London Clay transition.		
2.1 - 2.2	3	2.1 - 2.2									
2.2 - 2.3	2	2.2 - 2.3									
2.3 - 2.4	2	2.3 - 2.4									
2.4 - 2.5	2	2.4 - 2.5									
2.5 - 2.6	5	2.5 - 2.6									
2.6 - 2.7	5	2.6 - 2.7									
2.7 - 2.8	3	2.7 - 2.8									
2.8 - 2.9	2	2.8 - 2.9									
2.9 - 3.0	3	2.9 - 3.0									
3.0 - 3.1	3	3.0 - 3.1									
3.1 - 3.2	3	3.1 - 3.2									
3.2 - 3.3	3	3.2 - 3.3									
3.3 - 3.4	3	3.3 - 3.4									
3.4 - 3.5	2	3.4 - 3.5									
3.5 - 3.6	3	3.5 - 3.6									
3.6 - 3.7	2	3.6 - 3.7									
3.7 - 3.8	3	3.7 - 3.8									
3.8 - 3.9	3	3.8 - 3.9									
3.9 - 4.0	4	3.9 - 4.0									
4.0 - 4.1	4	4.0 - 4.1									
4.1 - 4.2	3	4.1 - 4.2									
4.2 - 4.3	4	4.2 - 4.3									
4.3 - 4.4	3	4.3 - 4.4									
4.4 - 4.5	4	4.4 - 4.5									
4.5 - 4.6	3	4.5 - 4.6									
4.6 - 4.7	4	4.6 - 4.7									
4.7 - 4.8	4	4.7 - 4.8									
4.8 - 4.9	3	4.8 - 4.9									
4.9 - 5.0	5	4.9 - 5.0									
5.0 - 5.1	5	5.0 - 5.1									
5.1 - 5.2	4	5.1 - 5.2									
5.2 - 5.3	5	5.2 - 5.3									
5.3 - 5.4	5	5.3 - 5.4									
5.4 - 5.5	5	5.4 - 5.5									
5.5 - 5.6	5	5.5 - 5.6									
5.6 - 5.7	6	5.6 - 5.7									
5.7 - 5.8	5	5.7 - 5.8									
5.8 - 5.9	6	5.8 - 5.9									
5.9 - 6.0	6	5.9 - 6.0									
Remarks											
Hammer Weight 63.5 kg											

PROJECT NAME: Observer Park												
SITE LOCATION: Arborfield, Reading												
CLIENT: Carbide Properties Ltd		JOB NO.: 64065										
START DATE: 27/03/2024		EASTING: 175056	BOREHOLE ID: WS05									
END DATE: 27/03/2024		NORTHING: 167108	TOTAL DEPTH: 2mbgl + DP to 5m									
MEASURING POINT: Ground Level		DATUM ELEVATION (if available):										
Sample ID	Laboratory Testing	In-Situ Testing				GW	Legend	Stratum Thickness	Stratum Base	DESCRIPTION	% Recovery	Installation
		Test Type	N Value /Blows	Hand Pen.	DP							
0	ES1 U1 Soil: env SO4/pH				0 5 10 15 20 25	R1		0.45		Grass over saturated soft, dark brown, peaty clay backfill with occasional fine flint. Strong eutrophic (anoxic) odour and abundant roots and rootlets.	U1 90%	
0.5								0.45				
1	U2 PSD+, SO4/pH	SPTc	20			E1		1.55		Loose to medium-dense, saturated, yellowish brown, slightly silty, clayey SAND and GRAVEL. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).	U2 80%	
1.5												
2								2.00				
2.5												
3												
3.5												
4												
4.5												
5												
5.5												
6												
6.5												
OTHER COMMENTS:		IN SITU KEY:		EQUIPMENT/MODALITY:								
Water encountered at 1m with 1m casing. At end of sampling, water at 0.45m which rose to 0.38m on removal of casing. Hole collapsed at 1.4m with dynamic probing continuation from 2m.		SPTc (cone) SPT (spoon) FH (falling head)		Archway Lite DS								
GW ENCOUNTERED: Y		GW INFLOW RATE: Seepage		INSTALLATION: None								
		LOGGED: KLH		CHECKED: KLH								

Date	27/04/2024	Site:	Observer Park, Arborfield					Borehole Number	WS05
Job Number	64065								Comments
Depth (m)	N100 Blows	0	5	10	15	20	25		
0.0 - 0.1		0.0 - 0.1						Water at end (casing removed)	
0.1 - 0.2		0.1 - 0.2							
0.2 - 0.3		0.2 - 0.3							
0.3 - 0.4		0.3 - 0.4							
0.4 - 0.5		0.4 - 0.5							
0.5 - 0.6		0.5 - 0.6							
0.6 - 0.7		0.6 - 0.7							
0.7 - 0.8		0.7 - 0.8							
0.8 - 0.9		0.8 - 0.9							
0.9 - 1.0		0.9 - 1.0							
1.0 - 1.1		1.0 - 1.1						Water strike	
1.1 - 1.2		1.1 - 1.2							
1.2 - 1.3		1.2 - 1.3							
1.3 - 1.4		1.3 - 1.4						BH Collapsed from	
1.4 - 1.5		1.4 - 1.5							
1.5 - 1.6		1.5 - 1.6							
1.6 - 1.7		1.6 - 1.7							
1.7 - 1.8		1.7 - 1.8							
1.8 - 1.9		1.8 - 1.9							
1.9 - 2.0		1.9 - 2.0							
2.0 - 2.1	8	2.0 - 2.1							
2.1 - 2.2	8	2.1 - 2.2							
2.2 - 2.3	4	2.2 - 2.3							
2.3 - 2.4	2	2.3 - 2.4							
2.4 - 2.5	1	2.4 - 2.5						Likely London Clay transition.	
2.5 - 2.6	1	2.5 - 2.6							
2.6 - 2.7	1	2.6 - 2.7							
2.7 - 2.8	1	2.7 - 2.8							
2.8 - 2.9	2	2.8 - 2.9							
2.9 - 3.0	3	2.9 - 3.0							
3.0 - 3.1	2	3.0 - 3.1							
3.1 - 3.2	3	3.1 - 3.2							
3.2 - 3.3	4	3.2 - 3.3							
3.3 - 3.4	4	3.3 - 3.4							
3.4 - 3.5	4	3.4 - 3.5							
3.5 - 3.6	4	3.5 - 3.6							
3.6 - 3.7	5	3.6 - 3.7							
3.7 - 3.8	5	3.7 - 3.8							
3.8 - 3.9	5	3.8 - 3.9							
3.9 - 4.0	6	3.9 - 4.0							
4.0 - 4.1	6	4.0 - 4.1							
4.1 - 4.2	5	4.1 - 4.2							
4.2 - 4.3	6	4.2 - 4.3							
4.3 - 4.4	6	4.3 - 4.4							
4.4 - 4.5	7	4.4 - 4.5							
4.5 - 4.6	7	4.5 - 4.6							
4.6 - 4.7	7	4.6 - 4.7							
4.7 - 4.8	8	4.7 - 4.8							
4.8 - 4.9	8	4.8 - 4.9							
4.9 - 5.0	8	4.9 - 5.0							
5.0 - 5.1		5.0 - 5.1							
5.1 - 5.2		5.1 - 5.2							
5.2 - 5.3		5.2 - 5.3							
5.3 - 5.4		5.3 - 5.4							
5.4 - 5.5		5.4 - 5.5							
5.5 - 5.6		5.5 - 5.6							
5.6 - 5.7		5.6 - 5.7							
5.7 - 5.8		5.7 - 5.8							
5.8 - 5.9		5.8 - 5.9							
5.9 - 6.0		5.9 - 6.0							
Remarks									
Hammer Weight 63.5 kg									

PROJECT NAME:		Observer Park											
SITE LOCATION:		Arborfield, Reading											
CLIENT:		Carbide Properties Ltd								JOB NO.:		64065	
START DATE:		27/03/2024				EASTING:				475062		BOREHOLE ID: WS06	
END DATE:		27/03/2024				NORTHING:				167141		TOTAL DEPTH: 3mbgl + DP to 6m	
MEASURING POINT: Ground Level DATUM ELEVATION (if available):													
Sample ID	Laboratory Testing	In-Situ Testing					GW	Legend	Stratum Thickness	Stratum Base	DESCRIPTION	% Recovery	Installation
		Test Type	N Value /Blows	Hand Pen.	DP								
0	ES1 Soil: env, BRE	SPTc	16				R1		0.40	0.40	Grass over saturated soft, dark brown, peaty clay backfill with occasional fine flint. Strong eutrophic (anoxic) odour and abundant roots and rootlets.	U1 90%	
0.5									0.80	Loose to medium-dense, saturated, orangish brown, clayey, silty SAND and GRAVEL. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).			
1									1.20				
1.5		SPTc	40			E1		0.55	1.75	Firm, wet, olive and orangish brown, slightly gravelly, slightly sandy, silty CLAY. Gravel of fine to coarse, rounded to subrounded flint (RTD).	U2 90%		
2								1.25	Medium-dense to dense, saturated, orangish brown, clayey, silty SAND and GRAVEL. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).	U3 70%			
2.5								3.00					
3													
3.5													
4													
4.5													
5													
5.5													
6													
6.5													

OTHER COMMENTS: Water encountered at 1.6m with 1m casing. At end of sampling, water at 0.38m which rose to 0.18m on removal of casing. Hole collapsed at 1.9m with dynamic probing continuation from 3m.								IN SITU KEY: SPTc (cone) SPT (spoon) FH (falling head)		EQUIPMENT/MODALITY: Archway Lite DS					
GW ENCOUNTERED:		Y		GW INFLOW RATE:		Seepage		INSTALLATION:		None		LOGGED: KLH		CHECKED: KLH	

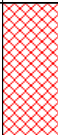
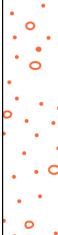
Date	27/04/2024	Site:	Observer Park, Arborfield					Borehole Number	WS06
Job Number	64065								Comments
Depth (m)	N100 Blows	0	5	10	15	20	25		
0.0 - 0.1		0.0 - 0.1						Water at end (casing removed)	
0.1 - 0.2		0.1 - 0.2							
0.2 - 0.3		0.2 - 0.3							
0.3 - 0.4		0.3 - 0.4							
0.4 - 0.5		0.4 - 0.5							
0.5 - 0.6		0.5 - 0.6							
0.6 - 0.7		0.6 - 0.7							
0.7 - 0.8		0.7 - 0.8							
0.8 - 0.9		0.8 - 0.9							
0.9 - 1.0		0.9 - 1.0							
1.0 - 1.1		1.0 - 1.1							
1.1 - 1.2		1.1 - 1.2							
1.2 - 1.3		1.2 - 1.3							
1.3 - 1.4		1.3 - 1.4							
1.4 - 1.5		1.4 - 1.5							
1.5 - 1.6		1.5 - 1.6							
1.6 - 1.7		1.6 - 1.7							
1.7 - 1.8		1.7 - 1.8							
1.8 - 1.9		1.8 - 1.9							
1.9 - 2.0		1.9 - 2.0							
2.0 - 2.1		2.0 - 2.1							
2.1 - 2.2		2.1 - 2.2							
2.2 - 2.3		2.2 - 2.3							
2.3 - 2.4		2.3 - 2.4							
2.4 - 2.5		2.4 - 2.5							
2.5 - 2.6		2.5 - 2.6							
2.6 - 2.7		2.6 - 2.7							
2.7 - 2.8		2.7 - 2.8							
2.8 - 2.9		2.8 - 2.9							
2.9 - 3.0		2.9 - 3.0							
3.0 - 3.1	1	3.0 - 3.1							
3.1 - 3.2	1	3.1 - 3.2							
3.2 - 3.3	1	3.2 - 3.3							
3.3 - 3.4	2	3.3 - 3.4							
3.4 - 3.5	1	3.4 - 3.5							
3.5 - 3.6	1	3.5 - 3.6							
3.6 - 3.7	2	3.6 - 3.7							
3.7 - 3.8	2	3.7 - 3.8							
3.8 - 3.9	2	3.8 - 3.9							
3.9 - 4.0	2	3.9 - 4.0							
4.0 - 4.1	3	4.0 - 4.1							
4.1 - 4.2	3	4.1 - 4.2							
4.2 - 4.3	3	4.2 - 4.3							
4.3 - 4.4	4	4.3 - 4.4							
4.4 - 4.5	4	4.4 - 4.5							
4.5 - 4.6	4	4.5 - 4.6							
4.6 - 4.7	5	4.6 - 4.7							
4.7 - 4.8	5	4.7 - 4.8							
4.8 - 4.9	6	4.8 - 4.9							
4.9 - 5.0	6	4.9 - 5.0							
5.0 - 5.1	7	5.0 - 5.1							
5.1 - 5.2	8	5.1 - 5.2							
5.2 - 5.3	8	5.2 - 5.3							
5.3 - 5.4	8	5.3 - 5.4							
5.4 - 5.5	9	5.4 - 5.5							
5.5 - 5.6	10	5.5 - 5.6							
5.6 - 5.7	11	5.6 - 5.7							
5.7 - 5.8	12	5.7 - 5.8							
5.8 - 5.9	12	5.8 - 5.9							
5.9 - 6.0	12	5.9 - 6.0							
Remarks									
Hammer Weight 63.5 kg									

PROJECT NAME:		Observer Park											
SITE LOCATION:		Arborfield, Reading											
CLIENT:		Carbide Properties Ltd								JOB NO.:		64065	
START DATE:		25/03/2024				EASTING:				475050		BOREHOLE ID: WS07	
END DATE:		25/03/2024				NORTHING:				167190		TOTAL DEPTH: 3mbgl + DP to 5m	
MEASURING POINT: Ground Level DATUM ELEVATION (if available):													
Sample ID	Laboratory Testing	In-Situ Testing					GW	Legend	Stratum Thickness	Stratum Base	DESCRIPTION	% Recovery	Installation
		Test Type	N Value /Blows	Hand Pen.	DP								
0													
ES1 U1	Soil: env MC, SO4/pH								0.40		Grass over saturated soft, dark brown, peaty clay backfill with occasional fine flint. Strong eutrophic (anoxic) odour and abundant roots and rootlets.		
0.5									0.40			U1 90%	
									0.50		MADE GROUND of firm, dark brown, peaty silt backfill with occasional fine flint. Organic odour and abundant roots and rootlets.		
									0.90				
1	U2	PSD+					R1				Medium-dense to dense, saturated, orangish brown, slightly clayey, slightly silty, very sandy GRAVEL. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).		
		SPTc	39						0.60			U2 100%	
									1.50				
1.5											Firm, wet, grey, silty CLAY with occasional fine and medium flint (RTD).		
									0.45				
									1.95				
2							E1				Medium-dense, saturated, orangish brown, clayey, silty SAND and GRAVEL. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).		
		SPTc	24						0.80			U3 70%	
									2.75				
UE	MC/PI, SO4/pH								0.25		Very soft, wet, dark grey, slightly silty CLAY (LONDON CLAY FORMATION).		
3									3.00				

Date	25/03/2024	Site:	Observer Park, Arborfield		Borehole Number		WS07
Job Number	64065						Comments
Depth (m)	N100 Blows	0	5	10	15	20	25
0.0 - 0.1		0.0 - 0.1					
0.1 - 0.2		0.1 - 0.2					
0.2 - 0.3		0.2 - 0.3					
0.3 - 0.4		0.3 - 0.4					
0.4 - 0.5		0.4 - 0.5					
0.5 - 0.6		0.5 - 0.6					
0.6 - 0.7		0.6 - 0.7					
0.7 - 0.8		0.7 - 0.8					
0.8 - 0.9		0.8 - 0.9					
0.9 - 1.0		0.9 - 1.0					
1.0 - 1.1		1.0 - 1.1					
1.1 - 1.2		1.1 - 1.2					
1.2 - 1.3		1.2 - 1.3					
1.3 - 1.4		1.3 - 1.4					
1.4 - 1.5		1.4 - 1.5					
1.5 - 1.6		1.5 - 1.6					
1.6 - 1.7		1.6 - 1.7					
1.7 - 1.8		1.7 - 1.8					
1.8 - 1.9		1.8 - 1.9					
1.9 - 2.0		1.9 - 2.0					
2.0 - 2.1		2.0 - 2.1					
2.1 - 2.2		2.1 - 2.2					
2.2 - 2.3		2.2 - 2.3					
2.3 - 2.4		2.3 - 2.4					
2.4 - 2.5		2.4 - 2.5					
2.5 - 2.6		2.5 - 2.6					
2.6 - 2.7		2.6 - 2.7					
2.7 - 2.8		2.7 - 2.8					
2.8 - 2.9		2.8 - 2.9					
2.9 - 3.0		2.9 - 3.0					
3.0 - 3.1	2	3.0 - 3.1					
3.1 - 3.2	2	3.1 - 3.2					
3.2 - 3.3	1	3.2 - 3.3					
3.3 - 3.4	1	3.3 - 3.4					
3.4 - 3.5	2	3.4 - 3.5					
3.5 - 3.6	1	3.5 - 3.6					
3.6 - 3.7	2	3.6 - 3.7					
3.7 - 3.8	2	3.7 - 3.8					
3.8 - 3.9	2	3.8 - 3.9					
3.9 - 4.0	2	3.9 - 4.0					
4.0 - 4.1	2	4.0 - 4.1					
4.1 - 4.2	2	4.1 - 4.2					
4.2 - 4.3	3	4.2 - 4.3					
4.3 - 4.4	2	4.3 - 4.4					
4.4 - 4.5	2	4.4 - 4.5					
4.5 - 4.6	2	4.5 - 4.6					
4.6 - 4.7	3	4.6 - 4.7					
4.7 - 4.8	2	4.7 - 4.8					
4.8 - 4.9	3	4.8 - 4.9					
4.9 - 5.0	3	4.9 - 5.0					
5.0 - 5.1		5.0 - 5.1					
5.1 - 5.2		5.1 - 5.2					
5.2 - 5.3		5.2 - 5.3					
5.3 - 5.4		5.3 - 5.4					
5.4 - 5.5		5.4 - 5.5					
5.5 - 5.6		5.5 - 5.6					
5.6 - 5.7		5.6 - 5.7					
5.7 - 5.8		5.7 - 5.8					
5.8 - 5.9		5.8 - 5.9					
5.9 - 6.0		5.9 - 6.0					
Remarks							
Hammer Weight 63.5 kg							

PROJECT NAME: Observer Park													
SITE LOCATION: Arborfield, Reading													
CLIENT: Carbide Properties Ltd		JOB NO.: 64065											
START DATE: 27/03/2024		EASTING: 475055	BOREHOLE ID: WS08 TOTAL DEPTH: 2mbgl + DP to 6m										
END DATE: 27/03/2024		NORTHING: 167246											
MEASURING POINT: Ground Level DATUM ELEVATION (if available):													
Sample ID	Laboratory Testing	In-Situ Testing				GW	Legend	Stratum Thickness	Stratum Base	DESCRIPTION	% Recovery	Installation	
		Test Type	N Value /Blows	Hand Pen.	DP								
0													
								0.40	0.40	Grass over saturated soft, dark brown, peaty clay backfill with occasional fine flint. Strong eutrophic (anoxic) odour and abundant roots and rootlets.			
0.5						R1		0.40	0.80	Soft, saturated (running), yellowish brown SILT (RTD).	U1 100%		
1		SPTc	48			E1		1.00	1.80	Medium-dense to dense, saturated, orangish brown, clayey, silty SAND and GRAVEL with occasional band of green sand. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).	U2 60%		
1.5													
2													
2.5													
3													
3.5													
4													
4.5													
5													
5.5													
6													
6.5													
OTHER COMMENTS: Water encountered at 1.1m with 1m casing. At end of sampling, water at 1.1m which rose to 1m on removal of casing. Hole collapsed at 1.6m with dynamic probing continuation from 1.8m.										IN SITU KEY: SPTc (cone) SPT (spoon) FH (falling head)		EQUIPMENT/MODALITY: Archway Lite DS	
GW ENCOUNTERED:		Y		GW INFLOW RATE:		Seepage		INSTALLATION:		None		LOGGED: KLH	CHECKED: KLH

Date	27/03/2024	Site:	Observer Park, Arborfield					Borehole Number	WS08
Job Number	64065								Comments
Depth (m)	N100 Blows	0	5	10	15	20	25		
0.0 - 0.1		0.0 - 0.1						Water at end (casing removed)	
0.1 - 0.2		0.1 - 0.2							
0.2 - 0.3		0.2 - 0.3							
0.3 - 0.4		0.3 - 0.4							
0.4 - 0.5		0.4 - 0.5							
0.5 - 0.6		0.5 - 0.6							
0.6 - 0.7		0.6 - 0.7							
0.7 - 0.8		0.7 - 0.8							
0.8 - 0.9		0.8 - 0.9							
0.9 - 1.0		0.9 - 1.0							
1.0 - 1.1		1.0 - 1.1						Water strike	
1.1 - 1.2		1.1 - 1.2							
1.2 - 1.3		1.2 - 1.3							
1.3 - 1.4		1.3 - 1.4							
1.4 - 1.5		1.4 - 1.5							
1.5 - 1.6		1.5 - 1.6						BH Collapsed from	
1.6 - 1.7		1.6 - 1.7							
1.7 - 1.8	1	1.7 - 1.8							
1.8 - 1.9	2	1.8 - 1.9							
1.9 - 2.0	5	1.9 - 2.0							
2.0 - 2.1	15	2.0 - 2.1							
2.1 - 2.2	17	2.1 - 2.2							
2.2 - 2.3	18	2.2 - 2.3							
2.3 - 2.4	18	2.3 - 2.4							
2.4 - 2.5	17	2.4 - 2.5							
2.5 - 2.6	12	2.5 - 2.6						Likely London Clay transition.	
2.6 - 2.7	7	2.6 - 2.7							
2.7 - 2.8	4	2.7 - 2.8							
2.8 - 2.9	2	2.8 - 2.9							
2.9 - 3.0	2	2.9 - 3.0							
3.0 - 3.1	2	3.0 - 3.1							
3.1 - 3.2	2	3.1 - 3.2							
3.2 - 3.3	2	3.2 - 3.3							
3.3 - 3.4	3	3.3 - 3.4							
3.4 - 3.5	9	3.4 - 3.5							Anomaly, possible stone.
3.5 - 3.6	4	3.5 - 3.6							
3.6 - 3.7	4	3.6 - 3.7							
3.7 - 3.8	3	3.7 - 3.8							
3.8 - 3.9	4	3.8 - 3.9							
3.9 - 4.0	4	3.9 - 4.0							
4.0 - 4.1	4	4.0 - 4.1							
4.1 - 4.2	4	4.1 - 4.2							
4.2 - 4.3	3	4.2 - 4.3							
4.3 - 4.4	4	4.3 - 4.4							
4.4 - 4.5	3	4.4 - 4.5							
4.5 - 4.6	4	4.5 - 4.6							
4.6 - 4.7	3	4.6 - 4.7							
4.7 - 4.8	4	4.7 - 4.8							
4.8 - 4.9	4	4.8 - 4.9							
4.9 - 5.0	4	4.9 - 5.0							
5.0 - 5.1	4	5.0 - 5.1							
5.1 - 5.2	5	5.1 - 5.2							
5.2 - 5.3	4	5.2 - 5.3							
5.3 - 5.4	4	5.3 - 5.4							
5.4 - 5.5	4	5.4 - 5.5							
5.5 - 5.6	4	5.5 - 5.6							
5.6 - 5.7	4	5.6 - 5.7							
5.7 - 5.8	4	5.7 - 5.8							
5.8 - 5.9	4	5.8 - 5.9							
5.9 - 6.0	5	5.9 - 6.0							
Remarks									
Hammer Weight 63.5 kg									

PROJECT NAME:		Observer Park										
SITE LOCATION:		Arborfield, Reading										
CLIENT:		Carbide Properties Ltd					JOB NO.:		64065			
START DATE:		26/03/2024		EASTING:		475041		BOREHOLE ID: WS09				
END DATE:		26/03/2024		NORTHING:		167290		TOTAL DEPTH: 2mbgl + DP to 5m				
MEASURING POINT: Ground Level DATUM ELEVATION (if available):												
Sample ID	Laboratory Testing	In-Situ Testing				GW	Legend	Stratum Thickness	Stratum Base	DESCRIPTION	% Recovery	Installation
		Test Type	N Value /Blows	Hand Pen.	DP							
0	ES1	Soil: env, asb MC, SO4/pH				R1		0.60		Grass over saturated soft, dark brown, peaty clay backfill with occasional fine flint. Organic odour and abundant roots and rootlets.	U1 90%	
0.5	U1											
	U1	PSD				E1		0.35	0.60	Firm, greyish brown, slightly gravelly, sandy, silty CLAY with occasional fine flint (RTD).	U2 60%	
1		SPTc	50					1.05		Medium-dense to dense, saturated, orangish brown, very clayey SAND and GRAVEL with occasional band of green sand. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).		
1.5								2.00				
2												
2.5												
3												
3.5												
4												
4.5												
5												
5.5												
6												
6.5												

OTHER COMMENTS: Water encountered at 0.9m with 1m casing. At end of sampling, water at 0.35m which rose to 0.24m on removal of casing. Hole collapsed at 1.7m with dynamic probing continuation from 1.7m.				IN SITU KEY: SPTc (cone) SPT (spoon) FH (falling head)		EQUIPMENT/MODALITY: Archway Lite DS					
GW ENCOUNTERED:		Y	GW INFLOW RATE:		Seepage	INSTALLATION: None		LOGGED: KLH		CHECKED: KLH	

Date	26/03/2024	Site:	Observer Park, Arborfield	Borehole Number	WS09			
Job Number	64065				Comments			
Depth (m)	N100 Blows	0	5	10	15	20	25	
0.0 - 0.1		0.0 - 0.1						Water at end (casing removed)
0.1 - 0.2		0.1 - 0.2						
0.2 - 0.3		0.2 - 0.3						
0.3 - 0.4		0.3 - 0.4						
0.4 - 0.5		0.4 - 0.5						
0.5 - 0.6		0.5 - 0.6						
0.6 - 0.7		0.6 - 0.7						
0.7 - 0.8		0.7 - 0.8						
0.8 - 0.9		0.8 - 0.9						
0.9 - 1.0		0.9 - 1.0						
1.0 - 1.1		1.0 - 1.1						Water strike
1.1 - 1.2		1.1 - 1.2						
1.2 - 1.3		1.2 - 1.3						
1.3 - 1.4		1.3 - 1.4						
1.4 - 1.5		1.4 - 1.5						
1.5 - 1.6		1.5 - 1.6						
1.6 - 1.7	5	1.6 - 1.7						
1.7 - 1.8	20	1.7 - 1.8						
1.8 - 1.9	20	1.8 - 1.9						
1.9 - 2.0	21	1.9 - 2.0						
2.0 - 2.1	18	2.0 - 2.1						BH Collapsed from
2.1 - 2.2	14	2.1 - 2.2						
2.2 - 2.3	8	2.2 - 2.3						
2.3 - 2.4	4	2.3 - 2.4						
2.4 - 2.5	1	2.4 - 2.5						
2.5 - 2.6	2	2.5 - 2.6						
2.6 - 2.7	1	2.6 - 2.7						
2.7 - 2.8	2	2.7 - 2.8						
2.8 - 2.9	2	2.8 - 2.9						
2.9 - 3.0	2	2.9 - 3.0						
3.0 - 3.1	3	3.0 - 3.1						Likely London Clay transition.
3.1 - 3.2	2	3.1 - 3.2						
3.2 - 3.3	3	3.2 - 3.3						
3.3 - 3.4	4	3.3 - 3.4						
3.4 - 3.5	4	3.4 - 3.5						
3.5 - 3.6	4	3.5 - 3.6						
3.6 - 3.7	5	3.6 - 3.7						
3.7 - 3.8	6	3.7 - 3.8						
3.8 - 3.9	6	3.8 - 3.9						
3.9 - 4.0	6	3.9 - 4.0						
4.0 - 4.1	7	4.0 - 4.1						
4.1 - 4.2	7	4.1 - 4.2						
4.2 - 4.3	8	4.2 - 4.3						
4.3 - 4.4	7	4.3 - 4.4						
4.4 - 4.5	8	4.4 - 4.5						
4.5 - 4.6	9	4.5 - 4.6						
4.6 - 4.7	8	4.6 - 4.7						
4.7 - 4.8	9	4.7 - 4.8						
4.8 - 4.9	9	4.8 - 4.9						
4.9 - 5.0	10	4.9 - 5.0						
5.0 - 5.1		5.0 - 5.1						
5.1 - 5.2		5.1 - 5.2						
5.2 - 5.3		5.2 - 5.3						
5.3 - 5.4		5.3 - 5.4						
5.4 - 5.5		5.4 - 5.5						
5.5 - 5.6		5.5 - 5.6						
5.6 - 5.7		5.6 - 5.7						
5.7 - 5.8		5.7 - 5.8						
5.8 - 5.9		5.8 - 5.9						
5.9 - 6.0		5.9 - 6.0						
Remarks								
Hammer Weight 63.5 kg								

PROJECT NAME:		Observer Park															
SITE LOCATION:		Arborfield, Reading															
CLIENT:		Carbide Properties Ltd										JOB NO.:		64065			
START DATE:		25/03/2024				EASTING:				475012				BOREHOLE ID:		WS10	
END DATE:		25/03/2024				NORTHING:				167251				TOTAL DEPTH:		2mbgl + DP to 5m	
MEASURING POINT: Ground Level														DATUM ELEVATION (if available):			
Sample ID	Laboratory Testing	In-Situ Testing					GW	Legend	Stratum Thickness	Stratum Base	DESCRIPTION	% Recovery	Installation				
		Test Type	N Value /Blows	Hand Pen.	DP												
0																	
0.5 ES1	Soil: env, BRE, asb						R1		0.30		Grass over saturated soft, dark brown, peaty clay backfill with occasional fine flint. Slight eutrophic (anoxic) odour and abundant roots and rootlets.	U1 90%					
										0.30				Loose to medium-dense, greenish grey and brown, silty, fine grained SAND with occasional fine flint RTD).			
									0.05	0.35							
1 U2	PSD, SO4/pH	SPTc	55				E1		0.40		Medium-dense, wet, olive and brown, clayey, fine grained SAND with occasional gravel of flint and sandstone (RTD).						
1.5									0.75								
2																	
2.5																	
3																	
3.5																	
4																	
4.5																	
5																	
5.5																	
6																	
6.5																	
OTHER COMMENTS:										IN SITU KEY:		EQUIPMENT/MODALITY:					
Water encountered at 1.4m with 1m casing. At end of sampling, water at 0.35m which rose to 0.3m on removal of casing. Hole collapsed at 1.6m with dynamic probing continuation from 2m.										SPTc (cone) SPT (spoon) FH (falling head)		Archway Lite DS					
GW ENCOUNTERED:		Y		GW INFLOW RATE:		Seepage		INSTALLATION:		None		LOGGED: KLH		CHECKED: KLH			

Date	25/03/2024	Site:	Observer Park, Arborfield					Borehole Number	WS10
Job Number	64065								Comments
Depth (m)	N100 Blows	0	5	10	15	20	25		
0.0 - 0.1		0.0 - 0.1						Water at end (casing removed)	
0.1 - 0.2		0.1 - 0.2							
0.2 - 0.3		0.2 - 0.3							
0.3 - 0.4		0.3 - 0.4							
0.4 - 0.5		0.4 - 0.5							
0.5 - 0.6		0.5 - 0.6							
0.6 - 0.7		0.6 - 0.7							
0.7 - 0.8		0.7 - 0.8							
0.8 - 0.9		0.8 - 0.9							
0.9 - 1.0		0.9 - 1.0							
1.0 - 1.1		1.0 - 1.1						Water strike	
1.1 - 1.2		1.1 - 1.2							
1.2 - 1.3		1.2 - 1.3							
1.3 - 1.4		1.3 - 1.4							
1.4 - 1.5		1.4 - 1.5							
1.5 - 1.6		1.5 - 1.6							
1.6 - 1.7		1.6 - 1.7							
1.7 - 1.8		1.7 - 1.8							
1.8 - 1.9		1.8 - 1.9							
1.9 - 2.0		1.9 - 2.0							
2.0 - 2.1	13	2.0 - 2.1						BH Collapsed from	
2.1 - 2.2	11	2.1 - 2.2							
2.2 - 2.3	6	2.2 - 2.3							
2.3 - 2.4	3	2.3 - 2.4							
2.4 - 2.5	2	2.4 - 2.5							
2.5 - 2.6	1	2.5 - 2.6							
2.6 - 2.7	1	2.6 - 2.7							
2.7 - 2.8	1	2.7 - 2.8							
2.8 - 2.9	2	2.8 - 2.9							
2.9 - 3.0	1	2.9 - 3.0							
3.0 - 3.1	2	3.0 - 3.1						Likely London Clay transition.	
3.1 - 3.2	2	3.1 - 3.2							
3.2 - 3.3	2	3.2 - 3.3							
3.3 - 3.4	3	3.3 - 3.4							
3.4 - 3.5	3	3.4 - 3.5							
3.5 - 3.6	3	3.5 - 3.6							
3.6 - 3.7	4	3.6 - 3.7							
3.7 - 3.8	5	3.7 - 3.8							
3.8 - 3.9	5	3.8 - 3.9							
3.9 - 4.0	5	3.9 - 4.0							
4.0 - 4.1	4	4.0 - 4.1							
4.1 - 4.2	6	4.1 - 4.2							
4.2 - 4.3	6	4.2 - 4.3							
4.3 - 4.4	6	4.3 - 4.4							
4.4 - 4.5	7	4.4 - 4.5							
4.5 - 4.6	7	4.5 - 4.6							
4.6 - 4.7	8	4.6 - 4.7							
4.7 - 4.8	9	4.7 - 4.8							
4.8 - 4.9	9	4.8 - 4.9							
4.9 - 5.0	9	4.9 - 5.0							
5.0 - 5.1		5.0 - 5.1							
5.1 - 5.2		5.1 - 5.2							
5.2 - 5.3		5.2 - 5.3							
5.3 - 5.4		5.3 - 5.4							
5.4 - 5.5		5.4 - 5.5							
5.5 - 5.6		5.5 - 5.6							
5.6 - 5.7		5.6 - 5.7							
5.7 - 5.8		5.7 - 5.8							
5.8 - 5.9		5.8 - 5.9							
5.9 - 6.0		5.9 - 6.0							
Remarks									
Hammer Weight 63.5 kg									

PROJECT NAME:		Observer Park											
SITE LOCATION:		Arborfield, Reading											
CLIENT:		Carbide Properties Ltd								JOB NO.:		64065	
START DATE:		26/03/2024				EASTING:				475005		BOREHOLE ID: WS11	
END DATE:		26/03/2024				NORTHING:				167279		TOTAL DEPTH: 2mbgl + DP to 6m	
MEASURING POINT: Ground Level DATUM ELEVATION (if available):													
Sample ID	Laboratory Testing	In-Situ Testing				GW	Legend	Stratum Thickness	Stratum Base	DESCRIPTION	% Recovery	Installation	
		Test Type	N Value /Blows	Hand Pen.	DP								
0						E1		0.20	0.20	Grass over firm, grey-brown clay backfill containing fragments of concrete and brick (fine to cobble) and gravel of flint and sandstone (fine to coarse, subangular to rounded), and abundant roots and rootlets.			
0.5											U1 90%		
1		SPTc	49			R1		1.80		Medium-dense to dense, saturated, orangish brown, clayey, silty SAND and GRAVEL with occasional band of green sand. Sand of fine to coarse grain. Gravel of fine to medium, subangular to rounded and fragmented flints (RTD).			
1.5											U2 90%		
2								2.00					
2.5													
3													
3.5													
4													
4.5													
5													
5.5													
6													
6.5													
OTHER COMMENTS: Water encountered at 1.1m with 1m casing. At end of sampling, water at 0.6m which rose to 0.38m on removal of casing. Hole collapsed at 1.7m with dynamic probing continuation from 2m.										IN SITU KEY: SPTc (cone) SPT (spoon) FH (falling head)		EQUIPMENT/MODALITY: Archway Lite DS	
GW ENCOUNTERED:		Y		GW INFLOW RATE:		Seepage		INSTALLATION:		None		LOGGED: KLH CHECKED: KLH	

Date	25/03/2024	Site:	Observer Park, Arborfield					Borehole Number	WS11
Job Number	64065								Comments
Depth (m)	N100 Blows	0	5	10	15	20	25		
0.0 - 0.1		0.0 - 0.1						Water at end (casing removed)	
0.1 - 0.2		0.1 - 0.2							
0.2 - 0.3		0.2 - 0.3							
0.3 - 0.4		0.3 - 0.4							
0.4 - 0.5		0.4 - 0.5							
0.5 - 0.6		0.5 - 0.6							
0.6 - 0.7		0.6 - 0.7							
0.7 - 0.8		0.7 - 0.8							
0.8 - 0.9		0.8 - 0.9							
0.9 - 1.0		0.9 - 1.0							
1.0 - 1.1		1.0 - 1.1						Water strike	
1.1 - 1.2		1.1 - 1.2							
1.2 - 1.3		1.2 - 1.3							
1.3 - 1.4		1.3 - 1.4							
1.4 - 1.5		1.4 - 1.5							
1.5 - 1.6		1.5 - 1.6						BH Collapsed from	
1.6 - 1.7		1.6 - 1.7							
1.7 - 1.8		1.7 - 1.8							
1.8 - 1.9		1.8 - 1.9							
1.9 - 2.0		1.9 - 2.0							
2.0 - 2.1	8	2.0 - 2.1							
2.1 - 2.2	16	2.1 - 2.2							
2.2 - 2.3	21	2.2 - 2.3							
2.3 - 2.4	24	2.3 - 2.4							
2.4 - 2.5	23	2.4 - 2.5							
2.5 - 2.6	23	2.5 - 2.6							
2.6 - 2.7	24	2.6 - 2.7							
2.7 - 2.8	24	2.7 - 2.8							
2.8 - 2.9	20	2.8 - 2.9							
2.9 - 3.0	14	2.9 - 3.0							
3.0 - 3.1	8	3.0 - 3.1							
3.1 - 3.2	3	3.1 - 3.2						Likely London Clay transition.	
3.2 - 3.3	2	3.2 - 3.3							
3.3 - 3.4	1	3.3 - 3.4							
3.4 - 3.5	1	3.4 - 3.5							
3.5 - 3.6	2	3.5 - 3.6							
3.6 - 3.7	2	3.6 - 3.7							
3.7 - 3.8	3	3.7 - 3.8							
3.8 - 3.9	2	3.8 - 3.9							
3.9 - 4.0	3	3.9 - 4.0							
4.0 - 4.1	4	4.0 - 4.1							
4.1 - 4.2	3	4.1 - 4.2							
4.2 - 4.3	4	4.2 - 4.3							
4.3 - 4.4	4	4.3 - 4.4							
4.4 - 4.5	4	4.4 - 4.5							
4.5 - 4.6	4	4.5 - 4.6							
4.6 - 4.7	5	4.6 - 4.7							
4.7 - 4.8	6	4.7 - 4.8							
4.8 - 4.9	8	4.8 - 4.9							
4.9 - 5.0	8	4.9 - 5.0							
5.0 - 5.1	8	5.0 - 5.1							
5.1 - 5.2	9	5.1 - 5.2							
5.2 - 5.3	9	5.2 - 5.3							
5.3 - 5.4	9	5.3 - 5.4							
5.4 - 5.5	10	5.4 - 5.5							
5.5 - 5.6	11	5.5 - 5.6							
5.6 - 5.7	11	5.6 - 5.7							
5.7 - 5.8	12	5.7 - 5.8							
5.8 - 5.9	12	5.8 - 5.9							
5.9 - 6.0	12	5.9 - 6.0							
Remarks									
Hammer Weight 63.5 kg									

APPENDIX C

Geotechnical Laboratory Results



TEST REPORT
ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 18/04/2024



Contract		Observer Park	
Serial No.		44496_1	
Client: PRP UK Ltd Catherine House Old Harborough Road Brixworth Northampton NN6 9BX		Soil Property Testing Ltd 15, 16, 18 Halcyon Court, St Margaret's Way, Stukeley Meadows, Huntingdon, Cambridgeshire, PE29 6DG Tel: 01480 455579 Email: enquiries@soilpropertytesting.com Website: www.soilpropertytesting.com	
Samples Submitted By: PRP UK Ltd Samples Labelled: Observer Park		Approved Signatories: ☒ J.C. Garner B.Eng (Hons) FGS Technical Director & Quality Manager ☐ W. Johnstone Materials Lab Manager 	
Date Received: 04/04/2024		Samples Tested Between: 04/04/2024 and 18/04/2024	
Remarks: For the attention of Karen Holton Your Reference No: 64065			
Notes: 1 All remaining samples or remnants from this contract will be disposed of after 21 days from today, unless we are notified to the contrary. 2 Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. 3 Tests marked "NOT UKAS ACCREDITED" in this test report are not included in the UKAS Accreditation Schedule for this testing laboratory. 4 This test report may not be reproduced other than in full except with the prior written approval of the issuing laboratory. 5 The results within this report only relate to the items tested or sampled.			

[illegible]



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 18/04/2024



Contract	Observer Park
Serial No.	44496_1

SUMMARY OF WATER CONTENT, LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole /Pit No.	Depth (m)	Type	Ref.	Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Liquidity Index	Sample Preparation				Description	Class
									Method	Ret'd 0.425mm (%)	Corr'd W/C <0.425mm	Curing Time (hrs)		
WS01	2.60 - 3.00	U	3	27.4	59	21	38	0.17	From Natural	0 (A)		24	Firm dark grey CLAY.	CH
WS03	2.80 - 3.00	U	3	27.4	54	20	34	0.22	From Natural	0 (A)		24	Firm dark grey CLAY.	CH
WS07	2.85 - 3.00	U	3	32.9	55	21	34	0.35	From Natural	0 (A)		24	Soft dark grey CLAY with rare orange silt partings and rare shell traces.	CH

Method Of Preparation: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2:1990:4.2
Method of Test: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2:1990:3.2, 4.4, 5.3, 5.4
Type of Sample Key: U = Undisturbed, B = Bulk, D = Disturbed, J = Jar, W = Water, SPT = Split Spoon Sample, C = Core Cutter
Comments:

Table Notation: Ret'd 0.425mm: (A) = Assumed, (M) = Measured



TEST REPORT

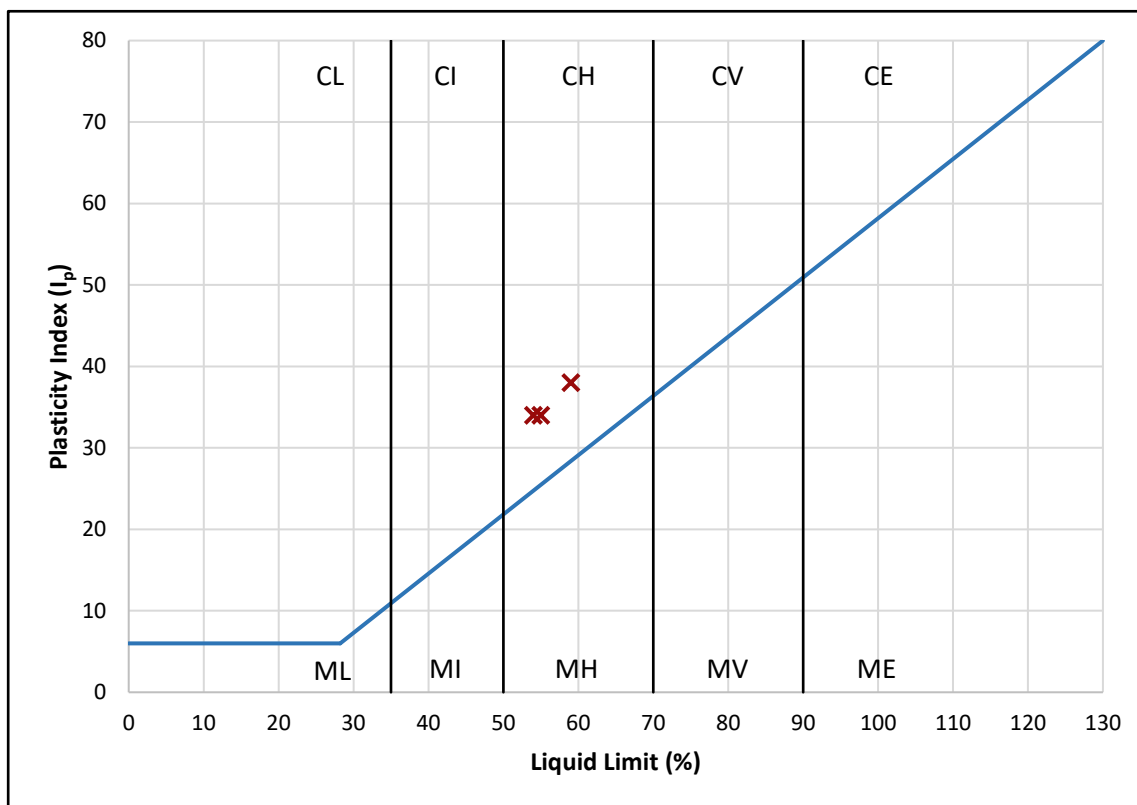
ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 18/04/2024



Contract	Observer Park
Serial No.	44496_1

PLOT OF PLASTICITY INDEX AGAINST LIQUID LIMIT USING CASAGRANDE CLASSIFICATION CHART

Plasticity				
Low	Medium	High	Very High	Extremely High



Plasticity Chart BS5930: 2015: Figure 8

High
Medium
Low

NHBC Volume Change Potential

Method of Preparation:	BS 1377: Part 2: 1990: 4.2
Method of Test:	BS1377: Part 2: 3.2, 4.4, 5.3, 5.4
Type of Sample Key:	U = Undisturbed, B = Bulk, D = Disturbed, J = Jar, W = Water, SPT = Split Spoon Sample, C = Core Cutter
Comments:	Volume Change Potential: NHBC Standards Chapter 4.2 Unmodified Plasticity Index



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 18/04/2024



Contract	Observer Park						
Serial No.	44496_1						
DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX							
Borehole / Pit No.	Depth m	Sample TypeReference		Water Content (W) %	Description	Remarks	
WS01	2.60 - 3.00	U	3	27.4	Firm dark grey CLAY.		
PREPARATION					Liquid Limit	59 %	
Method of preparation					From natural	Plastic Limit	21 %
Sample retained 0.425mm sieve (Assumed)					0 %	Plasticity Index	38 %
Corrected water content for material passing 0.425mm						Liquidity Index	0.17
Sample retained 2mm sieve (Assumed)					0 %	NHBC Modified (I'p)	n/a
Curing time			24 hrs	Clay Content	Not analysed	Derived Activity	Not analysed
C=CLAY M=SILT Plasticity Index % (Ip) High Medium Low NHBC Volume Change Potential Liquid Limit %							

Plasticity Chart BS5930: 2015: Figure 8



TEST REPORT

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DATE ISSUED: 18/04/2024



Contract	Observer Park						
Serial No.	44496_1						
DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX							
Borehole / Pit No.	Depth m	Sample TypeReference		Water Content (W) %	Description	Remarks	
WS03	2.80 - 3.00	U	3	27.4	Firm dark grey CLAY.		
PREPARATION					Liquid Limit	54 %	
Method of preparation					From natural	Plastic Limit	20 %
Sample retained 0.425mm sieve (Assumed)					0 %	Plasticity Index	34 %
Corrected water content for material passing 0.425mm						Liquidity Index	0.22
Sample retained 2mm sieve (Assumed)					0 %	NHBC Modified (I'p)	n/a
Curing time		24 hrs		Clay Content	Not analysed	Derived Activity	Not analysed
C=CLAY M=SILT Plasticity Index % (I_p) High Medium Low NHBC Volume Change Potential Liquid Limit % Plasticity Chart BS5930: 2015: Figure 8							
Method of Preparation: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 4.2							
Method of Test: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 3.2, 4.4, 5.3, 5.4							
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter							
Comments:							



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Contract	Observer Park						
Serial No.	44496_1						
DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX							
Borehole / Pit No.	Depth m	Sample TypeReference		Water Content (W) %	Description	Remarks	
WS07	2.85 - 3.00	U	3	32.9	Soft dark grey CLAY with rare orange silt partings and rare shell traces.		
PREPARATION					Liquid Limit	55 %	
Method of preparation					From natural	Plastic Limit	21 %
Sample retained 0.425mm sieve (Assumed)					0 %	Plasticity Index	34 %
Corrected water content for material passing 0.425mm						Liquidity Index	0.35
Sample retained 2mm sieve (Assumed)					0 %	NHBC Modified (I'p)	n/a
Curing time			24 hrs	Clay Content	Not analysed	Derived Activity	Not analysed
C=CLAY M=SILT Plasticity Index % (Ip) High Medium Low NHBC Volume Change Potential Liquid Limit %						Plasticity Chart BS5930: 2015: Figure 8	
Method of Preparation: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 4.2							
Method of Test: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 3.2, 4.4, 5.3, 5.4							
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter							
Comments:							



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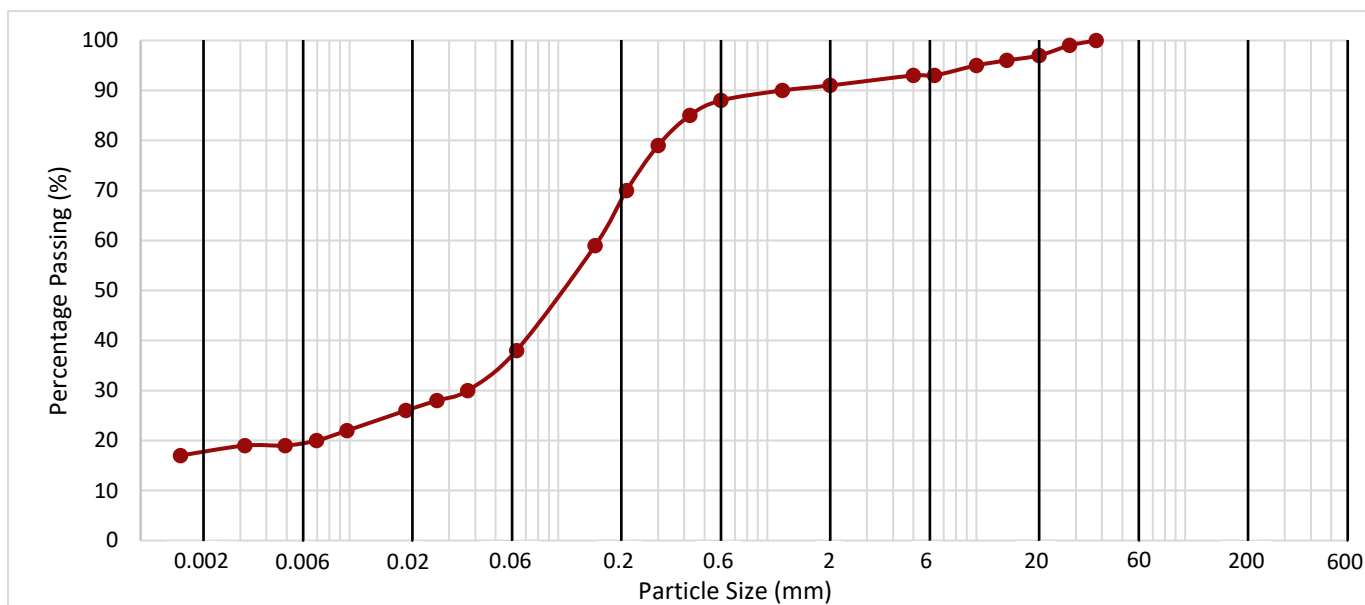


Contract	Observer Park
Serial No.	44496_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS01	0.30 - 1.00	U	1	Pale olive and locally brown slightly gravelly sandy silty CLAY. Gravel is brown, black and white angular to rounded chert and rare brown and white quartzite and chalk.	

Method of Test: **Wet Sieve + Hydrometer** Method of Pretreatment: **Not required**



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
	0.0368	30	21
	0.0262	28	
	0.0186	26	
	0.0097	22	Clay by Dry Mass (%)
	0.0070	20	
	0.0049	19	
	0.0032	19	17
	0.0016	17	

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	91	53
1.18	90	
0.600	88	
0.425	85	
0.300	79	
0.212	70	
0.150	59	
0.063	38	

Fines By Dry Mass (%)	
<0.063mm	38

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		9
125		
90		
63		
50		
37.5	100	
28	99	
20	97	
14	96	
10	95	
6.3	93	
5	93	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
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Contract	Observer Park
Serial No.	44496_1

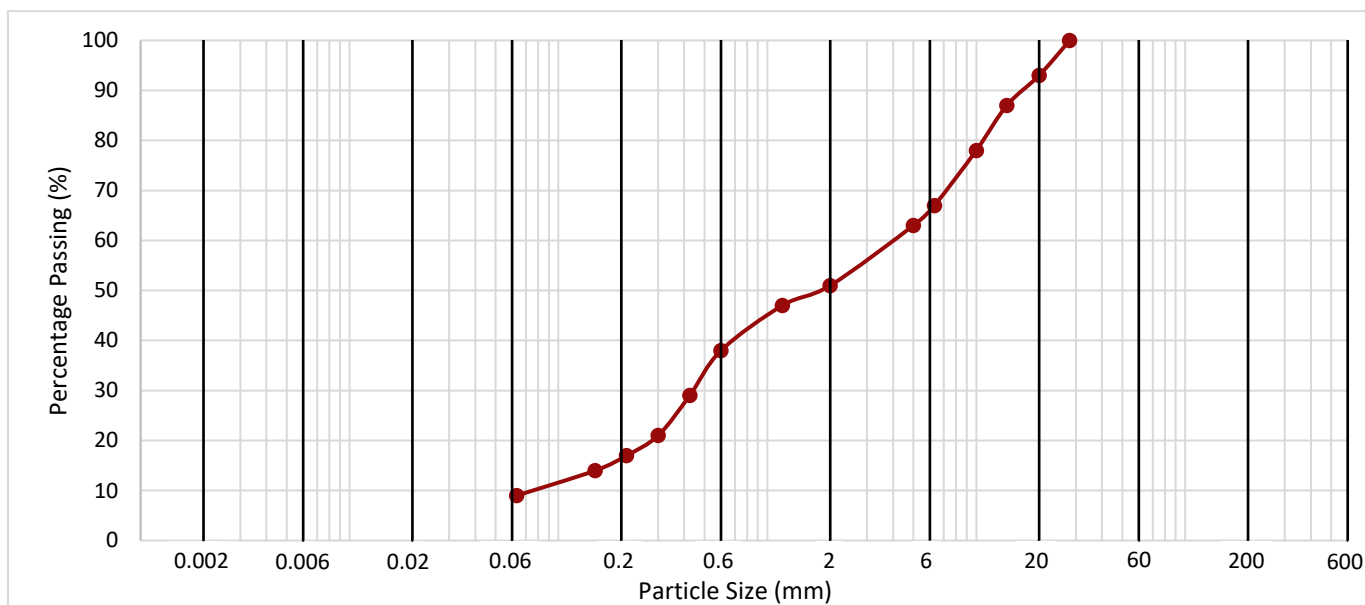
DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS02	1.30 - 2.00	U	2	Brown, black and white sub angular to sub rounded chert and rare light brown sandstone clayey slightly silty very sandy GRAVEL. Sand is brown.	

Method of Test: Wet Sieve

Method of Pretreatment:

Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
	2.00		
	1.18		
	0.600		
	0.425		
	0.300		
	0.212		
	0.150		
	Particle Size (mm)	Passing (%)	Clay by Dry Mass (%)
	2.00		
	1.18		
	0.600		
	0.425		
	0.300		
	0.212		
	0.150		

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	51	42
1.18	47	
0.600	38	
0.425	29	
0.300	21	
0.212	17	
0.150	14	
0.063	9	

Fines By Dry Mass (%)	
<0.063mm	9

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		49
125		
90		
63		
50		
37.5		
28	100	
20	93	
14	87	
10	78	
6.3	67	
5	63	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:



TEST REPORT

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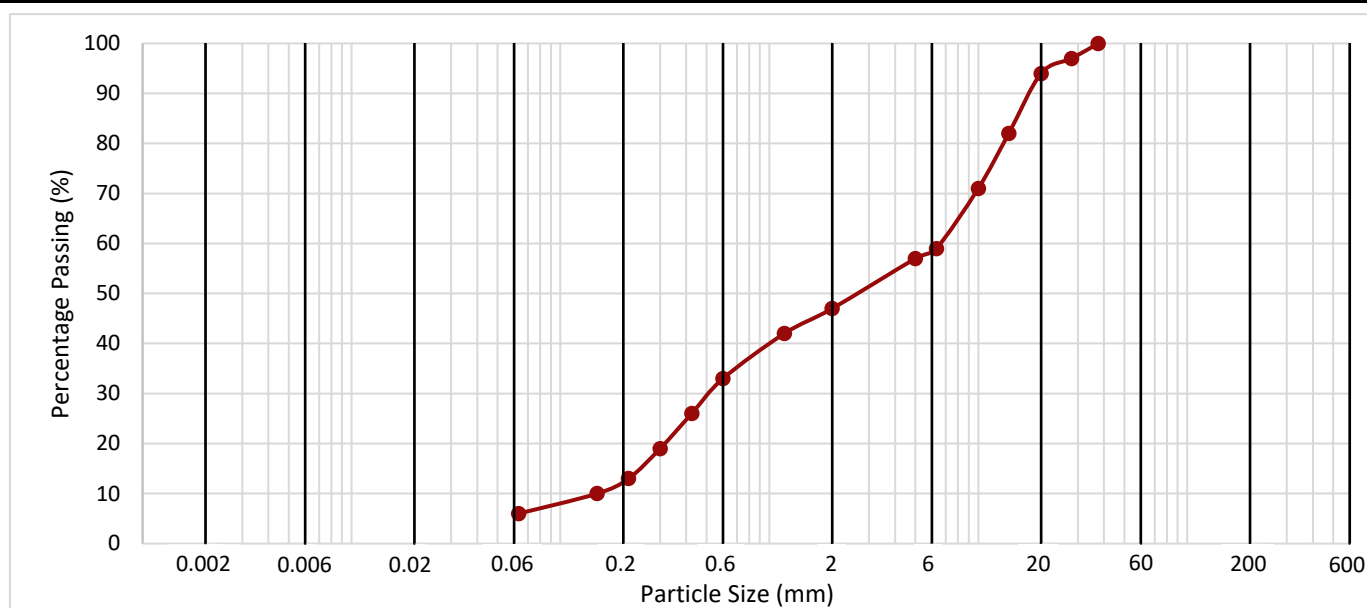


Contract	Observer Park
Serial No.	44496_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS03	2.50 - 2.80	U	3	Brown, black and white sub angular to sub rounded chert and rare yellowish brown sandstone slightly clayey slightly silty very sandy GRAVEL. Sand is brownish yellow.	

Method of Test: **Wet Sieve** Method of Pretreatment: **Not required**



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
	0.075		
	0.15		
	0.3		
	0.6		
	1.2		
	2.5		
	5		
	Particle Size (mm)	Passing (%)	Clay by Dry Mass (%)
	0.075		
	0.15		
	0.3		
	0.6		
	1.2		
	2.5		
	5		

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	47	41
1.18	42	
0.600	33	
0.425	26	
0.300	19	
0.212	13	
0.150	10	
0.063	6	

Fines By Dry Mass (%)	
<0.063mm	6

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		53
125		
90		
63		
50		
37.5	100	
28	97	
20	94	
14	82	
10	71	
6.3	59	
5	57	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:



TEST REPORT

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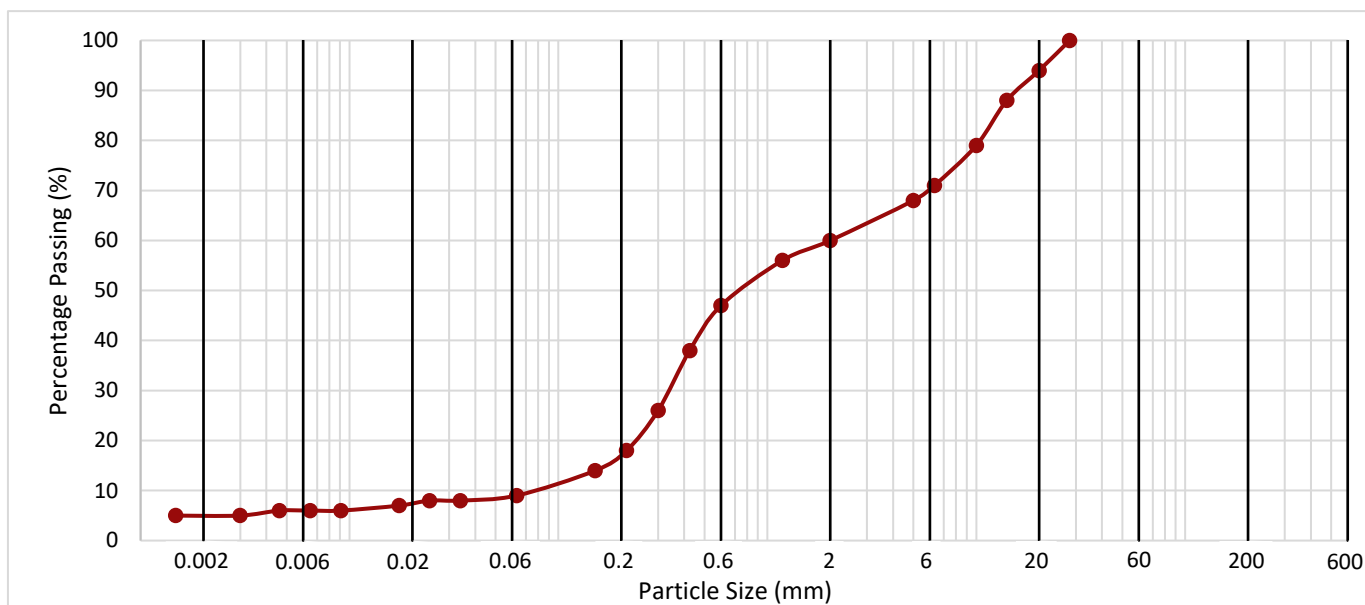


Contract	Observer Park
Serial No.	44496_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS05	1.00 - 2.00	U	2	Yellowish brown clayey slightly silty very gravelly SAND. Gravel is brown, black and white sub angular to sub rounded chert and rare yellowish brown sandstone.	

Method of Test: Wet Sieve + Hydrometer Method of Pretreatment: Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
	0.0339	8	4
	0.0242	8	
	0.0173	7	
	0.0091	6	Clay by Dry Mass (%)
	0.0065	6	
	0.0046	6	
	0.0030	5	5
	0.0015	5	

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	60	51
1.18	56	
0.600	47	
0.425	38	
0.300	26	
0.212	18	
0.150	14	
0.063	9	

Fines By Dry Mass (%)	
<0.063mm	9

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		40
125		
90		
63		
50		
37.5		
28	100	
20	94	
14	88	
10	79	
6.3	71	
5	68	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:



TEST REPORT

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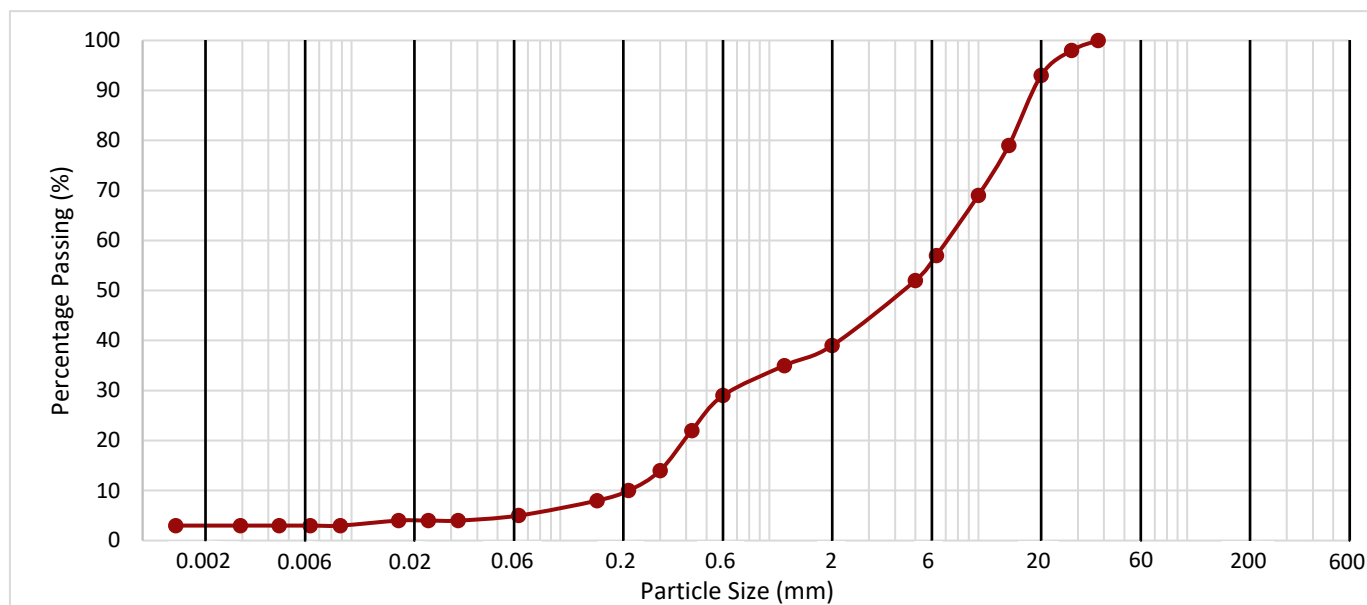


Contract	Observer Park
Serial No.	44496_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS07	1.00 - 1.50	U	2	Brown, black and white angular to sub rounded chert and rare light brown sandstone slightly clayey slightly silty very sandy GRAVEL. Sand is brownish yellow.	

Method of Test: Wet Sieve + Hydrometer Method of Pretreatment: Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
	0.0324	4	2
	0.0233	4	
	0.0168	4	
	0.0088	3	Clay by Dry Mass (%)
	0.0063	3	
	0.0045	3	
	0.0029	3	3
	0.0014	3	

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	39	34
1.18	35	
0.600	29	
0.425	22	
0.300	14	
0.212	10	
0.150	8	
0.063	5	

Fines By Dry Mass (%)	
<0.063mm	5

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		61
125		
90		
63		
50		
37.5	100	
28	98	
20	93	
14	79	
10	69	
6.3	57	
5	52	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:



TEST REPORT

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Contract	Observer Park
Serial No.	44496_1

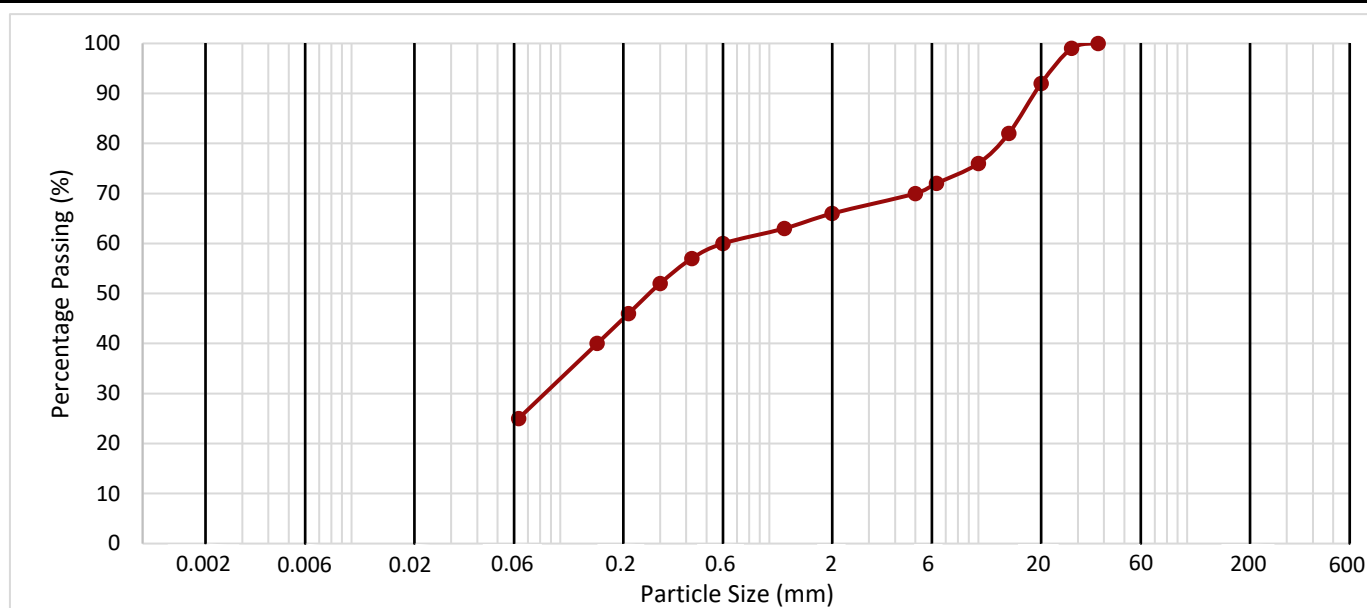
DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS09	0.60 - 0.95	U	1	Greyish brown slightly gravelly sandy silty CLAY/ very clayey SAND. Gravel is brown, black and white angular to sub rounded chert.	Description based on possible engineering behaviour.

Method of Test: Wet Sieve

Method of Pretreatment:

Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
	2.00	66	
	1.18	63	
	0.600	60	
	0.425	57	
	0.300	52	Clay by Dry Mass (%)
	0.212	46	
	0.150	40	
	0.063	25	

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	66	41
1.18	63	
0.600	60	
0.425	57	
0.300	52	
0.212	46	
0.150	40	
0.063	25	

Fines By Dry Mass (%)	
<0.063mm	25

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		34
125		
90		
63		
50		
37.5	100	
28	99	
20	92	
14	82	
10	76	
6.3	72	
5	70	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:



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Serial No.	44496_1

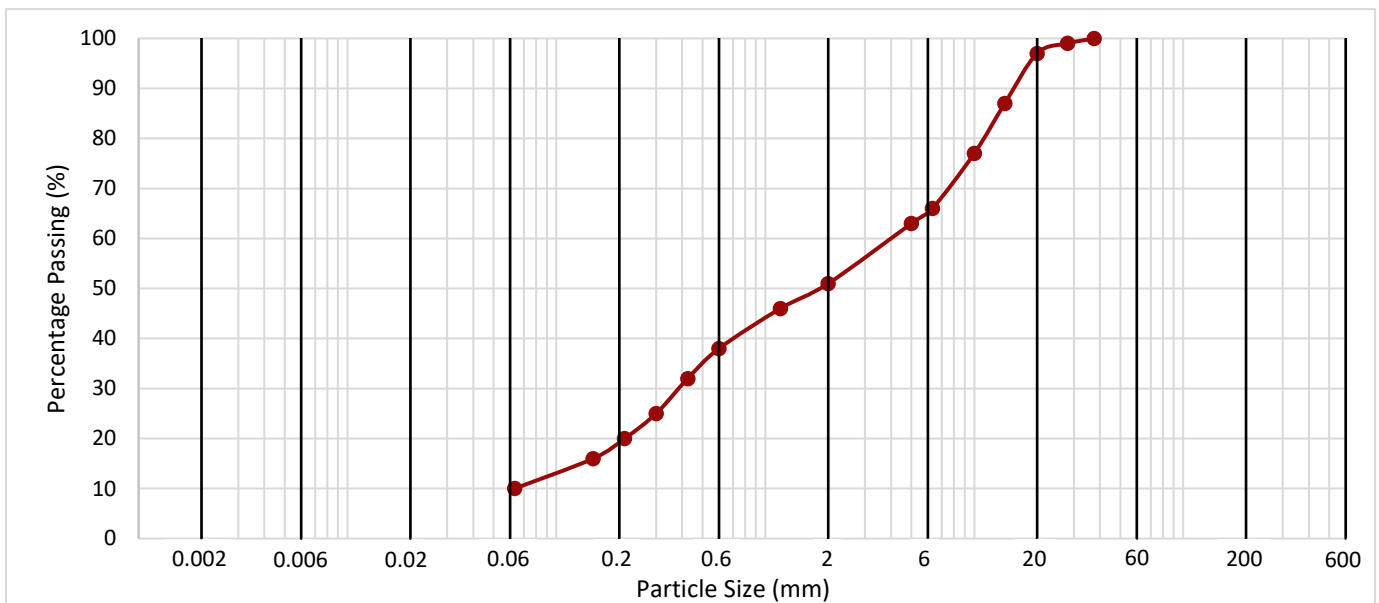
DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS10	1.00 - 2.00	U	2	Brown, black and white angular to sub rounded clayey slightly silty very sandy GRAVEL. Sand is yellowish brown.	

Method of Test: Wet Sieve

Method of Pretreatment:

Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
	2.00		
	1.18		
	0.600		
	0.425		
	0.300		
	0.212		
	0.150		
	0.063		
	Particle Size (mm)	Passing (%)	Clay by Dry Mass (%)
	2.00		
	1.18		
	0.600		
	0.425		
	0.300		
	0.212		
	0.150		
	0.063		

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	51	41
1.18	46	
0.600	38	
0.425	32	
0.300	25	
0.212	20	
0.150	16	
0.063	10	

Fines By Dry Mass (%)	
<0.063mm	10

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		49
125		
90		
63		
50		
37.5	100	
28	99	
20	97	
14	87	
10	77	
6.3	66	
5	63	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 18/04/2024

Contract:	Observer Park
Serial No:	44496_1

DETERMINATION OF THE SULPHATE CONTENT AND pH OF SOIL AND GROUNDWATER

Borehole / Pit No.	Depth (m)	Sample		Conc. of Soluble SO ₃		Calc'd	pH Value	% Sample Passing 2mm Sieve	Description	Remarks
		Type	Ref.	Water Soluble 2:1 (g/L)	Ground Water (g/L)	Conc. Of SO ₄ (g/L)				
WS01	0.30 - 1.00	U	1	0.12		0.15	6.0	91	Pale olive and locally brown slightly gravelly sandy silty CLAY. Gravel is brown, black and white angular to rounded chert and rare brown and white quartzite and chalk.	
WS01	2.60 - 3.00	U	3	0.26		0.31	7.2	100	Firm dark grey CLAY.	
WS02	0.45 - 0.70	U	1	0.08		0.09	7.1	73	Very dark greyish brown slightly gravelly slightly sandy slightly organic silty CLAY with rare recently active and decayed roots. Gravel is brown, black and white fine to coarse angular to sub rounded chert.	
WS03	0.30 - 0.45	U	1	0.08		0.10	7.3	82	Soft light olive brown slightly gravelly slightly sandy silty CLAY with rare recently active roots. Gravel is brown, black, white and red fine to coarse angular to sub rounded brick and chert.	
WS03	2.50 - 2.80	U	3	0.06		0.07	7.2	47	Brown, black and white sub angular to sub rounded chert and rare yellowish brown sandstone slightly clayey slightly silty very sandy GRAVEL. Sand is brownish yellow.	
WS03	2.80 - 3.00	U	3	0.22		0.26	7.2	100	Firm dark grey CLAY.	
WS05	0.10 - 0.45	U	1	0.02		0.02	6.3	57	Dark greyish brown slightly sandy gravelly slightly organic silty CLAY with frequent recently active and decayed roots. Gravel is brown, black and white fine to coarse angular to sub rounded chert.	
WS05	1.00 - 2.00	U	2	0.04		0.05	6.7	60	Yellowish brown clayey slightly silty very gravelly SAND. Gravel is brown, black and white sub angular to sub rounded chert and rare yellowish brown sandstone.	

Method of Preparation:	BS1377: Part 1: 2016: 8.5, BS1377: Part 3: 1990: 5.3 Soil/Water Extract, 5.4 Groundwater
Method of Test:	BS1377: Part 3: 1990: 5.5
Type of Sample Key:	U= Undisturbed, B= Bulk, D= Disturbed, J= Jar, W= Water, SPT= Split Spoon Sample, C= Core Cutter
Comments:	Test not UKAS accredited
Remarks to Include:	Sample disturbance, loss of moisture, variation from test procedure, location, and origin of test specimen within original sample. Oven drying temperature if not 105-110C.



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 18/04/2024

Contract:	Observer Park
Serial No:	44496_1

DETERMINATION OF THE SULPHATE CONTENT AND pH OF SOIL AND GROUNDWATER

Borehole / Pit No.	Depth (m)	Sample		Conc. of Soluble SO ₃		Calc'd	pH Value	% Sample Passing 2mm Sieve	Description	Remarks
		Type	Ref.	Water Soluble 2:1 (g/L)	Ground Water (g/L)	Conc. Of SO ₄ (g/L)				
WS07	0.40 - 0.90	U	1	0.06		0.07	5.1	95	Soft mottled light bluish grey, orangish brown and olive yellow slightly gravelly slightly sandy silty CLAY with occasional recently active and decayed roots. Gravel is brown, black and white fine to coarse angular to sub rounded chert.	
WS07	2.85 - 3.00	U	3	0.31		0.37	7.2	100	Soft dark grey CLAY with rare orange silt partings and rare shell traces.	
WS09	0.10 - 0.60	U	1	0.06		0.07	6.6	84	Very dark brownish grey slightly gravelly slightly sandy silty CLAY with occasional recently active and decayed roots. Gravel is brown, black and white fine to coarse angular to sub rounded chert.	
WS10	1.00 - 2.00	U	2	0.08		0.10	6.7	51	Brown, black and white angular to sub rounded clayey slightly silty very sandy GRAVEL. Sand is yellowish brown.	

Method of Preparation: BS1377: Part 1: 2016: 8.5, BS1377: Part 3: 1990: 5.3 Soil/Water Extract, 5.4 Groundwater
Method of Test: BS1377: Part 3: 1990: 5.5
Type of Sample Key: U= Undisturbed, B= Bulk, D= Disturbed, J= Jar, W= Water, SPT= Split Spoon Sample, C= Core Cutter
Comments: **Test not UKAS accredited**
Remarks to Include: Sample disturbance, loss of moisture, variation from test procedure, location, and origin of test specimen within original sample. Oven drying temperature if not 105-110C.

APPENDIX D

Land Use Criteria Analysis & Contamination Testing Laboratory Results

- Criteria Analysis for Soil
- Laboratory Results
- WAC Certificates

		Hole Identifier		WS01			WS02		WS03			WS04	WS05		WS06	WS07							
		Sample Identifier		ES1	U1	U3	ES1	U1	ES1	U1	U3	U3	ES1	ES1	U1	U2	ES1	ES1	U1	U3			
		Date Sampled		02/04/2024			02/04/2024		26/03/2024		02/04/2024		25/03/2024			02/04/2024	02/04/2024	27/03/2024		02/04/2024	02/04/2024	25/03/2024	
		Sample Depth (mbgl)		0.3 - 0.4	0.3 - 1.0	2.6 - 3.0	0.1 - 0.2	0.45 - 0.7	0.3 - 0.4	0.3 - 0.45	2.5 - 2.8	2.8 - 3.0	0.7 - 0.8	0.2 - 0.3	0.1 - 0.45	1.0 - 2.0	1.3 - 1.4	0.4 - 0.5	0.4 - 0.9	2.85 - 3.0			
Determinand		Assessment Criteria Source	Detec Limit (mg/kg)	Assessment Criteria (mg/kg) (Commercial)	Diamictic CLAY (RTD)	Diamictive CLAY (RTD)	Silty CLAY (LC)	MG (peaty TOPSOIL)	MG (peaty BACKFILL)	MG (clay backfill)	MG (clay backfill)	Slightly clayey S&G (RTD)	Silty CLAY (LC)	MG (peaty TOPSOIL)	MG (peaty TOPSOIL)	MG (peaty TOPSOIL)	Slightly clayey S&G (RTD)	Slightly clayey S&G (RTD)	MG (peaty backfill)	MG (peaty backfill)	Silty CLAY (LC)		
Metals/Transition Metals	Group A : In-organic Contaminants Hazardous to Human Health																						
	Arsenic - Inorganic	CL:AIRE C4SL	1	640	9.1			8.3		13				45	6			11	5.6				
	Beryllium - Total	LQM/CIEH S4UL	0.06	12	0.53			0.42		0.53				0.78	0.2			1	0.24				
	Boron - Total	LQM/CIEH S4UL	1	240000	4.8			6.2		8.8				9.4	4			8.8	4.2				
	Cadmium - Total	LQM/CIEH S4UL	0.2	190	0.02			0.2		0.2				0.2	0.2			0.2	0.2				
	Chromium - VI	LQM/CIEH S4UL	1.8	33	1.8			1.8		1.8				1.8	1.8			1.8	1.8				
	Chromium - Total (III)	LQM/CIEH S4UL	1	8600	17			17		25				34	12			28	11				
	Copper - Total	LQM/CIEH S4UL	1	68000	3.6			6.7		12				9.5	9.4			9.9	6				
	Lead - Total	CL:AIRE C4SL	1	2300	11			15		18				8.4	21			7.7	12				
	Mercury - Inorganic	LQM/CIEH S4UL	0.3	1100	0.3			0.3		0.3				0.3	0.3			0.3	3				
	Nickel - Total	LQM/CIEH S4UL	1	980	4.9			6.7		8.7				9.4	4.7			23	3.8				
	Selenium - Total	LQM/CIEH S4UL	1	12000	1			1		1				1	1			1	1				
	Vanadium - Total	LQM/CIEH S4UL	1	9000	31			26		39				73	16			43	17				
Zinc - Total	LQM/CIEH S4UL	1	730000	34			40		49				22	23			25	16					
Non-Metals	Non Metals:																						
	Phenols - Monohydric (SOM dependent: @ 1%)	LQM/CIEH S4UL	1	440	1			1		1				1	1			1	1				
	Cyanide - Free	Dutch Int	1	20	1			1		1				1	1			1	1				
	Sulphide	ICRCL	1	1000	1			1		2.8				1	1			1	1				
Polycyclic Aromatic Hydrocarbons	Organics : Hazardous to Health																						
	* Naphthalene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	190	0.05			0.05		0.05				0.05	0.05			0.05	0.05				
	Acenaphthylene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	83000	0.05			0.05		0.05				0.05	0.05			0.05	0.05				
	Acenaphthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	84000	0.05			0.05		0.05				0.05	0.05			0.05	0.05				
	Fluorene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	63000	0.05			0.05		0.05				0.05	0.05			0.05	0.05				
	* Phenanthrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	22000	0.05			0.05		0.24				0.05	0.05			0.05	0.05				
	* Anthracene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	520000	0.05			0.05		0.09				0.05	0.05			0.05	0.05				
	* Fluoranthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	23000	0.05			0.05		0.84				0.05	0.07			0.07	0.07				
	Pyrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	54000	0.05			0.05		0.81				0.05	0.05			0.05	0.05				
	* Benzo[a]anthracene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	170	0.05			0.05		0.56				0.05	0.05			0.05	0.05				
	* Chrysene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	350	0.05			0.05		0.55				0.05	0.05			0.05	0.05				
	Benzo[b]fluoranthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	44	0.05			0.05		0.73				0.05	0.05			0.05	0.05				
	* Benzo[k]fluoranthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	1200	0.05			0.05		0.38				0.05	0.05			0.05	0.05				
	* Benzo[a]pyrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	35	0.05			0.05		0.63				0.05	0.05			0.05	0.05				
	* Indeno[123-cd]pyrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	500	0.05			0.05		0.36				0.05	0.05			0.05	0.05				
	Dibenzo[ah]anthracene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	3.5	0.05			0.05		0.05				0.05	0.05			0.05	0.05				
	* Benzo[ghi]perylene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	3900	0.05			0.05		0.39				0.05	0.05			0.05	0.05				
	Total (US EPA 16) PAH (sum of 10*)		DUTCH INT	0.8	40	0.5			0.05		4.09				0.5	0.52			0.52	0.52			
Total Petroleum Hydrocarbons (Fuel/Oil) (TPH)	Aliphatics	C5 - C6 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.02	3200	0.02		0.02		0.02				0.02	0.02			0.02	0.02				
		C6 - C8 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.02	7800	0.02		0.02		0.02				0.02	0.02			0.02	0.02				
		C8-C10 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.05	2000	0.05		0.05		0.05				0.05	0.05			0.05	0.05				
		C10-C12 (SOM dependent: @ 1%)	LQM/CIEH GAC	1	9700	1		1		1				1	1			1	1				
		C12-C16 (SOM dependent: @ 1%)	LQM/CIEH GAC	2	59000	2		2		2				2	2			2	2				
		C16-C21 (SOM dependent: @ 1%)	LQM/CIEH GAC	8	800000	8		8		8				8	8			8	8				
		C21-C35 (SOM dependent: @ 1%)	LQM/CIEH GAC	8	800000	8		8		8				8	8.1			8	8				
		C5-C7 (Benzene) (SOM dependent: @ 1%)	LQM/CIEH GAC	0.01	26000	0.01		0.01		0.01				0.01	0.01			0.01	0.01				
	Aromatics	C7 - C8 (Toluene) (SOM dependent: @ 1%)	LQM/CIEH GAC	0.01	56000	0.01		0.01		0.01				0.01	0.01			0.01	0.01				
		C8-C10 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.05	3500	0.05		0.05		0.05				0.05	0.05			0.05	0.05				
		C10-C12 (SOM dependent: @ 1%)	LQM/CIEH GAC	1	16000	1		1		1				1	1			1	1				
		C12-C16 (SOM dependent: @ 1%)	LQM/CIEH GAC	2	36000	2		2		2				2	2			2	2				
		C16-C21 (SOM dependent: @ 1%)	LQM/CIEH GAC	10	28000	10		10		10				10	10			10	10				
		C21-C35 (SOM dependent: @ 1%)	LQM/CIEH GAC	10	28000	10		10		11				10	10			10	10				
BTX (VOCs)	Benzene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.005	27	0.005		0.005		0.005				0.005	0.005			0.005	0.005					
	Ethylbenzene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.005	5700	0.005		0.005		0.005				0.005	0.005			0.005	0.005					
	MTBE (SOM dependent: @ 1%)	CL:AIRE C4SL	0.005	7900	0.005		0.005		0.005				0.005	0.005			0.005	0.005					
	Toluene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.005	56000	0.005		0.005		0.005				0.005	0.005			0.005	0.005					
	m&p Xylene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.005	5900	0.005		0.005		0.005				0.005	0.005			0.005	0.005					
	O-Xylene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.005	6600	0.005		0.005		0.005				0.005	0.005			0.005	0.005					
BRE SD1 - Brownfield : mobile (groundwater)				Sulphate Design Class: DS-1 / Aggressive Chemical Environmental : AC-3z / Concrete Design Class: DC-3z (consider zoning)																			
pH	BRE SD1		5.5	6.8	6	7.2	6.3	7.1	8.2	7.3	7.2	7.2	5.4	6.6	6.3	6.7	6.3	6.4	5.1	7.2			
Total Sulphate as SO ₄ - %	BRE SD1		0.24%	0.042%									0.030%				0.015%						
Sulphate (H ₂ O soluble) - mg/l	BRE SD1	1.25	500	159	150	310		90		100	70	260	38.3		20	50	29.3		70	370			
Others:																							
Soil Organic Matter (%)	None	0.1	None	1.4%			3.7%		1.2%				0.7%	5.3%			0.3%	2.7%					
Moisture Content (%)	None	0.01	None	12%			20%		13%				15%	21%			11%	17%					
Asbestos ID	None		None	ND			ND		-				-	-			-	-					
Asbestos Quantification	None		None																				



				WS09		WS10				
Hole Identifier				ES1	U1	ES1	U2			
Sample Identifier				02/04/2024	26/03/2024	02/04/2024	25/03/2024			
Date Sampled				0.1 - 0.2	0.1 - 0.6	0.5 - 0.6	1.0 - 2.0			
Sample Depth (mbgl)										
Determinand				Assessment Criteria Source	Detect Limit (mg/kg)	Assessment Criteria (mg/kg) (Commercial)	MG (peaty TOPSOIL)	MG (peaty TOPSOIL)	Diamictic CLAY (RTD)	Slightly clayey S&G (RTD)
Metals/Transition Metals	Group A : In-organic Contaminants Hazardous to Human Health									
	Arsenic - Inorganic	CL:AIRE C4SL	1	640	5.8		11			
	Beryllium - Total	LQM/CIEH S4UL	0.06	12	0.18		0.4			
	Boron - Total	LQM/CIEH S4UL	1	240000	4		8.5			
	Cadmium - Total	LQM/CIEH S4UL	0.2	190	0.2		0.2			
	Chromium - VI	LQM/CIEH S4UL	1.8	33	1.8		1.8			
	Chromium - Total (III)	LQM/CIEH S4UL	1	8600	12		19			
	Copper - Total	LQM/CIEH S4UL	1	68000	13		5.3			
	Lead - Total	CL:AIRE C4SL	1	2300	22		7.1			
	Mercury - Inorganic	LQM/CIEH S4UL	0.3	1100	0.3		0.3			
	Nickel - Total	LQM/CIEH S4UL	1	980	4.6		6.2			
	Selenium - Total	LQM/CIEH S4UL	1	12000	1		1			
	Vanadium - Total	LQM/CIEH S4UL	1	9000	15		34			
Zinc - Total	LQM/CIEH S4UL	1	730000	32		20				
Non-Metals	Non Metals:									
	Phenols - Monohydric (SOM dependent: @ 1%)	LQM/CIEH S4UL	1	440	1		1			
	Cyanide - Free	Dutch Int	1	20	1		1			
	Sulphide	ICRCL	1	1000	1		1			
Organics : Hazardous to Health										
Polycyclic Aromatic Hydrocarbons	* Naphthalene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	190	0.05		0.05			
	Acenaphthylene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	83000	0.05		0.05			
	Acenaphthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	84000	0.05		0.05			
	Fluorene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	63000	0.05		0.05			
	* Phenanthrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	22000	0.05		0.05			
	* Anthracene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	520000	0.05		0.05			
	* Fluoranthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	23000	0.07		0.07			
	Pyrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	54000	0.05		0.05			
	* Benzo[a]anthracene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	170	0.05		0.05			
	* Chrysene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	350	0.05		0.05			
	Benzo[b]fluoranthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	44	0.05		0.05			
	* Benzo[k]fluoranthene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	1200	0.05		0.05			
	* Benzo[a]pyrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	35	0.05		0.05			
	* Indeno[123-cd]pyrene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	500	0.05		0.05			
	Dibenzo[ah]anthracene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	3.5	0.05		0.05			
	* Benzo[ghi]perylene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.05	3900	0.05		0.05			
	Total (US EPA 16) PAH (sum of 10*)				DUTCH INT	0.8	40	0.52	0.52	
Total Petroleum Hydrocarbons (Fuel/Oil) (TPH)	Aliphatics	C5 - C6 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.02	3200	0.02	0.02			
		C6 - C8 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.02	7800	0.02	0.02			
		C8-C10 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.05	2000	0.05	0.05			
		C10-C12 (SOM dependent: @ 1%)	LQM/CIEH GAC	1	9700	1	1			
		C12-C16 (SOM dependent: @ 1%)	LQM/CIEH GAC	2	59000	2	2			
		C16-C21 (SOM dependent: @ 1%)	LQM/CIEH GAC	8	800000	8	8			
		C21-C35 (SOM dependent: @ 1%)	LQM/CIEH GAC	8	800000	8	8			
	Aromatics	C5-C7 (Benzene) (SOM dependent: @ 1%)	LQM/CIEH GAC	0.01	26000	0.01	0.01			
		C7 - C8 (Toluene) (SOM dependent: @ 1%)	LQM/CIEH GAC	0.01	56000	0.01	0.01			
		C8-C10 (SOM dependent: @ 1%)	LQM/CIEH GAC	0.05	3500	0.05	0.05			
		C10-C12 (SOM dependent: @ 1%)	LQM/CIEH GAC	1	16000	1	1			
		C12-C16 (SOM dependent: @ 1%)	LQM/CIEH GAC	2	36000	2	2			
		C16-C21 (SOM dependent: @ 1%)	LQM/CIEH GAC	10	28000	10	10			
		C21-C35 (SOM dependent: @ 1%)	LQM/CIEH GAC	10	28000	10	10			
	BTX (VOCs)	Benzene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.005	27	0.005	0.005			
		Ethylbenzene (SOM dependent: @ 1%)	LQM/CIEH S4UL	0.005	5700	0.005	0.005			
		MTBE (SOM dependent: @ 1%)	CL:AIRE C4SL	0.005	7900	0.005	0.005			
Toluene (SOM dependent: @ 1%)		LQM/CIEH S4UL	0.005	56000	0.005	0.005				
M&P Xylene (SOM dependent: @ 1%)		LQM/CIEH S4UL	0.005	5900	0.005	0.005				
O-Xylene (SOM dependent: @ 1%)		LQM/CIEH S4UL	0.005	6600	0.005	0.005				
BRE SD1 - Brownfield : mobile (groundwater)										
pH		BRE SD1	5.5	6.6	6.6	6.8	6.7			
Total Sulphate as SO ₄ %		BRE SD1	0.24%			0.041%				
Sulphate (H ₂ O soluble) - mg/l		BRE SD1	1.25	500		70	128	100		
Others:										
Soil Organic Matter (%)		None	0.1	None	6.7%		0.5%			
Moisture Content (%)		None	0.01	None	13%		8%			
Asbestos ID		None		None	ND		ND			
Asbestos Quantification		None		None						

PRP[®]

environmental

US ₉₅ =	20.426	T =	2.340
US ₉₅ =	0.646	T =	1.507
US ₉₅ =	7.972	T =	1.140
US ₉₅ =	0.217	T =	0.333
US ₉₅ =	1.800	T =	#DIV/0!
US ₉₅ =	24.396	T =	1.573
US ₉₅ =	10.337	T =	1.217
US ₉₅ =	17.113	T =	1.308
US ₉₅ =	1.158	T =	2.667
US ₉₅ =	11.682	T =	2.225
US ₉₅ =	1.000	T =	#DIV/0!
US ₉₅ =	43.968	T =	1.769
US ₉₅ =	35.598	T =	1.625
US ₉₅ =	1.000	T =	#DIV/0!
US ₉₅ =	1.000	T =	#DIV/0!
US ₉₅ =	1.572	T =	2.667
US ₉₅ =	0.050	T =	#DIV/0!
US ₉₅ =	0.050	T =	#DIV/0!
US ₉₅ =	0.050	T =	#DIV/0!
US ₉₅ =	0.050	T =	#DIV/0!
US ₉₅ =	0.110	T =	2.667
US ₉₅ =	0.063	T =	2.667
US ₉₅ =	0.310	T =	2.621
US ₉₅ =	0.292	T =	2.667
US ₉₅ =	0.212	T =	2.667
US ₉₅ =	0.209	T =	2.667
US ₉₅ =	0.266	T =	2.667
US ₉₅ =	0.155	T =	2.667
US ₉₅ =	0.234	T =	2.667
US ₉₅ =	0.149	T =	2.667
US ₉₅ =	0.050	T =	#DIV/0!
US ₉₅ =	0.158	T =	2.667
US ₉₅ =	1.617	T =	1.907
US ₉₅ =	0.020	T =	#DIV/0!
US ₉₅ =	0.020	T =	#DIV/0!
US ₉₅ =	0.050	T =	#DIV/0!
US ₉₅ =	1.000	T =	#DIV/0!
US ₉₅ =	2.000	T =	#DIV/0!
US ₉₅ =	8.000	T =	#DIV/0!
US ₉₅ =	8.032	T =	2.667
US ₉₅ =	0.010	T =	#DIV/0!
US ₉₅ =	0.010	T =	#DIV/0!
US ₉₅ =	0.050	T =	#DIV/0!
US ₉₅ =	1.000	T =	#DIV/0!
US ₉₅ =	2.000	T =	#DIV/0!
US ₉₅ =	10.000	T =	#DIV/0!
US ₉₅ =	10.318	T =	2.667
US ₉₅ =	0.005	T =	#DIV/0!
US ₉₅ =	0.005	T =	#DIV/0!
US ₉₅ =	0.005	T =	#DIV/0!
US ₉₅ =	0.005	T =	#DIV/0!
US ₉₅ =	0.005	T =	#DIV/0!
US ₉₅ =	0.005	T =	#DIV/0!

1% SOM is assumed unless SOM% dictates other.

Statistical assessment in accordance with CLR7, 2002.

NB Where site-specific soil screening values (SSSV) given, based on Environment Agency CLEA methodology.

Above lowest BRE SD1 category

Not Detected

Result greater than the GAC

LoD higher than criterion

Statistical Outlier

ND

PRP Limited
Catherine House
Old Harborough Road
Brixworth
NN6 9BX

i2 Analytical Ltd.
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Croxley Green
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Analytical Report Number : 24-012521

Project / Site name:	Observer Park	Samples received on:	04/04/2024
Your job number:	64065	Samples instructed on/ Analysis started on:	04/04/2024
Your order number:	64065	Analysis completed by:	10/04/2024
Report Issue Number:	1	Report issued on:	15/04/2024
Samples Analysed:	9 soil samples		

Signed: 

Joanna Szwagrak
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-012521
Project / Site name: Observer Park
Your Order No: 64065

Lab Sample Number				162679	162680	162681	162682	162683
Sample Reference				WS01	WS02	WS03	WS04	WS05
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30-0.40	0.10-0.20	0.30-0.40	0.70-0.80	0.20-0.30
Date Sampled				02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Time Taken				0900	0900	0900	0900	0900
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	20	13	15	21
Total mass of sample received	kg	0.1	NONE	0.4	0.4	0.3	0.4	0.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	KWB	KWB	-	-	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	6.8	6.3	8.2	5.4	6.6
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.042	-	-	0.03	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	320	-	-	77	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	159	-	-	38.3	-
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	2.8	< 1.0	< 1.0
Total Sulphur	mg/kg	50	MCERTS	240	-	-	150	-
Total Sulphur	%	0.005	MCERTS	0.024	-	-	0.015	-
Organic Matter (automated)	%	0.1	MCERTS	1.4	3.7	1.2	0.7	5.3

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.24	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.84	< 0.05	0.07
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.81	< 0.05	0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.56	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.55	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.73	< 0.05	0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.38	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.63	< 0.05	0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.36	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.39	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	5.63	< 0.80	< 0.80
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Analytical Report Number: 24-012521

Project / Site name: Observer Park

Your Order No: 64065

Lab Sample Number	162679	162680	162681	162682	162683
Sample Reference	WS01	WS02	WS03	WS04	WS05
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.30-0.40	0.10-0.20	0.30-0.40	0.70-0.80	0.20-0.30
Date Sampled	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Time Taken	0900	0900	0900	0900	0900
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.1	8.3	13	45	6
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.53	0.42	0.53	0.78	0.2
Boron (total)	mg/kg	1	MCERTS	4.8	6.2	8.8	9.4	4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	17	25	34	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	3.6	6.7	12	9.5	9.4
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11	15	18	8.4	21
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	4.9	6.7	8.7	9.4	4.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31	26	39	73	16
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	34	40	49	22	23

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	8.1
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	11	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	11	< 10	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-012521

Project / Site name: Observer Park

Your Order No: 64065

Lab Sample Number	162684	162685	162686	162687
Sample Reference	WS06	WS07	WS09	WS10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.30-1.40	0.40-0.50	0.10-0.20	0.50-0.60
Date Sampled	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Time Taken	0900	0900	0900	0900
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	17	13	7.7
Total mass of sample received	kg	0.1	NONE	0.4	0.3	0.4	0.5

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	-	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	-	-	KWB	KWB

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	6.3	6.4	6.6	6.8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.015	-	-	0.041
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	59	-	-	260
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	29.3	-	-	128
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphur	mg/kg	50	MCERTS	83	-	-	160
Total Sulphur	%	0.005	MCERTS	0.008	-	-	0.016
Organic Matter (automated)	%	0.1	MCERTS	0.3	2.7	6.7	0.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80
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Analytical Report Number: 24-012521

Project / Site name: Observer Park

Your Order No: 64065

Lab Sample Number	162684	162685	162686	162687
Sample Reference	WS06	WS07	WS09	WS10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.30-1.40	0.40-0.50	0.10-0.20	0.50-0.60
Date Sampled	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Time Taken	0900	0900	0900	0900
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	5.6	5.8	11
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1	0.24	0.18	0.4
Boron (total)	mg/kg	1	MCERTS	8.8	4.2	4	8.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	11	12	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.9	6	13	5.3
Lead (aqua regia extractable)	mg/kg	1	MCERTS	7.7	12	22	7.1
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	3.8	4.6	6.2
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	43	17	15	34
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	25	16	32	20

Petroleum Hydrocarbons

TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 24-012521

Project / Site name: Observer Park

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
162679	WS01	None Supplied	0.30-0.40	Brown sandy clay
162680	WS02	None Supplied	0.10-0.20	Brown loam and clay with gravel and vegetation
162681	WS03	None Supplied	0.30-0.40	Brown loam and clay with gravel and vegetation
162682	WS04	None Supplied	0.70-0.80	Brown sandy clay with gravel
162683	WS05	None Supplied	0.20-0.30	Brown loam and clay with gravel and vegetation
162684	WS06	None Supplied	1.30-1.40	Brown sandy clay with gravel
162685	WS07	None Supplied	0.40-0.50	Brown sandy clay with gravel
162686	WS09	None Supplied	0.10-0.20	Brown loam and clay with gravel and vegetation
162687	WS10	None Supplied	0.50-0.60	Brown sandy clay with gravel

Analytical Report Number : 24-012521

Project / Site name: Observer Park

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS

Analytical Report Number : 24-012521

Project / Site name: Observer Park

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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Analytical Report Number : 24-012489

Project / Site name:	Observer Park	Samples received on:	04/04/2024
Your job number:	64065	Samples instructed on/ Analysis started on:	04/04/2024
Your order number:	64065	Analysis completed by:	15/04/2024
Report Issue Number:	1	Report issued on:	15/04/2024
Samples Analysed:	3 soil samples - 3 2stage samples		



Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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Waste Acceptance Criteria Analytical Results

Report No:	24-012489						
					Client: PRPLTD		
Location	Observer Park						
Lab Reference (Sample Number)	162595				Landfill Waste Acceptance Criteria		
Sampling Date	02/04/2024				Limits		
Sample ID	WS01 D1				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	0.10-0.20						
Solid Waste Analysis							
TOC (%)**	1.4				3%	5%	6%
Loss on Ignition (%) **	3.4				--	--	10%
BTEX (µg/kg)**	< 5.0				6000	--	--
Sum of PCBs (mg/kg)**	< 0.007				1	--	--
Mineral Oil (mg/kg) EH ID CU AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	5.32				100	--	--
pH (units)**	7.5				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	2.0				--	To be evaluated	To be evaluated
Eluate Analysis		2:1	8:1		Limit values for compliance leaching test		
(BS EN 12457 - 3 preparation utilising end over end leaching procedure)				Cumulative 10:1	using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
	mg/l	mg/l		mg/kg			
Arsenic *	< 0.0020	< 0.0020		< 0.020	0.5	2	25
Barium *	0.074	0.033		0.39	20	100	300
Cadmium *	0.00013	< 0.00010		< 0.0010	0.04	1	5
Chromium *	< 0.00060	0.0032		0.028	0.5	10	70
Copper *	0.047	0.040		0.41	2	50	100
Mercury *	< 0.00070	< 0.0007		< 0.0070	0.01	0.2	2
Molybdenum *	0.014	0.0042		0.055	0.5	10	30
Nickel *	0.0050	0.0035		0.037	0.4	10	40
Lead *	< 0.0017	0.0063		0.054	0.5	10	50
Antimony *	0.0040	< 0.0020		< 0.020	0.06	0.7	5
Selenium *	< 0.0050	< 0.0050		< 0.050	0.1	0.5	7
Zinc *	0.019	0.018		0.18	4	50	200
Chloride *	7.2	< 4.0		20	800	15000	25000
Fluoride*	0.55	0.49		4.9	10	150	500
Sulphate *	1300	110		2600	1000	20000	50000
TDS*	1100	190		3100	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.16	< 0.13		< 0.50	1	-	-
DOC	24.1	12		139	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.6						
Dry Matter (%)	85						
Moisture (%)	15						
Stage 1							
Volume Eluate L2 (litres)	0.337						
Filtered Eluate VE1 (litres)	0.23						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation							
** = UKAS accredited (liquid eluate analysis only)							
** = MCERTS accredited							

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Report No:	24-012489						
					Client: PRPLTD		
Location	Observer Park						
Lab Reference (Sample Number)	162596				Landfill Waste Acceptance Criteria		
Sampling Date	02/04/2024				Limits		
Sample ID	WS03 D1				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	1.20-1.30						
Solid Waste Analysis							
TOC (%)**	0.2				3%	5%	6%
Loss on Ignition (%) **	1.6				--	--	10%
BTEX (µg/kg)**	< 5.0				6000	--	--
Sum of PCBs (mg/kg)**	< 0.007				1	--	--
Mineral Oil (mg/kg) EH ID CU AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	5.5				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	-15				--	To be evaluated	To be evaluated
Eluate Analysis					Limit values for compliance leaching test		
(BS EN 12457 - 3 preparation utilising end over end leaching procedure)	2:1	8:1		Cumulative 10:1	using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
	mg/l	mg/l		mg/kg			
Arsenic *	< 0.0020	< 0.0020		< 0.020	0.5	2	25
Barium *	0.023	0.0034		0.061	20	100	300
Cadmium *	0.00015	< 0.00010		< 0.0010	0.04	1	5
Chromium *	0.00087	< 0.00060		< 0.0060	0.5	10	70
Copper *	0.032	0.0042		0.080	2	50	100
Mercury *	< 0.00070	< 0.0007		< 0.0070	0.01	0.2	2
Molybdenum *	< 0.0014	< 0.0014		< 0.014	0.5	10	30
Nickel *	0.019	0.0020		0.044	0.4	10	40
Lead *	< 0.0017	< 0.0017		< 0.017	0.5	10	50
Antimony *	0.0027	< 0.0020		< 0.020	0.06	0.7	5
Selenium *	< 0.0050	< 0.0050		< 0.050	0.1	0.5	7
Zinc *	0.035	0.012		0.15	4	50	200
Chloride *	4.1	< 4.0		< 15	800	15000	25000
Fluoride*	0.11	< 0.050		0.40	10	150	500
Sulphate *	48	8.2		140	1000	20000	50000
TDS*	92	16		260	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.16	< 0.13		< 0.50	1	-	-
DOC	4.74	3.0		32.8	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.6						
Dry Matter (%)	89						
Moisture (%)	11						
Stage 1							
Volume Eluate L2 (litres)	0.327						
Filtered Eluate VE1 (litres)	0.24						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.					* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation					** = MCERTS accredited		

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Waste Acceptance Criteria Analytical Results

Report No:	24-012489						
Location	Observer Park						
Lab Reference (Sample Number)	162597						
Sampling Date	02/04/2024						
Sample ID	WS04 D1						
Depth (m)	0.70-0.80						
Solid Waste Analysis							
TOC (%)**	2.8				3%	5%	6%
Loss on Ignition (%) **	5.8				--	--	10%
BTEX (µg/kg)**	< 5.0				6000	--	--
Sum of PCBs (mg/kg)**	< 0.007				1	--	--
Mineral Oil (mg/kg) EH ID CU AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	7.6				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	0.51				--	To be evaluated	To be evaluated
Eluate Analysis	2:1	8:1		Cumulative 10:1	Limit values for compliance leaching test		
(BS EN 12457 - 3 preparation utilising end over end leaching procedure)	mg/l	mg/l		mg/kg	using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0040	< 0.0020		< 0.020	0.5	2	25
Barium *	0.014	0.0044		0.050	20	100	300
Cadmium *	< 0.00010	< 0.00010		< 0.0010	0.04	1	5
Chromium *	0.0039	0.0018		0.020	0.5	10	70
Copper *	0.087	0.067		0.68	2	50	100
Mercury *	< 0.00070	< 0.0007		< 0.0070	0.01	0.2	2
Molybdenum *	0.0053	0.0014		0.017	0.5	10	30
Nickel *	0.0051	0.0024		0.026	0.4	10	40
Lead *	0.012	0.0031		0.037	0.5	10	50
Antimony *	< 0.0020	< 0.0020		< 0.020	0.06	0.7	5
Selenium *	< 0.0050	< 0.0050		< 0.050	0.1	0.5	7
Zinc *	0.019	0.010		0.11	4	50	200
Chloride *	< 4.0	< 4.0		16	800	15000	25000
Fluoride*	0.31	0.29		2.9	10	150	500
Sulphate *	9.5	2.3		28	1000	20000	50000
TDS*	53	22		240	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.16	< 0.13		< 0.50	1	-	-
DOC	28.7	20		202	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.5						
Dry Matter (%)	85						
Moisture (%)	15						
Stage 1							
Volume Eluate L2 (litres)	0.318						
Filtered Eluate VE1 (litres)	0.12						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)			
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited			

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Analytical Report Number : 24-012489

Project / Site name: Observer Park

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
162595	WS01	D1	0.10-0.20	Brown loam and clay with gravel and vegetation
162596	WS03	D1	1.20-1.30	Brown sand with gravel
162597	WS04	D1	0.70-0.80	Brown loam and clay with gravel and vegetation

Analytical Report Number : 24-012489

Project / Site name: Observer Park

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L023B	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
TDS in WAC leachate (BS EN 12457-3 Prep)	Determination of total dissolved solids in leachate by electrometric measurement	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L031B	W	ISO 17025
Fluoride in WAC leachate (BS EN 12457-3 Prep)	Determination of fluoride in leachate by 1:1 ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L033B	W	ISO 17025
DOC in WAC leachate (BS EN 12457-3 Prep)	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L037B	W	NONE
Metals in WAC leachate (BS EN 12457-3 Prep)	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed	L039B	W	ISO 17025
Sulphate in WAC leachate (BS EN 12457-3 Prep)	Determination of sulphate in leachate by acidification followed by ICP-OES	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed	L039B	W	ISO 17025
Preparation WAC leachate		In-house method	L043B	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047	D	MCERTS
Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	NONE