



Site Richmond			WS1
Job No CRM.1027.087	Dates Start 28-04-21 Finish 28-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.45			MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, tarmac, brick and ash.	0
					0.70			Brown sandy CLAY. Sand is fine.	
			0.90 - 1.00	D				Brown clayey fine to medium SAND.	
			1.00 - 1.45	SPT	C 7	1.30		1.00 - 1.45 Loose.	1
			1.90 - 2.00	D				Light brown slightly clayey fine to medium SAND.	
			2.00 - 2.45	SPT	C 11	2.20		Brown to light brown very sandy CLAY. Sand is fine.	2
			2.90 - 3.00	D		2.60		Light brown slightly clayey gravelly fine to medium SAND. Gravel is angular medium flint.	
			3.00 - 3.45	SPT	C 56	3.00		Light brown slightly clayey gravelly fine to medium SAND. Gravel is angular medium flint.	3
						3.45		3.00 - 3.45 Very dense, refused.	
						{4.00}		Borehole completed at 3.45m.	4

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-3.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS2
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description		
		Depth (m)	No/Type	Results						
		0.20 - 0.40	ES		0.20			MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, ash and brick. 0.00 - 1.80 With roots.	0	
					0.45			MADE GROUND: Brown to black clayey very gravelly fine SAND. Gravel is angular fine to coarse flint, ash and clinker. Brown sandy CLAY. Sand is fine.		
		0.90 - 1.00	D							
		1.00 - 1.45	SPT	C 14						
					1.40				Brown clayey fine SAND.	
		1.90 - 2.00	D			1.80			Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint. 2.00 - 2.45 Medium dense.	2
	2.00 - 2.45	SPT	C 29							
	2.90 - 3.00	D			3.00			Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.	3	
	3.00 - 3.45	SPT	C 53					3.00 - 3.45 Very dense, refused.		
				{4.00}	3.45			Borehole completed at 3.45m.	4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-3.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisngs.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21

Site Richmond			WS4
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.70		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
		0.90 - 1.00 1.00 - 1.45	D SPT	C 22	1.50		Brown CLAY. 1.00 - 1.45 Stiff, high strength.	1	
		1.90 - 2.00 2.00 - 2.45	D SPT	C 50	2.00		Multicoloured (light orange brown to light grey) gravelly fine to coarse SAND. Gravel is angular coarse flint.	2	
					2.45		Multicoloured (light orange brown to light grey) gravelly fine to coarse SAND. Gravel is angular coarse flint. 2.00 - 2.45 Very dense. Refused at 2.45m begl.	3	
				{4.00}			Borehole completed at 2.45m.	4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
All dimensions in metres Scale 1:25				
				Logged By KC



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS5
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 2

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.20		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, ash and brick.	0	
					0.45		MADE GROUND: Brown to black clayey very gravelly fine SAND. Gravel is angular fine to coarse flint, ash and clinker.		
		0.90 - 1.00	D			C 8		Brown to light brown clayey very occasionally gravelly fine SAND. Gravel is subrounded fine flint.	1
		1.00 - 1.45	SPT					1.00 - 1.45 Loose.	
		1.90 - 2.00	D			C 24		Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.	2
		2.00 - 2.45	SPT					2.00 - 2.45 Medium dense.	
2.90 - 3.00	D			C 24			3		
3.00 - 3.45	SPT							3.00 - 3.45 Medium dense.	
3.90 - 4.00	D			C 51			4		
4.00 - 4.45	SPT							4.00 {4.00}	Continued next sheet

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-4.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater encountered at 2.20m begl.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 3.50m begl, granular response zone (3.50m-0.50m), bentonite seal 0.50m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
	27/04/21	2.20		

All dimensions in metres
 Scale 1:25
 Logged By
KC

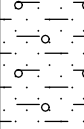
1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS5
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 2 of 2
----------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					4.45		 Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint. 4.00 - 4.45 Very dense, refused.	4	
							Borehole completed at 4.45m.	5	
								6	
								7	
					{8.00}			8	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-4.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater encountered at 2.20m begl.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 3.50m begl, granular response zone (3.50m-0.50m), bentonite seal 0.50m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres Scale 1:25	Logged By KC
--	-----------------

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21



Site Richmond			WS6
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.15		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint and brick.	0	
					0.60		MADE GROUND: Multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND with asbestos fibres and cast iron pieces. Gravel is subangular and subrounded, fine to coarse flint and ash.		
			0.90 - 1.00	D				Brown to light brown occasionally gravelly sand CLAY. Gravel is subrounded fine flint. Sand is fine.	
			1.00 - 1.45	SPT	C 9			1.00 - 1.45 Firm, low strength.	1
			1.90 - 2.00	D		1.70		Pale orange yellow slightly gravelly fine to coarse SAND, mostly fine. Gravel is subangular and subrounded fine flint.	
			2.00 - 2.45	SPT	C 34			2.00 - 2.45 Dense.	2
		2.50 - 2.60	D		2.60		2.60 Sampler barrel refused.		
		2.60 - 2.98	SPT	C 53			2.60 - 2.98 Very dense, refused. Pale orange yellow slightly gravelly fine to coarse SAND, mostly fine. Gravel is subangular and subrounded fine flint.		
					2.98		Borehole completed at 2.98m.	3	
					{4.00}			4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.60m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 2.50m begl, granular response zone (2.50m-0.50m), bentonite seal 0.50m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
All dimensions in metres Scale 1:25				
				Logged By KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21

Site Richmond			WS7
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES				MADE GROUND: Grass over multicoloured (brown to light brown and light black) occasionally gravelly clayey to very clayey fine SAND with glass fragments. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
					0.55		Dark brown to brown occasionally gravelly CLAY. Gravel is subangular medium flint.		
		0.90 - 1.00	D		1.00			1.00 - 1.45 Medium dense. Brown to light grey brown clayey very gravelly fine SAND. Gravel is angular and subrounded, fine to medium flint.	1
		1.00 - 1.45	SPT	C 16		1.70			
		1.90 - 2.00	D		2.00			Very light green to very light brown very slightly clayey fine SAND.	
		2.00 - 2.45	SPT	C 53		2.45		Very light green to very light brown very slightly clayey fine SAND. 2.00 - 2.45 Very dense, refused.	2
					{4.00}		Borehole completed at 2.45m.	3	
								4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 2.00m begl, granular response zone (2.00m-0.50m), bentonite seal 0.50m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
All dimensions in metres Scale 1:25				
				Logged By KC



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS8
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	D ES		0.15		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint and brick.	0	
					0.40		MADE GROUND: Multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND with asbestos fibres. Gravel is subangular and subrounded, fine to coarse flint, ash, and brick.		
		0.90 - 1.00 1.00 - 1.45	D SPT	C 9				Brown to light grey brown clayey fine SAND. 1.00 - 1.45 Loose.	1
		1.90 - 2.00 2.00 - 2.45	D SPT	C 51		1.70 2.00 2.45		Very light green to very light brown very slightly clayey occasionally gravelly fine SAND. Gravel is subrounded fine flint. 2.00 - 2.45 Very dense, refused.	2
					{4.00}		Borehole completed at 2.45m.	3 4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21

Site Richmond			WS9
Job No CRM.1027.087	Dates Start 28-04-21 Finish 28-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.40		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
		0.90 - 1.00	D		0.90		Brown CLAY.		
		1.00 - 1.45	SPT	C 12	1.50		Brown very clayey fine SAND. 1.00 - 1.45 Medium dense.	1	
		1.90 - 2.00	D		2.00		Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.		
		2.00 - 2.45	SPT	C 51	2.45		Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint. 2.00 - 2.45 Very dense, refused.	2	
				{4.00}			Borehole completed at 2.45m.	3	
								4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 2.00m begl, granular response zone (2.00m-0.50m), bentonite seal 0.50m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
All dimensions in metres Scale 1:25				
				Logged By KC



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS10
Job No CRM.1027.087	Dates Start 29-04-21 Finish 29-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	B ES		0.15		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
					0.60		MADE GROUND: Multicolored (brown to red to light grey) sandy gravelly CLAY. Gravel is angular, fine to coarse flint, brick, concrete and ash. Sand is fine.		
		0.90 - 1.00	D				Brown CLAY.		
		1.00 - 1.45	SPT	C 28	1.10				1
		1.50 - 1.60	D			1.60		Multicoloured (light orange brown to light grey) gravelly fine to coarse SAND. Gravel is angular coarse flint.	
	1.60 - 2.05	SPT	C 52	1.60			1.60 Sampler barrel refused.		
					2.05		1.60 - 2.05 Very dense, refused. Multicoloured (light orange brown to light grey) gravelly fine to coarse SAND. Gravel is angular coarse flint.	2	
							Borehole completed at 2.05m.		
					{4.00}			4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-1.60m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS11
Job No CRM.1027.087	Dates Start 28-04-21 Finish 28-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.50			MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0
		0.90 - 1.00	D		1.20			Brown sandy CLAY. Sand is fine.	1
		1.00 - 1.45	SPT	C 12	1.70			Brown clayey fine to medium SAND.	
		1.90 - 2.00	D		2.00			Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.	2
		2.00 - 2.45	SPT	C 50	2.45			Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint. 2.00 - 2.45 Very dense. Refused at 2.45m begl.	
				{4.00}				Borehole completed at 2.45m.	3
									4

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
All dimensions in metres Scale 1:25				
				Logged By KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21

Site Richmond			WS12
Job No CRM.1027.087	Dates Start 29-04-21 Finish 29-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.20		MADE GROUND: Grass over multicoloured (brown to light brown and light black) very clayey very occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
					0.60		MADE GROUND: Multicolored (brown to red to light grey) sandy gravelly CLAY. Gravel is angular, fine to coarse flint, brick, concrete and ash. Sand is fine.		
		0.90 - 1.00	D				Brown CLAY.		
		1.00 - 1.45	SPT	C 12			1.00 - 1.45 Firm, medium strength.	1	
		1.90 - 2.00	D			1.50	Multicoloured (light orange brown to light grey) gravelly fine to coarse SAND. Gravel is angular coarse flint.		
		2.00 - 2.45	SPT	C 15			2.00 - 2.45 Medium dense.	2	
	2.90 - 3.00	D			3.00	Multicoloured (light orange brown to light grey) gravelly fine to coarse SAND. Gravel is angular coarse flint.			
	3.00 - 3.45	SPT	C 53		3.45	3.00 - 3.45 Very dense, refused.	3		
					{4.00}		Borehole completed at 3.45m.	4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-3.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisngs.

Groundwater

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS13
Job No CRM.1027.087	Dates Start 29-04-21 Finish 29-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.20		MADE GROUND: Grass over multicoloured (brown to light brown and light black) very clayey very occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
					0.65		MADE GROUND: Multicolored (brown to red to light grey) sandy gravelly CLAY. Gravel is angular, fine to coarse flint, brick, concrete and ash. Sand is fine.		
		0.90 - 1.00	D		1.00		Brown CLAY.	1	
		1.00 - 1.45	SPT	C 50	1.45		Brown CLAY. 1.00 - 1.45 Very stiff, very high strength. Refused at 1.45m begl.		
				{4.00}			Borehole completed at 1.45m.	2 3 4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS14
Job No CRM.1027.087	Dates Start 28-04-21 Finish 28-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.50		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
		0.90 - 1.00	D		1.20		Brown sandy CLAY. Sand is fine.	1	
		1.00 - 1.45	SPT	C 10	1.70		Brown clayey fine to medium SAND.		
		1.90 - 2.00	D		2.00		Multicoloured (light brown occasionally Light green to cream) clayey gravelly fine SAND. Gravel is subangular fine flint.	2	
		2.00 - 2.45	SPT	C 50	2.45		Multicoloured (light brown occasionally Light green to cream) clayey gravelly fine SAND. Gravel is subangular fine flint. 2.00 - 2.45 Very dense. Refused at 2.45m begl.		
				{4.00}			Borehole completed at 2.45m.	3	
								4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 2.00m begl, granular response zone (2.00m-0.50m), bentonite seal 0.50m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21

Site Richmond			WS15
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.15		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint and brick.	0	
					0.40		MADE GROUND: Multicoloured (brown to light brown and light black) clayey to very clayey occasionally cobbly very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, ash, brick, and occasional cobble of brick.		
					0.70		MADE GROUND: Brown very clayey fine SAND with occasional coarse sand-sized brick and ash.		
		0.90 - 1.00	D				Brown to light grey brown clayey very gravelly fine SAND. Gravel is angular and subrounded, fine to medium flint.		
		1.00 - 1.45	SPT	C 9			1.00 - 1.45 Loose.	1	
		1.90 - 2.00	D			1.70	Very light green to very light brown very slightly clayey occasionally gravelly fine SAND. Gravel is subrounded fine flint.		
	2.00 - 2.45	SPT	C 55		2.00	Very light green to very light brown very slightly clayey occasionally gravelly fine SAND. Gravel is subrounded fine flint.	2		
					2.45	2.00 - 2.45 Very dense, refused.			
						Borehole completed at 2.45m.	3		
					{4.00}			4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
All dimensions in metres Scale 1:25				
				Logged By KC



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS16
Job No CRM.1027.087	Dates Start 28-04-21 Finish 28-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.50		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey occasionally gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, brick and ash.	0	
					0.80		Brown sandy CLAY. Sand is fine.		
		0.90 - 1.00	D					Brown clayey fine to medium SAND.	
		1.00 - 1.45	SPT	C 8				1.00 - 1.45 Loose.	1
						1.70			
		1.90 - 2.00	D					Light brown to very light green very slightly clayey very occasionally gravelly fine SAND. Gravel is subangular fine flint.	
		2.00 - 2.45	SPT	C 29		2.20		2.00 - 2.45 Medium dense.	2
						2.90			
		2.90 - 3.00	D					Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.	
		3.00 - 3.45	SPT	C 50		3.00		3.00 - 3.45 Very dense. Refused at 3.45m begl.	3
					3.45				
					{4.00}		Borehole completed at 3.45m.	4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-3.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 3.00m begl, granular response zone (3.00m-1.00m), bentonite seal 1.00m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Richmond			WS17
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership			Sheet 1 of 1

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.40		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, ash and brick.	0	
		0.90 - 1.00	D		1.20		MADE GROUND: Multicoloured (brown to light brown occasionally light grey) occasionally gravelly slightly to very sandy CLAY with sewer pipe fragments. Gravel is subangular and subrounded medium flint, brick, and ash, Sand is fine.	1	
		1.00 - 1.45	SPT	C 7			1.00 - 1.45 Soft, low strength.		
					1.60		Brown sandy CLAY. Sand is fine.		
			1.90 - 2.00	D		3.00		Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.	2
		2.00 - 2.45	SPT	C 15	2.00 - 2.45 Medium dense.				
		2.90 - 3.00	D		3.45		Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.	3	
		3.00 - 3.45	SPT	C 50			3.00 - 3.45 Very dense. Refused at 3.45m begl.		
				{4.00}			Borehole completed at 3.45m.	4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-3.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21

Site Richmond			WS18
Job No CRM.1027.087	Dates Start 27-04-21 Finish 27-04-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
-----------------------------------	------------------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		0.20 - 0.40	ES		0.45		MADE GROUND: Grass over multicoloured (brown to light brown and light black) clayey to very clayey very gravelly fine SAND. Gravel is subangular and subrounded, fine to coarse flint, ash and brick.	0	
		0.90 - 1.00	D		1.20		Brown sandy CLAY. Sand is fine.	1	
		1.00 - 1.45	SPT	C 10	1.70		Brown clayey fine to medium SAND.		
		1.90 - 2.00	D		2.00		Multicoloured (brown to light brown and light grey) clayey very gravelly medium to coarse SAND. Gravel is subrounded fine flint.	2	
		2.00 - 2.45	SPT	C 13	3.00		2.00 - 2.45 Medium dense. Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.		
		2.90 - 3.00	D		3.45		Multicoloured (light brown to light grey and very light orange) clayey to locally slightly clayey, occasionally gravelly fine to coarse SAND. Gravel is rounded and subrounded fine flint.	3	
		3.00 - 3.45	SPT	C 51	{4.00}		3.00 - 3.45 Very dense, refused.		
							Borehole completed at 3.45m.	4	

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-3.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, a slotted pipe (50mm) was installed to 3.00m begl, granular response zone (3.00m-1.00m), bentonite seal 1.00m-0.10m, flush steel cover 0.10m-0.00m.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

1.0 ENZYGO WS LOG CRM.1027.087 RICHMOND.GPJ GINT STD AGS 3 - 1 ENZYGO.GPJ 3/5/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH1
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 1 of 4
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
							MADE GROUND: Grass over firm brown slightly sandy slightly gravelly CLAY. Gravel is subangular and fine of brick and flint.	0	
					0.60			1	
		1.50 - 1.95	SPT	23	1.60		Firm brown to light brown very sandy slightly gravelly CLAY. Gravel is subangular and coarse of flint.	2	
		3.00 - 3.45	SPT	22			Medium dense to dense light brown slightly clayey slightly gravelly medium and coarse SAND. Gravel is angular and subangular coarse of flint.	3	
		4.50 - 4.95	SPT	21				4	
		5.00	D		5.40			5	
		6.00 - 6.45	SPT	11			Stiff greyish brown slightly gravelly CLAY. Gravel is angular and coarse of claystone. Note: Groundwater encountered at 4.3 m bgl.	6	
	7.50 - 7.95	SPT	18				7		
				{8.00}			8		

Continued next sheet

General Remarks
 Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Groundwater encountered at 4.3 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
		4.30		

All dimensions in metres Scale 1:50	Logged By KC
--	-----------------

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD GPJ_GINT STD_AGS 3 - ENZYGO GPJ - 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH1
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership Ltd			Sheet 2 of 4

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		9.00 - 9.45	SPT	20				8	
		10.00	D					9	
		10.50 - 10.95	SPT	30				10	
		12.00 - 12.45	SPT	25				11	
		13.50 - 13.95	SPT	28				12	
		15.00 15.00 - 15.45	D SPT	46				13	
				{16.00}			14		
							15		
							16		

Continued next sheet

General Remarks
 Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Groundwater encountered at 4.3 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:50

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD GPJ_GINT STD_AGS 3 1 ENZYGO GPJ_19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH1
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership Ltd			Sheet 3 of 4

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		16.50 - 16.95	SPT	29					16
		18.00 - 18.45	SPT	37				17	
		19.50 - 19.95	SPT	37				18	
		20.00	D					19	
		21.00 - 21.45	SPT	37				20	
		22.50 - 22.95	SPT	39				21	
		24.00 - 24.45	SPT	41	{24.00}			22	
								23	
						24			

Continued next sheet

General Remarks
 Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Groundwater encountered at 4.3 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:50

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD GPJ_GINT STD_AGS 3 - ENZYGO GPJ_19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH1
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 4 of 4
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
[Pattern]		25.00	D		25.00				24
							Borehole completed at 25.00m.		25
									26
									27
									28
									29
									30
									31
					{32.00}				32

General Remarks
 Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Groundwater encountered at 4.3 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres Scale 1:50	Logged By KC
--	-----------------

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH2
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership Ltd			Sheet 1 of 4

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.50		MADE GROUND: Grass over firm brown slightly sandy slightly gravelly CLAY. Gravel is subangular and fine of brick and flint.	0	
		1.50 - 1.95	SPT	14	1.50		Firm brown and mottled light brown very sandy slightly gravelly CLAY. Gravel is subangular and fine to coarse of flint.	1	
		3.00 - 3.45	SPT	41			Medium dense to dense light brown slightly clayey slightly sandy medium and coarse SAND. Gravel is angular and subangular medium and coarse of flint. Note: Groundwater encountered at 3.8 m bgl.	2	
	▽	4.50 - 4.80	SPT	50				3	
		5.00	D		5.20			4	
		6.00 - 6.45	SPT	14			Stiff greyish brown slightly gravelly CLAY. Gravel is angular and coarse of claystone.	5	
		7.50 - 7.95	SPT	19				6	
					{8.00}			7	
								8	

General Remarks
 Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Ground water encountered at 5.0 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
		3.80		

All dimensions in metres
 Scale 1:50

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ_GINT STD.AGS 3_1 ENZYGO.GPJ_19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH2
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 2 of 4
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		9.00 - 9.45	SPT	16					8
		10.00	D						9
		10.50 - 10.95	SPT	23					10
		12.00 - 12.45	SPT	22					11
		13.50 - 13.95	SPT	26					12
		15.00 15.00 - 15.45	D SPT	25					13
					{16.00}				14
									15
									16

Continued next sheet

General Remarks

Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Ground water encountered at 5.0 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres Scale 1:50	Logged By KC
--	-----------------

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH2
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 3 of 4
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		16.50 - 16.95	SPT	25				16	
		18.00 - 18.45	SPT	27				17	
		19.50 - 19.95	SPT	30				18	
		20.00	D					19	
		21.00 - 21.45	SPT	24				20	
		22.50 - 22.95	SPT	30				21	
		24.00 - 24.45	SPT	34	{24.00}			22	
								23	
							24		

Continued next sheet

General Remarks

Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Ground water encountered at 5.0 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
-------------	------	------------------	------------------	-----------------------------

All dimensions in metres Scale 1:50	Logged By KC
--	-----------------

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH2
Job No CRM.1027.087	Dates Start 16-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 4 of 4
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		25.00	D		25.00			Borehole completed at 25.00m.	24
					{32.00}				25
									26
									27
									28
									29
									30
									31
									32

General Remarks
 Cable Percussive Borehole advanced from ground level to 25.0 m bgl. No services encountered. Ground water encountered at 5.0 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres Scale 1:50	Logged By KC
--	-----------------

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH3
Job No CRM.1027.087	Dates Start 16-08-21 Finish 16-08-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership Ltd			Sheet 1 of 2

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
							MADE GROUND: Grass over firm brown slightly sandy slightly gravelly CLAY. Gravel is subangular and fine of brick and flint.	0	
		1.20 - 1.65	SPT	6	0.60		Firm brown and mottled light brown very sandy slightly gravelly CLAY. Gravel is subangular and fine to coarse of flint.	1	
		3.00 - 3.45	SPT	33	1.50		Medium dense to dense light brown slightly clayey slightly gravelly medium and coarse SAND. Gravel is angular and subangular and coarse of flint. Note: Groundwater encountered at 3.4 m bgl.	2	
		4.50 - 4.95	SPT	13				3	
		5.00	D					4	
		6.00 - 6.45	SPT	14	5.30		Firm greyish brown CLAY.	5	
		7.50 - 7.95	SPT	23				6	
				{8.00}			Continued next sheet	7	
								8	

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 3.4 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
		3.40		

All dimensions in metres
 Scale 1:50

Logged By
KC


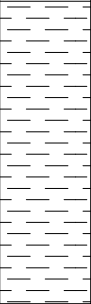
1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD GPJ_GINT STD_AGS 3 - ENZYGO GPJ - 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH3
Job No CRM.1027.087	Dates Start 16-08-21 Finish 16-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 2 of 2
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		9.00 - 9.45	SPT	21					8
		10.00	D		10.00				9
								Borehole completed at 10.00m.	10
									11
									12
									13
									14
									15
					{16.00}				16

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 3.4 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres Scale 1:50	Logged By KC
--	------------------------

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH4
Job No CRM.1027.087	Dates Start 18-08-21 Finish 18-08-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership Ltd			Sheet 1 of 2

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
							MADE GROUND: Firm brown slightly sandy slightly gravelly CLAY. Gravel is subangular and fine of brick and flint.	0	
		1.50 - 1.95	SPT	17	0.60		Firm light brown and orangish brown very sandy CLAY. Sand is fine to coarse.	1	
		2.50						2	
		3.00 - 3.45	SPT	13	2.50		Medium dense light brown slightly clayey slightly gravelly medium and coarse SAND. Gravel is angular and subangular and coarse of flint. Note: Groundwater encountered at 4.3 m bgl.	3	
		4.50 - 4.95	SPT	11	5.20			4	
		5.00	D		5.20			5	
		6.00 - 6.45	SPT	14			Firm greyish brown CLAY.	6	
	7.50 - 7.95	SPT	19				7		
				{8.00}			Continued next sheet	8	

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 4.3 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
		4.30		

All dimensions in metres
 Scale 1:50


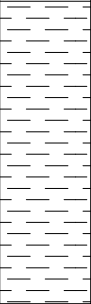
Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD GPJ_GINT STD_AGS 3 - ENZYGO GPJ_19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond				BH4
Job No CRM.1027.087	Dates Start 18-08-21 Finish 18-08-21	Ground Level (m)	Co-Ordinates	
Client Hill Partnership Ltd				Sheet 2 of 2

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		9.00 - 9.45	SPT	19					8
		10.00	D		10.00				9
					{16.00}			Borehole completed at 10.00m.	10
									11
									12
									13
									14
									15
									16

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 4.3 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:50

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH5
Job No CRM.1027.087	Dates Start 18-08-21 Finish 18-08-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership Ltd			Sheet 1 of 2

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.50		MADE GROUND: Brown slightly sandy slightly gravelly CLAY. Gravel is subangular and fine of brick and flint.	0	
					1.50		Firm brown and mottled light brown very sandy slightly gravelly CLAY. Gravel is subangular and fine to coarse of flint.	1	
		1.50 - 1.95	SPT	10	1.50		Medium dense to dense light brown slightly clayey slightly gravelly medium and coarse SAND. Gravel is angular and subangular and coarse of flint. Note: Groundwater encountered at 2.5 m bgl.	2	
		3.00 - 3.45	SPT	37				3	
		4.50 - 4.95	SPT	37				4	
		5.00	D					5	
		6.00 - 6.45	SPT	13	5.80		Firm to stiff greyish brown CLAY. Note: Claystone between 8.3 and 8.4 m bgl.	6	
7.50 - 7.95	SPT	14				7			
				{8.00}			8		

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 2.5 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
		2.50		

All dimensions in metres
 Scale 1:50


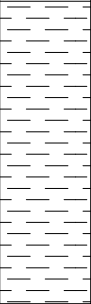
Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD GPJ_GINT STD_AGS 3 - ENZYGO GPJ_19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH5
Job No CRM.1027.087	Dates Start 18-08-21 Finish 18-08-21	Ground Level (m) Co-Ordinates	
Client Hill Partnership Ltd			Sheet 2 of 2

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		9.00 - 9.45	SPT	19					8
		10.00	D		10.00				9
					{16.00}			Borehole completed at 10.00m.	10
									11
									12
									13
									14
									15
									16

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 2.5 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:50

Logged By
KC

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH6
Job No CRM.1027.087	Dates Start 17-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 1 of 2
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
							MADE GROUND: Firm brown slightly sandy slightly gravelly CLAY. Gravel is subangular and fine of brick, concrete and flint.	0	
					0.70		Firm light brown and orangish brown very sandy CLAY. Sand is fine.	1	
		1.50 - 1.95	SPT	13				2	
					2.80			3	
		3.00 - 3.45	SPT	34			Medium dense to dense light brown slightly clayey slightly gravelly medium and coarse SAND. Gravel is angular and subangular and coarse of flint. Note: Groundwater encountered at 3.8 m bgl.	4	
		4.50 - 4.95	SPT	36				5	
		5.00	D		5.40		Firm to stiff greyish brown CLAY.	6	
	6.00 - 6.45	SPT	11				7		
	7.50 - 7.95	SPT	15				8		
				{8.00}			Continued next sheet		

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 3.8 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
		3.80		

All dimensions in metres Scale 1:50	Logged By KC
--	-----------------


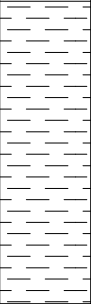
1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD GPJ_GINT STD_AGS 3 1 ENZYGO GPJ_19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			BH6
Job No CRM.1027.087	Dates Start 17-08-21 Finish 17-08-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership Ltd	Sheet 2 of 2
--------------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
		9.00 - 9.45	SPT	18					8
		10.00	D		10.00				9
							Borehole completed at 10.00m.		10
									11
									12
									13
									14
									15
					{16.00}				16

General Remarks
 Cable Percussive Borehole advanced from ground level to 10.0 m bgl. No services encountered. Groundwater encountered at 3.8 m bgl. Backfilled with arisings upon completion.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres Scale 1:50	Logged By KC
--	-----------------

1.0 ENZYGO WS LOG CRM.1027.087 ASHBURNHAM ROAD.GPJ GINT STD.AGS 3 1 ENZYGO.GPJ 19/8/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			WS1
Job No CRM.1027.087	Dates Start 25-10-21 Finish 25-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.02		MADE GROUND: - Angular fine GRAVEL of basalt.	0	
					0.15		MADE GROUND: Tarmacadam comprising light black to light grey very sandy subrounded coarse GRAVEL of flint in tar. Sand is coarse.		
		0.30 - 0.40	ES		0.50		MADE GROUND: Multicoloured (yellow to red occasionally black to light brown) occasionally clayey sandy GRAVEL of brick and flint with coarse sand-sized ash. Gravel is angular fine to coarse flint. Sand is fine to coarse.		
		0.70 - 0.80	ES		1.30		Brown occasionally gravelly sandy CLAY. Gravel is angular fine flint. Sand is fine.	1	
					2.00		Light brown orange occasionally gravelly slightly clayey medium to coarse SAND. Gravel is subangular fine flint.	2	
				{4.00}			Borehole completed at 2.00m.	3	
								4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
 KC

1.0 ENZYGO WS LOG CRM-1027.087 RICHMOND (2).GPJ GINT STD AGS 3_1 ENZYGO.GPJ 28/10/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			WS2
Job No CRM.1027.087	Dates Start 25-10-21 Finish 25-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.15			MADE GROUND: Tarmacadam comprising light black to light grey very sandy subrounded coarse GRAVEL of flint in tar. Sand is coarse.	0
		0.30 - 0.40	ES		0.22			MADE GROUND: Subbase comprising light grey to cream gravelly fine to coarse SAND. Gravel is angular and subrounded fine to medium flint.	
		0.60 - 0.80	ES		0.55			MADE GROUND: Multicoloured (yellow to red occasionally light black to light brown) occasionally clayey sandy, angular fine to coarse GRAVEL of brick and flint. Sand is fine to coarse.	
					1.75			Brown occasionally gravelly sandy CLAY. Gravel is angular fine flint. Sand is fine.	1
					3.00			Light brown orange occasionally gravelly slightly clayey medium to coarse SAND. Gravel is subangular fine flint.	2
				{4.00}				Borehole completed at 3.00m.	3
									4

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-3.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

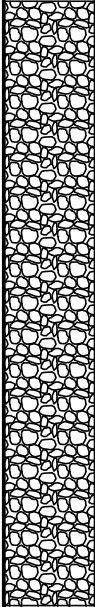
All dimensions in metres
 Scale 1:25

Logged By
KC

1.0 ENZYGO WS LOG CRM-1027.087 RICHMOND (2).GPJ GINT STD AGS 3_1 ENZYGO.GPJ 28/10/21

Site Ashburnham Road, Richmond			WS3
Job No CRM.1027.087	Dates Start 25-10-21 Finish 25-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.02			MADE GROUND: - Angular fine GRAVEL of basalt.	0
					0.13			MADE GROUND: Tarmacadam comprising light black to light grey very sandy subrounded coarse GRAVEL of flint in tar. Sand is coarse.	
		0.30 - 0.45	ES		0.45			MADE GROUND: Multicoloured (yellow to red occasionally black to light brown) occasionally clayey sandy GRAVEL of brick and flint with coarse sand-sized ash. Gravel is angular fine to coarse flint. Sand is fine to coarse.	
		0.60 - 0.70	ES					Brown occasionally gravelly sandy CLAY. Gravel is angular fine flint. Sand is fine.	1
					1.30			Light brown orange occasionally gravelly slightly clayey medium to coarse SAND. Gravel is subangular fine flint.	
				2.00			Borehole completed at 2.00m.	2	
				{4.00}					3
									4

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

1.0 ENZYGO WS LOG CRM-1027.087 RICHMOND (2).GPJ GINT STD AGS 3_1 ENZYGO.GPJ 28/10/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			WS4
Job No CRM.1027.087	Dates Start 25-10-21 Finish 25-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.02			MADE GROUND: - Angular fine GRAVEL of basalt.	0
					0.12			MADE GROUND: Tarmacadam comprising light black to light grey very sandy subrounded coarse GRAVEL of flint in tar. Sand is coarse.	
		0.30 - 0.50	ES					MADE GROUND: Subbase comprising light grey to cream gravelly fine to coarse SAND. Gravel is angular and subrounded fine to medium flint.	
		0.70 - 0.80	ES			0.55		Brown occasionally gravelly sandy CLAY. Gravel is angular fine flint. Sand is fine.	1
						1.45		Light brown orange occasionally gravelly slightly clayey medium to coarse SAND. Gravel is subangular fine flint.	
				2.00			Borehole completed at 2.00m.	2	
				{4.00}				4	

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

All dimensions in metres
 Scale 1:25

Logged By
 KC

Site Ashburnham Road, Richmond			WS5
Job No CRM.1027.087	Dates Start 25-10-21 Finish 25-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.02			MADE GROUND: - Angular fine GRAVEL of basalt.	0
					0.13			MADE GROUND: Tarmacadam comprising light black to light grey very sandy subrounded coarse GRAVEL of flint in tar. Sand is coarse.	
			0.35 - 0.48	ES		0.45		MADE GROUND: Subbase comprising light grey to cream sandy rounded to subrounded medium GRAVEL of flint and concrete. Sand is fine.	
			0.60 - 0.70	ES		0.48		MADE GROUND: Orange brown to black rounded to subrounded coarse GRAVEL of flint with coarse sand-sized ash.	
						1.10		Brown occasionally gravelly sandy CLAY. Gravel is angular fine flint. Sand is fine.	1
						1.60		Brown to light brown very clayey fine SAND.	
					2.90		Light brown orange occasionally gravelly slightly clayey medium to coarse SAND. Gravel is subangular fine flint.	2	
					{4.00}		Sampler refused. Borehole completed at 2.90m.	3	
									4

General Remarks

EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-2.90m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
------	------------------	------------------	-----------------------------

All dimensions in metres
Scale 1:25

Logged By
KC

Site Ashburnham Road, Richmond			WS6
Job No CRM.1027.087	Dates Start 25-10-21 Finish 25-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Well	Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
		Depth (m)	No/Type	Results					
					0.02			MADE GROUND: - Angular fine GRAVEL of basalt.	0
					0.15			MADE GROUND: Tarmacadam comprising light black to light grey very sandy subrounded coarse GRAVEL of flint in tar. Sand is coarse.	
		0.30 - 0.40	ES		0.35			MADE GROUND: Subbase comprising light grey to cream gravelly fine to coarse SAND. Gravel is angular and subrounded fine to medium flint.	
		0.70 - 0.80	ES		0.60			MADE GROUND: Multicoloured (yellow to red occasionally light black to light brown) occasionally clayey sandy, angular fine to coarse GRAVEL of brick and flint. Sand is fine to coarse.	
					1.40			Brown occasionally gravelly sandy CLAY. Gravel is angular fine flint. Sand is fine.	1
							1.00 - 1.40 Increasing sand content.		
							Light brown orange occasionally gravelly slightly clayey medium to coarse SAND. Gravel is subangular fine flint.		2
					4.00 {4.00}				3
									4
Borehole completed at 4.00m.									

General Remarks
 EQUIPMENT: Archway compact window sampling tracked rig.
 METHOD: Hand dug inspection pit 0.00m-1.00m begl. Dynamic sampled 1.00m-4.00m begl.
 CASING: Not used.
 GROUNDWATER: Groundwater not encountered.
 BACKFILL: On completion, the borehole was backfilled with arisings.

Groundwater	Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

1.0 ENZYGO.WS.LOG CRM.1027.087 RICHMOND (2).GPJ GINT STD ACS 3 1 ENZYGO.GPJ 28/10/21

Site Ashburnham Road, Richmond			SA1
Job No CRM.1027.087	Dates Start 27-10-21 Finish 27-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
	Depth (m)	No/Type	Results					
				0.40			MADE GROUND: Black to dark brown slightly gravelly very sandy CLAY with red tiles. Gravel is subangular and subrounded fine flint and brick. Sand is fine.	0
				1.00			Brown CLAY.	
				1.80			Brown slightly sandy CLAY. Sand is fine.	1
				2.00			Brown clayey medium SAND.	
				{4.00}			Trial Pit completed at 2.00m.	2
								3
								4

General Remarks
 Dimensions: 2.00x0.60x2.00
 1. Machine excavated pit from ground level to 2.00m begl.
 2. Groundwater not encountered.
 3. Trial pit sides remained vertical and stable.
 4. On completion, trial pit was backfilled with arisings.

1.1 ENZYGO TP LOG CRM:1027.087 RICHMOND (2).GPJ GINTI STD AGS 3_1 ENZYGO.GPJ 28/10/21

Site Ashburnham Road, Richmond			SA2
Job No CRM.1027.087	Dates Start 27-10-21 Finish 27-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------



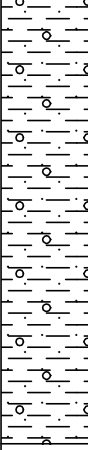
Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
	Depth (m)	No/Type	Results					
				0.30			MADE GROUND: Black to dark brown slightly gravelly very sandy CLAY with red tiles. Gravel is subangular and subrounded fine flint and brick. Sand is fine.	0
				1.10			Brown CLAY.	1
				1.50			Brown clayey medium SAND.	
				2.00			Light brown slightly clayey fine SAND.	
				{4.00}			Trial Pit completed at 2.00m.	2
								3
								4

General Remarks
 Dimensions: 2.00x0.60x2.00
 1. Machine excavated pit from ground level to 2.00m begl.
 2. Groundwater not encountered.
 3. Trial pit sides remained vertical and stable.
 4. On completion, trial pit was backfilled with arisings.

1.1 ENZYGO TP LOG CRM:1027.087 RICHMOND (2).GPJ GINTI STD AGS 3_1 ENZYGO.GPJ 28/10/21

Site Ashburnham Road, Richmond			SA3
Job No CRM.1027.087	Dates Start 26-10-21 Finish 26-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
	Depth (m)	No/Type	Results					
				0.30			MADE GROUND: Grass over black to dark brown slightly gravelly very sandy CLAY. Gravel is subangular and subrounded fine flint and brick. Sand is fine.	0
				0.50			Brown slightly sandy CLAY. Sand is fine.	
				2.00			Light brown occasionally gravelly sandy CLAY. Gravel is subangular fine flint. Sand is fine.	1
				{4.00}			Trial Pit completed at 2.00m.	2
								3
								4

General Remarks
 Dimensions: 2.00x0.60x2.00
 1. Machine excavated pit from ground level to 2.00m begl.
 2. Groundwater not encountered.
 3. Trial pit sides remained vertical and stable.
 4. On completion, trial pit was backfilled with arisings.

All dimensions in metres Scale 1:25	Logged By KC
--	-----------------

1.1 ENZYGO TP LOG CRM:1027.087 RICHMOND (2).GPJ GINT STD AGS 3_1 ENZYGO.GPJ 28/10/21

Site Ashburnham Road, Richmond			SA4
Job No CRM.1027.087	Dates Start 26-10-21 Finish 26-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
	Depth (m)	No/Type	Results					
				0.40			MADE GROUND: Black to dark brown slightly gravelly very sandy CLAY. Gravel is subangular and subrounded fine flint and brick. Sand is fine.	0
				0.60			Brown slightly sandy CLAY. Sand is fine.	
				2.00			Light brown clayey gravelly fine to medium SAND. Gravel is subangular fine to medium flint.	1
				{4.00}			Trial Pit completed at 2.00m.	2
								3
								4

General Remarks
 Dimensions: 2.00x0.60x2.00
 1. Machine excavated pit from ground level to 2.00m begl.
 2. Groundwater not encountered.
 3. Trial pit sides remained vertical and stable.
 4. On completion, trial pit was backfilled with arisings.

All dimensions in metres Scale 1:25	Logged By KC
--	-----------------

1.1 ENZYGO TP LOG CRM:1027.087 RICHMOND (2).GPJ GINT STD AGS 3_1 ENZYGO.GPJ 28/10/21

Site Ashburnham Road, Richmond			SA5
Job No CRM.1027.087	Dates Start 26-10-21 Finish 26-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
	Depth (m)	No/Type	Results					
				0.30			MADE GROUND: Black to dark brown slightly gravelly very sandy CLAY. Gravel is subangular and subrounded fine flint and brick. Sand is fine.	0
				0.55			MADE GROUND: Multicoloured (yellow to red occasionally light black to light brown) occasionally clayey sandy angular fine to coarse GRAVEL of brick, concrete and flint. Sand is fine to coarse.	
							Light brown occasionally gravelly sandy CLAY. Gravel is subangular fine flint. Sand is fine.	1
				2.00			Trial Pit completed at 2.00m.	2
				{4.00}				4

General Remarks
 Dimensions: 2.00x0.60x2.00
 1. Machine excavated pit from ground level to 2.00m begl.
 2. Groundwater not encountered.
 3. Trial pit sides remained vertical and stable.
 4. On completion, trial pit was backfilled with arisings.

All dimensions in metres Scale 1:25	Logged By KC
--	-----------------

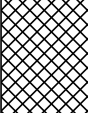

1.1 ENZYGO TP LOG CRM:1027.087 RICHMOND (2).GPJ GINT STD AGS 3_1 ENZYGO.GPJ 28/10/21



Enzygo Ltd
 Tel: 01454 269237
 Fax: 01454 269760
 Web: www.enzygo.com

Site Ashburnham Road, Richmond			SA6
Job No CRM.1027.087	Dates Start 27-10-21 Finish 27-10-21	Ground Level (m) Co-Ordinates	

Client Hill Partnership	Sheet 1 of 1
----------------------------	-----------------

Water Levels	Samples & In Situ Testing			Depth (m)	Level (mAD)	Legend	Stratum Description	
	Depth (m)	No/Type	Results					
				0.40			MADE GROUND: Black to dark brown slightly gravelly very sandy CLAY with red tiles. Gravel is subangular and subrounded fine flint and brick. Sand is fine.	0
				2.00			Light brown to light orange brown slightly clayey medium SAND.	1
				{4.00}			Trial Pit completed at 2.00m.	2
								3
								4

General Remarks
 Dimensions: 2.00x0.60x2.00
 1. Machine excavated pit from ground level to 2.00m begl.
 2. Groundwater not encountered.
 3. Trial pit sides remained vertical and stable.
 4. On completion, trial pit was backfilled with arisings.

All dimensions in metres Scale 1:25	Logged By KC
--	-----------------

1.1 ENZYGO TP LOG CRM:1027.087 RICHMOND (2).GPJ GINTI STD AGS 3_1 ENZYGO.GPJ 28/10/21



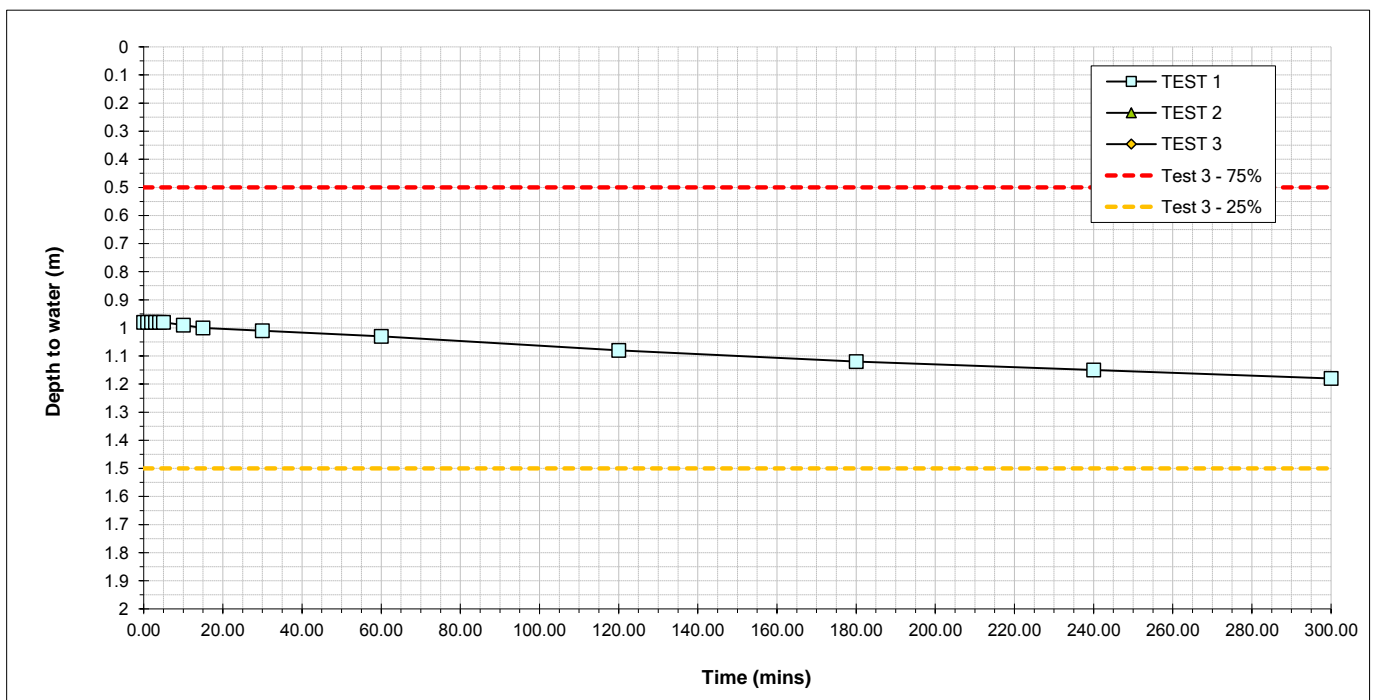
Site..... Ashburnham Rd Richmond
 Job Number..... CRM.1027.087
 Date of Test..... 26th to 27th October 2021

Soakaway Number.... SA1
 Length..... 1.25 m
 Width..... 0.60 m
 Depth..... 2.00 m
 Groundwater Level.... Dry m

SOIL INFILTRATION RATE TEST
 See B.R.E. Digest 365, 1991, Soakaway Design.

	TEST 1		TEST 2		TEST 3	
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
	0.0	0.98	0.0	0.00	0.0	0.00
	1.0	0.98	0.0	0.00	0.0	0.00
	2.0	0.98	0.0	0.00	0.0	0.00
	3.0	0.98	0.0	0.00	0.0	0.00
	4.0	0.98	0.0	0.00	0.0	0.00
	5.0	0.98	0.0	0.00	0.0	0.00
	10.0	0.99	0.0	0.00	0.0	0.00
	15.0	1.00	0.0	0.00	0.0	0.00
	30.0	1.01	0.0	0.00	0.0	0.00
	60.0	1.03	0.0	0.00	0.0	0.00
	120.0	1.08	0.0	0.00	0.0	0.00
			120.0	1.92	0.0	0.00
Effective Storage Depth	m	1.02		2.00		2.00
75% Effective Storage Depth	m	0.77		1.50		1.50
(i.e. depth below GL)	m	1.24		0.50		0.50
25% Effective Storage Depth	m	0.26		0.50		0.50
(i.e. depth below GL)	m	1.75		1.50		1.50
Effective Storage Depth 75%-25%	m	0.51		1.00		1.00
Time to fall to 75% effective depth	mins					
Time to fall to 25% effective depth	mins					
V (75%-25%)	m3	0.38		0.75		0.75
a (50%)	m2	2.64		4.45		4.45
t (75%-25%)	mins	0.00		0.00		0.00
SOIL INFILTRATION RATE	m/s	#DIV/0!		#DIV/0!		#DIV/0!

DESIGN SOIL INFILTRATION RATE, f **#DIV/0!** m/s



Compiled By: G.Parr <i>G.Parr</i>	Date: 19.04.21	Checked By: R.Hamilton <i>R.Hamilton</i>	Date: 19.04.21	Approved By: S.Rhodes <i>S.Rhodes</i>	Date: 19.04.21
---	-------------------	--	-------------------	---	-------------------



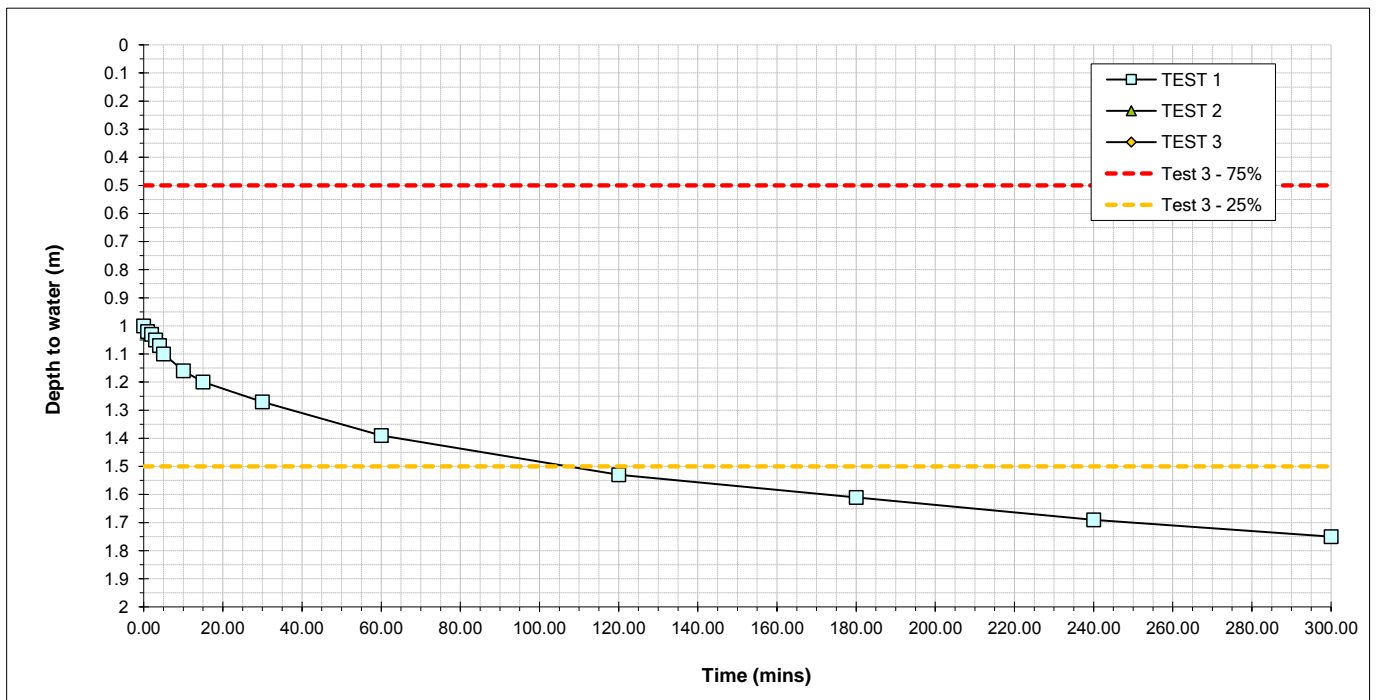
Site..... Ashburnham Rd Richmond
 Job Number..... CRM.1027.087
 Date of Test..... 26th to 27th October 2021

Soakaway Number.... SA2
 Length..... 1.50 m
 Width..... 0.60 m
 Depth..... 2.00 m
 Groundwater Level.... Dry m

SOIL INFILTRATION RATE TEST
 See B.R.E. Digest 365, 1991, Soakaway Design.

	TEST 1		TEST 2		TEST 3	
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
	0.0	1.00	0.0	0.00	0.0	0.00
	1.0	1.02	0.0	0.00	0.0	0.00
	2.0	1.03	0.0	0.00	0.0	0.00
	3.0	1.05	0.0	0.00	0.0	0.00
	4.0	1.07	0.0	0.00	0.0	0.00
	5.0	1.10	0.0	0.00	0.0	0.00
	10.0	1.16	0.0	0.00	0.0	0.00
	15.0	1.20	0.0	0.00	0.0	0.00
	30.0	1.27	0.0	0.00	0.0	0.00
	60.0	1.39	0.0	0.00	0.0	0.00
	120.0	1.53	0.0	0.00	0.0	0.00
			120.0	1.92	0.0	0.00
Effective Storage Depth	m	1.00		2.00		2.00
75% Effective Storage Depth	m	0.75		1.50		1.50
(i.e. depth below GL)	m	1.25		0.50		0.50
25% Effective Storage Depth	m	0.25		0.50		0.50
(i.e. depth below GL)	m	1.75		1.50		1.50
Effective Storage Depth 75%-25%	m	0.50		1.00		1.00
Time to fall to 75% effective depth	mins	25.00				
Time to fall to 25% effective depth	mins	300.00				
V (75%-25%)	m3	0.45		0.90		0.90
a (50%)	m2	3.00		5.10		5.10
t (75%-25%)	mins	275.00		0.00		0.00
SOIL INFILTRATION RATE	m/s	9.09E-06		#DIV/0!		#DIV/0!

DESIGN SOIL INFILTRATION RATE, f **#DIV/0!** m/s



Compiled By: G.Parr <i>G.Parr</i>	Date: 19.04.21	Checked By: R.Hamilton <i>R.Hamilton</i>	Date: 19.04.21	Approved By: S.Rhodes <i>S.Rhodes</i>	Date: 19.04.21
---	-------------------	--	-------------------	---	-------------------



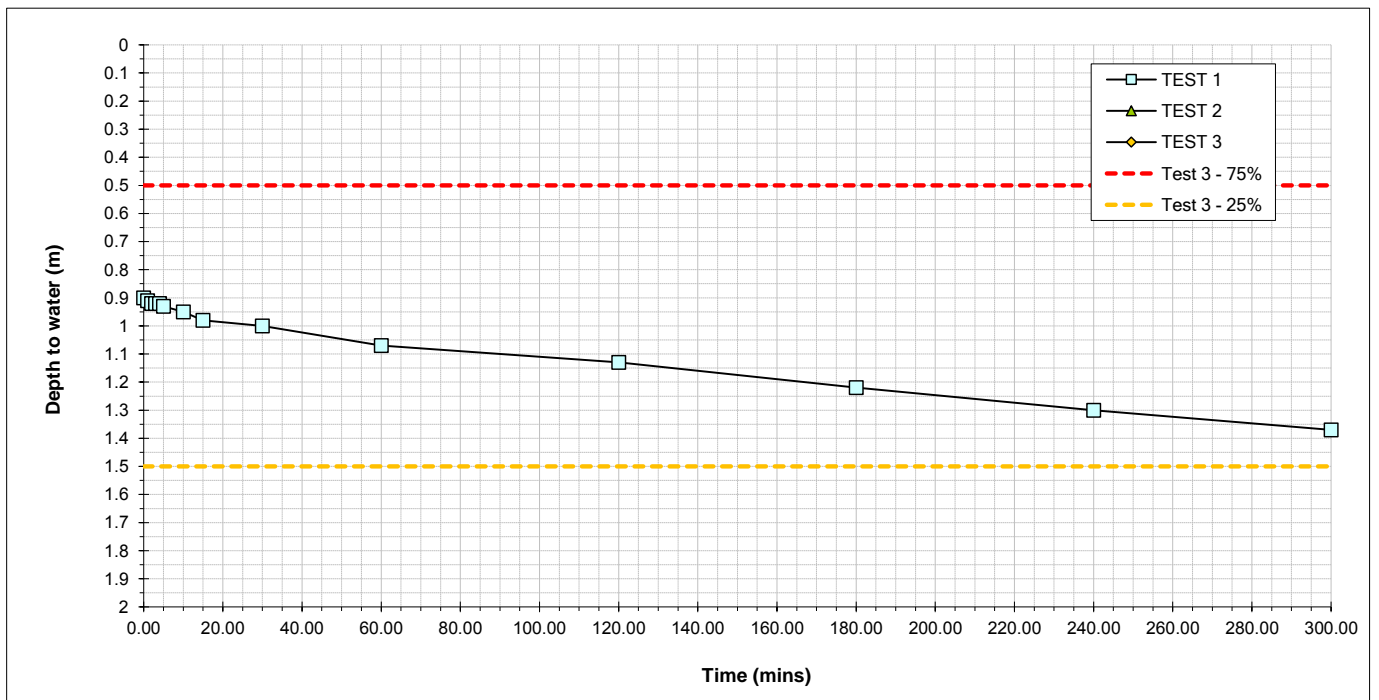
Site..... Ashburnham Rd Richmond
 Job Number..... CRM.1027.087
 Date of Test..... 26th to 27th October 2021

Soakaway Number.... SA3
 Length..... 1.30 m
 Width..... 0.60 m
 Depth..... 2.00 m
 Groundwater Level.... Dry m

SOIL INFILTRATION RATE TEST
 See B.R.E. Digest 365, 1991, Soakaway Design.

	TEST 1		TEST 2		TEST 3	
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
	0.0	0.90	0.0	0.00	0.0	0.00
	1.0	0.91	0.0	0.00	0.0	0.00
	2.0	0.92	0.0	0.00	0.0	0.00
	3.0	0.92	0.0	0.00	0.0	0.00
	4.0	0.92	0.0	0.00	0.0	0.00
	5.0	0.93	0.0	0.00	0.0	0.00
	10.0	0.95	0.0	0.00	0.0	0.00
	15.0	0.98	0.0	0.00	0.0	0.00
	30.0	1.00	0.0	0.00	0.0	0.00
	60.0	1.07	0.0	0.00	0.0	0.00
	120.0	1.13	0.0	0.00	0.0	0.00
			120.0	1.92	0.0	0.00
Effective Storage Depth	m	1.10		2.00		2.00
75% Effective Storage Depth	m	0.83		1.50		1.50
(i.e. depth below GL)	m	1.18		0.50		0.50
25% Effective Storage Depth	m	0.28		0.50		0.50
(i.e. depth below GL)	m	1.73		1.50		1.50
Effective Storage Depth 75%-25%	m	0.55		1.00		1.00
Time to fall to 75% effective depth	mins					
Time to fall to 25% effective depth	mins					
V (75%-25%)	m3	0.43		0.78		0.78
a (50%)	m2	2.87		4.58		4.58
t (75%-25%)	mins	0.00		0.00		0.00
SOIL INFILTRATION RATE	m/s	#DIV/0!		#DIV/0!		#DIV/0!

DESIGN SOIL INFILTRATION RATE, f **#DIV/0!** m/s



Compiled By: G.Parr <i>G.Parr</i>	Date: 19.04.21	Checked By: R.Hamilton <i>R.Hamilton</i>	Date: 19.04.21	Approved By: S.Rhodes <i>S.Rhodes</i>	Date: 19.04.21
---	-------------------	--	-------------------	---	-------------------



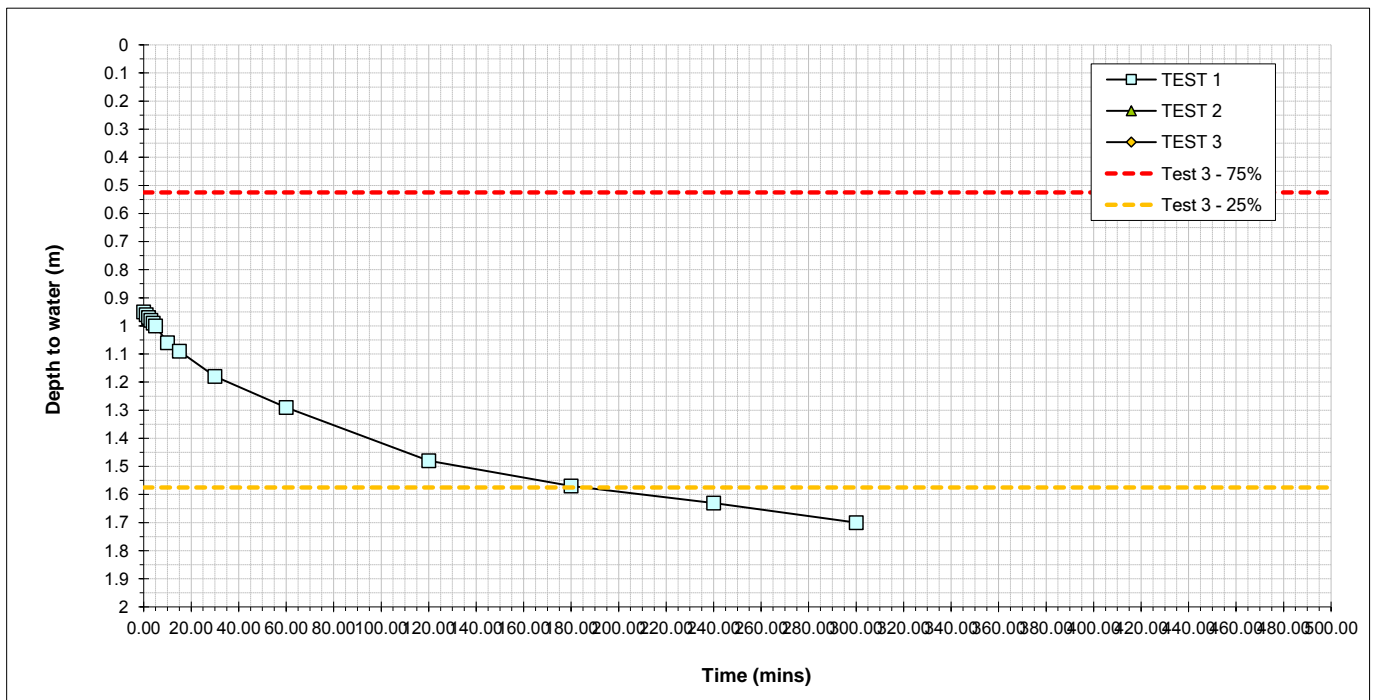
Site..... Ashburnham Rd Richmond
 Job Number..... CRM.1027.087
 Date of Test..... 26th to 27th October 2021

Soakaway Number.... SA4
 Length..... 1.40 m
 Width..... 0.60 m
 Depth..... 2.10 m
 Groundwater Level.... Dry m

SOIL INFILTRATION RATE TEST
 See B.R.E. Digest 365, 1991, Soakaway Design.

	TEST 1		TEST 2		TEST 3	
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
	0.0	0.95	0.0	0.00	0.0	0.00
	1.0	0.96	0.0	0.00	0.0	0.00
	2.0	0.97	0.0	0.00	0.0	0.00
	3.0	0.98	0.0	0.00	0.0	0.00
	4.0	0.99	0.0	0.00	0.0	0.00
	5.0	1.00	0.0	0.00	0.0	0.00
	10.0	1.06	0.0	0.00	0.0	0.00
	15.0	1.09	0.0	0.00	0.0	0.00
	30.0	1.18	0.0	0.00	0.0	0.00
	60.0	1.29	0.0	0.00	0.0	0.00
	120.0	1.48	0.0	0.00	0.0	0.00
			120.0	1.92	0.0	0.00
Effective Storage Depth	m	1.15		2.10		2.10
75% Effective Storage Depth	m	0.86		1.58		1.58
(i.e. depth below GL)	m	1.24		0.53		0.53
25% Effective Storage Depth	m	0.29		0.53		0.53
(i.e. depth below GL)	m	1.81		1.58		1.58
Effective Storage Depth 75%-25%	m	0.58		1.05		1.05
Time to fall to 75% effective depth	mins	45.00				
Time to fall to 25% effective depth	mins	500.00				
V (75%-25%)	m3	0.48		0.88		0.88
a (50%)	m2	3.14		5.04		5.04
t (75%-25%)	mins	455.00		0.00		0.00
SOIL INFILTRATION RATE	m/s	5.63E-06		#DIV/0!		#DIV/0!

DESIGN SOIL INFILTRATION RATE, f **#DIV/0!** m/s



Compiled By: G.Parr <i>G.Parr</i>	Date: 19.04.21	Checked By: R.Hamilton <i>R.Hamilton</i>	Date: 19.04.21	Approved By: S.Rhodes <i>S.Rhodes</i>	Date: 19.04.21
---	-------------------	--	-------------------	---	-------------------



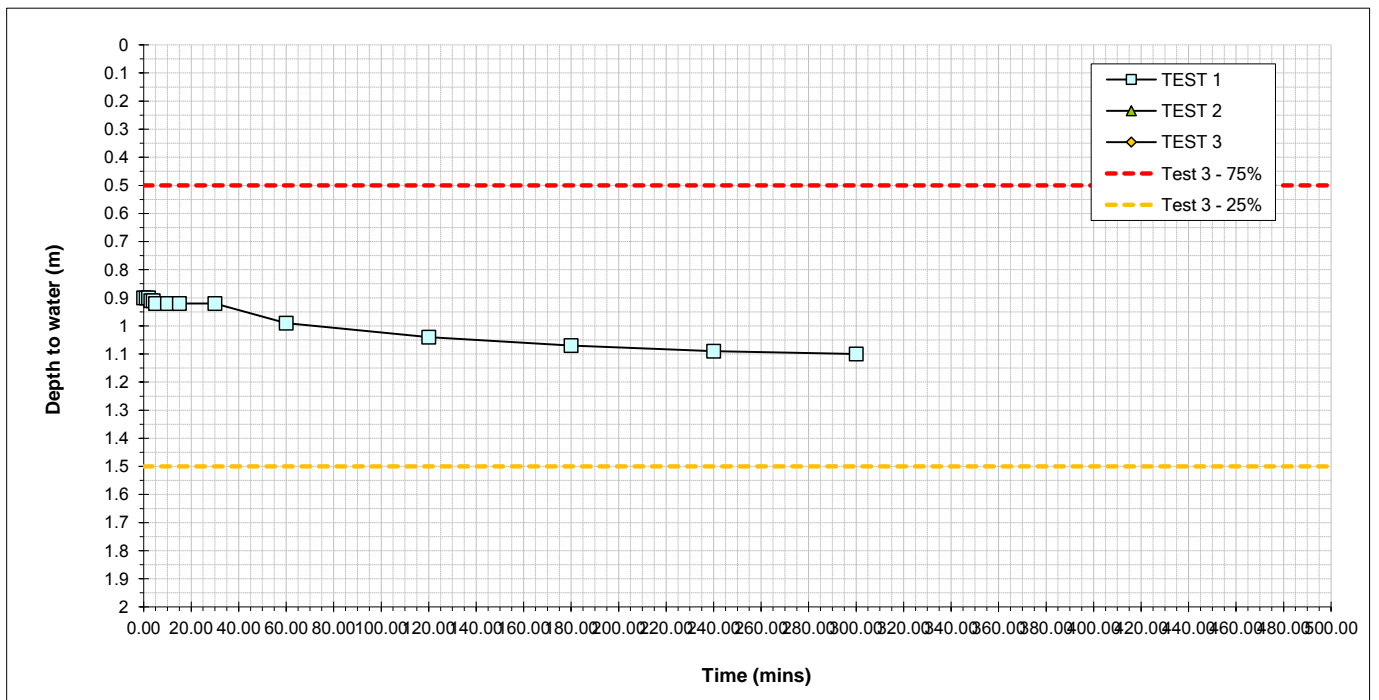
Site..... Ashburnham Rd Richmond
 Job Number..... CRM.1027.087
 Date of Test..... 26th to 27th October 2021

Soakaway Number.... SA5
 Length..... 1.50 m
 Width..... 0.60 m
 Depth..... 2.00 m
 Groundwater Level.... Dry m

SOIL INFILTRATION RATE TEST
 See B.R.E. Digest 365, 1991, Soakaway Design.

	TEST 1		TEST 2		TEST 3	
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
	0.0	0.90	0.0	0.00	0.0	0.00
	1.0	0.90	0.0	0.00	0.0	0.00
	2.0	0.90	0.0	0.00	0.0	0.00
	3.0	0.91	0.0	0.00	0.0	0.00
	4.0	0.91	0.0	0.00	0.0	0.00
	5.0	0.92	0.0	0.00	0.0	0.00
	10.0	0.92	0.0	0.00	0.0	0.00
	15.0	0.92	0.0	0.00	0.0	0.00
	30.0	0.92	0.0	0.00	0.0	0.00
	60.0	0.99	0.0	0.00	0.0	0.00
	120.0	1.04	0.0	0.00	0.0	0.00
			120.0	1.92	0.0	0.00
Effective Storage Depth	m	1.10		2.00		2.00
75% Effective Storage Depth	m	0.83		1.50		1.50
(i.e. depth below GL)	m	1.18		0.50		0.50
25% Effective Storage Depth	m	0.28		0.50		0.50
(i.e. depth below GL)	m	1.73		1.50		1.50
Effective Storage Depth 75%-25%	m	0.55		1.00		1.00
Time to fall to 75% effective depth	mins					
Time to fall to 25% effective depth	mins					
V (75%-25%)	m3	0.50		0.90		0.90
a (50%)	m2	3.21		5.10		5.10
t (75%-25%)	mins	0.00		0.00		0.00
SOIL INFILTRATION RATE	m/s	#DIV/0!		#DIV/0!		#DIV/0!

DESIGN SOIL INFILTRATION RATE, f **#DIV/0!** m/s



Compiled By: G.Parr <i>G.Parr</i>	Date: 19.04.21	Checked By: R.Hamilton <i>R.Hamilton</i>	Date: 19.04.21	Approved By: S.Rhodes <i>S.Rhodes</i>	Date: 19.04.21
---	-------------------	--	-------------------	---	-------------------



Steve Rhodes

Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

e: steve.rhodes@enzygo.com

Analytical Report Number : 21-72260

Project / Site name:	Richmond	Samples received on:	29/04/2021
Your job number:	CRM.1265.087	Samples instructed on/ Analysis started on:	30/04/2021
Your order number:		Analysis completed by:	11/05/2021
Report Issue Number:	1	Report issued on:	11/05/2021
Samples Analysed:	22 soil samples		

Signed: *Karolina Marek*

Karolina Marek
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.

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number	1856420				1856421		1856422		1856423		1856424	
Sample Reference	WS1				WS2		WS2		WS4		WS5	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.40				0.20-0.45		1.00		0.40		0.40	
Date Sampled	28/04/2021				28/04/2021		28/04/2021		28/04/2021		28/04/2021	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
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	< 0.1	< 0.1	< 0.1	
Moisture Content	%	0.01	NONE	8.3	5.9	10	11	8.4				
Total mass of sample received	kg	0.001	NONE	1.2	1.2	0.50	1.2	1.2				

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Crocidolite	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.006	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.006	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.7	7.7	8.2	6.9	8.1
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.4	1.3	0.3	0.9	1.2

Total Phenols

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

Speciated PAHs

Compound	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.74	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.57	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.60	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	6.5	< 0.05	< 0.05	0.76	< 0.05
Anthracene	mg/kg	0.05	MCERTS	1.8	< 0.05	< 0.05	0.20	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	15	0.53	< 0.05	1.3	0.46
Pyrene	mg/kg	0.05	MCERTS	14	0.51	< 0.05	1.2	0.46
Benzo(a)anthracene	mg/kg	0.05	MCERTS	8.1	0.36	< 0.05	0.67	0.26
Chrysene	mg/kg	0.05	MCERTS	5.2	0.32	< 0.05	0.55	0.23
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	8.1	0.44	< 0.05	0.63	0.30
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	3.2	0.24	< 0.05	0.33	0.15
Benzo(a)pyrene	mg/kg	0.05	MCERTS	7.0	0.40	< 0.05	0.60	0.27
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.0	0.25	< 0.05	0.41	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.1	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	4.6	0.29	< 0.05	0.43	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	80.9	3.34	< 0.80	7.12	2.13
-----------------------------	-------	-----	--------	------	------	--------	------	------

Heavy Metals / Metalloids

Element	mg/kg	1	MCERTS	16	40	16	17	16
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	40	16	17	16
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1	0.8	1.5	0.4	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	26	26	26	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	52	36	7.6	26	35
Lead (aqua regia extractable)	mg/kg	1	MCERTS	310	150	11	73	84
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.2	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	19	21	22	23
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140	110	46	94	130

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number	1856420	1856421	1856422	1856423	1856424
Sample Reference	WS1	WS2	WS2	WS4	WS5
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.40	0.20-0.45	1.00	0.40	0.40
Date Sampled	28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	7.3	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	38	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	99	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	140	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	140	< 10	< 10	< 10	< 10

TPH (>C5 - C7)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (>C7 - C8)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	7.3	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	38	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C21 - C35)	mg/kg	1	MCERTS	99	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C35 - C44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C44	mg/kg	10	NONE	140	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number				1856425	1856426	1856427	1856428	1856429
Sample Reference				WS5	WS6	WS6	WS7	WS8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.40	1.00	0.40	1.00
Date Sampled				28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	-	< 0.1	-
Moisture Content	%	0.01	NONE	10	9.1	-	7.5	-
Total mass of sample received	kg	0.001	NONE	0.50	1.2	-	1.0	-

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	< 0.001	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	7.8	-	7.2	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.3	1.5	-	1.6	-

Total Phenols

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

Speciated PAHs

Compound	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.64	-	0.60	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.57	-	0.55	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.38	-	0.37	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.33	-	0.32	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.42	-	0.50	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.23	-	0.28	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.33	-	0.42	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.25	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.22	-	< 0.05	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	3.37	-	3.04	-
-----------------------------	-------	-----	--------	--------	------	---	------	---

Heavy Metals / Metalloids

Element	mg/kg	1	MCERTS	15	19	-	18	-
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	19	-	18	-
Boron (water soluble)	mg/kg	0.2	MCERTS	1.6	0.7	-	0.8	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	-	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	26	21	-	25	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	32	-	33	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15	160	-	120	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	20	-	21	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	48	110	-	170	-

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number				1856425	1856426	1856427	1856428	1856429
Sample Reference				WS5	WS6	WS6	WS7	WS8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.40	1.00	0.40	1.00
Date Sampled				28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0	-
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	-	< 8.4	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	-	< 10	-
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	-	< 10	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	-	< 10	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	-	< 10	-
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	-	< 8.4	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	-	< 10	-
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	-	< 10	-
TPH (>C5 - C7)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPH (>C7 - C8)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	-
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	-
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0	< 4.0	-	< 4.0	-
TPH (C16 - C21)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPH (C21 - C35)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPH (C35 - C44)	mg/kg	10	NONE	< 10	< 10	-	< 10	-
TPH Total C5 - C44	mg/kg	10	NONE	< 10	< 10	-	< 10	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number	1856430	1856431	1856432	1856433	1856434			
Sample Reference	WS8	WS9	WS10	WS11	WS12			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.40	0.40	0.40	0.40	0.40			
Date Sampled	28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
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	5.7	7.1	9.3	8.7	9.4
Total mass of sample received	kg	0.001	NONE	0.50	1.2	1.2	1.2	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	3.127	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	3.13	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.6	8.2	10.8	7.9	8.0
Total Organic Carbon (TOC)	%	0.1	MCERTS	2.7	1.2	1.6	1.0	1.7

Total Phenols

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

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	2.2	< 0.05	< 0.05	0.48	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.43	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	5.9	0.46	0.48	0.81	0.50
Pyrene	mg/kg	0.05	MCERTS	4.8	0.41	0.55	0.72	0.50
Benzo(a)anthracene	mg/kg	0.05	MCERTS	3.8	0.26	0.43	0.44	0.24
Chrysene	mg/kg	0.05	MCERTS	2.3	0.27	0.36	0.38	0.38
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	3.4	0.35	0.47	0.48	0.52
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.5	0.21	0.26	0.26	0.13
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.6	0.32	0.47	0.42	0.34
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.6	< 0.05	0.31	0.30	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.53	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.7	< 0.05	0.38	0.31	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	30.7	2.28	3.71	4.60	2.61
-----------------------------	-------	-----	--------	------	------	------	------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	34	16	17	19	18
Boron (water soluble)	mg/kg	0.2	MCERTS	2.3	0.9	0.3	0.6	1.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	22	25	25	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	110	37	27	30	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	320	140	250	110	140
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.9	< 0.3	< 0.3	< 0.3	0.9
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	48	18	19	23	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	310	120	160	190	180

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number				1856430	1856431	1856432	1856433	1856434
Sample Reference				WS8	WS9	WS10	WS11	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.40	0.40	0.40	0.40
Date Sampled				28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	16	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	50	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	66	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	66	< 10	< 10	< 10	< 10
TPH (>C5 - C7)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (>C7 - C8)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	16	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C21 - C35)	mg/kg	1	MCERTS	50	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C35 - C44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C44	mg/kg	10	NONE	66	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number	1856435	1856436	1856437	1856438	1856439			
Sample Reference	WS13	WS13	WS14	WS15	WS16			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.40	1.00	0.40	0.40	0.40			
Date Sampled	28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
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	6.3	14	8.7	11	7.9
Total mass of sample received	kg	0.001	NONE	1.2	0.40	1.2	1.2	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2	8.3	8.4	8.3	7.9
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.1	0.4	2.5	1.2	1.2

Total Phenols

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

Speciated PAHs

Compound	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
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	0.31	< 0.05	0.55	0.66	0.27
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.59	< 0.05	0.81	1.7	0.42
Pyrene	mg/kg	0.05	MCERTS	0.54	< 0.05	0.69	1.5	0.39
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.39	< 0.05	0.46	0.73	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.39	< 0.05	0.41	1.0	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.40	< 0.05	0.48	1.1	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.29	< 0.05	< 0.05	0.66	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.36	< 0.05	0.41	0.87	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.26	0.60	< 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	0.30	0.59	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	3.27	< 0.80	4.37	9.38	1.08
-----------------------------	-------	-----	--------	------	--------	------	------	------

Heavy Metals / Metalloids

Element	mg/kg	1	MCERTS	17	18	19	19	16
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	18	19	19	16
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	1.2	0.7	0.8	0.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	30	28	29	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	35	14	42	43	27
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110	26	85	170	370
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	22	28	33	28	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	160	55	110	150	110

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number				1856435	1856436	1856437	1856438	1856439
Sample Reference				WS13	WS13	WS14	WS15	WS16
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	1.00	0.40	0.40	0.40
Date Sampled				28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	15	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	22	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	< 10	22	< 10
TPH (>C5 - C7)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (>C7 - C8)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	6.8	< 1.0
TPH (C21 - C35)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	15	< 1.0
TPH (C35 - C44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C44	mg/kg	10	NONE	< 10	< 10	< 10	22	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number				1856440	1856441
Sample Reference				WS17	WS18
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.40
Date Sampled				28/04/2021	28/04/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	7.9	6.1
Total mass of sample received	kg	0.001	NONE	1.2	1.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	8.2
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.1	1.9

Total Phenols

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

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.46
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.56	1.0
Pyrene	mg/kg	0.05	MCERTS	0.49	0.87
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.29	0.57
Chrysene	mg/kg	0.05	MCERTS	0.28	0.38
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.71
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.18
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.57
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.33
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.42

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	1.62	5.49
-----------------------------	-------	-----	--------	------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	18
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	26	41
Lead (aqua regia extractable)	mg/kg	1	MCERTS	92	280
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	110

Analytical Report Number: 21-72260
Project / Site name: Richmond

Lab Sample Number				1856440	1856441
Sample Reference				WS17	WS18
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.40
Date Sampled				28/04/2021	28/04/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Petroleum Hydrocarbons					
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	11
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	< 10	11
TPH (>C5 - C7)	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH (>C7 - C8)	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	< 1.0	2.9
TPH (C21 - C35)	mg/kg	1	MCERTS	< 1.0	7.7
TPH (C35 - C44)	mg/kg	10	NONE	< 10	< 10
TPH Total C5 - C44	mg/kg	10	NONE	< 10	11

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 21-72260
Project / Site name: Richmond
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1856421	WS2	0.20-0.45	165	Loose Fibrous Debris	Crocidolite	0.006	0.006
1856426	WS6	0.40	220	Loose Fibrous Debris	Chrysotile	< 0.001	< 0.001
1856430	WS8	0.40	158	Hard/Cement Type Material	Chrysotile	3.127	3.13

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number : 21-72260
Project / Site name: Richmond

* 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 *
1856420	WS1	None Supplied	0.4	Brown sandy loam with gravel and vegetation.
1856421	WS2	None Supplied	0.20-0.45	Brown sandy loam with gravel and vegetation.
1856422	WS2	None Supplied	1	Brown clay and sand with gravel.
1856423	WS4	None Supplied	0.4	Brown clay and loam with gravel and vegetation.
1856424	WS5	None Supplied	0.4	Brown clay and loam with gravel and brick.
1856425	WS5	None Supplied	1	Brown clay and loam.
1856426	WS6	None Supplied	0.4	Brown loam and clay with gravel and vegetation.
1856428	WS7	None Supplied	0.4	Brown sandy loam with gravel and vegetation.
1856430	WS8	None Supplied	0.4	Brown sandy loam with gravel.
1856431	WS9	None Supplied	0.4	Brown loam and clay with gravel.
1856432	WS10	None Supplied	0.4	Brown loam and clay with gravel and brick.
1856433	WS11	None Supplied	0.4	Brown loam and clay with gravel and brick.
1856434	WS12	None Supplied	0.4	Brown loam and clay with gravel and vegetation.
1856435	WS13	None Supplied	0.4	Brown loam and clay with gravel and brick.
1856436	WS13	None Supplied	1	Brown loam and clay with gravel and vegetation.
1856437	WS14	None Supplied	0.4	Brown clay and loam with gravel.
1856438	WS15	None Supplied	0.4	Brown loam and clay with gravel and vegetation.
1856439	WS16	None Supplied	0.4	Brown sandy clay with gravel and vegetation.
1856440	WS17	None Supplied	0.4	Brown sandy clay with gravel and vegetation.
1856441	WS18	None Supplied	0.4	Brown sandy clay with gravel and vegetation.

Analytical Report Number : 21-72260
Project / Site name: Richmond

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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 (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
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.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.



Steve Rhodes
Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

e: steve.rhodes@enzygo.com

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 21-72267

Project / Site name:	Richmond	Samples received on:	29/04/2021
Your job number:	CRM.1265.087	Samples instructed on/ Analysis started on:	30/04/2021
Your order number:		Analysis completed by:	12/05/2021
Report Issue Number:	1	Report issued on:	12/05/2021
Samples Analysed:	5 wac multi samples		

Signed: 

Zina Abdul Razzak
Senior Quality 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

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.

i2 Analytical

7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results							
Report No:	21-72267						
				Client: ENZYGOGEO			
Location	Richmond						
Lab Reference (Sample Number)	1856455			Landfill Waste Acceptance Criteria			
Sampling Date	28/04/2021			Limits			
Sample ID	WS1			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	
Depth (m)	0.40						
Solid Waste Analysis							
TOC (%)**	1.4			3%	5%	6%	
Loss on Ignition (%) **	3.7			--	--	10%	
BTEX (µg/kg) **	< 10			6000	--	--	
Sum of PCBs (mg/kg) **	< 0.30			1	--	--	
Mineral Oil (mg/kg) #	95			500	--	--	
Total PAH (WAC-17) (mg/kg)	81.9			100	--	--	
pH (units)**	7.9			--	>6	--	
Acid Neutralisation Capacity (mol / kg)	3.8			--	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 *	< 0.010	< 0.010		0.080	0.5	2	25
Barium *	0.023	0.043		0.41	20	100	300
Cadmium *	< 0.0005	< 0.0005		0.0035	0.04	1	5
Chromium *	< 0.0010	0.0010		0.0095	0.5	10	70
Copper *	0.032	0.026		0.26	2	50	100
Mercury *	< 0.0015	< 0.0015		< 0.010	0.01	0.2	2
Molybdenum *	< 0.0030	< 0.0030		< 0.020	0.5	10	30
Nickel *	0.0068	0.0058		0.059	0.4	10	40
Lead *	0.0098	0.057		0.52	0.5	10	50
Antimony *	0.014	0.0060		0.069	0.06	0.7	5
Selenium *	< 0.010	< 0.010		0.049	0.1	0.5	7
Zinc *	0.017	0.0398		0.37	4	50	200
Chloride *	< 4.0	< 4.0		38	800	15000	25000
Fluoride	0.76	0.59		6.1	10	150	500
Sulphate *	5.6	6.6		65	1000	20000	50000
TDS*	91	60		630	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.13	< 0.13		< 0.50	1	-	-
DOC	15	23		220	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.2						
Dry Matter (%)	92						
Moisture (%)	8.3						
Stage 1							
Volume Eluate L2 (litres)	0.34						
Filtered Eluate VE1 (litres)	0.19						
Results are expressed on a dry weight basis, after correction for moisture content where applicable. * = UKAS accredited (liquid eluate analysis only)							
Statelimits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation ** = 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.							

i2 Analytical

7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results							
Report No:	21-72267						
				Client: ENZYGOGEO			
Location		Richmond					
Lab Reference (Sample Number)		1856456			Landfill Waste Acceptance Criteria		
Sampling Date		28/04/2021			Limits		
Sample ID		WS6			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)		1.00					
Solid Waste Analysis							
TOC (%)**	0.4				3%	5%	6%
Loss on Ignition (%) **	2.2				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.30				1	--	--
Mineral Oil (mg/kg) #	49				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	7.5				--	>6	--
Acid Neutralisation Capacity (mol / kg)	1.7				--	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 *	< 0.010	< 0.010		< 0.050	0.5	2	25
Barium *	0.0058	0.029		0.27	20	100	300
Cadmium *	< 0.0005	< 0.0005		< 0.0020	0.04	1	5
Chromium *	< 0.0010	< 0.0010		< 0.0050	0.5	10	70
Copper *	0.0086	0.0067		0.069	2	50	100
Mercury *	< 0.0015	< 0.0015		< 0.010	0.01	0.2	2
Molybdenum *	< 0.0030	< 0.0030		< 0.020	0.5	10	30
Nickel *	0.013	0.0040		0.047	0.4	10	40
Lead *	< 0.0050	< 0.0050		< 0.020	0.5	10	50
Antimony *	< 0.0050	< 0.0050		< 0.020	0.06	0.7	5
Selenium *	< 0.010	< 0.010		< 0.040	0.1	0.5	7
Zinc *	0.014	0.0067		0.074	4	50	200
Chloride *	< 4.0	4.7		45	800	15000	25000
Fluoride	0.15	0.16		1.6	10	150	500
Sulphate *	7.4	5.1		53	1000	20000	50000
TDS*	45	34		350	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.13	< 0.13		< 0.50	1	-	-
DOC	8.6	21		200	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.80						
Dry Matter (%)	86						
Moisture (%)	14						
Stage 1							
Volume Eluate L2 (litres)	0.32						
Filtered Eluate VE1 (litres)	0.15						
Results are expressed on a dry weight basis, after correction for moisture content where applicable. * = UKAS accredited (liquid eluate analysis only)							
Statelimits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation ** = 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.

i2 Analytical

7 Woodshots Meadow
Croxley Green Business Park

Telephone: 01923 225404
Fax: 01923 237404

Watford, WD18 8YS

email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results						
Report No:	21-72267					
				Client: ENZYGOGEO		
Location	Richmond					
Lab Reference (Sample Number)	1856457			Landfill Waste Acceptance Criteria		
Sampling Date	28/04/2021			Limits		
Sample ID	WS8			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	1.00					
Solid Waste Analysis						
TOC (%)**	0.6			3%	5%	6%
Loss on Ignition (%) **	2.2			--	--	10%
BTEX (µg/kg) **	< 10			6000	--	--
Sum of PCBs (mg/kg) **	< 0.30			1	--	--
Mineral Oil (mg/kg) #	< 10			500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85			100	--	--
pH (units)**	7.6			--	>6	--
Acid Neutralisation Capacity (mol / kg)	1.4			--	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 *	< 0.010	< 0.010		< 0.050	0.5	2
Barium *	0.0075	0.031		0.29	20	100
Cadmium *	< 0.0005	< 0.0005		< 0.0020	0.04	1
Chromium *	< 0.0010	< 0.0010		0.0090	0.5	10
Copper *	0.0047	0.017		0.16	2	50
Mercury *	< 0.0015	< 0.0015		< 0.010	0.01	0.2
Molybdenum *	< 0.0030	< 0.0030		< 0.020	0.5	10
Nickel *	0.0042	0.0044		0.044	0.4	10
Lead *	< 0.0050	< 0.0050		< 0.020	0.5	10
Antimony *	< 0.0050	< 0.0050		< 0.020	0.06	0.7
Selenium *	< 0.010	< 0.010		0.046	0.1	0.5
Zinc *	0.013	0.0128		0.13	4	50
Chloride *	< 4.0	4.2		41	800	15000
Fluoride	0.27	0.24		2.5	10	150
Sulphate *	4.4	6.1		60	1000	20000
TDS*	52	39		400	4000	60000
Phenol Index (Monohydric Phenols) *	< 0.13	< 0.13		< 0.50	1	-
DOC	9.1	19		180	500	800
Leach Test Information						
Stone Content (%)	< 0.1					
Sample Mass (kg)	0.80					
Dry Matter (%)	87					
Moisture (%)	13					
Stage 1						
Volume Eluate L2 (litres)	0.32					
Filtered Eluate VE1 (litres)	0.14					
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						

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.

i2 Analytical

7 Woodshots Meadow
 Croxley Green Business Park
 Watford, WD18 8YS

Telephone: 01923 225404
 Fax: 01923 237404
 email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results						
Report No:	21-72267					



Location		Richmond			Client: ENZYGOGEO		
Lab Reference (Sample Number)		1856458			Landfill Waste Acceptance Criteria		
Sampling Date		28/04/2021			Limits		
Sample ID		WS10			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)		0.40					
Solid Waste Analysis							
TOC (%)**	0.7				3%	5%	6%
Loss on Ignition (%) **	2.3				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.30				1	--	--
Mineral Oil (mg/kg) #	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	3.71				100	--	--
pH (units)**	8.1				--	>6	--
Acid Neutralisation Capacity (mol / kg)	7.5				--	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	
				mg/l	mg/l	mg/kg	
				using BS EN 12457-3 at L/S 10 l/kg (mg/kg)			
Arsenic *	< 0.010	< 0.010		< 0.050	0.5	2	25
Barium *	0.020	0.023		0.23	20	100	300
Cadmium *	< 0.0005	< 0.0005		0.0032	0.04	1	5
Chromium *	0.0072	0.012		0.11	0.5	10	70
Copper *	0.012	0.018		0.17	2	50	100
Mercury *	< 0.0015	< 0.0015		< 0.010	0.01	0.2	2
Molybdenum *	< 0.0030	< 0.0030		< 0.020	0.5	10	30
Nickel *	0.0031	0.0043		0.042	0.4	10	40
Lead *	< 0.0050	0.026		0.23	0.5	10	50
Antimony *	0.011	< 0.0050		0.042	0.06	0.7	5
Selenium *	< 0.010	< 0.010		0.052	0.1	0.5	7
Zinc *	0.0079	0.0285		0.26	4	50	200
Chloride *	< 4.0	< 4.0		35	800	15000	25000
Fluoride	0.54	0.40		4.1	10	150	500
Sulphate *	9.3	23		220	1000	20000	50000
TDS*	94	80		820	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.13	< 0.13		< 0.50	1	-	-
DOC	8.0	13		120	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.2						
Dry Matter (%)	91						
Moisture (%)	9.3						
Stage 1							
Volume Eluate L2 (litres)	0.33						
Filtered Eluate VE1 (litres)	0.20						
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							

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.

i2 Analytical

7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	21-72267	
		Client: ENZYGOGEO

Location	Richmond			Landfill Waste Acceptance Criteria		
Lab Reference (Sample Number)	1856459			Limits		
Sampling Date	28/04/2021			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS18					
Depth (m)	0.40					
Solid Waste Analysis						
TOC (%)**	0.9			3%	5%	6%
Loss on Ignition (%) **	3.0			--	--	10%
BTEX (µg/kg) **	< 10			6000	--	--
Sum of PCBs (mg/kg) **	< 0.30			1	--	--
Mineral Oil (mg/kg) #	< 10			500	--	--
Total PAH (WAC-17) (mg/kg)	10.4			100	--	--
pH (units)**	7.4			--	>6	--
Acid Neutralisation Capacity (mol / kg)	1.1			--	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 LYS 10 l/kg (mg/kg)	
Arsenic *	< 0.010	< 0.010		< 0.050	0.5	2
Barium *	0.017	0.019		0.18	20	100
Cadmium *	< 0.0005	< 0.0005		0.0025	0.04	1
Chromium *	< 0.0010	< 0.0010		0.0099	0.5	10
Copper *	0.021	0.016		0.16	2	50
Mercury *	< 0.0015	< 0.0015		< 0.010	0.01	0.2
Molybdenum *	< 0.0030	< 0.0030		< 0.020	0.5	10
Nickel *	0.0092	0.0046		0.051	0.4	10
Lead *	< 0.0050	0.0072		0.070	0.5	10
Antimony *	0.024	0.0058		0.075	0.06	0.7
Selenium *	< 0.010	< 0.010		< 0.040	0.1	0.5
Zinc *	0.0099	0.0230		0.22	4	50
Chloride *	< 4.0	< 4.0		33	800	15000
Fluoride	0.58	0.45		4.6	10	150
Sulphate *	5.3	8.5		82	1000	20000
TDS*	95	72		740	4000	60000
Phenol Index (Monohydric Phenols) *	< 0.13	< 0.13		< 0.50	1	-
DOC	13	17		170	500	800
Leach Test Information						
Stone Content (%)	< 0.1					
Sample Mass (kg)	1.0					
Dry Matter (%)	94					
Moisture (%)	6.1					
Stage 1						
Volume Eluate L2 (litres)	0.34					
Filtered Eluate VE1 (litres)	0.16					
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						

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.



Analytical Report Number : 21-72267
Project / Site name: Richmond

* 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 *
1856455	WS1	None Supplied	0.4	Brown sandy loam with gravel and vegetation.
1856456	WS6	None Supplied	1	Brown clay and sand.
1856457	WS8	None Supplied	1	Brown clay.
1856458	WS10	None Supplied	0.4	Brown loam and clay with gravel and brick.
1856459	WS18	None Supplied	0.4	Brown sandy clay with gravel and vegetation.

Analytical Report Number : 21-72267
Project / Site name: Richmond

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	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.	L019-UK/PL	D	NONE
Preparation WAC leachate		In-house method	L043-PL	W	NONE
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270. MCERTS accredited except Coronene.	L064-PL	D	MCERTS
Chloride in WAC leachate (BS EN 12457-3 Prep)	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride in WAC leachate (BS EN 12457-3 Prep)	Determination of fluoride in leachate by 1:1ratio 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.	L033-PL	W	ISO 17025
Phenol Index in WAC leachate (BS EN 12457-3 Prep)	Determination of monohydric phenols in leachate by continuous flow analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	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.	L039-PL	W	ISO 17025
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.	L031-PL	W	NONE
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.	L037-PL	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 an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Mineral Oil in Soil C10 - C40	Determination of dichloromethane/hexane extractable hydrocarbons in soil by GC-MS.	In-house method based on USEPA 8270	L076-PL	D	NONE
pH in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L023-PL	D	MCERTS
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.	L039-PL	W	ISO 17025
PCB's by GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS



Analytical Report Number : 21-72267
Project / Site name: Richmond

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BTEX (Sum of BTEX compounds) in soil	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.



Steve Rhodes

Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

e: steve.rhodes@enzygo.com

Analytical Report Number : 21-18748

Project / Site name:	Richmond	Samples received on:	26/10/2021
Your job number:	CRM 1265 087	Samples instructed on/ Analysis started on:	26/10/2021
Your order number:		Analysis completed by:	02/11/2021
Report Issue Number:	1	Report issued on:	02/11/2021
Samples Analysed:	6 soil samples		

Signed: *Karolina Marek*

Karolina Marek
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.

Analytical Report Number: 21-18748
Project / Site name: Richmond

Lab Sample Number				2060566	2060567	2060568	2060569	2060570
Sample Reference				WS101	WS102	WS103	WS104	WS105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30-0.50	0.30-0.40	0.30-0.45	0.30-0.50	0.35-0.45
Date Sampled				25/10/2021	25/10/2021	25/10/2021	25/10/2021	25/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
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	15	16	10	6.6
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
------------------	------	-----	-----------	--------------	--------------	--------------	--------------	--------------

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	10.3	9.8	8.9	10.8	11.1
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.9	1.1	1.7	1.2	1.5

Total Phenols

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

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	0.33	< 0.05	0.28	0.37
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.28	0.48	< 0.05	0.59	0.50
Pyrene	mg/kg	0.05	MCERTS	0.30	0.57	< 0.05	0.50	0.49
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.28	0.66	< 0.05	0.43	0.37
Chrysene	mg/kg	0.05	MCERTS	0.20	0.49	< 0.05	0.39	0.33
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.1	< 0.05	0.43	0.29
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.74	< 0.05	0.26	0.24
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.3	< 0.05	0.34	0.30
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.72	< 0.05	0.27	< 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	0.91	< 0.05	0.33	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	1.06	7.35	< 0.80	3.82	2.89
-----------------------------	-------	-----	--------	------	------	--------	------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	18	30	83	23
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.7	1.7	14	2.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	37	25	35	64	32
Copper (aqua regia extractable)	mg/kg	1	MCERTS	470	28	79	340	180
Lead (aqua regia extractable)	mg/kg	1	MCERTS	180	1400	130	510	320
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	1.1	< 0.3	0.6	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	35	17	44	34	30
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	470	230	110	340	260

Analytical Report Number: 21-18748
Project / Site name: Richmond

Lab Sample Number	2060566	2060567	2060568	2060569	2060570
Sample Reference	WS101	WS102	WS103	WS104	WS105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.30-0.50	0.30-0.40	0.30-0.45	0.30-0.50	0.35-0.45
Date Sampled	25/10/2021	25/10/2021	25/10/2021	25/10/2021	25/10/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	5.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	68	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	82	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	36	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	17	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	190	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	210	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	13	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	58	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	30	50	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	27	38	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	36	120	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	< 10	63	160	< 10	< 10

TPH (>C5 - C7)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (>C7 - C8)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0	5.0	< 2.0	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0	< 4.0	82	< 4.0	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	< 1.0	6.2	140	< 1.0	< 1.0
TPH (C21 - C35)	mg/kg	1	MCERTS	< 1.0	30	86	< 1.0	< 1.0
TPH (C35 - C44)	mg/kg	10	NONE	< 10	27	55	< 10	< 10
TPH Total C5 - C44	mg/kg	10	NONE	< 10	63	370	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-18748
Project / Site name: Richmond

Lab Sample Number				2060571
Sample Reference				WS106
Sample Number				None Supplied
Depth (m)				0.30-0.40
Date Sampled				25/10/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	9.9
Total mass of sample received	kg	0.001	NONE	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
------------------	------	-----	-----------	--------------

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	10.3
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.0

Total Phenols

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

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.33
Pyrene	mg/kg	0.05	MCERTS	0.35
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.21
Chrysene	mg/kg	0.05	MCERTS	0.21
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	1.10
-----------------------------	-------	-----	--------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.4
Boron (water soluble)	mg/kg	0.2	MCERTS	3.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17
Lead (aqua regia extractable)	mg/kg	1	MCERTS	45
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	49

Analytical Report Number: 21-18748
Project / Site name: Richmond

Lab Sample Number				2060571
Sample Reference				WS106
Sample Number				None Supplied
Depth (m)				0.30-0.40
Date Sampled				25/10/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Petroleum Hydrocarbons				
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	13
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	23
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	13
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	36

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	32
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	62
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	35
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	96

TPH (>C5 - C7)	mg/kg	1	MCERTS	< 1.0
TPH (>C7 - C8)	mg/kg	1	MCERTS	< 1.0
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	2.5
TPH (C21 - C35)	mg/kg	1	MCERTS	45
TPH (C35 - C44)	mg/kg	10	NONE	85
TPH Total C5 - C44	mg/kg	10	NONE	130

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-18748

Project / Site name: Richmond

* 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 *
2060566	WS101	None Supplied	0.30-0.50	Grey clay and sand with gravel.
2060567	WS102	None Supplied	0.30-0.40	Brown clay and sand with rubble.
2060568	WS103	None Supplied	0.30-0.45	Brown clay and sand with rubble.
2060569	WS104	None Supplied	0.30-0.50	Brown clay and sand with rubble.
2060570	WS105	None Supplied	0.35-0.45	Brown sand with rubble.
2060571	WS106	None Supplied	0.30-0.40	Brown sand with gravel and rubble.

Analytical Report Number : 21-18748
Project / Site name: Richmond

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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 (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
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.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.

Human Health Assessment Reference Values

Determinant	Units	GAC Value Residential					
		With Plant Uptake			Without Plant Uptake		
Arsenic	mg/kg	37			40		
Cadmium	mg/kg	11			85		
Chromium	mg/kg	910			910		
Chromium VI	mg/kg	6			6		
Lead	mg/kg	200			310		
Mercury	mg/kg	40			56		
Nickel	mg/kg	180			180		
Selenium	mg/kg	250			430		
Copper	mg/kg	2400			7100		
Zinc	mg/kg	3700			40000		
Cyanide	mg/kg	791			800		
SOM							
	%	1	2.5	6	1	2.5	6
Phenol	mg/kg	120	200	380	440	690	1200
Napthalene	mg/kg	2.3	5.6	13	2.3	5.6	13
Acenaphtylene	mg/kg	170	420	920	2900	4600	6000
Acenaphthene	mg/kg	210	510	1100	3000	4700	6000
Flourene	mg/kg	170	400	860	2800	3800	4500
Phenanthrene	mg/kg	95	220	440	1300	1500	1500
Anthracene	mg/kg	2400	5400	11000	31000	35000	37000
Fluoranthene	mg/kg	280	560	890	1500	1600	1600
Pyrene	mg/kg	620	1200	2000	3700	3800	3800
Benzo(a)Anthracene	mg/kg	7.2	11	13	11	14	15
Chrysene	mg/kg	15	22	27	30	31	32
Benzo(b)Flouranthene	mg/kg	2.6	3.3	3.7	3.9	4.0	4.0
Benzo(k)Flouranthene	mg/kg	77	93	100	110	110	110
Benzo(a)Pyrene	mg/kg	2.2	2.7	3.0	3.2	3.2	3.2
Indeno(123-cd)Pyrene	mg/kg	27	36	41	45	46	46
Dibenzo(a,h)Anthracene	mg/kg	0.24	0.28	0.3	0.31	0.32	0.32
Benzo(ghi)Perylene	mg/kg	320	340	350	360	360	360
TPH C₅-C₆ Aliphatic							
	mg/kg	42	78	160	42	78	160
TPH C₆-C₈ Aliphatic							
	mg/kg	100	230	530	100	230	530
TPH C₈-C₁₀ Aliphatic							
	mg/kg	27	65	150	27	65	150
TPH C₁₀-C₁₂ Aliphatic							
	mg/kg	130	330	760	130	330	770
TPH C₁₂-C₁₆ Aliphatic							
	mg/kg	1100	2400	4300	1100	2400	4400
TPH C₁₆-C₃₅ Aliphatic							
	mg/kg	65000	92000	110000	65000	92000	110000
TPH C₃₅-C₄₄ Aliphatic							
	mg/kg	65000	92000	110000	65000	92000	110000
TPH C₅-C₇ Aromatic							
	mg/kg	70	140	300	370	690	1400
TPH C₇-C₈ Aromatic							
	mg/kg	130	290	660	860	1800	3900
TPH C₈-C₁₀ Aromatic							
	mg/kg	34	83	190	47	110	270
TPH C₁₀-C₁₂ Aromatic							
	mg/kg	74	180	380	250	590	1200
TPH C₁₂-C₁₆ Aromatic							
	mg/kg	140	330	660	1800	2300	2500
TPH C₁₆-C₂₁ Aromatic							
	mg/kg	260	540	930	1900	1900	1900
TPH C₂₁-C₃₅ Aromatic							
	mg/kg	1100	1500	1700	1900	1900	1900
TPH C₃₅-C₄₄ Aromatic							
	mg/kg	1100	1500	1700	1900	1900	1900
Benzene							
	mg/kg	0.087	0.17	0.37	0.38	0.70	1.4
Toluene							
	mg/kg	130	290	660	880	1900	3900
Ethylbenzene							
	mg/kg	47	110	260	83	190	440
Xylene							
	mg/kg	56	130	310	79	180	430

Determinant	Units	GAC Value					
		Residential POS			Commercial		
Arsenic	mg/kg	79			640		
Cadmium	mg/kg	120			190		
Chromium	mg/kg	1500			8600		
Chromium VI	mg/kg	7.7			33		
Lead	mg/kg	630			2330		
Mercury	mg/kg	120			1100		
Nickel	mg/kg	230			980		
Selenium	mg/kg	1100			12000		
Copper	mg/kg	12000			68000		
Zinc	mg/kg	81000			730000		
Cyanide	mg/kg	N/A			16200		
SOM	%	1	2.5	6	1	2.5	6
Phenol	mg/kg	440	690	1300	440	690	1300
Napthalene	mg/kg	4900	4900	4900	190	460	1100
Acenaphtylene	mg/kg	15000	15000	15000	83000	97000	100000
Acenaphthene	mg/kg	15000	15000	15000	84000	97000	100000
Flourene	mg/kg	9900	9900	9900	63000	68000	71000
Phenanthrene	mg/kg	3100	3100	3100	22000	22000	23000
Anthracene	mg/kg	74000	74000	74000	520000	540000	540000
Fluoranthene	mg/kg	3100	3100	3100	23000	23000	23000
Pyrene	mg/kg	7400	7400	7400	54000	54000	54000
Benzo(a)Anthracene	mg/kg	29	29	29	170	170	180
Chrysene	mg/kg	57	57	57	350	350	350
Benzo(b)Flouranthene	mg/kg	7.1	7.2	7.2	44	44	45
Benzo(k)Flouranthene	mg/kg	190	190	190	1200	1200	1200
Benzo(a)Pyrene	mg/kg	5.7	5.7	5.7	35	35	36
Indeno(123-cd)Pyrene	mg/kg	82	82	82	500	510	510
Dibenzo(a,h)Anthracene	mg/kg	0.57	0.57	0.58	3.5	3.6	3.6
Benzo(ghi)Perylene	mg/kg	640	640	640	3900	4000	4000
TPH C ₅ -C ₆ Aliphatic	mg/kg	570000	590000	600000	3200	5900	12000
TPH C ₆ -C ₈ Aliphatic	mg/kg	600000	610000	620000	7800	17000	40000
TPH C ₈ -C ₁₀ Aliphatic	mg/kg	13000	13000	13000	2000	4800	11000
TPH C ₁₀ -C ₁₂ Aliphatic	mg/kg	13000	13000	13000	9700	23000	47000
TPH C ₁₂ -C ₁₆ Aliphatic	mg/kg	13000	13000	13000	59000	82000	90000
TPH C ₁₆ -C ₃₅ Aliphatic	mg/kg	250000	250000	250000	1600000	1700000	1800000
TPH C ₃₅ -C ₄₄ Aliphatic	mg/kg	250000	250000	250000	1600000	1700000	1800000
TPH C ₅ -C ₇ Aromatic	mg/kg	56000	56000	56000	26000	46000	86000
TPH C ₇ -C ₈ Aromatic	mg/kg	56000	56000	56000	56000	110000	180000
TPH C ₈ -C ₁₀ Aromatic	mg/kg	5000	5000	5000	3500	8100	17000
TPH C ₁₀ -C ₁₂ Aromatic	mg/kg	5000	5000	5000	16000	28000	34000
TPH C ₁₂ -C ₁₆ Aromatic	mg/kg	5100	5100	5000	36000	37000	38000
TPH C ₁₆ -C ₂₁ Aromatic	mg/kg	3800	3800	3800	28000	28000	28000
TPH C ₂₁ -C ₃₅ Aromatic	mg/kg	3800	3800	3800	28000	28000	28000
TPH C ₃₅ -C ₄₄ Aromatic	mg/kg	3800	3800	3800	28000	28000	28000
Benzene	mg/kg	72	72	73	27	47	90
Toluene	mg/kg	56000	56000	56000	56000	110000	180000
Ethylbenzene	mg/kg	24000	24000	25000	5700	13000	27000
Xylene	mg/kg	41000	42000	43000	5900	14000	30000

Determinant	Units	GAC Value					
		Park POS			Allotments		
Arsenic	mg/kg	170			43		
Cadmium	mg/kg	532			1.9		
Chromium	mg/kg	33000			18000		
Chromium VI	mg/kg	220			1.8		
Lead	mg/kg	1300			80		
Mercury	mg/kg	240			19		
Nickel	mg/kg	3400			230		
Selenium	mg/kg	1800			88		
Copper	mg/kg	44000			520		
Zinc	mg/kg	170000			620		
Cyanide	mg/kg						
SOM	%	1	2.5	6	1	2.5	6
Phenol	mg/kg	440	690	1300	23	42	83
Napthalene	mg/kg	1200	1900	3000	4.1	10	24
Acenaphtylene	mg/kg	29000	30000	30000	28	69	160
Acenaphthene	mg/kg	29000	30000	30000	34	85	200
Flourene	mg/kg	20000	20000	20000	27	67	160
Phenanthrene	mg/kg	6200	6200	6300	15	38	90
Anthracene	mg/kg	150000	150000	150000	380	950	2200
Fluoranthene	mg/kg	6300	6300	6400	52	130	290
Pyrene	mg/kg	15000	15000	15000	110	270	620
Benzo(a)Anthracene	mg/kg	49	56	62	2.9	6.5	13
Chrysene	mg/kg	93	110	120	4.1	9.4	19
Benzo(b)Flouranthene	mg/kg	13	15	16	0.99	2.1	3.9
Benzo(k)Flouranthene	mg/kg	370	410	440	37	75	130
Benzo(a)Pyrene	mg/kg	11	12	13	0.97	2.0	3.5
Indeno(123-cd)Pyrene	mg/kg	150	170	180	9.5	21	39
Dibenzo(a,h)Anthracene	mg/kg	1.1	1.3	1.4	0.14	0.27	0.43
Benzo(ghi)Perylene	mg/kg	1400	1500	1600	290	470	640
TPH C ₅ -C ₆ Aliphatic	mg/kg	95000	130000	180000	730	1700	3900
TPH C ₆ -C ₈ Aliphatic	mg/kg	150000	220000	320000	2300	5600	13000
TPH C ₈ -C ₁₀ Aliphatic	mg/kg	14000	18000	21000	320	770	1700
TPH C ₁₀ -C ₁₂ Aliphatic	mg/kg	21000	23000	24000	2200	4400	7300
TPH C ₁₂ -C ₁₆ Aliphatic	mg/kg	25000	25000	26000	11000	13000	13000
TPH C ₁₆ -C ₃₅ Aliphatic	mg/kg	450000	480000	490000	260000	270000	270000
TPH C ₃₅ -C ₄₄ Aliphatic	mg/kg	450000	480000	490000	260000	270000	270000
TPH C ₅ -C ₇ Aromatic	mg/kg	76000	84000	92000	13	27	57
TPH C ₇ -C ₈ Aromatic	mg/kg	87000	95000	100000	22	51	120
TPH C ₈ -C ₁₀ Aromatic	mg/kg	7200	8500	9300	8.6	21	51
TPH C ₁₀ -C ₁₂ Aromatic	mg/kg	9200	9700	10000	13	31	74
TPH C ₁₂ -C ₁₆ Aromatic	mg/kg	10000	10000	10000	23	57	130
TPH C ₁₆ -C ₂₁ Aromatic	mg/kg	7600	7700	7800	46	110	260
TPH C ₂₁ -C ₃₅ Aromatic	mg/kg	7800	7800	7900	370	820	1600
TPH C ₃₅ -C ₄₄ Aromatic	mg/kg	7800	7800	7900	370	820	1600
Benzene	mg/kg	90	100	110	0.017	0.034	0.075
Toluene	mg/kg	87000	95000	100000	22	51	120
Ethylbenzene	mg/kg	17000	22000	27000	16	39	91
Xylene	mg/kg	17000	23000	31000	28	67	160

Copyright Land Quality Management Ltd reproduced with permission Publication No S4UL3250. All rights reserved

Controlled Waters Assessment Reference Values

Determinant	Unit	EQS Freshwater	Uk DWS	WHO
Arsenic	ug/l	50	10	10
Boron	ug/l	2000	1000	0.3
Cadmium	ug/l	5	5	3
Chromium	ug/l	5 - 250	50	50
Lead	ug/l	4 - 250	25	10
Mercury	ug/l	1	1	1
Selenium	ug/l		10	10
Copper	ug/l	1 - 28	20000	2000
Nickel	ug/l	50 - 200	20	70
Zinc	ug/l	8 - 50	5000	3000
Sulphate	mg/l	400	250	250
PAH	ug/l		0.1	
Anthracene	ug/l	0.02		
Napthalene	ug/l	10		
Benzo(a)Pyrene	ug/l	0.03		0.01
Fluoranthene	ug/l	0.02		
Benzene	ug/l	30	1	10
Toluene	ug/l	50		
Ethylbenzene	ug/l	20		
Xylene	ug/l	30		
TPH	ug/l			
C ₅ – C ₆ Aliphatic	ug/l			15000
C ₆ – C ₈ Aliphatic	ug/l			15000
C ₈ – C ₁₀ Aliphatic	ug/l			300
C ₁₀ – C ₁₂ Aliphatic	ug/l			300
C ₁₂ – C ₁₆ Aliphatic	ug/l			300
C ₁₆ – C ₃₆ Aliphatic	ug/l			N/A
C ₆ – C ₇ Aromatic	ug/l			10
C ₇ – C ₈ Aromatic	ug/l	50		10
C ₈ – C ₁₀ Aromatic	ug/l	20		300
C ₁₀ – C ₁₂ Aromatic	ug/l			1000
C ₁₂ – C ₁₆ Aromatic	ug/l			1000
C ₁₆ – C ₂₁ Aromatic	ug/l			90
C ₂₁ – C ₃₅ Aromatic	ug/l			90



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

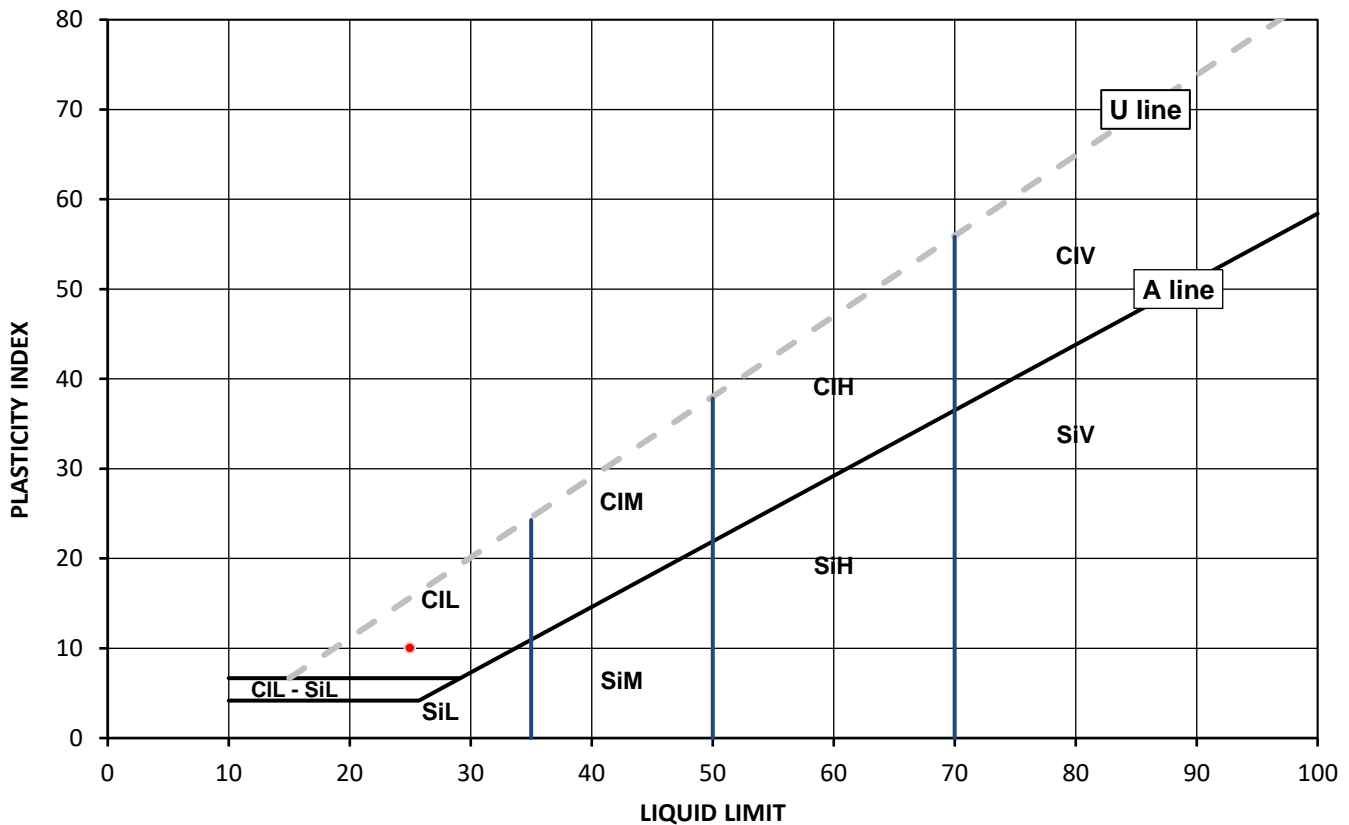
Test Results:

Laboratory Reference: 1857736
Hole No.: WS2
Sample Reference: Not Given
Soil Description: Brown clayey SAND with fragments of rootlets

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
16	25	15	10	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	L	Low	Liquid Limit	below 35
Si	Silt		M	Medium		35 to 50
			H	High		50 to 70
			V	Very high		exceeding 70
			O	Organic		append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

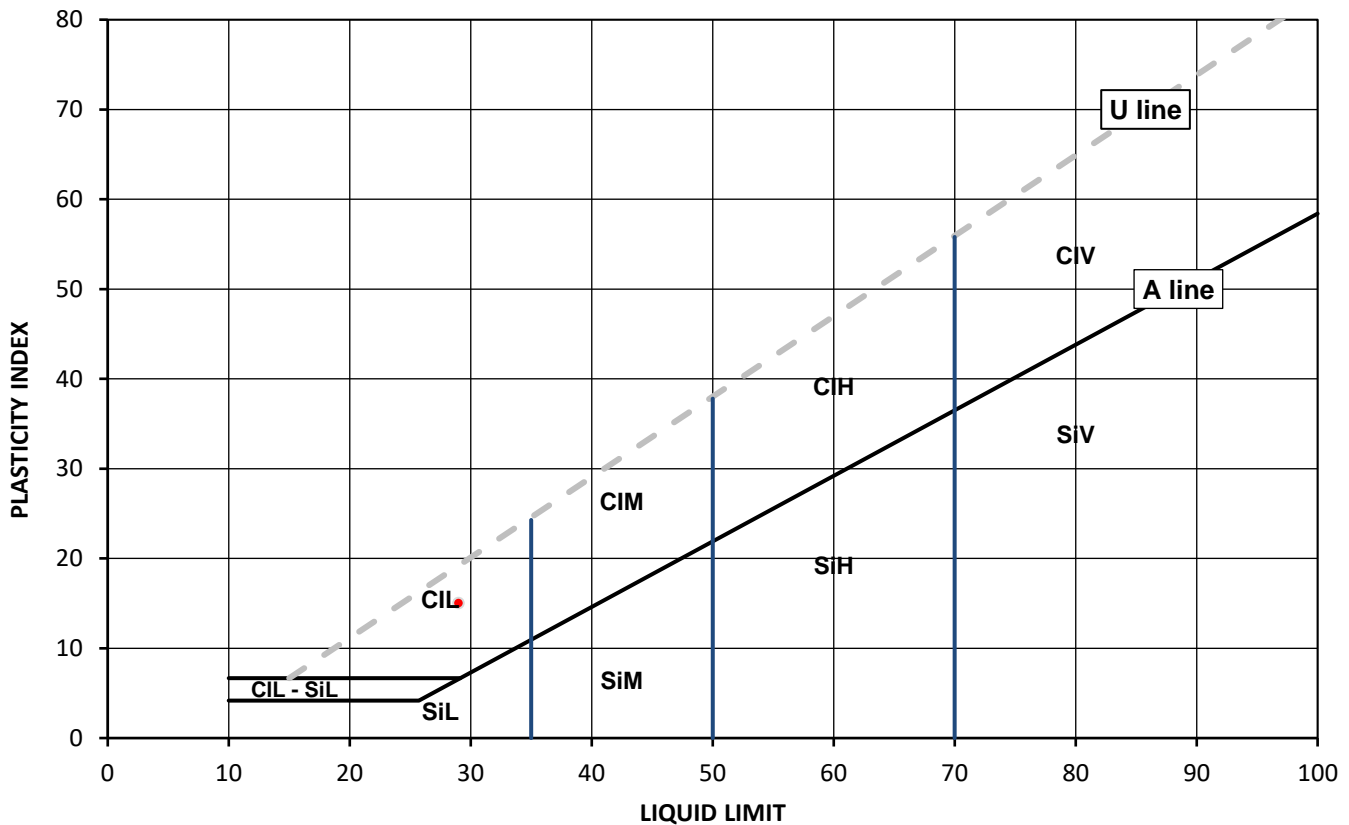
Test Results:

Laboratory Reference: 1857737
Hole No.: WS2
Sample Reference: Not Given
Soil Description: Yellowish brown very gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
8.2	29	14	15	29



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

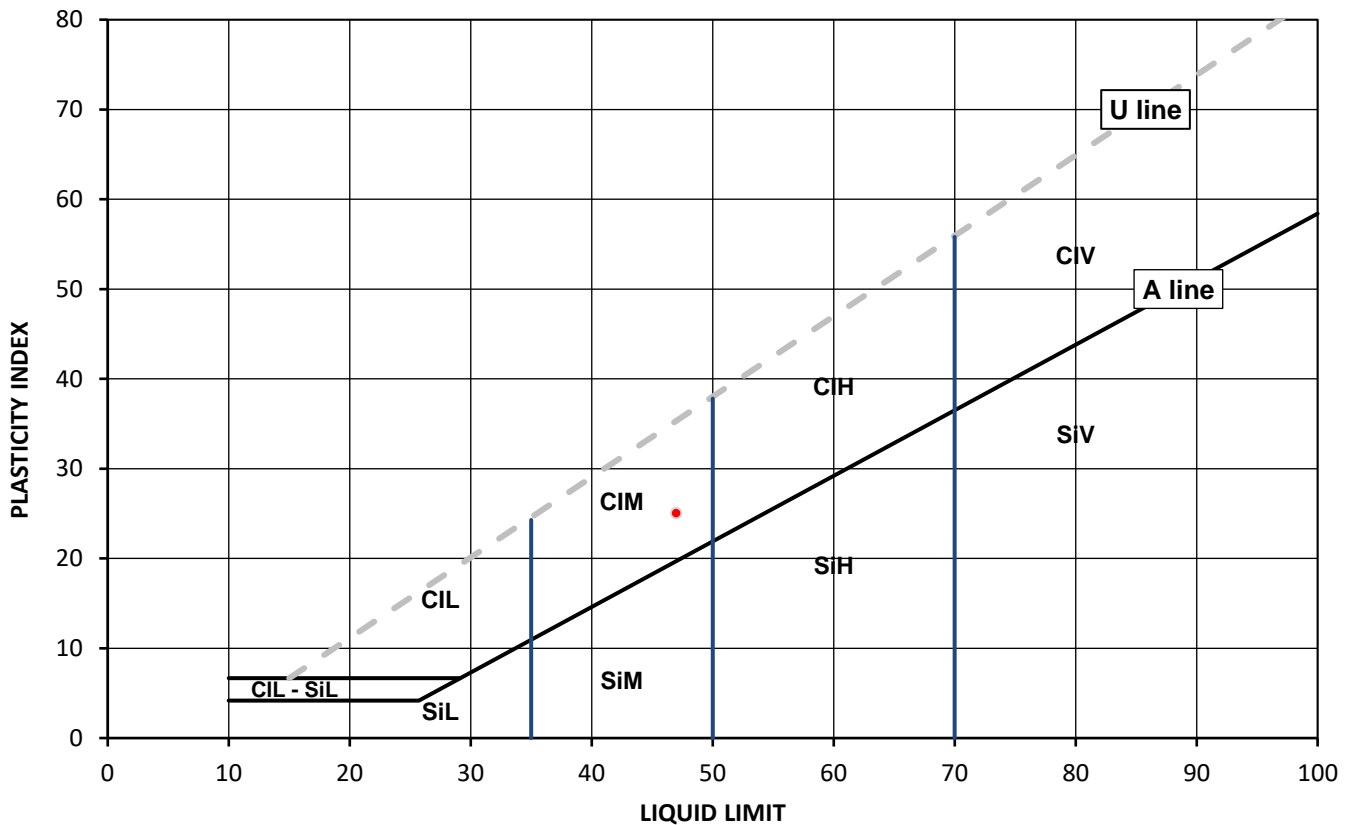
Test Results:

Laboratory Reference: 1857738
Hole No.: WS4
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
22	47	22	25	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	L	Low	Liquid Limit	below 35
Si	Silt		M	Medium		35 to 50
			H	High		50 to 70
			V	Very high		exceeding 70
			O	Organic		append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

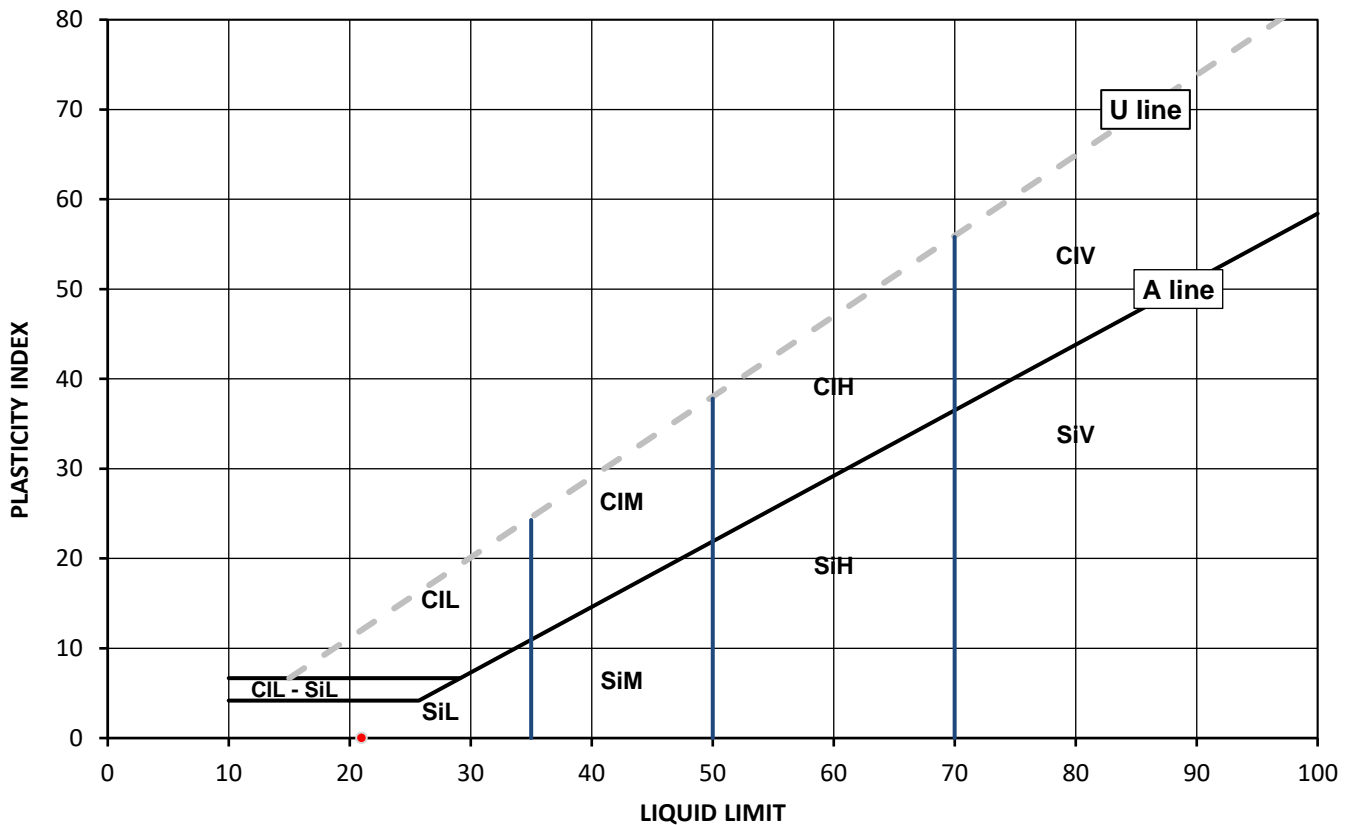
Test Results:

Laboratory Reference: 1857739
Hole No.: WS4
Sample Reference: Not Given
Soil Description: Yellowish brown slightly gravelly slightly clayey SAND

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
13	21	NP	NP	68



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	L	Low	Liquid Limit	below 35
Si	Silt		M	Medium		35 to 50
			H	High		50 to 70
			V	Very high		exceeding 70
			O	Organic		append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: NP - non plastic

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

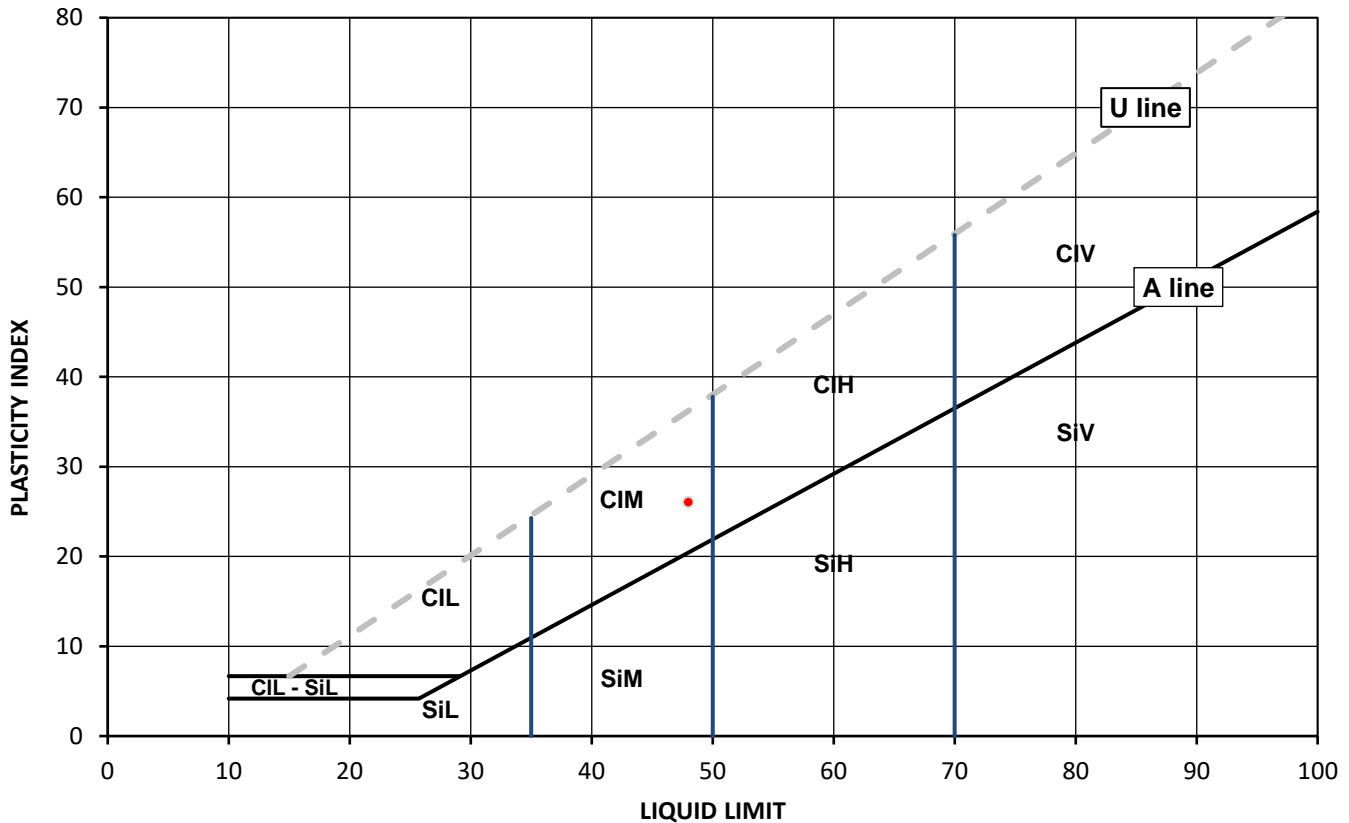
Test Results:

Laboratory Reference: 1857740
Hole No.: WS7
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly slightly sandy CLAY with fragments of flintstone

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
22	48	22	26	76



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

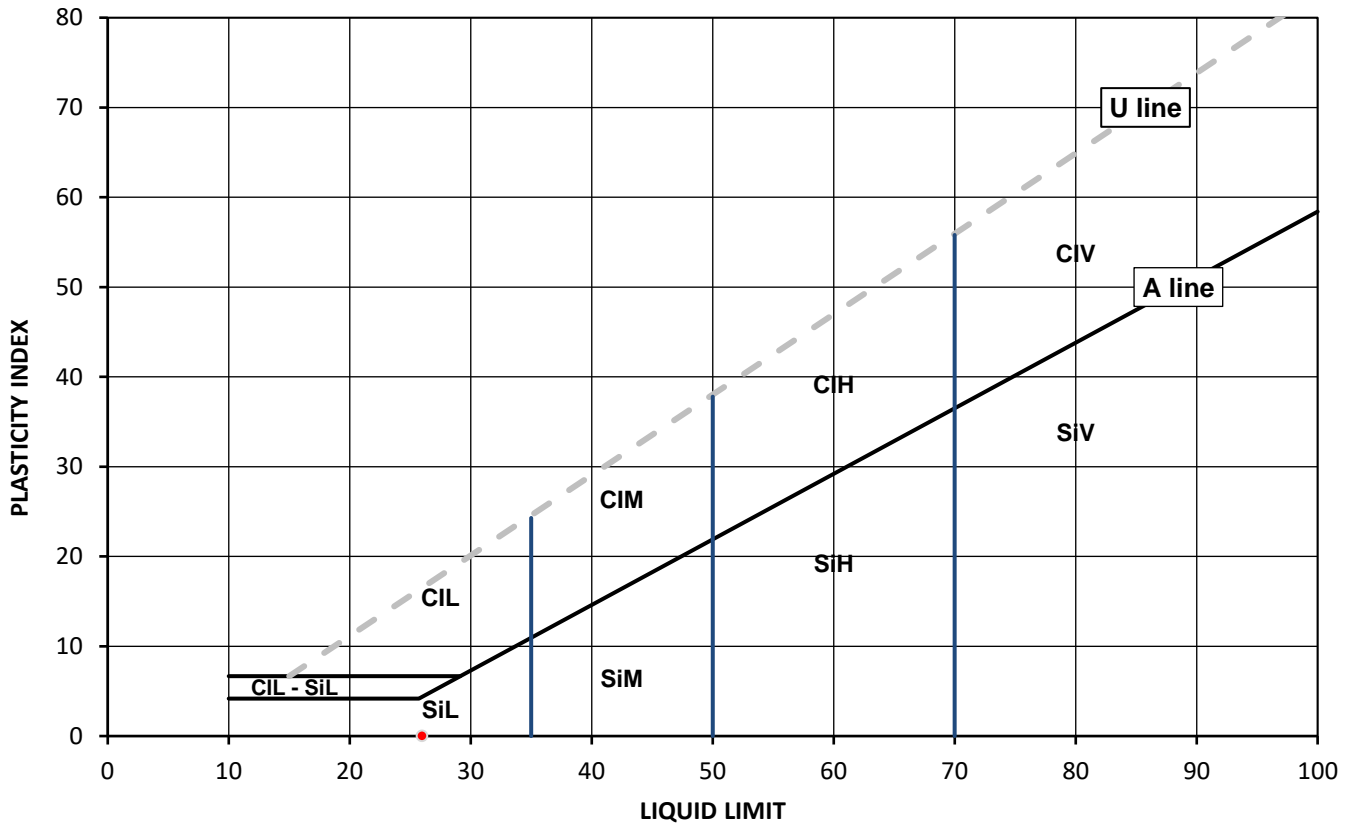
Test Results:

Laboratory Reference: 1857741
Hole No.: WS7
Sample Reference: Not Given
Soil Description: Light brown slightly clayey SAND

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
6.6	26	NP	NP	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	Low
		M	Medium
		H	High
		V	Very high
		O	Organic
			append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: NP - non plastic

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

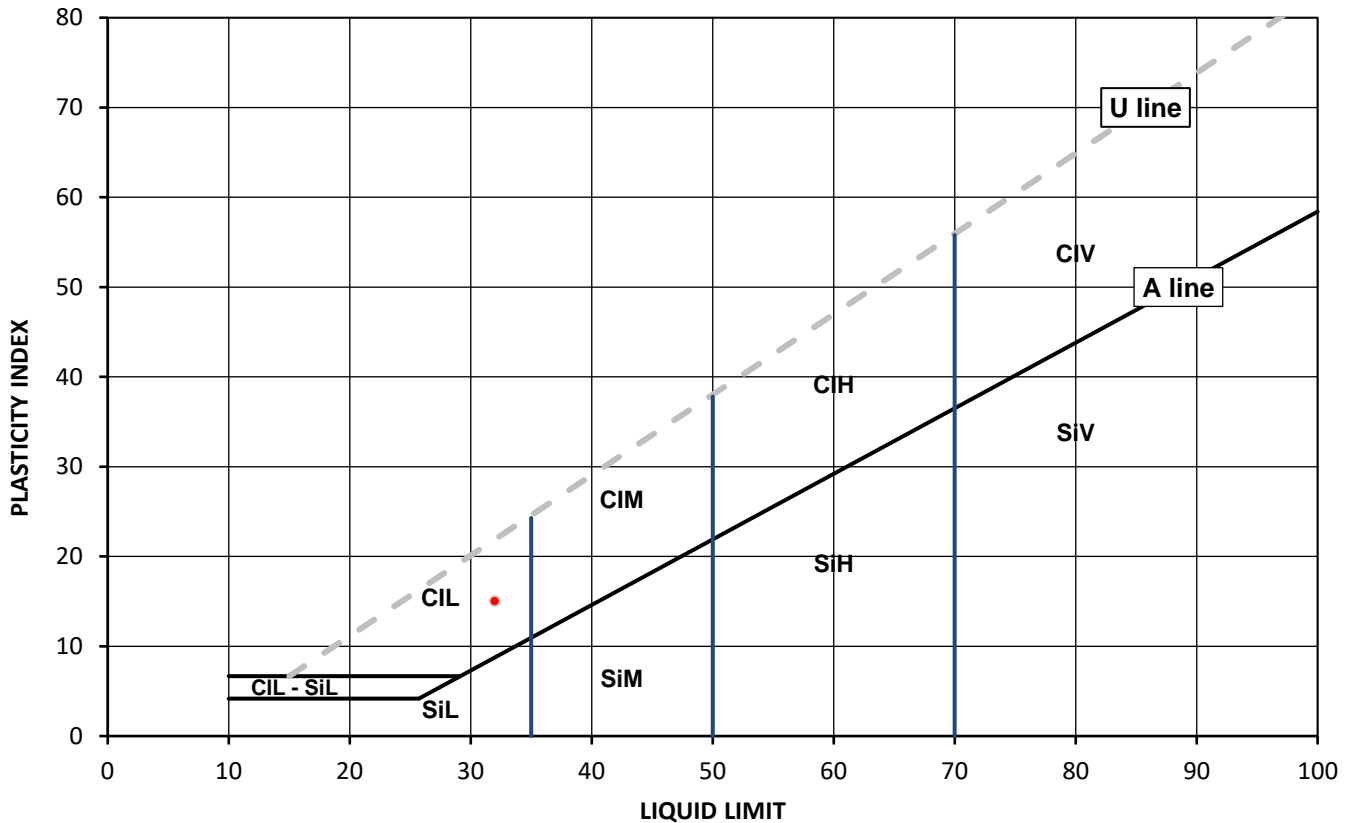
Test Results:

Laboratory Reference: 1857742
Hole No.: WS9
Sample Reference: Not Given
Soil Description: Brown very sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
18	32	17	15	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L Low	50 to 70
	M Medium	exceeding 70
	H High	append to classification for organic material (eg CIHO)
	V Very high	
	O Organic	

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

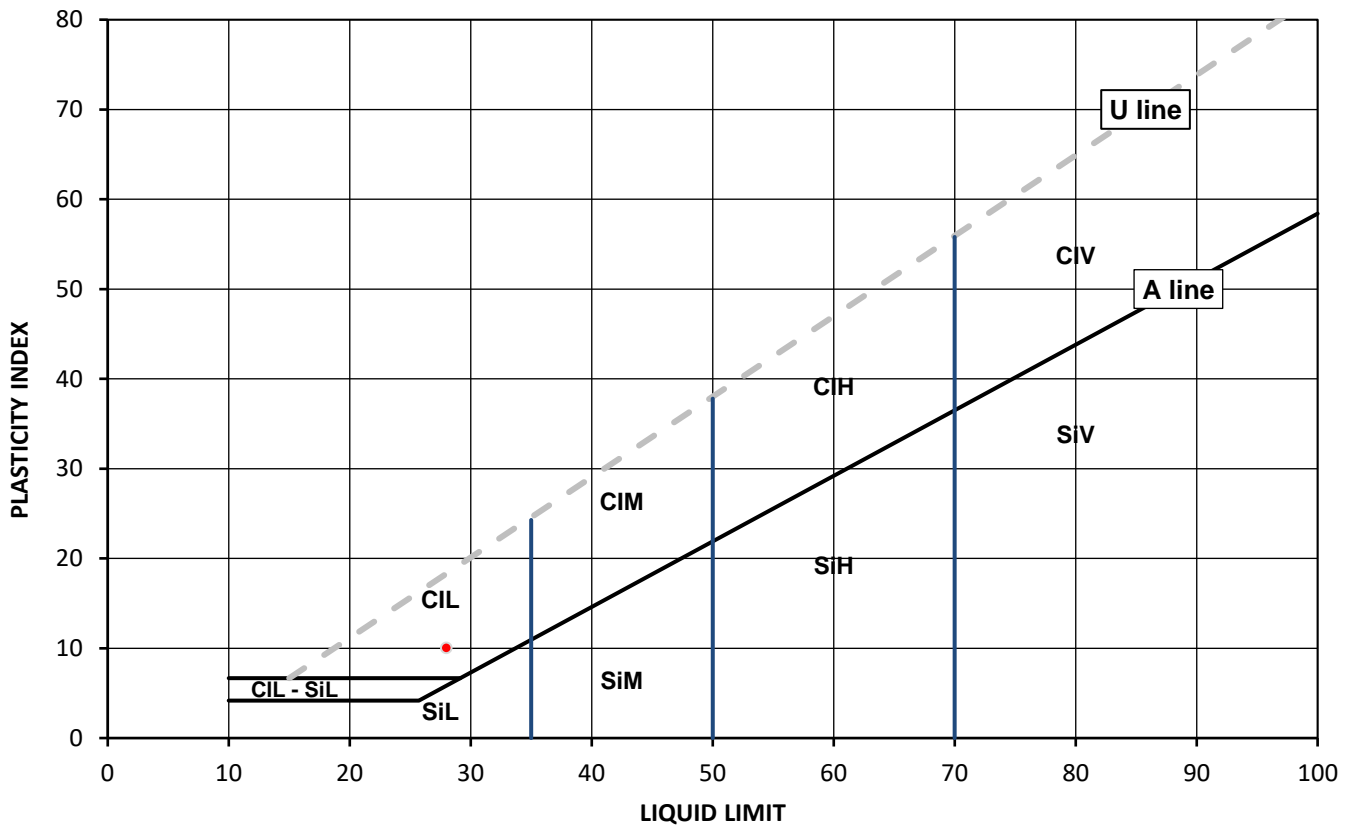
Test Results:

Laboratory Reference: 1857743
Hole No.: WS9
Sample Reference: Not Given
Soil Description: Light brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
24	28	18	10	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

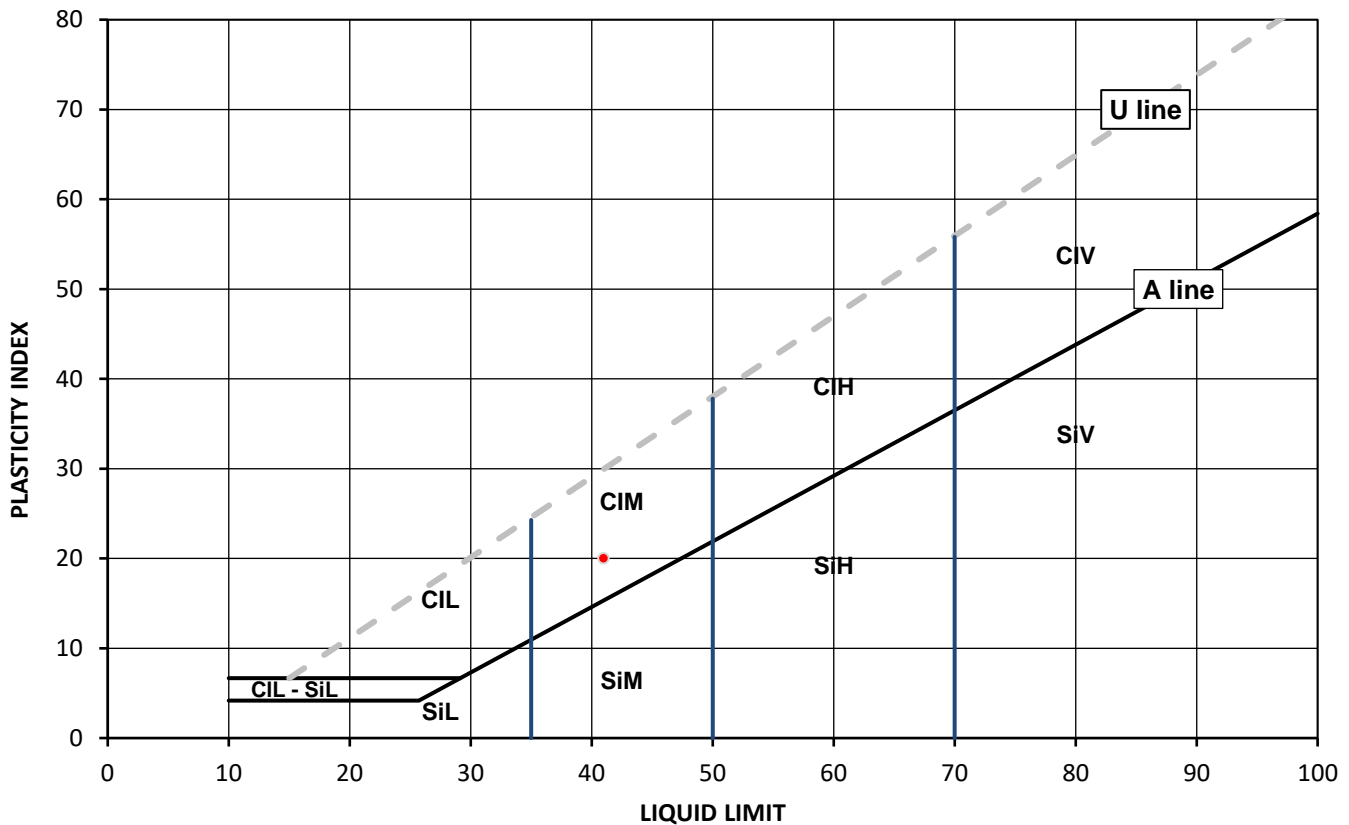
Test Results:

Laboratory Reference: 1857744
Hole No.: WS11
Sample Reference: Not Given
Soil Description: Light brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	41	21	20	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	Low
		M	Medium
		H	High
		V	Very high
		O	Organic
			append to classification for organic material (eg CIHO)
			below 35
			35 to 50
			50 to 70
			exceeding 70

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

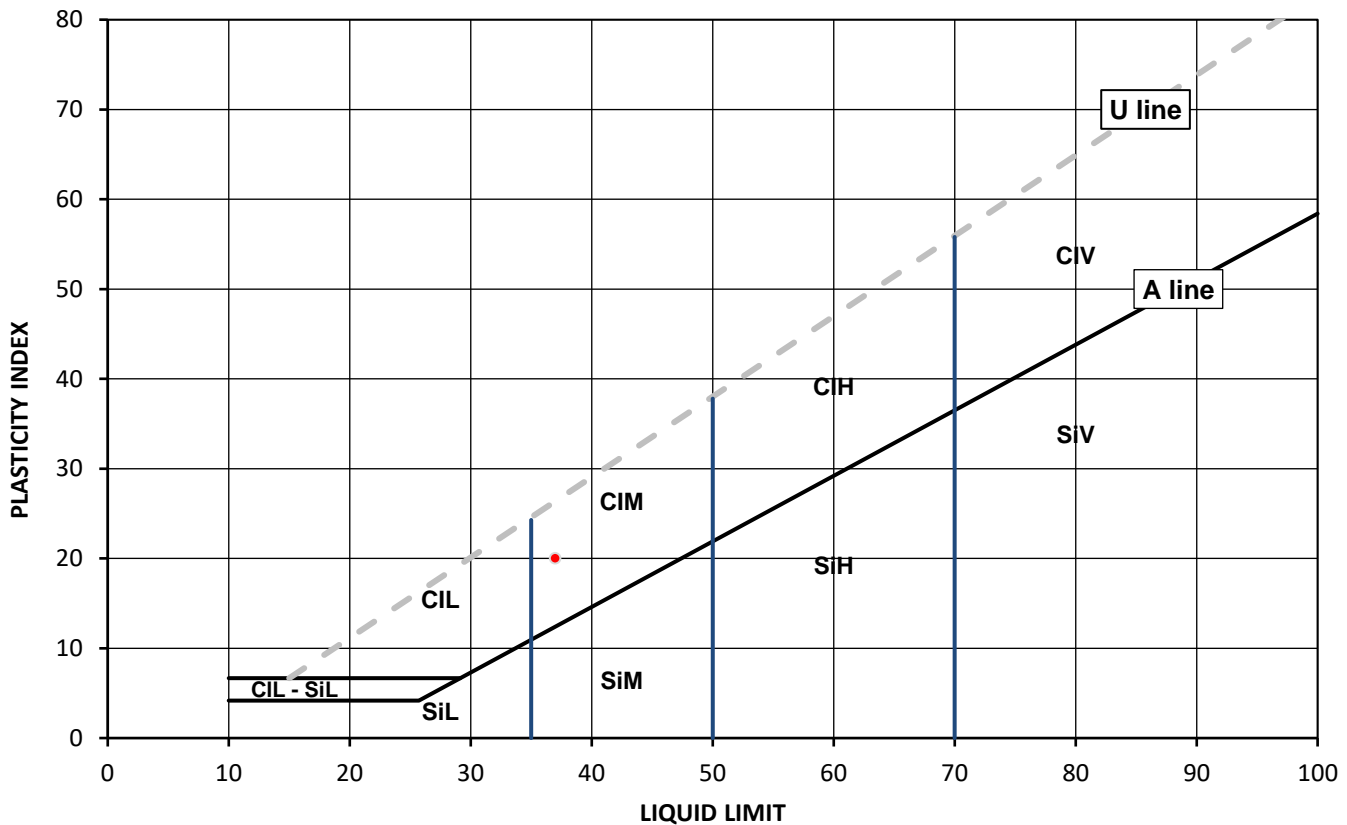
Test Results:

Laboratory Reference: 1857745
Hole No.: WS13
Sample Reference: Not Given
Soil Description: Dark brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
22	37	17	20	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L Low	50 to 70
	M Medium	exceeding 70
	H High	append to classification for organic material (eg CIHO)
	V Very high	
	O Organic	

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

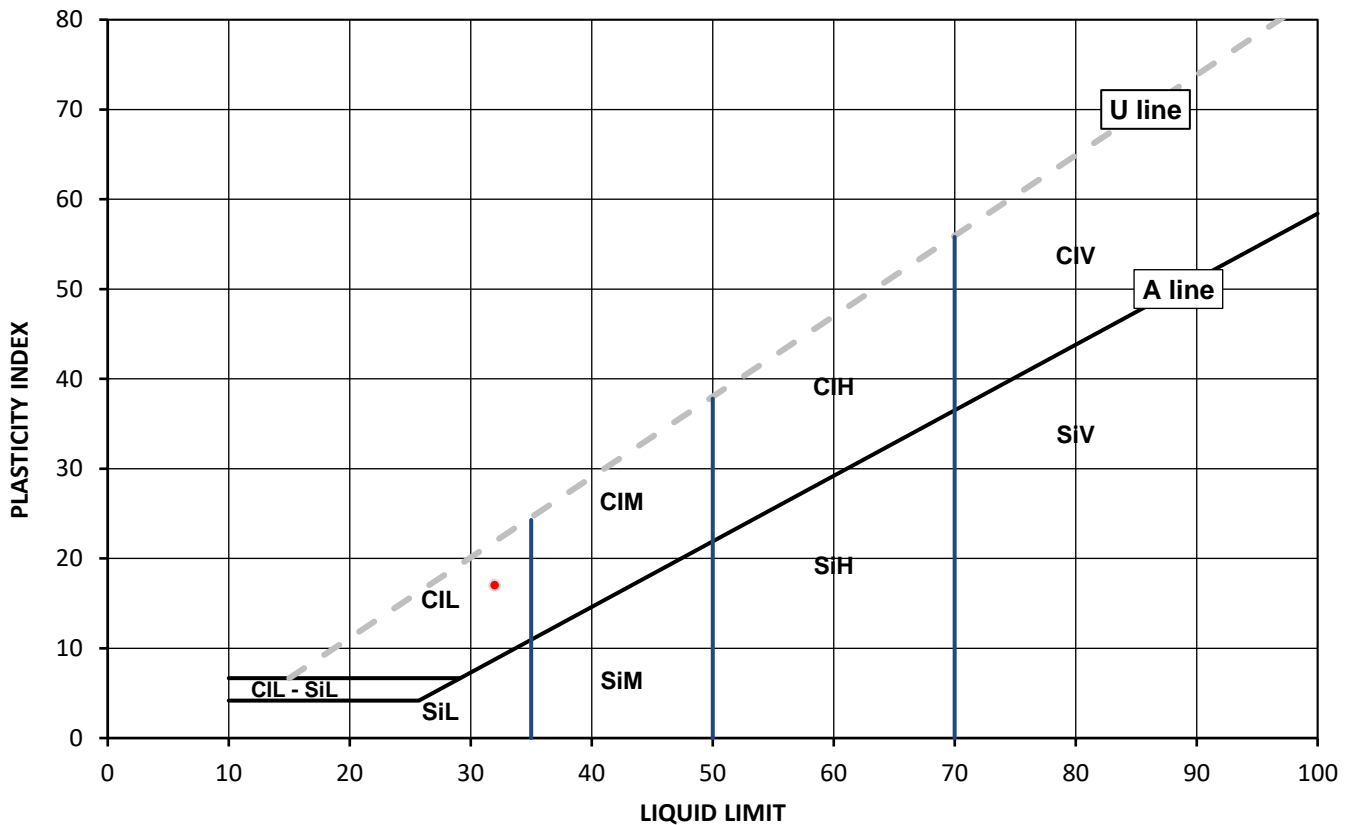
Test Results:

Laboratory Reference: 1857746
Hole No.: WS5
Sample Reference: Not Given
Soil Description: Brown very sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
17	32	15	17	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Enzygo Geoenvironmental Ltd
Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA
Contact: Steve Rhodes
Site Address: Richmond

Client Reference: CRM 1027 087
Job Number: 21-72520
Date Sampled: 28/04/2021
Date Received: 27/04/2021
Date Tested: 19/05/2021
Sampled By: Client

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

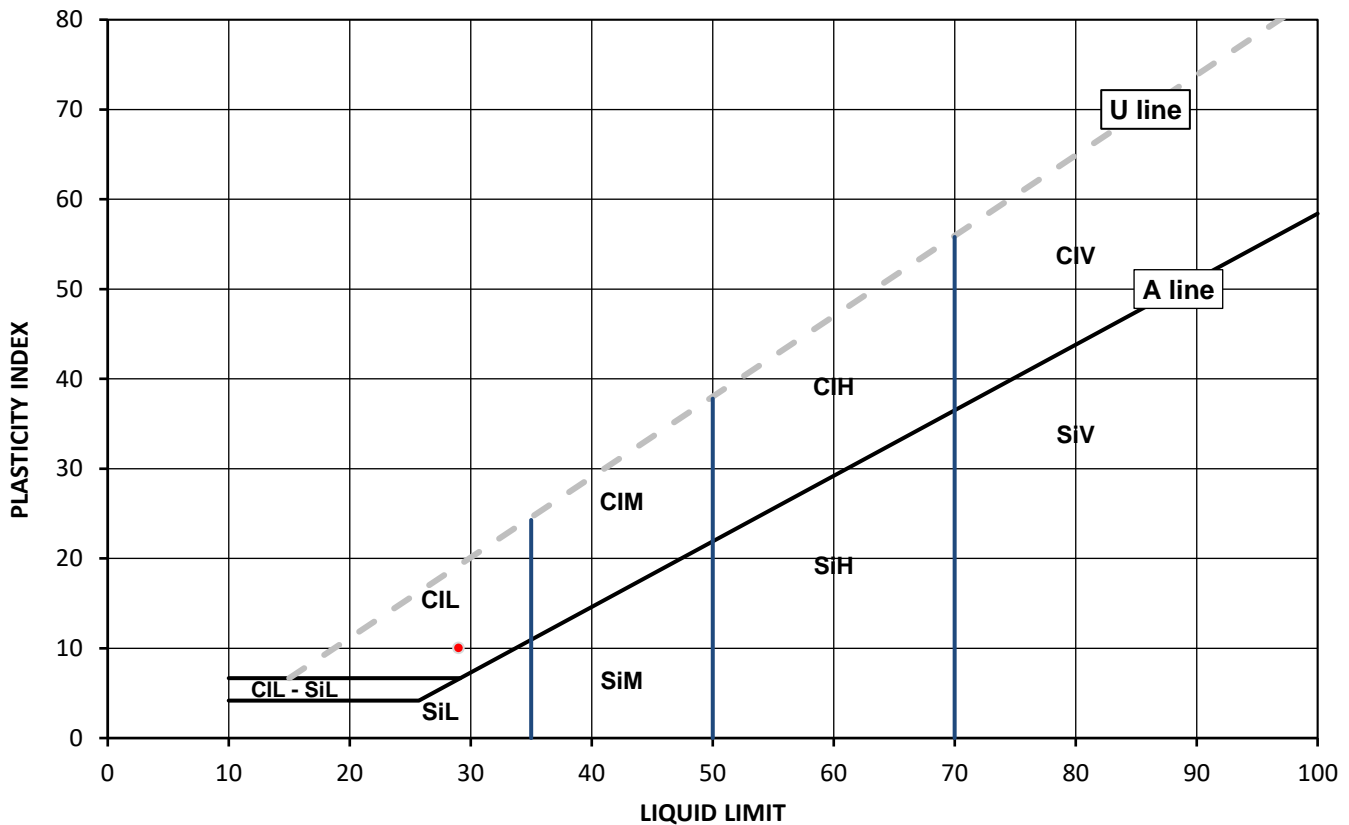
Test Results:

Laboratory Reference: 1857747
Hole No.: WS5
Sample Reference: Not Given
Soil Description: Yellowish brown very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
23	29	19	10	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Białatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with:

Moisture Content by BS 1377-2: 1990: Clause 3.2; Water Content by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5; PD by BS 1377-2: 1990: Clause 8.2

Client Reference: CRM 1027 087

Job Number: 21-72520

Date Sampled: 28/04/2021

Date Received: 27/04/2021

Date Tested: 19/05/2021

Sampled By: Client

Client: Enzygo Geoenvironmental Ltd

Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA

Contact: Steve Rhodes

Site Address: Richmond

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Moisture Content [W]	Water Content [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um	WL %	Wp %	Ip %	bulk Mg/m3	dry Mg/m3	PD Mg/m3			
1857744	WS11	Not Given	1.00	Not Given	D	Light brown sandy CLAY	Atterberg 1 Point	19		100	41	21	20						
1857745	WS13	Not Given	1.00	Not Given	D	Dark brown sandy CLAY	Atterberg 1 Point	22		100	37	17	20						
1857736	WS2	Not Given	1.00	Not Given	D	Brown clayey SAND with fragments of rootlets	Atterberg 1 Point	16		100	25	15	10						
1857737	WS2	Not Given	2.00	Not Given	D	Yellowish brown very gravelly very sandy CLAY	Atterberg 1 Point	8.2		29	29	14	15						
1857738	WS4	Not Given	1.00	Not Given	D	Brown slightly sandy CLAY	Atterberg 1 Point	22		100	47	22	25						
1857739	WS4	Not Given	2.00	Not Given	D	Yellowish brown slightly gravelly slightly clayey SAND	Atterberg 1 Point	13		68	21	NP	NP						
1857746	WS5	Not Given	1.00	Not Given	D	Brown very sandy CLAY	Atterberg 1 Point	17		100	32	15	17						
1857747	WS5	Not Given	2.00	Not Given	D	Yellowish brown very sandy CLAY	Atterberg 1 Point	23		100	29	19	10						
1857740	WS7	Not Given	1.00	Not Given	D	Dark brown slightly gravelly slightly sandy CLAY with fragments of flintstone	Atterberg 1 Point	22		76	48	22	26						
1857741	WS7	Not Given	2.00	Not Given	D	Light brown slightly clayey SAND	Atterberg 1 Point	6.6		100	26	NP	NP						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with:

Moisture Content by BS 1377-2: 1990: Clause 3.2; Water Content by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5; PD by BS 1377-2: 1990: Clause 8.2

Client Reference: CRM 1027 087

Job Number: 21-72520

Date Sampled: 28/04/2021

Date Received: 27/04/2021

Date Tested: 19/05/2021

Sampled By: Client

Client: Enzygo Geoenvironmental Ltd

Client Address: The Byre, Woodend Lane,
Cromhall, Gloucestershire,
GL12 8AA

Contact: Steve Rhodes

Site Address: Richmond

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Moisture Content [W]	Water Content [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
			m	m			%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%			
1857742	WS9	Not Given	1.00	Not Given	D	Brown very sandy CLAY	Atterberg 1 Point	18		100	32	17	15						
1857743	WS9	Not Given	2.00	Not Given	D	Light brown slightly gravelly very sandy CLAY	Atterberg 1 Point	24		99	28	18	10						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



Steve Rhodes

Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

e: steve.rhodes@enzygo.com

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 21-72525

Project / Site name:	Richmond	Samples received on:	27/04/2021
Your job number:	CRM 1027 087	Samples instructed on/ Analysis started on:	30/04/2021
Your order number:		Analysis completed by:	14/05/2021
Report Issue Number:	1	Report issued on:	20/05/2021
Samples Analysed:	7 soil samples		

Signed:

Joanna Wawrzeczek
Technical Reviewer (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.

Analytical Report Number: 21-72525
 Project / Site name: Richmond

Lab Sample Number	1857753	1857754	1857755	1857756	1857757			
Sample Reference	WS2	WS2	WS7	WS7	WS11			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	1.00	2.00	1.00	2.00	1.00			
Date Sampled	28/04/2021	28/04/2021	28/04/2021	28/04/2021	28/04/2021			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
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	10	11	16	4.5	15
Total mass of sample received	kg	0.001	NONE	0.50	0.50	0.50	0.50	0.50

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.0	7.5	6.8	8.5	7.9
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.013	0.015	0.016	0.0058	0.016

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-72525
 Project / Site name: Richmond

Lab Sample Number				1857758	1857759
Sample Reference				WS5	WS5
Sample Number				None Supplied	None Supplied
Depth (m)				1.00	2.00
Date Sampled				28/04/2021	28/04/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	10	16
Total mass of sample received	kg	0.001	NONE	0.50	0.50

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2	8.5
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.034	0.013

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-72525

Project / Site name: Richmond

* 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 *
1857753	WS2	None Supplied	1	Brown clay and sand with gravel.
1857754	WS2	None Supplied	2	Brown sandy clay with gravel and vegetation.
1857755	WS7	None Supplied	1	Brown clay and sand with gravel and vegetation.
1857756	WS7	None Supplied	2	Light brown sand.
1857757	WS11	None Supplied	1	Brown clay and sand with vegetation and gravel
1857758	WS5	None Supplied	1	Brown clay and loam.
1857759	WS5	None Supplied	2	Brown sandy clay with gravel.

Analytical Report Number : 21-72525
Project / Site name: Richmond

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
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.	L019-UK/PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.



Steve Rhodes
Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

e: steve.rhodes@enzygo.com

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 21-94030

Project / Site name:	Richmond	Samples received on:	19/08/2021
Your job number:	CRM.1265.087	Samples instructed on/ Analysis started on:	19/08/2021
Your order number:		Analysis completed by:	25/08/2021
Report Issue Number:	1	Report issued on:	26/08/2021
Samples Analysed:	17 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska
Technical Reviewer (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.

Analytical Report Number: 21-94030
 Project / Site name: Richmond

Lab Sample Number	1979344	1979345	1979346	1979347	1979348			
Sample Reference	BH1	BH1	BH1	BH1	BH1			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	5.00	10.00	15.00	20.00	25.00			
Date Sampled	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
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	9.0	15	11	12	11
Total mass of sample received	kg	0.001	NONE	1.0	0.50	0.50	0.50	0.50

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.0	9.1	8.8	9.0	9.3
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.019	0.25	0.45	0.49	0.38

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-94030
 Project / Site name: Richmond

Lab Sample Number				1979349	1979350	1979351	1979352	1979353
Sample Reference				BH2	BH2	BH2	BH2	BH2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				5.00	10.00	15.00	20.00	25.00
Date Sampled				18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
				Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	12	13	11	13	11
Total mass of sample received	kg	0.001	NONE	1.0	0.50	0.50	0.60	0.50

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.0	9.2	9.2	9.0	9.3
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.015	0.31	0.35	0.47	0.50

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-94030
 Project / Site name: Richmond

Lab Sample Number	1979354				1979355	1979356	1979357	1979358
Sample Reference	BH3				BH3	BH4	BH4	BH5
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	5.00				10.00	5.00	10.00	5.00
Date Sampled	18/08/2021				18/08/2021	18/08/2021	18/08/2021	18/08/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
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	8.7	12	7.6	14	2.6
Total mass of sample received	kg	0.001	NONE	1.0	0.50	1.0	0.60	0.80

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.9	9.2	8.6	9.0	8.9
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.013	0.27	0.021	0.24	0.0059

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 21-94030
 Project / Site name: Richmond

Lab Sample Number				1979359	1979531
Sample Reference				BH6	BH6
Sample Number				None Supplied	None Supplied
Depth (m)				5.00	10.00
Date Sampled				18/08/2021	18/08/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	1.7	11
Total mass of sample received	kg	0.001	NONE	0.90	0.60

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.8	9.1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0087	0.22

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 21-94030
Project / Site name: Richmond

* 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 *
1979344	BH1	None Supplied	5	Brown sand with gravel.
1979345	BH1	None Supplied	10	Brown clay.
1979346	BH1	None Supplied	15	Brown clay.
1979347	BH1	None Supplied	20	Brown clay.
1979348	BH1	None Supplied	25	Brown clay.
1979349	BH2	None Supplied	5	Brown sand with gravel.
1979350	BH2	None Supplied	10	Brown clay.
1979351	BH2	None Supplied	15	Brown clay.
1979352	BH2	None Supplied	20	Grey clay.
1979353	BH2	None Supplied	25	Grey clay.
1979354	BH3	None Supplied	5	Brown sand with gravel.
1979355	BH3	None Supplied	10	Grey clay.
1979356	BH4	None Supplied	5	Brown sand with gravel.
1979357	BH4	None Supplied	10	Grey clay.
1979358	BH5	None Supplied	5	Brown sand with gravel.
1979359	BH6	None Supplied	5	Brown sand with gravel.
1979531	BH6	None Supplied	10	Brown clay.

Analytical Report Number : 21-94030
Project / Site name: Richmond

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
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.	L019-UK/PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.



Enzygo specialise in a wide range of technical services:

- Property and Sites**
- Waste and Mineral Planning**
- Waste Technologies and Renewables**
- Landscape and Visual Impact**
- Environmental Assessment Co-ordination**
- Hydrology and Flood Risk**
- Waste Contract Procurement**
- Noise and Vibration**
- Environmental Permitting and Regulation**
- Development Planning & Policy**
- Ecology Services**
- Contaminated Land and Geotechnical**
- Traffic and Transportation**
- Planning Services**

BRISTOL OFFICE

The Byre,
Woodend Lane,
Cromhall,
Gloucestershire GL12 8AA
Tel: 01454 269 237

SHEFFIELD OFFICE

Samuel House,
5 Fox Valley Way,
Stocksbridge,
Sheffield S36 2AA
Tel: 0114 321 5151

MANCHESTER OFFICE

76 King Street,
Manchester,
M2 4NH
Tel: 0161 413 6444

Please visit our website for more information.

enzygo.com