

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 6.20m. Rotary coring from 6.20m to 30.40m.	Exploratory Hole S1-BH112
Project	Global Centre of Rail Excellence	Easting	284882.07	Equipment	Commachio 305/Insulated Digging Tools
Client	Walters UK Limited	Northing	210599.97	Method	RC/IP/DS
Project No	G22069	Level	237.94 mAOD	Termination Reason	Scheduled depth

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S1-BH112 15.90 m to 17.40 m



S1-BH112 17.40 m to 18.90 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 6.20m. Rotary coring from 6.20m to 30.40m.	Exploratory Hole S1-BH112
Project	Global Centre of Rail Excellence	Easting	284882.07	Equipment	Commachio 305/Insulated Digging Tools
Client	Walters UK Limited	Northing	210599.97	Method	RC/IP/DS
Project No	G22069	Level	237.94 mAOD	Termination Reason	Scheduled depth

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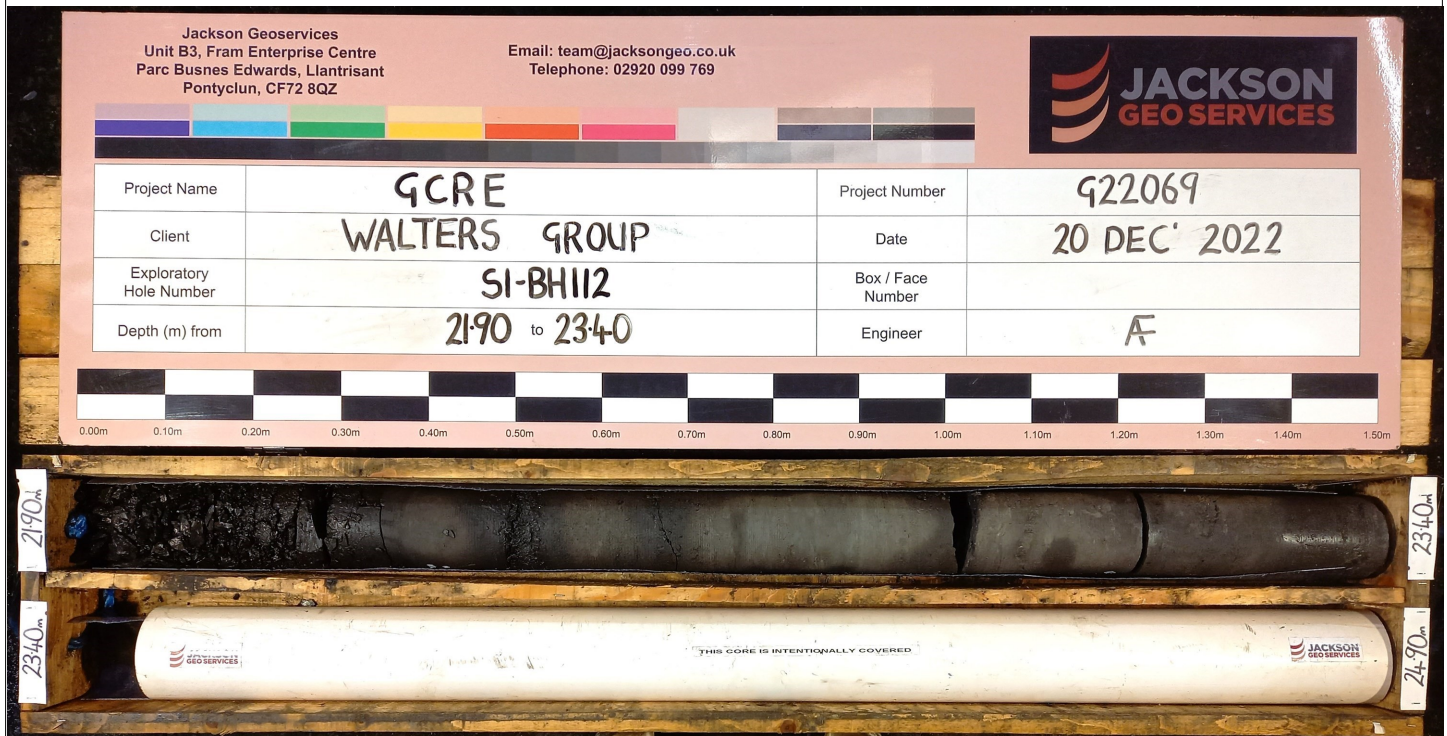
S1-BH112 18.90 m to 20.40 m



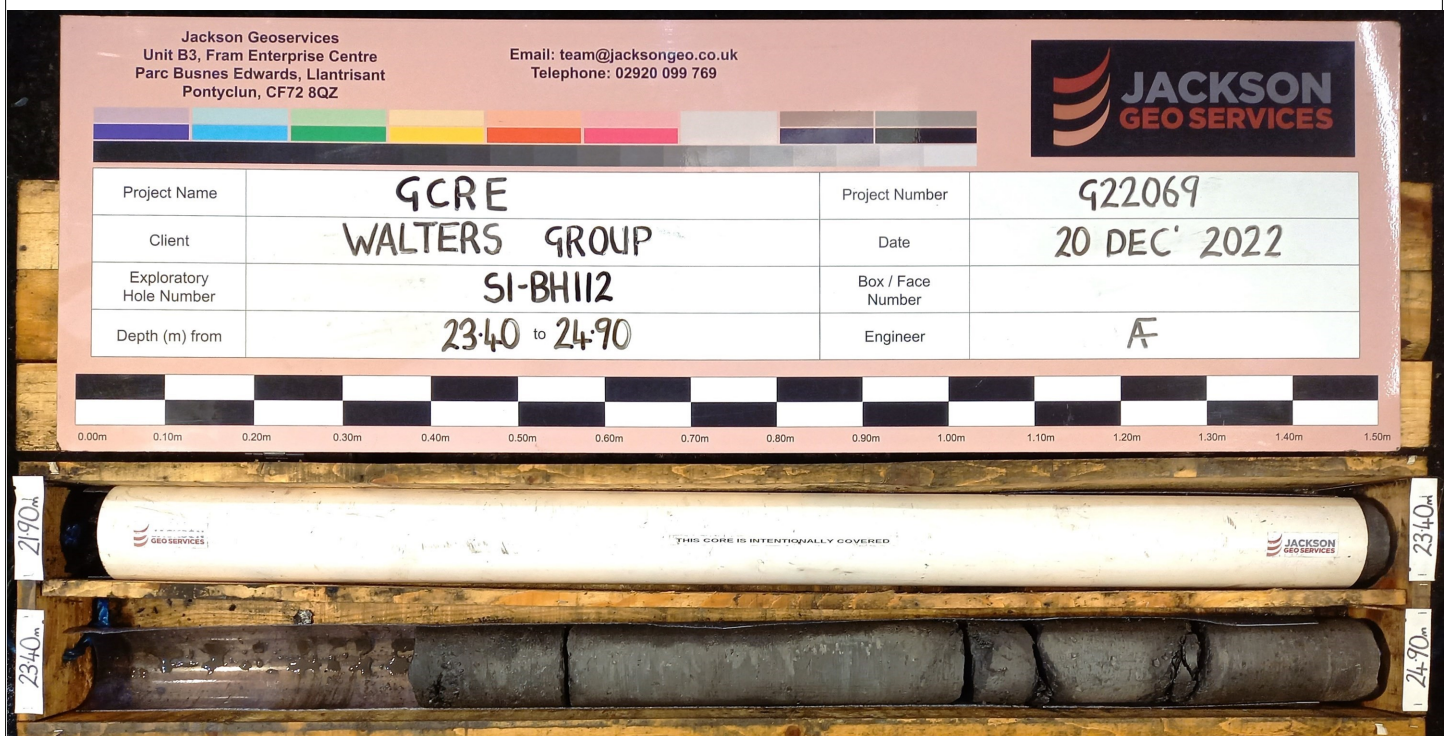
S1-BH112 20.40 m to 21.90 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 6.20m. Rotary coring from 6.20m to 30.40m.	Exploratory Hole S1-BH112
Project	Global Centre of Rail Excellence	Easting	284882.07	Equipment	Commachio 305/Insulated Digging Tools
Client	Walters UK Limited	Northing	210599.97	Method	RC/IP/DS
Project No	G22069	Level	237.94 mAOD	Termination Reason	Scheduled depth

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S1-BH112 21.90 m to 23.40 m



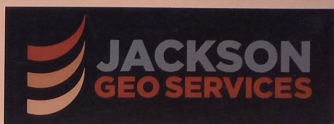
S1-BH112 23.40 m to 24.90 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 6.20m. Rotary coring from 6.20m to 30.40m.	Exploratory Hole S1-BH112
Project	Global Centre of Rail Excellence	Easting	284882.07	Equipment	Commachio 305/Insulated Digging Tools
Client	Walters UK Limited	Northing	210599.97	Method	RC/IP/DS
Project No	G22069	Level	237.94 mAOD	Termination Reason	Scheduled depth

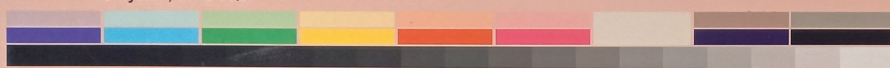
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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	20 DEC' 2022
Exploratory Hole Number	S1-BH112	Box / Face Number	
Depth (m) from	24.90 to 26.40	Engineer	A





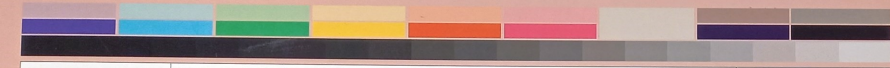

S1-BH112 24.90 m to 26.40 m

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	20 DEC' 2022
Exploratory Hole Number	S1-BH112	Box / Face Number	
Depth (m) from	26.40 to 27.90	Engineer	A






S1-BH112 26.40 m to 27.90 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 6.20m. Rotary coring from 6.20m to 30.40m.	Exploratory Hole S1-BH112
Project	Global Centre of Rail Excellence	Easting	284882.07	Equipment	Commachio 305/Insulated Digging Tools
Client	Walters UK Limited	Northing	210599.97	Method	RC/IP/DS
Project No	G22069	Level	237.94 mAOD	Termination Reason	Scheduled depth

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S1-BH112 27.90 m to 29.40 m



S1-BH112 29.40 m to 30.40 m

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		DYNAMIC SAMPLING AND ROTARY DRILLING EXPLORATORY HOLE LOG						Exploratory Hole Progress by Time				Exploratory Hole					
								Date and Time		Depth	Casing Depth	Water Depth	S1-BH113				
Project		Global Centre of Rail Excellence			Equipment		Commachio 305			Sheet 4 of 6							
Client		Walters UK Limited			Method		IP/WLS/RC			Scale	1:25						
Project No		G22069		Level	236.95 mAOD		Inclination		90 degrees		Drilled	DG					
Easting		284799.55		Northing	210645.61		SPT Hammer Serial Number		JD07		Logged	JJ					
Termination Reason		Scheduled depth			SPT Hammer Energy Ratio		61 %		Checked		AP						
Samples	Sampling and Testing Depths	Insitu Testing and Depth Related Remarks			Drill Runs	TCR SCR RQD	Depth (Thickness)	Level (mAOD)	Legend	Description	If (min ave max)	Scale	Backfill				
121 C	15.39 - 15.50									Medium strong to strong thinly locally medium bedded light grey and grey fine grained SANDSTONE with rare sub-ordinate beds of very weak dark grey siltstone (<15-40mm thickness). Weathering: localised zones of increased fracture spacing and loss of strength in weaker material. Discontinuities: sub-horizontal to 15 degree very closely to medium spaced planar and undulating smooth tight bedding fractures, locally infilled with <1mm silty fine sand. (SOUTH WALES LOWER COAL MEASURES) Geology Code: SWCM 2nd Geology Code: SST	90 230	15.50					
123 C	15.58 - 15.70																
122 C	16.12 - 16.27																
					RC 15.50 - 17.00	100% 85% 55%	(2.13)	219.95				16.00					
					RC 17.00 - 18.50	100% 86% 9%	(1.22)			Moderately weak to weak thickly laminated to very thinly bedded dark grey to grey MUDSTONE. Weathering: Some loss of strength and increased fracture spacing in weaker material. NI recovered as slightly clayey slightly sandy angular and subangular fine to coarse gravel. Discontinuities: possible sub-horizontal to 10 degree extremely closely to very closely spaced locally closely spaced in stronger material planar and undulating smooth bedding fractures. (SOUTH WALES LOWER COAL MEASURES) Geology Code: SWCM 2nd Geology Code: MST	Set 1 NI 40 80	17.00					
					RC 18.50 - 20.00	100% 67% 27%	(0.94)			Weak locally very weak very thinly bedded grey to dark grey SILTSTONE. Weathering: Some localised loss of strength to very weak and increased fracture spacing extremely closely spaced (10-50mm thickness). Discontinuities: sub-horizontal to 15 degree very closely locally extremely closely spaced planar and undulating smooth tight bedding fractures. (SOUTH WALES LOWER COAL MEASURES) Geology Code: SWCM 2nd Geology Code: SZT	Set 1 NI 130 190	17.50					
							18.22	218.73	xxxxxx			18.00					
							18.70	218.25		Moderately weak to weak thickly laminated to very thinly bedded dark grey to grey MUDSTONE. Weathering: Some loss of strength and increased fracture spacing in weaker material. NI recovered as slightly clayey slightly sandy angular and subangular fine to coarse gravel. Discontinuities: possible sub-horizontal to 10 degree extremely closely to very closely spaced locally closely spaced in stronger material planar and undulating smooth bedding fractures. (SOUTH WALES LOWER COAL MEASURES) Geology Code: SWCM 2nd Geology Code: MST	Set 1 NI 90 230	18.50					
							19.64	217.31		Very weak thinly to thickly laminated dark greyish black carbonaceous MUDSTONE. NI, recovered as slightly silty slightly sandy very angular to subrounded fine to coarse gravel and low cobble content. Cobbles are angular mudstone (<70x50x35mm). Extremely closely too very closely spaced sub-horizontal to 15 degrees and randomly orientated discontinuities. (SOUTH WALES LOWER COAL MEASURES) Geology Code: SWCM 2nd Geology Code: MST	Set 1 NI 65 130	19.00					
										Continued on next Sheet		19.50					
												20.00					
Drilling Flush					Hole Diameter		Casing Diameter		Water Added		Water Strikes						
Depth Top	Depth Base	Type	Colour	Returns	Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Date and Time	Casing	Strike	Sealed	Rising to	Time	Remarks
9.00	30.00	Air/Mist	dark grey	100%	30.00	146mm	10.50	160mm			21/11/2022 14:30	3.00	4.00		3.20	20mins	
Drill Bit Type		PCD		Drill Bit Condition		Good		Core Barrel Type		Wireline Double Tube		Core Barrel Length		1.50			
Remarks																	
Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.00m depth. Rotary coring from 9.00m to 30.00m depth.																	

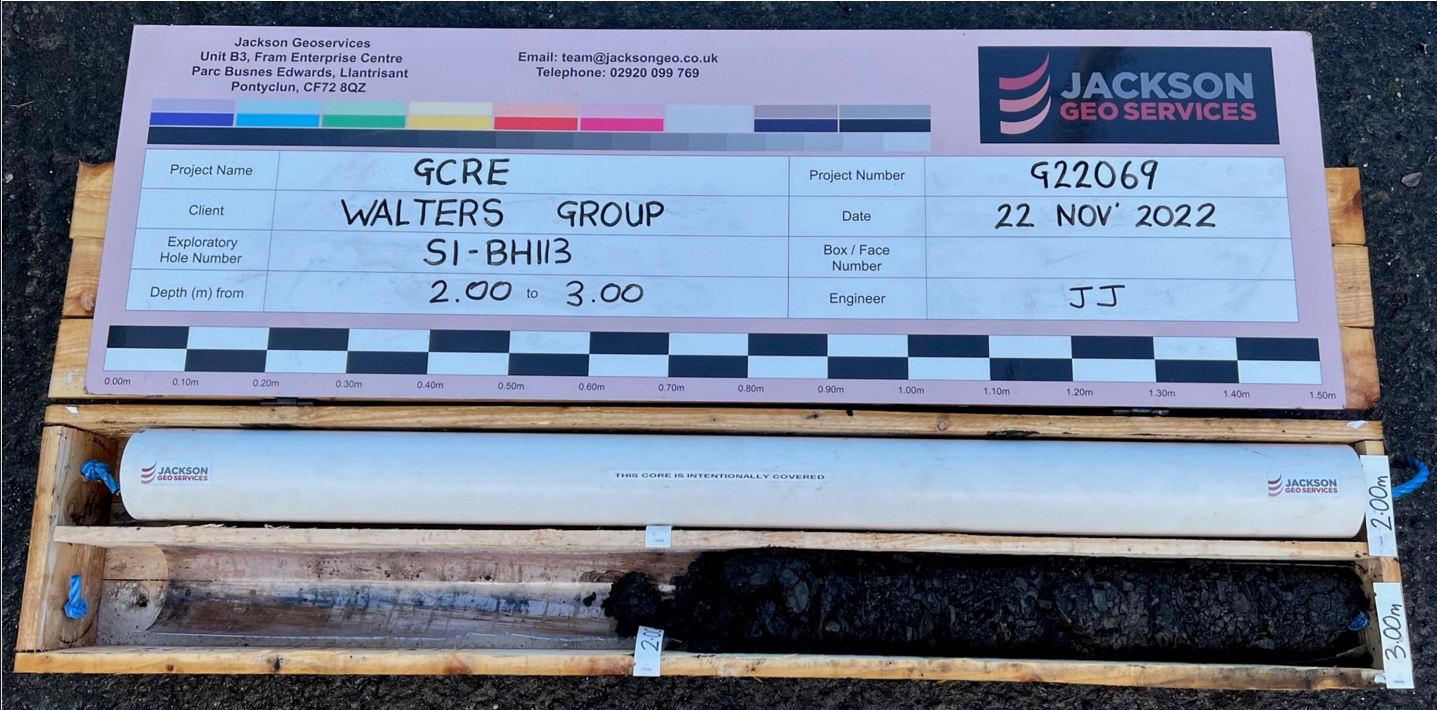
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		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.00m depth. Rotary coring from 9.00m to 30.00m depth.		Exploratory Hole S1-BH113
Project	Global Centre of Rail Excellence	Easting	284799.55	Equipment	Commachio 305	Sheet 1 of 12
Client	Walters UK Limited	Northing	210645.61	Method	IP/WLS/RC	
Project No	G22069	Level	236.95 mAOD	Termination Reason	Scheduled depth	



S1-BH113 1.20 m to 2.00 m



S1-BH113 2.00 m to 3.00 m