

				Gas and PID Monitoring Results																				
Project ID: GL22428A				Client: Trustees of the Langmead Pension Scheme				Equipment				Model / Serial Number									Manufacturer's Calibration Date			
Date: 05/02/2019				Location: Land East of Drove Lane, Yapton				Gas Analyser: GA5000 / 504267													22/05/2019			
Weather conditions: Wet								PID: Tiger Handheld VOC Detector / T-113655													11/10/2019			
Pump Running Time (Purge): Standard 30 secs. Pump Running Time (Sampling): Standard 180 secs. Flow Details: 5 sec average for 1 min.								PID Details: "<" indicates reading is under the detection limit. ">" indicates reading is over the upper limit. "*" level to be determined.																
Field engineer(s): Sam Hedges					Remarks:																			
Location ID	Monitoring Pipe and Diameter	Date Monitored	Time	Air Temp (°C)	#N/A	#N/A	#N/A	Atmospheric Pressure When Sampled (mB)	Relative Pressure (mB)	Peak PID (ppm)	Stable PID (ppm)	Methane (%)	Peak Methane (%)	Methane LEL (%)	Carbon Dioxide (%)	Oxygen (%)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Flow (l/hr)	Remarks				
WS06	PIPE1 (50mm)	05/02/2019	11:50:00	6.0				1025	0.2	0.0	0.0	0.1	0.1	0.5	0.3	20.7	0.0	0.0	0.0					
			11:50:15						0.2		0.1			0.7	20.5	0.0	0.0	0.0						
			11:50:30						0.1		0.1			0.7	20.3	0.0	0.0	0.0						
			11:50:45						0.1		0.1			0.7	20.2	0.0	0.0	0.0						
			11:51:00						0.0		0.1			0.7	20.2	0.0	0.0	0.0						
			11:51:30						0.0		0.1			0.7	20.2	0.0	0.0	0.0						
			11:52:00						0.0		0.1			0.7	20.2	0.0	0.0	0.0						
			11:53:00						0.0		0.1			0.7	20.2	0.0	0.0	0.0						
WS10	PIPE1 (50mm)	05/02/2019	12:30:00	6.0				1025	-0.1	0.1	0.0	0.1	0.1	0.5	0.2	21.2	0.0	0.0	0.0					
			12:30:15						0.1		0.1			2.5	20.7	0.0	0.0	0.0						
			12:30:30						0.1		0.1			2.5	19.6	0.0	0.0	0.0						
			12:30:45						0.0		0.1			2.5	19.4	0.0	0.0	0.0						
			12:31:00						0.0		0.1			2.5	19.3	0.0	0.0	0.0						
			12:31:30						0.0		0.0			2.5	19.3	0.0	0.0	0.0						
			12:32:00						0.0		0.0			2.5	19.3	0.0	0.0	0.0						
			12:33:00						0.0		0.0			2.5	19.3	0.0	0.0	0.0						
WS202	PIPE1 (50mm)	05/02/2019	13:00:00	6.0				1025	0.0	0.0	0.1	0.1	0.1	0.5	0.3	21.2	0.0	0.0	0.0					
			13:00:15						0.3		0.1			1.9	20.1	0.0	0.0	0.0						
			13:00:30						0.2		0.1			1.7	18.7	0.0	0.0	0.0						
			13:00:45						0.2		0.1			1.6	18.6	0.0	0.0	0.0						
			13:01:00						0.1		0.1			1.6	18.7	0.0	0.0	0.0						
			13:01:30						0.1		0.1			1.5	18.7	0.0	0.0	0.0						
			13:02:00						0.1		0.1			1.5	18.7	0.0	0.0	0.0						
			13:03:00						0.1		0.1			1.5	18.7	0.0	0.0	0.0						
WS208	PIPE1 (50mm)	05/02/2019	12:45:00	6.0				1025	0.2	0.1	0.1	0.0	0.1	0.5	0.5	20.9	0.0	0.0	0.0					
			12:45:15						0.2		0.1			1.3	20.0	0.0	0.0	0.0						
			12:45:30						0.2		0.1			1.4	18.5	0.0	0.0	0.0						
			12:45:45						0.1		0.1			1.4	18.1	0.0	0.0	0.0						
			12:46:00						0.1		0.1			1.4	18.1	0.0	0.0	0.0						
			12:46:30						0.1		0.1			1.4	18.0	0.0	0.0	0.0						
			12:47:00						0.1		0.1			1.4	18.0	0.0	0.0	0.0						
			12:48:00						0.1		0.1			1.4	18.0	0.0	0.0	0.0						
WS210	PIPE1 (50mm)	05/02/2019	11:30:00	6.0				1025	0.1	0.0	0.0	0.1	0.1	0.5	0.3	20.6	0.0	0.0	0.0					
			11:30:15						0.2		0.0			3.1	18.8	0.0	0.0	0.0						
			11:30:30						0.2		0.0			3.2	16.2	0.0	0.0	0.0						
			11:30:45						0.2		0.0			3.2	15.2	0.0	0.0	0.0						
			11:31:00						0.1		0.0			3.2	15.0	0.0	0.0	0.0						
			11:31:30						0.1		0.0			3.3	14.7	0.0	0.0	0.0						
			11:32:00						0.0		0.0			3.4	14.4	0.0	0.0	0.0						
			11:33:00						0.0		0.0			3.6	14.0	0.0	0.0	0.0						
WS211	PIPE1 (50mm)	05/02/2019	12:10:00	6.0				1025	0.2	0.1	0.1	0.0	0.1	0.5	0.4	20.8	0.0	0.0	0.0					
			12:10:15						0.3		0.0			0.8	20.6	0.0	0.0	0.0						
			12:10:30						0.3		0.1			0.7	20.0	0.0	0.0	0.0						
			12:10:45						0.2		0.1			0.5	20.3	0.0	0.0	0.0						
			12:11:00						0.1		0.1			0.4	20.5	0.0	0.0	0.0						
			12:11:30						0.1		0.1			0.3	20.7	0.0	0.0	0.0						
			12:12:00						0.1		0.1			0.3	20.8	0.0	0.0	0.0						
			12:13:00						0.1		0.1			0.3	20.8	0.0	0.0	0.0						

				Gas and PID Monitoring Results																			
Project ID: GL22428A				Client: Trustees of the Langmead Pension Scheme				Equipment				Model / Serial Number				Manufacturer's Calibration Date							
Date: 06/03/2019				Location: Land East of Drove Lane, Yapton				Gas Analyser: GA5000 / 504267				22/05/2018											
Weather conditions: Dry				PID: Tiger Handheld VOC Detector / T-113655				11/10/2018															
Pump Running Time (Purge): Standard 30 secs. Pump Running Time (Sampling): Standard 180 secs. Flow Details: 5 sec average for 1 min.								PID Details: "<" indicates reading is under the detection limit. ">" indicates reading is over the upper limit. "*" level to be determined.															
Field engineer(s): Joe Sparks				Remarks:																			
Location ID	Monitoring Pipe and Diameter	Date Monitored	Time	Air Temp (°C)	#N/A	#N/A	#N/A	Atmospheric Pressure When Sampled (mB)	Relative Pressure (mB)	Peak PID (ppm)	Stable PID (ppm)	Methane (%)	Peak Methane (%)	Methane LEL (%)	Carbon Dioxide (%)	Oxygen (%)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Flow (l/hr)	Remarks			
WS06	PIPE1 (50mm)	06/03/2019	13:40:00					989	-4.2	0.4	1.1	0.1	0.1	0.5	0.2	20.4	1.0	0.0	0.0				
			13:40:15							0.9		0.1			4.1	15.6	0.0	0.0	0.0				
			13:40:30							1.0		0.1			4.2	14.5	0.0	0.0	0.0				
			13:40:45							1.1		0.1			4.2	14.2	0.0	0.0	0.0				
			13:41:00							1.1		0.1			4.2	14.1	0.0	0.0	0.0				
			13:41:30							1.1		0.1			4.2	14.1	0.0	0.0	0.0				
			13:42:00							1.1		0.1			4.1	14.1	0.0	0.0	0.0				
WS10	PIPE1 (50mm)	06/03/2019	13:43:00							1.1		0.1			4.1	14.1	0.0	0.0	0.0				
			14:00:00					989	-4.1	0.1	0.4	0.1	0.1	0.5	0.3	20.8	0.0	0.0	0.0				
			14:00:15							0.5		0.1			1.0	20.4	0.0	0.0	0.0				
			14:00:30							0.5		0.1			1.0	20.1	0.0	0.0	0.0				
			14:00:45							0.5		0.1			1.0	20.1	0.0	0.0	0.0				
			14:01:00							0.5		0.1			1.0	20.1	0.0	0.0	0.0				
			14:01:30							0.5		0.1			1.0	20.1	0.0	0.0	0.0				
WS202	PIPE1 (50mm)	06/03/2019	14:02:00							0.4		0.1			1.0	20.1	0.0	0.0	0.0				
			14:03:00							0.4		0.1			1.0	20.1	0.0	0.0	0.0				
			13:00:00					990	-2.3	0.3	0.2	0.1	0.1	0.5	0.3	20.5	0.0	0.0	0.0				
			13:00:15							0.5		0.1			2.9	15.9	0.0	0.0	0.0				
			13:00:30							0.7		0.1			2.7	14.6	0.0	0.0	0.0				
			13:00:45							0.3		0.0			2.7	14.6	0.0	0.0	0.0				
			13:01:00							0.2		0.0			2.7	14.6	0.0	0.0	0.0				
WS208	PIPE1 (50mm)	06/03/2019	13:01:30							0.2		0.0			2.7	14.5	0.0	0.0	0.0				
			13:02:00							0.2		0.0			2.7	14.5	0.0	0.0	0.0				
			13:03:00							0.1		0.0			2.7	14.5	0.0	0.0	0.0				
			12:30:00					990	-5.0	0.5	0.3	0.1	0.1	0.5	0.2	20.9	0.0	0.0	0.0				
			12:30:15							0.5		0.0			1.6	18.5	0.0	0.0	0.0				
			12:30:30							0.4		0.0			1.6	16.9	0.0	0.0	0.0				
			12:30:45							0.4		0.0			1.6	16.5	0.0	0.0	0.0				
WS210	PIPE1 (50mm)	06/03/2019	12:31:00							0.3		0.0			1.6	16.4	0.0	0.0	0.0				
			12:31:30							0.3		0.0			1.6	16.4	0.0	0.0	0.0				
			12:33:00							0.3		0.0			1.6	16.3	0.0	0.0	0.0				
			11:45:00					990	-3.8	0.1	0.0	0.1	0.1	0.5	0.0	20.2	0.0	0.0	0.0				
			11:45:15							0.5		0.0			0.2	13.8	0.0	0.0	0.0				
			11:45:30							0.4		0.0			3.8	12.0	0.0	0.0	0.0				
			11:45:45							0.3		0.0			3.8	12.4	0.0	0.0	0.0				
WS211	PIPE1 (50mm)	06/03/2019	11:46:00							0.3		0.0			3.9	12.3	0.0	0.0	0.0				
			11:46:30							0.1		0.0			3.9	12.2	0.0	0.0	0.0				
			11:47:00							0.0		0.0			3.9	12.1	0.0	0.0	0.0				
			11:48:00							0.0		0.0			4.0	11.9	0.0	0.0	0.0				
			11:00:15							0.3		0.0			0.7	20.6	0.0	0.0	0.0				
			12:00:00					991	-3.6	0.1	0.1	0.1	0.1	0.5	0.3	20.8	0.0	0.0	0.0				
			12:00:30							0.2		0.0			0.6	19.8	0.0	0.0	0.0				
			12:00:45							0.2		0.0			0.5	20.0	0.0	0.0	0.0				
			12:01:00							0.2		0.0			0.5	20.2	0.0	0.0	0.0				
			12:01:30							0.1		0.0			0.4	20.5	0.0	0.0	0.0				
			12:02:00							0.1		0.0			0.3	20.6	0.0	0.0	0.0				
			12:03:00							0.1		0.0			0.2	20.6	0.0	0.0	0.0				

				Gas and PID Monitoring Results																		
Project ID: GL22428A				Client: Trustees of the Langmead Pension Scheme				Equipment Model / Serial Number				Manufacturer's Calibration Date										
Date: 03/04/2019				Location: Land East of Drove Lane, Yapton				Gas Analyser: GA5000 / 501572				22/05/2018										
Weather conditions: Cloudy and dry, wet ground.								PID: Tiger Handheld VOC Detector / T-113655, Tiger Handheld VOC Detector / T-113656, Tiger Handheld VOC Detector / T-				11/10/2018										
Pump Running Time (Purge): Standard 30 secs. Pump Running Time (Sampling): Standard 180 secs. Flow Details: 5 sec average for 1 min.								PID Details: "<" indicates reading is under the detection limit. ">" indicates reading is over the upper limit. "**" level to be determined.														
Field engineer(s): Joe Sparks					Remarks:																	
Location ID	Monitoring Pipe and Diameter	Date Monitored	Time	Air Temp (°C)	Atmospheric Pressure 3Hrs Prior to Sampling (mB)	#N/A	#N/A	Atmospheric Pressure When Sampled (mB)	Relative Pressure (mB)	Peak PID (ppm)	Stable PID (ppm)	Methane (%)	Peak Methane (%)	Methane LEL (%)	Carbon Dioxide (%)	Oxygen (%)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Flow (l/hr)	Remarks		
WS06	PIPE1 (50mm)	03/04/2019	18:40:00	6.0	999			999	0.3	0.0	0.3	0.2	0.2	1.0	0.0	21.0	0.0	0.0	0.0			
			18:40:15							0.4			0.2			1.4	20.1	0.0	0.0	0.0		
			18:40:30							0.4			0.2			1.4	19.1	0.0	0.0	0.0		
			18:40:45							0.3			0.2			1.4	19.0	0.0	0.0	0.0		
			18:41:00							0.3			0.2			1.4	19.0	0.0	0.0	0.0		
			18:41:30							0.3			0.2			1.4	18.9	0.0	0.0	0.0		
			18:42:00							0.3			0.2			1.4	18.9	0.0	0.0	0.0		
			18:43:00							0.3			0.2			1.4	18.9	0.0	0.0	0.0		
			WS10	PIPE1 (50mm)	03/04/2019	18:20:00	6.0	999			999	0.2	0.2	0.3	0.2	0.2	1.0	2.9	21.2	0.0	0.0	0.0
18:20:15										0.4			0.2			2.9	20.5	0.0	0.0	0.0		
18:20:30										0.4			0.2			3.0	18.1	0.0	0.0	0.0		
18:20:45										0.4			0.2			3.0	17.7	0.0	0.0	0.0		
18:21:00										0.4			0.2			3.0	17.6	0.0	0.0	0.0		
18:21:30										0.4			0.2			3.0	17.5	0.0	0.0	0.0		
18:22:00										0.4			0.2			3.0	17.5	0.0	0.0	0.0		
18:23:00										0.3			0.2			3.0	17.1	0.0	0.0	0.0		
WS202	PIPE1 (50mm)	03/04/2019				11:40:00	6.0	999			998	-0.1	0.1	0.3	0.1	0.2	1.0	2.0	20.1	0.0	0.0	0.0
			11:40:15							0.4			0.2			4.1	14.0	0.0	0.0	0.0		
			11:40:30							0.4			0.2			4.1	13.0	0.0	0.0	0.0		
			11:40:45							0.3			0.2			4.1	12.7	0.0	0.0	0.0		
			11:41:00							0.4			0.2			4.1	12.7	0.0	0.0	0.0		
			11:41:30							0.3			0.2			4.1	12.7	0.0	0.0	0.0		
			11:42:00							0.3			0.2			4.1	12.6	0.0	0.0	0.0		
			11:43:00							0.3			0.2			4.2	12.6	0.0	0.0	0.0		
			WS208	PIPE1 (50mm)	03/04/2019	12:00:00	6.0	999			999	0.1	0.0	0.0	0.1	0.1	0.5	0.1	20.0	0.0	0.0	0.0
12:00:15										0.3			0.1			1.9	10.7	0.0	0.0	0.0		
12:00:30										0.3			0.1			1.9	10.5	0.0	0.0	0.0		
12:00:45										0.1			0.1			1.9	10.5	0.0	0.0	0.0		
12:01:00										0.1			0.1			1.9	10.4	0.0	0.0	0.0		
12:01:30										0.0			0.1			1.9	10.4	0.0	0.0	0.0		
12:02:00										0.0			0.1			1.9	10.4	0.0	0.0	0.0		
12:03:00										0.0			0.1			1.9	10.4	0.0	0.0	0.0		
WS210	PIPE1 (50mm)	03/04/2019				10:55:00	6.0	999			999	0.2	0.2	0.5	0.2	0.2	1.0	0.0	19.8	0.0	0.0	0.0
			10:55:15							0.6			0.2			5.0	16.4	0.0	0.0	0.0		
			10:55:30							0.6			0.2			5.0	13.1	0.0	0.0	0.0		
			10:55:45							0.5			0.2			5.0	12.2	0.0	0.0	0.0		
			10:56:00							0.6			0.2			5.0	12.1	0.0	0.0	0.0		
			10:56:30							0.5			0.2			5.1	12.0	0.0	0.0	0.0		
			10:57:00							0.5			0.2			5.1	12.0	0.0	0.0	0.0		
			10:58:00							0.5			0.2			5.1	12.0	0.0	0.0	0.0		
			WS211	PIPE1 (50mm)	03/04/2019	10:25:00	6.0	999			999	-6.2	0.6	0.2	0.2	0.2	1.0	2.3	20.2	0.0	0.0	0.0
10:25:15										0.6			0.2			2.3	14.0	0.0	0.0	0.0		
10:25:30										0.4			0.2			2.3	11.0	0.0	0.0	0.0		
10:25:45										0.4			0.2			2.3	10.6	0.0	0.0	0.0		
10:26:00										0.4			0.2			2.3	10.3	0.0	0.0	0.0		
10:26:30										0.3			0.2			2.3	10.2	0.0	0.0	0.0		
10:27:00										0.2			0.2			2.3	10.2	0.0	0.0	0.0		
10:28:00										0.2			0.2			2.3	10.2	0.0	0.0	0.0		



Site Name: Land East of Drove Lane, Yapton

Job No.: GL22428A

Client: Trustees of the Langmead Pension Scheme c/o Landlink Estates Ltd

Weather (include Temperature & Pressure): Cloudy, wet

State of Ground: Wet

Harrison Group Environmental Ltd. Unit 12
Waterways Business Centre
Enfield
EN3 6JJ



Site Name: Land East of Drove Lane, Yapton

Job No.: GL22428A

Client: Trustees of the Langmead Pension Scheme c/o Landlink Estates Ltd

Weather (include Temperature & Pressure): Clear, dry

State of Ground: Dry

Harrison Group Environmental Ltd. Unit 12
Waterways Business Centre
Enfield
EN3 6JJ



Site Name: Land East of Drove Lane, Yapton

Job No.: GL22428A

Client: Trustees of the Langmead Pension Scheme c/o Landlink Estates Ltd

Weather (include Temperature & Pressure): Clear, dry

State of Ground: Mostly dry, some standing water

Harrison Group Environmental Ltd. Unit 12
Waterways Business Centre
Enfield
EN3 6JJ

				Groundwater Monitoring Results																															
Project ID: GL22428A				Client: Trustees of the Langmead Pension Scheme								Weather conditions: Cloudy and dry																							
Date: 06/03/2019				Location: Land East of Drove Lane, Yapton								Ground conditions: Dry																							
¹ = All (m) depth measurements are recorded as meters from the top of the installation cover.												² = I: Inertial, S: Submersible, B: Bailer, P: Peristaltic Pump.						³ = Purge volume standardisation: 50mm standpipe = 6 x water column, 35mm = 3.5 x water column, 19mm = 1 x water column.																	
Field engineer(s): Joe Sparks												Remarks:																							
				Readings:																															
Location ID	Monitoring Pipe and Diameter	Date Monitored	Time	Surface Elevation (maOD)	LNAPL Depth¹ (mbgl)	LNAPL Depth (maOD)	Water Level¹ (mbgl)	Water Level (maOD)	DNAPL Depth¹ (mbgl)	DNAPL Depth (maOD)	Depth to base¹ (mbgl)	Depth to base (maOD)	Barometric Pressure (mB)	Air Temp (°C)	Downhole Temp (°C)	pH	Electrical Conductivity (µS/cm)	DO (%)	Redox Potential (mV)	Resistivity (Ohm-cm)	Salinity (psu)	Density (g/cm³)	TDS (ppt)	Water Pressure (psi)	Sampling Method² (I, S, B, P)	Water Column (m)	Purged Volume³ (L)	Sample Ref	Comments: (e.g. problems encountered, standpipe conditions, unusual odours, colour, turbidity, sheens)						
WS06	PIPE1 (50mm)	06/03/2019					1.20				4.00															2.80									
WS10	PIPE1 (50mm)	06/03/2019					3.27				4.00															0.73									
WS201	PIPE1 (19mm)	06/03/2019		5.93			1.35	4.58			3.60	2.33														2.25									
WS202	PIPE1 (50mm)	06/03/2019		6.14			2.05	4.09			4.70	1.44														2.65									
WS203	PIPE1 (19mm)	06/03/2019		4.96			1.50	3.46			4.00	0.96														2.50									
WS204	PIPE1 (19mm)	06/03/2019		5.67			2.06	3.61			4.80	0.87														2.74									
WS205	PIPE1 (19mm)	06/03/2019		6.68			2.00	4.68			3.95	2.73														1.95									
WS206	PIPE1 (19mm)	06/03/2019		5.90			2.00	3.90			4.20	1.70														2.20									
WS207	PIPE1 (19mm)	06/03/2019		6.44			1.95	4.49			3.95	2.49														2.00									
WS208	PIPE1 (50mm)	06/03/2019		6.06			2.30	3.76			3.93	2.13														1.63									
WS209	PIPE1 (19mm)	06/03/2019		5.66			2.50	3.16			4.45	1.21														1.95									
WS210	PIPE1 (50mm)	06/03/2019		6.04			3.15	2.89			4.70	1.34														1.55									
WS211	PIPE1 (50mm)	06/03/2019		6.35			2.40	3.85			4.60	1.75														2.20									

				Groundwater Monitoring Results																									
Project ID: GL22428A				Client: Trustees of the Langmead Pension Scheme								Weather conditions: Cloudy, dry with showers																	
Date: 03/04/2019				Location: Land East of Drove Lane, Yapton								Ground conditions: Wet																	
¹ = All (m) depth measurements are recorded as meters from the top of the installation cover.										² = I: Inertial, S: Submersible, B: Bailer, P: Peristaltic Pump.				³ = Purge volume standardisation: 50mm standpipe = 6 x water column, 35mm = 3.5 x water column, 19mm = 1 x water column.															
Field engineer(s): Joe Sparks										Remarks:																			
Location ID	Monitoring Pipe and Diameter	Date Monitored	Time	Surface Elevation (maOD)	LNAPL Depth¹ (mbgl)	LNAPL Depth (maOD)	Water Level¹ (mbgl)	Water Level (maOD)	DNAPL Depth¹ (mbgl)	DNAPL Depth (maOD)	Depth to base¹ (mbgl)	Depth to base (maOD)	Readings:												Sampling Method² (I, S, B, P)	Water Column (m)	Purged Volume³ (L)	Sample Ref	Comments: (e.g. problems encountered, standpipe conditions, unusual odours, colour, turbidity, sheens)
													Barometric Pressure (mB)	Air Temp (°C)	Downhole Temp (°C)	pH	Electrical Conductivity (µS/cm)	DO (%)	Redox Potential (mV)	Resistivity (Ohm-cm)	Salinity (psu)	Density (g/cm³)	TDS (ppt)	Water Pressure (psl)					
WS06	PIPE1 (50mm)	03/04/2019					1.90				4.00													2.10					
WS10	PIPE1 (50mm)	03/04/2019					3.42				4.00													0.58					
WS201	PIPE1 (19mm)	03/04/2019		5.93			1.65	4.28			3.60	2.33												1.95					
WS202	PIPE1 (50mm)	03/04/2019		6.14			2.70	3.44			4.70	1.44												2.00					
WS203	PIPE1 (19mm)	03/04/2019		4.96			1.58	3.38			4.00	0.96												2.42					
WS204	PIPE1 (19mm)	03/04/2019		5.67			2.45	3.22			4.80	0.87												2.35					
WS205	PIPE1 (19mm)	03/04/2019		6.68			2.03	4.65			3.95	2.73												1.92					
WS206	PIPE1 (19mm)	03/04/2019		5.90			2.20	3.70			4.20	1.70												2.00					
WS207	PIPE1 (19mm)	03/04/2019		6.44			1.92	4.52			3.95	2.49												2.03					
WS208	PIPE1 (50mm)	03/04/2019		6.06			2.05	4.01			3.93	2.13												1.88					
WS209	PIPE1 (19mm)	03/04/2019		5.66			2.61	3.05			4.45	1.21												1.84					
WS210	PIPE1 (50mm)	03/04/2019		6.04			3.80	2.24			4.70	1.34												0.90					
WS211	PIPE1 (50mm)	03/04/2019		6.35			2.90	3.45			4.60	1.75												1.70					

APPENDIX D

LABORATORY TESTING



Harrison Group Environmental
12, Waterways Business Centre
Navigation Drive
Enfield
EN3 6JJ

For the attention of: John Keay

Page 1 of 1
Issue No: 01

Project: **Drove Lane, Yapton**
Report No: **GL22428A-01**
Your Ref: **GL22428A-01**

Samples received: 19/12/2018
Instruction received: 19/12/2018
Testing commenced: 07/01/2019

Please find results attached as summarised below.

Item	Description	Quantity	UKAS Accredited
1	Water Content	24	Yes
2	Liquid & Plastic Limits	12	Yes
3	Saturation Moisture Content	3	No
4	Particle Size Distribution - Wet Sieve Method	7	Yes

Only those results indicated in this report are UKAS accredited and any opinion or interpretations expressed are outside the scope of UKAS accreditation.

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

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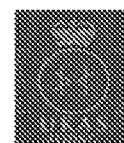
Issued by:

Date Issued:



M. Willson
Laboratory Manager

25 January 2019



DETERMINATION OF WATER CONTENT

BS EN ISO 17892 - 1 : 2014

Project Name:			Drove Lane, Yapton		Project Number:
Client Name:			Trustees of the Langmead Pension Scheme		GL22428A
Location	Depth m	Sample Ref	Sample Description	Water Content %	Remarks
WS201	0.50	D2	Brown CLAY	32.8	
WS202	0.50	B1	Brown CLAY	22.9	
WS203	1.00	D3	Orange brown CLAY	23.1	
WS204	1.00	D3	Orange brown CLAY	23.9	
WS204	3.00	D7	Grey brown slightly gravelly slightly sandy CLAY. Gravel is of flint and chalk	21.4	
WS205	0.50	B1	Brown CLAY	23.2	
WS206	0.50	B1	Orange brown CLAY.	24.0	
WS206	2.00	D5	Brown slightly gravelly slightly sandy CLAY. Gravel is of flint	24.9	
WS207	0.50	B1	Brown CLAY	22.9	
WS207	2.00	D5	Orange brown slightly gravelly CLAY. Gravel is of chalk.	21.5	
Notes: 1) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date. 2) This report should not be reproduced except in full without the written approval of the laboratory. 3) Only those results indicated in this report are UKAS accredited and any opinion or interpretations expressed are outside the scope of UKAS accreditation.					
Remarks			Approved	Date	Sheet No.:
			MW M. Willson Laboratory Manager	25/01/2019	1 of 3



DETERMINATION OF WATER CONTENT

BS EN ISO 17892 - 1 : 2014

Project Name:			Drove Lane, Yapton		Project Number:
Client Name:			Trustees of the Langmead Pension Scheme		GL22428A
Location	Depth m	Sample Ref	Sample Description	Water Content %	Remarks
WS208	0.50	B1	Brown CLAY	22.9	
WS209	0.50	D2	Brown slightly gravelly CLAY. Gravel is of chalk.	22.5	
WS209	1.50	D4	Orange brown slightly gravelly slightly sandy CLAY. Gravel is of flint and chalk	19.9	
WS210	0.20	D1	Brown slightly gravelly CLAY. Gravel is of flint.	26.5	
WS210	0.50	B1	Brown slightly gravelly CLAY. Gravel is of chalk.	22.8	
WS210	0.50	D2	Orange brown slightly sandy CLAY.	22.1	
WS210	1.00	D3	Orange brown slightly sandy CLAY.	22.4	
WS210	1.50	D4	Orange brown slightly sandy CLAY.	21.8	
WS210	2.00	D5	Brown slightly sandy slightly gravelly CLAY. Gravel is of flint and claystone.	19.0	
WS210	2.50	D6	Orange brown slightly gravelly slightly sandy CLAY. Gravel is of flint and chalk	19.9	
Notes: 1) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date. 2) This report should not be reproduced except in full without the written approval of the laboratory. 3) Only those results indicated in this report are UKAS accredited and any opinion or interpretations expressed are outside the scope of UKAS accreditation.					
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			MW M. Wilson Laboratory Manager	25/01/2019	2 of 3



DETERMINATION OF WATER CONTENT

BS EN ISO 17892 - 1 : 2014

Project Name:	Drove Lane, Yapton	Project Number:
Client Name:	Trustees of the Langmead Pension Scheme	GL22428A

Location	Depth m	Sample Ref	Sample Description	Water Content %	Remarks
WS210	3.00	D7	Brown slightly sandy slightly gravelly CLAY. Gravel is of chalk.	17.9	
WS211	0.50	D2	Brown CLAY	24.3	
WS211	1.50	D4	Brown slightly sandy CLAY.	23.4	
WS211	2.50	D6	Orange brown , grey brown and brown CLAY	21.5	

Notes:

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Remarks	Approved	Date	Sheet No.:
	MW M. Wilson Laboratory Manager	25/01/2019	3 of 3

			DETERMINATION OF LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX BS1377 : Part 2 : 1990						
Project Name:			Drove Lane, Yapton					Project Number:	
Client Name:			Trustees of the Langmead Pension Scheme					GL22428A	
Location	Depth m	Sample Ref	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Percentage passing 425µm %	Classification	Sample Description
WS201	0.50	D2	33	40	20	20	100	CI	Brown CLAY
WS202	0.50	B1	23	43	21	22	100	CI	Brown CLAY
WS203	1.00	D3	23	38	20	18	100	CI	Orange brown CLAY
WS204	1.00	D3	24	41	20	21	100	CI	Orange brown CLAY
WS204	3.00	D7	21	25	15	10	91	CL	Grey brown slightly gravelly slightly sandy CLAY. Gravel is of flint and chalk
WS205	0.50	B1	23	34	21	13	100	CL	Brown CLAY
WS206	2.00	D5	25	37	17	20	100	CI	Brown slightly gravelly slightly sandy CLAY. Gravel is of flint
WS207	0.50	B1	23	33	20	13	100	CL	Brown CLAY
WS208	0.50	B1	23	36	22	14	100	CI	Brown CLAY
WS210	2.50	D6	20	28	16	12	88	CL	Orange brown slightly gravelly slightly sandy CLAY. Gravel is of flint and chalk

Notes:

- 1) This summary sheet is provided for convenience and in no way replaces individual test result sheets which shall, without exception, be regarded as the definitive result. Please refer to the individual test result sheets for the respective methods used.
- 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
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Remarks	Approved	Date	Sheet No.:
	MW M. Willson Laboratory Manager	25/01/2019	1 of 2

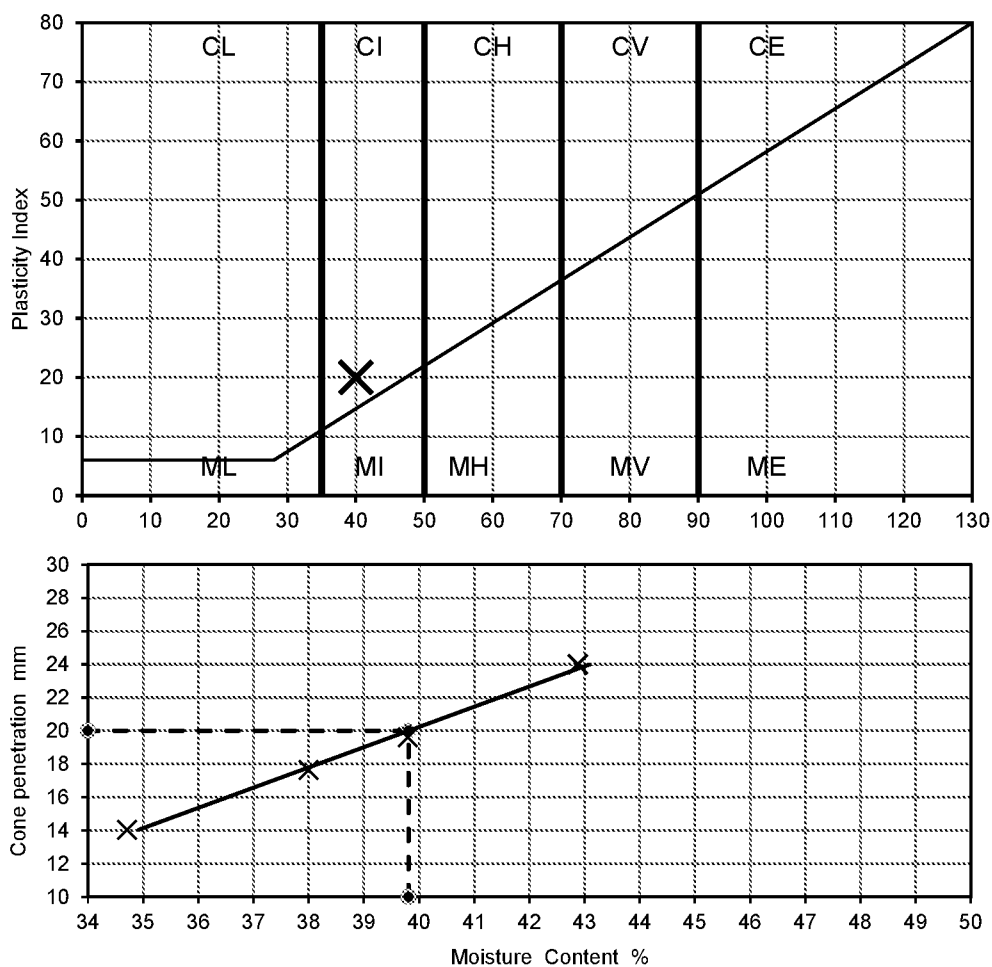
			DETERMINATION OF LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX BS1377 : Part 2 : 1990							
Project Name:			Drove Lane, Yapton					Project Number:		
Client Name:			Trustees of the Langmead Pension Scheme					GL22428A		
Location	Depth m	Sample Ref	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Percentage passing 425µm %	Classification	Sample Description	
WS211	0.50	D2	24	41	21	20	100	CI	Brown CLAY	
WS211	2.50	D6	22	33	18	15	100	CL	Orange brown, grey brown and brown CLAY	
Notes: 1) This summary sheet is provided for convenience and in no way replaces individual test result sheets which shall, without exception, be regarded as the definitive result. Please refer to the individual test result sheets for the respective methods used. 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date. 3) This report should not be reproduced except in full without the written approval of the laboratory. 4) Only those results indicated in this report are UKAS accredited and any opinion or interpretations expressed are outside the scope of UKAS accreditation.										
Remarks							Approved		Date	Sheet No.:
							MW M. Willson Laboratory Manager		25/01/2019	2 of 2



LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS201
Sample Description:	Brown CLAY	Sample Depth (m)	0.50
		Sample Reference	D2



Preparation: Material was natural

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 33 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 40 %
 Plastic Limit: 20 %
 Plasticity Index: 20
 Liquidity Index: 0.65
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 20

Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
- 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
- 3) This report should not be reproduced except in full without the written approval of the laboratory.
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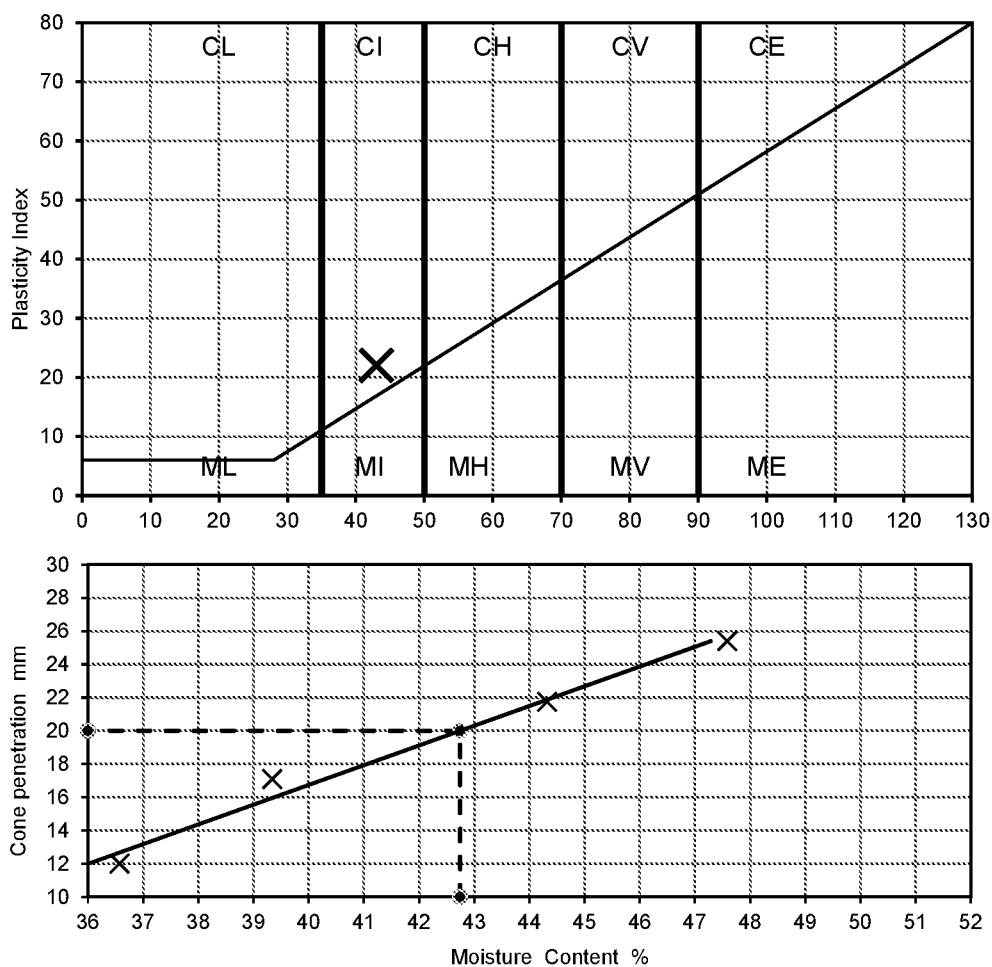
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Remarks	Approved	Date	Sheet No.:
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LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS202
Sample Description:	Brown CLAY	Sample Depth (m)	0.50
		Sample Reference	B1



Preparation: Material was natural

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 23 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 43 %
 Plastic Limit: 21 %
 Plasticity Index: 22
 Liquidity Index: 0.09
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 22

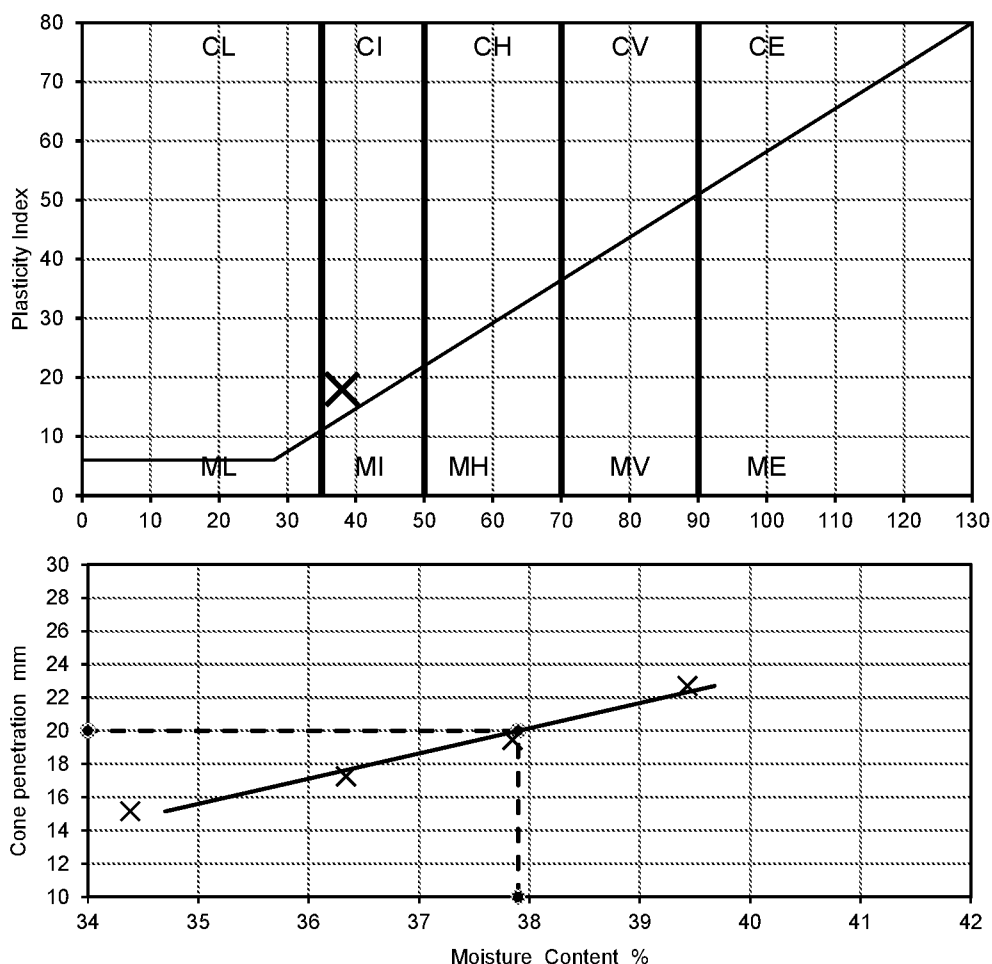
Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
- 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
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Remarks	Approved	Date	Sheet No.:
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Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS203
Sample Description:	Orange brown CLAY	Sample Depth (m)	1.00
		Sample Reference	D3



Preparation: Material was natural

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 23 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 38 %
 Plastic Limit: 20 %
 Plasticity Index: 18
 Liquidity Index: 0.17
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 18

Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
- 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
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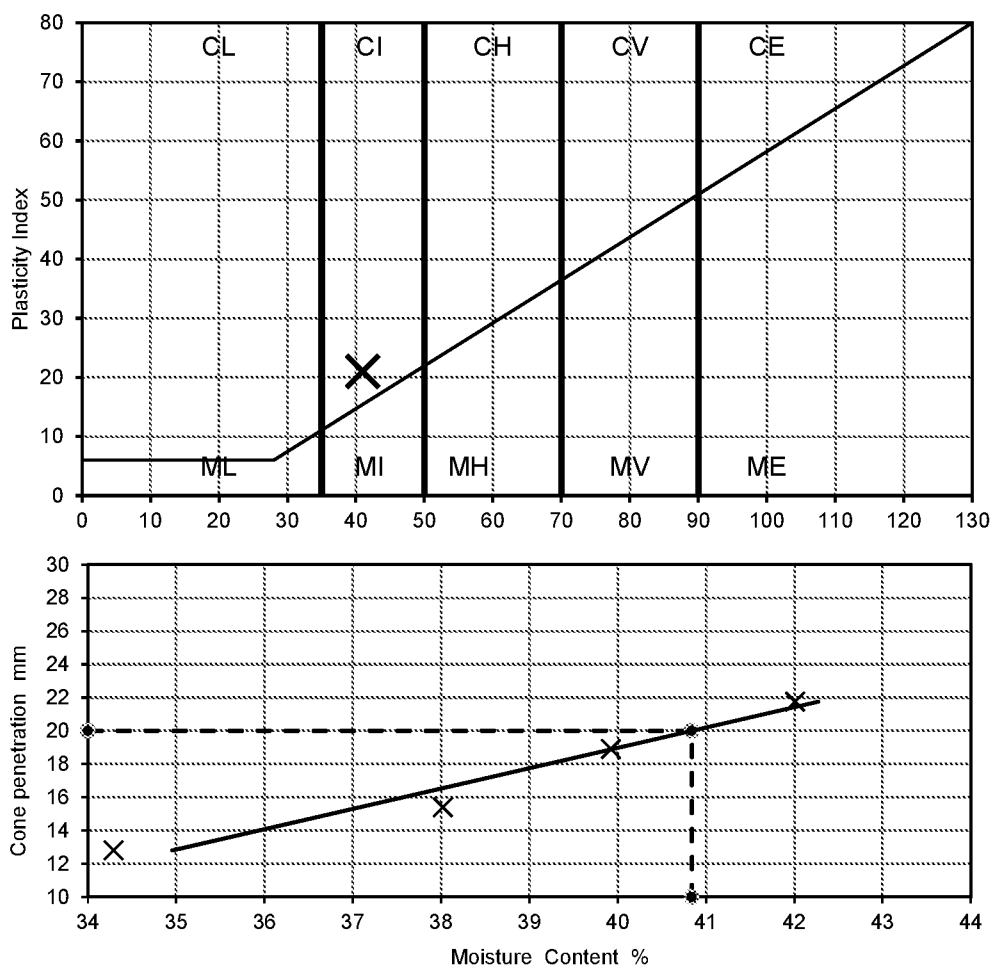


Remarks	Approved	Date	Sheet No.:
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LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS204
Sample Description:	Orange brown CLAY	Sample Depth (m)	1.00
		Sample Reference	D3



Preparation: Material was natural

Results:

As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990)	24 %
Percentage Passing 425µm sieve:	100 %
Liquid Limit:	41 %
Plastic Limit:	20 %
Plasticity Index:	21
Liquidity Index:	0.19
Modified Plasticity Index: (NHBC Standards Chapter 4.2)	21

Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
- 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
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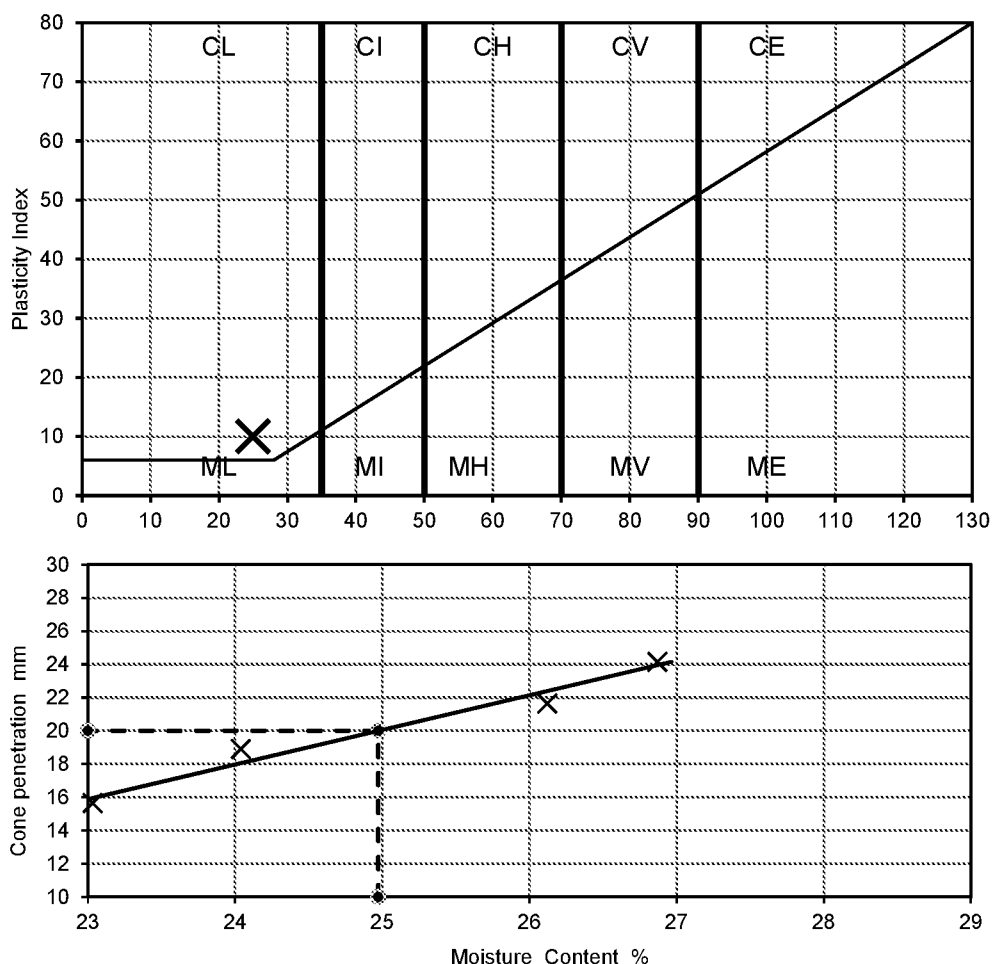


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	MW M. Willson Laboratory Manager	25/01/2019	1 of 1

LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS204
Sample Description:	Grey brown slightly gravelly slightly sandy CLAY. Gravel is of flint and chalk	Sample Depth (m)	3.00
		Sample Reference	D7



Preparation: Material was washed and oven dried at below 50°C

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 21 %
 Percentage Passing 425µm sieve: 91 %
 Liquid Limit: 25 %
 Plastic Limit: 15 %
 Plasticity Index: 10
 Liquidity Index: 0.60
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 9

Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
- 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
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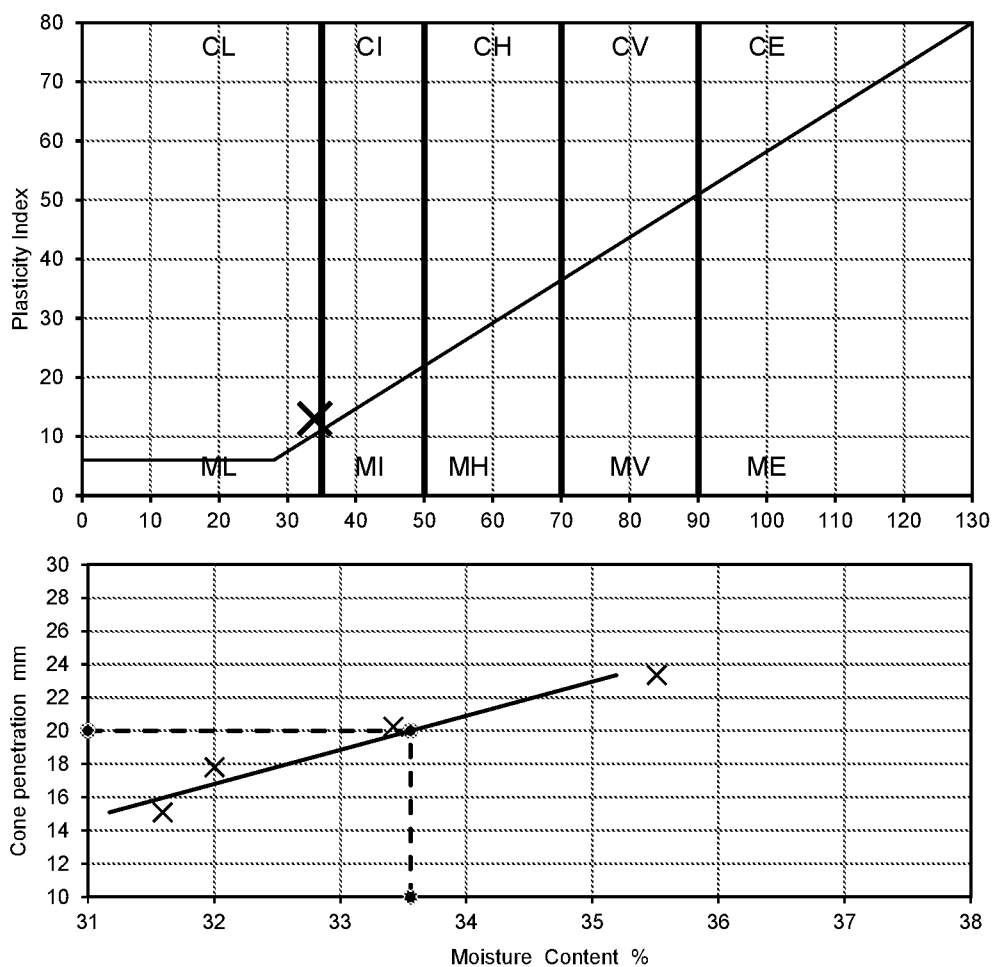


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LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS205
Sample Description:	Brown CLAY	Sample Depth (m)	0.50
		Sample Reference	B1



Preparation: Material was natural

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 23 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 34 %
 Plastic Limit: 21 %
 Plasticity Index: 13
 Liquidity Index: 0.15
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 13

Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
- 2) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
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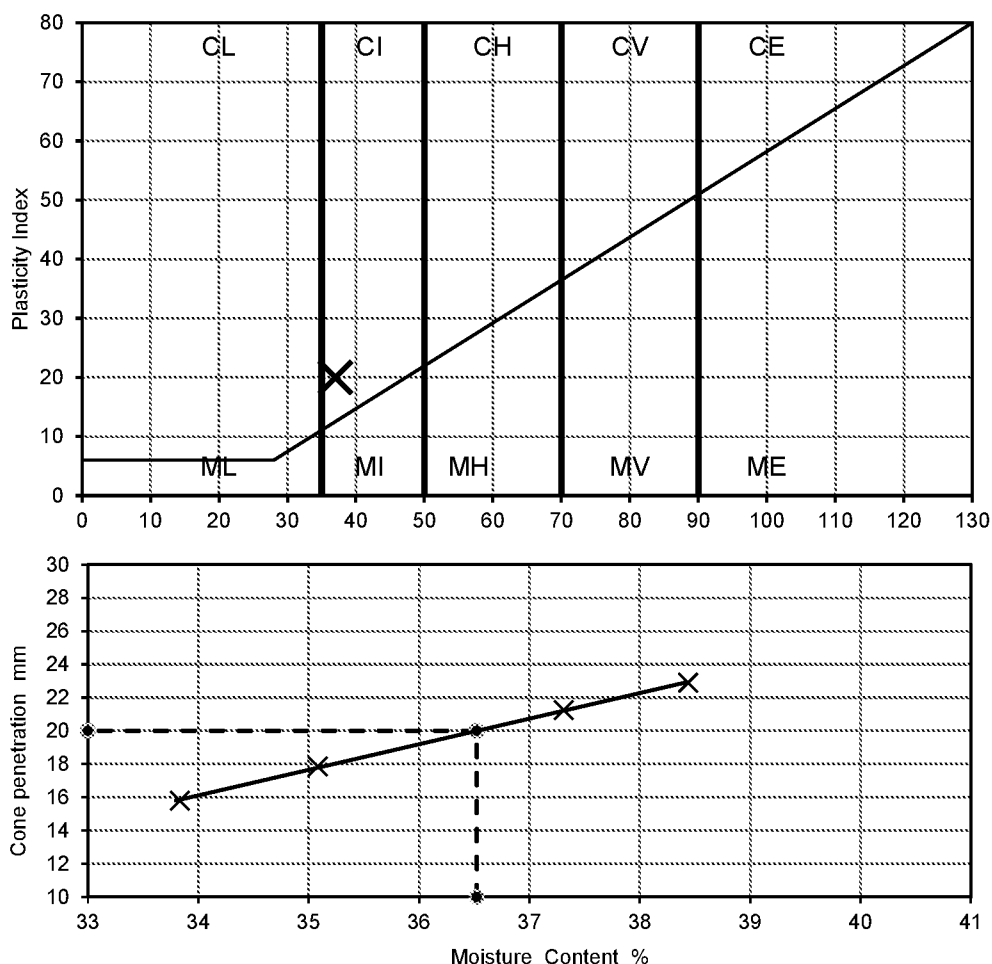
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LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS206
Sample Description:	Brown slightly gravelly slightly sandy CLAY. Gravel is of flint	Sample Depth (m)	2.00
		Sample Reference	D5



Preparation: Material was washed and oven dried at below 50°C

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 25 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 37 %
 Plastic Limit: 17 %
 Plasticity Index: 20
 Liquidity Index: 0.40
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 20

Notes:

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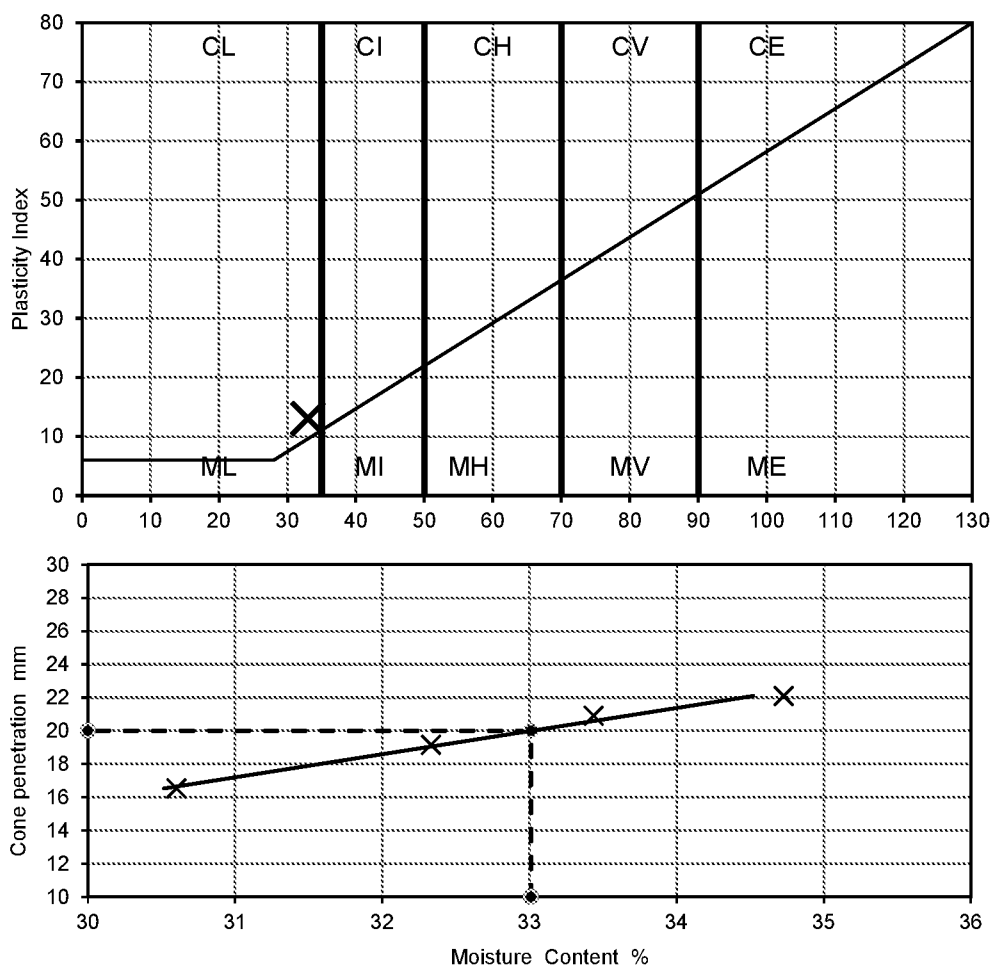


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BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS207
Sample Description:	Brown CLAY	Sample Depth (m)	0.50
		Sample Reference	B1



Preparation: Material was natural

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 23 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 33 %
 Plastic Limit: 20 %
 Plasticity Index: 13
 Liquidity Index: 0.23
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 13

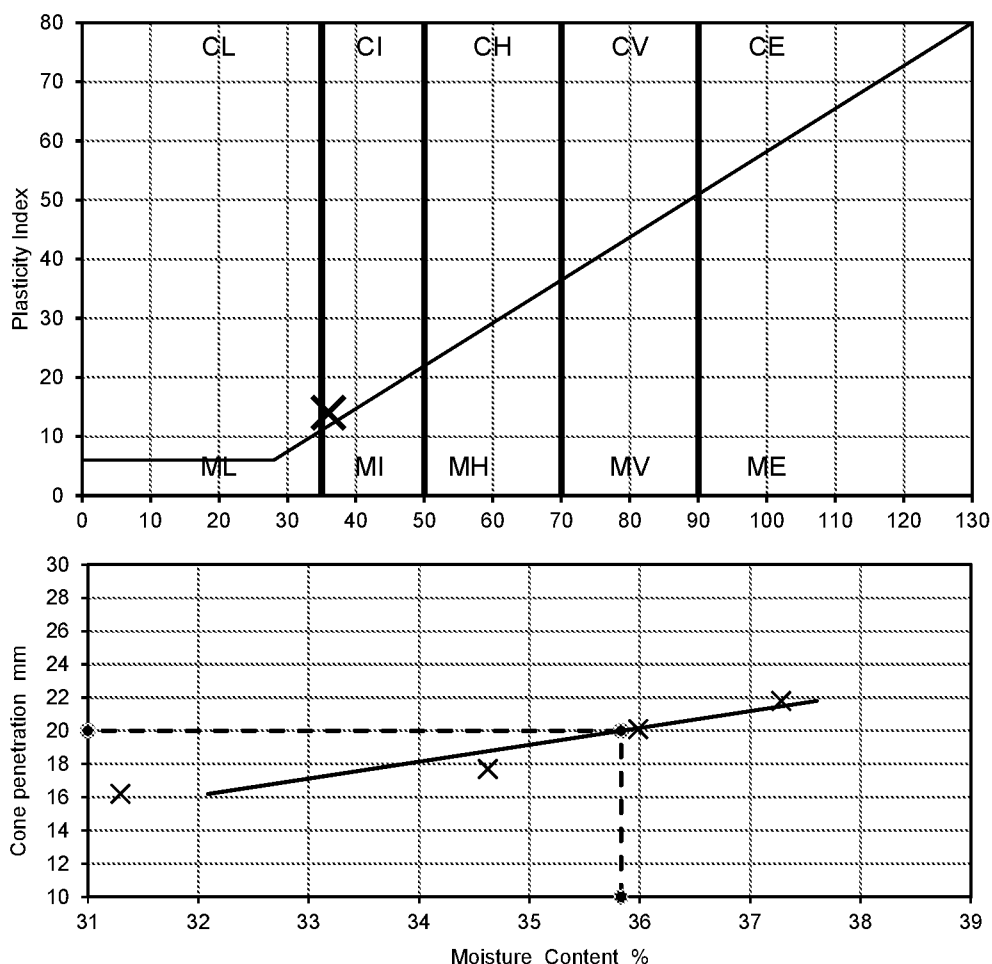
Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
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Remarks	Approved	Date	Sheet No.:
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Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS208
Sample Description:	Brown CLAY	Sample Depth (m)	0.50
		Sample Reference	B1



Preparation: Material was washed and oven dried at below 50°C

Results:

As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990)	23 %
Percentage Passing 425µm sieve:	100 %
Liquid Limit:	36 %
Plastic Limit:	22 %
Plasticity Index:	14
Liquidity Index:	0.07
Modified Plasticity Index: (NHBC Standards Chapter 4.2)	14

Notes:

- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
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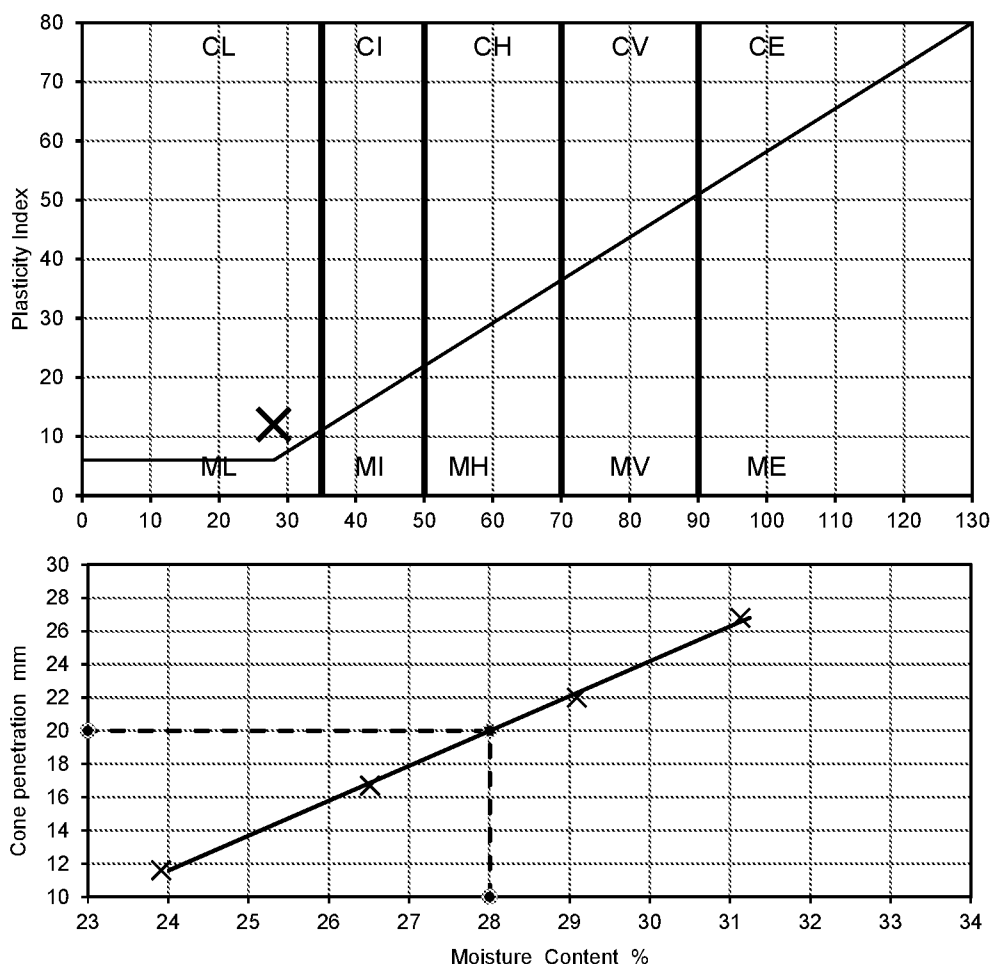


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LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS210
Sample Description:	Orange brown slightly gravelly slightly sandy CLAY. Gravel is of flint and chalk	Sample Depth (m)	2.50
		Sample Reference	D6



Preparation: Material was washed and oven dried at below 50°C

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 20 %
 Percentage Passing 425µm sieve: 88 %
 Liquid Limit: 28 %
 Plastic Limit: 16 %
 Plasticity Index: 12
 Liquidity Index: 0.33
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 11

Notes:

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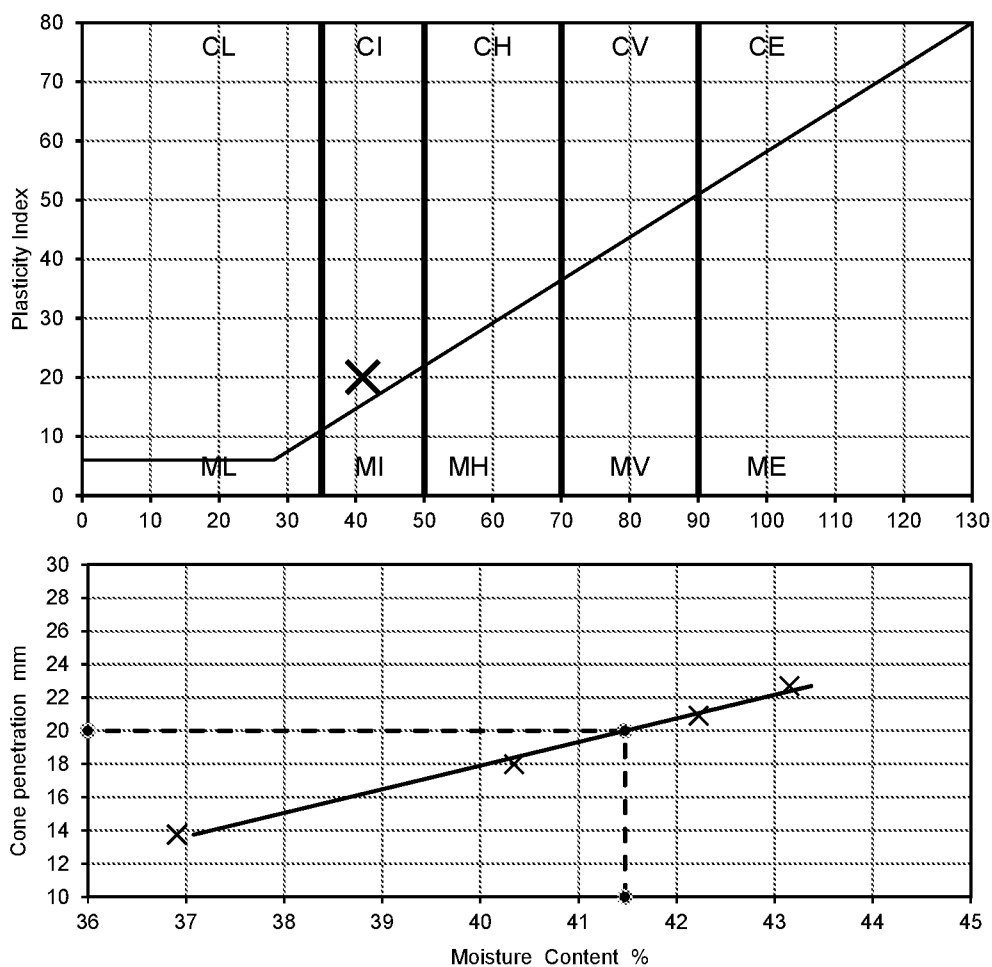


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LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS211
Sample Description:	Brown CLAY	Sample Depth (m)	0.50
		Sample Reference	D2



Preparation: Material was natural

Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 24 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 41 %
 Plastic Limit: 21 %
 Plasticity Index: 20
 Liquidity Index: 0.15
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 20

Notes:

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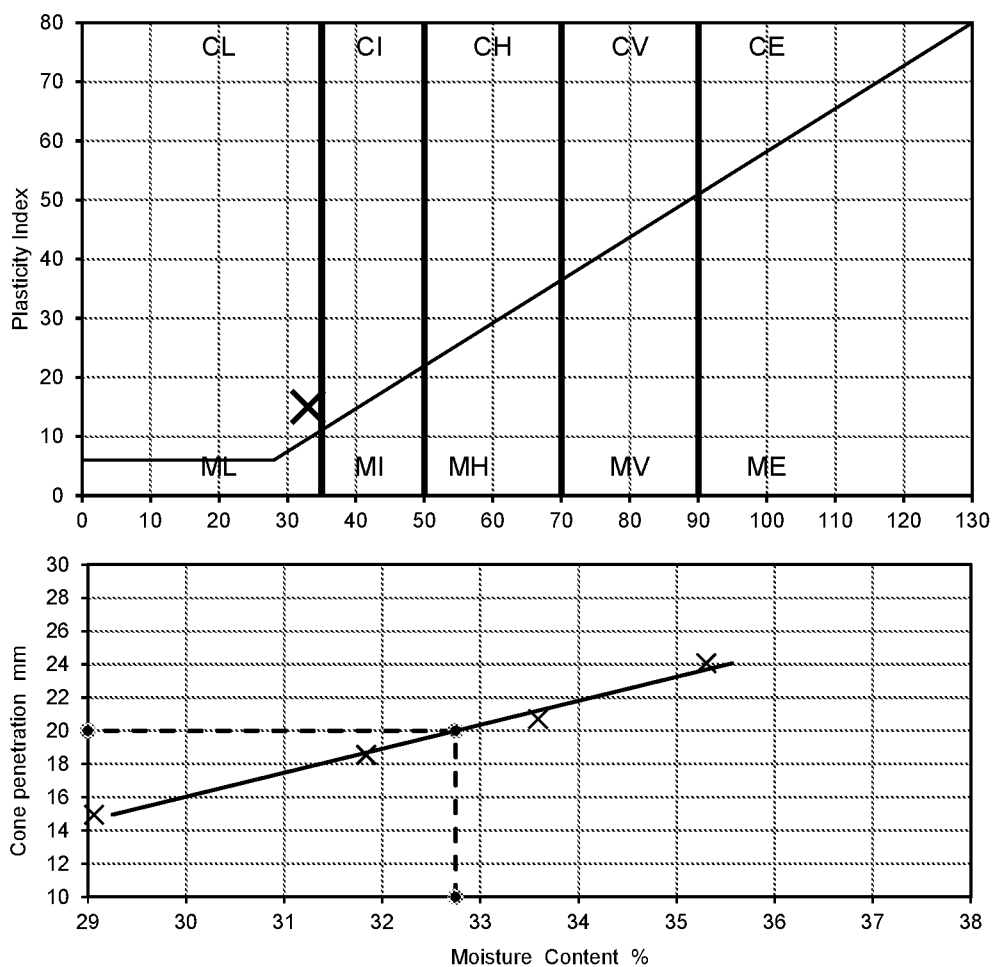


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LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, & LIQUIDITY INDEX

BS 1377 : Part 2 : 1990, clause 4.3 and 5

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS211
Sample Description:	Orange brown , grey brown and brown CLAY	Sample Depth (m)	2.50
		Sample Reference	D6



Preparation: Material was natural

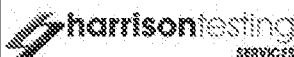
Results: As Received Moisture Content: (BS1377 : Part 2 : Clause 3 : 1990) 22 %
 Percentage Passing 425µm sieve: 100 %
 Liquid Limit: 33 %
 Plastic Limit: 18 %
 Plasticity Index: 15
 Liquidity Index: 0.27
 Modified Plasticity Index: (NHBC Standards Chapter 4.2) 15

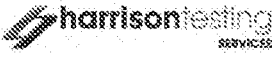
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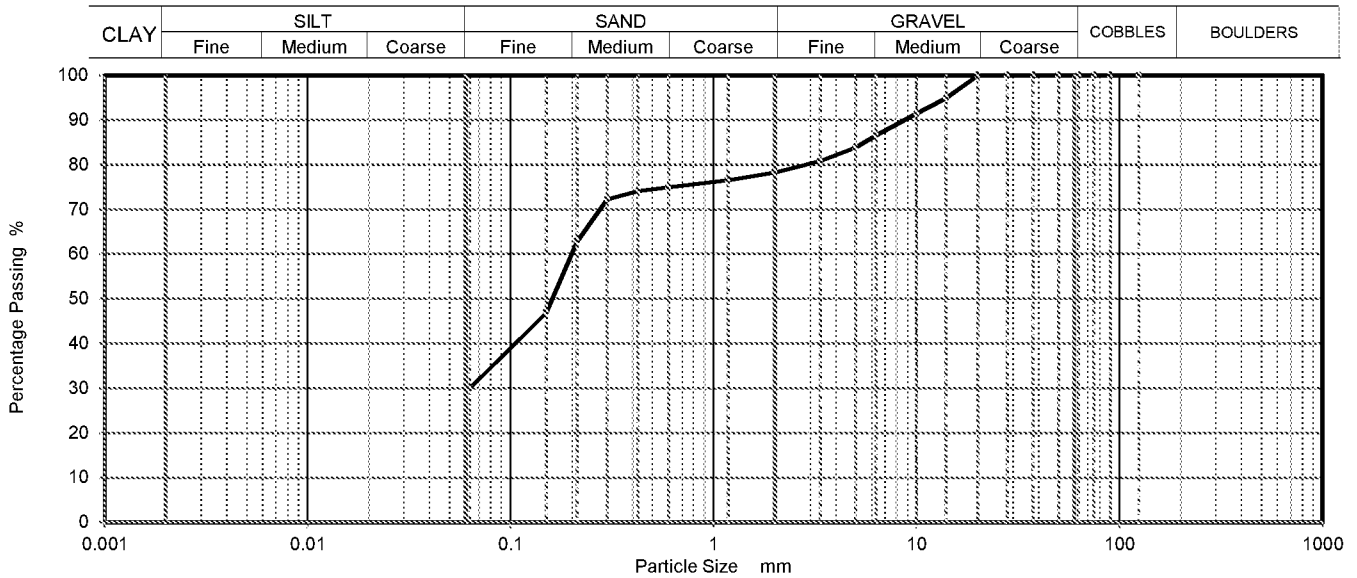
- 1) Modified Plasticity Index: (NHBC Standards Chapter 4.2) not covered by UKAS accreditation.
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			DETERMINATION OF SATURATION MOISTURE CONTENT BS1377 : Part 2 : 1990 : Clause 3.3					
Project Name:			Drove Lane, Yapton					Project Number:
Client Name:			Trustees of the Langmead Pension Scheme					GL22428A
Location	Depth m	Sample Ref	Sample Description	Moisture Content %	Density		Saturation Moisture Content %	Remarks
					Bulk Mg/m3	Dry Mg/m3		
WS203	3.50	D8	Medium density cream stained orange brown and dark brown CHALK.	26	1.97	1.56	27.1	
WS205	4.80	D11	Low density cream CHALK.	23	1.86	1.51	29.0	
WS210	5.00	D11	Medium density cream CHALK.	22	1.91	1.57	26.6	
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		DETERMINATION OF PARTICLE SIZE DISTRIBUTION BS1377:Part 2:1990, clause 9.2	
Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-01
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS201
Sample Description:	Light brown very clayey very gravelly SAND. Gravel is of chalk and flint.	Sample Depth (m)	2.50
		Sample Reference	D6



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	95		
10	91		
6.3	87		
5	84		
3.35	81		
2	78		
1.18	77		
0.6	75		
0.425	74		
0.3	72		
0.212	63		
0.15	47		
0.063	30		

Sample Proportions	% dry mass
Very coarse	0
Gravel	22
Sand	48
Fines <0.063mm	30

Grading Analysis		
D100	mm	0.199
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Notes:

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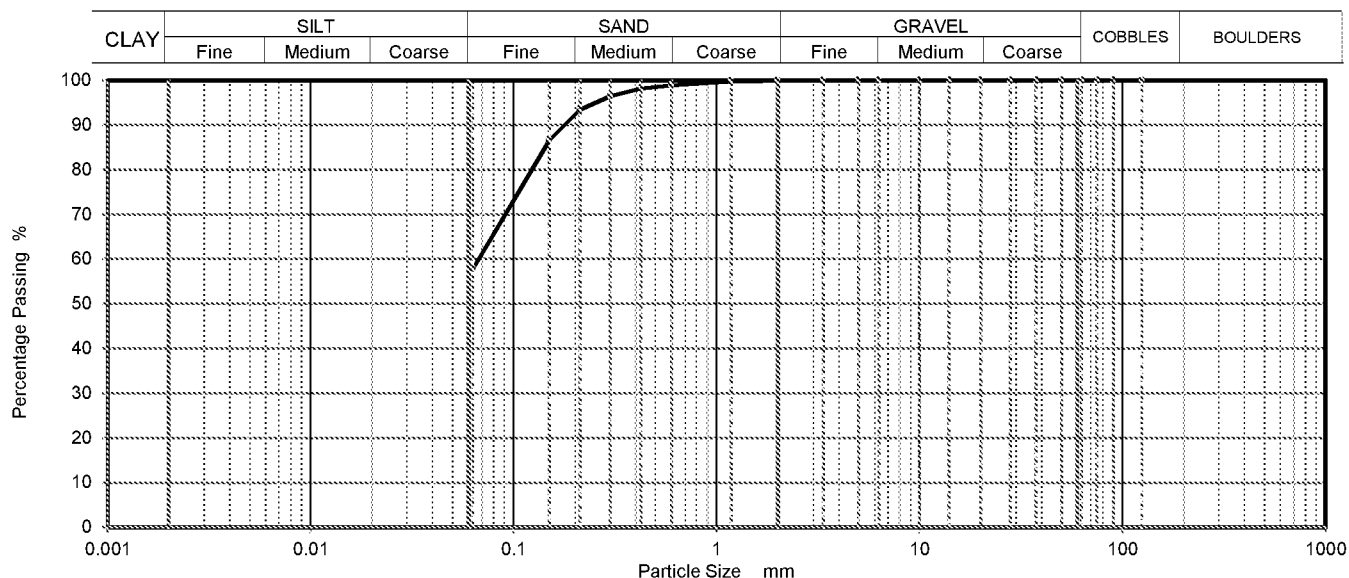
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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

BS1377:Part 2:1990, clause 9.2

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-01
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS202
Sample Description:	Grey brown sandy CLAY.	Sample Depth (m)	3.00
		Sample Reference	D7



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	98		
0.3	97		
0.212	94		
0.15	87		
0.063	58		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	42
Fines <0.063mm	58

Grading Analysis		
D100	mm	0.067
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

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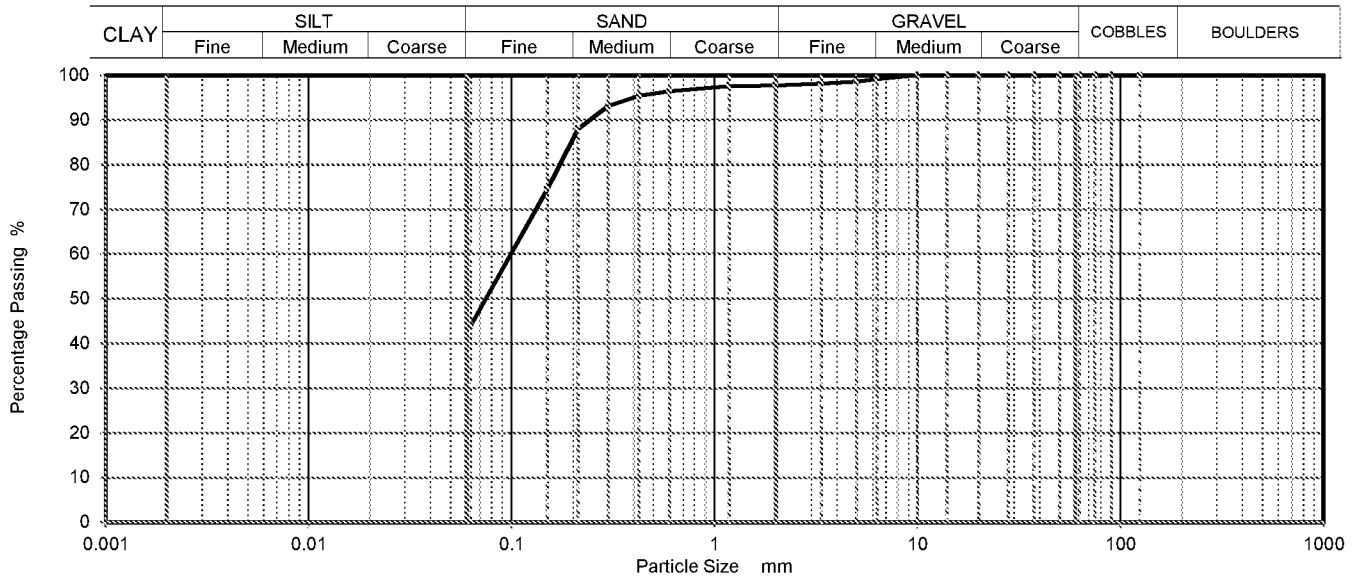
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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

BS1377:Part 2:1990, clause 9.2

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-01
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS203
Sample Description:	Brown slightly gravelly sandy CLAY. Gravel is of flint.	Sample Depth (m)	2.00
		Sample Reference	D5



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	98		
0.6	96		
0.425	95		
0.3	93		
0.212	88		
0.15	75		
0.063	44		

Sample Proportions	% dry mass
Very coarse	0
Gravel	2
Sand	54
Fines <0.063mm	44

Grading Analysis		
D100	mm	0.099
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Notes:

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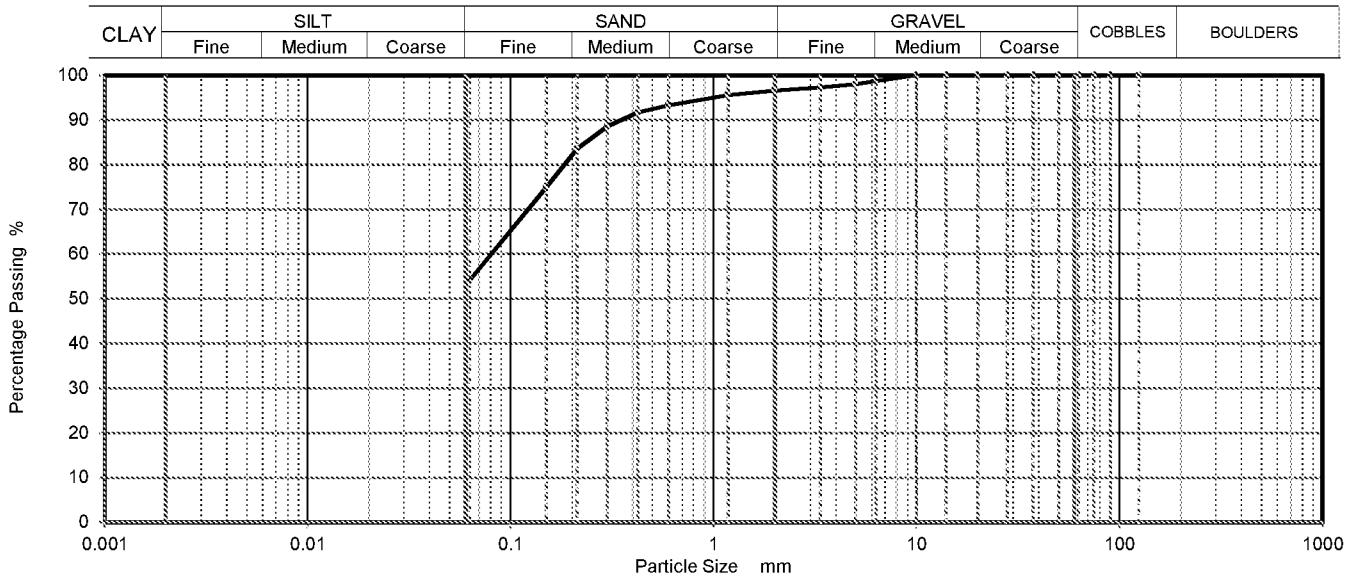
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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

BS1377:Part 2:1990, clause 9.2

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-01
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS204
Sample Description:	Orange brown mottled light grey and dark grey slightly gravelly sandy CLAY. Gravel is of flint and chalk.	Sample Depth (m)	2.50
		Sample Reference	D6



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	98		
3.35	97		
2	97		
1.18	96		
0.6	93		
0.425	92		
0.3	89		
0.212	84		
0.15	75		
0.063	54		

Sample Proportions	% dry mass
Very coarse	0
Gravel	3
Sand	42
Fines <0.063mm	54

Grading Analysis		
D100	mm	0.080
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Notes:

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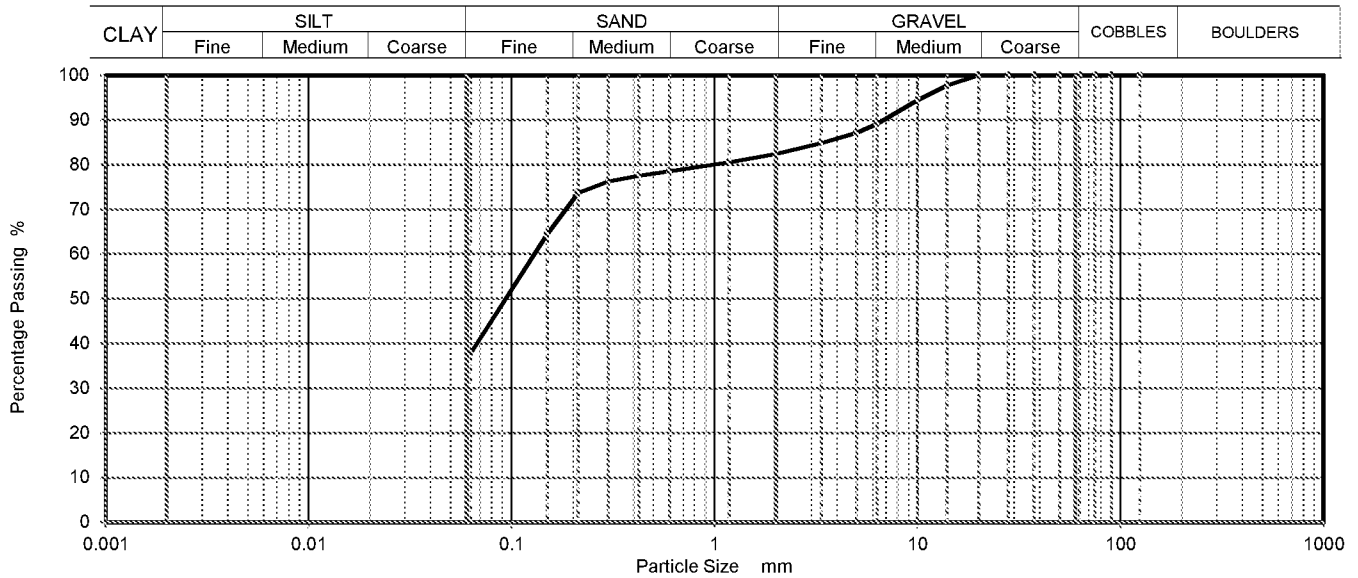
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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

BS1377:Part 2:1990, clause 9.2

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-01
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS205
Sample Description:	Light grey brown slightly gravelly sandy CLAY. Gravel is of chalk and flint.	Sample Depth (m)	4.00
		Sample Reference	D9



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	98		
10	95		
6.3	89		
5	87		
3.35	85		
2	82		
1.18	81		
0.6	79		
0.425	78		
0.3	76		
0.212	74		
0.15	65		
0.063	38		

Sample Proportions	% dry mass
Very coarse	0
Gravel	18
Sand	45
Fines <0.063mm	38

Grading Analysis		
D100	mm	0.130
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

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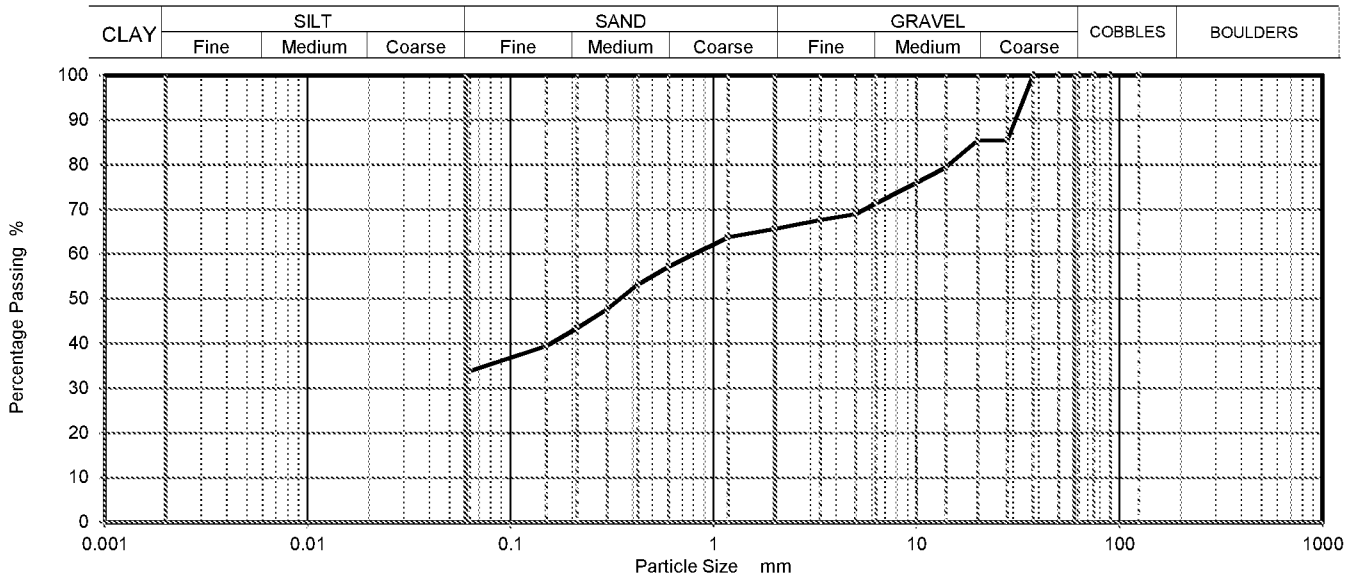
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	MW M. Willson Laboratory Manager	23/01/2019	1 of 1



DETERMINATION OF PARTICLE SIZE DISTRIBUTION

BS1377:Part 2:1990, clause 9.2

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-01
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS207
Sample Description:	Brown very clayey SAND / GRAVEL. Gravel is of flint and chalk.	Sample Depth (m)	2.50
		Sample Reference	D6



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	85		
20	85		
14	79		
10	76		
6.3	71		
5	69		
3.35	68		
2	66		
1.18	64		
0.6	57		
0.425	53		
0.3	48		
0.212	43		
0.15	40		
0.063	34		

Sample Proportions	% dry mass
Very coarse	0
Gravel	34
Sand	32
Fines <0.063mm	34

Grading Analysis		
D100	mm	0.799
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

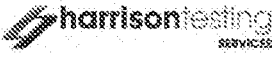
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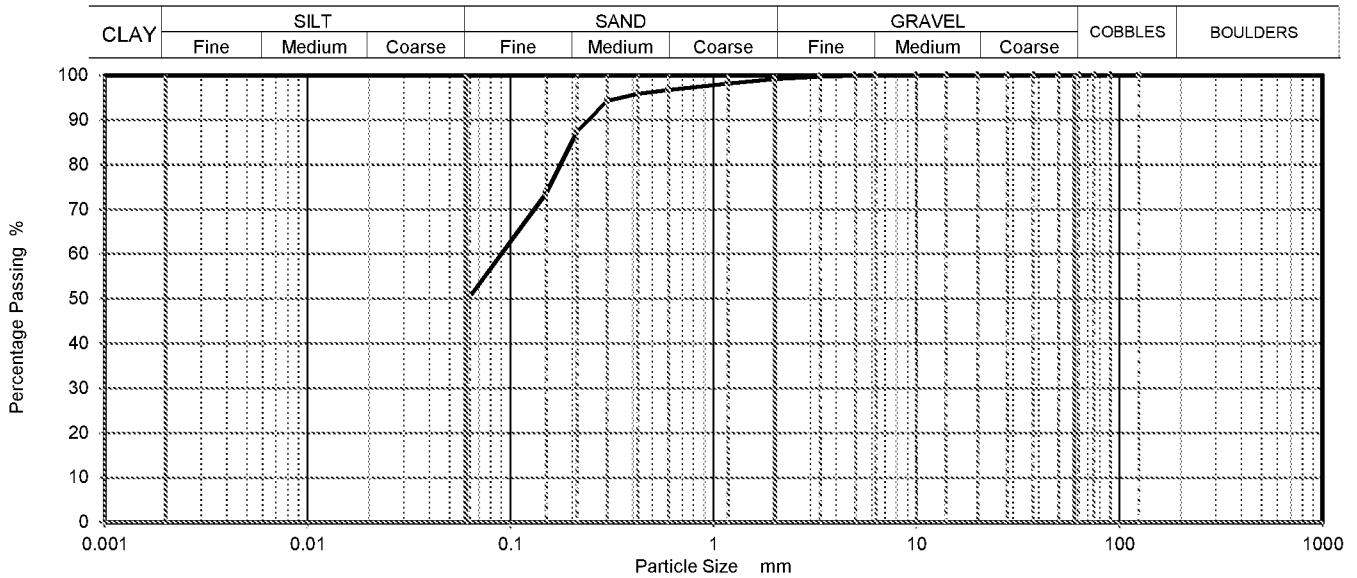
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		DETERMINATION OF PARTICLE SIZE DISTRIBUTION BS1377:Part 2:1990, clause 9.2	
Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-01
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	WS209
Sample Description:	Orange brown slightly gravelly sandy CLAY. Gravel is of flint.	Sample Depth (m)	1.50
		Sample Reference	D4



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	98		
0.6	97		
0.425	96		
0.3	94		
0.212	87		
0.15	74		
0.063	51		

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	49
Fines <0.063mm	51

Grading Analysis		
D100	mm	0.090
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Notes:

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Harrison Group Environmental
12, Waterways Business Centre
Navigation Drive
Enfield
EN3 6JJ

For the attention of: Martin Cooper

Page 1 of 1
Issue No: 01

Project: **Drove Lane, Yapton**
Report No: **GL22428A-02**
Your Ref: **GL22428A**

Samples received: 02/04/2019
Instruction received: 02/04/2019
Testing commenced: 03/04/2019

Please find results attached as summarised below.

Item	Description	Quantity	UKAS Accredited
1	Particle Size Distribution - Wet Sieve Method	3	Yes

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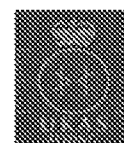
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Issued by:

Date Issued:

M. Willson
Laboratory Manager

10 April 2019

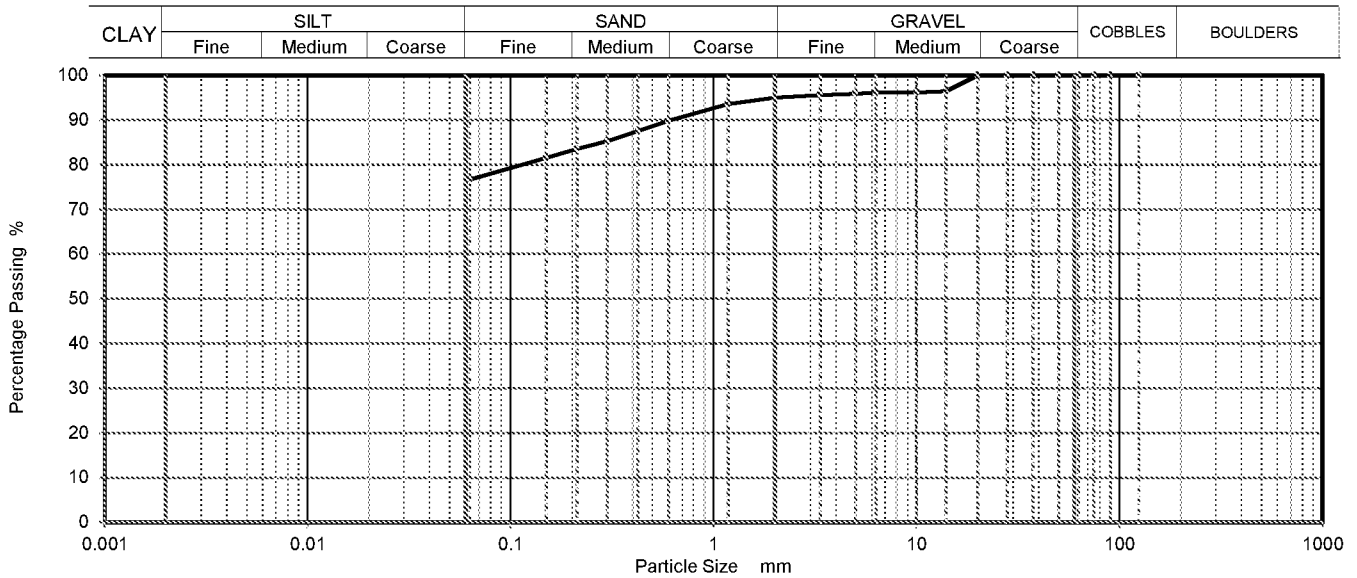




DETERMINATION OF PARTICLE SIZE DISTRIBUTION

BS1377:Part 2:1990, clause 9.2

Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-02
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	PO201
Sample Description:	Brown slightly gravelly slightly sandy silty CLAY. Gravel is of flint	Sample Depth (m)	0.15
		Sample Reference	B1



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	96		
6.3	96		
5	96		
3.35	96		
2	95		
1.18	94		
0.6	90		
0.425	88		
0.3	85		
0.212	84		
0.15	82		
0.063	77		

Sample Proportions	% dry mass
Very coarse	0
Gravel	5
Sand	18
Fines <0.063mm	77

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

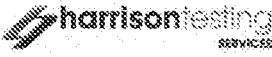
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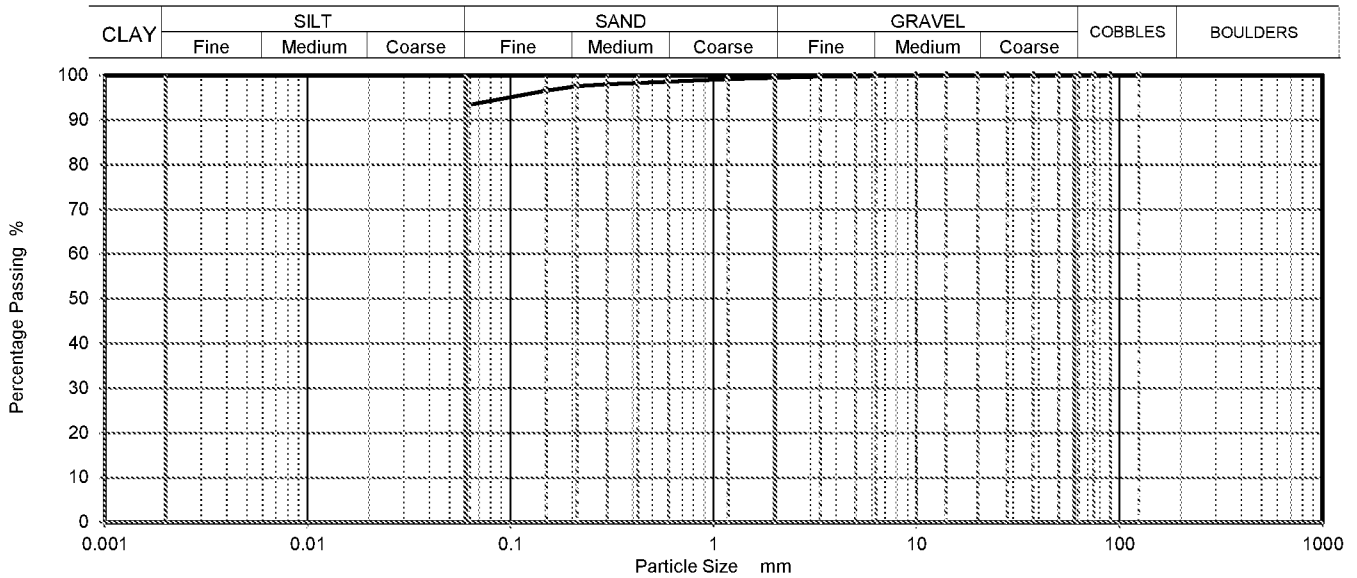
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		DETERMINATION OF PARTICLE SIZE DISTRIBUTION BS1377:Part 2:1990, clause 9.2	
Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-02
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	PO203
Sample Description:	Brown slightly gravelly slightly sandy silty CLAY. Gravel is of flint	Sample Depth (m)	0.40
		Sample Reference	B1



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.6	99		
0.425	98		
0.3	98		
0.212	98		
0.15	97		
0.063	93		

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	6
Fines <0.063mm	93

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

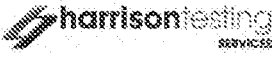
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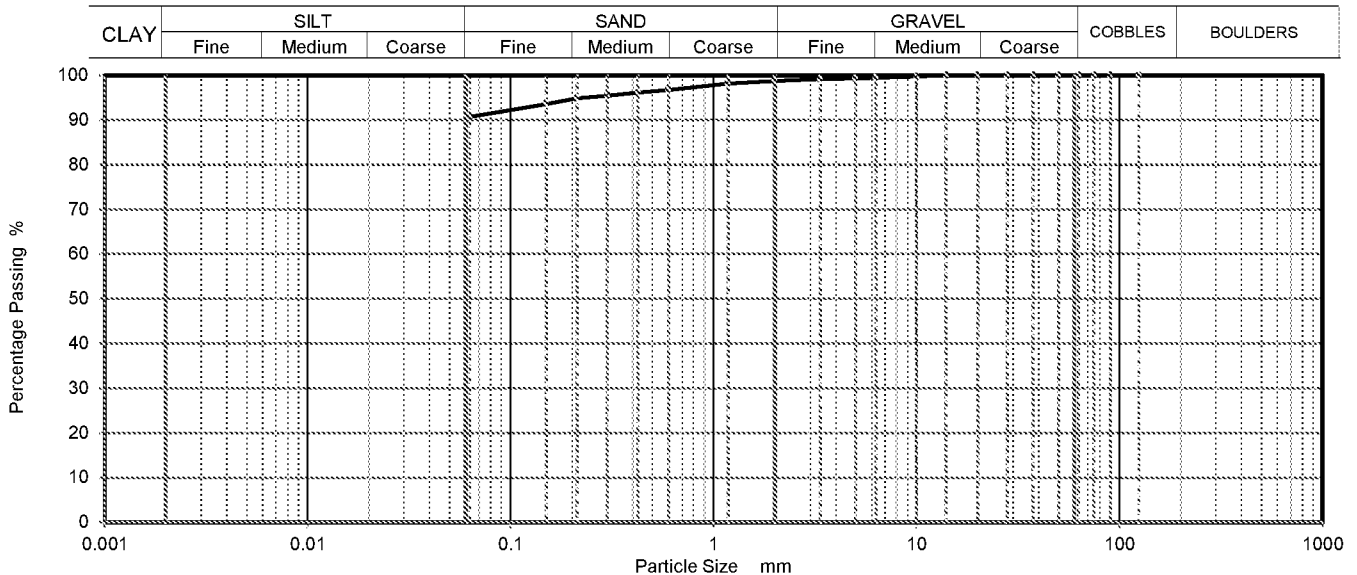
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Remarks	Approved	Date	Sheet No.:
	MW M. Willson Laboratory Manager	10/04/2019	1 of 1

		DETERMINATION OF PARTICLE SIZE DISTRIBUTION BS1377:Part 2:1990, clause 9.2	
Project Name:	Drove Lane, Yapton	Project Number:	GL22428A-02
Client Name:	Trustees of the Langmead Pension Scheme	Sample Location:	PO204
Sample Description:	MADE GROUND (Brown slightly gravelly slightly sandy silty CLAY. Gravel is of flint and occasional brick fragments)	Sample Depth (m)	0.30
		Sample Reference	B1



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	99		
2	99		
1.18	98		
0.6	97		
0.425	96		
0.3	96		
0.212	95		
0.15	94		
0.063	91		

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	8
Fines <0.063mm	91

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Notes:

- 1) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
- 2) This report should not be reproduced except in full without the written approval of the laboratory.
- 3) Only those results indicated in this report are UKAS accredited and any opinion or interpretations expressed are outside the scope of UKAS accreditation.



4031

Remarks	Approved	Date	Sheet No.:
	MW M. Willson Laboratory Manager	10/04/2019	1 of 1



Matthew Wilson
Harrison Group
Harrison Testing Services
Unit 1
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Norfolk
NR6 5DS

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

Analytical Report Number : 19-24225

Project / Site name:	Drove Lane, Yapton	Samples received on:	10/01/2019
Your job number:	GL22428A	Samples instructed on:	10/01/2019
Your order number:	PO-32876-GB	Analysis completed by:	16/01/2019
Report Issue Number:	1	Report issued on:	16/01/2019
Samples Analysed:	10 soil samples		

Signe

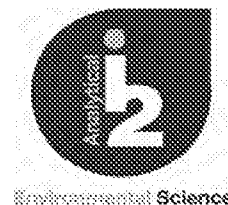
Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

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.

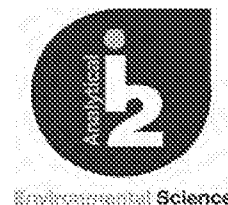


Analytical Report Number: 19-24225
Project / Site name: Drove Lane, Yapton
Your Order No: PO-32876-GB

Lab Sample Number				1127418	1127419	1127420	1127421	1127422
Sample Reference				WS201	WS201	WS204	WS204	WS205
Sample Number				B1	D9	D4	D11	D2
Depth (m)				0.50-0.50	4.00-4.00	1.50-1.50	4.70-4.70	0.50-0.50
Date Sampled				07/01/2019	07/01/2019	07/01/2019	07/01/2019	07/01/2019
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	%	N/A	NONE	15	16	15	14	16
Total mass of sample received	kg	0.001	NONE	0.22	0.96	0.96	0.24	0.74

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.0	8.7	8.1	8.6	7.8
Total Sulphate as SO ₄	%	0.005	MCERTS	0.026	0.021	0.020	0.044	0.032
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.013	0.0073	0.010	0.014	0.015
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	12.5	7.3	10.1	13.7	14.8
Total Sulphur	%	0.005	MCERTS	0.010	0.006	0.007	0.015	0.012



Analytical Report Number: 19-24225
Project / Site name: Drove Lane, Yapton
Your Order No: PO-32876-GB

Lab Sample Number				1127423	1127424	1127425	1127426	1127427
Sample Reference				WS205	WS210	WS210	WS211	WS211
Sample Number				D10	D3	D7	D3	D6
Depth (m)				4.50-4.50	1.00-1.00	3.00-3.00	1.00-1.00	2.50-2.50
Date Sampled				07/01/2019	07/01/2019	07/01/2019	07/01/2019	07/01/2019
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	%	N/A	NONE	10	16	14	17	16
Total mass of sample received	kg	0.001	NONE	0.87	0.22	0.29	0.80	0.21

General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.5	7.9	8.6	7.9	8.3
Total Sulphate as SO ₄	%	0.005	MCERTS	0.025	0.023	0.032	0.027	0.022
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0086	0.014	0.0097	0.012	0.014
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	8.6	13.5	9.7	12.4	14.0
Total Sulphur	%	0.005	MCERTS	0.008	0.011	0.011	0.011	0.008



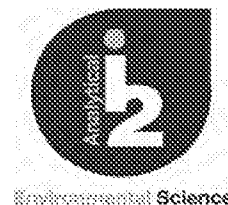
Analytical Report Number : 19-24225

Project / Site name: Drove Lane, Yapton

* 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 *
1127418	WS201	B1	0.50-0.50	Brown clay.
1127419	WS201	D9	4.00-4.00	Light brown sand.
1127420	WS204	D4	1.50-1.50	Brown clay with gravel.
1127421	WS204	D11	4.70-4.70	Beige clay with chalk and gravel.
1127422	WS205	D2	0.50-0.50	Brown clay and loam with vegetation.
1127423	WS205	D10	4.50-4.50	Light brown sandy clay with gravel.
1127424	WS210	D3	1.00-1.00	Brown clay.
1127425	WS210	D7	3.00-3.00	Light brown clay and sand with gravel.
1127426	WS211	D3	1.00-1.00	Brown clay.
1127427	WS211	D6	2.50-2.50	Light brown clay.



Analytical Report Number : 19-24225

Project / Site name: Drove Lane, Yapton

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	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
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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests"	L038	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, and MEWAM 2006 Methods for the Determination of Metals in Soil	L038	D	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.

APPENDIX E

PERCOLATION TESTING

Location ID	Test Depth/ Soil Type	Elapsed Time		Vp (s/mm)	Equivalent Infiltration Rate (m/s)
		Minutes	Seconds		
PO201	0.20m - 0.50m / Slightly sandy CLAY	01Hrs 31mins 50secs	5510	36.73	9.07E-06
		01Hrs 55mins 16secs	6916	46.11	7.23E-06
		04Hrs 24mins 44secs	15884	105.89	3.13E-06
Average				62.91	6.48E-06

Location ID	Test Depth/ Soil Type	Elapsed Time		Vp (s/mm)	Equivalent Infiltration Rate (m/s)
		Minutes	Seconds		
PO202	0.20m - 0.50m / Slightly sandy CLAY	01Hrs 31mins 50secs	5510	36.73	9.07E-06
		01Hrs 52mins 21secs	6741	44.94	7.42E-06
		02Hrs 08mins 19secs	7699	51.33	6.49E-06
Average				44.33	7.66E-06

Location ID	Test Depth/ Soil Type	Elapsed Time		Vp (s/mm)	Equivalent Infiltration Rate (m/s)
		Minutes	Seconds		
PO203	0.20m - 0.50m / Slightly sandy CLAY	01Hrs 02mins 32secs	3752	25.01	1.33E-05
		01Hrs 31mins 30secs	5490	36.60	9.11E-06
		02Hrs 04mins 50secs	7490	49.93	6.68E-06
Average				37.18	9.70E-06

Location ID	Test Depth/ Soil Type	Elapsed Time		Vp (s/mm)	Equivalent Infiltration Rate (m/s)
		Minutes	Seconds		
PO204	0.20m - 0.50m / Slightly sandy CLAY	00Hrs 27mins 20secs	1640	10.93	3.05E-05
		00Hrs 30mins 40secs	1840	12.27	2.72E-05
		00Hrs 34mins 57secs	2097	13.98	2.38E-05
Average				12.39	2.72E-05

Location ID	Test Depth/ Soil Type	Elapsed Time		Vp (s/mm)	Equivalent Infiltration Rate (m/s)
		Minutes	Seconds		
PO205	0.20m - 0.50m / Slightly sandy CLAY	01Hrs 12mins 43secs	4363	29.09	1.15E-05
		02Hrs 13mins 26secs	8006	53.37	6.25E-06
Average				41.23	8.88E-06

Location ID	Test Depth/ Soil Type	Elapsed Time		Vp (s/mm)	Equivalent Infiltration Rate (m/s)
		Minutes	Seconds		
PO206	0.20m - 0.50m / Slightly sandy CLAY	01Hrs 34mins 10secs	5650	37.67	1.24E-05
		02Hrs 00mins 28secs	7228	48.19	7.82E-06
		03Hrs 20mins 51secs	12051	80.34	4.88E-06
Average				55.40	8.37E-06

Location ID	Test Depth/ Soil Type	Elapsed Time		Vp (s/mm)	Equivalent Infiltration Rate (m/s)
		Minutes	Seconds		
PO207	0.20m - 0.50m / Slightly sandy CLAY	00Hrs 38mins 08secs	2288	15.25	2.19E-05
		00Hrs 43mins 35secs	2615	17.43	1.91E-05
		00Hrs 39mins 12secs	2352	15.68	2.13E-05
Average				16.12	2.08E-05

APPENDIX F

SPT HAMMER CERTIFICATES

SPT Calibration Report

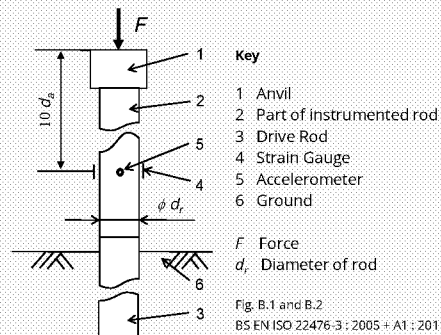
Hammer Energy Measurement Report

Type of Hammer PREMIER
Client GEOTECHNICAL SERVICES
Test No EQU2030

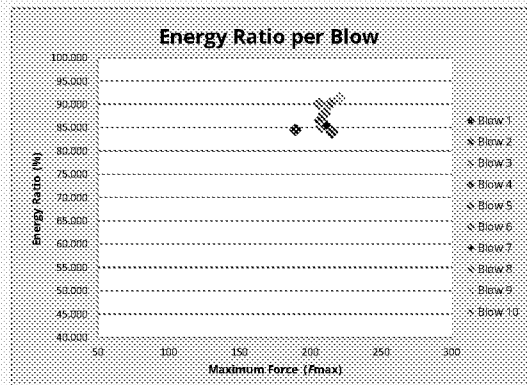
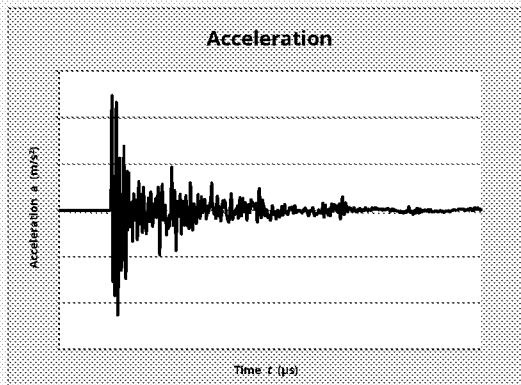
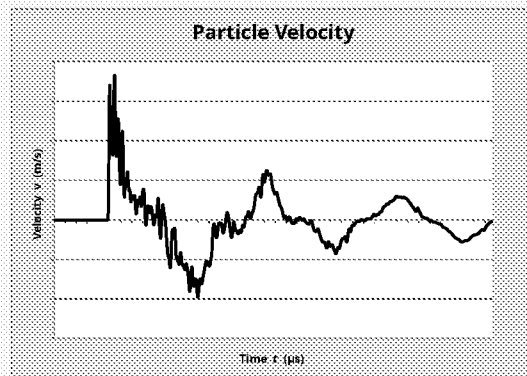
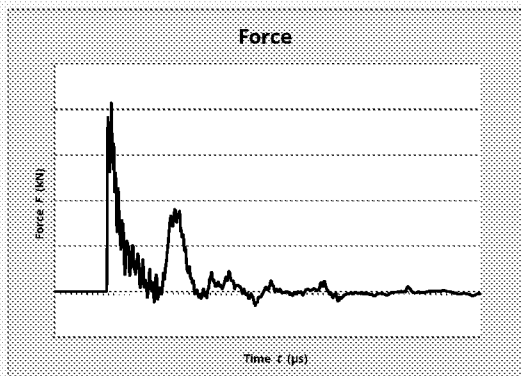
Test Depth (m) 8.70
Mass of hammer $m = 63.5\text{kg}$
Falling height $h = 0.76\text{m}$
 $E_{\text{theor}} = m \times g \times h = 473\text{J}$

Characteristics of the instrumented rod

Diameter $d_r = 0.052\text{ m}$
Length of instrumented rod 0.558 m
Area $A = 11.61\text{ cm}^2$
Modulus $E_s = 206843\text{ MPa}$



DATE OF TEST	VALID UNTIL	HAMMER ID
29/01/2018	29/01/2019	382709



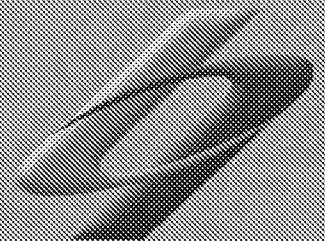
Observations:

1.

$E_{\text{meas}} = 0.415\text{ kN-m}$
 $E_{\text{theor}} = 0.473\text{ kN-m}$

Energy Ratio = $\frac{E_{\text{meas}}}{E_{\text{theor}}}$
87.82%

Equipe SPT Analyzer Operators: JML



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APPENDIX D

TRIAL PIT AND BOREHOLE RECORDS

RECORD OF TRIAL PITS

Date of Investigation: 16 September 2020

TRIAL PIT 113

Ground level-0.20m	Brown slightly sandy silty TOP SOIL
0.20m-2.10m	Stiff to very stiff, considered slightly dessicated to 1.30m, mottled light brown and dark yellow brown very silty CLAY /clayey SILT - becoming slightly clayey to clayey silt below 1.75m with occasional coarse flint gravel
2.10m-2.50m	Intermixed moderately compact light yellow brown silty fine SAND and firm buff slightly clayey SILT

END OF TRIAL PIT

Remarks

Groundwater was not encountered and the sides of the trial pit remained stable during excavation.

Hand vane readings using a Geonor Hand vane were taken at :

0.90m (180kN/m², 176kN/m², 162 kN/m²)

1.25m (170kN/m², 176kN/m², 178kN/m²)

1.50m (160kN/m², 162kN/m², 168 kN/m²)

1.80m (80kN/m², 92kN/m², 74kN/m²)

TRIAL PIT 114

Ground level-0.25m	Brown slightly sandy silty TOP SOIL
0.25m-2.40m	Stiff to very stiff, considered slightly dessicated to 1.35m, dark yellow brown very silty CLAY/clayey SILT - becoming firm to stiff below 2.20m, predominantly clayey silt below 1.90m.
2.40m-2.50m	Firm buff slightly clayey silty structureless remoulded CHALK with fine to coarse intact chalk gravel
END OF TRIAL PIT	

Remarks

Groundwater was not encountered and the sides of the trial pit remained stable during excavation.

Hand vane readings using a Geonor Hand vane were taken at :

- 1.00m (>200kN/m², 178kN/m², 182 kN/m²)
- 1.25m (174kN/m², 180kN/m², 196kN/m²)
- 1.50m (120kN/m², 142kN/m², 122 kN/m²)
- 1.90m (80kN/m², 92kN/m², 96kN/m²)
- 2.20m (60kN/m², 72kN/m², 76kN/m²)

TRIAL PIT 115

Ground level-0.20m/0.25m	Brown slightly sandy silty TOPS OIL
0.20m/0.25m-1.50m	Stiff to very stiff, considered slightly dessicated to 1.35m, mottled light brown and dark yellow brown very silty CLAY/clayey SILT
1.50m-2.50m	Firm buff slightly clayey silty structureless remoulded CHALK with fine to coarse intact chalk gravel - becoming intermixed with moderately compact light yellow brown, light grey and buff silty fine SAND and firm buff slightly clayey SILT lenses

END OF TRIAL PIT

Remarks

Groundwater was not encountered and the sides of the trial pit remained stable during excavation.

Hand vane readings using a Geonor Hand vane were taken at :

1.00m (180kN/m², 178kN/m², >200kN/m²)

1.25m (120kN/m², 130kN/m², 130kN/m²)

1.50m (80kN/m², 90kN/m², 92kN/m²)

2.30m (60kN/m², 48kN/m², 52kN/m²)

TRIAL PIT 116

Ground level-0.20m	Brown slightly sandy silty TOPSOIL
0.20m-2.10m	Stiff to very stiff, considered slightly dessicated to 1.30m/1.35m, mottled light brown and dark yellow brown slightly sandy very silty CLAY/clayey SILT - with occasional medium to coarse flint gravel - becoming intermixed below 1.40m with light orange brown and dark yellow brown fine sand
2.10m-2.50m	Intermixed moderately compact light yellow brown silty fine SAND, firm buff slightly clayey SILT and structureless remoulded CHALK with intact chalk gravel
END OF TRIAL PIT	

Remarks

Groundwater was not encountered and the sides of the trial pit remained stable during excavation.

Hand vane readings using a Geonor Hand vane were taken at :

1.00m (>200kN/m², 184kN/m², >200kN/m²)

1.50m (90kN/m², 82kN/m², 68 kN/m²)

TRIAL PIT 117

Ground level-0.20m/0.25m	Brown slightly sandy silty TOPSOIL
0.20m/0.25m-2.50m	Stiff to very stiff, considered slightly dessicated to 1.25m, mottled light orange brown and yellow brown very silty CLAY/clayey SILT - below 1.75m with occasional coarse flint gravel and cobbles - below 1.80m mottled orange brown and grey clayey silt, becoming firm to stiff below 1.85m and intermixed with fine to coarse chalk gravel

END OF TRIAL PIT

Remarks

Groundwater was not encountered and the sides of the trial pit remained stable during excavation.

Hand vane readings using a Geonor Hand vane were taken at :

- 1.10m (>200kN/m², >200kN/m², 185kN/m²)
- 1.25m (160kN/m², 152kN/m², 138kN/m²)
- 1.50m (96kN/m², 112kN/m², 118 kN/m²)
- 1.80m (90kN/m², 96kN/m², 72kN/m²)
- 2.30m (96kN/m², 90kN/m², 72kN/m²)

TRIAL PIT 118

Ground level-0.30m/0.35m	Brown silty TOP SOIL
0.30m/0.35m-2.10m	Stiff to very stiff, considered slightly dessicated to 1.35m, mottled brown and dark yellow brown very silty CLAY /clayey SILT -below 1.35m with occasional coarse flint gravel and cobbles
2.10m-2.50m	Stiff light grey very silty CLAY /clayey SILT with occasional fine to medium chalk gravel and isolated medium to coarse flint gravel
END OF TRIAL PIT	

Remarks

Groundwater was not encountered and the sides of the trial pit remained stable during excavation.

Hand vane readings using a Geonor Hand vane were taken at :

1.00m (>200kN/m², >200kN/m², >200kN/m²)

1.25m (177kN/m², 184kN/m², >200kN/m²)

1.60m (120kN/m², 102kN/m², 98 kN/m²)

2.10m (100kN/m², 102kN/m², 78kN/m²)

TRIAL PIT 119

Ground level-0.20m/0.30m	Brown slightly sandy silty TOPS OIL
0.20m/0.30m-1.60m	Stiff to very stiff, considered slightly dessicated to 1.30m, orange brown and dark yellow brown slightly sandy very silty CLAY/clayey SILT
1.60m-2.50m	Stiff light brown grey and yellow brown clayey SILT with isolated fine to coarse chalk gravel
END OF TRIAL PIT	

Remarks

Groundwater was not encountered and the sides of the trial pit remained stable during excavation.

Hand vane readings using a Geonor Hand vane were taken at :

1.00m (188kN/m², >200kN/m², 192 kN/m²)

1.25m (130kN/m², 140kN/m², 152kN/m²)

1.60m (120kN/m², 116kN/m², 102 kN/m²)



BOREHOLE LOG

Contract: Drove Lane, Yapton			Client: BDW Southern Counties		Borehole: BH1
Contract Ref: 1921081	Start: 02.11.20 End: 02.11.20	Ground Level (m AOD): ---	National Grid Co-ordinate: ---		Sheet: 1 of 3

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.50	1	D				Firm brown slightly sandy slightly clayey SILT. Sand is fine to medium.		
1.20-1.65	1	SPT	N=10				(2.70)	
1.50	2	D						
2.45-2.50	1	U	14 blows 50% recovery			Orangish light brown slightly silty gravelly SAND. Gravel is fine to medium subrounded to angular chalk and flint. Sand is fine.	2.70	
2.45	3	D						
3.00-3.45	2	SPT(c)	N=17				(1.80)	
3.50	4	D				Structureless CHALK recovered as orangish light brown slightly sandy silty GRAVEL. Gravel is fine to coarse subrounded to angular weak chalk and rare flint. Sand is fine. (30% chalk gravel).	4.50	
4.00-4.45	3	SPT(c)	N=23					
4.50	5	D					(1.95)	
5.00-5.45	4	SPT	N=15			Structureless CHALK recovered as yellowish white slightly sandy silty GRAVEL. Gravel is fine to coarse subrounded to angular weak chalk and rare flint. Sand is fine. (40% chalk gravel).	6.45	
5.50	6	D						
6.00	7	D					(2.05)	
6.45-6.50	2	U	52 blows 50% recovery			Description on next sheet	8.50	
7.50-7.95	5	SPT	N=36					
8.50	8	D						

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)		
02/11/20	17:00	20.00	17.00		5.30	15.70	15.90	00:33		
									All dimensions in metres	
									Scale: 1:50	
Method Used: Inspection pit + cable percussion				Plant Used: Dando 2000			Drilled By: CJA		Logged By: RJones	
							Checked By:		Checked By: 	



Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.45	3	U	100 blows 0% recovery			Structureless CHALK recovered as slightly sandy silty GRAVEL with occasional cobbles of chalk. Gravel is medium to coarse subrounded to angular chalk and flint. Chalk is strong with black specks. Rare pocket of white silt. <i>(stratum copied from 8.50m from previous sheet)</i>	(3.00)	
9.50-9.95	6	SPT	N=43					
10.00	9	D						
10.50-10.95	7	SPT	N=43					
11.50	10	D						
12.00-12.45	8	SPT	N=44			Structureless CHALK recovered as off white slightly sandy slightly silty GRAVEL with many cobbles of chalk. Gravel is fine to coarse subrounded to angular chalk and flint. Sand is fine to medium. Chalk has black specks.	(3.00)	
13.00	11	D						
13.50-13.95	9	SPT	N=48					
14.50	12	D						
15.00-15.38	10	SPT	7,9/12,18,18,2 for 3mm					
16.00	13	D				Structureless CHALK recovered as off white slightly silty GRAVEL with abundant cobbles of chalk and flint. Gravel is medium to coarse chalk and flint. Sand is fine. Chalk has black specks. Rare pockets of white silt. . . . At 14.50m increase in flint content.	14.50	
16.50-16.86	11	SPT	11,12/13,17,20 for 60mm					
17.00	14	D						
17.50	15	D						

Used:	Cable percussion	Used:	Dando 2000	By:	CJA	By:		By:		AGS
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BOREHOLE LOG

Contract: Drove Lane, Yapton			Client: BDW Southern Counties		Borehole: BH1
Contract Ref: 1921081	Start: 02.11.20 End: 02.11.20	Ground Level (m AOD): ---	National Grid Co-ordinate: ---		Sheet: 3 of 3

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.35	12	SPT(c)	10,14/19,20,11 for 45mm			Structureless CHALK recovered as off white slightly silty GRAVEL with abundant cobbles of chalk and flint. Gravel is medium to coarse chalk and flint. Sand is fine. Chalk has black specks. Rare pockets of white silt. ... At 14.50m increase in flint content.(stratum copied from 14.50m from previous sheet) ... At 18.00m abundant flint cobbles (80%).		
18.00	16	D						
19.00	17	D					19.00	
19.60-19.86	13	SPT(c)	16,9/22,24,4 for 5mm			Structureless CHALK recovered as off white slightly sandy slightly silty GRAVEL with occasional cobbles of flint and chalk. Gravel is fine to coarse subrounded to subangular flint and chalk. Sand is fine. Chalk has black specks.	(1.00)	
							20.00	
Cable percussion borehole terminated at 20.00m depth.								

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
Method Inspection pit + Cable percussion						All dimensions in metres			Scale: 1:50
Plant Used: Dando 2000			Drilled By: CJA			Logged By: RJones	Checked By:		



BOREHOLE LOG

Contract: Drove Lane, Yapton			Client: BDW Southern Counties		Borehole: BH2
Contract Ref: 1921081	Start: 03.11.20 End: 03.11.20	Ground Level (m AOD): ---	National Grid Co-ordinate: ---		Sheet: 1 of 3

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.50	1	D				Firm orangish brown grey mottled sandy SILT. Sand is fine.		
1.20-1.65	1	SPT(c)	N=11					
1.50	2	D						
							(4.00)	
2.45-2.50	1	U	25 blows 60% recovery					
2.45-2.50	3	D						
3.00-3.45	2	SPT	N=7					
3.50	4	D				. . . At 3.50m rare fine gravel of chalk.		
							4.00	
4.00-4.45	2	U	6 blows 20% recovery			Structureless CHALK recovered as orangish light brown and white sandy slightly gravelly SILT. Gravel is fine to medium subrounded to angular chalk. Sand is fine.	(0.50)	
4.00-4.50	5	D					4.50	
4.50-4.95	3	SPT(c)	N=6			Structureless CHALK recovered as yellowish light brown slightly sandy gravelly SILT. Gravel is fine to coarse subrounded to subangular chalk with rare flint. Sand is fine.	(1.00)	
							5.50	
5.50	6	D				Structureless CHALK recovered as yellowish white slightly sandy silty GRAVEL. Gravel is medium to coarse subrounded to angular chalk and flint. Sand is fine. Chalk has black specks.	(1.50)	
6.00-6.45	4	SPT(c)	N=37				7.00	
7.00	7	D				Structureless CHALK recovered as off white slightly sandy silty GRAVEL. Gravel is medium to coarse subrounded to very angular chalk and flint. (Recovery is 80% flint). Sand is fine. Chalk has black specks and some orange staining.	(1.50)	
7.50-7.95	5	SPT(c)	N=50				8.50	
8.50	8	D				Description on next sheet		

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
						9.30 18.90	9.60 19.10	01:15 00:33	
Method Inspection pit + Cable percussion						All dimensions in metres			Scale: 1:50
Plant Used: Dando 2000						Drilled By: CJA	Logged By: RJones	Checked By:	



Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thick ness)	Material Graphic Legend		
Depth	No	Type	Results							
9.00-9.29	6	SPT(c)	14,11/19,23,8 for 20mm			Structureless CHALK recovered as off white slightly sandy silty GRAVEL. Gravel is fine to coarse subrounded to subangular chalk and flint. Sand is fine. Occasional pockets of sandy slightly gravelly silt. Gravel is fine to medium subrounded angular chalk. <i>(stratum copied from 8.50m from previous sheet)</i>	(3.00)			
10.00	9	D								
10.50-10.95	7	SPT(c)	N=36							
11.50	10	D								
12.00-12.45	8	SPT(c)	N=46			Structureless CHALK recovered as white silty GRAVEL with rare pockets of white silt and rare cobble of chalk. Gravel is of subrounded to angular fine to coarse chalk and rare flint.	(1.50)	13.00		
13.00	11	D								
13.50-13.95	9	SPT(c)	N=49							
14.50	12	D								
15.00-15.38	10	SPT(c)	25/40,10 for 15mm			Structureless CHALK recovered as off white slightly silty GRAVEL with occasional cobbles of flint. Gravel is medium to coarse subrounded to angular chalk and flint. Chalk has black specks.	(1.50)	16.00		
16.00	13	D								
16.50-16.94	11	SPT(c)	8,17/17,20,13 for 60mm							
17.50	14	D								
								Structureless CHALK recovered as off white slightly sandy slightly silty GRAVEL with occasional pockets of white sandy silt and occasional chalk and flint cobbles. Gravel is medium to coarse subrounded to angular of chalk and flint. Sand is fine.	(3.00)	

ARUN DISTRICT CO



Contract:		Client:		Borehole:
Drove Lane, Yapton		BDW Southern Counties		BH2
Contract Ref:	Start: 03.11.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921081	End: 03.11.20	---	---	3 of 3

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.41	12	SPT(c)	N=50			Structureless CHALK recovered as off white slightly sandy slightly silty GRAVEL with occasional pockets of white sandy silt and occasional chalk and flint cobbles. Gravel is medium to coarse subrounded to angular of chalk and flint. Sand is fine. <i>(stratum copied from 16.00m from previous sheet)</i>	19.00	
19.00	15	D	15,10/28,22 for 55mm			Structureless CHALK recovered as off whtie slightly sandy slightly ailty GRAVEL with occasional cobbles of chalk and flint. Gravel is fine to coarse subrounded to angular chalk.	(1.00)	
19.60-19.84	13	SPT(c)				Cable percussion borehole terminated at 20.00m depth.	20.00	

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)		
									All dimensions in metres	Scale: 1:50
Method Used:	Inspection pit + cable percussion			Plant Used:	Dando 2000			Drilled By:	CJA	
								Logged By:	RJones	
								Checked By:	 AGS	

APPENDIX E

LABORATORY TESTING (PHYSICAL AND TOPSOIL)



STRUCTURAL SOILS LTD
TEST REPORT



Report No. 584349-01 (00)

1774

Date 13-October-2020 Contract Yapton

Client RSK
Address 18 Frogmore Rd
Apsley
Hemel Hempstead
Hertfordshire
HP3 9RT

For the Attention of Nigel Austin

Samples submitted by client	25-September-2020	Client Reference	1921081
Testing Started	02-October-2020	Client Order No.	n/a
Testing Completed	05-October-2020	Instruction Type	Written

Tests marked 'Not UKAS Accredited' in this report are not included in the UKAS Accreditation Schedule for our Laboratory.

UKAS Accredited Tests

- | | |
|------|--|
| 1.01 | Moisture Content (oven drying method) BS1377:Part 2:1990:clause 3.2 (superseded)* |
| 1.03 | Liquid Limit (one point method) & Plastic Limit BS1377:Part 2:1990,clause 4.4/5.3 (superseded)* |

Undertaken by a sub-contractor
Topsoil Analysis

* This clause of BS1377 is no longer the most up to date method due to the publication of ISO17892

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of .
Test were undertaken on samples 'as received' unless otherwise stated.
Opinions and interpretations expressed in this report are outside the scope of accreditation for this laboratory.

Structural Soils Ltd 18 Frogmore Rd Hemel Hempstead HP3 9RT Tel.01442 416661 e-mail dimitris.xirouchakis@soils.co.uk

TESTING VERIFICATION CERTIFICATE



1774

The test results included in this report are certified as:-

ISSUE STATUS: **FINAL**

In accordance with the Structural Soils Ltd Laboratory Quality Management System, results sheets and summaries of results issued by the laboratory are checked by an approved signatory. The integrity of the test data and results are ensured by control of the computer system employed by the laboratory as part of the Software Verification Program as detailed in the Laboratory Quality Manual.

This testing verification certificate covers all testing compiled on or before the following datetime: **05/10/2020 13:28:15**.

Testing reported after this date is not covered by this Verification Certificate.

Approved Signatory
Sharon Cairns (Laboratory Manager)

(Head Office)
Bristol Laboratory
Unit 1A, Princess Street
Bedminster
Bristol
BS3 4AG

Castleford Laboratory
The Potteries, Pottery Street
Castleford
West Yorkshire
WF10 1NJ

Hemel Laboratory
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Tonbridge Laboratory
Anerley Court, Half Moon Lane
Hildenborough
Tonbridge
TN11 9HU



**STRUCTURAL
SOILS LTD**

Contract:

Yapton

Job No:

584349



SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Description of Sample
TP113		D	1.00	16					Orangish brown slightly sandy slightly gravelly CLAY
TP113		D	1.50	21	44	19	25	100	Orangish brown slightly sandy CLAY
TP114		D	1.00	17					Orangish brown slightly sandy CLAY
TP114		D	1.50	22					Orangish brown mottled brown and dark brown slightly sandy CLAY
TP115		D	1.00	17					Orangish brown slightly sandy CLAY
TP115		D	1.50	22	41	21	20	100	Brown slightly sandy CLAY
TP116		D	1.00	12					Orangish brown mottled brown and white slightly sandy slightly gravelly CLAY
TP116		D	1.50	12	NP	NP	NP	97	Orangish brown slightly gravelly clayey SAND



**STRUCTURAL
SOILS LTD**

Contract:

Yapton

Contract Ref:

584349



SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Description of Sample
TP117		D	1.10	17					Brown mottled orangish brown slightly sandy CLAY
TP117		D	1.50	19					Brown mottled orangish brown slightly sandy CLAY
TP118		D	1.00	11					Light brown slightly sandy CLAY
TP118		D	1.50	20	40	19	21	97	Brown mottled orangish brown and dark brown slightly sandy slightly gravelly CLAY
TP119		D	1.00	13					Orangish brown mottled dark brown slightly sandy CLAY
TP119		D	1.60	17	35	18	17	92	Light brown mottled white slightly sandy slightly gravelly CLAY. Gravel is flint and chalk



**STRUCTURAL
SOILS LTD**

Contract:

Yapton

Contract Ref:

584349



Final Test Report

BS3882 - 2015 Specification for Topsoil, with classification

Envirolab Job Number: 20/08235 Date: 12/10/2020
Issue Number: 1

Client: Structural Soils Limited
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Project Manager: Sharon Cairns
Project Name: Yapton
Project Ref: 1921081
Order No: n/a

Date Samples Received: 29/09/2020
Date Instructions Received: 29/09/2020
Date Analysis Completed: 12/10/2020

Notes

All results are reported as dry weight (<40°C).

All analysis is performed on the dried sample crushed to pass a 2mm sieve, after removal of stones.

Analytical results reflect the quality of the sample at the time of analysis only. Opinions and interpretations expressed are outside the scope of our accreditation.

IS indicates Insufficient sample for analysis, NDP indicates No Determination Possible.

Please contact us if you need any further information.

Prepared by:



Melanie Marshall
Laboratory Co-ordinator

Approved by:



Client Manager

Sample Details								
Lab Sample ID	20/08235/1							
Client Sample Number	Topsoil							
Client Sample ID	TP116							
Depth to Top								
Depth to Bottom								
Date Sampled	16-Sep-20		Compliant with range (Y / N)					
Analyte	Units	Result	Multi-P	Acidic	Calcareous	Low Fertility	Low Fertility Acidic	Low Fertility Calcareous
% Clay	% w/w	15						
% Silt	% w/w	52.5						
% Sand	% w/w	32.5						
Textural class	N/A	Sandy Silt Loam						
Acceptable textural classification?	N/A	Yes	Y	Y	Y	Y	Y	Y
% Coarse Fragment Content >2mm	% w/w	1.6	Y	Y	Y	Y	Y	Y
% Coarse Fragment Content >20mm	% w/w	0	Y	Y	Y	Y	Y	Y
% Coarse Fragment Content >50mm	% w/w	0	Y	Y	Y	Y	Y	Y
Loss on Ignition	%	3.2	Y	Y	Y	Y	Y	Y
pH	pH	6.41	Y	N	N	Y	N	N
Carbonate as CaCO ₃	% w/w	0			N			N
Nitrogen	% w/w	0.118	N	N	N			
Extractable Phosphorus	mg/l	12	N	N	N	Y	Y	Y
Extractable Potassium	mg/l	192	Y	Y	Y			
Extractable Magnesium	mg/l	46	N	N	N			
Carbon:Nitrogen Ratio	:1	16	Y	Y	Y	Y	Y	Y
Electrical conductivity	µs/cm	2161	Y	Y	Y	Y	Y	Y
Zinc (HNO ₃ extractable)	mg/kg	43	Y	Y	Y	Y	Y	Y
Copper (HNO ₃ extractable)	mg/kg	12	Y	Y	Y	Y	Y	Y
Nickel (HNO ₃ extractable)	mg/kg	13	Y	Y	Y	Y	Y	Y
% Visible Contaminants >2mm	% w/w	0	Y	Y	Y	Y	Y	Y
% Visible Contaminants Plastics	% w/w	0	Y	Y	Y	Y	Y	Y
Sharps, number	N/A	0	Y	Y	Y	Y	Y	Y
Compliance			N	N	N	Y	N	N

Sample Details								
Lab Sample ID	20/08235/2							
Client Sample Number	Topsoil							
Client Sample ID	TP119							
Depth to Top								
Depth to Bottom								
Date Sampled	16-Sep-20		Compliant with range (Y / N)					
Analyte	Units	Result	Multi-P	Acidic	Calcareous	Low Fertility	Low Fertility Acidic	Low Fertility Calcareous
% Clay	% w/w	15.4						
% Silt	% w/w	54.2						
% Sand	% w/w	30.4						
Textural class	N/A	Sandy Silt Loam						
Acceptable textural classification?	N/A	Yes	Y	Y	Y	Y	Y	Y
% Coarse Fragment Content >2mm	% w/w	14.3	Y	Y	Y	Y	Y	Y
% Coarse Fragment Content >20mm	% w/w	6.3	Y	Y	Y	Y	Y	Y
% Coarse Fragment Content >50mm	% w/w	0	Y	Y	Y	Y	Y	Y
Loss on Ignition	%	3.1	Y	Y	Y	Y	Y	Y
pH	pH	6.51	Y	N	N	Y	N	N
Carbonate as CaCO ₃	% w/w	1.8			Y			Y
Nitrogen	% w/w	0.125	N	N	N			
Extractable Phosphorus	mg/l	16	Y	Y	Y	Y	Y	Y
Extractable Potassium	mg/l	192	Y	Y	Y			
Extractable Magnesium	mg/l	46	N	N	N			
Carbon:Nitrogen Ratio	:1	14.6	Y	Y	Y	Y	Y	Y
Electrical conductivity	µs/cm	2141	Y	Y	Y	Y	Y	Y
Zinc (HNO ₃ extractable)	mg/kg	47	Y	Y	Y	Y	Y	Y
Copper (HNO ₃ extractable)	mg/kg	13	Y	Y	Y	Y	Y	Y
Nickel (HNO ₃ extractable)	mg/kg	15	Y	Y	Y	Y	Y	Y
% Visible Contaminants >2mm	% w/w	0	Y	Y	Y	Y	Y	Y
% Visible Contaminants Plastics	% w/w	0	Y	Y	Y	Y	Y	Y
Sharps, number	% w/w	0	Y	Y	Y	Y	Y	Y

Compliance **N** **N** **N** **Y** **N** **N**