Continue		٠٠٠٠ - ١:٢٢ -	0	1				Site	Number	
	Sutcliffe	Sutcliffe	Sutclif	Inv	estigations			Kingsway Tunnel Approach		-
15/01/2019   AT   1/1	Excavation Method Drive-in Windowless Sampler		Dimen	Dimensions		Level (mOD)		Number		
Depth (m)   Sample / Tests   Water Early (m)   Field Records   Level (m)   Depth (m) (m)   Description   Legend   Section   Description   Legend   Description   Description   Legend   Section   Description   Legend   Section   Description   Legend   Description   Description   Legend   Description   Description   Legend   Description   Description   Description   Legend   Description   Descri			Locati	Location		5/01/2019				
MADE GROUND (macadam and graded granular limestone gravel)		.						AT		
Water strike(1) at 0.60m, fell to 1.85m in 20 mins.  20-1.65 SPT N=6  2,1/2,2,1,1  20-2.45 SPT N=26  3,3/6,6,6,8  00-3.45 SPT N=21  5,5/5,5,5,6  00-4.45 SPT N=21  3,3/4,4,5,5  00-5.45 SPT N=21  3,3/4,4,5,5  00-6.8  0.400  0.600  1.400    MADE GROUND (light brown fine to coarse grained SAND) and graded granular limestone subbase)    Firm grey slightly slightly sandy gravelly CLAY Sand is firm gravel is firme subrounded to subangular and of mixed lithology    Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is firme Gravel is firme to medium subangular to subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is firme Gravel is firme to medium subangular to subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is firme Gravel is firme to medium subangular to subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is firme Gravel is firme to medium subangular to subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is firme Gravel is firme subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is firme Gravel is firme subrounded to subangular and of mixed lithology    Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is firme Gravel is firme subrounded to subangular and of mixed lithology    Very stiff brown sandy gravelly CLAY sand is firme gravel is firme subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY sand is firme gravel is firme subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY sand is firme gravel is firme subrounded and of mixed lithology    Very stiff brown sandy gravelly CLAY sand is firme gravely clay sand gravely clay	(m)	Sample / Tests	Sample / T	Depth (m)	Field Records	(mOD)	(m) (Thickness)	Description	Legend 5	****
Water strike(1) at 0.60m, fell to 1.85m in 20 mins.  20-1.65 SPT N=6  2,1/2,2,1,1  3,3/6,6,6,8  Water strike(1) at 0.60m, fell to 1.85m in 20 mins.  (0.80)  Firm grey slightly slify slightly sandy gravelly CLAY. Sand is firm Gravel is fine subrounded to subangular and of mixed lithology  Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology  21  1.40  Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology  21  1.40  Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology  21  1.40  Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology  21  1.40  Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology  21  1.40  Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine for well in the control of the subrounded to subangular to subrounded and of mixed lithology  21  22  23  24  25  25  26  26  27  27  27  28  28  29  20  20  20  20  20  20  20  20  20							(0.20)			
20-1.65 SPT N=6 2,1/2,2,1,1 1 1.40 Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology 1.40 very stiff brown sandy gravely clay very stiff br					W		<b>⊢</b> ' '	MADE GROUND (light brown fine to coarse grained SAND and graded granular limestone subbase)	∇	1
20-1.65 SPT N=6 2,1/2,2,1,1					fell to 1.85m in 20 mins.		(0.80)	Firm grey slightly silty slightly sandy gravelly CLAY. Sand is fine Gravel is fine subrounded to subangular and of mixed lithology		
00-2.45 SPT N=26 3,3/6,6,6,8	1.20-1.6	SPT N=6	.65 SPT N=6		2,1/2,2,1,1		1.40		0.000	
00-3.45 SPT N=31 4,6/6,8,8,9 (4.05)  00-4.45 SPT N=21 5,5/5,5,5,6  00-5.45 SPT N=18 3,3/4,4,5,5								pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology	<b>*</b>	1
00-4.45 SPT N=21 5,5/5,5,5,6  00-5.45 SPT N=18 3,3/4,4,5,5	2.00-2.4	15 SPT N=26	2.45 SPT N=26		3,3/6,6,6,8		<u>-</u>			
00-4.45 SPT N=21 5,5/5,5,5,6  00-5.45 SPT N=18 3,3/4,4,5,5										
00-4.45 SPT N=21 5,5/5,5,5,6  00-5.45 SPT N=18 3,3/4,4,5,5							<u>-</u>		***************************************	
00-4.45 SPT N=21 5,5/5,5,5,6  00-5.45 SPT N=18 3,3/4,4,5,5	3.00-3.4	\$5 SPT N=31	3.45 SPT N=31		4,6/6,8,8,9		<u>-</u> -		• • • • • • • • • • • • • • • • • • • •	
00-5.45 SPT N=18 3,3/4,4,5,5							(4.05)			
5.45	4.00-4.4	15 SPT N=21	9.45 SPT N=21		5,5/5,5,5,6					
5.45										
5.45							<u>-</u>			
	5.00-5.4	15 SPT N=18	5.45 SPT N=18		3,3/4,4,5,5		<u>-</u>			
							5.45	Complete at 5.45m	*******	
							<u>-</u>			
							<u>-</u>			
							<u> </u>			
							<u> </u>			
							<u>-</u> - -			
							<u> </u>			
							<u>-</u>			
Remarks artial recovery from 2.00m to 3.00m (approx)  Scale (approx)  By	Partial r	ecovery from 2.00m to 3.0	I recovery from 2.00i	3.00m			Ē	Scale (approx)	Logged Bv	_
inimal recovery from 4.00m to 5.00m erched water at 0.60m  1:50 AT	Minimal	recovery from 4.00m to 5	al recovery from 4.00	5.00m						
Figure No. 30015LG.WS101										_

S	utcliffe	Inve	estigations			Site Kingsway Tunnel Approach	Number	
Excavation Method Drive-in Windowless Sampler		Dimensions  Location			Level (mOD)	Client Merseytravel Engineer AT		er LG
				Dates 15	5/01/2019			
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.20-1.65 2.00-2.45 3.00-3.45 4.00-4.45 5.00-5.45	SPT N=8  SPT N=7  SPT N=11  SPT N=13  SPT N=19		1,1/2,2,2,2  1,2/2,1,2,2  2,3/2,3,3,3  Water strike(1) at 4.00m, no rise after 20 mins. 2,2/3,3,3,4  2,3/3,5,5,6		(0.15) (0.45) (0.45) (0.60) (1.80) (1.10) (1.35) (1.35)	MADE GROUND (graded granular limestone subbase)  MADE GROUND (dark brown grey slightly sandy slightly gravelly CLAY with occasional cobbles. Gravel is fine subangular and of mixed lithology)  MADE GROUND (brown and black mottled sandy slightly gravelly CLAY. Sand is fine to medium Gravel is fine subangular and of mixed lithology)  Stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology  Very stiff red brown slightly sandy CLAY with fine to medium grained sand bands. Sand is fine  Complete at 5.45m		▼1
Remarks					<u>E</u>	Scale (approx)  1:50  Figure 30015	AT	

S	utcliffe	Inve	estigations				Site Kingsway Tunnel Approach	Numb		
Excavation Method Dimensions					Ground Level (mOD)		Client		03 er	
Drive-in Windowless Sampler							Merseytravel	30015		
		Location		Dates 15	Dates 15/01/2019		Engineer AT		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thicknes	s)	Description	Legend	Water	
1.20-1.65 2.00-2.45 3.00-3.45 4.00-4.45 5.00-5.45	SPT N=25  SPT N=27  SPT N=33  SPT N=28  SPT N=29		3,4/6,6,6,7 4,4/6,6,7,8 4,6/8,8,8,9 Water strike(1) at 4.00m, no rise after 20 mins. 4,5/6,6,8,8 5,6/7,7,7,8		(5.05)	55)	MADE GROUND (light brown fine to coarse grained SAND and graded granular limestone subbase)  Very stiff brown sandy gravelly CLAY with occasional orange brown fine to medium grained sand bands. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology		<b>1 1 1 1 1 1 1 1 1 1</b>	
Remarks							Scale (approx) 1:50 Figure N	Logge By AT No.		

S	utcliffe	Inve	estigations			Site Kingsway Tunnel Approach	Number	
Sutcliffe Excavation		Dimens		Ground	l evel (mOl		WS104	
Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Merseytravel	Number 30015LG	
		Locatio	n	Dates 15	5/01/2019	Engineer	Sheet	
Denth		Water		l evel	Denth	AT	1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thicknes	Description (S)	Legend kg	
					(8.15	gravel)		
					0.70	and graded granular limestone subbase)		
					(0.30	MADE GROUND (red brown fine to medium grained SAND)	<u></u>	
1.20-1.65	SPT N=12		2,3/3,2,3,4		<u>-</u>	Very stiff brown slightly sandy gravelly CLAY with subangular cobbles. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology		
							* · · · · · · · · · · · · · · · · · · ·	
2.00-2.45	SPT N=21		2,4/5,5,5,6		<u>-</u>			
							*******	
					<u>-</u>		0.0000	
3.00-3.45	SPT N=30		8,8/7,7,8,8		(4.45			
					<u></u>	Large cobble at 3.50m	* * * * * * * * * * * * * * * * * * * *	
			Water strike(1) at 4.00m, no rise after 20 mins.		<u> </u>		▼1	
4.00-4.45	SPT N=22		4,5/5,5,6,6					
5.00-5.45	SPT N=23		3,4/5,5,6,7					
					5.4	Complete at 5.45m	********	
					<u>-</u>			
					<u>-</u>  			
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					<u> </u>			
Remarks	1	1		1	1	Scale (approx)	Logged By	
						1:50	AT	
						Figure N 30015L	<b>o.</b> G.WS104	