

Appendix 10.5 - Results of Chemical and Biological Screening

Sampling ID	Sampling Depth (m)	Metals and Metalloid (mg/kg)										µg/kg			Category	Biological Screening Required?	Biological Screening Result	Disposal Option
		Ag	As	Cd	Cr	Cu	Ni*	Pb	Zn	Hg	Total PCBs	LMW PAHs	HMW PAHs	TBT*				
LCEL	1	12	80	1.5	40	75	200	0.5	23	550	1700	0.15	Category H	No	-	Type 2		
	2	42	160	4	110	40	270	1	180	3160	9600	0.15		No	-	Type 2		
	10 x LCEL	10	120	15	800	650	400	2000	5	230	5500	17000		1.5	No	-	Type 1	
<b>Tunnel Alignment Section from Chainage 140+380 to 140+900 and Cut-and-Cover Works Areas for West Kowloon Terminus, Mong Kok Ventilation Building and Hoi Ting Road Construction Shaft</b>																		
2108/XRL/EDH-3	15.5-16.4	<0.1	3	<0.2	15	6	8	463	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2	
2108/XRL/EDH-4	16.5-17.4	0.1	4	<0.2	22	10	12	771	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2	
	17.95-18.4	<0.1	2	<0.2	10	6	5	183	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	Drill log indicated no sediment																	
2108/XRL/EDH-5	13-13.9	0.6	8	0.2	36	49	21	169	0.14	<3	<550	<1700	NT	Category L	No	-	Type 1	
2108/XRL/EDH-6	14-14.9	5.1	10	1.6	144	586	46	1380	1.18	<30	<550	<1700	NT	Category H	No	-	Type 2	
	15-15.9	1.6	9	0.7	77	126	32	1830	0.65	<30	<550	<1700	NT	Category H	No	-	Type 2	
	16-16.9	1.6	11	0.7	59	92	26	351	1.64	<30	<550	<3500	NT	Category H	No	-	Type 2	
Drill log indicated no sediment																		
2108/XRL/EDH-10	12.9-13.8	<0.1	4	<0.2	39	8	27	177	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
2108/XRL/EDH-20	13.9-14.8	<0.1	4	<0.2	40	8	27	89	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	16.9-17.8	<0.1	3	<0.2	34	8	20	65	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	19.9-20.8	0.1	14	<0.2	46	12	22	73	0.06	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2	
2108/XRL/EDH-21	14.4-15.3	<0.1	3	<0.2	27	7	18	86	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
2108/XRL/EDH-22	15-15.9	5.7	9	1.5	146	530	50	1130	1.31	<30	<550	<1700	NT	Category H	No	-	Type 2	
	15.9-16.8	3.5	10	0.9	110	175	38	421	1.67	<30	<550	2900	NT	Category H	No	-	Type 2	
	16.9-17.8	2.3	8	0.7	87	180	42	286	0.66	<30	<550	<1700	NT	Category H	No	-	Type 2	
2108/XRL/EDH-23	17.9-18.8	<0.1	4	<0.2	32	8	22	156	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
Drill log indicated no sediment																		
2108/XRL/EDH-24	14.45-15.35	<0.1	2	<0.2	3	1	3	55	<0.05	<3	<550	<1700	NT	Category L	No	-	NA	
2108/XRL/EDH-25	15.45-16.35	<0.1	5	<0.2	40	11	27	146	<0.05	<3	<550	<1700	NT	Category L	No	-	NA	
	16.45-17.35	<0.1	5	<0.2	40	12	28	110	<0.05	<3	<550	<1700	NT	Category L	No	-	NA	
	17.45-18.35	<0.1	5	<0.2	42	12	29	328	<0.05	<3	<550	<1700	NT	Category H	No	-	NA	
2108/XRL/EDH-26	20.45-21.35	<0.1	10	<0.2	42	11	22	186	0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
2108/XRL/EDH-45	13.35-13.8	<0.1	3	<0.2	30	10	24	205	<0.05	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2	
	14.35-15.25	0.1	4	<0.2	34	7	24	78	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	15.35-16.25	<0.1	3	<0.2	31	8	26	90	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
2108/XRL/EDH-46	18.35-19.25	<0.1	5	<0.2	37	11	26	143	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	12.2-13.15	4.3	12	1.3	141	327	45	856	1.8	<30	<550	4600	NT	Category H	No	-	Type 2	
	13.2-14.15	0.5	14	0.2	35	48	21	563	3.74	<3	4000	29300	NT	Category H	Yes	Fail	Type 3^	
2108/XRL/EDH-47	14.2-15.15	<0.1	4	<0.2	31	9	22	122	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	16.7-17.65	<0.1	5	<0.2	21	6	10	64	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	17.7-20.65	<0.1	3	<0.2	37	8	15	114	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
Drill log indicated no sediment																		
2108/XRL/EDH-48	21.10-21.55	0.1	8	<0.2	21	14	13	218	<0.05	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2	
2108/XRL/EDH-49	Drill log indicated no sediment																	
2108/XRL/D038	13-13.9	<0.1	2	<0.2	3	2	2	375	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2	
	13.9-14.8	0.3	6	<0.2	20	26	13	65	0.06	<3	<550	<1700	NT	Category L	No	-	Type 1	
	14.9-15.8	<0.1	2	<0.2	4	2	2	474	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2	
2108/XRL/AD020	16.35-16.8	<0.1	2	<0.2	6	3	3	400	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2	
	18.9-19.8	<0.1	2	<0.2	4	1	4	174	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1	
	Drill log indicated no sediment																	

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		Ag	As	Cd	Cr	Cu	Ni*	Pb	Zn	Hg	Total PCBs	LMW PAHs	HMW PAHs	TBT*				
LCEL	1	12	80	1.5	40	75	200	0.5	23	550	1700	0.15						
UCEL	2	42	160	4	40	110	270	1	180	3160	9600	0.15						
10 x LCEL	10	120	800	15	400	750	2000	5	230	5500	17000	1.5						
<b>Cut-and-Cover Works Areas for Nam Cheong Ventilation Building and Nam Cheong Works Area</b>																		
2108/XRL/D288	26.35-26.80	<0.1	<0.2	12	8	10	392	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2		
2108/XRL/D293		Drill log indicated no sediment																
2108/XRL/D294	8-8.9	0.2	<0.2	29	24	20	74	0.05	<3	<550	<1700	NT	Category L	No	-	Type 1		
	8.9-9.9	<0.1	<0.2	3	3	6	54	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1		
	9.9-10.8	0.4	0.3	37	26	27	127	0.1	<3	<550	<1700	NT	Category L	No	-	Type 1		
	10.9-11.8	<0.1	<0.2	2	2	4	38	<0.05	<3	<550	<1700	NT	Category L	No	-	Type 1		
<b>Cut-and-Cover Works Area for Mei Lai Road Construction Shaft</b>																		
2108/XRL/D308		Drill log indicated no sediment																
<b>Stream in Shek Kong and Cut-and-Cover Works Area for Tai Kong Po Emergency Access Point</b>																		
2108/XRL/D434		Drill log indicated no sediment																
2108/XRL/EDH-41	1.45-1.85	0.1	15	0.4	4	50	354	<0.05	<3	<550	<1700	NT	Category H	NA	-	NA		
2108/XRL/EDH-42	1.75-2.15	<0.1	9	<0.2	4	346	278	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2		
2108/XRL/EDH-43	2.60-3.45	0.1	13	0.4	5	45	244	<0.05	<3	<550	<1700	NT	Category M	NA	-	NA		
2108/XRL/EDH-44	2.95-3.35	<0.1	8	0.3	15	67	227	<0.05	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2		
2108/XRL/EDH-62	3.95-4.35	0.2	7	0.2	3	41	203	<0.05	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2		
2108/XRL/EDH-63	4.05-4.5	0.4	2	0.4	4	16	131	<0.05	<3	<550	<1700	NT	Category L	NA	-	NA		
2108/XRL/EDH-64	2.45-2.85	<0.1	1	<0.2	6	48	324	<0.05	<3	<550	<1700	NT	Category H	No	-	Type 2		
<b>Cut-and-Cover Works Area for Mai Po Ventilation Building</b>																		
2108/XRL/EDH-18		Drill log indicated no sediment																
2108/XRL/EDH-37	2.9-3.8	0.2	100	<0.2	8	70	98	0.06	<3	<550	<1700	NT	Category H	NA	-	NA		
<b>Dredging Area in Lung Kwu Sheung Tan</b>																		
2108/XRL/EDH-50	0-0.8	<0.1	<0.2	6	2	104	18	<0.05	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2		
	0.8-1.8	0.1	<0.2	15	6	81	46	0.06	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2		
2108/XRL/EDH-51	0-1.0	0.2	<0.2	35	20	39	106	0.05	<3	<550	<1700	NT	Category L	No	-	Type 1		
	1.0-2.0	0.1	<0.2	43	27	50	94	<0.05	<3	<550	<1700	NT	Category M	Yes	Fail	Type 2		

Notes:

LMW PAHs - Low Molecular Weight PAHs

HMW PAHs - High Molecular Weight PAHs

\*: The contaminant level is considered to have exceeded the UCEL if it is greater than the value shown.

Underlined value indicates exceedance of LCEL.

**Bolded** value indicates exceedance of UCEL.

**Bolded and underlined** value indicates that the value exceeds 10 times of LCEL.

NA: Not Applicable

NT: Analysis of TBT was not conducted due to insufficient interstitial water collected.

Type 1 = disposal at an open sea disposal.

Type 1 Dedicated = disposal at a dedicated open sea disposal site.

Type 2 = disposal at confined marine disposal site

Type 3 = special treatment/ disposal