AECOM

MTR Corporation Limited

Consultancy Agreement No. NEX/2213

Environmental Impact Assessment (EIA) Study for Shatin to Central Link - Mong Kok East to Hung Hom Section

Contamination Assessment Report

August 2011

	Name	Signature
Prepared & Checked:	Lok Yan	
Reviewed & Approved:	Freeman Cheung	

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AECOM Asia Co. Ltd.
11/F, Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3105 8686 Fax: (852) 2317 7609 www.aecom.com

1. INTRODUCTION

Project Background

1.1 A Contamination Assessment Plan (CAP) for Shatin to Central Link (SCL) – Mong Kok East to Hung Hom Section [SCL (MKK-HUH)] had been prepared and was approved by the Environmental Protection Department (EPD) under the EIA Study Brief (ESB) No. ESB-192/2008 on 8 October 2009 (the "approved CAP"). Due to site constraints/current land use, the site investigation (SI) for potentially contaminated areas was proposed to be divided into two stages, namely Stage 1 and Stage 2. Stage 2 SI was planned to be carried out after decommissioning of facilities and prior to commencement of construction works at relevant sites.

1.2 Subsequent to the approval of the abovementioned CAP, part of the Stage 2 SI at sites within MTR property was proposed to be advanced before the decommissioning stage as "Post-Stage 1 SI" by relocation of the sampling locations so as to overcome the site constraints. A subsequent Supplementary CAP (the "approved Supplementary CAP") was submitted and approved on 11 March 2010 for these land lots/ facilities, together with an additional works area at Mong Kok Freight Terminal.

1.3 Another change subsequent to the approval of the above-mentioned CAPs involved minor shift of the Project alignment at the section from Portal 1A to Chatham Road Interchange (CRI). The SI plan for one of the Assessment Areas (i.e. Area 1) in the approved CAP is slightly modified to accommodate the alignment and works changes. A Supplementary CAP for Works Area in Area 1 (the "approved Supplementary CAP for Area 1") for the shifted alignment was submitted to EPD on 7 October 2010 and it was approved on 23 November 2010. Proposed sampling works for the shifted alignment together with the remaining sampling locations required for Stage 2 SI under the approved CAP were carried out accordingly, known as Stage 2 SI.

1.4 The latest project layout is shown in **Figure No. NEX2213/C/361/ENS/M50/501.**

1.5 The ESB requires a land contamination assessment to be carried out, including the submission of a CAP, Contamination Assessment Report (CAR) and, if land contamination is confirmed, a Remediation Action Plan (RAP) to the Director of Environmental Protection (DEP) for endorsement.

1.6 Land contamination impact is required to be addressed in the EIA study in accordance with *Clause 3.4.5 of the ESB*. The Site Investigation (SI) works were conducted by the following parties:

- Stage 1 Gammon Construction Limited
- Post-Stage 1 Geotechnics & Concrete Engg. (H.K.) Ltd.
- Stage 2 Driltech Ground Engineering Ltd.

1.7 SI included rotary drilling of boreholes, logging of ground materials, groundwater sampling and reinstatement of excavations. All laboratory analyses were carried out by ALS Technician (HK) Pty Limited (ALS) and the results were tabulated for preparation of this CAR. AECOM [rebranding the former "ENSR Asia (HK) Limited"] collated the information obtained and prepared this CAR.

Objectives

1.8 This CAR is prepared to fulfil the requirements of *Clauses 3.4.5.5 of the ESB* and aims to present the findings and to assess the nature, level and extent of contamination.

2. CONTAMINATION ASSESSMENT REPORT

Introduction

2.1 Details of the sampling rationale for sites under Stage 1, Post-Stage 1 and Stage 2 SI have been documented in the approved CAP, approved Supplementary CAP and approved Supplementary CAP for Area 1. For easy reference, an extract of the sampling schedule for all SI sites is provided in **Appendix A**. This CAR presents findings on SI works including fieldworks, laboratory analyses and the assessment of the nature, level and extent of contamination.

Progress of Site Investigation Works

2.2 As described in Sections 1.7 and 1.8, the Stage 1, Post-Stage 1 and Stage 2 SI have been completed in accordance to the relevant CAPs. The as-built sampling locations are shown in **Figure Nos. NEX2213/C/361/ENS/M57/507** through **NEX2213/C/361/ENS/M57/510**. Summary of the SI works is summarised in **Table 2.1** below.

Table 2.1 Summary of Site Investigation Works

Site ID (Description)	Sampling Locations	Stage of SI	Actual Coordinates	
			Easting	Northing
Area 1				
1-10 (Demolished paint storage) **Figure No. NEX2213/C/361/ENS/M57/507**	2209/SCL/EDH249(P)	Stage 1	836785.58	818603.26
1-18 (Emergency generator room and the associated fuel tank room at STA Building) **Figure No. NEX2213/C/361/ENS/M57/507**	2209/SCL/ETT103	Stage 1	836786.86	818601.59
1-22 (MTR railway operations (Historic railway maintenance facility area)) **Figure No. NEX2213/C/361/ENS/M57/507**	11203/SCL/EB118	Stage 2	836699.64	818714.86
	11203/SCL/EB119		836762.46	818714.41
	11203/SCL/EB120		836754.58	818763.39
	11203/SCL/EB121		836720.38	818757.59
	11203/SCL/EB122		836678.71	818798.80
	11203/SCL/EB123		836639.40	818786.76
Area 2				
2-02 (Locomotive traverser) **Figure No. NEX2213/C/361/ENS/M57/509**	11202/SCL/EDH136	Post-Stage 1	836778.96	817985.86

Site ID (Description)	Sampling Locations	Stage of SI	Actual Coordinates	
			Easting	Northing
2-04 (Locomotive running shed) **Figure No. NEX2213/C/361/ENS/M57/508** (The seven boreholes are shared among Sites 2-04, 2-06 and 2-07)	11202/SCL/EDH138	Post-Stage 1	836867.98	818332.14
	11202/SCL/EDH139		836869.68	818340.35
	11202/SCL/EDH140		836844.75	818408.40
	11202/SCL/EDH141		836855.61	818420.81
	11202/SCL/EDH142		836888.11	818350.03
	11202/SCL/EDH143		836888.58	818328.63
	11202/SCL/EDH144		836872.78	818319.26
	11203/SCL/EB146 (New sampling location near 11202/SCL/EDH142 due to uncompleted SI)	Stage 2	836896.61	818348.41
2-05 (USTs near the locomotive running shed) **Figure No. NEX2213/C/361/ENS/M57/508**	2209/SCL/ETT165	Stage 1	836883.32	818399.37
	11203/SCL/EB140	Stage 2	836884.25	818397.89
	11203/SCL/EB141		836901.58	818384.08
2-06 (Aboveground lubricating oil storage tank near the locomotive running shed) **Figure No. NEX2213/C/361/ENS/M57/508**	2209/SCL/ETT102	Stage 1	836867.21	818395.13
	Refer to Site 2-04 for the description of the seven boreholes shared among Sites 2-04, 2-06 and 2-07.			
2-07 (Dispenser west and north of the locomotive running shed) **Figure No. NEX2213/C/361/ENS/M57/508**	2209/SCL/EDH244	Stage 1	836851.31	818388.31
	Refer to Site 2-04 for the description of the seven boreholes shared among Sites 2-04, 2-06 and 2-07.			
2-08 (Railway tracks) **Figure No. NEX2213/C/361/ENS/M57/510**	11202/SCL/ETP027	Post-Stage 1	836839.45	818354.63
	11202/SCL/ETP012		836803.07	818182.61
	11202/SCL/ETP042		836810.98	818006.38
	11202/SCL/ETP043		836805.41	818091.11
	11202/SCL/ETP044		836838.91	818277.13

Site ID (Description)	Sampling Locations	Stage of SI	Actual Coordinates	
			Easting	Northing
2-09 (D.G. storage containers near the Southern Warehouse) **Figure No. NEX2213/C/361/ENS/M57/509**	2209/SCL/EDH231	Stage 1	836810.43	817977.08
Area 3				
L17 (International Mail Centre) **Figure No. NEX2213/C/361/ENS/M57/509**	2209/SCL/ETT106 (Emergency generator and associated fuel tank)	Stage 1	836710.06	817916.85
	2209/SCL/ETT068 (D.G. store)	Stage 1	836732.49	817957.03
	2209/SCL/EDH256 (Car park, previous open storage)	Stage 1	836711.21	817926.48
	2209/SCL/EDH257(P) (Car park, previous open storage)	Stage 1	836737.00	817918.06
3-02 (Container stacker refuelling and maintenance area at Hung Hom Freight Yard) **Figure No. NEX2213/C/361/ENS/M57/509**	2209/SCL/EDH229 (P)	Stage 1	836788.17	817875.41
	2209/SCL/EDH124 (P)		836810.60	817937.70
Area 4				
4-04 [Waste diesel storage area at the site office of Drainage Services Department (DSD)]	According to the latest design, no works will be carried out at Area 4. No SI will, therefore, be carried out.			

Assessment Methodology

Soil Boring and Sampling

2.3 The Stage 1 SI works were carried out from March 2008 to July 2009. A total of seven boreholes and five trial pits were constructed at the assessment areas.

2.4 The Post-Stage 1 SI works were carried out from March to July 2010. A total of eight boreholes and five trial pits were constructed.

2.5 The Stage 2 SI works were carried out from October to December 2010. A total of nine boreholes were constructed.

2.6 In general, soil samples were collected at depths of 0.5 m, 1.5 m, and 3.0 m below ground surface (bgs) for trial pits, and at 3 m intervals thereafter to the bottom of excavation or until bedrock was encountered for boreholes. Soil samples that could not be collected at the depths proposed in the approved CAPs and any changes in sampling locations are summarised in **Table 2.2**.

2.7 Before excavation and/or drilling, the sampling tools and all equipment in contact with the ground were thoroughly decontaminated prior to use at each sampling location by laboratory-grade detergent and steam-cleaning/high-pressure hot water jet.

2.8 Soil samples were properly labelled and stored in cool boxes at approximately 4^{o}C until delivered to the analytical laboratory. All the collected soil samples were analysed by ALS in accordance with the analysis schedules as detailed in the relevant CAPs.

Table 2.2 Changes of SI Sampling Plan Due to Site Constraints

Sampling Locations (Stage of SI)	Sampling Depth (m bgs)	Changes Made	Justifications and Precautionary Measures
2209/SCL/ETT103	0.5, 1.5, 3.0	Sampling location slightly shifted	Relocated due to the site constraints (original sampling location close to a road with busy traffic). Visual inspection for the signs of contamination should be carried out during excavation works in proximity to this sampling location. If signs of land contamination are found during the visual inspection, further sampling and testing, and remediation (if contamination found) should be carried out.
11202/SCL/EDH138	0.5, 1.5, 3.0 and every 3 m interval until 24.0	Sampling location slightly shifted	Slightly shifted to suit the workshop in operation at the locomotive running shed.
11202/SCL/EDH139	0.5, 1.5, 3.0 and every 3 m interval until 36.0	Sampling location slightly shifted	Slightly shifted to suit the workshop in operation at the locomotive running shed.
11202/SCL/EDH140	0.5, 1.5, 3.0 and every 3 m interval until 36.0	Sampling location slightly shifted	Slightly shifted to suit the operations at the locomotive running shed.
11202/SCL/EDH141	0.5, 1.5, 3.0 and every 3 m interval until 42.0	Sampling location slightly shifted	Slightly shifted to suit the operations at the locomotive running shed.
11202/SCL/EDH142	0.5, 1.5, and 3.0	Borehole converted to a trial pit	Could not be drilled to the proposed depth since obstruction was encountered at 3.13 m bgs. Another inspection pit was excavated at a nearby possible location but an obstruction (presumed to be a concrete slab) was encountered at 2.8 bgs. Other potential sampling locations are constrained by limited working space. Further sampling have been conducted during Stage 2 SI at 11203/SCL/EB146.

Sampling Locations (Stage of SI)	Sampling Depth (m bgs)	Changes Made	Justifications and Precautionary Measures
2209/SCL/ ETT165	0.5, 1.5, 3.0	Borehole converted to a trial pit and renamed	A box culvert was encountered during the construction of the inspection pit; sampling from a trial pit was conducted during Stage 1 SI. Visual inspection for the signs of contamination should be carried out during excavation works in proximity to this sampling location. If signs of land contamination are found during the visual inspection, further sampling and testing, and remediation (if contamination found) should be carried out.
2209/SCL/EDH231	0.5, 1.5, 3.0 and every 3 m interval until 15.0	Sampling location slightly shifted	Slightly relocated to adjust to the site conditions (currently operated as a freight yard and area for traffic).
2209/SCL/EDH256	0.5, 1.5, 3.0 and every 3 m interval until 12.0	Sampling location relocated to the nearby area in the open car park	Slightly relocated due to site constraints (currently operating as an open car park of the International Mail Centre) This location was previously proposed in the CAP to assess potential land contamination due to its historic operations as an open storage with unknown purposes. The relocated sampling location does not compromise the original objective.
2209/SCL/EDH257 (P)	0.5, 1.5, 3.0 and every 3 m interval until 12.0	Sampling location relocated to the nearby area in the open car park	Slightly relocated due to site constraints (currently operated as an open car park of the International Mail Centre). This location was previously proposed in the CAP to assess potential land contamination due to its historic operations as an open storage with unknown purposes. The relocated sampling location does not compromise the original objective.
2209/SCL/EDH229 (P)	0.5, 1.5, 3.0 and every 3 m interval until 12.0	Sampling location slightly shifted and renamed	Slightly relocated to adjust to the site conditions (currently operated as a freight yard and area for traffic).
11203/SCL/EB118	0.5, 1.5 and 3.0	Borehole to 3m by hand held tool	The proposed Temporary Traffic Management Plan for drilling rig mobilisation was rejected by the RMO and therefore only hand held tools can be deployed for this location. Visual inspection for the signs of contamination should be carried out during excavation works in proximity to this sampling location. If signs of land contamination are found during the visual inspection, further sampling and testing, and remediation (if contamination found) should be carried out.

Sampling Locations (Stage of SI)	Sampling Depth (m bgs)	Changes Made	Justifications and Precautionary Measures
11203/SCL/EB119	0.5, 1.5, 3.0 and every 3 m interval until 6.0	Borehole to 6.5m	The existing Water Services Department watermains were encountered during the drilling. Visual inspection for the signs of contamination should be carried out during excavation works in proximity to this sampling location. If signs of land contamination are found during the visual inspection, further sampling and testing, and remediation (if contamination found) should be carried out.
11203/SCL/EB121	0.5, 1.5 and 3.0	Borehole to 3m by hand held tool	Existing utilities were encountered during the construction of inspection pit. Visual inspection for the signs of contamination should be carried out during excavation works in proximity to this sampling location. If signs of land contamination are found during the visual inspection, further sampling and testing, and remediation (if contamination found) should be carried out.

Strata Logging

2.9 Strata logging for boreholes was undertaken during the course of drilling and sampling by qualified geologists. The logs included general stratigraphic descriptions, depth of soil sampling, sample notation and level of groundwater (if encountered). The presence of rocks/boulders/cobbles and foreign materials such as metals, wood and plastics was also recorded.

Groundwater Sampling

2.10 After completion of soil sampling, groundwater samples, if encountered, were collected. All groundwater samples were analysed in accordance with the analysis schedules detailed in the relevant CAPs and reproduced in **Appendix A**.

Assessment Criteria

Criteria for Soil and Groundwater Contamination

2.11 The assessment methodology is adopted in accordance with the *Guidance Note for Contaminated Land Assessment and Remediation* (Guidance Note 1)*, Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management* (Guidance Manual) and *Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops* (Guidance Note 2) issued by the EPD.

2.12 Interpretation of results has made reference to those Risk-Based Remediation Goals (RBRGs) presented in Tables 2.3 and 2.4 as stipulated in the Guidance Manual.

2.13 The new RBRGs were developed based on a risk assessment approach to suit the local environmental conditions and community needs in Hong Kong. Decisions on contaminated soil and groundwater remediation are based on the nature and extent of the potential risks that are posed to human receptors as a result of exposure to chemicals in the soil and/or groundwater. RBRGs are

developed for four different land use scenarios reflecting the typical physical settings in Hong Kong under which people could be exposed to contaminated soil and groundwater. A description of each land use scenario is as follows:

- Urban residential – Sites located in an urban area where main activities involve habitation by individuals. The typical physical setting is a high rise residential building situated in a housing estate that has amenity facilities such as landscaped yards and children's playgrounds. The receptors are residents who stay indoors most of the time except for a short period each day, during which they are outdoors and have the chance of being in direct contact with soil at landscaping or play areas within the estate.

- Rural residential – Sites located in a rural area where the main activities involve habitation by individuals. These sites typically have village-type houses or low rise residential blocks surrounded by open space. The receptors are rural residents who stay at home and spend some time each day outdoors on activities such as gardening or light sports. The degree of contact with the soil under the rural setting is more than that under the urban setting both in terms of the intensity and frequency of contact.

- Industrial – Any site where activities involve manufacturing, chemical or petrochemical processing, storage of raw materials, transport operations, energy production or transmission, etc. Receptors include those at sites where part of the operation is carried out directly on land and the workers are more likely to be exposed to soil than those working in multi-storey factory buildings.

- Public parks – Receptors include individuals and families who frequent parks and play areas where there is contact with soil present in lawns, walkways, gardens and play areas. Parks are considered to be predominantly hard covered with limited areas of predominantly landscaped soil. Furthermore, public parks are not considered to have buildings present on them.

2.14 In addition to the RBRGs, screening criteria (soil saturation limits, C_{sat}, developed for Non-Aqueous Phase Liquid [NAPL] in soil and water solubility limits for organic chemicals in groundwater) for the more mobile organic chemicals must be considered to determine whether a site requires further action.

2.15 Since this Project involves the construction of a new railway, the Industrial RBRGs are adopted for this land contamination assessment.

2.16 Relevant soil and groundwater RBRGs for this land contamination assessment including C_{sat} and the Solubility Limits are selectively presented in **Table 2.3** below.

Table 2.3 Relevant RBRGs for Soil and Groundwater

Chemical	Soil (mg/kg)		Groundwater (µg/L)	
	RBRGs for Industrial	Soil Saturation Limits	RBRGs for Industrial	Solubility Limits
VOCs				
Acetone	10,000	***	10,000,000	***
Benzene	9.21	336	54,000	1,750,000
Bromodichloromethane	2.85	1,030	26,200	6,740,000
2-Butanone	10,000	***	10,000,000	***
Chloroform	1.54	1,100	11,300	7,920,000
Ethylbenzene	8,240	138	10,000,000	169,000
Methyl tert-Butyl Ether	70.1	2,380	1,810,000	***

Chemical	Soil (mg/kg)		Groundwater (µg/L)	
	RBRGs for Industrial	Soil Saturation Limits	RBRGs for Industrial	Solubility Limits
Methylene Chloride	13.9	921	224,000	***
Styrene	10,000	497	10,000,000	310,000
Tetrachloroethene	0.777	97.1	2,950	200,000
Toluene	10,000	235	10,000,000	526,000
Trichloroethene	5.68	488	14,200	1,100,000
Xylenes (Total)	1,230	150	1,570,000	175,000
SVOCs				
Acenaphthene	10,000	60.2	10,000,000	4,240
Acenaphthylene	10,000	19.8	10,000,000	3,930
Anthracene	10,000	2.56	10,000,000	43.4
Benzo(a)anthracene	91.8	NA	NA	NA
Benzo(a)pyrene	9.18	NA	NA	NA
Benzo(b)fluoranthene	17.8	NA	7,530	1.5
Benzo(g,h,i)perylene	10,000	NA	NA	NA
Benzo(k)fluoranthene	918	NA	NA	NA
bis-(2-Ethylhexyl)phthalate	91.8	NA	NA	NA
Chrysene	1,140	NA	812,000	1.6
Dibenzo(a,h)anthracene	9.18	NA	NA	NA
Fluoranthene	10,000	NA	10,000,000	206
Fluorene	10,000	54.7	10,000,000	1,980
Hexachlorobenzene	0.582	NA	695	6,200
Indeno(1,2,3-cd)pyrene	91.8	NA	NA	NA
Naphthalene	453	125	862,000	31,000
Phenanthrene	10,000	28	10,000,000	1000
Phenol	10,000	7,260	NA	NA
Pyrene	10,000	NA	10,000,000	135
Metals				
Antimony	261	NA	NA	NA
Arsenic	196	NA	NA	NA
Barium	10,000	NA	NA	NA
Cadmium	653	NA	NA	NA
Chromium III	10,000	NA	NA	NA
Chromium VI	1,960	NA	NA	NA
Cobalt	10,000	NA	NA	NA
Copper	10,000	NA	NA	NA

Chemical	Soil (mg/kg)		Groundwater (µg/L)	
	RBRGs for Industrial	Soil Saturation Limits	RBRGs for Industrial	Solubility Limits
Lead	2,290	NA	NA	NA
Manganese	10,000	NA	NA	NA
Mercury	38.4	NA	6,790	NA
Molybdenum	3,260	NA	NA	NA
Nickel	10,000	NA	NA	NA
Tin	10,000	NA	NA	NA
Zinc	10,000	NA	NA	NA
Petroleum Carbon Ranges				
C6 - C8	10,000	1000	1,150,000	5,230
C9 - C16	10,000	3000	9,980,000	2,800
C17 - C35	10,000	5000	178,000	2,800
PCB				
PCB	0.748	NA	5,110	31
Other Inorganic Compound				
Cyanide, Free	10,000	NA	NA	NA

Note: NA - Not Available
*** indicates that the C_{sat} value/ solubility limit exceeds the 'ceiling limit' therefore the RBRGs applies

Results and Interpretation

Field Records

2.17 Stage 1, Post-Stage 1 and Stage 2 SI works were undertaken in accordance with the sampling plan detailed in the relevant CAPs. Soil profile logs results are summarised in **Appendix B**.

Laboratory Analytical Results

2.18 A total of 231 soil samples (66 for Stage 1; 113 for Post-Stage 1; 52 for Stage 2) and 20 groundwater samples (6 for Stage 1; 8 for Post-Stage 1 SI; and 6 for Stage 2 SI) were collected for laboratory analyses. A summary table of laboratory testing results are presented in **Appendix C.** A summary of the laboratory testing results for Stage 1, Post-Stage 1 and Stage 2 SI are presented in **Table 2.4** below.

Table 2.4 Summary of Laboratory Testing Results

Site ID (Description)	Sampling Locations	No. of Sample Tested		Compliance to Industrial RBRGs
		Soil	Groundwater	
Stage 1				
Area 1				
1-18 (Emergency generator room and the associated fuel tank room)	2209/SCL/ETT103	3	0	All sample results indicated compliance
1-10 (Open storage and previous paint storage area)	2209/SCL/EDH249(P)	10	1	All sample results indicated compliance
Area 2				
2-05 (USTs near the locomotive running shed)	2209/SCL/ETT165	3	0	All sample results indicated compliance
2-06 (Aboveground storage tank of lubricating oil near the locomotive running shed)	2209/SCL/ETT102	3	0	All sample results indicated compliance.
2-07 (Dispenser west and north of the locomotive running shed)	2209/SCL/EDH244	11	1	All sample results indicated compliance
2-09 (D.G. storage containers near the Southern Warehouse)	2209/SCL/EDH231	7	1	All sample results indicated compliance
L17 (International Mail Centre)	2209/SCL/ETT106	3	0	All sample results indicated compliance
	2209/SCL/ETT068	3	0	All sample results indicated compliance
	2209/SCL/EDH256	6	1	All sample results indicated compliance
	2209/SCL/EDH257(P)	6	1	All sample results indicated compliance
Area 3				
3-02 (Container stacker refuelling and maintenance area at Hung Hom Freight Yard)	2209/SCL/EDH229(P)	6	1	All sample results indicated compliance
	2209/SCL/EDH124(P)	5	0	All sample results indicated compliance
Post-Stage 1				
Area 2				

Site ID (Description)	Sampling Locations	No. of Sample Tested		Compliance to Industrial RBRGs
		Soil	Groundwater	
2-02 (Locomotive traverse)	11202/SCL/EDH136	7	1	All sample results indicated compliance
2-04, 2-06, and 2-07 (Locomotive running shed and associated facilities)	11202/SCL/EDH138	10	1	All sample results indicated compliance
	11202/SCL/EDH139	14	1	All sample results indicated compliance
	11202/SCL/EDH140	14	1	All sample results indicated compliance
	11202/SCL/EDH141	16	1	All sample results indicated compliance
	11202/SCL/EDH142	3	0	All sample results indicated compliance
	11202/SCL/EDH143	13	1	All sample results indicated compliance
	11202/SCL/EDH144	13	1	All sample results indicated compliance
2-08 (Railway tracks)	11202/SCL/ETP027	3	0	All sample results indicated compliance
	11202/SCL/ETP012	11	1	All sample results indicated compliance
	11202/SCL/ETP042	3	0	All sample results indicated compliance
	11202/SCL/ETP043	3	0	All sample results indicated compliance
	11202/SCL/ETP044	3	0	All sample results indicated compliance
Stage 2				
Area 1				
1-22 (MTR railway operations (Historic railway maintenance facility area))	11203/SCL/EB118	3	0	All sample results indicated compliance
	11203/SCL/EB119	4	0	All sample results indicated compliance
	11203/SCL/EB120	9	1	All sample results indicated compliance
	11203/SCL/EB121	3	0	All sample results indicated compliance
	11203/SCL/EB122	7	1	All sample results indicated compliance
	11203/SCL/EB123	11	1	All sample results indicated compliance
Area 2				
2-04, 2-06 and 2-07 (Locomotive running shed and associated facilities)	11203/SCL/EB146	5	1	All sample results indicated compliance

Site ID (Description)	Sampling Locations	No. of Sample Tested		Compliance to Industrial RBRGs
		Soil	Groundwater	
2-05 (USTs near the locomotive running shed)	11203/SCL/EB140	5	1	All sample results indicated compliance
	11203/SCL/EB141	5	1	All sample results indicated compliance
Total number of samples tested		**231**	**20**	-

2.19 The analytical results indicate that soil and groundwater concentrations of the Chemicals of Concern (COCs) analysed at all investigated sites in **Table 2.4** above did not exceed the adopted RBRG (industrial), saturation limits or solubility limits.

Conclusion and Recommendation

2.20 A total of 231 soil samples and 20 groundwater samples were collected at 34 locations identified as potentially contaminated sites. According to the analytical results, no exceedances of the adopted RBRGs (industrial) were found among any of the soil and groundwater samples analysed and as such remediation of soil or groundwater is not required at the investigated sites.

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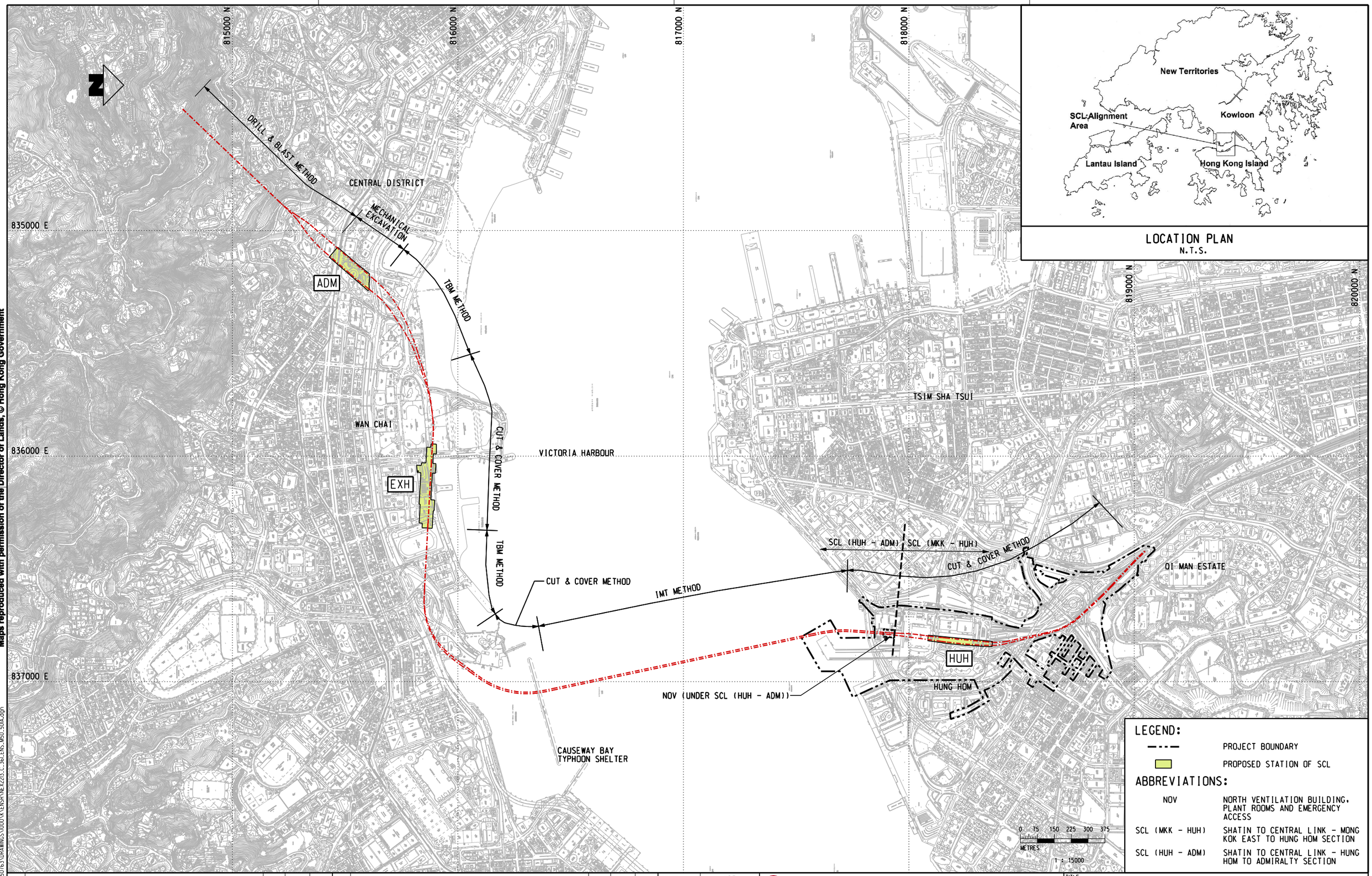

LOCATION PLAN
N.T.S.

LEGEND:

PROJECT BOUNDARY

PROPOSED STATION OF SCL

ABBREVIATIONS:

NOV	NORTH VENTILATION BUILDING, PLANT ROOMS AND EMERGENCY ACCESS
SCL (MKK - HUH)	SHATIN TO CENTRAL LINK - MONG KOK EAST TO HUNG HOM SECTION
SCL (HUH - ADM)	SHATIN TO CENTRAL LINK - HUNG HOM TO ADMIRALTY SECTION

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APPROVED	---
DATE	14/MAY/2009

MTR

SHATIN TO CENTRAL LINK

ORIGINATOR

AECOM

CADD REF. NEX2213_C_361_ENS_M50_501A.dgn

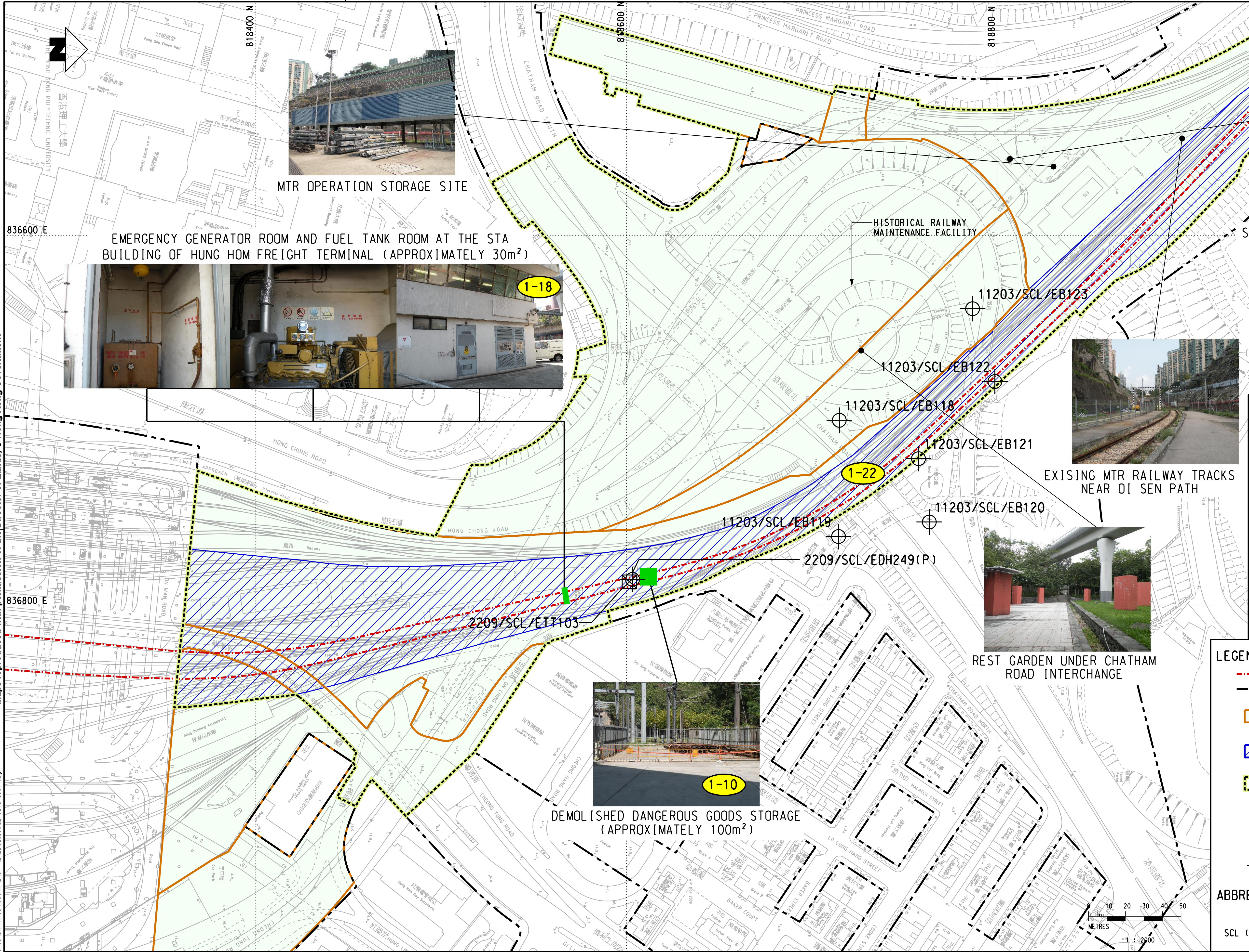
TITLE

NEX/2213
EIA STUDY FOR SCL (MKK - HUH)
SCL OVERALL ALIGNMENT (WITH BOUNDARY OF SCL - MONG KOK EAST TO HUNG HOM SECTION)

SCALE 1 : 15000 (A3)

FIGURE NO. NEX2213/C/361/ENS/M50/501

REV. A



SITE ID	
1-10	OPEN STORAGE
1-18	EMERGENCY GENERATOR AND FUEL TANK ROOM
1-22	HISTORICAL RAILWAY MAINTENANCE FACILITY

AS-BUILT COORDINATES FOR SAMPLING LOCATIONS

LOCATION ID	EASTING	NORTHING
2209/SCL/EDH249(P)	836785.58	818603.26
2209/SCL/ETT103	836786.86	818601.59
11203/SCL/EB118	836699.64	818714.86
11203/SCL/EB119	836762.46	818714.41
11203/SCL/EB120	836754.58	818763.39
11203/SCL/EB121	836720.38	818757.59
11203/SCL/EB122	836678.71	818798.80
11203/SCL/EB123	836639.40	818786.76

LEGEND:

- PROPOSED SCL ALIGNMENT
- PROJECT BOUNDARY
- TENTATIVE WORKS AREA UNDER SCL (MKK - HUH)
- TENTATIVE WORKS AREA UNDER SCL (MKK - HUH) WITH MAJOR EXCAVATION / DISTURBANCE OF SOIL
- AREA 1
- AS-BUILT LOCATIONS FOR TRIAL PITS
- POTENTIALLY CONTAMINATED AREA
- AS-BUILT LOCATIONS FOR BOREHOLES

ABBREVIATIONS:

SCL	SHATIN TO CENTRAL LINK
SCL (MKK - HUH)	SHATIN TO CENTRAL LINK - MONG KOK EAST TO HUNG HOM SECTION

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DATE	02/NOV/2010

MTR

SHATIN TO CENTRAL LINK

ORIGINATOR: AECOM

CADD REF. NEX2213_C_361_ENS_M57_507A.dgn

TITLE

NEX/2213
EIA STUDY FOR SCL (MKK - HUH)
POTENTIALLY CONTAMINATED SITES IDENTIFIED AND AS-BUILT SAMPLING LOCATIONS AT AREA 1

SCALE: 1 : 2000 (A3)

FIGURE NO. NEX2213/C/361/ENS/M57/507

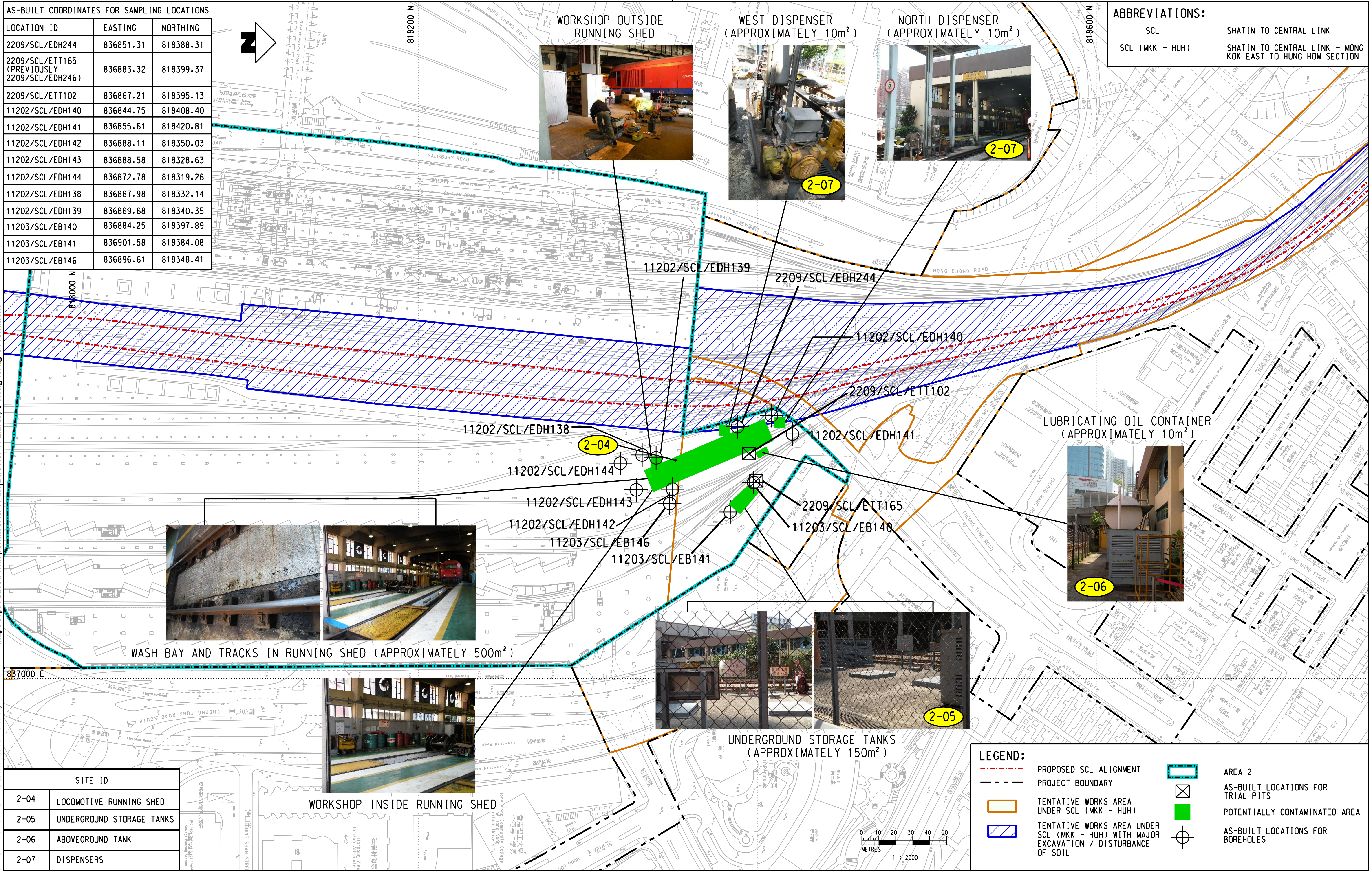
REV. A

AS-BUILT COORDINATES FOR SAMPLING LOCATIONS

LOCATION ID	EASTING	NORTHING
2209/SCL/EDH244	836851.31	818388.31
2209/SCL/ETT165 (PREVIOUSLY 2209/SCL/EDH246)	836883.32	818399.37
2209/SCL/ETT102	836867.21	818395.13
11202/SCL/EDH140	836844.75	818408.40
11202/SCL/EDH141	836855.61	818420.81
11202/SCL/EDH142	836888.11	818350.03
11202/SCL/EDH143	836888.58	818328.63
11202/SCL/EDH144	836872.78	818319.26
11202/SCL/EDH138	836867.98	818332.14
11202/SCL/EDH139	836869.68	818340.35
11203/SCL/EB140	836884.25	818397.89
11203/SCL/EB141	836901.58	818384.08
11203/SCL/EB146	836896.61	818348.41

ABBREVIATIONS:

SCL	SHATIN TO CENTRAL LINK
SCL (MKK - HUH)	SHATIN TO CENTRAL LINK - MONG KOK EAST TO HUNG HOM SECTION



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SITE ID	
2-04	LOCOMOTIVE RUNNING SHED
2-05	UNDERGROUND STORAGE TANKS
2-06	ABOVEGROUND TANK
2-07	DISPENSERS

LEGEND:

PROPOSED SCL ALIGNMENT	AREA 2
PROJECT BOUNDARY	AS-BUILT LOCATIONS FOR TRIAL PITS
TENTATIVE WORKS AREA UNDER SCL (MKK - HUH)	POTENTIALLY CONTAMINATED AREA
TENTATIVE WORKS AREA UNDER SCL (MKK - HUH) WITH MAJOR EXCAVATION / DISTURBANCE OF SOIL	AS-BUILT LOCATIONS FOR BOREHOLES

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	GXH
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DATE	02/NOV/2010

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MTR

SHATIN TO CENTRAL LINK

ORIGINATOR: AECOM

CADD REF. NEX2213_C_361_ENS_M57_508A.dgn

TITLE

NEX/2213

EIA STUDY FOR SCL (MKK - HUH)

POTENTIALLY CONTAMINATED SITES IDENTIFIED AND AS-BUILT SAMPLING LOCATIONS AT AREA 2

SCALE	FIGURE NO.	REV.
1 : 2000 (A3)	NEX2213/C/361/ENS/M57/508	A

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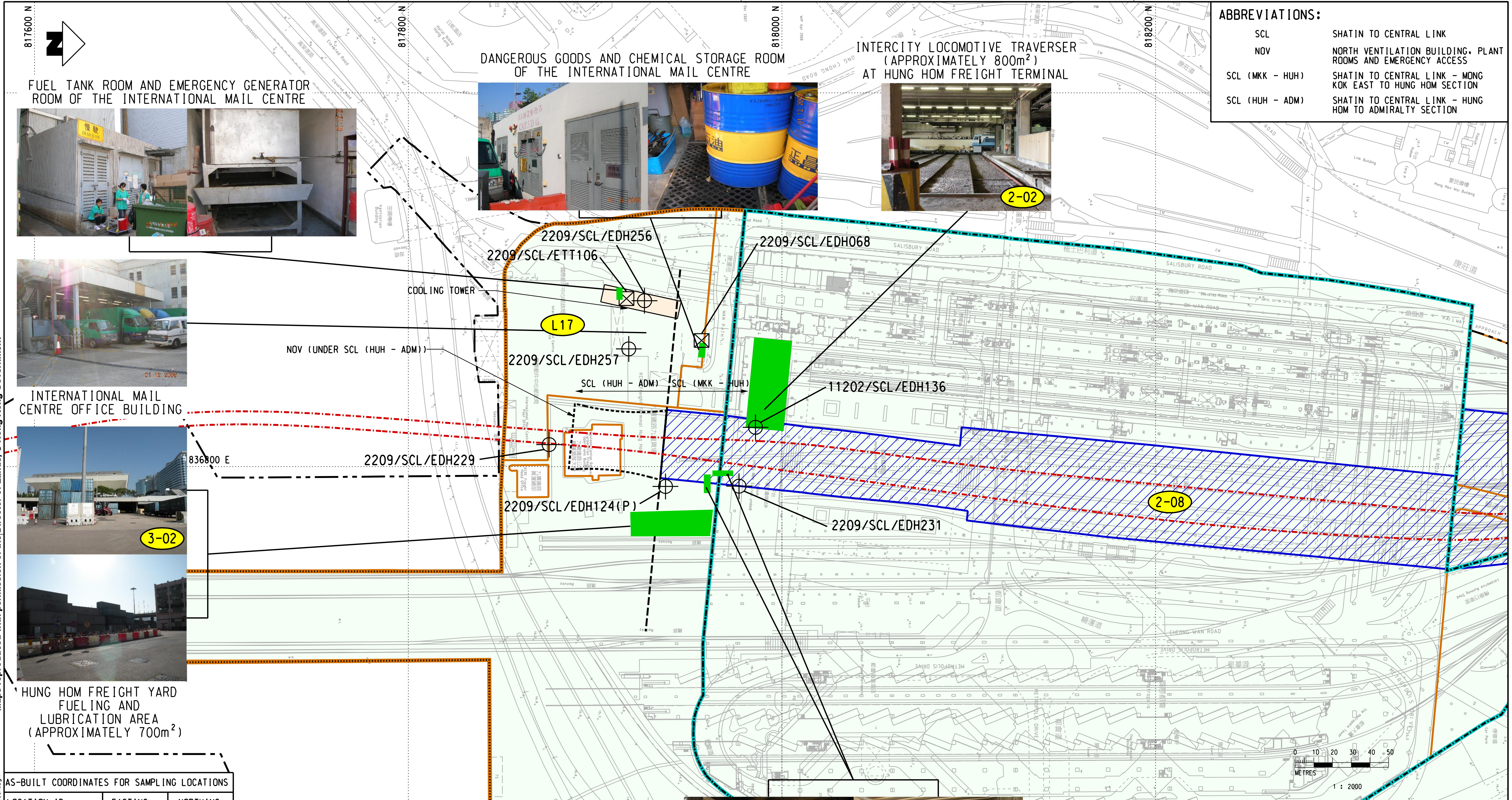

ABBREVIATIONS:

SCL	SHATIN TO CENTRAL LINK
NOV	NORTH VENTILATION BUILDING, PLANT ROOMS AND EMERGENCY ACCESS
SCL (MKK - HUH)	SHATIN TO CENTRAL LINK - MONG KOK EAST TO HUNG HOM SECTION
SCL (HUH - ADM)	SHATIN TO CENTRAL LINK - HUNG HOM TO ADMIRALTY SECTION

AS-BUILT COORDINATES FOR SAMPLING LOCATIONS

LOCATION ID	EASTING	NORTHING
2209/SCL/EDH068	836732.49	817957.03
2209/SCL/ETT106	836710.06	817916.85
2209/SCL/EDH256	836711.21	817926.48
2209/SCL/EDH257	836737.00	817918.06
2209/SCL/EDH229	836788.17	817875.41
2209/SCL/EDH124(P)	836810.60	817937.70
2209/SCL/EDH231	836810.43	817977.08
11202/SCL/EDH136	836778.96	817985.86

SITE ID

2-02	LOCOMOTIVE TRAVERSER
2-08	RAILWAY TRACKS
2-09	D.G. STORE
L17	INTERNATIONAL MAIL CENTRE
3-02	HUNG HOM FREIGHT YARD

LEGEND:

- PROPOSED SCL ALIGNMENT
- PROJECT BOUNDARY
- TENTATIVE WORKS AREA UNDER SCL (MKK - HUH)
- TENTATIVE WORKS AREA UNDER SCL (MKK - HUH) WITH MAJOR EXCAVATION / DISTURBANCE OF SOIL
- AREA 2
- AREA 3
- AS-BUILT LOCATIONS FOR TRIAL PITS
- POTENTIALLY CONTAMINATED AREA
- AS-BUILT LOCATIONS FOR BOREHOLES

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

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DATE	02/NOV/2010

MTR

SHATIN TO CENTRAL LINK

ORIGINATOR

AECOM

CADD REF. NEX2213_C_361_ENS_M57_509A.dgn

TITLE

NEX/2213
EIA STUDY FOR SCL (MKK - HUH)
POTENTIALLY CONTAMINATED SITES IDENTIFIED AND AS-BUILT SAMPLING LOCATIONS AT AREAS 2 AND 3

SCALE 1 : 2000 (A3)

FIGURE NO. NEX2213/C/361/ENS/M57/509

REV. A

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817800 N
818000 N
818200 N
818400 N
836800 E
837000 E

COOLING TOWER
NOV (UNDER SCL (HUH - ADM))
SCL (HUH - ADM)
SCL (MKK - HUH)
2-08
T1
T2
T3
T4
T5
T6
T7
11202/SCL/ETP043
11202/SCL/ETP012
11202/SCL/ETP042
11202/SCL/ETP027
11202/SCL/ETP044
G1
G2
G3
G4
G6
G7
G8
G10
G12
G13
G15
G17
G18
G21
G22
G23

0 10 20 30 40 50
METRES
1 : 2000

SITE ID	
2-08	RAILWAY TRACKS

AS-BUILT COORDINATES FOR SAMPLING LOCATIONS

LOCATION ID	EASTING	NORTHING
11202/SCL/ETP027	836839.45	818354.63
11202/SCL/ETP044	836838.91	818277.13
11202/SCL/ETP012	836803.07	818182.61
11202/SCL/ETP043	836805.41	818091.11
11202/SCL/ETP042	836810.98	818006.38

LEGEND:

- PROPOSED SCL ALIGNMENT
- PROJECT BOUNDARY
- TENTATIVE WORKS AREA UNDER SCL (MKK - HUH)
- TENTATIVE WORKS AREA UNDER SCL (MKK - HUH) WITH MAJOR EXCAVATION / DISTURBANCE OF SOIL
- AREA 2
- AREA 3
- AREA 4
- AS-BUILT LOCATIONS FOR TRIAL PITS
- POTENTIALLY CONTAMINATED AREA
- AS-BUILT LOCATIONS FOR BOREHOLES

ABBREVIATIONS:

SCL	SHATIN TO CENTRAL LINK
NOV	NORTH VENTILATION BUILDING, PLANT ROOMS AND EMERGENCY ACCESS
SCL (MKK - HUH)	SHATIN TO CENTRAL LINK - MONG KOK EAST TO HUNG HOM SECTION
SCL (HUH - ADM)	SHATIN TO CENTRAL LINK - HUNG HOM TO ADMIRALTY SECTION

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SHATIN TO CENTRAL LINK

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AECOM

CADD REF.
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TITLE
NEX/2213
EIA STUDY FOR SCL (MKK - HUH)
POTENTIALLY CONTAMINATED SITES IDENTIFIED AND AS-BUILT SAMPLING LOCATION WITHIN RAILWAY TRACKS

SCALE	FIGURE NO.	REV.
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Appendix A

Sampling and Testing Plan for Potential Contaminated Sites

Table 5.1 Sampling and Testing Plan for Potentially Contaminated Sites

Site ID	Hotspot Identified	Sampling Location/ Sampling ID	Sampling Method	Sample Matrix		Parameters to Be Tested	Figure Reference
Area 1							
1-10	Demolished storage for paints, currently used as an open storage for construction materials Approx. area of 100 m^2	At the hotspot to verify any residual contamination 2209/SCL/EDH249(P)	Borehole	Soil	0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m.	Lead, Zinc VOCs, SVOCs, Cyanide	NEX2213/C/361/ENS/M57/008
				GW	One GW sample per location if encountered.	VOCs, SVOCs	
1-18	Emergency generator room and the associated fuel tank room at STA Building Approx. area of 30 m^2	Close to but outside both rooms, due to sampling constraints at this stage. 2209/SCL/ETT103	Trial pit	Soil	Soil samples at depths of 0.5, 1.5 and 3.0 m Since this site is within the cut & cover works area where excavation/ ground works are expected, visual inspection should be conducted to detect any abnormal colour, smell or other characteristics of the soil during demolition and excavation	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/008
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	
Area 2							
2-05	USTs near the Locomotive Running Shed Approx. area of 150 m^2	Northwest of the USTs 2209/SCL/EDH246 (Two extra sampling locations at the west, southeast of the USTs are proposed and will be conducted during the decommissioning of this site;	Borehole	Soil	0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m.	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/009
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	

Site ID	Hotspot Identified	Sampling Location/ Sampling ID	Sampling Method	Sample Matrix		Parameters to Be Tested	Figure Reference
		detailed in **Table 5.2**)					
2-06	Above ground lubricating oil tank near the Locomotive Running Shed Approx. area of 10 m^2	Close to and south of the lubricating oil tank 2209/SCL/ETT102	Trial pit	Soil	Soil samples at depths of 0.5, 1.5 and 3.0 m bgs	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/009
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	
2-07	Dispenser west of the Locomotive Running Shed Approx. area of 10 m^2	Next to the hotspot 2209/SCL/EDH244	Borehole	Soil	0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m.	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/009
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	
2-09	D.G storage containers near the Southern Warehouse Approx. area of 20 m^2	Close to but outside of the D.G. storage containers, due to sampling constraints at this stage. 2209/SCL/EDH231	Borehole	Soil	0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m. Since this site is within the hoarding area where excavation/ ground works are expected, visual inspection should be conducted to detect any abnormal colour, smell or other characteristics of the soil during demolition and excavation	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/010
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	
Area 3							

Site ID	Hotspot Identified	Sampling Location/ Sampling ID	Sampling Method	Sample Matrix		Parameters to Be Tested	Figure Reference
L17*	D.G. store and chemical storage room at the IMC Approx. area of 20 m^2	Close to but outside (west) of both rooms, due to sampling constraints at this stage. 2209/SCL/ETT068	Trial pit	Soil	Soil samples at depths of 0.5, 1.5 and 3.0 m bgs. Since the D.G. store and chemical storage room are within the works area and close to the hoarding area, visual inspection should be conducted to detect any abnormal colour, smell or other characteristics of the soil during demolition and excavation	VOCs, SVOCs, full list of metals, TPH, Cyanide	NEX2213/C/361/ENS/M57/010
				GW	One GW sample per location if encountered.	VOCs, SVOCs, Mercury, TPH	
	Emergency generator room and the associated fuel tank room Approx. area of 20 m^2	Close to but outside (north) of both rooms, due to sampling constraints at this stage. 2209/SCL/ETT106	Trial pit	Soil	Soil samples at depths of 0.5, 1.5 and 3.0 m bgs. Since the D.G. store and chemical storage room are within the works area and close to the hoarding area, visual inspection should be conducted to detect any abnormal colour, smell or other characteristics of the soil during demolition and excavation	VOCs, SVOCs, full list of metals, TPH	NEX2213/C/361/ENS/M57/010
				GW	One GW sample per location if encountered.	VOCs, SVOCs, Mercury, TPH	
	Historic unknown open storage Approx. area of 2000 m^2 (within the hoarding area)	At the historic open storage area of IMC 2209/SCL/EDH256 and 2209/SCL/EDH257	Borehole	Soil	0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m. Since this site is within the works area and partly within the hoarding area where	VOCs, SVOCs, full list of metals, TPH	NEX2213/C/361/ENS/M57/010

Site ID	Hotspot Identified	Sampling Location/ Sampling ID	Sampling Method	Sample Matrix		Parameters to Be Tested	Figure Reference
					excavation/ ground works are expected, visual inspection should be conducted to detect any abnormal colour, smell or other characteristics of the soil during demolition and excavation		
				GW	One GW sample per location if encountered.	VOCs, SVOCs, Mercury, TPH	
3-02	Container stacker refuelling and maintenance area at Hung Hom Freight Year (HFY) Approx. area of 700 m^2	Sampling between this area and the works area for preliminary screening of the presence of contamination plume 2209/SCL/EDH229 and 2209/SCL/EDH124(P)	Borehole	Soil	0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m.	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/010
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	

Notes:

*: Site L17 is the overlapping works area under both this Project and EWL. Sampling locations are proposed for potential contamination hotspots for Site L17 with reference to the approved CAP of this area under EWL.

1. bgs: below ground surface; GW = groundwater
2. VOCs = The whole list of COCs listed under VOCs in Appendix IV of Guidance Note 1; SVOCs = The whole list of COCs listed under SVOCs in Appendix IV of Guidance Note 1.
3. BTEX = *Benzene, Toluene, Ethylbenzene* and *Xylene.*
4. PAHs = The whole of COCs listed under group of SVOCs in the RBRGs Table except *bis-(2-Ethylhexyl)phthalate, Hexachlorobenzene* and *Phenol.* Since RBRGs value of *Benzo(a)anthracene Benzo(a)pyrene, Benzo(g,h,i)perylene Benzo(k)fluoranthene Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene* were not available for groundwater, the captioned chemicals parameters would not be tested in groundwater sample.
5. Heavy Metals - The whole list of COCs listed under Metals in Appendix IV of Guidance Note 1.
6. Since the RBRGs value of *Benzo(a)anthracene Benzo(a)pyrene, Benzo(g,h,i)perylene Benzo(k)fluoranthene bis-(2-Ethylhexyl)phthalate Dibenzo(a,h)anthracene Indeno(1,2,3-cd)pyrene* and *Phenol* were not available for groundwater, the captioned chemicals parameters would not be tested in the groundwater sample.
7. If there are any spatial and headroom constraints for the proposed sampling locations, trial pit(s) should be considered as an alternative to collect soil samples. The maximum depth of trial pits should be at least 2m - 3m bgs subject to site conditions.

vii. Areas with Site Investigation (SI) Constraints at This Stage

5.8 In addition to areas which are not feasible for inspection or identification of hot spots, sites with constraints for sampling works at current stage are listed in **Table 5.2** below. Supplementary CAP(s) will be prepared and submitted for EPD endorsement; CAR, RAP and RR will be prepared and submitted subsequently, if necessary.

Table 5.2 Sampling and Testing Plan of SI Works for Sites upon Decommissioning

Site ID	Hotspot Identified	Sampling Location/ Sampling ID	Sampling Method	Sample Matrix		Parameters to Be Tested	Figure Reference
Area 2							
2-04	The following hotspots are all located in the Locomotive Running Shed: Workshop, approx. area of 300 m^2 Servicing area, approx. area of 500 m^2 Chemical storage area, approx. area of 20 m^2 Waste oil storage area, approx. area of 20 m^2	Workshop: HUH-2 (section inside the running shed), HUH-9 (section outside the running shed): Servicing area: HUH-3, HUH-5 Chemical storage area: HUH-4 Waste oil storage area: HUH-6	Borehole	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m	Workshop: Lead, Chromium, Copper, TPH, VOCs, SVOCs Servicing area: Lead, Chromium, Copper, TPH, VOCs, SVOCs Chemical storage area: Lead, TPH, VOCs, SVOCs Waste oil storage area: Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/009
				GW	One GW sample per location if encountered.	Workshop: VOCs, SVOCs, TPH Servicing area: VOCs, SVOCs, TPH Chemical storage area: VOCs, SVOCs, TPH Waste oil storage area: BTEX, TPH,	

Site ID	Hotspot Identified	Sampling Location/ Sampling ID	Sampling Method	Sample Matrix		Parameters to Be Tested	Figure Reference
						PAHs	
2-05	USTs near the Locomotive Running Shed Approx. area of 150 m^2	West of the USTs: HUH-8 Southeast of the USTs: HUH-10	Borehole	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/009
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	
2-07	North dispenser of the Locomotive Running Shed Approx. area of 10 m^2	Exactly at this hotspot HUH-7	Borehole	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m	Lead, BTEX, TPH, PAHs,	NEX2213/C/361/ENS/M57/009
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	
2-02	Traverser and the ground underneath Total approx. area of 800 m^2; approx. area within the cut & cover works area where excavation is expected is < 100 m^2	At the hotspot for preliminary screening of the presence of potential land contamination HUH-1 Should contamination be confirmed, deeper and more extensive sampling will be proposed with reference to Guidance Note 2, upon agreement with MTR.	Borehole	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/010
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	
2-08	Railway tracks in W2 Total approx. area of 15,000 m^2	Sampling based on grid (100 m x 100 m). Total sampling locations in this area: 5 (RWT-1 through RWT-5) Five locations in Area W2: Railway tracks nos. G10, G12, G13, G15,	Borehole If contamination is confirmed, further SI would be recommended and conducted,	Soil	For concrete-based railway tracks in this area (G17 and G18): soil samples at depths of 0.5, 1.5 3.0, 4.5 and 6.0 m bgs. For ballast-based railway tracks in this area (G10, G12 G13, G15 and the northern section of G6): soil	Lead, BTEX, PAHs, TPH	NEX2213/C/361/ENS/M57/012

Site ID	Hotspot Identified	Sampling Location/ Sampling ID	Sampling Method	Sample Matrix		Parameters to Be Tested	Figure Reference
		G17 and G18, based on a 100 m x 100 m grid pattern, between two neighbouring tracks: RWT-1 through RWT-5 Exact sampling locations and number shall also depend on the practical conditions when sampling is conducted	upon agreement with MTR		samples at depths of 0.5, 1.5, 3.0 and 6.0 m; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m. If contamination is confirmed, further (smaller grid, e.g. 50 m interval) and deeper (sampling until the bedrock or the bottom of excavation, whichever is shallower) site inspection would be conducted upon agreement with MTR		
				GW	One GW sample per location if encountered.	BTEX, PAHs, TPH	
Area 4							
4-04	Waste diesel storage area at DSD site office	Exactly at the hotspot DSD-1	Borehole	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m	Lead, BTEX, PAHs, TPH	NEX2213/C/361/ENS/M57/011
				GW	One GW sample per location if encountered.	BTEX, PAHs, TPH	

Notes:
1. bgs = below ground surface; GW = groundwater
2. VOCs = The whole list of COCs listed under VOCs in Appendix IV of Guidance Note 1; SVOCs = The whole list of COCs listed under SVOCs in Appendix IV of Guidance Note 1.
3. BTEX = *Benzene, Toluene, Ethylbenzene* and *Xylene.*
4. PAHs = The whole of COCs listed under group of SVOCs in the RBRGs Table except *bis-(2-Ethylhexyl)phthalate, Hexachlorobenzene* and *Phenol.* Since RBRGs value of *Benzo(a)anthracene Benzo(a)pyrene, Benzo(g,h,i)perylene Benzo(k)fluoranthene Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene* were not available for groundwater, the captioned chemicals parameters would not be tested in groundwater sample.
5. Heavy Metals - The whole list of COCs listed under Metals in Appendix IV of Guidance Note 1.
6. Since the RBRGs value of *Benzo(a)anthracene Benzo(a)pyrene, Benzo(g,h,i)perylene Benzo(k)fluoranthene bis-(2-Ethylhexyl)phthalate Dibenzo(a,h)anthracene Indeno(1,2,3-cd)pyrene* and *Phenol* were not available for groundwater, the captioned chemicals parameters would not be tested in the groundwater sample.

7. If there are any spatial and headroom constraints for the proposed sampling locations, trial pit(s) should be considered as an alternative to collect soil samples. The maximum depth of trial pits should be at least 2m - 3m bgs subject to site conditions

Table 5.1 Changes in Sampling and Testing Plan at Area 2 in Hung Hom Freight Terminal

Site ID (Description)	Hotspot Identified (Based on the Approved CAP)	Proposed Sampling Location/ Sampling ID (Original Locations under Stage 2 SI in the Approved CAP)	Sampling Method (Based on This Supplementary CAP)	Sample Matrix (Based on This Supplementary CAP)		Parameters to Be Tested (Based on This Supplementary CAP)	Figure Reference
2-02 (Locomotive traverser)	Locomotive traverse and the ground underneath Total approx. area ~800 m^2; approx. area within the cut & cover area where excavation is expected: <100 m^2	**HUH-1a**: at the edge of the site due to current land use and site constraints (Original location under Stage 2 SI: HUH-1 at the centre of the site)	Borehole	Soil	• **Borehole**: soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m •	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/501A
				GW	One GW sample per location if encountered	BTEX, TPH, PAHs	
Locomotive running shed (LRS) and its affiliating facilities 2-04 (LRS), 2-06 (Aboveground lubricating oil tank), and 2-07 (Pumping area)	<u>LRS</u>: Total approx. area of this site: ~1,100 m^2 The following potential hotspots identified are all located inside the Locomotive running shed: • Workshop: ~ 300 m^2 • Servicing area: ~500 m^2 • Chemical storage: ~20 m^2 • Waste oil storage: ~20 m^2 <u>Above ground lubricating oil tank</u> : Approx. area 10 m^2 <u>Pumping area (west of LRS):</u> Approx. area of 10 m^2	A total of seven boreholes (two up hydraulic gradient and five down hydraulic gradient) are proposed around the LRS. **HUH-2a**: northwest and upstream of LRS **HUH-3a**: north and upstream of LRS **HUH-4a**: upper southeast and downstream of LRS **HUH-5a**: lower south and downstream of LRS **HUH-6a**: south of LRS **HUH-7a**: lower	Borehole	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m	Lead, Chromium, Copper, TPH, VOCs, SVOCs	NEX2213/C/361/ENS/M57/502A
				GW	One GW sample per location if encountered	TPH, VOCs, SVOCs	

Site ID (Description)	Hotspot Identified (Based on the Approved CAP)	Proposed Sampling Location/ Sampling ID (Original Locations under Stage 2 SI in the Approved CAP)	Sampling Method (Based on This Supplementary CAP)	Sample Matrix (Based on This Supplementary CAP)		Parameters to Be Tested (Based on This Supplementary CAP)	Figure Reference
		southwest and downstream of LRS **HUH-8a**: upper southwest and downstream of LRS (Original locations under Stage 2 SI: HUH-2 and HUH-9 for the workshop; HUH-3 and HUH-5 for the servicing area; HUH-4 for the chemical storage; HUH-6 for the waste oil storage area, and HUH-7 for the north dispenser)					
2-08 (Railway tracks)	Railway tracks Total approx. area: 15, 000 m^2 (within the future cut & cover works area)	Sampling **(RWT-1a through RWT-5a**) generally based on a 100 m x 100 m grid. (These proposed sampling locations have been slightly shifted as compared to approved CAP due to site constraints.) (The original locations under Stage 2 SI: five sampling locations based on 100 m x 100 m grid pattern, between two neighbouring	Trial pit (for all locations in this site except RWT-3a, due to overhead constraints)	Soil	Soil samples at depths of 0.5, 1.5 and 3.0 m bgs Since this site is within the works area and partly within the hoarding area where excavation/ ground works are expected, visual inspection should be conducted to detect any abnormal colour, smell or other characteristics of the soil during demolition and excavation.	Lead, BTEX, TPH, PAHs	NEX2213/C/361/ENS/M57/503A
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	

Site ID (Description)	Hotspot Identified (Based on the Approved CAP)	Proposed Sampling Location/ Sampling ID (Original Locations under Stage 2 SI in the Approved CAP)	Sampling Method (Based on This Supplementary CAP)	Sample Matrix (Based on This Supplementary CAP)		Parameters to Be Tested (Based on This Supplementary CAP)	Figure Reference
		railway tracks of G10, G12, G13, G15, G17 and G18)	Borehole (for RWT-3a only)	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m	Lead, BTEX, TPH, PAHs	
				GW	One GW sample per location if encountered.	BTEX, TPH, PAHs	

Remarks:
1. bgs: below ground surface; GW = groundwater
2. VOCs = The whole list of COCs listed under VOCs in Appendix IV of Guidance Note 1; SVOCs = The whole list of COCs listed under SVOCs in Appendix IV of Guidance Note 1.
3. BTEX = *Benzene, Toluene, Ethylbenzene* and *Xylene.*
4. PAHs = The whole of COCs listed under group of SVOCs in the RBRGs Table except *bis-(2-Ethylhexyl)phthalate, Hexachlorobenzene* and *Phenol.* Since RBRGs value of *Benzo(a)anthracene Benzo(a)pyrene, Benzo(g,h,i)perylene Benzo(k)fluoranthene Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene* were not available for groundwater, the captioned chemicals parameters would not be tested in groundwater sample.
5. Since the RBRGs value of *Benzo(a)anthracene Benzo(a)pyrene, Benzo(g,h,i)perylene Benzo(k)fluoranthene bis-(2-Ethylhexyl)phthalate Dibenzo(a,h)anthracene Indeno(1,2,3-cd)pyrene* and *Phenol* were not available for groundwater, the captioned chemicals parameters would not be tested in the groundwater sample.
6. If there are any spatial and headroom constraints for the proposed sampling locations, trial pit(s) should be considered as an alternative to collect soil samples. The maximum depth of trial pits should be at least 2m - 3m bgs subject to site conditions.

Table 5.1 Proposed SI at the Assessment Area near CRI under Area 1 for the Historical Railway Maintenance Facility

SI Location	Hotspot Identified at the Area	Proposed SI Method	Proposed Sample Matrix		Parameters to Be Tested	Figure Reference
Historical railway maintenance facility near the CRI	Historical railway maintenance facility Total area of the historical railway maintenance facility: approx. 30,000 m^2; Total area of the railway maintenance facility overlapping the major excavation works areas: approx. 15,000 m^2 A total of six SI locations proposed, i.e. CHT-1 through CHT-6	Borehole	Soil	Soil samples at depths of 0.5, 1.5, 3.0 and 6.0 m bgs; further with 3.0 m intervals to the bottom of excavation or upon encountering bedrock, whichever is shallower if there is excavation works greater than 6.0 m. Visual should be conducted to detect any abnormal colour, smell or other characteristics of the soil during demolition and excavation.	TPH, Metals PCBs, SVOCs, and VOCs (part, see Remarks 2)	NEX2213/C/361/ENS/M57/702
			GW	One GW sample per location if encountered.	TPH, Mercury, PCBs, SVOCs, and VOCs (part, see Remarks 2)	

Remarks:
1. bgs: below ground surface; GW = groundwater
2. VOCs = The whole list of COCs listed under VOCs in Appendix IV of Guidance Note 1, except for Acetone, Methyl tert-Butyl Ether, and Methylene Chloride; SVOCs = The whole list of COCs listed under SVOCs in Appendix IV of Guidance Note 1.
3. Metals - The whole list of COCs listed under Metals in Appendix IV of Guidance Note 1.
4. Since the RBRGs value of *Benzo(a)anthracene Benzo(a)pyrene, Benzo(g,h,i)perylene Benzo(k)fluoranthene bis-(2-Ethylhexyl)phthalate Dibenzo(a,h)anthracene Indeno(1,2,3-cd)pyrene* and *Phenol* were not available for groundwater, the captioned chemicals parameters would not be tested in the groundwater sample.
5. If there are any spatial and headroom constraints for the proposed sampling locations, trial pit(s) should be considered as an alternative to collect soil samples. The maximum depth of trial pits should be at least 2m - 3m bgs subject to site conditions.

Appendix B

Soil Profile Logs

Soil Profile Logs under Stage 1 SI

Site ID 1-10

(2209/SCL/EDH249(P))

Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH249P**

SHEET **1** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836785.58 N 818603.26	DATE from 14/04/2009 to 21/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.19 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Description
											4.19		0.00			
Fine 14/04/2009	PX	08:00							A		0.45	3.69	0.50			Dark brown and grey, silty fine to coarse SAND with some angular fine to coarse gravel sized rock, concrete and brick fragments. (FILL)
					Oil stain N Odour N Sheen N				09:30		0.50					Medium dense, yellowish brown, silty fine to coarse SAND with some angular fine to coarse gravel sized rock fragments. (FILL)
									B		0.95 1.00					
					Oil stain N Odour N Sheen N				C		1.45 1.50					
									10:00	INSPECTION PIT						
									D		1.95 2.00					
									E		2.45 2.50					
Fine 14/04/2009		Dry at 18:00							F		2.95					
Fine 15/04/2009		Dry at 08:00		100	Oil stain N Odour N Sheen N			21 bls	1		3.00					
									11:00							
									2		3.40 3.45					
				80				20 bls	3		4.50					
									4		4.90 4.95					
								3,2 3,3,2,3 N=11	5		5.00					
									6		5.40 5.45					
									7		5.90 6.00	-1.81	6.00			
				80	Oil stain N Odour N Sheen N			36 bls	13:15								Grey, silty fine to coarse SAND with occasional shell fragments. (ALLUVIUM)
									8		6.40 6.45					
Fine 15/04/2009		2.82m at 18:00							9		7.50	-3.31	7.50			
Fine 16/04/2009		2.98m at 08:00		80				19 bls	10		7.90 7.95	-3.81	8.00			Light greyish brown, clayey silty fine to coarse SAND with occasional shell fragments. (ALLUVIUM)
								3,4 4,3,3,5 N=15	11		8.00					Medium dense, light greyish brown, silty fine to coarse SAND. (ALLUVIUM)
									12		8.40 8.45					
									13		9.00	-4.81	9.00			
				90	Oil stain N Odour N Sheen N			27 bls	14:30								9.00 - 10.50m: With occasional shell fragments.
									14		9.40 9.45					
												-5.81	10.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

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DATE **22/04/2009**

CHECKED **P O POON**

DATE **23/04/2009**

REMARKS

1. Inspection pit was dug to 3.00m depth.
2. Standpipe was installed at 6.00m depth.
3. Piezometer was installed at 34.99m depth.
4. Acoustic televiewer survey was carried out at 31.63m-39.63m depth.
5. Packer (Water Absorption) test was cancelled.
6. Water sample was taken at 6.00m depth.

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DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH249P**

SHEET **2** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836785.58 N 818603.26	DATE from 14/04/2009 to 21/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.19 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-5.81	10.00			
														As sheet 1 of 5.
				0				61 bls	10.50	-6.31	10.50			Dense, light brown, spotted orange, silty fine to coarse SAND with some subangular fine gravel sized quartz fragments. (ALLUVIUM)
									15 10.90 10.95					
								3,3 5,7,9,13 N=34	16 11.00					
									17 11.40 11.45					
				80	Oil stain - N Odour - N Sheen - N			114 bls	18 12.00 15:30	-7.81	12.00			Medium dense, brownish grey, slightly clayey silty fine to coarse SAND with some to much subangular fine gravel sized quartz fragments. (ALLUVIUM)
									19 12.40 12.45					
				85				52 bls	20 13.50	-9.31	13.50			13.50 - 15.00m: Yellowish brown.
								3,3 4,3,4,4 N=15	21 13.90 13.95 22 14.00					
									23 14.40 14.45					
				80	Oil stain - N Odour - N Sheen - N			100 bls	24 15.00 16:15	-10.81	15.00			
									25 15.40 15.45					
				95				34 bls	26 16.50	-12.31	16.50			Dark brown, clayey silty fine to coarse SAND with occasional decayed plant remains. (ALLUVIUM)
									27 16.90 16.95	-12.81	17.00			
								2,2 3,2,3,3 N=11	28 17.00					Firm, dark brown, sandy SILT with some decayed wood pieces. (ALLUVIUM)
									29 17.40 17.45					
Fine 16/04/2009		2.69m at 18:00												
Fine 17/04/2009		3.00m at 08:00		80	Oil stain - N Odour - N Sheen - N			39 bls	30 18.00 09:15					
									31 18.40 18.45	-14.21 -14.26	18.40 18.45			18.40 - 18.45m: Dark brown, decayed WOOD pieces. (ALLUVIUM)
				95				194 bls	32 19.50	-15.31	19.50			Dense, yellowish brown, silty fine to coarse SAND with some subangular fine gravel sized quartz fragments. (ALLUVIUM)
									33 19.90	-15.81	20.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

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DATE **23/04/2009**

REMARKS

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DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH249P**

SHEET **3** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836785.58 N 818603.26	DATE from 14/04/2009 to 21/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.19 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-15.81	20.00			
								6,7 9,9,15,15 N=48	34 19.95 20.00 35 20.40 20.45					20.00 - 22.50m: Light orangish brown.
				80	Oil stain - N Odour - N Sheen - N			101 bls	36 21.00 10:10 37 21.40 21.45					
				100				198 bls	38 22.50	-18.31	22.50		V	Extremely weak, light brown, spotted reddish brown and black, completely decomposed GRANITE. (Stiff, sandy SILT with some subangular fine to medium gravel sized quartz fragments)
								8,8 9,8,12,10 N=39	39 22.90 22.95 40 23.00 41 23.40 23.45	-18.81	23.00		V	Extremely weak, pinkish brown, mottled light brown, completely decomposed GRANITE. (Stiff, sandy SILT with some subangular fine to medium gravel sized quartz fragments)
				100	Oil stain - N Odour - N Sheen - N			173 bls	42 24.00 14:30 43 24.40 24.45	-19.81	24.00		V	Extremely weak, pinkish red, spotted white, completely decomposed GRANITE. (Silty fine to medium SAND with some angular to subangular fine gravel sized quartz fragments)
Fine 17/04/2009		2.78m at 18:00		80				200 bls	44 25.50 45 25.80 25.85	-21.31	25.50			25.50 - 26.00m: Purplish red.
Fine 18/04/2009		2.99m at 08:00						6,12 18,20,22,22 N=82	46 26.00 47 26.40 26.45	-21.81	26.00			
				0				200 bls	48 27.00 27.105 27.155					
				0				200 bls	49 28.50 28.585 28.585 28.635					
								15,31 100/50mm 100bls/50mm	29.00 50 29.15 29.20	-24.81	29.00		V	Extremely weak, brown, mottled black and white, completely decomposed GRANITE. (Clayey silty fine to coarse SAND with some subangular fine gravel sized quartz fragments)
										-25.81	30.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

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DATE **22/04/2009**

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DATE **23/04/2009**

REMARKS

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Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH249P**

SHEET **4** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836785.58 N 818603.26	DATE from 14/04/2009 to 21/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.19 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
				0				200 bls	No. 51 Type D Depth 30.00 30.015 30.065	-25.81	30.00		V	Extremely weak, pinkish brown, mottled grey, completely decomposed GRANITE. (Silty fine to coarse SAND with much subangular fine to coarse gravel sized rock fragments)
	PX 31.30									-27.11	31.30			
	HX			100	70	22	N.I.		31.30				IV	Moderately strong, pink, spotted black, moderately decomposed fine grained GRANITE. Joints are closely, locally medium spaced, rough planar and undulating, tight to extremely narrow, iron and manganese stained, chlorite coated, dipping 30°-40° and 60°-70°. 31.30 - 31.77m: Weak, highly decomposed and non intacted.
							11.5		T2|01	-27.58	31.77		III	
	HX 32.40			100	83	61			32.40					
Fine 18/04/2009		2.76m at 18:00					3.4		T2|01					
Fine 20/04/2009		3.08m at 08:00		97	83	69			33.80					
							9.9		T2|01					
				100	82	61			35.40					
									T2|01					
				100	100	51			36.60	-32.41	36.60		III	Moderately strong, pink, mottled light grey and greyish green, moderately decomposed chloritized medium grained GRANITE. Joints are closely, locally medium spaced, rough undulating, extremely to very narrow, chlorite coated, dipping 30°-40°, 50°-60° and 70°-80°.
				100	83	50			T2|01 37.03					
							6.3		T2|01					
				93	93	87			37.45					
									T2|01					
							2.3		38.93					
				99	95	70			T2|01					
							8.1			-35.81	40.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

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DATE **23/04/2009**

REMARKS

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Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH249P**

SHEET **5** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836785.58 N 818603.26	DATE from 14/04/2009 to 21/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.19 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples (No. Type Depth)	Reduced Level	Depth (m)	Legend	Grade	Description
				99	95	70				-35.81	40.00		III	As sheet 4 of 5.
				100	88	75			T2IOI 40.41	-36.35	40.54		III	Moderately strong, pink, mottled and streaked greyish green, spotted light grey, moderately decomposed chloritized medium grained GRANITE. Joints are medium to closely spaced, rough planar and undulating, tight to extremely narrow, chlorite coated, calcite infilled, dipping 30°-40° and 70°-80°.
							2.0							
Fine 20/04/2009		2.76m at 18:00							T2IOI	-37.46	41.65			
Fine 21/04/2009		3.08m at 08:00		100	100	100			41.90					40.54 - 41.65m: Brecciated chloritized medium grained GRANITE.
									T2IOI 43.40					
				96	90	90	6.3							
							2.6		T2IOI	-40.01	44.20		III	Moderately strong, pink, mottled light grey, light green and greyish green, moderately decomposed chloritized medium grained GRANITE. Joints are medium, locally closely spaced, rough undulating, tight, chlorite coated, calcite infilled, dipping 20°-30°.
				100	100	100			44.90					
Fine 21/04/2009		18:00							T2IOI 46.16	-41.97	46.16			End of hole at 46.16m depth.
											50.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **22/04/2009**

CHECKED **P O POON**

DATE **23/04/2009**

REMARKS

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Site ID 1-18

(2209/SCL/ETT103)

Gammon Construction Limited
Ground Engineering & Substructure Department

TRIAL PIT RECORD

Project : Ground Investigation (Land) for Shatin to Central Link

Contract No. : NEX/2209 | Job No.: J3251

Logged by : W K SIU
Date logged : 02/06/2009
Checked by : P O POON
Date checked : 03/06/2009

Co-ordinates :
E 836786.86
N 818601.59
Ground Level :
+ 4.23 mPD

Excavation Dates:
29/05/2009 to 01/06/2009
Backfill Dates:
05/06/2009

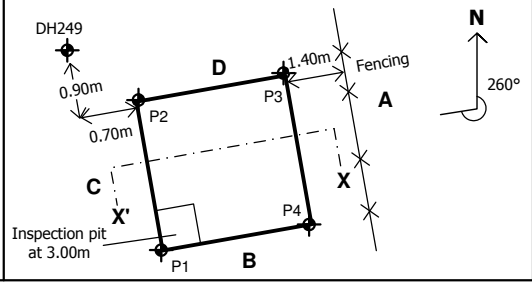
Trial Pit No. 2209/SCL/ETT103

Sample & Tests	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
		Face A 1.00 m / Face B 1.00 m / Face C 1.00 m / Face D 1.00 m				
1			0.15		CONCRETE slab. (With diameter 5mm steel bar @ 0.10m spacing)	
			0.22		Loose, moist, greyish brown, fine to coarse SAND with medium fine to coarse gravel sized rock fragments. (FILL)	
					Dense, moist, dark brown, mottled black, silty fine t coarse SAND with some angular fine to coarse gravel sized brick, rock and concrete fragments. (FILL)	
			0.80		Dense, moist, brown, silty fine to coarse SAND with some subangular fine to medium gravel sized quartz fragments. (FILL)	
2	1.00		1.10		End of trial pit at 1.10m depth. (maximum 3.00m)	
	2.00					
3	3.00	0.30m 0.30m				
	4.00					

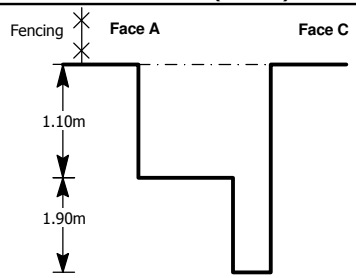
SYMBOL

- Small disturbed sample
- Large disturbed sample
- Undisturbed vertical sample
- Undisturbed horizontal sample
- Block sample
- In-situ density test
- Water sample
- Water seepage
- N - Schmidt Hammer Test

PLAN



SECTION (X - X')



REMARKS

1. No shoring.
2. No seepage observed.

Co-ordinates:

P1 : 818601.35 N 836786.69 E G.L. 4.23 m.P.D.
P2 : 818602.37 N 836786.55 E G.L. 4.24 m.P.D.
P3 : 818602.49 N 836787.59 E G.L. 4.25 m.P.D.
P4 : 818601.50 N 836787.75 E G.L. 4.24 m.P.D.

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Site ID 2-05

(2209/SCL/ETT165)

Gammon Construction Limited
Ground Engineering & Substructure Department

TRIAL PIT RECORD

Project : Ground Investigation (Land) for Shatin to Central Link

Contract No. : NEX/2209 | Job No.: J3251

Logged by : W K SIU
Date logged : 04/07/2009
Checked by : P O POON
Date checked : 06/07/2009

Co-ordinates :
E 836883.32
N 818399.37
Ground Level :
+ 4.42 mPD

Excavation Dates:
30/06/2009 to 03/07/2009
Backfill Dates:

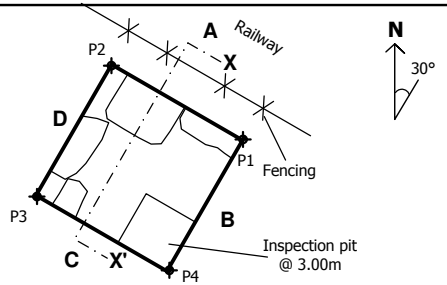
Trial Pit No.
2209/SCL/ETT165

Sample & Tests	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
		Face A 1.00 m / Face B 1.00 m / Face C 1.00 m / Face D 1.00 m				
1,2	1.00	1. Boulder (size : 0.30m x 0.40m); Boulder (size : 0.20m x 0.20m)	0.25		CONCRETE.	
3,4	2.00	2. Boulder (size : 0.10m x 0.20m); Boulder (size : 0.20m x 0.20m)	0.75		1. Stiff, moist, brown, clayey sandy SILT with some subangular coarse gravel sized rock fragments. (FILL) 2. Dense, moist, brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized rock fragments and with slightly odour smell. (FILL) 3. Dense, wet, light brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized quartz and feldspar fragments and with slightly odour smell. (FILL)	
5,6	3.00	3. 0.40m 0.40m			End of trial pit at 0.75m depth. (maximum 3.00m)	
	4.00					

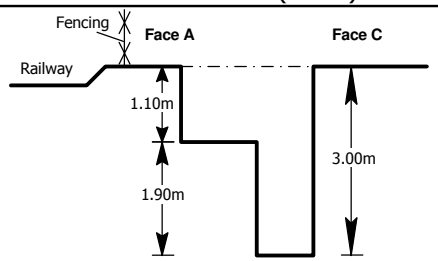
SYMBOL

- Small disturbed sample
- Large disturbed sample
- Undisturbed vertical sample
- Undisturbed horizontal sample
- Block sample
- In-situ density test
- Water sample
- Water seepage
- N - Schmidt Hammer Test

PLAN



SECTION (X - X')



REMARKS

1. No shoring.
2. Seepage observed at 2.40m depth.
3. Inspection pit (0.40m x 0.40m) was dug to 3.00m below ground level.
4. Small disturbed samples were taken at 0.50m, 1.50m and 3.00m depths.

Co-ordinates :

P1 : 818399.54 N 836883.72 E G.L. 4.41 m.P.D.
P2 : 818400.21 N 836883.06 E G.L. 4.41 m.P.D.
P3 : 818399.50 N 836882.31 E G.L. 4.42 m.P.D.
P4 : 818398.77 N 836882.99 E G.L. 4.42 m.P.D.

Site ID 2-06

(2209/SCL/ETT102)

Gammon Construction Limited
Ground Engineering & Substructure Department

TRIAL PIT RECORD

Project : Ground Investigation (Land) for Shatin to Central Link

Contract No. : NEX/2209 | Job No.: J3251

Logged by : W K SIU
Date logged : 09/06/2009
Checked by : P O POON
Date checked : 10/06/2009

Co-ordinates :
E 836867.21
N 818395.13
Ground Level :
+ 3.91 mPD

Excavation Dates:
06/06/2009 to 08/06/2009
Backfill Dates:

Trial Pit No.
2209/SCL/ETT102

Sample & Tests	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
		Face A 1.00 m / Face B 1.00 m / Face C 1.00 m / Face D 1.00 m				
1,2	1.00		0.15 0.22		CONCRETE. Loose, moist, greyish brown, fine to coarse SAND. (FILL)	
			0.70		1. Loose, brown, moist, silty fine to coarse SAND with some angular to subangular fine to coarse gravel sized rock fragments. (FILL) 2. Dense, brown, moist, silty fine to coarse SAND with some subangular fine to coarse gravel sized rock fragments. (FILL) 3. Dense, grey, silty fine to coarse SAND with some subangular fine to coarse gravel sized rock fragments and with gasoline smell. (FILL) End of trial pit at 0.70m depth. (maximum 3.00m)	
3,4	2.00					
5,6	3.00					
	4.00					

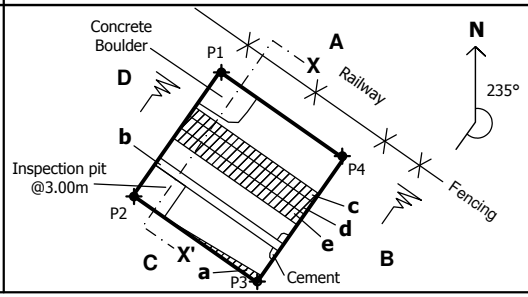
Sketch notes: Void; 0.30m, 0.30m, 0.10m, 0.25m, 0.30m, 0.30m; a, b, c, d, e

a. Iron pipe (dia. 900mm) was encountered at 0.22m m.P.D.
b. G.I. pipe (dia. 100mm) was encountered at 0.60m m.P.D.
c. Black, cable (dia. 40mm) was encountered at 0.70m m.P.D.
d. Black, cable (dia. 30mm) was encountered at 0.70m m.P.D.
e. 2 nos. black, cables (dia. 20mm) were encountered at 0.70m m.P.D.

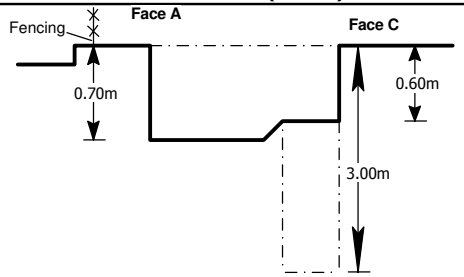
SYMBOL

- Small disturbed sample
- Large disturbed sample
- Undisturbed vertical sample
- Undisturbed horizontal sample
- Block sample
- In-situ density test
- Water sample
- Water seepage
- N - Schmidt Hammer Test

PLAN



SECTION (X - X')



REMARKS

1. No shoring.
2. Water level at 2.00m depth.
3. Inspection pit (0.30m x 0.30m) was dug to 3.00m below ground level.
4. Small disturbed samples were taken at 0.50m (2 nos.), 1.50m (2 nos.) and 3.00m (2 nos.) depths.

Co-ordinates :

P 1 : 818395.63 N 836867.85 E G.L. 3.94 m.P.D.
P 2 : 818395.28 N 836866.94 E G.L. 3.92 m.P.D.
P 3 : 818394.32 N 836867.30 E G.L. 3.92 m.P.D.
P 4 : 818394.66 N 836868.25 E G.L. 3.94 m.P.D.

Site ID 2-07

(2209/SCL/EDH244)

Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH244**

SHEET **1** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836851.31 N 818388.31	DATE from 25/06/2009 to 06/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.21 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
									4.21	0.00				
Fine 25/06/2009	PX	08:00							A 0.45 0.50	3.71	0.50			Light grey and black, subangular medium to coarse GRAVEL sized rock and bitumen fragments. (FILL)
									B 0.95 1.00					Light greenish brown, slightly silty fine to coarse SAND with some subangular fine gravel sized rock fragments. (FILL)
									C 1.45 1.50	2.71	1.50			
									D 1.95 2.00					Medium dense, light greyish brown and reddish brown, silty fine to coarse SAND with some subangular fine to medium gravel sized rock and concrete fragments. (FILL)
									E 2.45 2.50	1.71	2.50			2.50 - 3.00m: Reddish brown.
Fine 25/06/2009		Dry at 18:00							F 2.95 3.00	1.21	3.00			
Fine 29/06/2009		2.40m at 08:00		95	Oil stain N Odour N Sheen N			28 bls	1 09:30 2 3.40 3.45					
				95				28 bls	3 4.00 4 4.40 4.45					
								2,2 3,3,3,3 N=12	5 6 4.85 4.90					
				95	Oil stain N Odour N Sheen N			32 bls	7 6.00 11:00 8 6.40 6.45					
				100				32 bls	9 7.00 10 7.40 7.45					
								3,4 4,4,3,4 N=15	11 12 7.85 7.90					
										-4.79	9.00			
				100	Oil stain N Odour N Sheen N			28 bls	13 9.00 13:45 14 9.40 9.45					Loose, greyish brown, silty fine to coarse SAND with some shell fragments. (MARINE DEPOSIT)
										-5.79	10.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **07/07/2009**

CHECKED **P O POON**

DATE **08/07/2009**

REMARKS

1. Inspection pit was dug to 3.00m depth.
2. Ground gas measurement were carried out at 2.00m and 9.45m depths. (CO 0ppm, H2S 0ppm, LEL 0%, Oxy 20.90%)
3. Water sample was taken at 6.00m depth.

REVISED

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH244**

SHEET **2** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836851.31 N 818388.31	DATE from 25/06/2009 to 06/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.21 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-5.79	10.00			
				100				39 bls	15 10.00 16 10.40 10.45 17 10.85 10.90					As sheet 1 of 5.
								2,1 2,2,2,2 N=8						
				100	Oil stain - N Odour - N Sheen - N			84 bls	18 12.00 15:20 19 12.40 12.45	-7.79	12.00			Yellowish brown, slightly silty fine to coarse SAND with some subangular fine gravel sized rock fragments. (ALLUVIUM)
				100				105 bls	20 13.00 21 13.40 13.45	-8.79 -9.24	13.00 13.45			Yellowish brown, slightly silty fine to coarse SAND with some subangular fine gravel. (ALLUVIUM)
								3,4 4,3,4,4 N=15	22 23 13.85 13.90					Medium dense, light grey, fine to coarse SAND with occasional broken shell fragments. (ALLUVIUM)
Fine 29/06/2009		2.21m at 18:00												
Fine 30/06/2009		2.44m at 08:00		100	Oil stain - N Odour - N Sheen - N			106 bls	24 15.00 09:20 25 15.40 15.45	-10.79	15.00			Light greyish white, slight silty slightly clayey fine to coarse SAND with some subangular fine gravel sized rock fragments. (ALLUVIUM)
				100				51 bls	26 16.00 27 16.40 16.45	-11.79	16.00			Medium dense, yellowish brown and red, dappled light yellowish brown, slightly silty fine to coarse SAND with some subangular fine gravel sized rock fragments. (ALLUVIUM)
								3,4 4,4,5,7 N=20	28 29 16.85 16.90					
				100	Oil stain - N Odour - N Sheen - N			127 bls	30 18.00 11:15 31 18.40 18.45	-13.79	18.00			Firm, reddish brown, dappled yellowish brown and light grey, silty CLAY with much subangular fine gravel sized rock fragments. (ALLUVIUM)
				100				128 bls	32 19.00 33 19.40 19.45					
								3,4 5,5,6,8 N=24	34 35 19.80 19.85	-15.79	20.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **07/07/2009**

CHECKED **P O POON**

DATE **08/07/2009**

REMARKS

REVISED

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH244**

SHEET **3** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES E 836851.31 N 818388.31	PROJECT No. J3251
MACHINE & No. 20-109		DATE from 25/06/2009 to 06/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.21 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-15.79	20.00			As sheet 2 of 5.
				100	Oil stain - N Odour - N Sheen - N			124 bls	36 21.00 14:20 37 21.40 21.45					
				100				56 bls 4,4 5,5,4,6 N=20	38 22.00 39 22.40 22.45 40 41 22.85 22.90					
Fine 30/06/2009		2.20m at 18:00												
Fine 02/07/2009		2.36m at 08:00		100	Oil stain - N Odour - N Sheen - N			56 bls	42 24.00 09:15 43 24.40 24.45	-19.79	24.00			Firm, reddish brown, mottled white and yellow, clayey SILT with some subangular fine gravel sized rock fragments. (ALLUVIUM)
Fine 02/07/2009		2.14m at 18:00		100				44 bls	44 25.00 45 25.40 25.45 46 25.50	-20.79	25.00		V	Extremely weak, reddish brown, mottled white and light grey, completely decomposed GRANITE. (Firm, sandy SILT with some subangular fine gravel sized rock fragments)
Fine 03/07/2009		2.42m at 08:00						2,3 4,4,4,5 N=17	47 25.90 25.95					
				100	Oil stain - N Odour - N Sheen - N			67 bls	48 27.00 10:50 49 27.40 27.45					
				100				72 bls 4,4 4,5,5,6 N=20	50 28.00 51 28.40 28.45 52 53 28.85 28.90					
										-25.79	30.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **07/07/2009**

CHECKED **P O POON**

DATE **08/07/2009**

REMARKS

REVISED

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH244**

SHEET **4** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES E 836851.31 N 818388.31	PROJECT No. J3251
MACHINE & No. 20-109		DATE from 25/06/2009 to 06/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.21 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-25.79	30.00			
				100					54 30.00				V	As sheet 3 of 5.
								4,4 5,4,4,6 N=19	55 31.00 56 31.10 57 31.50 31.55					
	PX 31.55 HX									-27.79	32.00			
				100					58 32.00				V	Extremely weak, pink, mottled white and reddish brown, completely decomposed GRANITE. (Silty fine to coarse SAND with some subangular fine gravel sized rock fragments)
								3,5 8,12,15,17 N=52	59 33.00 60 33.10 61 33.50 33.55					
				100					62 34.00					
Fine 03/07/2009 Fine 04/07/2009		2.26m at 18:00 2.28m at 08:00						24,26 39,51,10/5mm 100bls/155mm	63 35.00 35.10 64 35.355 35.405					
				98					65 36.00					
								35,15 45,55/5mm 100bls/80mm	66 37.00 37.10 67 37.28 37.33					
				80					68 38.00	-33.79	38.00		V	Very weak, yellowish brown, completely decomposed GRANITE. (Silty fine to coarse SAND subangular fine gravel sized rock fragments)
								32,18 48,52/75mm 100bls/150mm	69 39.00 39.10 70 39.35 39.40					
										-35.79	40.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **07/07/2009**

CHECKED **P O POON**

DATE **08/07/2009**

REMARKS

REVISED

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH244**

SHEET **5** of **5**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836851.31 N 818388.31	DATE from 25/06/2009 to 06/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.21 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	HX 40.25									-35.79	40.00		V	As sheet 4 of 5.
				100	99	99	4.2		40.25	-36.04	40.25		III/II	Moderately strong to strong, pink, mottled light grey, dappled yellowish brown, moderately to slightly decomposed medium grained GRANITE. Joints are medium to closely spaced, smooth and rough planar, tight to extremely narrow, iron and manganese stained and clean, dipping subhorizontal and 20°-30°.
										-36.53	40.74		III	40.74 - 40.94m: Moderately strong, moderately decomposed.
									T2101	-36.73	40.94		III/II	
										-36.94	41.15		III	41.15 - 41.27m: Moderately strong, moderately decomposed.
										-37.06	41.27		III/II	
										-37.29	41.50		III	41.50 - 41.80m: Moderately strong, moderately decomposed.
				96	86	43	8.5		41.62	-37.59	41.80		III/II	
									T2101					
		2.18m at 18:00								-38.41	42.62		III	42.62 - 42.99m: Moderately strong, moderately decomposed.
Fine 04/07/2009									42.99	-38.78	42.99		III/II	
Fine 06/07/2009		2.38m at 08:00		100	87	81	3.8		T2101					
							10.5			-39.94	44.15		III	44.15 - 44.43m: Moderately strong, moderately decomposed.
							5.0		44.43	-40.22	44.43		III/II	
				100	98	90			T2101					
Fine 06/07/2009		18:00							45.55	-41.34	45.55			End of hole at 45.55m depth.
											50.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **07/07/2009**

CHECKED **P O POON**

DATE **08/07/2009**

REMARKS

REVISED

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Site ID 2-09

(2209/SCL/EDH231)

Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH231**

SHEET **1** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836810.43 N 817977.08	DATE from 31/03/2009 to 08/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.23 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
31/03/2009	PX	08:00								4.23	0.00			
									A 0.45 0.50	3.73	0.50			Grey, subangular coarse GRAVEL sized concrete fragments. (FILL)
									B 0.95 1.00	3.23	1.00			Light brown and brown, silty fine to coarse SAND with much subangular fine to coarse gravel sized rock and concrete fragments. (FILL)
									INSPECTION PIT C 1.45 1.50 D 1.95 2.00 E 2.45 2.50					Brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized rock and concrete fragments. (FILL)
		Dry at 18:00												
31/03/2009									F 2.95	1.23	3.00			
03/04/2009		Dry at 08:00		90				61 bls	1 3.00 2 3.40 3.45					Brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized rock and brick fragments. (FILL)
										-0.27	4.50			
				0				42 bls	3 4.50 4.90 4.95					Light grey, subangular coarse GRAVEL sized concrete fragments. (FILL)
								5,5 2,3,11,30 N=46		-0.77	5.00			
									4 5.00 5 5.40 5.45					Dense, greyish brown, silty fine to medium SAND with some subangular fine to coarse gravel sized rock fragments. (FILL)
				90				47 bls	6 6.00 7 6.40 6.45					
		2.48m at 18:00												
03/04/2009										-3.27	7.50			
06/04/2009		2.92m at 08:00		0				32 bls	8 7.50 9 7.90 7.95 10 8.35 8.40					Loose, brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized rock fragments. (FILL)
								3,2 2,3,2,2 N=9						
				85				20 bls	11 9.00 12 9.40 9.45	-4.77	9.00			Firm, brown and dark grey, clayey SILT. (FILL)
										-5.77	10.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **09/04/2009**

CHECKED **P O POON**

DATE **14/04/2009**

REMARKS

1. Inspection pit was dug to 3.00m depth.
2. Ground gas measurement was carried out at 9.45m depth. (CO 0ppm, H2S 0ppm, LEL 0%, Oxy 20.90%)
3. Packer (Water Absorption) tests were carried out at 16.00m-21.00m and 22.00m-25.67m depths.
4. Water sample was taken at 6.00m depth.

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH231**

SHEET **2** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836810.43 N 817977.08	DATE from 31/03/2009 to 08/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.23 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-5.77	10.00			
														As sheet 1 of 3.
				90				27 bls	13 10.50	-6.27	10.50			Firm, brownish grey, sandy clayey SILT with some shell fragments. (MARINE DEPOSIT)
								5,4 3,2,2,1 N=8	14 10.90 10.95 11.00	-6.77	11.00			Loose, greyish brown and brown, silty fine to coarse SAND with some subangular fine gravel sized rock fragments and some shell fragments. (MARINE DEPOSIT)
									15 11.40 11.45					
				90				27 bls	16 12.00	-7.77	12.00			Grey, clayey silty fine to medium SAND with much shell fragments. (MARINE DEPOSIT)
									17 12.40 12.45					
				80				122 bls	18 13.50	-9.27	13.50		V	Extremely weak, orangish brown, completely decomposed GRANITE. (Silty fine to medium SAND with occasional subangular fine gravel sized quartz fragments)
								3,4 4,5,7,12 N=28	19 13.90 13.95 20 14.00					
									21 14.40 14.45					
				85				124 bls	22 15.00					
06/04/2009	PX 15.50	2.82m at 18:00							23 15.40 15.45	-11.27	15.50			
07/04/2009	HX	3.05m at 08:00		100	97	93	4.4		15.50				III	Moderately strong, light grey, mottled pink, spotted black, moderately decomposed porphyritic fine grained GRANITE. Joints are medium spaced, rough planar and undulating, extremely narrow, kaolin and chlorite coated, dipping 30°-40° and 50°-60°.
									T2101	-11.90	16.13			16.13 - 16.21m: Moderately weak, moderately decomposed.
										-11.98	16.21			
	HX 16.76								16.76					
				100	91	83	>20							
							4.3		T2101	-13.34	17.57			17.57 - 18.43m: Orangish pink.
				100	95	80			17.97					
									T2101	-14.20	18.43			
									19.50					
				100	98	73			T2101	-15.43	19.66			
										-15.51	19.74			19.66 - 19.74m: PEGMATITE.
										-15.77	20.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **09/04/2009**

CHECKED **P O POON**

DATE **14/04/2009**

REMARKS

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH231**

SHEET **3** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836810.43 N 817977.08	DATE from 31/03/2009 to 08/04/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.23 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples (No. Type Depth)	Reduced Level	Depth (m)	Legend	Grade	Description
										-15.77	20.00			
				100	98	73				-15.92	20.15		III	As sheet 2 of 3. 20.15 - 20.65m: PEGMATITE.
									T2|01	-16.42	20.65			
				100	91	82			21.02	-17.07	21.30			
										-17.22	21.45			21.30 - 21.45m: PEGMATITE.
									T2|01					
				100	97	97			22.55	-18.89	23.12		III	Moderately strong, orangish pink, mottled light grey and black, moderately decomposed porphyritic fine to medium grained GRANITE. Joints are medium spaced, rough undulating, extremely narrow, iron and manganese stained, kaolin coated, dipping 60°-70° and 70°-80°.
									T2|01	-19.22	23.45			
										-19.32	23.55			23.45 - 23.55m: PEGMATITE.
07/04/2009		2.86m at 18:00												
08/04/2009		3.02m at 08:00		100	98	92			24.10					
									T2|01					
08/04/2009		2.96m at 18:00							25.67	-21.44	25.67			
														End of hole at 25.67m depth.
											30.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **09/04/2009**

CHECKED **P O POON**

DATE **14/04/2009**

REMARKS

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Site ID L17

**(2209/SCL/ETT106; 2209/SCL/ETT068;
2209/SCL/EDH256 and 2209/SCL/EDH257(P))**

Gammon Construction Limited
Ground Engineering & Substructure Department

TRIAL PIT RECORD

Project : Ground Investigation (Land) for Shatin to Central Link

Contract No. : NEX/2209 | Job No.: J3251

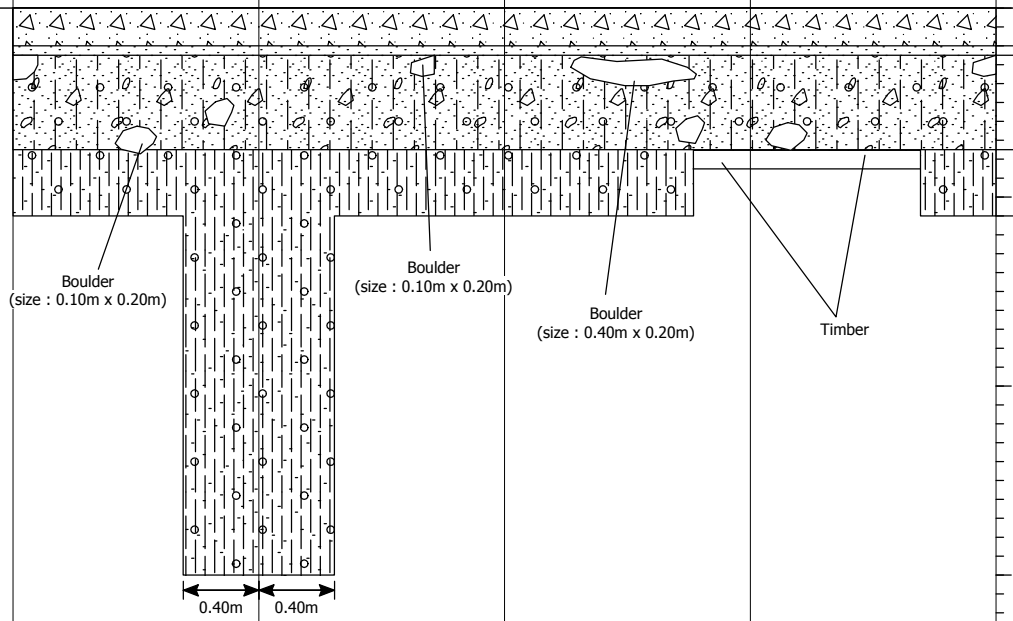
Logged by : W K SIU
Date logged : 18/07/2009
Checked by : P O POON
Date checked : 20/07/2009

Co-ordinates :
E 836710.06
N 817916.85
Ground Level :
+ 4.84 mPD

Excavation Dates:
15/07/2009 to 17/07/2009
Backfill Dates:

Trial Pit No.
2209/SCL/ETT106

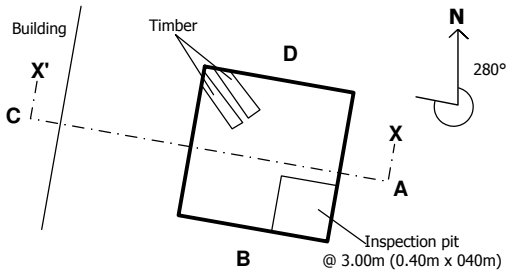
Sample & Tests	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
		Face A 1.00 m / Face B 1.00 m / Face C 1.00 m / Face D 1.00 m				
			0.20		CONCRETE.	
			0.25		Loose, dry, greyish brown, fine to medium SAND. (FILL)	
					Loose, dry, brown, silty fine to coarse SAND with some angular to subangular fine to coarse gravel, occasional cobbles and boulder sized rock fragments. (FILL)	
			0.75		Stiff, moist, reddish brown, sandy SILT with occasional subangular fine gravel sized quartz fragments. (FILL)	
	1.00		1.10		End of trial pit at 3.00m depth. (maximum)	
	2.00					
	3.00					
	4.00					



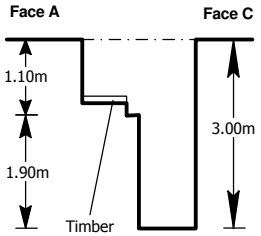
SYMBOL

- Small disturbed sample
- Large disturbed sample
- Undisturbed vertical sample
- Undisturbed horizontal sample
- Block sample
- In-situ density test
- Water sample
- Water seepage
- N - Schmidt Hammer Test

PLAN



SECTION (X - X')



REMARKS

1. No shoring.
2. No seepage observed.
3. Inspection pit (0.40m x 0.40m) was dug to 3.00m below ground level.

Co-ordinates:

P1 : 817916.85 N 836710.06 E G.L. 4.84 m.P.D.
P1 : 817917.79 N 836710.10 E G.L. 4.84 m.P.D.
P1 : 817917.84 N 836709.13 E G.L. 4.84 m.P.D.
P1 : 817916.87 N 836709.07 E G.L. 4.84 m.P.D.

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Gammon Construction Limited
Ground Engineering & Substructure Department

TRIAL PIT RECORD

Project : Ground Investigation (Land) for Shatin to Central Link

Contract No. : NEX/2209 | Job No.: J3251

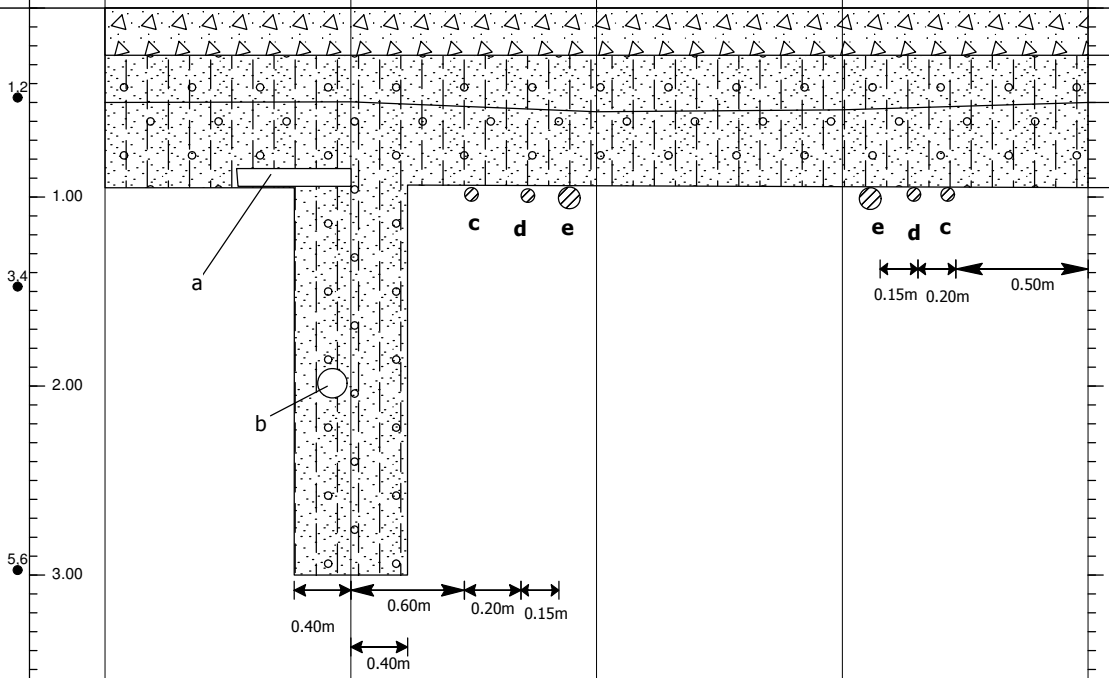
Logged by : W K SIU
Date logged : 09/07/2009
Checked by : P O POON
Date checked : 09/07/2009

Co-ordinates :
E 836732.49
N 817957.03
Ground Level :
+ 4.19 mPD

Excavation Dates:
07/07/2009 to 09/07/2009
Backfill Dates:
10/07/2009

Trial Pit No.
2209/SCL/ETT068

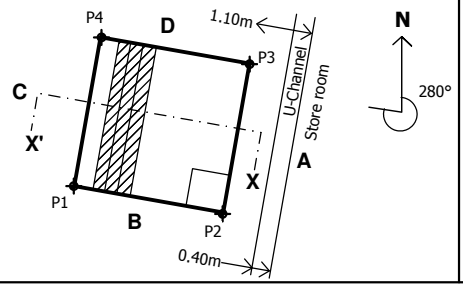
Sample & Tests	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
		Face A 1.00 m / Face B 1.00 m / Face C 1.00 m / Face D 1.00 m				
			0.25		CONCRETE. (Ground slab)	
1,2			0.50		Loose, moist, greenish brown, slightly silty fine to coarse SAND with much subangular fine to coarse gravel sized rock fragments and concrete. (FILL)	
	1.00		0.95		Dense, moist, reddish brown, silty fine to coarse SAND with angular to subangular fine to coarse gravel sized rock fragments. (FILL)	
3,4					End of trial pit at 0.95m depth. (maximum 3.00m)	
	2.00				a. G.I. pipe (dia. 75mm) was encountered at 0.95m b.g.l. (water supply) b. Grey, PVC pipe (dia. 100mm) was encountered at 1.90m b.g.l. c. G.I. pipe (dia. 25mm) was encountered at 0.95m b.g.l. d. G.I. pipe (dia. 25mm) was encountered at 0.95m b.g.l. e. G.I. pipe (dia. 50mm) was encountered at 0.95m b.g.l.	
5,6	3.00					
	4.00					



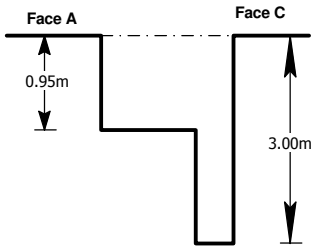
SYMBOL

- Small disturbed sample
- Large disturbed sample
- Undisturbed vertical sample
- Undisturbed horizontal sample
- Block sample
- In-situ density test
- Water sample
- Water seepage
- N - Schmidt Hammer Test

PLAN



SECTION (X - X')



REMARKS

1. No shoring.
2. No seepage observed.
3. Inspection pit (0.40m x 0.40m) was dug to 3.00m below ground level.
4. Small disturbed samples were taken at 0.50m (2 nos.), 1.50m (2 nos.) and 3.00m (2 nos.) depths.

Co-ordinates :

P1 : 817956.98 N 836731.63 E G.L. 4.46 m.P.D.
P2 : 817956.88 N 836732.62 E G.L. 4.46 m.P.D.
P3 : 817957.94 N 836732.75 E G.L. 4.44 m.P.D.
P4 : 817958.01 N 836731.72 E G.L. 4.44 m.P.D.

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH256**

SHEET **1** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836711.21 N 817926.48	DATE from 15/07/2009 to 21/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.75 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
									4.75	0.00				
Fine 15/07/2009	PX	08:00							A 0.45 0.50	4.25	0.50			Light grey, angular medium to coarse GRAVEL sized concrete fragments. (FILL)
									B 0.95 1.00	3.75	1.00			Firm, reddish brown, sandy SILT with some subangular fine gravel sized silt pellet. (FILL)
									C 1.45 1.50					Firm, greyish brown, sandy SILT with some subangular fine gravel sized rock fragments. (FILL)
									INSPECTION PIT	2.75	2.00			
									D 1.95 2.00					Firm, reddish brown, sandy clayey SILT with some subangular fine gravel sized rock and concrete fragments. (FILL)
									E 2.45 2.50					
Fine 15/07/2009		Dry at 18:00							F 2.95	1.75	3.00			
Fine 16/07/2009		2.41m at 08:00		98	Oil stain N Odour N Sheen N			23 bls	1 3.00 09:30 2 3.40 3.45					Firm, reddish brown, sandy SILT with some subangular fine gravel sized rock fragments. (FILL)
				98				25 bls	3 4.00					
								2,3 3,3,4,4 N=14	4 4.40 4.45 5 6 4.85 4.90					
				80	Oil stain N Odour N Sheen N			41 bls	7 6.00 15:10 8 6.40 6.45	-1.25	6.00			Brown, fine to coarse SAND with some subangular fine gravel sized rock fragments. (FILL)
Fine 16/07/2009		2.24m at 18:00								-2.25	7.00			
Fine 17/07/2009		2.41m at 08:00		80				46 bls	9 7.00 10 7.40 7.45					Firm, brown, dappled pinkish brown, sandy SILT with some subangular fine gravel sized rock fragments. (FILL)
								2,3 4,3,3,4 N=14	11 12 7.85 7.90					
				100	Oil stain N Odour N Sheen N			45 bls	13 9.00 11:00 14 9.40 9.45	-4.25	9.00			Yellowish brown, dappled greenish grey, silty fine to coarse SAND. (ALLUVIUM)
										-5.25	10.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **22/07/2009**

CHECKED **P O POON**

DATE **23/07/2009**

REMARKS

1. Inspection pit was dug to 3.00m depth.
2. Ground gas measurements were carried out at 2.00m and 8.10m depths. (CO 0ppm, H2S 0ppm, LEL 0%, Oxy 20.90%)
3. Water sample was taken at 6.00m depth.

REVISED

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH256**

SHEET **2** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836711.21 N 817926.48	DATE from 15/07/2009 to 21/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.75 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples (No. Type Depth)	Reduced Level	Depth (m)	Legend	Grade	Description
										-5.25	10.00			
				80				121 bls 5,7 9,11,13,17 N=50	15 10.00 16 10.40 10.45 17 18 10.85 10.90				V	Extremely weak, pinkish brown, mottled light grey, completely decomposed GRANITE. (Slightly silty fine to coarse SAND with some angular to subangular fine gravel sized rock fragments)
				70	Oil stain N Odour N Sheen N			185 bls	19 12.00 13:50 20 12.40 12.45					
				45				200 bls 28,22/70mm 56,44/5mm 100bls/80mm	21 13.00 22 13.16 13.21 23 13.45 24 13.675 13.72	-8.25	13.00		V	Extremely weak, grey, mottled pink and white, completely decomposed GRANITE. (Slightly silty fine to coarse SAND with some subangular to angular fine gravel sized rock fragments)
				0	Oil stain N Odour N Sheen N			200 bls	16:40 15.00 25 15.08 15.13					
Fine 17/07/2009		2.24m at 18:00												
Fine 18/07/2009	PX 16.53 HX	2.34m at 08:00		0				200 bls 38,12/1mm 100/4mm 100bls/4mm	26 16.00 16.035 16.035 16.085 27 16.45 16.48 16.53					
				31	31	18	10.7 N.R.		17.10 T2I01	-12.35 -12.63	17.10 17.38		III V	Moderately strong, pink, mottled white and yellow, moderately decomposed medium grained GRANITE. Joints are closely spaced, rough planar, very narrow, clean, dipping subhorizontal.
				0					18.00	-13.25	18.00		IV	17.38 - 18.00m: No recovery. Inferred as completely decomposed GRANITE.
Fine 18/07/2009	HX 18.60	2.21m at 18:00							28 18.50 18.60	-13.85	18.60			Weak, pink, mottled white, highly decomposed GRANITE. (Subangular fine to medium GRAVEL sized rock fragments)
Fine 20/07/2009		2.46m at 08:00		50	12	0	>20 N.I. N.R.			-14.00	18.75		IV/III	
							9.1		T2I01	-14.25 -14.62	19.00 19.37		V IV/III	Moderately weak, pinkish brown, mottled white, highly to moderately decomposed GRANITE. Joints are closely to very closely spaced, rough planar, very narrow to narrow, kaolin coated and clean, dipping subhorizontal and 70°-80°. 18.60 - 18.75m: Very closely spaced joints. 19.00 - 19.37m: No recovery. Inferred as
				72	31	29			19.50 T2I01	-15.17	19.92 20.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **22/07/2009**

CHECKED **P O POON**

DATE **23/07/2009**

REMARKS

REVISED

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH256**

SHEET **3** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836711.21 N 817926.48	DATE from 15/07/2009 to 21/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.75 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-15.25	20.00			
				72	31	29	N.R.		T2 01	-15.45	20.20		V	completely decomposed GRANITE.
							N.I.						IV	19.92 - 20.20m: No recovery. Inferred as completely decomposed GRANITE.
				68	50	35			20.50	-15.85	20.60			20.20 - 20.60m: Weak, highly decomposed and non intact.
							N.R.			-16.04	20.79		V	20.60 - 20.79m: No recovery. Inferred as completely decomposed GRANITE.
							5.8		T2 01	-16.15	20.90		IV/III	Moderately strong, pinkish brown, mottled white and yellowish brown, moderately decomposed medium grained GRANITE. Joints are medium to closely, locally very closely spaced, rough undulating, very narrow, iron and manganese stained, dipping subhorizontal, 10°-20° and 70°-80°.
				79	63	51			21.10				III	
									T2 01	-16.90	21.65			21.65 - 21.80m: No recovery. Inferred as completely decomposed GRANITE.
							N.R.			-17.05	21.80		V	
				99	51	36	N.I.		21.80				III	
							8.2		T2 01					
							>20							
				100	88	79			22.86					
							3.0		T2 01					
				100	88	60	>20		23.90					
Fine 20/07/2009		2.34m at 18:00					3.4		T2 01					
Fine 21/07/2009		2.40m at 08:00		100	93	93			24.50	-19.83	24.58		III/II	Moderately strong to strong, pinkish brown, mottled white and yellowish brown, moderately to slightly decomposed medium grained GRANITE. Joints are widely to medium, locally very closely spaced, rough undulating, extremely to very narrow, clean, iron and manganese stained, dipping subhorizontal, 10°-20° and 70°-80°.
									T2 01					
				97	97	87			25.60					
									T2 01	-21.65	26.40			26.40 - 27.00m: Subvertical joint.
				100	100	88			27.00	-22.25	27.00			
									T2 01					
										-23.15	27.90			27.90 - 28.23m: Joints are very closely spaced.
				95	93	87	>20		28.08	-23.48	28.23			
							1.4		T2 01					
				99	99	99			28.95					
Fine 21/07/2009		2.26m at 18:00							T2 01 29.62	-24.87	29.62			
											30.00			End of hole at 29.62m depth.

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **22/07/2009**

CHECKED **P O POON**

DATE **23/07/2009**

REMARKS

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH257P**

SHEET **1** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836737.00 N 817918.06	DATE from 07/07/2009 to 11/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.71 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
									4.71	0.00				
Fine 07/07/2009	PX	08:00							A 0.45 0.50	4.21	0.50			Greenish grey, and light grey, fine to coarse SAND with much angular fine to coarse gravel sized concrete fragments. (FILL)
									B 0.95 1.00	3.71	1.00			Greyish brown, silty fine to coarse SAND with much subangular fine to coarse gravel and silt pellet. (FILL)
									INSPECTION PIT C 1.45 1.50					Reddish brown, fine to coarse SAND with some subangular fine to coarse gravel sized silty pellet. (FILL)
									D 1.95 2.00	2.71	2.00			Medium dense, brown and dark brown, silty fine to coarse SAND with some subangular fine gravel sized concrete and rock fragments. (FILL)
									E 2.45 2.50					
Fine 07/07/2009		Dry at 18:00							F 2.95 3.00					
Fine 08/07/2009		2.36m at 08:00		95	Oil stain N Odour N Sheen N			25 bls	1 09:30					
									2 3.40 3.45					
				95				27 bls	3 4.00					
									4 4.40 4.45					
								3,3 4,4,4,5 N=17	5					
									6 4.85 4.90					
				65	Oil stain N Odour N Sheen N			150 bls	7 11:15 6.00	-1.29	6.00			Dark, grey and brown, silty fine to coarse SAND with much subangular fine to medium gravel sized rock, concrete and brick fragments. (FILL)
				75					8 6.40 6.45	-1.79	6.50			Light grey, angular coarse GRAVEL and COBBLES sized rock fragments. (FILL)
Fine 08/07/2009		2.24m at 18:00							T2101					
Fine 09/07/2009		2.40m at 08:00		0				50 bls	7.00	-2.29	7.00			Firm, reddish brown, sandy silty CLAY with some subangular fine to coarse gravel sized rock fragments. (FILL)
								6,6 4,4,5,5 N=18	9 7.40 7.45	-2.74	7.45			Medium dense, light grey, subangular fine to coarse GRAVEL sized rock fragments in sandy silt matrix. (FILL)
									10 7.85 7.90					
				95	Oil stain N Odour N Sheen N			52 bls	11 11:40 9.00	-4.29	9.00		V	Extremely weak, white, mottled pink and green, completely decomposed GRANITE. (Silty fine to medium SAND)
									12 9.40 9.45	-5.29	10.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **13/07/2009**

CHECKED **P O POON**

DATE **14/07/2009**

REMARKS

1. Inspection pit was dug to 3.00m depth.
2. Ground gas measurement was carried out at 2.00m depth. (CO 0ppm, H2S 0ppm, LEL 0%, Oxy 20.90%)
3. Constant head tests was carried out at 4.50m-6.00m depth.
4. Standpipe was installed at 8.00m depth.
5. Water sample was taken at 6.00m depth.

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH257P**

SHEET **2** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836737.00 N 817918.06	DATE from 07/07/2009 to 11/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.71 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples (No. Type Depth)	Reduced Level	Depth (m)	Legend	Grade	Description
				98				195 bls 12,13 13,15,14,15 N=57	13 10.00 14 10.40 15 10.45 16 10.85 10.90	-5.29	10.00		V	Extremely weak, pink, mottled light grey, white and black, completely decomposed GRANITE. (Silty fine to coarse SAND with some subangular fine gravel sized rock fragments)
				70	Oil stain - N Odour - N Sheen - N			200 bls	17 12.00 13:30 18 12.375 12.425					
				0				200 bls	13.00 19 13.31 13.36	-8.74	13.45			
								20,22 26,27,23,22 N=98	20 13.45 21 13.85 13.90				V/IV	Very weak, pink, mottled light grey, white and green, completely decomposed GRANITE. (Silty sandy subangular fine GRAVEL sized rock fragments)
				0	Oil stain - N Odour - N Sheen - N			200 bls	15.00 15:40 22 15.215 15.265					
				0				200 bls	16.00 23 16.195 16.245					
								23,26 36,43,21/5mm 100bls/155mm	16.45 24 16.705 16.755					
				0	Oil stain - N Odour - N Sheen - N			200 bls	18.00 17:20 25 18.205 18.255					
Fine 09/07/2009		2.26m at 18:00								-14.29	19.00			
Fine 10/07/2009		2.38m at 08:00		0				200 bls 50/75mm 70,30/3mm 100bls/78mm	19.00 26 19.11 19.16 19.45 27 19.553 19.603	-15.29	20.00		IV	Weak, pinkish brown, mottled light grey, highly decomposed medium grained GRANITE. (Angular fine to medium GRAVEL sized rock fragments)

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **13/07/2009**

CHECKED **P O POON**

DATE **14/07/2009**

REMARKS

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH257P**

SHEET **3** of **3**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES E 836737.00 N 817918.06	PROJECT No. J3251
MACHINE & No. 20-109		DATE from 07/07/2009 to 11/07/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.71 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-15.29	20.00			
													IV	As sheet 2 of 3.
	PX 20.71									-16.00	20.71			
	HX			100	29	15	15.4		20.71				III	Moderately strong, brown, mottled light grey, white and greenish brown, moderately to highly decomposed medium grained GRANITE. Joints are medium to closely spaced, rough planar and undulating, extremely narrow, iron stained, kaolin coated and clean, dipping 20°-30° and 50°-60°.
							>20		T2IOI	-16.39	21.10			20.71 - 21.10m: Subvertical joint.
Fine 10/07/2009		2.18m at 18:00								-16.79	21.50			21.10 - 21.50m: Very closely spaced joints.
Fine 11/07/2009		2.34m at 08:00		97	80	51	5.7		21.60	-17.14	21.85			21.85 - 22.58m: Subvertical joint.
									T2IOI	-17.87	22.58			
	HX 22.76						NI			-17.97	22.68			22.58 - 22.68m: Non intact.
				100	100	100	1.3		22.76				III/II	Moderately strong to strong, pinkish brown, mottled light grey, white and greenish brown, moderately to slightly decomposed medium grained GRANITE. Joints are widely spaced, rough undulating, tight, clean, dipping subhorizontal.
				100	96	87			T2IOI					
									24.25					
							>20		T2IOI	-20.36	25.07			
							5.5			-20.46	25.17			25.07 - 25.17m: Very closely spaced joints.
										-20.60	25.31			
				100	97	85			25.81				II	Strong, light grey spotted white and black, slightly decomposed GRANITE. Joints are medium spaced, locally very closely spaced, rough undulating, tight, iron stained, clean, dipping subhorizontal, 10°-20° and 70°-80°.
									T2IOI					
										-22.11	26.82			
										-22.29	27.00			26.82 - 27.00m: PEGMATITE vein.
				100	86	82			27.15	-22.49	27.20			27.20 - 27.50m: PEGMATITE vein.
										-22.79	27.50			
									T2IOI					
Fine 11/07/2009		2.26m at 18:00							28.10	-23.39	28.10			
														End of hole at 28.10m depth.
											30.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **13/07/2009**

CHECKED **P O POON**

DATE **14/07/2009**

REMARKS

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH229P**

SHEET **1** of **4**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836788.17 N 817875.41	DATE from 04/06/2009 to 10/06/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.18 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
									4.18	0.00				
Cloudy 04/06/2009	PX	08:00							A 0.45 0.50	3.68	0.50			Dark brown and brown, silty fine to coarse SAND with some angular fine to coarse gravel sized rock fragments. (FILL)
					Oil stain N Odour N Sheen N				09:00					Brown, silty fine to coarse SAND with some angular fine to coarse gravel sized rock fragments. (FILL)
									B 0.95 1.00					
					Oil stain N Odour N Sheen N				C 1.45 1.50 09:00 INSPECTION PIT					
									D 1.95 2.00					
									E 2.45 2.50					
Cloudy 04/06/2009		Dry at 18:00							F 2.95	1.18	3.00			
Fine 05/06/2009		2.20m at 08:00		85	Oil stain N Odour N Sheen N			21 bls	1 3.00 10:20					Brown, very silty fine to coarse SAND with some angular fine to coarse gravel sized rock fragments. (FILL)
									2 3.40 3.45					
				85				19 bls	3 4.00					
								1,1 1,2,3,1 N=7	4 4.40 4.45 4.50	-0.32	4.50			Soft to firm, brown, sandy SILT. (FILL)
									5 4.90 4.95					
				100	Oil stain N Odour N Sheen N			41 bls	6 5.90 6.00 14:35	-1.82	6.00			Brown, slightly silty fine to coarse SAND with some angular fine to coarse gravel sized rock fragments. (FILL)
									7 6.40 6.45					
				85				41 bls	8 7.00	-2.82	7.00			Firm, brown, sandy SILT. (FILL)
								5,3 2,1,1,1 N=5	9 7.40 7.45 7.50					
									10 7.90 7.95					
Fine 05/06/2009		1.96m at 18:00												
Cloudy 08/06/2009		2.32m at 08:00		80	Oil stain N Odour N Sheen N			75 bls	11 9.00 10:20	-4.82	9.00		V	Extremely weak, pink, spotted white, completely decomposed GRANITE. (Firm, sandy SILT with some subangular fine gravel sized quartz fragments)
									12 9.40 9.45	-5.82	10.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **11/06/2009**

CHECKED **P O POON**

DATE **12/06/2009**

REMARKS

1. Inspection pit was dug to 3.00m depth.
2. Ground gas measurement was carried out at 2.00m depth. (CO 0ppm, H2S 0ppm, LEL 0%, Oxy 20.90%)
3. Constant head permeability permeability tests were carried out at 6.00m-7.50mm and 14.00m-15.50m depths.
4. Packer (Water Absorption) test was carried out at 20.00m-25.00m depth.

(to be continued...)

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH229P**

SHEET **2** of **4**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836788.17 N 817875.41	DATE from 04/06/2009 to 10/06/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.18 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples (No. Type Depth)	Reduced Level	Depth (m)	Legend	Grade	Description
										-5.82	10.00			
				85				186 bls	13 10.00				V	As sheet 1 of 4.
									14 10.40 10.45	-6.32	10.50			
								7,15 20,20,24,32 N=96	15 10.50				V	Extremely weak, pink, spotted brown and white, completely decomposed GRANITE. (Silty fine to coarse SAND)
									16 10.90 10.95					
				90	Oil stain - N Odour - N Sheen - N			146 bls	17 12.00 13:50					
									18 12.40 12.45					
				45				200 bls	19 13.00	-8.82	13.00		V	Extremely weak, light brown, completely decomposed GRANITE. (Silty fine to coarse SAND with some subangular fine gravel sized quartz fragments)
									20 13.165 13.165 13.215					
								10,15 21,32,47/75mm 100bls/225mm	21 13.50					
									22 13.875					
				0				200 bls	23 15.00 15.105 15.105 15.155					
Cloudy 08/06/2009		1.98m at 18:00												
Cloudy 09/06/2009		2.60m at 08:00		0				200 bls	24 16.00 16.01	-11.82	16.00		IV	Weak, pink and brown, highly decomposed fine grained GRANITE. (Sandy subangular fine to coarse GRAVEL sized rock fragments)
										-12.32	16.50		V	Extremely weak, light pinkish brown, completely decomposed GRANITE. (Silty fine to coarse SAND with some subangular medium gravel sized rock fragments)
								50/5mm 100/5mm 100bls/5mm	25 16.50 16.51					
	PX 17.80													
	HX			45	39	17	N.R.		17.80	-13.62	17.80		V	17.80 - 18.50m: No recovery. Inferred as completely decomposed GRANITE.
							N.I.		T2\01	-14.32	18.50		III	Moderately strong, pink and pinkish brown, moderately decomposed fine grained GRANITE. Joints are closely to medium, locally very closely spaced, rough planar and undulating, extremely to very narrow, iron stained, chlorite coated, dipping 40°-50° and 60°-70°.
				100	87	57	9.2		19.12 T2\01					
				97	56	11			19.42 T2\01					
										-15.82	20.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **11/06/2009**

CHECKED **P O POON**

DATE **12/06/2009**

REMARKS

5. Standpipe was installed at 7.50m depth.
6. Piezometer was installed at 17.30m depth.
7. Acoustic televiewer survey was carried out at 22.00m-27.00m depth.
8. Water sample was taken at 6.00m depth.

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH229P**

SHEET **3** of **4**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836788.17 N 817875.41	DATE from 04/06/2009 to 10/06/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.18 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-15.82	20.00			
	HX 20.45			97	56	11	2.4		T2101 20.45				III	As sheet 2 of 4.
				98	73	16	13.0							
							>20		T2101	-16.97	21.15			
							13.3							21.15 - 21.80m: Moderately weak, moderately decomposed medium grained GRANITE.
				100	54	54	>20		21.30					
							4.2			-17.62	21.80			
									T2101					
Cloudy 09/06/2009		2.48m at 18:00					>20							
Cloudy 10/06/2009		2.42m at 08:00		100	100	89	5.8		22.51	-18.37	22.55		III	Moderately strong, pink, spotted white, light brown and light green, moderately decomposed fine grained GRANITE. Joints are medium, locally closely spaced, rough planar and undulating, tight to extremely narrow, iron and manganese stained, chlorite coated, dipping 30°-40° and 60°-70°.
									T2101					
							2.3							
				100	89	77			23.91					
							11.0		T2101					
							3.5		25.40					
				100	100	100			T2101					
							1.3		26.90					
				100	100	100			T2101					
									27.56					
				100	100	100				-23.88	28.06			
									T2101				III	Moderately strong, pink, mottled light grey, spotted white, moderately decomposed medium grained GRANITE. Joints are medium, locally closely spaced, rough undulating, tight to extremely narrow, iron and manganese stained, chlorite coated, dipping 20°-30° and 60°-70°.
									29.05					
				97	97	97			T2101					
							8.9			-25.82	30.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **11/06/2009**

CHECKED **P O POON**

DATE **12/06/2009**

REMARKS

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH229P**

SHEET **4** of **4**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES E 836788.17 N 817875.41	PROJECT No. J3251
MACHINE & No. 20-109		DATE from 04/06/2009 to 10/06/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.18 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-25.82	30.00			
Cloudy 10/06/2009		2.10m at 18:00		97	97	97			T2101 30.32	-26.14	30.32		III	As sheet 3 of 4.
														End of hole at 30.32m depth.
											40.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **11/06/2009**

CHECKED **P O POON**

DATE **12/06/2009**

REMARKS

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Site ID 3-02

(2209/SCL/EDH229(P) and 2209/SCL/EDH124(P))

Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH124**

SHEET **1** of **2**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836810.60 N 817937.70	DATE from 06/05/2009 to 08/05/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.05 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples (No. Type Depth)	Reduced Level	Depth (m)	Legend	Grade	Description
										4.05	0.00			
Fine 06/05/2009	PX	08:00			Oil stain - N Odour - N Sheen - N				A 0.45 0.50 (13:45)	3.55	0.50			Brown, light grey and black, fine to coarse SAND with some subangular coarse gravel sized concrete and asphalt fragments. (FILL)
									B 0.95 1.00					Brown, silty fine to coarse SAND with some subangular fine gravel sized quartz fragments. (FILL)
									C 1.45 1.50 (14:15) INSPECTION PIT					
									D 1.95 2.00					
									E 2.45 2.50					
Fine 06/05/2009		Dry at 18:00							F 2.95 3.00					
Fine 08/05/2009		2.86m at 08:00		100	Oil stain - N Odour - N Sheen - N			28 bls	1 (09:20) 2 3.40 3.45					
				0				200 bls	3 4.50 4.515 4.515 4.565	-0.45	4.50			Light grey, spotted black, subangular coarse GRAVEL sized rock fragments. (FILL)
								2,3 3,4,3,4 N=14	4.95	-0.90	4.95			Medium dense, brown, fine to medium SAND. (FILL)
									4 5.35 5.40					
				90	Oil stain - N Odour - N Sheen - N			21 bls	5 6.00 (11:30)					
									6 6.40 6.45					
				0				200 bls	7.50					
								2,2 4,5,3,3 N=15	7 7.90 7.95 8.00					
					Oil stain - N Odour - N Sheen - N				8 8.40 8.45					
				95				53 bls	9 9.00 (14:15)					
									10 9.40 9.45	-5.95	10.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **09/05/2009**

CHECKED **P O POON**

DATE **11/05/2009**

REMARKS

1. Inspection pit was dug to 3.00m depth.
2. Ground gas test was carried out at 2.00m depth. (CO 0%, H2S 0%, LEL 0%, Oxy 20.40%)
3. Piezometer was cancelled in this drillhole.

PRELIMINARY

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Gammon Construction Limited

Ground Engineering & Substructure Department

DRILLHOLE RECORD

HOLE No. **2209/SCL/EDH124**

SHEET **2** of **2**

CONTRACT NO. NEX/2209

Project Title Ground Investigation (Land) for Shatin to Central Link

METHOD Rotary	CO-ORDINATES	PROJECT No. J3251
MACHINE & No. 20-109	E 836810.60 N 817937.70	DATE from 06/05/2009 to 08/05/2009
FLUSHING MEDIUM WATER	ORIENTATION **Vertical**	GROUND LEVEL + 4.05 mPD

Drilling Progress	Casing depth/size	Water Depth (m)	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
										-5.95	10.00			
										-6.35	10.40			As sheet 1 of 2.
Fine 08/05/2009	PX 10.80	2.58m at 18:00		38					T2101 10.40 – 10.80	-6.75	10.80			Light grey, subangular coarse GRAVEL and COBBLES sized rock and concrete fragments. (FILL) End of hole at 10.80m depth.
											20.00			

- Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- Piston sample
- Water sample
- Piezometer / standpipe tip
- Standard penetration test
- Water absorption (Packer) test
- Permeability test
- Impression packer test
- In-situ vane shear test

LOGGED **W K SIU**

DATE **09/05/2009**

CHECKED **P O POON**

DATE **11/05/2009**

REMARKS

PRELIMINARY

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Soil Profile Logs under Post-Stage 1 SI

Site ID 2-02

(11202/SCL/EDH136)

REVISED

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH136**

SHEET 1 OF 2

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836778.96 N 817985.86	JOB NO. GCE1001SI
MACHINE & NO.	20-0113		DATE FROM 31/05/2010 TO 08/06/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +3.50 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 31/05/2010	SX	08:00							+3.50	0.00			Brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized moderately decomposed granite fragments and occasional concrete. (FILL)
								1		0.50			
1								2	+2.50	1.00			Brown, silty fine to coarse SAND with occasional subangular fine to coarse gravel sized moderately decomposed granite fragments. (FILL)
								3 INSPECTION PIT		1.50			
2								4		2.00			
								5		2.50			
3 31/05/2010	SX 3.00	18:00						6	+0.50	3.00			
04/06/2010	PX	2.00m at 08:00	91				96 bls	7					Brown, silty fine to coarse SAND with occasional subangular fine gravel sized moderately decomposed granite fragments. (FILL)
04/06/2010		18:00						8		3.45			
07/06/2010		2.09m at 08:00											
4													
5													
6			98				83 bls	9 △		6.00			
								10		6.45			
7													
8													
9			96				31 bls	11	-5.50	9.00			Greenish grey, silty fine to coarse SAND with occasional shell fragments. (FILL)
								12		9.45			
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 09/06/2010

CHECKED James Lu

DATE 10/06/2010

REMARKS
1. Gas detection was carried.
2. Water sample (2L) was taken at a depth of 6.00m.
3. Jar samples were taken at the depths of 0.50m, 1.50m and 3.00m.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH136**

SHEET 2 OF 2

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836778.96 N 817985.86**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0113**		DATE FROM **31/05/2010** TO **08/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+3.50** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	PX									10.00			See sheet 1 of 2 for details.
11													
12			100				196 bls	13	-8.50	12.00		V	Extremely weak, light brownish yellow striped black spotted grey and white, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
13								14		12.45			
14													
15		2.11m at 18:00	100				121 bls	15	-11.50	15.00		V	Extremely weak, light brownish pink spotted brown, grey and white, completely decomposed, medium grained GRANITE. (Slightly silty fine to coarse SAND)
07/06/2010													
08/06/2010		2.31m at 08:00						16		15.45			
16													
17													
18	PX 17.88		100	95	95	>20 10.0 0.0		T2101	-14.38	17.88		III	Moderately strong, pinkish brown mottled brown spotted grey, black and white, moderately decomposed, medium grained GRANITE. Joints are medium spaced, locally very closely spaced, rough planar, very narrow, iron oxide stained, dipping at 0° to 10°.
									-14.79	18.29		II	
08/06/2010		2.15m at 13:00							-15.43	18.93			Strong, pink spotted grey, green and black, slightly decomposed, slightly chloritized, medium grained GRANITE. No joint.
19													Hole completed at 18.93m.
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **09/06/2010**

CHECKED **James Lu**

DATE **10/06/2010**

REMARKS

Site ID 2-04, 2-06, and 2-07

**(11202/SCL/EDH138; 11202/SCL/EDH139;
11202/SCL/EDH140; 11202/SCL/EDH141;
11202/SCL/EDH142; 11202/SCL/EDH143;
11202/SCL/EDH144)**

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH138**

SHEET 1 OF 3

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836867.98** **N 818332.14**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**		DATE FROM **19/06/2010** TO **08/07/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.44** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 19/06/2010	SX	08:00						1	+4.44	0.00			Light brown, slightly silty fine to coarse SAND with much subangular fine to coarse gravel of moderately decomposed granite fragments. Contains some concrete fragments. (FILL)
1								2		0.50			
								3 INSPECTION PIT	+3.44	1.00			Brown spotted black, silty fine to coarse SAND. Contains occasional bitumen fragments. (FILL)
2								4		1.50			
								5	+2.44	2.00			Light brown, angular fine to coarse GRAVEL sized moderately decomposed granite in sandy matrix. Contains occasional concrete fragments. (FILL)
3 19/06/2010		18:00							+1.94	2.50			Light orangish brown, slightly clayey silty fine to coarse SAND. Contains occasional concrete fragments. (FILL)
26/06/2010		Dry at 08:00	100				21 bls	6	+1.44	3.00			
								7					
								8		3.45			Dark grey, slightly clayey fine to coarse SAND. (FILL)
4													
5													
6 28/06/2010	SX 6.00	2.15m at 18:00											
05/07/2010	PX	2.21m at 08:00	100				25 bls	9 △	-1.56	6.00			Light orangish brown, silty fine to coarse SAND. Contains occasional wood and shell fragments. (FILL)
								10		6.45			
7													
8													
9			100				42 bls	11	-4.56	9.00			Soft, greenish grey mottled dark grey, slightly sandy SILT. Contains occasional shell fragments. (FILL)
								12		9.45			
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **09/07/2010**

CHECKED **James Lu**

DATE **10/07/2010**

REMARKS
1. Water sample was taken at a depth of 6.00m.
2. Gas detection was carried.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH138**

SHEET **2** OF **3**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836867.98 N 818332.14**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**		DATE FROM **19/06/2010** TO **08/07/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.44** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	PX									10.00			See sheet 1 of 3 for details.
11													
12			100				117 bls	13	-7.56	12.00			Light greenish grey, slightly silty fine to coarse SAND. Contains occasional shell fragments. (FILL)
								14		12.45			
13													
14													
15			100				164 bls	15	-10.56	15.00			Light brown, fine to coarse SAND. (ALLUVIUM)
		2.20m at 18:00 05/07/2010						16		15.45			
16		2.17m at 08:00 07/07/2010											
17													
18			100				83 bls	17	-13.56	18.00			Light grey, clayey silty fine to coarse SAND. (ALLUVIUM)
								18		18.45			
19													
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **09/07/2010**

CHECKED **James Lu**

DATE **10/07/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH138**

SHEET 3 OF 3

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836867.98 N 818332.14	JOB NO. GCE1001SI
MACHINE & NO.	20-0092		DATE FROM 19/06/2010 TO 08/07/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +4.44 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20	PX									20.00			See sheet 2 of 3 for details.
21			100				33 bls	19	-16.56	21.00			Light yellow spotted grey and white, clayey silty fine to coarse SAND. (ALLUVIUM)
								20		21.45			
22													
23													
24			100				40 bls	21	-19.56	24.00		V	Extremely weak, reddish pink spotted grey and white, completely decomposed, medium grained GRANITE. (Clayey silty fine to coarse SAND)
								22		24.45			
25													
26													
07/07/2010	PX 26.36	2.18m at 18:00							-21.92	26.36		III II	Strong, pink spotted grey, black and white, slightly decomposed, medium grained GRANITE. Joints are widely spaced, rough planar, extremely narrow, iron oxide stained, dipping at 0° to 10°.
08/07/2010		2.19m at 08:00	100	100	99	1.1		T2101					
27													From 26.36m to 26.42m: Moderately strong, brown, moderately decomposed (60mm thick).
08/07/2010		18:00							-22.86	27.30			Hole completed at 27.30m.
28													
29													
30													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 09/07/2010

CHECKED James Lu

DATE 10/07/2010

REMARKS

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH139**

SHEET 1 OF 5

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836869.68 N 818340.35**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0104**		DATE FROM **15/06/2010** TO **06/07/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.45** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 15/06/2010	SX	08:00							+4.45	0.00			Light grey, slightly silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed granite. Contains occasional concrete fragments. (FILL)
1								1		0.50			
								2	+3.45	1.00			Brownish grey, silty fine to coarse SAND with occasional subangular fine gravel sized moderately decomposed granite. (FILL)
2								3 INSPECTION PIT		1.50			
								4	+2.45	2.00			Brown mottled light brown, clayey silty fine to coarse SAND. Contains occasional concrete fragments. (FILL)
								5	+1.95	2.50			Greyish brown mottled brown, slightly clayey silty fine to coarse SAND. Contains some concrete fragments. (FILL)
3 15/06/2010		18:00											
23/06/2010		Dry at 08:00	100				14 blows	6 7 8		3.00			
4										3.45			
5													
6 23/06/2010	SX 6.00	2.16m at 18:00							-1.55	6.00			
24/06/2010	PX	2.18m at 08:00	100				19 blows	9 △ 10		6.45			Black mottled grey, slightly silty fine to coarse SAND. Contains occasional concrete fragments. (FILL)
7													
8													
9			100				23 blows	11 12	-4.55	9.00			Dark grey, clayey silty fine to coarse SAND. Contains some concrete and shell fragments. (FILL)
										9.45			
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **07/07/2010**

CHECKED **James Lu**

DATE **08/07/2010**

REMARKS
1. Water sample was taken at a depth of 6.00m.
2. Gas detection was carried.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH139**

SHEET **2** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836869.68** **N 818340.35**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0104**		DATE FROM **15/06/2010** TO **06/07/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.45** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	PX									10.00			See sheet 1 of 5 for details.
11													
12			98				41 bls	13	-7.55	12.00			
								14		12.45			Grey, slightly silty fine to coarse SAND. (ALLUVIUM)
13													
14													
15			93				42 bls	15	-10.55	15.00			
24/06/2010		2.16m at 18:00						16		15.45			Light grey, fine to coarse SAND. Contains occasional shell fragments. (ALLUVIUM)
25/06/2010		2.21m at 08:00											
16													
17													
18			100				47 bls	17	-13.55	18.00			
								18		18.45			Light brown mottled white, very clayey silty fine to coarse SAND. (ALLUVIUM)
19													
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **07/07/2010**

CHECKED **James Lu**

DATE **08/07/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.
GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH139**

SHEET **3** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836869.68**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0104**	**N 818340.35**	DATE FROM **15/06/2010** TO **06/07/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.45** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20	PX									20.00			See sheet 2 of 5 for details.
21			100				56 blS	19 20	-16.55	21.00			Brownish orange mottled reddish pink and yellowish brown, clayey silty fine to coarse SAND. (ALLUVIUM)
22										21.45			
23													
24			100				92 blS	21 22	-19.55	24.00		V	Extremely weak, light yellowish brown spotted dark reddish brown, grey and white, completely decomposed, medium grained GRANITE. (Slightly clayey silty fine to coarse SAND)
25										24.45			
26													
27		2.20m at 18:00	100				91 blS	23 24	-22.55	27.00		V	Extremely weak, pink spotted dark red, grey and white, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
28	25/06/2010 05/07/2010	2.16m at 08:00								27.45			
29													
30									-25.55	30.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **07/07/2010**

CHECKED **James Lu**

DATE **08/07/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH139**

SHEET **4** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836869.68**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0104**	**N 818340.35**	DATE FROM **15/06/2010** TO **06/07/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.45** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
30	PX	2.14m at 18:00	100				131 bls	25		30.00		V	Extremely weak, pink spotted black and white, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
05/07/2010		2.20m at 08:00						26		30.45			
31													
32													
33			100				137 bls	27	-28.55	33.00		V	Extremely weak, yellowish brown spotted black and white, completely decomposed, medium grained GRANITE. (Slightly silty fine to coarse SAND)
								28		33.45			
34													
35													
36			100				152 bls	29		36.00			
								30		36.45			
37													
38													
	PX 38.72								-34.27	38.72		III	Moderately strong, light brownish pink mottled brown spotted grey, black and white, moderately decomposed, medium grained GRANITE. Joints are medium spaced, locally very closely spaced, rough planar, extremely narrow, iron oxide stained, dipping at 0° to 10°. From 38.89m to 39.16m: Strong, pink, slightly
39		2.22m at 18:00	100	87	87	NI 2.0		T2|01				II	
06/07/2010						>20 5.3			-35.06	39.51		III	
40													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **07/07/2010**

CHECKED **James Lu**

DATE **08/07/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH139**

SHEET **5** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD **Rotary Cored**	CO-ORDINATES **E 836869.68**	JOB NO. **GCE1001SI**
MACHINE & NO. **20-0104**	**N 818340.35**	DATE FROM **15/06/2010** TO **06/07/2010**
FLUSHING MEDIUM **Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.45** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
40										40.00			decomposed. Hole completed at 39.51m.
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **07/07/2010**

CHECKED **James Lu**

DATE **08/07/2010**

REMARKS

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH140**

SHEET 1 OF 5

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836844.75 N 818408.40	JOB NO. GCE1001SI
MACHINE & NO.	20-0095		DATE FROM 03/06/2010 TO 19/06/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +4.35 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 03/06/2010	SX	08:00							+4.35	0.00			Light grey, angular coarse GRAVEL sized concrete fragments. (FILL)
								1	+3.85	0.50			Light pinkish brown, silty fine to coarse SAND with occasional angular fine gravel sized rock and concrete fragments. (FILL)
1								2		1.00			
								3 INSPECTION PIT		1.50			
2								4		2.00			
								5		2.50			
3 03/06/2010		18:00						6		3.00			
14/06/2010		Dry at 08:00	100				27 bls	7					
								8		3.45			
4													
5													
		2.38m at 18:00											
6 14/06/2010	SX 6.00								-1.65	6.00			
15/06/2010	PX	2.37m at 08:00	100				13 bls	9 △					Dark grey mottled light brown, slightly sandy SILT. (FILL)
								10		6.45			
7													
8													
9									-4.65	9.00			
			100				25 bls	11					Grey, slightly silty fine to coarse SAND with some shell fragments. (FILL)
10								12		9.45			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- △ WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 21/06/2010

CHECKED James Lu

DATE 22/06/2010

REMARKS
1. Gas detection was carried.
2. Water sample (2L) was taken at a depth of 6.00m.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH140**

SHEET **2** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836844.75** **N 818408.40**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0095**		DATE FROM **03/06/2010** TO **19/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.35** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	PX									10.00			See sheet 1 of 5 for details.
11													
12		2.30m at 18:00	100				44 bls	13	-7.65	12.00			Yellowish brown, silty fine to coarse SAND. (ALLUVIUM)
15/06/2010 17/06/2010		2.43m at 08:00						14		12.45			
13													
14													
15			100				92 bls	15	-10.65	15.00			White, slightly clayey silty fine to coarse SAND. (ALLUVIUM)
16								16		15.45			
17													
18			100				79 bls	17	-13.65	18.00			Stiff, reddish pink mottled red, sandy SILT. (ALLUVIUM)
19								18		18.45			
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **21/06/2010**

CHECKED **James Lu**

DATE **22/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH140**

SHEET **3** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836844.75 N 818408.40**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0095**		DATE FROM **03/06/2010** TO **19/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.35** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20	PX									20.00			See sheet 2 of 5 for details.
21			100				20 blows	19 20	-16.65	21.00			Stiff, light orangish brown mottled light red, sandy SILT. (ALLUVIUM)
22										21.45			
23													
24		2.41m at 18:00	100				50 blows	21 22		24.00			
17/06/2010 18/06/2010		2.35m at 08:00								24.45			
25													
26													
27			100				82 blows	23 24	-22.65	27.00		V	Extremely weak, pinkish red mottled white and spotted grey, completely decomposed, medium grained GRANITE. (Slightly clayey silty fine to coarse SAND)
28										27.45			
29													
30									-25.65	30.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **21/06/2010**

CHECKED **James Lu**

DATE **22/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH140**

SHEET **4** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836844.75 N 818408.40**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0095**		DATE FROM **03/06/2010** TO **19/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.35** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
30	PX		100				95 blows	25		30.00		V	Extremely weak, light orangish pink spotted grey, brown and white, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
31								26		30.45			
32													
33			100				170 blows	27	-28.65	33.00		V	Extremely weak, light pink mottled black and white, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
34								28		33.45			
35													
36		2.32m at 18:00	100				200 blows	29	-31.65	36.00		V	Extremely weak, light orangish pink mottled grey and red spotted white, completely decomposed, medium grained GRANITE. (Slightly silty fine to coarse SAND)
18/06/2010 19/06/2010		2.27m at 08:00						30		36.45			
37													
38													
39			100				200 blows	31	-34.65	39.00		V	Extremely weak, light orangish brown spotted grey and black, completely decomposed, medium grained GRANITE. (Slightly silty fine to coarse SAND)
40								32		39.34			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **21/06/2010**

CHECKED **James Lu**

DATE **22/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH140**

SHEET **5** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836844.75** **N 818408.40**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0095**		DATE FROM **03/06/2010** TO **19/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.35** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
40	PX 40.20								-35.85	40.00 40.20			See sheet 4 of 5 for details.
41 19/06/2010		2.25m at 18:00	96	41	35	6.9 / 15.0 / >20		T2101	-36.65	41.00		III / IV	Moderately strong, orangish pink mottled brown spotted grey and green, moderately decomposed, slightly chloritized medium grained GRANITE. Joints are closely to very closely spaced, rough planar and rough undulating, extremely narrow to very narrow, iron oxide stained, dipping at 10° to 20° and 30° to 40°. From 40.69m to 41.00m: Weak, orangish brown, highly decomposed. Hole completed at 41.00m.
42													
43													
44													
45													
46													
47													
48													
49													
50													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **21/06/2010**

CHECKED **James Lu**

DATE **22/06/2010**

REMARKS

REVISED

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH141**

SHEET 1 OF 5

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836855.61 N 818420.81**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0095**		DATE FROM **24/05/2010** TO **09/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.19** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
24/05/2010	SX	08:00							+4.19	0.00			Brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized slightly decomposed granite fragments with occasional concrete fragments. (FILL)
								1		0.50			
								2		1.00			
								3 INSPECTION PIT		1.50			
								4		2.00			
								5		2.50			
24/05/2010		Dry at 18:00						6	+1.19	3.00			
27/05/2010		2.37m at 08:00	100				10 blows	7					Light brown, silty fine to coarse SAND. (FILL)
27/05/2010		2.50m at 08:00						8		3.45			
29/05/2010		2.48m at 18:00	100				42 blows	9	-1.81	6.00			Brown spotted pink, grey, black and white, COBBLE with much angular coarse gravel sized moderately to highly decomposed granite fragments. (FILL)
29/05/2010		2.35m at 08:00						10		6.45			
			100				27 blows	11	-4.81	9.00			Soft, dark grey mottled greenish grey, sandy SILT/CLAY with occasional angular medium gravel sized moderately decomposed granite and much shell fragments. (FILL)
								12		9.45			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **10/06/2010**

CHECKED **James Lu**

DATE **11/06/2010**

REMARKS
1. Gas detection was carried.
2. Water sample was taken at a depth of 6.00m.
3. Jar samples were taken at the depths of 0.50m, 1.50m and 3.00m.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH141**

SHEET 2 OF 5

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836855.61 N 818420.81	JOB NO. GCE1001SI
MACHINE & NO.	20-0095		DATE FROM 24/05/2010 TO 09/06/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +4.19 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	SX									10.00			See sheet 1 of 5 for details.
11													
12		2.36m at 18:00	100				38 bls	13	-7.81	12.00			Light grey, slightly silty fine to coarse SAND with some subangular fine quartz gravel. (ALLUVIUM)
31/05/2010 01/06/2010		2.54m at 08:00						14		12.45			
13													
14													
15	SX 15.00 PX		100				68 bls	15	-10.81	15.00		V	Extremely weak, reddish orange mottled red and light yellowish brown, completely decomposed, medium grained GRANITE. (Very clayey silty fine to coarse SAND)
16								16		15.45			
17													
18			100				28 bls	17		18.00			
19								18		18.45			
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 10/06/2010

CHECKED James Lu

DATE 11/06/2010

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH141**

SHEET 3 OF 5

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836855.61 N 818420.81	JOB NO. GCE1001SI
MACHINE & NO.	20-0095		DATE FROM 24/05/2010 TO 09/06/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +4.19 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20	PX									20.00			See sheet 2 of 5 for details.
21		2.51m at 18:00	100				40 bls	19	-16.81	21.00		V	Extremely weak, light reddish pink mottled red and white, completely decomposed, medium grained GRANITE. (Clayey silty fine to coarse SAND)
01/06/2010 02/06/2010		2.30m at 08:00						20		21.45			
22													
23													
24			100				30 bls	21		24.00			
								22		24.45			
25													
26													
27			100				35 bls	23	-22.81	27.00		V	Extremely weak, light orangish pink mottled red and light yellowish brown, completely decomposed, medium grained GRANITE. (Clayey silty fine to coarse SAND)
								24		27.45			
28													
29													
30									-25.81	30.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 10/06/2010

CHECKED James Lu

DATE 11/06/2010

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH141**

SHEET 4 OF 5

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836855.61 N 818420.81**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0095**		DATE FROM **24/05/2010** TO **09/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.19** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
30	PX	2.32m at 18:00 02/06/2010	100				66 bls	25		30.00		V	Extremely weak, light brownish pink mottled brown spotted grey and white, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
		2.40m at 08:00 03/06/2010						26		30.45			
31													
32													
33			100				200 bls	27		33.00			
								28		33.45			
34													
35													
36		2.39m at 18:00 03/06/2010	100				200 bls	29		36.00			
		2.48m at 08:00 04/06/2010						30		36.45			
37													
38													
39		2.45m at 18:00 04/06/2010	56				200 bls	31	-34.81	39.00		V	Extremely weak, brown, completely decomposed, medium grained GRANITE. (Fine to coarse SAND)
		2.38m at 08:00 08/06/2010						32		39.26			
40													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED	**Tony Poon**
DATE	**10/06/2010**
CHECKED	**James Lu**
DATE	**11/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH141**

SHEET **5** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836855.61 N 818420.81**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0095**		DATE FROM **24/05/2010** TO **09/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.19** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
40	PX									40.00			See sheet 4 of 5 for details.
41													
42			89				200 bls	33 34	-37.81	42.00		V	Extremely weak, brown spotted grey and pink, completely decomposed, medium grained GRANITE. (Slightly silty fine to coarse SAND)
43										42.40			
44													
08/06/2010	PX 44.67	2.36m at 18:00							-40.48	44.67			
09/06/2010		2.33m at 08:00 2.34m at 18:00	93	86	44	>20 11.1		T2101				III	Moderately strong, light pinkish brown mottled brown spotted grey, black and light yellowish brown, moderately decomposed, medium grained GRANITE. Joints are closely spaced, locally very closely spaced, rough planar and rough undulating, extremely narrow to very narrow, iron oxide stained, dipping at 0° to 10° and 50° to 60°. From 44.67m to 44.75m: Moderately weak to moderately strong, moderately decomposed and highly fractured.
45													
09/06/2010									-41.28	45.47			Hole completed at 45.47m.
46													
47													
48													
49													
50													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **10/06/2010**

CHECKED **James Lu**

DATE **11/06/2010**

REMARKS

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH142**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836888.11 N 818350.03**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0103**		DATE FROM **26/05/2010** TO **29/05/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+3.89** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 26/05/2010	SX	08:00							+3.89	0.00			Light grey, angular fine to coarse GRAVEL sized concrete fragments. (FILL)
								1	+3.39	0.50			Brown, slightly silty fine to coarse SAND with some angular to subangular fine to coarse gravel sized moderately decomposed granite fragments. Contains occasional concrete fragments. (FILL)
1								2 INSPECTION PIT		1.00			
								3		1.50			
2								4		2.00			
	SX	Dry at 18:00						5	+1.39	2.50			Light grey, angular to subangular fine to coarse GRAVEL sized slightly to moderately decomposed granite. Contains occasional concrete fragments. (FILL)
26/05/2010 29/05/2010 3	2.80	Dry at 18:00 08:00	100					6 T2101	+1.09	2.80			
29/05/2010									+0.76	3.13			Light grey, CONCRETE. (FILL)
													Hole completed at 3.13m.
4													
5													
6													
7													
8													
9													
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **31/05/2010**

CHECKED **James Lu**

DATE **01/06/2010**

REMARKS

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH143**

SHEET 1 OF 5

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836888.58 N 818328.63**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**		DATE FROM **02/06/2010** TO **21/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.07** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 02/06/2010	SX	08:00							+4.07	0.00			Grey, angular medium to coarse GRAVEL sized moderately decomposed granite fragments. Contains some concrete fragments. (FILL)
								1	+3.57	0.50			Brown, silty fine to coarse SAND with occasional subangular fine to coarse gravel sized moderately decomposed granite fragments. Contains occasional concrete fragments. (FILL)
1								2		1.00			
								3 INSPECTION PIT	+2.57	1.50			Dark grey, slightly silty fine to coarse SAND with some subangular fine to coarse gravel sized moderately decomposed granite fragments. Contains some concrete fragments. (FILL)
2								4		2.00			
								5	+1.57	2.50			Brown, silty fine to coarse SAND. (FILL)
3 02/06/2010		18:00						6	+1.07	3.00			
14/06/2010		Dry at 08:00	100				23 blows	7					Orangish brown, clayey silty fine to coarse SAND. (FILL)
								8		3.45			
4													
5													
6 14/06/2010	SX 6.00	2.43m at 18:00											
15/06/2010	PX	2.45m at 08:00	100				12 blows	9 △		6.00			
								10		6.45			
7													
8													
9									-4.93	9.00			
			100				36 blows	11					Greenish grey mottled light brown and dark grey, clayey silty fine to coarse SAND. (FILL)
10								12		9.45			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **22/06/2010**

CHECKED **James Lu**

DATE **23/06/2010**

REMARKS
1. Water sample (2L) was taken at a depth of 6.00m.
2. Gas detection was carried.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH143**

SHEET **2** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836888.58** **N 818328.63**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**		DATE FROM **02/06/2010** TO **21/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.07** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	PX									10.00			See sheet 1 of 5 for details.
11													
12			100				36 bls	13	-7.93	12.00			Light grey, slightly silty fine to coarse SAND. (ALLUVIUM)
								14		12.45			
13													
14													
15		2.42m at 18:00	100				73 bls	15	-10.93	15.00			Light yellowish brown, slightly silty fine to coarse SAND. (ALLUVIUM)
15/06/2010 17/06/2010		2.33m at 08:00						16		15.45			
16													
17													
18			100				29 bls	17	-13.93	18.00			Orangish brown mottled red and light yellowish brown, clayey silty fine to coarse SAND. (ALLUVIUM)
								18		18.45			
19													
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **22/06/2010**

CHECKED **James Lu**

DATE **23/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH143**

SHEET **3** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD **Rotary Cored**	CO-ORDINATES **E 836888.58**	JOB NO. **GCE1001SI**
MACHINE & NO. **20-0092**	**N 818328.63**	DATE FROM **02/06/2010** TO **21/06/2010**
FLUSHING MEDIUM **Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.07** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20	PX									20.00			See sheet 2 of 5 for details.
21			100				26 bls	19 20	-16.93	21.00 21.45		V	Extremely weak, light reddish pink mottled red and white, completely decomposed, medium grained GRANITE. (Clayey silty fine to coarse SAND)
22													
23													
24			100				48 bls	21 22		24.00 24.45			
25													
26													
27		2.30m at 18:00	100				62 bls	23 24		27.00 27.45			
17/06/2010 18/06/2010		2.36m at 08:00											
28													
29													
30										30.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **22/06/2010**

CHECKED **James Lu**

DATE **23/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH143**

SHEET **4** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836888.58**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**	**N 818328.63**	DATE FROM **02/06/2010** TO **21/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.07** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
30	PX		100				112 bls	25		30.00			See sheet 3 of 5 for details.
								26		30.45			
31													
32													
33			100				200 bls	27	-28.93	33.00		V	Extremely weak, light brownish pink mottled grey and white, completely decomposed, medium grained GRANITE. (Slightly silty fine to coarse SAND)
								28		33.45			
34													
35													
36		2.35m at 18:00											
18/06/2010 19/06/2010		2.25m at 08:00	0				200 bls	29	-31.93	36.00 36.08		V	Extremely weak, pinkish grey spotted grey and white, completely decomposed, medium grained GRANITE. (Fine to coarse SAND with occasional fine gravel)
37													
38													
39		2.25m at 18:00	0				200 bls	30		39.00 39.16			
19/06/2010 21/06/2010		2.39m at 08:00											
40													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **22/06/2010**

CHECKED **James Lu**

DATE **23/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH143**

SHEET **5** OF **5**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836888.58** **N 818328.63**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**		DATE FROM **02/06/2010** TO **21/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.07** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
40	PX									40.00			See sheet 4 of 5 for details.
41													
42			0				200 blS	31	-37.93	42.00			
	PX 42.44									42.01		IV	Weak, pink spotted grey and white, highly decomposed, medium grained GRANITE. (COBBLE)
			85	85	43	3.8			-38.37	42.44		III	Moderately strong, light brownish pink spotted dark brown, grey and white, moderately decomposed, medium grained GRANITE. Joints are medium to closely spaced, rough planar, very narrow, clean and iron oxide staihed, dipping at 0° to 10°.
43 21/06/2010		2.37m at 18:00				N.R. 12.5		T2|01	-38.97	43.04		V III	From 42.70m to 42.80m: No core recovered, assumed to be completely decomposed granite. Hole completed at 43.04m.
44													
45													
46													
47													
48													
49													
50													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **22/06/2010**

CHECKED **James Lu**

DATE **23/06/2010**

REMARKS

REVISED

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH144**

SHEET 1 OF 4

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836872.78 N 818319.26	JOB NO. GCE1001SI
MACHINE & NO.	20-0092		DATE FROM 29/05/2010 TO 08/06/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +4.32 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
29/05/2010	SX	08:00							+4.32	0.00			Concrete slab.
								1	+3.82	0.50			Brown, silty fine to coarse SAND with occasional subangular fine to medium gravel sized moderately decomposed granite fragments and occasional concrete fragments. (FILL)
								2		1.00			
								3 INSPECTION PIT		1.50			
								4		2.00			
								5		2.50			
29/05/2010	SX 3.00	Dry at 18:00						6		3.00			
02/06/2010	PX	2.47m at 08:00	100				22 blows	7					
02/06/2010		18:00						8		3.45			
03/06/2010		2.33m at 08:00											
			100				16 blows	9		6.00			
								10		6.45			
			100				9 blows	11	-4.68	9.00			Dark greenish grey, clayey silty fine to coarse SAND with occasional shell fragments. (MARINE DEPOSIT)
								12		9.45			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 09/06/2010

CHECKED James Lu

DATE 10/06/2010

REMARKS
1. Gas detection was carried.
2. Water sample (2L) was taken at a depth of 6.00m.
3. Jar samples were taken at the depths of 0.50m, 1.50m and 3.00m.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH144**

SHEET 2 OF 4

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836872.78 N 818319.26	JOB NO. GCE1001SI
MACHINE & NO.	20-0092		DATE FROM 29/05/2010 TO 08/06/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +4.32 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	PX									10.00			See sheet 1 of 4 for details.
11													
12			100				54 bls	13		12.00			
								14		12.45			
13													
14													
15		2.35m at 18:00	100				129 bls	15	-10.68	15.00			Light brown, fine to coarse SAND with some subangular fine quartz gravel. (ALLUVIUM)
		03/06/2010 04/08/2010 2.04m at 08:00						16		15.45			
16													
17													
18			100				72 bls	17	-13.68	18.00			Yellowish brown, slightly silty fine to coarse SAND. (ALLUVIUM)
								18		18.45			
19													
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 09/06/2010

CHECKED James Lu

DATE 10/06/2010

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH144**

SHEET 3 OF 4

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836872.78 N 818319.26**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**		DATE FROM **29/05/2010** TO **08/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.32** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20	PX									20.00			See sheet 2 of 4 for details.
21		2.12m at 18:00	100				52 bls	19	-16.68	21.00			Orangish pink mottled red and grey spotted white, very clayey silty fine to coarse SAND. (ALLUVIUM)
04/06/2010 05/06/2010		2.22m at 08:00						20		21.45			
22													
23													
24		2.25m at 18:00	100				84 bls	21	-19.68	24.00			Light orangish pink mottled light brown, silty fine to coarse SAND with some subangular fine quartz gravel. (ALLUVIUM)
05/06/2010 07/06/2010		2.22m at 08:00						22		24.45			
25													
26													
27			100				200 bls	23	-22.68	27.00		V	Extremely weak, reddish pink mottled white and spotted grey, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
28								24		27.45			
29													
30										30.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **09/06/2010**

CHECKED **James Lu**

DATE **10/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH144**

SHEET **4** OF **4**

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836872.78 N 818319.26**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0092**		DATE FROM **29/05/2010** TO **08/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.32** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
30	PX		100				200 blS	25		30.00			See sheet 3 of 4 for details.
31								26		30.45			
32													
33			100				200 blS	27	-28.68	33.00		V	Extremely weak, yellowish brown mottled white, completely decomposed, medium grained GRANITE. (Silty fine to coarse SAND)
34								28		33.45			
35	PX	2.25m at 18:00											
07/06/2010	35.21								-30.89	35.21			
08/06/2010		2.17m at 08:00	98	98	93	0.8		T2101				II	Strong, pink spotted grey, black and white, slightly decomposed, medium grained GRANITE. Joints are widely spaced, rough undulating, extremely narrow, iron oxide stained, dipping at 0° to 10°.
36		2.04m at 13:00											
08/06/2010									-32.09	36.41			Hole completed at 36.41m.
37													
38													
39													
40													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **09/06/2010**

CHECKED **James Lu**

DATE **10/06/2010**

REMARKS

Site ID 2-08

**(11202/SCL/ETP027; 11202/SCL/ETP012;
11202/SCL/ETP042; 11202/SCL/ETP043;
11202/SCL/ETP044)**

PRELIMINARY

Samples & Test	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
			0.25		Loose, dry, sandy angular coarse GRAVEL sized slightly decomposed granite. (RAIL BED)	
1	0.5		0.5		Dense, moist, brown mottled light brown, silty fine to coarse SAND with some subangular fine gravel sized moderately decomposed granite fragments. Contains occasional concrete fragments. (FILL)	
	1.0		1.0			
2	1.5		1.5			
	2.0		2.0			
	2.5		2.5			
3	3.0		3.0 3.00			
	3.5		3.5		Trial pit was terminated at the depth of 3.00m.	
	4.0		4.0		Notes :	
	4.5		4.5		1. Small disturbed samples were taken at the depths of 0.50m, 1.50m and 3.00m.	
	5.0		5.0		2. Gas detection was carried out.	
	5.5		5.5			
	6.0		6.0			
		FACE A: 0.50 m FACE B: 0.60 m FACE C: 0.50 m FACE D: 0.60m				

SYMBOLS

- Small Disturbed Sample
- Large Disturbed Sample
- Undisturbed Vertical Sample
- Undisturbed Horizontal Sample
- Block Sample
- Insitu Density Test
- Water Sample
- Water Seepage

REMARKS

Ground Water

Plant Used
Hand dug

Shoring
No

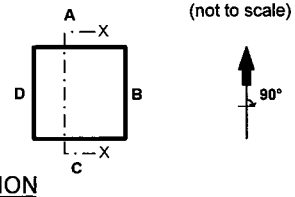
Stability
Stable

Depth at pit centre
3.00m

Others
Water Seepage at 1.95m

PLAN

(not to scale)



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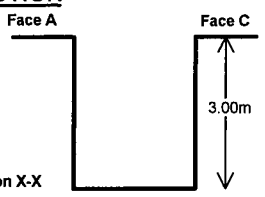


Contract No. :		11202
Job No.	:	GCE1001SI
Co-ordinates	:	
E 836839.45	N 818354.63	
Ground Level	:	4.22 mPD
Logged by	:	Tony Poon
Date logged	:	19/03/2010
Checked by	:	James Lu
Date Checked	:	20/03/2010

PROJECT

Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

Sheet **1** of **1**

Date excavated **18/03/2010** to **18/03/2010**

Date Reinstated to

TRIAL PIT NO.

11202/SCL/ETP027

GEOTECHNICS & CONCRETE ENGG. (HONG KONG) LIMITED

GROUND INVESTIGATION DEPARTMENT

REVISED

PRELIMINARY

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH012(P)**

SHEET 1 OF 4

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	**Rotary Cored**	CO-ORDINATES **E 836803.07** **N 818182.61**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0104**		DATE FROM **02/06/2010** TO **10/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.36** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 02/06/2010	SX	08:00							+4.36	0.00			Grey, angular to subangular fine to coarse GRAVEL with occasional cobble sized moderately decomposed granite fragments, occasional concrete and brick fragments. (FILL)
								1		0.50			
1								2	+3.36	1.00			Brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized moderately decomposed granite fragments and occasional concrete fragments. (FILL)
								3 INSPECTION PIT		1.50			
2								4		2.00			
								5		2.50			
3 02/06/2010		Dry at 18:00											
04/06/2010		Dry at 08:00	100				43 blows	6 7 8	+1.36	3.00			Light brown, clayey silty fine to coarse SAND with occasional concrete fragments. (FILL)
4										3.45			
5													
6 04/06/2010		2.16m at 18:00							-1.64	6.00			
07/06/2010	SX 6.45 PX	2.18m at 08:00	98				95 blows	9 △ 10		6.45			Brown, slightly silty fine to coarse SAND with some subangular to subrounded fine to coarse gravel sized moderately decomposed granite fragments and occasional concrete fragments. (FILL)
7													
8													
9		2.22m at 18:00	96				61 blows	11 12		9.00			
07/06/2010 08/06/2010		2.27m at 08:00								9.45			
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **11/06/2010**

CHECKED **James Lu**

DATE **12/06/2010**

REMARKS
1. Packer test was carried out from the depths of 32.50m to 37.39m.
2. Acoustic televiewer survey were carried out from the depths of 28.80m to 37.20m.
3. Piezometer tips were installed at the depths of 12.50m and 28.30m.
4. Gas detection was carried.
5. Water sample (2L) was taken at a depth of 6.00m.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH012(P)**

SHEET 2 OF 4

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	**Rotary Cored**	CO-ORDINATES **E 836803.07** **N 818182.61**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0104**		DATE FROM **02/06/2010** TO **10/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.36** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10	PX									10.00			See sheet 1 of 4 for details.
12			100				25 blS	13 14	-7.64	12.00 12.45			Greenish grey, slightly silty fine to coarse SAND with occasional shell fragments. (FILL)
15			100				70 blS	15 16	-10.64	15.00 15.45			Light yellowish brown mottled light orangish brown, slightly silty fine to coarse SAND with some subangular fine quartz gravel. (ALLUVIUM)
18			90				142 blS	17 18	-13.64	18.00 18.45			Light grey, silty fine to coarse SAND with some subangular fine quartz gravel. (ALLUVIUM)
20													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **11/06/2010**

CHECKED **James Lu**

DATE **12/06/2010**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH012(P)**

SHEET 3 OF 4

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

METHOD	Rotary Cored	CO-ORDINATES E 836803.07 N 818182.61	JOB NO. GCE1001SI
MACHINE & NO.	20-0104		DATE FROM 02/06/2010 TO 10/06/2010
FLUSHING MEDIUM	Water	ORIENTATION Vertical	GROUND LEVEL +4.36 mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20	PX									20.00			See sheet 2 of 4 for details.
21			100				47 bls	19	-16.64	21.00			Light brownish yellow, very clayey silty fine to coarse SAND. (ALLUVIUM)
								20		21.45			
22													
23													
24			100				49 bls	21	-19.64	24.00			Light grey, silty fine to coarse SAND with much angular fine quartz gravel. (ALLUVIUM)
								22		24.45			
25													
26													
27			100				200 bls	23	-22.64	27.00		IV	Very weak to weak, orangish brown spotted grey, highly decomposed, medium grained GRANITE. (Angular fine to medium GRAVEL in sandy matrix)
								24		27.27			
28													
08/06/2010	PX 28.80	2.20m at 18:00							-24.44	28.80			
09/06/2010 29		2.16m at 08:00	100	100	100	2.1		T2101				III	Moderately strong, orangish pink spotted grey and black, striped green and white, moderately decomposed, slightly chloritized medium grained GRANITE. Joints are medium spaced, rough planar and smooth planar, extremely narrow to very narrow, iron oxide stained and chlorite coated, dipping at
30													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED Tony Poon

DATE 11/06/2010

CHECKED James Lu

DATE 12/06/2010

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **11202/SCL/EDH012(P)**

SHEET 4 OF 4

DRILLHOLE RECORD

CONTRACT NO. 11202

PROJECT **Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 836803.07** **N 818182.61**	JOB NO. **GCE1001SI**
MACHINE & NO.	**20-0104**		DATE FROM **02/06/2010** TO **10/06/2010**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+4.36** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
30										30.00			
			100	100	100			T2I01		30.23			0° to 10° and 80° to 90°. From 29.84m to 30.72m: QUARTZ vein (5mm to 15mm thick), dipping at 80° to 90°.
31						3.7		T2I01	-26.83	31.19		III	Moderately strong, pinkish red mottled brown spotted grey, black and white, moderately decomposed, fine grained GRANITE. Joints are medium spaced, locally widely and closely spaced, smooth planar, slickensided planar and rough undulating, tight to extremely narrow, iron oxide stained, calcite and chlorite coated, dipping at 0° to 10°, 40° to 50°, 50° to 60° and 80° to 90°. From 31.68m to 31.95m: Orangish red mottled green, slightly chloritized GRANITE. From 32.15m to 32.39m: Orangish red striped green, slightly chloritized GRANITE.
			100	100	96	6.7				31.68			
32						1.4		T2I01					
						46.7							
33			100	100	93	3.4		T2I01		33.13			
						2.1							
34		2.58m at 18:00						T2I01					
09/06/2010						11.1							
10/06/2010		2.20m at 08:00	96	95	82	3.3				34.33			
35								T2I01					From 34.72m to 35.06m: Orangish red mottled green and white, slightly chloritized PEGMATITE.
						10.5							
36			100	100	64			T2I01		35.87			From 35.76m to 35.82m: Reddish pink mottled white, PEGMATITE. From 36.21m to 36.52m: Grey mottled reddish pink and white, medium to coarse grained GRANITE.
37													
10/06/2010		18:00							-33.03	37.39			From 37.25m to 37.30m: Red mottled white, medium to coarse grained GRANITE. Hole completed at 37.39m.
38													
39													
40													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Tony Poon**

DATE **11/06/2010**

CHECKED **James Lu**

DATE **12/06/2010**

REMARKS

PRELIMINARY

Samples & Test	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
			0.18		Light grey, sandy angular coarse GRAVEL and COBBLE sized slightly decomposed granite fragments. (RAIL BED)	
1	0.5		0.5 0.50		Dense, moist, brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized moderately decomposed granite fragments. (FILL)	
	1.0		1.0		Trial pit was terminated at the depth of 0.50m. (maximum 3.00m)	
2	1.5		1.5		Notes :	
	2.0		2.0		1. Small disturbed samples were taken at the depths of 0.50m, 1.50m and 3.00m. 2. Gas detection was carried out.	
	2.5		2.5			
3	3.0	0.30m 0.40m 0.40m 0.30m	3.0			
	3.5		3.5			
	4.0		4.0			
	4.5		4.5			
	5.0		5.0			
	5.5		5.5			
	6.0	FACE A: 0.40 m FACE B: 0.70 m FACE C: 0.40 m FACE D: 0.70 m	6.0			

SYMBOLS

- Small Disturbed Sample
- Large Disturbed Sample
- Undisturbed Vertical Sample
- Undisturbed Horizontal Sample
- Block Sample
- Insitu Density Test
- Water Sample
- Water Seepage

REMARKS

Ground Water

Plant Used
Hand dug

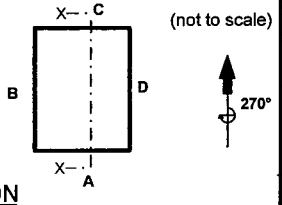
Shoring
No

Stability
Stable

Depth at pit centre
3.00m

Others
Water Seepage at 2.58m

PLAN (not to scale)



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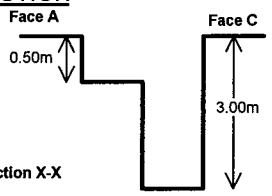


Contract No. :	11202	
Job No.	: GCE1001SI	
Co-ordinates	:	
E 836810.98	N 818006.38	
Ground Level	: 4.19	mPD
Logged by	: Tony Poon	
Date logged	: 12/03/2010	
Checked by	: James Lu	
Date Checked	: 13/03/2010	

PROJECT

Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

Sheet	1	of	1	
Date excavated	10/03/2010	to	11/03/2010	
Date Reinstated		to		

TRIAL PIT NO.

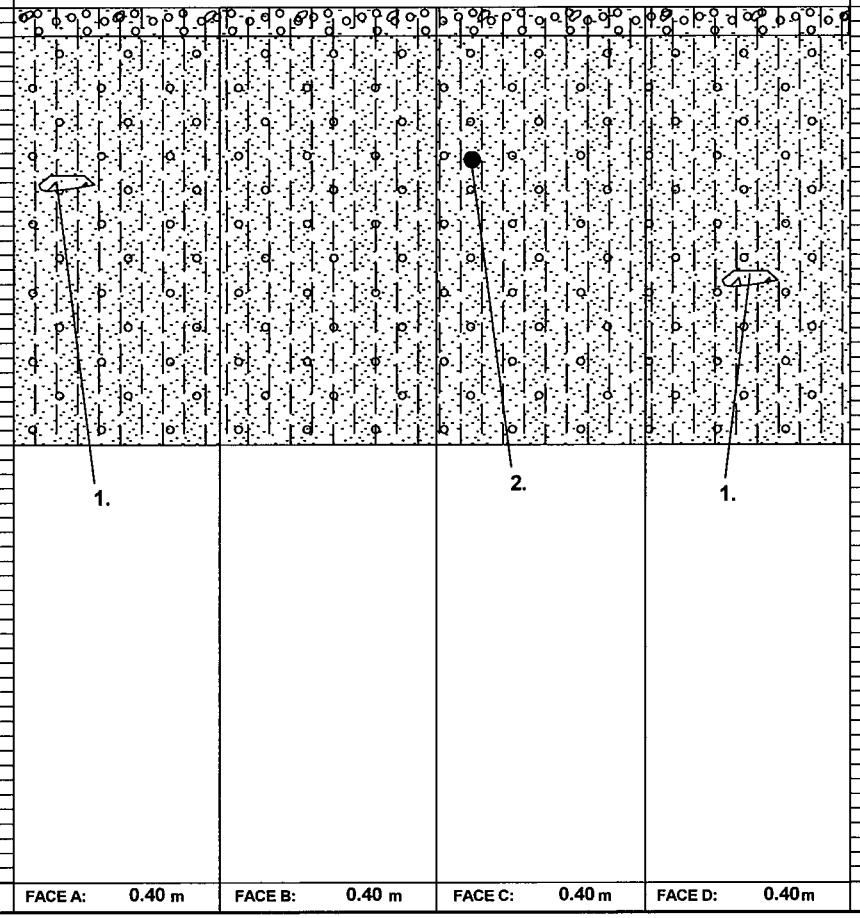
11202/SCL/ETP042

GEOTECHNICS & CONCRETE ENGG. (HONG KONG) LIMITED

GROUND INVESTIGATION DEPARTMENT

PRELIMINARY

Samples & Test	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
			0.20		Light grey, sandy angular coarse GRAVEL and COBBLE sized slightly decomposed granite fragments. (RAIL BED)	
1	0.5		0.5		Dense, moist, brown, silty fine to coarse SAND with some subangular fine to coarse gravel sized granite fragments. Contains occasional concrete fragments. (FILL)	
	1.0		1.0		1. Concrete fragments.	
2	1.5		1.5		2. Waste iron bar.	
	2.0		2.0			
	2.5		2.5			
3	3.0		3.0	3.00		
	3.5		3.5		Trial pit was terminated at the depth of 3.00m.	
	4.0		4.0		Notes :	
	4.5		4.5		1. Small disturbed samples were taken at the depths of 0.50m, 1.50m and 3.00m.	
	5.0		5.0		2. Gas detection was carried out.	
	5.5		5.5			
	6.0		6.0			



SYMBOLS

- Small Disturbed Sample
- Large Disturbed Sample
- Undisturbed Vertical Sample
- Undisturbed Horizontal Sample
- Block Sample
- Insitu Density Test
- Water Sample
- Water Seepage

REMARKS

Ground Water

Plant Used
Hand dug

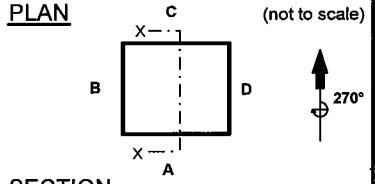
Shoring
No

Stability
Stable

Depth at pit centre
3.00m

Others
Water Seepage at 2.70m

PLAN (not to scale)



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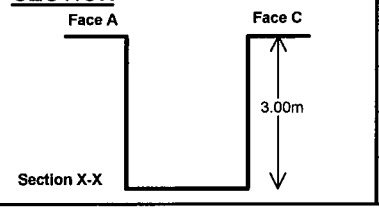


Contract No. :	11202	
Job No.	: GCE1001SI	
Co-ordinates	:	
E 836805.41	N 818091.11	
Ground Level	: 4.18	mPD
Logged by	: Tony Poon	
Date logged	: 12/03/2010	
Checked by	: James Lu	
Date Checked	: 13/03/2010	

PROJECT

Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

Sheet	1	of	1	
Date excavated	10/03/2010	to	11/03/2010	
Date Reinstated		to		

TRIAL PIT NO.

11202/SCL/ETP043

GEOTECHNICS & CONCRETE ENGG. (HONG KONG) LIMITED

GROUND INVESTIGATION DEPARTMENT

PRELIMINARY

Samples & Test	Depth (m)	Sketch	Depth (m)	Legend	Description	Grade
1	0.5		0.20 0.5 0.50		Loose, dry, greyish brown mottled grey, sandy angular coarse GRAVEL and COBBLE sized slightly decomposed granite. (RAIL RED)	
	1.0		1.0		Dense, moist, brown, silty fine to coarse SAND with occasional subangular fine to coarse gravel sized slightly decomposed granite. (FILL)	
2	1.5		1.5		Dense, moist, greyish brown, silty fine to coarse SAND with occasional subangular fine to coarse gravel sized slightly decomposed granite. (FILL)	
	2.0		2.0			
	2.5		2.5			
3	3.0		3.0 3.00			
	3.5		3.5		Trial pit was terminated at the depth of 3.00m.	
	4.0		4.0		Notes :	
	4.5		4.5		1. Small disturbed samples were taken at the depths of 0.50m, 1.50m and 3.00m. 2. Gas detection was carried out.	
	5.0		5.0			
	5.5		5.5			
	6.0		6.0			

FACE A: 0.50 m FACE B: 0.60 m FACE C: 0.50 m FACE D: 0.60m

SYMBOLS

- Small Disturbed Sample
- Large Disturbed Sample
- Undisturbed Vertical Sample
- Undisturbed Horizontal Sample
- Block Sample
- Insitu Density Test
- Water Sample
- Water Seepage

REMARKS

Ground Water

Plant Used
Hand dug

Shoring
No

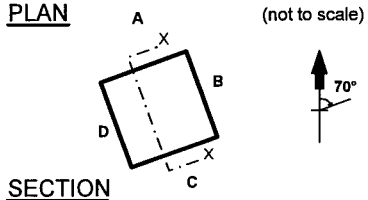
Stability
Stable

Depth at pit centre
3.00m

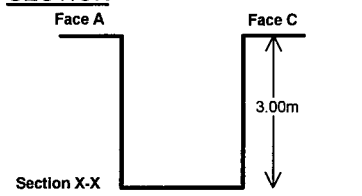
Others
Water Seepage at 2.15m

PLAN

(not to scale)



SECTION



Contract No. :	11202	
Job No.	: GCE1001SI	
Co-ordinates	:	
E 836838.91	N 818277.13	
Ground Level	: 4.18	mPD
Logged by	: Tony Poon	
Date logged	: 19/03/2010	
Checked by	: James Lu	
Date Checked	: 20/03/2010	

PROJECT

Contract No. 11202 Stage II Ground Investigation for Shatin to Central Link

Sheet 1 of 1

Date excavated 18/03/2010 to 18/03/2010

Date Reinstated to

TRIAL PIT NO.

11202/SCL/ETP044

GEOTECHNICS & CONCRETE ENGG. (HONG KONG) LIMITED

GROUND INVESTIGATION DEPARTMENT

Soil Profile Logs under Stage 2 SI

Site ID 1-22

(11203/SCL/EB118 to 11203/SCL/EB123)

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. **11203**

HOLE NO. **11203/SCL/EB118**

SHEET **1** of **1**

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD	CO-ORDINATES E **836699.64** N **818714.86**	WORKS ORDER NO. **D-463**
MACHINE **N/A**		DATE **16.12.2010** to **16.12.2010**
FLUSHING MEDIUM **NONE**	ORIENTATION **VERTICAL**	GROUND LEVEL **+12.86** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
16.12.2010								1 D 0.45 2 D 0.95 3 D 1.45 4 D 1.95 5 D 2.45 6 D 2.95	+12.86 +9.86	0.00 3.00			Loose, yellowish brown spotted white, clayey silty fine to coarse SAND with some subangular fine gravel sized quartz and rock fragments. (FILL)
16.12.2010													End of hole at 3.00 m.

SMALL DISTURBED SAMPLE
LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
WATER SAMPLE
U100 SAMPLE
STANDARD PENETRATION TEST
IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED **L. Zhang**
DATE **18.12.2010**
CHECKED **C. Lun**
DATE **20.12.2010**

REMARKS

1. An inspection pit was excavated to 3.00m deep by hand tools.
2. Soil samples were taken at 0.50m, 1.00m, 1.50m, 2.00m, 2.50m and 3.00m for environmental testing.

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB119**

SHEET 1 of 1

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E 836762.46 N 818714.41	WORKS ORDER NO. **D-463**
MACHINE **2724**		DATE **25.11.2010** to **30.11.2010**
FLUSHING MEDIUM **NONE**	ORIENTATION **VERTICAL**	GROUND LEVEL **+4.98** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
25.11.2010	SW							1 0.45 2 0.95 3 1.45 4 1.95 5 2.45	+4.98	0.00			Soft, light brown and light yellow, clayey sandy SILT with some angular to subangular fine to coarse gravel. (FILL)
									+2.53	2.45			Soft, yellow to light brown mottled red, sandy CLAY/SILT with some subangular fine gravel. (FILL)
25.11.2010	SW 3.00m							6 2.95	+1.98	3.00			
29.11.2010	PW		100				B=70	7 3.00 8 3.45					Dense, yellowish brown, clayey silty fine to medium SAND with some subangular fine gravel. (FILL)
	PW 4.50m												
	HW								+0.27	4.71			
			83					T2-101 4.77 4.95	+0.03	4.95			Light greenish grey, subangular COBBLE sized rock fragments. (FILL)
		3.01 at 1800											Medium dense, light greenish grey, slightly clayey silty fine to coarse SAND with some subangular fine gravel of quartz. (ALLUVIUM?)
29.11.2010													
30.11.2010		3.01 at 0800	100				B=46	9 6.00 10 6.45					
30.11.2010	HW 6.50m								-1.52	6.50			End of hole at 6.50 m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED	L. Zhang
DATE	21.12.2010
CHECKED	C. Lun
DATE	14.01.2011

REMARKS

1. An inspection pit was excavated to 3.00m deep by hand tools.
2. Drilling without water flushing was carried out from 3.00m to 6.50m.
3. Soil samples taken by U76 sampler were removed from the sampler tubes for environmental testing.

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB120**

SHEET 1 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836754.58** N **818763.39**	WORKS ORDER NO. **D-463**
MACHINE **SD32**		DATE **18.11.2010** to **24.11.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+12.09** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
18.11.2010	SW								+12.09	0.00			Loose, yellowish brown spotted yellow, clayey silty fine to coarse SAND with some subangular fine gravel sized quartz and rock fragments. (FILL)
								1 0.45					
								2 0.95					
								3 1.45					
								4 1.95	+10.09	2.00			Loose, reddish brown spotted yellow, clayey silty fine to coarse SAND with some subangular fine gravel sized quartz and rock fragments. (FILL)
								5 2.45					
							B=21	6 2.95					
			100					7 3.00					
18.11.2010								8 3.45	+8.59	3.50			
19.11.2010		2.80 at 0800	100					T-120 3.50 3.60	+8.49	3.60			Angular to subangular, yellowish brown spotted pink and black, COBBLE sized granite fragment. (FILL)
													Wash boring, assumed to be FILL.
	SW 6.10m								+5.99	6.10			
	PW		0				B=89	6.10					No recovery, assumed to be FILL.
							B=126	9 6.55 6.60					
			0					10 7.05					
							B=50	11 7.30	+4.79	7.30			Stiff, light yellowish brown spotted white and pink, silty sandy CLAY with some subangular fine gravel sized quartz and rock fragments. (FILL)
			100					12 7.75					
									+4.09	8.00			
			67					T-120 8.00 8.30	+3.79	8.30			Angular to subangular, yellowish brown spotted pink and black, fine to coarse GRAVEL and COBBLE sized rock fragments. (FILL)
													Wash boring, assumed to be FILL.
									+3.09	9.00			
							B=26	13 9.00					Stiff, yellowish brown spotted white and pink, silty sandy CLAY with some subangular fine gravel sized quartz and rock fragments. (FILL)
			100					14 9.45					
									+2.29	9.80			
		3.40					B=25	15 9.80					Medium dense, light greenish grey and grey.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED	L. Zhang
DATE	30.11.2010
CHECKED	C. Lun
DATE	03.12.2010

REMARKS

1. An inspection pit was excavated to 3.00m deep by hand tools.
2. Water sample was taken at 15.50m.
3. Soil samples taken by U76 sampler were removed from the sampler tubes for environmental testing.

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB120**

SHEET 2 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836754.58** N **818763.39**	WORKS ORDER NO. **D-463**
MACHINE **SD32**		DATE **18.11.2010** to **24.11.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+12.09** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
19.11.2010		at 1200	100					16 10.25					slightly clayey silty fine to coarse SAND with some subangular fine to medium gravel. (FILL)
20.11.2010		9.15 at 0800											
11													
12							B=31	17 12.00	+0.09	12.00			Light greenish grey spotted white, clayey silty fine SAND with some angular to subangular fine gravel sized quartz fragments and some shell fragments. (FILL)
			100					18 12.45					
13													
14													
15	PW 15.00m HW	9.16 at 1800	100				B=34	19 15.00	-2.91	15.00		V	Extremely weak, pink spotted white, completely decomposed medium grained GRANITE. (Stiff, slightly sandy clayey SILT with some angular fine gravel)
20.11.2010								20 15.45					
23.11.2010		9.13 at 0800											
16													
17													
18			100				B=66	21 18.00	-5.91	18.00		V	Extremely weak, yellowish red mottled brown, completely decomposed medium grained GRANITE. (Fine to coarse SAND with some angular fine to medium gravel)
								22 18.25					
19													
20									-7.91	20.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **30.11.2010**

CHECKED **C. Lun**

DATE **03.12.2010**

REMARKS

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB120**

SHEET 3 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836754.58** N **818763.39**	WORKS ORDER NO. **D-463**
MACHINE **SD32**		DATE **18.11.2010** to **24.11.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+12.09** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21	HW 21.00m						B=73	23 21.00	-8.91	21.00		V	As sheet 2 of 3.
23.11.2010 24.11.2010		9.04 at 0800	100					24 21.25				V	Extremely weak, red mottled brown, completely decomposed medium grained GRANITE. (Stiff, clayey sandy SILT with some angular fine to medium gravel)
22													
23													
24			80	60	47	NI 1.3 NA		23.90 T2-101 24.90	-11.81	23.90 24.01 24.52 24.62		III V/IV V	Moderately strong, yellowish brown spotted white and black, moderately decomposed medium grained GRANITE. Joint set 1: Joints are medium spaced, rough planar, very narrow, iron and manganese oxide stained, kaolin coated (<1mm), dipping at 65° to 75°. Joint set 2: from 24.11m to 24.62m: Joints are closely to medium spaced, rough planar, extremely narrow to very narrow, iron and manganese oxide stained, dipping at 10° to 20°.
24.11.2010 25		9.25 at 1300	100	100	100	NR 12.5 0.0		T2-101	-12.81 -13.84	24.82 24.89 25.93		III II	24.52m to 24.62m: Extremely weak to weak, pink mottled brown spotted white, completely to highly decomposed medium grained GRANITE. (Sandy fine to coarse GRAVEL sized granite fragments) 24.62m to 24.82m: No recovery, assumed to be completely decomposed GRANITE. Strong, light greyish pink spotted grey and white, slightly decomposed medium grained GRANITE, without joint. End of hole at 25.93 m.
26													
27													
28													
29													
30													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **30.11.2010**

CHECKED **C. Lun**

DATE **03.12.2010**

REMARKS

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB121**

SHEET 1 of 1

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD	CO-ORDINATES E 836720.38 N 818757.59	WORKS ORDER NO. D-463
MACHINE **N/A**		DATE 18.12.2010 to 18.12.2010
FLUSHING MEDIUM **NONE**	ORIENTATION **VERTICAL**	GROUND LEVEL +6.51 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
18.12.2010								1 0.45 2 0.95 3 1.45 4 1.95 5 2.45	+6.51	0.00			Loose, dark brown spotted yellow, clayey silty fine to coarse SAND with some subangular fine gravel sized quartz and rock fragments. (FILL)
18.12.2010								6 2.95	+3.51	3.00			End of hole at 3.00 m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **21.12.2010**

CHECKED **C. Lun**

DATE **23.12.2010**

REMARKS

1. An inspection pit was excavated to 3.00m deep by hand tools.
2. Soil samples were taken at 0.50m, 1.00m, 1.50m, 2.00m, 2.50m and 3.00m for environmental testing.

DRILLHOLE RECORD

DRiLTECH

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB122**

SHEET 1 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836678.71** N **818798.80**	WORKS ORDER NO. **D-463**
MACHINE **2724**		DATE **06.12.2010** to **16.12.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+8.36** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
06.12.2010	SW							1 0.45	+8.36	0.00			Loose, reddish brown and dark brown, silty fine to medium, occasional coarse SAND with some subangular fine to coarse gravel. (FILL)
								2 0.95					
								3 1.45					
								4 1.95					
								5 2.45					
		Dry at 1800						6 2.95					
06.12.2010	SW 3.00m								+5.36	3.00			
11.12.2010	HW	Dry at 0800	100				B=34	7 3.45					Very dense, yellowish brown, clayey silty fine to medium SAND with some subangular fine to occasional medium gravel. (FILL)
									+4.29	4.07			
			100					T2-101 4.07					Grey to light grey, angular to subangular COBBLE and BOULDER, occasional coarse gravel sized granite and tuff fragments. (FILL)
								4.47	+3.89	4.47			Dry drilling.
		4.35 at 1800											
11.12.2010									+2.36	6.00			
13.12.2010		5.25 at 0800	100				B=27	8 6.45					Dense, light brown, clayey silty fine to medium, occasional coarse SAND with occasional subangular fine gravel. (ALLUVIUM?)
									-0.64	9.00			
			100				B=27	9 9.45				VI?	Stiff, brownish yellow, silty very sandy CLAY with some angular fine to medium, occasional coarse gravel sized granite fragments. (RESIDUAL SOIL?)
									-1.64	10.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **21.12.2010**

CHECKED **C. Lun**

DATE **05.01.2011**

REMARKS

1. An inspection pit was excavated to 3.00m deep by hand tools.
2. Drilling without water flushing was carried out from 3.00m to 6.50m.
3. Soil samples taken by U76 sampler were removed from the sampler tubes for environmental testing.
4. Water sample was taken at 12.50m.

DRILLHOLE RECORD

DRiLTECH

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB122**

SHEET 2 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836678.71** N **818798.80**	WORKS ORDER NO. **D-463**
MACHINE **2724**		DATE **06.12.2010** to **16.12.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+8.36** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
												VI?	As sheet 1 of 3.
11													
12		4.26 at 1800	100				B=129	12.00 10 12.45	-3.64	12.00		V	Extremely weak, light reddish brown spotted white and black, completely decomposed medium grained GRANITE. (Slightly clayey silty fine to medium SAND with some angular fine gravel sized quartz and granite fragments)
13.12.2010													
14.12.2010		5.10 at 0800											
13													
14		4.95 at 1800											
14.12.2010									-6.54	14.90			
15.12.2010		5.14 at 0800	71	55	45	3.0		14.90 T2-101		15.23		III	Moderately weak to moderately strong, pink mottled brown spotted white and grey, microfractured, moderately decomposed medium grained GRANITE. (CORESTONE)
						NA				15.33		V/IV	Joints are closely to medium spaced, rough planar and stepped, very narrow, manganese oxide stained, dipping at 20° to 30°.
						8.3				15.57		III	
						NR						V	
16			100				B=137	15.90 11 16.35	-7.54	15.90		V	15.23m to 15.33m: Extremely weak to weak and completely to highly decomposed. (Angular, sandy fine to coarse GRAVEL sized granite fragments)
									-8.04	16.40			15.57m to 15.90m: No recovery, assumed to be completely decomposed GRANITE.
17													Extremely weak, light grey mottled yellowish brown, completely decomposed medium grained GRANITE. (Slightly clayey silty fine to medium SAND with some angular fine gravel sized quartz and granite fragments)
18													Wash boring, assumed to be completely decomposed GRANITE.
15.12.2010	HW 18.87m	3.95 at 1800											
16.12.2010		5.21 at 0800	36	16	0	NI		18.87 T2-101	-10.51	18.87		IV	Weak, yellowish brown mottled white spotted pink and black, highly decomposed medium grained GRANITE. (Angular, medium to coarse GRAVEL sized granite fragments)
						NR				18.96		V	
						9.5		19.32 T2-101	-10.89	19.25		III	18.96m to 19.25m: No recovery, assumed to be
			31	31	31	NR		19.77 T2-101	-11.41	19.46		V	
20										19.77 20.00		II	

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED	L. Zhang
DATE	21.12.2010
CHECKED	C. Lun
DATE	05.01.2011

REMARKS

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB122**

SHEET 3 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836678.71** N **818798.80**	WORKS ORDER NO. **D-463**
MACHINE **2724**		DATE **06.12.2010** to **16.12.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+8.36** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21 16.12.2010		4.90 at 1800	100	100	100	3.1		T2-101	-12.71	21.07		II	completely decomposed GRANITE. Moderately strong, pinkish grey mottled yellowish brown spotted white, moderately decomposed medium grained GRANITE. (CORESTONE) Joints forming the top and base of corestone are closely spaced, rough planar, very narrow, iron oxide stained, kaolin coated (<1mm), dipping at 0° to 10°. 19.46m to 19.77m: No recovery, assumed to be completely decomposed GRANITE. Strong, light greyish pink spotted black, slightly decomposed medium grained GRANITE. Joint set 1: Joints are closely to medium spaced, rough planar, extremely narrow to very narrow, iron and manganese oxide stained, kaolin coated (<1mm), dipping at 0° to 10°. End of hole at 21.07 m.
22													
23													
24													
25													
26													
27													
28													
29													
30													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **21.12.2010**

CHECKED **C. Lun**

DATE **05.01.2011**

REMARKS

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB123**

SHEET 1 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836639.40** N **818786.76**	WORKS ORDER NO. **D-463**
MACHINE **SD18**		DATE **18.12.2010** to **23.12.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+12.49** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
18.12.2010	PW							1 0.45	+12.49	0.00			Light reddish brown, slightly silty fine to coarse SAND with some subangular fine to coarse gravel. (FILL)
								2 0.95	+11.49	1.00			Light reddish brown, silty fine to medium, occasional coarse SAND with some subangular fine to occasional medium gravel. (FILL)
							B=28	3 1.45 4 1.95 5 2.45 6 2.95 7 3.00 8 3.45					
			100										
	PW 6.00m HW						B=31	9 6.00 10 6.45	+6.49	6.00			Firm, reddish brown, clayey sandy SILT with occasional subangular fine gravel. (FILL)
16.12.2010 20.12.2010		2.30 at 0800	100										
							B=51	11 9.00 12 9.45	+3.49	9.00		VI	Firm, red mottled yellow, slightly sandy CLAY/ SILT with occasional angular fine gravel of quartz. (RESIDUAL SOIL)
20.12.2010 21.12.2010		8.80 at 0800	100				▲		+2.49	10.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED	L. Zhang
DATE	14.01.2011
CHECKED	C. Lun
DATE	15.01.2011

REMARKS

1. An inspection pit was excavated to 3.00m deep by hand tools.
2. Drilling without water flushing was carried out from 3.00m to 6.50m.
3. Soil samples taken by U76 sampler were removed from the sampler tubes for environmental testing.
4. Water sample was taken at 9.50m.

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB123**

SHEET 2 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836639.40** N **818786.76**	WORKS ORDER NO. **D-463**
MACHINE **SD18**		DATE **18.12.2010** to **23.12.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+12.49** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11												VI	As sheet 1 of 3.
12			100				B=59	13 12.00 14 12.45	+0.49	12.00		V	Extremely weak, light yellow to pink spotted white, completely decomposed medium grained GRANITE. (Clayey silty fine SAND with some angular fine gravel of quartz)
13													
14													
15			100				B=106	15 15.00 16 15.45					
16													
17													
18		7.88 at 1800	100				B=150	17 18.00 18 18.15	-5.51	18.00		IV	Very weak, pink mottled brown, highly decomposed medium grained GRANITE. (Angular, slightly sandy fine to medium, occasional coarse GRAVEL sized quartz and granite fragments)
21.12.2010 23.12.2010		8.80 at 0800											
19													
20									-7.51	20.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED	L. Zhang
DATE	14.01.2011
CHECKED	C. Lun
DATE	15.01.2011

REMARKS

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB123**

SHEET 3 of 3

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836639.40** N **818786.76**	WORKS ORDER NO. **D-463**
MACHINE **SD18**		DATE **18.12.2010** to **23.12.2010**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	GROUND LEVEL **+12.49** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21			100				B=280	19 21.00 20 21.15				IV	As sheet 2 of 3.
22													
23													
24			100				B=345	21 24.00 22 24.15					
25													
26													
27			100				B=352	23 27.00 24 27.15	-14.51	27.00		IV	Weak, light greenish grey mottled brown, highly decomposed medium grained GRANITE. (Angular, fine to coarse GRAVEL sized quartz and granite fragments)
28	HW 28.34m								-15.85	28.34		III	Moderately strong, pink mottled brown spotted white and green, moderately decomposed, altered, medium to coarse grained GRANITE.
			100	72	72	2.9		28.34 T2-101 28.87					
29		8.62 at 1800	100	100	100	0.0		T2-101		29.02			Joint set 1: Joints are medium spaced, rough planar and stepped, iron oxide stained, chlorite coated (<1mm), dipping subvertically.
23.12.2010									-17.01	29.50			End of hole at 29.50 m.
30													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED	L. Zhang
DATE	14.01.2011
CHECKED	C. Lun
DATE	15.01.2011

REMARKS

Site ID 2-05

(11203/SCL/EB140 and 11203/SCL/EB141)

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB140**

SHEET 1 of 1

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836884.25** N **818397.89**	WORKS ORDER NO. **D-463**
MACHINE **SD29**		DATE **20.10.2010** to **20.10.2010**
FLUSHING MEDIUM **NONE**	ORIENTATION **VERTICAL**	GROUND LEVEL **+4.42** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
								1 0.45	+4.42	0.00			Loose, grey to reddish grey, fine to coarse SAND with some subangular fine to coarse gravel. (FILL)
									+3.92	0.50			Loose, reddish brown, fine to coarse SAND with some subangular fine to coarse gravel. (FILL)
								2 0.95					
								3 1.45					
								4 1.95					
								5 2.45					
									+1.42	3.00			
			100				B=16	7 3.00					Loose to medium dense, light greenish grey, clayey silty fine to coarse SAND with some subangular fine and occasional medium to coarse gravel of moderately strong to strong granite fragments. (FILL)
								8 3.45					
			100				B=6	9 5.00					
								10 5.45					
			100				B=27	11 6.00					
								12 6.45	-2.08	6.50			End of hole at 6.50 m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **25.10.2010**

CHECKED **C. Lun**

DATE **26.10.2010**

REMARKS

1. An inspection pit was excavated to 2.50m deep by hand tools.
2. Water sample was taken at 6.50m.
3. Soil samples taken by U76 sampler were removed from the sampler tubes for environmental testing.

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. 11203

HOLE NO. **11203/SCL/EB141**

SHEET 1 of 1

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836901.58** N **818384.08**	WORKS ORDER NO. **D-463**
MACHINE **SD29**		DATE **21.10.2010** to **22.10.2010**
FLUSHING MEDIUM **NONE**	ORIENTATION **VERTICAL**	GROUND LEVEL **+4.15** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21.10.2010								1 0.45	+4.15	0.00			Loose, light reddish brown, clayey silty fine to coarse SAND with some fine to coarse gravel of strong rock fragment and occasional red brick fragments. (FILL)
								2 0.95					
								3 1.45 1.50	+2.65	1.50			Light grey, subangular COBBLE with occasional coarse gravel of concrete fragment and occasional strong granite fragments. (FILL)
			100					T-120 1.90	+2.25	1.90			Light grey and yellowish red, slightly sandy subangular fine to coarse GRAVEL with occasional cobble of strong granite and concrete fragments and with occasional brick fragments. (FILL)
							B=32	4 3.45 3.00					
			0				B=30	5 3.95 3.50					
			0				B=29	6 4.45 4.00	+0.15	4.00			
			0				B=13	7 4.50	-0.35	4.50			No recovery, assumed to be FILL.
			100				B=9	8 4.95	-0.85	5.00			Medium dense, brownish grey, very clayey silty fine to coarse SAND with occasional subangular fine gravel of rock fragments. (FILL)
			100					9 5.00 10 5.45					Loose to medium dense, light brown, clayey silty fine to coarse SAND with some subangular fine gravel of rock fragments. (FILL)
21.10.2010 22.10.2010													
22.10.2010			100				B=20	11 6.00 12 6.45	-2.35	6.50			
													End of hole at 6.50 m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **25.10.2010**

CHECKED **C. Lun**

DATE **26.10.2010**

REMARKS

1. An inspection pit was excavated to 1.50m deep by hand tools.
2. Water sample was taken at 6.50m.
3. Soil samples taken by U76 sampler were removed from the sampler tubes for environmental testing.

Site ID 2-04, 2-06, and 2-07

(11203/SCL/EB146)

DRiLTECH

DRILLHOLE RECORD

CONTRACT NO. **11203**

HOLE NO. **11203/SCL/EB146**

SHEET **1** of **1**

PROJECT **Stage II Further Ground Investigation for Shatin to Central Link**

METHOD **ROTARY**	CO-ORDINATES E **836896.61** N **818348.41**	WORKS ORDER NO. **D-463**
MACHINE **SD2**		DATE **17.11.2010** to **17.11.2010**
FLUSHING MEDIUM **NONE**	ORIENTATION **VERTICAL**	GROUND LEVEL **+3.90** mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/ End	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
17.11.2010	SW							1 0.45	+3.90	0.00			Loose, reddish brown to greyish brown, fine to coarse SAND with some subangular fine to coarse gravel. (FILL)
								2 0.95					
								3 1.45	+2.40	1.50			Loose, greyish brown, clayey silty fine to coarse SAND with some subangular fine to coarse gravel of rock fragments and with occasional steel fragments. (FILL)
								4 1.95					
								5 2.45					
	SW 3.00m								+0.90	3.00			
	PW		0				B=10	3.00					Loose to medium dense, reddish brown to grey, clayey silty fine to coarse SAND with some subangular fine to coarse gravel of rock and wood fragments. (FILL)
								6 3.45					
			0				B=8	3.50					
								7 3.95	-0.10	4.00			
													Dry drilling, assumed to be FILL.
									-2.10	6.00			
			0				B=15	6.00					Medium dense, greenish grey, clayey silty fine to coarse SAND with some subangular fine gravel. (FILL)
								8 6.45	-2.60	6.50			
													Dry drilling, assumed to be FILL.
									-5.10	9.00			
		2.00 at 1800	0				B=23	9.00					Medium dense, reddish yellow, clayey silty fine to coarse SAND with some angular to subangular fine gravel. (FILL)
17.11.2010	PW 9.50m						▲	9 9.45	-5.60	9.50			
													End of hole at 9.50 m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**

DATE **22.11.2010**

CHECKED **C. Lun**

DATE **01.12.2010**

REMARKS

1. An inspection pit was excavated to 2.50m deep by hand tools.
2. Soil samples taken by U76 sampler were removed from the sampler tubes for environmental testing.
3. Water sample was taken at 9.50m.

Appendix C

Analytical Laboratory Testing Results for Soil and Groundwater Samples and Standard Form 3.2 – 3.5

Summary Report of Soil and Groundwater Samples

(Stage-1 SI)

Soil Sample Analysis under RBRG Industrial Limits

						VOC													Metals														Cyanide
Site ID	Sampling Locations	Ground level (mPD)	Sampling Date	Sub-sample Depth (m)	Parameters[#]	Acetone	Benzene	Bromodichloromethane	2-Butanone	Chloroform	Ethylbenzene	Methyl tert-Butyl Ether	Methylene Chloride	Styrene	Tetrachloroethene	Toluene	Trichloroethene	Xylenes (total)	Antimony	Arsenic	Barium	Cadmium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Tin	Zinc	Chromium III	Chromium VI	Cyanide, free
					Reporting Limit (mg/kg)	5	0.5	0.5	5	0.5	0.5	0.5	5	0.5	0.5	0.5	0.5	1.5	1	1	0.5	0.2	0.5	1	1	0.5	0.05	1	1	0.5	1	0.5	0.5	1
					RBRG Industrial Limit (mg/kg)	10000	9.21	2.85	10000	1.54	8240	70.1	13.9	10000	0.777	10000	5.68	1230	261	196	10000	653	10000	10000	2290	10000	38.4	3260	10000	10000	10000	10000	1960	10000
					Saturation Limit (mg/kg)	***	336	1030	***	1100	138	2380	921	497	97.1	235	488	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1-18	2209/SCL/ETT103	+4.23	1-Jun-09	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	82	--	--	--	--	--	--	--	--
	2209/SCL/ETT103		1-Jun-09	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	108	--	--	--	--	--	--	--	--
	2209/SCL/ETT103		1-Jun-09	3.00	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	144	--	--	--	--	--	--	--	--
1-10	2209/SCL/EDH249(P	+4.19	16-Apr-09	0.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	67	--	--	--	--	--	16	--	--	<1
	2209/SCL/EDH249(P		16-Apr-09	1.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	195	--	--	--	--	--	67	--	--	<1
	2209/SCL/EDH249(P		16-Apr-09	3.00-3.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	88	--	--	--	--	--	21	--	--	<1
	2209/SCL/EDH249(P		16-Apr-09	6.00-6.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	117	--	--	--	--	--	190	--	--	<1
	2209/SCL/EDH249(P		16-Apr-09	9.00-9.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	9	--	--	--	--	--	22	--	--	<1
	2209/SCL/EDH249(P		16-Apr-09	12.00-12.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	5	--	--	--	--	--	31	--	--	<1
	2209/SCL/EDH249(P		16-Apr-09	15.00-15.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	2	--	--	--	--	--	67	--	--	<1
	2209/SCL/EDH249(P		17-Apr-09	18.00-18.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	8	--	--	--	--	--	190	--	--	<1
	2209/SCL/EDH249(P		17-Apr-09	21.00-21.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	7	--	--	--	--	--	95	--	--	<1
	2209/SCL/EDH249(P		17-Apr-09	24.00-24.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	12	--	--	--	--	--	48	--	--	<1
2-05	2209/SCL/ETT165	+4.42	3-Jul-09	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	29	--	--	--	--	--	--	--	--
	2209/SCL/ETT165		3-Jul-09	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	20	--	--	--	--	--	--	--	--
	2209/SCL/ETT165		3-Jul-09	3.00	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--
2-06	2209/SCL/ETT102	+3.91	8-Jul-09	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	27	--	--	--	--	--	--	--	--
	2209/SCL/ETT102		8-Jul-09	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	19	--	--	--	--	--	--	--	--
	2209/SCL/ETT102		8-Jul-09	3.00	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	18	--	--	--	--	--	--	--	--
2-07	2209/SCL/EDH244**	+4.21	29-Jun-09	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	46	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		29-Jun-09	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	47	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		29-Jun-09	3.00.3.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	51	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		29-Jun-09	6.00-6.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	16	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		29-Jun-09	9.00-9.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	5	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		29-Jun-09	12.00-12.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	5	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		30-Jun-09	15.00-15.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		30-Jun-09	18.00-18.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		30-Jun-09	21.00-21.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	14	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		2-Jul-09	24.00-24.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	7	--	--	--	--	--	--	--	--
	2209/SCL/EDH244		3-Jul-09	27.00-27.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	45	--	--	--	--	--	--	--	--
2-09	2209/SCL/EDH231	+4.23	3-Apr-09	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	35	--	--	--	--	--	--	--	--
	2209/SCL/EDH231**		3-Apr-09	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	51	--	--	--	--	--	--	--	--
	2209/SCL/EDH231		3-Apr-09	3.00-3.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	39	--	--	--	--	--	--	--	--
	2209/SCL/EDH231		3-Apr-09	6.00-6.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	58	--	--	--	--	--	--	--	--
	2209/SCL/EDH231		6-Apr-09	9.00-9.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	71	--	--	--	--	--	--	--	--
	2209/SCL/EDH231		6-Apr-09	12.00-12.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	11	--	--	--	--	--	--	--	--
	2209/SCL/EDH231		6-Apr-09	15.00-15.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	9	--	--	--	--	--	--	--	--
L17	2209/SCL/ETT106*	+4.84	17-Jul-09	0.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	18.7	<0.2	1.7	5	99	312	<0.05	3	2	2.6	27	1.4	<0.5	--
	2209/SCL/ETT106*		17-Jul-09	1.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	59.6	<0.2	2.3	4	123	282	<0.05	3	2	2.1	26	1.3	<0.5	--
	2209/SCL/ETT106*		17-Jul-09	3.00	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	25.7	<0.2	1.9	4	107	384	<0.05	3	2	2.8	27	<0.5	<0.5	--
	2209/SCL/ETT068*	+4.19	9-Jul-09	0.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	20.9	0.7	<0.5	3	28	2770	0.07	38	<1	3.9	56	<0.5	<0.5	--
	2209/SCL/ETT068*		9-Jul-09	1.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	<1	17.6	0.2	<0.5	<1	28	753	0.07	3	<1	3.2	36	<0.5	<0.5	--
	2209/SCL/ETT068*		9-Jul-09	3.00	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	17.6	0.3	<0.5	1	27	996	<0.05	3	<1	4.0	54	<0.5	<0.5	--
	2209/SCL/EDH256	+4.75	15-Jul-09	0.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	23.9	<0.2	2.9	3	74	235	<0.05	3	2	2	22	1.5	<0.5	--
	2209/SCL/EDH256		15-Jul-09	1.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	30.1	<0.2	2.7	4	78	254	<0.05	2	2	2.2	27	2.6	<0.5	--
	2209/SCL/EDH256		16-Jul-09	3.00-3.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	15.2	<0.2	1.3	4	50	148	<0.05	6	2	2.3	43	2.2	<0.5	--
	2209/SCL/EDH256		16-Jul-09	6.00-6.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	3	10.8	<0.2	1.4	12	81	82.3	<0.05	7	1	0.7	155	1.4	<0.5	--
	2209/SCL/EDH256		17-Jul-09	9.00-9.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	12	9.9	<0.2	1	22	113	66.4	<0.05	22	2	1.5	131	3.2	<0.5	--
	2209/SCL/EDH256		17-Jul-09	12.00-12.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	4.8	<0.2	0.9	1	10	180	<0.05	<1	<1	0.8	202	<0.5	<0.5	--
3-02	2209/SCL/EDH257(P	+4.71	8-Jul-09	0.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	3	142	<0.2	1.8	1	12	915	0.42	1	<1	4	50	1	<0.5	--
	2209/SCL/EDH257(P		8-Jul-09	1.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	38.8	<0.2	1.7	1	30	484	0.06	1	1	2.7	25	2.1	<0.5	--
	2209/SCL/EDH257(P		8-Jul-09	3.00-3.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	142	<0.2	1.9	<1	23	1300	0.06	1	<1	2.3	48	<0.5	<0.5	--
	2209/SCL/EDH257(P		8-Jul-09	6.00-6.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	49.8	<0.2	3.6	4	36	634	0.2	1	1	3.2	175	2.6	<0.5	--
	2209/SCL/EDH257(P		9-Jul-09	9.00-9.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	4	79.2	0.2	4.6	26	87	255	0.73	1	9	5.2	126	17.7	<0.5	--
	2209/SCL/EDH257(P		9-Jul-09	12.00-12.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	23.9	<0.2	3.2	3	26	313	<0.05	1	<1	1	80	1.2	<0.5	--
	2209/SCL/EDH229(P	+4.18	5-Jun-09	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	13	--	--	--	--	--	--	--	--
	2209/SCL/EDH229(P		5-Jun-09	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	32	--	--	--	--	--	--	--	--
	2209/SCL/EDH229(P		5-Jun-09	3.00-3.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	20	--	--	--	--	--	--	--	--
	2209/SCL/EDH229(P		5-Jun-09	6.00-6.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	77	--	--	--	--	--	--	--	--
	2209/SCL/EDH229(P		8-Jul-09	9.00-9.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	11	--	--	--	--	--	--	--	--
	2209/SCL/EDH229(P		8-Jul-09	12.00-12.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--
	2209/SCL/EDH124(P	+4.05	6-May-09	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	54	--	--	--	--	--	--	--	--
	2209/SCL/EDH124(P		6-May-09	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	79	--	--	--	--	--	--	--	--
	2209/SCL/EDH124(P		8-May-09	3.00-3.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	50	--	--	--	--	--	--	--	--
	2209/SCL/EDH124(P		8-May-09	6.00-6.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	15	--	--	--	--	--	--	--	--
	2209/SCL/EDH124(P		8-May-09	9.00-9.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	14	--	--	--	--	--	--	--	--

Note:
[#] indicates that the actual reporting limit of barium, cobalt, manganese, and tin for soil samples, which are lower than their proposed limits in the CAP, are accredited under HOKLAS.
* indicates samples that have lead concentration tested twice and only the most conservative value (the higher one) is listed in this table.
** indicates duplicate samples were collected, and the results represents the highested detected concentrations
*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies
Underline indicates exceedance of soil saturation limit
Full analytical results should be referred to laboratory report

Soil Sample Analysis under RBRG Industrial Limits

						TPH			SVOC																	
Site ID	Sampling Locations	Ground level (mPD)	Sampling Date	Sub-sample Depth (m)	Parameters#	C6 – C8	C9 – C16	C17 – C35	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benza(a)pyrene	Benza(b) & (k) fluoranthene	Benzo(g,h,i)perylene	bis-(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Hexachlorobenzene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene
					Reporting Limit (mg/kg)	5	200	500	0.5	0.5	0.5	0.5	0.5	1.0	0.5	5.0	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5
					RBRG Industrial Limit (mg/kg)	10000	10000	10000	10000	10000	10000	91.8	9.18	17.8	10000	91.8	1140	9.18	10000	10000	0.582	91.8	453	10000	10000	10000
					Saturation Limit (mg/kg)	1000	3000	5000	60.2	19.8	2.56	NA	NA	NA	NA	NA	NA	NA	NA	54.7	NA	NA	125	28	7260	NA
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1-18	2209/SCL/ETT103	+4.23	1-Jun-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/ETT103		1-Jun-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/ETT103		1-Jun-09	3.00	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
1-10	2209/SCL/EDH249(P	+4.19	16-Apr-09	0.50	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		16-Apr-09	1.50	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		16-Apr-09	3.00-3.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		16-Apr-09	6.00-6.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		16-Apr-09	9.00-9.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		16-Apr-09	12.00-12.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		16-Apr-09	15.00-15.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		17-Apr-09	18.00-18.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		17-Apr-09	21.00-21.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH249(P		17-Apr-09	24.00-24.45	Pass	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
2-05	2209/SCL/ETT165	+4.42	3-Jul-09	0.50	Pass	<5	<200	2960	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/ETT165		3-Jul-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/ETT165		3-Jul-09	3.00	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
2-06	2209/SCL/ETT102	+3.91	8-Jul-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/ETT102		8-Jul-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/ETT102		8-Jul-09	3.00	Pass	<5	2610	2880	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
2-07	2209/SCL/EDH244**	+4.21	29-Jun-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		29-Jun-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		29-Jun-09	3.00.3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		29-Jun-09	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		29-Jun-09	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		29-Jun-09	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		30-Jun-09	15.00-15.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		30-Jun-09	18.00-18.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		30-Jun-09	21.00-21.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		2-Jul-09	24.00-24.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH244		3-Jul-09	27.00-27.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
2-09	2209/SCL/EDH231	+4.23	3-Apr-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH231**		3-Apr-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH231		3-Apr-09	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH231		3-Apr-09	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH231		6-Apr-09	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH231		6-Apr-09	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH231		6-Apr-09	15.00-15.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
L17	2209/SCL/ETT106*	+4.84	17-Jul-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/ETT106*		17-Jul-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/ETT106*		17-Jul-09	3.00	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/ETT068*	+4.19	9-Jul-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/ETT068*		9-Jul-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/ETT068*		9-Jul-09	3.00	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH256	+4.75	15-Jul-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH256		15-Jul-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH256		16-Jul-09	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH256		16-Jul-09	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH256		17-Jul-09	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH256		17-Jul-09	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH257(P	+4.71	8-Jul-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH257(P		8-Jul-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH257(P		8-Jul-09	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH257(P		8-Jul-09	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH257(P		9-Jul-09	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	2209/SCL/EDH257(P		9-Jul-09	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
3-02	2209/SCL/EDH229(P	+4.18	5-Jun-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH229(P		5-Jun-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH229(P		5-Jun-09	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH229(P		5-Jun-09	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	0.8	<0.5	--	<0.5	<0.5	<0.5	--	0.8
	2209/SCL/EDH229(P		8-Jul-09	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH229(P		8-Jul-09	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH124(P	+4.05	6-May-09	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH124(P		6-May-09	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH124(P		8-May-09	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH124(P		8-May-09	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	2209/SCL/EDH124(P		8-May-09	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	--	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5

Note:
# indicates that the actual reporting limit of barium, cobalt, manganese, and tin for soil samples, which ar
* indicates samples that have lead concentration tested twice and only the most conservative value (the
** indicates duplicate samples were collected, and the results represents the highested detected concen
*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies
Underline indicates exceedance of soil saturation limit
Full analytical results should be referred to laboratory report

Groundwater Sample Analysis under RBRG Industrial Limits

				Metals	TPH			VOCs															SVOCs												
Site ID	Sampling Locations	Sampling Date	Parameters**	Mercury	C6 – C8	C9 – C16	C17 – C35	Benzene	Toluene	Ethylbenzene	meta- & para Xylene	ortho-Xylene	Total Xylene	Styrene	Acetone	2-Butanone (MEK)	Methylene chloride	Trichloroethene	Tetrachloroethene	Chloroform	Bromodichloromethane	Methyl tert-Butyl Ether (MTBE)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b) & Benzo(k)fluoranthene	Hexachlorobenzene (HCB)
			Reporting Limit (µg/L)	0.1	20	500	500	5	5	5	10	5	15	5	50	50	50	5	5	5	5	5	2	2	2	2	2	2	2	2	4	4
			RBRG Industrial Limit (µg/L)	6790	1150000	9980000	178000	54000	10000000	10000000	NA	NA	1570000	10000000	10000000	10000000	224000	14200	2950	11300	26200	1810000	862000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	812000	7530	695
			Csat (µg/L)	NA	5230	2800	2800	1750000	526000	169000	NA	NA	175000	310000	***	***	***	1100000	200000	7920000	6740000	***	31000	3930	4240	1980	1000	43.4	206	135	1.6	1.5	6200
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1-10	2209/SCL/EDH249(P)	16-Apr-09	Pass	--	--	--	--	<5	<5	<5	<10	<5	<15	<5	<50	<50	<50	<5	<5	17	5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
2-07	2209/SCL/EDH244	30-Jun-09	Pass	--	<20	<500	<500	<5	<5	<5	<10	<5	<15	--	--	--	--	--	--	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	--
2-09	2209/SCL/EDH231	6-Apr-09	Pass	--	30	<500	<500	<5	30	<5	<10	<5	<15	--	--	--	--	--	--	--	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2	<4	--
L17	2209/SCL/EDH257(P)	9-Jul-09	Pass	<0.1	<20	<500	<500	<5	<5	<5	<10	<5	<15	<5	<50	<50	<50	<5	<5	19	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
	2209/SCL/EDH256	17-Jul-09	Pass	<0.1	<20	<500	<500	<5	<5	<5	<10	<5	<15	<5	<50	<50	<50	<5	<5	26	5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
3-02	2209/SCL/EDH229(P)	8-Jun-09	Pass	--	<20	<500	<500	<5	<5	<5	<10	<5	<15	--	--	--	--	--	--	--	--	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	--

Note:
** indicates that the actual reporting limit of mercury for groundwater samples, which is lower than the proposed 0.5 µg/L in the CAP, is accredited under HOKLAS.
*** indicates that the the solubility limit exceeds the 'ceiling limit' therefore the RBRG applies
NA= Not Applicable
Bold and shaded indicates exceedance of the RBRG Level
Underline indicates exceedance of the soil saturation limit
Full analytical results should be referred to laboratory reports

Summary Report of Soil and Groundwater Samples

(Post-Stage 1 SI)

Soil Sample Analysis under RBRG Industrial Limits

Site ID	Sampling Locations	Ground level (mPD)	Sampling Date	Sub-sample Depth (m)	Parameters$^{\#}$	VOC													Metals				TPH			SVOC																	
						Acetone	Benzene	Bromodichloromethane	2-Butanone	Chloroform	Ethylbenzene	Methyl tert-Butyl Ether	Methylene Chloride	Styrene	Tetrachloroethene	Toluene	Trichloroethene	Xylenes (total)	Copper	Lead	Chromium III	Chromium VI	C6 – C8	C9 – C16	C17 – C35	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b) & (k) fluoranthene	Benzo(g,h,i)perylene	bis--(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Hexachlorobenzene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene
					Reporting Limit (mg/kg)	5	0.2	0.5	5	0.5	0.2	0.5	0.5	0.5	0.5	0.2	0.5	0.6	1	1	0.5	0.5	5	200	500	0.5	0.5	0.5	0.5	0.5	1.0	0.5	5	0.5	0.5	0.5	0.5	0.05	0.5	0.5	0.5	0.5	0.5
					RBRG Industrial Limit (mg/kg)	10000	9.21	2.85	10000	1.54	8240	70.1	13.9	10000	0.777	10000	5.68	1230	10000	2290	10000	1960	10000	10000	10000	10000	10000	10000	91.8	9.18	17.8	10000	91.8	1140	9.18	10000	10000	0.582	91.8	453	10000	10000	10000
					Saturation Limit (mg/kg)	***	336	1030	***	1100	138	2380	921	497	97.1	235	488	150	NA	NA	NA	NA	1000	3000	5000	60.2	19.8	2.56	NA	NA	NA	NA	NA	NA	NA	NA	54.7	NA	NA	125	28	7260	NA
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2-02	11202/SCL/EDH136	+3.50	31-May-10	0.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	36	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH136		31-May-10	1.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	39	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH136		31-May-10	3.00	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	68	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH136		7-Jun-10	6.00-6.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	48	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH136		7-Jun-10	9.00-9.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	21	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH136		7-Jun-10	12.00-12.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	18	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH136		7-Jun-10	15.00-15.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	22	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
2-04, 2-06, and 2-07	11202/SCL/EDH138	+4.44	21-Jun-10	0.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	6	22	3.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		21-Jun-10	1.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	16	341	5.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		21-Jun-10	3.00	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	37	2.6	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		5-Jul-10	6.00-6.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	9	42	2.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		5-Jul-10	9.00-9.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	5	18	16.0	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		5-Jul-10	12.00-12.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	7	5.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		5-Jul-10	15.00-15.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	53	4.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		7-Jul-10	18.00-18.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	5	7.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		7-Jul-10	21.00-21.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	6	12.1	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH138		7-Jul-10	24.00-24.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	6	9	5.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139	4.45	15-Jun-10	0.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	5	57	3.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		15-Jun-10	1.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	5	26	2.6	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		15-Jun-10	3.00	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	20	2.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		24-Jun-10	6.00-6.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	30	82	24.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		24-Jun-10	9.00-9.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	138	180	23.4	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		24-Jun-10	12.00-12.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	4	6.3	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		24-Jun-10	15.00-15.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	<1	1.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		25-Jun-10	18.00-18.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	8	12.3	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		25-Jun-10	21.00-21.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	6	11	6.0	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		25-Jun-10	24.00-24.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	10	3.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		25-Jun-10	27.00-27.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	14	3.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		5-Jul-10	30.00-30.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	7	49	1.0	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		6-Jul-10	33.00-33.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	15	<0.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH139		6-Jul-10	36.00-36.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	13	2.4	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140	4.35	3-Jul-10	0.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	41	1.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		3-Jul-10	1.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	74	1.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		3-Jul-10	3.00	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	10	69	4.1	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		15-Jun-10	6.00-6.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	21	87	7.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		15-Jun-10	9.00-9.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	6	7.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		15-Jun-10	12.00-12.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	4	3.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		17-Jun-10	15.00-15.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	9	6.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		17-Jun-10	18.00-18.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	2	7.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		17-Jun-10	21.00-21.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	5	2.6	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		17-Jun-10	24.00-24.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	8	1.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		18-Jun-10	27.00-27.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	29	0.6	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		18-Jun-10	30.00-30.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	8	<0.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		18-Jun-10	33.00-33.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	6	1.0	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH140		18-Jun-10	36.00-36.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	6	2.1	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141	4.19	26-May-10	0.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	9	26	3.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		26-May-10	1.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	12	31	5.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		26-May-10	3.00	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	16	<0.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		29-May-10	6.00-6.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	11	93	2.0	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		31-May-10	9.00-9.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	45	53	15.4	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		31-May-10	12.00-12.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	5	6.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		1-Jun-10	15.00-15.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	6	13	14.6	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		1-Jun-10	18.00-18.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	5	18	5.6	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		1-Jun-10	21.00-21.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	60	<0.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		2-Jun-10	24.00-24.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	21	1.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		2-Jun-10	27.00-27.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	34	1.6	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		2-Jun-10	30.00-30.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	132	1.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		3-Jun-10	33.00-33.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	228	1.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		3-Jun-10	36.00-36.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	8	1.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		4-Jun-10	39.00-39.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	4	0.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH141		8-Jun-10	42.00-42.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	7	4	<0.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH142	3.89	27-May-10	0.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	12	42	6.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH142		27-May-10	1.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	11	39	6.0	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH142		27-May-10	3.00	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	9	38	4.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143	4.07	2-Jun-10	0.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	25	3.0	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		2-Jun-10	1.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	28	5.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		2-Jun-10	3.00	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	19	2.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		15-Jun-10	6.00-6.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	18	3.3	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		15-Jun-10	9.00-9.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	24	2.3	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		15-Jun-10	12.00-12.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	4	5.1	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		15-Jun-10	15.00-15.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	<1	5	3.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		17-Jun-10	18.00-18.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	30	5.1	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		17-Jun-10	21.00-21.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	27	2.4	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		17-Jun-10	24.00-24.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	23	2.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		17-Jun-10	27.00-27.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	14	1.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		18-Jun-10	30.00-30.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	76	2.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH143		18-Jun-10	33.00-33.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	531	2.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		29-May-10	0.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	9	37	2.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		29-May-10	1.50	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	26	1.9	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		29-May-10	3.00	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	27	2.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		3-Jun-10	6.00-6.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	18	2.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		3-Jun-10	9.00-9.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	20	119	11.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		3-Jun-10	12.00-12.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	21	81	22.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		3-Jun-10	15.00-15.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	12	141	16.3	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		4-Jun-10	18.00-18.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	14	7.3	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		4-Jun-10	21.00-21.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	1	3	3.7	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		5--Jun-10	24.00-24.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	4	9	1.5	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		7-Jun-10	27.00-27.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	3	7	0.8	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		7-Jun-10	30.00-30.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	79	1.2	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH144		7-Jun-10	33.00-33.45	Pass	<5	<0.2	<0.5	<5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.6	2	8	2.4	<0.5	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
2-08	11202/SCL/EDH012	4.36	2-Jun-10	0.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	63	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<0.5	--	<0.5	<0.5	<0.05	--	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		2-Jun-10	1.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	38	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<0.5	--	<0.5	<0.5	<0.05	--	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		2-Jun-10	3.00	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	25	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<0.5	--	<0.5	<0.5	<0.05	--	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		7-Jun-10	6.00-6.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	47	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		7-Jun-10	9.00-9.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	58	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		8-Jun-10	12.00-12.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	18	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		8-Jun-10	15.00-15.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	88	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		8-Jun-10	18.00-18.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	10	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		8-Jun-10	21.00-21.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	9	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		8-Jun-10	24.00-24.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	4	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/EDH012		8-Jun-10	27.00-27.45	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	7	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP027	4.22	19-Mar-10	0.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	25	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP027		19-Mar-10	1.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	14	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP027		19-Mar-10	3.00	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	12	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP042	4.19	11-Mar-10	0.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	51	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP042		11-Mar-10	1.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	42	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP042		11-Mar-10	3.00	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	49	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5

2-08	11202/SCL/ETP043	4.18	11-Mar-10	0.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	42	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP043		11-Mar-10	1.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	44	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP043		11-Mar-10	3.00	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	56	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP044	4.18	19-Mar-10	0.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	16	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP044		19-Mar-10	1.50	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	11	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
	11202/SCL/ETP044		19-Mar-10	3.00	Pass	--	<0.2	--	--	--	<0.2	--	--	--	--	<0.2	--	<0.6	--	35	--	--	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5

Note:

[#] indicates that the actual reporting limit of barium, cobalt, manganese, and tin for soil samples, which are lower than their proposed limits in the CAP, are accredited under HOKLAS.

* indicates samples that have lead concentration tested twice and only the most conservative value (the higher one) is listed in this table.

*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies

Underline indicates exceedance of soil saturation limit

Full analytical results should be referred to laboratory report

Groundwater Sample Analysis under RBRG Industrial Limits

				TPH			VOCs														SVOCs										
Site ID	Sampling Locations	Sampling Date	Parameters**	C6 – C8	C9 – C16	C17 – C35	Benzene	Toluene	Ethylbenzene	meta- & para Xylene	ortho-Xylene	Total Xylene	Styrene	Acetone	2-Butanone (MEK)	Methylene chloride	Trichloroethene	Tetrachloroethene	Chloroform	Bromodichloromethane	Methyl tert-Butyl Ether (MTBE)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b) & Benzo(k)fluoranthene	Hexachlorobenzene (HCB)
			Reporting Limit (µg/L)	20	500	500	2	2	2	4	2	6	5	50	50	50	5	5	5	5	5	2	2	2	2	2	2	2	2	4	4
			RBRG Industrial Limit (µg/L)	1150000	9980000	178000	54000	10000000	10000000	NA	NA	1570000	10000000	10000000	10000000	224000	14200	2950	11300	26200	1810000	862000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	812000	7530	695
			Csat (µg/L)	5230	2800	2800	1750000	526000	169000	NA	NA	175000	310000	***	***	***	1100000	200000	7920000	6740000	***	31000	3930	4240	1980	1000	43.4	206	135	1.6	1.5	6200
2-02	11202/SCL/EDH136	5-Jun-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	--	--	--	--	--	--	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
2-04, 2-06, 2-07	11202/SCL/EDH138	5-Jul-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	<5	<50	<50	<50	<5	<5	21	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
	11202/SCL/EDH139	24-Jun-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	<5	<50	<50	<50	<5	<5	20	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
	11202/SCL/EDH140	15-Jun-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	<5	<50	<50	<50	<5	<5	6	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
	11202/SCL/EDH141	31-May-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	<5	<50	<50	<50	<5	<5	16	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
	11202/SCL/EDH143	15-Jun-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	<5	<50	<50	<50	<5	<5	16	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
	11202/SCL/EDH144	3-Jun-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	<5	<50	<50	<50	<5	<5	16	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4
2-08	11202/SCL/EDH012	5-Jun-10	Pass	<20	<500	<500	<2	<2	<2	<4	<2	<6	--	--	--	--	--	--	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4

Note:
** indicates that the actual reporting limit of benzene, toluene, ethylbenzene, and xylenes for groundwater samples, which is lower than the proposed 0.5 µg/L in the CAP, is accredited under HOKLAS.
*** indicates that the the solubility limit exceeds the 'ceiling limit' therefore the RBRG applies
NA= Not Applicable
Bold and shaded indicates exceedance of the RBRG Level
Underline indicates exceedance of the soil saturation limit
Full analytical results should be referred to laboratory reports

Summary Report of Soil and Groundwater Samples

(Stage 2 SI)

Soil Sample Analysis under RBRG Industrial Limits

						VOC												Metals														
Site ID	Sampling Locations	Ground level (mPD)	Sampling Date	Sub-sample Depth (m)	Parameters	Acetone	Benzene	Bromodichloromethane	2-Butanone	Chloroform	Ethylbenzene	Methyl tert-Butyl Ether	Methylene Chloride#	Styrene	Tetrachloroethene	Toluene	Trichloroethene	Xylenes (total)	Antimony	Arsenic	Barium	Cadmium	Cobalt	Copper	Lead	Manganese	Molybdenum	Nickel	Tin	Zinc	Mercury	Chromium III	Chromium VI
					Reporting Limit (mg/kg)	5	0.5	0.5	5	0.5	0.5	0.5	2.5	0.5	0.5	0.5	0.5	1.5	1	1	1	0.2	1	1	1	1	1	1	1	1	0.05	0.5	0.5
					RBRG Industrial Limit (mg/kg)	10000	9.21	2.85	10000	1.54	8240	70.1	13.9	10000	0.777	10000	5.68	1230	261	196	10000	653	10000	10000	2290	10000	3260	10000	10000	10000	38.4	10000	1960
					Saturation Limit (mg/kg)	***	336	1030	***	1100	138	2380	921	497	97.1	235	488	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1-22	11203/SCL/EB118	+12.86	16-Dec-10	0.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	14	66	<0.2	8	4	72	640	<1	<1	3	52	<0.05	1.5	<0.5
	11203/SCL/EB118		16-Dec-10	1.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	10	77	<0.2	6	2	53	528	<1	1	5	39	<0.05	1.4	<0.5
	11203/SCL/EB118		16-Dec-10	3.00-3.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	6	90	<0.2	6	3	51	542	<1	1	6	50	<0.05	1.8	<0.5
	11203/SCL/EB119	+4.98	25-Nov-10	0.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	38	<0.2	4	6	49	482	3	1	3	49	<0.05	2.3	<0.5
	11203/SCL/EB119		25-Nov-10	1.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	3	38	<0.2	3	9	69	378	4	2	2	46	0.09	3.4	<0.5
	11203/SCL/EB119		29-Nov-10	3.00-3.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	4	8	<0.2	<1	12	27	51	4	9	1	11	<0.05	18.9	<0.5
	11203/SCL/EB119		30-Nov-10	6.00-6.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	4	<0.2	<1	3	5	33	<1	3	<1	7	<0.05	4.4	<0.5
	11203/SCL/EB120	+12.09	16-Nov-10	0.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	42	<0.2	4	7	52	387	3	1	5	46	<0.05	1.8	<0.5
	11203/SCL/EB120		16-Nov-10	1.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	81	<0.2	2	5	117	766	2	1	3	32	<0.05	1.2	<0.5
	11203/SCL/EB120		18-Nov-10	3.00-3.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	11	<0.2	<1	3	51	94	1	2	2	18	<0.05	4.8	<0.5
	11203/SCL/EB120		19-Nov-10	7.30-7.75	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	17	<0.2	2	5	31	114	4	1	<1	11	<0.05	3.4	<0.5
	11203/SCL/EB120		19-Nov-10	9.80-10.25	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	4	27	<0.2	2	10	109	294	4	2	9	108	2.3	2.3	<0.5
	11203/SCL/EB120		20-Nov-10	12.00-12.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	8	<0.2	4	5	69	90	2	1	<1	14	<0.05	2.5	<0.5
	11203/SCL/EB120		20-Nov-10	15.00-15.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	57	<0.2	1	2	52	587	4	<1	<1	13	<0.05	1.3	<0.5
	11203/SCL/EB120		23-Nov-10	18.00-18.25	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	<1	26	<0.2	<1	2	6	222	1	<1	2	17	<0.05	0.6	<0.5
	11203/SCL/EB120		23-Nov-10	21.00-21.25	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	161	<0.2	5	2	8	1510	4	<1	<1	11	<0.05	0.9	<0.5
	11203/SCL/EB121	+6.51	18-Dec-10	0.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	5	55	<0.2	3	8	59	365	2	2	3	34	0.07	3	<0.5
	11203/SCL/EB121		18-Dec-10	1.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	3	54	<0.2	5	3	82	333	1	2	3	24	<0.05	2.6	<0.5
	11203/SCL/EB121		18-Dec-10	3.00-3.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	1	4	58	<0.2	1	12	95	161	2	2	4	46	0.15	2.8	<0.5
	11203/SCL/EB122	+8.36	6-Dec-10	0.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	88	<0.2	5	5	45	519	2	2	8	53	<0.05	1.8	<0.5
	11203/SCL/EB122		6-Dec-10	1.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	53	<0.2	4	3	83	422	1	2	4	38	<0.05	1.4	<0.5
	11203/SCL/EB122		11-Dec-10	3.00-3.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	5	4	21	<0.2	2	11	43	129	6	3	2	26	0.08	19.2	<0.5
	11203/SCL/EB122		13-Dec-10	6.00-6.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	2	9	<0.2	<1	3	14	22	3	2	<1	6	0.08	3.5	<0.5
	11203/SCL/EB122		13-Dec-10	9.00-9.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	3	20	<0.2	<1	7	16	19	3	2	<1	7	<0.05	2.5	<0.5
	11203/SCL/EB122		13-Dec-10	12.00-12.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	4	145	<0.2	19	6	13	1120	8	<1	<1	11	<0.05	1.2	<0.5
	11203/SCL/EB122		15-Dec-10	15.90-16.35	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	<1	13	<0.2	24	4	21	187	1	3	<1	65	<0.05	4.4	<0.5
	11203/SCL/EB123	+12.49	14-Dec-10	0.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	5	47	<0.2	4	8	104	460	4	1	3	43	<0.05	2.2	<0.5
	11203/SCL/EB123		14-Dec-10	1.50	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	4	43	<0.2	5	5	52	331	4	1	3	27	<0.05	1.2	<0.5
	11203/SCL/EB123		18-Dec-10	3.00-3.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	9	46	<0.2	7	3	83	409	2	3	3	44	<0.05	4.2	<0.5
	11203/SCL/EB123		18-Dec-10	6.00-6.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	5	16	<0.2	2	3	66	112	2	<1	2	15	<0.05	1.8	<0.5
	11203/SCL/EB123		20-Dec-10	9.00-9.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	1	4	5	<0.2	<1	10	20	35	5	2	<1	11	0.05	5.7	<0.5
	11203/SCL/EB123		21-Dec-10	12.00-12.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	1	22	<0.2	<1	12	160	62	3	3	<1	11	<0.05	2.5	<0.5
	11203/SCL/EB123		21-Dec-10	15.00-15.45	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	3	10	<0.2	<1	3	24	59	2	<1	<1	7	<0.05	1.2	<0.5
	11203/SCL/EB123		21-Dec-10	18.00-18.15	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	5	10	<0.2	<1	4	7	170	1	<1	1	11	<0.05	1.1	<0.5
	11203/SCL/EB123		23-Dec-10	21.00-21.15	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	3	15	<0.2	<1	<1	20	130	1	<1	<1	10	<0.05	0.8	<0.5
	11203/SCL/EB123		23-Dec-10	24.00-24.15	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	4	17	<0.2	<1	1	6	117	1	<1	<1	6	<0.05	<0.5	<0.5
	11203/SCL/EB123		23-Dec-10	27.00-27.15	Pass	--	<0.5	<0.5	<5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<1.5	<1	7	4	<0.2	<1	<1	15	40	<1	<1	<1	26	<0.05	0.7	<0.5
2-05	11203/SCL/EB140	+4.42	15-Oct-10	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	31	--	--	--	--	--	--	--
	11203/SCL/EB140		15-Oct-10	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	16	--	--	--	--	--	--	--
	11203/SCL/EB140		20-Oct-10	3.00-3.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	13	--	--	--	--	--	--	--
	11203/SCL/EB140		20-Oct-10	5.00-5.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	11	--	--	--	--	--	--	--
	11203/SCL/EB140		20-Oct-10	6.00-6.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	13	--	--	--	--	--	--	--
	11203/SCL/EB141	+4.15	19-Oct-10	0.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	39	--	--	--	--	--	--	--
	11203/SCL/EB141		19-Oct-10	1.50	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	32	--	--	--	--	--	--	--
	11203/SCL/EB141		21-Oct-10	4.50-4.95	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	21	--	--	--	--	--	--	--
	11203/SCL/EB141		21-Oct-10	5.00-5.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	17	--	--	--	--	--	--	--
	11203/SCL/EB141		22-Oct-10	6.00-6.45	Pass	--	<0.5	--	--	--	<0.5	--	--	--	--	<0.5	--	<1.5	--	--	--	--	--	--	32	--	--	--	--	--	--	--
2-04, 2-06, and 2-07	11203/SCL/EB146	+3.90	11-Nov-10	0.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	16	26	--	--	--	--	--	--	13.1	<0.5
	11203/SCL/EB146		11-Nov-10	1.50	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	19	32	--	--	--	--	--	--	7.7	<0.5
	11203/SCL/EB146		17-Nov-10	3.50-3.95	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	24	16	--	--	--	--	--	--	30.8	<0.5
	11203/SCL/EB146		17-Nov-10	6.00-6.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	2	27	--	--	--	--	--	--	3.4	<0.5
	11203/SCL/EB146		17-Nov-10	9.00-9.45	Pass	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	26	16	--	--	--	--	--	--	25.4	<0.5

Note:

# indicates that the actual reporting limit of methylene chloride for soil samples, which is lower than its proposed limit in the CAP, is accredited under HOKLAS.

*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies

Bold and shaded indicates exceedance of RBRG Industrial limit

Underline indicates exceedance of soil saturation limit

Full analytical results should be referred to laboratory report

Soil Sample Analysis under RBRG Industrial Limits

						TPH			SVOC																
Site ID	Sampling Locations	Ground level (mPD)	Sampling Date	Sub-sample Depth (m)	Parameters	C6 – C8	C9 – C16	C17 – C35	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b) & (k) fluoranthene	Benzo(g,h,i)perylene	bis-(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Hexachlorobenzene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene
					Reporting Limit (mg/kg)	5	200	500	0.5	0.5	0.5	0.5	0.5	1.0	0.5	5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5
					RBRG Industrial Limit (mg/kg)	10000	10000	10000	10000	10000	10000	91.8	9.18	17.8	10000	91.8	1140	9.18	10000	10000	0.582	91.8	453	10000	10000	10000
					Saturation Limit (mg/kg)	1000	3000	5000	60.2	19.8	2.56	NA	NA	NA	NA	NA	NA	NA	NA	54.7	NA	NA	125	28	7260	NA
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1-22	11203/SCL/EB118	+12.86	16-Dec-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB118		16-Dec-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB118		16-Dec-10	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB119	+4.98	25-Nov-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB119		25-Nov-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB119		29-Nov-10	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB119		30-Nov-10	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120	+12.09	16-Nov-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		16-Nov-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		18-Nov-10	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		19-Nov-10	7.30-7.75	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		19-Nov-10	9.80-10.25	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		20-Nov-10	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		20-Nov-10	15.00-15.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		23-Nov-10	18.00-18.25	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB120		23-Nov-10	21.00-21.25	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB121	+6.51	18-Dec-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB121		18-Dec-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB121		18-Dec-10	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB122	+8.36	6-Dec-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB122		6-Dec-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB122		11-Dec-10	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB122		13-Dec-10	6.00-6.45	Pass	<5	203	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB122		13-Dec-10	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB122		13-Dec-10	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB122		15-Dec-10	15.90-16.35	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123	+12.49	14-Dec-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		14-Dec-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		18-Dec-10	3.00-3.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		18-Dec-10	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		20-Dec-10	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		21-Dec-10	12.00-12.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		21-Dec-10	15.00-15.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		21-Dec-10	18.00-18.15	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		23-Dec-10	21.00-21.15	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		23-Dec-10	24.00-24.15	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB123		23-Dec-10	27.00-27.15	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
2-05	11203/SCL/EB140	+4.42	15-Oct-10	0.50	Pass	<5	<200	2330	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB140		15-Oct-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB140		20-Oct-10	3.00-3.45	Pass	7	1840	1480	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	0.627	--	<0.5	<0.5	2.03	--	<0.5
	11203/SCL/EB140		20-Oct-10	5.00-5.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB140		20-Oct-10	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB141	+4.15	19-Oct-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB141		19-Oct-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB141		21-Oct-10	4.50-4.95	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB141		21-Oct-10	5.00-5.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
	11203/SCL/EB141		22-Oct-10	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	--	--	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	--	<0.5
2-04, 2-06, and 2-07	11203/SCL/EB146	+3.90	11-Nov-10	0.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB146		11-Nov-10	1.50	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB146		17-Nov-10	3.50-3.95	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB146		17-Nov-10	6.00-6.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	11203/SCL/EB146		17-Nov-10	9.00-9.45	Pass	<5	<200	<500	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5

Note:

# indicates that the actual reporting limit of methylene chloride for soil samples, which is lower than its proposed limit in
*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies
Bold and shaded indicates exceedance of RBRG Industrial limit
Underline indicates exceedance of soil saturation limit
Full analytical results should be referred to laboratory report

Groundwater Sample Analysis under RBRG Industrial Limits

			TPH			Metals	VOCs															SVOCs											
Sampling Locations	Sampling Date	Parameters	C5 – C8	C9 – C16	C17 – C35	Mercury	Benzene	Toluene	Ethylbenzene	meta- & para-Xylene	ortho-Xylene	Total Xylene	Styrene	Acetone	2-Butanone (MEK)	Methylene chloride	Trichloroethene	Tetrachloroethene	Chloroform	Bromodichloromethane	Methyl tert-Butyl Ether (MTBE)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b) & Benzo(k)fluoranthene	Hexachlorobenzene (HCB)
		Reporting Limit (µg/L)	20	500	500	0.5	5	5	5	10	5	15	5	--	50	--	5	5	5	5	--	2	2	2	2	2	2	2	2	1	1	4
		RBRG Industrial Limit (µg/L)	1150000	9980000	178000	6790	54000	10000000	10000000	NA	NA	1570000	10000000	10000000	10000000	224000	14200	2950	11300	26200	1810000	862000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	812000	7530	695
		Csat (**µg/L**)	5230	2800	2800	NA	1750000	526000	169000	NA	NA	175000	310000	***	***	***	1100000	200000	7920000	6740000	***	31000	3930	4240	1980	1000	43.4	206	135	1.6	1.5	6200
Site ID 1-22 Historical Railway Maintenance Facility near the Chatham Road Interchange (CRI)																																	
11203/SCL/EB120	23-Nov-10	Pass	<20	<500	<500	<0.5	<5	<5	<5	<10	<5	<15	<5	--	2990	--	<5	<5	9	<5	--	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<4
11203/SCL/EB122	14-Dec-10	Pass	<20	<500	500	<0.5	<5	35	<5	<10	<5	<15	<5	--	180	--	<5	<5	<5	<5	--	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<4
11203/SCL/EB123	21-Dec-10	Pass	<20	<500	1700	<0.5	<5	<5	<5	<10	<5	<15	<5	--	30800	--	<5	<5	<5	<5	--	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<4
Site ID 2-05 USTs near the locomotive running shed																																	
		Reporting Limit (µg/L)	20	500	500	--	5	5	5	10	5	15	--	--	--	--	--	--	--	--	--	2	2	2	2	2	2	2	2	2	4	--
11203/SCL/EB140	20-Oct-10	Pass	<20	<500	<500	--	<5	<5	<5	<10	<5	<15	--	--	--	--	--	--	--	--	--	<2	<2	<2	<2	2	<2	<2	<2	<2	<4	--
11203/SCL/EB141	22-Oct-10	Pass	<20	<500	<500	--	<5	<5	<5	<10	<5	<15	--	--	--	--	--	--	--	--	--	<2	<2	<2	<2	2	<2	<2	<2	<2	<4	--
Site ID 2-04, 2-06 and 2-07 Locomotive running shed and its affiliating facilities																																	
		Reporting Limit (µg/L)	20	500	500	--	5	5	5	10	5	15	5	50	50	50	5	5	5	5	5	2	2	2	2	2	2	2	2	1	1	4
11203/SCL/EB146	19-Nov-10	Pass	<20	<500	<500	--	<5	<5	<5	<10	<5	<15	<5	<50	1210	<50	<5	<5	17	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<4

Note:
*** indicates that the the solubility limit exceeds the 'ceiling limit' therefore the RBRG applies
NA= Not Applicable
Bold and shaded indicates exceedance of the RBRG Level
Underline indicates exceedance of the soil saturation limit
Full analytical results should be referred to laboratory reports

Standard Form 3.2 – 3.5 under Stage 1 and Post-Stage 1

Standard Form 3.2 – Soil Data Summary and Comparison to RBRGs and Csat

Chemical	Frequency of Detection (x/y)	Range of Detected Concentration	Range of Method Reporting Limit	Analytical Method	Relevant Land Use Categories	Most Stringent RBRG(s) (mg/kg)	Csat (mg/kg)	Maximum Detected Concentration Exceeds (check if applicable)	
								RBRG	Csat
Volatile Organic Chemicals*									
Acetone	0/111	<5	5	USEPA 8260	Industrial	10000	***	NA	NA
Benzene	0/179	<0.5	0.5			9.21	336	NA	NA
Bromodichloromethane	0/111	<0.5	0.5			2.85	1030	NA	NA
2-Butanone	0/111	<5	5			10000	***	NA	NA
Chloroform	0/111	<0.5	0.5			1.54	1100	NA	NA
Ethylbenzene	0/179	<0.5	0.5			8240	138	NA	NA
Methyl tert-Butyl Ether	0/111	<0.5	0.5			70.1	2380	NA	NA
Methylene Chloride	0/111	<0.5	0.5			13.9	921	NA	NA
Styrene	0/111	<0.5	0.5			10000	497	NA	NA
Tetrachloroethene	0/111	<0.5	0.5			0.777	97.1	NA	NA
Toluene	0/179	<0.5	0.5			10000	235	NA	NA
Trichloroethene	0/111	<0.5	0.5			5.68	488	NA	NA
Xylenes (Total)	0/179	<2	2			1230	150	NA	NA
Semi-Volatile Organic Chemicals									
Acenaphthene	0/113	<0.5	0.5	USEPA 8270	Industrial	10000	60.2	NA	NA
Acenaphthylene	0/179	<0.5	0.5			10000	19.8	NA	NA
Anthracene	0/179	<0.5	0.5			10000	2.56	NA	NA
Benzo(a)anthracene	0/179	<0.5	0.5			91.8	NA	NA	NA
Benzo(a)pyrene	0/179	<0.5	0.5			9.18	NA	NA	NA
Benzo(b) & Benzo(k) fluoranthene	0/179	<1.0	1.0			17.8	NA	NA	NA
Benzo(g,h,i)perylene	0/141	<5.0	5.0			10000	NA	NA	NA
bis-(2-Ethylhexyl)phthalate	0/179	<5.0	5.0			91.8	NA	NA	NA
Chrysene	0/179	<0.5	0.5			1140	NA	NA	NA
Dibenzo(a,h)anthracene	0/179	<0.5	0.5			9.18	NA	NA	NA
Fluoranthene	1/179	≤0.8	0.5			10000	NA	NA	NA
Fluorene	0/179	<0.5	0.5			10000	54.7	NA	NA
Hexachlorobenzene	0/141	<0.2	0.2			0.582	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0/179	<0.5	0.5			91.8	NA	NA	NA
Naphthalene	0/179	<0.5	0.5			453	125	NA	NA
Phenanthrene	0/179	<0.5	0.5			10000	28	NA	NA
Phenol	0/141	<0.5	0.5			10000	7260	NA	NA
Pyrene	1/179	≤0.8	0.5			10000	NA	NA	NA
Metals**									
Antimony	0/18	<1	1	USEPA 6020	Industrial	261	NA	NA	NA
Arsenic	17/18	≤12	1			196	NA	NA	NA
Barium	18/18	4.8-142	0.5			10000	NA	NA	NA
Cadmium	4/18	≤0.7	0.2			653	NA	NA	NA
Chromium III	90/101	≤24.9	0.5			10000	NA	NA	NA
Chromium VI	0/101	<0.5	0.5			1960	NA	NA	NA
Cobalt	15/18	≤4.6	0.5			10000	NA	NA	NA
Copper	90/101	≤138	1			10000	NA	NA	NA
Lead	178/179	≤531	1			2290	NA	NA	NA
Manganese	18/18	66.4-2770	0.5			10000	NA	NA	NA
Mercury	7/18	≤0.73	0.05	APHA 3112 Hg: B		38.4	NA	NA	NA
Molybdenum	17/18	≤38	1	USEPA 6020		3260	NA	NA	NA
Nickel	11/18	≤9	1			10000	NA	NA	NA
Tin	18/18	0.7-5.2	0.5			10000	NA	NA	NA
Zinc	28/28	2.7-202	1			10000	NA	NA	NA
Petroleum Carbon Ranges									
C6 - C8	0/169	<5	5	USEPA 8015	Industrial	10000	1000	NA	NA
C9 - C16	1/169	<200	≤2610			10000	3000	NA	NA
C17 - C35	2/169	<500	≤2960			10000	5000	NA	NA
PCBs									
PCBs	--	--	--	USEPA 8070	Industrial	0.748	NA	NA	NA
Other Inorganic Compounds									
Cyanide, free	0/10	<1	1	APHA 4500 CN	Industrial	10000	NA	NA	NA

Note:
*The actual reporting limits for benzene, toluene, ethylbenzene, and xylenes under Post-Stage 1 SI are lower than the proposed limits in the approved Supplementary CAP, and are accredited
**The actual reporting limits of barium, cobalt, manganese, and tin are lower than the proposed limits in the approved CAP, and are accredited under HOKLAS.
*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies

NIL= Maximum concentration detected is below the respective RBRG or solubility limit

NA= Not Applicable

Standard Form 3.3 – Groundwater Data Summary and Comparison to RBRGs and Solubility Limit

Chemical	Frequency of detection (x/y)	Range of Detected Concentration (µg/L)	Range of Method Reporting Limit (µg/L)**	Analytical Method	Relevant Land Use Categories	Most Stringent RBRG(s) (µg/kg)	Solubility Limit (µg/L)	Maximum Detected Concentration Exceeds (check if applicable)	
								RBRG	Solubility
Volatile Organic Chemicals*									
Acetone	0/9	<50	50	USEPA 8260	Industrial	10000000	***	NA	NA
Benzene	0/14	<5	5			54000	1750000	NA	NA
Bromodichloromethane	2/9	≤5	5			26200	6740000	NA	NA
2-Butanone	0/9	<50	50			10000000	***	NA	NA
Chloroform	9/9	6-26	5			11300	7920000	NA	NA
Ethylbenzene	0/14	<5	5			10000000	169000	NA	NA
Methyl tert-Butyl Ether	0/10	<5	5			1810000	***	NA	NA
Methylene Chloride	0/9	<50	50			224000	***	NA	NA
Styrene	0/9	<5	5			10000000	310000	NA	NA
Tetrachloroethene	0/9	<5	5			2950	200000	NA	NA
Toluene	1/14	30	2			10000000	526000	NA	NA
Trichloroethene	0/9	<5	5			14200	1100000	NA	NA
Xylenes (Total)	0/14	<15	15			1570000	175000	NA	NA
Semi-Volatile Organic Chemicals									
Acenaphthene	0/14	<2	2	USEPA 8270	Industrial	10000000	4240	NA	NA
Acenaphthylene	0/14	<2	2			10000000	3930	NA	NA
Anthracene	0/14	<2	2			10000000	43.4	NA	NA
Benzo(b) & Benzo(k) fluoranthene	0/14	<4	4			7530	1.5	NA	NA
Chrysene	0/14	<2	2			812000	1.6	NA	NA
Fluoranthene	0/14	<2	2			10000000	206	NA	NA
Fluorene	0/14	<2	2			10000000	1980	NA	NA
Hexachlorobenzene	0/11	<4	4			695	6200	NA	NA
Naphthalene	0/13	<2	2			862000	31000	NA	NA
Phenanthrene	0/14	<2	2			10000000	1000	NA	NA
Pyrene	0/14	<2	2			10000000	135	NA	NA
Metals**									
Mercury	0/2	<0.1	0.1	APHA 3112 Hg:	Industrial	6790	NA	NA	NA
Petroleum Carbon Ranges									
C6 - C8	1/13	≤30	20	USEPA 8015	Industrial	1150000	5230	NA	NA
C9 - C16	0/13	<500	500			9980000	2800	NA	NA
C17 - C35	0/13	<500	500			178000	2800	NA	NA
PCBs									
PCBs	--	--	--	USEPA 8070	Industrial	5110	NA	NA	NA

Note:

* The actual reporting limits for benzene, toluene, ethylbenzene, and xylenes under Post-Stage 1 SI are lower than the proposed limits in the approved Supplementary CAP, and are accredited under HOKLAS.

** indicates that the actual reporting limit of mercury for groundwater samples, which is lower than the proposed 0.5 µg/L in the CAP, is accredited under HOKLAS.

*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies

NIL= Maximum concentration detected is below the respective RBRG or solubility limit

NA= Not Applicable

Standard Form 3.4 – Soil Sample Concentrations and Exceedances of RBRGs and Csat

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Volatile Organic Chemicals						
Acetone	NA	NA	ND	NIL	NIL	NA
Benzene	NA	NA	ND	NIL	NIL	NA
Bromodichloromethane	NA	NA	ND	NIL	NIL	NA
2-Butanone	NA	NA	ND	NIL	NIL	NA
Chloroform	NA	NA	ND	NIL	NIL	NA
Ethylbenzene	NA	NA	ND	NIL	NIL	NA
Methyl tert-Butyl Ether	NA	NA	ND	NIL	NIL	NA
Methylene Chloride	NA	NA	ND	NIL	NIL	NA
Styrene	NA	NA	ND	NIL	NIL	NA
Tetrachloroethene	NA	NA	ND	NIL	NIL	NA
Toluene	NA	NA	ND	NIL	NIL	NA
Trichloroethene	NA	NA	ND	NIL	NIL	NA
Xylenes (Total)	NA	NA	ND	NIL	NIL	NA
Semi-Volatile Organic Chemicals						
Acenaphthene	NA	NA	ND	NIL	NIL	NA
Acenaphthylene	NA	NA	ND	NIL	NIL	NA
Anthracene	NA	NA	ND	NIL	NIL	NA
Benzo(a)anthracene	NA	NA	ND	NIL	NIL	NA
Benzo(a)pyrene	NA	NA	ND	NIL	NIL	NA
Benzo(b) & Benzo(k) fluoranthene	NA	NA	ND	NIL	NIL	NA
Benzo(g,h,i)perylene	NA	NA	ND	NIL	NIL	NA
bis-(2-Ethylhexyl)phthalate	NA	NA	ND	NIL	NIL	NA
Chrysene	NA	NA	ND	NIL	NIL	NA
Dibenzo(a,h)anthracene	NA	NA	ND	NIL	NIL	NA
Fluoranthene	2209/SCL/EDH229(P)	6.00-6.45	ND	NIL	NIL	NA
Fluorene	NA	NA	ND	NIL	NIL	NA
Hexachlorobenzene	NA	NA	ND	NIL	NIL	NA
Indeno(1,2,3-cd)pyrene	NA	NA	ND	NIL	NIL	NA
Naphthalene	NA	NA	ND	NIL	NIL	NA
Phenanthrene	NA	NA	ND	NIL	NIL	NA
Phenol	NA	NA	ND	NIL	NIL	NA
Pyrene	2209/SCL/EDH229(P)	6.00-6.45	ND	NIL	NIL	NA
Metals						
Antimony	NA	NA	ND	NIL	NIL	NA
Arsenic	2209/SCL/ETT106	0.50	2	NIL	NIL	NA
	2209/SCL/ETT106	1.50	2	NIL	NIL	NA
	2209/SCL/ETT106	3.00	2	NIL	NIL	NA
	2209/SCL/ETT068	0.50	1	NIL	NIL	NA
	2209/SCL/ETT068	3.00	1	NIL	NIL	NA
	2209/SCL/EDH256	0.50	2	NIL	NIL	NA
	2209/SCL/EDH256	1.50	2	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	1	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	3	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	12	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	3	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	2	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	4	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	1	NIL	NIL	NA
Barium	2209/SCL/ETT106	0.50	18.7	NIL	NIL	NA
	2209/SCL/ETT106	1.50	59.6	NIL	NIL	NA
	2209/SCL/ETT106	3.00	25.7	NIL	NIL	NA
	2209/SCL/ETT068	0.50	20.9	NIL	NIL	NA
	2209/SCL/ETT068	1.50	17.6	NIL	NIL	NA
	2209/SCL/ETT068	3.00	17.6	NIL	NIL	NA
	2209/SCL/EDH256	0.50	23.9	NIL	NIL	NA
	2209/SCL/EDH256	1.50	30.1	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	15.2	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	10.8	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	9.9	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	4.8	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	142	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	38.8	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	142	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	49.8	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	79.2	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	23.9	NIL	NIL	NA
Cadmium	2209/SCL/ETT068	0.50	0.7	NIL	NIL	NA
	2209/SCL/ETT068	1.50	0.2	NIL	NIL	NA
	2209/SCL/ETT068	3.00	0.3	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	0.2	NIL	NIL	NA
Manganese	2209/SCL/ETT106	0.50	312	NIL	NIL	NA
	2209/SCL/ETT106	1.50	282	NIL	NIL	NA
	2209/SCL/ETT106	3.00	384	NIL	NIL	NA
	2209/SCL/ETT068	0.50	2770	NIL	NIL	NA
	2209/SCL/ETT068	1.50	753	NIL	NIL	NA
	2209/SCL/ETT068	3.00	996	NIL	NIL	NA
	2209/SCL/EDH256	0.50	235	NIL	NIL	NA
	2209/SCL/EDH256	1.50	254	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	148	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	82.3	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	66.4	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	180	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	915	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	484	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	1300	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	634	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	255	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	313	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Mercury	2209/SCL/ETT068	0.50	0.07	NIL	NIL	NA
	2209/SCL/ETT068	1.50	0.07	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	0.42	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	0.06	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	0.06	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	0.2	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	0.73	NIL	NIL	NA
Molybdenum	2209/SCL/ETT106	0.50	3	NIL	NIL	NA
	2209/SCL/ETT106	1.50	3	NIL	NIL	NA
	2209/SCL/ETT106	3.00	3	NIL	NIL	NA
	2209/SCL/ETT068	0.50	38	NIL	NIL	NA
	2209/SCL/ETT068	1.50	3	NIL	NIL	NA
	2209/SCL/ETT068	3.00	3	NIL	NIL	NA
	2209/SCL/EDH256	0.50	3	NIL	NIL	NA
	2209/SCL/EDH256	1.50	2	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	6	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	7	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	22	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	1	NIL	NIL	NA
Nickel	2209/SCL/ETT106	0.50	2	NIL	NIL	NA
	2209/SCL/ETT106	1.50	2	NIL	NIL	NA
	2209/SCL/ETT106	3.00	2	NIL	NIL	NA
	2209/SCL/EDH256	0.50	2	NIL	NIL	NA
	2209/SCL/EDH256	1.50	2	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	2	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	1	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	2	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	9	NIL	NIL	NA
Tin	2209/SCL/ETT106	0.50	2.6	NIL	NIL	NA
	2209/SCL/ETT106	1.50	2.1	NIL	NIL	NA
	2209/SCL/ETT106	3.00	2.8	NIL	NIL	NA
	2209/SCL/ETT068	0.50	3.9	NIL	NIL	NA
	2209/SCL/ETT068	1.50	3.2	NIL	NIL	NA
	2209/SCL/ETT068	3.00	4.0	NIL	NIL	NA
	2209/SCL/EDH256	0.50	2	NIL	NIL	NA
	2209/SCL/EDH256	1.50	2.2	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	2.3	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	0.7	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	1.5	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	0.8	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	4	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	2.7	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	2.3	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	3.2	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	5.2	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	1	NIL	NIL	NA
Chromium III	2209/SCL/ETT106	0.50	1.4	NIL	NIL	NA
	2209/SCL/ETT106	1.50	1.3	NIL	NIL	NA
	2209/SCL/EDH256	0.50	1.5	NIL	NIL	NA
	2209/SCL/EDH256	1.50	2.6	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	2.2	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	1.4	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	3.2	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	2.1	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	2.6	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	17.7	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	1.2	NIL	NIL	NA
	11202/SCL/EDH138	0.50	3.7	NIL	NIL	NA
	11202/SCL/EDH138	1.50	5.9	NIL	NIL	NA
	11202/SCL/EDH138	3.00	2.6	NIL	NIL	NA
	11202/SCL/EDH138	6.00-6.45	2.2	NIL	NIL	NA
	11202/SCL/EDH138	9.00-9.45	16.0	NIL	NIL	NA
	11202/SCL/EDH138	12.00-12.45	5.8	NIL	NIL	NA
	11202/SCL/EDH138	15.00-15.45	4.8	NIL	NIL	NA
	11202/SCL/EDH138	18.00-18.45	7.5	NIL	NIL	NA
	11202/SCL/EDH138	21.00-21.45	12.1	NIL	NIL	NA
	11202/SCL/EDH138	24.00-24.45	5.2	NIL	NIL	NA
	11202/SCL/EDH139	0.50	3.2	NIL	NIL	NA
	11202/SCL/EDH139	1.50	2.6	NIL	NIL	NA
	11202/SCL/EDH139	3.00	2.2	NIL	NIL	NA
	11202/SCL/EDH139	6.00-6.45	24.9	NIL	NIL	NA
	11202/SCL/EDH139	9.00-9.45	23.4	NIL	NIL	NA
	11202/SCL/EDH139	12.00-12.45	6.3	NIL	NIL	NA
	11202/SCL/EDH139	15.00-15.45	1.7	NIL	NIL	NA
	11202/SCL/EDH139	18.00-18.45	12.3	NIL	NIL	NA
	11202/SCL/EDH139	21.00-21.45	6.0	NIL	NIL	NA
	11202/SCL/EDH139	24.00-24.45	3.8	NIL	NIL	NA
	11202/SCL/EDH139	27.00-27.45	3.2	NIL	NIL	NA
	11202/SCL/EDH139	30.00-30.45	1.0	NIL	NIL	NA
	11202/SCL/EDH139	36.00-36.45	2.4	NIL	NIL	NA
	11202/SCL/EDH140	0.50	1.5	NIL	NIL	NA
	11202/SCL/EDH140	1.50	1.9	NIL	NIL	NA
	11202/SCL/EDH140	3.00	4.1	NIL	NIL	NA
	11202/SCL/EDH140	6.00-6.45	7.7	NIL	NIL	NA
	11202/SCL/EDH140	9.00-9.45	7.5	NIL	NIL	NA
	11202/SCL/EDH140	12.00-12.45	3.5	NIL	NIL	NA
	11202/SCL/EDH140	15.00-15.45	6.7	NIL	NIL	NA
	11202/SCL/EDH140	18.00-18.45	7.2	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
	11202/SCL/EDH140	21.00-21.45	2.6	NIL	NIL	NA
	11202/SCL/EDH140	24.00-24.45	1.5	NIL	NIL	NA
	11202/SCL/EDH140	27.00-27.45	0.6	NIL	NIL	NA
	11202/SCL/EDH140	33.00-33.45	1.0	NIL	NIL	NA
	11202/SCL/EDH140	36.00-36.45	2.1	NIL	NIL	NA
	11202/SCL/EDH141	0.50	3.9	NIL	NIL	NA
	11202/SCL/EDH141	1.50	5.8	NIL	NIL	NA
	11202/SCL/EDH141	6.00-6.45	2.0	NIL	NIL	NA
	11202/SCL/EDH141	9.00-9.45	15.4	NIL	NIL	NA
	11202/SCL/EDH141	12.00-12.45	6.8	NIL	NIL	NA
	11202/SCL/EDH141	15.00-15.45	14.6	NIL	NIL	NA
	11202/SCL/EDH141	18.00-18.45	5.6	NIL	NIL	NA
	11202/SCL/EDH141	24.00-24.45	1.2	NIL	NIL	NA
	11202/SCL/EDH141	27.00-27.45	1.6	NIL	NIL	NA
	11202/SCL/EDH141	30.00-30.45	1.7	NIL	NIL	NA
	11202/SCL/EDH141	33.00-33.45	1.2	NIL	NIL	NA
	11202/SCL/EDH141	36.00-36.45	1.8	NIL	NIL	NA
	11202/SCL/EDH141	39.00-39.45	0.7	NIL	NIL	NA
	11202/SCL/EDH142	0.50	6.2	NIL	NIL	NA
	11202/SCL/EDH142	1.50	6.0	NIL	NIL	NA
	11202/SCL/EDH142	3.00	4.9	NIL	NIL	NA
	11202/SCL/EDH143	0.50	3.0	NIL	NIL	NA
	11202/SCL/EDH143	1.50	5.2	NIL	NIL	NA
Chromium III (cont'd)	11202/SCL/EDH143	3.00	2.8	NIL	NIL	NA
	11202/SCL/EDH143	6.00-6.45	3.3	NIL	NIL	NA
	11202/SCL/EDH143	9.00-9.45	2.3	NIL	NIL	NA
	11202/SCL/EDH143	12.00-12.45	5.1	NIL	NIL	NA
	11202/SCL/EDH143	15.00-15.45	3.9	NIL	NIL	NA
	11202/SCL/EDH143	18.00-18.45	5.1	NIL	NIL	NA
	11202/SCL/EDH143	21.00-21.45	2.4	NIL	NIL	NA
	11202/SCL/EDH143	24.00-24.45	2.2	NIL	NIL	NA
	11202/SCL/EDH143	27.00-27.45	1.9	NIL	NIL	NA
	11202/SCL/EDH143	30.00-30.45	2.8	NIL	NIL	NA
	11202/SCL/EDH143	33.00-33.45	2.8	NIL	NIL	NA
	11202/SCL/EDH144	0.50	2.8	NIL	NIL	NA
	11202/SCL/EDH144	1.50	1.9	NIL	NIL	NA
	11202/SCL/EDH144	3.00	2.7	NIL	NIL	NA
	11202/SCL/EDH144	6.00-6.45	2.2	NIL	NIL	NA
	11202/SCL/EDH144	9.00-9.45	11.8	NIL	NIL	NA
	11202/SCL/EDH144	12.00-12.45	22.2	NIL	NIL	NA
	11202/SCL/EDH144	15.00-15.45	16.3	NIL	NIL	NA
	11202/SCL/EDH144	18.00-18.45	7.3	NIL	NIL	NA
	11202/SCL/EDH144	21.00-21.45	3.7	NIL	NIL	NA
	11202/SCL/EDH144	24.00-24.45	1.5	NIL	NIL	NA
	11202/SCL/EDH144	27.00-27.45	0.8	NIL	NIL	NA
	11202/SCL/EDH144	30.00-30.45	1.2	NIL	NIL	NA
	11202/SCL/EDH144	33.00-33.45	2.4	NIL	NIL	NA
Chromium VI	NA	NA	NA	NIL	NIL	NA
	2209/SCL/ETT106	0.50	1.7	NIL	NIL	NA
	2209/SCL/ETT106	1.50	2.3	NIL	NIL	NA
	2209/SCL/ETT106	3.00	1.9	NIL	NIL	NA
	2209/SCL/EDH256	0.50	2.9	NIL	NIL	NA
	2209/SCL/EDH256	1.50	2.7	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	1.3	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	1.4	NIL	NIL	NA
Cobalt	2209/SCL/EDH256	9.00-9.45	1	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	0.9	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	1.8	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	1.7	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	1.9	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	3.6	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	4.6	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	3.2	NIL	NIL	NA
	2209/SCL/ETT106	0.50	5	NIL	NIL	NA
	2209/SCL/ETT106	1.50	4	NIL	NIL	NA
	2209/SCL/ETT106	3.00	4	NIL	NIL	NA
	2209/SCL/ETT068	0.50	3	NIL	NIL	NA
	2209/SCL/ETT068	3.00	1	NIL	NIL	NA
	2209/SCL/EDH256	0.50	3	NIL	NIL	NA
	2209/SCL/EDH256	1.50	4	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	4	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	12	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	22	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	1	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	4	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	26	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	3	NIL	NIL	NA
Copper	11202/SCL/EDH138	0.50	6	NIL	NIL	NA
	11202/SCL/EDH138	1.50	16	NIL	NIL	NA
	11202/SCL/EDH138	3.00	2	NIL	NIL	NA
	11202/SCL/EDH138	6.00-6.45	9	NIL	NIL	NA
	11202/SCL/EDH138	9.00-9.45	5	NIL	NIL	NA
	11202/SCL/EDH138	12.00-12.45	2	NIL	NIL	NA
	11202/SCL/EDH138	15.00-15.45	4	NIL	NIL	NA
	11202/SCL/EDH138	18.00-18.45	1	NIL	NIL	NA
	11202/SCL/EDH138	21.00-21.45	3	NIL	NIL	NA
	11202/SCL/EDH138	24.00-24.45	6	NIL	NIL	NA
	11202/SCL/EDH139	0.50	5	NIL	NIL	NA
	11202/SCL/EDH139	1.50	5	NIL	NIL	NA
	11202/SCL/EDH139	3.00	1	NIL	NIL	NA
	11202/SCL/EDH139	6.00-6.45	30	NIL	NIL	NA
	11202/SCL/EDH139	9.00-9.45	138	NIL	NIL	NA
	11202/SCL/EDH139	12.00-12.45	3	NIL	NIL	NA
	11202/SCL/EDH139	15.00-15.45	1	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Copper (cont'd)	11202/SCL/EDH139	18.00-18.45	3	NIL	NIL	NA
	11202/SCL/EDH139	21.00-21.45	6	NIL	NIL	NA
	11202/SCL/EDH139	24.00-24.45	4	NIL	NIL	NA
	11202/SCL/EDH139	27.00-27.45	2	NIL	NIL	NA
	11202/SCL/EDH139	30.00-30.45	7	NIL	NIL	NA
	11202/SCL/EDH139	33.00-33.45	3	NIL	NIL	NA
	11202/SCL/EDH139	36.00-36.45	4	NIL	NIL	NA
	11202/SCL/EDH140	1.50	1	NIL	NIL	NA
	11202/SCL/EDH140	3.00	10	NIL	NIL	NA
	11202/SCL/EDH140	6.00-6.45	21	NIL	NIL	NA
	11202/SCL/EDH140	9.00-9.45	2	NIL	NIL	NA
	11202/SCL/EDH140	12.00-12.45	1	NIL	NIL	NA
	11202/SCL/EDH140	15.00-15.45	1	NIL	NIL	NA
	11202/SCL/EDH140	18.00-18.45	1	NIL	NIL	NA
	11202/SCL/EDH140	21.00-21.45	1	NIL	NIL	NA
	11202/SCL/EDH140	24.00-24.45	1	NIL	NIL	NA
	11202/SCL/EDH140	30.00-30.45	2	NIL	NIL	NA
	11202/SCL/EDH140	33.00-33.45	3	NIL	NIL	NA
	11202/SCL/EDH141	0.50	9	NIL	NIL	NA
	11202/SCL/EDH141	1.50	12	NIL	NIL	NA
	11202/SCL/EDH141	6.00-6.45	11	NIL	NIL	NA
	11202/SCL/EDH141	9.00-9.45	45	NIL	NIL	NA
	11202/SCL/EDH141	12.00-12.45	4	NIL	NIL	NA
	11202/SCL/EDH141	15.00-15.45	6	NIL	NIL	NA
	11202/SCL/EDH141	18.00-18.45	5	NIL	NIL	NA
	11202/SCL/EDH141	24.00-24.45	1	NIL	NIL	NA
	11202/SCL/EDH141	27.00-27.45	2	NIL	NIL	NA
	11202/SCL/EDH141	33.00-33.45	2	NIL	NIL	NA
	11202/SCL/EDH141	39.00-39.45	1	NIL	NIL	NA
	11202/SCL/EDH141	42.00-42.45	7	NIL	NIL	NA
	11202/SCL/EDH142	0.50	12	NIL	NIL	NA
	11202/SCL/EDH142	1.50	11	NIL	NIL	NA
	11202/SCL/EDH142	3.00	9	NIL	NIL	NA
	11202/SCL/EDH143	0.50	4	NIL	NIL	NA
	11202/SCL/EDH143	1.50	4	NIL	NIL	NA
	11202/SCL/EDH143	6.00-6.45	2	NIL	NIL	NA
	11202/SCL/EDH143	9.00-9.45	1	NIL	NIL	NA
	11202/SCL/EDH143	12.00-12.45	1	NIL	NIL	NA
	11202/SCL/EDH143	18.00-18.45	3	NIL	NIL	NA
	11202/SCL/EDH143	21.00-21.45	3	NIL	NIL	NA
	11202/SCL/EDH143	24.00-24.45	4	NIL	NIL	NA
	11202/SCL/EDH143	27.00-27.45	2	NIL	NIL	NA
	11202/SCL/EDH143	30.00-30.45	1	NIL	NIL	NA
	11202/SCL/EDH143	33.00-33.45	3	NIL	NIL	NA
	11202/SCL/EDH144	0.50	9	NIL	NIL	NA
	11202/SCL/EDH144	1.50	2	NIL	NIL	NA
	11202/SCL/EDH144	3.00	2	NIL	NIL	NA
	11202/SCL/EDH144	6.00-6.45	1	NIL	NIL	NA
	11202/SCL/EDH144	9.00-9.45	20	NIL	NIL	NA
	11202/SCL/EDH144	12.00-12.45	21	NIL	NIL	NA
	11202/SCL/EDH144	15.00-15.45	12	NIL	NIL	NA
	11202/SCL/EDH144	18.00-18.45	1	NIL	NIL	NA
	11202/SCL/EDH144	21.00-21.45	1	NIL	NIL	NA
	11202/SCL/EDH144	24.00-24.45	4	NIL	NIL	NA
	11202/SCL/EDH144	27.00-27.45	3	NIL	NIL	NA
	11202/SCL/EDH144	30.00-30.45	2	NIL	NIL	NA
	11202/SCL/EDH144	33.00-33.45	2	NIL	NIL	NA
Lead	2209/SCL/ETT103	0.50	82	NIL	NIL	NA
	2209/SCL/ETT103	1.50	108	NIL	NIL	NA
	2209/SCL/ETT103	3.00	144	NIL	NIL	NA
	2209/SCL/EDH249(P)	0.50	67	NIL	NIL	NA
	2209/SCL/EDH249(P)	1.50	195	NIL	NIL	NA
	2209/SCL/EDH249(P)	3.00-3.45	88	NIL	NIL	NA
	2209/SCL/EDH249(P)	6.00-6.45	117	NIL	NIL	NA
	2209/SCL/EDH249(P)	9.00-9.45	9	NIL	NIL	NA
	2209/SCL/EDH249(P)	12.00-12.45	5	NIL	NIL	NA
	2209/SCL/EDH249(P)	15.00-15.45	2	NIL	NIL	NA
	2209/SCL/EDH249(P)	18.00-18.45	8	NIL	NIL	NA
	2209/SCL/EDH249(P)	21.00-21.45	7	NIL	NIL	NA
	2209/SCL/EDH249(P)	24.00-24.45	12	NIL	NIL	NA
	2209/SCL/ETT165	0.50	29	NIL	NIL	NA
	2209/SCL/ETT165	1.50	20	NIL	NIL	NA
	2209/SCL/ETT165	3.00	12	NIL	NIL	NA
	2209/SCL/ETT102	0.50	27	NIL	NIL	NA
	2209/SCL/ETT102	1.50	19	NIL	NIL	NA
	2209/SCL/ETT102	3.00	18	NIL	NIL	NA
	2209/SCL/EDH244	0.50	46	NIL	NIL	NA
	2209/SCL/EDH244	1.50	47	NIL	NIL	NA
	2209/SCL/EDH244	3.00.3.45	51	NIL	NIL	NA
	2209/SCL/EDH244	6.00-6.45	16	NIL	NIL	NA
	2209/SCL/EDH244	9.00-9.45	5	NIL	NIL	NA
	2209/SCL/EDH244	12.00-12.45	5	NIL	NIL	NA
	2209/SCL/EDH244	15.00-15.45	12	NIL	NIL	NA
	2209/SCL/EDH244	18.00-18.45	12	NIL	NIL	NA
	2209/SCL/EDH244	21.00-21.45	14	NIL	NIL	NA
	2209/SCL/EDH244	24-00-24.45	7	NIL	NIL	NA
	2209/SCL/EDH244	27.00-27.45	45	NIL	NIL	NA
	2209/SCL/EDH231	0.50	35	NIL	NIL	NA
	2209/SCL/EDH231	1.50	51	NIL	NIL	NA
	2209/SCL/EDH231	3.00-3.45	39	NIL	NIL	NA
	2209/SCL/EDH231	6.00-6.45	58	NIL	NIL	NA
	2209/SCL/EDH231	9.00-9.45	71	NIL	NIL	NA
	2209/SCL/EDH231	12.00-12.45	11	NIL	NIL	NA
	2209/SCL/EDH231	15.00-15.45	9	NIL	NIL	NA
	2209/SCL/ETT106	0.50	99	NIL	NIL	NA
	2209/SCL/ETT106	1.50	123	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Lead (cont'd)	2209/SCL/ETT106	3.00	107	NIL	NIL	NA
	2209/SCL/ETT068	0.50	28	NIL	NIL	NA
	2209/SCL/ETT068	1.50	28	NIL	NIL	NA
	2209/SCL/ETT068	3.00	27	NIL	NIL	NA
	2209/SCL/EDH256	0.50	74	NIL	NIL	NA
	2209/SCL/EDH256	1.50	78	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	50	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	81	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	113	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	10	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	12	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	30	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	23	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	36	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	87	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	26	NIL	NIL	NA
	2209/SCL/EDH229(P)	0.50	13	NIL	NIL	NA
	2209/SCL/EDH229(P)	1.50	32	NIL	NIL	NA
	2209/SCL/EDH229(P)	3.00-3.45	20	NIL	NIL	NA
	2209/SCL/EDH229(P)	6.00-6.45	77	NIL	NIL	NA
	2209/SCL/EDH229(P)	9.00-9.45	11	NIL	NIL	NA
	2209/SCL/EDH229(P)	12.00-12.45	12	NIL	NIL	NA
	2209/SCL/EDH124(P)	0.50	54	NIL	NIL	NA
	2209/SCL/EDH124(P)	1.50	79	NIL	NIL	NA
	2209/SCL/EDH124(P)	3.00-3.45	50	NIL	NIL	NA
	2209/SCL/EDH124(P)	6.00-6.45	15	NIL	NIL	NA
	2209/SCL/EDH124(P)	9.00-9.45	14	NIL	NIL	NA
	11202/SCL/EDH136	0.50	36	NIL	NIL	NA
	11202/SCL/EDH136	1.50	39	NIL	NIL	NA
	11202/SCL/EDH136	3.00	68	NIL	NIL	NA
	11202/SCL/EDH136	6.00-6.45	48	NIL	NIL	NA
	11202/SCL/EDH136	9.00-9.45	21	NIL	NIL	NA
	11202/SCL/EDH136	12.00-12.45	18	NIL	NIL	NA
	11202/SCL/EDH136	15.00-15.45	22	NIL	NIL	NA
	11202/SCL/EDH138	0.50	22	NIL	NIL	NA
	11202/SCL/EDH138	1.50	341	NIL	NIL	NA
	11202/SCL/EDH138	3.00	37	NIL	NIL	NA
	11202/SCL/EDH138	6.00-6.45	42	NIL	NIL	NA
	11202/SCL/EDH138	9.00-9.45	18	NIL	NIL	NA
	11202/SCL/EDH138	12.00-12.45	7	NIL	NIL	NA
	11202/SCL/EDH138	15.00-15.45	53	NIL	NIL	NA
	11202/SCL/EDH138	18.00-18.45	5	NIL	NIL	NA
	11202/SCL/EDH138	21.00-21.45	6	NIL	NIL	NA
	11202/SCL/EDH138	24.00-24.45	9	NIL	NIL	NA
	11202/SCL/EDH139	0.50	57	NIL	NIL	NA
	11202/SCL/EDH139	1.50	26	NIL	NIL	NA
	11202/SCL/EDH139	3.00	20	NIL	NIL	NA
	11202/SCL/EDH139	6.00-6.45	82	NIL	NIL	NA
	11202/SCL/EDH139	9.00-9.45	180	NIL	NIL	NA
	11202/SCL/EDH139	12.00-12.45	4	NIL	NIL	NA
	11202/SCL/EDH139	18.00-18.45	8	NIL	NIL	NA
	11202/SCL/EDH139	21.00-21.45	11	NIL	NIL	NA
	11202/SCL/EDH139	24.00-24.45	10	NIL	NIL	NA
	11202/SCL/EDH139	27.00-27.45	14	NIL	NIL	NA
	11202/SCL/EDH139	30.00-30.45	49	NIL	NIL	NA
	11202/SCL/EDH139	33.00-33.45	15	NIL	NIL	NA
	11202/SCL/EDH139	36.00-36.45	13	NIL	NIL	NA
	11202/SCL/EDH140	0.50	41	NIL	NIL	NA
	11202/SCL/EDH140	1.50	74	NIL	NIL	NA
	11202/SCL/EDH140	3.00	69	NIL	NIL	NA
	11202/SCL/EDH140	6.00-6.45	87	NIL	NIL	NA
	11202/SCL/EDH140	9.00-9.45	6	NIL	NIL	NA
	11202/SCL/EDH140	12.00-12.45	4	NIL	NIL	NA
	11202/SCL/EDH140	15.00-15.45	9	NIL	NIL	NA
	11202/SCL/EDH140	18.00-18.45	2	NIL	NIL	NA
	11202/SCL/EDH140	21.00-21.45	5	NIL	NIL	NA
	11202/SCL/EDH140	24.00-24.45	8	NIL	NIL	NA
	11202/SCL/EDH140	27.00-27.45	29	NIL	NIL	NA
	11202/SCL/EDH140	30.00-30.45	8	NIL	NIL	NA
	11202/SCL/EDH140	33.00-33.45	6	NIL	NIL	NA
	11202/SCL/EDH140	36.00-36.45	6	NIL	NIL	NA
	11202/SCL/EDH141	0.50	26	NIL	NIL	NA
	11202/SCL/EDH141	1.50	31	NIL	NIL	NA
	11202/SCL/EDH141	3.00	16	NIL	NIL	NA
	11202/SCL/EDH141	6.00-6.45	93	NIL	NIL	NA
	11202/SCL/EDH141	9.00-9.45	53	NIL	NIL	NA
	11202/SCL/EDH141	12.00-12.45	5	NIL	NIL	NA
	11202/SCL/EDH141	15.00-15.45	13	NIL	NIL	NA
	11202/SCL/EDH141	18.00-18.45	18	NIL	NIL	NA
	11202/SCL/EDH141	21.00-21.45	60	NIL	NIL	NA
	11202/SCL/EDH141	24.00-24.45	21	NIL	NIL	NA
	11202/SCL/EDH141	27.00-27.45	34	NIL	NIL	NA
	11202/SCL/EDH141	30.00-30.45	132	NIL	NIL	NA
	11202/SCL/EDH141	33.00-33.45	228	NIL	NIL	NA
	11202/SCL/EDH141	36.00-36.45	8	NIL	NIL	NA
	11202/SCL/EDH141	39.00-39.45	4	NIL	NIL	NA
	11202/SCL/EDH141	42.00-42.45	4	NIL	NIL	NA
	11202/SCL/EDH142	0.50	42	NIL	NIL	NA
	11202/SCL/EDH142	1.50	39	NIL	NIL	NA
	11202/SCL/EDH142	3.00	38	NIL	NIL	NA
	11202/SCL/EDH143	0.50	25	NIL	NIL	NA
	11202/SCL/EDH143	1.50	28	NIL	NIL	NA
	11202/SCL/EDH143	3.00	19	NIL	NIL	NA
	11202/SCL/EDH012	12.00-12.45	18	NIL	NIL	NA
	11202/SCL/EDH012	15.00-15.45	88	NIL	NIL	NA
	11202/SCL/EDH012	18.00-18.45	10	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Lead (cont'd)	11202/SCL/EDH012	21.00-21.45	9	NIL	NIL	NA
	11202/SCL/EDH012	24.00-24.45	4	NIL	NIL	NA
	11202/SCL/EDH012	27.00-27.45	7	NIL	NIL	NA
	11202/SCL/ETP027	0.50	25	NIL	NIL	NA
	11202/SCL/ETP027	1.50	14	NIL	NIL	NA
	11202/SCL/ETP027	3.00	12	NIL	NIL	NA
	11202/SCL/ETP042	0.50	51	NIL	NIL	NA
	11202/SCL/ETP042	1.50	42	NIL	NIL	NA
	11202/SCL/ETP042	3.00	49	NIL	NIL	NA
	11202/SCL/ETP043	0.50	42	NIL	NIL	NA
	11202/SCL/ETP043	1.50	44	NIL	NIL	NA
	11202/SCL/ETP043	3.00	56	NIL	NIL	NA
	11202/SCL/ETP044	0.50	16	NIL	NIL	NA
	11202/SCL/ETP044	1.50	11	NIL	NIL	NA
	11202/SCL/ETP044	3.00	35	NIL	NIL	NA
Zinc	2209/SCL/EDH249(P)	0.50	16	NIL	NIL	NA
	2209/SCL/EDH249(P)	1.50	67	NIL	NIL	NA
	2209/SCL/EDH249(P)	3.00-3.45	21	NIL	NIL	NA
	2209/SCL/EDH249(P)	6.00-6.45	190	NIL	NIL	NA
	2209/SCL/EDH249(P)	9.00-9.45	22	NIL	NIL	NA
	2209/SCL/EDH249(P)	12.00-12.45	31	NIL	NIL	NA
	2209/SCL/EDH249(P)	15.00-15.45	67	NIL	NIL	NA
	2209/SCL/EDH249(P)	18.00-18.45	190	NIL	NIL	NA
	2209/SCL/EDH249(P)	21.00-21.45	95	NIL	NIL	NA
	2209/SCL/EDH249(P)	24.00-24.45	48	NIL	NIL	NA
	2209/SCL/ETT106	0.50	27	NIL	NIL	NA
	2209/SCL/ETT106	1.50	26	NIL	NIL	NA
	2209/SCL/ETT106	3.00	27	NIL	NIL	NA
	2209/SCL/ETT068	0.50	56	NIL	NIL	NA
	2209/SCL/ETT068	1.50	36	NIL	NIL	NA
	2209/SCL/ETT068	3.00	54	NIL	NIL	NA
	2209/SCL/EDH256	0.50	22	NIL	NIL	NA
	2209/SCL/EDH256	1.50	2.7	NIL	NIL	NA
	2209/SCL/EDH256	3.00-3.45	43	NIL	NIL	NA
	2209/SCL/EDH256	6.00-6.45	155	NIL	NIL	NA
	2209/SCL/EDH256	9.00-9.45	131	NIL	NIL	NA
	2209/SCL/EDH256	12.00-12.45	202	NIL	NIL	NA
	2209/SCL/EDH257(P)	0.50	50	NIL	NIL	NA
	2209/SCL/EDH257(P)	1.50	25	NIL	NIL	NA
	2209/SCL/EDH257(P)	3.00-3.45	48	NIL	NIL	NA
	2209/SCL/EDH257(P)	6.00-6.45	175	NIL	NIL	NA
	2209/SCL/EDH257(P)	9.00-9.45	126	NIL	NIL	NA
	2209/SCL/EDH257(P)	12.00-12.45	80	NIL	NIL	NA
Petroleum Carbon Ranges						
C6 - C8	NA	NA	ND	NIL	NIL	NA
C9 - C16	2209/SCL/ETT102	3.00	2610	NIL	NIL	NA
C17 - C35	2209/SCL/ETT165	0.50	2960	NIL	NIL	NA
	2209/SCL/ETT102	3.00	2880	NIL	NIL	NA
PCBs						
PCBs	NA	NA	ND	NA	NA	NA
Other Inorganic Compound						
Cyanide, free	NA	NA	ND	NA	NA	NA

Note:
NA= Not Applicable
ND= Not Dectectable
NIL= Maximum concentration detected is below the respective RBRG or Csat
* = Comfirmatory tests would be carried out to further confirm size of the affected area

Standard Form 3.5 – Groundwater Sample Concentrations and Exceedances of RBRGs and Solubility Limits

Chemical	Sampling Locations	Concentration (µg/L)	Check if RBRG Exceeded	Check if Solubility Limit Exceeded	Approximate Size of Affected Area (m^2)
Volatile Organic Chemicals					
Acetone	NA	ND	NIL	NIL	NA
Benzene	NA	ND	NIL	NIL	NA
Bromodichloromethane	2209/SCL/EDH249(P)	5	NIL	NIL	NA
	2209/SCL/EDH256	5	NIL	NIL	NA
2-Butanone	NA	ND	NIL	NIL	NA
Chloroform	2209/SCL/EDH249(P)	17	NIL	NIL	NA
	2209/SCL/EDH257(P)	19	NIL	NIL	NA
	2209/SCL/EDH256	26	NIL	NIL	NA
	11202/SCL/EDH138	21	NIL	NIL	NA
	11202/SCL/EDH139	20	NIL	NIL	NA
	11202/SCL/EDH140	6	NIL	NIL	NA
	11202/SCL/EDH141	16	NIL	NIL	NA
	11202/SCL/EDH143	16	NIL	NIL	NA
	11202/SCL/EDH144	16	NIL	NIL	NA
Ethylbenzene	NA	ND	NIL	NIL	NA
Methyl tert-Butyl Ether	NA	ND	NIL	NIL	NA
Methylene Chloride	NA	ND	NIL	NIL	NA
Styrene	NA	ND	NIL	NIL	NA
Tetrachloroethene	NA	ND	NIL	NIL	NA
Toluene	2209/SCL/EDH231	30	NIL	NIL	NA
Trichloroethene	NA	ND	NIL	NIL	NA
Xylenes (Total)	NA	ND	NIL	NIL	NA
Semi-Volatile Organic Chemicals					
Acenaphthene	NA	ND	NIL	NIL	NA
Acenaphthylene	NA	ND	NIL	NIL	NA
Anthracene	NA	ND	NIL	NIL	NA
Benzo(b) & Benzo(k) fluoranthene	NA	ND	NIL	NIL	NA
Chrysene	NA	ND	NIL	NIL	NA
Fluoranthene	NA	ND	NIL	NIL	NA
Fluorene	NA	ND	NIL	NIL	NA
Hexachlorobenzene	NA	ND	NIL	NIL	NA
Naphthalene	NA	ND	NIL	NIL	NA
Metals					
Mercury	NA	ND	NA	NA	NA
Petroleum Carbon Ranges					
C6 - C8	2209/SCL/EDH231	30	NIL	NIL	NA
C9 - C16	NA	ND	NIL	NIL	NA
C17 - C35	NA	ND	NIL	NIL	NA

Note:
NIL= Maximum concentration detected is below the respective RBRG or solubility limit
NA= Not Applicable
ND= Not Dectectable

Standard Form 3.2 – 3.5 under Stage 2

Standard Form 3.2 – Soil Data Summary and Comparison to RBRGs and Csat

Chemical	Frequency of Detection (x/y)	Range of Detected Concentration	Range of Method Reporting Limit	Analytical Method	Relevant Land Use Categories	Most Stringent RBRG(s) (mg/kg)	Csat (mg/kg)	Maximum Detected Concentration Exceeds (check if applicable)	
								RBRG	Csat
Volatile Organic Chemicals*									
Acetone	0/5	<5	5	USEPA 8260	Industrial	10000	***	NA	NA
Benzene	0/52	<0.5	0.5			9.21	336	NA	NA
Bromodichloromethane	0/42	<0.5	0.5			2.85	1030	NA	NA
2-Butanone	0/42	<5	5			10000	***	NA	NA
Chloroform	0/42	<0.5	0.5			1.54	1100	NA	NA
Ethylbenzene	0/52	<0.5	0.5			8240	138	NA	NA
Methyl tert-Butyl Ether	0/5	<0.5	0.5			70.1	2380	NA	NA
Methylene Chloride	0/5	<2.5	2.5			13.9	921	NA	NA
Styrene	0/42	<0.5	0.5			10000	497	NA	NA
Tetrachloroethene	0/42	<0.5	0.5			0.777	97.1	NA	NA
Toluene	0/52	<0.5	0.5			10000	235	NA	NA
Trichloroethene	0/42	<0.5	0.5			5.68	488	NA	NA
Xylenes (Total)	0/52	<1.5	1.5			1230	150	NA	NA
Semi-Volatile Organic Chemicals									
Acenaphthene	0/52	<0.5	0.5	USEPA 8270	Industrial	10000	60.2	NA	NA
Acenaphthylene	0/52	<0.5	0.5			10000	19.8	NA	NA
Anthracene	0/52	<0.5	0.5			10000	2.56	NA	NA
Benzo(a)anthracene	0/52	<0.5	0.5			91.8	NA	NA	NA
Benzo(a)pyrene	0/52	<0.5	0.5			9.18	NA	NA	NA
Benzo(b) & Benzo(k) fluoranthene	0/52	<1.0	1.0			17.8	NA	NA	NA
Benzo(g,h,i)perylene	0/52	<5.0	5.0			10000	NA	NA	NA
bis-(2-Ethylhexyl)phthalate	0/42	<5.0	5.0			91.8	NA	NA	NA
Chrysene	0/42	<0.5	0.5			1140	NA	NA	NA
Dibenzo(a,h)anthracene	0/52	<0.5	0.5			9.18	NA	NA	NA
Fluoranthene	0/52	<0.5	0.5			10000	NA	NA	NA
Fluorene	1/52	0.627	0.5			10000	54.7	NA	NA
Hexachlorobenzene	0/42	<0.2	0.2			0.582	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0/52	<0.5	0.5			91.8	NA	NA	NA
Naphthalene	0/52	<0.5	0.5			453	125	NA	NA
Phenanthrene	1/52	2.03	0.5			10000	28	NA	NA
Phenol	0/42	<0.5	0.5			10000	7260	NA	NA
Pyrene	0/52	<0.5	0.5			10000	NA	NA	NA
Metals**									
Antimony	3/37	1-5	1	USEPA 6020	Industrial	261	NA	NA	NA
Arsenic	35/37	1-14	1			196	NA	NA	NA
Barium	37/37	4-161	1			10000	NA	NA	NA
Cadmium	0/37	<0.2	0.2			653	NA	NA	NA
Cobalt	24/37	1-24	1			10000	NA	NA	NA
Copper	40/42	1-26	1			10000	NA	NA	NA
Lead	52/52	6-160	1			2290	NA	NA	NA
Manganese	37/37	19-1510	1			10000	NA	NA	NA
Molybdenum	32/37	1-8	1			3260	NA	NA	NA
Nickel	26/37	1-9	1			10000	NA	NA	NA
Tin	22/37	1-9	1			10000	NA	NA	NA
Zinc	37/37	6-108	1			10000	NA	NA	NA
Chromium III	41/42	0.7-30.8	0.5			10000	NA	NA	NA
Chromium VI	0/42	<0.5	0.5			1960	NA	NA	NA
Mercury	7/37	0.05-2.3	0.05	APHA 3112 Hg: B		38.4	NA	NA	NA
Petroleum Carbon Ranges									
C6 - C8	1/52	7	5	USEPA 8015	Industrial	10000	1000	NA	NA
C9 - C16	2/52	203-1840	200			10000	3000	NA	NA
C17 - C35	2/52	1480-2330	500			10000	5000	NA	NA

Note:
*The actual reporting limit for methylene chloride is lower than the proposed limit in the CAP, and is accredited under HOKLAS.
*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies
NIL= Maximum concentration detected is below the respective RBRG or solubility limit
NA= Not Applicable

Standard Form 3.3 – Groundwater Data Summary and Comparison to RBRGs and Solubility Limit

Chemical	Frequency of detection (x/y)	Range of Detected Concentration (µg/L)	Range of Method Reporting Limit (µg/L)**	Analytical Method	Relevant Land Use Categories	Most Stringent RBRG(s) (µg/kg)	Solubility Limit (µg/L)	Maximum Detected Concentration Exceeds (check if applicable)	
								RBRG	Solubility
Volatile Organic Chemicals									
Acetone	0/1	<50	50	USEPA 8260	Industrial	10000000	***	NA	NA
Benzene	0/6	<5	5			54000	1750000	NA	NA
Bromodichloromethane	0/4	<5	5			26200	6740000	NA	NA
2-Butanone	4/4	180-30800	50			10000000	***	NA	NA
Chloroform	2/4	9-17	5			11300	7920000	NA	NA
Ethylbenzene	0/6	<5	5			10000000	169000	NA	NA
Methyl tert-Butyl Ether	0/1	<5	5			1810000	***	NA	NA
Methylene Chloride	0/1	<50	50			224000	***	NA	NA
Styrene	0/4	<5	5			10000000	310000	NA	NA
Tetrachloroethene	0/4	<5	5			2950	200000	NA	NA
Toluene	1/6	35	5			10000000	526000	NA	NA
Trichloroethene	0/4	<5	5			14200	1100000	NA	NA
Xylenes (Total)	0/6	<15	15			1570000	175000	NA	NA
Semi-Volatile Organic Chemicals**									
Acenaphthene	0/6	<2	2	USEPA 8270	Industrial	10000000	4240	NA	NA
Acenaphthylene	0/6	<2	2			10000000	3930	NA	NA
Anthracene	0/6	<2	2			10000000	43.4	NA	NA
Benzo(b) & Benzo(k) fluoranthene	0/6	<4	4			7530	1.5	NA	NA
Chrysene	0/6	<2	2			812000	1.6	NA	NA
Fluoranthene	0/6	<2	2			10000000	206	NA	NA
Fluorene	0/6	<2	2			10000000	1980	NA	NA
Hexachlorobenzene	0/4	<4	4			695	6200	NA	NA
Naphthalene	0/6	<2	2			862000	31000	NA	NA
Phenanthrene	0/6	<2	2			10000000	1000	NA	NA
Pyrene	0/6	<2	2			10000000	135	NA	NA
Metals									
Mercury	0/3	<0.5	0.5	APHA 3112 Hg:	Industrial	6790	NA	NA	NA
Petroleum Carbon Ranges									
C6 - C8	0/6	<20	20	USEPA 8015	Industrial	1150000	5230	NA	NA
C9 - C16	0/6	<500	500			9980000	2800	NA	NA
C17 - C35	2/6	500-1700	500			178000	2800	NA	NA

Note:

** indicates that the proposed reporting limits of chrysene and Benzo(b) & Benzo(k)fluoranthene for groundwater samples are different among the CAPs, but all are accredited under HOKLAS. The larger reporting limits are shown here.

*** indicates that the Csat value exceeds the 'ceiling limit' therefore the RBRG applies

NIL= Maximum concentration detected is below the respective RBRG or solubility limit

NA= Not Applicable

Standard Form 3.4 – Soil Sample Concentrations and Exceedances of RBRGs and Csat

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Volatile Organic Chemicals						
Acetone	NA	NA	ND	NIL	NIL	NA
Benzene	NA	NA	ND	NIL	NIL	NA
Bromodichloromethane	NA	NA	ND	NIL	NIL	NA
2-Butanone	NA	NA	ND	NIL	NIL	NA
Chloroform	NA	NA	ND	NIL	NIL	NA
Ethylbenzene	NA	NA	ND	NIL	NIL	NA
Methyl tert-Butyl Ether	NA	NA	ND	NIL	NIL	NA
Methylene Chloride	NA	NA	ND	NIL	NIL	NA
Styrene	NA	NA	ND	NIL	NIL	NA
Tetrachloroethene	NA	NA	ND	NIL	NIL	NA
Toluene	NA	NA	ND	NIL	NIL	NA
Trichloroethene	NA	NA	ND	NIL	NIL	NA
Xylenes (Total)	NA	NA	ND	NIL	NIL	NA
Semi-Volatile Organic Chemicals						
Acenaphthene	NA	NA	ND	NIL	NIL	NA
Acenaphthylene	NA	NA	ND	NIL	NIL	NA
Anthracene	NA	NA	ND	NIL	NIL	NA
Benzo(a)anthracene	NA	NA	ND	NIL	NIL	NA
Benzo(a)pyrene	NA	NA	ND	NIL	NIL	NA
Benzo(b) & Benzo(k) fluoranthene	NA	NA	ND	NIL	NIL	NA
Benzo(g,h,i)perylene	NA	NA	ND	NIL	NIL	NA
bis-(2-Ethylhexyl)phthalate	NA	NA	ND	NIL	NIL	NA
Chrysene	NA	NA	ND	NIL	NIL	NA
Dibenzo(a,h)anthracene	NA	NA	ND	NIL	NIL	NA
Fluoranthene	NA	NA	ND	NIL	NIL	NA
Fluorene	11203/SCL/EB140	3.00-3.45	0.627	NIL	NIL	NA
Hexachlorobenzene	NA	NA	ND	NIL	NIL	NA
Indeno(1,2,3-cd)pyrene	NA	NA	ND	NIL	NIL	NA
Naphthalene	NA	NA	ND	NIL	NIL	NA
Phenanthrene	11203/SCL/EB140	3.00-3.45	2.03	NIL	NIL	NA
Phenol	NA	NA	ND	NIL	NIL	NA
Pyrene	NA	NA	ND	NIL	NIL	NA
Metals						
Antimony	11203/SCL/EB121	3.00-3.45	1	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	5	NIL	NIL	NA
Arsenic	11203/SCL/EB118	0.50	14	NIL	NIL	NA
	11203/SCL/EB118	1.50	10	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	6	NIL	NIL	NA
	11203/SCL/EB119	0.50	2	NIL	NIL	NA
	11203/SCL/EB119	1.50	3	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	4	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	2	NIL	NIL	NA
	11203/SCL/EB120	0.50	2	NIL	NIL	NA
	11203/SCL/EB120	1.50	2	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	2	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	4	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	2	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	1	NIL	NIL	NA
	11203/SCL/EB120	21.00-21.25	1	NIL	NIL	NA
	11203/SCL/EB121	0.50	5	NIL	NIL	NA
	11203/SCL/EB121	1.50	3	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	4	NIL	NIL	NA
	11203/SCL/EB122	0.50	2	NIL	NIL	NA
	11203/SCL/EB122	1.50	1	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	4	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	2	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	3	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	4	NIL	NIL	NA
	11203/SCL/EB123	0.50	5	NIL	NIL	NA
	11203/SCL/EB123	1.50	4	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	9	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	5	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	4	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	1	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	3	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	5	NIL	NIL	NA
	11203/SCL/EB123	21.00-21.15	3	NIL	NIL	NA
	11203/SCL/EB123	24.00-24.15	4	NIL	NIL	NA
	11203/SCL/EB123	27.00-27.15	7	NIL	NIL	NA
Barium	11203/SCL/EB118	0.50	66	NIL	NIL	NA
	11203/SCL/EB118	1.50	77	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	90	NIL	NIL	NA
	11203/SCL/EB119	0.50	38	NIL	NIL	NA
	11203/SCL/EB119	1.50	38	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	8	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	4	NIL	NIL	NA
	11203/SCL/EB120	0.50	42	NIL	NIL	NA
	11203/SCL/EB120	1.50	81	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	11	NIL	NIL	NA
	11203/SCL/EB120	Duplicate	8	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	17	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	27	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	8	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	57	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	26	NIL	NIL	NA
	11203/SCL/EB120	21.00-21.25	161	NIL	NIL	NA
	11203/SCL/EB121	0.50	55	NIL	NIL	NA
	11203/SCL/EB121	1.50	54	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	58	NIL	NIL	NA
	11203/SCL/EB122	0.50	88	NIL	NIL	NA
	11203/SCL/EB122	1.50	53	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
	11203/SCL/EB122	3.00-3.45	21	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	9	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	20	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	145	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	13	NIL	NIL	NA
	11203/SCL/EB123	0.50	47	NIL	NIL	NA
	11203/SCL/EB123	1.50	43	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	46	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	16	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	5	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	22	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	10	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	10	NIL	NIL	NA
	11203/SCL/EB123	21.00-21.15	15	NIL	NIL	NA
	11203/SCL/EB123	24.00-24.15	17	NIL	NIL	NA
	11203/SCL/EB123	27.00-27.15	4	NIL	NIL	NA
Cadmium	NA	NA	ND	NIL	NIL	NA
	11203/SCL/EB118	0.50	8	NIL	NIL	NA
	11203/SCL/EB118	1.50	6	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	6	NIL	NIL	NA
	11203/SCL/EB119	0.50	4	NIL	NIL	NA
	11203/SCL/EB119	1.50	3	NIL	NIL	NA
	11203/SCL/EB120	0.50	4	NIL	NIL	NA
	11203/SCL/EB120	1.50	2	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	2	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	2	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	4	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	1	NIL	NIL	NA
Cobalt	11203/SCL/EB120	21.00-21.25	5	NIL	NIL	NA
	11203/SCL/EB121	0.50	3	NIL	NIL	NA
	11203/SCL/EB121	1.50	5	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	1	NIL	NIL	NA
	11203/SCL/EB122	0.50	5	NIL	NIL	NA
	11203/SCL/EB122	1.50	4	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	19	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	24	NIL	NIL	NA
	11203/SCL/EB123	0.50	4	NIL	NIL	NA
	11203/SCL/EB123	1.50	5	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	7	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	2	NIL	NIL	NA
	11203/SCL/EB118	0.50	4	NIL	NIL	NA
	11203/SCL/EB118	1.50	2	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	3	NIL	NIL	NA
	11203/SCL/EB119	0.50	6	NIL	NIL	NA
	11203/SCL/EB119	1.50	9	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	12	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	3	NIL	NIL	NA
	11203/SCL/EB120	0.50	7	NIL	NIL	NA
	11203/SCL/EB120	1.50	5	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	3	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	5	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	10	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	5	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	2	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	2	NIL	NIL	NA
	11203/SCL/EB120	21.00-21.25	2	NIL	NIL	NA
	11203/SCL/EB121	0.50	8	NIL	NIL	NA
	11203/SCL/EB121	1.50	3	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	12	NIL	NIL	NA
Copper	11203/SCL/EB122	0.50	5	NIL	NIL	NA
	11203/SCL/EB122	1.50	3	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	11	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	3	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	7	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	6	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	4	NIL	NIL	NA
	11203/SCL/EB123	0.50	8	NIL	NIL	NA
	11203/SCL/EB123	1.50	5	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	3	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	3	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	10	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	12	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	3	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	4	NIL	NIL	NA
	11203/SCL/EB123	24.00-24.15	1	NIL	NIL	NA
	11203/SCL/EB146	0.50	16	NIL	NIL	NA
	11203/SCL/EB146	1.50	19	NIL	NIL	NA
	11203/SCL/EB146	3.50-3.95	24	NIL	NIL	NA
	11203/SCL/EB146	6.00-6.45	2	NIL	NIL	NA
	11203/SCL/EB146	9.00-9.45	26	NIL	NIL	NA
	11203/SCL/EB118	0.50	72	NIL	NIL	NA
	11203/SCL/EB118	1.50	53	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	51	NIL	NIL	NA
	11203/SCL/EB119	0.50	49	NIL	NIL	NA
	11203/SCL/EB119	1.50	69	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	27	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	5	NIL	NIL	NA
	11203/SCL/EB120	0.50	52	NIL	NIL	NA
	11203/SCL/EB120	1.50	117	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	51	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	31	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	109	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	69	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	52	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	6	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Lead	11203/SCL/EB120	21.00-21.25	8	NIL	NIL	NA
	11203/SCL/EB121	0.50	59	NIL	NIL	NA
	11203/SCL/EB121	1.50	82	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	95	NIL	NIL	NA
	11203/SCL/EB122	0.50	45	NIL	NIL	NA
	11203/SCL/EB122	1.50	83	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	43	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	14	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	16	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	13	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	21	NIL	NIL	NA
	11203/SCL/EB123	0.50	104	NIL	NIL	NA
	11203/SCL/EB123	1.50	52	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	83	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	66	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	20	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	160	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	24	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	7	NIL	NIL	NA
	11203/SCL/EB123	21.00-21.15	20	NIL	NIL	NA
	11203/SCL/EB123	24.00-24.15	6	NIL	NIL	NA
	11203/SCL/EB123	27.00-27.15	15	NIL	NIL	NA
	11203/SCL/EB140	0.50	31	NIL	NIL	NA
	11203/SCL/EB140	1.50	16	NIL	NIL	NA
	11203/SCL/EB140	3.00-3.45	13	NIL	NIL	NA
	11203/SCL/EB140	5.00-5.45	11	NIL	NIL	NA
	11203/SCL/EB140	6.00-6.45	13	NIL	NIL	NA
	11203/SCL/EB141	0.50	39	NIL	NIL	NA
	11203/SCL/EB141	1.50	32	NIL	NIL	NA
	11203/SCL/EB141	4.50-4.95	21	NIL	NIL	NA
	11203/SCL/EB141	5.00-5.45	17	NIL	NIL	NA
	11203/SCL/EB141	6.00-6.45	32	NIL	NIL	NA
	11203/SCL/EB146	0.50	26	NIL	NIL	NA
	11203/SCL/EB146	1.50	32	NIL	NIL	NA
	11203/SCL/EB146	3.50-3.95	16	NIL	NIL	NA
	11203/SCL/EB146	6.00-6.45	27	NIL	NIL	NA
	11203/SCL/EB146	9.00-9.45	16	NIL	NIL	NA
Manganese	11203/SCL/EB118	0.50	640	NIL	NIL	NA
	11203/SCL/EB118	1.50	528	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	542	NIL	NIL	NA
	11203/SCL/EB119	0.50	482	NIL	NIL	NA
	11203/SCL/EB119	1.50	378	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	51	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	33	NIL	NIL	NA
	11203/SCL/EB120	0.50	387	NIL	NIL	NA
	11203/SCL/EB120	1.50	766	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	94	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	114	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	294	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	90	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	587	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	222	NIL	NIL	NA
	11203/SCL/EB120	21.00-21.25	1510	NIL	NIL	NA
	11203/SCL/EB121	0.50	365	NIL	NIL	NA
	11203/SCL/EB121	1.50	333	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	161	NIL	NIL	NA
	11203/SCL/EB122	0.50	519	NIL	NIL	NA
	11203/SCL/EB122	1.50	422	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	129	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	22	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	19	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	1120	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	187	NIL	NIL	NA
	11203/SCL/EB123	0.50	460	NIL	NIL	NA
	11203/SCL/EB123	1.50	331	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	409	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	112	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	35	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	62	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	59	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	170	NIL	NIL	NA
	11203/SCL/EB123	21.00-21.15	130	NIL	NIL	NA
	11203/SCL/EB123	24.00-24.15	117	NIL	NIL	NA
	11203/SCL/EB123	27.00-27.15	40	NIL	NIL	NA
Molybdenum	11203/SCL/EB119	0.50	3	NIL	NIL	NA
	11203/SCL/EB119	1.50	4	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	4	NIL	NIL	NA
	11203/SCL/EB120	0.50	3	NIL	NIL	NA
	11203/SCL/EB120	1.50	2	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	1	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	4	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	4	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	2	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	4	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	1	NIL	NIL	NA
	11203/SCL/EB120	21.00-21.25	4	NIL	NIL	NA
	11203/SCL/EB121	0.50	2	NIL	NIL	NA
	11203/SCL/EB121	1.50	1	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB122	0.50	2	NIL	NIL	NA
	11203/SCL/EB122	1.50	1	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	6	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	3	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	3	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	8	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	1	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
	11203/SCL/EB123	0.50	4	NIL	NIL	NA
	11203/SCL/EB123	1.50	4	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	2	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	5	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	3	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	2	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	1	NIL	NIL	NA
	11203/SCL/EB123	21.00-21.15	1	NIL	NIL	NA
	11203/SCL/EB123	24.00-24.15	1	NIL	NIL	NA
	11203/SCL/EB118	1.50	1	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	1	NIL	NIL	NA
	11203/SCL/EB119	0.50	1	NIL	NIL	NA
	11203/SCL/EB119	1.50	2	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	9	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	3	NIL	NIL	NA
	11203/SCL/EB120	0.50	1	NIL	NIL	NA
	11203/SCL/EB120	1.50	1	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	1	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	2	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	1	NIL	NIL	NA
Nickel	11203/SCL/EB121	0.50	2	NIL	NIL	NA
	11203/SCL/EB121	1.50	2	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB122	0.50	2	NIL	NIL	NA
	11203/SCL/EB122	1.50	2	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	3	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	2	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	2	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	3	NIL	NIL	NA
	11203/SCL/EB123	0.50	1	NIL	NIL	NA
	11203/SCL/EB123	1.50	1	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	3	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	2	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	3	NIL	NIL	NA
	11203/SCL/EB118	0.50	3	NIL	NIL	NA
	11203/SCL/EB118	1.50	5	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	6	NIL	NIL	NA
	11203/SCL/EB119	0.50	3	NIL	NIL	NA
	11203/SCL/EB119	1.50	2	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	1	NIL	NIL	NA
	11203/SCL/EB120	0.50	5	NIL	NIL	NA
	11203/SCL/EB120	1.50	3	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	9	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	2	NIL	NIL	NA
Tin	11203/SCL/EB121	0.50	3	NIL	NIL	NA
	11203/SCL/EB121	1.50	3	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	4	NIL	NIL	NA
	11203/SCL/EB122	0.50	8	NIL	NIL	NA
	11203/SCL/EB122	1.50	4	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	2	NIL	NIL	NA
	11203/SCL/EB123	0.50	3	NIL	NIL	NA
	11203/SCL/EB123	1.50	3	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	3	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	2	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	1	NIL	NIL	NA
	11203/SCL/EB118	0.50	52	NIL	NIL	NA
	11203/SCL/EB118	1.50	39	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	50	NIL	NIL	NA
	11203/SCL/EB119	0.50	49	NIL	NIL	NA
	11203/SCL/EB119	1.50	46	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	11	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	7	NIL	NIL	NA
	11203/SCL/EB120	0.50	46	NIL	NIL	NA
	11203/SCL/EB120	1.50	32	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	18	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	11	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	108	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	14	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	13	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	17	NIL	NIL	NA
	11203/SCL/EB120	21.00-21.25	11	NIL	NIL	NA
	11203/SCL/EB121	0.50	34	NIL	NIL	NA
	11203/SCL/EB121	1.50	24	NIL	NIL	NA
Zinc	11203/SCL/EB121	3.00-3.45	46	NIL	NIL	NA
	11203/SCL/EB122	0.50	53	NIL	NIL	NA
	11203/SCL/EB122	1.50	38	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	26	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	6	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	7	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	11	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	65	NIL	NIL	NA
	11203/SCL/EB123	0.50	43	NIL	NIL	NA
	11203/SCL/EB123	1.50	27	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	44	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	15	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	11	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	11	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	7	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	11	NIL	NIL	NA
	11203/SCL/EB123	21.00-21.15	10	NIL	NIL	NA
	11203/SCL/EB123	24.00-24.15	6	NIL	NIL	NA
	11203/SCL/EB123	27.00-27.15	26	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Mercury	11203/SCL/EB119	1.50	0.09	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	2.3	NIL	NIL	NA
	11203/SCL/EB121	0.50	0.07	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	0.15	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	0.08	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	0.08	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	0.05	NIL	NIL	NA
Chromium III	11203/SCL/EB118	0.50	1.5	NIL	NIL	NA
	11203/SCL/EB118	1.50	1.4	NIL	NIL	NA
	11203/SCL/EB118	3.00-3.45	1.8	NIL	NIL	NA
	11203/SCL/EB119	0.50	2.3	NIL	NIL	NA
	11203/SCL/EB119	1.50	3.4	NIL	NIL	NA
	11203/SCL/EB119	3.00-3.45	18.9	NIL	NIL	NA
	11203/SCL/EB119	6.00-6.45	4.4	NIL	NIL	NA
	11203/SCL/EB120	0.50	1.8	NIL	NIL	NA
	11203/SCL/EB120	1.50	1.2	NIL	NIL	NA
	11203/SCL/EB120	3.00-3.45	4.8	NIL	NIL	NA
	11203/SCL/EB120	7.30-7.75	3.4	NIL	NIL	NA
	11203/SCL/EB120	9.80-10.25	2.3	NIL	NIL	NA
	11203/SCL/EB120	12.00-12.45	2.5	NIL	NIL	NA
	11203/SCL/EB120	15.00-15.45	1.3	NIL	NIL	NA
	11203/SCL/EB120	18.00-18.25	0.6	NIL	NIL	NA
	11203/SCL/EB120	21.00-21.25	0.9	NIL	NIL	NA
	11203/SCL/EB121	0.50	3	NIL	NIL	NA
	11203/SCL/EB121	1.50	2.6	NIL	NIL	NA
	11203/SCL/EB121	3.00-3.45	2.8	NIL	NIL	NA
	11203/SCL/EB122	0.50	1.8	NIL	NIL	NA
	11203/SCL/EB122	1.50	1.4	NIL	NIL	NA
	11203/SCL/EB122	3.00-3.45	19.2	NIL	NIL	NA
	11203/SCL/EB122	6.00-6.45	3.5	NIL	NIL	NA
	11203/SCL/EB122	9.00-9.45	2.5	NIL	NIL	NA
	11203/SCL/EB122	12.00-12.45	1.2	NIL	NIL	NA
	11203/SCL/EB122	15.90-16.35	4.4	NIL	NIL	NA
	11203/SCL/EB123	0.50	2.2	NIL	NIL	NA
	11203/SCL/EB123	1.50	1.2	NIL	NIL	NA
	11203/SCL/EB123	3.00-3.45	4.2	NIL	NIL	NA
	11203/SCL/EB123	6.00-6.45	1.8	NIL	NIL	NA
	11203/SCL/EB123	9.00-9.45	5.7	NIL	NIL	NA
	11203/SCL/EB123	12.00-12.45	2.5	NIL	NIL	NA
	11203/SCL/EB123	15.00-15.45	1.2	NIL	NIL	NA
	11203/SCL/EB123	18.00-18.15	1.1	NIL	NIL	NA
	11203/SCL/EB123	21.00-21.15	0.8	NIL	NIL	NA
	11203/SCL/EB123	27.00-27.15	0.7	NIL	NIL	NA
	11203/SCL/EB146	0.50	13.1	NIL	NIL	NA
	11203/SCL/EB146	1.50	7.7	NIL	NIL	NA
	11203/SCL/EB146	3.50-3.95	30.8	NIL	NIL	NA
	11203/SCL/EB146	6.00-6.45	3.4	NIL	NIL	NA
	11203/SCL/EB146	9.00-9.45	25.4	NIL	NIL	NA

Chemical	List Samples		Concentration (mg/kg)	Check if RBRG Exceeded	Check if Csat Exceeded	Approximate Size of Affected Area* (m^2)
	Sampling Locations	Sample Depth (m, bgs)				
Chromium VI	NA	NA	NA	NIL	NIL	NA
Petroleum Carbon Ranges						
C6 - C8	11203/SCL/EB140	3.00-3.45	7	NIL	NIL	NA
C9 - C16	11203/SCL/EB122	6.00-6.45	203	NIL	NIL	NA
	11203/SCL/EB140	3.00-3.45	1840	NIL	NIL	NA
C17 - C35	11203/SCL/EB140	0.50	2330	NIL	NIL	NA
	11203/SCL/EB140	3.00-3.45	1480	NIL	NIL	NA

Note:
NA= Not Applicable
ND= Not Dectectable
NIL= Maximum concentration detected is below the respective RBRG or Csat
* = Comfirmatory tests would be carried out to further confirm size of the affected area

Standard Form 3.5 – Groundwater Sample Concentrations and Exceedances of RBRGs and Solubility Limits

Chemical	List Samples Sampling Locations	Concentration (µg/L)	Check if RBRG Exceeded	Check if Solubility Limit Exceeded	Approximate Size of Affected Area (m^2)
Volatile Organic Chemicals					
Acetone	NA	ND	NIL	NIL	NA
Benzene	NA	ND	NIL	NIL	NA
Bromodichloromethane	NA	ND	NIL	NIL	NA
	NA	ND	NIL	NIL	NA
2-Butanone	11203/SCL/EB120	2990	NIL	NIL	NA
	11203/SCL/EB122	180	NIL	NIL	NA
	11203/SCL/EB123	30800	NIL	NIL	NA
	11203/SCL/EB146	1210	NIL	NIL	NA
Chloroform	11203/SCL/EB120	9	NIL	NIL	NA
	11203/SCL/EB146	17	NIL	NIL	NA
Ethylbenzene	NA	ND	NIL	NIL	NA
Methyl tert-Butyl Ether	NA	ND	NIL	NIL	NA
Methylene Chloride	NA	ND	NIL	NIL	NA
Styrene	NA	ND	NIL	NIL	NA
Tetrachloroethene	NA	ND	NIL	NIL	NA
Toluene	11203/SCL/EB122	35	NIL	NIL	NA
Trichloroethene	NA	ND	NIL	NIL	NA
Xylenes (Total)	NA	ND	NIL	NIL	NA
Semi-Volatile Organic Chemicals					
Acenaphthene	NA	ND	NIL	NIL	NA
Acenaphthylene	NA	ND	NIL	NIL	NA
Anthracene	NA	ND	NIL	NIL	NA
Benzo(b) & Benzo(k) fluoranthene	NA	ND	NIL	NIL	NA
Chrysene	NA	ND	NIL	NIL	NA
Fluoranthene	NA	ND	NIL	NIL	NA
Fluorene	NA	ND	NIL	NIL	NA
Hexachlorobenzene	NA	ND	NIL	NIL	NA
Naphthalene	NA	ND	NIL	NIL	NA
Phenanthrene	NA	ND	NIL	NIL	NA
Pyrene	NA	ND	NIL	NIL	NA
Metals					
Mercury	NA	ND	NIL	NIL	NA
Petroleum Carbon Ranges					
C6 - C8	NA	ND	NIL	NIL	NA
C9 - C16	NA	ND	NIL	NIL	NA
C17 - C35	11203/SCL/EB122	500	NIL	NIL	NA
	11203/SCL/EB123	1700	NIL	NIL	NA

Note:
NIL= Maximum concentration detected is below the respective RBRG or solubility limit
NA= Not Applicable
ND= Not Dectectable