

TABLE OF CONTENTS

8	LAND CONTAMINATION	8-1
8.1	Introduction	8-1
8.2	Environmental Legislation, Standards, and Guidelines	8-1
8.3	Description of the Environment.....	8-1
8.4	Assessment Methodology.....	8-2
8.5	Identification of Potential Land Contamination Concern	8-2
8.6	Site Investigation Plan	8-26
8.7	Prediction and Evaluation of Environmental Impacts	8-30
8.8	Mitigation of Adverse Environmental Impacts	8-31
8.9	Evaluation of Residual Impacts	8-33
8.10	Environmental Monitoring and Audit.....	8-33
8.11	Environmental Acceptability of Schedule 2 Designated Projects	8-33
8.12	Conclusion	8-34

LIST OF TABLES

Table 8.1	Summary of Historical Land Uses within the Project Site.....	8-4
Table 8.2	Summary of Chemical Waste Producer Records	8-9
Table 8.3	Summary of Issued Dangerous Goods License	8-12
Table 8.4	Summary of Incident Records	8-13
Table 8.5	Recommended Future Land Uses in RODP and Proposed RBRGs Land Use Scenarios.....	8-17
Table 8.6	Details of Site Appraisal for the Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses	8-18
Table 8.7	Preliminary Sampling and Testing Plan.....	8-27
Table 8.8	Tentative Programme for Land Contamination Assessment	8-32
Table 8.9	Potentially Contaminated Sites Identified in the Schedule 2 Designated Projects	8-34

LIST OF FIGURES

<u>Figure 8.0</u>	Land Contamination Assessment Areas Under Previous EIA Studies
<u>Figure 8.1</u>	Locations of Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses / Operations (Key Plan)
<u>Figure 8.2</u>	Locations of Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses / Operations (Sheet 1 of 6)
<u>Figure 8.3</u>	Locations of Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses / Operations (Sheet 2 of 6)
<u>Figure 8.4</u>	Locations of Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses / Operations (Sheet 3 of 6)
<u>Figure 8.5</u>	Locations of Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses / Operations (Sheet 4 of 6)
<u>Figure 8.6</u>	Locations of Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses / Operations (Sheet 5 of 6)
<u>Figure 8.7</u>	Locations of Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses / Operations (Sheet 6 of 6)

LIST OF APPENDICES

<u>Appendix 8.1</u>	Reviewed Aerial Photographs
<u>Appendix 8.2</u>	Information from Government Departments
<u>Appendix 8.3</u>	Photographic Records of Site Walkover
<u>Appendix 8.4</u>	Site Walkover Checklist
<u>Appendix 8.5</u>	Risk-Based Remediation Goals (RBRGs) for Soil and Soil Saturation Limit and for Groundwater and Solubility Limit

8 LAND CONTAMINATION

8.1 Introduction

8.1.1.1 This section presents the findings of evaluation and assessment on the potential land contamination issues within the Project Site. The land contamination issues have been assessed in accordance with the requirement in Annex 19 of the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) and the requirements in Section 3.4.8 and Appendix G of the EIA Study Brief (ESB-363/2023).

8.2 Environmental Legislation, Standards, and Guidelines

8.2.1.1 The relevant environmental legislation guidelines and standards on land contamination aspect include the following:

- Section 3 (Potential Contaminated Land Issues) of Annex 19 “Guidelines for Assessment of Impact on Sites of Cultural Heritage and Other Impacts” of the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM);
- Guidance Note for Contaminated Land Assessment and Remediation, EPD, April 2023 (Guidance Note): This Guidance Note sets out the requirements for proper assessment and management of potentially contaminated sites such as oil installations (e.g. oil depots, petrol filling stations), gas works, power plants, shipyards/boatyards, chemical manufacturing/processing plants, steel mills/metal workshops, car repairing/dismantling workshops and scrap yards. In addition, this Guidance Note provides guidelines on how site assessments should be conducted and analysed and suggests practical remedial measures that can be adopted for the remediation of contaminated sites;
- Practice Guide for Investigation and Remediation of Contaminated Land, EPD, April 2023 (Practice Guide): This Practice Guide outlines typical investigation methods and remediation strategies for the range of potential contaminants typically encountered in Hong Kong; and
- Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management, EPD, April 2023 (Guidance Manual): This Guidance Manual introduces the risk-based approach in land contamination assessment and presents instructions for comparison of soil and groundwater data to the RBRGs for 54 chemicals of concern (COCs) commonly found in Hong Kong. The RBRGs were derived to suit Hong Kong conditions by following the international practice of adopting a risk-based methodology for contaminated land assessment and remediation, and were designed to protect the health of people who could potentially be exposed to land impacted by chemicals under four broad post restoration land use categories. The RBRGs also serve as the remediation targets if remediation is necessary.

8.3 Description of the Environment

8.3.1.1 The location and boundary of the Project Site (including the associated works sites / areas and the Development Area) is shown in **Figure 1.1**. The existing land use and development profile of the Project Site mainly comprises rural village type housing, brownfield developments, agricultural lands and fishponds. The Project Site is

surrounded by village settlements to its north and south. Ngau Tam Mei Water Treatment Works and Tam Mei Barracks are located to its east and north, respectively. To its further east, north and south is dominated by hill and mountainous terrain.

8.4 Assessment Methodology

8.4.1.1 Land contamination assessment was carried out according to the EIAO-TM, Practice Guide, Guidance Note and Guidance Manual as well as the requirements given in Section 3.4.8 and Appendix G of the EIA Study Brief.

8.4.1.2 Site appraisals, comprising site walkovers and desktop review, were conducted to identify the potentially contaminating land uses that may pose adverse impact to the Project. Site walkovers were conducted within the Project Site to identify any existing contaminative land uses and contamination sources (or 'hotspots'). For the desktop review, the following information was reviewed:

- Available records of dangerous goods (DG), Chemical Wastes Producers (CWP(s)), chemical spillage/leakage and incidents from EPD and Fire Services Department (FSD);
- Geotechnical Assessment Report under the Project (Ref. TR6F);
- Hong Kong Geological Survey (HKGS) Map (Series HGM20) – Sheet No. 2 (1:20,000); and
- Selected aerial photographs and topographic maps held by the Lands Department.

8.5 Identification of Potential Land Contamination Concern

8.5.1 Review of Previous EIA Studies

8.5.1.1 The following relevant EIA studies were reviewed. The land contamination assessment areas of these EIA studies are indicated in **Figure 8.0**.

- Construction of Cycle Tracks and the associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River (Register No.: AEIAR-133/2009)
- Hong Kong Section of Guangzhou – Shenzhen – Hong Kong Express Rail Link (Register No.: AEIAR-143/2009) (hereinafter referred to as “XRL EIA report”)
- Northern Link (NOL) (Register No.: AEIAR-259/2024) (hereinafter referred to as “NOL Main Line EIA report”)
- San Tin / Lok Ma Chau Development Node (STLMC DN) (Register No.: AEIAR-261/2024) (hereinafter referred to as “STLMC DN EIA report”)

8.5.1.2 Relevant findings from these EIA reports are summarised in the following sections.

Construction of Cycle Tracks and the associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River

8.5.1.3 A land contamination assessment was conducted under the approved EIA report for Construction of Cycle Tracks and the associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River. The assessment was conducted in accordance with

the EIAO-TM as well as EPD's guidelines at the time of the report. The EIA report was approved in March 2009. The assessment area of the approved EIA report partially covered the north-western end of the Project Site (**Figure 8.0** refers). The assessment included desktop study and site reconnaissance which was conducted in 2006 and 2007.

- 8.5.1.4 According to the findings of the approved EIA report, there were no potentially contaminated sites encroached into the Project Site.

XRL EIA Report

- 8.5.1.5 A land contamination assessment was conducted under the approved XRL EIA report. The assessment was conducted in accordance with the EIAO-TM as well as EPD's guidelines at the time of the report. The EIA report was approved in September 2009. The assessment area of the approved EIA report partially covered the western and southern portions the Project Site (**Figure 8.0** refers). The assessment included desktop study and site inspections which were conducted in 2008.

- 8.5.1.6 According to the findings of the approved EIA report, there were no potentially contaminated sites encroached into the Project Site.

NOL Main Line EIA Report

- 8.5.1.7 A land contamination assessment was conducted under the approved NOL Main Line EIA report. The assessment was conducted in accordance with the EIAO-TM as well as EPD's guidelines at the time of the report. The EIA report was approved in February 2024. The assessment area of the approved EIA report partially covered the southwestern portion of the Project Site, which is proposed to be developed into the future railway station (i.e. Ngau Tam Mei Station) and depot (i.e. Ngau Tam Mei Depot) (**Figure 8.0** refers). The assessment included desktop study and site surveys which were conducted in 2021 and 2022.

- 8.5.1.8 According to the approved EIA report, 24 potentially contaminated sites identified within the assessment area would encroach into the southwestern portion of the Project Site. However, the associated site formation works (including any decontamination works) for construction of the future railway station and depot will be undertaken by MTRCL under the NOL Main Line project prior to the construction of topside development under this Project. Potential land contamination issues within the southwestern portion of the Project Site will be addressed by MTRCL under the NOL Main Line project, and potential land contamination issues to the Project are therefore not anticipated.

STLMC DN EIA Report

- 8.5.1.9 A land contamination assessment was conducted under the approved STLMC DN EIA report. The assessment was conducted in accordance with the EIAO-TM as well as EPD's prevailing guidelines. The EIA report was approved in May 2024. The assessment area of the approved EIA report partially covered the northern portion of the Project Site, which is proposed to be developed into the future San Tin Technopole (STT) (**Figure 8.0** refers). The assessment included desktop review, drone reconnaissance and site visits. Drone reconnaissance and site visits were conducted in 2022 and 2023.

- 8.5.1.10 Based on the approved EIA report, 2 potentially contaminated sites and 3 sites of uncertain nature of operations identified within the assessment area would partially encroach into the northern portion of the Project Site. However, the associated site formation works (including any decontamination works) for the future STT will be

undertaken by CEDD under the STL MC DN project prior to construction of proposed road connection to/from STT under this Project. Potential land contamination issues within the northern portion of the Project Site will be addressed by CEDD under the STL MC DN project, and potential land contamination issues to the Project are therefore not anticipated.

8.5.2 Review of Historical Land Uses

8.5.2.1 A review of historical aerial photographs covering the Project Site has been undertaken. The aim of the review is to identify any historical land uses within the Project Site that may have potential contamination implications to the Project. A summary of the historical land uses is listed in **Table 8.1** and the selected aerial photographs are provided in **Appendix 8.1**.

Table 8.1 Summary of Historical Land Uses within the Project Site

Year (Photo Ref. No.)	Drawing No. in <u>Appendix 8.1</u>	Description of Land Uses and Site Operation/Activities within Project Site
1963 (#1963-9448; #1963-9472; #1963-9475)	AP1	The Project Site was occupied by vegetated land, agricultural land, roads, ponds, graves and rural residential land uses.
1973 – 1974 (#04796; #04797)	AP2	No significant land use change was observed within the Project Site.
1982 (#42886; #43836; #43945; #45605)	AP3	<p>Open storages, a sawmill and a cement product factory were observed in the southwest of the Project Site. School and existing village office were observed in the east of the Project Site. No significant land use change was observed in the remaining portions of the Project Site.</p> <p><u>Historical potentially contaminating land uses identified:</u> <i>Within the works sites / areas under NOL Main Line project or the development area under STL MC DN project ⁽¹⁾:</i></p> <ul style="list-style-type: none"> • Open storages • Sawmill • Cement product factory <p><i>Outside the works sites / areas under NOL Main Line project or the development area under STL MC DN project:</i></p> <ul style="list-style-type: none"> • Nil
1993 (#A34471; #A34484; #A34486)	AP4	<p>Construction sites were observed in the west of the Project Site. Agricultural land in the southwest of the Project Site were cleared and replaced by open storages. An open storage was observed in the east of the Project Site. Various industrial land uses were also observed in the north of the Project Site. The existing San Tin Highway and San Tam Road were observed. No significant land use change was observed in the remaining portions of the Project Site.</p> <p><u>Historical potentially contaminating land uses identified:</u> <i>Within the works sites / areas under NOL Main Line project or the development area under STL MC DN project ⁽¹⁾:</i></p> <ul style="list-style-type: none"> • Open storages in the southwest of the Project Site

Year (Photo Ref. No.)	Drawing No. in <u>Appendix</u> <u>8.1</u>	Description of Land Uses and Site Operation/Activities within Project Site
		<ul style="list-style-type: none"> Various industrial land uses in the north of the Project Site <p><i>Outside the works sites / areas under NOL Main Line project or the development area under STLMC DN project:</i></p> <ul style="list-style-type: none"> Open storage in the east of the Project Site
2003 (#CW46769; #CW46771; #CW46898; #CW46903; #CW51403; #CW51404)	AP5	<p>The existing Chun Shin Road and Chuk Yau Road were observed within the Project Site. Various industrial land uses were observed in the north, east, southwest and west of the Project Site. No significant land use change was observed in the remaining portions of the Project Site.</p> <p><u>Historical potentially contaminating land uses identified:</u> <i>Within the works sites / areas under NOL Main Line project or the development area under STLMC DN project⁽¹⁾:</i></p> <ul style="list-style-type: none"> Various industrial land uses in the north and southwest of the Project Site <p><i>Outside the works sites / areas under NOL Main Line project or the development area under STLMC DN project:</i></p> <ul style="list-style-type: none"> Various industrial land uses in the east and west of the Project Site
2013 (#CS42947; #CS42999; #CS43779; #CS43780; #CS43782; #CS43783)	AP6	<p>The sawmill, cement product factory and pond in the southwest of the Project Site were no longer present. A motor vehicle service centre and various industrial land uses were observed in the southwest of the Project Site. An open storage was observed in the north of the Project Site. The construction site in the west of the Project Site was replaced by a suspected open storage. Various industrial land uses were also observed in the centre, west, northwest and east of the Project Site. No significant land use change was observed in the remaining portions of the Project Site.</p> <p><u>Historical potentially contaminating land uses identified:</u> <i>Within the works sites / areas under NOL Main Line project or the development area under STLMC DN project⁽¹⁾:</i></p> <ul style="list-style-type: none"> Motor vehicle service centre Various industrial land uses in the southwest of the Project Site Open storage in the north of Project Site <p><i>Outside the works sites / areas under NOL Main Line project or the development area under STLMC DN project:</i></p> <ul style="list-style-type: none"> Suspected open storage in the west of the Project Site Various industrial land uses in the centre, west, northwest and east of the Project Site
2021 (#E126297C; #E126712C; #E126713C; #E126717C;	AP7	<p>The existing Ching Yau Road was observed within the Project Site. The suspected open storage in the west of the Project Site was replaced by a farm. A vehicle maintenance workshop was observed in the centre of the Project Site. Various industrial land uses were observed in</p>

Year (Photo Ref. No.)	Drawing No. in <u>Appendix 8.1</u>	Description of Land Uses and Site Operation/Activities within Project Site
#E126720C; #E126724C; #E127155C; #E127156C; #E127159C; #E127162C; #E127486C)		<p>the south of the Project Site. An open storage was observed in the east of the Project Site. No significant land use change was observed in the remaining portions of the Project Site.</p> <p><u>Historical potentially contaminating land uses identified:</u> <i>Within the works sites / areas under NOL Main Line project or the development area under STLMC DN project ⁽¹⁾:</i></p> <ul style="list-style-type: none"> • Nil <p><i>Outside the works sites / areas under NOL Main Line project or the development area under STLMC DN project:</i></p> <ul style="list-style-type: none"> • Vehicle maintenance workshop • Various industrial land uses • Open storage
2023 (#E185387C; #E185393C; #E185754C; #E186101C; #E186104C; #E186107C; #E186109C; #E185385C)	AP8	<p>The vegetated land and ponds in the west of the Project Site were cleared and replaced by vacant land. The motor vehicle service centre in the southwest of the Project Site was replaced by industrial land use. The vehicle maintenance workshop in the centre of the Project Site was replaced by suspected construction equipment and materials storage / warehouse. No significant land use change was observed in the remaining portions of the Project Site.</p> <p><u>Historical potentially contaminating land uses identified:</u> <i>Within the works sites / areas under NOL Main Line project or the development area under STLMC DN project ⁽¹⁾:</i></p> <ul style="list-style-type: none"> • Industrial land uses in the southwest of the Project Site <p><i>Outside the works sites / areas under NOL Main Line project or the development area under STLMC DN project:</i></p> <ul style="list-style-type: none"> • Suspected construction equipment and materials storage / warehouse in the centre of the Project Site

Note:

(1) The historical potentially contaminating land uses within the works sites / areas under the NOL Main Line project and development area under the STLMC DN project would be addressed by MTRCL under the NOL Main Line project and CEDD under the STLMC DN project respectively.

Source: Survey and Mapping Office, Lands Department

8.5.2.2 Based on the review of aerial photographs, the historical potentially contaminating land uses identified within the Project Site include a former sawmill, a former cement product factory, a former motor vehicle service centre, a former vehicle maintenance workshop, open storages and various industrial land uses. However, as discussed in **Section 8.5.1** and as shown in **Table 8.1**, the southwestern and northern portions of the Project Site, which included the former sawmill, the former cement product factory, the former motor vehicle service centre and some of the open storages and various industrial land uses, fall within the works sites / areas under the NOL Main Line project and development area under the STLMC DN project. Any potential land contamination issues within these areas would be addressed by MTRCL under the NOL Main Line project and CEDD under the STLMC DN project respectively prior to the construction of topside development and the proposed road connection to/from

STT under this Project. Therefore, no potential land contamination implications to the Project are anticipated for these areas.

- 8.5.2.3 As shown in **Table 8.1**, the historical potentially contaminating land uses that do not fall within the works sites / areas under the NOL Main Line project and development area under the STLMC DN project include open storages, a former vehicle maintenance workshop, a suspected construction equipment and materials storage / warehouse and various industrial land uses, which may have potential contamination implications to the Project.

8.5.3 Review of Site Geology

- 8.5.3.1 Based on the HKGS 1:20,000-scale Solid and Superficial Geology Map Sheet No. 2, Edition I (GEO, 1989), the superficial geology of the Project Site comprises alluvium (Qa) along drainage lines and estuarine deposits (Qam) underlying Yau Tam Mei San Tsuen at northwest portion, of Holocene in age. Besides, debris flow deposit (Qpd) and terraced alluvium (Qpa) of Pleistocene in age are present at the foothill area and alluvial flat respectively. The 1:20,000-scale Solid Geology Map Sheet No. 2, Edition I (GEO, 1994), shows that the Project Site is underlain by Jurassic Tai Mo Shan Formation (JTM), which is dominantly slightly metamorphosed coarse ash crystal tuff. Also, beds of sandstone and quartz veins were locally recorded in the vicinity of the Project Site.

- 8.5.3.2 Based on the limited available ground investigation (GI) information, the subsoil underneath the Project Site generally consists of a thin layer of fill, alluvium, locally colluvium and residual soil, decomposed volcanic rock and bedrock. Fill layer is of variable thickness across the Project Site, from 0.5 m to 4.6 m. Alluvial deposits of up to 12 m thickness were recorded, dominantly comprising interbedded very soft to firm clay and loose to medium dense sand. Colluvium can be locally encountered with thickness varies between 0.5 m to 6.75 m, comprising stiff to very stiff sandy silt or dense to very dense silty sand, with gravel and cobbles.

- 8.5.3.3 According to the existing GI records, tuff was generally encountered in the drillholes. In-situ weathered materials that formed a stratum of saprolite, locally involved residual soil, were encountered in the Project Site, underlying alluvium. The thickness of saprolite stratum is highly variable, from less than 5 m to more than 85 m, and the bottom level of saprolite stratum varies from about +8 mPD to -68 mPD. Completely decomposed tuff was generally described as stiff to very stiff, yellowish brown to reddish brown, slightly sandy silt with occasional fine to medium gravel, while highly decomposed tuff was commonly recovered as sandy gravel.

- 8.5.3.4 Several standpipes or piezometers were installed at the existing GI stations and the ground water monitoring records were obtained. The groundwater level within or in the vicinity of Project Site dominantly varies from 0.2 m to 5.4 m below ground level (about +2 mPD to +10 mPD), but locally may up to 23 m below ground level.

8.5.4 Information from Relevant Government Departments

- 8.5.4.1 EPD and FSD were contacted for (i) records on any release of chemicals and chemical waste; (ii) records of DG; (iii) records of CWP(s); and (iv) records of reported incidents within the Project Site. Replies from EPD and FSD are provided in **Appendix 8.2**. The information is summarised below.

Environmental Protection Department

- 8.5.4.2 Based on the reply given by EPD on 10 March 2023, 5 August 2024 and 4 July 2025, there is no record of spillage / leakage of chemical wastes or chemicals found within

the Project Site. In addition, visits to EPD's Territorial Control Office were undertaken on 30 March 2023, 20 August 2024 and 22 July 2025 to review the available CWP records. There are a total of 20 valid and 11 invalid registered CWP records relevant to the Project Site. Details of the CWP records are summarised in **Table 8.2** and the locations are shown in **Appendix 8.3**.

Table 8.2 Summary of Chemical Waste Producer Records

No.	Site ID ⁽¹⁾	Company Name	Address	Status	Business Nature	Within Project Site? ⁽¹⁾
1	-	Sun Fook Kong (Civil) Ltd.	Yuen Long, Kam Tin, Ngau Tam Mei & Tin Shui Wai Drainage Improvement Stage 1, Phase 2A-Kam Tin & Ngau Tam Mei, Yuen Long NT	Valid	Construction	Unknown
2	S6	Sai Ming Motors & Transportation Co.	No. 94, Sheung Chuk Yuen Tsuen, Chuk Yau Road, Yuen Long, NT	Valid	Automobile maintenance	Yes
3	S1	Lo Yuk Choi (Trading as Yau Kee Garage)	Castle Peak Road - Tam Mi, Chuk Yuen Tsuen, Yuen Long, New Territories, 104, 2397, 2398 RP & 2556B RP	Valid	Car repairing	Yes
4	-	Covestro (Hong Kong) Ltd.	D.D.104 Lot 1638, Chuk Yau Road, Yuen Long, NT	Valid	Trade chemical and high-tech material, provide business services	Yes ⁽³⁾
5	-	Kwok Kwong Garage	500 Yau Tam Mei, West District, Yuen Long, NT	Valid	Repairing of motor vehicles	Unknown
6	-	Tsun Yip Waterworks Construction Company Limited	Construction Site of Contract No.:13/WSD/06 at Ngau Tam Mei Area, San Tin, Yuen Long, New Territories	Valid	Construction	Unknown
7	-	Huntsman Advanced Materials (Hong Kong) Ltd.	D.D.104 Lot 1638, Chau Yau Road, Sheung Chuk Yuen, Yuen Long, NT	Valid	Warehouse management	Yes ⁽³⁾
8	-	Hinrich International Limited	No. 1 Brickfield, Yau Tam Mei Tsuen, Chuk Yau Road, San Tin, Yuen Long, New Territories	Valid	Supply & application of fire rated paint	Yes ⁽³⁾
9	-	Intech Digital Technology Limited	D.D.104 Lot 1656 Yau Tam Mei Tsuen, San Tin, Yuen Long, NT	Valid	Logistics	Yes ⁽³⁾
10	-	Huntsman International (Hong Kong) Limited	Area W23-02, D.D.104 Lot 1638, Sinotrans (HK) Warehouseing Limited, Chuk Yau Road, Yuen Long, Hong Kong	Valid	Warehousing	Yes ⁽³⁾
11	-	Tan Tat Godown Co Ltd.	D.D.104, Sheung Chuk Yuen, Ngau Tam Mei Tsuen, San Tin, Yuen Long, NT	Valid	Logistics	Yes ⁽³⁾
12	S44	Shun Hing Construction Transportation Co. Ltd.	D.D.104, Lot 802RP, Ngau Tam Mei Village, San Tin, Yuen Long, N.T.	Valid	Transportation garage	Yes
13	-	Holake Hong Kong Lifts Ltd.	D.D.104, Lot 1516 RP, Chuk Yuen, San Tin, Ngau Tam Mei Village, Yuen Long, N.T.	Valid	Lift & escalator contractor	Yes ⁽³⁾
14	-	Tan Tat Godown Co. Ltd.	D.D.104, Chuk Yuen, San Tin, Ngau Tam Mei Village, Yuen Long, NT	Valid	Logistics	Yes ⁽³⁾
15	-	Schindler Lifts (Hong Kong) Ltd.	D.D.104, Lot 1515, Chuk Yuen San Tin Ngau Tam Mei, Village, Yuen Long, N.T.	Valid	Lift & escalator contractor	Yes ⁽³⁾

No.	Site ID ⁽¹⁾	Company Name	Address	Status	Business Nature	Within Project Site? ⁽¹⁾
16	N/A ⁽²⁾	Tai Lee Engineering Co. Ltd.	NF259 (L1 & L2) - San Tin Highway aside Hang Fook Gardens, Yuen Long	Valid	Unknown	Yes
17	-	Association Electrical Engineering Limited	Lot 1515 in D.D.104, Chuk Yuen, Yuen Long, NT	Valid	Lift service	Yes ⁽³⁾
18	-	VIP International Environmental Limited	D.D.104 Lot 1768, Ching Yau Road, Chuk Yuen, Ngau Tam Mei, Yuen Long, NT	Invalid	Metal scrap recycle	Yes ⁽³⁾
19	-	Lam-Po Wing JV	Area 1, Yau Mei San Tsuen, Ngau Tam Mei, Yuen Long, New Territories	Valid	Construction	Unknown
20	S39	Kazu Production	D.D.104 Lot 1793 Zone A. Yuen Long, NT	Valid	Unknown	Yes
21	-	Chun Fai Construction Company Limited	Lot No. 4773 in D.D.104, Wai Tsai, Ngau Tam Mei, Yuen Long, New Territories	Invalid	Construction	Yes
22	-	Chun Fai Construction Company Limited	Residential Development at Phase II, Lot 4773 in D.D.104 & Extension Thereto, Wai Tsai, Ngau Tam Mei Road, Yuen Long, New Territories	Invalid	Construction	Yes
23	-	Chun Fai Construction Company Limited	Residential Development at Lot 4783 in D.D.104, Wai Tsai, Ngau Tam Mei, Yuen Long, New Territories	Invalid	Construction	Yes
24	-	Hsin Chong Construction Co., Ltd.	RE 29.5 M, LZ D.D.104, Ngau Tam Mei San Tin Yuen Long NT	Invalid	Construction	Unknown
25	-	Ready Mixed Concrete (HK) LTD	D.D.104 Ngau Tam Mei, Yuen Long, NT	Invalid	Concrete manufacturing	Unknown
26	S6	Sai Ming Motors & Transportation Co.	No. 94, Sheung Chuk Yuen Tsuen, Chuk Yau Road, Yuen Long, NT	Invalid	Automobile maintenance	Yes
27	-	Jiin Yeoh Ding (H.K.) Enterprises Limited	D.D.104 Lot 1409RP, Yau Tam Mei Tsuen, San Tin, Yuen Long, NT	Invalid	Recycling and processing of metals, trading of waste materials, handling and processing of WEEE	Yes ⁽³⁾
28	-	Wai On Eng. & Service Co.	Lot 1626RP in D.D.104, Ngau Tam Mei, Sheung Chuk Yuen, Yuen Long NT	Invalid	Machinery engineering	Yes ⁽³⁾
29	-	Welcome Construction Company Limited	Main Drainage Channel Phase 2, Ngau Tam Mei to Yau Mei San Tsuen Section, (TDD Contract No. YL 48/99), Ngau Tam Mei NT	Invalid	Construction site	Unknown
30	-	Markent Logistics (Hong Kong) LTD.	Tang Tat Store, D.D.104, Sheung Chuk Yuen, Ngau Tam Mei, Yuen Long NT	Invalid	Forwarding	Unknown
31	-	Atal Engineering Limited	(Contract No. 6/WSD/96) Construction Site at Ngau Tam Mei Yuen Long NT	Invalid	Waste treatment	Unknown

Notes:

(1) Locations of the sites and CWP's are provided in **Appendix 8.3**. No Site IDs were assigned to CWP's where the exact locations could not be identified based on the addresses.

- (2) N/A: Not Applicable. No Site IDs were assigned to these sites. Further site appraisal is recommended to confirm if there are any potential land contamination issues.
- (3) No Site IDs were assigned as the CWP's are located within the works sites / areas under the NOL Main Line project. Any potential land contamination issues associated with these CWP's will be addressed under the NOL Main Line project.

- 8.5.4.3 As shown in **Table 8.2**, 5 CWP records (viz. CWP Nos. 2, 3, 12, 20 and 26) were associated with 4 potentially contaminated sites (viz. Sites S1, S6, S39 and S44) within the Project Site which may have potential land contamination issues to the Project. Details of the site appraisals for these sites are presented in **Table 8.6**.
- 8.5.4.4 Thirteen (13) CWP records (viz. CWP Nos. 4, 7-11, 13-15, 17, 18, 27 and 28) are located within the works sites / areas under the NOL Main Line project. Any potential land contamination issues associated with these CWP records will be addressed by MTRCL under the NOL Main Line project prior to the construction of topside development under this Project and therefore no potential land contamination issues to the Project are expected.
- 8.5.4.5 There were 8 CWP records relating to construction works (viz. CWP Nos. 1, 6, 19, 21-24 and 29). Given the construction works were temporary and no construction sites were observed within the Project Site during the site walkovers, potential land contamination issues associated with these CWP records are not anticipated.
- 8.5.4.6 The nature of business of CWP No. 16 was unknown. The remaining 4 CWP records (viz. CWP Nos. 5, 25, 30 and 31) were located at Ngau Tam Mei but their exact locations could not be identified. Further site appraisal is recommended at a later stage of the Project to confirm if there are any potential land contamination issues at these sites.

Fire Services Department

- 8.5.4.7 Based on FSD's replies on 24 December 2021, 30 June 2022, 30 March, 24 April and 21 August 2023, 12 November and 4 December 2024, and 24 July 2025, a total 1 DG license has been issued within the Project Site and details are summarised in **Table 8.3** below. Location of the DG is shown in **Drawing Nos. 60672559/R23/PR7** in **Appendix 8.3**.

Table 8.3 Summary of Issued Dangerous Goods License

No.	Type of DG	Quantity	Location of Storage
1	H301 Diesel Class 3A, Packing Group III	2,746 litres	Fuel Tank Room on G/F, Sek Kong Telephone Exchange Extension II at D.D. 104 Lot 1758, NT

- 8.5.4.8 The DG license is located within the works sites / areas under the NOL Main Line project. Any potential land contamination issues associated with this DG license will be addressed by MTRCL under the NOL Main Line project prior to the construction of topside development under this Project and therefore no potential land contamination issues to the Project are expected.
- 8.5.4.9 On the other hand, a total of 50 incident records were reported by FSD. The details of the incident records are summarised in **Table 8.4** and their locations are shown in **Drawing Nos. 60672559/R23/PR1 to PR15** in **Appendix 8.3**.

Table 8.4 Summary of Incident Records

No.	Address / Lamp Post No.	Date	Type of Incident	Within Project Site?
1	Lamppost FA8537 Refuse Collection Point	1/1/2019	Rubbish Fire	Yes
2	Lamppost VD1423 Yau Tam Mei Tsuen Roadside	10/2/2019	Vehicle Fire	Yes ⁽¹⁾
3	Lamppost AD5814 Near Chun Shin Road	9/4/2019	Rubbish Fire	Yes
4	Lamppost FA9027 Near Ching Yau Road	15/7/2019	Electric Fire	Yes ⁽¹⁾
5	Lamppost AD5802 Near Chun Shin Road	11/12/2019	Vegetation Fire	Yes
6	Lamppost FA8442 Near San Tam Road	11/12/2019	Rubbish Fire	Yes
7	Lamppost FC2946 Near Ching Yau Road	20/12/2019	Vegetation Fire	No
8	Lamppost H4711 Near Chuk Yau Road	17/1/2020	Rubbish Fire	Yes
9	Lamppost VD1425 Chuk Yau Road	22/1/2020	Rubbish Fire	Yes ⁽¹⁾
10	Lamppost FA9023 Ching Yau Road	9/2/2020	Vehicle Fire	Yes ⁽¹⁾
11	Lamppost FA9031 Chuk Yau Road	29/2/2020	Vegetation Fire	Yes ⁽¹⁾
12	Lamppost FA9031 Chuk Yau Road	29/2/2020	Rubbish Fire	Yes ⁽¹⁾
13	Lamppost AD5831 Near Chun Shin Road	29/4/2020	Vegetation Fire	Yes
14	Yau Tam Mei Tsuen Southern District House No. 323	19/10/2020	No.1 Fire Alarm	No
15	Lamppost V5927 Ngau Tam Mei Area	23/10/2020	Vegetation Fire	Yes
16	Lamppost V3911 Ngau Tam Mei Area	24/10/2020	Vegetation Fire	Yes
17	Lamppost VD6515 Sheung Chuk Yuen	5/12/2020	Vegetation Fire	Yes ⁽¹⁾
18	D.D.104, Lot 319 Ngau Tam Mei Area	6/1/2021	Electric Fire	Yes
19	Lamppost V3146 Sai Wa Road	18/1/2021	Vegetation Fire	Yes
20	Lamppost VD1824 Ngau Tam Mei Area	19/1/2021	No.1 Fire Alarm	Yes
21	Lamppost AD5801 Near Chun Shin Road	3/4/2021	Vegetation Fire	Yes
22	Lamppost VD3752 Sai Yuen Openground	22/8/2021	No.1 Fire Alarm	Yes
23	No. 146A Yau Tam Mei Tsuen, New Territories	23/12/2021	No.1 Fire Alarm	Unknown
24	Near Lamp Post AD5805 of Chun Shin Road	31/12/2021	Vehicle Fire	Yes
25	Near Lamp Post AD5803 of Chun Shin Road	4/1/2022	Vegetation Fire	Yes
26	Near Lamp Post FA8349 of Slip Road, San Tin Highway	22/1/2022	Vehicle Fire	Yes

No.	Address / Lamp Post No.	Date	Type of Incident	Within Project Site?
27	D.D.104, Lot 316 Ngau Tam Mei Area	19/5/2022	Late Call	Yes
28	D.D.104, Lot 209 Ngau Tam Mei Area	2/6/2022	No.1 Fire Alarm	Yes
29	Open ground Near Lamp Post FA8369 of Castle Peak Road - Tam Mi	13/9/2022	Rubbish Fire	No
30	Near Lamp Post FA8433 of San Tam Road	28/9/2022	Vegetation Fire	Yes
31	Near Lamp Post FA8433 of San Tam Road	11/10/2022	Vegetation Fire	Yes
32	Hillside Near \UT JK986889 of Ngau Tam Shan	16/10/2022	Special Service: Mountain Rescue	No
33	Near Lamp Post AD5817 of Chun Shin Road	1/11/2022	Vegetation Fire	Yes
34	No.566, Western District, Yau Tam Mei Tsuen, Yuen Long, New Territories	22/1/2023	No.1 Fire Alarm	Unknown
35	Open ground Near Lamp Post VD3718	3/3/2023	Rubbish Fire	Yes
36	Near Lamp Post V5633 of Ngau Tam Mei	24/3/2023	Vegetation Fire	Yes
37	LT D.D.104 Lot 1793 of Chuk Yau Road, Ngau Tam Mei	28/4/2023	No.1 Fire Alarm	Yes ⁽¹⁾
38	Chun Shin Road Proposed Transitional Housing Development Ngau Tam Mei South	3/5/2023	No.1 Fire Alarm	Yes
39	D.D.104 Lot 261, 262, 263 and 265, Yau Tam Mei Tsuen	24/6/2023	Animal Rescue	Yes
40	Near Lamp Post FA8539 of Chuk Yau Road	3/8/2023	No.1 Fire Alarm	Yes ⁽¹⁾
41	Near Lamp Post FA 8360 of Castle Peak Road - Tam Mi	22/12/2023	Rubbish Fire	No
42	Open Ground Near Lamp Post H4100 of Ngau Tam Mei Road	19/1/2024	Rubbish Fire	Yes
43	Ngau Tam Mei Tsuen	24/1/2024	Lock-In Case	Unknown
44	D.D.104 Lot 724-727 of Ngau Tam Mei Road	24/3/2024	No.1 Fire Alarm	Yes
45	Near LT D.D.104 Lot 1628 Chuk Yau Road	25/3/2024	No.1 Fire Alarm	Yes ⁽¹⁾
46	Roadside Near Lamp Post FC4777 of Castle Peak Road - Tam Mi	27/6/2024	Vegetation Fire	Yes
47	Near Lamp Post FA8432 of San Tam Road	9/7/2024	Vegetation Fire	Yes
48	No. 11 San Tam Road	23/8/2024	Lock-In Case	No
49	106 Sheung Chuk Yuen	24/8/2024	No.2 Fire Alarm	No
50	106 Sheung Chuk Yuen	25/8/2024	Late Call Fire	No

Note:

(1) The location of incident is within the works sites / areas under the NOL Main Line project.

8.5.4.10As shown in **Table 8.4**, of the 50 incident records, 8 incidents (viz. Incident Record Nos. 7, 14, 29, 32, 41, 48, 49 and 50) occurred outside the Project Site. Thus, these incidents are not expected to pose any potential land contamination issue to the Project.

8.5.4.11 Ten (10) incident records (viz. Incident Record Nos. 2, 4, 9 to 12, 17, 37, 40 and 45) occurred within the works sites / areas under the NOL Main Line project. The potential land contamination issues associated with these incident records will be addressed by MTRCL under the NOL Main Line project prior to the construction of topside development under this Project and therefore no potential land contamination issues to the Project are expected.

8.5.4.12 In addition, there were 11 incidents related to electric fire, No.1 Fire Alarm, late call and vehicle fire within the Project Site (viz. Incident Record Nos. 18, 20, 22 to 24, 26 to 28, 34, 38 and 44). Of these incidents, two (2) No.1 Alarm Fire incidents (viz. Incident Records Nos. 22 and 44) occurred within the potentially contaminated sites (Site S17, S13, S14 and S15) (refer to **Table 8.6** below). The locations of Incident Record Nos. 23 and 34 are unknown. Based on the information provided by FSD, no DG / chemicals were involved in these incidents. These incidents were thus not expected to pose any potential land contamination issues to the Project. For Incident Records No. 22 and 44 within Site S17, S13, S14 and S15, further site appraisal is recommended to confirm if there are any potential land contamination issues at the sites (refer to **Section 8.8** for details).

8.5.4.13 For the remaining 21 fire incident records (viz. Incident Record Nos. 1, 3, 5, 6, 8, 13, 15, 16, 19, 21, 25, 30, 31, 33, 35, 36, 39, 42, 43, 46 and 47), given the nature of the incidents (i.e. vegetation fire, rubbish fire, animal rescue and lock-in case), potential land contamination issues associated with these incidents to the Project are not expected.

8.5.5 Site Walkovers

8.5.5.1 Site walkovers were conducted on 22 July 2022 and 10 May 2023 to investigate any land contamination issues associated with the current land uses within the Project Site. Drone survey was also carried out on 16 October 2023 to facilitate the identification of the current land uses within the Project Site. Photographic records, along with the site layout plan for the Project Site, are shown in **Appendix 8.3** and the site walkover checklist is provided in **Appendix 8.4**.

8.5.5.2 Based on the findings of drone survey and the site walkovers, various suspected industrial activities, such as suspected construction materials / equipment storages, construction site depot, open storages, container storage, scrap yard, warehouses and vehicle parking / maintenance workshops were identified within the Project Site. However, detailed site inspection at each individual premise of these sites with suspected industrial activities was restricted as these sites are currently private land lots most of which were still in operation. It was not possible to gain access to these sites during the site walkovers (e.g. gate closed / no personnel were available). Hence, only peripheral inspection (i.e. from the entrance and / or boundary of the sites) was conducted for these sites in order to obtain a general view of the Project Site. In addition, as discussed in **Section 8.5.1**, the southwestern and northern portions of the Project Site fall within the works sites / areas under the NOL Main Line project and development area under the STL MC DN project. Any potential land contamination issues associated with the current / past land uses within these areas would be addressed by MTRCL under the NOL Main Line project and CEDD under the STL MC DN project respectively prior to the construction of topside development and the proposed road connection to/from STT under this Project. Therefore, no potential land contamination implications to the Project are expected within the works sites / areas under the NOL Main Line project and the development area under the STL MC DN project, and the current land uses within the NOL Main Line and STL MC DN project areas are not discussed in detail in this EIA Report.

8.5.5.3 Findings of the drone survey and site walkovers for the concerned sites are summarised in **Table 8.6** and their locations are shown in **Figure 8.1 to Figure 8.7**. The corresponding photographic records are shown in **Drawing Nos. 60672559/R23/PR1 to PR15** in **Appendix 8.3**.

8.5.5.4 Based on the drone survey findings and observations during the site walkovers, there were also areas with non-contaminating land uses, including agricultural land, vacant / vegetated land, agricultural and aquaculture farms, fishponds, nullah, village houses / temporary residential structures, village offices, elderly homes, former school, playground/basketball courts, retail shops, refuse collection points, cycle tracks, roads (i.e. San Tin Highway, San Tam Road, Ngau Tam Mei Road, Chun Shin Road, Ching Yau Road and Chuk Yau Road), holiday camps, open car parks, graves and temples within the Project Site. No chemical / oil storage, oil stains or stressed vegetation were observed, and no current potentially contaminating land uses / activities were identified within these areas during the site walkovers.

8.5.6 Summary of Site Appraisals

8.5.6.1 Based on the findings of the site appraisals, a total of 30 potentially contaminated sites and 16 sites suspected to be used for industrial purposes were identified within the Project Site (excluding the works sites / areas under the NOL Main Line project and the development area under the STL MC DN project). Locations of these sites are shown in **Figure 8.1 to Figure 8.7** and details of these sites are summarised in **Table 8.6**. Intrusive site investigation (SI) works is considered necessary to confirm any land contamination within the potentially contaminated sites. The corresponding sampling and testing strategies are presented in **Section 8.6**.

8.5.6.2 For sites suspected to be used for industrial purposes, further site appraisal should be carried out in next stage when site access is available to confirm the existing land uses / activities and to identify the presence of any potential contamination sources (refer to **Section 8.8** for details).

8.5.7 Future Land Uses

8.5.7.1 Land contamination assessment on the potentially contaminated sites would need to be evaluated against the RBRGs and if there are presence of non-aqueous phase liquid (NAPL), soil saturation (C_{sat}) / solubility limits, as stipulated in Table 2.1 and Table 2.2 of the Guidance Manual.

8.5.7.2 The 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 were developed for four different land use scenarios as below reflecting the typical physical settings in Hong Kong under which people could be exposed to contaminated soil and groundwater:

- Urban Residential;
- Rural Residential;
- Industrial; and
- Public Park.

8.5.7.3 Based on the Recommended Outline Development Plan (RODP) of the Project, the recommended future land uses of the potentially contaminated sites and the

corresponding proposed RBRGs land use scenarios are presented in **Table 8.5**. Relevant RBRGs are shown in **Appendix 8.5**.

Table 8.5 Recommended Future Land Uses in RODP and Proposed RBRGs Land Use Scenarios

Future Land Use in RODP	Recommended Land Use	Proposed RBRGs Land Use Scenario
Government, Institution or Community	Sewage Pumping Station	Industrial
	Electricity Substation	Industrial
	Refuse Collection Point cum Community Recycling Centre	Industrial
	Fire Station cum Ambulance Depot and Staff Quarters	Urban Residential
	Integrated Hospital	Urban Residential
	Post-Secondary Education Institutions	Urban Residential
Residential	Dedicated Rehousing Estate	Urban Residential
	Private Housing	Urban Residential
Education	Schools	Rural Residential
Green Belt	Green Belt	Public Park
Amenity	Amenity	Public Park
Roads	Roads	Lower of Industrial or Public Park

- 8.5.7.4 Where a site would be developed into more than one land use, the most stringent set of RBRGs among the specific RBRGs land use scenarios of the site would be adopted. The proposed RBRGs land use scenarios recommended for this Project are summarised in **Table 8.6**.

Table 8.6 Details of Site Appraisal for the Potentially Contaminated Sites and Sites with Suspected Industrial Land Uses

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
S1⁶ (D.D.104 lot 2395 S.B RP, 2396 S.B RP, 2397, 2398 RP, 2399 RP, 2414 RP, 2415 RP, 2420 RP, 2556 S.B RP, STT1759 & STT3233)	Warehouse/ vehicle maintenance workshop	5,770 (Area within Project Site: 340)	<ul style="list-style-type: none"> The site is located at the west of San Tin Highway and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a suspected warehouse and vehicle maintenance activity were observed within the site. Based on information from the EPD / FSD, there were no DG / fire incident / spillage records for the site. There was 1 valid CWP record registered for car repairing for the site. 	Photo IDs 0504 and 5657 in PR1	N/A	AP5-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Roads	Lower of Industrial or Public Park
S2⁶ (D.D.104 Lot 2382 S.B RP, 2383 S.B RP & 2398 RP)	Open storage	1,580 (Area within Project Site: 440)	<ul style="list-style-type: none"> The site is located at the west of San Tin Highway and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, open storage of containers, construction equipment and materials were observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0504 and 5643 in PR1	N/A	AP5-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Roads	Lower of Industrial or Public Park
S3 (D.D.104 Lot 2613 RP, 2614 RP, 2614 S.A, 2615 RP, 2616 & GLA-TYL 417)	Construction materials storage / depot	2,750	<ul style="list-style-type: none"> The site is located at the east of San Tin Highway and south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a suspected depot with temporary structures were observed behind the closed gate. Based on the drone survey, open storage of construction materials was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0262, 1823 and 1831 in PR1	N/A	AP5-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Sewage Pumping Station, Roads	Lower of Industrial or Public Park ⁵
S4 (D.D.104 Lot 2404 RP, 2534, 2542, 2543 RP, 2544 RP, 2545, 2546, 2547, 2548, 2549 RP, 2575 & 2576)	Farm	5,670	<ul style="list-style-type: none"> The site is located at the east of San Tin Highway and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, suspected greenhouse was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0504 in PR1 and 5195 in PR2	Suspected Open storage (2013)	AP6-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Schools, Dedicated Rehousing Estate, Roads	Lower of Rural Residential, Urban Residential, Industrial or Public Park ⁵
S5 (D.D.104 Lot 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2455, 2458 RP, 2459, 2460, 2461, 2462 RP, 2463 RP, 2463 S.B, 2464 RP,	Logistics warehouse ²	4,940	<ul style="list-style-type: none"> The site is located at the east of San Tin Highway and north of Chuk Yau Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a suspected logistics warehouse was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0378 and 1308 in PR2	N/A	AP5-AP8	TBC ²	TBC	Schools, Roads	Lower of Rural Residential, Industrial or Public Park ⁵

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
2464 S.A, 2465, 2466 RP, 2527, 2538 & 2540)										
S6 (D.D.104 Lot 2452, 2453, 2454, 2455, 2456 RP & 2510 RP)	Vehicle maintenance workshop	1,040	<ul style="list-style-type: none"> The site is located at the east of San Tin Highway and north of Chuk Yau Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a vehicle maintenance workshop was observed at the site. The site was largely concrete paved. Based on information from the EPD / FSD, there were no DG / fire incident / spillage records for the site. There were 1 valid and 1 invalid CWP records registered for automobile maintenance for the site. 	Photo IDs 0378 and 1296 in PR2	N/A	AP5-AP8	Yes	<ul style="list-style-type: none"> Metals (Chromium, Copper, Lead, Manganese, Nickel & Zinc) VOCs (Acetone, BTEX, MTBE & Trichloroethene) SVOCs (PAHs) PCRs 	Schools, Electricity Substation, Roads	Lower of Rural Residential, Industrial or Public Park ⁵
S7 (D.D.104 Lot 1558, 1560 RP, 1563, 1564, 1565, 1566, 1567 S.A RP & 1567 S.B)	Logistics warehouse ²	1,670	<ul style="list-style-type: none"> The site is located at the north of Chuk Yau Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a suspected logistics warehouse was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0378 and 6183 in PR2	N/A	AP6-AP8	TBC ²	TBC	Electricity Substation, Refuse Collection Point cum Community Recycling Centre, Roads	Lower of Industrial or Public Park ⁵
S13 (D.D.104 Lot 725, 726, 727 & 728)	Warehouse / open storage	1,200	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Temporary structures were observed behind the closed gate. Based on the drone survey, suspected open storage of waste materials was observed. Based on information from the FSD, there was a No. 1 Alarm Fire incident (Incident Record No. 44 in Table 8.4 refers) at the site and no DG / chemicals were involved in the incident. Based on information from the EPD / FSD, there were no DG / chemical wastes / spillage records for the site. 	Photo IDs 0572 and 2221 in PR4	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S14 (D.D.104 Lot 718, 719, 720, 721 RP, 721 S.A, 722 RP, 723 RP, 724 RP, 725, 726, 727, 728, 730, 731, 732, 733, 740 & 741)	Construction equipment / materials storage	6,570	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Temporary structures and construction equipment (e.g. cranes) were observed from the outside. Based on the drone survey, construction materials / equipment were observed. Based on information from the FSD, there was a No. 1 Alarm Fire incident (Incident Record No. 44 in Table 8.4 refers) at the site and no DG / chemicals were involved in the incident. Based on information from the EPD / FSD, there were no DG / chemical wastes / spillage records for the site. 	Photo IDs 0572 in PR4 and 7973 in PR5	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
S15 (D.D.104 Lot 702 S.B, 718, 721 S.A, 721 S.B, 721 S.C, 722 RP, 722 S.A, 722 S.B, 722 S.C, 723 RP, 723 S.A, 724 RP, 724 S.A & 725)	Depot / open car park	3,180	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, temporary structures with parked vehicles were observed. Based on information from the FSD, there was a No. 1 Alarm Fire incident (Incident Record No. 44 in Table 8.4 refers) at the site and no DG / chemicals were involved in the incident. Based on information from the EPD / FSD, there were no DG / chemical wastes / spillage records for the site. 	Photo ID 0572 in PR4	Open storage (2013 to 2023)	AP6-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S16 (D.D.104 Lot 721 RP, 722 RP, 722 S.B, 723 RP & 723 S.B)	Vehicle maintenance workshop	470	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations, a suspected vehicle maintenance workshop was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0572 in PR4 and 2197 in PR5	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Chromium, Copper, Lead, Manganese, Nickel & Zinc) VOCs (Acetone, BTEX, MTBE & Trichloroethene) SVOCs (PAHs) PCRs 	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S17 (D.D.104 Lot 716, 720, 738, 739RP, 740, 741, 742 & 743)	Open storage of scrap vehicles, construction equipment and materials	6,150	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and drone survey, suspected open storage of scrap vehicles, construction materials and equipment were observed. Based on FSD information, there was a No. 1 Alarm Fire incident (Incident Record No. 22 in Table 8.4 refers) at the site and no DG / chemicals were involved in the incident. Based on information from the EPD / FSD, there were no DG / chemical wastes / spillage records for the site. 	Photo IDs 0572 in PR4 and 7936 in PR5	N/A	AP6-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S18 (D.D.104 Lot 713 S.A & S.B, 714, 755, 741, 742, 743 & 744)	Construction materials storage	1,500	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, suspected construction materials storage was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo ID 0411 in PR6	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S19 (D.D.104 Lot 713 S.A & S.B & 714)	Open storage	180	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and drone survey, open storage of suspected construction materials and vehicle parts was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 7870 in PR5 and 0411 in PR6	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S20 (D.D.104 Lot 713 S.A & S.B & 714)	Scrap yard	490	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and drone survey, open storage of waste materials / metal scraps was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 7787 in PR5 and 0411 in PR6	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
S21 (D.D.104 Lot 710 RP, 713 S.A & S.B)	Construction equipment storage	890	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, construction equipment storage was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo ID 0411 in PR6	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S22 (D.D.104 Lot 710 RP, 713 S.A & S.B, 744)	Construction equipment and materials storage / warehouse	1,580	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations, a suspected warehouse was observed. Based on the drone survey, suspected construction equipment and materials were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0411 and 7791 in PR6	Vehicle maintenance workshop (2021)	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S23 (D.D.104 Lot 744)	Construction materials storage	1,170	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, suspected construction materials storage was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0411 and 7812 in PR6	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S24 (D.D.104 Lot 742 & 744)	Scrap yard	750	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, suspected open storage of waste was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo ID 0411 in PR6	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S25 (D.D.104 Lot 706)	Industrial land use ²	330	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, a temporary structure and largely vacant land were observed within the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0411 and 1997 in PR6	N/A	AP7-AP8	TBC ²	TBC	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S26 (D.D.104 Lot 577, 578, 579, 580, 581, 582, 619, 707, 744, 745, 746, 747, 748 & 4203)	Construction materials storage	8,830	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and drone survey, a temporary structure and open storage of construction materials were observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 7711 in PR4 and 0411 in PR6	N/A	AP6-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S39 (D.D.104 Lot 1780, 1791, 1792, 1793, 1794, 1795 & 1797)	Industrial land use ²	780	<ul style="list-style-type: none"> The site is located at the south of Chuk Yau Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, temporary structures and container trucks were observed within the site. Based on information from the EPD / FSD, there were no DG / fire incident / spillage records for the site. There was 1 valid CWP record of unknown business nature for the site. 	Photo IDs 0910 in PR7 and 0748 in PR8	N/A	AP6-AP8	TBC ²	TBC	Private Housing	Urban Residential

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
S41 (STT1902)	Warehouse ²	200	<ul style="list-style-type: none"> The site is located at the south of Chuk Yau Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and drone survey, a suspected warehouse was observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0701 in PR7 and 0447 in PR9	N/A	AP3-AP8	TBC ²	TBC	Amenity	Public Park
S42 (STT1868)	Industrial land uses ²	5,250	<ul style="list-style-type: none"> The site is located at the south of Chuk Yau Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and drone survey, temporary structures and suspected construction materials were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0480, 0701 in PR7 and 6770 in PR9	N/A	AP4-AP8	TBC ²	TBC	Private Housing, Fire Station cum Ambulance Depot and Staff Quarters, Amenities, Green Belt, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S43 (D.D.104 Lot 803, 804 S.A, 805 S.A, 806, 807, 808, 809, 810, 811, 812 RP, 4187 RP & 4187 S.C)	Open storage	6,970 (Area within Project Site: 6,290)	<ul style="list-style-type: none"> The site is located at the south of Chuk Yau Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, suspected open storage of vehicles and construction materials were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0461 in PR8 and 7039 in PR10	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Integrated Hospital, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S44 (D.D.104 Lot 797 R.P, 802 S.A, 802 RP, 803, 804 RP, 804 S.A, 805 RP, 805 S.A, 806 & 818 S.A)	Vehicle maintenance workshop	1,700	<ul style="list-style-type: none"> The site is located at the south of Chuk Yau Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a temporary structure with suspected concrete mix trucks maintenance activity were observed at the site. Based on information from the EPD / FSD, there were no DG / fire incident / spillage records for the site. There was 1 valid CWP record associated with transportation garage for the site. 	Photo IDs 0461 in PR8 , 6187 and 7039 in PR10	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Chromium, Copper, Lead, Manganese, Nickel & Zinc) VOCs (Acetone, BTEX, MTBE & Trichloroethene) SVOCs (PAHs) PCRs 	Integrated Hospital, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S45 (D.D.104 Lot, 792 RP, 797 RP, 798, 799, 800 RP, 802 RP, 804 RP, 805 RP, 806, 807, 4179 RP & 4187RP)	Vehicle maintenance workshop and vehicles storage	5,170 (Area within Project Site: 4,240)	<ul style="list-style-type: none"> The site is located at the south of Chuk Yau Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a suspected vehicle maintenance workshop and open storage of vehicles were observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0461 in PR8 and 7028 in PR10	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Integrated Hospital, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S47 (D.D.104 Lot 795, 796, 797 RP, 797 S.B, 798, 799, 800 RP, 4179 RP, 4179 S.A & 4187 RP)	Site depot	6,790 (Area within Project Site: 6,500)	<ul style="list-style-type: none"> The site is located at the south of Chuk Yau Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, a suspected construction site depot was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0461 in PR8 and 6173 in PR10	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Integrated Hospital, Roads	Lower of Urban Residential, Industrial or Public Park ⁵

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
S50 (D.D.104 Lot 628, 629 & 630)	Construction materials / equipment storage	1,880	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, suspected construction material / equipment storage was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 2305 PR4 and 0272 in PR12	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S51 (D.D.104 Lot 618, 621, 622 & 623)	Industrial land use ²	470	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, temporary structures with suspected industrial activities were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo ID 0272 in PR12	N/A	AP7-AP8	TBC ²	TBC	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S52 (D.D.104 Lot 184 & 196)	Construction materials / equipment storage	490	<ul style="list-style-type: none"> The site is located at the southwest of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, suspected construction materials / equipment storage was observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo ID 0363 in PR12	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S53 (D.D.104 Lot 612 S.A & 612 S.B)	Open storage / warehouse	1,190	<ul style="list-style-type: none"> The site is located at the north of Chun Shin Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, temporary structures and suspected open storage was observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0286 and 6206 in PR13	N/A	AP6-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S54 (D.D.104 Lot 534 RP, 535 RP, 536 RP & 537 RP)	Industrial land use ²	1,870	<ul style="list-style-type: none"> The site is located at the south of Chun Shin Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, temporary structures with suspected industrial activities were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0241 in PR12 and 7469 in PR13	N/A	AP6-AP8	TBC ²	TBC	Post-secondary Education Institutions	Urban Residential
S55 (D.D.104 Lot 429, 545 RP, 545 S.A & 546)	Industrial land use ²	2,310	<ul style="list-style-type: none"> The site is located at the south of Chun Shin Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, temporary structures and container trucks were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0241 in PR12 , 7381 and 7383 in PR13	N/A	AP6-AP8	TBC ²	TBC	Post-secondary Education Institutions	Urban Residential
S56 (D.D.104 Lot 552 RP)	Industrial land use ²	1,000	<ul style="list-style-type: none"> The site is located at the south of Chun Shin Road and was inaccessible for detailed site walkover at the time of reporting. Based on the peripheral observations and drone survey, temporary structures were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0241 and 1476 in PR12	N/A	AP6-AP8	TBC ²	TBC	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
S57 (D.D.104 Lot 4195, 4199 S.A, 4207 RP, 4207 S.A & 4213)	Open storage	21,700 (Area within Project Site: 19,970)	<ul style="list-style-type: none"> The site is located at the north of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, open storage of containers and construction materials were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0042 in PR12 and 5978 in PR14	N/A	AP4-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions, Roads	Lower of Urban Residential, Industrial or Public Park ⁵
S58 (D.D.104 Lot 326, 339, 340, 341, 343 & STT3281)	Industrial land use ²	1,760	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, vegetation, temporary structures and suspected construction materials were observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0029 in PR12 and 5283 in PR14	N/A	AP7-AP8	TBC ²	TBC	Post-secondary Education Institutions	Urban Residential
S59 (D.D.104 Lot 283, 284, 285, 286, 287 & 290)	Industrial land use ²	760	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, large temporary structures with suspected industrial activities were observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0029 in PR12 and 5290 in PR14	N/A	AP7-AP8	TBC ²	TBC	Post-secondary Education Institutions	Urban Residential
S60 (D.D.104 Lot 371 RP, 374, 375, 376, 377, 382, 383 & 384)	Industrial land use ²	2,460	<ul style="list-style-type: none"> The site is located at the northeast of Chun Shin Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, some temporary structures and material storage were observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0029 in PR12	Open storage (1993 to 2023)	AP4-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S61 (D.D.104 Lot 261, 262, 263, 265 & 266)	Construction materials storage	4,090	<ul style="list-style-type: none"> The site is located at the northeast of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, open storage of construction materials was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0669 and 5983 in PR14	Open storage (1993 to 2023)	AP4-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S62 (D.D.104 Lot 251, 252, 253 RP, 253 S.A, 253 S.B RP, 253 S.B ss.1, 253 S.B ss.2, 253 S.B ss.3, 253 S.B ss.4, 253 S.B ss.5, 253 S.B ss.6, 253 S.B ss.7, 253 S.C & 254)	Warehouse ²	1,980	<ul style="list-style-type: none"> The site is located at the northeast of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on peripheral observations and the drone survey, large temporary structures were observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0669 and 6065 in PR14	N/A	AP5-AP8	TBC ²	TBC	Post-secondary Education Institutions	Urban Residential

Site ID (Affected Lot No. / Address) ¹	Suspected Current Land Use	Approx. Site Area (m ²)	Site Observation and Information from EPD/FSD	Corresponding Photographic Record Reference in Appendix 8.3	Other Past Potentially Contaminating Land Uses / Activities	Corresponding Historical Aerial Photograph Reference in Appendix 8.1	Potentially Contaminated Site?	Potential COCs ³	Future Land Uses ⁴	RBRGs Land Use Scenario
S63 (D.D.104 Lot 42)	Industrial land use ²	1,740	<ul style="list-style-type: none"> The site is located at the northeast of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, suspected construction materials / equipment storage was observed at the site. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0363 in PR12 and 5325 in PR14	Open storage (2021 to 2023)	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S64 (D.D.104 Lot 332, 333, 334, 374, 378, 379 & 380)	Industrial land use ²	1,360	<ul style="list-style-type: none"> The site is located at the northeast of Chun Shin Road and was inaccessible for detailed site walkover at the time of reporting. Based on the drone survey, temporary structures were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo ID 0029 in PR12	N/A	AP7-AP8	TBC ²	TBC	Post-secondary Education Institutions	Urban Residential
S65 (D.D.104 Lot 742, 743 & 744)	Industrial land use ²	500	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible for detailed site walkover at the time of reporting. Based on peripheral observations and drone survey, a temporary structure with parking of trucks was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0411 and 7834 in PR6	N/A	AP7-AP8	TBC ²	TBC	Post-secondary Education Institutions	Urban Residential
S66 (D.D.104 Lot 742, 743, 744 & 755)	Construction materials storage	1,480	<ul style="list-style-type: none"> The site is located at the south of Ngau Tam Mei Road and was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the drone survey, construction materials storage was observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0411 and 7822 in PR6	N/A	AP7-AP8	Yes	<ul style="list-style-type: none"> Metals (Full List) VOCs (Full List) SVOCs (Full List) PCRs 	Post-secondary Education Institutions	Urban Residential
S69⁶ (STTYL0024)	Industrial land uses ²	3,070 (Area within Project Site: 220)	<ul style="list-style-type: none"> The site is located at the west of San Tin Highway was inaccessible with gate closed for detailed site walkover at the time of reporting. Based on the peripheral observations and drone survey, temporary structures with suspected industrial activities were observed. Based on information from the EPD / FSD, there were no DG / chemical wastes / fire incident / spillage records for the site. 	Photo IDs 0527 and 5666 in PR2	N/A	AP7-AP8	TBC ²	TBC	Roads	Lower of Industrial or Public Park

Notes:

- Refer to **Figure 8.1 to Figure 8.7** for locations of the sites. Given the sites are inaccessible, the boundaries shown are indicative and subject to confirmation in the further site appraisal.
 - TBC: To be confirmed. The actual land uses / activities within the suspected warehouse or industrial land uses could not be identified based on findings of peripheral site inspection, drone survey and / or review of historical aerial photographs. For warehouses, the presence and degree of contamination would greatly depend on the types of goods stored. For example, warehouses that stored general household goods (e.g. furniture and toys) are unlikely to cause contamination to the underlying soil and groundwater. For industrial land uses, the presence and degree of contamination would greatly depend on the actual site activity / operation. Further site appraisal should be carried out for these sites to confirm the presence of any land contamination issues.
 - The potential COCs were determined based on findings of the site appraisals and the Practice Guide and took into account current and historical land uses.
 - Full list refers to the parameters as shown in Table 2.1 – Risk-Based Remediation Goals (RBRGs) for Soil & Soil Saturation Limit and Table 2.2 – RBRGs for Groundwater and Solubility Limit under Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), metals and Petroleum Carbon Ranges (PCRs) in the Guidance Manual for Use of Risk-Based Remediation Goals for Contaminated Land Management.
 - BTEX includes benzene, toluene, ethylbenzene and total xylenes; MTBE refers to Methyl tert-Butyl Ether.
 - PAHs include acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene and pyrene.
 - TBC – The COCs will be confirmed after the site is accessible for further site appraisal.
 - Based on future land uses in the RODP.
 - Where a site would be developed into more than one land use, the most stringent set of RBRGs among the specific RBRGs land use scenarios of the site has been adopted.
 - Sites S1, S2 and S69 are located within the Project Site Boundary but outside the Development Area Boundary.
- N/A: Not Applicable

8.6 Site Investigation Plan

- 8.6.1.1 Based on the findings of the site appraisals, a total of 30 potentially contaminated sites and 16 sites suspected to be used for industrial purposes were identified within the Project Site (excluding the works sites / areas under the NOL Main Line project and the development area under the STL MC DN project). However, the potentially contaminated sites were still in operation and inaccessible at the time of reporting to determine the sampling locations for SI works. Similarly, the sites suspected to be used for industrial purposes were still in operation and inaccessible to confirm the existing land uses / activities and presence of any land contamination issues. Given that these concerned sites are still in operation and inaccessible at this stage in time and that land resumption and construction works under the Project would only commence after few years, further site appraisal should be carried out for the whole Project Site at later stage (i.e. after land resumption) during which sites are accessible to confirm the presence of any land contamination issues and determine the actual sampling and testing requirements for the concerned sites (refer to **Section 8.8** below for details).
- 8.6.1.2 A preliminary sampling and testing plan for the potentially contaminated sites was prepared based on the findings of site appraisals and with reference to EPD's Practice Guide. Details of the preliminary sampling and testing plan is shown in **Table 8.7**. Grid sampling strategy, in accordance with Table 2.1 of the Practice Guide, was adopted for the potentially contaminated sites. Subject to the findings of the detailed site walkover at later stage, extra sampling locations may be required for any additional potential sources of contamination (or 'hotspots') within the concerned sites. The key COCs for the potentially contaminated sites were determined with reference to EPD's Practice Guide and include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and petroleum carbon ranges (PCRs).

Table 8.7 Preliminary Sampling and Testing Plan

Potentially Contaminated Site ID ⁽¹⁾	Suspected Potentially Contaminating Land Use ⁽²⁾	Approx. Site Area (m ²)	Approx. Area within Project Site (m ²)	Testing Parameters (Potential COCs) ⁽³⁾	Recommended Minimum Number of Sampling Locations ⁽⁴⁾
S1	Warehouse / vehicle maintenance workshop	5,770	340	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	3
S2	Open storage	1,580	440	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	3
S3	Construction materials storage / depot	2,750	2,750	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	13
S4	Former open storage	5,670	5,670	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	17
S6	Vehicle maintenance workshop	1,040	1,040	Metals (Chromium, Copper, Lead, Manganese, Nickel & Zinc), VOCs (Acetone, BTEX, MTBE & Trichloroethene), SVOCs (PAHs) and PCRs	6
S13	Warehouse / open storage	1,200	1,200	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	6
S14	Construction equipment / material storage	6,570	6,570	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	23
S15	Former open storage / depot / open car park	3,180	3,180	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	13
S16	Vehicle maintenance workshop	470	470	Metals (Chromium, Copper, Lead, Manganese, Nickel & Zinc), VOCs (Acetone, BTEX, MTBE & Trichloroethene), SVOCs (PAHs) and PCRs	3
S17	Open storage of scrap vehicles, construction equipment and materials	6,150	6,150	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	23
S18	Construction materials storage	1,500	1,500	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	9
S19	Open storage	180	180	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	3

Potentially Contaminated Site ID ⁽¹⁾	Suspected Potentially Contaminating Land Use ⁽²⁾	Approx. Site Area (m ²)	Approx. Area within Project Site (m ²)	Testing Parameters (Potential COCs) ⁽³⁾	Recommended Minimum Number of Sampling Locations ⁽⁴⁾
S20	Scrap yard	490	490	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	3
S21	Construction equipment storage	890	890	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	5
S22	Construction equipment and materials storage / warehouse / former vehicle maintenance workshop	1,580	1,580	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	9
S23	Construction material storage	1,170	1,170	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	7
S24	Scrap yard	750	750	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	4
S26	Construction materials storage	8,830	8,830	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	29
S43	Open storage	6,970	6,290	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	22
S44	Vehicle maintenance workshop	1,700	1,700	Metals (Chromium, Copper, Lead, Manganese, Nickel & Zinc), VOCs (Acetone, BTEX, MTBE & Trichloroethene), SVOCs (PAHs) and PCRs	10
S45	Vehicle maintenance workshop and vehicles storage	5,170	4,240	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	15
S47	Site depot	6,790	6,500	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	23
S50	Construction material / equipment storage	1,880	1,880	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	12
S52	Construction materials / equipment storage	490	490	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	3
S53	Open storage / warehouse	1,190	1,190	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	6

Potentially Contaminated Site ID ⁽¹⁾	Suspected Potentially Contaminating Land Use ⁽²⁾	Approx. Site Area (m ²)	Approx. Area within Project Site (m ²)	Testing Parameters (Potential COCs) ⁽³⁾	Recommended Minimum Number of Sampling Locations ⁽⁴⁾
S57	Open storage	21,700	19,970	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	31
S60	Industrial land use / former open storage	2,460	2,460	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	12
S61	Construction materials storage	4,090	4,090	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	14
S63	Industrial land use / former open storage	1,740	1,740	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	11
S66	Construction materials storage	1,480	1,480	Metals (Full List), VOCs (Full List), SVOCs (Full List) and PCRs	9

Notes:

- (1) Refer to **Figure 8.1 to Figure 8.7** for locations of the identified potentially contaminated sites and the preliminary sampling plan.
- (2) As the site was still in operation and inaccessible, only peripheral site inspections were carried out at the time of site walkover. The land use may be subject to change during further site appraisal when the site is accessible.
- (3) The proposed testing parameters / COCs were determined based on findings of the site appraisals and with reference to the Practice Guide. The testing parameters / COCs will be confirmed after the site is accessible for re-appraisal.
 - Full list refers to the parameters as shown in Table 2.1 – Risk-Based Remediation Goals (RBRGs) for Soil & Soil Saturation Limit and Table 2.2 – RBRGs for Groundwater and Solubility Limit under Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), metals and Petroleum Carbon Ranges (PCRs) in the Guidance Manual for Use of Risk-Based Remediation Goals for Contaminated Land Management.
 - BTEX includes benzene, toluene, ethylbenzene and total xylenes; MTBE refers to Methyl tert-Butyl Ether.
 - PAHs include acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene and pyrene.
 - Since RBRG value for metals except for Mercury, 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 said parameters would not be tested in groundwater samples.
- (4) With references to Table 2.1 of the Practice Guide. The actual number of sampling locations will be subject to the findings of the further site appraisal when the site is accessible.

8.7 Prediction and Evaluation of Environmental Impacts

- 8.7.1.1 Based on the findings of the site appraisals, a total of 30 potentially contaminated sites and 16 sites suspected to be used for industrial purposes were identified within the Project Site (excluding the works sites / areas under the NOL Main Line project and the development area under the STLMC DN project). However, all the concerned sites were still in operation and inaccessible for detailed site walkover or SI works.
- 8.7.1.2 For the works sites / areas under the NOL Main Line project and the development area under the STLMC DN project, any potential land contamination issues would be addressed by MTRCL under the NOL Main Line project and CEDD under the STLMC DN project prior to the construction of topside development and construction of the proposed road connection to/from STT under this Project respectively. Therefore, no potential land contamination impact within these areas is anticipated for the Project.
- 8.7.1.3 Of the potentially contaminated sites identified in the site appraisals, 25 (or over 80% of the potentially contaminated sites) have been used for storage. The majority of these sites are usually kept for the storage of inert construction materials, whilst only a small portion of the site is reserved for potentially contaminating activities such as vehicle / equipment maintenance area and the associated chemical handling / storage. In addition, apart from the sites currently used for storage, the remaining sites are less than 3,000 m² in area which is considered as relatively small in scale. As such, the contamination extent, if any, caused by the operations of the identified potentially contaminated sites is anticipated to be localised. Furthermore, the COCs identified included metals, VOCs, SVOCs and PCRs, which are readily treatable using established techniques and have been effectively remediated in Hong Kong using proven remediation techniques.
- 8.7.1.4 Given the above, the land contamination problems in the identified potentially contaminated sites would not be considered as insurmountable.
- 8.7.1.5 For sites suspected to be used as warehouses or other industrial purposes, the presence of land contamination within these sites would depend on their actual site activities. In particular for warehouses, the presence and degree of contamination would greatly depend on the types of goods stored, and whether contaminating activities such as vehicle maintenance / repairing, refuelling, storage of chemicals / chemical wastes etc., are / have been carried out. As such, further site appraisal should be carried out within these sites in next stage of the Project when site access is available to confirm the existing land uses / activities and to identify the presence of any potential contamination sources. In addition, as the sites are currently inaccessible and still in operation, and the construction works would not commence until 2027, the further site appraisal should also cover any further changes in the land uses within the Project Site since the time of this Report. If potentially contaminated sites are identified, intrusive SI and, if necessary, remediation works should also need to be carried out. The further site appraisal and, if necessary, intrusive SI and remediation works should be carried out prior to the commencement of construction works in accordance with EPD's Guidance Manual, Guidance Note and Practice Guide. Details and tentative programme of the further works are discussed in **Section 8.8** below.
- 8.7.1.6 Any soil/groundwater contamination would be identified and properly remediated prior to the commencement of construction works if the further works as stated in **Section 8.8** are implemented. Land contamination impacts are considered surmountable to future occupants if the further works are followed and contaminated

soil and groundwater (if any) are properly remediated according to Remediation Action Plan(s) (RAP(s)) to be approved by EPD in the next stage of the Project.

8.8 Mitigation of Adverse Environmental Impacts

8.8.1 Recommended Further Works

- 8.8.1.1 Further site appraisal and, if necessary, intrusive SI and remediation works should be carried out in accordance with EPD's Guidance Manual, Guidance Note and Practice Guide.
- 8.8.1.2 Further site appraisal and submission of CAP(s) should be carried out for the whole Project Site at a later stage of the Project when site access is available and prior to the commencement of the SI works to confirm the existing land uses / activities, identify the presence of any potential contamination sources, and address any new contamination issues caused by the changes in site operation and/or land uses within the Project Site since the time of this Report. The associated SI works and any necessary remediation action are recommended to be carried out after the operation of concerned site(s) has ceased but prior to the commencement of construction works.
- 8.8.1.3 CAP(s), presenting findings of the further site appraisal, the latest site conditions and updated sampling strategy and testing protocol, should be submitted to EPD for endorsement. The SI works should be carried out according to EPD's approved CAP(s). Following the completion of SI works and receipt of laboratory test results, Contamination Assessment Report(s) (CAR(s)) should be submitted to EPD for approval to present the findings of the SI works and to discuss the presence, nature and extent of contamination. If contamination is identified, RAP(s) which provides details of the remedial actions for the identified contaminated soil and / or groundwater should also be submitted to EPD for approval.
- 8.8.1.4 With reference to the *Preliminary Feasibility Study on Developing the New Territories North* and the *Geochemical Atlas of Hong Kong* published by the Geotechnical Engineering Office of Civil Engineering and Development Department in 1999, natural occurrences of elevated level of arsenic exist over broad areas of the northern New Territories. A separate arsenic assessment and remediation plan should be prepared and submitted to EPD for endorsement.
- 8.8.1.5 If necessary, remediation works should be conducted according to the approved RAP(s). Upon completion of remediation works, Remediation Report(s) (RR(s)) should be prepared and submitted to EPD to demonstrate that the decontamination work is adequate and is carried out in accordance with the approved CAR(s) and RAP(s). No construction works, other than decontamination works, at the respective identified contamination area (if any) should commence before the endorsement of RR(s) by EPD.

8.8.2 Tentative Programme Schedule

- 8.8.2.1 Since the further land contamination assessment and, if necessary, remediation works can only be carried out after land resumption by 2027 tentatively, a tentative programme for land contamination assessment after land resumption is shown in **Table 8.8**. It should be noted that the tentative schedule is subject to the land resumption programme and the actual time span is subject to the actual site conditions.

Table 8.8 Tentative Programme for Land Contamination Assessment

Task	Tentative Programme
Further site appraisal, preparation and submission of CAP(s)	1-2 months after land resumption
Approval of CAP(s)	3 months after land resumption
SI works, laboratory tests, preparation and submission of CAR(s)/RAP(s)	4-6 months after land resumption
Approval of CAR(s)/RAP(s)	7 months after land resumption
Remediation works, preparation and submission of RR(s) (if required)	Subject to results of the SI works and programme of remediation works

8.8.3 Possible Remediation Measures

8.8.3.1 The actual remediation methods could only be determined after completion of the land contamination assessment (including intrusive SI works and EPD's approval on the CAR(s) and RAP(s)). The remedial actions should be formulated with consideration given to the *Source-Pathway-Receptor Paradigm* by adopting the appropriate control method(s) (i.e. source control method, pathway control method and/or receptor control method). The RAP(s) will provide details of the remedial actions for any identified contaminated soil and groundwater.

8.8.3.2 Nevertheless, the potential COCs may include metals, VOCs, SVOCs and PCRs. To minimise the cost of remediation work, if remediation is required and where appropriate, "pathway control" approach, e.g. by proper capping the source of contamination by soil or concrete slabs or by the use of membranes or solidification, would be considered to prevent migration of contaminants. For contaminated soil, there are also a number of technologies commercially available to tackle the identified COCs and are presented in EPD's Practice Guide. Technologies that are commonly used in Hong Kong are biopiling and cement solidification/stabilisation. These ex-situ methods were proven to be effective in treating the target COCs and the treated soil could then be reused on site (e.g. backfilling materials). For groundwater, there are remediation techniques as shown in the Practice Guide (e.g. air sparging, recovery trenches / wells, in-ground containment/capping and permeable reactive barriers) that could be applied to this Project if contaminated groundwater were indeed identified.

8.8.4 Mitigation Measures for Remediation Works

8.8.4.1 Mitigation measures for the remediation works would depend on the nature / extent of contamination and the method of remediation. The mitigation measures will be recommended in the RAP(s) and would typically include the following:

- Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety;
- Excavation shall be carried out during dry season as far as possible to minimise contaminated run-off from contaminated soils;
- Suitable clean backfill material (or treated soil) shall be supplied after excavation;
- Stockpiling site(s) shall be lined with impermeable sheeting and bunded. Stockpiles shall be fully covered by impermeable sheeting to reduce dust and

gaseous emissions. If this is not practicable due to frequent usage, regular watering shall be applied. However, watering shall be avoided on stockpiles of contaminated soil to minimise contaminated run-off;

- Vehicles containing any excavated materials shall be suitably covered to limit potential dust and gaseous emissions or contaminated wastewater run-off, and truck bodies and tailgates shall be sealed to prevent any discharge during transport or during wet conditions;
- Speed control for the trucks carrying contaminated materials shall be enforced;
- Vehicle wheel and body washing facilities at the sites' exit points shall be established and used; and
- Pollution control measures for air emissions (e.g. from biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving equipment), and water discharges (e.g. run-off control from treatment facility) shall be implemented and complied with relevant regulations and guidelines.

8.9 Evaluation of Residual Impacts

8.9.1.1 The recommended further land contamination assessment and, if required, remediation works for the Project Site would follow the EPD's Guidance Manual, Guidance Note and Practice Guide and any soil / groundwater contamination would be identified and properly remediated prior to the commencement of construction works. Land contamination impacts are therefore considered acceptable if the follow up actions as outlined in **Section 8.8** are followed, and contaminated soil and groundwater (if any) are properly remediated using appropriate remediation methods and according to the EPD approved RAP(s). No unacceptable residual impacts are anticipated.

8.10 Environmental Monitoring and Audit

8.10.1.1 Remediation works, if necessary, would be carried out based on the recommended further works outlined in **Section 8.8**. Mitigation measures as recommended in the future EPD approved RAP(s) should be implemented during the remediation works. The Environmental Monitoring and Audit (EM&A) requirements should be carried out in the form of weekly site inspection to ensure the recommended mitigation measures are properly implemented.

8.11 Environmental Acceptability of Schedule 2 Designated Projects

8.11.1.1 This Project is a Schedule 3 Designated Project (DP) under the EIAO, whilst there will be 2 Schedule 2 DPs. The details of these Schedule 2 DPs are presented in **Section 1.5** (i.e. **Table 1.1**) and **Section 2.4.5**, and the locations of these Schedule 2 DPs are shown in **Figure 1.2**.

8.11.1.2 The identified potentially contaminated sites are grouped under each Schedule 2 DP and the findings are summarised in **Table 8.9**. As the land contamination potential of the sites listed in **Table 8.9** have been assessed under this EIA Study and as discussed in **Section 8.7** above, the land contamination issue within these sites are considered surmountable. Prior to the commencement of construction of each Schedule 2 DP, the recommended further works under this EIA Study (including further site appraisal, SI works and if required, remediation works (refer to **Section 8.8** for details)) will be carried out for the concerned sites listed in **Table 8.9**. Any soil / groundwater contamination would be identified and properly remediated prior to the

commencement of construction works. Land contamination impacts are therefore considered acceptable if the follow up actions as outlined in **Section 8.8** are followed, and contaminated soil and groundwater (if any) are properly remediated using appropriate remediation methods and according to the EPD approved RAP(s). No unacceptable residual impacts are anticipated.

Table 8.9 Potentially Contaminated Sites Identified in the Schedule 2 Designated Projects

Designated Project Reference No.	Work Components	Identified Potentially Contaminated Sites
DP1 ⁽¹⁾	Construction and operation of district distributor (Road D1) and associated road works at San Tin Highway	S1, S2, S4, S5, S42, S43, S45, S47 & S69
DP2 ⁽¹⁾	Part of revitalisation of Ngau Tam Mei Drainage Channel and river diversion works located less than 300 m from the nearest boundary of an existing conservation area	NIL

Note:

(1) Subject to an Environmental Permit application for both construction and operational phases of the DP under this EIA Study.

8.12 Conclusion

8.12.1.1 Site appraisals, in the form of desktop review and site walkovers, had been carried out between December 2021 and July 2025 to identify the past and current potentially contaminating land uses within the Project Site. Based on the site appraisal, 30 potentially contaminated sites and 16 sites suspected to be used for industrial purposes were identified within the Project Site (excluding the works sites / areas under the NOL Main Line project and the development area under the STLMLC DN project). For the works sites / areas under the NOL Main Line project and the development area under the STLMLC DN project, any potential land contamination issues within these areas would be addressed by MTRCL under the NOL Main Line project and CEDD under the STLMLC DN project prior to the construction of topside development and construction of the proposed road connection to/from STT under this Project respectively. No potential land contamination impact within these areas is therefore anticipated for the Project.

8.12.1.2 Further land contamination assessments, including further site appraisal and submission of CAP(s), should be conducted for the whole Project Site at a later stage of the Project when site access is available to confirm the existing land uses / activities, identify the presence of any potential contamination sources, and address any new contamination issues. The associated SI works and any necessary remediation action are recommended to be carried out after operation of concerned site(s) has ceased but prior to the commencement of construction works. The recommended further assessment and remediation works, including the submission of CAP(s), CAR(s)/RAP(s) and RR(s) would follow the relevant Guidance Manual, Guidance Note and Practice Guide.

8.12.1.3 With the implementation of the recommended follow up works for the Project, any soil/groundwater contamination would be identified and properly remediated prior to the construction works. No insurmountable land contamination impacts to the Project are therefore anticipated.