The London Resort Development Consent Order

BC080001

Environmental Statement
Volume 2: Appendices

Appendix 18.16 – Water quality monitoring data report

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Revision: 00

December 2020

Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulation 5(2)(a)
The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
Regulation 12(1)

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Monitoring Programme Report

The London Resort

September 2020

Enterprise Drive
Four Ashes
Wolverhampton
WV10 7DE
www.enitial.co.uk

Approval Sheet

Customer:	BuroHappold Engineering
Site:	The London Resort
Project title:	Monitoring Program Report
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Version	Date	Prepared By	Signature	Date
2	22.10.2020	James Taylor	[redacted]	21.10.2020
		Approved By	**Signature**	**Date**
		Dan Stodgell	*Dan Stodgell*	27.11.2020

Foreword

Enitial has used its best endeavours, experience and expertise to provide a meaningful, accurate and relevant representation of any works carried out and information procured. Any works detailed are based on a defined programme and scope of works and any data acquisition and management is in accordance with contract conditions agreed with the Client.

The findings discussed in this document relating to information acquired on behalf of the Client relates only to data and information to which we have had access. It is acknowledged that certain aspects may be superseded or rendered irrelevant by information in documentation to which we have no access.

Enitial cannot accept responsibility to any parties whatsoever, following the issue of this report, for any matters arising which may be considered outside the agreed scope of works.

This report is issued solely to the Client, Enitial does not accept any responsibility to any third parties to whom this report may be circulated, in part or in full, and any such parties rely on the contents at their own risk.

Contents

1.0 Introduction

Enitial were commissioned by BuroHappold, on behalf of The London Resort, to undertake ground water and surface water monitoring and sampling, at a site in Ebbsfleet. The monitoring shall comprise 12 no. visits at monthly intervals during 2020 and 2021, with the work commencing in September 2020.

This factual report describes the monitoring and sampling works, presents the laboratory analysis results for this monitoring event undertaken between the 30th of September and the 10th October 2020.

2.0 Scope of Works

2.1 Groundwater and Surface Water Monitoring

Monitoring and sampling was completed at 18 No. monitoring wells and 16 No. surface water monitoring locations. The locations of the monitoring points are given in Appendix A and shown on the location plan provided as Appendix B.

Samples were sent to a UKAS accredited laboratory, i2 Analytical, for analysis of the following parameters:

Table 1 Groundwater / surface water analytical parameters

pH	Mercury
Conductivity	Arsenic
Dissolved Oxygen	Barium
BOD	Beryllium
Total Dissolved Solids	Boron
Hardness	Cadmium
Ammonia (NH4+)	Chromium
Ammonium (NH3)	Copper
Nitrate (NO3-)	Lead
Nitrite (NO2-)	Nickel
Cyanide	Selenium
Sulphate (SO4)	Vanadium
Chloride	Zinc
Naphthalene	Total Nitrogen
Acenaphthene	Total Phosphorus
Acenaphthylene	TPH (CWG)
Fluoranthene	Benzene
Anthracene	Toluene
Phenanthrene	Ethylbenzene
Fluorene	m,p-Xylene
Chrysene	o-Xylene
Pyrene	Sum of detected Xylenes
Benzo(a)anthracene	Sum of detected BTEX
Benzo(b)fluoranthene	Methyl tertiary butyl ether (MTBE)
Benzo(k)fluoranthene	PCB 7 congeners
Benzo(a)pyrene	Pesticides OCP / OPP combined suite

Dibenzo(a,h)anthracene	Tributyltin
Benzo(g,h,i)perylene	E. coli
Indeno(1,2,3-cd)pyrene	Total coliforms
Sum of UK DWS four[1]	Enterococci

[1] UK Drinking Water Standard – sum of the concentrations of benzo(b)fluroanthene, benzo(k)fluroanthene, benzo(ghi)perylene, and indeno(1,2,3-cd)pyrene.

Sampling works were undertaken by two Enitial Contaminated Land Geo-Environmental Technicians between the 30th of September and the 2nd October 2020.

- Groundwater monitoring including records for groundwater level and total depth to the base of the installation.
- NAPL thickness, if present, recorded in millimetres using an interface probe.
- Groundwater sampling using peristaltic pumping techniques as detailed in the specification.
- On-site analysis of groundwater conditions (water temperature, pH, conductivity, redox potential and dissolved oxygen).
- Collection of surface water samples. Observations to be made on the flow, sediment load, colour and odour of the water bodies at each location.

3.0 Quality Assurance

3.1 Groundwater and Surface Water Monitoring and Sampling

The field methods and procedures used were in compliance with accepted industry standards. These standards include the use of specified bottle types, dedicated disposable sampling equipment and agreed sample equipment decontamination procedures.

All samples were transported from the site to the analytical laboratory under a chain of custody regime with cool boxes containing ice packs.

All sampling was undertaken in line with the standard sampling protocols outlined in the SAQP and specification which includes:

- Purging and sampling of the monitoring wells using a peristaltic pump and dedicated sample tubing.
- All water samples were placed in laboratory supplied containers and labelled with a unique ID, date and location.
- The samples were stored in cool boxes and transported to the UKAS approved laboratory (i2 Analytical) under a chain of custody regime.

4.0 Data

4.1 Field Data

All field work took place between 30th of September and the 2nd of October. The weather was mild with sunny spells and showers on the first two days , turning to overcast and heavy rain on the 2nd October. Work was undertaken between 0800hrs and 1600hrs on all three days. Geochemical readings were taken using an AquaTROLL500, serial number 678014.

Field Data recorded on the 30th September to 2nd October is summarised in Table 2 and 3 and given in full in Appendix C.

The following observations can be made:

1. A number of surface water sampling points were inaccessible due to overgrown vegetation. These were : SW001, SW006, SW010 and SW011.
2. Surface water sampling location SW003 was dry with no visible water body.
3. There was a possible kink in the well at 9m on WS203.
4. Raised cover was missing from BH705.
5. A sample was obtained from each ground water monitoring location with the exception of BH704 due to low water level.

The following deviations to the methodology detailed in the SQMP were necessary:

6. WS102 – There appears to be a previous bailer possibly stuck at the bottom of the well that could not be removed. Due to low water level 5L was purged then sampled due to drawdown.

Table 2: Surface Water Field Data Summary

Monitoring Location	Time	DTL m	DTB m	End m	EC mS/cm	Temp C	pH	DO %	Dissolved Oxygen PPM	ORP mV	Purge Volume L	Odour description	Sediment description	Oil/grease visible	Colour description	Turbidity description	Comments
SW004	08:38				5842.186	13.57395	6.691654	103.1715	10.29532	167.7479	NA	STAGNANT ODOUR	FINE	NONE	SLIGHTLY GREEN	114.1431	NO FLOW
SW004 SEDIMENT SAMPLE												ORGANIC DECAY ODOUR	BLACK/GREY FINE SEDIMENT	NONE	BLACK / GREY		
SW005	09:10				1075.857	14.03629	8.100514	92.60272	9.342335	109.5074	NA	NONE	LITTLE TO NO SEDIMENT - FINE	NONE	CLEAR	27.70844	NO FLOW
SW005 SEDIMENT SAMPLE												ORGANIC DECAY ODOUR	COURSE AND FINE	NONE	BLACK / GREY		
SW007	09:54				935.4308	15.00612	7.490114	91.31424	9.481443	100.358	NA	NO ODOUR	LITTLE TO NO SEDIMENT - FINE - SOME ORGANIC MATTER	NONE	CLEAR	139.716	NO FLOW
SW007 SEDIMENT SAMPLE																	NO SEDIMENT SAMPLE - BED SOLID
SW006																	NO SAFE ACCESS VERY OVERGROWN - CHANNEL NOT VISIBLE
SW011																	NO ACCESS AREA VERY OVERGROWN AND WATERLOGGED
SW010																	NO ACCESS VERY OVERGROWN
SW009	11:13				1006.16	15.00612	6.777027	95.52921	9.443276	101.1445	NA	NONE	LITTLE TO NO SEDIMENT - FINE	NONE	SLIGHTLY YELLOW	81.03365	NO FLOW
SW009 SEDIMENT SAMPLE												NO ODOUR	CLAY	NONE	BLACK/GREY		
SW003																	DRY - NO VISIBLE WATER BODY
SW001																	VERY OVERGROWN NO VISIBLE SAFE ACCESS
SW002	12:04				1970.945	14.41943	6.544219	88.33868	8.808754	110.5448		NONE	LITTLE TO NO SEDIMENT - FINE	NONE	CLEAR	32.84645	NO FLOW
SW002 SEDIMENT SAMPLE												ORGANIC DECAY ODOUR	COURSE AND FINE	NONE	BLACK / GREY		

Table 3: Ground Water Field Data Summary

Monitoring Location	Time	DTL mbgl	DTB mgbl	End m	EC mS/cm	Temp C	pH	DO %	Dissolved Oxygen PPM	ORP mV	Purge Volume L	Odour description	Sediment description	Oil/grease visible	Colour description	Turbidity description	Comments
																	COVER LEVEL 36CM
WS203	08:45:00	1.1	3.77		54105.25	12.58577	13.07675	56.9483	4.834443	-281.112	16L	AMMONIA	FINE	NONE	LIGHT YELLOW	1558.558	
																	COVER LEVEL 70CM - POSSIBLE KINK OR BAILER STUCK AT 9M
WS202	09:18:00	8.11	10.39		46737.9	13.24413	13.52177	72.03662	5.853174	-256.6393	13L	AMMONIA	FINE	NONE	LIGHT YELLOW	200.6335	
																	COVER LEVEL 51CM
BH101 - 5 MINUTES	10:22:00	5.25	39.62		13187.33	13.50016	9.647767	62.38784	6.086526	-168.4962	13L	SULPHUROUS	MODERATE	NONE	CLOUDY	95.34127	
BH101 - 10 MINUTES	10:27:00				14342.51	13.06206	8.831055	83.63485	8.182249	-156.6605	16L	SULPHUROUS	MODERATE	NONE	CLOUDY WHITE	77.75883	
BH101 - 15 MINUTES	10:33:00				14511.75	13.00809	8.481833	87.82131	8.592473	-133.6382	14L	SULPHUROUS	MODERATE TO HEAVY	NONE	CLOUDY WHITE	920.7037	
																	COVER LEVEL 49CM - WATER LEVEL LOW, 3WV NOT PURGED SO ACHIEVE FULL SAMPLE COLLECTION
WS102	10:58	4.2	4.97		15093.46	12.95758	10.17041	76.77854	7.501554	-144.7425	3L	NONE	FINE	NONE	CLEAR/SLIGHTLY CLOUDY	67.21317	
																	COVER LEVEL 45CM - PREVIOUS BAILER POSSIBLY STUCK AT BOTTOM OF WELL - COULD NOT REMOVE - LOW WATER LEVEL 5L PURGED THEN SAMPLED DUE TO DRAWDOWN
WS101	11:42	4.15	5.93		48275.53	14.26593	4.724012	59.60463	4.724012	-35.86261	5L	NONE	HEAVY	NONE	BROWN	2626.294	
																	COVER LEVEL 33CM
BH202 - 5 MINUTES	13:17	3.05	29.6		3663.385	16.07518	9.043453	86.07465	8.315443	-92.43234	16L	SULPHUROUS	FINE	NONE	CLOUDY	116.2512	
BH202 - 10 MINUTES	13:23				7800.64	14.72256	8.215787	87.81294	8.560081	-42.61259	15L	SULPHUROUS	FINE	NONE	CLOUDY	71.79532	
BH202 - 15 MINUTES	13:34				7912.377	14.1952	7.742095	81.25719	8.001663	-3.454727	15L	SULPHUROUS	FINE	NONE	CLOUDY	115.5735	
																	COVER LEVEL 70CM
BH201	14:21	3.85	6.2		4065.287	14.22984	8.843659	76.10981	7.621658	-18.00541	12L	AMMONIA	FINE	NONE	CLOUDY YELLOW	267.33	
BH204		DRY	8.48														COVER LEVEL 52CM
BH204 - 5 MINUTES	13:50	3.11	12.01		1053.156	14.55631	6.716783	87.51788	8.728757	19.76019	16L	SULPHUROUS	MODERATE	NONE	CLOUDY/WHITE	4281.478	COVER LEVEL 54CM
BH204 - 10 MINUTES	13:57				1006.088	14.04668	6.449078	84.84222	8.542446	-23.84193	15L	SULPHUROUS	MODERATE	NONE	CLOUDY/WHITE	4313.253	
BH204 - 15 MINUTES	14:04				940.0103	13.42605	6.286198	84.00058	8.547948	-22.92155	16L	SULPHUROUS	MODERATE	NONE	CLOUDY/WHITE	3881.494	
BH203 - 5 MINUTES	14:17	2.87	11.61		1507.176	13.29535	5.897586	72.243	7.395516	-44.75222	13L	SULPHUROUS	MODERATE	NONE	CLOUDY/WHITE	589.6591	COVER LEVEL 60CM
BH203 - 10 MINUTES	14:22				1365.034	13.01872	5.818554	79.00815	8.139463	-23.766	15L	SULPHUROUS	MODERATE	NONE	CLOUDY/WHITE	891.0539	
BH203 - 15 MINUTES	14:30				1322.256	13.05451	5.725247	76.06512	7.831981	-35.14317	14L	SULPHUROUS	MODERATE	NONE	CLOUDY/WHITE	949.3688	
BH502	08:23	12.21	18.07		3334.971	11.7395	7.239543	98.34921	10.21064	248.424	35	NONE	HEAVY	NONE	WHITE	6641.11	COVER LEVEL 71CM
BH501	09:00	11.92	19		1136.055	11.96918	7.139456	80.88697	8.439494	191.3558	40	NONE	HEAVY	NONE	WHITE	7039.717	COVER LEVEL 35CM
BH705 5 MINS	10:11	3.14	19		273.1753	12.07875	6.991535	86.96933	9.094733	183.9399	15	NONE	FINE TO MODERATE	NONE	CLOUDY WHITE	1421.269	NO RAISED COVER
BH705 10 MINS					851.6158	11.99823	6.84443	91.06892	9.517089	196.8204	15	NONE	FINE TO MODERATE	NONE	CLOUDY WHITE	1437.193	
BH705 15 MINS					829.4616	12.06901	6.864553	94.98336	9.97599	195.2291	14	NONE	FINE TO MODERATE	NONE	CLOUDY WHITE	938.8929	
BH704	10:36	4.9	5.1		1176.831	12.0538	6.672973	93.59313	9.758803	180.6929	0	NONE	HEAVY	NONE	BROWN	7980.099	NO SAMPLE COLLECTED - WATER LEVEL TOO LOW

4.2 Laboratory Analysis

The laboratory certificates for the ground water and surface water samples are given in Appendix D.

In the samples collected from BH 101, 201, 202, 203, 204, 501, 502 and 705; WS 101, 102, 202 and 203; SW002, 004, 005, 007 and 009 results for each speciated and total PAH's, TPH's and monoaromatics and oxygenates were below the respective LoD.

5.0 Summary and Recommendations

5.1 Summary

All work was carried out in line with the sampling, analysis and quality plan (SAQP) and the specification. Sampling works were undertaken between the 30th September and 2nd October 2020. Samples were collected from all groundwater and surface water monitoring points.

A number of surface water sampling points were inaccessible due to overgrown vegetation. These were : SW001, SW006, SW010 and SW011. Surface water sampling location SW003 was dry with no visible water body.

A sample was obtained from each ground water monitoring location with the exception of BH704 due to low water level. There was a possible kink in the well at 9m on WS203 and a raised cover was missing from BH705.

In the samples collected from BH 101, 201, 202, 203, 204, 501, 502 and 705; WS 101, 102, 202 and 203; SW002, 004, 005, 007 and 009 results for each speciated and total PAH's, TPH's and monoaromatics and oxygenates were below the respective LoD.

6.2 Recommendations

It is recommended that the overgrown surface water sample locations are strimmed prior to the next visit to ensure that samples can be collected.

APPENDIX A
Monitoring Wells Record

Exploratory hole	OS grid reference	Response zone		Depth of well (m bgl)	Depth to water (m bgl)	Comments
		Depth range	Strata			
BH101	560528.1 176118.8	24.50 – 40.50	Chalk	>30.0	4.24	Located just off track. Easily accessible (no gated / locked access etc). Raised well located within concrete manhole ring.
WS101	560945.0 176278.9	1.30 – 6.00	Made Ground (CKD)	5.90	3.62	Located topographically up slope of track. Easily accessible (no gated / locked access etc). Raised well located within concrete manhole ring.
WS102	560674.2 176217.1	1.30 – 5 22	Made Ground (CKD)	4.97	3.51	Located in densely vegetated area. Possible to locate by GPS. Raised well located within concrete manhole ring.
BH201	560202.1 175846.7	1.40 – 6.50	Made Ground (CKD)	5.92	3.27	Located topographically up-slope of track. Easily accessible (no gated / locked access etc). Raised well located within concrete manhole ring.
BH202	560333.2 175813.1	20.50 – 31.50	Chalk	>30.0	3.35	Located just off track. Easily accessible (no gated / locked access etc.) Raised well located within concrete manhole ring.
BH203	560370.3 175261.8	8.70 – 11.50	River Terrace Deposits	11.35	2.94	Accessed via public footpath or locked gate from Manor Way. Footpath is perpendicular to Manor Way, roughly in line with drains. Raised well located within concrete manhole ring.
BH204	560198.5 175256.3	6.80 – 12.20	River Terrace Deposits	11.80	2.97	Accessed via compound storing concrete panels. Freely accessible during site walkover but potential for area to be locked / secured. Exploratory hole located upslope of main yard area, beyond bushes / vegetation. Raised well located within concrete manhole ring.
WS202	560621.9 175869.8	2.80 – 11.00	Made Ground (CKD)	10.30	7.95	Locked / gated access beyond intersection of path with drains. Located in densely vegetated area. Possible to locate using GPS. Well is downslope (SE) of the damaged well on the hilltop. Raised well located within concrete manhole ring.
WS203	560435.9 175753.6	1.30 – 4.00	Made Ground (CKD)	4.05	1.37	Locked / gated access beyond intersection of path with drains. Easy access beyond the gate entry. Well located off a path to the south of the parking area. Raised well located within concrete manhole ring.
WS204	560318.8 175576.6	1.50 – 8 90	Made Ground (CKD)	8.90	Dry	Well located on topographic high off a grassed path. Easily accessible (no gated / locked access etc).

Exploratory hole	OS grid reference	Response zone		Depth of well (m bgl)	Depth to water (m bgl)	Comments
		Depth range	Strata			
						Raised well located within concrete manhole ring.
WS301	Not Surveyed			N/A	N/A	Not visited
BH501	560342.9 174836.3	12.50 – 19.50	Chalk	N/A	N/A	Wells located in secured area of former quarry. No access gained during site visit as area was secured. Access is via Craylands Lane. Access through two gates required: one immediately off Craylands Lane and another at the top of the track.
BH502	560135.4 174870.5	11.00 – 19.50	Made Ground - Chalk	N/A	N/A	Wells located in secured area of former quarry. No access gained during site visit as area was secured. Access is via Craylands Lane. Access through two gates required: one immediately off Craylands Lane and another at the top of the track.
BH703	561557.1 173367.0	7.00 – 9.50	River Terrace Deposits	N/A	N/A	Well located within secured area with structures associated with CTRL / HS1. No access gained. Location accessed via unnamed road leading from A2260.
BH704	561641.4 172996.5	1.20 – 4.70	Alluvium	4.70	4.64	Access via and parking on unnamed access road leading to Springhead Nurseries. Well located on a public footpath, access by foot only. Raised well located within concrete manhole ring.
BH705	561618.7 172723.4	3.70 – 19.50	Chalk	18.90	2.79	Well located in yard area of Springhead Nurseries. Located in an area currently used for informal storage (fridges etc). Permission for access and sampling will need to be granted by Springhead Nurseries. Well cover flush with ground surface.
BH706	561557.8 172815.6	8.50 – 29.30	Chalk	28.85	6.42	Well located in vegetated area beyond hedges and wooden fencing on A2 slip road. Footpath / space to pull over parallel to slip road. One area of fencing has been disassembled – well is located beyond here. Can be located using GPS. Raised well located within concrete manhole ring. Vegetation growing within manhole ring – tools may be required to cut this back.
BH707	561428.9 172862.1	10.50 – 19.50	Chalk	19.08	11.20	Well located in vegetated area beyond hedges and wooden fencing on stretch of road between two A260 roundabouts. Footpath / space to pull over parallel to road. Access by climbing wooden fencing. Can be located using GPS. Raised well located within concrete manhole ring. Vegetation growing within manhole ring – tools may be required to cut this back.
BH708	561299.3 172747.4	10.00 – 29.95	Chalk	N/A	N/A	Well located within complex road interchange. Not visited.

APPENDIX B
Sampling
Location Plans

London Resort
Overall Site Plan - Outer Limits Boundary

Legend
Boundarys
Order Limits Boundary

DO NOT SCALE

ZONE 1
ZONE 2
ZONE 3A
ZONE 3B
ZONE 4A
ZONE 4B
ZONE 4C
ZONE 5A
ZONE 5B
ZONE 6A
ZONE 6B
ZONE 7

BH101
WS101
WS102
BH201
BH202
TP201
WS202
WS203
WS201
(POSITION NOT SURVEYED)
WS204
BH204
BH203
(POSITION NOT SURVEYED)
WS301
TP302
TP301
BH502
BH501

0 100 200 300 400 500
SCALE BAR (m)

N

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LEGEND:

AS-BUILT EXPLORATORY HOLES (2015)

BH101 BOREHOLE WITH STANDPIPE
WS201 WINDOW SAMPLE WITH STANDPIPE
TP301 TRIAL PIT

HISTORICAL EXPLORATORY HOLES

TQ67NW521 HISTORICAL EXPLORATORY HOLE

NOTE:

1. AS-BUILT EXPLORATORY HOLE POSITIONS TAKEN FROM GEOTECHNICAL ENGINEERING LIMITED'S SURVEY ON 03 JULY 2015.
2. ZONES 7 - 9 CAN BE FOUND ON DRAWING NUMBER 5134008-PHASE2-FIGURE002.
3. EXPLORATORY HOLES WS201 AND WS301 WERE TERMINATED EARLY DUE TO REFUSAL ON HARD STRATUM. THEIR POSITIONS WERE NOT SURVEYED, BUT ARE SHOWN AS APPROXIMATE ON THIS DRAWING.
4. BASE MAP REPRODUCED BY PERMISSION OF ORDNANCE SURVEY ON BEHALF OF HMSO. © CROWN COPYRIGHT. ALL RIGHTS RESERVED. ORDNANCE SURVEY LICENCE NUMBER 0100040692.

Rev.	Description	By	Date	Chk'd	Auth
FOR INFORMATION		A	15.07.15		JA
Purpose of issue		Rev	Date		Authorised

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Client
LONDON RESORT COMPANY HOLDINGS

Project
PARAMOUNT PARK
ENTERTAINMENT RESORT

Title
AS-BUILT GROUND INVESTIGATION
PLAN DRAWING 1 OF 2

Original Scale	Drawn	Checked	Authorised	
1:12500	ATP/JP	TR	JA	A3
	Date 14.07.15	Date 15.07.15	Date 15.07.15	

Drawing Number
5134008-PHASE2-FIGURE001

Rev
A

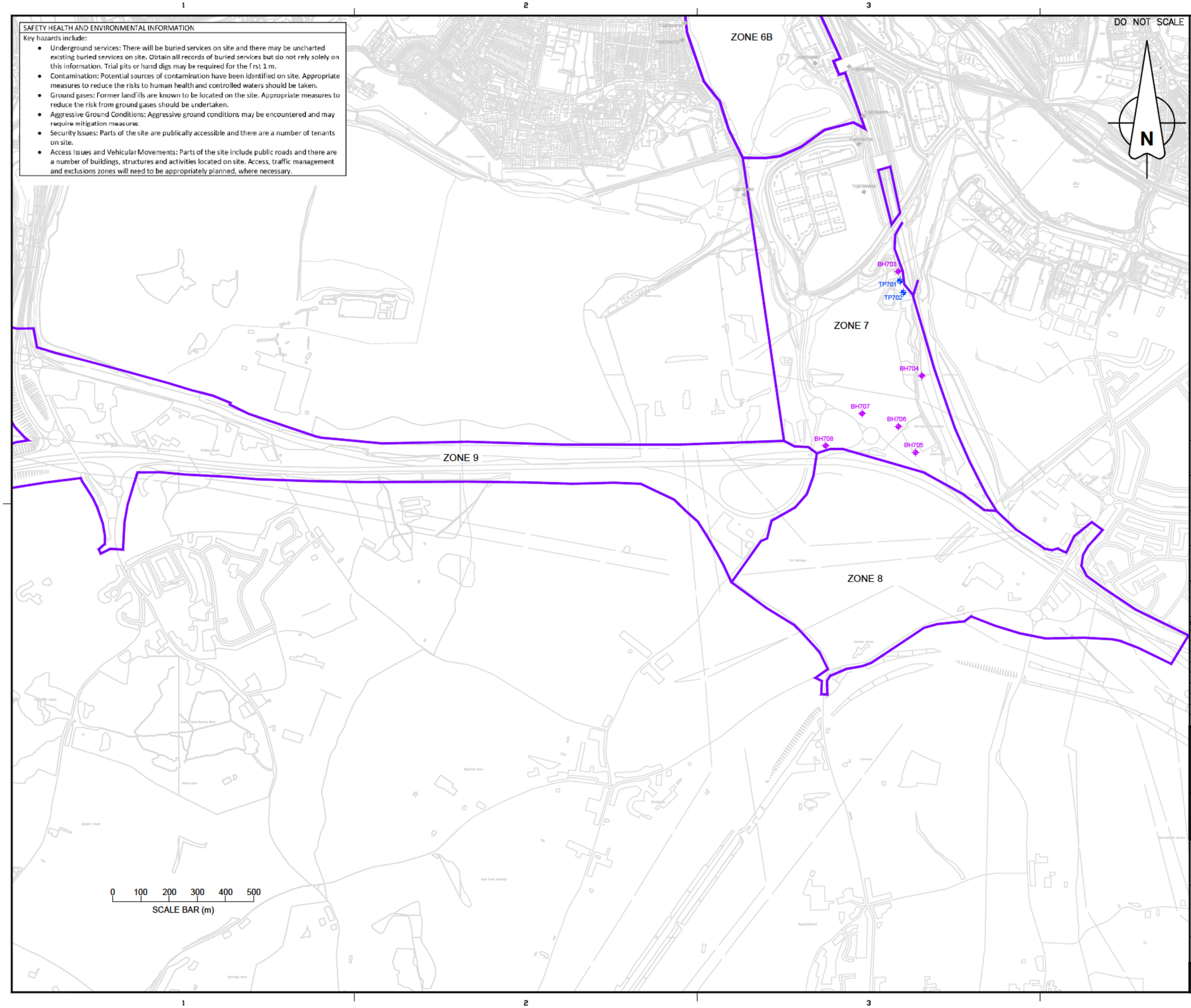
Job Dept. Sub Unique No.

Drawing Number 5134008-PHASE2-FIGURE001 Rev. A

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

Key hazards include:

- Underground services: There will be buried services on site and there may be uncharted existing buried services on site. Obtain all records of buried services but do not rely solely on this information. Trial pits or hand digs may be required for the first 1 m.
- Contamination: Potential sources of contamination have been identified on site. Appropriate measures to reduce the risks to human health and controlled waters should be taken.
- Ground gases: Former landfills are known to be located on the site. Appropriate measures to reduce the risk from ground gases should be undertaken.
- Aggressive Ground Conditions: Aggressive ground conditions may be encountered and may require mitigation measures.
- Security Issues: Parts of the site are publically accessible and there are a number of tenants on site.
- Access Issues and Vehicular Movements: Parts of the site include public roads and there are a number of buildings, structures and activities located on site. Access, traffic management and exclusions zones will need to be appropriately planned, where necessary.



DO NOT SCALE

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AS-BUILT EXPLORATORY HOLES

BH604 BOREHOLE WITH STANDPIPE

WS201 WINDOW SAMPLE WITH STANDPIPE

TP301 TRIAL PIT

NOTE:

1. AS-BUILT EXPLORATORY HOLE POSITIONS TAKEN FROM GEOTECHNICAL ENGINEER LIMITED'S SURVEY ON 03 JULY 2015.
2. ZONES 1 - 6B CAN BE FOUND ON DRAWING NUMBER 5134008-PHASE2-FIGURE001.

Rev.	Description	By	Date	Chk'd	Auth
FOR INFORMATION		A	-		–
Purpose of Issue		Rev	Date		Authorised

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Client

LONDON RESORT COMPANY HOLDINGS

Project

PARAMOUNT PARK
ENTERTAINMENT RESORT

Title

AS-BUILT GROUND INVESTIGATION
PLAN DRAWING 2 OF 2

Original Scale	Drawn	Checked	Authorised	
1:12500	ATP/JP	–	–	A3
	Date 14.07.15	Date –	Date –	

Drawing Number: 5134008-PHASE2-FIGURE002 Rev A

Job Dept. Sub Unique No.

Drawing Number 5134008-PHASE2-FIGURE002 Rev. A

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SW001	559583.1	175440.7
SW002	560021.6	175695.5
SW003	560040.2	175390.2
SW004	560367.4	175884.2
SW005	560407.6	176023.8
SW006	560532.6	176071.7
SW007	560761.3	175773.7
SW008	561154.4	175777.9
SW009	561284.3	175307.1
SW010	560956.2	175499.1
SW011	560599.1	175464.3
SW012	560384.4	175283.3
SW013	561024.2	174616.8
SW014	561739.1	173715.8
SW015	561537	173257.3
SW016	561712.4	172809.9

ID_No	E	N
SW001	559583.1	175440.7
SW002	560021.6	175695.5
SW003	560040.2	175390.2
SW004	560367.4	175884.2
SW005	560407.6	176023.8
SW006	560532.6	176071.7
SW007	560761.3	175773.7
SW008	561154.4	175777.9
SW009	561284.3	175307.1
SW010	560956.2	175499.1
SW011	560599.1	175464.3
SW012	560384.4	175283.3
SW013	561024.2	174616.8
SW014	561739.1	173715.8
SW015	561537	173257.3
SW016	561712.4	172809.9

ID_No	E	N
SW001	559583.1	175440.7
SW002	560021.6	175695.5
SW003	560040.2	175390.2
SW004	560367.4	175884.2
SW005	560407.6	176023.8
SW006	560532.6	176071.7
SW007	560761.3	175773.7
SW008	561154.4	175777.9
SW009	561284.3	175307.1
SW010	560956.2	175499.1
SW011	560599.1	175464.3
SW012	560384.4	175283.3
SW013	561024.2	174616.8
SW014	561739.1	173715.8
SW015	561537	173257.3
SW016	561712.4	172809.9

ID_No	E	N
SW001	559583.1	175440.7
SW002	560021.6	175695.5
SW003	560040.2	175390.2
SW004	560367.4	175884.2
SW005	560407.6	176023.8
SW006	560532.6	176071.7
SW007	560761.3	175773.7
SW008	561154.4	175777.9
SW009	561284.3	175307.1
SW010	560956.2	175499.1
SW011	560599.1	175464.3
SW012	560384.4	175283.3
SW013	561024.2	174616.8
SW014	561739.1	173715.8
SW015	561537	173257.3
SW016	561712.4	172809.9

ID_No	E	N
SW001	559583.1	175440.7
SW002	560021.6	175695.5
SW003	560040.2	175390.2
SW004	560367.4	175884.2
SW005	560407.6	176023.8
SW006	560532.6	176071.7
SW007	560761.3	175773.7
SW008	561154.4	175777.9
SW009	561284.3	175307.1
SW010	560956.2	175499.1
SW011	560599.1	175464.3
SW012	560384.4	175283.3
SW013	561024.2	174616.8
SW014	561739.1	173715.8
SW015	561537	173257.3
SW016	561712.4	172809.9

APPENDIX C
Lab Data

4041

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Analytical Report Number : 20-33704

Project / Site name:	London Resort	**Samples received on:**	02/10/2020
Your job number:		**Samples instructed on/ Analysis started on:**	05/10/2020
Your order number:		**Analysis completed by:**	14/10/2020
Report Issue Number:	1	**Report issued on:**	14/10/2020
Samples Analysed:	17 water samples		

Signed:

Joanna Wawrzeczko
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639900	1639901	1639902	1639903
Sample Reference				BH501	BH502	BH705	WS203
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.27-19.35	12.92-18.78	3.14-19.00	1.80-4.47
Date Sampled				02/10/2020	02/10/2020	02/10/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
General Inorganics							
pH	pH Units	N/A	ISO 17025	7.4	7.2	7.4	13
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	680	1500	670	58000
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	16
Sulphate as SO4	mg/l	0.045	ISO 17025	125	333	133	9570*
Chloride	mg/l	0.15	ISO 17025	54	490	66	3200
Ammonia as NH3	µg/l	15	ISO 17025	< 15	30	77	70000
Ammonium as NH4	µg/l	15	ISO 17025	< 15	32	81	74000
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	0.4	0.3	0.2	50
Nitrate as N	mg/l	0.01	ISO 17025	14.4	21.8	17.6	0.39
Nitrate as NO3	mg/l	0.05	ISO 17025	63.6	96.5	78.1	1.72
Nitrite as N	µg/l	1	ISO 17025	6	4.8	4.6	100
Nitrite as NO2	µg/l	5	ISO 17025	20	16	15	330
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	1.3	1.1	< 1.0	10
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	560	1800	570	26000
Hardness - Total	mgCaCO3/l	1	ISO 17025	448	897	466	50.7
Dissolved Oxygen	mg/l	1	NONE	5.4	5.3	8.5	< 1.0
Speciated PAHs							
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH							
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639900	1639901	1639902	1639903
Sample Reference				BH501	BH502	BH705	WS203
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.27-19.35	12.92-18.78	3.14-19.00	1.80-4.47
Date Sampled				02/10/2020	02/10/2020	02/10/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Boron (dissolved)	µg/l	10	ISO 17025	100	270	35	30
Calcium (dissolved)	mg/l	0.012	ISO 17025	160	330	180	20
Magnesium (dissolved)	mg/l	0.005	ISO 17025	10	15	6.7	0 075
Phosphorus (total)	µg/l	20	ISO 17025	540	250	320	150
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.57	2.71	0.72	6.35
Barium (dissolved)	µg/l	0.06	ISO 17025	39	53	48	9.1
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	< 0.02	< 0.02	0.1
Chromium (dissolved)	µg/l	0.2	ISO 17025	3.6	16	3.8	1.8
Copper (dissolved)	µg/l	0.5	ISO 17025	2.5	6.4	2.3	11
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.13
Nickel (dissolved)	µg/l	0.5	ISO 17025	4	5.8	4	180
Selenium (dissolved)	µg/l	0.6	ISO 17025	3.8	15	3.2	120
Vanadium (dissolved)	µg/l	0.2	ISO 17025	1	4.2	1.5	24
Zinc (dissolved)	µg/l	0.5	ISO 17025	13	21	12	0.7
Monoaromatics & Oxygenates							
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

*Over range data, sample was diluted and results are estimated from an extrapolated calibration. Results should be interpreted with care

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639904	1639905	1639906	1639907
Sample Reference				WS202	BH101	WS102	WS101
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				8.62-10.90	5.74-39.11	4.65-5.42	4.48-6.26
Date Sampled				30/09/2020	30/09/2020	30/09/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
General Inorganics							
pH	pH Units	N/A	ISO 17025	13	7.3	12.7	7.8
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	73000	8200	21000	9700
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	20000*	1150	993	15200*
Chloride	mg/l	0.15	ISO 17025	3000	6200	1600	13000
Ammonia as NH3	µg/l	15	ISO 17025	41000	7900	4800	300000
Ammonium as NH4	µg/l	15	ISO 17025	44000	8400	5000	320000
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	24	3.7	2.5	50
Nitrate as N	mg/l	0.01	ISO 17025	0.39	0.03	0.43	0.67
Nitrate as NO3	mg/l	0.05	ISO 17025	1.72	0.15	1.92	2.95
Nitrite as N	µg/l	1	ISO 17025	13	10	380	46
Nitrite as NO2	µg/l	5	ISO 17025	43	34	1300	150
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	4.3	2	< 1.0	3.2
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	33000	12000	9100	34000
Hardness - Total	mgCaCO3/l	1	ISO 17025	5.9	2890	10.8	2070
Dissolved Oxygen	mg/l	1	NONE	4.1	2.4	3.6	< 1.0
Speciated PAHs							
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Total PAH							
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639904	1639905	1639906	1639907
Sample Reference				WS202	BH101	WS102	WS101
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				8.62-10.90	5.74-39.11	4.65-5.42	4.48-6.26
Date Sampled				30/09/2020	30/09/2020	30/09/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Boron (dissolved)	µg/l	10	ISO 17025	58	1100	15	820
Calcium (dissolved)	mg/l	0.012	ISO 17025	2.4	260	3.9	210
Magnesium (dissolved)	mg/l	0.005	ISO 17025	0.011	540	0 22	370
Phosphorus (total)	µg/l	20	ISO 17025	53	310	< 20	40000
Arsenic (dissolved)	µg/l	0.15	ISO 17025	9.7	19	7.48	0.51
Barium (dissolved)	µg/l	0.06	ISO 17025	15	130	23	2.3
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.07	< 0.02	0 06	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	12	8	45	0.2
Copper (dissolved)	µg/l	0.5	ISO 17025	7.6	160	44	4.7
Lead (dissolved)	µg/l	0.2	ISO 17025	3	< 0.2	5.9	0.3
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	21	7.1	3.1	< 0.5
Selenium (dissolved)	µg/l	0.6	ISO 17025	130	56	56	26
Vanadium (dissolved)	µg/l	0.2	ISO 17025	19	7.9	20	0.3
Zinc (dissolved)	µg/l	0.5	ISO 17025	0.5	7.2	4.6	< 0.5
Monoaromatics & Oxygenates							
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

*Over range data, sample was diluted and results are estimated from an extrapolated calibration. Results should be interpreted with care

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639908	1639909	1639910	1639911
Sample Reference				BH202	BH201	SW004	SW005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.75-30.30	4.37-6.72	None Supplied	None Supplied
Date Sampled				30/09/2020	30/09/2020	30/09/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
General Inorganics							
pH	pH Units	N/A	ISO 17025	7.3	11.8	10.1	7.9
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	5600	3700	5900	750
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	505	537	1150	111
Chloride	mg/l	0.15	ISO 17025	3500	430	950	88
Ammonia as NH3	µg/l	15	ISO 17025	4400	4400	70	< 15
Ammonium as NH4	µg/l	15	ISO 17025	4600	4700	74	< 15
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	2.2	2.2	2.5	0.5
Nitrate as N	mg/l	0.01	ISO 17025	0.02	0.39	0.11	3.49
Nitrate as NO3	mg/l	0.05	ISO 17025	0.1	1.72	0.49	15 5
Nitrite as N	µg/l	1	ISO 17025	5.2	510	26	17
Nitrite as NO2	µg/l	5	ISO 17025	17	1700	85	57
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	4.4	2.6	7.5	1.9
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	7200	2600	3700	510
Hardness - Total	mgCaCO3/l	1	ISO 17025	1960	32.1	35.7	274
Dissolved Oxygen	mg/l	1	NONE	< 1.0	1	2.4	2.4
Speciated PAHs							
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Total PAH							
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639908	1639909	1639910	1639911
Sample Reference				BH202	BH201	SW004	SW005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.75-30.30	4.37-6.72	None Supplied	None Supplied
Date Sampled				30/09/2020	30/09/2020	30/09/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Boron (dissolved)	µg/l	10	ISO 17025	550	71	72	68
Calcium (dissolved)	mg/l	0.012	ISO 17025	410	9.7	6.8	96
Magnesium (dissolved)	mg/l	0.005	ISO 17025	220	1.9	4.5	8.6
Phosphorus (total)	µg/l	20	ISO 17025	< 20	190	< 20	180
Arsenic (dissolved)	µg/l	0.15	ISO 17025	9.61	70	51.5	4.58
Barium (dissolved)	µg/l	0.06	ISO 17025	110	14	6.2	38
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	0.13	0.12	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	8.1	3.7	5.5	3.3
Copper (dissolved)	µg/l	0.5	ISO 17025	180	77	27	18
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	5.8	0.9	0.5
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	0.16	0 08	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	15	26	23	3.4
Selenium (dissolved)	µg/l	0.6	ISO 17025	34	31	38	5.3
Vanadium (dissolved)	µg/l	0.2	ISO 17025	4.2	760	130	2.7
Zinc (dissolved)	µg/l	0.5	ISO 17025	91	34	6.7	6.4
Monoaromatics & Oxygenates							
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

*Over range data, sample was diluted and results are estimated from an extrapolated calibration. Results should be interpreted with care

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639912	1639913	1639914	1639915
Sample Reference				SW007	SW009	SW002	BH204
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				30/09/2020	30/09/2020	30/09/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
General Inorganics							
pH	pH Units	N/A	ISO 17025	7.6	7.7	8.1	7.4
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	790	920	1700	920
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	99	68.9	107	48
Chloride	mg/l	0.15	ISO 17025	100	220	640	180
Ammonia as NH3	µg/l	15	ISO 17025	120	780	750	1000
Ammonium as NH4	µg/l	15	ISO 17025	130	820	790	1100
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	0.6	0.6	1.2	1.1
Nitrate as N	mg/l	0.01	ISO 17025	0.08	1.01	0.12	0.1
Nitrate as NO3	mg/l	0.05	ISO 17025	0.34	4.48	0 54	0.44
Nitrite as N	µg/l	1	ISO 17025	18	65	14	15
Nitrite as NO2	µg/l	5	ISO 17025	59	210	44	49
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	2.4	4	1.5	5.5
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	560	590	1800	810
Hardness - Total	mgCaCO3/l	1	ISO 17025	312	193	670	357
Dissolved Oxygen	mg/l	1	NONE	1.4	4.3	4.2	1.7
Speciated PAHs							
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0 01
Total PAH							
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639912	1639913	1639914	1639915
Sample Reference				SW007	SW009	SW002	BH204
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				30/09/2020	30/09/2020	30/09/2020	30/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Boron (dissolved)	µg/l	10	ISO 17025	77	300	190	290
Calcium (dissolved)	mg/l	0.012	ISO 17025	110	59	170	86
Magnesium (dissolved)	mg/l	0.005	ISO 17025	11	11	59	35
Phosphorus (total)	µg/l	20	ISO 17025	400	53	200	370
Arsenic (dissolved)	µg/l	0.15	ISO 17025	9.46	12.7	5 33	3.41
Barium (dissolved)	µg/l	0.06	ISO 17025	33	49	65	49
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	0.5	< 0.02	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	3.8	2.5	6.7	6.3
Copper (dissolved)	µg/l	0.5	ISO 17025	7.6	19	15	8.4
Lead (dissolved)	µg/l	0.2	ISO 17025	0.3	15	0.8	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	0.06	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	4.2	4.5	2.5	2.7
Selenium (dissolved)	µg/l	0.6	ISO 17025	3.6	3.5	7.2	2.9
Vanadium (dissolved)	µg/l	0.2	ISO 17025	2.7	2.1	2.2	1.1
Zinc (dissolved)	µg/l	0.5	ISO 17025	11	61	4.4	2.8
Monoaromatics & Oxygenates							
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

*Over range data, sample was diluted and results are estimated from an extrapolated calibration. Results should be interpreted with care

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639916
Sample Reference				BH203
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				30/09/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
General Inorganics				
pH	pH Units	N/A	ISO 17025	6.8
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	1700
Total Cyanide	µg/l	10	ISO 17025	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	1510
Chloride	mg/l	0.15	ISO 17025	260
Ammonia as NH3	µg/l	15	ISO 17025	3700
Ammonium as NH4	µg/l	15	ISO 17025	3900
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	3.5
Nitrate as N	mg/l	0.01	ISO 17025	0.2
Nitrate as NO3	mg/l	0.05	ISO 17025	0.89
Nitrite as N	µg/l	1	ISO 17025	31
Nitrite as NO2	µg/l	5	ISO 17025	100
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	3.4
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	2000
Hardness - Total	mgCaCO3/l	1	ISO 17025	1880
Dissolved Oxygen	mg/l	1	NONE	< 1.0
Speciated PAHs				
Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01
Total PAH				
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16

Analytical Report Number: 20-33704
Project / Site name: London Resort

Lab Sample Number				1639916
Sample Reference				BH203
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				30/09/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Heavy Metals / Metalloids				
Boron (dissolved)	µg/l	10	ISO 17025	520
Calcium (dissolved)	mg/l	0.012	ISO 17025	580
Magnesium (dissolved)	mg/l	0.005	ISO 17025	100
Phosphorus (total)	µg/l	20	ISO 17025	270
Arsenic (dissolved)	µg/l	0.15	ISO 17025	19.7
Barium (dissolved)	µg/l	0.06	ISO 17025	68
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	5.2
Copper (dissolved)	µg/l	0.5	ISO 17025	8.7
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	16
Selenium (dissolved)	µg/l	0.6	ISO 17025	8.7
Vanadium (dissolved)	µg/l	0.2	ISO 17025	1.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	5.3
Monoaromatics & Oxygenates				
Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0
Petroleum Hydrocarbons				
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

*Over range data, sample was diluted and results are estimated from an extrapolated calibration. Results should be interpreted with care

Analytical Report Number : 20-33704
Project / Site name: London Resort

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-OES (total)	Determination of metals in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW (Al, Fe, Cu, Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
Biological oxygen demand (total) of water	Determination of biochemical oxygen demand in water (5 days). Accredited matrices: SW, PW, GW.	In-house method based on standard method 5210B.	L086-PL	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Electrical conductivity at 20oC of water	Determination of electrical conductivity in water by electrometric measurement. Accredited Matrices SW, GW, PW	In-house method	L031-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
Nitrite in water	Determination of nitrite in water by addition of sulphanilamide and NED followed by discrete analyser (colorimetry).Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrate in water	Determination of nitrate by reaction with sodium salicylate and colorimetry. Accredited matrices SW, GW, PW	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08,	L078-PL	W	ISO 17025
Dissolved Oxygen in water	Determination of dissolved oxygen.	In-house method	L086-PL	W	NONE
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Sulphate in water	Determination of sulphate in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Kjeldahl nitrogen in water	Determination of total nitrogen using the Kjeldahl-digestion method and colorimetric determination.	In house method based on BS 7755-3.7:1995 & ISO 11261:1995.	L087-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonia as NH3 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025

Analytical Report Number : 20-33704
Project / Site name: London Resort

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrite as N in water	Determination of nitrite in water by addition of sulphanilamide and NED followed by discrete analyser (colorimetry). Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrate as N in water	Determination of nitrate by reaction with sodium salicylate and colorimetry. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08,	L078-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
Total dissolved solids in water (Gravimetric)	Determination of total dissolved solids in water by gravimetry.	In house method based on BSEN 15216:2007	L004-PL	W	ISO 17025
Chloride in water	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-33704
Project / Site name: London Resort

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH101	None Supplied	W	1639905	c	Ammonia as NH3 in water	L082-PL	c
BH101	None Supplied	W	1639905	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH101	None Supplied	W	1639905	c	Ammonium as NH4 in water	L082-PL	c
BH101	None Supplied	W	1639905	c	Biological oxygen demand (total) of water	L086-PL	c
BH101	None Supplied	W	1639905	c	Dissolved Oxygen in water	L086-PL	c
BH101	None Supplied	W	1639905	c	Electrical conductivity at 20oC of water	L031-PL	c
BH101	None Supplied	W	1639905	c	Nitrate as N in water	L078-PL	c
BH101	None Supplied	W	1639905	c	Nitrate in water	L078-PL	c
BH101	None Supplied	W	1639905	c	Nitrite as N in water	L082-PL	c
BH101	None Supplied	W	1639905	c	Nitrite in water	L082-PL	c
BH101	None Supplied	W	1639905	c	pH at 20oC in water (automated)	L099-PL	c
BH201	None Supplied	W	1639909	c	Ammonia as NH3 in water	L082-PL	c
BH201	None Supplied	W	1639909	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH201	None Supplied	W	1639909	c	Ammonium as NH4 in water	L082-PL	c
BH201	None Supplied	W	1639909	c	Biological oxygen demand (total) of water	L086-PL	c
BH201	None Supplied	W	1639909	c	Dissolved Oxygen in water	L086-PL	c
BH201	None Supplied	W	1639909	c	Electrical conductivity at 20oC of water	L031-PL	c
BH201	None Supplied	W	1639909	c	Nitrate as N in water	L078-PL	c
BH201	None Supplied	W	1639909	c	Nitrate in water	L078-PL	c
BH201	None Supplied	W	1639909	c	Nitrite as N in water	L082-PL	c
BH201	None Supplied	W	1639909	c	Nitrite in water	L082-PL	c
BH201	None Supplied	W	1639909	c	pH at 20oC in water (automated)	L099-PL	c
BH202	None Supplied	W	1639908	c	Ammonia as NH3 in water	L082-PL	c
BH202	None Supplied	W	1639908	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH202	None Supplied	W	1639908	c	Ammonium as NH4 in water	L082-PL	c
BH202	None Supplied	W	1639908	c	Biological oxygen demand (total) of water	L086-PL	c
BH202	None Supplied	W	1639908	c	Dissolved Oxygen in water	L086-PL	c
BH202	None Supplied	W	1639908	c	Electrical conductivity at 20oC of water	L031-PL	c
BH202	None Supplied	W	1639908	c	Nitrate as N in water	L078-PL	c
BH202	None Supplied	W	1639908	c	Nitrate in water	L078-PL	c
BH202	None Supplied	W	1639908	c	Nitrite as N in water	L082-PL	c
BH202	None Supplied	W	1639908	c	Nitrite in water	L082-PL	c
BH202	None Supplied	W	1639908	c	pH at 20oC in water (automated)	L099-PL	c
BH203	None Supplied	W	1639916	c	Ammonia as NH3 in water	L082-PL	c
BH203	None Supplied	W	1639916	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH203	None Supplied	W	1639916	c	Ammonium as NH4 in water	L082-PL	c
BH203	None Supplied	W	1639916	c	Biological oxygen demand (total) of water	L086-PL	c
BH203	None Supplied	W	1639916	c	Dissolved Oxygen in water	L086-PL	c
BH203	None Supplied	W	1639916	c	Electrical conductivity at 20oC of water	L031-PL	c
BH203	None Supplied	W	1639916	c	Nitrate as N in water	L078-PL	c
BH203	None Supplied	W	1639916	c	Nitrate in water	L078-PL	c
BH203	None Supplied	W	1639916	c	Nitrite as N in water	L082-PL	c
BH203	None Supplied	W	1639916	c	Nitrite in water	L082-PL	c
BH203	None Supplied	W	1639916	c	pH at 20oC in water (automated)	L099-PL	c
BH204	None Supplied	W	1639915	c	Ammonia as NH3 in water	L082-PL	c
BH204	None Supplied	W	1639915	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH204	None Supplied	W	1639915	c	Ammonium as NH4 in water	L082-PL	c
BH204	None Supplied	W	1639915	c	Biological oxygen demand (total) of water	L086-PL	c
BH204	None Supplied	W	1639915	c	Dissolved Oxygen in water	L086-PL	c
BH204	None Supplied	W	1639915	c	Electrical conductivity at 20oC of water	L031-PL	c
BH204	None Supplied	W	1639915	c	Nitrate as N in water	L078-PL	c
BH204	None Supplied	W	1639915	c	Nitrate in water	L078-PL	c
BH204	None Supplied	W	1639915	c	Nitrite as N in water	L082-PL	c
BH204	None Supplied	W	1639915	c	Nitrite in water	L082-PL	c
BH204	None Supplied	W	1639915	c	pH at 20oC in water (automated)	L099-PL	c
BH501	None Supplied	W	1639900	c	Ammonia as NH3 in water	L082-PL	c
BH501	None Supplied	W	1639900	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH501	None Supplied	W	1639900	c	Ammonium as NH4 in water	L082-PL	c
BH501	None Supplied	W	1639900	c	Biological oxygen demand (total) of water	L086-PL	c

Sample Deviation Report

Analytical Report Number : 20-33704
Project / Site name: London Resort

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH101	None Supplied	W	1639905	c	Ammonia as NH3 in water	L082-PL	c
BH501	None Supplied	W	1639900	c	Dissolved Oxygen in water	L086-PL	c
BH501	None Supplied	W	1639900	c	Electrical conductivity at 20oC of water	L031-PL	c
BH501	None Supplied	W	1639900	c	pH at 20oC in water (automated)	L099-PL	c
BH502	None Supplied	W	1639901	c	Ammonia as NH3 in water	L082-PL	c
BH502	None Supplied	W	1639901	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH502	None Supplied	W	1639901	c	Ammonium as NH4 in water	L082-PL	c
BH502	None Supplied	W	1639901	c	Biological oxygen demand (total) of water	L086-PL	c
BH502	None Supplied	W	1639901	c	Dissolved Oxygen in water	L086-PL	c
BH502	None Supplied	W	1639901	c	Electrical conductivity at 20oC of water	L031-PL	c
BH502	None Supplied	W	1639901	c	pH at 20oC in water (automated)	L099-PL	c
BH705	None Supplied	W	1639902	c	Ammonia as NH3 in water	L082-PL	c
BH705	None Supplied	W	1639902	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH705	None Supplied	W	1639902	c	Ammonium as NH4 in water	L082-PL	c
BH705	None Supplied	W	1639902	c	Biological oxygen demand (total) of water	L086-PL	c
BH705	None Supplied	W	1639902	c	Dissolved Oxygen in water	L086-PL	c
BH705	None Supplied	W	1639902	c	Electrical conductivity at 20oC of water	L031-PL	c
BH705	None Supplied	W	1639902	c	pH at 20oC in water (automated)	L099-PL	c
SW002	None Supplied	W	1639914	c	Ammonia as NH3 in water	L082-PL	c
SW002	None Supplied	W	1639914	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW002	None Supplied	W	1639914	c	Ammonium as NH4 in water	L082-PL	c
SW002	None Supplied	W	1639914	c	Biological oxygen demand (total) of water	L086-PL	c
SW002	None Supplied	W	1639914	c	Dissolved Oxygen in water	L086-PL	c
SW002	None Supplied	W	1639914	c	Electrical conductivity at 20oC of water	L031-PL	c
SW002	None Supplied	W	1639914	c	Nitrate as N in water	L078-PL	c
SW002	None Supplied	W	1639914	c	Nitrate in water	L078-PL	c
SW002	None Supplied	W	1639914	c	Nitrite as N in water	L082-PL	c
SW002	None Supplied	W	1639914	c	Nitrite in water	L082-PL	c
SW002	None Supplied	W	1639914	c	pH at 20oC in water (automated)	L099-PL	c
SW004	None Supplied	W	1639910	c	Ammonia as NH3 in water	L082-PL	c
SW004	None Supplied	W	1639910	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW004	None Supplied	W	1639910	c	Ammonium as NH4 in water	L082-PL	c
SW004	None Supplied	W	1639910	c	Biological oxygen demand (total) of water	L086-PL	c
SW004	None Supplied	W	1639910	c	Dissolved Oxygen in water	L086-PL	c
SW004	None Supplied	W	1639910	c	Electrical conductivity at 20oC of water	L031-PL	c
SW004	None Supplied	W	1639910	c	Nitrate as N in water	L078-PL	c
SW004	None Supplied	W	1639910	c	Nitrate in water	L078-PL	c
SW004	None Supplied	W	1639910	c	Nitrite as N in water	L082-PL	c
SW004	None Supplied	W	1639910	c	Nitrite in water	L082-PL	c
SW004	None Supplied	W	1639910	c	pH at 20oC in water (automated)	L099-PL	c
SW005	None Supplied	W	1639911	c	Ammonia as NH3 in water	L082-PL	c
SW005	None Supplied	W	1639911	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW005	None Supplied	W	1639911	c	Ammonium as NH4 in water	L082-PL	c
SW005	None Supplied	W	1639911	c	Biological oxygen demand (total) of water	L086-PL	c
SW005	None Supplied	W	1639911	c	Dissolved Oxygen in water	L086-PL	c
SW005	None Supplied	W	1639911	c	Electrical conductivity at 20oC of water	L031-PL	c
SW005	None Supplied	W	1639911	c	Nitrate as N in water	L078-PL	c
SW005	None Supplied	W	1639911	c	Nitrate in water	L078-PL	c
SW005	None Supplied	W	1639911	c	Nitrite as N in water	L082-PL	c
SW005	None Supplied	W	1639911	c	Nitrite in water	L082-PL	c
SW005	None Supplied	W	1639911	c	pH at 20oC in water (automated)	L099-PL	c
SW007	None Supplied	W	1639912	c	Ammonia as NH3 in water	L082-PL	c
SW007	None Supplied	W	1639912	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW007	None Supplied	W	1639912	c	Ammonium as NH4 in water	L082-PL	c
SW007	None Supplied	W	1639912	c	Biological oxygen demand (total) of water	L086-PL	c
SW007	None Supplied	W	1639912	c	Dissolved Oxygen in water	L086-PL	c
SW007	None Supplied	W	1639912	c	Electrical conductivity at 20oC of water	L031-PL	c
SW007	None Supplied	W	1639912	c	Nitrate as N in water	L078-PL	c
SW007	None Supplied	W	1639912	c	Nitrate in water	L078-PL	c

Sample Deviation Report

Analytical Report Number : 20-33704
Project / Site name: London Resort

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH101	None Supplied	W	1639905	c	Ammonia as NH3 in water	L082-PL	c
SW007	None Supplied	W	1639912	c	Nitrite as N in water	L082-PL	c
SW007	None Supplied	W	1639912	c	Nitrite in water	L082-PL	c
SW007	None Supplied	W	1639912	c	pH at 20oC in water (automated)	L099-PL	c
SW009	None Supplied	W	1639913	c	Ammonia as NH3 in water	L082-PL	c
SW009	None Supplied	W	1639913	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW009	None Supplied	W	1639913	c	Ammonium as NH4 in water	L082-PL	c
SW009	None Supplied	W	1639913	c	Biological oxygen demand (total) of water	L086-PL	c
SW009	None Supplied	W	1639913	c	Dissolved Oxygen in water	L086-PL	c
SW009	None Supplied	W	1639913	c	Electrical conductivity at 20oC of water	L031-PL	c
SW009	None Supplied	W	1639913	c	Nitrate as N in water	L078-PL	c
SW009	None Supplied	W	1639913	c	Nitrate in water	L078-PL	c
SW009	None Supplied	W	1639913	c	Nitrite as N in water	L082-PL	c
SW009	None Supplied	W	1639913	c	Nitrite in water	L082-PL	c
SW009	None Supplied	W	1639913	c	pH at 20oC in water (automated)	L099-PL	c
WS101	None Supplied	W	1639907	c	Ammonia as NH3 in water	L082-PL	c
WS101	None Supplied	W	1639907	c	Ammoniacal Nitrogen as N in water	L082-PL	c
WS101	None Supplied	W	1639907	c	Ammonium as NH4 in water	L082-PL	c
WS101	None Supplied	W	1639907	c	Biological oxygen demand (total) of water	L086-PL	c
WS101	None Supplied	W	1639907	c	Dissolved Oxygen in water	L086-PL	c
WS101	None Supplied	W	1639907	c	Electrical conductivity at 20oC of water	L031-PL	c
WS101	None Supplied	W	1639907	c	Nitrate as N in water	L078-PL	c
WS101	None Supplied	W	1639907	c	Nitrate in water	L078-PL	c
WS101	None Supplied	W	1639907	c	Nitrite as N in water	L082-PL	c
WS101	None Supplied	W	1639907	c	Nitrite in water	L082-PL	c
WS101	None Supplied	W	1639907	c	pH at 20oC in water (automated)	L099-PL	c
WS102	None Supplied	W	1639906	c	Ammonia as NH3 in water	L082-PL	c
WS102	None Supplied	W	1639906	c	Ammoniacal Nitrogen as N in water	L082-PL	c
WS102	None Supplied	W	1639906	c	Ammonium as NH4 in water	L082-PL	c
WS102	None Supplied	W	1639906	c	Biological oxygen demand (total) of water	L086-PL	c
WS102	None Supplied	W	1639906	c	Dissolved Oxygen in water	L086-PL	c
WS102	None Supplied	W	1639906	c	Electrical conductivity at 20oC of water	L031-PL	c
WS102	None Supplied	W	1639906	c	Nitrate as N in water	L078-PL	c
WS102	None Supplied	W	1639906	c	Nitrate in water	L078-PL	c
WS102	None Supplied	W	1639906	c	Nitrite as N in water	L082-PL	c
WS102	None Supplied	W	1639906	c	Nitrite in water	L082-PL	c
WS102	None Supplied	W	1639906	c	pH at 20oC in water (automated)	L099-PL	c
WS202	None Supplied	W	1639904	c	Ammonia as NH3 in water	L082-PL	c
WS202	None Supplied	W	1639904	c	Ammoniacal Nitrogen as N in water	L082-PL	c
WS202	None Supplied	W	1639904	c	Ammonium as NH4 in water	L082-PL	c
WS202	None Supplied	W	1639904	c	Biological oxygen demand (total) of water	L086-PL	c
WS202	None Supplied	W	1639904	c	Dissolved Oxygen in water	L086-PL	c
WS202	None Supplied	W	1639904	c	Electrical conductivity at 20oC of water	L031-PL	c
WS202	None Supplied	W	1639904	c	Nitrate as N in water	L078-PL	c
WS202	None Supplied	W	1639904	c	Nitrate in water	L078-PL	c
WS202	None Supplied	W	1639904	c	Nitrite as N in water	L082-PL	c
WS202	None Supplied	W	1639904	c	Nitrite in water	L082-PL	c
WS202	None Supplied	W	1639904	c	pH at 20oC in water (automated)	L099-PL	c
WS203	None Supplied	W	1639903	c	Ammonia as NH3 in water	L082-PL	c
WS203	None Supplied	W	1639903	c	Ammoniacal Nitrogen as N in water	L082-PL	c
WS203	None Supplied	W	1639903	c	Ammonium as NH4 in water	L082-PL	c
WS203	None Supplied	W	1639903	c	Biological oxygen demand (total) of water	L086-PL	c
WS203	None Supplied	W	1639903	c	Dissolved Oxygen in water	L086-PL	c
WS203	None Supplied	W	1639903	c	Electrical conductivity at 20oC of water	L031-PL	c
WS203	None Supplied	W	1639903	c	Nitrate as N in water	L078-PL	c
WS203	None Supplied	W	1639903	c	Nitrate in water	L078-PL	c
WS203	None Supplied	W	1639903	c	Nitrite as N in water	L082-PL	c
WS203	None Supplied	W	1639903	c	Nitrite in water	L082-PL	c
WS203	None Supplied	W	1639903	c	pH at 20oC in water (automated)	L099-PL	c

Key: **a** - No sampling date **b** - Incorrect container
c - Holding time **d** - Headspace **e** - Temperature

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Analytical Report Number : 20-33918

Project / Site name:	The London Resort	**Samples received on:**	02/10/2020
Your job number:		**Samples instructed on/ Analysis started on:**	07/10/2020
Your order number:		**Analysis completed by:**	16/10/2020
Report Issue Number:	1	**Report issued on:**	16/10/2020
Samples Analysed:	4 soil samples		

Signed: [redacted]

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-33918
Project / Site name: The London Resort

Lab Sample Number				1640945	1640946	1640947	1640948
Sample Reference				SW004	SW005	SW009	SW002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				30/10/2020	30/10/2020	30/10/2020	30/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	68	63	39	42
Total mass of sample received	kg	0.001	NONE	1.6	1.5	1.6	1.6
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
General Inorganics							
pH - Automated	pH Units	N/A	MCERTS	10	8.5	8.4	8.2
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1
Organic Matter	%	0.1	MCERTS	11	4.6	1.7	5.7
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.34
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.19
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.28
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.34
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.19
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.31
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	1.94
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	26	13	22	16
Barium (aqua regia extractable)	mg/kg	1	MCERTS	120	75	41	60
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.82	0.25	1.3	1
Boron (water soluble)	mg/kg	0.2	MCERTS	2.9	3.1	3.2	3.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	6.7	0.6	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	48	12	44	37
Copper (aqua regia extractable)	mg/kg	1	MCERTS	87	26	13	19
Lead (aqua regia extractable)	mg/kg	1	MCERTS	240	28	56	56
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.8	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	30	14	30	27
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	6.5	4.2	< 1.0	1.5
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	78	29	80	63
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	330	87	87	99
Monoaromatics & Oxygenates							
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0

Analytical Report Number: 20-33918
Project / Site name: The London Resort

Lab Sample Number				1640945	1640946	1640947	1640948
Sample Reference				SW004	SW005	SW009	SW002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				30/10/2020	30/10/2020	30/10/2020	30/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0 001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0 001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0 001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	5.1	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	38	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	100	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	150	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0 001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0 001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0 001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	2	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction facto determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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Analytical Report Number : 20-36002

Project / Site name:	The London REsort	**Samples received on:**	14/10/2020
Your job number:		**Samples instructed on/ Analysis started on:**	19/10/2020
Your order number:		**Analysis completed by:**	27/10/2020
Report Issue Number:	1	**Report issued on:**	27/10/2020
Samples Analysed:	2 soil samples - 5 water samples		

Signed: [redacted]

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-36002
Project / Site name: The London REsort

Lab Sample Number				1653273	1653274	1653275	1653276
Sample Reference				BH706	BH707	SW012	SW014
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				29.27	19.41	None Supplied	None Supplied
Date Sampled				13/10/2020	13/10/2020	13/10/2020	13/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
General Inorganics							
pH	pH Units	N/A	ISO 17025	7.4	7.1	7.4	7.7
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	880	1100	2800	640
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	127	219	472	45.7
Chloride	mg/l	0.15	ISO 17025	56	60	360	38
Ammonia as NH3	µg/l	15	ISO 17025	< 15	< 15	3000	250
Ammonium as NH4	µg/l	15	ISO 17025	< 15	< 15	3200	260
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	0.2	0.4	5.2	0.5
Nitrate as N	mg/l	0.01	ISO 17025	17.1	16.1	0.2	5.93
Nitrate as NO3	mg/l	0.05	ISO 17025	75.6	71.2	0 88	26 3
Nitrite as N	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	9.6
Nitrite as NO2	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0	31
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	1.1	< 1.0	7.4	5
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	420	660	1700	390
Hardness - Total	mgCaCO3/l	1	ISO 17025	525	663	357	362
Dissolved Oxygen	mg/l	1	NONE	7.5	5	1.2	5.6
Speciated PAHs							
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH							
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16
Heavy Metals / Metalloids							
Boron (dissolved)	µg/l	10	ISO 17025	42	58	160	25
Calcium (dissolved)	mg/l	0.012	ISO 17025	190	250	120	140
Magnesium (dissolved)	mg/l	0.005	ISO 17025	10	12	12	4.9
Phosphorus (total)	µg/l	20	ISO 17025	340	1400	1600	50

Analytical Report Number: 20-36002
Project / Site name: The London REsort

Lab Sample Number				1653273	1653274	1653275	1653276
Sample Reference				BH706	BH707	SW012	SW014
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				29.27	19.41	None Supplied	None Supplied
Date Sampled				13/10/2020	13/10/2020	13/10/2020	13/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.2	0.36	46.7	0.27
Barium (dissolved)	µg/l	0.06	ISO 17025	47	45	62	37
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	< 0.02	0 02	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	2.9	4	3.7	2.7
Copper (dissolved)	µg/l	0.5	ISO 17025	2	2	3.9	2.9
Lead (dissolved)	µg/l	0.2	ISO 17025	0.9	< 0.2	1	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	0 06	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	2.9	5.6	4.1	2
Selenium (dissolved)	µg/l	0.6	ISO 17025	1.2	1.9	12	0.9
Vanadium (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	3.8	0.5
Zinc (dissolved)	µg/l	0.5	ISO 17025	5.9	7.1	14	12
Monoaromatics & Oxygenates							
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 20-36002
Project / Site name: The London REsort

Lab Sample Number				1653277
Sample Reference				SW016
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				13/10/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
General Inorganics				
pH	pH Units	N/A	ISO 17025	7.6
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	670
Total Cyanide	µg/l	10	ISO 17025	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	44
Chloride	mg/l	0.15	ISO 17025	37
Ammonia as NH3	µg/l	15	ISO 17025	< 15
Ammonium as NH4	µg/l	15	ISO 17025	< 15
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	14
Nitrate as N	mg/l	0.01	ISO 17025	8.58
Nitrate as NO3	mg/l	0.05	ISO 17025	38
Nitrite as N	µg/l	1	ISO 17025	10
Nitrite as NO2	µg/l	5	ISO 17025	34
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	< 1.0
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	360
Hardness - Total	mgCaCO3/l	1	ISO 17025	378
Dissolved Oxygen	mg/l	1	NONE	9.1
Speciated PAHs				
Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01
Total PAH				
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16
Heavy Metals / Metalloids				
Boron (dissolved)	µg/l	10	ISO 17025	31
Calcium (dissolved)	mg/l	0.012	ISO 17025	140
Magnesium (dissolved)	mg/l	0.005	ISO 17025	4.9
Phosphorus (total)	µg/l	20	ISO 17025	64

Analytical Report Number: 20-36002
Project / Site name: The London REsort

Lab Sample Number				1653277
Sample Reference				SW016
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				13/10/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.19
Barium (dissolved)	µg/l	0.06	ISO 17025	38
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	2.2
Copper (dissolved)	µg/l	0.5	ISO 17025	4.4
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	2.5
Selenium (dissolved)	µg/l	0.6	ISO 17025	1.1
Vanadium (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	81

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 20-36002
Project / Site name: The London REsort

Lab Sample Number				1653278	1653279
Sample Reference				SW014	SW016
Sample Number				None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied
Date Sampled				13/10/2020	13/10/2020
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	16	20
Total mass of sample received	kg	0.001	NONE	1.6	1.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
General Inorganics					
pH - Automated	pH Units	N/A	MCERTS	10.5	8.9
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1
Organic Matter	%	0.1	MCERTS	1.5	2.4
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.24	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.49	0.27
Fluorene	mg/kg	0.05	MCERTS	0.73	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	10	1.1
Anthracene	mg/kg	0.05	MCERTS	2.7	0.24
Fluoranthene	mg/kg	0.05	MCERTS	13	1.4
Pyrene	mg/kg	0.05	MCERTS	10	1.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	5.9	0.76
Chrysene	mg/kg	0.05	MCERTS	4.3	0.57
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	5	0.77
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.1	0.37
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.8	0.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.9	0.34
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.1	0.41
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	61.9	8.05
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	7.7
Barium (aqua regia extractable)	mg/kg	1	MCERTS	90	96
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.59	0.46
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.4
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	110
Copper (aqua regia extractable)	mg/kg	1	MCERTS	27	120
Lead (aqua regia extractable)	mg/kg	1	MCERTS	82	43
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	33	30
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	83	290
Monoaromatics & Oxygenates					
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0

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Project / Site name: The London REsort

Lab Sample Number				1653278	1653279
Sample Reference				SW014	SW016
Sample Number				None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied
Date Sampled				13/10/2020	13/10/2020
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Petroleum Hydrocarbons					
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0 001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0 001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0 001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	15	170
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	15	180
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0 001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0 001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0 001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	11	2.6
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	73	10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	83	100
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	170	120

U/S = Unsuitable Sample I/S = Insufficient Sample

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* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1653278	SW014	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.
1653279	SW016	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Metals in water by ICP-OES (total)	Determination of metals in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW (Al, Fe, Cu, Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
Biological oxygen demand (total) of water	Determination of biochemical oxygen demand in water (5 days). Accredited matrices: SW, PW, GW.	In-house method based on standard method 5210B.	L086-PL	W	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Electrical conductivity at 20oC of water	Determination of electrical conductivity in water by electrometric measurement. Accredited Matrices SW, GW, PW	In-house method	L031-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Nitrite in water	Determination of nitrite in water by addition of sulphanilamide and NED followed by discrete analyser (colorimetry).Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrate in water	Determination of nitrate by reaction with sodium salicylate and colorimetry. Accredited matrices SW, GW, PW	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08,	L078-PL	W	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Dissolved Oxygen in water	Determination of dissolved oxygen.	In-house method	L086-PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphate in water	Determination of sulphate in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Kjeldahl nitrogen in water	Determination of total nitrogen using the Kjeldahl-digestion method and colorimetric determination.	In house method based on BS 7755-3.7:1995 & ISO 11261:1995.	L087-PL	W	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonia as NH3 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrite as N in water	Determination of nitrite in water by addition of sulphanilamide and NED followed by discrete analyser (colorimetry). Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Nitrate as N in water	Determination of nitrate by reaction with sodium salicylate and colorimetry. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08,	L078-PL	W	ISO 17025
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
Total dissolved solids in water (Gravimetric)	Determination of total dissolved solids in water by gravimetry.	In house method based on BSEN 15216:2007	L004-PL	W	ISO 17025
Chloride in water	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-36002
Project / Site name: The London REsort

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH706	None Supplied	W	1653273	c	Ammonia as NH3 in water	L082-PL	c
BH706	None Supplied	W	1653273	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH706	None Supplied	W	1653273	c	Ammonium as NH4 in water	L082-PL	c
BH706	None Supplied	W	1653273	c	Biological oxygen demand (total) of water	L086-PL	c
BH706	None Supplied	W	1653273	c	Dissolved Oxygen in water	L086-PL	c
BH706	None Supplied	W	1653273	c	Electrical conductivity at 20oC of water	L031-PL	c
BH706	None Supplied	W	1653273	c	Nitrate as N in water	L078-PL	c
BH706	None Supplied	W	1653273	c	Nitrate in water	L078-PL	c
BH706	None Supplied	W	1653273	c	Nitrite as N in water	L082-PL	c
BH706	None Supplied	W	1653273	c	Nitrite in water	L082-PL	c
BH706	None Supplied	W	1653273	c	pH at 20oC in water (automated)	L099-PL	c
BH707	None Supplied	W	1653274	c	Ammonia as NH3 in water	L082-PL	c
BH707	None Supplied	W	1653274	c	Ammoniacal Nitrogen as N in water	L082-PL	c
BH707	None Supplied	W	1653274	c	Ammonium as NH4 in water	L082-PL	c
BH707	None Supplied	W	1653274	c	Biological oxygen demand (total) of water	L086-PL	c
BH707	None Supplied	W	1653274	c	Dissolved Oxygen in water	L086-PL	c
BH707	None Supplied	W	1653274	c	Electrical conductivity at 20oC of water	L031-PL	c
BH707	None Supplied	W	1653274	c	Nitrate as N in water	L078-PL	c
BH707	None Supplied	W	1653274	c	Nitrate in water	L078-PL	c
BH707	None Supplied	W	1653274	c	Nitrite as N in water	L082-PL	c
BH707	None Supplied	W	1653274	c	Nitrite in water	L082-PL	c
BH707	None Supplied	W	1653274	c	pH at 20oC in water (automated)	L099-PL	c
SW012	None Supplied	W	1653275	c	Ammonia as NH3 in water	L082-PL	c
SW012	None Supplied	W	1653275	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW012	None Supplied	W	1653275	c	Ammonium as NH4 in water	L082-PL	c
SW012	None Supplied	W	1653275	c	Biological oxygen demand (total) of water	L086-PL	c
SW012	None Supplied	W	1653275	c	Dissolved Oxygen in water	L086-PL	c
SW012	None Supplied	W	1653275	c	Electrical conductivity at 20oC of water	L031-PL	c
SW012	None Supplied	W	1653275	c	Nitrate as N in water	L078-PL	c
SW012	None Supplied	W	1653275	c	Nitrate in water	L078-PL	c
SW012	None Supplied	W	1653275	c	Nitrite as N in water	L082-PL	c
SW012	None Supplied	W	1653275	c	Nitrite in water	L082-PL	c
SW012	None Supplied	W	1653275	c	pH at 20oC in water (automated)	L099-PL	c
SW014	None Supplied	S	1653278	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
SW014	None Supplied	S	1653278	b	TPHCWG (Soil)	L088/76-PL	b
SW014	None Supplied	W	1653276	c	Ammonia as NH3 in water	L082-PL	c
SW014	None Supplied	W	1653276	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW014	None Supplied	W	1653276	c	Ammonium as NH4 in water	L082-PL	c
SW014	None Supplied	W	1653276	c	Biological oxygen demand (total) of water	L086-PL	c
SW014	None Supplied	W	1653276	c	Dissolved Oxygen in water	L086-PL	c
SW014	None Supplied	W	1653276	c	Electrical conductivity at 20oC of water	L031-PL	c
SW014	None Supplied	W	1653276	c	Nitrate as N in water	L078-PL	c
SW014	None Supplied	W	1653276	c	Nitrate in water	L078-PL	c
SW014	None Supplied	W	1653276	c	Nitrite as N in water	L082-PL	c
SW014	None Supplied	W	1653276	c	Nitrite in water	L082-PL	c
SW014	None Supplied	W	1653276	c	pH at 20oC in water (automated)	L099-PL	c
SW016	None Supplied	S	1653279	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
SW016	None Supplied	S	1653279	b	TPHCWG (Soil)	L088/76-PL	b
SW016	None Supplied	W	1653277	c	Ammonia as NH3 in water	L082-PL	c
SW016	None Supplied	W	1653277	c	Ammoniacal Nitrogen as N in water	L082-PL	c
SW016	None Supplied	W	1653277	c	Ammonium as NH4 in water	L082-PL	c
SW016	None Supplied	W	1653277	c	Biological oxygen demand (total) of water	L086-PL	c
SW016	None Supplied	W	1653277	c	Dissolved Oxygen in water	L086-PL	c
SW016	None Supplied	W	1653277	c	Electrical conductivity at 20oC of water	L031-PL	c
SW016	None Supplied	W	1653277	c	Nitrate as N in water	L078-PL	c
SW016	None Supplied	W	1653277	c	Nitrate in water	L078-PL	c
SW016	None Supplied	W	1653277	c	Nitrite as N in water	L082-PL	c
SW016	None Supplied	W	1653277	c	Nitrite in water	L082-PL	c
SW016	None Supplied	W	1653277	c	pH at 20oC in water (automated)	L099-PL	c