

20th September 2024
20713c14 Issue B

Mr A Driver
Jarvis Homes Ltd
Burgundy House
21 The Foresters
Harpenden
AL5 2FB

SUBSOIL VERIFICATION REPORT: PLOTS 1 to 7 FORMER HENRY ISAAC FOUNDRY, ST IPPOLYTS – SEPTEMBER 2024

Dear Andy,

WDE Consulting Ltd (WDE) is pleased to present Jarvis Homes (*the client*) with the recent subsoil verification undertaken at former Henry Isaac Foundry, St Ippolyts (Figure 1). This work was carried out to verify the depth and suitability of in-situ subsoil material for use in the soft-standing private garden areas (Figure 2).

All material needs to comply with the criteria set within the Verification Plan¹.

Scope of Work

Five hand auger locations were undertaken in future private soft standing garden areas with verification soil samples taken (Figure 2). Two samples were also taken from stockpiled material to assess suitability for reuse. All samples were sent off for laboratory analysis to provide representative information on the conditions of the material.

The samples were screened onsite for Organic Vapour Concentrations (OVC) using a Photo Ionisation Detector (PID) and were placed in dedicated sampling containers within a cooler box prior to transportation to a laboratory for UKAS accredited testing. The laboratory testing was undertaken to determine the suitability for use in residential soft standing areas as imported topsoil. The schedule of testing included the following parameters:

- **Hydrocarbons** - Speciated aromatic/aliphatic hydrocarbons and BTEX
- **Polycyclic Aromatic Hydrocarbons** - 16 Priority PAHs
- **Heavy Metals** - As, Cd, Cr, Cu, Hg, Ni, Pb, Se, V, Zn
- **Inorganics** - Sulphate, sulphide, pH, asbestos screen

This work has been completed in line with current best practice and guidance at the time of issue under WDE's Terms of Business.

Photos of the surface cover verification are presented in Appendix A.

¹ WDE Consulting. 20713R2. Verification Plan. July 2022 (Issue A)

Approved Surface Cover System

The placement of clean cover soils is explained in the Verification Plan¹, a minimum of 600mm of verified surface cover is required in private gardens, summarised below in Table 1.

Table 1 - Design of Surface Cover Layer in Private Gardens

No.	Item	Depth	Details
1	Topsoil Layer	0 - 150mm	Imported materials from a BS certified source. Requires onsite verification testing
2	Subsoil Layer	150 - 600mm	Site won or imported. Requires onsite verification

Adopted Methodology

A total of 5no. samples were collected from the subsoil surface cover using a tracked excavator and hand tools on 3rd May 2024 and 5th September 2024. During the sampling visit a representative from WDE validated the thickness of surface cover. The depth of each layer is summarised below in Table 2.

Table 2 - Summary of Verification and Surface Cover Layers

Layer	Depth From – To (mm bgl)						
	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7
Topsoil	Not present	Not present	Not present	Not present	Not present	Not present	Not present
Subsoil	150 – 600	150 – 600	150 – 600	150 – 600	150 – 600	150 – 600	150 – 600
Sample Name	Plot 1	-	-	Plot 4	Plot 5	Plot 6	Plot 7
Sample Depth	450	-	-	400	300	500	400
Material	Brown sand and gravel	Brown sandy gravelly clay	Brown sandy gravelly clay	Brown sandy gravelly clay	Brown sandy gravelly clay	Brown Clayey gravel	Brown sandy gravelly clay

The required minimum of 450mm of subsoil surface cover was observed in each inspected private garden location and was located 150 to 600mm bfl.

A total of 2no. samples were collected from the stockpiled materials on 3rd May 2024 and is summarised below in Table 3.

Table 3 - Summary of Stockpile Verification

Layer	Stockpile	
	Stockpile 1	Stockpile 2
Sample Name	SP1.1	SP2.1
Sample Depth	-	-
Material	Brown gravelly clay	Dark brown gravelly clay with red brick
Size m3	100	250

Soil Analytical Test Results

The results from the WDE laboratory analyses of the soil samples are presented in full in Appendix B.

Comparison of Data with Appropriate Verification Criteria

The verification criteria (VC) used within this surface cover verification report was set out within the Verification Plan for the site. A summary of the laboratory test results is presented in Appendix B along with a comparison with the appropriate Verification Criteria.

Conclusions

Private Garden Subsoil

There have two minor exceedances within plot 5 and 1 for arsenic (40 and 46mg/kg). However, a u95 statistical assessment has been undertaken (see below) and is below the verification criteria.

SD	Mean	T	N	TS/N	U95
16.71	19.23	1.943	7	12.27	31.50

Therefore, it is considered that the thickness of subsoil surface cover has complied with the verification of a thickness of 450mm in private gardens and all of the plots are of suitable quality.

Stockpiled Materials

There have been exceedances within stockpile 2 for PAHs and lead. Therefore, stockpile 2 is not suitable for reuse within surface cover but can be reused beneath hard-standing/surface cover.

Stockpile 1 had no exceedances and is suitable for reuse as subsoil (150-600mm bfl).

Recommendations

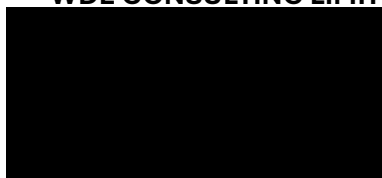
WDE recommends the following actions are carried out:

- Topsoil materials can be laid in the private garden plots from 0 to 150mm bfl once subsoil has been verified.
- Topsoil to be tested and verified before it is installed in private garden areas.

Please do not hesitate to contact us should you require any additional information.

Yours sincerely

WDE CONSULTING LIMITED

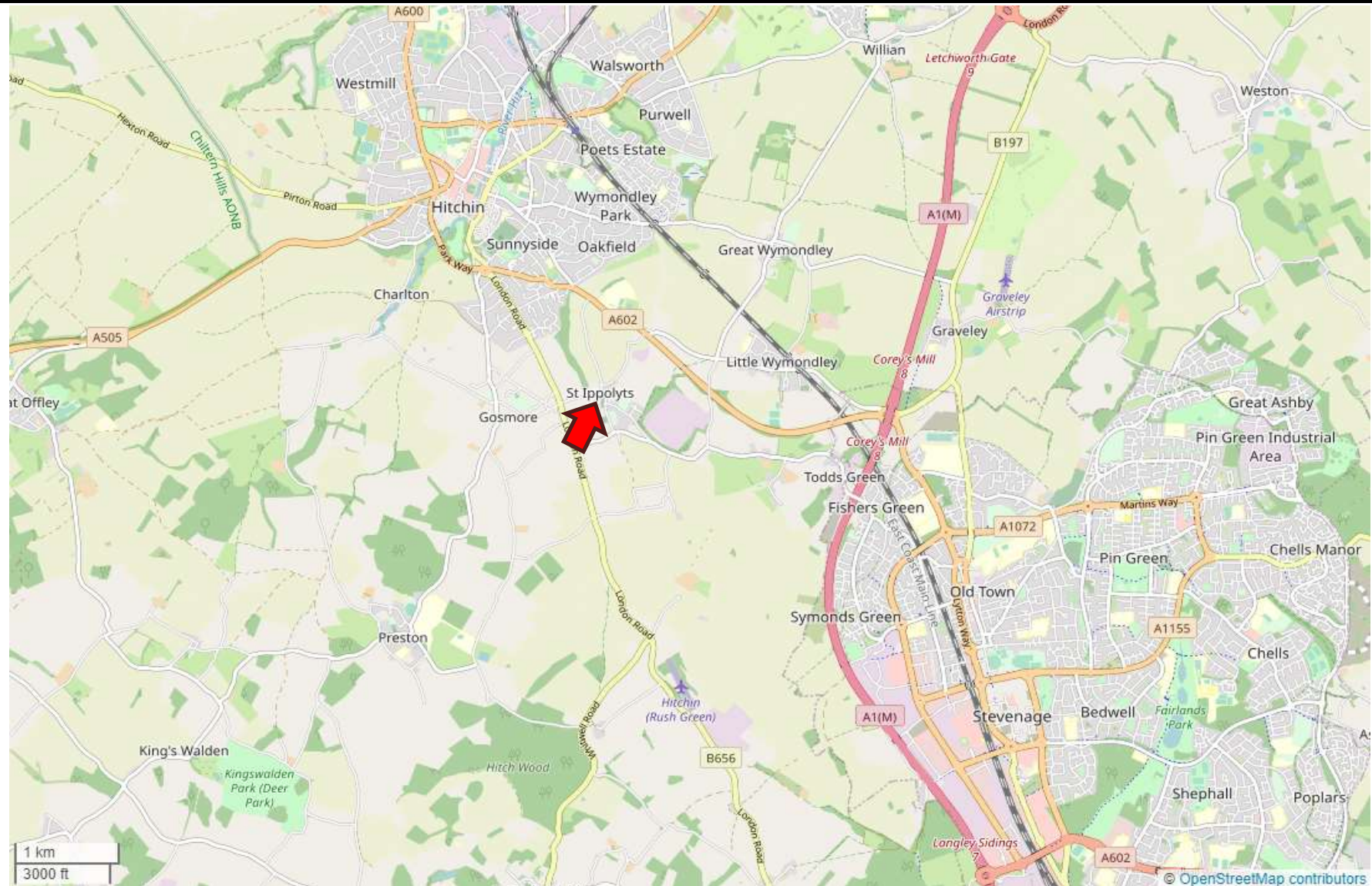


Principal Consultant

Appendices:

Figures, Laboratory Certificates

FIGURES





APPENDIX A - PHOTOGRAPHS

Photo 1: Verified depth of surface cover in Plot 7

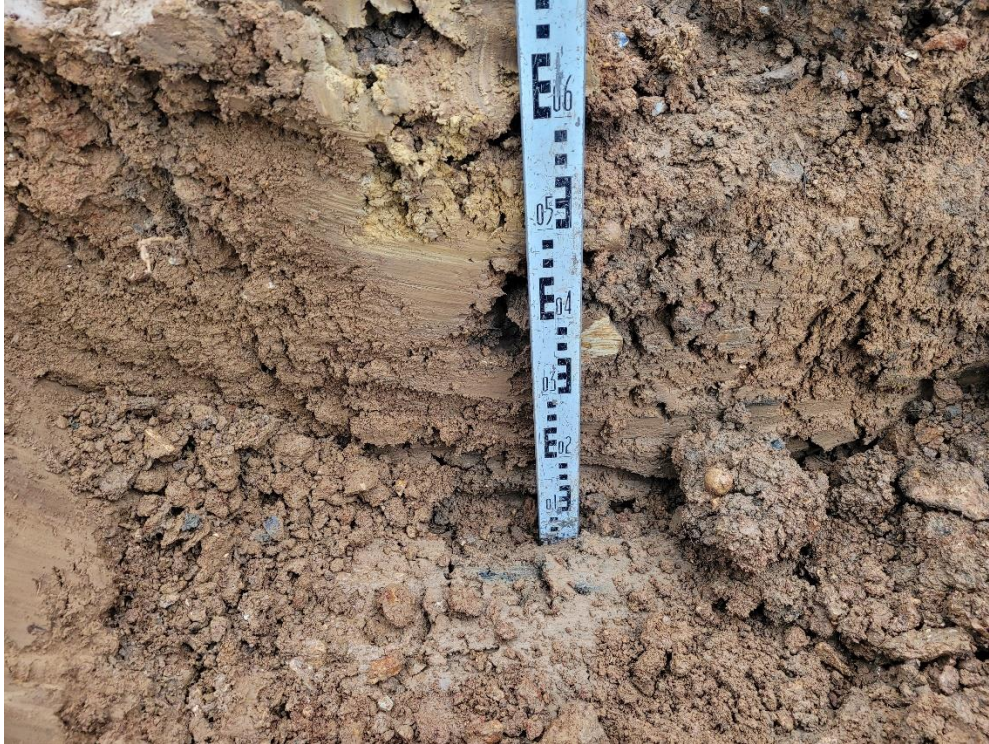


Photo 2: Verified depth of topsoil in plot 6



Photo 3: Verified depth of topsoil in plot 5



Photo 4: Stockpile 2



Photo 5: Stockpile 1



Photo 6: Verified depth of topsoil in plot 4



Photo 7: Verified depth of topsoil in plot 1



APPENDIX B

**Laboratory Analysis
Comparison Sheet**



Final Report

Report No.: 24-14656-1

Initial Date of Issue: 16-May-2024

Re-Issue Details:

Client WDE Consulting Ltd

Client Address: 62a Western Road
Tring
Herts
HP23 4BB

Contact(s): Results
Jason Fitzgerald

Project 20713 St Ippolyts

Quotation No.: **Date Received:** 09-May-2024

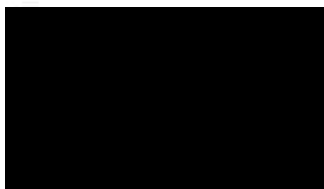
Order No.: 24-190 **Date Instructed:** 09-May-2024

No. of Samples: 5

Turnaround (Wkdays): 5 **Results Due:** 15-May-2024

Date Approved: 16-May-2024

Approved By:



David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 20713 St Ippolyts

Client: WDE Consulting Ltd		Chemtest Job No.:				24-14656	24-14656	24-14656	24-14656	24-14656
Quotation No.:		Chemtest Sample ID.:				1805351	1805352	1805353	1805354	1805355
		Sample Location:				Plot 5	Plot 6	Plot 7	SP1.1	SP2.1
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.30	0.50	0.40		
		Date Sampled:				03-May-2024	03-May-2024	03-May-2024	03-May-2024	03-May-2024
		Asbestos Lab:				NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Moisture		N	2030	%	0.020	9.3	9.9	14	13	16
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Type		U	2192		N/A	-	-	-	-	-
pH at 20C		M	2010		4.0	7.2	7.6	7.3	7.5	8.3
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.50
Sulphate (Total)		U	2430	%	0.010	0.026	0.075	0.056	0.11	0.60
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.015	0.072	0.094	0.56	0.046
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	3.6	2.6	2.1	4.4	8.5
Total Organic Carbon		M	2625	%	0.20	< 0.20	0.73	0.47	0.62	18
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.19
Acenaphthylene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.19
Acenaphthene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.27
Fluorene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.35
Phenanthrene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	4.3
Anthracene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.2
Fluoranthene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.10	8.0
Pyrene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.11	7.6
Benzo[a]anthracene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	3.5
Chrysene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	2.9
Benzo[b]fluoranthene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	3.9
Benzo[k]fluoranthene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.5
Benzo[a]pyrene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	2.9
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.8
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.36
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.9
Total Of 16 PAH's		M	2700	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	41
Arsenic		M	2455	mg/kg	0.5	40	15	13	30	29
Beryllium		U	2455	mg/kg	0.5	1.2	0.7	0.6	0.8	1.0
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	< 0.40	< 0.40	0.60	1.6	2.2
Cadmium		M	2455	mg/kg	0.10	< 0.10	0.15	< 0.10	0.17	0.56
Chromium		M	2455	mg/kg	0.5	40	25	11	20	33
Copper		M	2455	mg/kg	0.50	8.9	11	8.6	17	55
Lead		M	2455	mg/kg	0.50	16	52	21	46	370
Mercury		M	2455	mg/kg	0.05	< 0.05	0.06	< 0.05	0.05	0.21
Nickel		M	2455	mg/kg	0.50	32	17	19	26	33
Selenium		M	2455	mg/kg	0.25	0.35	0.53	0.39	0.76	1.1
Vanadium		U	2455	mg/kg	0.5	65	36	30	45	67

Results - Soil

Project: 20713 St Ippolyts

Client: WDE Consulting Ltd		Chemtest Job No.:				24-14656	24-14656	24-14656	24-14656	24-14656
Quotation No.:		Chemtest Sample ID.:				1805351	1805352	1805353	1805354	1805355
		Sample Location:				Plot 5	Plot 6	Plot 7	SP1.1	SP2.1
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.30	0.50	0.40		
		Date Sampled:				03-May-2024	03-May-2024	03-May-2024	03-May-2024	03-May-2024
		Asbestos Lab:				NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Zinc		M	2455	mg/kg	0.50	65	130	59	93	410
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Petroleum Hydrocarbons	EH_2D_Total_#1	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	EH_2D_AL_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	EH_2D_AL_#1	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	EH_2D_AR_#1	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	EH_2D_AR_#1	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

- DW - Drinking Water
- GW - Ground Water
- LE - Land Leachate
- NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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Tring
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HP23 4BB

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Analytical Report Number : 24-040852

Replaces Analytical Report Number: 24-040852, issue no. 1
Report format change.
Report split, as per client's request

Project / Site name:	St Ippolyts	Samples received on:	09/09/2024
Your job number:	20713	Samples instructed on/ Analysis started on:	09/09/2024
Your order number:	24-355	Analysis completed by:	17/09/2024
Report Issue Number:	2a	Report issued on:	23/09/2024
Samples Analysed:	2 soil samples		

Signed:

Claire Bancroft
Customer Service Advisor
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: 24-040852

Project / Site name: St Ippolyts

Your Order No: 24-355

Lab Sample Number				310501	310503
Sample Reference				Plot 4	Plot 1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.45
Date Sampled				05/09/2024	05/09/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection
				Test Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1	19.2
Moisture Content	%	0.01	NONE	20	12
Total mass of sample received	kg	0.1	NONE	0.9	0.9

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SCA	SCA

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7	7.9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.077	0.041
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	350	180
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	176	90
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.4	0.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.25	0.12
Anthracene	mg/kg	0.05	MCERTS	0.07	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.56	0.28
Pyrene	mg/kg	0.05	MCERTS	0.57	0.23
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.25	0.14
Chrysene	mg/kg	0.05	MCERTS	0.37	0.22
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.62	0.17
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.31	0.09
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.56	0.15
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.4	0.08
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.09	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.53	0.1

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	4.59	1.57
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Analytical Report Number: 24-040852

Project / Site name: St Ippolyts

Your Order No: 24-355

Lab Sample Number				310501	310503
Sample Reference				Plot 4	Plot 1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.45
Date Sampled				05/09/2024	05/09/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	46
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	1.1
Boron (water soluble)	mg/kg	0.2	MCERTS	1.5	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	38	43
Copper (aqua regia extractable)	mg/kg	1	MCERTS	24	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110	32
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	29	39
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	64	65
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	160	88

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	< 8.4	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	< 8.4	< 8.4
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 24-040852

Project / Site name: St Ippolyts

* 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 *
310501	Plot 4	None Supplied	0.4	Brown loam and clay with gravel and vegetation
310503	Plot 1	None Supplied	0.45	Brown sand with gravel and stones

Analytical Report Number : 24-040852

Project / Site name: St Ippolyts

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

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 dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
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.	L019B	D	NONE
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	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
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	L080-PL	W	MCERTS
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

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' 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 30°C.

Analytical Report Number : 24-040852

Project / Site name: St Ippolyts

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

WDE Standard QRA Suite

	No. of Samples	Unit	Target Concentration	Source	Min	Max	No. That Exceed	Sample Ref	Plot 5	Plot 6	Plot 7	SP1.1	SP2.1	Plot 4	Plot 1
								Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
								Depth	0.30	0.50	0.40			0.4	0.45
								Date	03-May-2024	03-May-2024	03-May-2024	03-May-2024	03-May-2024	05/09/2024	05/09/2024
								ACM Lab	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	SCA	SCA
			Residential with hgp												
Moisture Content	7	%	-						9.3	9.9	14	13	16	20	12
Asbestos	7	N/A	DL	WDE					No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Asbestos Quantification	5	%	0.001	HSE	0	BDL	0		-	-	-	-	-	-	-
pH	7	pH Units	-	-	7	8.3	0		7.2	7.6	7.3	7.5	8.3	7	7.9
Total Cyanide	7	mg/kg	50	DIV	0.5	0.5	0		< 0.50	< 0.50	< 0.50	< 0.50	0.50	< 1.0	< 1.0
Sulphate Total	7	%	-	-	0.026	0.6	-		0.026	0.075	0.056	0.11	0.60	0.077	0.041
Sulphate as SO ₄	7	g/l	-	-	0.015	176	-		0.015	0.072	0.094	0.56	0.046	176	90
Sulphide	7	mg/kg	-	-	2.1	8.5	-		3.6	2.6	2.1	4.4	8.5	< 1.0	< 1.0
Total Organic Carbon (TOC)	7	%	-	-	0.47	18	-		< 0.20	0.73	0.47	0.62	18	1.4	0.5
Total Phenols (monohydric)	7	mg/kg	280	LQM	0	BDL	0		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalene	7	mg/kg	2.3	LQM	0.19	0.19	0		< 0.10	< 0.10	< 0.10	< 0.10	0.19	< 0.05	< 0.05
Acenaphthylene	7	mg/kg	170	LQM	0.19	0.19	0		< 0.10	< 0.10	< 0.10	< 0.10	0.19	< 0.05	< 0.05
Acenaphthene	7	mg/kg	210	LQM	0.27	0.27	0		< 0.10	< 0.10	< 0.10	< 0.10	0.27	< 0.05	< 0.05
Fluorene	7	mg/kg	170	LQM	0.35	0.35	0		< 0.10	< 0.10	< 0.10	< 0.10	0.35	< 0.05	< 0.05
Phenanthrene	7	mg/kg	95	LQM	0.12	4.3	0		< 0.10	< 0.10	< 0.10	< 0.10	4.3	0.25	0.12
Anthracene	7	mg/kg	2400	LQM	0.07	1.2	0		< 0.10	< 0.10	< 0.10	< 0.10	1.2	0.07	< 0.05
Fluoranthene	7	mg/kg	280	LQM	0.1	8	0		< 0.10	< 0.10	< 0.10	0.10	8.0	0.56	0.28
Pyrene	7	mg/kg	620	LQM	0.11	7.6	0		< 0.10	< 0.10	< 0.10	0.11	7.6	0.57	0.23
Benzo(a)anthracene	7	mg/kg	7.2	LQM	0.14	3.5	0		< 0.10	< 0.10	< 0.10	< 0.10	3.5	0.25	0.14
Chrysene	7	mg/kg	15	LQM	0.22	2.9	0		< 0.10	< 0.10	< 0.10	< 0.10	2.9	0.37	0.22
Benzo(b)fluoranthene	7	mg/kg	2.6	LQM	0.17	3.9	1		< 0.10	< 0.10	< 0.10	< 0.10	3.9	0.62	0.17
Benzo(k)fluoranthene	7	mg/kg	77	LQM	0.09	1.5	0		< 0.10	< 0.10	< 0.10	< 0.10	1.5	0.31	0.09
Benzo(a)pyrene	7	mg/kg	2.2	LQM	0.15	2.9	1		< 0.10	< 0.10	< 0.10	< 0.10	2.9	0.56	0.15
Indeno(1,2,3-cd)pyrene	7	mg/kg	27	LQM	0.08	1.8	0		< 0.10	< 0.10	< 0.10	< 0.10	1.8	0.4	0.08
Dibenzo(a,h)anthracene	7	mg/kg	0.24	LQM	0.09	0.36	1		< 0.10	< 0.10	< 0.10	< 0.10	0.36	0.09	< 0.05
Benzo(ghi)perylene	7	mg/kg	320	LQM	0.1	1.9	0		< 0.10	< 0.10	< 0.10	< 0.10	1.9	0.53	0.1
Total EPA-16 PAHs	5	mg/kg	-	-	41	41	0		< 2.0	< 2.0	< 2.0	< 2.0	41		
Arsenic (dissolved)	7	mg/kg	37	LQM	13	46	2		40	15	13	30	29	19	46
Beryllium	7	mg/kg	1.7	LQM	0.6	1.2	0		1.2	0.7	0.6	0.8	1.0	1.2	1.1
Boron (dissolved)	7	mg/kg	290	LQM	0.6	2.2	0		< 0.40	< 0.40	0.60	1.6	2.2	1.5	0.9
Cadmium (dissolved)	7	mg/kg	11	LQM	0.15	0.56	0		< 0.10	0.15	< 0.10	0.17	0.56	< 0.2	< 0.2
Chromium (dissolved)	7	mg/kg	910	LQM	11	43	0		40	25	11	20	33	38	43
Copper (dissolved)	7	mg/kg	2400	LQM	8.6	55	0		8.9	11	8.6	17	55	24	11
Lead (dissolved)	7	mg/kg	210	C4SL	16	370	1		16	52	21	46	370	110	32
Mercury (dissolved)	7	mg/kg	40	LQM	0.05	0.21	0		< 0.05	0.06	< 0.05	0.05	0.21	< 0.3	< 0.3
Nickel (dissolved)	7	mg/kg	180	LQM	17	39	0		32	17	19	26	33	29	39
Selenium (dissolved)	7	mg/kg	250	LQM	0.35	1.1	0		0.35	0.53	0.39	0.76	1.1	< 1.0	< 1.0
Vanadium	7	mg/kg	410	LQM	30	67	0		65	36	30	45	67	64	65
Zinc (dissolved)	7	mg/kg	3700	LQM	59	410	0		65	130	59	93	410	160	88
Benzene	7	mg/kg	0.087	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	7	mg/kg	130	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	7	mg/kg	47	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (o)	7	mg/kg	60	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (m p)	7	mg/kg	56	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	7	mg/kg	49	CLAIRE	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Petroleum Hydrocarbons	7	mg/kg	-	-	0	BDL	0		< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C5 - C6	7	mg/kg	42	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	7	mg/kg	100	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	7	mg/kg	27	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	7	mg/kg	130	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C12 - C16	7	mg/kg	1100	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C16 - C21	7	mg/kg	65000	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C21 - C35	7	mg/kg	65000	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C35 - C44	7	mg/kg	65000	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	5	mg/kg	-	-	0	BDL	0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		
TPH-CWG - Aromatic >C5 - C7	7	mg/kg	70	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.010	< 0.010
TPH-CWG - Aromatic >C7 - C8	7	mg/kg	130	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.010	< 0.010
TPH-CWG - Aromatic >C8 - C10	7	mg/kg	34	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.020	< 0.020
TPH-CWG - Aromatic >C10 - C12	7	mg/kg	74	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C12 - C16	7	mg/kg	140	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0
TPH-CWG - Aromatic >C16 - C21	7	mg/kg	260	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	7	mg/kg	1100	LQM	12	12	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	12	< 10
TPH-CWG - Aromatic >C35 - C44	7	mg/kg	1100	LQM	0	BDL	0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 8.4	< 8.4
Total Aromatic Hydrocarbon	5	mg/kg	-	-	0	BDL	0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		

Below GAC
Exceedence