Donald Ward Limited

H1 Screening Assessment Report

Harrimans Lane, Dunkirk, Nottingham, NG7 2SD

794-ENV-EPC-23679

V1 R2

14 April 2026

TETRA TECH

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Document status

Document status					
Version	**Purpose of document**	**Authored by**	**Reviewed by**	**Approved by**	**Date**
V1 R0	Draft Report	Alex Kingston			09/04/26
V1 R1	Draft Report	Alex Kingston	Jennifer Stringer		14/04/26
V1 R2	Final Report	Alex Kingston	Victoria Jones	Jennifer Stringer	14/04/26

Approval for issue		
Jennifer Stringer		14th April 2026

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1.0 Introduction

1.1 Background

1.1.1 Donald Ward Limited are applying to operate a metals recycling facility located on Harrimans Lane, Dunkirk, Nottingham, NG7 2SD (the Site). The Site is located at National Grid Reference SK 54906 37683, approximately 3 km southwest of Nottingham town centre.

1.1.2 The Site is a metal recycling facility that receives, processes and recovers ferrous and non-ferrous metals from scrap and acts primarily as a source of ferrous feedstock for the steel manufacturing industry both in UK and abroad.

1.1.3 The Site has applied for a total permitted tonnage of 480,000 tonnes per annum for metal shredding at the facility. By shredding metal, the facility will undertake the recovery of non-hazardous waste with a capacity exceeding 75 tonnes/day and the disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes/day. The Site temporarily will store more than 50 tonnes of hazardous waste.

1.1.4 As well as metal shredding a range of waste operation activities will be undertaken on the Site including:

- An End-of-Life Vehicles (ELVs) storage, depollution and dismantling (authorised treatment) facility.
- A Waste Electrical and Electronic Equipment (WEEE) authorised treatment facility.
- Metal recycling.

1.1.5 A more detailed description of activities undertaken on the site and the associated permitted waste streams is provided in the Site Operating Techniques document (March 2026). A site plan is provided as Drawing 1.

1.1.6 This report provides the H1 Assessment for two discharges to water (namely W1 and S1) and a single emission to air (A1a) from the Site, to support the application for an environmental permit. All discharge points are detailed on the emission point plan, Drawing 2.

1.2 General Approach

1.2.1 The assessments outlined in the following subsections have been undertaken according to approach detailed in Environment Agency (EA) Guidance[1].

[1] Risk assessments for specific activities: environmental permits - GOV.UK

1.2.2 Potential Contaminants of Concern (CoC) have been identified on the following basis:

- Review of the Permitted Operations and activities described above; and
- Review of Chapter 3 of the Best Available Techniques (BAT) Reference Document for Waste Treatment (JCR Science for Policy Report, 2018).

1.2.3 For the purpose of this evaluation, it has been assumed that an effective waste acceptance and control procedures will be delivered through the Site Operating Techniques document (March 2026), thus controlling the metal source to be processed:

- the metal source material (most notably cables) have not been subject to thermal processes (i.e. fire / burning), hence polychlorinated dibenzo-p-dioxins (PCDD) and polychlorinated dibenzofurans (PCDF) are not considered to present a chronic potential CoC emission to water;
- WEEE or other materials containing Chlorofluorocarbons (CFCs), Total Volatile Organic Compounds (TVOC), Polychlorinated Biphenyls (PCBs) or Mercury are segregated and do not undergo mechanical treatment. Hence these are not considered to present a chronic potential CoC emission to air.

Emissions to Air

1.2.4 The report includes a screening assessment of point source emissions to air from the installation. The assessment has been completed using the latest version of the Environment Agency's H1 software (version 9.2).

Emissions to Water

1.2.5 This report provides an environmental risk assessment including a completed H1 Environmental Risk Assessment Access H1 tool (version 2.7.9) for the two discharges to water on the site. Those discharges, W1 and S1, discharge to surface water and sewer respectively.

1.3 Report Structure

1.3.1 The subsequent report structure is as follows:

- Section 2: Risk Assessment – Emissions to Water. Presents the approach, data sources and the outcome of the H1 Assessment Tool for discharge to the sewer and surface water at the facility.
- Section 3: Risk Assessment – Emissions to Air. Presents the approach, data sources and outcome of the H1 Assessment Tool for discharge to the air at the facility.

2.0 Risk Assessment – Emissions to Water

2.1.1 The potential CoCs, not excluded in Section 1.2, associated with the ferrous and non-ferrous metal processing activities identified for potential emissions to water in the Best Available Techniques (BAT) Reference Document for Waste Treatment are as follows:

- Heavy metals including iron (As, Cd, Cr(VI), Cu, Fe, Hg, Ni, Pb, and Zn);
- Petroleum hydrocarbons and associated substances, most notably BTEX compounds;
- Polycyclic Aromatic Hydrocarbons (PAHs);
- Various VOCs associated with ELV and general metal sources;
- Nitrogen compounds, most notably reduced forms (i.e. ammoniacal nitrogen);
- Suspended Solids; and
- Total Organic Carbon.

2.1.2 The monitoring suite included in the Protocol for Monitoring Point Source Emissions (March 2026) for discharge to surface water (Point W1) and sewer (Point S1) reflect these contaminants of concern and are summarised below in Table 2-1 and Table 2-2 respectively. Monitoring data used in this assessment is included in Appendix C.

Table 2-1: Monitoring Schedule for Discharge to Surface Water (W1)

Parameter	Unit
Suspended solids	mg/l
pH	units
BOD	mg/l
COD	mg/l
Iron	mg/l
Arsenic	mg/l
Chromium	mg/l
Copper	mg/l
Lead	mg/l
Nickel	mg/l

Parameter	Unit
Zinc	mg/l
Cadmium	mg/l
Mercury	mg/l
Extractable Petroleum Hydrocarbons (EPH)	mg/l
TOC	mg/l

Table 2-2: Monitoring Schedule for Discharge to Sewer (S1)

Parameter	Unit
pH	units
BOD	mg/l
Arsenic	mg/l
Cadmium	mg/l
Chromium	mg/l
Copper	mg/l
Lead	mg/l
Nickel	mg/l
Zinc	mg/l
Tin	mg/l
NVM (oil & grease) or laboratory equivalent	mg/l

2.2 Site Drainage

Drainage System

2.2.1 Both discharge points are located along the southern boundary of the Site that follows Harrimans Lane, with the discharge to the surface water drain (W1) in the east and the discharge to sewer (S1) in the west. All site drainage to both discharge points passes through an oil interceptor prior to off-site discharge.

2.2.2 The interceptor located to the east of the yard adjacent to the entrance draining 12,381 m^2 of surfaced area and discharging to surface water drainage on Harrimans Lane (W1) which ultimately discharges to controlled watercourse Tottle Brook.

2.2.3 The interceptor located at the southern tip of the yard adjacent to Harrimans lane boundary draining 13,099 m^2 of surfaced area and discharging to the foul sewer on Harrimans Lane (S1) which is collected and treated by Severn Trent Water Company.

2.2.4 All water discharged from the Site is therefore rainfall dependent.

2.2.5 No other effluents are generated on the Site.

Estimated Effluent Flow Rate

2.2.6 All water discharged from the Site is rainfall dependent. There are no direct aqueous effluents from the waste treatment plant installed at the Site. The Effluent Flow Rate (EFR) is therefore dependent on the site run-off to each discharge point.

2.2.7 As rainfall or run-off rate is not monitored on the Site an estimate of the discharge rate has been made on the basis of publicly available rainfall data provided on the National River Flow Archive for the River Leen catchment. The rainfall dataset and associated calculations used in this assessment is provided in Appendix A.

2.2.8 The average annual rainfall over the period 1991 to 2020 inclusive, is 723 mm, which equates to a daily rainfall of 0.0020 m/day. Based on the daily catchment rainfall, the mean Effluent Flow Rate (EFR_{mean}) has been calculated:

- Surface Water Discharge (W1), with area of the 12,381 m^2: EFR_{mean} of 0.000284 m^3/s.
- Sewer Discharge (S1), with area of the 13,099 m^2: EFR_{mean} of 0.000300 m^3/s.

2.2.9 For the H1-Assessment the maximum effluent flow rate (EFR_{max}) is estimated as an order of magnitude greater than the mean discharge rate, giving maximum effluent rates of 0.00284 m^3/s and 0.00300 m^3/s for W1 and S1 respectively.

2.3 Receiving Waters

Overview

2.3.1 Surface water drainage point, W1, discharges to Tottle Brook. Tottle Brook is a largely culverted watercourse in this built up, urban and industrial area of Nottingham. Tottle Brook ultimately discharges to the River Trent at a point situated circa 1.5 km east of the Site.

2.3.2 The sewer drainage point (S1) ultimately flows to Stoke Bardolph Wastewater Treatment Works (WWTW) operated by Severn Trent Water. The discharge from the Stoke Bardolph WWTW is controlled by Environmental Permit T/64/45170/R and discharges to the River Trent at NGR SK 64730 42220, approximately 4.5 km downstream of the nearest gauging station on the River Trent at Colwick.

Estimate of Flow in Receiving Waters

2.3.3 The flow in the River Trent is monitored at Colwick, situated approximately 5 km downstream of its confluence with Tottle Brook (NGR SK620399). The flow data for the River Trent at Colwick has been obtained from the National River Flow Archive and is presented in Appendix A. The Q95 flow over the period of 1958 – 2024 is 28.1 m^3/s.

2.3.4 The flow in Tottle Brook is not monitored. In the absence of any flow data for Tottle Brook a proxy source of flow data has been used. A review of the National River Flow Archive identifies the following proximal river gauging station for which data is available:

- Station 28035: River Leen at Triumph Road Nottingham

2.3.5 The River Trent has not been considered owing to the extreme disparity in catchment size / characteristics relative to the small urban catchment of Tottle Brook. Station 28035 on the River Leen is considered to have a closer similarity to those expected for Tottle Brook. As shown in Appendix A, the key characteristic for station 28035 are as follows:

- Catchment Area – 111 km^2;
- Q95 flow (1967-2024) – 0.24 m^3/s; and
- Annual Rainfall (1991 - 2020) – 723 mm

2.3.6 As shown in the calculations provided in Appendix A, the flow in the Tottle Brook at the Site has been estimated by assuming that it shares the same runoff characteristics as that of the River Leen at Gauging Station 28035. On that basis it is assumed that the river flow per km^2 of catchment area is same for both surface water catchments. The catchment area of Tottle Brook has been estimated from Ordnance Survey mapping to be approximately 4.0 km^2. This gives a calculated Q95 flow for Tottle Brook of 0.00865 m^3/s (or 8.65 l/s).

Water Quality in Receiving Waters

2.3.7 Tottle Brook is not a Water Framework Directive (WFD) River waterbody and hence no water quality is available for the watercourse.

2.3.8 Tottle Brook discharges to the River Trent which is a heavily modified WFD River waterbody (Soar to The Beck, WFD Ref. GB104028053110). The River Trent (Soar to The Beck) WFD waterbody is characterised by chemical quality elements that are designated "good" and ecological physico chemical quality elements and ecological specific pollutants that are designated "good or high". The only notable exception is the physico-chemical quality element phosphate that is designated "poor" quality and attributed to point discharges from sewage treatment works (water industry) and diffuse discharge from road run-off.

2.3.9 In the absence of upstream or background data for freshwaters, national guidance states:

"Assume that the concentration of each pollutant is 10% of the EQS in clean water (for example where there's no other discharges of the pollutant) and 50% of the EQS in polluted water (where there are other discharges of the pollutant). If you're unsure, assume that the upstream concentration is 50% of the EQS."

2.3.10 As the River Trent (the receiving watercourse) has a good to high WFD quality designation with respect to chemical elements, ecological physico-chemical quality elements and ecological specific pollutants, a background concentration of 10% the EQS has been assumed.

2.4 Assessment Type

2.4.1 Considering the site setting a freshwater River assessment has been undertaken. The completed H1 Assessment Tools are provided in Appendix B.

2.5 Input Parameters

Effluent Quality

2.5.1 Monitoring data collected by previous occupiers of the Site has been used in the assessment. The water quality dataset is summarised in Table 2-3 and Table 2-4 for discharges to surface water and sewer respectively. Full data sets for both W1 and S1 are provided in Appendix C.

2.5.2 As both discharges are rainfall dependent, temperatures have not been tested due to being under ambient conditions.

Table 2-3: Summary Statistics for Discharge to Surface Water (W1) Water Quality Dataset

Parameter	Units	No. Analyses	No. Analyses Above LOD*1	Concentration Range	Mean*2	EQS	EQS Notes*3
General Parameters							
pH	pH units	13	13	7 - 8	7.42	6-9	Min and Max
EC@20DegC	µS/cm	1	1	280	280		
Total Suspended Solids	mg/l	13	13	2 - 181	46.4		
BOD + ATU (5 day)	mg/l	12	9	1 - 82	15.5		
COD (Total)	mg/l	13	12	11 - 971	76.0		
Nutrients							
Ammoniacal Nitrogen	mg/l	13	5	0.41 - 7.86	1.34	0.3	Total - Good WFD Status
Dissolved Metals							
Arsenic	mg/l	1	1	0.0006	0.0006	0.05	AA
Cadmium	mg/l	13	9	0.0006 - 0.0112	0.00278	0.00008 - 0.00025	AA Hardness dependent
Chromium	mg/l	13	3	0.0002 - 0.0014	0.0007	0.0047	AA for Cr(III)
Copper	mg/l	13	11	0.009 - 0.14	0.0308	0.001	AA Bioavailable# Bioavailable#
Iron	mg/l	13	2	0.02 - 0.115	0.0739	1	AA
Lead	mg/l	13	8	0.003 - 0.03	0.0081	0.0012	AA Bioavailable#
Mercury	mg/l	12	8	0.00001 - 0.00073	0.000145	0.00007	MAC
Nickel	mg/l	13	11	0.003 - 0.18	0.024	0.004	AA Bioavailable#
Zinc	mg/l	13	13	0.03 - 2.34	0.687	0.0109+ABC^	AA Bioavailable#
Total Metals							
Arsenic	mg/l	1	1	0.00103	0.00103	0.05	AA
Cadmium	mg/l	1	1	0.0131	0.0131		
Chromium	mg/l	1	1	0.004	0.004		
Copper	mg/l	1	1	0.19	0.19		
Iron	mg/l	1	1	1.25	1.25		
Lead	mg/l	1	1	0.115	0.115		
Mercury	mg/l	1	0	<0.0001	<0.0001		

Parameter	Units	No. Analyses	No. Analyses Above LOD*1	Concentration Range	Mean*2	EQS	EQS Notes*3
Nickel	mg/l	1	1	0.03	0.03		
Tin	mg/l	1	1	0.0183	0.0183	0.025	AA
Zinc	mg/l	1	1	2.7	2.7		
Petroleum Hydrocarbons							
EPH >C10 - C44	µg/l	8	6	10 - 1680	628		
TPH>C6-C40 total	µg/l	5	5	282 - 2300	805		
Aliphatic EPH >C10 - C12	µg/l	1	0	<40	<40		
Aliphatic EPH >C12 - C16	µg/l	1	0	<40	<40		
Aliphatic EPH >C16 - C35	µg/l	1	0	<40	<40		
Aliphatic EPH >C35 - C44	µg/l	1	0	<40	<40		
Aliphatic EPH >C10 - C44	µg/l	1	0	<40	<40		
Aromatic EPH >C10 - C12	µg/l	1	0	<40	<40		
Aromatic EPH >C12 - C16	µg/l	1	0	<40	<40		
Aromatic EPH >C16 - C21	µg/l	1	0	<40	<40		
Aromatic EPH >C21 - C35	µg/l	1	0	<40	<40		
Aromatic EPH >C35 - C44	µg/l	1	0	<40	<40		
Aromatic EPH >C10 - C44	µg/l	1	0	<40	<40		
Other Organic Compounds							
TOC as C	mg/l	1	1	10	10		

*1 LOD denotes the analytical limit of detection;

*2 Mean concentrations are calculated assuming that a result reported as being below LOD represent a concentration of (0.5 * LOD);

*3 AA denotes Annual Average concentration; MAC denotes Maximum Acceptable Concentration; WFD denotes a standard for the Water Framework Directive “good” quality.

The EQS of certain meals is the bioavailable component of the dissolved metal. Bioavailability is a function of characteristics of the watercourse (i.e. pH, temperature, DOC) and is lower than measured concentrations for those metals. ^ABC denotes Ambient Background Concentration.

Table 2-4: Summary Statistics for Discharge to Sewer (S1) Water Quality Dataset

Parameter	Units	No. Analyses	No. Analyses Above LOD*[1]	Concentration Range	Mean*[2]	EQS	EQS Notes*[3]
General Parameters							
pH	pH units	13	13	6.8 - 8	7.35	6-9	Min and Max
EC@20DegC	µS/cm	1	1	615	615		
Total Suspended Solids	mg/l	12	12	4 - 402	195		
COD (Total)	mg/l	13	13	22 - 1140	342		
Nutrients							
Ammoniacal Nitrogen	mg/l	13	10	0.41 - 13.3	3.26	0.3	Total - Good WFD Status
Total Phosphorus as P	mg/l	12	12	0.014 - 1.68	0.84		
Dissolved Metals							
Antimony	mg/l	1	1	0.0092	0.0092		
Aluminium	mg/l	1	1	0.0301	0.0301		
Arsenic	mg/l	2	2	0.0007 - 0.001	0.00085	0.05	AA
Cadmium	mg/l	1	1	0.0124	0.0124	0.00008 - 0.00025	AA Hardness dependent
Chromium	mg/l	1	1	0.0015	0.0015	0.0047	AA for Cr(III)
Copper	mg/l	1	1	0.167	0.167	0.001	AA Bioavailable#
Iron	mg/l	1	0	<0.02	<0.02	1	AA
Lead	mg/l	1	1	0.199	0.199	0.0012	AA Bioavailable#
Mercury	mg/l	1	1	0.00025	0.00025	0.00007	MAC
Nickel	mg/l	1	1	0.033	0.033	0.004	AA Bioavailable#
Tin	mg/l	1	1	0.0022	0.0022	0.025	AA
Zinc	mg/l	1	1	2.95	2.95	0.0109+ABC^	AA Bioavailable#
Total Metals							
Antimony	mg/l	12	11	0.0016 - 0.037	0.0163		
Aluminium	mg/l	12	12	0.0085 - 7.74	2.84		
Arsenic	mg/l	1	1	0.00366	0.00366	0.05	AA
Cadmium	mg/l	13	12	0.00051 - 0.0636	0.22		

Parameter	Units	No. Analyses	No. Analyses Above LOD*1	Concentration Range	Mean*2	EQS	EQS Notes*3
Chromium	mg/l	13	13	0.0003 - 0.0701	0.30		
Copper	mg/l	12	12	0.042 - 1.31	0.502		
Iron	mg/l	2	2	0.203 - 6.6	3.4		
Lead	mg/l	13	13	0.0033 - 3.59	1.5		
Mercury	mg/l	1	1	0.00024	0.00024		
Nickel	mg/l	13	13	0.0049 - 0.253	0.986		
Tin	mg/l	10	8	0.0015 - 0.101	0.0304	0.025	AA
Zinc	mg/l	12	12	0.319 - 12.5	4.59		
Petroleum Hydrocarbons							
Oil and Grease	mg/l	1	1	8.59	8.59		
EPH >C10 - C44	µg/l	1	0	<200	<200		
Aliphatic EPH >C10 - C12	µg/l	1	0	<200	<200		
Aliphatic EPH >C12 - C16	µg/l	1	0	<200	<200		
Aliphatic EPH >C16 - C35	µg/l	1	0	<200	<200		
Aliphatic EPH >C35 - C44	µg/l	1	0	<200	<200		
Aliphatic EPH >C10 - C44	µg/l	1	0	<200	<200		
Aromatic EPH >C10 - C12	µg/l	1	0	<200	<200		
Aromatic EPH >C12 - C16	µg/l	1	0	<200	<200		
Aromatic EPH >C16 - C21	µg/l	1	0	<200	<200		
Aromatic EPH >C21 - C35	µg/l	1	0	<200	<200		
Aromatic EPH >C35 - C44	µg/l	1	0	<200	<200		
Aromatic EPH >C10 - C44	µg/l	1	0	<200	<200		
Other Organic Compounds							
TOC as C	mg/l	1	1	72.3	72.3		
NVM (non-volatile material)	mg/l	8	8	3.69 - 62.9	19.6		

*1 LOD denotes the analytical limit of detection;

*2 Mean concentrations are calculated assuming that a result reported as being below LOD represent a concentration of (0.5 * LOD);

*3 AA denotes Annual Average concentration; MAC denotes Maximum Acceptable Concentration; WFD denotes a standard for the Water Framework Directive “good” quality.

The EQS of certain meals is the bioavailable component of the dissolved metal. Bioavailability is a function of characteristics of the watercourse (i.e. pH, temperature, DOC) and is lower than measured concentrations for those metals. ^ABC denotes Ambient Background Concentration.

Water Quality Standard and Contaminants Assessed

2.5.3 The H1 Assessment presented has only considered those parameters: for which monitoring data is available; with concentrations above the laboratory Limit of Detection (LOD); and for which a water quality standard is available.

2.5.4 The Environmental Quality Standards (EQS) used within the inventory of the H1 Assessment Tool have been used in this assessment as presented in Appendix D. These principally relate to priority substances or specific pollutants as summarised in The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015. The relevant EQS are summarised in Table 2-3 and Table 2-4.

2.5.5 For the majority of CoC identified the EQS relate to dissolved phase concentrations (i.e. sample filtered through a 45 µm filter) measured as an Annual Average (AA) or Maximum Acceptable Concentration (MAC) for a freshwater river scenario.

2.5.6 The Annual Average (AA) concentration has been calculated as the mean concentration for the entire dataset for each parameter. For those chemical datasets containing measurements reported as below the LOD, the mean concentration is estimated by assuming a concentration of (0.5 x LOD) for those measurements. The maximum concentration recorded in the entire dataset has been used for the MAC used in the assessment.

2.5.7 The following contaminants have been included in the emissions inventory for the H1 Assessment of discharge to surface water (W1):

- Dissolved metals that includes cadmium; copper; chromium (assumed to be Cr(III) form); iron; lead; mercury; nickel; and zinc
- Total arsenic and tin
- Ammonia

2.5.8 As only a single data point is available for all dissolved metals discharged to sewer, the total metal concentrations have been used and represent a worst-case scenario. The following contaminants have been included in the emissions inventory for the H1 Assessment of discharge to sewer (S1):

- Total metals that includes arsenic; cadmium; copper; chromium (assumed to be Cr(III) form); iron; lead; mercury; nickel; tin; and zinc
- Ammonia

2.5.9 The EQS for copper, nickel, lead and zinc are for their bioavailable form, which represents only a small proportion of the measured dissolved phase concentrations. In the absence of appropriate chemical data for either effluent stream, it has been

assumed that 10% of the dissolved concentration for discharge to surface water, and 10% of the total concentration to sewer, is bioavailable.

2.5.10 The EQS for cadmium has been identified for the hardness band of equal to or greater than 200 mg/l $CaCO_3$. Severn Trent Water[2] provides a hardness value using the Clark Scale of 15.46, which equates to 221 mg/l $CaCO_3$. Although this value relates to water supplied to the area, it has been assumed to be representative of conditions in the receiving waterbodies.

2.5.11 Similarly, it has been assumed that un-ionised ammonia represents 5% of the total ammoniacal nitrogen concentration.

2.5.12 All Total Petroleum Hydrocarbons (TPH) and Extractable Petroleum Hydrocarbons (EPH) samples tested have resulted in concentrations under the LOD.

Effluent Flow Rates

2.5.13 As described in Sections 2.2.8 and 2.2.9, the mean and maximum effluent rates are as follows:

- Surface Water Discharge (W1): EDR_{mean} 0.000284 m^3/s; $EDR_{maximum}$ 0.00284 m^3/s;
- Sewer Discharge (S1): EDR_{mean} 0.000300 m^3/s; $EDR_{maximum}$ 0.00300 m^3/s.

Background Water Quality in Tottle Brook

2.5.14 In line with regulatory guidance, the background concentrations in Tottle Brook have been estimated at 10% their respective EQS.

2.6 Results of Screening Tests: Freshwater

2.6.1 The H1 Assessment Tool for a freshwater river receptor is provided in Appendix B.

Test 1

2.6.2 Test 1 determines whether the concentration of the pollutant in the discharge is less than 10% of the environmental quality standard (EQS) for each contaminant of concern.

2.6.3 For discharge to sewer (S1), arsenic passes Test 1 for both Annual Average and MACs. All other modelled parameters fail Test 1.

[2] Check my water quality | Water Quality | My Supply | Severn Trent Water

2.6.4 For discharge to surface water (W1), arsenic and iron pass Test 1 for both Annual Average and MACs. All other modelled parameters fail Test 1.

Test 2

2.6.5 Test 2 introduces the dilution capacity within the receiving water. This test evaluates whether the Process Contribution (PC) or each pollutant is less than 4% of the EQS. If so, it is considered insignificant and can be screened out.

2.6.6 For discharge to sewer (S1), all modelled parameters pass Test 2 for both Annual Average and MACs.

2.6.7 For discharge to surface water (W1), cadmium, copper, lead, mercury, nickel and zinc fail Test 2. All other modelled parameters pass Test 2 for both Annual Average and MACs.

Test 3 and 4

2.6.8 Test 3 evaluates whether the discharge increases the Annual Average concentration of each pollutant in the river downstream of the discharge by more than 10% of the pollutant's EQS value. The predicted environmental concentration (PEC) in the water downstream of the discharge is a combination of the PC and Background Concentration (BC) in the watercourse. Test 4 evaluates whether the PEC is higher than the EQS for both the Annual Average and MAC. Substances must pass all three tests to be screened out.

2.6.9 For discharge to sewer (S1), all substances have passed previous tests and have been screened out.

2.6.10 For discharge to surface water (W1), copper, lead and nickel pass both Test 3 and Test 4.

2.6.11 For discharge to surface water (W1), cadmium fails test 3. Cadmium passes Test 4 for Annual Average but fail Test 4 for MAC. This suggests that while the risk to receiving water courses is unlikely to be significant, which is lent some support by the "Good" quality status of the River Trent with regards to this metal, cadmium should be kept under review as further monitoring data is collected.

2.6.12 For discharge to surface water (W1), mercury passes Test 3 but fails Test 4 for the MAC. Mercury concentrations only exceed the LOD in 4 of the 12 analyses undertaken, however two concentrations measured are an order of magnitude higher. Therefore, mercury shall be kept under close review as further monitoring data is collected.

2.6.13 For discharge to surface water (W1), zinc fails Test 3 but passes Test 4 for both Annual Average and MAC. Therefore, zinc shall be kept under close review as further monitoring data is collected.

Significant Loads

2.6.14 All priority hazardous substances (PHS) pass the significant load test for both S1 and W1.

2.7 Conclusions

2.7.1 An H1 screening assessment has been undertaken to determine whether the two rainfall dependent discharges from the Site to sewer and surface water, represent a potential risk to Tottle Brook and the River Trent.

2.7.2 The results of the H1 Assessment indicate that the discharge to sewer does not represent a significant risk to the River Trent.

2.7.3 The surface water discharge to Tottle Brook fails Test 3 and Test 4 for cadmium, mercury and zinc respectively. On this basis, it is considered that the discharge from the Site represents a low risk to Controlled Waters, although continued monitoring of these three key metals is required.

2.7.4 It is proposed the continued monitoring of all metals identified should include relevant data of the discharge to more appropriately assess the impact on the receiving waterbody. That being the dissolved phase concentration of each metal.

3.0 Risk Assessment – Emissions to Air

3.1.1 The potential CoCs, not excluded in Section 1.2, associated with the ferrous and non-ferrous metal processing activities identified for potential emissions to air in the Best Available Techniques (BAT) Reference Document for Waste Treatment are Particulate Matter ($PM_{2.5}$ and PM_{10})

3.1.2 Emission point A1a is associated with the air extraction system for the metal shredding plant and is designed to capture and abate particulates as a result of the treatment activities being undertaken within the building.

3.1.3 The unit is designed to control emissions to meet the BAT-AEL for channelled dust emissions to air from the mechanical treatment of waste of 5 mg/Nm^3, applicable to mechanical treatment of waste where fabric filters are employed.

3.1.4 The scope of the assessment has covered the following aspects:

- Release point characteristics,
- Air emissions screening.

3.1.5 The air pollutant of concern with the potential to impact on human health and/or the environment from this emission point is particulate matter, both $PM_{2.5}$ and PM_{10} fractions.

3.1.6 The stack characteristics are outlined in Table 3-1 below.

Table 3-1: Stack characteristics

Parameter	Value	Unit
Effective stack height	0	m
Efflux velocity	14.43	$m.s^{-1}$
Normalised volumetric flow (dry, 273 K, 101.3 kPa)	37,249	$Nm^3.hr^{-1}$
TPM emission concentration (dry, 273 K, 101.3 kPa)*	0.15	$mg.Nm^{-3}$

3.1.7 Measured emissions have been screened for significance against appropriate environmental standards for long-term and short-term exposure. Emissions standards are based on statutory air quality objectives where available, and upon human health protection Environmental Assessment Levels (EALs) as given in H1 guidance.

3.1.8 An effective stack height of 0 m was used as a conservative measure. This takes account of the adjacent air handling system, which is an open structure and the bag filter unit, which was considered to be a “building” for the purposes of the H1 assessment.

3.1.9 The H1 Assessment used the maximum concentration, efflux velocity and volumetric flow, at reference conditions, from monitoring exercise carried out by CES Environmental Instruments Ltd in March, June and September 2025. This being the June emission concentration, and March flow rate and efflux velocity, extending the conservative approach. Full air monitoring reports are provided in Appendix E.

3.1.10 The maximum operating hours of 2,678 per annum were used as a conservative measure. This equates to 30.57% of the year (based on 365 days*24 hours). This was rounded up to 31% for the purposes of the screening assessment.

3.1.11 A previous characterisation of particulate matter was carried out by Particle Technology Ltd in March 2023, using a laser diffractometer. The tests reported the fractions of PM_{10} and $PM_{2.5}$ as follows:

- Fraction of PM_{10} = 32.44%
- Fraction of $PM_{2.5}$ = 2.41%

3.1.12 However, to add a further level of conservatism to the screening, the assessment assumed the total measured particulate matter was in the form of PM_{10} and $PM_{2.5}$ separately (i.e., both fractions at a total concentration of 0.15 $mg.Nm^{-3}$).

Figure 3-1: Air Impact Screening Test 1 for Particulate Matter as PM_{10} and $PM_{2.5}$

Substance	Long term EAL (ug/m3)	Long term PC (ug/m3)	%PC of EAL (long term)	>1% of EAL? (long term)	Short term EAL (ug/m3)	Short term PC (ug/m3)	%PC of EAL (short term)	>10% of EAL? (short term)
Particulates (PM2.5)	20	0.071207672	0.36%	pass	0	6.0529625		
Particulates (PM10)	40	0.071207672	0.18%	pass	50	3.571247875	7.14%	pass

3.1.13 The assessment screened out long term emissions of $PM_{2.5}$ from emission point A1a as not significant at Test 1 of the assessment. There is no short term EAL for $PM_{2.5}$.

3.1.14 The assessment screened out long term emissions and short term emissions of PM_{10} from emission point A1a as not significant at Test 1 of the screening assessment.

4.0 Conclusions

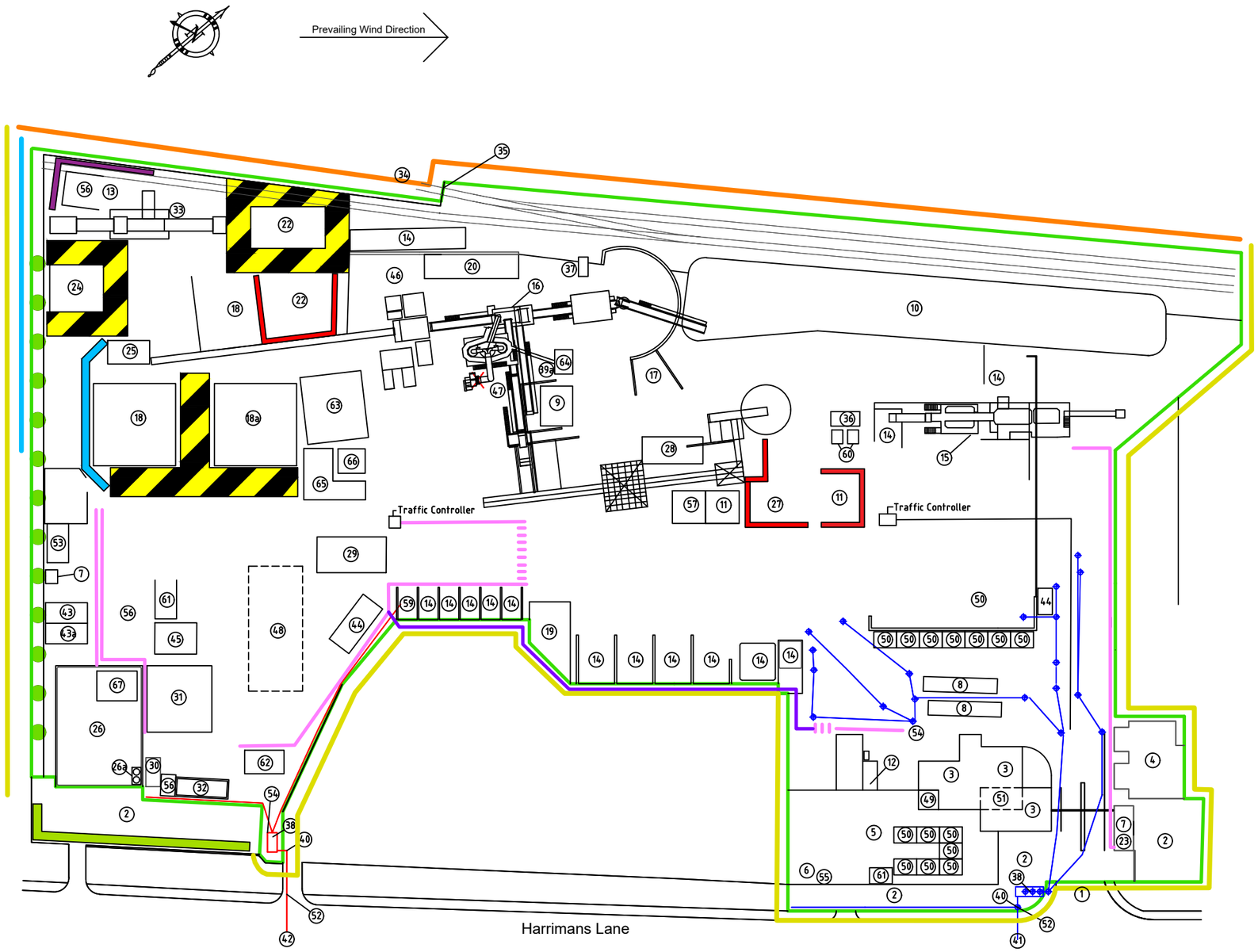
4.1.1 Screening assessments for emissions to surface water and emissions to air from the metals recycling facility located on Harrimans Lane, Dunkirk, Nottingham, NG7 2SD (the Site).

4.1.2 The results of the H1 Assessment indicate that the discharge to sewer does not represent a significant risk to the River Trent. All releases screen out as insignificant.

4.1.3 The screening assessment for emissions to surface water indicate all releases screen out as insignificant with the exception of cadmium, mercury and zinc in the surface water discharge to Tottle Brook which fail Test 3 and Test 4. It is considered that the discharge from the Site represents a low risk to Controlled Waters, although continued monitoring of the dissolved phase of metals in the discharge, particularly these three key metals, is required.

4.1.4 The screening assessment for emissions to air demonstrated that particulate matter emissions, both PM_{10} and $PM_{2.5}$ associated with the metal recycling activities screen out as insignificant.

Drawings



Legend

1: Entrance From & Exit to Harrimans Lane + 24hr Availability to Fire Service Vehicles
2: Car Parking
3: Offices
4: Welfare Facilities
5: Non Ferrous Building
6: Spare Parts Store
7: HV Transformer
8: Weighbridge
9: Residue
10: Frag Storage Area
11: SDA Waste/Residue (Combustible)
12: Kerosine Storage Tanks
13: Laptops
14: Storage Bays
15: TAPO Plant
16: Shredder Plant (Metal Treatment)
17: Shredded Ferrous
18: Frag Feed x 2: 20x20x4 (Combustible)
18a: Pre Shredder Output
19: Turnings
20: Substation
21: Li-ion Batteries
22: Pretreated SMW (Combustible)
23: HV Substation
24: SMW (Small Mixed (WEEE) (Combustible)
25: Temporary Quarantine Area
26: ELV Treatment Building
26a: ELV Depollution Air Con Gas Cylinder
27: Waste (Combustible)
28: Air Knife Plant
29: 'Hot Load' Temporary Storage
30: ELV Office
31: Undepolluted ELV (Combustible)
32: ELV Residues/Liquid Storage Tanks
33: SMW Treatment Plant
34: Rail Connection To E,W,S Main-Line
35: 3Mts High Steel Gates Padlocked By E,W,S Railways
36: Borehole (Water)
37: Rail Link Office
38: Interceptor
39a: Emission to Air (A1a)
40: Sample Point
41: Discharge To Surface Water
42: Discharge To Sewer
43: Diesel
43a: Ad Blue and Oil
44: Gas Cylinder (for hot work oxy-propane)
45: Tyres
46: Water Tank
47: Battery Picking Station
48: Mobile Plant Parking
49: Non Ferrous Office
50: Non Ferrous Scrap
51: Meeting Room (1st Floor)/Flood Escape
52: Location where Bung will be Dispatched in Event of Emergency
53: End of Life Fridges (ELF)
54: Drain Bung
55. COSHH
56. Battery Storage
57. 95% Residue (Aluminium)
59. Sand
60. Container Load
61. Quarantine Radiation
62. Spares / Stock
63. Pre Shredder
64. New Air System
65. Pre Shredder Stockpile Infeed
66. Dunk Tank
67. Quarantine

Notes
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Legend

- Site Boundary
- Site Drainage
- Steel Plated Wall
- Concrete A block Wall
- Sleeper Wall
- Metal Security Fence
- Natural Ground
- 6 metre Fire Break Between x2 Stockpiles (6m)
- 240 Minute Fire Resistant Walls
- WEEE Components / Battery Storage
- Bunded Wall
- Pedestrian Walkway
- Rerouted Pedestrian Walkway

Rev	Description	Date	Initial	Checked
C	Updates	MAR 22	RM	CH
B	Updates	NOV 19	TF	RW
A	Added Detail	MAR 18	RJ	CH

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Client: Donald Ward Ltd.

Project: NOTTINGHAM

Title: SITE LAYOUT

Status	Drawn By	PM/Checked by
Final	JM	AK
Job Ref	**Scale @ A3**	**Date Created**
ENV-EPC-23679	Not To Scale	APR 26
Figure Number		**Rev**
00034-0025-04		F

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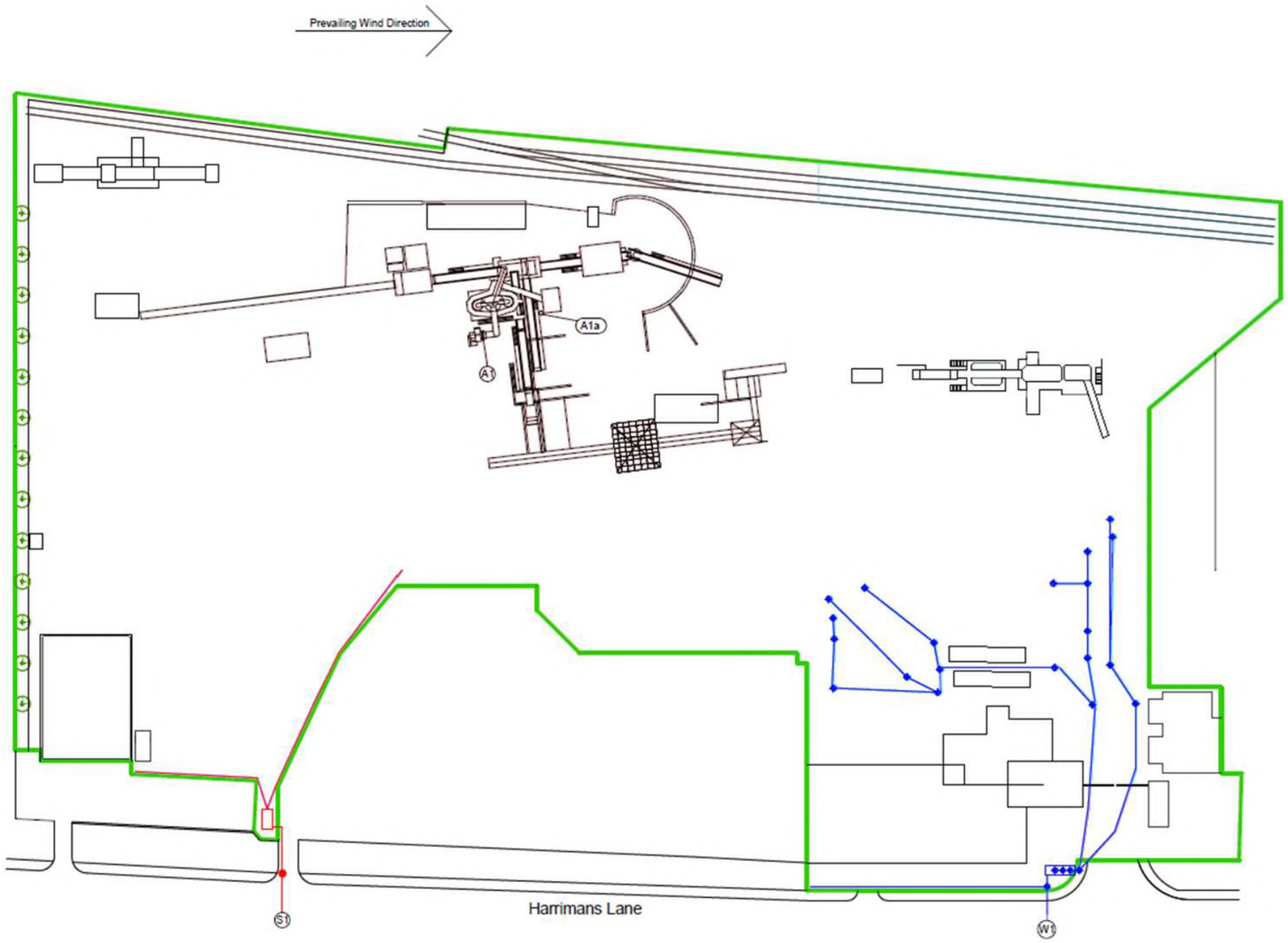

Legend

A1: Emission to Air (Blanked Off)

A1a: New Emission to Air

W1: Discharge To Surface Water Drain

S1: Discharge To Foul Sewer

Legend

Site Boundary

Site Drainage

Scale Bar 1:1,250 @ A3

0m 25m 50m 100m

TETRA TECH

Client	**Donald Ward Ltd**
Project	**NOTTINGHAM**
Project No.	**794-ENV-EPC-23679**
Title	**Emission Point Plan**

Drawing No.	Figure No.	Revision	Status
23679-0003	01	01	FINAL

Date	Drawn By	Checked By	Revision By
APR 2026	PE	AK	

Scale @ A3	Datum
1:1250	OSGB 1936

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Appendix A: Run-off and Flow Calculations

https://nrfa.ceh.ac.uk/data/station/info/28035

28035 - Leen at Triumph Road Nottingham

Station info | Daily flow data | Peak flow data | Catchment info | Photo gallery

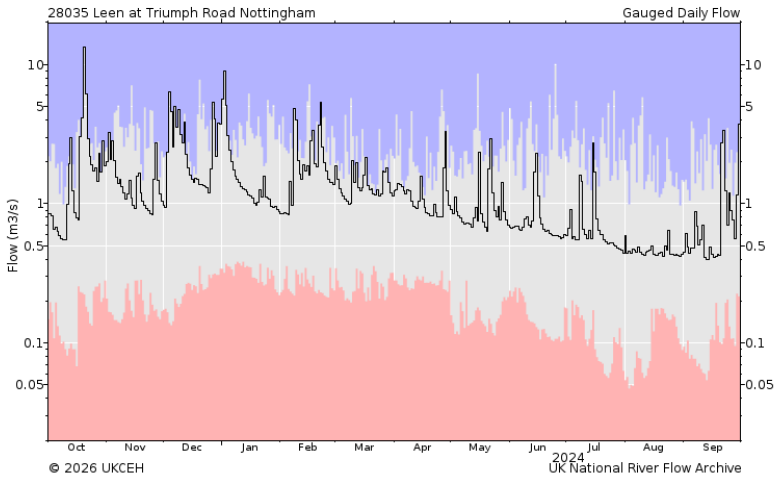
Grid reference:	SK549392
Hydrometric area:	28 - Trent
Catchment area:	111 km^2
Measuring authority (local station number):	Environment Agency - East Midlands (4435)

28035 - Leen at Triumph Road Nottingham

Station info | **Daily flow data** | Peak flow data | Catchment info | Photo gallery

Data series: Gauged Daily Flow | Graph type: Annual hydrograph | Year: < 2024 > | Refresh

Period of record:	1967 – 2024
Percent complete:	60 %
Base flow index:	0.68
Mean flow:	0.713 m^3/s
95% exceedance (Q95):	0.24 m^3/s
70% exceedance (Q70):	0.394 m^3/s
50% exceedance (Q50):	0.53 m^3/s
10% exceedance (Q10):	1.32 m^3/s
5% exceedance (Q5):	1.758 m^3/s



Gauged daily flow (GDF) data is available for download for this station.

Download flow data

28035 - Leen at Triumph Road Nottingham

Station info | Daily flow data | Peak flow data | **Catchment info** | Photo gallery

Catchment description:

Moderate to low relief catchment draining south into Nottingham. Geology predominantly Magnesian Limestone in the west with Permian Mudstones and Sherwood Sandstones to the east. Significant urban fraction, approx 50%, in lower catchment otherwise arable and grazing land use.

Elevation | Hydrogeology | Rainfall | Other | Land Cover Maps (LCM)

Rainfall

Catchment statistics | Legend

SAAR 1941-1970:

693.00 mm

SAAR 1961-1990:

687.00 mm

SAAR 1991-2020:

723.00 mm

https://nrfa.ceh.ac.uk/data/station/info/28009

28009 - Trent at Colwick

Station info | Daily flow data | Peak flow data | Catchment info | Photo gallery | Other flow datasets

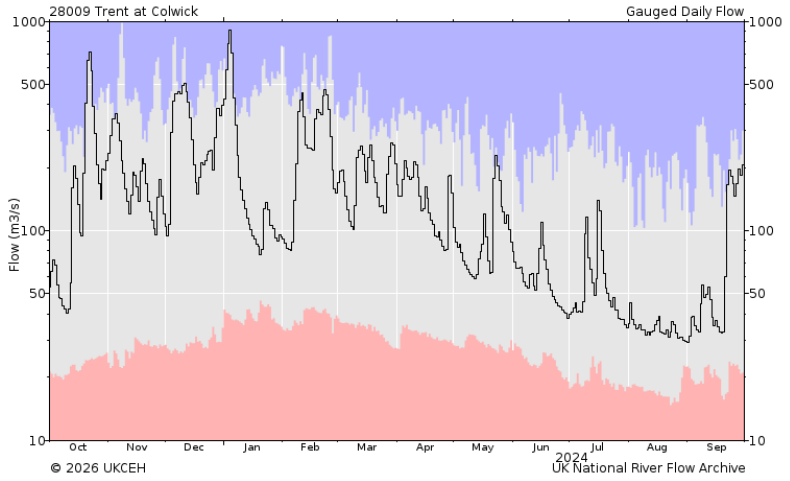
Grid reference:	SK620399
Hydrometric area:	28 - Trent
Catchment area:	7486 km^2
Measuring authority (local station number):	Environment Agency - East Midlands (4009)

28009 - Trent at Colwick

Station info | Daily flow data | Peak flow data | Catchment info | Photo gallery | Other flow datasets

Data series: Gauged Daily Flow | Graph type: Annual hydrograph | Year: < 2024 > | Refresh

Period of record:	1958 – 2024
Percent complete:	100 %
Base flow index:	0.63
Mean flow:	86.881 m^3/s
95% exceedance (Q95):	28.1 m^3/s
70% exceedance (Q70):	42.4 m^3/s
50% exceedance (Q50):	59.6 m^3/s
10% exceedance (Q10):	181 m^3/s
5% exceedance (Q5):	246 m^3/s

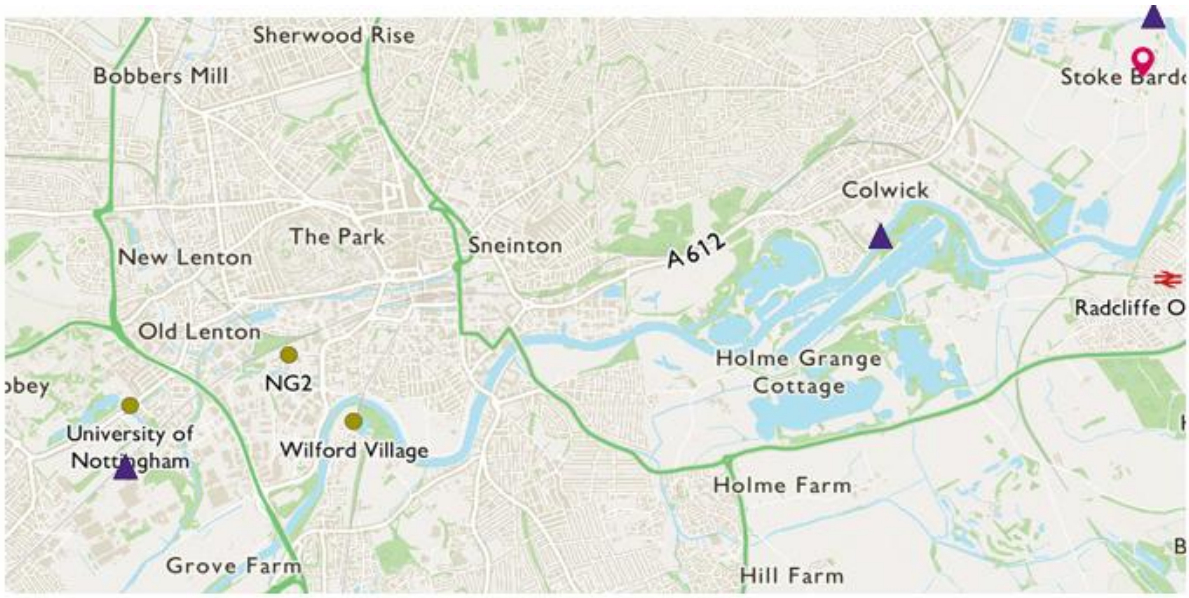


Gauged daily flow (GDF) data is available for download for this station.

Download flow data

Showing 1 to 2 of 2 entries (filtered from 1,597 total entries) Search:

Station number	River	Location	Catchment area	Year opened	Year closed	Peak flow data	Daily data	Live data
28009	Trent	Colwick	7486	1958		Yes	Yes	No
28035	Leen	Triumph Road Nottingham	111	1968		No	Yes	No



Run-off and Flow Estimations		
Parameter	**Value**	**Unit**
River Trent at Stoke Bardolph		
Q95 for Trent at Colwick	28.1	m^3/s
Tottle Brook (Estimated based on flow for Leen catchment)		
Catchment Area of Leen	111	km^2
Estimated Catchment Area of Tottle Brook	4	km^2
Q95 for River Leen	0.24	m^3/s
	240	l/s
Estimated Q95 for Tottle Brook	0.00865	m^3/s
	8.65	l/s
Effluent Flow Rates (i.e. Site Runoff Rates)		
Rainfall for River Leen	723	mm/a
	0.723	m/a
	0.0020	m/day
To Surface Water (W1)		
CA	12381	m^2
	24.52	m^3/day
Effluent Flow Rate (mean)	0.000284	m^3/s
Effluent Flow Rate (max)	0.00284	m^3/s
To Sewer (S1)		
CA	13099	m^2
	25.95	m^3/day
Effluent Flow Rate (mean)	0.000300	m^3/s
Effluent Flow Rate (max)	0.00300	m^3/s

Appendix B: H1 Assessment Tools

Appendix C: Water Monitoring Data

Appendix 3 Point Source Emissions to Surface Water W1 Results

W1 Discharge to surface waters (Tottle Brook)

Parameter	18.02.21	12.03.21	30.07.21	05.10.21	10.12.21
Solids Suspended mg/l Total	63	51.0	23	181	3
pH	7.7	7.5	7.6	7.3	7.8
BOD+ATU (5day) mg/l Total	17	13	12	51	<1
COD (total) mg/l Total	120	101	120	249	18
Iron. Fe mg/l Filtered	<0.23	<0.23	<0.23	<0.23	<0.23
Chromium. Cr mg/l Filtered	<0.002	<0.002	<0.002	<0.002	<0.002
Copper. Cu mg/l Filtered	<0.009	0.14	<0.009	0.011	0.014
Lead. Pb mg/l Filtered	<0.006	<0.006	<0.006	0.025	0.03
Nickel. Ni mg/l Filtered	0.018	0.014	0.012	0.025	0.18
Zinc. Zn mg/l Filtered	0.154	0.406	0.030	1.74	0.777
Cadmium. Cd mg/l Filtered	<0.0006	<0.0006	<0.0006	0.0051	0.001
Mercury. Hg mg/l Filtered	*	0.00016	<0.00001	0.00073	0.00001
Amm.Nitrogen. N mg/l	<0.41	7.86	5.92	1.14	<0.41
TPH>C6-C40 ug/l total	282	469	676	2300	296

* Unable to analyse for mercury due to sample matrix interference

Appendix 4 Point Source Emissions to Sewer S1 Results

S1 - Trade Effluent Consent 008675V Quality Conditions/ consent limits

Sewer S1						
Parameter	**TEC limit**	**18.02.21**	**12.03.21**	**30.07.21**	**05.10.21**	**10.12.21**
Solids Suspended mg/l Total	500	252	70	23	340	35
pH	>6 <10	7.0	7.6	7.6	7.5	7.6
COD (total) mg/l Total	2000	1140	122	124	719	80
Aluminium. Al mg/l Total	10	3.6	1.3	0.3	3.9	0.7
Cadmium. Cd mg/l Total	0.02	0.0256	0.0087	0.0009	0.0387	0.0059
Chromium. Cr mg/l Total	1	0.031	0.013	0.004	0.035	0.007
Copper. Cu mg/l Total	5	0.586	0.180	0.042	0.561	0.1130
Lead. Pb mg/l Total	1	1.10	0.403	0.79	2.04	0.2030
Nickel. Ni mg/l Total	1	0.139	0.044	0.016	0.164	0.0260
Zinc. Zn mg/l Total	5	3.79	1.46	0.319	6.63	1.34
Tin. Sn mg/l total	1	0.048	0.020	0.013	0.047	0.011
Antimony.Sb mg/l Total	0.05	0.038	0.011	0.0060	0.027	0.0099
Amm.Nitrogen. N mg/l	20	10.9	13.3	5.98	2.09	0.900
NVM. mg/l	25	62.9	5.73	3.69	40.3	6.2
Phosphorus. P mg/l	25	1.68	0.47	1.07	1.34	0.66

Q4 17.08.22 - 17.11.22

PM Fraction	Averaging Period	Limit/Objective or Action Level	Measured Result	Measured Result with Volatiles Correction Factor Applied Where Appropriate	Note
PM_{10}	Period mean (17/08/2022 – 17/11/2022)	-	14.5 $\mu g.m^{-3}$	18.8 $\mu g.m^{-3}$	a
	Daily Mean	50 µg.m-3, not to be exceeded > 35 times per calendar year	0 exceedances Highest = 28.2 $\mu g.m^{-3}$	0 exceedances Highest = 36.6 $\mu g.m^{-3}$	a
	1 Hour mean	190 $\mu g.m^{-3}$	0 exceedances Highest = 107.9 $\mu g.m^{-3}$	N/A	b
$PM_{2.5}$	Period mean (17/08/2022 – 17/11/2022)	-	6.6 $\mu g.m^{-3}$	8.6 $\mu g.m^{-3}$	a
TSP	Period mean (17/08/2022 – 17/11/2022)	-	24.3 $\mu g.m^{-3}$	N/A	c
	Daily mean	-	Highest = 50.8 $\mu g.m^{-3}$	Highest = 50.8 $\mu g.m^{-3}$	c

(a) For the period mean and daily mean values of PM_{10} and $PM_{2.5}$, a correction factor may be applied; a factor of 1.3 has been used in some studies to allow for potential losses of volatile particles such as ammonium nitrate and organic aerosols (particularly from the background Ambient Contribution (AC)) in the sampler heated inlet.

(b) Reported 1-hour mean values of PM_{10} do not incorporate the 1.3 volatile correction factor, as the Action Level is designed for detecting elevated site dust emissions, i.e. the Process Contribution (PC), and the PM released by this site has little volatile PM content.

(c) TSP results have no volatiles correction applied as no historical or custom and practice value has been established.

Appendix 3 Point Source Emissions to Surface Water W1 Results

W1 Discharge to surface waters (Tottle Brook)

Parameter	**21.10.2022**
Solids Suspended mg/l Total	4
pH	7.1
BOD+ATU (5day) mg/l Total	4
COD (total) mg/l Total	25
Iron. Fe mg/l Filtered	<0.23
Chromium. Cr mg/l Filtered	<0.002
Copper. Cu mg/l Filtered	0.01
Lead. Pb mg/l Filtered	<0.006
Nickel. Ni mg/l Filtered	<0.003
Zinc. Zn mg/l Filtered	0.213
Cadmium. Cd mg/l Filtered	<0.0006
Mercury. Hg mg/l Filtered	0.00001
Amm.Nitrogen. N mg/l	0.41
Mercury. Hg mg/l Filtered	0.00001
EPH >C10 - C44 ug/l total	1680

Appendix 4 Point Source Emissions to Sewer S1 Results

S1 - Trade Effluent Consent 008675V Quality Conditions/ consent limits

Sewer S1		
Parameter	**TEC limit**	**21.10.22**
Solids Suspended mg/l Total	500	240
pH	>6 <10	7.2
COD (total) mg/l Total	2000	129
Aluminium. Al mg/l Total	10	2.5
Cadmium. Cd mg/l Total	0.02	0.0051
Chromium. Cr mg/l Total	1	0.059
Copper. Cu mg/l Total	5	0.255
Lead. Pb mg/l Total	1	0.417
Nickel. Ni mg/l Total	1	0.033
Zinc. Zn mg/l Total	5	1.42
Tin. Sn mg/l total	1	<0.007
Antimony.Sb mg/l Total	0.05	0.018
Amm.Nitrogen. N mg/l	20	0.41
NVM. mg/l	25	Not available
Phosphorus. P mg/l	25	0.37

Appendix 3 Point Source Emissions to Surface Water W1 Results

W1 Discharge to surface waters (Tottle Brook)

Parameter	11.01.2023	12.07.2023	07.12.2023
Solids Suspended mg/l Total	3	2	2
pH	8	7.3	7.4
BOD+ATU (5day) mg/l Total	2	*	<1
COD (total) mg/l Total	12	15	<11.0
Iron. Fe mg/l Filtered	<0.23	<0.020	<0.020
Chromium. Cr mg/l Filtered	<0.002	<0.0002	<0.0002
Copper. Cu mg/l Filtered	0.018	0.033	0.013
Lead. Pb mg/l Filtered	<0.006	0.0033	0.0015
Nickel. Ni mg/l Filtered	<0.003	0.0035	0.0044
Zinc. Zn mg/l Filtered	0.383	0.29	0.7
Cadmium. Cd mg/l Filtered	0.0018	0.0029	0.0031
Mercury. Hg mg/l Filtered	<0.00001	0.00001	<0.00001
Amm.Nitrogen. N mg/l	<0.41	<0.41	<0.41
EPH >C10 - C44 ug/l total	400	44	<10

*No BOD result due to overdilution of sample

Appendix 4 Point Source Emissions to Sewer S1 Results

S1 - Trade Effluent Consent 008675V Quality Conditions/ consent limits

Sewer S1				
Parameter	**TEC limit**	**11.01.2023**	**12.07.2023**	**07.12.2023**
Solids Suspended mg/l Total	500	386	209	4
pH	>6 <10	7.6	7.1	8
COD (total) mg/l Total	2000	335	283	33
Aluminium. Al mg/l Total	10	4.4	-	0.0085
Cadmium. Cd mg/l Total	0.02	0.0259	0.048	0.0007
Chromium. Cr mg/l Total	1	0.036	0.0003	<0.00051
Copper. Cu mg/l Total	5	0.501	0.6	0.0120
Lead. Pb mg/l Total	1	2.33	2.5	0.0033
Nickel. Ni mg/l Total	1	0.131	0.19	0.0049
Zinc. Zn mg/l Total	5	7.62	6.9	0.5
Tin. Sn mg/l total	1	0.101	-	<0.0015
Antimony.Sb mg/l Total	0.05	0.018	-	<0.0016
Amm.Nitrogen. N mg/l	20	0.53	<0.41	<0.41
NVM. mg/l	25	20	-	8.87
Phosphorus. P mg/l	25	1.08	-	0.0140

Appendix 3 Point Source Emissions to Surface Water W1 Results

W1 Discharge to surface waters (Tottle Brook)

Parameter	22.05.2024	01.10.2024	27.11.2024
Solids Suspended mg/l Total	9	48	180
pH	7	7.3	7.3
BOD+ATU (5day) mg/l Total	<1	1	82
COD (total) mg/l Total	11	18	264
Iron. Fe mg/l Filtered	<0.020	0.020	0.096
Chromium. Cr mg/l Filtered	<0.0002	0.0002	0.0014
Copper. Cu mg/l Filtered	0.022	0.014	0.0087
Lead. Pb mg/l Filtered	0.0037	0.0032	0.0178
Nickel. Ni mg/l Filtered	0.0042	0.0033	0.024
Zinc. Zn mg/l Filtered	0.628	0.518	0.747
Cadmium. Cd mg/l Filtered	0.00283	0.00295	0.00404
Mercury. Hg mg/l Filtered	0.00004	0.00006	0.00065
Amm.Nitrogen. N mg/l	<0.41	0.41	<0.41
EPH >C10 - C44 ug/l total	1680	34	1160

*No BOD result due to overdilution of sample

Appendix 4 Point Source Emissions to Sewer S1 Results

S1 - Trade Effluent Consent 008675V Quality Conditions/ consent limits

Sewer S1				
Parameter	TEC limit	22.05.2024	01.10.2024	27.11.2024
Solids Suspended mg/l Total	500	97	402	280
pH	>6 <10	7.3	7.2	7.1
COD (total) mg/l Total	2000	114	302	790
Aluminium. Al mg/l Total	10	1.74	7.74	5.54
Cadmium. Cd mg/l Total	0.02	0.0146	0.0636	0.0303
Chromium. Cr mg/l Total	1	0.0165	0.0701	0.0601
Copper. Cu mg/l Total	5	0.223	1.01	0.64
Lead. Pb mg/l Total	1	1.31	3.14	1.8
Nickel. Ni mg/l Total	1	0.067	0.253	0.156
Zinc. Zn mg/l Total	5	3.27	12.5	5.87
Tin. Sn mg/l total	1	0.0183	0.0331	0.0166
Antimony.Sb mg/l Total	0.05	0.012	0.0194	0.0199
Amm.Nitrogen. N mg/l	20	<0.41	1.57	5.54
NVM. mg/l	25	-	-	8.87
Phosphorus. P mg/l	25	0.352	1.28	1.17

End of report

ALS Laboratories (UK) Limited
Torrington Avenue
Coventry
CV4 9GU

T: +44 (0)24 7642 1213
www.alsenvironmental.co.uk

Mr Osborne
Unimetals Recycling (UK) Ltd
Harrimans Lane
Dunkirk
Nottingham NG7 2SD

05 April 2025

Test Report: COV/2805946/2025

Dear Mr Osborne

Analysis of your sample(s) submitted on 14 March 2025 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0) 2476 421213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, or to arrange container delivery or sample collection or information on our drop-off locations please contact Customer Services.

Thank you for using ALS Laboratories (UK) Limited and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: K. Mikalauskas

Title: Organics Team Leader

Report Summary

ANALYSED BY

Mr Ray Osborne
Unimetals Recycling (UK) Ltd
Harrimans Lane
Dunkirk
Nottingham
NG7 2SD

Date of Issue: **05 April 2025**

Report Number: **COV/2805946/2025** Issue **1**

This issue replaces all previous issues

Job Description: FOUL/SURFACE ANALYSIS

Job Location: NOTTINGHAM

Number of Samples included in this report **2**

Job Received: **14 March 2025**

Number of Test Results included in this report **81**

Analysis Commenced: **17 March 2025**

Signed:

Name: **K. Mikalauskas** Date: **05 April 2025**

Title: **Organics Team Leader**

ALS Laboratories (UK) Limited was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled. Information supplied by the customer may affect the validity of results.
Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.
This test report is not a statement of conformity to any specification or standard.

Certificate of Analysis

ANALYSED BY

Report Number: **COV/2805946/2025**
Laboratory Number: **25066478**

Issue 1
Sample 1 of 2

Sample Source: **Unimetals Recycling (UK) Ltd**
Sample Point Description:
Sample Description: **FOUL**
Sample Matrix: **Not Specified**
Sample Date/Time: **13 March 2025** **14:40**
Sample Received: **14 March 2025**
Analysis Complete: **05 April 2025**

Test Description	Result	Units	Completed	Accreditation	Method
Mercury, Filtered as Hg	0.00025	mg/l	19/03/2025	N Cov	WAS013
Mercury, Total as Hg	0.00024	mg/l	19/03/2025	N Cov	WAS013
pH	6.8	pH units	17/03/2025	N Cov	WAS039
Conductivity- Electrical 20C	615	uS/cm	17/03/2025	N Cov	WAS039
Ammoniacal Nitrogen as N	0.52	mg/l	17/03/2025	N Cov	WAS036
Total Suspended Solids	Analyst Comment	mg/l	04/04/2025	N Cov	WAS006
COD (Total)	273	mg/l	19/03/2025	N Cov	WAS040
TOC as C	72.3	mg/l	19/03/2025	N Cov	WAS005
EPH >C10 - C44	<200	ug/l	24/03/2025	N Cov	GEO46
Aluminium, total as Al (mg/l)	2.31	mg/l	26/03/2025	N Cov	WAS076
Phosphorus, total as P (mg/l)	0.596	mg/l	26/03/2025	N Cov	WAS076
Chromium, total as Cr (mg/l)	0.0427	mg/l	26/03/2025	N Cov	WAS076
Iron, total as Fe (mg/l)	6.60	mg/l	26/03/2025	N Cov	WAS076
Nickel, total as Ni (mg/l)	0.073	mg/l	26/03/2025	N Cov	WAS076
Copper, total as Cu (mg/l)	1.31	mg/l	27/03/2025	N Cov	WAS076
Zinc, total as Zn (mg/l)	4.79	mg/l	27/03/2025	N Cov	WAS076
Arsenic, total as As (mg/l)	0.00366	mg/l	26/03/2025	N Cov	WAS076
Cadmium, total as Cd (mg/l)	0.0175	mg/l	26/03/2025	N Cov	WAS076
Tin, total as Sn (mg/l)	0.0210	mg/l	26/03/2025	N Cov	WAS076
Antimony, total as Sb (mg/l)	0.0160	mg/l	26/03/2025	N Cov	WAS076
Lead, total as Pb (mg/l)	3.59	mg/l	27/03/2025	N Cov	WAS076
Aluminium, filter as Al (mg/l)	0.0301	mg/l	25/03/2025	N Cov	WAS076
Chromium, filter as Cr (mg/l)	0.0015	mg/l	25/03/2025	N Cov	WAS076
Iron, filter as Fe (mg/l)	<0.020	mg/l	25/03/2025	N Cov	WAS076
Nickel, filter as Ni (mg/l)	0.033	mg/l	25/03/2025	N Cov	WAS076
Copper, filter as Cu (mg/l)	0.167	mg/l	25/03/2025	N Cov	WAS076
Zinc, filter as Zn (mg/l)	2.95	mg/l	26/03/2025	N Cov	WAS076
Arsenic, filter as As (mg/l)	0.0010	mg/l	25/03/2025	N Cov	WAS076

Certificate of Analysis

ANALYSED BY

Report Number: **COV/2805946/2025**
Laboratory Number: **25066478**

Issue 1
Sample 1 of 2

Sample Source: **Unimetals Recycling (UK) Ltd**
Sample Point Description:
Sample Description: **FOUL**
Sample Matrix: **Not Specified**
Sample Date/Time: **13 March 2025** **14:40**
Sample Received: **14 March 2025**
Analysis Complete: **05 April 2025**

Test Description	Result	Units	Completed	Accreditation		Method
Aliphatic EPH >C10 - C12	<200	ug/l	24/03/2025	N	Cov	GEO46
Aliphatic EPH >C12 - C16	<200	ug/l	24/03/2025	N	Cov	GEO46
Aliphatic EPH >C16 - C35	<200	ug/l	24/03/2025	N	Cov	GEO46
Aliphatic EPH >C35 - C44	<200	ug/l	24/03/2025	N	Cov	GEO46
Aliphatic EPH >C10 - C44	<200	ug/l	24/03/2025	N	Cov	GEO46
Aromatic EPH >C10 - C12	<200	ug/l	24/03/2025	N	Cov	GEO46
Aromatic EPH >C12 - C16	<200	ug/l	24/03/2025	N	Cov	GEO46
Aromatic EPH >C16 - C21	<200	ug/l	24/03/2025	N	Cov	GEO46
Aromatic EPH >C21 - C35	<200	ug/l	24/03/2025	N	Cov	GEO46
Aromatic EPH >C35 - C44	<200	ug/l	24/03/2025	N	Cov	GEO46
Aromatic EPH >C10 - C44	<200	ug/l	24/03/2025	N	Cov	GEO46
Oil and Grease (W-TEC-IR) (W)	8.59	mg/l	23/03/2025	N	S	SUBCON
Cadmium, filter as Cd (mg/l)	0.0124	mg/l	25/03/2025	N	Cov	WAS076
Tin, filter as Sn (mg/l)	0.0022	mg/l	25/03/2025	N	Cov	WAS076
Antimony, filter as Sb (mg/l)	0.0092	mg/l	25/03/2025	N	Cov	WAS076
Lead, filter as Pb (mg/l)	0.199	mg/l	25/03/2025	N	Cov	WAS076

Analyst Comments for 25066478: This sample has been analysed for pH outside recommended stability times. It is therefore possible that the results provided may be compromised. Raised reporting limits for EPH analysis due to the nature of the sample matrix. {/*}Unable to reanalyse for Total suspended solids due to insufficient sample.{*/}

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: Che = Chester(CH5 3US), Cov = Coventry(CV4 9GU), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed: Name: **K. Mikalauskas** Date: **05 April 2025**
Title: **Organics Team Leader**

Certificate of Analysis

ANALYSED BY

Report Number: **COV/2805946/2025**
Laboratory Number: **25066479**

Issue 1
Sample 2 of 2

Sample Source: **Unimetals Recycling (UK) Ltd**
Sample Point Description:
Sample Description: **SURFACE**
Sample Matrix: **Not Specified**
Sample Date/Time: **13 March 2025** **14:40**
Sample Received: **14 March 2025**
Analysis Complete: **05 April 2025**

Test Description	Result	Units	Completed	Accreditation	Method
Mercury, Filtered as Hg	<0.00010	mg/l	19/03/2025	N Cov	WAS013
Mercury, Total as Hg	<0.00010	mg/l	19/03/2025	N Cov	WAS013
pH	7.1	pH units	17/03/2025	N Cov	WAS039
Conductivity- Electrical 20C	280	uS/cm	17/03/2025	N Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	17/03/2025	N Cov	WAS036
Total Suspended Solids	34.0	mg/l	17/03/2025	N Cov	WAS006
BOD + ATU (5 day)	2	mg/l	24/03/2025	N Cov	WAS001
COD (Total)	29.0	mg/l	19/03/2025	N Cov	WAS040
TOC as C	10.0	mg/l	19/03/2025	N Cov	WAS005
Aliphatic EPH >C35 - C44	<40	ug/l	24/03/2025	N Cov	GEO46
Aliphatic EPH >C10 - C44	<40	ug/l	24/03/2025	N Cov	GEO46
EPH >C10 - C44	<40	ug/l	24/03/2025	N Cov	GEO46
Chromium, total as Cr (mg/l)	0.00400	mg/l	26/03/2025	N Cov	WAS076
Iron, total as Fe (mg/l)	1.25	mg/l	26/03/2025	N Cov	WAS076
Nickel, total as Ni (mg/l)	0.030	mg/l	26/03/2025	N Cov	WAS076
Copper, total as Cu (mg/l)	0.190	mg/l	26/03/2025	N Cov	WAS076
Zinc, total as Zn (mg/l)	2.70	mg/l	27/03/2025	N Cov	WAS076
Arsenic, total as As (mg/l)	0.00103	mg/l	26/03/2025	N Cov	WAS076
Cadmium, total as Cd (mg/l)	0.0131	mg/l	26/03/2025	N Cov	WAS076
Lead, total as Pb (mg/l)	0.115	mg/l	26/03/2025	N Cov	WAS076
Chromium, filter as Cr (mg/l)	0.0005	mg/l	25/03/2025	N Cov	WAS076
Iron, filter as Fe (mg/l)	<0.020	mg/l	25/03/2025	N Cov	WAS076
Nickel, filter as Ni (mg/l)	0.020	mg/l	25/03/2025	N Cov	WAS076
Copper, filter as Cu (mg/l)	0.108	mg/l	25/03/2025	N Cov	WAS076
Zinc, filter as Zn (mg/l)	2.34	mg/l	25/03/2025	N Cov	WAS076
Arsenic, filter as As (mg/l)	0.0006	mg/l	25/03/2025	N Cov	WAS076
Cadmium, filter as Cd (mg/l)	0.0112	mg/l	25/03/2025	N Cov	WAS076
Lead, filter as Pb (mg/l)	0.0061	mg/l	25/03/2025	N Cov	WAS076

Certificate of Analysis

ANALYSED BY

Report Number: **COV/2805946/2025**
Laboratory Number: **25066479**

Issue 1
Sample 2 of 2

Sample Source: **Unimetals Recycling (UK) Ltd**
Sample Point Description:
Sample Description: **SURFACE**
Sample Matrix: **Not Specified**
Sample Date/Time: **13 March 2025** **14:40**
Sample Received: **14 March 2025**
Analysis Complete: **05 April 2025**

Test Description	Result	Units	Completed	Accreditation	Method
Aliphatic EPH >C10 - C12	<40	ug/l	24/03/2025	N Cov	GEO46
Aliphatic EPH >C12 - C16	<40	ug/l	24/03/2025	N Cov	GEO46
Aliphatic EPH >C16 - C35	<40	ug/l	24/03/2025	N Cov	GEO46
Aromatic EPH >C10 - C12	<40	ug/l	24/03/2025	N Cov	GEO46
Aromatic EPH >C12 - C16	<40	ug/l	24/03/2025	N Cov	GEO46
Aromatic EPH >C16 - C21	<40	ug/l	24/03/2025	N Cov	GEO46
Aromatic EPH >C21 - C35	<40	ug/l	24/03/2025	N Cov	GEO46
Aromatic EPH >C35 - C44	<40	ug/l	24/03/2025	N Cov	GEO46
Aromatic EPH >C10 - C44	<40	ug/l	24/03/2025	N Cov	GEO46

Analyst Comments for 25066479: This sample has been analysed for pH, BOD + ATU (5 day) outside recommended stability times. It is therefore possible that the results provided may be compromised. {/*} Raised reporting limit for mercury due to sample matrix interference
Raised reporting limit for mercury due to sample matrix interference {*/}Raised reporting limits for EPH analysis due to the nature of the sample matrix.

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: Che = Chester(CH5 3US), Cov = Coventry(CV4 9GU), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **K. Mikalauskas** Date: **05 April 2025**

Title: **Organics Team Leader**

ANALYST COMMENTS FOR REPORT COV/2805946/2025 Issue 1

This issue replaces all previous issues

Date of Issue: **05 April 2025**

Sample No	Analysis Comments
25066478	This sample has been analysed for pH outside recommended stability times. It is therefore possible that the results provided may be compromised. Raised reporting limits for EPH analysis due to the nature of the sample matrix. {/*}Unable to reanalyse for Total suspended solids due to insufficient sample.{*/}
25066479	This sample has been analysed for pH, BOD + ATU (5 day) outside recommended stability times. It is therefore possible that the results provided may be compromised. {/*} Raised reporting limit for mercury due to sample matrix interference Raised reporting limit for mercury due to sample matrix interference {*/}Raised reporting limits for EPH analysis due to the nature of the sample matrix.

Signed: 

Name: **K. Mikalauskas** Date: **05 April 2025**

Title: **Organics Team Leader**

DETERMINAND COMMENTS FOR REPORT COV/2805946/2025

ISSUE 1

This issue replaces all previous issues

Date of Issue: 05 April 2025

Sample No	Description	Determinand	Comments

Signed: 

Name: **K. Mikalauskas** Date: **05 April 2025**

Title: **Organics Team Leader**

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Appendix D: Environmental Quality Standards

Substance	Comment	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Category
Abamectin		0.01	0.03	O
Ammonia (un-ionised)		-	-	SP
Arsenic		50	-	SP
Azinphos-methyl - dissolved		0.01	-	O
Bentazone		500	-	O
Benzyl butyl phthalate		7.5	51 (95th percentile)	SP
Biphenyl		25	-	O
Boron		2,000	-	O
Bromine - total residual oxidant		2	5	O
Bromoxynil		100	1,000	O
Carbendazim		0.15	0.7	SP
Chloride		250,000	-	O
Chlorine - total residual oxidant		2	5 (95th percentile)	SP
4-chloro-3-methylphenol		40	-	O
Chloronitro toluenes		10	-	O
2-chlorophenol		50	-	O
3-chlorophenol 4-chlorophenol total or individual		50	250	O
Chlorothalonil		0.035	1.2	SP
Chlorotoluron		2	20	O
Chlorpropham		10	40	O
Chromium (III) - dissolved		4.7	32 (95th percentile)	SP
Chromium (VI) - dissolved		3.4	-	SP

Substance	Comment	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Category
Cobalt - dissolved		3	100	O
Copper - dissolved		1 (bioavailable)	-	SP
Coumaphos		0.03	0.1	O
Cyanide		1	5 (95th percentile)	SP
Cyfluthrin		-	0.001 (95th percentile)	O
Cypermethrin		0.0001	0.0004 (95th percentile)	SP
Demetons		0.5	-	O
Diazinon (sheep dip)		0.01	0.02 (95th percentile)	SP
Dibutyl phthalate		8	40	O
3,4-dichloroaniline		0.2	5.4 (95th percentile)	SP
Dichlorobenzene - total dichlorobenzene isomers		20	200	O
2,4-dichlorophenol		4.2	140 (95th percentile)	SP
2,4-dichlorophenoxyacetic acid (2,4-D)		0.3	1.3 (95th percentile)	SP
Dichlorvos		0.001	-	O
Diethyl phthalate		200	1,000	O
Diflubenzuron		0.001	0.015	O
Dimethoate		0.48	4 (95th percentile)	SP
Dimethyl phthalate		800	4,000	O
Dioctyl phthalate		20	40	O
Doramectin		0.001	0.01	O
EDTA		400	4,000	O

Substance	Comment	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Category
Fenchlorphos		0.03	0.1	O
Fenitrothion		0.01	-	O
Flucofuron		-	1 (95th percentile)	O
Fluoride - dissolved	"Less than 50 milligrams of			
calcium carbonate per litre of"	1,000	3,000	O	
	More than 50mg/l of calcium	5,000	15,000	O
Formaldehyde		5	50	O
Glyphosate		196	398 (95th percentile)	SP
Hydrogen sulphide		0.25	1	O
Ioxynil		10	100	O
Iron - dissolved		1,000	-	SP
Ivermectin		0.0001	0.001	O
Linuron		0.5	0.9 (95th percentile)	SP
Malachite green		0.5	100	O
Malathion		0.01	-	O
Mancozeb		2	20	O
Maneb		3	30	O
Manganese		123 (bioavailable)	-	SP
MCPA	pH level less than 7	12	80	O
	pH level higher than 7	80	100	O

Substance	Comment	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Category
Mecoprop		18	187 (95th percentile)	SP
Methiocarb		0.01	0.77 (95th percentile)	SP
Mevinphos		-	0.02	O
Nitrilotriacetic acid (NTA)		1,000	10,000	O
Omethoate		0.01	-	O
PCSDs		-	0.05 (95th percentile)	O
Pendimethalin		0.3	0.58 (95th percentile)	SP
Permethrin		0.001	0.01 (95th percentile)	SP
pH		-	6-9 (95th percentile)	O
Phenol		7.7	46 (95th percentile)	SP
Pirimicarb		1	5	O
Pirimiphos-methyl		0.015	0.05	O
Prochloraz		4	40	O
Propetamphos		0.03	0.1	O
Propyzamide		100	1,000	O
Silver - dissolved		0.05	0.1	O
Sulcofuron		-	25 (95th percentile)	O
Sulphate		400,000	-	O
Styrene		50	500	O
Tecnazene - total		1	10	O
Tetrachloroethane		140	1,848 (95th percentile)	SP

Substance	Comment	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Category
Thiabendazole		5	50	O
Tin (inorganic) - total		25	-	O
Toluene		74	380 (95th percentile)	SP
Total anions		250,000	-	O
Triallate		0.25	5	O
Triazaphos		0.005	-	O
Tributyl phosphate		50	500	O
1,1,1-trichloroethane		100	-	O
Triclosan		0.1	0.28 (95th percentile)	SP
Triphenyltin and derivatives		-	0.02	O
1,1,2-trichloroethane		400	-	O
Vanadium	0-200mg/l of calcium	20	-	O
	More than 200mg/l calcium	60	-	O
Xylene		30	-	O
Zinc - dissolved plus ambient background concentration		10.9 (bioavailable)	-	S+A1:E99P

Substance	Water hardness - amount of calcium carbonate per litre of water	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Animals and plants (micrograms per kilogram)
Alachlor	-	0.3	0.7	-
Anthracene	-	0.1	0.1	-
Atrazine	-	0.6	2	-
Benzene	-	10	50	-
Benzo(a)-pyrene (BaP) (see PAHs below for AA and biota EQS)	-	-	0.27	
Benzo(b)-fluor-anthene (see PAHs below for AA and biota EQS)	-	-	0.017	-
Benzo(k)-fluor-anthene (see PAHs below for AA and biota EQS)	-	-	0.017	-
Benzo(g,h,i)-perylene (see PAHs below for AA and biota EQS)	-	-	0.0082	-

Substance	Water hardness - amount of calcium carbonate per litre of water	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Animals and plants (micrograms per kilogram)
Brominated diphenylether - total PBDE (or congener) numbers 28, 47, 99, 100, 153 and 154	-	-	0.14	0.0085 in fish
Cadmium and its compounds - dissolved	Less than 40 milligrams (mg)	Less than or equal to 0.08	Less than or equal to 0.45	-
	40mg to less than 50mg	0.08	0.45	-
	50mg to less than 100mg	0.09	0.6	-
	100mg to less than 200mg	0.15	0.9	-
	200mg or more	0.25	1.5	-
Carbon tetrachloride	-	12	-	-
Chlorfenvinphos	-	0.1	0.3	-
C10-13 chloroalkanes	-	0.4	1.4	-
Chlorpyrifos (chlorpyrifos-ethyl)	-	0.03	0.1	-

Substance	Water hardness - amount of calcium carbonate per litre of water	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Animals and plants (micrograms per kilogram)
Cyclodiene pesticides - total aldrin, dieldrin, endrin and isodrin	-	0.01	-	-
DDT total	-	0.025	-	-
Para-para-DDT	-	0.01	-	-
1,2-dichloro-ethane	-	10	-	-
Dichloro-methane	-	20	-	-
Di(2-ethylhexyl)-phthalate (DEHP)	-	1.3	-	-
Diuron	-	0.2	1.8	-
Endosulphan	-	0.005	0.01	-
Fluoranthene	-	0.0063	0.12	30 in crustaceans or molluscs
Hexachloro-benzene	-	-	0.05	10 in fish
Hexachloro-butadiene	-	-	0.6	55 in fish
Hexachloro-cyclohexane	-	0.02	0.04	-

Substance	Water hardness - amount of calcium carbonate per litre of water	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Animals and plants (micrograms per kilogram)
Indeno(1,2,3-cd)-pyrene (see PAHs below for AA and biota EQS)	-	-	-	-
Isoproturon	-	0.3	1	-
Lead and its compounds - dissolved	-	1.2 (bioavailable)	14	-
Mercury and its compounds - dissolved	-	-	0.07	20 in fish
Naphthalene	-	2	130	-
Nickel and its compounds - dissolved	-	4 (bioavailable)	34	-
Nonylphenol (4-nonylphenol)	-	0.3	2	-
Octylphenol (4-(1,1',3,3'-tetramethyl-butyl)-phenol)	-	0.1	-	-
Pentachloro-benzene	-	0.007	-	-
Pentachloro-phenol	-	0.4	1	-

Substance	Water hardness - amount of calcium carbonate per litre of water	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Animals and plants (micrograms per kilogram)
Polyaromatic hydrocarbons (PAH) - Benzo(a)-pyrene (BaP), Benzo(b)-fluor-anthene, Benzo(k)-fluor-anthene, Benzo(g,h,i)-perylene and Indeno(1,2,3-cd)-pyrene. Benzo(a)pyrene can be considered as a marker for the other PAHs, hence only benzo(a)pyrene needs to be monitored for comparison with the biota EQS or the corresponding AA-EQS in water	-	0.00017	-	5 in crustaceans or molluscs
Simazine	-	1	4	-
Tetrachloro-ethylene	-	10	-	-

Substance	Water hardness - amount of calcium carbonate per litre of water	AA-EQS (micrograms per litre)	MAC-EQS (micrograms per litre)	Animals and plants (micrograms per kilogram)
Tributyltin compounds (tributyltin-cation)	-	0.0002	0.0015	-
Trichloro-benzenes	-	0.4	-	-
Trichloro-ethylene	-	10	-	-
Tricholoro-methane (chloroform)	-	2.5	-	-
Trifluralin	-	0.03	-	-

Appendix E: Air Monitoring Data