



# **Baseline Site Condition Report**

**Trafford Park Environmental Permit Variation: Wet Separation Process** 

**S Norton & Co Limited** 

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#### **Basis of Report**

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#### 1.0 Introduction

SLR Consulting Ltd (SLR) has been instructed by S. Norton & Co Limited (S Norton) to prepare a Site Condition & Baseline Report in support of an Environmental Permit (EP) variation application for the Metal Recycling Facility located at Tenax Road, Trafford Park, Manchester, M17 1JT ('the Site'). The facility is currently operated under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR) as an Industrial Emissions Directive (IED) installation in accordance with Environmental Permit EPR/XP3792C2/003) which was last varied on 31 October 2017.

S Norton's Trafford Park facility is permitted as a multi-activity installation including a metal fragmentiser (shredder), Shredder Waste Advanced Processing Plant (SWAPP), lead acid battery repackaging, non-ferrous metal processing, treatment of waste from electrical and electronic equipment and temporary storage of hazardous waste.

The EP variation includes a number of proposed changes as summarised below:

- Addition of a wet separation treatment process and water treatment unit;
- Additional prescribed activity under Table S1.1 in the permit in the form of an existing mechanical separation process via a standalone Sensor-Based Sorting (SBS) Plant;
- Increase in annual waste throughput to 750,000 tpa;
- Extension of the permit boundary to include land to the west of the Site, including a new release point to sewer; and
- Addition of new EWC codes 17 04 10\*, 19 02 04\* and 19 12 11\* in the permit due to the changes in the classification of hazardous waste.

In addition, the following amendments are proposed as part of the variation:

- Amendment to the prescribed activity under Table S1.1 in the permit ref. AR6 to include mechanical separation via Eddy-Current Separation (ECS) Plant as a prescribed activity and a waste activity due to a misdescription in the existing permit; and
- Amendment to the location of an existing authorised discharge to sewer.

As the changes include incorporating an additional area of land into the existing permit, it is necessary to submit a revised SCR with the application. However, as there is no record of a previous SCR for the existing Site, a full SCR and Baseline Report has been prepared.

#### 1.1 Context and Objectives of the Site Condition Report

This Site Condition Report (SCR) has been prepared in accordance with the Environment Agency's H5 Guidance Note on SCR¹. A completed H5 template is included as Appendix 01.

The objective of the SCR is to record and describe the condition of the land at the site at the time of the permit application. The SCR provides a point of reference so that when the permit is surrendered it can be demonstrated that there has been no deterioration in the condition of the land as a result of the proposed operations and ensure that the condition of the land is in a 'satisfactory state' on surrender of the permit.

The SCR template in Appendix 01 of this report has been completed with information from a review of previous Site and Ground Investigation reports (included as appendices to this report) and with the proposed changes for the permit of the Site to date. It also includes all the key sources listed below.

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<sup>&</sup>lt;sup>1</sup> EA Guidance; Site Condition Report – guidance and templates, Version 3, May 2013.

#### 1.1.1 Sources

This SCR has been informed by a desk-based study carried out for the Site by SLR which references the following key sources:

- Site Investigation SWAPP Development (CC Geotechnical Phase 1 report, July 2009) (Appendix B)
- Phase 2 Geotechnical Investigation SWAPP 2 Development (WML Consulting Phase 2 report, January 2012) (Appendix D)
- Ground Investigation Shear Plant (CCG Ground Investigation report, November 2020)
   (Appendix F)
- Geo-Environmental Investigation Shredder (WML Consulting Geo-Environmental Investigation report, September 2021) (Appendix H)
- Geo-Environmental Investigation SWAPP 3 Process Facility (WML Consulting Geo-Environmental Investigation report, January 2023) (Appendix J)

#### 1.2 Present Use of the Site

#### 1.2.1 Site Location

The Site is located within a commercial estate within Trafford Park, Manchester and centred on National Grid Reference SJ 78829 97267. The Site location is presented in Drawing 01.

The Site currently comprises an `L` shaped area of land, formed by a spur of land projecting approximately 200m westward to the entrance/exit on Tenax Road from a larger, approximately square area. As part of the changes in the permit the Site will be extended to incorporate an area of land to the west of the Site with a small area not included and retained for existing businesses. Major road networks, including the M602 and A5081 lie approximately 1.44km to the north and 275m to the south respectively. The Manchester Ship Canal is approximately 700m to the north spanning to the east and the west. Trafford Ecology Park Local Nature Reserve (LNR) lies approximately 200m northeast and includes an oasis (Trafford Park Ecology Lake). The Bridgewater Canal is located approximately 1.1km to the south and 700m to the southwest.

The permit boundary and detailed site layout is shown in Drawing 02. The surrounding land uses and local receptors within 500m and 1km are shown on Drawing 03 and cultural and natural heritage receptors within 2km are illustrated on Drawing 04.

#### 1.2.2 Current on-site Land Use

The Site is a Metal Recycling Facility permitted as an Industrial Emissions Directive (IED) installation operation (ref EPR/XP3792C2/003).

#### 1.2.3 Current Surrounding Land Use

A summary of the Site's immediate surrounding land uses is provided in Table 1-1 below:

**Table 1-1 Surrounding Land Uses** 

Boundary	EWC Code Description
	Commercial and industrial premises directly adjacent, local road network (minor roads) and hospitality premises beyond including Carburante Café (approximately 265m northwest).



Boundary	EWC Code Description
East	Commercial and industrial premises connected by minor roads, approximately 600m northeast is Trafford Ecology Park, with Manchester Ship Canal approximately 900m beyond.
South	Commercial property, Village Way (A5081) just beyond with further commercial and industrial premises further beyond.
West	Commercial and industrial premises, A576 road just beyond with commercial and industrial premises further beyond.

#### 1.3 Environmental Setting

#### 1.3.1 Geology

A review of the British Geological Survey (BGS) map<sup>2</sup> reveals that the Site is underlain by a bedrock of Huddersfield White Rock – Sandstone. The BGS also reveals the Site is underlain by sedimentary superficial deposits consisting of Glaciofluvial Sheet Deposits, Devensian - Sand and gravel.

According to CC Geotechnical Phase 1 report, July 2009 (Appendix B), the geology comprises the following:

- Made Ground deposits, of thickness varying from 1.0-1.6m
- Made ground deposits generally loose and found to comprise of a heterogeneous mixture of broken brick and coal ash in a brown/black silty sand matrix. Occasionally clayey with inclusions of broken concrete
- Natural drift soils loose/medium dense fine and medium silty gravely sand observed to a depth of typically 4.2 meters below ground level (mbgl). Thereafter the succession continued into firm tending to stiff brown silty sandy gravelly clay. Clay proven to the point of boring termination at 12mbgl
- Superficial deposits Glaciofluvial Sheet Deposits (Devensian), consisting of Sand and Gravel

#### 1.3.2 Hydrogeology

The superficial deposits are classified as a Secondary A Aquifer while the bedrock is classified as a Principal Aquifer, according to the Multi-Agency Information for the Countryside (MAGIC)<sup>3</sup> website.

The Site is not within 500m of a Source Protection Zone.

According to CC Geotechnical Phase 1 report, July 2009 (Appendix B): made ground is 'likely to be generally granular and permeable and will permit vertical and lateral transmission of groundwater. Where underlain by an aquitard perched groundwater may be present in depressions at the interface.'

<sup>&</sup>lt;sup>3</sup> Multi-Agency Information for the Countryside – Available at: <a href="http://www.magic.gov.uk">http://www.magic.gov.uk</a>, accessed March 2023



<sup>&</sup>lt;sup>2</sup> British Geological Survey, Available at www.bgs.ac.uk, accessed in March 2023

#### 1.3.3 Hydrology

Trafford Ecology Park Local Nature Reserve (LNR) lies approximately 200m northeast and includes an oasis (Trafford Ecology Park Lake), which is 2.47 acres in size. The Manchester Ship Canal is approximately 700m to the north of the Site spanning to the east and the west. The Bridgewater Canal is located approximately 1,100m to the south and 700m to the southwest.

The Groundwater Vulnerability layer on the MAGIC map reveals that the Site lies within an area known for groundwater vulnerability classified as a Medium High Aguifer.

The Site lies within a Flood Zone 1 and therefore has a low probability of flooding<sup>4</sup>.

There are no surface water abstractions located within 1km of the site.

#### 1.4 Environmental Record Review

This SCR includes a review of the GroundSure EnviroInsight (included as Appendix E of the CC Geotechnical report, July 2009) that is shown in Appendix B of this SCR, to gain publicly available environmental data for the Site and its immediate vicinity. A summary of the GroundSure information from July 2009 is provided below:

- Waste and Landfill There are 4 licensed waste sites within 500m, the closest being a metal recycling site 'Britannia Import Export Ltd' 95m to the north east. There is no active landfill within 500m. There is one non-operational Landfill site 501 to 1,000m from the Site. There is one Historic Landfill site within 250m from the Site, 154m to the east known as Trafford Ecology Park and Aidleys Transport and 5 Historic Landfill sites 501 to 1,000m from the Site.
- Recent industrial land use There are 98 industrial land uses within 250m of the Site.
- Licensed industrial activities There are 16 records within 500m of the Site, the closest relating to an unspecified works/factories 'Collier & henry Concrete Ltd' located directly adjacent to the south tip of the east boundary.
- Current or Recent Petrol stations There are no current or recent petrol stations within 500m of the Site.
- Sites determined as Contaminated Land under Part 2A EPA 1990 No determined sites within 500m of the Site.
- Licensed pollutant release There are none within 500m of the Site.
- Radioactive Substances Authorisations There are none within 50m of the Site. There are 16 authorisations within 500m of the Site, 10 of which are located 50m to 251m from the Site.
- Pollution inventory substances There is one Hazardous Substance Consent within 500m of the Site, located 11m to the west known as 'Great Lakes Manufacturing (uk) Ltd'.
- Pollution inventory waste transfers There is one within 50m of the Site, located 24m to the west known as 'fmc corporation'.

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<sup>&</sup>lt;sup>4</sup> Flood Map for Planning <a href="https://flood-map-for-planning.service.gov.uk">https://flood-map-for-planning.service.gov.uk</a>, accessed March 2023

#### 2.0 Pollution History on Trafford Park facility

#### 2.1 Pollution Incidents

This SCR reviewed the GroundSure EnviroInsight (included as Appendix E in the CC Geotechnical report dated July 2009) included in this SCR as Appendix B, to gain publicly available environmental data for the Site and its immediate vicinity. There were five reported pollution incidents within 250m of the Site, the closest relating to a minor (Category 3) incident 29m to the east relating to dust. None of the pollution incidents reported were associated with the Site.

#### 2.2 Historic Site Activities

The historical site land uses are presented in Site Investigation SWAPP Development (CC Geotechnical, July 2009) which is included in Appendix B.

A summary of the history/former uses of the Site prior to the construction and operation of the metal recycling facility is included below:

#### 2.2.1 Summary of Historic Site Activities On-Site

Early OS mapping shows the Site consisted of woodland and formed part of a larger Deer Park until early 1900s. It remained open land until prior to 1929 when it formed the external area of the Anaconda Mill (copper and bronze wire factory) with a cold storage unit to the south-east and a sewage tank along northern boundary. A rail and tram link appeared along the east boundary. The Site was further developed in the late 1930s with construction of an unknown structure and a tramway and rail cargo link. By 1953 numerous ancillary buildings were developed to the east and west of the main structure with an electrical substation in the north east corner. By 1969, the main structure had been extended west beyond the western site boundary and a building was developed in the north west with quadrant tanks located to the north east corner of this building. By 1987, the main structure had been largely demolished with the Site marked as a Scrap Yard with four unidentified structures occupying a position to the south east. By 2002, the buildings to the east and to the north of the centre had been demolished with further structures identifiable south of the site centre.

#### 2.2.2 Summary of Historic Site Activities Off-Site

Early OS mapping shows the surrounding area as early as the 1890s as open parkland with numerous ponds to the east/north east (approx. 120m)/with no development until 1908 when a railway line is identifiable approx. 50m north east. A Wood Fibre Works appears between 1927 and 1932 adjacent to the south boundary with the development of the minor road network and Ocean Iron Works adjacent to the north boundary, with the surrounding area undergoing significant industrial development. No further significant changes until 1953-1956 when a structural engineering works is identifiable at the northern boundary and Tenax Road appears approx. 5m to the west with the partial infilling of Trafford Park Lake approx. 160m to the east. By 1969 the surrounds undergo further development and chemical works are identifiable approx. 30m to the north and approx. 50m to the south with disused workings identifiable at the site of infilling at Trafford Park Lake. By 1977 Anaconda Mills main building is extended off site at the southern half of the west boundary and between 1993 and 1995 Tenax Road adjoins the northern half of the west boundary.

#### 2.2.3 Evidence of Historic Contamination

The CC Geotechnical report (appendix B), July 2009 states: 'Considering the history of development of the site and its surrounds, it is highly likely that made ground deposits are



present at the surface.' This may provide a pathway for previous potentially contamination land use.

The CC Geotechnical report listed the following potential sources of contamination as a result of previous potentially contamination land use:

- Former Anaconda Mills Copper / Wire works and associated tanks (specific contents of the tanks are unknown)
- Former Sewage Tank and Electrical substation
- Former railway infrastructure that extended across the Site into the eastern sector of the SWAPP facility

The CC Geotechnical report also identified some potentially contaminative off-site sources noting 'The development of the Preliminary Conceptual Model has identified several off-site sources of potential ground gas including a historical landfill, a refuse heap and an infilled pond. However, it should be noted that each of these potential sources are off-site, at considerable distance from the site, and the on-site made ground source is likely to be the most significant source of ground gas.' However, ground gas monitoring was undertaken on 5 occasions in 2009 and no detectable concentrations of methane were detected with carbon dioxide concentrations ranging from below detectable limits to 4.8% v/v in air with no positive gas flows.

There is, therefore, a high potential for the presence of historical industrial pollution at Site and in the surrounding area.

To summarise the potential pollution linkages as described in the CC Geotechnical report, the most likely /significant potential contaminant linkages appear to be:

- S1 Potential Harm to Made Ground (from potential contaminants associated from the historic industrial activities including the Copper and Bronze wire Works, Structural Engineering Works and Iron Works);
- S2 Potential Harm to the Surface Water (horizontal migration of impacted perched soil water associated from the historic industrial activities to groundwater (underlying aquifer) and surface water receptors);
- S3 Potential Risks to Health or the Environment from Construction Materials Exposure (inhalation of soil and/or dust vapours, contact and ingestion of soil / soil dust or chemical contaminants with subsurface building materials); and
- S4 Potential Risks to Health or the Environment from Unidentified Sources.

#### 2.3 Baseline Data

There have been various intrusive investigations undertaken throughout the Site's development. The results are summarised below.

There are no records of previous ground investigation works at the Site prior to 2009 so the data below represents a baseline data set.

#### 2.3.1 Soil Quality

#### 2009 Intrusive Investigation

Ground boreholes were installed in May 2009 as part of ground investigations by CC Geotechnical on the northwest of the Site (SWAPP1 processing area) comprising four cable percussion boreholes to 12mbgl (refer to Appendix C for locations). Chemical analyses were carried out on made ground soils. The chemical test data is shown in Appendix K of CC Geotechnical Phase 1 report in Appendix B of this SCR.



Apart from lead, all concentrations of metals, semi-metals and non-metals were below their respective GAC. The report noted 'determined soil lead concentrations were in exceedance of the GAC and as such the results indicate a potential risk to human health.'

#### 2012 Intrusive Investigation

Ground Investigations were undertaken by Geo-Ventures Limited on 06/12/12 and 08/12/12 on the northwest of the Site (SWAPP2 processing area), comprising 5 small diameter window sample probes to a maximum depth of 4.45m below ground level (bgl) and 4 machine excavated trial pits to a maximum depth of 3.00mbgl (refer to Appendix E for locations). The chemical test data is shown in Appendix 04 of the WML Phase 2 report in Appendix D of this SCR.

#### 2020 Intrusive Investigation

CC Geotechnical Ltd (CCG) undertook ground investigation works between 23/09/20 - 29/09/20 in connection with siting of the existing Shear at the eastern end of the Site, comprising 2 boreholes using cable percussive boring methods to a maximum termination depth of 30mbgl and 4nr boreholes using dynamic sampling to a depth of 6mbg (refer to Appendix G for locations). For the purposes of waste classification, 3 subsamples of recovered soils were analysed, and samples of soil were taken on 29/09/2020 for WAC testing. The chemical test data is shown in Appendix D of the CCG Phase 2 Ground Investigation report in Appendix F of this SCR.

The report noted 'results of the WAC leachate testing show the made ground soils recovered at WS1 (1.5mbgl) and WS3 (0.60mbgl) to be at or above the inert limit criteria for Antimony.'

#### 2021 Intrusive Investigation

Ground investigations were undertaken by LOT Geotechnics Ltd on 16/08/21 and 17/08/21 in connection with the siting of the replacement Shredder, comprising 8 window sample probeholes to a maximum depth of 5.45 mbgl (refer to Appendix I for locations). Chemical analysis of a general suite of contaminants was undertaken on selected samples of soil. The chemical test data is shown in Appendix 05 of the Geo-Environmental Investigation report in Appendix H of this SCR.

The report noted 'the levels of contamination measured would classify 5no of the 10no samples tested as Hazardous waste for disposal as a result of either a high pH or the presence of asbestos fibres, cement and bitumen.'

#### 2023 Intrusive Investigation

Ground investigation work was undertaken by Dynamic Sampling Ltd and Paul Blackledge Limited on 03/11/22 and 04/11/22 on the land connected with the extended permitted boundary, comprising 3 windowless sample probeholes and 2 hand dug pits to a maximum depth of 5.00 mbgl, and 2 cable-percussion boreholes to a maximum depth of 12.00 mbgl (refer to Appendix K for locations). Chemical analysis of a general suite of contaminants was undertaken on selected samples of shallow soil. The chemical test data is shown in Appendix 04 of the Geo-Environmental Investigation report in Appendix J of this SCR.

The report noted 'Asbestos fibres were encountered within a single sample of the made ground (WS05 at 0.50mbgl) and as such it cannot be wholly discounted that made ground beneath other areas of the site could contain ACM' and 'In consideration of the chemical test results, it is concluded that the made ground on the site does not contain chemical contaminants at concentrations which are considered likely to pose a significant risk to site end users.'



#### 2.3.1.1 Heavy metals

Table 2-1 shows heavy metal concentrations in soils at the Site from all known historic and recent intrusive investigations. Elevated concentrations of concern are highlighted in yellow.

Table 2-1 Summary of Concentrations of Heavy Metals in Soils

Borehole Ref.	Arse nic	Cadmi um	Chro mium	Coppe	Lead	Mercu ry	Nickel	Seleni um	Zinc	Vanad ium
11011	1110	u	IIIIGIII	•		g/kg	Monor	uiii		Idili
2009 Ground I	nvestiç	gations (	GI) on S	WAPP1			(northw	estern q	uadrant	o Site)
BH1	11.5	4.8	17	1548	88	<0.5	25	<0.5	118	27
BH2	36.1	1.5	32	261	224	<0.5	62	0.9	142	22
ВН3	15.4	0.7	143	43	994	1	21	0.5	230	94
BH4	14.1	1.1	18	548	276	<0.5	22	1	222	2.2
2012 GI on SWAPP2 processing area (northwestern quadrant of the Site)										
TP1	36	<1	<1	150	100	<1	55	<3	880	49
TP2	88	<1	<1	82	48	<1	42	<3	71	77
TP3	19	<1	<1	38	120	<1	12	<3	69	17
TP4	9	<1	<1	31	230	<1	10	<3	120	17
WS2 0.7m	28	2	<1	1400	280	<1	24	<3	140	39
WS4 0.6m	9	1	<1	2	84	<1	10	<3	64	12
WS4 2.0m	2	<1	<1	24	10	<1	16	<3	31	8
2020 GI on Sit	ing of S	Shear pla	ant (east	ern end	of the S	ite)				
WS1	5.1	<0.5	12.5	400	71.4	<0.5	13.1	<0.1	48.9	-
WS2	19.1	1.5	23.2	755	119	<0.5	23.2	<0.1	145	-
WS3	48.9	<0.5	25.4	45.2	13.1	<0.5	34.7	<0.1	66.8	-
2021 GI on Sit	ing of t	he Shre	dder pla	nt (centr	e of the	Site)				
WS01 0.8m	30	2	-	95	38	0.2	50	<1	38	64
WS02 0.65m	10	2.1	-	202	136	1.11	49	<1	229	31
WS02 0.35m	2	1.1	-	78	121	1.84	12	<1	171	12
WS03 1.45m	<1	<0.5	-	7	3	<0.17	5	<1	<5	8
WS04 1.55m	<1	<0.5	-	11	6	0.76	13	<1	9	17
WS05 0.5m	<1	0.5	-	115	42	<0.17	7	<1	42	13
WS05 2.0m	<1	<0.5	-	10	5	<0.17	10	<1	12	8
WS07 1.4m	<1	<0.5	-	67	24	<0.17	10	<1	10	15
WS07 2.6m	<1	<0.5	-	16	5	<0.17	10	<1	12	10
WS08 1.15m	4	<0.5	-	1200	63	2.00	19	<1	111	15
2023 GI on Pro	posed	Extende	ed Perm	itted Are	a (adjac	ent to Te	enex Roa	ad)		
WS01 0.3m	24	1	-	60	15	0.61	43	2	50	43
WS01 1.3m	22	1.3	-	65	12	<0.17	46	<1	44	50



Borehole Ref.	Arse nic	Cadmi um	Chro mium	Coppe r	Lead	Mercu ry	Nickel	Seleni um	Zinc	Vanad ium
	mg/kg									
WS02 1m	46	1.3	-	77	26	<0.17	50	<1	56	66
WS03 0.3m	15	1.1	-	64	10	0.18	41	2	36	36
WS03 1.4m	23	1.4	-	73	12	0.64	44	<1	39	51
WS04 0.3m	6	1.3	-	653	61	0.29	15	<1	122	20
WS04 0.8m	8	1.5	-	70	67	<0.17	16	<1	115	12
WS05 0.5m	25	2.8	-	1090	87	0.62	25	<1	85	30
WS05 0.8m	20	3.4	-	1340	99	0.76	30	<1	122	42
BH02 0.3m	22	1.5	-	88	12	<0.17	57	<1	43	51

#### 2.3.1.2 Inorganics, Anions and Miscellaneous

Table 2-2 shows concentrations of potential inorganic and anions contaminants in soils at the Site and miscellaneous data from all known historic and recent intrusive investigations. Elevated concentrations or detections of concern are highlighted in yellow.

Table 2-2 Summary of Concentrations of Inorganics, Anions and Miscellaneous Data in Soils

			Inorga	nic		Anions	Other			
Borehole Ref.	Total Cyani de	Total Sulph ate	Sulphi de	Water soluble Boron	Acid soluble SO4	Water soluble SO4	рН	Asbest os type <sup>5</sup>	Asbest os as %	
			mg/k	g		mg/l			%	
2009 GI on SWAPP1 processing area (northwestern quadrant of the Site)										
BH1	<1	1596	<2	0.9	-	119	8.9	NIL	NIL	
BH2	<1	3860	<2	3	-	100	6	NIL	NIL	
ВН3	<1	6912	3	0.9	-	1525	9.8	NIL	NIL	
BH4	<1	1309	31.3	2.2	-	110	6.8	NIL	NIL	
2012 GI on SW	/APP2 p	rocess	ing area	(northwe	stern qua	drant of t	he Site)	)		
TP1	<1	-	-	<1	-	-	6.7	-	-	
TP2	<1	-	-	<1	-	-	8.5	-	-	
TP3	<1	-	-	<1	-	-	6.6	-	-	
TP4	<1	-	-	<1	-	-	8.3	-	-	
WS2 0.7m	<1	-	-	<1	-	-	8	-	-	
WS4 0.6m	<1	-	-	<1	-	-	7	-	-	
WS4 2.0m	<1	-	-	<1	-	-	6.5	-	-	
2020 GI on Sit	ing of S	hear pla	ant (east	ern end o	f the Site	)				
WS1	<1	<0.8	<2	6.1	-	<0.1	7.4	NIL	NIL	

<sup>5</sup> Chrysotile (C) Amosite (A)

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			Inorga	nic		Anions	Other			
WS2	<1	<0.8	<2	1.5	-	<0.1	8.7	NIL	NIL	
WS3	<1	<0.8	<2	0.5	-	<0.1	8.4	NIL	NIL	
2021 GI on Sit	ing of tl	ne Shre	dder pla	nt (centre	of the Sit	te)				
WS01 0.8m	<1	<1	-	2.8	2200	0.42	9.49	С	<0.001	
WS02 0.65m	<1	<1	-	4.9	3600	0.08	12.7	C & A	0.229	
WS02 0.35m	<1	<1	-	<0.1	4700	0.1	13.59	NIL	NIL	
WS03 1.45m	<1	<1	-	2.4	<200	<0.01	8.54	NIL	NIL	
WS04 1.55m	<1	<1	-	<0.1	220	0.04	8	NIL	NIL	
WS05 0.5m	<1	<1	-	1.2	4000	0.04	12.72	C & A	0.002	
WS05 2.0m	<1	<1	-	<0.1	<200	0.06	8.64	NIL	NIL	
WS07 1.4m	<1	<1	-	<0.1	<200	<0.01	8.55	NIL	NIL	
WS07 2.6m	<1	<1	-	<0.1	220	0.08	8.15	NIL	NIL	
WS08 1.15m	<1	<1	-	2.1	4400	<0.01	9.22	NIL	NIL	
2023 GI on Pro	posed	Extend	ed Perm	itted Area	(adjacen	t to Tene	x Road)	ı		
WS01 0.3m	<1	<1	-	1.1	900	0.1	9.84	NIL	NIL	
WS01 1.3m	<1	<1	-	1.9	530	0.04	9.08	NIL	NIL	
WS02 1.0m	<1	<1	-	<1.0	370	0.04	8.67	NIL	NIL	
WS03 0.3m	<1	<1	-	3.4	1600	0.58	8.94	NIL	NIL	
WS03 1.4m	<1	<1	-	1.9	540	0.05	8.99	NIL	NIL	
WS04 0.3m	<1	<1	-	<1.0	760	0.05	7.23	NIL	NIL	
WS04 0.8m	<1	<1	-	11.2	2500	0.34	5.41	C & A	0.098	
WS05 0.5m	<1	<1	-	2.2	620	0.03	7.98	NIL	NIL	
WS05 0.8m	<1	<1	-	3	830	0.06	8.22	NIL	NIL	
BH02 0.3m			-	<1.0	570	0.09	8.86	NIL	NIL	

#### **2.3.1.3 Organics**

Table 2-3 shows concentrations of potential organic contaminants in soils from intrusive investigations at the Site from all known historic and recent intrusive investigations. Elevated concentrations of concern are highlighted in yellow. However, regarding the elevated levels of TPH concentrations in the soils identified from the 2021 Gls, the report noted that:

'Whilst it is noted that samples WS02 (0.35m), WS03 (1.45m), WS05 (2.00m) and WS07 (E/D) (2.60m) recorded TPH concentrations in excess of 1,000mg/kg, these samples were assessed as non-hazardous due to HP7 (carcinogenic) and HP11 (mutagenic) because, as per the unknown oil marker test in WM3, the benzo(a)pyrene concentration in the samples was <0.01% of the TPH concentration.'



**Table 2-3 Summary of Concentrations of Organics in Soils** 

Borehole	PAH Total	TPH	Phenols	BTEX <sup>6</sup>	PCB Total						
Ref.			mg/kg								
2009 GI on SW	/APP1 proces	ssing are	ea								
BH1	35.5	13 <sup>7</sup>	-	-	-						
BH2	21.3	21 <sup>7</sup>	-	<10	<108						
ВН3	114	260 <sup>7</sup>	-	-	-						
BH4	3.4	15 <sup>7</sup>	-	-	-						
2012 GI on SWAPP2 processing area											
TP1	6.5	-	<1	-	-						
TP2	1.8	-	<1	-	-						
TP3	1.2	-	<1	-	-						
TP4	1.2	-	<1	<1	-						
WS2 0.7m	5.1	-	<1	-	-						
WS4 0.6m	3.1	-	<1	-	-						
WS4 2.0m	0.03	<19	<1	<2 to 4	-						
2020 GI on Sit	ing of Shear	plant									
WS1	<0.4	90.210	<0.01	<10	<0.03						
WS2	1.2	141 <sup>10</sup>	<0.01	<10	<0.03						
WS3	0.9	4.910	<0.01	<10	<0.03						
2021 GI on Sit	ing of the Sh	redder p	lant								
WS01 0.8m	7.94	254 <sup>9</sup>	<0.2	-	-						
WS02 0.65m	0.87	600 <sup>9</sup>	<0.2	-	-						
WS02 0.35m	0.91	20409	<0.2	-	-						
WS03 1.45m	<0.08	2850 <sup>9</sup>	<0.2	-	-						
WS04 1.55m	<0.08	21 <sup>9</sup>	<0.2	-	-						
WS05 0.5m	<0.08	238 <sup>9</sup>	<0.2	-	-						
WS05 2.0m	<0.08	2470 <sup>9</sup>	<0.2	-	-						
WS07 1.4m	<0.08	280 <sup>9</sup>	<0.2	-	-						
WS07 2.6m	<0.08	1520 <sup>9</sup>	<0.2	-	-						
WS08 1.15m	1.68	638 <sup>9</sup>	<0.2	-	-						
2023 GI on Pro	posed Exten	ded Per	mitted Are	a							
WS01 0.3m	0.1	-	<0.2	-	-						
	·	· ·	· · · · · · · · · · · · · · · · · · ·								

 $<sup>^{\</sup>rm 6}$  Benzene, toluene, ethylbenzene and xylylene.

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<sup>&</sup>lt;sup>7</sup> TPH C6-C40

 $<sup>^{8}</sup>$  Shown in  $\mu g/kg.$ 

<sup>&</sup>lt;sup>9</sup> TPH C6-C40

<sup>&</sup>lt;sup>10</sup> TPH C5-C40

Borehole	PAH Total	TPH	Phenols	BTEX <sup>6</sup>	PCB Total				
Ref.	mg/kg								
WS01 1.3m	0.12	-	<0.2	-	-				
WS02 1m	<0.08	-	<0.2	-	-				
WS03 0.3m	<0.08	911	<0.2	-	-				
WS03 1.4m	<0.08	-	<0.2	-	-				
WS04 0.3m	1.45	-	<0.2	-	-				
WS04 0.8m	<0.08	24211	<0.2	-	-				
WS05 0.5m	6.98	16 <sup>11</sup>	<0.2	-	-				
WS05 0.8m	2.23	-	<0.2	-	-				
BH02 0.3m	<0.08	-	<0.2	-	-				

#### 2.3.2 Groundwater Quality

#### 2009 Groundwater monitoring

A programme of fieldwork investigation was undertaken in May 2009 on SWAPP1 processing area, which included the installation and monitoring of standpipes for ground gas flow rate and composition, and for groundwater levels.

Perched soil water was encountered at a typical depth of 2.5mbgl, generally in sand deposits resting on the clay.

#### 2012 Groundwater monitoring

As part of intrusive investigation works undertaken in December 2012, monitoring wells for groundwater (in addition to ground gas measurements) were installed in selected probeholes on SWAPP2 processing area. Groundwater monitoring was carried out on two occasions on 03/01/12 and 13/12/12. Although three monitoring standpipes were installed, only two were monitored on each date due to one being inaccessible.

Groundwater was struck during the investigations at a depth generally of around 2.0mbgl. Standing water levels measured in standpipes during the ground gas monitoring ranged from approximately 1.60m to 2.10mbgl.

#### 2.3.2.1 Heavy Metals

Table 2-4 shows concentrations of potential heavy metal contaminants in groundwater at the Site from all known historic and recent intrusive investigation.

Table 2-4 Summary of Concentrations of Heavy Metals in Groundwater

Borehole Ref.	Arsen ic	Cadm ium	Chro mium	Copp er	Lead	Merc ury	Nicke I	Selen ium	Zinc	Vana dium	
μg/l											
2009 GI on	2009 GI on SWAPP1 processing area (northwestern quadrant of the Site)										
BH2	<5	2	<5	28	<1	0.1	11	<0.5	36	<5	
2012 GI on	2012 GI on SWAPP2 processing area (northwestern quadrant of the Site)										

<sup>&</sup>lt;sup>11</sup> TPH C5-C35

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Borehole Ref.	Arsen ic		Chro mium		Lead		Nicke I			Vana dium
	μg/l									
TP2	25	0.04	<30	1.4	0.4	<0.05	<10	<10	<10	30
WS2 0.7m	<10	0.09	<30	14	4.1	<0.05	<10	<10	<10	4

#### 2.3.2.2 Inorganics, Anions, Organics and Miscellaneous

Table 2-5 shows concentrations of potential inorganic, anions and organic contaminants in groundwater at the Site and miscellaneous data from all known historic and recent intrusive investigations.

Table 2-5 Summary of Concentrations of Inorganics, Anions, Organics and Miscellaneous Data in Groundwater

		Inorganic		Anions	Org	anics	Other
Borehole Ref.	Total Cyanide	Sulphate Ion	Water soluble Boron	Water soluble SO4	Total PAH	TPH (C6- C40)	рН
	μg/l	mg/l	μg/l	mg/l	μ	g/l	
2009 GI on	SWAPP1 p	rocessing	area (nort	hwestern	quadran	t of the S	ite)
BH2	<5		1594	335	<0.01	<10	7
2012 GI on SWAPP2 processing area (northwestern quadrant of the Site)							
TP2	-	11	13	-	3.1	-	-
WS2 0.7m	-	9.6	11	-	7.7	-	-

#### 2.3.3 Gas Monitoring

#### 2009 Ground gas monitoring

Gas monitoring was carried out in connection with siting of SWAPP1 processing area on five occasions between 27/05/09 - 03/07/09. The results indicated no detectable concentrations of methane with carbon dioxide concentrations ranging from below detectable limits to 4.8% v/v in air with no positive gas flows.

#### 2012 Ground gas monitoring

Ground gas monitoring was carried out in connection with siting of SWAPP2 processing area on two occasions on 03/01/12 and 13/12/12. Although three monitoring standpipes were installed, only two were monitored on each date due to one being inaccessible. The report noted that:

- 'The results indicated that no detectable levels of methane are present with a maximum carbon dioxide concentration of 3.1% by volume in air (v/v). No measurable positive flow rates have been recorded in the monitoring wells.'; and
- 'ground contamination, including the presence of ground gas, is not widespread.'

#### 2.3.3.1 Methane, Carbon Dioxide & Gas Flow

Table 2.6 summarises the ground gas monitoring carried out in 2009 and 2012. The data sets are illustrated in Appendix I of CC Geotechnical Phase 1 report, included in this SCR as



Appendix B and in Appendix 05 of WML Consulting Phase 2 report, included in this SCR as Appendix D.

**Table 2-6 Summary of Ground Gas Monitoring Measurements** 

	CH4 (%)	CO2 (%)	Flow (I/hr)		
2009 gas mo	2009 gas monitoring on SWAPP1 processing area				
BH1	NIL	4.1-4.8	0.1		
BH2	NIL	NIL-0.7	0.1		
ВН3	NIL	NIL	0.1		
BH4	NIL	0.3-0.5	0.1		
2012 gas mo	2012 gas monitoring on SWAPP2 processing area				
WS1	-	-	-		
WS2	NIL	2.3-3.7	NIL		
WS3	NIL	NIL-0.1	NIL		



#### 3.0 Permitted Activities

#### 3.1 Existing Activities

#### 3.1.1 Permitted Activities

The facility is currently permitted as a multi-activity ferrous and non-ferrous metal recycling facility. The Site is used for the storage and treatment of materials with a substantial recyclable metallic content and is permitted to accept vehicle dismantling waste, mixed plastic wastes originating from WEEE and metal recycling/shredding waste recycling facilities.

The Site includes a Shredder Waste Advanced Processing Plant (SWAPP).

The activities fall under the following Schedule 1 activities in line with the EPR Regs 2016 (EPR) and are included in the permit under Table S1.1:

- S5.4 Part A(1)(b)(iv) Metal fragmentiser, shredding of metal waste
- S5.4 Part A(1)(a)(iv) SWAPP, shredding of metal waste
- S5.3 Part A(1)(a)(iv) Lead acid battery re-packaging
- S5.3 Part A(1)(a)(ii) Treatment of waste from electrical and electronic equipment, non-ferrous plant (ESC)
- S5.6 Part A(1)(a)(i) Temporary storage of hazardous waste

The Site also has a number of waste operations listed under Directed Associated Activities in Table S1.1 of the permit in accordance with EPR.

The Site is permitted to process up to 300,000 tonnes per annum (tpa).

The principal point source emissions to air from the Site are particulate emissions from the metal shredding treatment activities. Stack 1 (Venturi scrubber) is located on the metal fragmentiser. Two additional point sources can be found on the SWAPP dust filters (stack 1 and 2). There are no point source emissions to groundwater.

The Site has two discharge points to sewer under trade effluent consent with United Utilities. All site drainage is released to combined sewer.

Ferrous metals and non-ferrous metals are processed via the shear and various gas cutting processing to facilitate size reduction. In addition, non-ferrous and non-metals are processed via the main shredder plant and where necessary via the pre-shredder to optimise the input feed into the shredder.

Small mixed waste electrical and electronic equipment is processed on site as part of pretreatment via the shredder to produce small mixed WEEE (SMW) residue. Automotive shredder residue (ASR) is also produced from the light iron feed which has been through a shredder to produce Shredder Light Fraction. The ASR is combined with Eddy Current Separator (ECS) waste containing aggregate, textiles, metals, plastic and rubber.

The Site further treats processed non-ferrous metal fractions through two standalone non-ferrous processing plants. Fractions of hazardous and non-hazardous waste that contain metal rich waste are processed in one of the two sensor-based sorting plants and via the ECS in the standalone ECS plant.

The SWAPP facility consists of 3 stages; SWAPP1 and SWAPP2 which can operate in tandem or separately to process waste fractions; and a metal recovery plant to recover non-ferrous metal. The existing SWAPP facility is used to treat SMW residue and ASR, which are fed into SWAPP2 as separate waste streams and fractions that are appropriate for further processing are treated to recover metals.



#### 3.2 Proposed Activities

As a summary, the EP variation includes the following proposed changes:

- Addition of a wet separation treatment process and water treatment unit;
- Additional prescribed activity under Table S1.1 in the permit in the form of an existing mechanical separation process via a standalone Sensor-Based Sorting (SBS) Plant;
- Increase in annual waste throughput to 750,000 tpa;
- Extension of the permit boundary to include land to the west of the Site, including a new release point to sewer; and
- Addition of new EWC codes 17 04 10\*, 19 02 04\* and 19 12 11\* in the permit due to the changes in the classification of hazardous waste.

In addition, the following amendments are proposed as part of the variation:

- Amendment to the prescribed activity under Table S1.1 in the permit ref. AR6 to include mechanical separation via Eddy-Current Separation (ECS) Plant as a prescribed activity and a waste activity due to a misdescription in the existing permit; and
- Amendment to the location of an existing authorised discharge to sewer.

Refer to the NTS (SLR ref: 416.V64371.00002) for detailed descriptions of the proposed changes.

#### 3.3 Non-Permitted Activities

There will be no non-permitted activities taking place at the Site.



#### 4.0 Current Baseline Site Conditions

The EA H5 SCR guidance (April 2013) states that:

#### '3.2 For existing IPPC installations that become IED installations'

'These are installations carrying out any of the activities listed in Part 2 of Schedule 1 to the EPR 2010 that were already operating, or had submitted a permit application, before 7 January 2013.

If your activity involves the use, production or release of relevant hazardous substances you must submit baseline data within an SCR, before we update your permit. We recommend that you carry out monitoring of groundwater and soil and submit these results in your report. Alternatively you could use good quality existing data, if it is available. This will quantify the levels of pollutants present which you will compare to the levels you find when you cease carrying out the activity and wish to surrender your permit. However, if you choose not to submit any monitoring data you should provide a justification for not doing so in your report. In this case you will be accepting the risk that you may be required to clean up pre-existing contamination when you surrender your permit.'

Set out below are details of how S Norton propose to meet the baseline data requirements, which detail previous monitoring of groundwater and soil, in addition to monitoring of ground gas at the Site and proposed further monitoring at the Site.

The Site is already covered by concrete surfacing and operates within a commercial and industrial estate in Trafford Park. These are to be considered in the context of the potential for the use, production or release of relevant hazardous substances.

**Table 4-1 Main Stages in Preparing a Baseline Report** 

Stage	Activity	Objective	How the requirements have been met
1	Identify which hazardous substances are used, produced or released at the installation.	Determine whether or not hazardous substances are used, produced or released in view of deciding whether a baseline report is required.	A list of potentially hazardous substances used, produced or released at the Installation is listed below.  As a result of the existing and proposed operation of the Metal Recycling Facility:
		If yes: produce a list of all potential hazardous substances.	<ul> <li>Heavy metals;</li> <li>Inorganics (including acids, alkalis, chlorides, cyanides, fluorides, sulphates and sulphides);</li> <li>Polychlorinated biphenyls (PCBs);</li> <li>Solvents;</li> <li>Total petroleum hydrocarbons (TPH);</li> <li>Polyaromatic hydrocarbons (PAH); and</li> <li>Perfluoroalkyl and Polyfluoroalkyl Substances</li> </ul>



Stage	Activity	Objective	How the requirements have been met
2	Identify which of the hazardous substances from Stage 1 which, according to the evaluation by suitably qualified and experiences persons, as a result of their hazardousness in respect to toxicity, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater.  Discard those hazardous substances that are incapable of contaminating soil or groundwater. Justify and record the decisions taken to exclude certain hazardous substances.	To restrict further consideration to only the relevant hazardous substances that are capable of contaminating soil or groundwater in view of deciding on the need to prepare and submit a baseline report.	All of the substances detailed above would be capable of contaminating soil and groundwater if there were no mitigation measures in place at the Installation.  However, existing mitigation measures for the Site (please refer to the Environmental Risk Assessment (ERA) and BAT-OT submitted with this EP variation application) will continue to ensure that no contamination occurs as a result of the existing and proposed activities to be undertaken at the Site.
3	For each relevant hazardous substance brought forward from Stage 2, identify the actual possibility for soil or groundwater contamination at the site of the installation, including the probability of releases and the consequences of releases, taking particular account of:  - the quantities of each hazardous substance concerned; - how and where they are stored; - how they are to be transported around the installation; - how they are used - where they are emitted - measures that have been and, for new installations, will be adopted to protect soil and groundwater at the installation.	To identify which of the hazardous substances from Stage 2 represent a potential pollution risk at the site based on the likelihood of emissions of such substances occurring.  These are the 'relevant' hazardous substances for which information must be included in the baseline report.  Note: Where it is found that, due to the quantities of the hazardous substances used, produced or released, that there is no possibility of soil and groundwater contamination a baseline report does not need to be prepared or submitted. However, in those cases it is expected that a record of such a decision, including the reasons for the decision, will be made and held by the competent authority.	The level of risk associated with the actual possibility for soil or groundwater contamination at the site of the installation from the hazardous substances identified is low. Nonetheless, as detailed in Stage 2, existing mitigation measures in place will protect the groundwater, surface water and soil within the installation permit boundary from contamination from the existing and proposed site activities.  The mitigation measures employed at the Site are fully outlined in the ERA and BAT-OT submitted with this EP variation application. Please refer to these documents for full details of how the Installation will be operated to protect against fugitive emissions to water and land.



Stage Activity	Objective	How the requirements have been met
4 Provide site history	Identify potential sources which may have resulted in the relevant hazardous substances identified in Stage 3 being present on the site of the installation.	Potential hazardous substances as a result of historical land use include:  From the Copper and Bronze wire Works:  • Metals (including Cd, Cr, Cu, Pb, Ni, V)  • Non-metals (including B, S²-)  • TPH  • PAHS  • Asbestos  From the Unspecified Tank:  • PAHS  • TPH  • VOCs  From the Rail Cargo Link:  • PAHS  From the Structural Engineering Works:  • Metals (including Cd, Cr, Cu, Pb, Hg, Ni, Zn)  • Non-metals (including As, B, Se, CN-, SO4²-)  • TPH  • Asbestos  • Acidic/alkaline soil  There is, therefore, a high potential for the presence of historical industrial pollution at Site and in the surrounding area.  Intrusive ground investigations throughout the Site's historical phases of development and redevelopment (since 2009) have detected the following hazardous substances of potential concern at the Site:  • Lead  • Antimony  • Sulphates  • PAHS  • TPHS  Investigations have also detected the following potentially hazardous substances at the Site:  • Ashy fragments  • Asbestos fibres



Stage	Activity	Objective	How the requirements have been met
			Due to the nature of wastes accepted on Site and as a result of the Site's stringent waste pre-acceptance and acceptance procedures, the potential for the acceptance and release of asbestos is negligible and is therefore not considered a substance released from the Site.
			The potential for other potentially hazardous substances, including paints are also negligible as a result of the Site's stringent waste preacceptance and acceptance procedures and nature of waste accepted at the Site.
			Phenols are not associated with the existing facility and there is no record of spills from its processes or storage of oily materials.
			In addition, the potential for radioactive components is minimised as a result of the Site's waste preacceptance/ acceptance procedures and radioactive detection sensors at the Site's entrance.
			Please refer to Section 2 of this SCR for details of past land use, historic pollution incidents and baseline data.
5	Identify the site's environmental setting	Determine where hazardous substances may go if emitted and where to look for them.	Please refer to Sections 1.2 and 1.3 of this SCR for details of the Site's surroundings and details of present environmental settings.
		Also identify the environmental media and receptors that are potentially at risk and where there are other activities in the area which release the same hazardous substances and may cause them to migrate onto the site.	Please refer to the ERA included with this EP application.
6	Use the results of Stages (3) to (5) to describe the site, in particular demonstrating the location, type, extent and quantity of historic pollution and potential future emissions noting	Identify the location, nature and extent of existing pollution on the site and to determine which strata and groundwater bodies might be affected by such pollution.	Please refer to Section 2 of this SCR for details of past land use, historic pollution incidents, potential source-pathway-receptor linkages, and baseline data.
	the strata and groundwater bodies likely to be affected by those emissions – making links	Compare with potential future emissions to see if areas are coincident.	



Stage	Activity	Objective	How the requirements have been met
	between sources of emissions, the pathways by which pollution may move and the receptors likely to be affected.		
7	If there is sufficient information to quantify the state of soil and groundwater pollution by relevant hazardous substances on the basis of Stages (1) to (6) then go directly to Stage 8. If insufficient data exists, then intrusive investigation of the site will be required in order to gather such information.	Collect additional data as is necessary to allow a quantified assessment of soil and groundwater pollution by relevant hazardous substances.	
8	Produce a baseline report for the installation that quantifies the state of soil and groundwater pollution by relevant hazardous substances.	Provide a baseline report in line with the IED.	Baseline data has been summarised in Section 2.3 of this SCR from the following reports:  • Appendix B: Site Investigation SWAPP Development (CC Geotechnical, July 2009)  • Appendix D: Phase 2 Geotechnical Investigation and Assessment SWAPP 2 Development (WML Consulting, January 2012)  • Appendix F: Ground Investigation at Proposed Site Of New Shear Plant (CCG, November 2020)  • Appendix H: GeoEnvironmental Investigation & Assessment New Shredder (WML Consulting, September 2021)  • Appendix J: GeoEnvironmental Investigation & Assessment Proposed SWAPP 3 Process Facility (WML Consulting, January 2023)  As there are no records of ground investigations prior to 2009, this data
			constitutes the baseline data for the Installation.  The following potentially hazardous substances that could be potentially used, produced or released at the Site were identified as elevated in at least one sample in the baseline data:



Stage	Activity	Objective	How the requirements have been met
			• Lead
			<ul> <li>Inorganics including Alkalis and Sulphates</li> </ul>
			Organics including PAHs and TPHs
			Please note there is currently no data for the following potentially hazardous substances that could potentially be used, produced or released at the Site:
			• PFAS
			Chlorides
			<ul> <li>Fluorides</li> </ul>
			Therefore, further ground investigations are recommended for the Installation.
			Please refer to Section 2 of this SCR for details of past land use, historic pollution incidents, potential source-pathway-receptor linkages, and baseline data.

#### 4.1 Environmental Monitoring and Compliance

Monitoring of point source and fugitive emissions throughout the lifetime of the site will be undertaken in line with the conditions outlined within the EP.

Reporting of emissions will be undertaken in line with the conditions outlined in the EP.

#### 4.2 Operation of the Site and Management

The Site will continue to be operated in accordance with an Integrated Management System ('IMS') which is ISO 14001:2015 accredited. In addition, S Norton will continue to operate to a Competence Management System under the approved industry scheme with Energy Utilities (EU) Skills Group. The scheme is approved by Defra and the Welsh Government as a method of demonstrating technical competence of permitted sites where that operator shall comply with the requirements of an approved competence scheme.

These will continue to ensure good practice on site and minimise environmental risk throughout the operation.

#### 4.3 SCR Updates

S Norton will maintain the SCR over the lifetime of the site to detail potential or recorded change to the condition of the Site.

Sections 1 to 3 of the EA's SCR template comprises the following:

- site details:
- condition of the land at permit issue;
  - geology;
  - o hydrogeology;



- hydrology;
- o pollution history;
- o evidence of historic contamination; and
- permitted activities.

Section 4 of the SCR template has been completed to incorporate the proposed changes associated with the EP variation application.

Sections 4 to 7 of the SCR template will continue to be maintained during the life of the permit.

Sections 8 to 10 will be completed and submitted in support of the application to surrender the permit.





# **Appendix A H5 Table**

## **Baseline Site Condition Report**

**Trafford Park Environmental Permit Variation: Wet Separation Process** 

S Norton & Co Limited

SLR Project No.: 416.064680.00001

18 September 2023



1.0 SITE DETAILS	
Name of the applicant	S. Norton & Co Limited
Activity address	S Norton & Co Limited Tenax Road Trafford Park Manchester M17 1JT
National grid reference	SJ 78829 97267

Document reference and dates for Site Condition Report at permit application and surrender	This SCR has been informed by a desk-based study including a review of a number of Risk Assessments carried out for the Site by SLR which references the following key sources:
	Site Investigation SWAPP Development (CC Geotechnical, July 2009)
	Phase 2 Geotechnical Investigation and Assessment SWAPP 2     Development (WML Consulting, January 2012)
	Ground Investigation at Proposed Site Of New Shear Plant (CCG, November 2020)
	Geo-Environmental Investigation & Assessment New Shredder (WML Consulting, September 2021)
	Geo-Environmental Investigation & Assessment Proposed SWAPP 3 Process Facility (WML Consulting, January 2023)

Document references for site plans (including location and boundaries)	Drawing 01 – Site Location  Drawing 02 – Site Layout and Emission Points  Drawing 03 – Sources, Pathways and Receptors  Drawing 04 – Cultural and Natural Heritage  Drawing 05 – Fire Prevention & Management
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Environmental setting including:

- geology
- hydrogeology
- surface waters

The Site is located within a commercial estate within Trafford Park, Manchester and centred on National Grid Reference SJ 78829 97267. The Site is located within Trafford Park industrial & commercial area which surrounds the Site's boundary in all directions, with premises located immediately adjacent to the Site's boundaries. Major road networks of the M602 lie approximately 1.44km to the north and the A5081 is approximately 275m to the south. It comprises an `L` shaped area of land, formed by a spur of land projecting approximately 200m westward to the entrance/exit on Tenax Road from a larger, approximately square area. The Manchester Ship Canal is approximately 800m to the north spanning to the east and the west. Trafford Ecology Park lies approximately 600m northeast and includes an oasis. The Bridgewater Canal is located approximately 1km to the south and 900m to the southwest.



> A review of the British Geological Survey (BGS) map<sup>12</sup> reveals that the Site is underlain by a bedrock of Huddersfield White Rock - Sandstone. The BGS also reveals the Site is underlain by sedimentary superficial deposits consisting of Glaciofluvial Sheet Deposits, Devensian - Sand and gravel.

> The Site lies within a Flood Zone 1 and therefore has a low probability of flooding<sup>13</sup>.

> The superficial deposits are classified as a Secondary A Aguifer while the bedrock is classified as a Principal Aquifer.

> The Groundwater Vulnerability layer on the MAGIC map reveals that the Site lies within an area of Medium – High soluble rock risk groundwater vulnerability.

> Please refer to sections 1.3, 1.4 and 1.5 of the SCR for further details of the environmental settings (geology, hydrology, hydrogeology) of the site and its surroundings.

Pollution history including:

- pollution incidents that may have affected land
- historical land-uses and associated contaminants
- visual/olfactory anv evidence of existing contamination
- evidence of damage to pollution prevention measures

#### **Pollution History**

On site: There are no recorded pollution incidents within the site boundary that may have affected the land beneath the Site whilst the Site has been under S Norton's control.

Off site: The 2009 CC technical report noted that there were five reported pollution incidents within 250m of the Site (3 of these were within 50m of the Site), however none of the pollution incidents reported were associated with the Site.

#### Summary of Historical Land-uses On-Site

Historical plans for the Site within the CC Geotechnical Phase 1 report (July 2009) which is included in Appendix B indicated that:

- The Site formed part of a larger Dee Park until sometime prior to 1929 when it formed the external area of the Anaconda Mill (copper and bronze wire factory) with a cold storage unit to the south-east.
- By 1953 Anaconda Mill had been extended into the western half of the site with an ancillary building in the northern development area. A set of travelling crane tracks also extended in an arc around the eastern side of the proposed development area.
- Between 1984 and 1987 the structures were cleared and the site described as a scrap yard and by 2008 the site converted into its current use as a recycling facility.

#### **Summary of Historical Land-uses Off-Site**

- Between 1889 and 1894 the surround was open parkland with numerous ponds showing to the east/north east with the closest approx. 120m to the east.
- By 1908 a railway is identifiable approx. 50m north east
- Between 1927 and 1932 a Wood Fibre Works appeared adjacent to the south boundary with the development of the minor road network and Ocean Iron Works adjacent to the north

A-2

<sup>&</sup>lt;sup>12</sup> British Geological Survey, Available at www.bgs.ac.uk, accessed in March 2023

<sup>&</sup>lt;sup>13</sup> Flood Map for Planning <a href="https://flood-map-for-planning.service.gov.uk">https://flood-map-for-planning.service.gov.uk</a>, accessed March 2023

- boundary, with the surrounding area undergoing significant industrial development.
- No significant changes until 1953-1956 with further development at the northern boundary with a structural engineering works identifiable and Tenax Road approx. 5m to the west. Trafford Park lake approx. 160m east has been partially infilled.
- By 1969 the surrounding area has undergone further development. Chemical works now identifiable at approx. 30m north and further chemical works approx. 50m south. Disused workings identifiable at site of infilling at Trafford Park Lake.
- By 1977 Anaconda Mills main building has been extended off site at the southern half of the west boundary.
- Between 1993 and 1995 Tenax Road adjoins the northern half of the west boundary.

Please refer to Section 2.2 of the SCR for further details of the historical land uses of the Site and its surrounds.

#### **Existing Contamination**

The mapping suggests the Site and its surrounds has a history of commercial and some industrial activity.

Although records don't suggest point sources of contamination the historical phases of development and redevelopment and their dates suggest that Made Ground will be present, and that the Made Ground may contain contaminants associated with the source of the fill and/or the commercial/industrial use of the Site.

The former Anaconda Mills – Copper / Wire works and associated tanks presents a potentially contaminative land use route (specific contents of the tanks are unknown). The former Sewage Tank and Electrical substation may provide contaminant migration. The former railway infrastructure extended across the Site into the eastern sector of the SWAPP facility and may have provided a source of contamination as a result of the infrastructure and operation.

Primary sources of off-site contamination are associated with structural engineering works and iron works adjacent to the north boundary with possible contamination arising from associated activities due to the close proximity, the 'refuse heap' located 18m to the west (considered as a source of gas generation), the 'infilled pond' (considered as a source of gas generation) and the 'disused workings / infilled lake' (disused workings used to infill Lake may be considered as a source of gas generation) located 120m and 160m to the east respectively.

There is, therefore, a high potential for the presence of historical industrial pollution at Site and in the surrounding area.

Please refer to sections 2.0 of the SCR for further details of the pollution incidents, potentially polluting activities, historical land uses and evidence of existing contamination of the Site and, where appropriate its surroundings.

Evidence of historic contamination, for example, historical site investigation, assessment, remediation

Please refer to Section 2.3 Baseline data and Section 4 Current Baseline Site Conditions for a detailed summary of the Ground Investigations undertaken to date and findings.



and verification reports (where available)		
Baseline soil and groundwater reference data	Please refer to Section 2.3 Baseline data of the SCR for a detailed summary of the baseline soil and groundwater reference data to date.	
Supporting information	<ul> <li>SCR – Ref: 416.064680.00001_SCR</li> <li>ERA – Ref: 416.V64371.00002_ERA</li> <li>Appendix B: Site Investigation SWAPP Development (CC Geotechnical, July 2009)</li> <li>Appendix D: Phase 2 Geotechnical Investigation and Assessment SWAPP 2 Development (WML Consulting, January 2012)</li> <li>Appendix F: Ground Investigation at Proposed Site Of New Shear Plant (CCG, November 2020)</li> <li>Appendix H: Geo-Environmental Investigation &amp; Assessment New Shredder (WML Consulting, September 2021)</li> <li>Appendix J: Geo-Environmental Investigation &amp; Assessment Proposed SWAPP 3 Process Facility (WML Consulting, January 2023)</li> </ul>	

3.0 PERMITTED ACTIVITIES		
Permitted activities	The facility is currently permitted as a multi-activity ferrous and non-ferrous metal recycling facility to accept up to 300,000 tonnes of waste per annum.	
	The activities fall under the following Schedule 1 activities (of EPR Regs 2016) and are listed in Table S1.1 of the permit:	
	<ul> <li>S5.4 Part A(1)(b)(iv) – Metal fragmentiser, shredding of metal waste</li> <li>S5.4 Part A(1)(a)(iv) – SWAPP, shredding of metal waste</li> <li>S5.3 Part A(1)(a)(iv) – Lead acid battery re-packaging</li> <li>S5.3 Part A(1)(a)(ii) – Treatment of waste from electrical and electronic equipment, non-ferrous plant (ESC)</li> <li>S5.6 Part A(1)(a)(i) – Temporary storage of hazardous waste</li> </ul>	
	The Site also has a number of waste operations listed under Directed Associated Activities in Table S1.1 of the permit in accordance with EPR.	
	The principal point source emissions to air from the Site are particulate emissions from the metal shredding treatment activities. Stack 1 (Venturi scrubber) is located on the metal fragmentiser. Two additional point sources can be found on the SWAPP dust filters (stack 1 and 2).	
	The Site has two discharge points to sewer under trade effluent consent with United Utilities.	
	Please refer to section 3.0 of the SCR for a detailed description of the permitted activities for the Site.	
Non-permitted activities undertaken	No non-permitted activities will be undertaken.	
Document references for:  • plan showing activity layout; and	<ul> <li>Drawing 01 Site Location Plan</li> <li>Drawing 02 Environmental Permit Boundary &amp; Site Layout</li> <li>Drawing 03 Environmental Site Setting &amp; Receptors</li> </ul>	



- environmental risk assessment.
- Drawing 04 Cultural and natural Heritage
- Drawing 05 Fire Prevention & Management
- ERA Ref: 416.64371.00002 ERA

#### 4.0 CHANGES TO THE ACTIVITY

Have there been any changes to the activity boundary?

An EP variation application is being submitted to extend the site boundary to cover an area to the west of the site directly adjacent to Tenex Road that currently consists of warehouse buildings and a car park. There will be site infrastructure changes with inclusion of a new discharge point to sewer.

Refer to the following new plans for the new boundary as part of this EP variation application:

- Drawing 01 Site Location Plan
- Drawing 02 Environmental Permit Boundary & Site Layout
- Drawing 03 Environmental Site Setting & Receptors
- Drawing 04 Cultural and natural Heritage
- Drawing 05 Fire Prevention & Management

Have there been any changes to the permitted activities?

An EP variation application is being submitted to add a wet separation unit within the SWAPP2 area of the processing building. This proposed new unit will integrate with an existing separation process described above to further treat SMW residue and ASR (known to S Norton as MAP30). Both processed materials will remain segregated prior to and following treatment.

A Water Treatment Unit is intended to be added to SWAPP2 as part of the proposed additional wet separation process. The purpose of the unit is to process dirty wash water from the proposed washing and separation of screened MAP30. The proposed wet separation process does not result in any new emission points. The small amount of cleaned effluent released will be discharged to sewer via the existing release point subject to meeting Bref/EA appropriate measures water quality standards.

In addition, S Norton require additional waste codes to be included in the permit in order to continue to process waste types already treated at the Site due to recent changes in the classification of hazardous waste and in order to classify an output from the additional wet separation process in the SWAPP.

S Norton are also replacing the shredder with a new, upgraded, more efficient shredder and are applying to increase the waste annual throughput to 750,000 tpa. A stack for point source emissions (point ref. A1) will be located on the main shredder plant once the plant is constructed and operational. There are no point source emissions to groundwater.

Please refer to the BATOT (SLR ref. 416.V64371.00002\_BATOT) for a detailed description of the proposed changes to activities at the Site.

Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?

No.



Checklist of supporting	Operating Techniques – Ref: 416.V64371.00002_BATOT
information	<ul> <li>ERA – Ref: 416.V64371.00002_ERA</li> </ul>

#### **5.0 MEASURES TAKEN TO PROTECT LAND**

Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you cannot, you need to collect land and/or groundwater data to assess whether the land has deteriorated.

Checklist of	supporting
information	

- Inspection records and summary of findings of inspections for all pollution prevention measures
- Records of maintenance, repair and replacement of pollution prevention measures

# 6.0 POLLUTION INCIDENTS THAT MAY HAVE HAD AN INFLUENCE ON LAND, AND THEIR REMEDIATION

Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you cannot, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you have been there.

Checklist of	supporting
information	

- Records of pollution incidents that may have impacted on land
- Records of their investigation and remediation

#### 7.0 SOIL, GAS AND WATER QUALITY MONITORING (WHERE UNDERTAKEN)

Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.

Checklist of supporting
information

- Description of soil gas and/or water monitoring undertaken
- Monitoring results (including graphs)





# Appendix B Site Investigation SWAPP Development (CC Geotechnical, July 2009)

#### **Baseline Site Condition Report**

Trafford Park Environmental Permit Variation: Wet Separation Process

S Norton & Co Limited

SLR Project No.: 416.064680.00001

18 September 2023

• Submitted as separate document (to be sent by file transfer with the application)





# Appendix C Location of boreholes sited in SWAPP1 Processing Area

### **Baseline Site Condition Report**

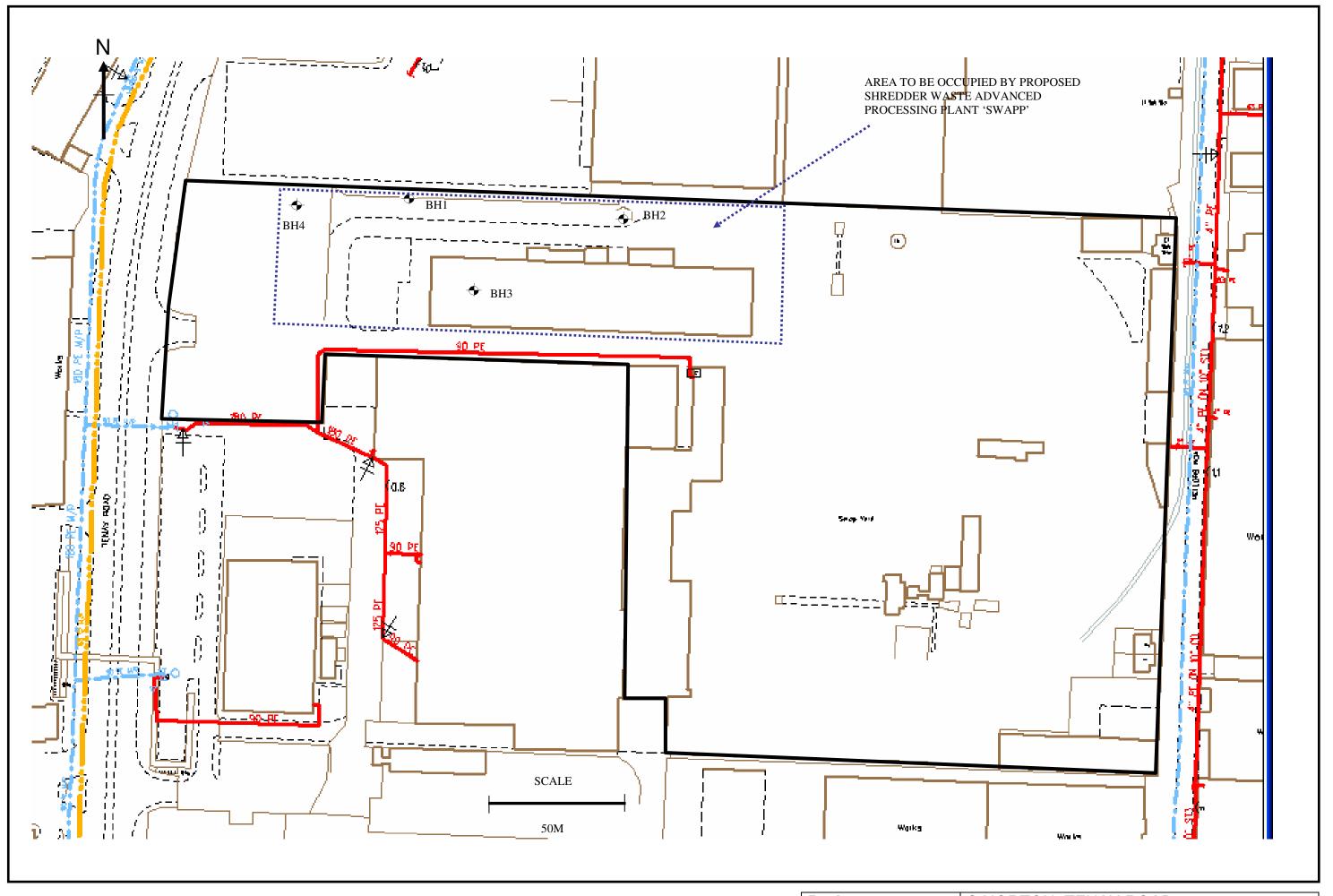
Trafford Park Environmental Permit Variation: Wet Separation Process

S Norton & Co Limited

SLR Project No.: 416.064680.00001

18 September 2023





Project:S.NORTON, TENAX ROADDrawing Number:09/5512/3 SITE INVESTIGATION LAYOUT



### Appendix D

### Phase 2 Geotechnical Investigation SWAPP 2 Development (WML Consulting, January 2012)

#### **Baseline Site Condition Report**

Trafford Park Environmental Permit Variation: Wet Separation Process

S Norton & Co Limited

SLR Project No.: 416.064680.00001

18 September 2023

• Submitted as separate document (to be sent by file transfer with the application)





# Appendix E Borehole locations sited in SWAPP2 Processing Area

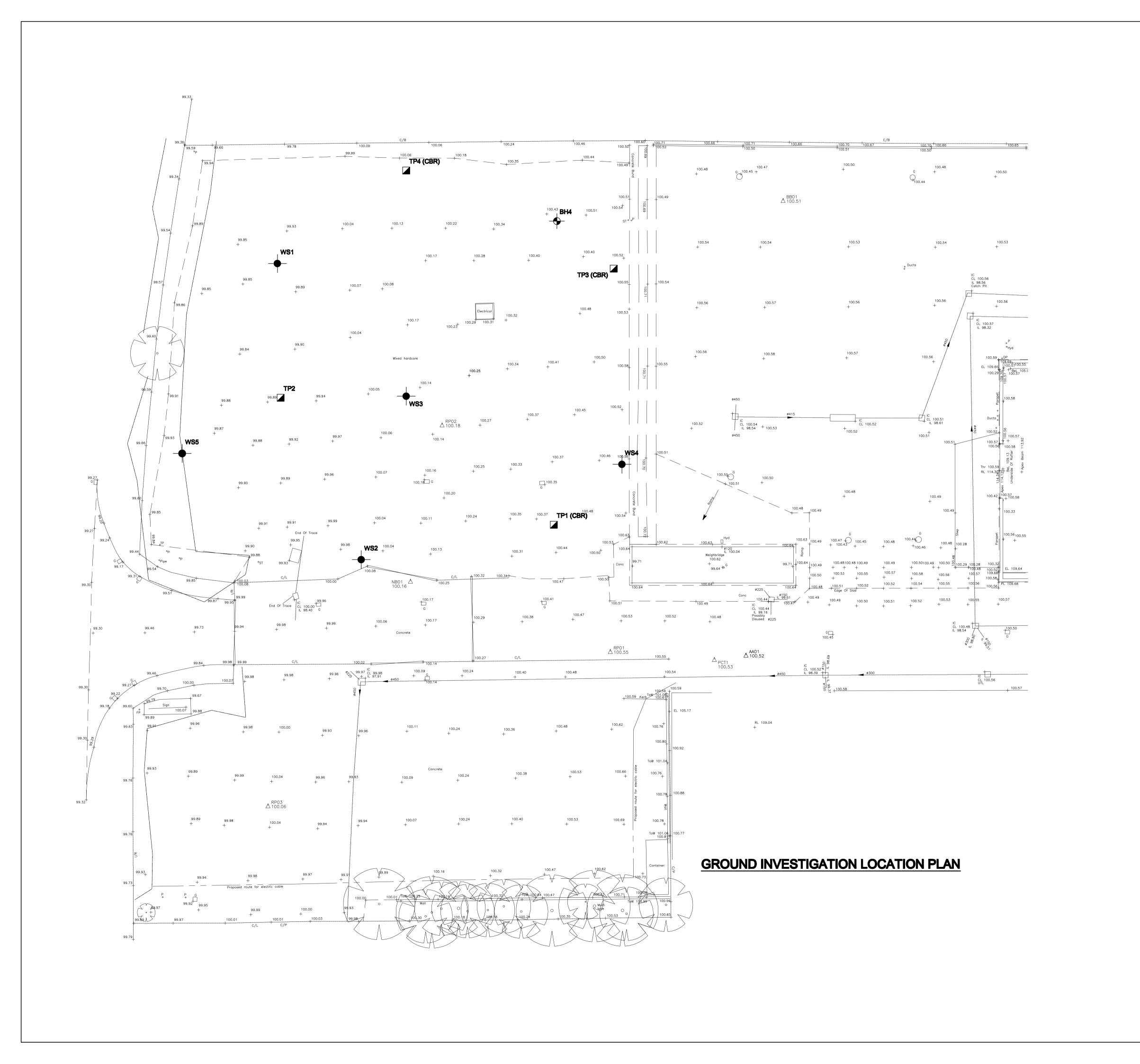
#### **Baseline Site Condition Report**

**Trafford Park Environmental Permit Variation: Wet Separation Process** 

**S Norton & Co Limited** 

SLR Project No.: 416.064680.00001





### **GENERAL NOTES**

- 1. DO NOT SCALE FROM THIS DRAWING WORK TO FIGURED DIMENSIONS ONLY.
- 2. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS ALLOWED WITHOUT PRIOR PERMISSION IN WRITING.
- 3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS AND THE SPECIFICATION.
- 4. THE CONTRACTOR SHALL INCORPORATE ALL THE REQUIREMENTS OF THE PRE-TENDER STAGE HEALTH & SAFETY PLAN.

TP2 LOCATION OF WML TRIAL PIT

TP1 (CBR) LOCATION OF WML TRIAL PIT WITH CBR
AT 0.5m DEPTH.

WS1

LOCATION OF WML WINDOW SAMPLE
PROBE

BH4

APPROX.LOCATION OF CC GEOTECHNICAL
BOREHOLE (B44) 2009

### PRELIMINARY DRAWING

P1 PRELIMINARY ISSUE. 13-01-12 ZH PD
Rev. Amendment Date By Chicd
Project
S NORTON AND CO, TENAX ROAD,
TRAFFORD PARK
Client
AXION RECYCLING LTD
Title
GROUND INVESTIGATION LOCATION PLAN

Drawn
ZH Checked PD Date JAN11 Scale
1:200 @ A1

WML CONSULTING
Chartered Civil and Structural Engineers

No.8 Cak Green
Earl Road
Stanley Green Business Parl
Cheadle Hulme
Chealire SKS 6QL
Tal 0161 482 0800
Fax 0161 486 9210
e-mail info@wmiconsulting.com

<sup>b.</sup> 5044G

Prawing No. |

E01 P1



# Appendix F Ground Investigation Shear Plant (CCG, November 2020)

#### **Baseline Site Condition Report**

Trafford Park Environmental Permit Variation: Wet Separation Process

S Norton & Co Limited

SLR Project No.: 416.064680.00001

18 September 2023

• Submitted as separate document (to be sent by file transfer with the application)





# Appendix G Borehole locations sited by the Shear Plant

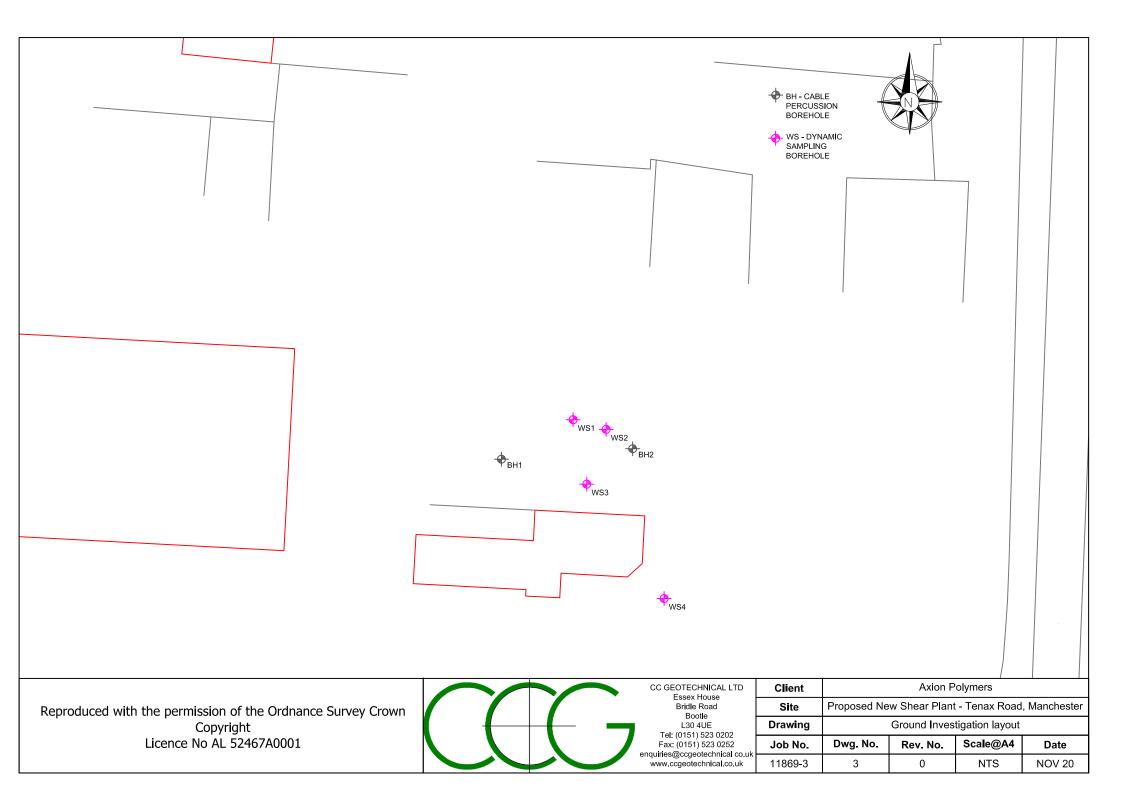
#### **Baseline Site Condition Report**

Trafford Park Environmental Permit Variation: Wet Separation Process

**S Norton & Co Limited** 

SLR Project No.: 416.064680.00001







**Appendix H** Geo-Environmental Investigation Shredder (WML Consulting, September 2021)

#### **Baseline Site Condition Report**

Trafford Park Environmental Permit Variation: Wet Separation Process

S Norton & Co Limited

SLR Project No.: 416.064680.00001

18 September 2023

Submitted as separate document (to be sent by file transfer with the application)





# Appendix I Borehole locations sited by the Shredder Plant

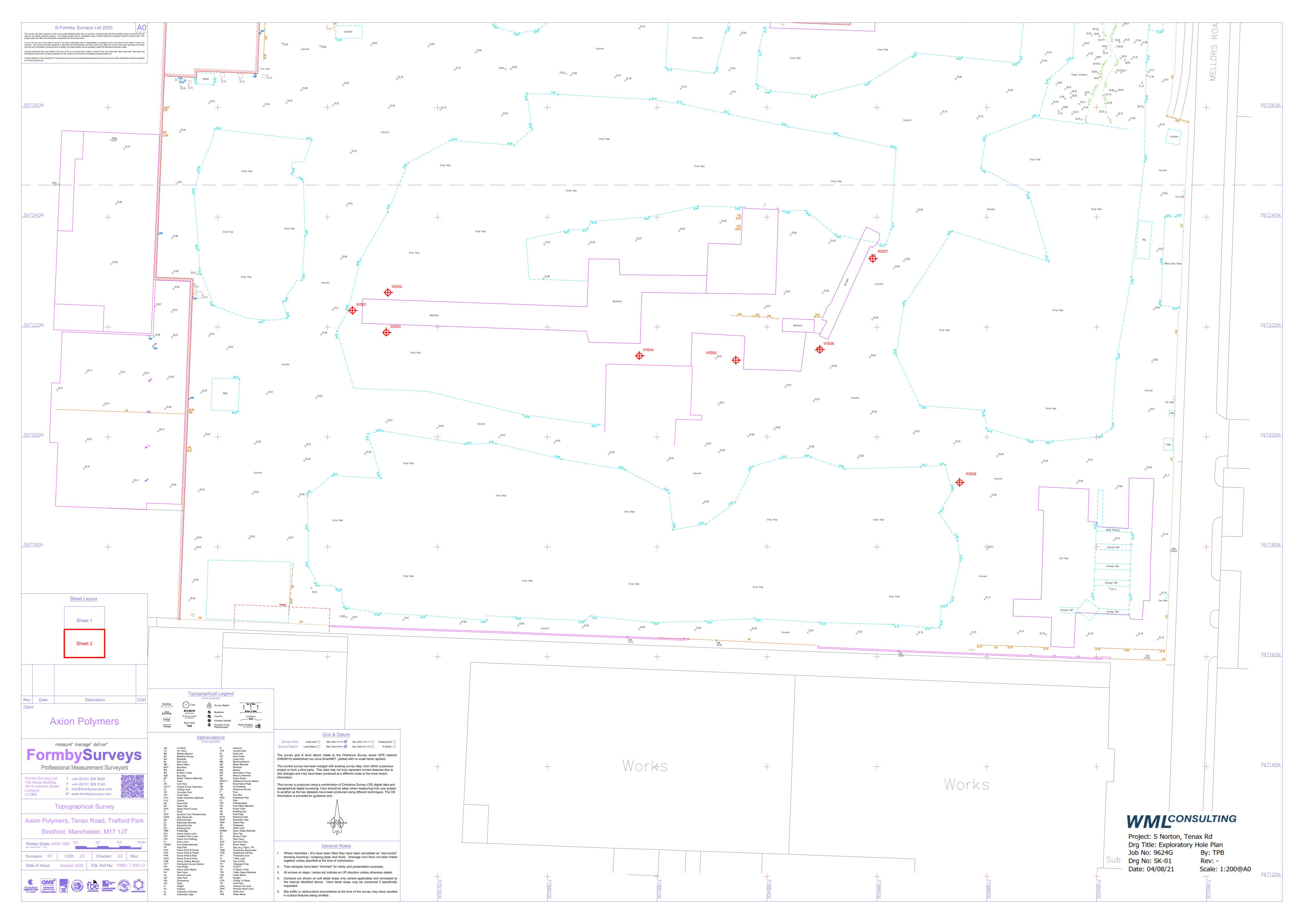
#### **Baseline Site Condition Report**

**Trafford Park Environmental Permit Variation: Wet Separation Process** 

**S Norton & Co Limited** 

SLR Project No.: 416.064680.00001







### **Appendix J**

Geo-Environmental Investigation SWAPP 3 Facility (WML Consulting, January 2023)

#### **Baseline Site Condition Report**

Trafford Park Environmental Permit Variation: Wet Separation Process

S Norton & Co Limited

SLR Project No.: 416.064680.00001

18 September 2023

• Submitted as separate document (to be sent by file transfer with the application)





# Appendix K Borehole locations sited in the extended permitted area

#### **Baseline Site Condition Report**

Trafford Park Environmental Permit Variation: Wet Separation Process

**S Norton & Co Limited** 

SLR Project No.: 416.064680.00001



Project

Process Facility, Axion Trafford

VILCONSULTING
Civil, Structural & Geotechnical Engineers

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Cheshire SK8 6QL
Tel 0161 482 0600
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e-mail info@wmlconsulting.com
www.wmlconsulting.com

Title

**Ground Investigation Layout** 

Job No. 10785G Drawing No. SK01

Drawn T SHEEN Checked S SEDDON

Date 20/01/2022

Scale DO NOT SCALE

Key:



Windowless Sampling Hole

Cable Percussion Borehole





