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Report No 11561/18

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**ENVIRONMENTAL RISK ASSESSMENT
for
SANDONS FARM WASTE RECYCLING FACILITY
ADLINGTON, CHORLEY**

Prepared for

CHORLEY SAND AND AGGREGATES LIMITED

**The Office
Rigby House Farm
The Common
Adlington
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1. INTRODUCTION

1.1 Report Context

1.1.1 The Arley Consulting Company Limited (TACCL) has been commissioned by Chorley Sand & Aggregates Limited to prepare an environmental permit variation application for the Waste Recycling Facility (EPR/EB3806TM), located at Sandons Farm Quarry in Adlington near Chorley, Lancashire. This Environmental Risk Assessment forms part of that application.

1.1.2 Sandons Farm Quarry is an existing sand quarry located approximately 1 km west of the small town of Adlington in Chorley, Lancashire. The recycling facility ('the facility'), sited within the permit boundary of Sandons Farm Inert Landfill Site ('the site'), currently operates in accordance with Standard Rules 2010 No 12 (SR2010 No12). Operations include crushing and washing of construction, demolition and excavation waste to produce soil, soil substitutes and aggregate products.

1.1.3 Washing has been carried out on site under the Standard Rules permit since around 2015. Environment Agency officers have informed the operator that a bespoke permit will be required to continue the operation. The operator wishes to make the following changes:

- Move to a bespoke permit to specifically allow washing
- Increase the throughput of waste from 75,000 tonnes per year to 200,000 tonnes per year
- Add EWC 17 09 04 mixed construction and demolition waste
- Remove a number of waste codes and restrict the permitted list of waste to Chapter 17 codes only
- A small expansion to the site boundary

1.1.4 This report has been prepared following guidance available on the gov.uk website, particularly:

- Risk Assessment for your Environmental Permit
- Non-hazardous and inert waste: Appropriate measures for permitted facilities
- Control & Monitor Emissions for your Environmental Permit

1.2 Site Details and Surrounding Area

1.2.1 Sandons Farm Quarry is centred on National Grid Reference SD 5939 1328, approximately 1 km west of the small town of Adlington and some 4 km to the south-east of Chorley town centre, Lancashire.

1.2.2 The site, generally square in shape, lies between woodland and open fields to the south-west, west and north-west, is bound by a curve of the Leeds Liverpool Canal to the north, and by the western reaches of the small town of Adlington to the east. Farmland lies beyond the canal to the north and north-east towards the A6 Westhoughton Road.

1.2.3 The aggregate recycling facility is situated in the south-western corner of the site.

1.2.4 Surrounding land uses include the following:

- Woodland and Agricultural land to the west and north
- Leeds & Liverpool Canal and Agricultural land to the north-east
- Western reaches of Adlington town to the east
- Castle House Farm Landfill Site (restored sand pit) to the south

1.2.5 The recycling facility occupies an area in the south-west corner of the site. The approximate National Grid Reference for the centre of the facility is SD 5919 1328. The location is shown on Drawing No 11561/14D, which is contained in Appendix E.

1.3 Layout

1.3.1 Access to Sandons Farm Quarry is from the west, off A5106 Wigan Lane, via a concrete road which turns to hardcore close to the quarry/landfill entrance. From here the aggregates recycling facility is accessed via a hardcore road.

1.3.2 The site is securely fenced and there are lockable gates at the quarry/ landfill site entrance as well as at Wigan Lane. The gates are locked when the site is closed.

1.3.3 Close to the entrance is a weighbridge and self-contained office/welfare unit which serves both the quarry/landfill operations and the recycling facility. A wheel wash is located on the concrete road for exiting vehicles.

1.3.4 The recycling facility is located in the western area of the quarry with areas allocated for the storage of pre- and post-treated wastes. The layout is shown on Drawing No 11561/14D in Appendix E.

- 1.3.5 The facility is surrounded by a vegetated screening bund to the west and to the south-west. The north, east and south-east face into the quarry/landfill. The topography slopes towards the east, into the quarry.
- 1.3.6 The site is surfaced with compacted hardstanding, with concreted areas beneath and around the wash plant. A settlement lagoon is located at the lowest point on the eastern boundary of the facility. Surface water drains to this pond and soaks away into the underlying strata.

2. IDENTIFICATION OF RISKS

2.1 Current Activities

- 2.1.1 Treatment consists of manual sorting and separation, crushing, washing, screening and blending. A range of recycled products are produced including 6F2, pipe bedding, grit sand and fill sand. Products are manufactured according to a Quality Protocol and tested in accordance with end of waste requirements as per the WRAP quality protocol¹.
- 2.1.2 Construction and demolition waste is imported to site and stockpiled for treatment. Hardcore is crushed and then either sold as 6F2 or sent through the wash plant for further processing to produce graded stone and sand products.
- 2.1.3 A flow diagram for the wash plant is presented at Figure 1. Waste hardcore/soil/stone is fed through a feed hopper into a primary wash box which removes silt and sand, from which sand is recovered through a cyclone. The washed stone mix drops into a secondary wash box (the log wash) which floats off any light contaminants such as plastic and wood. The stone mix is dewatered as it leaves the log wash and fed into a screening deck for grading into the various size products. All water is returned to the settlement tank where it is dosed with flocculants. Sludge settles to the bottom of the tank and is drawn off into a sludge tank which feeds a filter belt. Filtercake is deposited in a storage bay constructed with a concrete base and water is returned from the belts to the settlement tank.
- 2.1.4 Clarified water from the settlement tank brims over the top into a water feed tank, from where it is fed back into the wash box. Water is lost in the filtercake, and the plant is topped up with fresh water to supplement the recycled water. The settlement lagoon is used provide top up water.
- 2.1.5 Recovered products from the washing process are graded stone and sand. Recovered sand is sold as grit sand and fill sand is produced by blending grit sand with filtercake.
- 2.1.6 Waste products include solids recovered from the log wash which are mainly small pieces of wood and plastic. This is stored in a bay and sent off-site for disposal to a permitted site.

¹ Wrap Quality Protocol: End of Waste Criteria from the production of Aggregates from Inert waste. October 2013

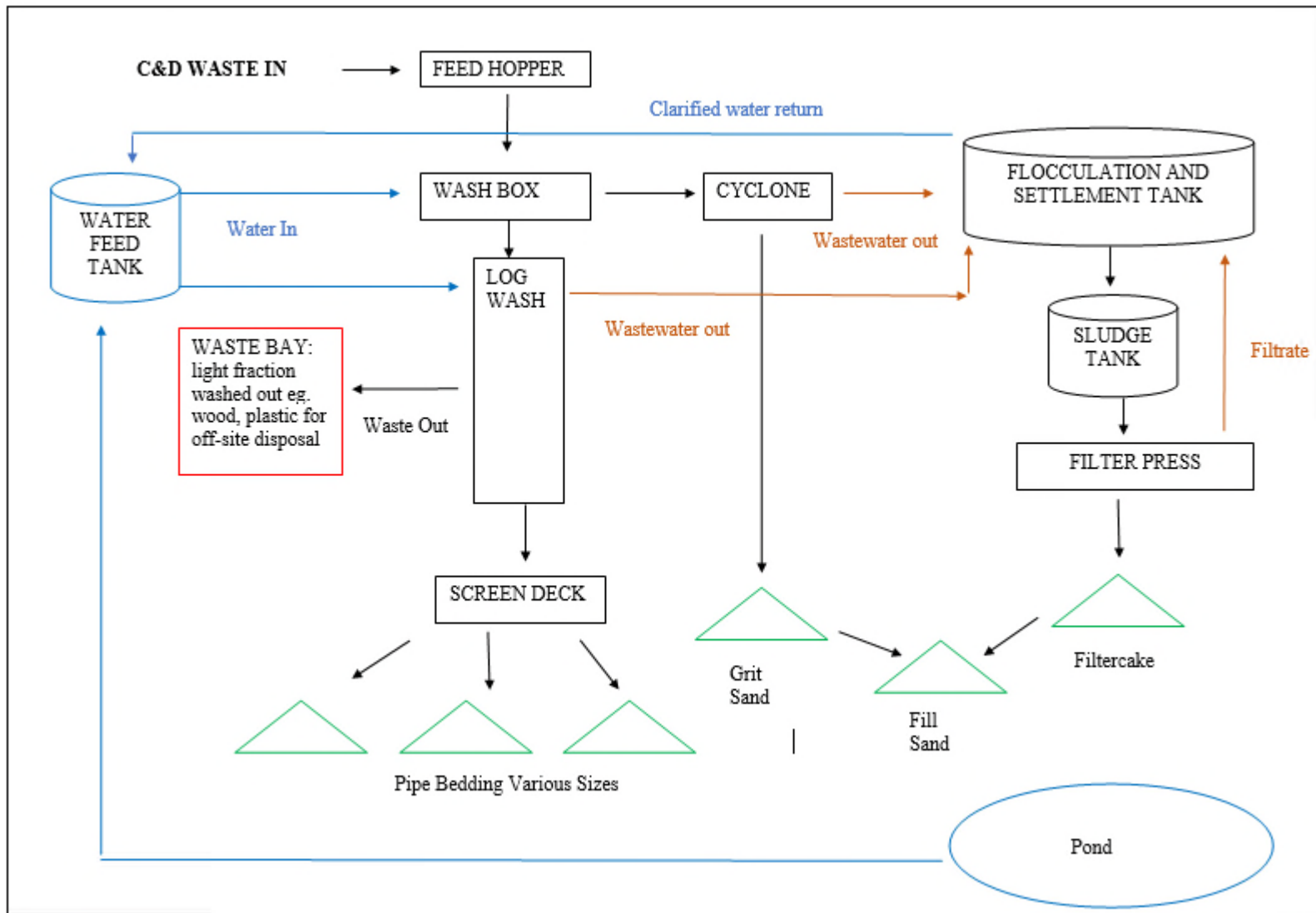


Figure 1: Wash Plant Process Flow Diagram

2.1.7 Chemical additives are added to the flocculation tank to improve flocculation of the silt for better filtration. Chemicals used are non-hazardous. The safety data sheets for these products are contained in Appendix A.

2.1.8 Incoming waste and final products are stored on hardstanding within the processing area as shown on the Site Layout Plan, Drawing No 11561/14D. contained in Appendix E.

2.2 Proposed Changes

Changes to Permitted Waste Types

2.2.1 Planning permission for the site restricts material for treatment to construction, demolition and excavation waste only. Only Chapter 17 waste codes have been accepted during the operational life of the facility but the standard rules permit allows for an extensive list of waste. As the majority of these are not required, they can be removed for the bespoke permit. The waste codes to be retained are listed in Table 1 below.

Waste Code	Description
17 01	Concrete bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics
17 02	Wood, glass and plastic
17 02 02	Glass - not including fibreglass or glass fibre
17 03	Bituminous mixtures, coal tars and tarred products
17 03 02	Road base and road planings other than those containing coal tar or freshly mixed bituminous substances
17 05	Soil (including excavated soil from contaminated sites) stones and dredging spoil
17 05 04	Soil and stones
17 05 06	Dredging spoil (not containing contaminated dredgings or fines)
17 05 08	Track ballast, soil and stones other than those containing dangerous substances

Table 1: Current Permitted Waste Codes to be Retained

2.2.2 The operator proposes to include EWC 17 09 04 mixed construction and demolition waste, limited to that generated from utilities trenching, consisting of sub base aggregates, and containing only material that would be described as 17 01 01, 17 03 02 and 17 05 04. This material is permitted for aggregate production under the WRAP protocol.

Waste Code	Description
17 09 04	mixed construction and demolition waste, limited to that generated from utilities trenching, consisting of sub base aggregates, and containing only material that would be described as 17 01 01, 17 03 02 and 17 05 04.

Table 2: Proposed Additional Waste Code

2.2.3 This waste code will not present any additional risks as its constituent parts are already permitted for acceptance. Treatment of this waste code will be as per current waste codes: either by crushing to produce 6F2 or washing and screening to produce sand and stone products.

2.2.4 Waste acceptance procedures currently in place for the site will be applied to the proposed waste code, the overriding principle of which is that only uncontaminated material will be accepted for processing.

Increase in Throughput

2.2.5 It is proposed to increase the maximum throughput to 200,000 tonnes per year. The wash plant is capable of processing a maximum of 250 tn per hour and by lifting the maximum throughput this will allow more flexibility for business development in the future.

Changes to the Site Boundary

2.2.6 It is proposed to increase the site boundary to allow more room for material storage. The current permitted area is 13,662 m² and the proposed area will be 19,324 m², an increase of 5,662 m². The proposed permit boundary is shown on Drawing No 11561/14D.

Continuation of Washing

2.2.7 Although washing has been carried out on site under the current permit for a number of years, it is considered a change for the purpose of risk assessment.

2.3 Identification of Receptors

2.3.1 The location of the site in relation to potential receptors is shown on Drawing No 11561/40A, which is provided in Appendix E. This illustrates the position of identified receptors within 1 km of the reception and operational areas. These are also listed in Table 3 below.

Ref	Receptor	Distance from Site (m)	Direction from Site
Residential / Commercial Premises			
1	Rigshaw Bridge Cottages	316	E
2	Sandons Farm	296	SE
3	Allanson Hall Farm	416	E
4	Residences in Adlington	340 – 1 km	SE
5	Gardeners Cottage	578	N
6	Nightingales Farm	712	N
7	Residences in Heath Charnock	559 – 1 km	NE
8	Coppull Brow Farm	583	W
9	Rigby House Farm	662	S

Table 3: Location of Receptors (continued overleaf)

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Ref	Receptor	Distance from Site (m)	Direction from Site
10	Shepherds Cottage	956	S
11	Harrisons Farm	853	SE
Transport Network			
12	Sandy Lane (Private Road)	20	S
13	Roads in Adlington	290 - 1 km	E
14	Church Street (A6)	600	E
15	Wigan Lane	470	W
16	Roads in Heath Charnock	600 - 1 km	NE
17	Preston to Bolton Rail line	710	E
Public Rights of Way			
18	Footpath 9-1-FP12	Adjacent	S
19	Footpath 9-1-FP11	307	E
20	Footpath 9-1-FP10	470	E
21	Footpath 9-1-FP13	269	S
22	Footpath 9-1-FP63	483	NW
23	Footpath 9-1-FP54	491	W
24	Footpath 9-1-FP56	565	NW
25	Footpath 9-1-FP19	601	SE
26	Footpath 9-1-FP20	831	SE
27	Footpath 9-1-FP14	617	S
Farmland			
28	Arable & Grazing land	125 (closest point)	N, NE, NW, S, E
Surface Water			
29	Eller Brook	56 (closest point)	W
30	Leeds & Liverpool Canal	145 (closest point)	NE
31	Ponds	36 - 800	Surrounding
32	Drains/Issues	170 - 1 km	Surrounding
33	White Bear Marina	550	E
Commercial/Industrial			
34	Adlington Industrial Estate	891	E
35	Burnetts Cars	500	NE
Recreation/Amenity			
36	Jubilee Playing Fields	769	SE
37	Allotments	364	E
Schools/Colleges/Hospitals/Nursing Homes			
38	Adlington Primary School	645	E
	Adlington St Pauls Primary School	950	NE
	Grove House Care Home	880	NE

Table 3 continued: Location of Receptors

Residential Receptors

- 2.3.2 The closest residential properties are Rigshaw Bridge Cottages, approximately 316 m to the east. Sandons Farm lies approximately 296 m to the south-east. Properties off Carrington Lane are approximately 340 m south-east with the small town of Adlington beyond.

Public Rights of Way

- 2.3.3 There is a network of public footpaths within the vicinity of the site. The closest, Footpath 9-1-FP12, comprises Sandy Lane to the immediate south of the site and its progression westwards to Wigan Lane. Footpath 9-1-FP11 runs adjacent to the eastern site boundary linking Sandy Lane, where the lane emerges from the housing estate in the south-east, with Rigshaw Bridge in the north-east and the canal towpath. Several unidentified tracks link these closest footpaths with the surrounding network.

Highway or Minor Road

- 2.3.4 The site is accessed off Wigan Lane via a long access road.

Surface Water

- 2.3.5 The closest surface water course is Eller Brook approximately 56 m to the west. The Leeds-Liverpool Canal is situated around 145 m to the north-east.
- 2.3.6 There is a private fishing pond approximately 100 m to the south.

Groundwater

- 2.3.7 The underlying bedrock is designated as a 'secondary A aquifer', which is described by the EA as consisting of '*permeable layers capable of supporting water supplies at a local rather than strategic scale*'. The underlying groundwater vulnerability is listed as 'low'.
- 2.3.8 The site is not within a currently defined groundwater source protection zone and there are currently no groundwater abstractions within 500 m of the site.

Ecological Receptors

- 2.3.9 There are five Sites of Special Scientific Interest within 10 km of the facility. The closest is the West Pennine Moors at 3.5 km. There are no local nature reserves (LNR) within 2 km of the facility, the closest being Hic Bibi, Coppull, some 2.3 km to the west-south-west. There is a Biological Heritage Site (Ellerbeck Colliery) just under 500 m from the site. These are summarised in Table 4 below.

Site	Designation	Distance & Direction
West Pennine Moors	SSSI	3.3 km ENE
Charnock Richard Pasture	SSSI	3.5 km NW
Red Moss	SSSI & SBI	4.9 km SE
Wrightington Bar Pasture	SSSI	5.1 km W
Bryn Marsh & Ince Moss	SSSI	9.8 km S
Ellerbeek Colliery	Biological Heritage Site	469 m W

Table 4: Ecological Sites

2.3.10 A habitats assessment is not required as there are no European sites within 2 km of the site.

2.4 Baseline Conditions

Wind Direction

2.4.1 Figure 1 shows a wind rose² for data collected at Blackpool Airport which is the closest recording station at approximately 33 km to the north-west.

2.4.2 The wind rose shows that the prevailing wind direction is from the west with wind speeds most frequently between 10 – 20 knots, ie moderate to fresh breeze on the Beaufort scale. The strongest winds typically come from the west-southwest and are recorded at speeds greater than 20 knots, ie strong breeze and above. Winds from the east are typically lower in strength and most frequently recorded at speeds less than 15 knots.

2.4.3 With reference to the data it is considered that wind direction at Sandons Farm will be variable but with a prevalence towards the north-east, east and south-east ie in the direction of the closest residential properties.

² Wind rose generated by Iowa Environmental Mesonet provided by Iowa State University (accessed at https://mesonet.agron.iastate.edu/sites/locate.php?network=GB_ASOS)



[EGNH] Blackpool
Windrose Plot
Time Bounds: 01 Jan 1973 12:00 AM - 17 Jan 2022 07:50 AM Europe/London

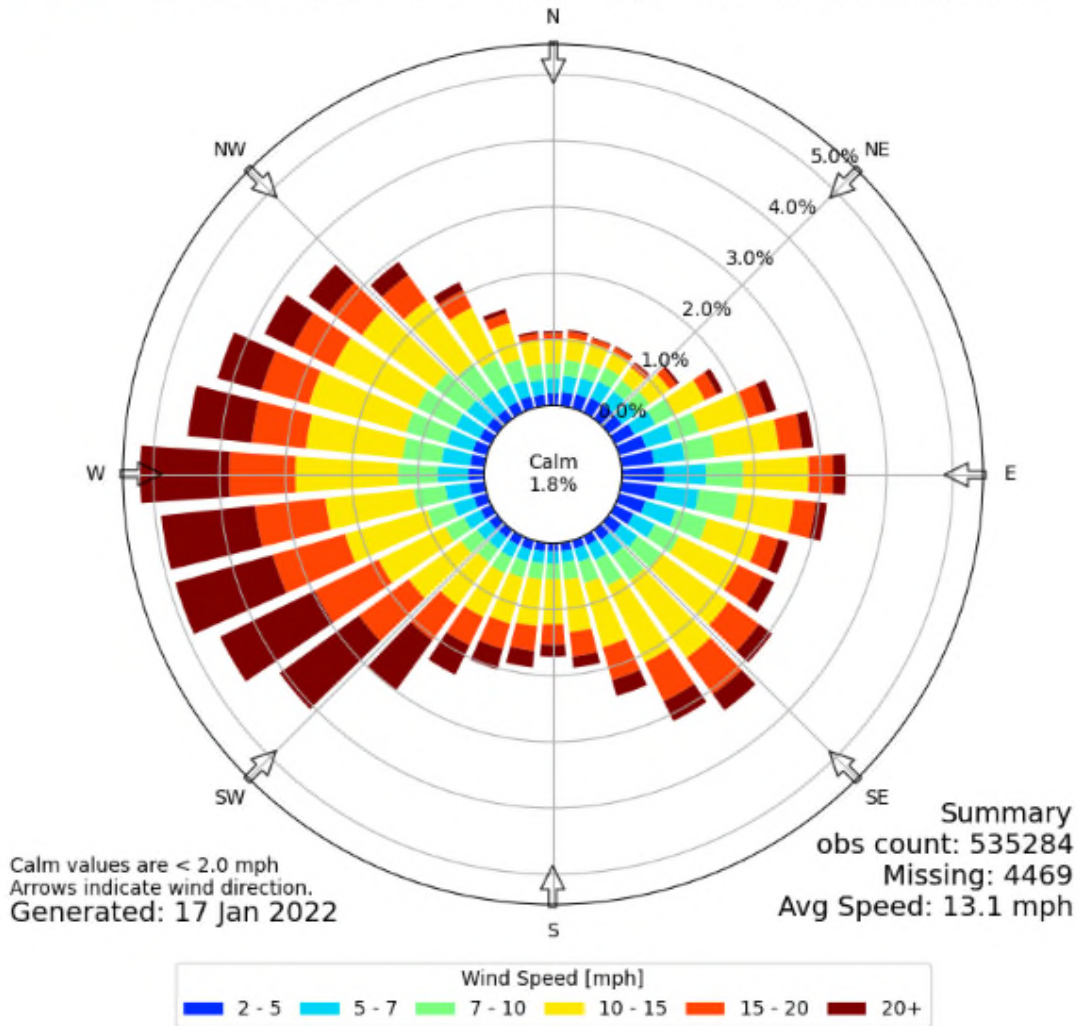


Figure 2: Wind Rose

Rainfall

2.4.4 Reference has been made to Met Office data for Rochdale, the nearest climate station to the site. Total average annual rainfall during the period 1991 to 2020 was 1197 mm. The number of days of rainfall greater than or equal to 1 mm was 170 days on average each year. Met Office rainfall information is presented in Appendix B.

Air Quality

2.4.5 According to the DEFRA interactive map tool³ the site is not located within an Air Quality Management Area (AQMA).

³ <https://uk-air.defra.gov.uk/aqma/maps/>

Potential for Flooding

2.4.6 According to the ‘Flood map for planning’ tool⁴ on the gov.uk website, the site is situated in Flood Zone 1, an area with a low probability of flooding.

2.5 Identification of Hazards

2.5.1 Potential hazards from the proposed changes to activities have been identified as:

- Noise and Vibration – longer periods of operation of processing plant carrying out crushing, screening, washing to process additional throughput;
- Dust – generated in dry conditions from processing operations, stockpiles and site roads;
- Mud on the road – deposited on the public highway by outgoing vehicles;
- Uncontained run-off – surface water run-off which may contain suspended solids from stockpiled waste and site roads; spillage of washwater; leachate of contaminants from filtercake
- Accidents

2.5.2 The nature of wastes accepted at the site will result in negligible generation of odour due to the lack of biodegradable and/or odorous material. As a result, odour is not considered further in this risk assessment.

2.5.3 Likewise, the wastes will not generate litter or attract birds, vermin or insects. Therefore, these potential hazards are not identified as present at this site and are not considered further in this risk assessment.

2.5.4 The operation is not considered to pose a risk to air (excepting fugitive dust) due to the nature of waste materials that are accepted; there are no additional emissions from site operations which would contribute global warming gases other than vehicle exhaust emissions.

2.5.5 Risks from dust and emissions are addressed in an emissions management plan, Report No 11561/31.

⁴ <https://flood-map-for-planning.service.gov.uk/>

3. RISK ASSESSMENT AND REQUIRED MITIGATION

3.1 Methodology

3.1.1 Overall risk is a combination of the severity of an event and the likelihood that it will occur. Probability of occurrence is designated as:

- Probable – expected to occur based on previous occurrences
- Likely – expected to occur due to proposed changes
- Possible – this may occur, it may or may not have happened occasionally in the past
- Unlikely – not expected to occur
- Very Unlikely – has never and is not expected to occur.

3.1.2 The magnitude of risk is determined by the probability of exposure and the severity of the consequences, whereby:

- High – severe and long lasting environmental effects to the wider locality
- Medium – effects to the local environment and community
- Low - minor, short lived effects just beyond the site boundary
- Negligible – no discernible effect beyond the site boundary

3.1.3 An event could have a high probability of occurring but have minor environmental consequences; therefore it will be designated as a low risk. Likewise a risk with severe consequences could be unlikely to occur and will be designated as a low risk. A high risk designation would be assigned to an event that has severe consequences and is expected to occur.

3.1.4 The risks associated with the identified hazards have been assessed and are presented in Tables 5 to 8 including mitigation and control measures.

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Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Noise from incoming and outgoing vehicles (full & empty)	Residents at: Rigby Hall Farm, off Sandy Lane and Carrington Rd; Allanson Hall farm	Air (noise) Vibration (ground)	Nuisance noise from delivery vehicles	Unlikely: delivery vehicles use Wigan Lane which is on the west of the site away from the residential receptors	Low	The following control measures will be in place: <ul style="list-style-type: none"> • Planning restrictions on noise • Screening bunds in place around the facility; • Regular maintenance of access road & repair of pot-holes to minimise noise generated by vehicles; • Vehicle drivers to adhere to 10 mph speed limit on access and site roads • All machinery & plant fitted with silencers & maintained as per manufacturer's specifications for efficient running; • Noise only during daytime working hours, no night time operations; • No history of noise complaints 	Low
Noise from aggregate processing (engine noise, reversing warning noise, material handling, crushing, washing & screening)			Nuisance noise detected beyond the site boundary from processing operations during daytime working hours	Unlikely: the site is situated in an area surrounded by screening bunds within the quarry and the quarry itself provides further screening. To the west and north there is also vegetation to provide additional screening.	Low		Low

Table 5: Assessment of Risks from Noise and Vibration

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Mud on the road	Public highway (Wigan Lane)	Material carried on vehicle wheels and axles on leaving the site.	Mud carried onto public highway which could be a skid hazard for motorists.	Possible	Medium	A wheel wash is in place for vehicles exiting the site; Concreted access road; A road sweeper will be employed if staining is extending along the concreted access road that could be carried off site	Low

Table 6: Assessment of Risks from Mud on the Road

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Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Surface water run-off carrying sediment from stockpiled waste and products	Eller Brook; fishing pond; Leeds-Liverpool Canal	Overland flow out of facility and into watercourse	Increased sediment load reducing water quality	Unlikely due to topography of site - land falls away from Eller Brook. Fishing pond and canal are at a higher elevation than facility	Low	Surface water drains to a settlement lagoon and soaks away. The treatment facility is surrounded by a screening bund to the south and south-east which separates the site from the woodland and Eller Brook.	Low
Surface water run-off carrying sediment from access road	Eller Brook	Overland flow off access road and into watercourse		Possible - the access road runs perpendicular to Eller Brook in places	Medium	Soil bund approx. 1m high along western edge of access road. Concreted surface is maintained with a roadsweeper. Wheelwash for vehicles on exit to help keep road clean	Low
Spillage or leakage of wash plant water; leaching of contaminants from filtercake	Local groundwater (Secondary B Aquifer)	Concentrated contaminants in recycled wash water or filtercake soak into underlying ground	Build up of contaminants in groundwater, deteriorating water quality	Possible - may be possibility of concentration effect in recycled wash water	Medium	Initial sampling and testing of recycled water and filtercake shows low levels of contaminants including toxic metals, petroleum hydrocarbons and PAH's. Proposed ongoing sampling and testing to establish if contaminants are becoming concentrated. Filtercake is stored on concreted surface.	Low
	Eller Brook	Concentrated contaminants in recycled washwater carried into watercourse by overland flow	Deterioration of surface water quality	Unlikely as surface water contained within the site by topography and bunds	Low	The area beneath the plant is concreted and laid to a fall towards the centre so that drips and spillages drain towards a sump in the centre. Water is pumped from this sump into the wash box. Surface water monitoring of Eller Brook is carried out under the landfill permit and any deterioration would be picked up and investigated	Low

Table 7: Assessment of Risk from Uncontained Run-off

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Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Non-compliant waste types, eg hazardous dust from importation & processing of contaminated material	Closest residents	Air	Inhalation of contaminated dust by locals	Unlikely as hazardous material not included on permit but possible with unscrupulous actors	Medium	Permit conditions preclude acceptance of hazardous materials Waste acceptance controls & pre-acceptance procedures will prevent acceptance of non-compliant waste types In the event that non-conforming waste is unloaded the waste will be consigned to a quarantine area to await re-loading & removal off-site as shown on the site plan	Low
	Surface water, groundwater	Uncontrolled Run-off	Contamination of controlled waters		Low	Wash plant and non-inert waste will be housed on an area of sealed drainage	Low
Spillage or leakage of fuel, oils & coolants Minor (< 5 litres) Major (> 5 litres)	Underlying ground and groundwater; surface water	Oil or fuel seeps into ground and contaminates groundwater	Localised contamination of ground, possible percolation into groundwater over a long period.	Major spill Unlikely - fuel is stored in a bunded tank but minor spills when refuelling are possible	Medium	EMS includes leaks and spills procedure with good practice measures such as use of drip trays whilst refuelling and clean up of any spillages	Low
Spillage of process water/sludge from wash plant	Eller Brook	Overland flow of surface water or sludge carrying sediment from site.	Sediment laden water run-off causing sediment accumulation in watercourse	Unlikely due to topography	Low	Topography drains site towards east and brook is on the west so any spillages will drain eastwards towards the quarry.	Very Low
	Underlying groundwater (Secondary B Aquifer)	Sediment-laden water/sludge soaks into underlying ground.	Sediment will remain on surface, uncontaminated water drains through	Possible but spillage of process water likely to be minor. Any impact would be low due to aquifer type and only limited groundwater would be exposed.	Low	The area beneath the plant is concreted and laid to a fall towards the centre so that drips and spillages drain towards a sump in the centre. Water is pumped from this sump into the wash box.	Low

Table 8 (continued overleaf): Assessment of Risk from Accidents

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Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Fire and firewater	Closest residents	Overland flow of firewater; Increased airborne particulates from smoke	Contaminated firewater flows off site; Smoke causes nuisance and respiratory effects to local residents	Very unlikely: (i) the risk of fire is very low as the material processed is mainly non-combustible; (ii) Firewater would collect in the lagoon	Low	Permitted activities do not allow flammable materials to be accepted on site and burning of waste not allowed on site. All waste accepted will be non-combustible.	Very Low
Flooding		Site floods and waste is washed off-site, adding sediment to the water environment	Waste material may be washed out of the site	Unlikely: The site is in Flood Zone 1 (low probability)	Very Low	n/a	Very Low

Table 8 continued: Assessment of Risk from Accidents

4. MITIGATION AND CONTROL

4.0.1 Risks assessed as medium or high will require mitigation and control. Proposed measures, outlined in Tables 3 to 6 above, are presented in detail below.

4.1 Noise and Vibration

4.1.1 Noise and vibration risks associated with operations have been determined as low because of the distance to residential receptors, screening vegetation, bunds and topography.

4.1.2 The operation of the quarry is subject to noise controls under planning permission 09/13/0133 issued by Lancashire County Council. There have been no issues with noise from the site, no breaches of condition or noise complaints. The relevant conditions are reproduced below:

10. Noise emitted from the operations hereby permitted shall not exceed 55Db LAeq (1hour) (free field), as defined in this permission, when measured at the properties of Rigshaw Bridge Cottages, Sandons Farm and Carrington Road at a point closest to the noise source.

11. All plant, equipment and machinery used in connection with the operation and maintenance of the site shall be equipped with effective silencing equipment or sound proofing equipment to the standard of design set out in the manufacturer's specification and shall be maintained in accordance with that specification at all times throughout the development.

12. All mobile plant or vehicles to be operated at the site shall be fitted with non-audible or white noise reversing alarm systems and shall be used at all times during the development and restoration.

4.1.3 EA guidance 'Control & Monitor Emissions for your Environmental Permit' states:

You must write a noise and vibration management plan explaining how you'll prevent or minimise noise and vibration. You must do this if your risk assessment shows that your operation could cause pollution from noise or vibration beyond your site boundary.

4.1.4 A noise management plan has not been prepared as it is not considered that the proposed operation will cause noise pollution beyond the site boundary. This was further supported by pre-application advice which stated a noise assessment would not be required.

4.1.5 Noise is minimised by the maintenance of plant and the use of silencers, maintenance of roads and working within the permitted operational hours. In addition, screening bunds are in place around the treatment area.

4.2 Mud on Road

4.2.1 Risks associated with mud on road have been determined as medium. The access road is maintained by the use of a wheel wash for HGVs exiting the site. The access road is swept clean with a road sweeper. A mud management plan is in place as part of the EMS and is contained in Appendix D.

4.3 Control of Run-off

4.3.1 The area footprint beneath the wash plant is concreted and laid to a fall with any run-off, drips and spillages drained to a sump in the centre. This water is pumped back into the wash box and processed through the plant.

4.3.2 The remainder of the site is hardstanding and is used to store incoming waste and processed material. This area drains to a settlement lagoon in the east and settled water drains away into the underlying strata. This lagoon is also used to top up the wash plant.

4.3.3 Testing of the recycled washwater and filtercake has been undertaken to establish whether contaminants are present and if they are becoming concentrated therein, due to the continual recycling of washwater.

4.3.4 Samples were taken on 16/8/22 and submitted to an accredited laboratory for analysis. Two samples of approximately 0.5 kg each were taken from two separate locations in the stockpile in the filtercake storage bay.

4.3.5 Two samples of washwater were taken from the press water return feed, at the point after it comes out of the filter press and before it is pumped back up into the settlement tank. The wash plant was operational at the time of sampling and the samples were collected approximately 10 minutes apart from the same sampling point.

4.3.6 The results are listed in Tables 9 and 10 below. The laboratory certificates are contained in Appendix C.

Parameter	Units	Filtercake 1	Filtercake 2
pH	-	8.57	8.35
Electrical conductivity	µs/cm	1550	1700
Total Organic Carbon	% w/w	2.01	1.54
Arsenic	mg/kg	6	6
Cadmium	mg/kg	1.6	1.6
Copper	mg/kg	43	40
Chromium	mg/kg	26	26
Lead	mg/kg	56	50
Nickel	mg/kg	32	31
Tin	mg/kg	<5	<5
Zinc	mg/kg	112	108
TPH	mg/kg	148	116
PAH total	mg/kg	0.39	0.76

Table 9: Contaminant Concentrations in Filtercake

Notes:

TPH = total petroleum hydrocarbons

PAH = polyaromatic hydrocarbons

Parameter	Units	Washwater 1	Washwater 2
pH	-	7.63	7.74
Electrical conductivity	µs/cm	2768	2774
Arsenic	mg/l	4	4
Cadmium	mg/l	1.2	1.3
Copper	mg/l	17	19
Chromium	mg/l	2	2
Lead	mg/l	3	5
Nickel	mg/l	10	10
Tin	mg/l	<1	<1
Zinc	mg/l	7	8
TPH	mg/l	<40	107
PAH total	µg/l	0.05	0.05

Table 10: Contaminant Concentrations in Washwater

4.3.7 Results for the filtercake samples show low levels of contaminants including metals, PAHs and TPH. The TPH concentration is well below the inert WAC limit of 500 mg/kg. Likewise, the PAH concentration is below the inert WAC limit of 100 mg/kg. Concentrations of toxic metals are low.

4.3.8 Results for the washwater show lower concentrations of contaminants than in the filtercake. This indicates that contaminants are not building up in the washwater, however further monitoring will confirm this.

4.3.9 It is proposed to continue to sample the washwater and filtercake to build up a data set for further review. This will aim to:

- Characterise the washwater and filtercake
- Build up a picture of variation
- Establish if contaminants are becoming concentrated

4.3.10 An monitoring plan is included in Appendix D which outlines the proposed monitoring schedule. This will be reviewed and revised after 6 months as data has been obtained.

4.3.11 If contaminants are observed to be building up then an action plan will be proposed to reduce contaminants to an acceptable level.

4.4 Waste Acceptance

4.4.1 The primary method of prevention of contaminants in the washwater and filtercake is to control the waste inputs through waste acceptance criteria. Material is accepted to site with the purpose of producing recycled aggregate products in line with the end of waste WRAP quality protocol. The protocol stipulates that waste must have no chemical contamination.

4.4.2 The waste acceptance procedure includes assessment of waste enquiries at the pre-application stage by a technical assessor. Material which is considered contaminated is rejected.

4.4.3 When the material arrives on site it is checked by the weighbridge operator and again by the site foreman on tipping. It is visually inspected for conformity and any non-conforming material will be rejected.

4.4.4 A copy of the waste acceptance procedure is contained in Appendix D

4.5 Spillage

4.5.1 Effects of spillage are controlled as per the Leaks & Spills Procedure and Accident Management Plan, contained in Appendix D.

4.5.2 Spills are prevented by:

- Regular servicing & maintenance of vehicles
- Use of drip trays during servicing & maintenance of vehicles
- Storage of fuel/oil within bunded areas with capacity to hold 110% of the contained volume.

4.5.3 In the event of a spillage suitable action includes:

- Application of absorbent granules
- Formation of a temporary bund to prevent escape
- Placement of boom downstream on escape to watercourse

5. CONCLUSIONS

- 5.1 The environmental risks of the proposed changes have been assessed and, where required, mitigation and control measures have been identified to reduce the risks to an acceptably low level.
- 5.2 The risk of mud to local roads will be controlled by use of a wheelwash and a road sweeper.
- 5.3 Dust control measures will be implemented via an Emissions Management Plan. Potential emissions will be controlled by minimising generation (eg speed restrictions, low drop heights); containment (eg perimeter bund); and suppression (eg use of water bowser to dampen surfaces).
- 5.4 Noise arising from the proposed changes will not result in a significant impact to sensitive receptors due to the isolated setting of the facility, and the implementation of control measures including daytime only operation and regular maintenance of plant and equipment. Further mitigation is provided by the screening to the north and west of site activities.
- 5.5 Risks from surface water run-off will be minimised by siting the wash plant on an impermeable surface, which is laid to a fall to collect spills and drips in a sump. The washing plant is a fully contained, closed loop system and does not produce any effluent for discharge.
- 5.6 Risks from accepting contaminated material are controlled through the waste acceptance procedures to prevent the importation of contaminated waste.
- 5.7 Risks to prevent accidents are controlled through implementation of the EMS, including the leaks and spills procedure and the accident management plan.
- 5.8 In conclusion, it has been demonstrated that the risks posed by site activities will not have a significant impact on the surrounding environment.

C Gettinby
BSc (Hons) PhD MCIWM
Director

APPENDIX A

Safety Data Sheets for Flocculants

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 and its amendments

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **FLOPAM™ AN 923 SEP**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: SNF (UK) Limited
1 Red Hall Crescent, Paragon Business Village
Wakefield WF1 2DF
United Kingdom

Telephone: 01924-311000

Telefax: 01924-311099

E-mail address: sds@snf.com

1.4. Emergency telephone number

24-hour emergency number: +33 477 36 87 25

National Poison Information Service: NHS Direct: 0845 4647 or 111 (24/24, 7/7); Scotland: NHS 24 - 08454 24 24 24 (24/24, 7/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No.1272/2008:

Not classified.

2.2. Label elements

Labelling according to Regulation (EC) 1272/2008:

Hazard pictogram(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

Additional elements: None.

2.3. Other hazards

Aqueous solutions or powders that become wet render surfaces extremely slippery.

PBT and vPvB assessment:

Not PBT or vPvB according to the criteria of Annex XIII of REACH.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable, this product is a mixture.

3.2. Mixtures

This product is a mixture.

Hazardous components

Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. No hazards which require special first aid measures.

Skin contact:

Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In case of persistent eye irritation, consult a physician.

Ingestion:

Rinse mouth with water. Do NOT induce vomiting. No hazards which require special first aid measures.

4.2. Most important symptoms and effects, both acute and delayed

None.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water. Water spray. Foam. Carbon dioxide (CO₂). Dry powder.

Warning! Aqueous solutions or powders that become wet render surfaces extremely slippery.

Unsuitable extinguishing media:

None known.

5.2. Special hazards arising from the substance or mixture*Hazardous decomposition products:*

Thermal decomposition may produce: nitrogen oxides (NO_x), carbon oxides (CO_x). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters*Protective measures:*

In the event of fire, wear self-contained breathing apparatus.

Other information:

Aqueous solutions or powders that become wet render surfaces extremely slippery.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures***Personal precautions:*

Aqueous solutions or powders that become wet render surfaces extremely slippery.

Protective equipment:

Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:

Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up*Small spills:*

Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

Large spills:

Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

Residues:

After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Aqueous solutions or powders that become wet render surfaces extremely slippery. Use personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry place. Keep container closed when not in use.
Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure limits:
None known.

Derived No and Minimum Effect Levels (DNELs/DMELs)
None known.

Predicted no-effect concentrations (PNEC)
None known.

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields.

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves.
ii) Other: Workclothes protecting arms, legs and body.

c) Respiratory protection:
No personal respiratory protective equipment normally required. Dust safety masks recommended where working powder concentration is more than 10 mg/m³.

d) Additional advice:
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment. Do not flush into surface water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance: Granular solid, White.

b) Odour: None.

c) Odour Threshold:	Not applicable.
d) pH:	5 - 9 @ 5 g/L (See Technical Bulletin or Product Specifications for precise value)
e) Melting point/freezing point:	> 150°C
f) Initial boiling point and boiling range:	Not applicable.
g) Flash point:	Not applicable.
h) Evaporation rate:	Not applicable.
i) Flammability (solid, gas):	No data available.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	Not applicable.
l) Vapour density:	Not applicable.
m) Relative density:	0.6 - 0.9
n) Solubility(ies):	Soluble in water.
o) Partition coefficient:	-2
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Explosive properties:	Kst = 0 Non-flammable to ignition sources of less than 2.5 kJ.
t) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Oxidizing agents may cause exothermic reactions.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NO_x), carbon oxides (CO_x), hydrogen cyanide (hydrocyanic acid).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg.
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Not irritating.
Serious eye damage/eye irritation:	Not irritating.
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	No hazards resulting from the material as supplied.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (OECD 203) LC50/Fathead minnow/96 hours > 100 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (OECD 202)
Acute toxicity to algae:	IC50/Scenedesmus subspicatus/72 hours > 100 mg/L (OECD 201)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.

Toxicity to microorganisms: No data available.

Effects on terrestrial organisms: No known effects.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.

Partition co-efficient (Log Pow): -2

Bioconcentration factor (BCF): ~0

12.4. Mobility in soil

Information on the product as supplied:

None.

12.5. Results of PBT and vPvB assessment

PBT assessment:

Not PBT according to the criteria of Annex XIII of REACH.

vPvB assessment:

Not vPvB according to the criteria of Annex XIII of REACH.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information***Land transport (ADR/RID)***

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information***15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture***

All components of this product have been registered or pre-registered with the European Chemicals Agency or are exempt from registration.

15.2. Chemical safety assessment

A Chemical Safety Assessment for this product has been carried out by the person responsible for producing this Safety Data Sheet. All relevant information used to conduct this assessment are included in this Safety Data Sheet as well any as any resulting Risk Reduction Measures.

SECTION 16: Other information

This data sheet contains changes from the previous version in section(s):

SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms

PBT = persistent, bioaccumulative and toxic

STOT = Specific target organ toxicity

vPvB = very persistent and very bioaccumulative

This SDS was prepared in accordance with the following:

Regulation (EC) N°1907/2006, as amended

Regulation (EC) N°1272/2008, as amended

Version: 19.01.a

PRAC001

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

ANNEX(ES)

This product is not hazardous as supplied and/or does not contain hazardous components:

- which require REACH registration; or,
- which demonstrate relevant effects which would require a chemical safety assessment; or,
- which are present at concentrations above their cut-off value.

Therefore, according to Regulation (EC) No 1907/2006, Article 31, paragraph 7, an Exposure Scenario is not required as an annex to the Safety Data Sheet.

SAFETY DATA SHEET

FLOFOAM 755 F

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier:

Trade name: FLOFOAM 755 F
EC No: Mixture.
REACH Registration Number: Mixture.
CAS No: Mixture.

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified Uses: Foam Control Agent

1.3 Details of the supplier of the safety data sheet:

Supplier: SNF (UK) LIMITED
1 Red Hall Crescent
Paragon Business Village
Wakefield
WF1 2DF
United Kingdom

Telephone Number: +44 (0) 1924 311000
Fax: +44 (0) 1924 311099

Email: technical@snf.co.uk

1.4 Emergency Telephone Number (Office hours only):

SNF UK Ltd (Office hours only): +44 (0) 1924 311000 (direct dial 453 or 452)

National Poison Information Service: NHS Direct: 0845 4647 or 111 (24/24, 7/7)
Scotland: NHS 24-08454 24 24 24 (24/24, 7/7)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008: Not classified as hazardous.

2.1.2 Classification according to Directive 67/548/EEC:

2.1.3 Additional Information:

2.2 Label Elements: (Labelling according to Regulation (EC) No 1272/2008:**Hazard Pictograms:**

No label assigned

Signal Word: None assigned.

Hazard Statements:
None assigned.

Precautionary Statements:
None assigned.

2.3 Other Hazards: No data available.

SAFETY DATA SHEET

FLOFOAM 755 F

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not Applicable

3.2 Mixtures

Chemical Name	CAS no	Weight %	EC No	H phrase
Alcohol alkoxylate	-	< 5%	Polymer	H412, Aq Tox Cat 3

4. FIRST AID MEASURES

4.1 Description of first aid measures:

4.2 Inhalation: Following inhalation move the person to fresh air. Keep the person warm and at rest. Obtain medical attention immediately.

4.3 Skin contact: Following skin contact remove contaminated clothing. Wash with soap and water. In case of persistent skin irritation or allergic reactions consult a physician.

4.4 Eye contact: Following eye contact rinse cautiously with water for several minutes. Obtain medical attention if irritation persists.

4.5 Ingestion: Do not induce vomiting. Give patient milk to drink if conscious. If patient feels unwell seek medical attention.

4.6 Most important symptoms and effects, both acute and delayed: No data available.

4.7 Indication of any immediate medical attention and special treatment needed: No data available.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media: Carbon dioxide, foam, dry chemical powder, water spray.

Unsuitable extinguishing media: None.

5.2 Special hazards arising from the substance or mixture: In a fire this product will release oxides of carbon.

5.3 Advice for fire firefighters: Cool tanks and containers exposed to fire with water. Cover spills, which are not burning, with foam or sand. Use respiration and eye protection in case of smoke.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

May cause slip hazard if spilt. Do not walk through spilled material.

6.2 Environmental precautions:

Prevent accidental discharge into sewers or water course.

6.3 Methods and material for containment and cleaning up:

Stop leak if possible without risk. Dam and absorb spillages with sand, earth or other non-combustible materials. Transfer to suitable clearly marked containers for disposal in accordance with national and local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Handle in accordance with good industrial hygiene practices. Avoid contact with skin and eyes. Wash hands thoroughly after contact. Observe general rules for fire prevention.

7.2 Conditions for safe storage, including any incompatibles:

Store between 5 °C and 30 °C. Extremes of temperature may adversely affect the viscosity and stability of the product.

SAFETY DATA SHEET

FLOFOAM 755 F

7.3 **Specific end use(s):**
Antifoam

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 **Control parameters:**

<u>Occupational Exposure limit values:</u>	<u>WEL (8 hour reference period)</u>		<u>STEL (15 minute reference period)</u>	
	ppm	mgm ³	ppm	mgm ³
Not applicable	-	-	-	-

8.2 **Exposure controls:** See section 8.4. Determine controls required based on risk assessment.

8.3 **Engineering measures:** No specific requirements.

8.4 **Personnel protection:** Wear gloves made from nitrile conforming to BS EN374.
Wear eye protection to BS EN166.
Wear protective clothing dependant on level of potential exposure based on findings of a risk assessment.

8.5 **Emergency:** Provide eyewash facilities, soap and water.

8.6 **Hygiene measures:** Employ good industrial hygiene procedures including no eating/drinking or smoking whilst handling the material. Wash hands before eating, smoking or using the toilet. Remove and clean/replace any contaminated clothing/PPE before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Appearance:** Off-white emulsion.

9.2 **Odour:** Mild characteristic.

9.3 **Melting point/Freezing point:** No data available.

9.4 **Boiling Point:** 100 °C.

9.5 **Flash point:** No data available.

9.6 **Relative density:** Approx 0.98 g/cm³.

9.7 **Solubility in water:** Readily dispersible.

9.8 **Partition coefficient: n-octanol/water:** Not determined.

9.9 **Viscosity:** approx 250 cps (20 °C).

9.10 **Explosive properties:** Not determined.

9.11 **Oxidising properties:** Not determined.

10. STABILITY AND REACTIVITY

10.1 **Reactivity:** None known.

10.2 **Chemical stability:** The product is stable under normal storage conditions.

10.3 **Possibility of hazardous reactions:** None known.

10.4 **Conditions to avoid:** None known.

10.5 **Incompatible materials:** Avoid contact with strong oxidising agents.

10.6 Hazardous decomposition products: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

11.1 Acute oral toxicity:	Low toxicity if swallowed. Small amounts swallowed incidentally as a result on normal handling operations are not likely to cause injury; However swallowing larger amounts may cause injury.
11.2 Acute inhalation toxicity:	Not classified. No other data available.
11.3 Acute dermal toxicity:	Prolonged skin contact is unlikely to result in absorption of harmful amounts.
11.4 Skin corrosion/irritation:	Unlikely to cause harm to the skin on brief occasional contact.
11.5 Serious eye damage/irritation:	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
11.6 Respiratory/skin sensitisation:	No data to support respiratory or skin sensitisation.
11.7 Germ cell mutagenicity:	No data available.
11.8 Carcinogenicity:	No data available.
11.9 Reproductive toxicity:	No data available.
11.10 STOT – Single exposure:	No data available.
11.11 STOT – Repeated exposure:	No data available.
11.12 Aspiration hazard:	At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility

12. ECOLOGICAL INFORMATION

12.1 Toxicity:	LC50 / EC50 / IC50 >100mg/l (based on knowledge of components).
12.2 Persistence and degradability:	Biological elimination >90% (based on knowledge of components).
12.3 Bioaccumulative potential:	This product is not expected to bioaccumulate.
12.4 Mobility in soil:	If released to water the product disperses to form an emulsion
12.5 Results of PBT and vPVB assessment:	No data available.
12.6 Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:	Dispose of via an authorised waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions providing the local regulations for emissions are met.
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14. TRANSPORT INFORMATION

14.1 UN number:	Not regulated for transport.
14.2 UN proper shipping name:	Not regulated for transport.
14.3 Transport hazard class(es):	ADR/RID/AND Class: Not regulated for transport. ADR Label No: Not regulated for transport. IMDG Class: Not regulated for transport. ICAO Class/Division: Not regulated for transport. Transport Labels: Not regulated for transport.
14.4 Packing group:	Not regulated for transport.
14.5 Environmental hazards:	Not hazardous to the environment.
14.6 Specific precautions for User:	Relevant information in other sections have to be considered.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	Bulk transport in tankers is not intended.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Workplace Exposure Limits EH40.
Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation, (EC) No 1907/2006.
Classification, Labelling and Packaging of Substances and Mixtures Regulation, (EC) No 1272/2008.

15.2 Chemical Safety Assessment:

A chemical safety assessment has not been conducted.

15.3 Other international regulations:

Listed on or in accordance with the following inventories:

EINECS – Europe
ECL – Korea
ENCS – Japan
AICS – Australia
IECSC – China
DSL – Canada
PICCS – Philippines
TSCA - USA

16. OTHER INFORMATION**Further information:**

Changes, all sections updated following full review of the safety data sheet in accordance with regulation EC 1907/2008 & EC 1272/2008.

This data sheet contains changes to the previous version in section(s):

Section 3 & 11 have been amended since revision 3.

Contact:

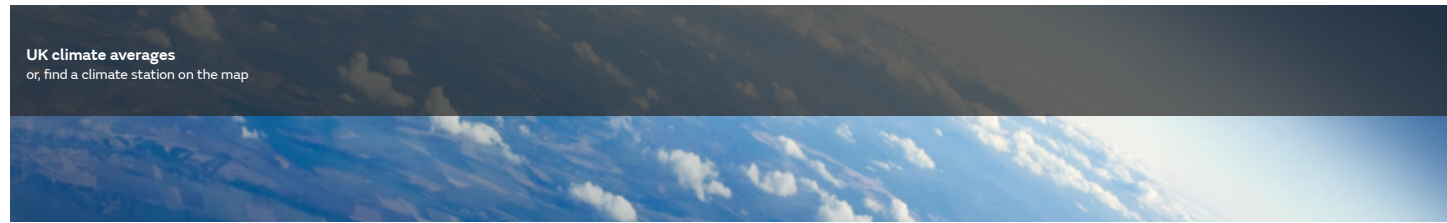
Tele: +44 (0) 1924 311000

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, process, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

APPENDIX B

Rainfall data

Rochdale - Climate Station (Greater Manchester) UK climate averages



UK climate averages
or, find a climate station on the map

Nearest climate station:

Rochdale - Climate Station

Location: 53.6, -2.183

Altitude: 110 m above mean sea level

Station type: Observing Site

Station: Rochdale

Climate period:

1991-2020 ▼

Month	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Monthly mean wind speed at 10 m (knots)
January	6.93	1.50	10.16	32.16	119.19	17.05	4.54
February	7.45	1.41	9.32	49.83	97.11	13.69	4.67
March	9.57	2.51	6.06	98.86	89.91	13.41	5.10
April	12.47	4.55	2.33	152.72	68.36	11.75	5.14
May	15.60	7.19	0.28	175.45	65.67	10.95	4.82
June	18.24	10.13	0.00	152.85	82.87	12.59	4.18
July	20.01	11.94	0.00	170.77	96.90	13.11	3.61
August	19.55	11.77	0.00	153.52	100.22	14.77	3.36
September	17.11	9.55	0.00	116.33	97.80	13.23	3.44
October	13.39	6.85	1.07	78.66	116.78	15.35	3.88
November	9.70	3.86	5.05	41.64	123.53	17.22	4.18
December	7.18	1.50	10.10	42.69	138.88	17.63	3.99
Annual	13.13	6.09	44.37	1265.48	1197.22	170.75	4.24

District: England NW & Wales N

Climate period:

1991-2020

Month	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Monthly mean wind speed at 10 m (knots)
January	6.64	1.45	10.39	44.88	133.38	16.25	11.03
February	7.09	1.39	9.80	69.40	110.03	13.51	11.03
March	9.08	2.38	7.09	107.15	94.38	13.24	10.40
April	11.95	4.02	3.48	154.28	77.31	12.10	9.30
May	15.07	6.59	0.85	190.89	78.87	11.67	8.81
June	17.54	9.32	0.03	172.48	89.18	12.10	8.21
July	19.21	11.28	0.00	172.64	98.02	13.29	7.95
August	18.83	11.26	0.00	155.83	109.50	14.22	8.02
September	16.54	9.27	0.04	124.42	109.73	13.16	8.40
October	13.00	6.68	1.38	88.23	140.44	15.87	9.41
November	9.46	3.88	4.73	54.21	141.72	17.30	9.86
December	7.10	1.70	9.90	40.10	155.31	17.23	10.38
Annual	12.66	5.79	47.68	1374.51	1337.87	169.94	9.39

Region

- England N
- England
- England & Wales

Region: England N

Climate period:

1991-2020 ▼

Month	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Monthly mean wind speed at 10 m (knots)
January	6.41	1.09	11.25	50.70	91.54	14.00	10.31
February	7.05	1.11	10.52	75.83	77.75	11.89	10.30
March	9.21	2.16	7.42	112.06	67.68	11.25	9.96
April	12.03	3.77	3.66	153.80	61.19	10.51	8.96
May	15.17	6.35	0.88	193.01	60.91	10.34	8.51
June	17.82	9.17	0.02	170.59	76.10	11.18	7.83
July	19.91	11.18	0.00	179.81	78.53	11.78	7.50
August	19.52	11.15	0.00	165.76	87.20	12.40	7.60
September	16.92	9.15	0.04	129.78	80.93	11.17	8.09
October	13.10	6.47	1.39	93.91	98.24	13.65	8.78
November	9.26	3.51	5.21	60.04	101.53	14.72	9.25
December	6.76	1.24	10.90	47.60	104.33	14.49	9.58
Annual	12.79	5.55	51.29	1432.91	985.95	147.37	8.88

UK

Climate period:

1991-2020 ▼

Month	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Monthly mean wind speed at 10 m (knots)
January	6.66	1.21	11.32	47.51	121.53	15.43	10.75
February	7.16	1.13	10.69	71.93	96.15	13.18	10.77
March	9.22	2.19	7.84	109.24	85.11	12.68	10.27
April	12.03	3.75	4.03	155.38	71.74	11.59	9.33
May	15.13	6.25	1.20	192.21	70.98	11.24	8.75
June	17.68	9.08	0.07	171.48	77.20	11.51	8.17
July	19.62	11.02	0.00	173.38	82.49	12.25	7.86
August	19.30	10.97	0.01	161.64	93.73	12.89	7.89
September	16.85	9.04	0.12	127.49	90.89	12.08	8.41
October	13.08	6.42	1.64	91.81	122.56	14.83	9.30
November	9.41	3.56	5.51	57.93	123.40	15.81	9.74
December	7.02	1.42	10.95	42.71	127.27	15.61	10.06
Annual	12.79	5.53	53.36	1402.72	1163.04	159.09	9.27

APPENDIX C

Laboratory Results

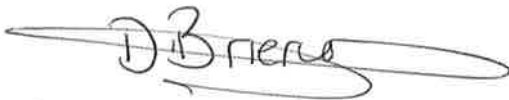
SUPPLEMENTAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/07962
Issue Number: 2
Date: 23 August, 2022

Client: Chorley Sand and Aggregates Ltd
The Office
Rigby House Farm
The Common
Adlington
Lancs
PR7 4DS

Project Manager: Ken Deighan
Project Name: Soil Samples
Project Ref: Not specified
Order No: K D
Date Samples Received: 15/08/22
Date Instructions Received: 16/08/22
Date Analysis Completed: 23/08/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/07962

Client Project Name: Soil Samples

Client Project Ref: Not specified

Lab Sample ID	22/07962/1	22/07962/2								
Client Sample No	1	2								
Client Sample ID	Filtercake	Filtercake								
Depth to Top										
Depth To Bottom										
Date Sampled	12-Aug-22	12-Aug-22								
Sample Type	Soil	Soil								
Sample Matrix Code	6A	6								
								Units	Limit of Detection	Method ref
% Stones >10mm _A	<0.1	<0.1						% w/w	0.1	A-T-044
pH _D ^{M#}	8.57	8.35						pH	0.01	A-T-031s
Electrical conductivity @ 20degC _D	1550	1700						µs/cm	10	A-T-037s
Total Organic Carbon _D ^{M#}	2.01	1.54						% w/w	0.03	A-T-032s
Arsenic _D ^{M#}	6	6						mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.6	1.6						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	43	40						mg/kg	1	A-T-024s
Chromium _D ^{M#}	26	26						mg/kg	1	A-T-024s
Lead _D ^{M#}	56	50						mg/kg	1	A-T-024s
Nickel _D ^{M#}	32	31						mg/kg	1	A-T-024s
Tin _D	<5	<5						mg/kg	5	A-T-024s
Zinc _D ^{M#}	112	108						mg/kg	5	A-T-024s
TPH total (>C6-C40) _A ^{M#}	148	116						mg/kg	10	A-T-007s

Envirolab Job Number: 22/07962

Client Project Name: Soil Samples

Client Project Ref: Not specified

Lab Sample ID	22/07962/1	22/07962/2								
Client Sample No	1	2								
Client Sample ID	Filtercake	Filtercake								
Depth to Top										
Depth To Bottom										
Date Sampled	12-Aug-22	12-Aug-22								
Sample Type	Soil	Soil								
Sample Matrix Code	6A	6								
								Units	Limit of Detection	Method ref
PAH-16MS										
Acenaphthene _A ^{M#}	0.03	0.04						mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	0.04						mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	0.06						mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06						mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.12	0.22						mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.02	0.03						mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.11	0.18						mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.11	0.19						mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	0.39	0.76						mg/kg	0.01	A-T-019s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 22/07963/1

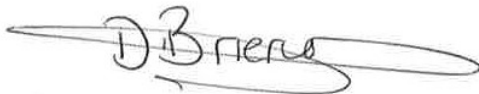
Amendments: Request for split report

Envirolab Job Number: 22/07963
Issue Number: 2 S1
Date: 05 September, 2022

Client: Chorley Sand and Aggregates Ltd
The Office
Rigby House Farm
The Common
Adlington
Lancs
PR7 4DS

Project Manager: Ken Deighan
Project Name: Water Samples
Project Ref: Not specified
Order No: K D
Date Samples Received: 15/08/22
Date Instructions Received: 16/08/22
Date Analysis Completed: 23/08/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/07963

Client Project Name: Water Samples

Client Project Ref: Not specified

Lab Sample ID	22/07963/1	22/07963/2						Units	Limit of Detection	Method ref
Client Sample No	1	2								
Client Sample ID	Washwater	Washwater								
Depth to Top										
Depth To Bottom										
Date Sampled	12-Aug-22	12-Aug-22								
Sample Type	Water - EW	Water - EW								
Sample Matrix Code	N/A	N/A								
pH (w) [#]	7.63	7.74						pH	0.01	A-T-031w
Electrical conductivity @ 20degC (w) [#]	2768	2774						µs/cm	10	A-T-037w
Arsenic (dissolved) _A [#]	4	4						µg/l	1	A-T-025w
Cadmium (dissolved) _A [#]	1.2	1.3						µg/l	0.2	A-T-025w
Copper (dissolved) _A	17	19						µg/l	4	A-T-025w
Chromium (dissolved) _A [#]	2	2						µg/l	1	A-T-025w
Lead (dissolved) _A [#]	3	5						µg/l	1	A-T-025w
Nickel (dissolved) _A [#]	10	10						µg/l	2	A-T-025w
Tin (dissolved) _A	<1	<1						µg/l	1	A-T-049w
Zinc (dissolved) _A [#]	7	8						µg/l	2	A-T-025w
TPH total dissolved (>C6-C40) (w) _A [#]	<40	107						µg/l	40	A-T-007w

Envirolab Job Number: 22/07963

Client Project Name: Water Samples

Client Project Ref: Not specified

Lab Sample ID	22/07963/1	22/07963/2						Units	Limit of Detection	Method ref
Client Sample No	1	2								
Client Sample ID	Washwater	Washwater								
Depth to Top										
Depth To Bottom										
Date Sampled	12-Aug-22	12-Aug-22								
Sample Type	Water - EW	Water - EW								
Sample Matrix Code	N/A	N/A								
PAH 16MS (w)										
Acenaphthene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Acenaphthylene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Anthracene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(a)anthracene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(a)pyrene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Chrysene (w) _A [#]	0.01	0.01						µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Fluoranthene (w) _A [#]	0.02	0.02						µg/l	0.01	A-T-019w
Fluorene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Naphthalene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Phenanthrene (w) _A [#]	<0.01	<0.01						µg/l	0.01	A-T-019w
Pyrene (w) _A [#]	0.02	0.02						µg/l	0.01	A-T-019w
Total PAH 16MS (w) _A [#]	0.05	0.05						µg/l	0.01	A-T-019w

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 A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
 The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).
 For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as "% stones >10mm".
 For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
 All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
 Stones etc. are not removed from the sample prior to analysis.
 Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.
 Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.
 US indicates Unsuitable Sample for analysis.
 NDP indicates No Determination Possible.
 NAD indicates No Asbestos Detected.
 N/A indicates Not Applicable.
 Superscript # indicates method accredited to ISO 17025.
 Superscript "M" indicates method accredited to MCERTS.
 Subscript "A" indicates analysis performed on the sample as received.
 Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve
 Subscript "AM" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.
 EPH CWG results have humics mathematically subtracted through instrument calculation
 TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

APPENDIX D

EMS Documents

**SANDONS FARM RECYCLING FACILITY
and
LANDFILL SITE**

WASTE ACCEPTANCE PROCEDURE

CHORLEY SAND & AGGREGATES LIMITED

CSA/EMS/WAP

OPERATIONAL DOCUMENT CONTROL SHEET

DOCUMENT TITLE	Waste Acceptance Procedure
PROCEDURE NO.	CSA/EMS/WAP
DATE ISSUED	18/10/2021
ISSUED BY	CG (TACCL)
APPROVED BY	DAW (CSA)
LAST REVISED	4/2/2021
REVISION NO.	3.1
RELATED DOCUMENTS	<ul style="list-style-type: none">• Environmental Permits• Planning Permission• H1 Environmental Risk Assessment (Inert Landfill)

CONTENTS

1.0 General

2.0 Responsibilities

3.0 Pre-acceptance

4.0 Receipt

5.0 Rejection/ Non-conformance

6.0 Site Records

Appendix A - Waste Acceptance Forms

1.0 GENERAL

1.1 Waste will only be accepted if it meets the criteria stated in the Environmental Permit.

1.2 One Standard Rules Environmental Permit is in place at Sandons Farm:

EPR/EB3806TM: SR2010No12 Treatment of Waste to produce Soil, Soil Substitutes and Aggregate - the processing of suitable waste types into aggregates

1.3 In addition, a Bespoke Environmental Permit is in place for inert landfill at Sandons Farm (EPR/CB3606CU).

1.4 This procedure is intended to clarify an assessment and acceptance methodology to achieve the objective of only accepting waste material suitable for the activities outlined in the permits.

2.0 RESPONSIBILITIES

2.1 As the first step in response to any potential waste enquiry, the Site Manager will determine whether it is suitable by waste description and assessment of contamination. This will enable the waste to be characterised and ensure that any waste accepted at Sandons Farm is in accordance with the relevant permit requirements.

2.2 The Operations Director will

- Liaise with the client and Site Manager on site to ensure waste acceptance criteria are understood;
- Facilitate any sampling requirements for a particular waste stream.

2.3 The Site Manager or Weighbridge Operator will ensure that:

- All loads are accurately recorded on arrival;
- Details on the waste transfer note are reviewed and confirmed;
- Waste is examined visually where practicable;
- Any non conformances and irregularities are notified to the Operations Director without delay;
- Suspicious loads identified at the weighbridge are quarantined prior to further investigation.

- 2.4 The site operatives will observe all materials during unloading. Any non-conformances or irregularities will be notified to the site manager without delay. Suspicious loads identified on unloading will be isolated pending further investigation and the driver instructed to wait for possible rejection of the load necessitating re-loading onto the vehicle.
- 2.5 The Operations Director will be informed of any issues and will liaise with the customer.

3.0 WASTE ACCEPTANCE

3.1 Pre-Acceptance Procedure

- 3.1.1 Waste enquiries are logged onto the waste control register and given a unique identifying job number. The register is used to record the following information and any documents and forms supplied are saved under the job number:
- Waste producer
 - Pre-Acceptance form
 - Photos
 - Sampling plan
 - SI report/chemical analysis
 - Waste classification
 - WAC analysis
 - Waste accepted?
 - Waste transfer notes
- 3.1.2 The potential customer is sent a pre-acceptance form to complete (for either treatment or landfill) and return to the technical assessor. The form requests details of waste type, origin, quantity, possible contamination and analysis. Copies of these forms are contained in Appendix A.
- 3.1.3 To establish whether the material is uncontaminated, chemical data is requested. This may be stand alone test data or as part of a Site Investigation (SI) Report in the case of excavated soil. The technical assessor reviews the data and decides whether the material is uncontaminated.
- 3.1.4 If not provided as part of the SI report, a sampling plan is requested by email to establish the scale of sampling and testing that has been carried out compared to the quantity of waste. Correspondence is saved in the job folder.
- 3.1.5 WAC analysis may be requested (as per section 3.3) if the material is for landfill and this is requested and saved under the job number.

3.1.6 All of the information is assessed for suitability by the technical assessor against permitted waste types and whether the material is uncontaminated. If the material is suitable the customer is notified by email and the forms are saved in the job file.

3.2 Material Assessment for the Recycling Facility

3.2.1 Waste types suitable for processing into aggregates in accordance with the environmental permit are listed in Table 1 below. Material will only be accepted if it meets permit conditions under 2.3 of SR2010 No 10.

Waste Code	Description
01 04	Wastes from physical and chemical processing of non metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those containing dangerous substances
01 04 09	Waste sand and clay
02 02 02	Animal-tissue waste(shellfish shells from which the soft tissue or flesh has been removed only)
03 01 01	Waste bark and cork
03 03 01	Waste bark and wood
10 01	Wastes from power stations and other combustion plants (except 19)
10 01 01	Bottom ash and slag
10 01 02	PFA
10 01 05	Gypsum (solid) only
10 01 07	Gypsum (sludge) only
10 01 15	Incinerator bottom ash and slag
10 11	Wastes from manufacture of glass and glass products
10 11 12	Clean glass other than those mentioned in 10.11.11
10 12	Waste from manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 13	Waste from manufacture of cement, lime and plaster and articles and products made from them
10 13 14	Waste concrete only
15 01	Packaging (including separately collected municipal packaging waste)
15 01 07	Clean glass only
17 01	Concrete bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics
17 02	Wood, glass and plastic

Table 1: Waste Types for Aggregate Production

Waste Code	Description
17 02 02	Glass
17 03	Bituminous mixtures, coal tars and tarred products
17 03 02	Road base and road planings other than those containing coal tar
17 05	Soil (including excavated soil from contaminated sites) stones and dredging spoil
17 05 04	Soil and stones
17 05 06	Dredging spoil (unless it contains dangerous substances)
17 05 08	Track ballast, soil and stones other than those containing dangerous substances
17 08	gypsum based construction material
17 08 02	gypsum only other than that mentioned in 17 08 01
19 05	Wastes from aerobic treatment of solid wastes
19 05 03	Compost from source segregated biodegradable waste only
19 08	Waste from waste water treatment plants not otherwise specified
19 08 02	Washed sewage grit (waste from desanding)
19 08 99	Stone filter media (if cleaned to remove sewage contamination only)
19 09	Waters from the preparation of water intended for human consumption or water for industrial use
19 09 02	Sludges from water clarification
19 12	Waste from the mechanical treatment of waste (eg sorting, crushing, compacting, pelletising) not otherwise specified
19 12 05	Glass
19 12 09	Minerals (eg sand, stones)
19 12 12	Treated bottom ash including IBA and slag other than that containing dangerous substances only
19 13	Waste from soil and groundwater remediation
19 13 02	Solid waste from soil remediation other than that containing dangerous substances
19 13 04	Sludges from soil remediation other than those mentioned in 19 13 03
20 01	Separately collected fractions
20.01.02	Glass
20 02	Garden and park waste
20 02 02	Soil and stones

Table 1 (continued): Waste Types for Aggregate Production

3.2.3 For acceptance into the aggregate production process, the WRAP Quality Protocol stipulates that waste must have no chemical contamination; and that only incidental amounts of physical contaminants may be present.

3.3 Material Assessment for the Inert Landfill Site

3.3.1 The waste types that may be accepted without Waste Acceptance Criteria (WAC) testing at a landfill for inert waste are listed in Table 2. Notwithstanding, any of the waste types listed in table 2 will undergo pre-acceptance WAC testing if there is suspicion of contamination (either from visual inspection or knowledge of the origin of the waste).

EWC Code	Description	Restrictions
15 01 07	Glass packaging	
17 01 01	Concrete	Selected C & D waste only ¹
17 01 02	Bricks	Selected C & D waste only ¹
17 01 03	Tiles & Ceramics	Selected C & D waste only ¹
17 01 07	Mixtures of concrete, bricks, tiles & ceramics	Selected C & D waste only ¹
17 02 02	Glass	
17 05 04	Soil & Stones	Excluding topsoil, peat; excluding soil & stones from contaminated sites
19 12 05	Glass	
20 01 02	Glass	Separately collected glass only
20 02 02	Soil & Stones	Only from garden & parks waste; excluding top soil, peat

Table 2: Waste That May Be Accepted Without Testing

¹ Selected construction & demolition waste (C&D waste); with low contents of other types of materials (like metals, plastic, organics, wood, rubber, etc). The origin of the waste must be known.

No C&D waste from constructions, polluted with inorganic or organic dangerous substances, eg because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances, etc, unless it is made clear that the demolished construction was not significantly polluted.

No C&D waste from constructions, treated, covered or painted with materials, containing dangerous substances in significant amounts.

- 3.3.2 The waste types that may be accepted following WAC testing at a landfill for inert waste are listed in Table 3. These waste types will undergo basic characterisation testing (level 1) in accordance with the landfill directive.

EWC Code	Description	Restrictions
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07	Limit values for leaching and for organic parameters detailed in Tables 4 and 5 below
01 04 09	Waste sand and clays	
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)	

Table 3: Wastes That May Be Accepted Following Waste Acceptance Criteria Testing

Component	Symbol	L/S=10 l/kg mg/kg dry substance
Arsenic	As	0.5
Barium	Ba	20
Cadmium	Cd	0.04
Total Chromium	Cr _{total}	0.5
Copper	Cu	2
Mercury	Hg	0.01
Molybdenum	Mo	0.5
Nickel	Ni	0.4
Lead	Pb	0.5
Antimony	Sb	0.06
Selenium	Se	0.1
Zinc	Zn	4
Chloride	Cl ⁻	800
Fluoride	F ⁻	10
Sulphate ^a	SO ₄ ²⁻	1,000
Phenol index	PI	1
Dissolved Organic Carbon ^b	DOC	500
Total Dissolved Solids ^c	TDS	4,000

Table 4: Inert Landfill Waste Acceptance Criteria Leachate Limits

a This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of C₀ (the first eluate of a percolation test at L/S=0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S=0.1 l/kg under initial equilibrium conditions.

b If the waste does not meet this value for Dissolved Organic carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.

c The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.

Parameter	Value (mg/kg)
Total Organic carbon (TOC) ^a	30,000
BTEX compounds (benzene, toluene, ethyl benzene & xylenes)	6
Polychlorinated biphenyls (PCBs) (7 congeners)	1
Total Polycyclic Aromatic Hydrocarbons (PAH)	100
Mineral Oil (C10 to C40)	500

Table 5: Inert Landfill Waste Acceptance Criteria Limits

a: In the case of soils, a higher limit value may be permitted by the Environment Agency, provided a Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH value of between 7.5 and 8.0.

3.3.3 Waste transferred from the recycling facility to the landfill will be accompanied by pre-acceptance information as detailed in section 3.3.

3.4 Landfill Restoration

- 3.4.1 Landfill restoration will be in accordance with Report No 11561/24 Landfill Restoration Plan. Waste will only be accepted for restoration in accordance with landfill permit condition 2.6.2.

4 RECEIPT

- 4.1 On arrival at the weighbridge the accompanying waste transfer note and any other paperwork will be checked by the Site Manager/Weighbridge Operator. Waste will only be accepted for disposal in accordance with landfill permit condition 2.6.1, or for restoration in accordance with condition 2.6.2. Waste for the recycling facility will only be accepted in accordance with condition 2.3.
- 4.2 On site verification (level 3 testing) according to the landfill directive is 'rapid check methods to confirm the waste is the same as that which has been subjected to compliance testing and as described on the accompanying documents. It may merely consist of a visual inspection after unloading'.
- 4.3 The vehicle will pass over the weighbridge to be weighed or the weight of the load will be recorded based on the size of the vehicle. Conversion rates are as follows:
- 8 wheeler = 18 tonne
 - 6 wheeler = 16 tonne
 - 4 wheeler = 7.5 tonne
 - pickup = 1.5 tonne
- 4.4 The material tipped in the relevant area as directed by the site foreman/site operative. Once tipped, it will be immediately inspected for conformity and to confirm its suitability for use at the site. This information will be recorded on the weighbridge ticket which will be kept in the site office.
- 4.5 Compliance testing (level 2) according to the landfill directive 'constitutes periodical testing...to determine whether a waste complies with permit conditions and/or specific reference criteria'. This level of testing is required at regular intervals, eg annually. Due to the nature of construction and excavation waste, a particular waste stream would not come in for a year or more. Instead it is proposed to sample and test 1 load per every 100 loads of incoming waste.
- 4.6 This will be controlled through weighbridge ticket number, whereby the weighbridge operative will instruct the site operative which loads need to be sampled for level 2 testing. Sampling will be carried out in accordance with WM3 requirements. This will involve a trained operative taking materials from a minimum of 4 separate areas of the load to make up a composite sample. There will be a minimum of 2 replicate samples taken from the load,

with one sample being sent to the lab for testing and the other sample remaining on site for a minimum of 4 weeks.

- 4.7 The sample will be submitted to an accredited laboratory for WAC testing. All samples will be recorded in a log which will detail customer, waste, date, time and person taking the sample. The test results will be compared with those provided for level 1 characterisation.

5 REJECTION/ NON-CONFORMANCE

- 5.1 Material found to be unsuitable during inspection at the weighbridge will not be permitted to unload and will be turned away. The Site Manager will log the occurrence in the site diary and inform the Operations Director who will liaise with the customer.
- 5.2 If the material is found to be unsuitable for restoration/processing at the point of unloading, the Site Foreman will be informed and the load rejected and either reloaded onto the delivery vehicle for removal from site or stored in the quarantine area prior to removal from site. The Site Foreman will notify the Site Manager of the non-compliance and a rejection note issued. The Operations Director will be informed of the issues and liaise with the customer.

6 SITE RECORDS

6.1 The operational site records will be kept at the site office in compliance with permit condition 1.1.2 which requires that records are kept to demonstrate compliance with the written management system.

6.2 The following records are maintained in the site office for all waste, filed under a unique identifying number, and can be viewed by the regulator at any time:

- Pre-Acceptance Form
- Chemical Test data
- Sampling Plan
- WAC analysis
- Waste Acceptance confirmation/rejection (e-mail correspondence)
- Waste Transfer Note
- Compliance testing results

APPENDIX A

Chorley Sand & Aggregates Ltd

Pre Acceptance Form for Inert Waste

Return by fax to 01257 480000 or email info@chorleysand.co.uk

All sections of this form <u>MUST</u> be completed				
Reference No:				
Waste Producer: Full Company Name: Full Address: Postcode:		Contact Name: Telephone No: Email:		
Waste Carrier: Full Company Name: Full Address: Postcode:		Contact Name: Telephone No: Email:		
Form completed by (tick as appropriate)		Waste Producer	Waste Carrier	
Estimated volume of waste (delete units as appropriate)		Loads	Disposal Date (commencement)	
		Tonnes		
		Cu Metres		
Full Address of Source of Waste (including postcode):				Postcode:
Process from which waste arises:				
Description and/or composition of Waste: (as detailed as possible)				
EWC Code				SIC Code
For Inert Waste – details of existing and/or previous use of site (where known): (Identify any known previous potentially polluting uses – contact waste producer for information)				
Is there an odour?	Yes (if yes please describe)		No	
Does the waste contain any biodegradable material? (e.g: Wood/Paper/Grass, etc.) (Tick box as appropriate)	Don't know	YES	NO	IF YES WHAT?
Are chemical Analyses available?	Yes	No	If YES please attach/submit the test data.	
Reason why analysis is not required?				
Proposed Disposal Site(s)				
I confirm that, to the best of my knowledge, the material that I wish to deposit is inert waste. I fully understand that your landfill site is only authorised to accept inert waste and that, if either by visual inspection or by random sampling, the waste covered by this waste information form exceeds the site limits, I will be responsible for all costs involved in removing or treating the offending material.				
Declaration by: Waste Producer Carrier (please tick to specify who is making this declaration)				
Signed:		Position:		
Print full name:		Date:		
FOR CSA USE ONLY:				
Date Rec'd:		Checked by:		
Price:		Priced by:		

This form is only to be used for inert waste where there is no soil analysis available for inspection by CSA. There is a limit of 50 tonnes for inert waste brought in against this Waste Information Form unless full documentation regarding site history is produced if no analysis is available.

Chorley Sand & Aggregates Ltd

Pre Acceptance Form for Recycling/Treatment/Reclamation

Return by fax to 01257 480000 or email info@chorleysand.co.uk

All sections of this form <u>MUST</u> be completed					
Reference No:					
Waste Producer: Full Company Name: Full Address: Postcode:			Contact Name: Telephone No: Email:		
Waste Carrier: Full Company Name: Full Address: Postcode:			Contact Name: Telephone No: Email:		
Form completed by (tick as appropriate)		Waste Producer		Waste Carrier	
Estimated volume of waste (delete units as appropriate)			Loads	Disposal Date (commencement)	
			Tonnes		
			Cu Metres		
Full Address of Source of Waste (including postcode):				Postcode:	
Process from which waste arises:					
Description of the Waste: Tick one below which best describes the waste Excavated Soil/Stones <input type="checkbox"/> Demolition Waste <input type="checkbox"/> (Brick/Concrete/Rubble) Ash <input type="checkbox"/> Slag <input type="checkbox"/> Clinker <input type="checkbox"/> Other (additional description required) <input type="checkbox"/>			Additional information to describe the waste (if required) Odour: YES <input type="checkbox"/> NO <input type="checkbox"/> If yes please describe		
EWC Code			SIC Code		
For Waste – details of existing and/or previous use of site (where known): (Identify any known previous potentially polluting uses – contact waste producer for information)					
Does the waste contain any biodegradable material? (e.g. Wood/Paper/Grass, etc.) (Tick box as appropriate)		Don't know	YES	NO	IF YES WHAT?
Are chemical Analyses available?	Yes	No		If YES please attach/submit the test data.	
Reason why analysis is not required?					
Description of the Waste Treatment Applied: <input type="checkbox"/> source segregation <input type="checkbox"/> physical treatment (eg. crushing/screening) <input type="checkbox"/> chemical treatment (eg. stabilisation)			<input type="checkbox"/> other (please describe) <input type="checkbox"/> no treatment (state why no treatment required)		
Declaration by: Waste Producer		Carrier (please tick to specify who is making this declaration)			
Signed:			Position:		
Print full name:			Date:		
FOR CSA USE ONLY:					
Date Rec'd:		Checked by:			
Price:		Priced by:			

**SANDONS FARM RECYCLING FACILITY
and
LANDFILL SITE**

LEAKS AND SPILLS PROCEDURE

CHORLEY SAND & AGGREGATES LIMITED

CSA/EMS/LSP

OPERATIONAL DOCUMENT CONTROL SHEET

DOCUMENT TITLE	Leaks and Spills Procedure
PROCEDURE NO.	CSA/EMS/LSP
DATE ISSUED	22.07.2019
ISSUED BY	CG/JG (TACCL)
APPROVED BY	IA (CSA)
LAST REVISED	16.6.15
REVISION NO.	2.2
RELATED DOCUMENTS	<ul style="list-style-type: none">• Accident Management Plan

CONTENTS

- 1.0 General**
- 2.0 Leaks and Spills Procedure**
- 3.0 Emergency Procedure for Spillages**

1.0 GENERAL

- 1.1 The objectives of this procedure are to ensure that any spillages which occur are dealt with promptly in a manner which will reduce the environmental impact to a minimum.
- 1.2 This document applies to the recovery area, the recycling facility and the inert landfill site at Sandons Farm.

2.0 LEAKS AND SPILLS PROCEDURE

- 2.1 In order to achieve the objective, the nature and quantity of the spilled material needs to be established. The types of leaks and spillages are split into minor spillages (less than 5 litres), major spillages (more than 5 litres). It is essential that the incident is assessed quickly, and the appropriate response taken.
- 2.2 Even small spillages of oils and fuel can leave a sheen on the ground and cause surfaces to become slippery. Small amounts of oil or fuel can leave a significant sheen on the surface of water. For spillages over 25 litres in volume the Environment Agency should be notified as soon as possible.
- 2.3 Fuels and oils also pose a threat to the health and safety of staff and visitors (slips and dermal contact), reference to COSHH data will be made in issuing appropriate protective clothing for dealing with spillages. The site vehicle speed limit is enforced to prevent any significant risk of skidding or loss of traction.
- 2.4 The fuel oil tank is not sited within the permit area.
- 2.5 No liquid wastes are deposited within the landfill site.
- 2.6 Liquids with significant pollution potential held on site are fuel and oil that are kept within bunded areas with capacity to hold 110% (or greater) of the contained volume. In the unlikely event of any leak or spillage e.g. leaking fuel/oil from a vehicle the emergency procedure for spillages will be implemented.
- 2.7 Breakdown of equipment may result in the release of oils and fuel, which have the potential to pollute the land, groundwater or surface water. Such events will be dealt with as described in the emergency procedure for spillages. All plant, equipment and machinery are checked daily by trained staff and regularly maintained and serviced at their recommended frequencies and the records held on site.

3.0 EMERGENCY PROCEDURES FOR SPILLAGES

- 3.1 In the event of any spillage, the following procedure must be implemented immediately:
- 3.2 Any spillage, no matter how minor, must be cleaned up immediately by mechanical means, using absorbent granules or other suitable material.
- 3.3 Spill granules are kept in the fuel storage area and the site reception area.
- 3.4 If the spillage is minor, i.e. less than 5 litres, take immediate action to contain the spillage using oil absorbent granules, and contact the site foreman.
- 3.5 Action must be taken to prevent the spillage reaching the surface water drainage. Small spillages may be contained with purpose-designed booms and spill granules. Larger leaks/spillages may need to be contained with sand/soil to prevent the polluting liquid leaving the contained area.
- 3.6 When the spillage has been satisfactorily contained the contaminated absorbent granules and/or sand etc. must be disposed of in a correct manner i.e. placed in a sealed container and removed from the site to an authorised disposal facility – this decision will be made by the Site Manager. Absorbent materials that have been used will be re-ordered to maintain adequate stock levels.
- 3.7 The area affected must be swept clean, leaving the area free of any residue.
- 3.8 Minor spillages must be avoided where practical (e.g. use of drip trays during vehicle/plant maintenance). Flammable liquids must not be left exposed: significantly contaminated waste must be excavated for appropriate disposal, affected areas should be covered with soil/daily cover material to prevent an ignition hazard.

NOTE:

The escape of one tonne (~1,000 litres) of any flammable substance or pathogen is a classified “Dangerous Occurrence” and must be reported to the H&S department in order to notify the Health and Safety Executive as a RIDDOR event.

When the spillage event is under control a record of the events will be completed and relayed to head-office. The form will be used to assess why the spillage occurred and whether or not the action taken was successful. Site equipment and procedures may be amended as necessary on review.

Minor Spillage Actions (less than 5 litres)

<i>Minor Spillage of Fuel, Oils and Coolants less than 5 litres</i>	
Area	Action
Fuel Storage Area	Use absorbent granules and collect for disposal if practical. Apply cover to any areas affected by flammable liquids
General Infrastructure Area and Site Roads	Use absorbent granular material or an absorbent boom to prevent spread of the spill. Clean the area and put out a sign to warn drivers that the surface is slippery. Collect the absorbent materials and booms for disposal
Any where else within the site boundary	Form a temporary bund to prevent escape. If the spillage enters the surface water drainage, place a boom downstream and use soil bunds to prevent flow if practical.

Major Spillage Actions (more than 5 litres)

<i>Major Spillage Fuel, Oils and Coolants greater than 5 litres</i>	
Area	Action
Fuel Storage Area	Use absorbent granules as directed by the manufacturer. Create bunds with soil if necessary to prevent excessive spread. Contact the Site Manager or if there is a fire risk call the Fire Brigade.
General Infrastructure and Site Roads	Stop traffic entering the area of the spillage. Assess the fire risk and if necessary call the Fire Brigade. Assess whether or not the spillage is likely to enter any watercourse. Where this is likely place absorbent boom(s) at locations in the watercourse to prevent any spillage spreading. Use absorbent booms and granules as directed by the manufacturer or call out a specialist contractor.
Anywhere Else within the site boundary	Assess the likelihood of the spillage draining to surface water. If there is potential for the spillage to enter a watercourse then place absorbent boom(s) at locations in the watercourse to prevent any spillages spreading. Use absorbent booms and granules as directed by the manufacturer. Call a specialist contractor or if there is a risk of fire call the Fire Brigade. Create bunds or ditches to catch the spillage.

**SANDONS FARM RECYCLING FACILITY
and
LANDFILL SITE**

ACCIDENT MANAGEMENT PLAN

CHORLEY SAND & AGGREGATES LIMITED

CSA/EMS/AMP

OPERATIONAL DOCUMENT CONTROL SHEET

SITE	Sandons Farm Recycling Facility and Landfill Site
DOCUMENT TITLE	Accident Management Plan
PROCEDURE / DOCUMENT NO.	CSA/EMS/AMP
DATE ISSUED	22.07.2019
ISSUED BY	CG/JG (TACCL)
APPROVED BY	IA(CSA)
LAST REVISED	16.06.2015
REVISION NO.	1.2
RELATED DOCUMENTS	<ul style="list-style-type: none">• Health and Safety Policy• Site Risk Assessments• Leaks and Spills Procedure

CONTENTS

- 1.0 General**
- 2.0 Identifying the Hazards**
- 3.0 Assessing the Risks**
- 4.0 Handling, Investigating, Communicating and reporting of Actual or Potential Non-compliance**
- 5.0 Environmental Complaints**
- 6.0 Communication and reporting of Incidents and Near-misses**

APPENDICES

Appendix 1: Risk Assessments Covering Accidents and their Consequences

1.0 GENERAL

- 1.1 This document details the Accident Management Plan for Sandons Farm Recycling Facility, Recovery Area and Inert Landfill Site. Appendix 1 details a series of risk assessments that have been undertaken to identify potential events or failures that may lead to an environmental impact.
- 1.2 Within the risk assessments detailed in Appendix 1, the following aspects have been considered:
- i. the environmental consequences of any potential occurrence
 - ii. the likelihood of the potential occurrence
 - iii. actions taken to minimise the potential occurrence
 - iv. reference to various action plans in the event of an occurrence
- 1.3 Several of the relevant risks are addressed (or will be addressed) in alternate management plans. Where this is the case, Appendix 1 references the appropriate document.
- 1.4 For accident management, there are three particular components:
- i. **identification of the hazards** posed by the site/activity
 - ii. **assessment of the risks** (consequence x probability) of accidents and their possible consequences and
 - iii. implementation of **measures to reduce the risks (mitigation)** of accidents, and contingency plans for any accidents that occur.

2.0 IDENTIFYING THE HAZARDS

- 2.1 The site will be operated in such a manner that necessary measures will be taken to prevent accidents and limit their consequences. The hazards posed by the installation to the environment are identified in Appendix 1.

3.0 ASSESSING THE RISKS

- 3.1 The potential risk associated with the hazards identified are summarised by assessing the magnitude of the potential impact (consequences) and the probability of this occurring. The probability of risk is based upon the likelihood of the accident occurring whereas the magnitude of the potential impact of the accident is based upon the consequences of the impact upon receptors. The risk assessments, presented in Appendix 1 deal with assessing the risks in greater detail and provide details of the following points:
- i. The hazard
 - ii. The pathways and receptors
 - iii. An estimation of the probability of a hazard occurring

-
- iv. The consequences or impacts of the hazard (these have been classified into five categories)
 - v. The risk
 - vi. The mitigation measures to prevent or reduce the risk (risk management – measures to prevent accidents and/or reduce their environmental consequences)
 - vii. The mitigated risk

4.0 HANDLING, INVESTIGATING, COMMUNICATING AND REPORTING OF ACTUAL OR POTENTIAL NON COMPLIANCE

- 4.1 In order to handle, investigate, communicate and report any incident of actual or potential non-compliance with operating procedures or emissions limits, the non-compliance shall be recorded in the site diary and reported to the Managing Director. Any actions taken to mitigate any environmental impacts caused and the actions for initiating and completing any corrective actions are to be included in the diary entry and signed off by the Operations Manager/Foreman on completion.

5.0 ENVIRONMENTAL COMPLAINTS

- 5.1 In the event of receipt of an environmental complaint, the following procedure will be undertaken. It is the responsibility of all staff who receive complaints to comply with the procedure.
- i. All telephone calls and correspondence relating to environmental issues or complaints will be answered promptly and politely and held on file at site and the central office.
 - ii. All written complaints received will be replied to within 7 working days, with a copy of the reply attached to the received correspondence and held on site files.
 - iii. The person receiving a telephone, verbal or complaint in person shall take the following details from the complainant:
 - a. Name and address of complainant
 - b. Date and time complaint made
 - c. Nature of complaint (Odour, noise, dust, etc)
 - d. Details of the Occurrence (time, location, description, etc)
 - iv. The complaint receiver shall contact the Managing Director with the details concerning the complaint
- 5.2 An investigation will take place to ascertain the cause/reason for the complaint and an appropriate response made to the complainant. The information will also be forwarded to the statutory authority where appropriate under the relevant permission.

6.0 COMMUNICATION AND REPORTING OF INCIDENTS AND NEAR MISSES

- 6.1 In the event of an environmental incident or near-miss then the relevant procedures will be executed. The incident and resulting investigation into the causes will be recorded. The Environment Agency will be informed of an incident if required.
- 6.2 Following the incident and resulting investigation into the causes; the appropriate corrective actions will be identified and implemented as soon as practical following the incident. Corrective actions will be noted in the site diary.
- 6.3 Near-miss or potential non-compliance incidents will be recorded and investigated in the same manner as environmental incidents. Corrective action will then be followed to ensure implementation of recommended actions following the near miss/potential non-compliance.

Appendix 1

**Risk Assessments Covering
Accidents and Their Consequences**

RISK ASSESSMENT DEFINITIONS

Hazard: A property or situation that in particular circumstances could lead to harm.

Probability: The chance that a hazard will evolve and that the hazard will follow a pathway to a receptor

Probability	Definition
High (H)	Will definitely occur
High/Medium (H/M)	High possibility of occurrence
Medium (M)	Likely to occur
Medium/Low (M/L)	Low possibility of occurrence
Low (L)	Very unlikely to occur

Consequence: The adverse effects or impacts of a hazard being realised upon a receptor:

Probability	Definition
High (H)	Possible irreparable damage to environmental resources and or human life
High/Medium (H/M)	Possible irreparable damage to environmental resources
Medium (M)	Possible damage to environmental resources which are limited within a regional context
Medium/Low (M/L)	Possible effects might be transient damage to environmental resources which are common place on a regional basis and alternative resources are readily available
Low (L)	The effects are negligible or might cause very slight temporary deterioration in the current environmental resource quality.

Risk: A combination of the probability, or frequency, of occurrence of a defined hazard and the consequence and magnitude of impact. The general High (H), High/Medium (H/M), Medium (M), Medium/Low (M/L) and Low (L) ratings listed in the risk assessment tables 1 to 16, are for use as a guide only based on:

Matrix for the Estimation of the Risk					
Probability of Risk	Consequence				
	High	High/Medium	Medium	Medium/Low	Low
High	High	High	High/Medium	Medium	Medium
High/Medium	High	High/Medium	Medium	Medium	Medium
Medium	High/Medium	Medium	Medium	Medium	Medium/Low
Medium/Low	Medium	Medium	Medium	Medium/Low	Low
Low	Low	Low	Low	Low	Negligible

SANDONS FARM INERT LANDFILL SITE - ACCIDENTS AND THEIR CONSEQUENCES						
TABLE 1: DELIVERY OF RAW MATERIALS RISK ASSESSMENT						
HAZARD	PATHWAY AND RECEPTOR	PROBABILITY OF HAZARD	CONSEQUENCE OF HAZARD	RISK FACTOR (PROBABILITY X CONSEQUENCE)	MITIGATION MEASURES	MITIGATED RISK
Spillage of construction materials into controlled waters	Potential for suspended solids in surface waters and surface water drains	L	M	L	<ul style="list-style-type: none"> Any spillage near surface water drainage will be dealt with by excavating the material back into the dumptruck/ wagon. 	L

SANDONS FARM INERT LANDFILL SITE - ACCIDENTS AND THEIR CONSEQUENCES						
TABLE 2: GENERAL SITE OPERATIONS RISK ASSESSMENT						
HAZARD	PATHWAY AND RECEPTOR	PROBABILITY OF HAZARD	CONSEQUENCE OF HAZARD	RISK FACTOR (PROBABILITY X CONSEQUENCE)	MITIGATION MEASURES	MITIGATED RISK
Plant collision	Spillage of potentially polluting substances to surface water	L	M	L	<ul style="list-style-type: none"> Plant operatives fully trained, experienced and qualified Spillages dealt with in accordance with Leaks & Spills Procedure document 	L
Spillage from fuelling of plant	Spillage of diesel contaminating land and or surface water	M	M	M	<ul style="list-style-type: none"> Spillages dealt with in accordance with Leaks & Spills Procedure document Fuelling not undertaken near surface water The fuel tank is sited on the farm yard, not within the permit area. 	L
Spillage during plant maintenance	Spillage of fuel or oils contaminating land and or surface water	M	M	M	<ul style="list-style-type: none"> Spillages dealt with in accordance with Leaks & Spills Procedure document Maintenance on contained areas where practical, or measures taken to contain potential spillages 	L
Fire involving fuel or oils	Release to atmosphere and potentially to land and surface water	L	M	L	<ul style="list-style-type: none"> Fuel fires dealt with by using foam or dry powder extinguishers If Fire Brigade are in attendance, they will determine appropriate fire-fighting techniques No smoking or naked flames permitted on site 	L
Fire (non fuel or oil related)	Release to atmosphere	L	L	L	<ul style="list-style-type: none"> No flammable waste accepted on site Emergency procedures for fire, explosion and major hazards are kept in the Fire/Emergency file in the site office. 	L

SANDONS FARM INERT LANDFILL SITE - ACCIDENTS AND THEIR CONSEQUENCES						
TABLE 3: WASTE ACCEPTANCE RISK ASSESSMENT						
HAZARD	PATHWAY AND RECEPTOR	PROBABILITY OF HAZARD	CONSEQUENCE OF HAZARD	RISK FACTOR (PROBABILITY X CONSEQUENCE)	MITIGATION MEASURES	MITIGATED RISK
Mixing of incompatible wastes causing fire or other aerial emission	Emission to air from adverse reaction	L	L/M	L	<ul style="list-style-type: none"> Only, inert waste accepted at site Documented waste acceptance and rejection procedure Plant available to excavate material and create a safe holding area with soil / quarry spoil 	L

SANDONS FARM INERT LANDFILL SITE - ACCIDENTS AND THEIR CONSEQUENCES						
TABLE 4: WASTE HANDLING RISK ASSESSMENT						
HAZARD	PATHWAY AND RECEPTOR	PROBABILITY OF HAZARD	CONSEQUENCE OF HAZARD	RISK FACTOR (PROBABILITY X CONSEQUENCE)	MITIGATION MEASURES	MITIGATED RISK
Waste deposited outside of the containment area	Litter to surrounding land and surface water	L	M	L	<ul style="list-style-type: none"> All waste vehicles directed by signs and the weighbridge staff to safe disposal area Lead plant operator to direct vehicles to disposal point Site access and disposal area maintained to prevent accidents Surface water discharge is managed via a pump to a settlement and soakaway lagoon/pond. 	L

**SANDONS FARM RECYCLING FACILITY
and
LANDFILL SITE**

MUD MANAGEMENT PLAN

CHORLEY SAND & AGGREGATES LIMITED

CSA/EMS/MMP

OPERATIONAL DOCUMENT CONTROL SHEET

DOCUMENT TITLE	Mud Management Plan
PROCEDURE / DOCUMENT NO.	CSA/EMS/MMP
DATE ISSUED	22.07.2019
ISSUED BY	CG/JG - TACCL
APPROVED BY	IA(CSA)
LAST REVISED	16.6.15
REVISION NO.	2.2
RELATED DOCUMENTS	

CONTENTS

- 1.0 General**
- 2.0 Vehicle Loads**
- 3.0 Site Facilities**
- 4.0 Reporting of Emissions**

1.0 GENERAL

- 1.1 This management plan is in place to ensure access roads are maintained to a high standard to minimise traffic hazards, dust, mud and provide reasonable all weather access and set out the measures taken to minimise the spillage of mud and other debris onto the surrounding roads.
- 1.2 The plan applies to the recovery area, the recycling facility and the inert landfill site at Sandons Farm.

2.0 VEHICLE LOADS

- 2.1 Vehicles entering and leaving the site will be loaded in a way to prevent debris falling off during their journey. Loads will also be adequately and securely sheeted.

3.0 SITE FACILITIES

- 3.1 An easy to clean surface of hard standing is provided for vehicles entering and leaving the site.
- 3.2 Wheel cleaning facilities are provided on site to ensure excess debris is not deposited on the road.
- 3.3 Wheel cleaning facilities will be maintained on a regular basis.
- 3.4 Mechanical road sweepers will be used to remove any mud or debris deposited by site vehicles on roads in the vicinity of the site.

4.0 REPORTING OF EMISSIONS

- 4.1 All personnel are responsible for reporting any dust or mud being deposited beyond the site boundary at all times. Such observations should be reported to the site manager immediately and recorded in the site diary.
- 4.2 Upon receipt of a report of an emission (mud), a supervisor/manager should undertake an inspection of the affected area to identify the extent of the emission, and if possible it's source, and what resources are required to ensure the incident is dealt with efficiently.
- 4.3 When practicable, the incident should be formally investigated, recorded and reported using the appropriate procedures.

**SANDONS FARM
WASTE RECYCLING FACILITY**

WASH PLANT MONITORING PLAN

CHORLEY SAND & AGGREGATES LIMITED

CSA/EMS/WPMP

OPERATIONAL DOCUMENT CONTROL SHEET

SITE	Sandons Farm Waste Recycling Facility
DOCUMENT TITLE	Wash Plant Monitoring Plan
PROCEDURE / DOCUMENT NO.	CSA/EMS/WMPM
DATE ISSUED	06/09/2022
ISSUED BY	CG - TACCL
APPROVED BY	KD - CSA
LAST REVISED	n/a
REVISION NO.	1.0 - Initial Characterisation
RELATED DOCUMENTS	Environmental Risk Assessment Report No 11561/18

CONTENTS

- 1.0 General**
- 2.0 Washwater Monitoring**
- 3.0 Filtercake Monitoring**
- 4.0 Data Recording and Review**

1.0 GENERAL

This monitoring plan is in place to achieve the following goals:

- Characterise the washwater and filtercake
- Build up a picture of variation
- Establish if contaminants are becoming concentrated

Monitoring will be carried out by trained, competent personnel.

2.0 WASHWATER MONITORING

2.1 Sampling Location

Duplicate samples of wash water will be taken once per month from the sampling point shown in the photograph below. This is the return point for filtered water from the filter belt and from here it is pumped back up into the settlement tank.



2.2 Sampling Procedure

Samples are collected from the sample point by holding a sampling bottle directly under the flow as it enters the well.

The sample bottle and cap are rinsed before filling with the sample, unless the bottle contains a preservative. Sample bottles are filled in compliance with the instructions provided by appropriate UKAS accredited laboratory located in the laboratory resource folder (LFR). Any preservatives required for particular samples are added, if not already provided in the bottle.

Bottle labels are filled in to include the site name, date, monitoring point or location reference. A chain of custody is completed for the sample.

Once collected, samples are placed in a cool box containing freezer blocks to keep them at a consistent temperature. They are then taken to an appropriate UKAS accredited laboratory.

Samples are tracked from site and through the laboratory process using a chain of custody provided by the laboratory, this is included when the samples are sent to the laboratory. This typically includes information regarding the sample number, type, date, time of sampling and the analyses to be performed.

2.3 Analytical Parameters

Wash water samples will be analysed for the following suite:

pH
Electrical Conductivity
Dissolved Organic Carbon
Metals (As, Cd, Cu, Cr, Pb, Ni, Sn & Zn)
Total TPH
Total PAHs

3.0 FILTERCAKE MONITORING

3.1 Sampling Location

Duplicate samples of filtercake will be taken once per month from the sampling point shown in the photograph below. This is the storage bay for filtercake from the filter belt.



3.2 Sampling Procedure

Samples will be collected by scooping the filtercake into 0.5 kg plastic tubs provided by the laboratory. Two samples will be taken from separate points in the stockpile on each monitoring occasion.

Samples will be labelled, stored and submitted to an accredited laboratory for testing as described in section 2.2 above.

3.3 Analytical Parameters

Filtercake samples will be analysed for the following suite:

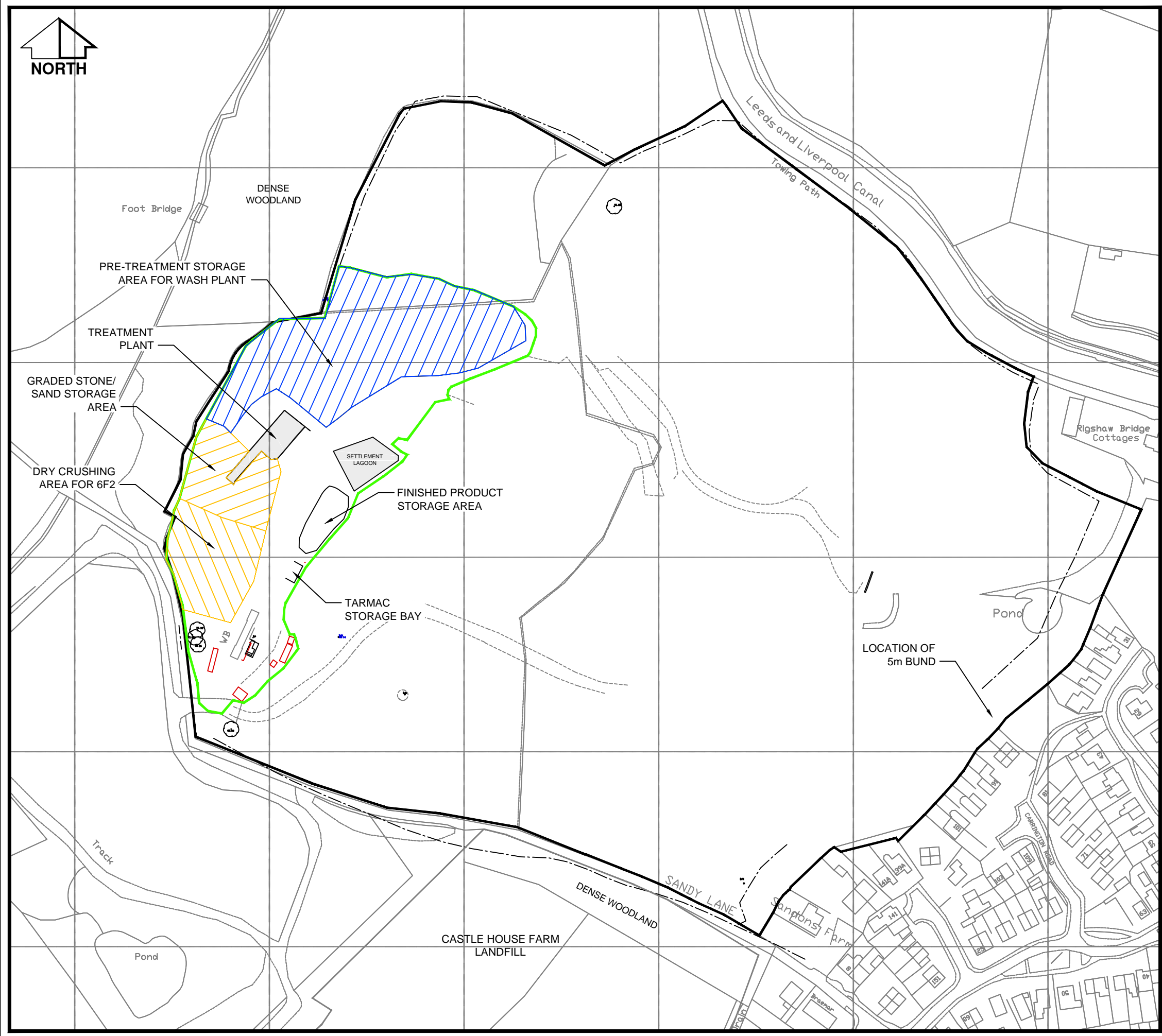
pH
Electrical Conductivity
Total Organic Carbon
Metals (As, Cd, Cu, Cr, Pb, Ni, Sn & Zn)
Total TPH
Total PAHs

4.0 DATA RECORDING AND REVIEW

When results are received from the laboratory they will be reviewed by the Technical Advisor, filed securely and logged onto a master spreadsheet.

After six months of data collection a report will be produced on the characterisation and variability of the washwater and filtercake and the monitoring plan will be reviewed.

APPENDIX E
Drawings



KEY

	RECYCLING CENTRE BOUNDARY
	PERMIT BOUNDARY FOR EPR/CB3606CU

NOTES: TOPOGRAPHIC SURVEY CONDUCTED IN DECEMBER 2018.

D	MINOR AMENDMENTS	30/08/22	MYB
C	ADDED ARTIFICIAL GEO BARRIER, SCALE CHANGED	31/10/19	MYB
B	MINOR MODIFICATIONS	31/10/19	MYB
A	REVISED RECYCLING CENTRE BOUNDARY, ADDED STORAGE AREAS, CHANGED SCALE	10/10/19	MYB
REV.	DESCRIPTION	DATE	BY

THE ARLEY CONSULTING COMPANY LIMITED

Chorleian House
49-51 St Thomas's Road
Chorley, Lancashire PR7 1JE



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E-mail: mailbox@taccl.co.uk

CLIENT:

CHORLEY SAND & AGGREGATES LIMITED

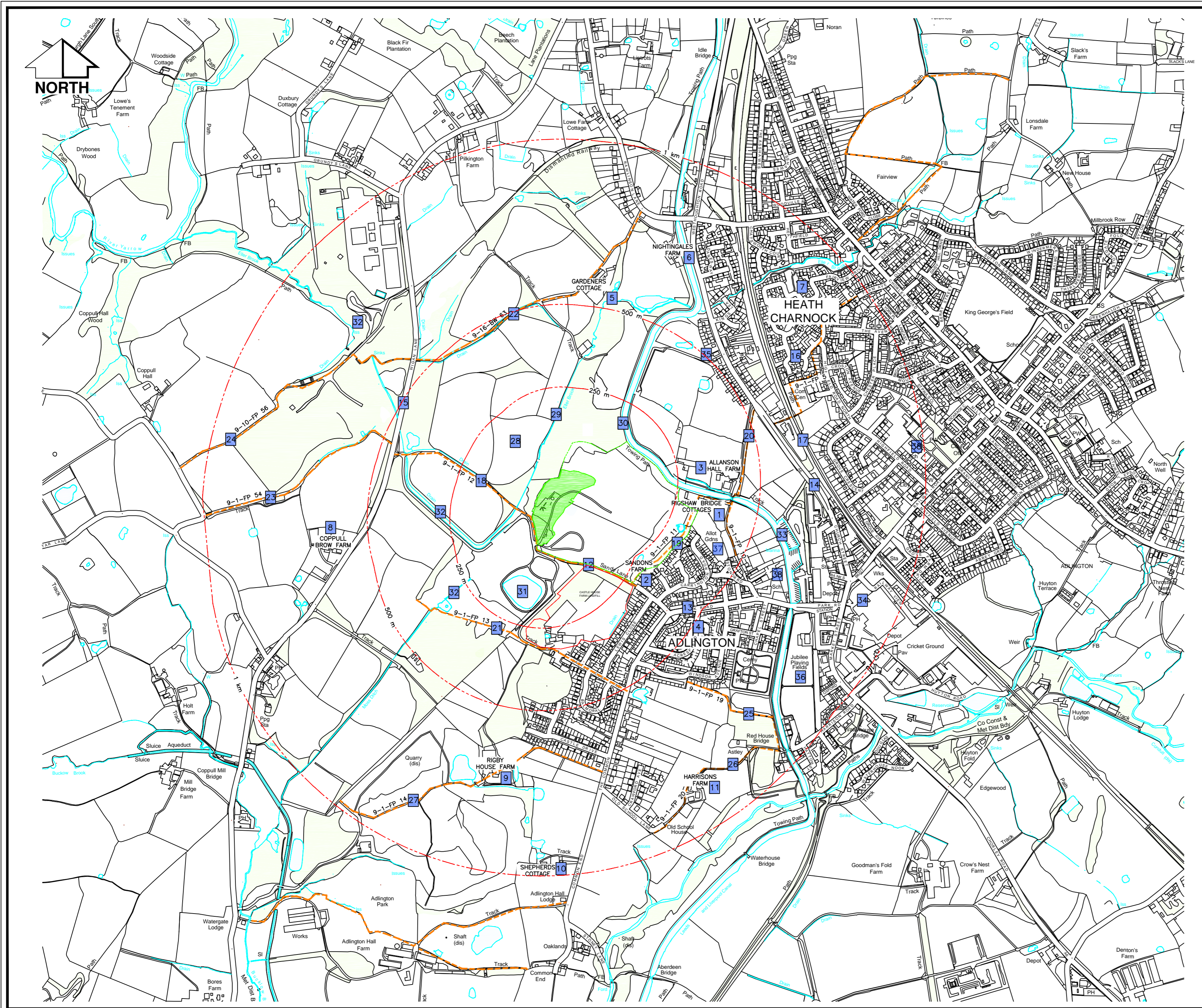
JOB TITLE:

SANDONS FARM RECYCLING FACILITY

DRAWING TITLE:

SITE PLAN

DRAWN BY. MC	APPROVED BY. ML	DRAWING No. 11561/14D
DATE. 26/04/2013	SCALE ● A3. 1:2000	



KEY

- AGGREGATE RECYCLING FACILITY
- PERMIT BOUNDARY FOR EPR/CB3606CU
- RECEPTOR DISTANCE OFFSETS
- PUBLIC FOOTPATH
- 28 RECEPTOR REFERENCE (REFER TO REPORTS 11561/18 & 11561/31)



ORDNANCE SURVEY CROWN COPYRIGHT 2020. LICENCE NUMBER 10002432.

REV.	DESCRIPTION	DATE	BY
A	AMENDED SITE BOUNDARY, MINOR MODS	22/08/22	MYB

THE ARLEY CONSULTING COMPANY LIMITED

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E-mail: mailbox@tacl.co.uk

CLIENT:

CHORLEY SANDS & AGGREGATES LIMITED

JOB TITLE:

SANDONS FARM RECYCLING FACILITY

DRAWING TITLE:

RECEPTORS

DRAWN BY: MYB	APPROVED BY: CG	DRAWING No. 11561/40A
DATE: 02/04/2020	SCALE: 1:8,000	

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