

EMISSIONS MANAGEMENT AND MONITORING PLAN

213430/MPL/EMMP

May 2023

1. SCOPE OF PLAN

- 1.1 This plan sets out how the risk of environmental emissions are to be managed at Stockyard 10, Tata Llanwern, Newport, NP19 4QZ. The site is centred at Ordnance Survey Grid Reference ST375 858 and is shown on drawing 213430-D-001. This plan supports the Operational Plan for the restoration and development of the former slag deposit area owned by TATA Steel Limited.
- 1.2 This plan sets out how the emissions (both point source and fugitive) will be monitored and managed.

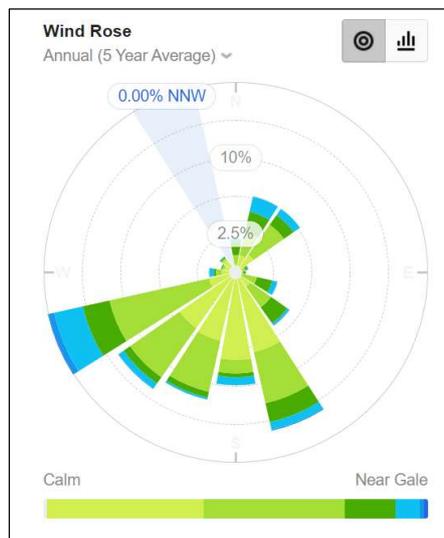
2. BASELINE CONDITIONS

Overview

- 2.1 A full discussion regarding the baseline conditions at the site is presented in the 2020 Annual Review of Environmental Monitoring report (Ref. Number 2116r2v1d0221). This document is provided in the Operational Plan (Appendix 3). The annual report presents background information and conceptual model details from the proposed permit deployment area at the Llanwern Steel Works. The report was prepared by Geotechnology Ltd for TATA Steel UK Ltd in fulfilment of environmental monitoring commitments relating to existing and historic permits.

Wind direction

- 2.2 The frequency of exposure and likelihood of any fugitive airborne emissions on sensitive land uses is determined by the magnitude of release, proximity of receptors and prevailing meteorological conditions. Meteorological wind data, for five years, has been acquired from local weather data for Newport south Wales, the wind rose is presented below. The prevailing wind direction is from the west to southwest. There is little wind from the northeast, north and due south.



Land uses

- 2.2 The proposed operation lies in an industrial area. Table 2.1 below sets out the land usage in the surrounding area.

Table 2.1

Number	Distance from Waste Treatment Area (m)
Residential	No properties within 1000 m. Closest residential dwelling at 1.2km
Schools and educational facilities	No properties within 1000 m.
Commercial Industrial	
Site borders A4810	A road within 20m of site boundary
Business directly north	170 m
Business South West	210m
Business due East	346 m
Public Right of Way and recreation	
	Footpath on opposite side of A4810 at 87m from operational site boundary

- 2.3 DEFRA Air Quality Management Areas (AQMA) records show the site, and wider area, lie within an AQMA for the pollutant NO_x as NO₂.

Surface waters

- 2.4 The surface waters are presented in Drawing 213430/D/001. The site lies between a series of man made drainage features that drain the surrounding land and the Gwent Levels SSSI which lies to the immediate south of the operational area. These drainage features are managed and monitored by TATA Steel UK Limited as part of current and historic environmental permit commitments linked to the surrender of waste management permits (*Closure Notice No.GR/EM4/01 for Llanwern Landfill, South Side of Queensway (SSQ)*).

Groundwater

- 2.5 The strata below and near the site is considered by Natural Resources Wales as a non-aquifer. Both the Holocene sediments and the underlying Mercia Mudstone are of low to extremely low permeability, which supports the classification of the area as a non-Aquifer. There is no known licensed or unlicensed groundwater abstraction from strata underlying the Caldicot Levels. There are no Source Protection Zones (SPZ) near the site, the nearest SPZ is that for the Great Spring which at its nearest point is more than 5km away from the site and is hydraulically isolated from the site by the intervening geology.

Habitats and heritage

- 2.6 The ecological and heritage receptors are presented in Drawing 213430/D/002.
- 2.7 The principal area of sensitive ecology is represented by the Gwent Levels SSSI which lies to the immediate south of the operational area. No other designation sites lie within 1 km of the proposed works.
- 2.8 There are no Scheduled Monuments or world heritage sites within 2 km of the site.

3. EMISSIONS TO CONTROLLED WATERS

3.1 The slag reprocessing operation is based on the crushing and dry screening of metalliferous slags. While misting sprays will be used for dust management there are no water discharges from this process. The site layout plan and monitoring plan have been provided in drawings 213430-D-003 and 213430-D-005 respectively. These show the proposed plant and activities within the operational area of the permit deployment.

4. PARTICULATE EMISSIONS

4.1 The waste solids being treated have the potential to generate dusts during dry conditions. A visual assessment of their condition during processing will be completed daily and dusts will be suppressed using misting sprays where material pass through crushing and screening plant. Additional dust management on internal hall roads and around stockpiles will also be managed with freshwater sprays. Water for dust management will be obtained from TATA site.

4.2 Visual observations of fugitive emissions at the downwind site boundary by any member of the Site Team will be immediately reported to the Site Manager. Any visual observation of fugitive emissions leaving the downwind site boundary will be recorded in the Site Diary by the Site Manager.

4.3 If dust is observed, a light scatter meter will be deployed on the prevailing winds downwind boundary to determine total suspended particulates (TSP) and particulates (PM10). Acceptable short term action thresholds of (PM10) of 75 ug/m³ (over 1 hour) and 50 ug/m³ over a 10-hour working day will be applied. A TSP limit of 150 ug/m³ (over 1 hour) will also be implemented.

4.4 In the event that these levels are approached, a misting system will be deployed over the working area. The misting system will include an atomising spray style system which can extend fully over the dust generating area.

4.5 If dust release continues works will be suspended until additional controls can be applied and agreed with the regulating authority.

5. ODOUR AND VOC EMISSIONS

5.1 The processing of metalliferous slag is not considered to be an odour generating activity.

5.2 As part of the daily site inspection, the site manager, TCM or Environmental Consultant confirm the absence of nuisance odour and will take action if conditions warrant action.

6. PLAN REVIEW

6.1 As a minimum, this plan will be reviewed every six months to ensure that it is up to date, addressing the dust risks of the operations at any time. The plan will be reviewed either following an emissions incident quantified by a substantiated complaint, a monitoring threshold exceedance or following any observed emissions over the boundary.

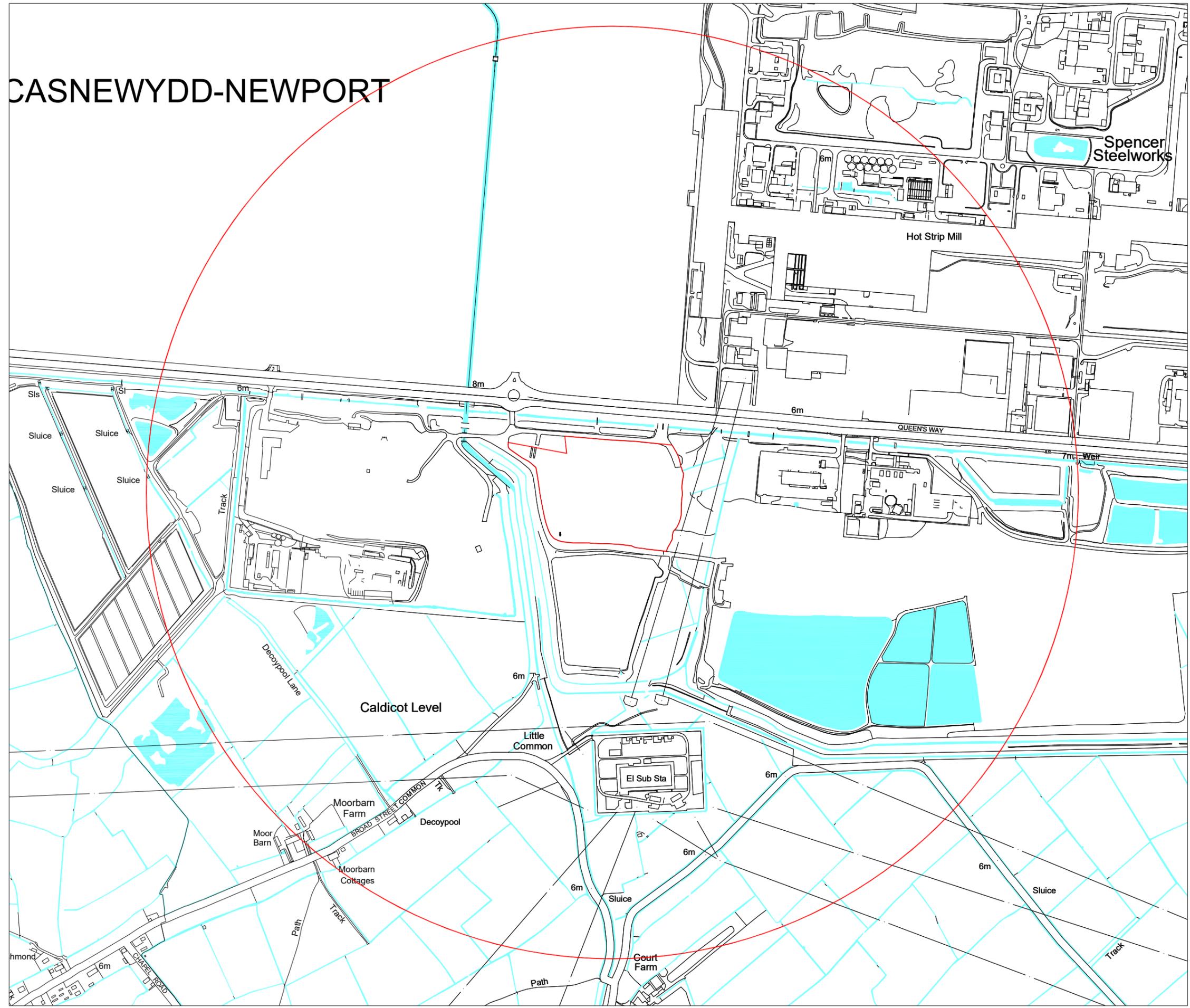
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DRAWINGS

CASNEWYDD-NEWPORT



Key:
— Site Boundary
○ 1 km Radius

Rev.	Details	Drawn Chkd.	Date
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Project
213430
Llanwern

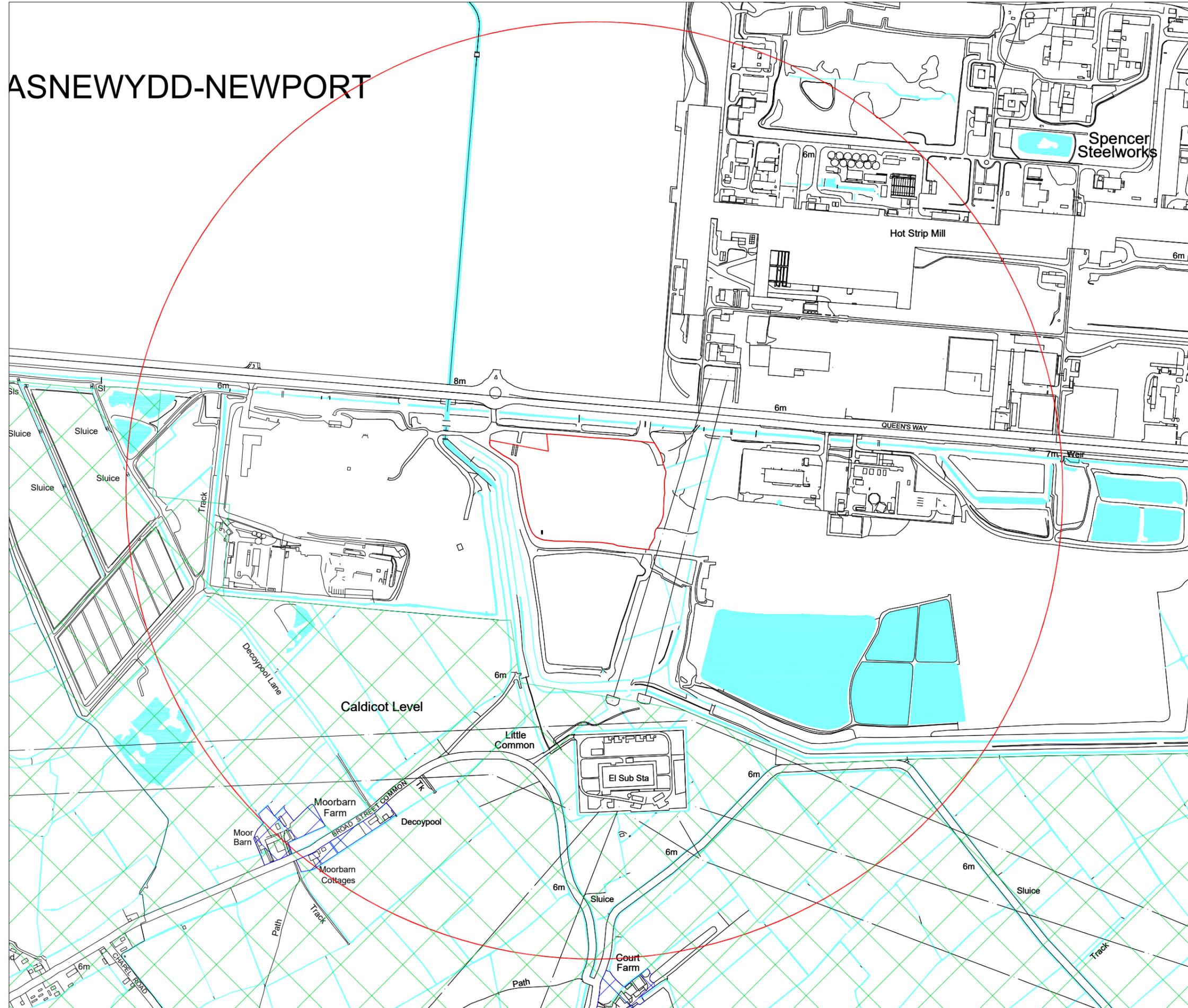
Title
Site Location Plan



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Scale	Date	Jan'22	Drng. No.	Rev.
1:8,000@A3	Drawn	KE	Chkd.	ML
			213430/D/001	

ASNEWYDD-NEWPORT



- Key:
- Site Boundary
 - 1 km radius
 - ▨ Residential Receptors
 - Surface Water Receptors
 - ▨ SSSI - Gwent Levels, Nash & Goldcliff

Rev.	Details	Drawn Chkd.	Date
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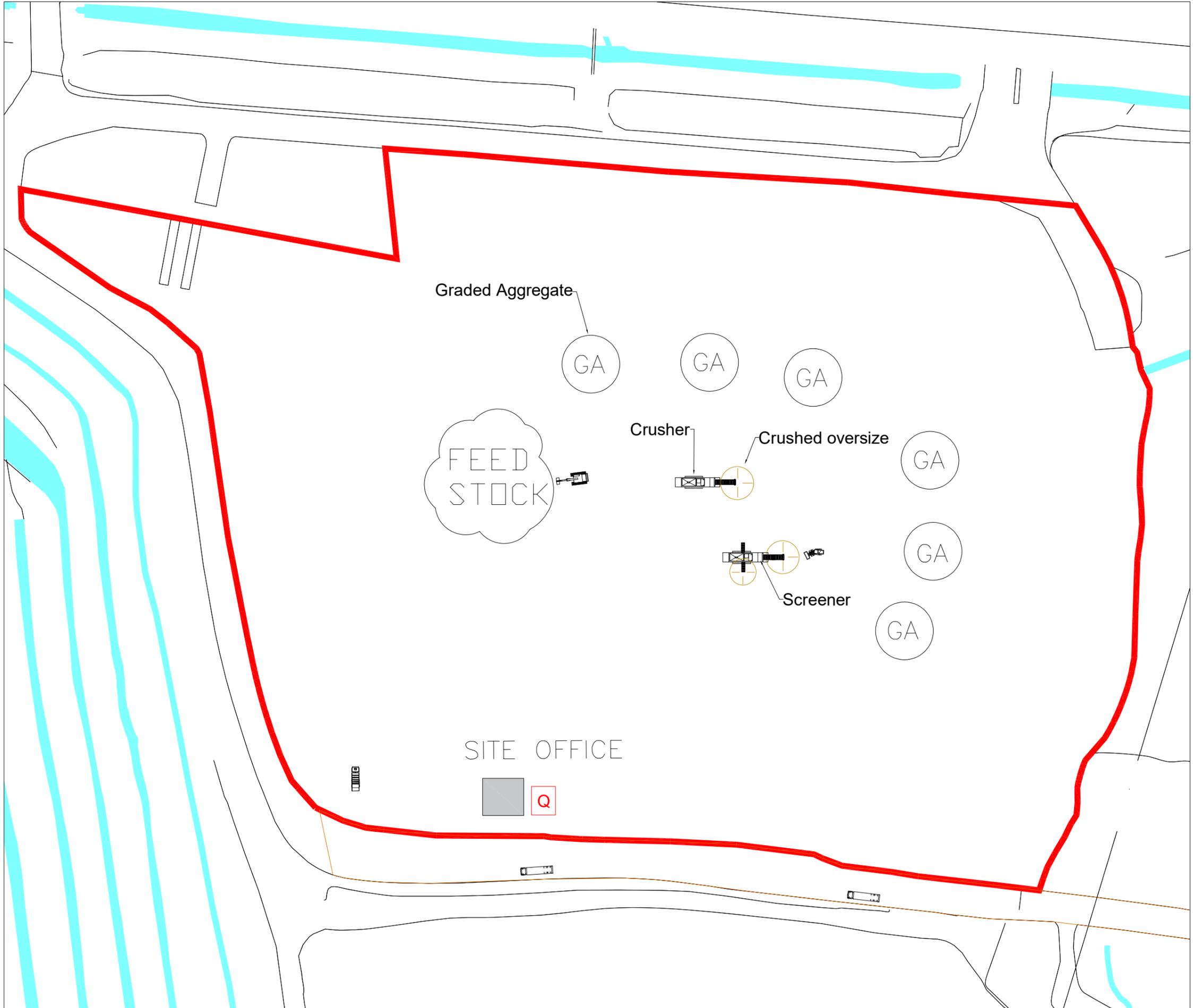
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213430
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Title
Site Receptor Plan



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			213430/D/002	



Key:
 Site Boundary
Q Quarantine Area

Notes:
 1) The mobile plant area within the wider Steelworks is afforded 3m high palisade fencing.

Rev.	Details	Drawn Chkd.	Date
Project 213430 Llanwern			
Title Site Layout Plan			
		AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-ltd.co.uk www.aae-ltd.co.uk	
		Scale 1:1,250@A3	Date Jan'22
	Drawn KE	Chkd. ML	



Key:
 — Site Boundary
 ⊕ Visual Dust Monitoring Locations

Rev.	Details	Drawn	Date
		Chkd.	

Project
 213430
 Llanwern

Title
 Site Monitoring Plan



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