



**LLANELLI WELLNESS & LIFE  
SCIENCE VILLAGE**

**PHASE 1 - PENTRE ARWEL**

**SUPPLEMENTARY INFORMATION  
FOR MOBILE PLANT PERMIT  
DEPLOYMENT APPLICATION**

**MARCH 2023**

**R1881/23/5294**

<b>Client:</b>	<b>Bouygues UK Ltd.</b>
<b>Report Number:</b>	<b>R1881/23/5294</b>
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<b>Author(s):</b>	<b>M. Holmes</b>
<b>(Signature &amp; Date)</b>	_____
<b>Project Manager</b>	<b>R. Davies</b>
<b>(Signature &amp; Date)</b>	_____
<b>QA Approved:</b>	<b>S. Kidley</b>
<b>(Signature &amp; Date)</b>	_____

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The report is only valid when it is used in its entirety.

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## 1.0 INTRODUCTION

This report is to be read in combination with the attached Environmental Permit Deployment form. The sections in this report contain additional information to that supplied in the deployment form where indicated in the form.

Englobe Regeneration UK Limited (Englobe) operates and manages its water treatment works in accordance with its Mobile Plant Permit (MPP), reference AP3195FG, which may be deployed in England or Wales as determined the Environment Agency (EA) or National Resources Wales (NRW) respectively.

Englobe have been commissioned by Bouygues (U.K.) Limited to undertake water treatment works within Llanelli Wellness & Life Science Village - Pentre Arwel. The works are part of the Phase 1 development which includes a leisure centre and development for education, research, and business. The proposed area for the system is set within in an area of the site that is outside of the build (as shown on drawing D1881/5258/A1, Appendix A). Residential and commercial properties proximity to the boundaries of the Phase 1 area.

Englobe have been commissioned to install, commission and operate a water treatment system to treat water generated from construction activities, primarily from general excavation of the proposed swimming pool and surface run-off as part of Bouygues protection of the New Dafen River.

### **Bespoke Environmental Permit**

Bouygues have been unable to secure a Discharge Consent form Dwr Cymru to dispose of the treated effluent from the system to the local foul water network due to local capacity issues and concern regarding sewer related flooding. Consequently, in the absence an alternative discharge point, Englobe are seeking a Bespoke Environmental Permit to enable re-injection of the treated water effluent to the shallow aquifer beneath the site and Englobe are currently in the process of applying for Bespoke Environmental Permit for this purpose.

### **Abstraction License**

A temporary groundwater abstraction license will be required for the works as it is as pumping from the swimming pool excavation may exceed 20 m<sup>3</sup>/ day. This is currently being applied for.

## 2.0 SPECIFIED ACTIVITIES TO BE CARRIED OUT AT THE SITE

Englobe propose to deploy a water treatment system to treat influent water containing suspended solids, organic and inorganic dissolved phase contaminants to concentrations as specified under the Bespoke Environmental Permit for re-injection.

The system will treat the water via the following processes as standard:

- Settlement of suspended solids via a storage Lagoon;
- Settlement of suspended solids via a baffled settlement tank;
- Filtration of suspended solids through sand filters and Granular Activated Carbon (GAC);
- Sorption of dissolved phase hydrocarbons and through GAC vessels; and

- If required, use of zeolite vessels.

Dependent on influent concentrations of suspended solids, dosing may also be required therefore the system also has the following capabilities, should additional treatment processes be required:

Non-aqueous phase liquids (NAPL) are not expected to enter the system; however, the system also incorporates oil-water separation through gravity separation, with drums or IBC to be used for storage of any recovered NAPL.

The system, to be housed within a bund of 110% capacity, will be fully automated with multiple safety devices, including tank high levels sensors, bund high level sensors and pressure sensors. All information will be fed to a central Programmable Logic Controller (PLC), which will be programmed to automatically detect and react appropriately to any detected issue. Remote system access and telemetry will enable notification of Englobe personnel in the event of any fault. These features will enable the system to safely operate 24 hours a day, 7 days per week with minimal supervision and maintenance requirements.

The water treatment system process flow diagram is presented in Appendix A.

### **3.0 RESIDUAL MATERIALS / WASTE**

We do not expect to receive any water of quality that cannot be treated by the proposed system. Residual wastes which cannot be treated on site will however be generated by the treatment process. These include:

- Spent activated carbon (GAC);
- Spent zeolite (if required);
- Settled suspended solids / precipitates; and
- Possible NAPL.

Activated carbon and zeolite are held within steel pressure vessels on site, and the media becomes gradually spent through the course of treatment, ultimately requiring replenishment / exchange with fresh media. The media will be sent off-site to suitably licenced facilities for regeneration and re-use.

Suspended solids / precipitates will accumulate at the bottom of settlement tanks during treatment, eventually requiring removal. The solids will be chemically characterised prior to removal, either for reuse or disposal off-site at a suitably licenced facility.

Any NAPL separated from the oil-water separator will be decanted into an IBC / drum stored within the water treatment system bund and will be chemically characterised prior to off-site removal for reuse or disposal at a suitably licenced facility.

### **3.0 STORAGE OF WASTES**

All wastes generated as part of the treatment process will accumulate gradually within the elements of the treatment system (settlement tanks / pressure vessels) within the

system bund, prior to their eventual emptying as described in the above section. As such, no additional waste storage facilities or areas for quarantine are required on site.

#### **4.0 MANAGEMENT SUPERVISION**

The Technically Competent Manager (TCM) will attend site during the commissioning of the system and monthly thereafter (based on 30-week programme estimate 7 visits during operation). The TCM will inspect the setup of the treatment facilities on site prior to commencement of the treatment works. The TCM will spend the remaining time on inspection audits of the treatment process during the remediation. The majority of audits will be carried out during the active phase of works. The WAMITAB certificate for the TCM can be found in Appendix D.

The treatment system is designed to run 24 hours a day, 7 days per week with minimal supervision required. Monitoring and maintenance activities will be carried out by Englobe Engineers during normal site working hours.

The system, to be housed within a bund of 110% capacity, will be fully automated with multiple safety devices, including tank high levels sensors, bund high level sensors and pressure sensors. All information will be fed to a central Programmable Logic Controller (PLC), which will be programmed to automatically detect and react appropriately to any detected issue. Remote system access and telemetry will enable notification of Englobe personnel in the event of any fault. The site will be accessible to Englobe engineers 24 hours per day, 7 days a week in the event of a callout.

As part of the maintenance program all level switches, pumps and emergency cut-off switches are manually triggered weekly to ensure they are in good working order and are fit for use. All water treatment systems will be secured with fencing to prevent unauthorised access.

#### **5.0 CONCEPTUAL SITE MODEL AND RISK ASSESSMENT**

A conceptual site model illustrating the source-pathway-receptor relationship has been carried out for works occurring under the Mobile Treatment Licence. This is presented in Table 1 overleaf.

Table 1 - Conceptual Site Model Risk Assessment

SOURCES	PATHWAYS	POTENTIAL RECEPTORS	Probability of Exposure	Consequence	Magnitude of Risk	NOTES (Including Control Measures)	RISK AFTER CONTROL
Operational water treatment system (influent potentially impacted by organic & inorganic contaminants)  Potential vapour generated from water treatment system (if NAPL present in influent)	<ul style="list-style-type: none"> <li>Direct Contact</li> <li>Leakage spillage</li> <li>Vapour inhalation</li> </ul>	<ul style="list-style-type: none"> <li>Site staff</li> <li>Site visitors</li> <li>Groundwater beneath the site</li> <li>New Dafen River</li> <li>Lougher Estuary</li> <li>Surface Soils</li> </ul>	Medium	Medium	Medium	<ul style="list-style-type: none"> <li><b>Potentially Complete Pollutant Linkage:</b> Workers inspecting the treatment system may come into contact with contaminants. Controlled by information, inductions, good working practices, wearing appropriate PPE and RPE, signage, Site monitoring, Site welfare facilities and by following Method Statements.</li> <li>The water treatment systems will be contained within bunds of capacity of 110% volume or more of the largest system component's capacity. High level float switches will ensure that the system is automatically switched off should any leakage occur within the system. Regular inspections of the treatment system and pipework will also be carried out by a competent engineer. Any impacted waters will undergo treatment prior to discharge. Weekly sampling of effluent will ensure only water acceptable to the Bespoke Environmental Permit is discharged.</li> </ul>	Low
Effluent discharge	<ul style="list-style-type: none"> <li>Direct Contact</li> <li>Leakage spillage</li> </ul>	<ul style="list-style-type: none"> <li>Site staff</li> <li>Site visitors</li> <li>Groundwater beneath the site</li> <li>New Dafen River</li> <li>Lougher Estuary</li> <li>Surface Soils</li> </ul>	Low	Medium	Low-Medium	<ul style="list-style-type: none"> <li><b>Potentially Complete Pollutant Linkage:</b> Effluent for discharge will be monitored continuously by in-situ sensors and by sampling on a weekly basis to ensure compliance with the discharge consent. All pumped water requiring treatment will be treated via on site treatment plant prior to discharge to the shallow aquifer beneath the site under a Bespoke Environmental Permit is expected to be of high quality posing negligible human health and environmental risk. Bunded system with high level stops in place.</li> <li>Staff will be trained, inducted, and have suitable PPE to minimise risk of exposure.</li> </ul>	Negligible
Chemical reagents used in the treatment process (coagulant & flocculant)	<ul style="list-style-type: none"> <li>Direct contact</li> <li>Leakage spillage</li> </ul>	<ul style="list-style-type: none"> <li>Site staff</li> <li>Site visitors</li> <li>Groundwater beneath the site</li> <li>New Dafen River</li> <li>Lougher Estuary</li> <li>Surface Soils</li> </ul>	Low	High	Medium	<ul style="list-style-type: none"> <li><b>Potentially Complete Pollutant Linkage:</b> All chemicals present on site will be appropriately stored within their proper containers and with a bund of 110% capacity of contents. Maximum of 1m3 of each reagent will be stored on site.</li> <li>Weekly inspection of all containers and dosing equipment &amp; pipework will be carried out by a systems engineer, with any defects reported and addressed appropriately.</li> <li>Staff will be trained, inducted, will be working under Safe Systems of Work and have suitable PPE to minimise risk of exposure.</li> </ul>	Low

SOURCES	PATHWAYS	POTENTIAL RECEPTORS	Probability of Exposure	Consequence	Magnitude of Risk	NOTES (Including Control Measures)	RISK AFTER CONTROL
Wastes generated from the treatment process (solids, spent media, potential NAPL)	<ul style="list-style-type: none"> <li>Direct contact</li> <li>Vapour inhalation</li> <li>Leakage / spillage</li> </ul>	<ul style="list-style-type: none"> <li>Site staff</li> <li>Site visitors</li> <li>Groundwater beneath the site</li> <li>New Dafen River</li> <li>Lougher Estuary</li> <li>Surface Soils</li> </ul>	Low	Medium	Low-medium	<ul style="list-style-type: none"> <li><b>Potentially Complete Pollutant Linkage:</b> All wastes generated through the treatment process will accumulate within water treatment system components (tanks &amp; pressure vessels) and within a water treatment system bund of 110% capacity of the largest system item. Drums / IBC, stored within the water treatment system bund, will be used to store any separated NAPL prior to off-site disposal or reuse.</li> <li>Workers inspecting the treatment system may come into contact with contaminants. Controlled by information, inductions, good working practices, wearing appropriate PPE and RPE, signage, Site monitoring, Site welfare facilities and by following Method Statements.</li> </ul>	Low
Noise emitted from system during active site works	<ul style="list-style-type: none"> <li>Noise emissions during dewatering and remedial operations</li> </ul>	<ul style="list-style-type: none"> <li>Site Staff</li> <li>Adjacent third-party workers</li> <li>Public at site boundary.</li> </ul>	Low	Low	Low	<ul style="list-style-type: none"> <li><b>Incomplete Linkage:</b> Staff at the site will have limited contact with any prolonged noise emitting activity. Noise will be monitored during works using a decibel meter. Should noise levels be above trigger levels set for the site then works will be stopped and noise reducing measures will be employed. In addition, the potential effects of noise emitting activities will be mitigated by relevant PPE if required.</li> <li><b>Incomplete Linkage:</b> No significant impact to adjacent third-party workers as system is low noise, &lt;70 dBA. Englobe will undertake noise monitoring to confirm levels.</li> <li><b>Incomplete Linkage:</b> No significant impact to the public at site boundary, the system is low noise - &lt;70dBA. Englobe will undertake noise monitoring to confirm levels.</li> </ul>	Low



## 6.0 POLLUTION CONTROL

Englobe will undertake background monitoring and design a monitoring programme to be implemented during the site works. Background levels, Occupational Exposure Limits (OEL's) and risk derived values will form the basis for site specific trigger values.

Monitoring records will include:

- determinants monitored;
- details of measurements (date, time, frequency, location);
- results;
- interpretation and review of results with trigger values;
- validation of accuracy; and

Should monitoring exceed the site-specific trigger values, control measures specified in the site-specific contingency method statement will be implemented. This may include the physical covering of tanks, ventilation, filtering or active extraction.

The contingency plan will be designed and operated to:

- prevent hazard to human life, property or the environment;
- control and minimise any immediate risks of pollution of the environment;
- ensure the immediate initiation of necessary investigations and management; and
- actions to identify, mitigate and remediate the causes of the exceedance.

### Monitoring and Control of Ambient Gases, Vapours and Aerosols

Mobile treatment plant under the control of Englobe is highly unlikely to give rise to emissions of vapours and aerosols during normal operation. In open areas of the site, normal air circulation will prevent the accumulation of semi volatile and volatile organic carbons (SVOCs, VOCs and vapours).

Prior to and during the initial active works phase, Englobe staff will undertake daily monitoring of volatile organic compounds (VOCs) using a Photo Ionisation Detector (PID) at monitoring points around the active works area (D1881/5294/A2, Appendix A) when the site is manned and the system is operational. There will be 1 static monitoring point located at the water treatment system and one downwind of the water treatment system which will move dependant on wind direction. The PID will be operated, calibrated and maintained in accordance with the manufacturer's instructions. Measurements will be recorded in the monitoring pro forma provided in the appendix to this report. Concentrations will be compared with OELs for any volatile compounds identified from laboratory VOC characterisation. A copy of the records will be made available to The Environment Agency on request.

Representative samples of gases, vapours and aerosols will be taken within the operational area if routine PID monitoring identifies a significant hazard. If such sampling is required, passive samples will be taken using desorption tubes at each of the monitoring stations.

Should VOCs exceed the trigger level in the treatment area (RPE at 1 ppm 8-hour TWA and Stop works at 10 ppm 8-hour TWA); the action plan will be implemented. This will include RPE at the lower trigger level and evacuate the operational area if the upper trigger level is reached. Only resume work when VOC concentrations have dropped

below the upper trigger level or contingency control measures are in place. Control measures may include increased ventilation, filtering or active extraction.

### **Dust, Fibres and Particulates**

Englobe are only providing water treatment services at the site and cannot control dust, fibres or particles produced by others on site.

### **Odour**

During commissioning, odours will be monitored on a daily basis within and at the perimeter of the active works area and records will be on the monitoring pro forma as provided in the appendix. Monitoring will become weekly once operational, and the system attendance reduces accordingly. It is unlikely but possible that during the treatment of water from excavations vapour odours may be emitted. This is more likely during maintenance of the system as at times the closed treatment system may have to be isolated and opened. If these odours become an issue on-site, then contingency plans will be put in place to reduce the odour.

Methods of reducing odours are to include;

- Pre-assessing the wind direction and strength prior to operations.
- Pre-assessing the time of maintenance prior to operations.

If the odour becomes too high, operations will cease, and the treatment area should be doused with industrial deodoriser spray designed for industrial operation use.

The level of odour will be assessed based on the following criteria:

**Table 2 - Odour Assessment**

<b>Level of Odour Observation</b>	<b>Actions</b>
No to very faint odour	No action
Occasional faint to moderate odour	Increase monitoring frequency
Frequent moderate to strong odour	Implement mitigation actions

### **Control of Noise**

All remedial processes will be carried out utilising low intensity works, where possible. The treatment system comprises very few moving parts, with noise generation expected to be negligible. Operations are proposed using mains power supplied by the Client. However, all of the noise emitting equipment in excess of 70 dB (A) 1 m from source will be within a housing to minimise noise emission.

On-site workers will be provided with suitable PPE. Monitoring will be undertaken on a regular basis using a hand-held calibrated sound level meter.

The system is designed to be low noise and not to exceed noise levels within or outside the working area.

## **Control of Extracted Water**

The pumped water will be passed through settlement tanks, sand filters and granular activated carbon (GAC) prior to being discharged to sewer. Sample points would be located both before and after the vessel to allow for adequate sampling, as required. Discharge samples from the system have been allowed for on a weekly basis and from intermediate sampling points, as required.

## **Fuel Storage**

Englobe will not be storing fuel for this deployment, as power for the system is provided by the client. However, should the power be supplied via diesel generator, Englobe will ensure that associated fuel storage is in the form of a double skinned fuel tank and appropriate spill kit materials are located next to the fuel tank.

## **Control of Litter**

The nature of the work does not pose a risk of litter migration outside the site boundary. The site will be operated in a safe, tidy and hygienic manner. Operatives will be required to dispose of any litter generated on site during daily routine tasks where safe to do so. A skip will be used for any large items of general waste.

The site diary will record that monitoring checks have been carried out daily to confirm points above.

## **7.0 EMISSIONS MONITORING PLAN**

Prior to any works commencing on site, a baseline environmental monitoring survey will be completed to assess the current environmental conditions within the area of the site. This survey will be completed prior to works commencing to ensure representative data is collected. A minimum of two monitoring rounds will be carried out for the baseline survey which will include monitoring points within the treatment system area and at the compound fenced boundary.

The survey will include assessments of pre-work dust, noise, vapour and odour levels. This data will be retained on site and used to assess the environmental impact of the remediation works as they progress. This baseline data will be available for inspection by any concerned party, including the NRW.

Once works have commenced and in line with the terms and conditions of Englobe's Mobile Plant Permit and its deployment, environmental monitoring will be undertaken during active site works to ensure the works have no adverse impact on the immediate and wider environments. It is proposed that two air quality monitoring locations will be used on site, one within the water treatment system and another at the compound boundary at a downwind location. It should be noted that Englobe's works are being undertaken on an active development site and therefore significant background interference from third party activities may affect any monitoring results collected by Englobe. Any such emissions likely to have been generated by a third party during Englobe monitoring events will be commented upon in the monitoring sheet.

The proposed monitoring points are shown on Drawing D1881/5294/A2, Appendix A.

Monitoring will be carried out at these locations from the start of the works until the works are complete. The monitoring will comprise, noise via handheld noise meters, odour by qualitative assessment and vapour via Photo Ionisation Detector (PID). These are summarised in Table 3, below.

	Ambient Vapour / Odour	Ambient Noise	Treated Water
<b>Sampling Method(s)</b>	Photo Ionisation Detector (PID) / Qualitative odour assessment	Decibel Noise Meter	Laboratory Analysis
<b>Trigger Level</b>	RPE - 1 ppm VOC (8 hour TWA)  Stop Work - 10 ppm VOC (8 hour TWA)  NB: This is based on most conservative TWA (8 hour) for the COCs (benzene).	Lower exposure action values are: 80 dB (A) and 135 dB (C)  Upper exposure action values are: 85 dB (A) and 137 dB (C)  Exposure limit values are: 87 dB (A) and 140 dB (C)  5 dB (5 min TWA) above background monitoring data at site perimeter monitoring locations.	Subject to agreed discharge criteria
<b>Baseline (All Locations)</b>	2 rounds	2 rounds	Not applicable
<b>Active Works Phase</b>	Fortnightly - during maintenance visit	Fortnightly - during maintenance visit	Weekly sampling
<b>Post Works</b>	Not Applicable	Not Applicable	Not Applicable

\*The most toxic compound/marker recorded at the site is benzene and we will conservatively assume this represents 100% of the total vapour emissions for Total VOCs recorded during monitoring. If VOCs are detected at or above 1 ppm (15 min TWA), representative samples/monitoring will be undertaken to identify individual compounds and appropriate actions taken as necessary.

### Contingency Control Measures

In the event that the monitoring plan trigger levels are reached, or additional control measures are deemed necessary by the wider project team, additional contingency control measures will be implemented. These are detailed below.

In the unlikely event of unacceptable odour and/or vapour levels, open top tanks will be covered and if necessary, active extraction will be carried out with routing of extracted air to appropriate air treatment. In addition, a de-odouriser system will be considered.

In the unlikely event of unacceptable noise levels, working methods and plant will be reviewed. In addition, acoustic barriers on temporary fence panels can be deployed around noise producing items such as the generator.

Should the effluent quality deteriorate, as indicated by continuous in-situ monitoring or chemical analysis, the discharge will cease, and investigation will be carried out.

## **8.0 RECORD KEEPING - COMMISSIONING, OPERATING AND MAINTENANCE**

Prior to delivery to site, valid maintenance certificates will be required for all plant and equipment, together with valid calibration certificates for appropriate items (monitoring instruments etc). During the works a regular (minimum fortnightly) maintenance checklist, including checks on all applicable system components, will be carried out by a Englobe engineer.

On completion of the setting up of the treatment working area, the Technically Competent Manager (TCM) will inspect the setup of the treatment facilities on site prior to commencement of the treatment works. Prior to the commencement of the treatment works, the TCM will complete Englobe's Mobile Treatment Licence/Environmental Permit Compliance form Pre-Operational Check and also check that the site meets the provisions of Englobe's Health, Safety and Environmental Integrated Management System by using Englobe's Site Works Inspection Audit Form. The forms are included in Appendix C.

During the works, a diary will be maintained by the site manager, together with details of site staff. Monitoring recorded as part of the environmental monitoring plan will be recorded and retained electronically for the duration of the works. The site manager will check the environmental monitoring data on a daily basis of any exceedances of trigger levels and the monitoring technicians will have a brief to inform the site manager for any exceedances for immediate management/contingency action. The site will also self-audit on a monthly basis using Englobe's Site Works Audit form in Appendix C to ensure compliance with Englobe's Health, Safety and Environmental Plan and IMS.

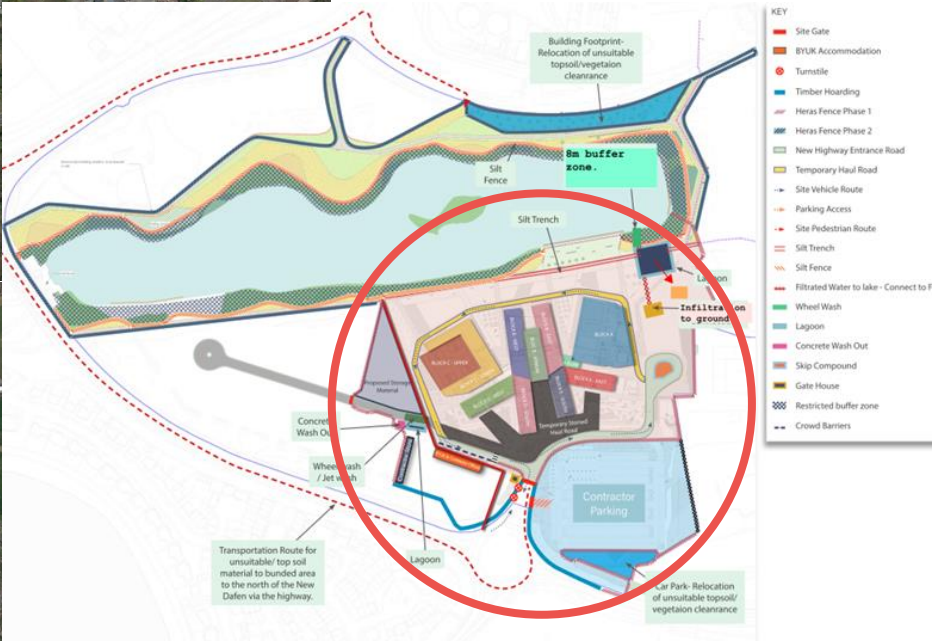
The pro-forma for the environmental monitoring that will be undertaken at the site can be found in Appendix B.

## APPENDICES

## **APPENDIX A**

### **DRAWINGS**

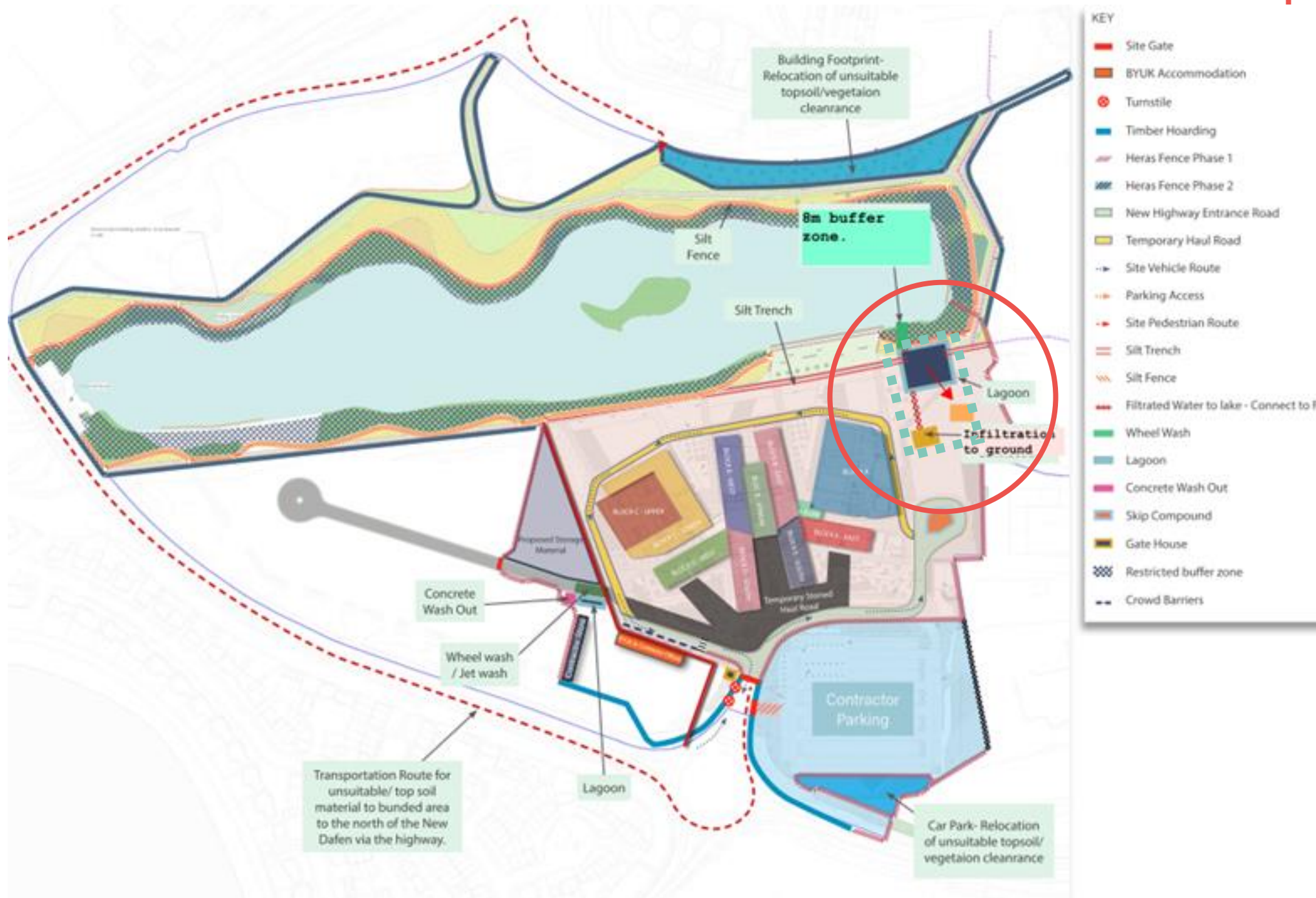




Englobe  
Greenmeadow Springs  
Tongwynlais  
Cardiff  
CF15 7NE  
Tel. (029) 20368636  
Fax. (029) 20368637

Client	Bouygues
Project:	Llanelli Wellness & Life Science Village
Job No:	C1881
Title:	Site Location
Scale:	NTS
Date Drawn:	March 2023
Figure Number:	Figure A1





Englobe  
Greenmeadow Springs  
Tongwynlais  
Cardiff  
CF15 7NE  
Tel. (029) 20368636  
Fax. (029) 20368637

Client	<b>Bouygues</b>
Project:	<b>Llanelli Wellness &amp; Life Science Village</b>
Job No:	<b>C1881</b>
Title:	<b>Treatment System Location and General Layout</b>
Scale:	<b>NTS</b>
Date Drawn:	<b>March 2023</b>
Figure Number:	<b>Figure A2</b>





Site Boundary

Englobe  
Operating  
Boundary (All  
plant will be  
within this  
boundary)



Englobe  
Greenmeadow Springs  
Tongwynlais  
Cardiff  
CF15 7NE  
Tel. (029) 20368636  
Fax. (029) 20368637

Client  
**Bouygues**

Project:  
**Tank 315**

Job No:  
**C1881**

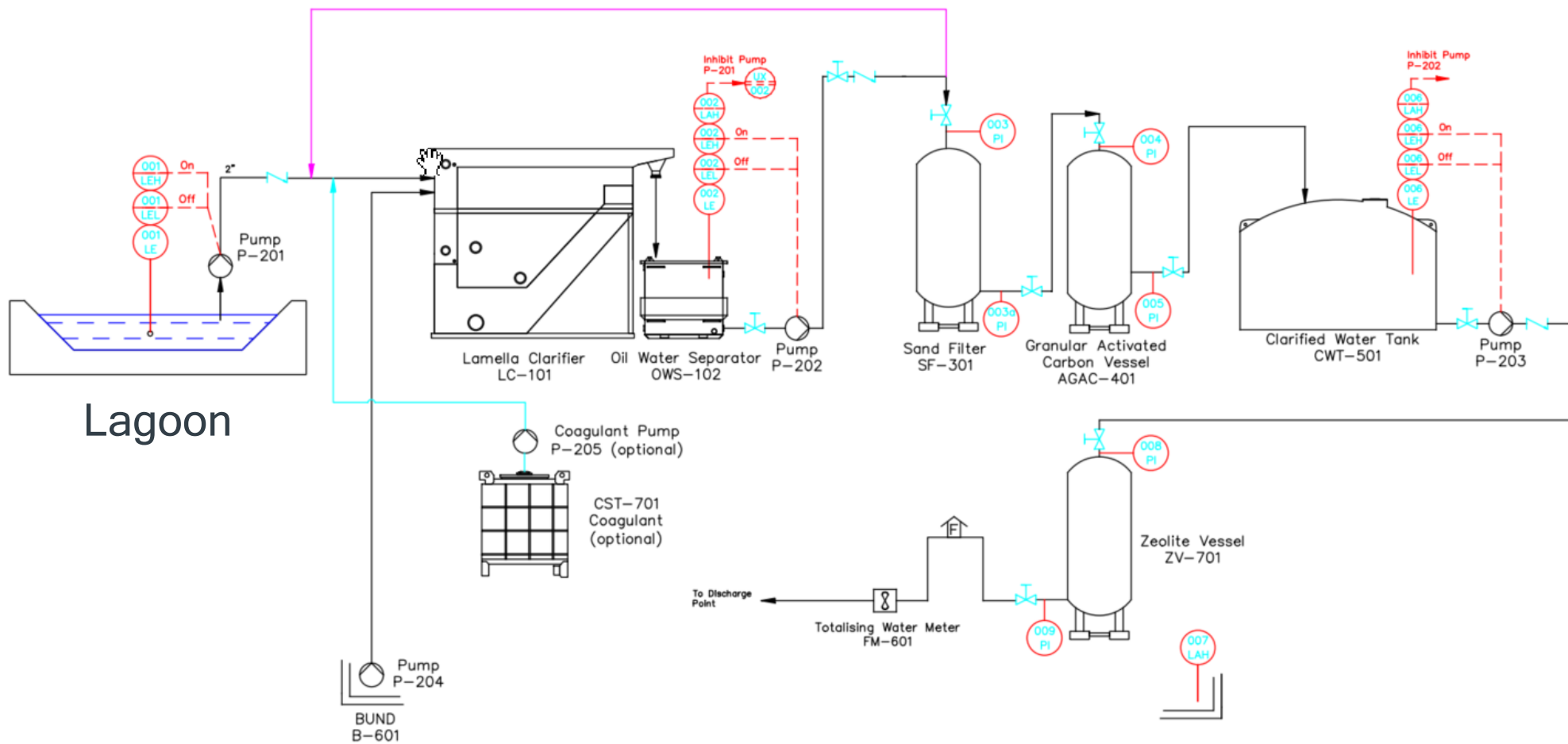
Title:  
**Receptors and  
Monitoring Location**

Scale:  
**NTS**

Date  
Drawn: **March 2023**

Figure  
Number: **Figure A3**





- Hand Valve
- Equal Tee
- Non-return Valve



Englobe  
Greenmeadow Springs  
Tongwynlais  
Cardiff  
CF15 7NE  
Tel. (029) 20368636

Client  
**Bouygues**

Project: **Llanelli Wellness & Life Science Village**

Job No: **C1884**

Title: **Site Set-up and Process Diagram**

Scale: **NTS**

Date  
Drawn: **March 2023**

Figure  
Number: **Figure A4**

## **APPENDIX B**

### **MONITORING PROFORMAS**

# SAR-PC-32

## Environmental Monitoring/ Occupational Monitoring Proforma



<b>Vapour Trigger Values</b> <b>Off site receptors</b> Stop Work at _____ ppm (5 min TWA) at site boundary <b>On site receptors</b> RPE Criteria _____ ppm (15 min TWA) at treatment area Stop Work at _____ ppm (15 min TWA) at treatment area when RPE worn <b>Odour limit and action values:</b> Action level: Intensity 3 Extent 3 Stop work Criteria: Intensity 4 Extent 4	<b>Dust action/limit value</b> General Dust Exposure Action Limit Values: _____ µg/m3 (PM10 15 min TWA) <b>Noise exposure limit values and action values</b> Action Level: 80 dB(A) (5 min average) when ear protection worn Stop work Criteria 85 dB(A) (5 min average) <b>Off site receptors</b> >5 dB background values background value for site: _____ dB
---	---

Site:												Monitoring Equipment Pre-Checks Completed		DustMateY - N - N/A			
Date:												Noise MeterY - N - N/A		PIDY - N - N/A			
Round Number:		Weather:															
PID Calibration Passed:		Wind Direction:															
Y/N		VOC		NOISE		DUST								ODOUR			
Location	Time	Average over 5 mins (ppm)	Peak over 5 mins (ppm)	Average over 5 mins (dBA)	Peak over 5 mins (dBA)	TSP (µg/m3)		PM10 (µg/m³)		PM2.5 (µg/m³)		PM1 (µg/m³)		Intensity 1-5	Extent 1-5	Comments (Action required?/ Action taken)	
						5 mins	15 mins	5 mins	15 mins	5 mins	15 mins	5 mins	15 mins				see below
<b>IMPORTANT: if TRIGGER VALUES are exceeded SITE supervisor and site team should be notified immediately and controls reviewed.</b>																	
Use below to record occupational health monitoring readings in active work areas. i.e. Remediation technologies Processes at excavation/ drilling location (Voc's and noise), within/around WTS/BP systems & adjacent to pumps BH and dewatering locations (noise , VOC's), Consideration should be given to use of Datalogging PID for work shift exposure monitoring and use of PErsonal PID etc for workers undertaking tasks where exposure is occurring.																	

### Odour Monitoring Criteria

#### Intensity

- 1 No detectable odour
- 2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- 3 Moderate odour (odour easily detected while walking & breathing normally, possibly offensive)
- 4 Strong odour (bearable, but offensive odour)
- 5 Very strong odour (very offensive, possibly causing nausea)

#### Extent (assuming odour detectable, if not then 0)

- 1 Local & transient (only during brief periods when wind drops or blows)
- 2 Transient as above, but detected away from installation boundary
- 3 Persistent, but fairly localised
- 4 Persistent and pervasive up to 50m from plant or installation boundary
- 5 Persistent and widespread (odour detected >50 m from installation boundary)

## **APPENDIX C**

### **INSPECTION AND AUDIT FORMS**



## SITE WORKS AUDIT INSPECTION FORM

No	Overview of Amendment and Text affected	Effective Date	Authorisation
1	First Issue	24/05/13	VR
2	Update of logos, footers and first page	7/8/16	J Fuller
3	Update, hyperlinks to intranet IMS forms added, update alongside SOP08 undertaken	18/7/18	T Bamber
4	Review of regulations quoted. And added Work at Height Regulations 2005 for extra information in WAH section	10/06/19	T Bamber
5	Review and formatting update	20/11/20	T Bamber
6	Updated for new branding	14/02/22	P Pearson



## SITE WORKS AUDIT INSPECTION FORM

Contract No:		Date:		
Site:		Client:		
Project Manager:		Site Personnel:		
Auditee:		Auditor:		
Activities been undertaken at time of audit:				
Requirements	YES/NO	COMMENTS		
<b>ON ARRIVAL AT SITE</b>				
Site is Secure	No			
Site is Adequately Signed	Yes			
Site Access Road Clear of Contamination	Yes			
MTL Notice as required				
Site PPE rules	Yes			
<b>SITE INDUCTION</b>				
Site File				
Welfare Provision				
PPE				
Manual Handling				
Emergency Actions and Reporting				
Records of Induction and Training				
<b>SITE OFFICE</b>				
Site Diary and Visitors Book				
Server Connection & Phone connection				
<b>CDM</b>				
Work Under CDM Requirements				
F10 Posted				
Role of ENGLOBE (circle all applicable)	PC	PS/Coordinator	SC	Designer

DISCHARGE / ABSTRACTION / OTHER CONSENT





## SITE WORKS AUDIT INSPECTION FORM

(where appropriate)	Available		
Conditions audited.			
Monitoring data available.			
<b>OCCUPATIONAL HEALTH</b>			
Noise			<80 dB(A) [ Mobile App estimation or Calibrated SPL meter <sup>1</sup> ]
Clean / Dirty Segregation			
Personal Hygiene e.g. hand washing			
OH Monitoring Programme?			
<b>SITE HOUSEKEEPING &amp; CLEANLINESS</b>			
Toilet/Hygiene Facilities			
Cabins/ office			
General Site Conditions			
<b>SERVICES</b>			
<u>Auditor to confirm compliance with SOP1. Site services survey must be undertaken before any excavation</u> <u>Auditor must also check that all services are "marked- out" in accordance with SOP01 and site service drawings.</u>			
<u>All excavations/ BH's marked on plans containing services.</u>			
Service Plans Available			
Services Located and Marked on site			
Hand/Vac Excavated Pits Completed			
Borehole Clearance Sheets Completed SAR-PC-47			
<b>SUB CONTRACTORS</b>			
Wearing Appropriate PPE for Tasks			
Machinery of Adequate Standard and Repair			
Equipment Certificates cited and valid			
<b>SITE WORKS</b>			
Equipment			

<sup>1</sup> Delete as applicable








## SITE WORKS AUDIT INSPECTION FORM




Appropriate for use	<input type="checkbox"/>	
In a good working condition/ inspected	<input type="checkbox"/>	
<b>SAMPLING</b>		
Samples Stored Correctly	<input type="checkbox"/>	
Correct containers available	<input type="checkbox"/>	
Method of Sampling Correct	<input type="checkbox"/>	
Complete Logs and Records undertaken	<input type="checkbox"/>	
Custody Sheets Available and Up to Date	<input type="checkbox"/>	

## SITE WORKS AUDIT INSPECTION FORM

### Office Facilities

	All ENGLOBE sites shall have a clearly identified site office. The office shall project a professional and organised appearance, and must not be cluttered or used to store equipment or contaminated PPE. A means of heating the office must be provided.	Observations
	Note site boots or contaminated PPE in the office. No equipment other than small, clean hand-held items such as monitoring instruments, data loggers etc.	Observations
	Current and up to date project plans and time schedules should be displayed. We should also post Quality, Safety and Environmental Policies, and any site specific SHE objectives.	Observations
	Project organ gram, site plans and emergency procedures should be displayed in the office. <b>Refer to (SAR-PC-01) Project Management for further guidance</b>	Observations
	Office Notice board and compulsory postings. We are legally required to fill in' and post the "Health and Safety Law" i'poster and a current copy of our Employers Liability Insurance Certificate.	Observations





### Security

	Sites shall be kept secure to prevent unauthorised access. Temporary fencing must be kept in good order and checked weekly.	Observations
	Where there is a risk of theft, vandalism, arson or unauthorised occupancy, consideration shall be given to out of hour's surveillance, such as a security guard service or closed-circuit television.	Observations Biffa
	Tools, equipment and monitoring devices must be locked away or removed from site when not in use. Inventories of all assets shall be kept and checked regularly.	Observations


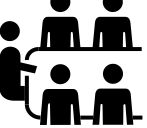
### Signage

	Adequate signage shall be installed to satisfy Safety, Health, Environmental and Corporate Branding requirements.	Observations
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## SITE WORKS AUDIT INSPECTION FORM

	<p>All signs shall be of professional quality and should, where possible, bear the ENGLOBE brand and logo.</p>	
 <p>All visitors must report to site office</p>	<p>EN standard symbols<sup>iii</sup> shall be used on signs whenever practicable.          At site entrances the standard ENGLOBE sign shall be mounted in a prominent position. Instructions for visitors and a summary of site rules, including PPE requirement shall be clearly visible.</p>	<p><i>Observations</i></p>
  	<p>Where applicable Mobile Plant Licence<sup>iv</sup> / Environmental details must be displayed in accordance with the Environment Agency's (NRW or SEPA) requirements. Copy of Company licence EAWML 30379 document should also be held on site. <b><i>Refer to Englobe MTL/Env Permit for further information available on the intranet</i></b></p>	<p><i>Observations Biffa</i></p>

### Facilities for Visitors







		<p>Where practical, consideration should be given to facilities for visitors, including clients, contractors and enforcing agencies. Heated meeting room facilities may be required for on-site visits and meetings.</p>	<p><i>Observations</i></p>
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### Welfare Requirements


		<p>Welfare facilities include toilets, washing, clothes drying facilities, changing and rest areas and wholesome drinking water</p>	<p><i>Observations</i></p>
		<p>Separate smoking and eating facilities. The means of preparing a hot drink must be provided.</p>	<p><i>Observations</i></p>
		<p>In addition to the provision of welfare facilities, regular maintenance, cleaning, and where necessary, emptying of them will be required.</p>	<p><i>Observations</i></p>

## SITE WORKS AUDIT INSPECTION FORM


### Fire Precautions & Emergency Preparedness

	Flammables such as fuels and gasses shall be stored and used away from sources of ignition. Smoking shall be permitted in designated areas only Flammable wastes shall be kept to a minimum and stored in covered skips	Observations
	Flammable chemicals shall be clearly marked with EN conforming safety labels	Observations
	All buildings, offices, storage units and process cabins shall be equipped with the appropriate fire extinguisher conforming to BS EN 3 or BS 6165. All fire extinguishers must be inspected and certified by a competent person annually. Only attempt to tackle fire if it is safe to do so.	Observations
	All potentially explosive atmospheres shall be identified and the required control measures shall be clearly communicated to all. Only authorised personnel are permitted to work with potentially explosive atmospheres.	Observations
	Fire escape routes and muster points shall be clearly identified, with due considerations to lighting etc. in times of poor visibility.	Observations
	A means of raising alarm shall be provided. Type and means of operation shall depend on site circumstances Refer to site specific emergency plan.	Observations
	Appropriate spill response facilities must be available. Take prompt action in the event of any spillage. Refer to site specific emergency plan.	Observations









### First Aid

	First aid facilities shall available in site offices, decontamination units and at other site cabins, as appropriate. Contents shall be subject to regular stock check.	Observations
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## SITE WORKS AUDIT INSPECTION FORM


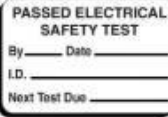





	Eyewash facilities shall available in site offices, decontamination units and at other site cabins, as appropriate. Contents shall be subject to regular stock check.	<i>Observations</i>
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### Chemicals


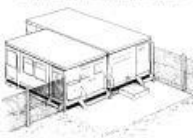
	All chemicals used on site must be suitably stored so that they do not pose a risk to site staff or the environment. ( <a href="#">Sevron COSHH management system</a> )	<i>Observations</i>
	No chemicals will be allowed on site until a Material Safety Data Sheet has been received and a risk assessment has been conducted.	<i>Observations</i>
	All storage facilities shall be clearly identified.	<i>Observations</i>
	All chemical containers shall be labelled with contents and standard safety information, such as hazard classification, risk and safety phrases and safety symbol.	<i>Observations</i>
	Small containers of chemicals shall be kept in a locked, bunded, flameproof cabinet that contains an inventory, maximum storage allowances if applicable, and an indication of where material safety data sheets are held. Flammables and corrosives shall not be stored together.	<i>Observations</i>
	Larger containers such as Drums, IBC's, Bowsers shall be stored in a designated bunded area, unless internally bunded. Bunds shall be a minimum 110% stored volume and should not be allowed to fill with rainwater.	<i>Observations</i>
	Drums, IBC's, Bowsers etc. shall be locked when not in use.	<i>Observations</i>
	Where applicable emergency eyewash stations and showers shall be provided wherever chemicals are used, stored or decanted. Mains-fed units are preferable to small stored water units.	<i>Observations</i>

## SITE WORKS AUDIT INSPECTION FORM

### Electrical Safety

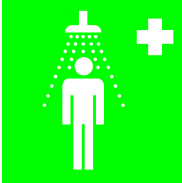



	No control panel to be opened without a qualified electrician and independent isolation from the supply. A Permit to Work (Electrical) ( <a href="#">SAR-PC-24</a> ) is to be issued.	<i>Observations</i>
	All portable electrical appliances (e.g. with a 13A plug) shall be safety (PAT) tested at least on an annual basis. <b>110volt (CTE) Equipment tools require a weekly check, monthly formal inspection and a PAT test every 3 months</b>	<i>Observations</i>
	Fixed electrical installations, e.g. those operating on 415 volts and above or permanently hard-wired in place, must be installed by a competent electrician and certified as safe. . A Permit to Work (Electrical) ( <a href="#">SAR-PC-24</a> ) is to be issued.	<i>Observations</i>
	Damaged or faulty equipment shall be immediately isolated, if safe to do so, locked off if possible, and reported to the site manager	<i>Observations</i>
	Hand held electrical equipment for use out of doors shall operate from an isolating transformer 110volt, centre tap to earth. <b><i>Refer to Standard Operating Procedure (<a href="#">SOP-01</a>) Service Identification for further guidance.</i></b>	<i>Observations</i>
	Contact with overhead services can be fatal	<i>Observations</i>
	Contact with any underground services can be fatal. <b><i>Refer to Standard Operating Procedure (<a href="#">SOP-01</a>) Service Identification for further guidance.</i></b>	<i>Observations</i>

### Decontamination facilities





	 <small>Fig. 1. Closed village of a biological and chemical facility. Route access for dirty work off site through PPE and facility for some personnel.</small>	Contaminated and clean areas shall be clearly segregated by suitable fences Contaminated and clean areas shall be clearly identified with signs. Personnel access and egress shall be through suitable decontamination facilities.	<i>Observations</i>
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## SITE WORKS AUDIT INSPECTION FORM

		<p>Showers and washing facilities must be included in the decontamination unit to deal with accidental contact with contaminants</p> <p>Boot washing facilities shall be provide at the dirty entrance to the decontamination facility</p>	<p><i>Observations</i></p>
		<p>Vehicle access and egress shall be through suitable decontamination facilities.</p> <p>Open wagons must be sheeted</p> <p>Vehicles wheels must be washed to remove mud. Mud must not be allowed to contaminate the highway.</p>	<p><i>Observations</i></p>

### Excavations





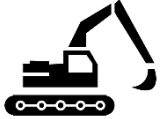

	<p>All excavations must be fenced and clearly signed.</p> <p>Where practicable, excavations shall be in filled or covered when unsupervised.</p> <p>Fencing to be a minimum of 2.0m from the edge of any excavation.</p>	<p><i>Observations</i></p>
	<p>Contact with underground services can be fatal.</p> <p><b><i>Refer to Standard Operating Procedure (SOP-01) Service Identification for further guidance.</i></b></p>	<p><i>Observations</i></p>
	<p>Temporary works and excavation support should be subject to approved design as applicable.</p>	<p><i>Observations</i></p>
	<p>Approved specialist contractors should be used if Confined space access is required. Access will only be permitted to an excavation with an approved permit. see (SAR-PC-26)</p> <p>Excavations in contaminated land are considered CONFINED SPACES. Permits and access controls must be enforced.</p>	<p><i>Observations</i></p>

### Plant and Equipment


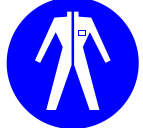


	<p>Internal Supplied Equipment subject to compliance with Engineering and Equipment procedures. (SAR-EC )</p>	<p><i>Observations</i></p>
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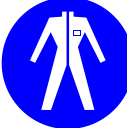
## SITE WORKS AUDIT INSPECTION FORM

	Operations manuals, commissioning checklists, and weekly inspections in place.	
	All plant and equipment shall meet the latest standards. Evidence of conformance to European standards should be sought from suppliers.	<i>Observations</i>
	<b>LOLER:</b> Lifting equipment (including chains, slings, hooks, eyebolts, crane, HIAB etc) must have a certificate of inspection, and the operator must be certified as a competent person. A weekly check of the lifting equipment will be carried out and recorded on ( <a href="#">SAR-PC-21</a> )	<i>Observations</i>
	All equipment that may contain or create potentially explosive atmospheres shall be identified and the required control measures shall be clearly communicated to authorised personnel. ( <a href="#">SAR-PC-09</a> ) is to be consulted if working within potentially explosive atmospheres.	<i>Observations</i>
	Site Managers/ Site Engineers should make themselves familiar with the operation and maintenance procedures for all equipment on site (hired and internal) prior to the use of the equipment. A hard copy of any available operation and maintenance manuals should be kept on site.	<i>Observations</i>
	Weekly PUWER inspection required ( <a href="#">SAR-PC-20</a> ) Plant and equipment register established and maintained for the duration of site works	<i>Observations</i>
	Lift plans must be completed and sent for approval to company AP using ( <a href="#">SAR-PC-25</a> ) to all lifts taking place.	<i>Observations</i>








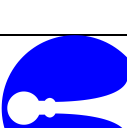
### Site Apparel and Personal Protective Equipment (PPE/RPE)

		All issued PPE/RPE should be signed for and a register kept on all sites of issued PPE, appropriate training given as required in the use of issued PPE.	<i>Observations</i>
		Site staff shall dress in appropriate apparel for the work being undertaken. For all site locations and activities, the company issued uniform of cotton drill shirt and trousers must be worn. Clean company uniform and clean boots or shoes must be worn in the Site Office. NO	<i>Observations</i>


## SITE WORKS AUDIT INSPECTION FORM

		site PPE is allowed in Welfare and office areas.	
		Non-contaminated areas. Company uniform, ENGLOBE HI-VIZ vest, Hardhat and gloves. Steel toe capped boots.	<i>Observations</i>
		Contaminated areas. Refer to PPE assessment. As per non-contaminated areas, with the addition of boiler suit, Tyvek suit, waterproof coveralls and respiratory protective equipment as required. PPE assessment see ( <a href="#">SAR-PC-08</a> ) RPE assessment see ( <a href="#">SAR-PC-09</a> )	<i>Observations</i>

### Traffic and Pedestrian Controls

		Pedestrian walkways must be clearly marked and separated from vehicle traffic. Traffic management plan ( <a href="#">SAR-PC-46</a> ) and Traffic management drawing must be in place. Consider phased working	<i>Observations</i>
		Where pedestrians may come across vehicles, suitable warning signs and traffic demarcation must be used. Traffic management plan ( <a href="#">SAR-PC-46</a> )	<i>Observations</i>
		Slippery surfaces and trip hazards should be avoided or removed as much as possible. If they cannot be eliminated, suitable signs or other visual indicators should be used	<i>Observations</i>
		Appropriate site traffic rules shall be established and maintained. Traffic management plan ( <a href="#">SAR-PC-46</a> )	<i>Observations</i>


### Working near the Highway

	All works on or near a highway or pedestrian walkway shall conform to the Code of Practice: Safety at Street works & Roadwork's 2001. Such works may require a permit from the local or highway authority. Chapter 8	<i>Observations</i>
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## SITE WORKS AUDIT INSPECTION FORM

	signage and fencing. Street works compliant design, competent persons.	
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### Working Near the Public

	Specific risk assessments and method statements should be considered where works might involve contact with the public. Children and the elderly or sensory-impaired are particularly at risk from entering working areas.	<i>Observations</i>
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### Working at Height


	All scaffolds must meet the requirements of EN39, BS5974, 1990, Work at Height <b>Regulations</b> 2005 and, the CDM 2015 Regulations, and be inspected by a competent person prior to use, after modification and every seven days thereafter.	<i>Observations</i>
	Ladders should be used for access to a workplace only and must not be used as a working platform. Ladders should be tied, firmly footed and free from defects. WAH assessments to be undertaken for all operations. Compliance with Work at Height <b>Regulations</b> 2005 required	<i>Observations</i>

### Waste Management

 <b>NO FIRES</b>	 <b>NO SOLVENTS</b>	Fires must not be lit or permitted in skips or waste containers. Liquid wastes must not be poured into skips or waste containers. <b><i>Refer to (SOP-06) Management and Waste Hierarchy for further guidance.</i></b>	<i>Observations</i>
 <b>RECYCLABLE</b> <b>ALUMINIUM ONLY</b>		Recyclable materials should be separated wherever practicable (consider Waste hierarchy) Skips shall be locked when not in use to prevent fires, entrapment and unauthorised dumping. <b><i>Refer to (SOP-06) Management and Waste Hierarchy for further guidance.</i></b>	<i>Observations</i>
		All skips must be covered and clearly marked with contents and CLP symbols Care shall be taken to prevent spillage and pollution.	<i>Observations</i>



## SITE WORKS AUDIT INSPECTION FORM

		Waste shall only be removed by licensed carriers. Duty of care audit required on all Waste carriers.	
 <b>Cyfoeth Naturiol Cymru Natural Resources Wales</b>	All sites producing Hazardous Wastes must be registered with the Environment Agency/SEPA/NRW as applicable.		<i>Observations</i>



## SITE WORKS AUDIT INSPECTION FORM

### OVERALL ASSESSMENT OF SITE

Comments and Observations not Covered in the Checklist:

*Initial findings report will be left on site at completion of Audit setting out remedial actions and action timescales.*



## SITE WORKS AUDIT INSPECTION FORM

		<b>SHEQ AUDIT INSPECTION INITIAL FINDINGS REPORT</b> <u>On completion of remedial actions please copy to SHEQ Auditor</u>			
		Page	1	of	
Site Name /Location		Contract No.		Date	
Item No.	Location of and Items Requiring Action			Action CAT 1,2,3	Date Remedied
<p>Action Category <u>Classification 1</u> Items requiring <u>IMMEDIATE ACTION</u> i.e. within 24hrs</p> <p>Action Category <u>Classification 2</u> Items requiring <u>PROMPT ACTION</u>. i.e. within 48hrs</p> <p>Action Category <u>Classification 3</u> Items requiring action <b>within 7 days</b></p>					
Remarks:					
Signed (Person Compiling Report) Auditor:					
Copies to:		Name of Person Seen on Site			
SHEQ Manager/ Auditor		Designation i.e Site Engineer			
Regional Director		Signature			



## SITE WORKS AUDIT INSPECTION FORM

### References and Key legislation.

The Health & Safety (Consultation With Employees) Regulation 1996  
 The Health & Safety (Information for Employees) Regulations 1989  
 The Employers Liability (Compulsory Insurance) Act 1969 regulations 1998  
 The Construction (Design & Management) Regulations 2015  
 Safety Signs & Signals Regulations 1996  
 Pollution Prevention and Control (PPC) (England and Wales) Permitting 2009  
 The Waste Management Licensing (Scotland) Regulations 2008  
 The Workplace (Health, Safety & Welfare) Regulations 1992  
 Highly Flammable Liquids & Liquefied Petroleum Gasses Regulations 1972  
 The Dangerous Substances and Explosive Atmospheres Regulations 2002  
 The Fire Precautions Regulatory Reform (Fire Safety) Order 2005  
 Health & Safety (First Aid) Regulations 1981  
 The Control of Substances Hazardous to Health Regulations (C.O.S.H.H.) 2002 and 2005  
 The Chemical Hazard Information for Packaging & Supply Regulations (C.H.I.P.) 2002 plus 2005 amendment  
 EH40 Occupational Exposure Limits  
 The Control of Pollution (Oil Storage) (England) Regulations 2001  
 HS(G)107 Maintaining Portable and Transportable Electrical Equipment  
 The Electricity at Work Regulations 1989  
 HS(G)85 Electricity at Work - Safe Working Practices  
 HS(G)141 Electrical Safety on Construction Sites  
 HS (G)S6 Avoidance of Danger from Overhead Electrical Lines  
 HS(G)47 Avoiding danger from underground services  
 The Protection of Workers and the General Public during the Development of Contaminated Land - HS G (1990).  
 The Highway Code  
 The Confined Spaces Regulations 1997  
 The Provision & Use of Work Equipment Regulations (P.U.W.E.R) 1998  
 The Lifting Operations and Lifting Equipment Regulations (L.O.L.E.R) 1998  
 The Personal Protective Equipment Regulations 1992  
 The Waste Management Regulations 1996  
 Waste Management - The Duty of Care - DEFRA Code of Practice  
 Hazardous Waste (England and Wales) Regulations 2005 amended 2009

### Additional Legislation and Regulations considered by this Audit inspection:

The Health and Safety at work act (HASAWA 1974)  
 The Environmental Protection Act (EPA) 1990  
 The New Roads and Street Works Act 1991  
 The Construction (Head protection) Regulations 1989  
 The Display Screen Equipment Regulations 1992  
 The Lead at Work Regulations 2002  
 The Manual Handling Regulations 1992  
 The Vibration at work Regulations 2005  
 The Work at Height Regulations (WAH) 2005 and amended 2007  
 The Pressure Systems Safety Regulations 2000  
 The Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDOR) Regulations 2013  
 The Site Waste Management Plans Regulations 2008  
 Trade Effluent (Prescribed Processes and Substances) (Amendment) Regulations 1990



# Environmental Permit / License Compliance Audit Form (formerly MTL)



<b>Project Name:</b>	<b>Project Number:</b>
Scope of Audit: general operational or audit of specific area / section of the works?	

## Mobile Treatment Permit

Treatment Technologies	Undertaken on site?
Air Sparging	
Bioremediation	
Biosparging	
Bioventing	
Chemical Treatment	
Soil Vapour Extraction	
Soil Flushing	
Soil Washing	
Solidification	
Stabilisation	
Thermal Treatment	
Treatment Plant (blending, mixing, screening, particle separation, etc)	
Other	

EA/NRW/SEPA? Deployment Ref. and operational start and end dates:

Permitted Activity	Issuing Body and Document Ref.
EP/ Mobile Treatment Permit	
Abstraction	
Discharge (surface, groundwater or sewer)	

**Compliance Assessment:** Guidance notes and prompts for completion are detailed in the rear of this document and should be read before completing the audit / assessment.

### Infrastructure

- 1) Engineering for prevention and control of emissions
- 2) Closure and decommissioning
- 3) Site drainage engineering (clean and foul)
- 4) Containment of stored materials
- 5) Plant and equipment

### Assess


### Non-Compliance


### Comments (areas for improvement and points of good practice):

- 1)
- 2)
- 3)
- 4)
- 5)

### General Management

- 1) Staff competency/ training
- 2) Management system and operating procedures
- 3) Materials acceptance
- 4) Storage, handling, labelling and segregation

### Assess


### Non-Compliance


### Comments (areas for improvement and points of good practice):

- 1)
- 2)
- 3)
- 4)

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# Environmental Permit / License Compliance Audit Form (formerly MTL)



## Incident Management

- 1) Site security
- 2) Accident, emergency and incident planning

### Assess


### Non-Compliance


### Comments (areas for improvement and points of good practice):

- 1)
- 2)

## Emissions

- 1) Air
- 2) Land and groundwater
- 3) Surface water
- 4) Sewer
- 5) Waste

### Assess


### Non-Compliance


### Comments (areas for improvement and points of good practice):

- 1)
- 2)
- 3)
- 4)
- 5)

## Amenity

- 1) Odour
- 2) Noise
- 3) Vibration
- 4) Dust/ fibres/ particulates and litter
- 5) Pets, birds and scavengers
- 6) Deposits on road

### Assess


### Non-Compliance


### Comments (areas for improvement and points of good practice):

- 1)
- 2)
- 3)
- 4)
- 5)

## Monitoring and Records, Maintenance and Reporting

- 1) Monitoring of emissions and environment
- 2) Records of activity, diary, any complaints received
- 3) Maintenance records
- 4) Reporting and notification to the Environment Agency

### Assess


### Non-Compliance


### Comments (areas for improvement and points of good practice):

- 1)
- 2)
- 3)
- 4)

## Resource Efficiency

- 1) Efficient use of raw materials
- 2) Energy efficiency

### Assess


### Non-Compliance


### Comments (areas for improvement and points of good practice):

- 1)
- 2)

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# Environmental Permit / License Compliance Audit Form (formerly MTL)



**Technically Competant Person:** Is attendance by a COTC WAMITAB qualified person being recorded on site files and does their attendance meet the minimum as set out in the deployment form?

## Corrective Actions for Any Non-Compliance / Visit Comments

1  
2  
3  
4  
5  
6

<b>Project Manager:</b>	<b>Signed:</b>	<b>Date:</b>
<b>Site Manager:</b>	<b>Signed:</b>	<b>Date:</b>
<b>Auditor:</b>	<b>Signed:</b>	<b>Date:</b>

## Notes For Completion

**Key to Completion:**  
A = Assessed/ Assessed in part (no evidence of non-compliance)  
ATL = Approach to Limit - E.G. Environmental reports due, dusts near site limit etc.  
N/A = Not Applicable - E.G. No discharge to drainage etc.  
N = Not Assessed - E.G. Deposits on road as outside MTL etc.  
AR= Action Required, e.g. an issues which needs resolving

## Compliance Classification Scheme (CCS):

Cat 1 Breach - A non compliance which has a potentially major environmental effect.  
E.G. - Contamination spillage to waterway or drainage linked to waterways. Dusts to residential  
Cat 2 Breach - A non compliance which has a potentially significant environmental effect  
E.G. - On site contaminative spillage due to filled/ broken bunds. Unbundled contaminated stockpiles etc  
Cat 3 Breach - A non compliance which has a potentially minor environmental effect  
E.G. - Uncovered stockpiles releasing odours/vapours, excessive noise, unlocked IBCs, missing monitoring.  
Cat 4 Breach - A non compliance which has no potential environmental effect.  
E.G. Uncompleted site diary, uncompleted EA monitoring reports, missing signage and paperwork

## Typical examples and further prompts on items to check under each section.

### Infrastructure

**1) Engineering for prevention and control of emissions:** Are covers on the stockpiles/biopiles/treatment

**2) Closure and decommissioning:** Are works being undertaken? Do they create environmental risks?

**3) Site drainage:** Are these present? What condition are they in? Environmental risks?

Are drainage plans available? Is it suitable for used i.e. damaged. Is discharge agreed? Is it protected?

**4) Containment of stored materials:** Are treatment liquids, fuels, oils etc. appropriately stored / contained?

**5) Plant and equipment:** Is there any obvious damage? Is it clean and in good condition? Are PUWER checks being undertaken / recorded. Does the plant compare to schematic drawing? Has the MTL area been installed in

**5) Signage:** Is all plant, waste and/or stockpiles signed appropriately? Is the MTL sign prominent and located on the front gate to the site?

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# Environmental Permit / License Compliance Audit Form (formerly MTL)



## General Management

- 1) Staff competency/ training:** Is the member of staff managing the works fully conversant with the permit / licence requirements?
- 2) Management / Operating procedures:** Are the appropriate RAMS, PPE/RPE understood, signed up to and operations accurately reflect these?
- 3) Materials acceptance:** For bio - Is there assessment of excavations/quarantine by physical, olfactory or chemical means? for HVE Has the contamination been delineated and productive wells targeted?
- 4) Storage, handling, labelling and segregation.** Is material under MTL appropriately stored and labelled. Are stockpiles segregated or treatment batches signed? Are all items of plant labeled and detailed on a site plan?

## Incident Management

- 1) Site Security:** Check infrastructure and procedures in place (fencing, padlocks, CCTV, guards etc).
- 2) Accident, emergency and incident planning:** Is the hospital location plan, incidence response flow chart and emergency contacts signage posted? Assess the procedures, check when the last drill was undertaken, was it recorded and what were the lessons learned?

## Emmissions

- 1) Air:** Consider dust, fumes, vapours etc
- 2) Land and groundwater:** Any spills to the ground? Underlying ground conditions and aquifer? Is this considered and managed in the RAMs and on site?
- 3) Surface water:** Where are the nearest rivers/streams? Are they identified on the RAMs? What risks are posed to them and are they managed?
- 4) Sewer:** Is the discharge permit in place? Sampling regime and laboratory results compaired against this permit?
- 5) Waste:** Is this being suitably segregated, characterised, managed with the appropriate duty of care.

## Amenity

- 1) and 2) Odour and Noise:** Are odours or noise associated with the MTL works significant at the site boundary or welfare? Is the appropriate frequency of monitoring being undertaken and recorded?
- 3) Vibration:** Is vibration considered to be significant? What are the potential receptors? Do we need to undertake monitoring?
- 4) Dust/ fibres/ particulates and litter:** Is significant dust etc. associated with the MTL works blown around the site? Is there litter or other waste within the MTL areas or bunds? Is the MTL area clean / tidy?
- 5) Pets birds and scavengers:** Consider the potential risks posed by things like cats/dogs, seagulls, foxs, rats. General maintainance in managing waste and waste containers
- 6) Deposits on road:** Is there mud/liquids/debris on the roads associated with the MTL Works?

## Monitoring and Records, Maintenance and Reporting

- 1) MTL Application:** Is a copy of the MTL application, the licence, agreement and associated correspondence held on site? Is it understood by the site management?
- 2) MTL Monitoring Locations:** Are the locations signed and do they match the MTL drawing? Are they protected from damage and theft?
- 3) Environmental Monitoring:** Undertaken in accordance with the MTL requirements?
- 4) Maintenance records:** Is maintenance and weekly checks undertaken in accordance with internal procedures and MTL requirements?
- 5) Records of activity, site diary:** Are operational times recorded? Is the site diary compliant with the MTL requirements? Check quantities of materials do not breach the relevant permit and that systems are in place so this cannot happen.
- 6) Reporting and notification to the Environment Agency:** Are all the required reports sent to the EA on time? Are copies held on site?

## Resource Efficiency

- 1) Use of raw materials:** Is diesel being used appropriately i.e. is electricity available?
- 2) Energy efficiency:** Is correct size genny used? Is running time reviewed? Is treatment system or turning optimised? Are there any renewable energy product alternatives available?

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**APPENDIX D**  
**WAMITAB CERTIFICATE**





# WAMITAB

Waste Management Industry  
Training and Advisory Board



The Chartered Institution  
of Wastes Management

Certificate No. OCC-813

## Operators Competence Certificate

**Qualification Title:**

**Level 4 in Waste Management Operations - Managing Treatment  
Hazardous Waste (4TMH)**

**This Certificate is awarded to  
Gavin Sean Rodway**

**Awarded: 04/02/2010**

**Authorised**

WAMITAB Director General

CIWM Chief Executive Officer



This certificate is jointly awarded by WAMITAB and the Chartered Institution of Wastes Management (CIWM) and provides evidence to meet the Operator Competence requirements of the Environmental Permitting (EP) Regulations, which came into force on 6 April 2008.





# Continuing Competence Certificate

**This certificate confirms that**

**Gavin Rodway**

**Has met the relevant requirements of the Continuing Competence scheme for the following award(s) which will remain current for two years from 13/09/2022**

CLR

Contaminated Land Remediation

**Expiry Date:**  
**13/09/2024**

Verification date: 05/09/2022

Authorised:



Professional Services Director

Learner ID: 17539

Certificate No.: 5206934

Date of Issue: 13/09/2022



CIWM Chief Executive Officer

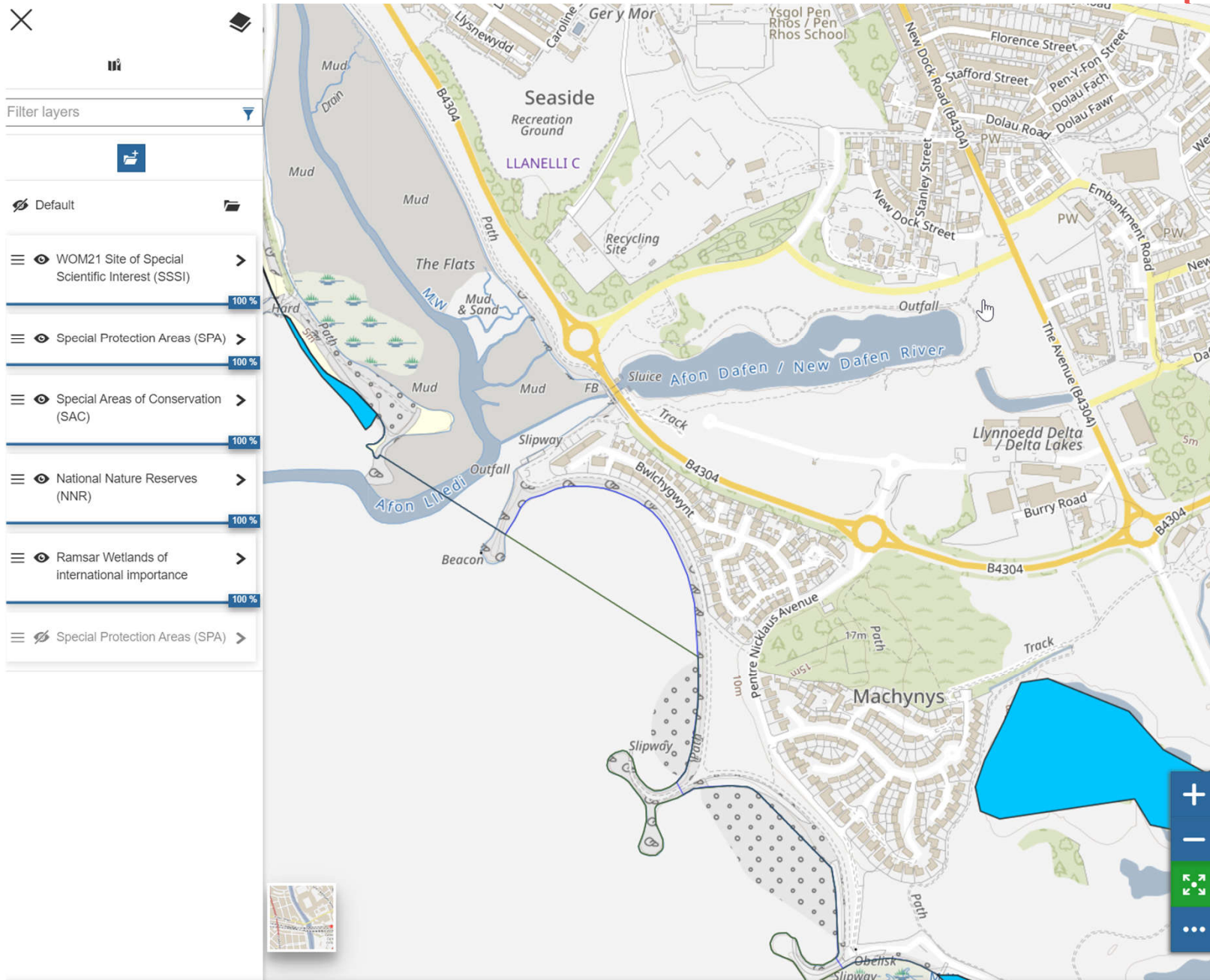


The Chartered Institution  
of Wastes Management









Englobe  
Greenmeadow Springs  
Tongwynlais  
Cardiff  
CF15 7NE  
Tel. (029) 20368636  
Fax. (029) 20368637

Client	<b>Bouygues</b>
Project:	<b>Llanelli Wellness &amp; Life Science Village</b>
Job No:	<b>C1881</b>
Title:	<b>Protected Sites Location Plan</b>
Scale:	<b>NTS</b>
Date Drawn:	<b>March 2023</b>
Figure Number:	<b>Figure F1</b>