

**CAERPHILLY SKIPS
BESPOKE PERMIT
VARIATION**

**ENVIRONMENTAL
MONITORING PLAN**

Report Number 1960r5v2d0520

Commissioned by

Caerphilly Skip Hire (CWS) Limited
The Granary
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GEO
TECHNOLOGY

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Table of Contents

1 INTRODUCTION	1
1.1 Report Limitations	1
2 MONITORING PROGRAMME	2
2.1 Air Quality	2
2.2 Controlled Water	2
2.3 Pests	2
2.4 Amenity and Nuisance	2
2.5 Sewer	2
2.6 Land Quality	2
2.7 Responsibility	3
2.8 Records	3
2.9 Sampling and Observation Points	3
2.9.1 Interceptor Monitoring and Maintenance	4
2.10 Monitoring Frequency	4
2.11 Monitoring Parameters	4
2.11.1 Daily Checks at OBS1	4
2.11.2 Weekly Monitoring at OBS2	4
2.12 Monitoring Procedures	5
2.12.1 Visual Checks at OBS1 and OBS2	5
3 MONITORING ASSESSMENT CRITERIA	6
3.1.1 Daily and Weekly Observational Checks	6
4 SUMMARY AND CONCLUSIONS	7

List of Tables

Table 2-1 Summary of Monitoring Programme	3
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List of Figures

Figure 1. Observational Monitoring Positions

List of Appendices

Appendix 1 Form EMP 1

1 INTRODUCTION

Geotechnology Limited (Geotechnology) has been commissioned by Caerphilly Skip Hire (CWS) Ltd to prepare a Monitoring Plan as part of a bespoke Environmental Permit Variation application being made to Natural Resources Wales (NRW). The plan is linked to the outcome of the Environmental Risk Assessment (see Geotechnology report 1960r3v1d1119). This indicated that the site will not pose an unacceptable risk provided the mitigation measures integrated to the operation are implemented and maintained. This means that the site poses a low risk to the environment.

As the risk assessment is reliant upon several assumptions, this plan sets out a monitoring programme aimed at ensuring that the predictions are validated and the relevant aspects monitored. CWS will also need to ensure that strict waste acceptance and waste management controls and preventative maintenance programmes are in place and that emergency actions are implemented in accordance with the EMS.

1.1 Report Limitations

This report is based on current proposed operations. If the operations or nature of the wastes received change, then the monitoring plan should be reviewed and revised accordingly.

2 MONITORING PROGRAMME

The monitoring programme is based on gathering several lines of evidence that, when combined, will enable the environmental performance of the site to be evaluated and judged. Such information would likely form part of Permit surrender. The monitoring is low key and simple and reflects the low risk posed by the operation and the lack of sensitive receptors in close proximity.

2.1 Air Quality

There are no point source emissions to air from the operation. CWS will, however, visually assess the site for the presence of dust and aerosols. Mitigation measures will be adopted if such aspects are found to be problematic.

2.2 Controlled Water

Drainage from the site passes through a Class 1 full retention interceptor prior to discharging to land drains. This drainage system will be unaffected by the proposed Variation.

2.3 Pests

The waste operation does not accept waste that pests typically find attractive. The waste is also rapidly processed. On this basis, vigilance will be maintained each day to ensure that pest problems do not develop.

2.4 Amenity and Nuisance

Without controls, there is the potential for the site activities to result in mud on roads and to create noise and vibration. To ensure that these issues do not develop to a point that nuisance is caused beyond the site boundary, CWS will visually assess the operation continually. Should the operation be considered to be posing a risk of nuisance, additional mitigation measures will be adopted.

2.5 Sewer

There are no discharges to sewer.

2.6 Land Quality

The land directly below the site is protected by the impermeable pavement and hardstanding. To ensure that the land remains protected, all parts of the site infrastructure, including the pavements and interceptor, will be subject to routine inspection and preventative maintenance.

The monitoring will initially comprise the following aspects:

- Observational monitoring - Visual and olfactory observation of run-of quality
- Physical inspection – routine inspection of infrastructure

A summary of the monitoring programme is provided in Table 2-1. Each aspect of the monitoring programme is described in more detail in the following sections.

Table 2-1 Summary of Monitoring Programme

Sample point	Location	Frequency	Monitoring requirement
OBS1	Run-off on impermeable surface	Daily when present	Visual and olfactory
OBS2	Outlet from interceptor	Weekly when present	Visual and olfactory
INF1	Impermeable surface and interceptor	Six Monthly	Physical inspection of impermeable surface and interceptor

2.7 Responsibility

The operator will be responsible for implementing the monitoring programme. The operator will ensure that only personnel trained in the task and aware of the risks will undertake the monitoring.

2.8 Records

Records are an essential part of the management system and permit compliance. They must be clear, legible, accessible and consistent.

The operator will maintain records of all monitoring and maintenance to the system including observations and any assessment or evaluation made on the basis of such data.

The operator will ensure that records are stored either electronically or in paper format and ensure that any amendments are made in a way so that the original is still accessible. All records will be retained for the life of the site.

2.9 Sampling and Observation Points

Point OBS1: Rainfall falling on the open areas of impermeable surface in the top yard will ultimately drain to the interceptor. When present, this water will be visually checked for the presence of oil / grease and suspended solids. Where this water enters the silt trap and interceptor will also be visually checked for the same parameters. The aim of this observational monitoring is to identify mobile contamination in an area where uncontaminated waste is to be stored. This observational area applies to the whole of the top yard with particular focus on the water passing to the interceptor, as shown on Figure 1.

Point OBS2: The observational monitoring proposed for the impermeable surface and interceptor drainage system will also be applied once the rain water has passed through the interceptor, if accessible. The emission will, therefore, be visually checked for the presence of oil and grease and turbid water following passage through the interceptor. This position is indicated on Figure 1.

2.9.1 Interceptor Monitoring and Maintenance

Point INF1: In addition to the proposed observational monitoring, all aspects of the drainage infrastructure will be monitored and maintained in accordance with a Preventative Maintenance Programme and EMS. A key aspect of this will be the silt trap and interceptor. Every six months, experienced personnel should:

- Physically inspect the integrity of the separator and all mechanical parts
- Assess the depth of accumulated oil and silt
- Service all electrical equipment such as alarms and separator management systems
- Check the condition of any coalescing device and replace it, if necessary

In accordance with the EMS, CWS will keep a log of when the separator is inspected, maintained, emptied and serviced.

2.10 Monitoring Frequency

Rainfall that falls onto the open areas of the site and passes over the concrete pavement is likely to have a low contamination potential under normal operating conditions as:

- the source of the water is rainwater
- the source of waste will be inspected by the operator and the waste will always be under the control of the operator
- only small quantities of general waste and separated non-hazardous waste and bagged asbestos will be stored externally – all waste will be in RORO skips
- the site benefits from a documented management system including waste acceptance and inspection procedures
- a preventative maintenance programme will be implemented
- site drainage will pass through an interceptor

In this context, the series of observational and physical measurements are proposed at different frequencies as follows:

- Daily monitoring at Point OBS1: visual check of the surface drainage
- Weekly monitoring at Point OBS2: visual check of the surface drainage
- Bi-annual monitoring of infrastructure

2.11 Monitoring Parameters

2.11.1 Daily Checks at OBS1

Undertake visual and olfactory assessment and recording of drainage system to ensure there is no obvious significant gross contamination or malfunction of the waste storage area and drainage system. Particular attention will be made to identifying turbid water with high suspended solids and visual oil and grease.

2.11.2 Weekly Monitoring at OBS2

Undertake visual and olfactory assessment of drainage after it has passed through the interceptor and before it infiltrates to the ground, where possible.

2.12 Monitoring Procedures

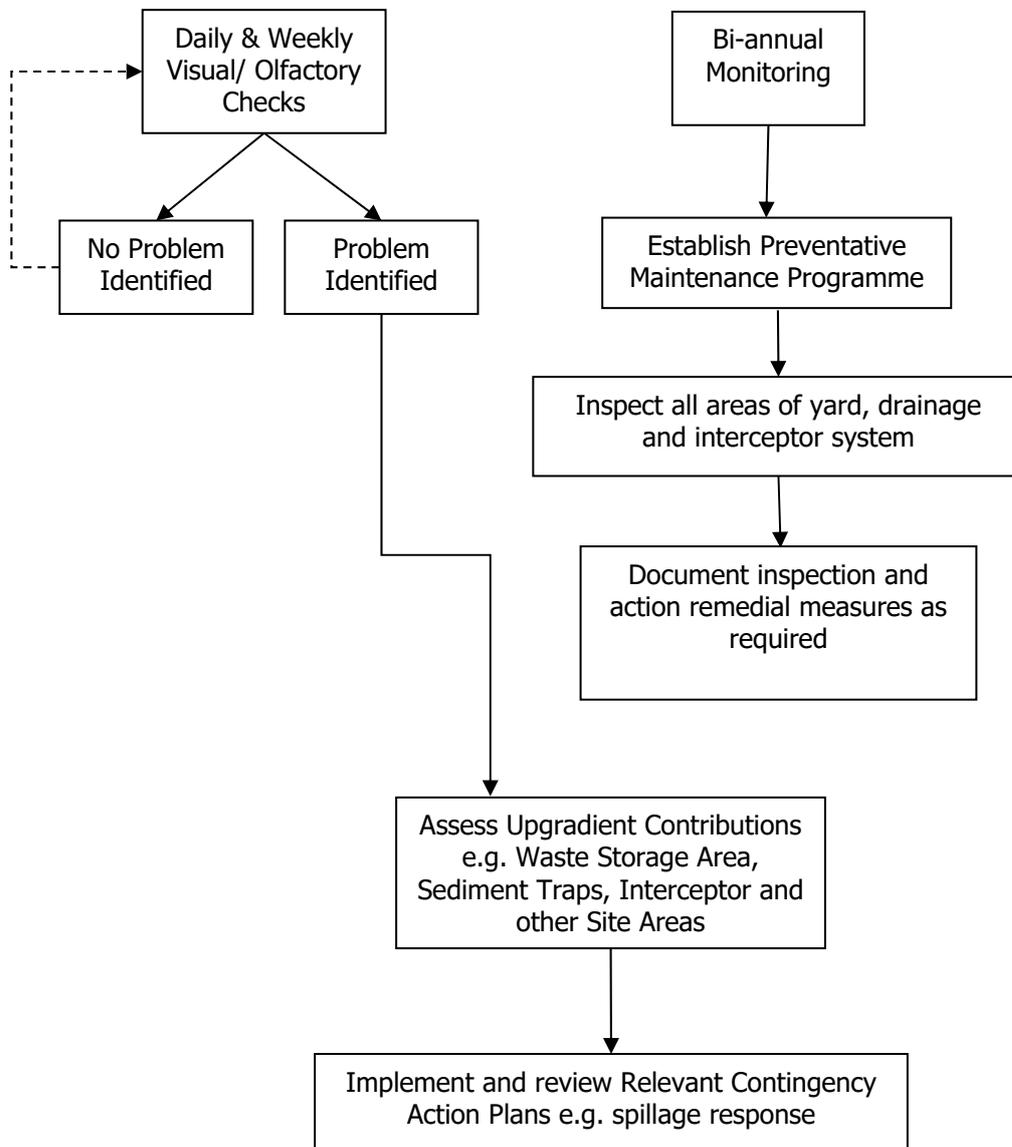
Sampling staff should be aware that manholes/inspection chambers and similar confined spaces are dangerous and must not be entered unless in accordance with a safe system of work and after appropriate training. **There should be no need for monitoring personnel to enter any inspection chamber during any monitoring.**

2.12.1 Visual Checks at OBS1 and OBS2

Visually assess waste storage area, surface of concrete pavement, drainage gulleys and any rainwater passing to interceptor and silt trap for signs of heavy or unusual contamination such as odour, turbidity and oil. Record observations on Form EMP1 (See Appendix 1). The infrastructure should also be assessed.

3 MONITORING ASSESSMENT CRITERIA

Data gathered during the monitoring programme should be evaluated within a transparent framework to enable the correct records to be maintained and contingency actions to be implemented when required. An overview of this process is provided in the flowchart below.



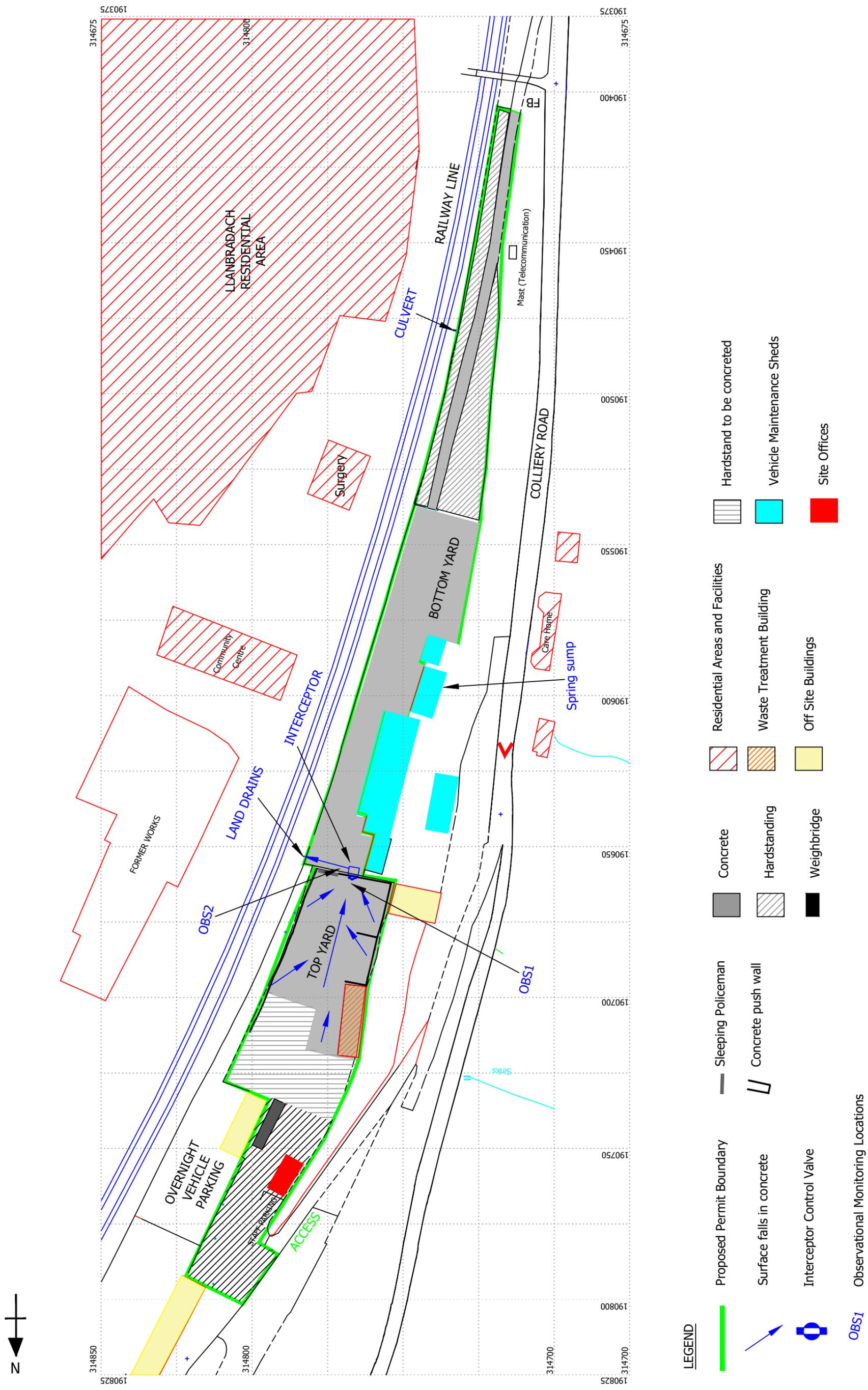
3.1.1 Daily and Weekly Observational Checks

Being intimately familiar with the nature of the waste and the process, the operator will be able to quickly identify when there is gross contamination present during the daily checks. If this is found, the relevant contingency action plan should be implemented. Triggers that would prompt the operator to consider further action may include malodour associated with the waste and significantly elevated levels of suspended solids or hydrocarbons passing over the surface of the concrete pavement.

4 SUMMARY AND CONCLUSIONS

To ensure that the environment is not detrimentally impacted, the operation will benefit from concrete pavement that passes rainwater that falls on the open areas through a silt trap and interceptor prior to infiltrating to the ground. Alongside proactive waste management controls and site maintenance, several lines of evidence will be gathered that will help demonstrate that rainwater falling onto the open areas of concrete pavement have been monitored and managed. The monitoring will be in accordance with the Permit.

Figure 1 Observational Monitoring Locations



LEGEND

	Proposed Permit Boundary		Sleeping Policeman		Residential Areas and Facilities		Concrete		Surgery
	Surface falls in concrete		Concrete push wall		Waste Treatment Building		Hardstanding		Vehicle Maintenance Sheds
	Interceptor Control Valve		Weighbridge		Off Site Buildings		Hardstand to be concreted		Site Offices
	Observational Monitoring Locations								

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**Appendix 1
Form EMP 1**

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