

MOLD INVESTMENTS LIMITED



PARRYS QUARRY INERT LANDFILL GROUNDWATER MANAGEMENT PLAN REF: GWMP/MIL/PQ/1.00/2020

Carried out for: **Mold Investments Ltd**

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MOLD INVESTMENTS LIMITED

PARRYS QUARRY INERT LANDFILL

GROUNDWATER MANAGEMENT PLAN

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GROUNDWATER MANAGEMENT PLAN

1. INTRODUCTION

This document sets out a detailed groundwater management plan for Parrys Quarry during the early operations of the site prior to allowing groundwater rebound.

A groundwater cut-off drainage layer was installed at the back of the southern wall geological barrier of Phase 1 to intercept groundwater.

This runs through a 300mm O/D pipe to the sump which outfalls into a sump.

The groundwater is then pumped using a four inch pump up to a tank which then discharges into the permitted consent.

The pump operates intermittently and pumps a maximum volume of up to 10m³ per day.

The operational arrangement is presented at Drawing GWMP 1.

Once the level of infill has reached a level of 964 m AOD the groundwater pump will be switched off.

The pumping chamber will then be infilled with gravel and sealed with a 1 metre geological barrier seal to allow for infilling over the sump area in the northern wall

2 MONITORING MEASURES

The groundwater discharged from the tank will comply with the consent limits set out in the Surface Water Discharge consent.

The discharge consent is regulated by NRW (EPR/CG0392101). Maximum discharger under the consent is 14l/s.

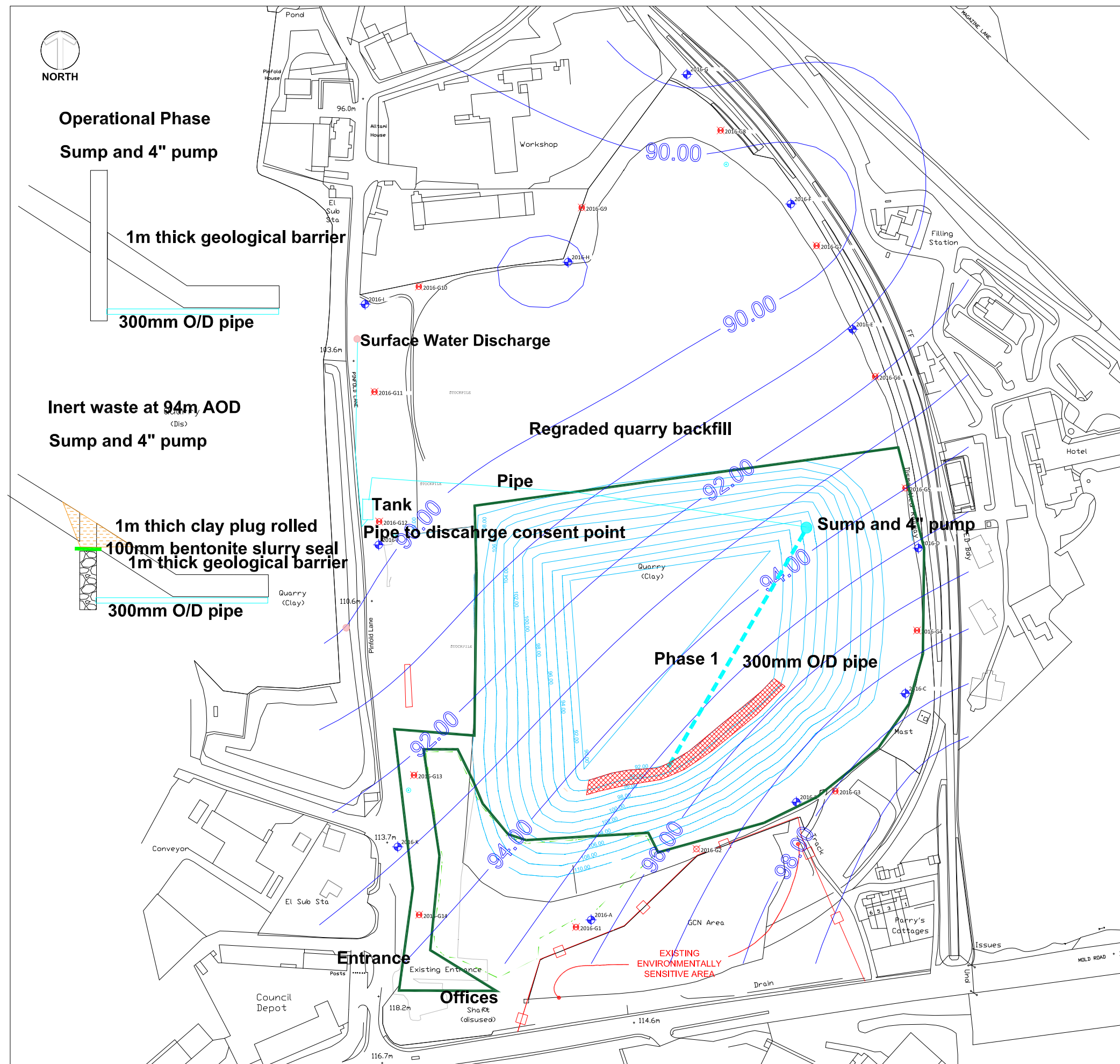
The groundwater monitoring schedule is set out in Table 1 below and links into the Surface Water Management Plan.

Table 1: Trigger Values for discharge point from landfill activities

Parameter	Trigger Value	Sampling Frequency
pH	>6<9	Monthly*
Oil and Grease	No visible oil or grease	Monthly*
Suspended solids	50mg/l	Monthly*
Chloride	90mg/l	Monthly*
Sulphate	296mg/l	Monthly*
Nitrate	1mg/l	Monthly*
Manganese	0.06mg/l	

*If no discharge this is to be reported as to why no sample has been taken in quarterly report

Drawing



Legend

Proposed Permit Boundary

Excavation contours

Groundwater Contours

Surface Water Discharge Point

Geocomposite Drainage Layer

GROUNDWATER MONITORING BOREHOLE
CONSTRUCTION DETAIL

Gas Valve

Head Works

Concrete Surround
(300 x 300mm)

50mm E/D
Plain Casing

2M Bentonite Seal

0.5M Fine Sand

Single Size Gravel

50mm E/D
Slotted Casing

150mm nom. #
Borehole

Groundwater Drain

Temporary Groundwater Sump

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Client:

Mold Investments Ltd

Project:

Parrys Quarry

Title:

Groundwater Management Plan

CAD Ref:	Version:	Drawn by:	Scale:	Date:
EL/MQBH/1	1	ARM		August 2020

Drawing:

GWMP 1