

471228
-173346

Ground level : 146.0ft above O.D. (approx)

Dia. of boring : SF (4⁷/₈) to 26ft

Type of boring :..... Rotary Core Drilling (mud flush)

Lining tubes :..... 5½ in to 19ft

Daily Progress	Core Recovery		Change of Strata			Description of Strata
	Depth	%	Legend	Depth	O.D. Level	
23.10.68	0'0"	Not Cored		11'0"	135.0	FILL (overlying brown clayey sand and gravel)
						SAND and GRAVEL
	19'0"			19'0"	127.0	
	19'5"		75%			
	20'1"		75%			
24.10.68	21'0"	75%				White clayey CHALK with flint nodules and fragments of harder chalk, gradually becoming more solid with depth
	22'9"	60%				
25.10.68	24'8"	Nil				
28.10.68	26'0"	Nil		26'0"	120.0	
Remarks						
READING COMMERCIAL CENTRE						Soils No : S/6823
						FIG. 7

Scale :

Drawing No :

S/R/

READING COMMERCIAL CENTRE

Soils No :
S/6823

FIG. 7

RECORD OF BOREHOLE NO. 5

471176
173322

Ground level: 130.5ft above O.D. (approx)

Dia. of boring : SF (4⁷/₁₆) to 7 ft 11 in

Type of boring:.....Rotary Core Drilling.

Lining tubes :.....SF to 8ft.

Daily Progress	Core Recovery		Change of Strata			Description of Strata	
	Depth	%	Legend	Depth	O.D. Level		
	0'0"	Not Cored		3'0"	127.5	Light grey clayey CHALK with flints	
						White clayey CHALK with flints (solifluction chalk)	
30.10.68	7'11"			7'11"	122.6		

RECORD OF BOREHOLE NO. 5A

British Geological Survey

Ground level : 130.5ft above O.D. (approx)

Dia. of boring :..... SF (4⁷/₁₆) to 8ft 4in

Type of boring: Rotary Core Drilling

Lining tubes :.....SF to 8ft 2in.

	2'6"	Not Cored		2'6"	128.0	Brown clayey CHALK with flints
	4'4"	100%				CHALK and FLINT fragments in matrix of grey-brown clayey CHALK (solifluction chalk)
31.10.68	6'5"	100%		6'5"	124.0	Fine to coarse broken FLINT
	7'2"	100%		6'8"	123.8	Clayey CHALK with coarse broken flint
	8'4"	100%		7'6"	123.0	CHALK (possibly in-situ) with large flint fragments
2.11.68	10'0"	Nil		8'4"	122.2	
	13'6"	21%				White CHALK with flints
4.11.68	17'7"	16%		17'7"	112.9	
Remarks:						

Remarks:

British Geological Survey

READING COMMERCIAL CENTRE

Lab Ref No.
S/6823

FIG. 5

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CENTRAL LABORATORY

HAYES

Table F.1 Water Resource Mitigation Register

 TRIUM

On-site provisions will be made to contain a serious spill or leak through the use of booms, bunding and absorbent material in accordance with an Emergency Response Plan (ERP).
Refuelling and delivery areas will be located away from the local sewer network drains.
Disturbance of Existing Drainage Systems and Water Supply Network
The following mitigation measures will be embedded within the CEMP and implemented during the Site works: - All existing utilities will be identified and marked prior to works commencing; - Signs will be used to warn of the presence of utility infrastructure; and - Any damage to the drainage network will be immediately repaired.
Groundwater Flow and Quality
The preparation of a Piling Method Statement which will detail the depth and type of piling to be undertaken and the methodology by which such piling will be carried out, including measures to prevent and minimise the potential for damage to subsurface sewerage and water infrastructure and to demonstrate appropriate design and piling methods to avoid linking shallow and deep groundwater.
The following mitigation measures will be embedded within the CEMP and implemented during the Site works: - Pile casing will be used during piling and the area around the piling will be isolated from surface water until piling is complete; - Any existing boreholes found on-site would be decommissioned; - If perched groundwater is encountered during establishment of basement and core foundations dewatering may be required. The most appropriate methods to dewater excavations will be selected, for example, prior to dewatering the perimeter of the excavation could be enclosed with either sheet-pile or a diaphragm wall. Piezometers (standpipes) could then be placed outside the sheet pile wall to monitor groundwater levels; - In the event that ground contamination is discovered, work will stop immediately and measures will be taken to prevent disturbance and mobilisation of contaminants, until the contamination has been treated in-situ or removed for off-site disposal or treatment; - If contaminated soils are encountered at the position where piling is due to be undertaken, then these materials should be removed prior to piling in order to prevent the dragging of contaminated soils with the piles to depth; - Contaminated soil requiring disposal will be excavated and kept separate from other soil and waste materials in protected temporary stockpiles prior to disposal; - Water arising from excavations will be disposed of to the local sewer network (subject to agreement with the appropriate authority) if uncontaminated and following the removal of silt via settlement ponds or alternative measures. All existing utilities will be identified and marked prior to works commencing; and - Damp-proof membranes will be incorporated into the construction. These membranes will prevent the ingress of groundwater and reduce the risk of contaminants from reaching underground strata or groundwater. The watertight basement will therefore prevent any interior leaks or spillages from freely percolating into the shallow groundwater.
Appropriate methods to dewater excavations are to be selected to ensure that groundwater does not drop below the critical level. Groundwater level monitoring will be undertaken as necessary to assess deformation and stability of surrounding structures, including neighbouring property.
Seepage analysis and groundwater level monitoring will be carried out as appropriate to assess deformation and stability of surrounding structures, including neighbouring property, as considered necessary.
Temporary Settlement and Surface Water Drainage
Temporary drainage facilities will be provided during the construction phase, where necessary, to ensure controlled discharge of surface water runoff.
It will be a requirement to ensure that runoff from the Site does not cause pollution or flooding. Measures that will be considered for implementation for temporary drainage through the construction design and/ or CEMP include: Site access points will be regularly cleaned to prevent build-up of dust and mud: - Oil interceptors to be installed (notably the outflow from the settlement pond/ tank) to reduce the potential risk for contamination of groundwater and surface water; and - All potentially polluted waters (including washdown areas, stockpiles and other areas of risk for water pollution) to have separate drainage and to be tankered away from the Site.
In addition, if monitoring demonstrates unsatisfactory levels of solids or other pollutants, measures will be implemented to control suspended solids or other polluted discharge to watercourses (e.g. changes to Site drainage and settlement facilities and/or use of flocculants).
Foul Drainage
A connection to the foul sewer will be needed for sanitary connection from offices/admin/welfare facilities. It is possible this connection may also be licensed for discharge of process effluent in abnormal circumstances if required.
Flood Risk
The CEMP will incorporate measures to prevent an increase in flood risk or pollution during the construction works, in addition to the provision of temporary settlement and drainage measures (where required).

Water Demand
The following measures will be implemented: - Selection and specification of equipment to reduce the amount of water required; - Implementation of staff-based initiatives such as turning off taps, plant and equipment when not in use both on-site and within Site offices; - Use of recycling water systems such as wheel washes, Site toilets hand wash; and - Use of a rainwater harvesting system for use in equipment and vehicle washing.
The water consumption throughout the construction works will be monitored, either through sub-metering or reading of utility bills, to allow comparison against best practice benchmarks and improvements to be made.
Wastewater Generation
The installation of water efficient fixtures and fittings can help further reduce the volume of foul water generated on-site.
Any waste effluent will be tested and any water that may have come into contact with contaminated materials or be identified as being contaminated, will be disposed of appropriately and, to the satisfaction of the EA and/or TWUL; and where necessary, disposed of at the correctly licensed facility by a licensed specialist contractor/s.

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