APPENDIX III

PHOTOGRAPHIC REPORT

Plate 1. Overview of the Site, looking from east to west.

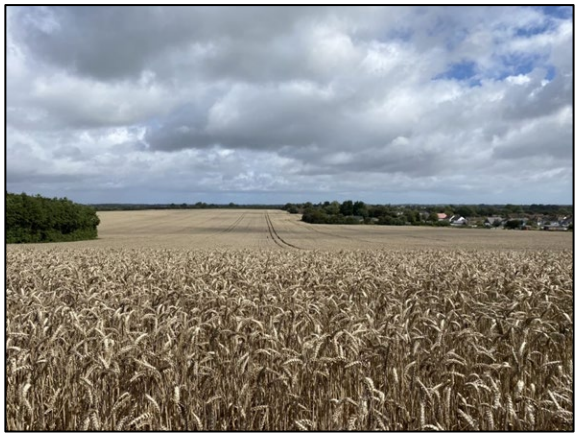

Plate 2. Overview of the Site, looking from south to north, illustrating the gradual slope.

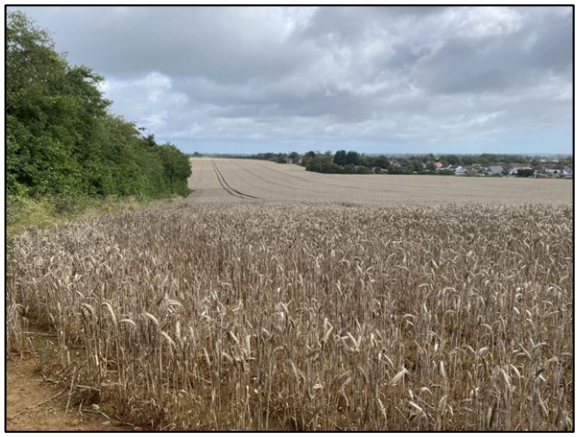

Plate 3. View from the southwestern corner of the Site.

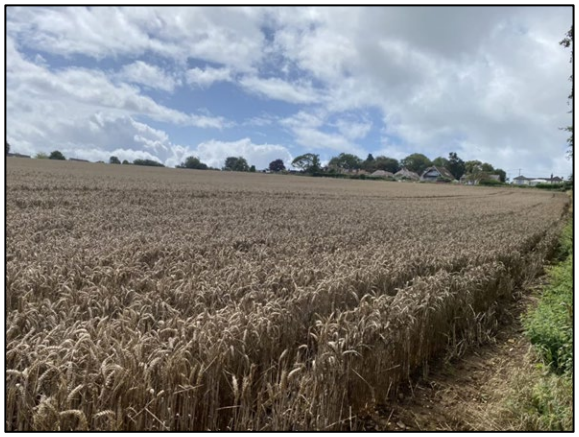

Plate 4. View from the northwestern corner.

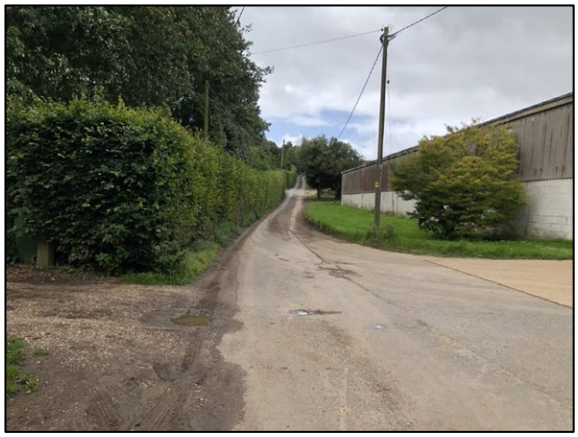

Plate 5. Access to the Site from Cauldham Lane.

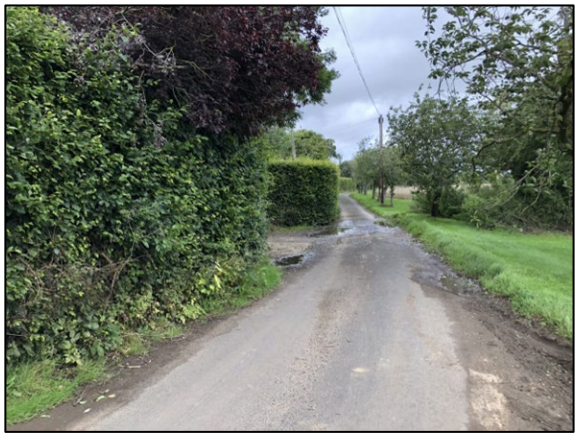

Plate 6. Access to the Site from Cauldham Lane.

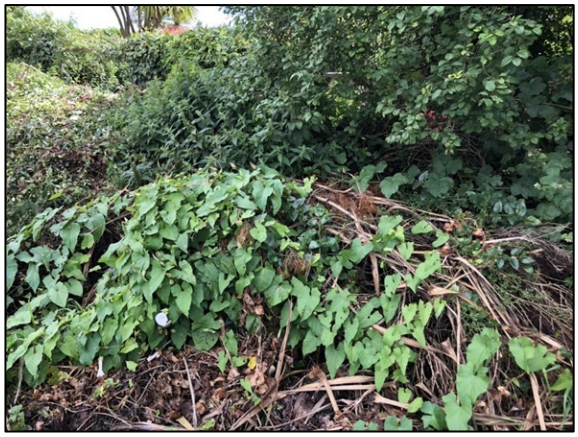

Plate 7. Garden waste found on boundary with residential properties.

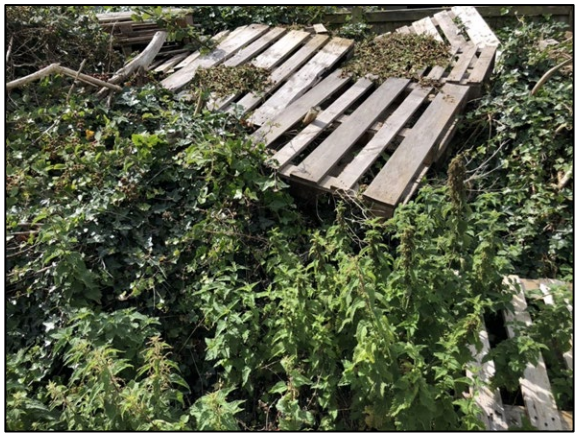

Plate 8. Garden waste and wooden pallets found on boundary with residential properties.

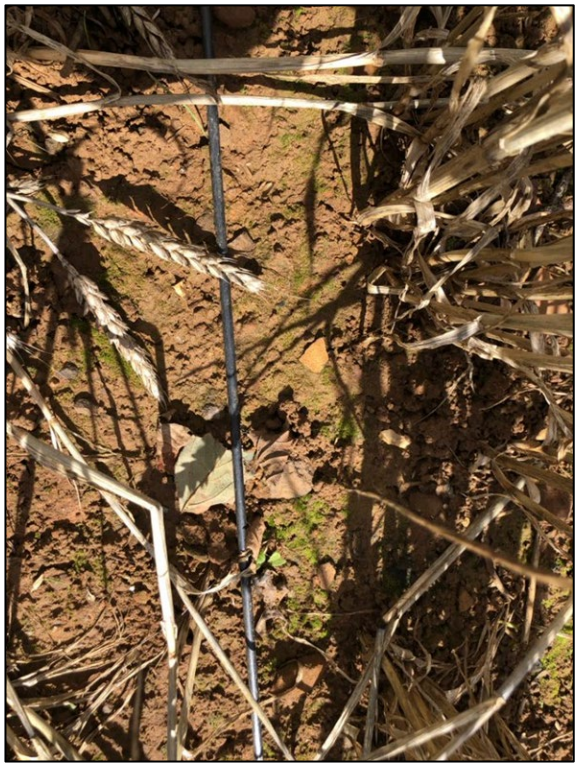

Plate 9. Black cable identified on northern perimeter of Site boundary.

Plate 10. Some brick rubble visible in surface soils of Site.

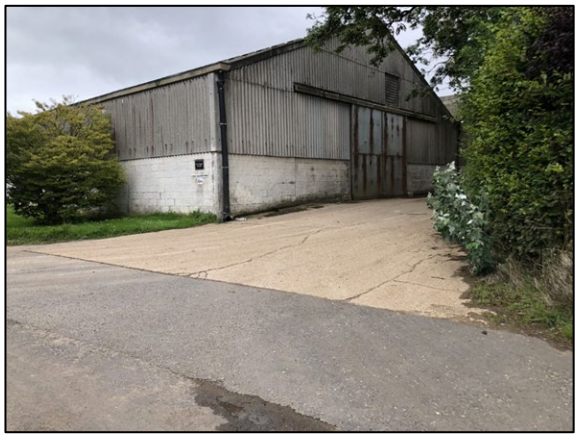

Plate 11. Industrial estate / farmyard, opposite access point off of Cauldham Lane

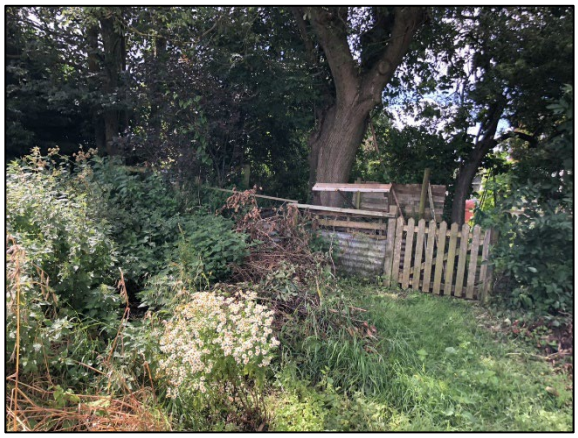

Plate 12. Property backing onto Site, with access gate.

APPENDIX IV

QUALITATIVE RISK ASSESSMENT METHODOLOGY

Qualitative risk assessment is calculated from looking at the magnitude of an identified hazard and the probability the hazard will occur. Below is presented the magnitude and probabilities of risks occurring from contamination.

		Classification of Consequence (Severity)			
		Severe Short term (acute) risk to human health likely to result in 'significant harm'[1]. Pollution of sensitive water resources (controlled waters). Catastrophic damage to crops, buildings or property. A significant change in a particular ecosystem, or organism forming part of the ecosystem (death of species in nature reserves).	**Medium** Chronic damage to Human Health ('significant harm')[2]. Short term risk of pollution to water resources (controlled waters). Significant damage to crops, buildings or property. A short-term risk to a particular ecosystem or organism forming part of such an ecosystem[3]	**Mild** Exposure to human health unlikely to lead to "significant harm". Pollution of non-sensitive water resources (non-classified aquifers). Minor damage to crops, buildings or property. Minor or short-lived damage to aquatic or other ecosystems. Unlikely for substantial ecological harm.	**Minor** No measurable effects on humans. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Easily repairable effects of damage to buildings, structures and services.
Probability	**High Likelihood** Evident pollution linkage. Very likely in short term and inevitable in long term. Evidence of harm at the receptor.	Very High Risk	High Risk	Moderate Risk	Low Risk
	Likely There is a pollution linkage and it's probable an event will occur. Event is not inevitable, but possible in the short term and likely in the long term.	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood There is a contaminant linkage and circumstances are possible under which an event could occur. It is by no means certain that even over a longer period such an event would take place.	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	Unlikely There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

Notes.

[1] Environmental Protection Act 1990

[2] DEFRA circular 01/2006

[3] DEFRA circular 01/2006 Annex 3

Severe and medium classification may result in death. However, severe relates to short term risk, while medium relates to long-term risk. Severe will require urgent action, medium may require urgent action but usually long-term action is sufficient.

The action required for each risk classification is shown below.

Risk Category	Action Required
Very High Risk	If this risk is realised it is likely to result in substantial liability. Urgent investigation and/or remediation are likely to be required.
High Risk	If this risk is realised it is likely to present a substantial liability. Urgent investigation is required, and remedial works may be necessary in the short term and are likely over longer term.
Moderate Risk	It is possible that harm could arise to a designated receptor from an identified hazard. It is unlikely such harm would be severe and any such harm would be relatively mild. Investigation is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst be normally mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Headquarters
Building 711 & 712
Kent Science Park
Sittingbourne
Kent
ME9 8BZ
TEL **+44 (0)1795 471611**
mailto:info@ecologia-environmental.com

Midlands Office
4 Romford Road
Astonfields
Stafford
ST16 3DZ
TEL +44 (0)1785 878010
mailto:midlandinfo@ecologia-environmental.com

South West Office
Unit 1 Kingsgate Business Centre
Duchy Road
Heathpark Industrial Estate
Honiton
Devon
EX14 1YG
TEL +44 (0)1404 47714
mailto:swinfo@ecologia-environmental.com

Northern Office
Alliance House
South Park Way
Wakefield
WF2 0XJ
TEL: +44 (0)7890 387797
mailto:northinfo@ecologia-environmental.com

Italian Subsidiary
Ecologia Environmental Solutions Sri
Via Irma Bandiera 6
Monte San Pietro (BO)
CAP 40050
Italia
TEL +39 051 754754
infoitaly@ecologia-environmental.it

www.ecologia-environmental.com

MANAGEMENT SYSTEM CERTIFICATION
DNV
ISO 9001 · ISO 14001
ISO 45001

Registered in England No: 3951107
Ecologia is the trading name of Ecologia Environmental Solutions Ltd Registered Address: Spring Lodge, 172 Chester Road, Helsby, Cheshire, England, WA6 0AR

Appendix D BGS Borehole Data

Released SE Holyport R 23 NW/10

RECORD OF BOREHOLE NO. EG (sheet 1)

2454.3892

(17/10/69

Ground level: +158.28m. N.G.F.

Dia. of boring: 0.25m. to 17.10m.; 0.20m. to 47.24m.; 0.14m. to 91.74m.; 0.11m. core to 129.39m.

Type of boring: Percussion to 47.20m., Rotary to 129.40m.

Lining tubes: 0.25m. to 7.30m.; 0.20m. to 23.50m.

Daily Progress	Core Recovery or Samples: Depth (metres)	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth (metres)	Change of Strata: N.G.F. Level	Description of Strata	
				0.15	+158.13	TOPSOIL	
	0.61	D					
	2.13	D				Firm brown sandy CLAY, becoming stiff to hard below 2.74m.	CLAY WITH FLINTS
13.7.65.	3.66	D		4.27	+150.01		
	5.18	D				Stiff brown sandy CLAY with flints and a few chalk fragments	
	6.71	D		7.01	+147.21		
	8.23	D				Brown and grey CLAY with bands of weathered chalk	
				8.84	+145.44		
	9.75	D					
	11.28	D					
	12.75	D					
	14.33	D				White CHALK, without flints	MIDDLE CHALK
	15.85	D					
14.7.65.	17.37	D					
	18.90	D					
	20.42	D					

Key

R indicates unlored rotary drilling.

D indicates disturbed sample

■ indicates waxed core sample.

Scale 1cm = 1 metre

Remarks:

Ground-water stood at a depth of 75.70m. below ground level, i.e. at +78.60m. N.G.F. Permeability and verticality tests carried out, and borehole sealed with cement grout on completion.

LAND BOREHOLES

IN ENGLAND FOR THE PROPOSED CHANNEL TUNNEL

Soils No: S 4289

FIG. 6

TR 23 NW/10

RECORD OF BOREHOLE NO E6 (sheet 2)

Daily Progress	Core Recovery or Samples: Depth (metres)	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth (metres)	Change of Strata: N.G.F. Level	Description of Strata
	21.95	D				
	23.47	D				
	24.99	D				
	26.52	D				
	28.04	D				
	29.57	D				
	31.09	D				
15.7.65.	32.61	D				see previous sheet
	34.14	D				
	35.66	D				
	37.19	D				
	38.71	D				
	40.23	D				
	40.76	D				
	43.28	D				

MIDDLE CHALK

Key

R indicates uncored rotary drilling.

D indicates disturbed sample.

■ indicates waxed core sample.

Scale 1cm = 1 metre

Remarks

LAND BOREHOLES

IN ENGLAND FOR THE PROPOSED CHANNEL TUNNEL

Soils No: S 4289

FIG. 6 (contd.)

GEORGE WIMPEY & CO. LTD. CENTRAL LABORATORY HAYES.

RECORD OF BOREHOLE NO E6 (sheet 3)

Daily Progress	Core Recovery or Samples: Depth (metres)	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth (metres)	Change of Strata: N.G.F. Level	Description of Strata	
	44.81	D				see last description	
	46.33	D					
16.7.65.	47.24			47.24	+107.08		
		100%				Rather hard creamy-white 'nodular' CHALK, with numerous irregular wisps and streaks of greyish marly chalk. Greyish wisps less frequent below 51.80m., and chalk distinctly hard. Polished vertical joint about 48.80m. Cores broken irregularly (due to nodular structure) in lengths from 0.20m. to 0.80m.	MELBOURN ROCK — MIDDLE CHALK
	48.77						
		100%					
	51.82						
		100%					
	53.65						
		100%					
	56.69			56.90	+97.38		
		100%				Pale grey-white marly CHALK, with group of greenish-grey marl bands in upper 0.40m. Whiter chalk from 57.86m. to 58.42m. Steep, curving black-stained joint at 57.76m.	PLENUS MARL
3.8.65.	59.78			59.78	+94.50		
		100%				Massive, uniform, rather soft pale grey-white CHALK. Flat smooth joint at 63.00m., otherwise no clear natural fractures. Cores relatively intact, in lengths to 0.40m., but rather broken (lengths of 0.15m. to 0.20m.) in basal 1.30m.	WHITE CHALK — LOWER CHALK
	62.79						
		100%					
	65.84						

Key

D indicates cored rotary drilling.

C indicates disturbed sample

■ indicates waxed core sample.

Scale 1cm = 1 metre

Remarks

LAND BOREHOLES
IN ENGLAND FOR THE PROPOSED CHANNEL TUNNEL

Soils No : S 4289

FIG. 6 (contd.)

GEORGE WIMPEY & CO. LTD. — CENTRAL LABORATORY — HAYES.

TR 23 NW/10

RECORD OF BOREHOLE NO E6 (sheet 4)

Daily Progress	Core Recovery or Samples: Depth (metres)	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth (metres)	Change of Strata: N.G.F. Level	Description of Strata	
	60.88	100%				see previous sheet	WHITE CHALK
	71.32	100%		70.03	+84.25	Pale grey-white CHALK, but harder and grey-streaked. Cores rather broken, mainly lengths of 0.15m. to 0.20m. No clear natural fractures.	
				71.32	+82.96		
		R				CHALK, not sampled	LOWER CHALK
4.8.65	(90.50)						

Key

R indicates uncored rotary drilling.

D indicates disturbed sample

■ indicates waxed core sample.

Scale 1cm = 1 metre

Remarks

LAND BOREHOLES

IN ENGLAND FOR THE PROPOSED CHANNEL TUNNEL

Soils No : S/4289

FIG. 6 (contd.)

HAYES.

TR 23 NW/10

RECORD OF BOREHOLE NO E6 (sheet 5)

Daily Progress	Core Recovery or Samples: Depth (metres)	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth (metres)	Change of Strata: N.G.F. Level	Description of Strata	
4.8.65.	91.78			91.78	+62.58	see previous sheet	
	94.70	90%				Massive grey streaky CHALK showing cyclic alternation from pale hard chalk downwards to dark marly chalk. Cycle bases noted at 95.76m., 96.87m., 97.69m., 98.04m., 100.05m., but other vaguer cycles present. No clear natural fractures; cores intact in lengths to 0.53m.	
	97.85	100%					
	99.36	100%					
5.8.65.	102.41	100%		100.05	+58.23		GREY CHALK — LOWER CHALK
	105.46	100%				Grey marly CHALK with vague cycles of paler harder chalk; latter noted at 100.05m., 103.71m., 104.85m., 106.43m., 107.34m., 107.90m., 109.30m., 109.80m., and 110.67m. Smooth joints noted at following depths and inclinations to horizontal:- 101.09m., dip 35°; 102.13m., dip 20°; 102.62m., dip 15°; 106.17m., dip 10°; 106.17m. to 106.38m., dip 80°. Cores generally intact in lengths to 0.84m., but broken, with much drilling disturbance, from 103.98m. to 105.46m.	
6.8.65.	108.51	100%					
	111.56	100%		110.67	+43.61	see next sheet	

Key

R indicates uncored rotary drilling.

D indicates disturbed sample

■ indicates waxed core sample.

Scale 1cm = 1 metre

Remarks:

LAND BOREHOLES

IN ENGLAND FOR THE PROPOSED CHANNEL TUNNEL

Soils No: S/4289

FIG. 6 (contd.)

GEORGE WIMPEY & CO. LTD.

TR 23 NW/10

RECORD OF BOREHOLE NO E6 (sheet 6)

Daily Progress	Core Recovery or Samples: Depth (metres)	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth (metres)	Change of Strata: N.G.F. Level	Description of Strata	
	114.30	100%					
7.8.65.	117.35	100%				Relatively hard, paler, streaky grey CHALK, in thick cycles separated by subordinate developments of dark marly chalk. Tops of hard beds noted at 112.12m., 113.94m., 115.72m., 117.25m. and (vague) 118.02m. Below 111.82m. no clear cycles visible and chalk predominantly hard and pale, but dark, marly, from 123.04m. to 123.44m. Smooth joints seen at: 114.88m., dip 15°; 120.09m. to 120.40m. dip 60°; 123.14m., dip 30°; otherwise no clear natural fractures and cores mainly intact in lengths to 0.56m.	GREY CHALK — LOWER CHALK
	120.40	100%					
	123.44	100%		123.44	+30.04		
9.8.65.	126.94	100%				Relatively hard, pale grey streaky CHALK without marly cycles. Sponge bed at 124.92m. Joints noted as follows:- rough, dipping 40° at 122.94m., rough, dipping 15° at 124.02m., smooth, dipping 45° at 125.27m., smooth, dipping 45° at 127.18m., smooth, dipping 35° at 127.25m., smooth, dip horizontal at 127.86m., rough, dip irregular about 45° at 128.02m. Cores intact in lengths to 0.51m.	
10.8.65.	129.30	100%		129.30	+24.89		

Key

R indicates uncored rotary drilling.

D indicates disturbed sample

■ indicates waxed core sample.

Scale 1cm = 1 metre

Remarks

LAND BOREHOLES

IN ENGLAND FOR THE PROPOSED CHANNEL TUNNEL

Soils No: S/4289

FIG. 6 (contd.)

GEORGE WIMPEY & CO. LTD. — CENTRAL LABORATORY — HAYES