APPENDIX 5.1

FULL SAMPLE LIST

1. **A2, Dover, Kent**

This site is located at the roadside of the A2 southbound, near the junction with Ileden Lane. The flint here is a secondary source, derived from the Cretaceous chalk underlying the North Downs. Three small flint pebbles were gathered here from the edge of a ploughed field.

Location	Latitude	Longitude	Description	#
Ploughed field, Ileden Lane, A2, Kent	51.212609	1.167217	Small fragments. Flint has chalky cortex, and white or orange patination.	3

2. **Brandon Country Park, Norfolk**

Located c.4 miles from Grime's Graves, this site is located within a large country estate near Brandon, Norfolk. The underlying chalk geology here is the same as at Grime's Graves however there were no restrictions on sample collection in this area. Ten fragments of flint were collected from areas with limited vegetation, including one fragment of nodule.

Location	Latitude	Longitude	Description	#
Brandon Country Park, Norfolk	52.435374	0.624743	Small fragments of flint. Dark grey/black in colour with white patina.	9
	52.434736	0.623455	Small nodule fragment. Weathered cortex. Flint dark grey in colour.	1

3. Grime's Graves, Norfolk

This site located north of Thetford, Norfolk. Grime's Graves is a Neolithic flint mining complex and a Scheduled Ancient Monument, currently under the care of English Heritage. The flint mined at this site during prehistory was extracted from the underlying chalk through a series of shafts, only one of which is still open and accessible to the public. Collecting flint from the interior of the extant shaft was strictly prohibited, but permission was granted to collect pieces of flint from the surface. The filled-in mineshafts are visible as depressions in the landscape around Grime's Graves and there is often a degree of erosion around the rim where fragments of flint can be obtained. One almost intact nodule was located at the top of one mineshaft having eroded out of the surrounding soil. There are also large numbers of rabbit burrows across the site which have small amounts of loose soil around the entrance. Nine samples were obtained from the entrance to a series of burrows.

Location	Latitude	Longitude	Description	#
Grime's Graves, Norfolk	52.475641	0.673881	Large nodule. Cortex intact. Dark grey/black flint. Nodule found at the top of a disused mineshaft.	1
	52.476157	0.673559	Small fragments of flint. Found in rabbit burrow spoil. White patina on all pieces, but fresh breaks show that the flint is dark grey/black.	9

4. Landpark Wood, Bedfordshire

This site in Bedfordshire was visited to locate the remains of a disused quarry within the confines of the wood. The quarry was described and recorded by The Geology Trusts although upon visiting it was not possible to locate it due to vegetation obscuring the site. Three large fragments of flint nodules were obtained from a tree throw within Landpark Wood.

Location	Latitude	Longitude	Description	#
Landpark Wood, Whipsnade, Bedfordshire	51.85504	0.52542	Large nodule fragments. Flint dark grey/black. Chalky cortex.	3

5. Isle of Wight Lane, Dunstable

This sampling location is situated on the east of the Chiltern Hills chalk escarpment. The chalk geology in this area rarely outcrops on the surface; however nodules of flint are frequently exposed during agricultural activity. The samples were collected from the entrance of a large ploughed field. Three large fragments of flint nodules were collected from this area.

Location	Latitude	Longitude	Description	#
Isle of Wight Lane, Dunstable, Bedfordshire	51.86157	0.52717	Large fragments. Chalky cortex. Flint dark grey/black.	3

6. <u>Dover Coast, Kent</u>

The chalk downlands in the southeast of England are collectively termed the North Downs, stretching across Surrey and Kent and outcropping most notably at the White Cliffs of Dover. The Kent Downs are designated an Area of Outstanding Natural Beauty (AONB), and the White Cliffs themselves are also a Site of Special Scientific Interest (SSSI) and are under the protection of the National Trust. Due to the restrictions imposed on removal of material from such sites, it was not possible to obtain samples from the environs of the White Cliffs of Dover. Instead, samples were collected from the nearby seaside town of St. Margaret's at Cliffe. The chalk cliffs frame the beach here and six fragments of nodules were collected from an eroding patch of chalk along the top of the cliffs. One almost intact nodule was also collected from this location.

Location	Latitude	Longitude	Description	#
Dover coast, Kent	51.154687	1.392227	6 fragments, inc. nodule fragment. Chalky cortex, white patination. Flint dark grey/black.	6
	51.154954	1.392683	Nodule, almost intact. Chalky cortex. Flint dark grey/black.	1

7. Samphire Hoe, Kent

Samphire Hoe is a country park located on the south coast of Kent. This area was created using chalk rubble from the construction of the Channel Tunnel; the Channel Tunnel was bored through a solid chalk formation that bridges the English Channel, outcropping most prominently at the White Cliffs of Dover and in northern France. This site was visited however it was difficult to locate any flint on the surface, and digging was prohibited. Three small pebbles were collected from a small area denuded of vegetation. These pebbles were later found to be unsuitable for sampling due to fossiliferous and chalky inclusions.

Location	Latitude	Longitude	Description	#
Samphire Hoe, Kent	51.104653	1.273312	Small flint pebbles. Two grey/white, one orange/black patination.	3

8. South Downs Way at Kingston, Lewes

The village of Kingston is located in the South Downs National Park. Access to the South Downs Way is through Kingston Ridge lane at the north end of the village. The sampling location was located along the South Downs Way in an area with large nodules of flint exposed in the soil. Three large nodule fragments were collected here.

Location	Latitude	Longitude	Description	#
South Downs Way, Kingston, Lewes, East Sussex	50.856357	-0.034949	Nodule fragments. Chalky cortex. Flint dark grey/black.	3

9. Southwick Hill, East Sussex

This site is located on the chalk downland of the South Downs. Access to this site was via Mile Oak Road, Shoreham-by-Sea, and the sampling location was an area of erosion on the side of the hill. Two samples were obtained here, one was an almost intact nodule over 5kg in weight, the second was a smaller nodule fragment.

Location	Latitude	Longitude	Description	#
Southwick Hill, Brighton, East Sussex	50.858043	-0.237671	Large nodule. Chalky cortex, found at base of hill erosion.	1
	50.858152	-0.239677	Nodule fragment. Found in eroded area of hillslope.	1

10. Harrow Hill, East Sussex

The flint mine located at Harrow Hill was excavated during the 1890's although this investigation was not accompanied by detailed records. This site was visited although access to the flint mine was restricted due to its location on private land. Nevertheless, four fragments of large flint nodules were collected from an eroding verge on the roadside and at the entrance to a ploughed field.

Location	Latitude	Longitude	Description	#
Harrow Hill, Findon, East Sussex	50.86457	0.46267	Fragments of flint. Chalky cortex. White patination. Flint dark grey/black.	3
			Large nodule. Weathered chalky cortex. Flint dark grey.	1

11. <u>Cissbury, East Sussex</u>

Cissbury is a large chalk spur located near the village of Findon, West Sussex, and is most often associated with a large Iron Age hillfort. However, there are Neolithic flint mines located at the eastern end of the enclosed summit. The hillfort at Cissbury is managed by the National Trust and is both a Site of Special Scientific Interest and a Scheduled Ancient Monument, and there are restrictions imposed on the collection of material. The National Trust was contacted via email to discuss granting permission for collection of surface samples, with no reply. Three large nodule fragments were collected from an area of erosion along the grassy verge of the access road leading to the site.

Location	Latitude	Longitude	Description	#
Cissbury Ring, Findon, East Sussex	50.86480	0.38243	Large fragments of nodule. Chalky cortex. Flint dark grey/black.	3

12. Stoke Down, West Sussex

Neolithic flint mines were identified and excavated at Stoke Down, West Sussex. Over 70 mine shafts have been identified; however the site has been subject to damage from recent agricultural activity in the area. The mining complex is now a Scheduled Ancient Monument. Inham's Lane is a small access road leading towards the site of the flint mines. Three fragments of incomplete nodules were collected from the eroding verge along this access road.

Location	Latitude	Longitude	Description	#
Stoke Down, Chichester, West Sussex	50.873925	-0.813782	Fragments of nodule. Chalky cortex. Flint dark grey/black.	3

13. Moon's Copse, Hampshire

This site is located in Hampshire within the South Downs National Park. Flint does not outcrop in this area but nodules are occasionally exposed through agricultural activity. Two fragments of nodules were collected from the edge of a ploughed field.

Location	Latitude	Longitude	Description	#
Moon's Copse, Petersfield, Hampshire	51.0293	-1.10603	Fragments of nodule. Chalky cortex. White patina.	2

14. Pewsey, Wiltshire

The flint-bearing chalk formation in the Vale of Pewsey is sandwiched between the chalk downs of Salisbury Plain to the south, and the Marlborough Downs in the north. Two fragments of flint nodules and one large nodule were collected from the first site, 'Field near Pewsey', from the entrance to a field on Everleigh Road. The second site was located on the A342 southwest of Pewsey. Two samples were collected from the entrance to a large field where flint was exposed through the erosion of a small slope.

Location	Latitude	Longitude	Description	#
A342, Pewsey, Wiltshire	51.30601	-1.85597	Small flint fragments. Light/dark grey. Weathered cortex.	2
Everleigh Road, Pewsey	51.31959	-1.75425	Fragments of large nodule. Chalky cortex, flint dark grey/black.	2
			Large nodule (refits with above)	1

15. Hackpen Hill, Wiltshire

Hackpen Hill is a prominent hill on the Ridgeway near Broad Hinton, Wiltshire, with a large white horse etched into the slope. The flint here has been eroded from the underlying chalk and is exposed through agricultural activity and weathering. Five samples were obtained from an area of erosion in the centre of the field.

Location	Latitude	Longitude	Description	#
Hackpen Hill, Wiltshire	51.47127	-1.81544	Flint fragments, Chalky cortex. Flint light/dark grey.	5

16. Winterbourne Stoke, Wiltshire

Located south of Amesbury, Wiltshire, Winterbourne Stoke was an unplanned sampling location. Five small fragments of flint were collected from the eroding verge of a small lane off the B3083. The chalk formation in this area has been eroded through weathering and ploughing, as was the flint contained within it. Some larger pieces of nodules were found in this area; however they were unsuitable for sampling due to large chalky inclusions.

Location	Latitude	Longitude	Description	#
Winterbourne Stoke, Amesbury, Wiltshire	51.17870	-1.90295	Small fragments. Chalky cortex. Flint dark grey/black.	5

17. West Kennet, Wiltshire

West Kennet long barrow, Wiltshire, was visited during July 2013 and two fragments of flint were collected along the path leading up to the monument. The long barrow is a Scheduled Ancient Monument, although this protection does not extend beyond the boundary of the long barrow itself. The path leading to the monument is through a field, and pieces of flint were visible in the soil. The flint obtained here has been eroded out of the underlying chalk, through weathering and/or agricultural activity in the region.

Location	Latitude	Longitude	Description	#
Field near West Kennet Long Barrow, Wiltshire	51.410661	-1.850477	Fragments of flint. Weathered cortex. Flint light grey.	2

18. Beer, Devon

The chalk outcrop at Beer is the westernmost exposure of chalk in the south of England. Nodules of flint are found in the chalk cliffs here, and the beach is composed of flint pebbles. Two complete nodules were collected here. One nodule was a water-rolled pebble from the shingle on the beach; the other was removed from a large chalk boulder that had become detached from the cliff.

Location	Latitude	Longitude	Description	#
Beer Beach, Beer, Devon	50.695010	-3.092390	Nodules extracted from chalk rubble on beach. Chalky cortex, flint dark grey/black.	2

19. White Rocks, Antrim

White Rocks is the collective name for a stretch of chalk cliffs, coastal landforms, and caves to the east of Portrush, Co. Antrim. This coastline is so-called because of the well-preserved Cretaceous chalk formations, providing type sections for the Portrush, Ballymagarry, and Tangeragee Chalk members. Due to the geological significance of White Rocks, the entire 2km expanse of chalk is designated an Area of Special Scientific Interest. White Rocks was visited on two separate occasions, March 2013 and August 2013. Five samples were obtained in March 2013; sample 5 was a small beach pebble, samples 1-4 were fragments of flint removed from in situ nodules. As at White Park Bay, the samples collected here were from nodules that were already fragmentary and actively eroding out of the chalk. Nine further samples were collected during a second visit in August 2013. Samples 1-4 were collected from two successive flint bands; 1 and 2 were obtained from a band of flint nodules, 3 and 4 were collected from the layer of flint nodules directly underneath. Samples 5-8 were collected in the same manner, but at a location approximately 200m away

along the cliff. Sample 9 was a large piece of nodule that was lying on a scree slope near the second sampling location.

Location	Latitude	Longitude	Description	#
White Rocks 1, Antrim	55.206000	-6.611008	Fragments extracted from in situ nodule. Chalky cortex. Light grey.	2
White Rocks 2, Antrim	55.205976	-6.610711	Fragments extracted from in situ nodule. Chalky cortex. Light grey. This sample was ground in mechanical mill.	-
White Rocks 3, Antrim	55.205948	-6.610725	Fragments extracted from in situ nodule. Chalky cortex. Light grey. Sample 3 located in flint band above sample 2.	2
White Rocks 4, Antrim	55.206182	-6.611218	Fragments extracted from in situ nodule. Chalky cortex. Light grey.	3
White Rocks Pebbles	55.205955	-6.610797	Pebbles collected from beach. One is light grey, one is orange. Both have weathered cortex.	2
White Rocks, Antrim, Location 1	55.205817	-6.609242	4 samples taken from bands of in situ flint. The flint was obtained so that horizontal and vertical differences in flint bands can be assessed. Flint is light/dark grey with chalky cortex.	4

White Rocks, Antrim, Location 2	55.205811	-6.608963	4 samples taken from bands of in situ chalk flint. Band A is above Band B and two samples were taken from each to assess horizontal and vertical differences in flint bands. Flint has a chalky cortex and is light/dark grey.	4
White Rocks, Antrim, 'Pebble'	55.205820	-6.609054	Large fragment of weathered nodule. Orange patina with remnants of chalky cortex.	1

20. <u>Portbraddan, Antrim</u>

Portbraddan is a small fishing village on the north coast of Co. Antrim, sheltered between chalk cliffs and a basalt headland. The chalk cliffs here extend east along the coast to the adjacent sampling site at White Park Bay. The White Park Bay area is designated an Area of Special Scientific Interest, although the cliffs at Portbraddan are not similarly protected. Four areas were sampled at Portbraddan, in reference to specific research questions. Two samples (Portbraddan 3 and 4) were obtained from the same band of flint, approximately 0.6m apart. The other two samples (Portbraddan 1 and 2) were obtained from the band of flint directly underneath.

Location	Latitude	Longitude	Description	#
Portbraddan 1, Antrim	55.2342	-6.41516	Fragments removed from in situ nodule. Chalky cortex, light grey flint.	6
Portbraddan 2, Antrim	55.234237	-6.414833	Fragments removed from in situ nodule. Chalky cortex, light grey flint.	4

Portbraddan 3, Antrim	55.234522	-6.415035	Fragments removed from in situ nodule. Chalky cortex, light grey flint. In flint seam above Portbraddan 2.	5
Portbraddan 4, Antrim	55.234947	-6.414819	Fragments removed from in situ nodule. Chalky cortex, flint is dark grey/black. 60cm to the east to Sample 3 and from the same flint band.	3

21. <u>Ballintoy East, Antrim</u>

The chalk formation in the north of Ireland outcrops intermittently along the north and east coast of Antrim. Ballintoy is a small town and harbour located on the north coast of Antrim and provides access to a small expanse of chalk cliffs on both the western and eastern sides of the harbour. Samples were removed from a large amount of chalk debris at the base of the cliffs at the eastern side of the harbour. Two in-situ nodules were targeted; these were broken into smaller fragments and collected for study.

Location	Latitude	Longitude	Description	#
Ballintoy East 1, Antrim	55.244663	-6.366642	Fragments removed from in situ nodule from chalk debris. Chalky cortex, flint is light/dark grey.	1
Ballintoy East 2, Antrim	55.244663	-6.366642	Fragments removed from in situ nodule from chalk debris. Chalky cortex, flint is light/dark grey. Sample 2 located approximately 30cm away from Sample 1 –	3

			unclear if they represent different flint bands.	

22. <u>Eleven Ballyboes, Donegal</u>

Eleven Ballyboes is a townland on the eastern coast of Donegal, opposite the Magilligan peninsula in the northwest of County Derry. Access to a large part of the shoreline is restricted by private residences and Greencastle Golf Club, however a small bay north of the golf course was visited and nine small beach pebbles were collected along a 9m section of the beach, collecting a sample every 1m. These samples were not suitable for analysis.

Location	Latitude	Longitude	Description	#
Eleven Ballyboes, Donegal	55.209655	-6.953058	Starting from one end, a flint fragment was picked up every metre (where available). Flint is a variety of colours.	9

23. <u>White Park Bay, Antrim</u>

White Park Bay is a beach on the north coast of Antrim, located between two basalt headlands. The beach is framed by a large expanse of chalk cliff, with the previous sampling site of Portbraddan located at the westernmost end of the beach. Currently managed by the National Trust, White Park Bay is also an Area of Special Scientific Interest due to rare flora and fauna, as well as the chalk cliffs which display well-preserved chalk strata. Five samples were collected from White Park Bay. The largest sample is a piece of a flint nodule that was eroding out of a chalk boulder on the beach. The other four samples were obtained from in situ flint nodules. The chalk cliffs here are protected under the ASSI designation; the citation document forbids

alternation of natural surfaces. The samples were removed from in situ nodules that had begun to crack and fragment through weathering. The flint could be removed without the aid of any tools, and the nodules had already begun to erode out of the chalk. Two samples were obtained from two nodules in the same band of flint; two further samples were removed from a nodule in the flint band underneath. This would allow chemical comparison between different bands of flint within the same source.

Location	Latitude	Longitude	Description	#
White Park Bay, Antrim	55.232798	-6.412743	Samples 1 & 2 are from the same band, 3 & 4 are from two other bands distinct from 1 & 2. Flint is dark grey with chalky cortex.	4
White Park Bay, Antrim	55.232586	-6.411756	Light grey flint with chalky patina.	1

24. <u>Murlough Bay, Antrim</u>

Located on the northeast coast of County Antrim, Murlough Bay is located at the edge of the Antrim basalt plateau. Although the basalt overlies the Cretaceous chalk, small outcrops are present at Murlough Bay, along with Dalradian, Triassic, and Carboniferous geologies. Due to this range of geological features, and the local biodiversity, Murlough Bay is an Area of Special Scientific Interest. The small beach at Murlough Bay is littered with flint pebbles that have eroded from the chalk outcrops or which have been washed up on the shore. Samples were collected from the beach instead of from in situ flint nodules. In total eleven samples were collected from the beach along an 11m section, one sample collected every 1m.

Location	Latitude	Longitude	Description	#
Murlough Bay, Antrim	55.213004	-6.122322	Small fragment of grey flint. Found loose beneath an eroding chalk boulder.	1
Murlough Bay, Antrim	55.210993 to 55.211026	-6.118091 to -6.118297	11 samples from Murlough Bay. Bay is a small beach with flint pebbles. Samples were taken every 30cm along a 10m strip along the high tide line.	11

25. <u>Slieve Gallion, Derry</u>

Slieve Gallion is one of over thirty volcanic plugs in the north of Ireland. This mountain is composed of much younger geology than the Cretaceous chalk deposits; however the force of the volcanic activity caused uplifting of some of the surrounding chalk, which outcrops on the eastern slope of the mountain. Upon visiting the site, extant chalk outcrops were not located however there were a number of large flint nodules visible on the ground surface. The nodules collected for sampling were at the bottom of a small slope, beneath a large erosion scar. Three large nodules were collected, other nodules were inspected but found to be heavily weathered and containing numerous fossiliferous and/or chalky inclusions.

Location	Latitude	Longitude	Description	#
Slieve Gallion, Derry	54.736443	-6.736797	Samples taken from eroded part of hillside. Location is an area of Cretaceous chalk at Slieve Gallion.	3

26. Carnlough, Antrim

This small village on the east Antrim coast is located in the Glens of Antrim, a landscape characterised geologically by Tertiary basalt. This basalt was formed during volcanic activity in the region after the formation of the Cretaceous chalk, and obscures much of the underlying chalk. Despite this, large flint pebbles can be found on the beach at Carnlough. This flint has eroded out of the chalk cliffs along the coast or from submerged chalk deposits in the Irish Sea, subsequently being washed up on the beach. Carnlough is therefore a secondary source of flint, with flint pebbles potentially originating from much further afield. Eleven large pebbles were collected from the southern end of the beach, collected along an 22m section at 2m intervals.

Location	Latitude	Longitude	Description	#
Carnlough, Antrim	54.981690	-5.986768	11 samples from Carnlough beach. Southern end of beach has chalk and flint pebbles. Samples taken from this area over 11m, 1 sample per metre.	11

27. Garron Point, Antrim

Located 3km north of Carnlough, Garron Point is a large promontory at the eastern end of the Garron Plateau, located at the southern extent of the Glens of Antrim. Composed of Tertiary basalt and Cretaceous chalk, Garron Point is a site of great geological significance. The surrounding biodiversity of the area, coupled with its well-preserved geology, have resulted in the area being designated as a Ramsar Site, a Special Area of Conservation, an Area of Outstanding Natural Beauty, and an Area of Special Scientific Interest. As a result, collection of geological samples is restricted. Samples from this location were not removed from in situ nodules, rather gathered

in areas where pieces of flint had been weathered out of the chalk and were loose on the surface. Three pieces of flint nodules were gathered from this location.

Location	Latitude	Longitude	Description	#
Garron Point, Antrim	55.044378	-5.963286	Samples obtained from area of exposed Cretaceous chalk near Garron Point, Antrim.	2

28. <u>Cloughastucan, Antrim</u>

The sampling location at Cloughastucan is situated in the Cloughastucan Area of Special Scientific Interest (ASSI), designated as such due to the significance of the preserved chalk strata. As the chalk is the subject of the ASSI, it was not possible to obtain in situ samples, however two small fragments of flint were collected at the base of chalk outcrop. These were loose pieces that had eroded out of the chalk above.

Location	Latitude	Longitude	Description	#
Cloughastucan, Antrim	55.049771	-5.966657	Samples obtained from area of erosion beneath chalk outcrop at Cloughastucan. No samples obtained from chalk itself as site is an ASSI.	2

29. <u>North Landing, North Yorkshire</u>

The harbour at North Landing, Flamborough Head, provides easy access to the chalk cliffs that stretch along the North Yorkshire coast. Flamborough Head is a chalk headland that represents the only intact Cretaceous chalk sequences in the north of England, and the coastline is protected from damage and development by being

defined as a Special Area of Conservation and an Area of Special Scientific Interest. Samples were collected from an area of erosion, and an area of rockfall, by Dr. Rick Petersen of the University of Central Lancashire. A total of eighteen samples were collected, these were either virtually intact nodules or fragments of nodules.

Location	Latitude	Longitude	Description	#
North Landing, North Yorkshire	54.129625	-0.104617	18 nodule fragments collected from an area of rockfall underneath chalk cliffs at North Landing	18

30. <u>Arras Hill chalk pit, East Yorkshire</u>

This site in East Yorkshire is a disused chalk pit on the southern boundary of the Yorkshire Wolds. The sides of the quarry were very steep, prohibiting in situ sample collection, and plant growth on the scree deposits obscured the majority of the available flint. One large nodule fragment and four smaller pieces were collected from an area free from vegetation.

Location	Latitude	Longitude	Description	#
Arras Hill, East Yorkshire	53.877484	-0.589378	This site is a disused chalk pit in the Yorkshire Wolds. Samples were collected from an area of erosion at the base of one of the quarry sides. One large nodule was collected, as were four smaller fragments.	5

31. Malton, East Yorkshire

Samples were collected from a large ploughed field near the village of Malton, located in the Yorkshire Wolds. The flint here has been eroded from the underlying bedrock through agricultural activity. Ten small samples of flint were collected from an eleven-metre transect along the boundary of the field.

Location	Latitude	Longitude	Description	#
Malton, East Yorkshire	54.157713	-0.771189	Samples collected from an 11 metre transect along the edge of a ploughed field outside of the town of Malton.	10

32. Middleton Quarry, East Yorkshire

This site is a disused chalk pit in Middleton-on-the-Wolds, East Yorkshire. The site is located within the grounds of Vectra Systems, a plant and machinery hire firm. Access to the site could not be obtained, however a large tree throw outside of the grounds revealed four small pieces of flint nodules which were collected.

Location	Latitude	Longitude	Description	#
Middleton Quarry, East Yorkshire	53.936516	-0.562062	Access to the quarry was not possible, small pieces of flint were collected from a tree throw on the road leading up to the quarry.	4

33. Rifle Butts Quarry, East Yorkshire

This location is a Site of Special Scientific Interest in East Yorkshire. The disused quarry has areas of exposed chalk geology, however removing samples from in situ flint is prohibited. An area of erosion on the verge outside of the quarry was

inspected and large pieces of flint were eroding from the soil. Two samples were collected from this location.

Location	Latitude	Longitude	Description	#
Rifle Butts Quarry, East Yorkshire	53.872284	-0.634952	Sampling from this site is prohibited as it is a Site of Special Scientific Interest. An area of eroded soil outside of the quarry boundaries was chosen for sampling.	2

34. <u>Mill Hill, Lincolnshire</u>

Mill Hill quarry is a disused chalk pit on the eastern edge of the Lincolnshire Wolds. The site itself is readily accessible and managed by the Lincolnshire Wildlife Trust; however removal of in situ samples was not possible due to the steep sides of the quarry. There was a large scree deposit at the base of the northern edge of the quarry where four samples were collected. One of these is a large, almost complete nodule; the others are three smaller fragments of flint nodules.

Location	Latitude	Longitude	Description	#
Mill Hill, Lincolnshire	53.221277	0.172627	Disused quarry in the Lincolnshire Wolds. In situ sampling was not possible due to the steep sides; samples were collected from the scree deposits at the base of the slope.	4

35. <u>North Ormsby, Lincolnshire</u>

The North Ormsby sampling site is a disused chalk pit in north Lincolnshire. This site has large expanses of exposed chalk, which contains a variety of flint bands. The sides

of pit were too steep to allow access for removal of in situ samples, so samples were collected instead from scree deposits at the base of the slopes. Five large fragments of nodules were collected from this location.

Location	Latitude	Longitude	Description	#
North Ormsby, Lincolnshire	53.422795	-0.063665	Disused quarry in the Lincolnshire Wolds. Samples collected from scree deposits at the base of the slopes.	5

36. <u>Welton-le-Wold, Lincolnshire</u>

Welton-le-Wold is a small, rural village in the Lincolnshire Wolds. The fields surrounding this area had been recently ploughed, exposing some large pieces of flint that had eroded from the underlying chalk geology. One large, almost complete nodule was recovered from a field north of the village, as well as six smaller pieces of incomplete nodules. Samples were collected along an 8-metre transect at the edge of this field.

Location	Latitude	Longitude	Description	#
Welton-le-Wold, Lincolnshire	53.378903	-0.095487	Samples collected from a ploughed field north of Welton-le-Wold. Samples were collected every 1 metre along an 8 metre transect at the southern edge of the field.	7

37. <u>Sledmere/Malton</u>

Samples were collected from a large ploughed field between the villages of Malton and Sledmere, located in the Yorkshire Wolds. The flint here has been eroded from the underlying bedrock through agricultural activity.

Location	Latitude	Longitude	Description	#
Sledmere/Malton, East Yorkshire	54.106966	-0.737152	Three small samples of flint were collected from an eleven-metre transect along the boundary of the field.	3