

APPENDIX 11.1: DESIGNATION POINT VISIBILITY ANALYSIS

Name	Technical Appendix 11.3 (site gazetteer reference)	Effect	Significant / Not Significant	LINK	X	Y	Category	No. of Turbines Visible: 145m	No. of Turbines Visible: 155m	Additional no. turbines visible
Stanydale Temple	Site 395	Minor	Not Significant	https://www.historicenvironment.scot/visit-a-place/places/stanydale-temple	428530.4778	1150230.556		42	50	8
Graven,chambered cairn 650m SW of	Site 173	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3524	440502	1172718		0	0	0
Collafirth Ness,house 150m S of Noness Head	Site 86	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3465	445828	1170192		0	0	0
Lunna,burnt mound 230m W of	Site 89	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM3551	448461	1169461		13	19	6
Lunna,two burnt mounds 400m NW of	Site 88	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3555	448421	1169796		60	73	13
Hill of Dale,chambered cairn	Site 83	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3564	441297	1169945		95	97	2
Chapel Knowe, earthworks, church and graves 40m WNW of Lunna Church	Site 99	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2691	448560	1169108		10	10	0
Culsetter,house 100m WSW of	Site 315	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3481	433389	1167516		0	0	0
Isleburgh, chambered cairn 745m SSW of	N/A (not included)	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3573	433474	1168453		0	0	0
Isleburgh, prehistoric house and enclosures 760m SSW of	N/A (not included)	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3486	433346	1168486		0	0	0
Culsetter, prehistoric house 250m W of	Site 315	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3480	433289	1167590		0	0	0
Culsetter, prehistoric house 130m S of	Site 315	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3482	433543	1167429		0	0	0
Ladie Hill, cairn 325m E of 1 Gossaford	Site 321	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3558	436295	1168546		3	6	3
Burravoe,chambered cairn & cairn 470m NE of,Brae	Site 319	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3469	436397	1167396		34	35	1
Burravoe,broch on NW promontory,Brae	Site 318	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3657	435885	1166950		4	9	5
Houll,house 90m SW of,Roe Sound	Site 312	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM3479	433651	1166327		8	14	6
Skeo of Gossaford,cairn 400m W of Busta	Site 313	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM3483	434052	1166762		62	63	1
Culsetter,chambered cairn 180m SSW of	Site 314	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3563	433477	1167374		0	0	0
Lunning,house 70m N of Ramna Geo	Site 443	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3464	451040	1167065		0	0	0
Lunning,house 270m NE of the Knowes	Site 444	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3575	450777	1167072		0	0	0
Busta, standing stone 100m E of Staneside	N/A (not included) (based on 313)	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2028	434878	1167393		65	71	6
North Ham,horizontal mill NE of Town Loch,Muckle Roe	Site 371	None	Not Significant	http://portal.historicenvironment.scot/designation/SM6152	430497	1166099		0	0	0
Vidlin, broch at W end of Ayre of Vidlin	Site 104	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM6073	447952	1165456		72	74	2
Knowe of Brulland, cairn 165m SE of Windrush	Site 27	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM2038	444527	1163493		39	40	1
Loch of Huxter,dun,Whalsay	N/A (not included)	None	Not Significant	http://portal.historicenvironment.scot/designation/SM2077	455863	1162001		0	0	0
Sandwick,settlement & burnt mounds between Sandwick & Loch of Sandwick	Site 435	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM3581	453834	1161613		91	94	3
Ward of Symbisterness,chambered cairn 400m SW of Symbister Bay	Site 436	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3592	453400	1162022		99	99	0
Swarbacks Head,gun emplacements	Site 374	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5371	429061	1161915		24	24	0
Vementry,chambered cairn,Muckle Ward	Site 373	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM2047	429566	1160962		59	63	4
Stany Cuml,cairn 450m NW of westmost point of Loch of Stavaness	Site 107	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3587	449424	1159830		51	51	0
Loch of Garths,burnt mound at NW corner,Bellister	Site 106	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3462	448438	1160257		43	52	9
Muckle Head, cairn 160m N of Scaur	Site 105	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3463	447978	1160527		72	78	6
Loch of Kirkabister,settlement 430m NE of NE corner of	Site 111	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM3620	449865	1158856		19	19	0
Felshun,chambered cairn 600m WSW of SW point of Loch of Stavaness	Site 109	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3622	449228	1159179		0	0	0
Felshun,house 550m WSW of SW point of Loch of Stavaness	Site 110	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3621	449324	1159147		0	0	0
East Burra Firth,broch,Aith Voe	Site 295	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM2067	435805	1157954		22	22	0
Loch of Kirkabister,burnt mound 100m SW of S end of	Site 117	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3596	449350	1158213		0	0	0
Noonsbrough,burnt mound	Site 380	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5526	429571	1157269		1	2	1
Noonsbrough,broch on W shore of Voe of Clousta	Site 375	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5543	429527	1157682		11	13	2
Longa Ness,chambered cairn,farmsteads and field system,Noonsbrough	Site 377	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5553	428788	1157917		0	0	0
North Ward,chambered cairn,Noonsbrough	Site 376	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5560	429106	1157937		51	55	4
Hayfield,chambered cairn 150m ESE of	Site 291	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5722	436371	1157673		31	32	1
Hog Sound,fort	Site 116	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5368	450840	1158142		35	39	4
Bretabister,burnt mound 140m S of War Memorial	Site 120	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM3561	448151	1157386		1	1	0
Nesting Parish Church, broch 30m S of	Site 118	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3599	448736	1157795		11	15	4
Clymlea, burnt mound 375m NE of	Site 124	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3582	447448	1156478		0	0	0
Clymlea, house 410m NE of	Site 123	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3586	447443	1156534		0	0	0
Hamar Knowe, house 740m NE of Clymlea	Site 121	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3590	447694	1156739		0	0	0
Newing,house 300m WSW of Black Skerry	Site 122	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3593	447591	1156669		0	0	0
Newing,house 100m E of South Newing	Site 125	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM3604	446949	1155946		4	4	0
Point of the Hurds,chambered cairn 200m NE of	Site 378	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5525	428905	1156995		0	0	0
Newhouse,homestead and field system E of	Site 379	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5559	428895	1156847		0	0	0
Newhouse,homestead and field system 200m S of	Site 127	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5500	431399	1156971		46	48	2
North Gardie, prehistoric settlement, cairns and enclosures 660m NW of	N/A (designated in 2012) - based on 309	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM13107	433508	1157131		39	43	4
South Newing, house and field system 170m W of	N/A (not included)	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3591	446684	1155954		7	8	1
Skellister, burnt mound 115m SW of	Site 130	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3584	446710	1154717		31	39	8
Grunna Water, burnt mound 400m NW of Houlland	Site 129	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3602	445799	1154870		11	14	3
Grunna Water, house 480m NW of Houlland	Site 128	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3603	445782	1154944		11	13	2
South Houllan,farmstead and field system 220m NW of	Site 381	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5554	429383	1155444		0	0	0
Gravlabu,settlement and standing stones	Site 309	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5731	432548	1155800		40	42	2
Sulma Water, prehistoric house 800m S of Fogrigarth	Site 384	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2037	425706	1155217		15	22	7
Skellister, standing stone 320m WNW of Burns	Site 126	None	Not Significant	http://portal.historicenvironment.scot/designation/SM2035	446317	1155214		0	0	0
Turness, burnt mound 180m NE of Babxies	Site 127	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3661	446978	1154998		22	26	4
Trowie Loch, burnt mound complex 225m WSW of Vadill Cottage	N/A (not included)	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3579	447251	1153780		19	21	2
The Burrian, broch 105m NE of Benston	Site 133	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3580	446740	1154003		77	83	6
Broch of Benston, broch 380m NW of Nesting Primary School	Site 136	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3585	446316	1153730		33	40	7
Brough,broch on the Burrian 200m N of	Site 132	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3589	447790	1154468		75	79	4
Loch of Freester, chambered cairn 100m SE of Old Trafford	Site 140	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3595	445052	1153965		45	47	2
Hard Knowe, cairn 330m N of Muness	Site 141	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3598	445373	1153502		80	83	3
Loch of Houlland, cairn 470m E of Clack	Minor	N/A (not included)	Not Significant	http://portal.historicenvironment.scot/designation/SM3601	445448	1154137		32	38	6
Groni Field,cairn	Site 307 & Site 382	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5723	430562	1153680		56	61	5
Broch of Houlland,broch,Tumblin Hill	Site 283	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5726	434498	1153892		46	50	4
Erne's Ward, cairns NE and NNE of	Site 383 & 386	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM6731	427983	1153529		57	60	3
Benston,house 600m W of	Site 137	None	Not Significant	http://portal.historicenvironment.scot/designation/SM3600	446012	1153857		0	0	0
Lingness, prehistoric houses 740m NE of	Site 135	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3660	448967	1154513		77	79	2
Houlland, prehistoric house 320m E of	Site 131	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3588	446376	1154424		47	52	5
Vassa Voe,broch,Cat Firth	Site 139	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM2088	445607	1152349		72	74	2
Ara Clett,chambered cairn,Turdale Water	Site 306	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5724	431221	1152837		48	54	6
Loch of Girlsta,homestead 500m NE of Bretto	Site 144	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5728	443187	1153115		39	40	1
Garden,settlement 300m SSE of	Site 304	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5959	432756	1152513		0	0	0
Freester, otter-house on headland SSE of Dykend	N/A (not included)	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM8441	445428	1152982		43	46	3
Vassa Voe, house & enclosure 320m SSW of Seaview	Site 138	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3597	446206	1152747		84	87	3
Ward of Browland,chambered cairn	Site 389	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5547	426768	1151583		67	74	7
Hockland,burnt mounds SW of	Site 387	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5725	430152	1151361		0	0	0
Quina Scord,chambered cairn 400m NW of Gillaburn	Site 145	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5727	440426	1151632		32	33	1
Heglibister,cairn 250m W of Nesta Ness	Site 253	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM6223	438869	1151546		30	33	3
Stanydale, cairns, 200m NNE of Northdykes	Site 388	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM2029	428472	1151204		50	58	8
Croag Lee,homestead and field system 1250m NNW of Bekka Hill	Site 302	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5698	433823	1149720		24	27	3
Gruting School,settlement and field system at head of Scutta Voe	Site 394	None	Not Significant	http://portal.historicenvironment.scot/designation/SM6195	428225	1149862		0	0	0
Stromfirth, homestead 700m SSW of	Site 413	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM6817	440334	1150234		13	14	1
Stanydale, settlement, field system and cairns 620m ENE of Pund of Lea	Site 395	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM3314	428538	1150172		44	51	7
Sound, laird's house, chapel and burial ground 220m SSE of Oversound	N/A (schedule in 2013)	None	Not Significant	http://portal.historicenvironment.scot/designation/SM13049	438358	1150127		0	0	0
Hawks Ness,broch at Corbie Geo	Site 414	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2070	446120	1148936		91	97	6
Ness of Gruting,burnt mound,farmsteads and field systems	Site 398	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5558	428124	1148240		14	18	4
Setter,chambered cairn 470m NE of,Seli Voe	Site 396	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5716	429538	1148422		24	29	5
Bekka Hill,chambered cairn 770m N of	Site 301	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5717	434216	1149369		25	35	10
Quoyness, settlement 375m W of	Site 415	None	Not Significant	http://portal.historicenvironment.scot/designation/SM6816	439450	1148591		0	0	0
Craw Knowe,chambered cairn	Site 400	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5557	428751	1147490		35	41	6
Setter,chambered cairn 300m S of,Seli Voe	Site 397	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5715	429234	1147739		3	4	1
Stromness Voe,burnt mound 50m NW of head of voe	Site 416	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5699	438996	1147669		0	0	0

Kirk Score, chambered cairn, settlement and field system, Russa Ness	Site 403	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5718	436580	1146998	7	13	6
Hill of Olligarth,settlement and field system NE of	Site 417	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5719	438882	1147293	12	17	5
Castle Holm, castle 180m ESE of Churchtown	Site 420	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2100	439510	1147544	19	22	3
Hestinssetter Hill,chambered cairn	Site 410	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5730	429201	1145726	50	53	3
Whiteness Junction,burnt mound 150m W of Stebbigrind	Site 418	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5720	439243	1146592	30	34	4
Kirk Holm,monastic settlement,Sand	Site 404	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5629	433766	1146060	4	6	2
Wormadale Hill, standing stone 335m ENE of Kerith	Site 421	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM2048	440533	1146503	58	65	7
Swart-Houll,chambered cairn 330m NE of	Site 409	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM5700	430599	1144957	35	39	4
Teind barn, 120m N of Kebister	Site 423	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM11262	445701	1145491	57	61	4
Nesbister Hill, cairn 350m E of Wastower	Site 428	Minor	Not Significant	http://portal.historicenvironment.scot/designation/SM2041	440241	1145429	83	86	3
Law Ting Holm,thingstead,Loch of Tingwall	Site 433	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2074	441823	1143445	0	1	1
Tingwall Parish Church, burial aisle 20m SSE of	Site 426	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM10810	441919	1143728	50	61	11
Jamie Cheyne's Loch,homestead 50m N of	Site 431	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM5900	439874	1142788	52	59	7
Loch of Tingwall, standing stone 130m E of Garth Lodge	Site 433	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2040	441238	1142028	35	36	1
Loch of Houlland,homestead 190m W of	Site 434	None	Not Significant	http://portal.historicenvironment.scot/designation/SM5721	439753	1141621	0	0	0
Loch of Asta, burnt mound 180m ESE of Peerie Asta	N/A (not included)	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/SM2026	441194	1141097	36	43	7
Lunna House	N/A (Sites 90-98)	Minor - Moderate	Not Significant	http://portal.historicenvironment.scot/designation/GDL00271	448743	1169309	51	55	4
Swinister Old Haa, Swinister	Site 85	None	Not Significant	http://portal.historicenvironment.scot/designation/LB44534	444966	1172594	0	0	0
Swinister		None	Not Significant	http://portal.historicenvironment.scot/designation/LB44533	444336	1172222	0	0	0
Lunna Church And Churchyard, Lunna Ness			Not Significant	http://portal.historicenvironment.scot/designation/LB18590	448590	1169089	24	24	0
Lunna House, Lunna Ness			Not Significant	http://portal.historicenvironment.scot/designation/LB18591	448669	1169254	41	42	1
Sundial, Lunna House, Lunna Ness			Not Significant	http://portal.historicenvironment.scot/designation/LB18591	448680	1169213	44	46	2
Voxter House, Brae		None	Not Significant	http://portal.historicenvironment.scot/designation/LB44526	437112	1169959	0	0	0
Voxter House & Walled Garden, Brae		None	Not Significant	http://portal.historicenvironment.scot/designation/LB44526	437069	1169908	0	0	0
Booth Of Lunna			Not Significant	http://portal.historicenvironment.scot/designation/LB45273	448659	1169052	36	36	0
Hunter's Monument, Lunna House, Lunna Ness	Site 103	None	Not Significant	http://portal.historicenvironment.scot/designation/LB45274	448328	1168900	0	0	0
Schoolhouse, Lunna, Lunnasting	Site 90	Minor	Not Significant	http://portal.historicenvironment.scot/designation/LB45275	448724	1169441	74	78	4
Gothick Cottage, Lunna House, Lunna Ness	Site 102	None	Not Significant	http://portal.historicenvironment.scot/designation/LB45276	448451	1169019	0	0	0
Harbour, Lunna	Site 96	None	Not Significant	http://portal.historicenvironment.scot/designation/LB45277	448438	1169256	0	0	0
Harbour Building, Harbour, Lunna	Site 97	None	Not Significant	http://portal.historicenvironment.scot/designation/LB45277	448430	1169225	0	0	0
Limekiln, Harbour, Lunna	Site 95	None	Not Significant	http://portal.historicenvironment.scot/designation/LB45277	448476	1169248	0	0	0
Steading, Lunna House, Lunna Ness	Site 91	Minor	Not Significant	http://portal.historicenvironment.scot/designation/LB45278	448695	1169313	43	47	4
Walled Garden, Lunna House, Lunna Ness	Site 92	Minor	Not Significant	http://portal.historicenvironment.scot/designation/LB45279	448761	1169289	38	48	10
West Gate Piers And Walls, Lunna House, Lunna Ness	Site 98	None	Not Significant	http://portal.historicenvironment.scot/designation/LB45280	448567	1169172	0	0	0
Brae House, Brae			Not Significant	http://portal.historicenvironment.scot/designation/LB5271	435826	1167828	35	35	0
Pier, Brae House			Not Significant	http://portal.historicenvironment.scot/designation/LB5271	435789	1167809	30	33	3
Former Store, Brae House			Not Significant	http://portal.historicenvironment.scot/designation/LB5271	435812	1167832	35	35	0
Former Netloft, Brae House			Not Significant	http://portal.historicenvironment.scot/designation/LB5271	435802	1167841	34	35	1
Byre and Barn, Brae House			Not Significant	http://portal.historicenvironment.scot/designation/LB5271	435851	1167812	35	35	0
Dovecot, Busta House Hotel, Brae			Not Significant	http://portal.historicenvironment.scot/designation/LB5887	434750	1166971	49	55	6
Busta House Hotel, Brae			Not Significant	http://portal.historicenvironment.scot/designation/LB5887	434513	1166803	53	57	4
Old Olnafirth Church And Churchyard, Voe			Not Significant	http://portal.historicenvironment.scot/designation/LB5888	440492	1163608	34	36	2
Pier House (Museum), Symbister, Whalsay		None	Not Significant	http://portal.historicenvironment.scot/designation/LB18593	453916	1162400	0	0	0
Hem Dock, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18593	453905	1162415	4	7	3
Harbour View, Symbister, Whalsay	Site 440	Negligible	Not Significant	http://portal.historicenvironment.scot/designation/LB18594	453946	1162410	17	18	1
Grobsness Haa, Grobsness		None	Not Significant	http://portal.historicenvironment.scot/designation/LB44528	436878	1163362	0	0	0
Jetty, Fishing Station, Voe			Not Significant	http://portal.historicenvironment.scot/designation/LB44535	440602	1163186	1	1	0
Processing Plant, Fishing Station, Voe			Not Significant	http://portal.historicenvironment.scot/designation/LB44535	440611	1163163	1	1	0
Voe House, Voe			Not Significant	http://portal.historicenvironment.scot/designation/LB44536	440556	1163063	1	3	2
Skeo, Symbister, Whalsay		None	Not Significant	http://portal.historicenvironment.scot/designation/LB45284	453894	1162296	0	0	0
South West Dock, Symbister Harbour, Whalsay		None	Not Significant	http://portal.historicenvironment.scot/designation/LB45285	453739	1162292	0	0	0
New Hoose, South West Dock, Symbister Harbour, Whalsay		None	Not Significant	http://portal.historicenvironment.scot/designation/LB45285	453694	1162315	0	0	0
Fish House, South West Dock, Symbister Harbour, Whalsay		None	Not Significant	http://portal.historicenvironment.scot/designation/LB45285	453694	1162296	0	0	0
Symbister House, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18596	454262	1162187	99	100	1
West Steading Range, Symbister House, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18596	454283	1162185	99	100	1
East Steading Range, Symbister House, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18596	454310	1162184	99	100	1
North West Steading Range, Symbister House, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18596	454291	1162217	99	100	1
North East Steading Range, Symbister House, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18596	454307	1162217	99	100	1
South West Steading Range, Symbister House, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18596	454288	1162154	99	100	1
South East Steading Range, Symbister House, Symbister, Whalsay			Not Significant	http://portal.historicenvironment.scot/designation/LB18596	454305	1162153	99	100	1
Carpenter's Shed, South West Dock, Symbister Harbour, Whalsay		None	Not Significant	http://portal.historicenvironment.scot/designation/LB45285	453709	1162278	0	0	0
Norse Mill, Vementry		None	Not Significant	http://portal.historicenvironment.scot/designation/LB18818	431200	1159706	0	0	0
St Ola's Kirk Including Memorial Enclosure, Brettabister			Not Significant	http://portal.historicenvironment.scot/designation/LB18589	448744	1157829	12	14	2
Neap Old Manse, Brettabister			Not Significant	http://portal.historicenvironment.scot/designation/LB45272	450222	1158356	55	56	1
Steading, Neap Old Manse, Brettabister			Not Significant	http://portal.historicenvironment.scot/designation/LB45272	450182	1158278	60	63	3
Stable Range, Neap Old Manse, Brettabister			Not Significant	http://portal.historicenvironment.scot/designation/LB45272	450172	1158294	60	62	2
South Setter House, Weisdale			Not Significant	http://portal.historicenvironment.scot/designation/LB18563	439723	1154648	48	55	7
Aith Church, Aith			Not Significant	http://portal.historicenvironment.scot/designation/LB44566	434578	1155651	35	35	0
Manse, Aith Church, Aith			Not Significant	http://portal.historicenvironment.scot/designation/LB44566	434589	1155655	35	35	0
Kergord House, Weisdale			Not Significant	http://portal.historicenvironment.scot/designation/LB47310	439535	1154263	53	58	5
Weisdale Mill			Not Significant	http://portal.historicenvironment.scot/designation/LB18564	439486	1153093	3	4	1
Parish Church, Weisdale			Not Significant	http://portal.historicenvironment.scot/designation/LB18954	439418	1152587	29	32	3
Park Hall			Not Significant	http://portal.historicenvironment.scot/designation/LB44567	431264	1152688	5	5	0
Tresta House, Tresta			Not Significant	http://portal.historicenvironment.scot/designation/LB44572	436302	1151047	1	1	0
Post Office, Tresta House, Tresta			Not Significant	http://portal.historicenvironment.scot/designation/LB44572	436289	1151052	1	1	0
South Outbuilding, Tresta House, Tresta			Not Significant	http://portal.historicenvironment.scot/designation/LB44572	436289	1151078	1	1	0
North Outbuilding, Tresta House, Tresta			Not Significant	http://portal.historicenvironment.scot/designation/LB44572	436295	1151088	1	1	0
North Walled Garden, Tresta House, Tresta			Not Significant	http://portal.historicenvironment.scot/designation/LB44572	436315	1151063	1	1	0
South Walled Garden, Tresta House, Tresta			Not Significant	http://portal.historicenvironment.scot/designation/LB44572	436289	1151029	1	1	0
Telephone Call Box, Tresta			Not Significant	http://portal.historicenvironment.scot/designation/LB44573	436295	1151096	1	1	0
Mill Of Girsta, Girsta		None	Not Significant	http://portal.historicenvironment.scot/designation/LB18565	443074	1150587	0	0	0
Semblister Church, Semblister			Not Significant	http://portal.historicenvironment.scot/designation/LB19901	433819	1150394	15	19	4
Limekiln, Limeworks, Girsta		None	Not Significant	http://portal.historicenvironment.scot/designation/LB47292	443049	1150500	0	0	0
Ervhouse, Huxter			Not Significant	http://portal.historicenvironment.scot/designation/LB47309	439197	1150628	27	29	2
Steading, Ervhouse			Not Significant	http://portal.historicenvironment.scot/designation/LB47309	439202	1150644	27	29	2
Walled Garden, Ervhouse			Not Significant	http://portal.historicenvironment.scot/designation/LB47309	439185	1150576	27	29	2
Piers And Slipway, The Store, Sandsound, Tresta		299	Negligible	http://portal.historicenvironment.scot/designation/LB18693	435352	1148940	0	1	1
Fishhouse, The Store, Sandsound, Tresta		None	Not Significant	http://portal.historicenvironment.scot/designation/LB18698	435363	1148956	0	0	0
Old Kirk, Whiteness			Not Significant	http://portal.historicenvironment.scot/designation/LB18560	439393	1147457	23	26	3
Walled Gardens And Gate Piers, Haa Of Sand With Outbuildings, Shetland		401	Negligible	http://portal.historicenvironment.scot/designation/LB18693	434435	1147118	20	22	2
Cottage, Haa Of Sand		402	Negligible	http://portal.historicenvironment.scot/designation/LB18693	434425	1147102	20	24	4
St Mary's Chapel And Churchyard, Sand			Not Significant	http://portal.historicenvironment.scot/designation/LB18697	434672	1147217	6	9	3
Bod And Slipway, Sand			Not Significant	http://portal.historicenvironment.scot/designation/LB44571	434661	1147227	5	7	2
Beach Cottage Adjacent To Bod And Slipway, Sand			Not Significant	http://portal.historicenvironment.scot/designation/LB44571	434649	1147228	4	5	1
Laxfirth House, Lax Firth		None	Not Significant	http://portal.historicenvironment.scot/designation/LB47293	443645	1147093	0	0	0
Walled Garden And Gatepiers, Laxfirth House, Lax Firth		None	Not Significant	http://portal.historicenvironment.scot/designation/LB47293	443623	1147081	0	0	0
Reawick Congregational Church		None	Not Significant	http://portal.historicenvironment.scot/designation/LB18694	431629	1144817	0	0	0
Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB18695	432901	1144527	33	34	1
Rear Wing, Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB18695	432896	1144524	33	35	2
Centre Farmsteading Range, Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB18695	432907	1144508	33	34	1
North Wing, Centre Farmsteading Range, Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB18695	432902	1144513	33	34	1
South Wing, Centre Farmsteading Range, Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB18695	432909	1144502	33	34	1
South Farmsteading Range, Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB18695	432901	1144482	33	34	1
Outbuilding And Walls, Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB18695	432901	1144482	33	34	1

The Steamer, Easter Skeld		None	Not Significant	http://portal.historicenvironment.scot/designation/LB44569	431193	1144887	C	0	0	0
Bod Of Nesbister, Nesbister Point, Tingwall			Not Significant	http://portal.historicenvironment.scot/designation/LB47294	439474	1144898	C	18	21	3
St Magnus's Church And Churchyard, Tingwall			Not Significant	http://portal.historicenvironment.scot/designation/LB18554	441904	1143754	B	50	58	8
Binna Ness House, Binna Ness			Not Significant	http://portal.historicenvironment.scot/designation/LB18561	437821	1143107	B	18	26	8
Outbuilding, Binna Ness House, Binna Ness			Not Significant	http://portal.historicenvironment.scot/designation/LB18561	437806	1143116	B	22	37	15
Walled Garden, Binna Ness House, Binna Ness			Not Significant	http://portal.historicenvironment.scot/designation/LB18561	437840	1143101	B	20	25	5
Watermill, Reawick House, Reawick			Not Significant	http://portal.historicenvironment.scot/designation/LB44570	432936	1144318	B	33	34	1
Manse, St Magnus's Church, Tingwall			Not Significant	http://portal.historicenvironment.scot/designation/LB47306	441917	1143658	C	50	61	11
Stading, Veensgarth House, Veensgarth			Not Significant	http://portal.historicenvironment.scot/designation/LB47308	442848	1144262	C	53	63	10
Veensgarth House, Veensgarth			Not Significant	http://portal.historicenvironment.scot/designation/LB47311	442833	1144224	C	55	63	8

APPENDIX 11.2: ES 2010 SITE GAZETTEER

Information contained in TA 13.1: Site Gazetteer for the 2010 ES Addendum was seen as relevant to the 2018 EIA and thus was included.

SITE GAZETTEER

SITE GAZETTEER

This gazetteer provides information regarding sites discussed in the Viking Wind Farm ES Addendum. A full copy of the original gazetteer is located in Appendix 13.1 of the 2009 ES.

Site No:	27
Name:	Laxo
Alternative Names:	Knowe Of Brulland
Type of Site:	Cairn
NMRS Number:	HU46SW 4
Grid Reference:	HU 4452 6348
Status:	Scheduled Ancient Monument
Description:	A cairn standing on an outcrop of rock. At the base, where there is an arrangement resembling a kerb of large and widely spaced stones, it is roughly oblong, measuring some 60' north-south by 50' east-west. Its rectangular shape may have been produced by the surrounding patches of cultivation, as the upper part of the mound is almost circular. Its present height is not more than 10'. Several large stones, one of which is set on edge, are exposed on top. RCAHMS 1946. Visited 1930.

Generally as described by RCAHM, except that the centre of the cairn has been removed by quarrying. Surveyed at 1/2500. Visited by OS (RL) 30th May 1968.



APPENDIX A13.1

Laxo

Site No: 83
Name: Hill Of Dale
Type of Site: Chambered Cairn
NMRS Number: HU46NW 3
SMR Number: 544
Status: Scheduled Ancient Monument
Grid Reference: HU 4129 6994
Description: HU 409 699. A heel-shaped cairn rises a few feet above the moorland. The peat nearby is about 4' deep. Partial excavation by RCAHM (RCAHMS 1946), in 1935 revealed the plan and showed that the centre had been disturbed, and removal of stones along the axis down to ground level failed to reveal any structure. There is no entrance through the facade.
Cairn material stretches forward from the facade for as much as 12' giving the cairn a circular appearance and almost hiding the facade walling except for the pillar-stones. This is probably an ancient feature and not due to dilapidation or excavation.
An adze-shaped object of steatite, roughly cut to shape with a metal knife was found among the cairn-stones and is now in the National Museum of Antiquities of Scotland (NMAS). (BG 324) (Henshall 1963; Bryce 1940).

Visited by AOC Archaeology Group 27/09/05. Partially excavated it is visible from some distance as a large pile of rubble survives in roughly circular form approximately 6.5m in diameter. What appears to be the entrance is marked by an orthostat although it is now infilled with rubble. The entrance faces south-east and commands an impressive view across the landscape in that direction

APPENDIX A13.1



Hill Of Dale

Site No:	173
Name:	Graven
Alternative Names:	Meshe O'Stanes
Type of Site:	Chambered Cairn
NMRS Number:	HU47SW 1
Map reference:	HU 4050 7271
Description:	<p>A probable round chambered cairn, known as "Meshie O' Stanes". It is composed of large round boulders and stands about 5' above the moor, but is really much larger as the peat has grown round it to a depth of at least 3'. It is otherwise clear of vegetation. It appears to be circular with a diameter of about 35', without any sign of kerb or walling or of an entrance passage.</p> <p>A little south of the centre is exposed a small rectangular chamber 5 ft. long by 3 ft. 4 ins. maximum width and depth. Below the stone forming the SW angle of the chamber is a space which may be the inner end of a passage Henshall 1963; RCAHMS 1946).</p> <p>A cairn, almost certainly chambered, as described and illustrated by Henshall. Visited by OS (NKB) 26th May 1968.</p>

APPENDIX A13.1



Graven

Site No:	291
Name:	East Burrafirth
Alternative Names:	Zet 57; Hayfield
Type of Site:	Chambered Cairn
NMRS Number:	HU35NE 1
Map reference:	HU 3637 5766
Status:	Scheduled Ancient Monument
Description:	<p>A well-defined turf-covered chambered cairn, 30ft. in diameter and up to 3ft. high lies on a knoll on the hillside, in moorland, but near enclosed pasture, at about 30' OD. The chamber, in the centre, is trefoil-shaped and built of massive walling of which no more than three courses are visible. The entrance passage evidently runs from the SE side, but is ill-defined. Two large displaced slabs lie in the chamber, and one in the entrance (Henshall 1962; Calder 1965). A chambered cairn at HU 3635 5766 generally as described by Henshall. Although the outline is indefinite, the position of 3 stones in a concave arc on the SE side and indicate a heel-shape, although as the centre one is definitely displaced and the most southerly one, though earthfast, probably fortuitous, the evidence is far from conclusive. Surveyed at 1/2500. Visited by OS (AA) 12 June 1968.</p>

APPENDIX A13.1



Hayfield

Site No:	313
Name:	Skeo of Gossaford
Type of Site:	Cairn
NMRS Number:	HU36NW 6
Map reference:	HU 3405 6676
Status:	Scheduled Ancient Monument
Description:	A denuded cairn, extremely dilapidated, for the most part reduced to its foundations. It seems to have been oval in plan, measuring 56' N - S and 52' E - W. No internal structure is traceable. (RCAHMS 1946). The very mutilated remains of a cairn of bare stones spread to 17.0m in diameter and about 0.5m high. No internal features visible; a good prominent site.

APPENDIX A13.1



Skeo of Gossaford

Site No:	319
Name:	Hill Of Burravoe
Type of Site:	Cairns
NMRS Number:	HU36NE 2
Map reference:	HU 3640 6740
Status:	Scheduled Ancient Monument
Description:	<p>Two dilapidated cairns almost impinging on each other. Much of their material has been taken to build an adjoining sheep-fold and they are now mere heaps of debris not more than 3'6" high. In size the stones used in their construction run to 3' 6" x 18" x 12".</p> <p>'A' - has measured about 53' N-S and 60' E-W. At its SE side stands an upright stone, 2' 3" high and 1' 3" by 1'10" across the faces.</p> <p>'B' - has measured about 40' N-S and 44' E-W. No trace of a chamber is visible in either but each seems to have had a built kerb (RCAHMS 1946)</p> <p>Kerbstones can be seen amongst the debris around most of the perimeter of cairn 'B', giving a diameter of 9.7m. No trace of a chamber or cist.</p> <p>Cairn 'A' is a denuded heel-shaped cairn. The up- right stone in the E. is now almost prostrate, another similar stone stands upright in the W. Between the two are three or four stones set on edge,</p>

APPENDIX A13.1

indicating a straight facade 20.5m long. From the facade to the back of the cairn, the latter a broad bank of peat with stones showing through, measures c.12.5m. Kerbstones extend for some distance in a slight curve from each upright before disappearing into the peat bank. There is no sign of a passage, but in the centre of the cairn is a confused jumble of large stones, probably the remains of a chamber whose plan cannot now be determined. Re-surveyed at 1/2500. Visited by OS (AA) 6 June 1968.



Hill of Burravoe

Site No:	327
Name:	Hill Of Crooksetter
Type of Site:	Chambered Cairn
NMRS Number:	HU47NW 1
Map reference:	HU 4175 7589
Status:	Scheduled Ancient Monument
Description:	A heel-shaped chambered cairn, rather ruined and measuring 28' from facade to back and about 35' in greatest width. The facade, facing SE, is about 32' across. The foundation of the wall-face can be traced intermittently round the cairn. An inner wall-face can be traced for a short distance at the back. Across the facade there are the remains of a straight wall-face, best seen towards its west end. It is of smaller stones and is down the

APPENDIX A13.1

slope of the knoll from the facade, perhaps intended to retain a blocking in front of it.

At present there are no definite signs of a chamber, but where the chamber might be expected to lie; there is a modern marker cairn. (Henshall 1963; Calder 1956).

Chambered cairn, as described and illustrated by Henshall, at HU 4185 7585. Visited by OS (NKB) 26th May 1968.



Site No:	328
Name:	Hill Of Crooksetter
Type of Site:	Chambered Cairn
NMRS Number:	HU47NW 2
Map reference:	HU 4209 7561
Status:	Scheduled Ancient Monument
Description:	A heel-shaped chambered cairn about 25 ft. from front to back about 40 ft. across the facade and about 5 ft. high. It appears to be recessed into the slope of the hill and the facade faces the side of the hollow but this recessed hollow may be due largely to differential formation of peat, of considerable depth on the hillside but only slight over the cairn itself. The almost flat facade faces ESE. The back of the cairn is indistinct and the NE corner of the facade is too disturbed to be able to trace it. "A modern marker cairn has been built on top of the centre of the cairn. A number of large stones are partly exposed to the SW of the marker but none

APPENDIX A13.1

can confidently be claimed as part of a passage, chamber or cist." (Henshall 1963). A chambered cairn, as described and illustrated by Henshall, at HU 4209 7561. Visited by OS (NKB) 26th May 1968.



APPENDIX A13.1

Site No:	449
Name:	Sound
Type of Site:	BANK (EARTHWORK)
SMR Number:	5481
Map Reference:	HU 3768 5069
Description:	<p>Hill boundary in the form of a earthen and stone bank which is 1.5m wide and 0.7m high. Two short sections of dry-stone walling exist SE of the boundary which until recently probably acted as sheep shelters; however originally they may have been early field boundaries.</p> <p>This site could not be located during a recent walkover survey of 4 proposed sites for Wind Measurement Masts. Its position is supposedly close to the route as it passes SW of the Weisdale Hill summit. The peat appears to be stable in this area. As it is impractical to put an exclusion zone around a feature which could not be located, there is no viable recommendation to be made. (White 1998; Lynn 2005)</p>
Site No:	450
Name:	Hill of Sound
Type of Site:	CIST (Undated)
SMR Number:	2407
Map Reference:	HU 3780 5053
Description:	<p>Very ruinous, set stones are still visible. There are several lumps of white quartz around it.</p> <p>This site could not be located during a recent walkover survey, despite extensive searching. (Williamson no date; Lynn 2005)</p>
Site No:	451
Name:	Hill of Sound
Type of Site:	CHAMBERED CAIRN (Undated)
SMR Number:	7910
Map Reference:	HU 38000 51400
Description:	<p>The site of a chambered cairn was verbally reported to Val Turner and Chris Dyer by Ian Tait (Curator of Collections, Shetland Museum and Archives) on 29th June 2009. He reported an approximate grid reference. The site lies a short distance to the north of the existing radio station masts.</p>
Site No:	452
Name:	Burn of Weisdale
Type of Site:	STRUCTURE (Prehistoric Uncertain - 500000 BC to 850 AD)

APPENDIX A13.1

SMR Number: 8105
Map Reference: HU 40208 57986
Description: A site visit by V. Turner and C. Dyer (Shetland Amenity Trust Archaeology Section) on 3rd July 2009 identified the site of a likely oval prehistoric house, approximately 250m to the west of the Burn of Weisdale.
The feature measures approximately 10m north-south by 8m east-west and consists of a raised oval platform, surrounded by a number of stones set on edge, with an undulating interior. The short length of vegetation within, and immediate adjacent to, the monument visibly contrasts with the thicker vegetation and dense sward of the peat moorland.
(Dyer 2009)

Site No: 453
Name: Loch of Skellister
Type of Site: CAIRN (Undated); CIST (Undated)
SMR Number: 8109
Map Reference: HU 46460 56530
Description: A site visit by C. Dyer and J. Outram (Shetland Amenity Trust Archaeology Section) on 17th February 2010 identified the site of a cairn or possible cist marginally above the 100m contour, east of Loch of Skellister.
The cairn has approximate dimensions of 1m square and is not marked on the current Ordnance Survey basemap or indeed the OS First Edition. It is sited approximately 300m east of the Loch of Skellister.
The cairn is not located on the summit of the hill east of Loch of Skellister, as one may more conventionally expect a marker cairn to be positioned. Other larger stones are visible in close proximity to this feature although appear to represent glacial erratics below the peat formation, which in places is suffering from serious erosion through the sinuous path of water courses.
(Dyer 2010)

Site No: 454
Name: Weisdale
Type of Site: Sheepfold
SMR Number: N/A
Map Reference: HU 3718 5365
Description: A small semi-circular enclosure marked as a 'sheep buil' is shown at this location on a map of Weisdale dating to 1856.

Site No: 455
Name: Weisdale

APPENDIX A13.1

Type of Site: Sheepfold
SMR Number: N/A
Map Reference: HU 3648 5477
Description: A small semi-circular enclosure marked as a 'sheep bul' is shown at this location on a map of Weisdale dating to 1856.

Site No: 456
Name: Weisdale
Type of Site: Sheepfold
SMR Number: N/A
Map Reference: HU 3659 5491
Description: A small semi-circular enclosure marked as a 'sheep bul or Hoove' is shown at this location on a map of Weisdale dating to 1856.

Site No: 457
Name: Kergord
Type of Site: Road
SMR Number: N/A
Map Reference: HU 3900 5582
Description: The line of a public road. The NGR shown is the centre point. The road ran from Kergord Road in a WNW direction to Lamba Water. It is shown on a map of Weisdale dating to 1856 but is not shown on the later OS first edition maps. Land north of the road is shown to be owned by David D Black Esquire and the land to the south of the road is owned by Mr Hugh Jamieson.

Site No: 458
Name: Weisdale
Type of Site: Sheepfold
SMR Number: N/A
Map Reference: HU 4161 5625
Description: A small semi-circular enclosure marked as a 'sheep bul' is shown at this location on a map of Weisdale dating to 1856.

Site No: 459
Name: Stone of Shalderscord
Type of Site: Boundary Marker
SMR Number: N/A
Map Reference: HU 3884 5771
Description: Labelled as the stone of Shalderscord on a map dating to 1756

APPENDIX 11.3: ES 2010 SETTING ASSESSMENT NOTES

Information contained in TA 13.4: Setting Assessment Notes for the 2010 ES Addendum was seen as relevant to the 2018 EIA and thus was included.

**IMPACT ON
SETTINGS OF
CULTURAL
HERITAGE
FEATURES**

IMPACT ON SETTING OF CULTURAL HERITAGE FEATURES

The information below includes detailed assessment of eight scheduled ancient monuments following on from detailed field assessment undertaken in response to concerns raised by Historic Scotland and as discussed in this ES addendum. A reassessment of impacts on heritage judged to have a significant impact in the 2009 Viking Wind Farm ES has also been undertaken with references to the changes in layout and in light of changes in the method of impact assessment.

Knowe of Brulland Cairn Laxo SAM 2038

See Figure A13.27.1, Site 27

Site Details	
1) Site No. /Name.	27: Laxo
2) Site type	Cairn
3) Site visit conditions	Overcast and clear
4) Orientation & of proposed wind farm site	SSW-WSW (195° -240°)
5) Distance from proposed wind farm	Nearest turbine 1.45 km at 205° (Turbine N96) N95 – 1.65 km; N 93, N97, N99- 2km; N94 2.15 km; N92 2.4 km
6) Designation	Scheduled (SAM 2038)
7) Horizon angle	N- 8.5° S- 5.25° W- 3° E- 0°
Scientific Detail	
8) Monument form	<p>The shape of the monument is somewhat ambiguous; it is circular in plan and appears circular when viewed from the west. It appears straight sided when viewed from the east.</p> <p>Measures roughly 18m N-S by 15m E-W</p> <p>Nothing of the original form of structure of the monument can be discerned from the surface.</p>

APPENDIX A13.4

9) Current Monument Condition	<p>A modern fence runs over the centre of the monument SW-NE with several fence posts on the cairn.</p> <p>The cairn is denuded in the centre and has evidently had a large amount of material removed. The local landowner recalls his father noting that stones from the cairn had been used in the construction of the nearby road.</p> <p>The cairn shows evidence of active erosion by rabbits.</p> <p>It is in near terminal condition and is likely that less than 30% of the monument now survives.</p> <p>Possible that the contents of the chamber are in situ and intact.</p>
10) Relationship and intervisibility with other key sites.	There are no known sites intervisible with this monument.
11) Economic Function	<p>The cairn is located at the head of a voe which in the past, as today is likely to have focused on a fishing/farming economy. Fields west of the cairns show evidence of post-medieval cultivation.</p> <p>The cairn currently has no economic function in the landscape.</p> <p>However, it occupies a prominent and accessible location between two roads and if further research was undertaken could have some economic potential as a tourist attraction.</p>
12) Evidence for technology engineering	Negative evidence indicates probable prior existence of kerb stone at base now robbed out. The break in slope at the west side of the monument which gives it a rectangular shape, is not as suggested by RCAHMS (1946) produced by cultivation and is more likely to be a product of stone robbing.
13) Palaeoenvironment potential	The presence of wetland plants and surrounding low lying ground at head of voe are indicative of good palaeoenvironmental potential.
Historic Detail	
14) Chronology of monument	The condition of the monument precludes any assumptions about the chronology of the monument other than that it is a probable Neolithic cairn.

APPENDIX A13.4

15) Chronology of landscape	<p>Evidence of medieval and early modern settlement to north and east.</p> <p>Drainage of wetland between the knoll and rising ground to west.</p> <p>Large house dominates ground to west.</p> <p>Modern roads located north and south</p> <p>Power lines 100 m distant.</p> <p>The Laxo Burn drains into Laxo Voe along the southern boundary of the cairn passing beneath a modern road bridge and metal pipe c.30 m SW of cairn.</p>
16) Landform Evolution	<p>Laxo Burn drains into sea from WSW through shallow valley.</p> <p>The mouth of the voe displays evidence of landform change in the form of silt and sand bars at edges which are indicative of gradual silting of the voe and shoreline and its very gradual migration SE.</p>
17) Archaeological Study	<p>No evidence of previous archaeological study on this site. Excavation would prove how much of this monument survives and possibly be able to elucidate more about its original form and function.</p>
Social Detail	
18) Nature of original and authentic uses	<p>Probably burial/ritual monument but current condition prevents further assumptions about its original use.</p>
19) Inferred Importance of setting	<p>The cairn is located on a low lying rock outcrop with extensive views ESE across Laxo Voe. The siting of this cairn at the head of the voe is consistent with the location of other cairns across Shetland and is indicative of the importance of the sea to its builders.</p>
20) Inferred Importance of view towards proposed wind farm site	<p>As discussed in (19) the cairn appears to have been sited to overlook Laxo Voe and beyond that to the sea. Views S and SW towards the proposed wind farm overlook low rolling hills and are likely to have been of less significance.</p>
21) Geographical remoteness	<p>The cairn is located between two roads (B9071 and B9075) and is visible from both. It is easily accessed through a gate from the B9071 although the fence across the middle prevents easy movement across the cairn itself.</p>

APPENDIX A13.4

Visual Sensitivity	Low
Impact Magnitude	High
Significance of Impact	Minor

Hill of Dale Chambered Cairn SAM 3564

See Figure A13.27.1, Site 83

Site Details	
1) Site No. /Name.	83: Hill of Dale
2) Site type	Chambered cairn
3) Site visit conditions	Clear, bright, blustery
4) Orientation of proposed wind farm site	305°-25° 155-195°
5) Distance from proposed wind farm	Nearest turbine D9 0.75 km away. D10 – 0.88km, D13- 1 km, D14-1.48km, D15 1.85km
6) Designation	Scheduled (SAM 3564)
7) Horizon angle	0°
Scientific Detail	
8) Monument form	Chambered cairn Heel-shaped cairn
9) Current Monument Condition	Approximately 60% of total monument survives. The cairn is clearly undergoing damage from visitor and the possible entrance in particular show obvious signs of recent disturbance. Active peat erosion is evident throughout the landscape and the cairn appears to be eroding from the peat on its NE side.
10) Relationship and intervisibility with other key sites.	None known
11) Economic Function	Possible original function was as landscape marker

APPENDIX A13.4

	<p>relevant to views from sea and immediate surrounding land.</p> <p>Current status is limited to access from able bodied and fit. Some tourist value and currently suffering some damage from visitors.</p>
12) Evidence for technology engineering	<p>Probable entrance passage in south-east marked by a single upright orthostat. Most of entrance passage and chamber area covered in stone tumble precluding further assumptions about internal architecture.</p> <p>There is no evidence of a facade.</p>
13) Palaeoenvironment potential	Significant palaeoenvironment potential likely although this is gradually being lost to natural forces of erosion.
Historic Detail	
14) Chronology of monument	Neolithic burial monument
15) Chronology of landscape	In every direction except SE the landscape comprises peat covered hills, voes and open sea, the former without obvious intrusion except tensions cables and fence lines; the latter rich in evidence for fish and shell fish farming.
16) Landform Evolution	Hill top peat is actively and severely eroding.
17) Archaeological Study	Limited excavation undertaken in 1940 and revealed some prior disturbance. Further excavation and study of this cairn would reveal the level of disturbance and further details regarding the construction and internal architecture of the cairn.
Social Detail	
18) Nature of original and authentic uses	Neolithic burial monument
19) Inferred Importance of setting	The cairn commands extensive views north-east up Dales Voe and SE continuation of inland glaciated valley.
20) Inferred Importance of view towards proposed wind farm site	Views south and south-east are of greatest significance from the cairn although the cairn cannot be seen at any distance from this direction. Views NW – N in which the nearest turbines are located are dominated by local peat erosion and are likely to have been of less significance for the builders.
21) Geographical remoteness	Cairn is located approximately 0.5 km distant from the road but involves steep climb through eroding peat landscape for access. A public footpath and tile mark the general route to the cairn but the path and associated access track fade out near the summit.

APPENDIX A13.4

Visual Sensitivity	Low
Impact Magnitude	High
Significance of Impact	Minor

Graven Chambered Cairn Site No 173

[See Figure A13.27.4, Site 173](#)

Site Details	
1) Site No. /Name.	173: Graven
2) Site type	Chambered Cairn
3) Site visit conditions	Wet, overcast, variable visibility but mainly clear.
4) Orientation of proposed wind farm site	SW-SE (230° - 120°)
5) Distance from proposed wind farm	Distance to nearest turbine (D1) is 0.6 km. D2- 0.88km, D11-1.55km, D4-2km, D12-1.4km, D16-1.77km
6) Designation	Scheduled (SAM 3524)
7) Horizon angle	5°
Scientific Detail	
8) Monument form	Circular chambered cairn .
9) Current Monument Condition	Denuded but chamber still visible and major architectural features survive. Extensively overgrown by peat on south and south-east side. Slightly more free of peat in west. No evidence of any recent disturbance
10) Relationship and intervisibility with other key sites.	The chambered cairn on Crooksetter Hill (Crooksetter NW SAM3608) is visible on the eastern horizon. It is possible that with good binoculars that the second cairn on Crooksetter Hill (SAM 3576) would also be visible.
11) Economic Function	Whilst it now looks towards an industrial landscape, it probably once looked out onto flat cultivated land at the head of the voe.

APPENDIX A13.4

12) Evidence for technology engineering	<p>The surviving height of the cairn is indicative that primary engineering features still survive</p> <p>Gaps in stone may indicate an entrance in WSW but too ambiguous to be certain.</p> <p>Chamber unroofed and full of rubble but major architectural elements still visible.</p> <p>On the west side of the chamber a large slab aligned N-S is visible.</p> <p>The east side of chamber curves back in a knuckle with in situ stone slabs.</p> <p>Collapse of chamber at north side might indicate that chamber continued to north.</p> <p>Two well set slabs to the south indicate that the entrance was to the north rather than the south.</p> <p>The second hollow to the south appears to be superficial and may have been caused by people trying to locate entrance.</p> <p>Cannot unambiguously identify entrance passage and as such potential for designed in sightline not presently recoverable. Unlikely that entrance would be to south as local horizon is too close.</p>
13) Palaeoenvironment potential	Good, although there has been some heather disturbance. Likely to be significant potential beneath peat.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Modern industrial landscape to north-west featuring Sullom Voe oil terminal, Scatsta airport with frequent landing aircraft and plant hire company. Modern dispersed settlement in wider landscape. Flare off towers at north-west extremity of view. View to south restricted to heather moorland.
16) Landform Evolution	Heather moorland, some broken peat, modern roads, industry and post-medieval cultivation.
17) Archaeological Study	Cairn appears to be relatively intact and has potential for further study.
Social Detail	
18) Nature of original and authentic uses	Ritual burial.

APPENDIX A13.4

19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	Close immediate setting makes it inconceivable that the view towards the wind farm was significant in its original siting.
21) Geographical remoteness	Located approximately 0.5 km from road. Accessed gained by crossing fence and steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Medium
Significance of Impact	Minor

Hayfield Chambered Cairn Site 291.

See Figure A13.27.4, Site 291

Site Details	
1) Site No. /Name.	Hayfield/East Burrafirth: 291
2) Site type	Chambered Cairn
3) Site visit conditions	Clear, bright
4) Orientation of proposed wind farm site	85°-170°
5) Distance from proposed wind farm	K48- 1.55km, K68-1.62km; K71-1.63km, K49-2km, K7-2km, K72-2.07km, K47-2.22km, K55, K66, K67-2.37km
6) Designation	Scheduled (SAM 5722)
7) Horizon angle	5.25°
Scientific Detail	
8) Monument form	Chambered cairn. Difficult to detect original shape, appears to be circular with squared off front – possible D-shape.

APPENDIX A13.4

9) Current Monument Condition	<p>Part turf covered with some visible stones and kerb.</p> <p>Central depression has been excavated and stones rolled in.</p> <p>Interior disturbed, mound has c.30 rabbit holes and is serving as a rabbit warren. At highest point the cairn is 1.5m above the knoll but on average c.1m above knoll.</p> <p>Upper part of monument thus in very poor condition but possible that lower chambers may be intact.</p>
10) Relationship and intervisibility with other key sites.	<p>No obvious visual connection.</p> <p>Location within basin results in restricted visual envelope.</p>
11) Economic Function	Overlooks area of relatively flat cultivated land at head of voe.
12) Evidence for technology engineering	<p>Evidence of a central chamber with two side chambers</p> <p>Arguable facade detectable</p>
13) Palaeoenvironment potential	Rabbit disturbance will have removed much of potential.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	<p>Abandoned long houses and post-medieval settlement, improved pasture, head-dyke, earlier peat cutting and cultivation evidence.</p> <p>Modern buildings and power lines.</p> <p>The post-medieval to modern land-use demonstrates depth and complexity of surrounding landscape.</p>
16) Landform Evolution	<p>The natural landform of low rounded knolls has been exploited. Lots of knolls of similar size.</p> <p>Peat is actively eroding into the sea.</p>
17) Archaeological Study	Further study would help to determine how much of the cairn survives and to understand orientation of monument.
Social Detail	
18) Nature of original and authentic uses	Ritual burial.
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn. However, its location below the highest point of the knoll is indicative that elevation of the cairn and thus its visibility over a large distance was not the prime reason for its siting. The cairn was not intended to be visually

APPENDIX A13.4

	<p>dominant in landscape, it is not on the skyline and thus prominent only very locally, indeed the cairn is hidden from view from north-west.</p> <p>The natural dip in the knoll appears to have been used to accentuate prominence when viewed from the south-east.</p>
20) Inferred Importance of view towards proposed wind farm site	The available evidence suggests that the entrance to the cairn is in the south-east. The entrance faces towards the wind farm on the assumption that the entrance to the south-east. Thus there is potential that it was aligned for the mid-summer solstice and possibility that a designed in sight line would be interrupted.
21) Geographical remoteness	The cairn is located in close proximity to the road and accessed via a short walk through pasture. The cairn is clearly visible on approach.
Visual Sensitivity	Low
Impact Magnitude	High
Significance of Impact	Minor

Skeo of Gossaford Cairn: Site 313

[See Figure A13.27.5, Site 313](#)

Site Details	
1) Site No. /Name.	313: Skeo of Gossaford
2) Site type	Multiple-cist cairn
3) Site visit conditions	Wet, overcast, variable visibility but mainly clear.
4) Orientation of proposed wind farm site	ENE
5) Distance from proposed wind farm	Distance to nearest turbine (D32) is over 4km.
6) Designation	Scheduled (SAM 3483)
7) Horizon angle	5°

APPENDIX A13.4

Scientific Detail	
8) Monument form	Multi cist cairn. Number of individual cists is unclear.
9) Current Monument Condition	Poor condition with significant disturbance.
10) Relationship and intervisibility with other key sites.	The remains of the chambered cairn and associated prehistoric remains at Burravoe are theoretically visible. However the remains are difficult to locate at this distance owing to their poor condition and the fact that they are located below the skyline. Other possible contemporary remains are located on hills to north around Bays Water and are indicative of prehistoric settlement in this area.
11) Economic Function	Located in open moorland above economically productive voes and lower cultivated slopes which it overlooks
12) Evidence for technology engineering	No evidence for large stones that would be typical of chambered cairn, most stones are small to medium in size. Most stones are less than 20cm in diameter and they would not be big enough to achieve corbelling. The diameter of the cairn is larger than most chambered cairn and is indicative that this is a multiple cist cairn. The monument has no apparent preferred axis.
13) Palaeoenvironment potential	Likely to be low owing to significant disturbance of cairn.
Historic Detail	
14) Chronology of monument	Possible Neolithic chambered cairn with later Bronze Age additions.
15) Chronology of landscape	Open heather moorland above cultivated areas. Evidence for prehistoric settlement to north, post-medieval and modern settlement on lower slopes to east including head dyke and improved pasture.
16) Landform Evolution	Heather moorland summit of hill above voe, some broken peat
17) Archaeological Study	The heavy disturbance and amount of missing evidence means it is unlikely that significant further information would be gained.

APPENDIX A13.4

Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairns but as the monument has no apparent preferred orientation this view is no more or less significant than others..
21) Geographical remoteness	Located approximately 0.5 km from road. Accessed gained by crossing fence and steep climb over heather and peat moorland.
Visual Sensitivity	Low
Impact Magnitude	Low
Significance of Impact	Negligible

Hill of Burravoe Site 319

[See Figure A13.27.6, Site 319](#)

Site Details	
1) Site No. /Name.	319: Hill of Burravoe
2) Site type	Multiple-cist cairn
3) Site visit conditions	Wet, overcast, variable visibility but mainly clear.
4) Orientation of proposed wind farm site	ENE-SE

APPENDIX A13.4

5) Distance from proposed wind farm	Nearest turbine (D32) is located at a distance of 1.55 km. D29 and D33-2.07km, D30 2.22km and D27, 2.37km
6) Designation	Scheduled (SAM 3469)
7) Horizon angle	6°
Scientific Detail	
8) Monument form	Heel-shaped chambered cairn Circular cairn which survives as a jumble of stone remains
9) Current Monument Condition	Very poor, both monuments are close to terminal state.
10) Relationship and intervisibility with other key sites.	Area surrounding cairns especially to south is rich in prehistoric remains of probable Bronze Age date. The cairns predate these remains by 1-2000 years but there close association is evidence of continuity of settlement over a significant period. The cairn at Skeo of Gossaford would theoretically have been visible if built to substantial height. However its current low height and location on a convex slope prevent real intervisibility.
11) Economic Function	Located in improved pasture above economically productive voes and lower cultivated slopes which it overlooks. The landscape which attracted cairn builders evidently continued to attract settlement into a much later period and continues in use as pasture. The cairns are accessed by a well marked path with easy access between fields through gates. There is a potential for taking advantage of on this good access by providing interpretation of the cairns and surrounding prehistoric features.
12) Evidence for technology engineering	The basic footprints of the monuments are probably still recoverable with some confidence. The circular cairn is very small and does not appear to have held a chamber. Possibility that it is a Bronze Age burial cairn or round house manufactured from a Neolithic cairn. Little of the three-dimensional structure of either monument survives
13) Palaeoenvironment potential	Extent of disturbance and removal will have led to minimal palaeoenvironmental potential.
Historic Detail	
14) Chronology of monument	Neolithic heel-shaped chambered cairn. It is possible that the circular monument is not a cairn but a roundhouse constructed with stones robbed from the chambered cairn like the example at Baharpa Carinish where an iron Age house

APPENDIX A13.4

	was built into a chambered cairn. The extensive surrounding evidence for later settlement in the vicinity of this cairn would tie in with the premise that the round cairn constitutes a later addition to the monument.
15) Chronology of landscape	Open heather moorland above cultivated areas. The cairn and prehistoric evidence are located towards the head boundary of a voe head settlement and have been preserved. The core of the earlier settlement is likely to be located beneath the modern settlement of Brae.
16) Landform Evolution	Heather moorland summit of hill above voe, some broken peat
17) Archaeological Study	The heavy disturbance and amount of missing evidence means it is unlikely that significant further information would be gained.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairns but as the monument has no apparent preferred orientation this view is no more or less significant than others..
21) Geographical remoteness	Located approximately 0.5 km from road. Accessed gained via a well marked path with easy access between fields through gate
Visual Sensitivity	Low
Impact Magnitude	High
Significance of Impact	Minor

Hill of Crooksetter SE: Site 327

[See Figure A13.27.6, Site 327](#)

Site Details	
1) Site No. /Name.	327: Hill of Crooksetter
2) Site type	Chambered cairn

APPENDIX A13.4

3) Site visit conditions	Overcast, variable visibility but mainly clear.
4) Orientation of proposed wind farm site	S
5) Distance from proposed wind farm	Distance to nearest turbine (D1) is 3.7km.
6) Designation	Scheduled (SAM 3576)
7) Horizon angle	5°
Scientific Detail	
8) Monument form	Chambered cairn
9) Current Monument Condition	Significant disturbance in centre. Walkers' cairn on top.
10) Relationship and intervisibility with other key sites.	Hill of Crooksetter NW clearly visible. Theoretically possible to see Graven but its low height and location below the skyline prevents intervisibility across current landscape.
11) Economic Function	Overlooks more fertile ground below, with sea and Sullom Voe which in the past as now would have provided a major access route to the islands.
12) Evidence for technology engineering	Too occluded to infer much about engineering, no indication of entrance passage or internal architecture.
13) Palaeoenvironment potential	Likely to be good survival beneath the peat.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn with exception of small walkers cairn no subsequent encroachments
15) Chronology of landscape	Open heather moorland with Neolithic chambered cairns above cultivated areas. Modern Sullom Voe monument, with WWII remains visible on southern horizon. Modern Sullom Voe terminal with pier, four communication masts.
16) Landform Evolution	Peat moorland with peat erosion and quartz outcrops. The cairn sits in a topographical hollow and the cairn has prevented peat build up.

APPENDIX A13.4

17) Archaeological Study	Excavation and research would allow extent of survival of monument below surface to be determined and may provide evidence regarding architecture, engineering, use and function.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which has been heightened in relatively recent times by the addition of a modern walker's cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn but will not interrupt views towards Crooksetter NW. The views from the cairn are most extensive to south and west overlooking Sullom Voe, the views towards the wind farm are significantly less extensive and thus of less importance.
21) Geographical remoteness	Located approximately 1.5 km from road. Accessed gained by crossing several fences, a burn, an area of bog and steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

Hill of Crooksetter NW: Site 328

See Figure A 13.27.7, Site 328

Site Details	
1) Site No. /Name.	328: Hill of Crooksetter
2) Site type	Chambered cairn
3) Site visit conditions	Overcast, variable visibility but mainly clear.
4) Orientation of proposed wind farm site	S
5) Distance from proposed wind farm	Distance to nearest turbine (D1) is 3.8 km.
6) Designation	Scheduled (SAM 3608)

APPENDIX A13.4

7) Horizon angle	N 5° S 1.25° E 0° W 1°
Scientific Detail	
8) Monument form	Chambered cairn Heel-shaped with heel to north.
9) Current Monument Condition	Façade well preserved Significant disturbance to centre. Walker's cairn on top. It is possible that the internal stones of the walker's cairn cover the uprights of a chamber. Some erosion of peat around cairn.
10) Relationship and intervisibility with other key sites.	Hill of Crooksetter SE clearly visible. Theoretically possible to see Graven but its low height and location below the skyline prevents intervisibility across current landscape.
11) Economic Function	Overlooks more fertile ground below, with sea and Sullom Voe which in the past as now would have provided a major access route to the islands.
12) Evidence for technology engineering	External façade is approximately 60% visible Internal facing 50% visible with some stones of the chamber discernable. External north kerb identifiable Internal kerb revetment also identifiable
13) Palaeoenvironment potential	Likely to be good survival beneath the peat.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn with large walker's cairn. No other subsequent encroachments
15) Chronology of landscape	Open heather moorland with Neolithic chambered cairns above cultivated areas. Modern Sullom Voe monument, with WWII remains visible on southern horizon.

APPENDIX A13.4

	Modern Sullom Voe terminal with pier, four communication masts.
16) Landform Evolution	Peat moorland with peat erosion and quartz outcrops. The cairn sits in a topographical hollow and the cairn has prevented peat build up.
17) Archaeological Study	Excavation and research would allow extent of survival of monument below surface to be determined and may provide further evidence regarding architecture, engineering, use and function.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which has been heightened in relatively recent times by the addition of a modern walker's cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn and will be visible in views towards Crooksetter SE although not in direct line of sight. The views from the cairn are most extensive to south and west overlooking Sullom Voe, the views towards the wind farm are significantly less extensive and thus of less importance.
21) Geographical remoteness	Located approximately 1.5 km from road. Accessed gained by crossing several fences, a burn, an area of bog and steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

REASSESSMENT OF MONUMENTS

See Figure A13.27.2, Site 107

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Site Details	
1) Site No. /Name.	107: Stanyl Cuml
2) Site type	Cairn
3) Site visit conditions	Overcast, damp

APPENDIX A13.4

4) Orientation of proposed wind farm site	NW-SW
5) Distance from proposed wind farm	Distance to nearest turbine (N149) is c.3.5 km.
6) Designation	Scheduled (SAM 3587)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Cairn Turf covered mound
9) Current Monument Condition	Very little of the original construction remains rendering a detailed description difficult. Its location and perimeter are ill defined as a result of stone removal
10) Relationship and intervisibility with other key sites.	None known
11) Economic Function	Overlooks more fertile ground below, with sea and Dury Voe which in the past as now would have provided a major access route to the islands.
12) Evidence for technology engineering	Little evidence for original technology and engineering remains
13) Palaeoenvironment potential	Likely to be good moderate beneath the peat.
Historic Detail	
14) Chronology of monument	Prehistoric burial cairn. No other subsequent encroachments
15) Chronology of landscape	Open heather moorland with cairns above cultivated areas. Few modern intrusions in views towards coast Burnt mounds and prehistoric settlement evidence along coast at Billister and Housabister.
16) Landform Evolution	Peat moorland with some peat erosion. The cairn sits above the break of slope below the summit of the East Hill of Bellister.
17) Archaeological Study	Excavation and research would allow extent of survival of monument below surface to be determined and may provide further evidence regarding architecture,

APPENDIX A13.4

	engineering, use and function.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which has probably been reduced and precludes assumptions as to how far it was visible across the landscape. However given its location it is unlikely to have been visible across the landscape from more than 200 m distant.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn and although they will be partially restricted by the intervening landform, the cairn does command an extensive view of the Nesting quadrant. The views from the cairn are most extensive to north and east overlooking Dury Voe.
21) Geographical remoteness	Located approximately 1.4 km from road. Accessed gained by steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.3, Site 140](#)

Site Details	
1) Site No. /Name.	140: Loch of Freester
2) Site type	Chambered cairn
3) Site visit conditions	Overcast, damp
4) Orientation of proposed wind farm site	NW
5) Distance from proposed wind farm	Distance to nearest turbine (N115) is 2.5 km.
6) Designation	Scheduled (SAM 3595)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn Heel-shaped

APPENDIX A13.4

9) Current Monument Condition	Concave façade traceable on south side but east tip is missing. Possible internal wall-face Significant disturbance to centre and edges.
10) Relationship and intervisibility with other key sites.	None known
11) Economic Function	Located on low lying relatively flat and fertile ground below. Overlooking Cat Firth which in the past as now would have provided a major access route to the islands.
12) Evidence for technology engineering	External façade and possible internal facade visible.
13) Palaeoenvironment potential	Likely to be good survival beneath the peat.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn. No other subsequent encroachments
15) Chronology of landscape	Semi-improved pasture Neolithic Homestead at Vassa Voe and Broch at Rallsborough. Modern settlement at Freester and Quoys of Catfirth
16) Landform Evolution	Loch Freester drains into sea from ENE through shallow valley.
17) Archaeological Study	Excavation and research would allow extent of survival of monument below surface to be determined and may provide further evidence regarding architecture, engineering, use and function.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	The cairn is located on a low lying land with extensive views WSW across Cat Firth. The siting of this cairn at the head of the voe is consistent with the location of other cairns across Shetland and is indicative of the importance of the sea to its builders.
20) Inferred Importance of view	As discussed in (19) the cairn appears to have been sited to

APPENDIX A13.4

towards proposed wind farm site	overlook Cat Firth and beyond that to the sea. Views N and NW towards the proposed wind farm overlook low rolling hills and are likely to have been of less significance.
21) Geographical remoteness	Located approximately 100 m from road. Easily accessed
Visual Sensitivity	Moderate
Impact Magnitude	Medium (the removal of turbines N133, N134, N135 and N136) have reduced the magnitude of impact on this monument.
Significance of Impact	Minor

[See Figure A13.27.3, Site 141](#)

Site Details	
1) Site No. /Name.	141: Hard Knowe
2) Site type	Cairn
3) Site visit conditions	Overcast, damp
4) Orientation of proposed wind farm site	NW
5) Distance from proposed wind farm	Distance to nearest turbine (N115) is 3.2 km.
6) Designation	Scheduled (SAM 3598)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Circular cairn
9) Current Monument Condition	Significant disturbance. Later plantiecrub has disturbed cairn. Surrounded by later field enclosure
10) Relationship and intervisibility with other key sites.	None known
11) Economic Function	Located on low lying relatively flat and fertile ground below. Overlooking Cat Firth which in the past as now would have provided a major access route to the islands.
12) Evidence for technology	External flat façade visible.

APPENDIX A13.4

engineering	Not possible to determine if chambered
13) Palaeoenvironment potential	Likely to be good survival beneath the peat.
Historic Detail	
14) Chronology of monument	Prehistoric cairn possible Neolithic chambered cairn. Later enclosure/field wall encroaching on monument.
15) Chronology of landscape	Semi-improved pasture Neolithic Homestead at Vassa Voe and Broch at Rallsborough. Modern settlement at Freester and Quoys of Catfirth
16) Landform Evolution	Cairn sited on low local knoll. Loch Freester drains into sea from ENE through shallow valley.
17) Archaeological Study	Excavation and research would allow extent of survival of monument below surface to be determined and may provide further evidence regarding architecture, engineering, use and function.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	The cairn is located on a low lying land with extensive views WSW across Cat Firth. The siting of this cairn at the head of the voe is consistent with the location of other cairns across Shetland and is indicative of the importance of the sea to its builders.
20) Inferred Importance of view towards proposed wind farm site	As discussed in (19) the cairn appears to have been sited on a local knoll to overlook Cat Firth and beyond that to the sea. Views N and NW towards the proposed wind farm overlook low rolling hills and are likely to have been of less significance.
21) Geographical remoteness	Located approximately 50 m from road. Easily accessed
Visual Sensitivity	Low (Poor condition and immediate setting dominated by later enclosure)
Impact Magnitude	Medium (the removal of turbines N133, N134, N135 and N136) have reduced the magnitude of impact on this monument.
Significance of Impact	Minor

See Figure A13.27.3, Site 145

APPENDIX A13.4

Site Details	
1) Site No. /Name.	Gillaburn: 145
2) Site type	Chambered Cairn
3) Site visit conditions	Overcast
4) Orientation of proposed wind farm site	NW-NE
5) Distance from proposed wind farm	Nearest turbine (K76) c 4 km distant
6) Designation	Scheduled (SAM 5727)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn. Heel-shaped.
9) Current Monument Condition	Part turf covered with some visible stones of facade and kerb. Possible central chamber
10) Relationship and intervisibility with other key sites.	No obvious visual connection.
11) Economic Function	Overlooks settlement of Cuckron and Loch of Strom.
12) Evidence for technology engineering	Most of the stones of the façade remain. Four earth fast stones in centre may indicate a chamber or cist
13) Palaeoenvironment potential	Much of cairn buried beneath peat and turf and potential high
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Post-medieval settlement, improved pasture, earlier peat cutting and cultivation evidence. Modern buildings and powerlines. The post-medieval to modern land-use demonstrates depth and complexity of surrounding landscape.
16) Landform Evolution	Occupies slope above Loch of Strom.

APPENDIX A13.4

17) Archaeological Study	Further study would help to determine how much of the cairn survives and to understand orientation of monument.
Social Detail	
18) Nature of original and authentic uses	Ritual burial.
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn. However, its location below the highest point of the hill is indicative that elevation of the cairn and thus its visibility over a large distance was not the prime reason for its siting. The cairn was not intended to be visually dominant in landscape, it is not on the skyline and thus prominent only very locally, indeed the cairn is hidden from view from south and west.
20) Inferred Importance of view towards proposed wind farm site	Majority of view towards wind farm is blocked by intervening landform and as such views towards the windfarm are unlikely to be of great significance and views towards Loch of Strom are more extensive and arguably of greater importance.
21) Geographical remoteness	The cairn is located approximately 500 m from the road and accessed via a steep climb through moorland
Visual Sensitivity	Low
Impact Magnitude	Low
Significance of Impact	Negligible

Site Details	
1) Site No. /Name.	301
2) Site type	Bekka Hill
3) Site visit conditions	Dry, overcast.
4) Orientation of proposed wind farm site	N
5) Distance from proposed wind farm	Distance to nearest turbine (K77) is 4.5km.
6) Designation	Scheduled (SAM)
7) Horizon angle	-
Scientific Detail	

APPENDIX A13.4

8) Monument form	Chambered cairn Hell-shaped
9) Current Monument Condition	Poor condition with significant disturbance. Façade traceable and kerb evident at front. Not possible to trace a passage
10) Relationship and intervisibility with other key sites.	Other possible contemporary remains are located on hills to north around Bixter Voe, and Lung Ness and are indicative of prehistoric settlement in this area.
11) Economic Function	Located in open moorland above economically productive voes and lower cultivated slopes which it overlooks
12) Evidence for technology engineering	Evidence for façade and kerb Two large earth fast slabs in centre possibly part of a chamber.
13) Palaeoenvironment potential	Likely to be low owing to significant disturbance of cairn.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland above cultivated areas. Evidence for prehistoric settlement to north, post-medieval and modern settlement on lower slopes to south.
16) Landform Evolution	Heather moorland below summit of hill above voe, some broken peat
17) Archaeological Study	The heavy disturbance and amount of missing evidence means it is unlikely that significant further information would be gained.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairns but this view is no more or less significant than others..
21) Geographical remoteness	Located approximately 0.5 km from road. Accessed

APPENDIX A13.4

	gained by steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.4, Site 306](#)

Site Details	
1) Site No. /Name.	306
2) Site type	Turdale Water
3) Site visit conditions	Dry, overcast.
4) Orientation of proposed wind farm site	NE
5) Distance from proposed wind farm	Distance to nearest turbine (K66) is 5.5km.
6) Designation	Scheduled (SAM)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn Heel-shaped
9) Current Monument Condition	Poor condition with significant disturbance. Façade and revetment traceable. Edges are poorly defines and merge into adjacent landform
10) Relationship and intervisibility with other key sites.	Other possible contemporary remains are located on hills to north-west Groni Field, and are indicative of prehistoric and later settlement in this area.
11) Economic Function	Located in open moorland above economically productive voes and lower cultivated slopes which it overlooks
12) Evidence for technology engineering	Evidence for façade and revetment
13) Palaeoenvironment potential	Disturbance of cairn will have removed some potential but

APPENDIX A13.4

	some will remain buried beneath the peat.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland above cultivated areas. Evidence for prehistoric monuments to north, post-medieval and modern settlement on lower slopes to east and west.
16) Landform Evolution	Heather moorland below summit of hill above voe, some broken peat
17) Archaeological Study	Excavation and research would allow extent of survival of monument below surface to be determined and may provide further evidence regarding architecture, engineering, use and function.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn but views south over Effirth Voe are arguably more significant.
21) Geographical remoteness	Located approximately 0.2 km from road. Accessed gained by steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.5, Site 307](#)

Site Details	
1) Site No. /Name.	307 Groni Field (Note this is also site 382 in the ES)
2) Site type	Chambered cairn
3) Site visit conditions	Dry, overcast.
4) Orientation of proposed wind farm site	NE
5) Distance from proposed wind farm	Distance to nearest turbine (K66) is 6km.

APPENDIX A13.4

6) Designation	Scheduled (SAM)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn
9) Current Monument Condition	Poor condition with significant disturbance – little of the original plan survives intact The outline of the cairn is indefinite and only a few kerb stones are visible
10) Relationship and intervisibility with other key sites.	Other possible contemporary remains are located on hills to south (Turdale Water), and are indicative of prehistoric and later settlement in this area.
11) Economic Function	Located in open moorland above economically productive voes and lower cultivated slopes which it overlooks
12) Evidence for technology engineering	Little evidence for original plan or engineering due to disturbance
13) Palaeoenvironment potential	Disturbance of cairn will have removed some potential but some will remain buried beneath the peat.
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland above cultivated areas. Evidence for alter settlement and field walls eroding from peat adjacent to cairn. Prehistoric monuments to south, post-medieval and modern settlement on lower slopes to south
16) Landform Evolution	Heather moorland below summit of hill above voe, some broken peat
17) Archaeological Study	Excavation and research would allow extent of survival of monument below surface to be determined and may provide further evidence regarding architecture, engineering, use and function.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of	It is not possible to determine the original height of the

APPENDIX A13.4

setting	cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn which commands extensive views over the landscape in all directions.
21) Geographical remoteness	Located approximately 1.25 km from road. Accessed gained by steep climb over heather and peat moorland.
Visual Sensitivity	Low
Impact Magnitude	Low
Significance of Impact	Negligible

[See Figure A13.27.5, Site 309](#)

Site Details	
1) Site No. /Name.	309
2) Site type	Gravlab
3) Site visit conditions	Dry, overcast
4) Orientation of proposed wind farm site	NE
5) Distance from proposed wind farm	Distance to nearest turbine (K67) is 4.1km.
6) Designation	Scheduled (SAM)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Standing Stones
9) Current Monument Condition	Moderate condition one stone is still standing but the other has fallen
10) Relationship and intervisibility with other key sites.	Other possible contemporary remains are located adjacent and possibly an associated settlement. Theoretically intervisible with cairns to the north of Loch of Vaara.
11) Economic Function	Located in open moorland on the summit of a low know surrounded by low rolling hills in use as rough pasture

APPENDIX A13.4

12) Evidence for technology engineering	Both stones were originally packed at base
13) Palaeoenvironment potential	Limited but possibly some information below stones
Historic Detail	
14) Chronology of monument	Prehistoric standing stones
15) Chronology of landscape	Open rolling heather moorland above cultivated areas. Prehistoric monuments to north, post-medieval and modern settlement on lower slopes to east
16) Landform Evolution	Heather moorland on summit of a local knoll hill above similar sized low rolling hills
17) Archaeological Study	Excavation and research of surrounding settlement would provide context for these monuments.
Social Detail	
18) Nature of original and authentic uses	Ritual
19) Inferred Importance of setting	Located at the summit of knoll the setting of these stones is likely to have been important for the siting of these stones.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the stones which command extensive views over the landscape in all directions.
21) Geographical remoteness	Located approximately 0.5 km from road. Accessed gained by steep climb over heather and peat moorland.
Visual Sensitivity	High
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.6, Site 321](#)

Site Details	
1) Site No. /Name.	321: Ladie Hill
2) Site type	Cairn
3) Site visit conditions	Dry, overcast,
4) Orientation of proposed wind farm site	NE-SE

APPENDIX A13.4

5) Distance from proposed wind farm	Nearest turbine (D29) is located at a distance of 1.6 km.
6) Designation	Scheduled
7) Horizon angle	-
Scientific Detail	
8) Monument form	Possible cairn
9) Current Monument Condition	Poor, the monument has been reduced to its foundations. It is not possible to tell if this is a cairn or the remains of an occupation site
10) Relationship and intervisibility with other key sites.	Area surrounding cairns especially to south is rich in prehistoric remains of probable Bronze Age date. The cairn potentially predates these remains by 1-2000 years but there close association is evidence of continuity of settlement over a significant period. The current low height and location on a convex slope prevent real intervisibility.
11) Economic Function	Located in improved pasture above economically productive voes and lower cultivated slopes which it overlooks. The landscape which attracted cairn builders evidently continued to attract settlement into a much later period and continues in use as pasture.
12) Evidence for technology engineering	The basic footprints of the monuments are probably still recoverable with some confidence. The possible oval cairn is very small and does not appear to have held a chamber. Little of the three-dimensional structure of either monument survives
13) Palaeoenvironment potential	Extent of disturbance and removal will have led to minimal palaeoenvironmental potential.
Historic Detail	
14) Chronology of monument	Possible prehistoric cairn. It is possible that the circular monument is not a cairn but the remains of settlement. The extensive surrounding evidence for later settlement in the vicinity of this cairn would tie in with the premise that the round cairn constitutes a later addition to the monument.
15) Chronology of landscape	Open heather moorland above cultivated areas. The cairn and prehistoric evidence are located towards the head

APPENDIX A13.4

	boundary of a voe head settlement and have been preserved. The core of the earlier settlement is likely to be located beneath the modern settlement of Brae.
16) Landform Evolution	Heather moorland summit of hill above voe, some broken peat
17) Archaeological Study	The heavy disturbance and amount of missing evidence means it is unlikely that significant further information would be gained.
Social Detail	
18) Nature of original and authentic uses	Burial cairn/ settlement
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn but as the monument has no apparent preferred orientation this view is no more or less significant than others..
21) Geographical remoteness	Located approximately 0.3 km from road. Accessed gained by climb over moorland.
Visual Sensitivity	Low
Impact Magnitude	High
Significance of Impact	Minor

Site Details	
1) Site No. /Name.	368
2) Site type	Mangaster
3) Site visit conditions	Sunny, clear, good visibility
4) Orientation of proposed wind farm site	E-SE
5) Distance from proposed wind farm	Distance to nearest turbine (D18) is 6km.
6) Designation	Scheduled (SAM)
7) Horizon angle	-

APPENDIX A13.4

Scientific Detail	
8) Monument form	Chambered cairn Heel-shaped
9) Current Monument Condition	Poor condition with significant disturbance. Almost entirely buried beneath peat with only a few stones protruding.
10) Relationship and intervisibility with other key sites.	Other possible contemporary remains are located on hills to north around Mangaster and are indicative of prehistoric settlement in this area.
11) Economic Function	Located in open moorland above economically productive Mangaster Vow with fish farm
12) Evidence for technology engineering	Protruding stones indicate the plan of the cairn but no further information can be gained
13) Palaeoenvironment potential	Likely to be moderate –high depending on level of survival of cairn beneath peat
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland above voe Evidence for prehistoric settlement to north, modern fish framing to south
16) Landform Evolution	Heather moorland below summit of hill above voe.
17) Archaeological Study	The amount of missing evidence means it is unlikely that significant further information would be gained although some information could be buried beneath peat.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn but as this view is no more or less significant than others..
21) Geographical remoteness	Located approximately 0.5 km from road. Accessed

APPENDIX A13.4

	gained by steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.7](#)

Site Details	
1) Site No. /Name.	376
2) Site type	Ness of Noonsbrough
3) Site visit conditions	Sunny clear
4) Orientation of proposed wind farm site	NE-SE
5) Distance from proposed wind farm	Distance to nearest turbine (K48) is 9.1km.
6) Designation	Scheduled (SAM)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn Heel-shaped
9) Current Monument Condition	Poor condition surmounted by a modern dry-stone watch-tower which obscures the chamber.
10) Relationship and intervisibility with other key sites.	Other prehistoric remains are located on Ness of Noonsbrough.
11) Economic Function	Located in open moorland above economically productive voes which it overlooks
12) Evidence for technology engineering	Evidence for kerb Chamber obscured by watchtower.
13) Palaeoenvironment potential	Moderate –likely to be part of cairn buried beneath peat
Historic Detail	

APPENDIX A13.4

14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland above voe. Evidence for prehistoric settlement to south-east.
16) Landform Evolution	Heather moorland below summit of hill above voe,
17) Archaeological Study	Further excavation around the watchtower could reveal evidence for chamber and engineering
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairns but as this view is no more or less significant than others.
21) Geographical remoteness	Located approximately 1 km from road. Accessed gained by steep climb over heather and peat moorland.
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.8, Site 383](#)

Site Details	
1) Site No. /Name.	383
2) Site type	Merki Burn
3) Site visit conditions	Sunny clear
4) Orientation of proposed wind farm site	NE-E
5) Distance from proposed wind farm	Distance to nearest turbine (K66) is 8.75 km.
6) Designation	Scheduled (SAM)
7) Horizon angle	-
Scientific Detail	

APPENDIX A13.4

8) Monument form	Cairn Possibly chambered
9) Current Monument Condition	Moderate condition – much of the monument is obscured by peat growth but the occasional kerb stone can be seen. Possible chamber in centre obscured by tumble
10) Relationship and intervisibility with other key sites.	Chambered cairn at Ernes Ward, cairn at Sand Water and cairn at groin Field. West Mainland is rich in evidence for prehistoric ritual and settlement remains some of which are intervisible.
11) Economic Function	Located in open rolling rough grazing moorland. Relatively low lying and close to access road
12) Evidence for technology engineering	Evidence for kerb Chamber obscured by tumble.
13) Palaeoenvironment potential	High – large proportion of the cairn appears to be buried beneath peat
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland. Evidence for prehistoric settlement in all directions.
16) Landform Evolution	Heather moorland 20 m contour above road and small lochs,
17) Archaeological Study	Further excavation of tumble could reveal evidence for chamber and engineering and determine the survival of the monument currently buried beneath the peat.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairns but at a considerable distance this view is no more or less significant than others.
21) Geographical remoteness	Located approximately 100 m from road. Easily accessed via short climb over moorland
Visual Sensitivity	Moderate

APPENDIX A13.4

Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.8, Site 386](#)

Site Details	
1) Site No. /Name.	386
2) Site type	Ernes Ward
3) Site visit conditions	Sunny clear
4) Orientation of proposed wind farm site	NE-E
5) Distance from proposed wind farm	Distance to nearest turbine (K66) is 8.7 km.
6) Designation	Scheduled (SAM 6731)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn
9) Current Monument Condition	Relatively poor condition – evidence of significant disturbance and removal of stones. Traces of kerb and possible entrance in SE Possible chamber and passage obscured by tumble
10) Relationship and intervisibility with other key sites.	Chambered cairn At Merki Burn to north, cairn at Sand Water and cairn at Groin Field. West Mainland is rich in evidence for prehistoric ritual and settlement remains some of which are intervisible.
11) Economic Function	Located in open rolling rough grazing moorland. Relatively low lying and close to access road
12) Evidence for technology engineering	Evidence for kerb and possible entrance in SE Chamber and passage obscured by tumble.
13) Palaeoenvironment potential	Moderate – some of cairn has been removed but likely that some of the cairn is buried beneath peat
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland. Evidence for prehistoric

APPENDIX A13.4

	settlement in all directions.
16) Landform Evolution	Heather moorland 40 m contour above road and small lochs.
17) Archaeological Study	Further excavation of tumble could reveal evidence for passage and chamber and engineering and determine the survival of the monument currently buried beneath the peat.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairns but at a considerable distance this view is no more or less significant than others.
21) Geographical remoteness	Located approximately 100 m from road. Easily accessed via short climb over moorland
Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.9 Site 388A-C](#)

Site Details	
1) Site No. /Name.	388
2) Site type	Stanydale
3) Site visit conditions	Sunny clear
4) Orientation of proposed wind farm site	NE-E
5) Distance from proposed wind farm	Distance to nearest turbine (K77) is 8.8 km.
6) Designation	Scheduled (SAM 2029)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn

APPENDIX A13.4

9) Current Monument Condition	Poor condition – evidence of significant disturbance to all three cairns. Centre of HU25SE 21 appears to be intact and setting of stones visible on north arc. The two other cairns show evidence for significant disturbance.
10) Relationship and intervisibility with other key sites.	Chambered cairn at Ward of Browland is visible. Broch burnt mounds and settlement remains visible at Browland. This part of the West Mainland is very rich in evidence for prehistoric ritual and settlement remains some of which are intervisible.
11) Economic Function	Located in open rolling rough grazing moorland. Relatively low lying and close to access road
12) Evidence for technology engineering	Evidence for kerb and possible entrance in SE Chamber and passage obscured by tumble.
13) Palaeoenvironment potential	Moderate – some of cairn has been removed but likely that some of the cairn is buried beneath peat
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland. Evidence for prehistoric settlement in all directions.
16) Landform Evolution	Heather moorland 80 m contour above road and small settlements with Voe of Browland and Scutta Voe beyond.
17) Archaeological Study	Excavation of HU25SE 21 is likely to reveal evidence for passage and chamber and engineering.
Social Detail	
18) Nature of original and authentic uses	Burial cairns
19) Inferred Importance of setting	It is not possible to determine the original height of these cairns which precludes assumptions as to how far they were visible across the landscape although their location on the top of a local knoll is indicative that they were intended to command extensive views across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairns but at a considerable distance this view is no more or less significant than others.
21) Geographical remoteness	Located approximately 200 m from road. Easily accessed via short climb over moorland

APPENDIX A13.4

Visual Sensitivity	Moderate
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.10, Site 421](#)

Site Details	
1) Site No. /Name.	421
2) Site type	Wormadale Hill
3) Site visit conditions	Clear, sunny
4) Orientation of proposed wind farm site	N
5) Distance from proposed wind farm	Distance to nearest turbine (K76) is 6.4km.
6) Designation	Scheduled (SAM 2048)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Standing Stone
9) Current Monument Condition	Moderate condition stone is still standing but leaning towards SW
10) Relationship and intervisibility with other key sites.	No specific relationship known but theoretically visible with Nesbister Hill Cairn evidence for prehistoric settlement along Whiteness Voe in the form of burnt mounds and brochs.
11) Economic Function	Located in open moorland below summit of hill surrounded by low rolling hills in use as rough pasture
12) Evidence for technology engineering	None
13) Palaeoenvironment potential	Limited but possibly some information below stones
Historic Detail	
14) Chronology of monument	Prehistoric standing stone.
15) Chronology of landscape	Open rolling heather moorland above cultivated areas with productive voes below

APPENDIX A13.4

16) Landform Evolution	Heather moorland on summit of a local knoll below the summit of Wormadale Hill
17) Archaeological Study	Excavation unlikely to provide significant further information
Social Detail	
18) Nature of original and authentic uses	Ritual
19) Inferred Importance of setting	Located at the summit of knoll but below the summit of a larger hill the setting of the stones is important but location below highest accessible local ground suggests the setting is relatively intimate and local and not intended to be viewed over long distances. Views over Whiteness Voe arguably of greater significance.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the stone although local landform will restrict some views.
21) Geographical remoteness	Located approximately 400 m from road. Accessed gained through short climb through pasture.
Visual Sensitivity	High
Impact Magnitude	Low
Significance of Impact	Minor

[See Figure A13.27.10, Site 428](#)

Site Details	
1) Site No. /Name.	428
2) Site type	Nesbister Hill
3) Site visit conditions	Sunny clear
4) Orientation of proposed wind farm site	N
5) Distance from proposed wind farm	Distance to nearest turbine (K76) is 7.4 km.
6) Designation	Scheduled (SAM 2041)
7) Horizon angle	-
Scientific Detail	
8) Monument form	Chambered cairn

APPENDIX A13.4

9) Current Monument Condition	Good – a cist formed by four slabs is set at the centre with the coverstone partially within the cist. External façade shows evidence for two or three courses.
10) Relationship and intervisibility with other key sites.	Standing Stone at Wormaldale Hill theoretically visible. Evidence for prehistoric settlement along Whiteness Voe in the form of burnt mounds and brochs.
11) Economic Function	Located on summit of a hill in rough grazing land overlooking Whiteness Voe and Wormaldale. Tingwall airstrip located to east.
12) Evidence for technology engineering	Evidence for a cist formed by four slabs is set at the centre with the coverstone partially within the cist. External façade shows evidence for two or three courses
13) Palaeoenvironment potential	High – condition of cairn is generally good and likely to preserve palaeoenvironmental evidence
Historic Detail	
14) Chronology of monument	Neolithic chambered cairn
15) Chronology of landscape	Open heather moorland. Evidence for prehistoric settlement in all directions.
16) Landform Evolution	Heather moorland summit of Nesbister Hill on 130 m contour above road and small settlements with Whiteness Voe to south-west.
17) Archaeological Study	Excavation is likely to reveal evidence for passage and chamber and engineering.
Social Detail	
18) Nature of original and authentic uses	Burial cairn
19) Inferred Importance of setting	It is not possible to determine the original height of the cairn which precludes assumptions as to how far it was visible across the landscape although the location on the top of Nesbister Hill is indicative that it was intended to command extensive views across the landscape.
20) Inferred Importance of view towards proposed wind farm site	The wind farm will feature in part of the wider views from the cairn but at a considerable distance this view is no more or less significant than others.
21) Geographical remoteness	Located approximately 250 m from road. Accessed via a short but steep climb over moorland
Visual Sensitivity	High

APPENDIX A13.4

Impact Magnitude	Low
Significance of Impact	Minor

APPENDIX 11.4: ES 2010 ARCHAEOLOGICAL MANAGEMENT PLAN

Information contained in TA 13.5: Archaeological Management Plan for the 2010 ES Addendum was seen as relevant to the 2018 EIA and thus was included.

APPENDIX A13.5

ARCHAEOLOGICAL MANAGEMENT PLAN

APPENDIX A13.5

ARCHAEOLOGICAL MANAGEMENT PLAN

1. INTRODUCTION

1.1 Planning Background

- 1.1.1 This document provides an archaeological management plan designed to ensure the appropriate protection and investigation of archaeological remains in advance of and during construction works. These works have been designed in consultation with and to satisfy the anticipated requirements of the local planning authority as advised by the Shetland Regional Archaeologist have been designed to fully accord with the principles inherent in PAN 42 and SPP 2010. The site is being developed by Viking Energy Partnership.

1.2 Archaeological Background

- 1.2.1 The *Viking Wind Farm Environmental Statement* (May 2009 & *ES Addendum* May 2010, Chapter 13 – Cultural Heritage) sets out the archaeological background of the Viking Wind Farm site and its immediate environs.
- 1.2.2 The area proposed for the Viking Wind Farm contains a total of 99 known sites within the application area boundary. These comprise diverse remains including prehistoric cairns, settlements and a field system, medieval and post-medieval settlement and associated agricultural structures, as well as WWII structures. A total of eight sites lie within the vicinity (100 m) of the proposed footprint of the development. These are the remains of an agricultural and industrial landscape associated with the Catfirth Linen Industry (Site 448); World War II remains (Sites 9 and 10); two marker stones/cairns (Site 341 and 349); a possible prehistoric mound (Site 445), a possible prehistoric settlement (Site 447) and a cist (Site 450). As a result of the soil studies that were carried out for the EIA the ES demonstrated that a significant proportion of the site is covered by peat and there is therefore the potential for discovering hitherto unknown archaeological remains.

2. OBJECTIVES

- 2.1 The objectives of the archaeological works are:
- i) to safeguard the archaeological resource from any inadvertent adverse physical impact deriving from the ground-breaking works associated with the construction phase of the wind farm development;
 - ii) to determine the character, extent and quality of any archaeologically significant remains in the parts of the proposed development area where ground disturbance will occur;

APPENDIX A13.5

- iii) in the event that significant archaeological deposits are discovered and that preservation *in situ* proves unfeasible, to prepare a mitigation strategy compliant with PAN 42 and SPP 2010 and the necessary works undertaken.

3. PROGRAMME OF WORKS

3.1 Works Summary

- 3.1.1 The necessary archaeological works will consist of seven components and will take the form of a phased approach:

- Archaeological Clerk of Works supported by additional professional archaeologists as required, both field staff and specialists.
- Walkover Survey to inform micro-siting in sensitive areas
- Demarcation of Archaeologically Sensitive Areas
- Geophysical Survey
- Archaeological Trial Trenching/Area excavation as determined by the results of earlier stages
- Archaeological Watching Brief as determined by the results of earlier stages
- Archive Deposition

3.2 Archaeological Clerk of Works.

- 3.2.1 An Archaeological Clerk of Works will be employed to oversee the archaeological programme of works and will be responsible, on behalf of the developer, for the successful implementation of the Archaeological Management Plan. The Archaeological Clerk of Works will be a professional archaeologist with experience of archaeology in the north of Scotland. The creation of this role reflects the need to co-ordinate a range of archaeological works in a large and complex construction site and to ensure that the developer meets its obligations to minimise impacts on the archaeological resource.
- 3.2.2 The Archaeological Clerk of Works will be employed by Viking Energy Partnership and will be responsible for the full implementation of the archaeological programme of works as outlined in this Archaeological Management Plan. The Archaeological Clerk of Works will prepare a detailed Written Scheme of Investigation (WSI) and supplementary archaeological method statements, as necessary, in addition to this archaeological management plan and will ensure that any necessary approvals are obtained.
- 3.2.3 The Archaeological Clerk of Works will monitor construction works in line with the procedure set out in this document and ensure that all necessary archaeological records are made. The Archaeological Clerk of Works will maintain records, documenting the progress of the archaeological works.
- 3.2.4 The Archaeological Clerk of Works will liaise with all relevant bodies and individuals, including Viking Energy Partnership, the main site contractor, sub-contractors, the Shetland Regional Archaeologist, Historic Scotland and the Planning Authority. The Archaeological Clerk of Works will identify items in the archaeological works where

APPENDIX A13.5

formal consents, authorisation or permission is required from others (e.g. Viking Energy partnership, Shetland Regional Archaeologist, Historic Scotland, Planning Authority).

- 3.2.5 The Archaeological Clerk of Works will identify situations where the archaeological resource is at risk and action is required to avoid or limit damage. The Archaeological Clerk of Works will ensure that appropriate action is taken and any decisions are fully documented and that the Regional Archaeologist is kept fully informed at all times.
- 3.2.6 Prior to the commencement of groundbreaking works the Archaeological Clerk of Works will produce a document that provides brief and clear written guidelines for the use of all construction contractors, outlining the need to avoid unnecessary damage to known archaeological sites. This will include descriptions of the sites in close proximity to groundbreaking works and a plan showing the location of these features. The document will be used to inform the Site Working Area Plan issued to all construction contractors.
- 3.2.7 The written guidelines will contain details of arrangements for calling upon professional archaeological support in the event that buried archaeological remains of potential archaeological interest (such as building remains, human remains, artefacts, etc) are discovered in areas not subject to archaeological monitoring. The guidance will also make clear the legal responsibilities placed upon those who disturb artefacts or human remains.
- 3.2.8 Following the completion of the walkover survey and using results of engineering surveys of gradient, The Archaeological Clerk of Works will draw up detailed maps of archaeological potential for areas of floating roads taking into account gradients, water courses, height AOD and proximity of known archaeological remains.

3.3 Walkover survey

- 3.3.1 A programme of walkover surveys will be undertaken once the site has been laid out. The walkover survey will be undertaken by the Archaeological Clerk of Works with at least one qualified archaeologist assisting. Due to the nature of the terrain, the walkover survey will be conducted in transects which are never more than 20m apart, and will be at closer intervals wherever either weather or the topography (e.g.: peat hags) reduce visibility. Every effort will be made by the developer to avoid archaeological sites. This may lead to redirection of cable trenches and access roads in order to ensure that any ground disturbance lies at least 20 m from archaeological remains.
- 3.3.2 Should the walkover survey encounter possible archaeological remains it may be necessary to carry out further works. These works would be specified in an addendum to this management plan.

3.4 Demarcation of Archaeologically Sensitive Areas

- 3.4.1 The Archaeological Clerk of Works will ensure that all areas of known archaeological significance which lie 20m or less from the development are robustly fenced off in order to safeguard them from accidental disturbance or damage. This also applies to archaeological sites at a greater distance but which might lie on a route favoured by plant or vulnerable to be used as hardstanding for plant/huts etc. Affected sites will be identified by the Archaeological Clerk of Works in consultation with Viking Energy

APPENDIX A13.5

Partnership and agreed with the Shetland Regional Archaeologist. As the exact positions of the various elements of the construction may be subject to alteration during the course of works, it is not possible to provide detailed plans of proposed fence locations prior to construction works. At present it is anticipated that fencing will apply to the following Site Nos: 9, 10, 13, 19, 20, 21, 341, 347, 349, 445, 448, 449, 447, 450 and 453.

- 3.4.2 The extent of the buffer zone around these features will be 20 m. The Archaeological Clerk of Works shall be present to supervise the fencing works. All fences shall be clearly visible from a minimum of 50m in normal visibility.
- 3.4.3 The barrier will take the form of high visibility orange mesh fencing mounted on wooden posts firmly anchored into the ground. The integrity of the barrier will be monitored by the Archaeological Clerk of Works. Any damage to a fence will be repaired or the fence replaced. The barrier will be removed on the conclusion of construction works.

3.5 Geophysical Survey

- 3.5.1 The purpose of the geophysical survey is to maximise the amount of information known about the archaeology as rapidly and cost effectively as possible. The results will be used, together with the walkover survey information and desk based assessment, in order to inform what work is required subsequently.
- 3.5.2 Ground Penetrating Radar (GPR) provides the most effective non destructive method of sub-surface peatland survey in areas where the peat depth is between 1.5 and 4m. The efficacy of GPR in the detection of buried archaeological remains has been demonstrated (Clarke et al 1999) but ideal conditions for GPR are frequently absent in Shetland due to peat hags, erosion and slope. In areas of very wet deposits or degraded peat this technique is not likely to be appropriate.
- 3.5.3 Magnetometry measures localised variations in the earth's magnetic field caused by features in the top metre or two of the ground. The technique is especially suited to locating ditches, pits, midden deposits, pottery, ferrous debris, hearths and ovens and burnt material. It is particularly suited for use in areas where peat depth is less than 1m.
- 3.5.4 Geoarchaeological coring can be used in peat. The effectiveness of coring as a means of detecting the presence or absence of archaeological remains has been the subject of some study (see Verhagen & Tol 2004) but its effectiveness as a prospection technique in areas of low artefact densities remains unclear.
- 3.5.5 The programme of geophysical survey will be carried out to the following specifications:
- 3.5.6 All turbine bases, borrow pits, construction laydown areas, substations, met mast locations, etc will be subject to 100% GPR (if this is inappropriate alternative strategies e.g.: magnetometer survey or coring may be applied in agreement with the Regional Archaeologist).
- 3.5.7 In areas of tracks where the peat depths are 1m or less and where the tracks will be cut into the peat and not floating, magnetometry will be carried out along the line of the tracks.

APPENDIX A13.5

- 3.5.8 In areas where peat depth is in excess of 1m, the tracks will be ‘floated’ on the surface of the peat. This will not involve cutting into the peat but there may be some compression or spreading of peat caused by the loading on the track. There is no evidence that compression of peat caused by floating tracks would damage archaeological deposits within or buried beneath the peat. As the peat will essentially remain undisturbed beneath the tracks the investigation of the presence/absence of archaeological remains by trial trenching would be unsuitable and would potentially destroy remains. It is proposed, however, that an experimental reconnaissance coring programme is undertaken along some of the lengths of track in an attempt to advance our knowledge of the effectiveness of archaeological coring as a means of detecting the presence or absence of archaeological remains within and beneath peat.
- 3.5.8 Floating tracks located within areas of high potential as defined by the Archaeological Clerk of Works (see 3.2.8) will be cored on a triangular grid along the length of the track. Up to 20% of the total length of the track, up to a maximum of 1500 cores, will be investigated using this method, focussing on areas of high archaeological potential. The coring strategy will be reviewed as part of the process of testing the effectiveness of this methodology and the total amount of coring may amount to significantly less than a 20% sample of the track length. The completion of this coring programme will create a dataset which could be used as a case study for future assessment of the effectiveness of archaeological coring for detecting the presence or absence of archaeological remains within and beneath peat.
- 3.5.9 Six pollen cores (two from each quadrant) will be removed prior to the commencement of development and their potential to inform us about past environments will be assessed by palynologists as part of the community heritage project (see Appendix A13.6, 5.2.2).
- 3.5.10 The locations of all cores taken and of the geophysical survey will be accurately plotted using differential/realtime GPS or EDM survey.
- 3.5.11 Upon completion of the survey, the data obtained will be presented visually, in report form, and be accompanied by a written description of the survey and an interpretation of the results. This will indicate the likely nature of the features giving rise to anomalies and an estimate of the reliability of the results, as far as is possible. The following will be provided as a minimum: a) raw data should be plotted in greyscale, b) geophysical anomalies should be identified as to the type of anomaly and plotted without archaeological interpretation, c) anomalies should be interpreted, and d) confidence percentages or intervals should be provided for types of interpretation or anomaly with respect to substrate (e.g. we are 95% confident that this type of anomaly on this type of substrate is this type of feature). The survey report will follow the current specifications of English Heritage (2008, 9-10) as a minimum.
- 3.5.12 The cores will be inspected and recorded on site by an archaeologist who has experience of the process and the ability to recognise pedogenic features. It is likely that there will be more than one team of two working on this in the field simultaneously. The sediment retrieved during the coring will be examined in the field and the presence of any archaeological material (e.g. pottery and flint) and archaeological indicators (e.g. charcoal and burnt loam) will be recorded. The colour and texture and any other pedogenic features of the natural sediments will also be recorded. All auger holes will be backfilled and will not be visible on the ground; neither will the back-filled auger holes present a danger to livestock.

APPENDIX A13.5

- 3.5.13 The supervisor for the commissioned archaeological contractor, who will be an archaeological geophysicist with relevant experience of working in peatlands, will maintain a daily site log for the geophysical works; this should record date, daily start and completion time, weather and daily progress, and personnel present on site. These logs shall be collated and issued to the Archaeological Clerk of Works and the Shetland Regional Archaeologist at weekly intervals, with a progress report on the work undertaken and a forecast of the activities of the following week. The Archaeological Clerk of Works will convey the results of these reports to the developer as appropriate.
- 3.5.14 A report will be produced detailing all aspects of the geophysical survey. The report will take the form of a Data Structure Report, prepared in accordance with current standard Historic Scotland procedural requirements. Copies of the report will be provided to the client (Viking Energy Partnership), Historic Scotland and the Regional Archaeologist at Shetland Amenity Trust as soon as possible, but within no more than 3 months.
- 3.5.15 The results of all the geophysical work will be collated together with the results of the walkover survey, any subsequent field observations, and the desk based assessment in order to update maps of archaeological potential and determine what level of further archaeological work is necessary. This might comprise trial trenching, area excavation or watching briefs. It is also possible that areas might be deemed probably to be archaeologically sterile at this point, in which case development will be able to proceed without further intervention, other than the requirement to follow the protocols which will be prepared by the Archaeological Clerk of Works for unexpected discoveries. The Archaeological Clerk of Works will ensure that every plant operator on site is aware of these through the induction process and will be responsible for ensuring that they are adhered to.
- 3.5.16 The resultant report, which will be prepared by the Archaeological Clerk of Works, will take the form of written recommendations for consideration by the Regional Archaeologist. Any detailed mapping to accompany this should be at an appropriate scale and general maps should be no smaller than 1:1000. The report will also include details of any micro-siting whether for archaeological or other reasons. The report does not have to deal with the entire development at once, but can deal with each quadrant or indeed defined areas within quadrants individually, in order to progress development.

3.6 General Principles for Archaeological Investigation Methodology

3.6.1 *Archaeological Watching Brief*

Following the results of the geophysical works, a revised report of archaeological potential will be produced. This will include recommendations on which areas should be targeted for archaeological watching brief during development. The report will be produced in consultation with, and for the approval of, the Shetland Regional Archaeologist and Viking Energy Partnership. The purpose of an archaeological watching brief is to ensure that any buried features disturbed by ground-breaking works can be identified and recorded as appropriate. A schedule for site attendance will be agreed between Viking Energy Partnership, and the Archaeological Clerk of Works in accordance with the project programme. This will be approved by the Regional Archaeologist.

APPENDIX A13.5

- 3.6.2 Where a watching brief is required, excavation until natural subsoil or the formation level is reached will be subject to constant monitoring. Within each area where a watching brief is required, monitoring of ground-breaking will be maintained until natural subsoil or the formation level is reached, whichever occurs first.
- 3.6.3 Where small discoveries (those requiring less than two hours to excavate and record) are encountered, and preservation *in situ* proves unfeasible, these will be excavated and recorded in accordance with IfA standard practice.
- 3.6.4 Where larger / more significant discoveries are made (those requiring more than two hours to excavate and record and again where preservation *in situ* proves unfeasible) the archaeological contractor will immediately inform the Shetland Regional Archaeologist and Viking Energy Partnership. The Archaeological Clerk of Works will describe the features, itemise the costs and propose a mitigation strategy for their excavation. Once Viking Energy Partnership and the Shetland Regional Archaeologist agree to these works, they shall be set out in an addendum to the *Written Scheme of Investigation*, and the arrangements confirmed by fax or email. All excavation works will be undertaken in accordance with the procedures as summarised above.
- 3.6.5 The Archaeological Clerk of Works will maintain a daily site log for the watching brief, which records personnel present on site, date, daily start and completion time, weather and daily progress.
- 3.6.6 The final results of the watching brief will be presented to the Shetland Regional Archaeologist in the form of a written report post-construction. This report will synthesise the results of the watching brief and determine the significance and extent of any archaeological features identified. This report will be presented before the conditions pertaining to it will be discharged.
- 3.6.7 The report will take the form of a Data Structure Report, prepared in accordance with current standard Historic Scotland procedural requirements and IfA standard procedures. Specifically the Data Structure Report will include the following:
- i) a full descriptive text detailing the features identified and an interpretation of their date and purpose;
 - ii) plans and elevations at an appropriate scale showing watching brief areas and features located;
 - i) appropriate lists and diagrams summarising the contexts and artefacts recovered and the records made of them;
 - ii) analysis of the results of the works, including any appropriate post-excavation appraisals.
- 3.6.8 Limited examination of artefacts will have been undertaken as an element of the report. However, should significant artefacts and samples be recovered there may be the need for further post-excavation assessment or analyses. The need for, and scale of, such works would be determined by the Shetland Regional Archaeologist.
- 3.6.9 The results of the watching brief will also be reported using the OASIS digital reporting facility. In addition a Summary Report on the works and its findings will be submitted to *Discovery and Excavation Scotland*.

APPENDIX A13.5

- 3.6.10 Further work including any further reporting, post excavation, archiving of primary record and finds disposal will follow the protocols below.

3.7 Test Pits/Area Excavation/Machine Excavation

- 3.7.1 The location, spacing and dimensions of all excavation will be dependent on the results of previous archaeological work, taking into account the topography, geology and known/potential archaeology of the site.
- 3.7.2 The excavations will be located in relation to the National Grid using differential/real time GPS or EDM. Sections and spot heights will be related to the level of the Ordnance Datum, unless it has been agreed with the Regional Archaeologist that this is unnecessary. If required, the level can also be related to the client's site datum, if they provide the necessary information.
- 3.7.3 All machining will be undertaken by plant of an appropriate size, using a toothless bucket. This will usually involve tracked excavator equipped with a toothless ditching bucket of maximum width 2.0m down to the first significant archaeological horizon or to natural subsoil. Trenches will be expanded around significant archaeology to assist in determining its lateral extent. Deep trenches will be laterally stepped or subject to gradual batter where access for archaeological inspection is required. All machine excavation will be supervised by an experienced field archaeologist with a demonstrable good working knowledge of Archaeology in the north of Scotland.
- 3.7.4 For area excavation, appropriate surveys (e.g. geophysical, earthwork, contour) and sampling strategies (e.g. for topsoil artefact densities, metal detecting, phosphate analysis) will be undertaken prior to the stripping of any area excavation.
- 3.7.5 After the uppermost significant archaeological horizon has been exposed, the Archaeological Clerk of Works will decide upon the best manner in which to excavate ensuing archaeological horizons. This will usually be by hand, with cleaning, inspection and recording in plan and in section.
- 3.7.6 If the objective is to define archaeological remains, it may not be necessary to excavate all trenches to natural subsoils or bedrock. However, an assessment of the full depth of archaeological deposits across the site will be made.
- 3.7.7 If the remains are to be left in situ, then the minimum excavation necessary to determine their significance will be carried out.
- 3.7.8 The areas selected will be excavated in stratigraphic units and/or measured spits if appropriate e.g.: in deep peat, which will be allocated individual numbers. A written record (both factual and interpretative) of these will be compiled on pro forma sheets and in site notebooks.
- 3.7.9 All significant archaeological features will be cleaned and fully defined. As many features as are necessary to determine the character, function, condition, nature and date of the full suite of features present will be investigated. The advice of the Regional

APPENDIX A13.5

Archaeologist will be sought concerning the importance of the remains and, together with Viking Energy, a strategy devised as to whether the site is to be fully excavated or avoided by micro-siting.

3.7.10 After the cleaning and planning of any archaeological features, the sampling strategy will be finalised. This will take into account the type, quality and quantity of remains revealed. The sampling strategy will normally seek to maintain at least the following levels;

- i)* all structures and all zones of specialised activity (e.g. funerary, ceremonial, industrial, agricultural processing) will be fully excavated and all relationships recorded;
- ii)* ditches and gullies will have all relationships defined, investigated and recorded. All terminals will be excavated. Sufficient lengths of the feature will be excavated to determine the character of the feature over its entire course; the possibility of re-cuts of parts of the feature, and not the whole, will be considered. The sample size will be determined by the length and nature of the archaeology in agreement with the Regional Archaeologist.
- iii)* Artefact assemblages will be recovered (wherever possible) to assist in dating the stratigraphic sequence and for obtaining ample ceramic groups for comparison with other sites;
- iv)* all pits, as a minimum, will be half-sectioned. Usually at least 50% (by number) of the pits will be fully excavated. Decisions as to which pits will be fully excavated will be taken in the light of information gained in the half-sectioning taking into consideration, amongst other things; pit function, artefact content and location and in discussion with the Regional Archaeologist;
- v)* for post and stake holes where they are clearly not forming part of a structure (see above) 100% (by number) will be half-sectioned ensuring that all relationships are investigated. Where deemed necessary, e.g.: due to artefact content or where the size is less than 12cm, a number may demand full excavation;
- vi)* for types of feature such as working hollows, quarry pits, etc the basic requirement will be that all relationships are ascertained. Further investigation will be a matter of on-site judgement, in conjunction with the Regional Archaeologist but will seek to establish as a minimum their extent, date and function;
- vii)* for layers which do not form part of a structure, an on-site decision will be made as to the limits of their excavation which will be informed by discussion with the Regional Archaeologist. The factors governing the judgement will include the possibility that they mask earlier remains, the need to understand function and depositional processes, and the necessity to recover sufficient artefacts to date the deposit and to meet the project aims.
- viii)* Palaeoenvironmental sampling (as appropriate) will comprise three main categories of sample: Routine Soil Samples (500 gm sample - soil chemistry), Bulk Samples (30 litre sample - macroplant, dating, faunal & micro-artefactual) and Purposive or Special Samples (e.g. kubiena tins - soil micro-morphology, monolith tins - pollen, etc).

APPENDIX A13.5

- All on-site recording will be undertaken in accordance with the standards and requirements of the Old Scatness Excavation Manual (2007)/Museum of London Archaeology Service Field Manual 3rd Edition (1994).
 - i) Written descriptions, comprising both factual data and interpretative elements, will be recorded on standardised sheets.
 - ii) The site grid will be accurately tied into the National Grid.
 - iii) Plans will normally be drawn at a scale of 1:20. Sections of features will be drawn at 1:10. All sections will be accurately related to Ordnance Datum.
 - iv) A 'Harris' matrix of the stratigraphic units will be compiled on pro forma sheets and in site notebooks.
 - v) A full colour print and digital photographic record will be maintained. The photographs will illustrate details, principal features, generalised contexts and working shots of the fieldwork.
- 3.7.11 All excavation trenches will be recorded whether any archaeological remains are found or not. A photographic record will be made. Scale drawings will be created if appropriate
- 3.7.12 Artefacts will be recovered and recorded by stratigraphic unit and/or spit, quantified, identified and, where appropriate, scanned for dating evidence. They will be bagged and packed by artefact class and stratigraphic unit and/or spit in a manner that accords with the United Kingdom Institute for Conservation (Archaeology Section's) First Aid for Finds.
- 3.7.13 All archaeological finds are potentially Treasure Trove and will be reported to the Scottish Treasure Trove Unit and the Queen's and Lord Treasurer's Remembrancer.
- 3.7.14 Any valuable artefacts (such as precious metal) will be removed to a safe place. If it is not possible to remove the item on the day of discovery, appropriate security measures will be taken to prevent theft or damage.
- 3.7.15 Any finds of human remains will be left in situ, covered and protected. It is a legal requirement to inform the local police of such a discovery. If it is necessary to remove the human remains, this will be done with police approval, with the knowledge of the Regional Archaeologist, and in accordance with Historic Scotland's Operational Policy Paper 5 'The Treatment of Human Remains in Archaeology'.
- 3.7.16 The works will be initially reported in a Data Structure Report, in accordance with the standards of IfA and Historic Scotland's guidelines. Further post-excavation work and possibly publication will be assessed and costed in conjunction with the Regional Archaeologist, the client and, if appropriate, Historic Scotland.
- 3.7.17 Trial trenches in areas of significant archaeological findings will be backfilled under archaeological supervision, otherwise archaeological supervision of the backfilling is not necessary. Where specialist reinstatement is required this will be supervised by an appropriate specialist (ecologist, engineer).
- 3.7.18 The Archaeological Clerk of Works will maintain a daily site log for the trial trenching work; this should record date, daily start and completion time, weather and daily progress, and personnel present on site. These logs shall be collated and issued to Viking Energy partnership and the Shetland Regional Archaeologist at weekly intervals, with a

APPENDIX A13.5

progress report on the work undertaken and a forecast of the activities of the following week.

- 3.7.19 Any significant variation in the project design, including timetables, proposed after the agreement of the proposals must be acceptable to the local authority's archaeological representative.
- 3.7.20 A report will be produced detailing all aspects of any excavation. The report will take the form of a Data Structure Report, prepared in accordance with current standard Historic Scotland procedural requirements. Copies of the report will be provided to the client (Viking Energy Partnership), Historic Scotland and the Shetland Regional Archaeologist within no more than 3 months of the completion of work. A DSR will be required before the condition for excavation can be discharged.
- 3.7.21 Should the evaluation identify significant archaeological deposits, features or artefacts there may be requirement for further works including excavation, post-excavation (which would include assessment and analysis of the artefact and ecofact assemblages, as well as conservation) and publication. A costed *Post-excavation Research Design* would be prepared in these circumstances. The need for, and scale of, such works would be determined in discussion with the Shetland Regional Archaeologist. It may be appropriate for such post-excavation analysis to be delayed until further fieldwork (watching brief, evaluation or excavation) has taken place.
- 3.7.22 The results of evaluation will be also be reported using the OASIS and ASPIRE digital reporting protocols. In addition a Summary Report on the works and its findings will be submitted to *Discovery and Excavation Scotland*.
- 3.7.23 Copies of all reports will be supplied to the client (Viking Energy Partnership), the Regional Archaeologist, Shetland Amenity Trust and Historic Scotland.
- 3.7.24 Following the submission of the evaluation results, the Planning Authority may require:
 - i) the implementation of further archaeological works (further evaluation, watching brief or excavation) to record archaeological remains threatened by the development;
 - ii) post-excavation analysis and reporting, of either the evaluation results (see above), or the results of further archaeological works.
- 3.7.25 Following completion of each stage or the full extent of the fieldwork (as appropriate) the site archive will be prepared in the format agreed with the receiving institution.
- 3.7.26 Any significant variation in the project design, including timetables, proposed after the agreement of the proposals must be acceptable to the local authority's archaeological representative.
- 3.7.27 The results of the project, if of sufficient merit will be published in an appropriate journal or monograph. The suitable level of publication will be dependent on the significance of the project results, but as a minimum the basic requirements outlined in Project Design, Implementation and Archiving, Historic Scotland Archaeological Procedure Paper 2, 1996, will be met.

APPENDIX A13.5

3.8 Archive Deposition

- 3.8.1 The archive from these works will be prepared for deposition in the NMRS within 6 months of the completion of all fieldwork.
- 3.8.2 The disposal of small finds will be conducted in accordance with Scottish legal requirements and according to the standard procedure.

4. OPERATIONAL FACTORS

4.1 Timetable

- 4.1.1 The Shetland Regional Archaeologist will be given at least 15 working days notice prior to the beginning of archaeological works.

4.2 Monitoring

- 4.2.1 The Shetland Regional Archaeologist will be kept informed of the timetable and progress of the archaeological works and will be immediately informed of any significant discoveries. The Shetland Regional Archaeologist will be afforded reasonable access to the site. Whenever possible this will be immediate, although it is recognised that safety and logistics might dictate a delay of up to 24 hours. It is recognised that speedy access and good communication will facilitate efficient working and timely resolution of archaeological issues.

APPENDIX 11.5: ACOW ROLES AND RESPONSIBILITIES

Viking Wind Farm: Archaeological Clerk of Works Roles and Responsibilities

Viking Energy Partnership will appoint an independent Archaeological Clerk of Works (ACoW). The ACoW will work with Viking Energy Partnership and the *Contractor* to ensure compliance with best practice and with all archaeological mitigation and monitoring requirements as detailed within the ES, relevant planning conditions and any approved Archaeological Written Scheme of Investigation.

The ACoW will be employed by Viking Energy Partnership prior to commencement of construction until all ground stripping and excavation works are complete. Viking Energy Partnership also propose to employ the ACoW during civil ground investigations to ensure no adverse impacts arise during these works.

The ACoW will be a member of / qualified to a minimum of ACIfA level.

The main roles of the ACoW are identified as follows:

Pre-site works & on-going coordination tasks

- Provide consultancy services to Viking Energy Partnership ahead of commencement of any site works. This may involve:
 - A review of archaeological survey information presented in the ES and Addendum ES to determine whether any new sites have been recorded or previously identified sites are no longer applicable in relation to the consented 103 turbine layout.
 - Provision of archaeological constraints maps and specifications for protection measures to protect any archaeological interests during construction.
 - Preparation of an Archaeological Written Scheme of Investigation (WSI) and Neolithic Heart of Shetland Heritage Strategy in consultation with Shetland Island's Council Regional Archaeologist.
- Organise and attend start-up meetings with Viking Energy Partnership and site contractors to agree working methods, specifically including: communications; daily or weekly schedules; monitoring; data storage; constraint maps and communication of the location of key archaeological features including specific sensitivities, mitigation and monitoring measures.
- Organise regular liaison meetings with Viking Energy Partnership and a minimum of weekly meetings with the main *Contractor*, to allow briefing on the programme of works on site and to provide on-site guidance during construction.
- Maintain regular liaison with the Viking Energy Project Environmental Advisor, the Local Planning Authority and Shetland Amenity Trust and other specialist consultants or contractors as required.

On-site Delivery

- Preparation of a draft Archaeological Written Scheme of Investigation and Neolithic Heart of Shetland Heritage Strategy in consultation with Shetland Island's Council Regional Archaeologist.
- Completion of all required archaeological ground investigations as will be detailed in the (to be) approved Written Scheme of Investigation.
- Provide ACoW duties as detailed within the (to be) approved Written Scheme of Investigation, which may include:
 - Undertaking watching briefs and monitoring compliance with the archaeological mitigation works required under the WSI;
 - Delivering toolbox talks;
 - demarcating all archaeological sites within the vicinity of the works and set up of exclusion zones / protection measures as required prior to commencement of ground breaking;
 - advise on the micro-siting of works where this may affect archaeological sites; and
 - reporting and archive deposition as required.

APPENDIX 11.6: NON-DESIGNATED SITES WITHIN THE SITE BOUNDARY

Number	Name	Unique ID (Figure 11.1)	Easting	Northing	URL	Classification
1	Hill Of Sound	2407	437805	1150535	http://www.shetlandamenity.org/sites-and-monuments-record	Cist
2	Atascord	2413	438305	1153105	http://www.shetlandamenity.org/sites-and-monuments-record	Chambered Cairn Heelshaped
3	Weisdale Hill	2414	438205	1152405	http://www.shetlandamenity.org/sites-and-monuments-record	Cairn
4	Sound	5481	437736	1150626	http://www.shetlandamenity.org/sites-and-monuments-record	Bank (earthwork)
5	Burn Of Weisdale	5494	440231	1154975	http://www.shetlandamenity.org/sites-and-monuments-record	Bank (earthwork)
6	Burn Of Weisdale	5495	440188	1155087	http://www.shetlandamenity.org/sites-and-monuments-record	Bank (earthwork)
7	Burn Of Weisdale	5496	440143	1155075	http://www.shetlandamenity.org/sites-and-monuments-record	Building
8	Burn Of Weisdale	5497	440294	1155758	http://www.shetlandamenity.org/sites-and-monuments-record	Bank (earthwork)
9	Lunklet Burn	6986	436999	1157674	http://www.shetlandamenity.org/sites-and-monuments-record	Chambered Cairn Heelshaped
10	Mossy Hill	7728	442640	1160631	http://www.shetlandamenity.org/sites-and-monuments-record	Military Base
11	North Of North House	7781	440364	1156266	http://www.shetlandamenity.org/sites-and-monuments-record	Croft
12	Hag Mark Stone	7782	439048	1158732	http://www.shetlandamenity.org/sites-and-monuments-record	Stone Setting, Wall
13	Hill Of Sound	7783	437995	1151341	http://www.shetlandamenity.org/sites-and-monuments-record	Hut Platform, Standing Stone
14	Hill Of Sound	7784	438299	1152440	http://www.shetlandamenity.org/sites-and-monuments-record	Marker Cairn
15	Hill Of Sound	7910	438000	1151400	http://www.shetlandamenity.org/sites-and-monuments-record	Chambered Cairn
16	South Filla Runnie	7921	441998	1161495	http://www.shetlandamenity.org/sites-and-monuments-record	Bunker
17	Meadow Of Stranifield	7922	444305	1159974	http://www.shetlandamenity.org/sites-and-monuments-record	Drainage Ditch
18	Quinni Loch	7923	444937	1159735	http://www.shetlandamenity.org/sites-and-monuments-record	Dam
19	Quinni Loch	7924	444322	1159185	http://www.shetlandamenity.org/sites-and-monuments-record	Drainage Ditch
20	Area	7926	445796	1158934	http://www.shetlandamenity.org/sites-and-monuments-record	Farmstead
21	Minnie Loch	7927	445350	1156315	http://www.shetlandamenity.org/sites-and-monuments-record	Structure
22	Knowe Of Finistry - Knoll	7928	445168	1156155	http://www.shetlandamenity.org/sites-and-monuments-record	Cairn
23	Flamister	7929	444027	1155760	http://www.shetlandamenity.org/sites-and-monuments-record	Farmstead, Head Dyke
24	Burn Of Forse	7930	444493	1157967	http://www.shetlandamenity.org/sites-and-monuments-record	Enclosure
25	Burn Of Forse	7931	445366	1158368	http://www.shetlandamenity.org/sites-and-monuments-record	Cultivation Terrace, Sheep Fold
26	Burns	7932	445326	1158609	http://www.shetlandamenity.org/sites-and-monuments-record	Farmstead
27	Grunnafirth	7934	445535	1159089	http://www.shetlandamenity.org/sites-and-monuments-record	Building
28	Saewater Burn	7971	443086	1162846	http://www.shetlandamenity.org/sites-and-monuments-record	Structure
29	Pund Of Grunnafirth	7979	445672	1159941	http://www.shetlandamenity.org/sites-and-monuments-record	Horizontal Mill
30	Mill Burn, South Newing	7984	446562	1155905	http://www.shetlandamenity.org/sites-and-monuments-record	Horizontal Mill
31	Marrofield	8038	439698	1159625	http://www.shetlandamenity.org/sites-and-monuments-record	Farmstead, Sheep Fold, Head Dyke
32	Burn Of Weisdale	8039	440228	1157646	http://www.shetlandamenity.org/sites-and-monuments-record	Building
33	Burn Of Swirtars	8045	440352	1155103	http://www.shetlandamenity.org/sites-and-monuments-record	Mill
34	Black Burn	8050	439299	1155406	http://www.shetlandamenity.org/sites-and-monuments-record	Building
35	Burn Of Truggles-water	8080	436510	1154667	http://www.shetlandamenity.org/sites-and-monuments-record	Building
36	Burn Of Lunklet	8081	437475	1157465	http://www.shetlandamenity.org/sites-and-monuments-record	Building
37	Truggles Water	8089	437240	1154465	http://www.shetlandamenity.org/sites-and-monuments-record	Chambered Cairn
38	Maa Water	8090	437960	1154674	http://www.shetlandamenity.org/sites-and-monuments-record	Field System
39	Burn Of Lunklet	8091	436742	1157417	http://www.shetlandamenity.org/sites-and-monuments-record	Structure
40	Scalla Field	8092	438975	1157235	http://www.shetlandamenity.org/sites-and-monuments-record	Marker Cairn
41	Marrofield Water	8095	438282	1159274	http://www.shetlandamenity.org/sites-and-monuments-record	Standing Stone
42	Gro Stane	8096	443887	1162635	http://www.shetlandamenity.org/sites-and-monuments-record	Standing Stone
43	West Kame	8102	439299	1159141	http://www.shetlandamenity.org/sites-and-monuments-record	Mound
44	Flamister	8103	444044	1155643	http://www.shetlandamenity.org/sites-and-monuments-record	Mound
45	Laxo Burn	8104	443539	1162263	http://www.shetlandamenity.org/sites-and-monuments-record	Settlement
46	Burn Of Weisdale	8105	440219	1157985	http://www.shetlandamenity.org/sites-and-monuments-record	Structure
47	Loch Of Skellister	8109	446466	1156544	http://www.shetlandamenity.org/sites-and-monuments-record	Cairn, Cist
48	Whaa Field	8149	440956	1156025	http://www.shetlandamenity.org/sites-and-monuments-record	-
49	Upper Kergord	8199	440377	1156750	http://www.shetlandamenity.org/sites-and-monuments-record	Structure

50	Upper Kergord	8200	440386	1156728	http://www.shetlandamenity.org/sites-and-monuments-record	Ditch
51	Upper Kergord	8201	440461	1156759	http://www.shetlandamenity.org/sites-and-monuments-record	Mound, Natural Feature
52	Upper Kergord	8202	440431	1156832	http://www.shetlandamenity.org/sites-and-monuments-record	Mound, Natural Feature
53	Upper Kergord	8203	440452	1156870	http://www.shetlandamenity.org/sites-and-monuments-record	Mound, Natural Feature
54	Upper Kergord	8204	440410	1156872	http://www.shetlandamenity.org/sites-and-monuments-record	Mound, Natural Feature
55	Upper Kergord	8205	440356	1156861	http://www.shetlandamenity.org/sites-and-monuments-record	Mound
56	Upper Kergord	8206	440287	1156874	http://www.shetlandamenity.org/sites-and-monuments-record	Mill Race
57	Upper Kergord	8207	440194	1156940	http://www.shetlandamenity.org/sites-and-monuments-record	Ditch, Bank (earthwork)
58	Upper Kergord	8208	440219	1156969	http://www.shetlandamenity.org/sites-and-monuments-record	Structure
59	Upper Kergord	8209	440204	1156967	http://www.shetlandamenity.org/sites-and-monuments-record	Dyke
60	Upper Kergord	8210	440217	1156722	http://www.shetlandamenity.org/sites-and-monuments-record	Quarry, Structure
61	Upper Kergord	8211	440328	1156814	http://www.shetlandamenity.org/sites-and-monuments-record	Ditch, Pit
62	Upper Kergord	8212	440331	1157011	http://www.shetlandamenity.org/sites-and-monuments-record	Clearance Cairn
63	Upper Kergord	8213	440483	1156837	http://www.shetlandamenity.org/sites-and-monuments-record	Earthwork

