

**Table S3** Candidate selected regions positions in Yorkshire, including the chromosome number, start position, end position, length and REHH *P*-value.

<b>Chromosome</b>	<b>Start Base</b>	<b>End Base</b>	<b>length(kb)</b>	<b>REHH pValue</b>
1	3189865	3255692	65.827	0.00570
1	22294355	22724859	430.504	0.00080
1	31385554	31471152	85.598	0.00752
1	31547347	32172312	624.965	0.00652
1	56584283	57344739	760.456	0.00600
1	124360644	124400958	40.314	0.00936
1	154942125	154959877	17.752	0.00625
1	170095678	170547831	452.153	0.00268
1	212907919	213445886	537.967	0.00310
1	214015014	214125210	110.196	0.00367
1	275637543	275640023	2.48	0.00144
1	282898343	282978341	79.998	0.00680
1	284030924	284065414	34.49	0.00250
1	284468966	284477081	8.115	0.00853
1	285919763	285925479	5.716	0.00061
1	286791148	287217643	426.495	0.00950
1	293622064	293632956	10.892	0.00526
2	1001199	1010925	9.726	0.00892
2	1518678	1534446	15.768	0.00772
2	1848583	1936825	88.242	0.00567
2	6331741	6343355	11.614	0.00028
2	6384433	6473104	88.671	0.00029
2	8822921	8824151	1.23	0.00091
2	8840673	8843640	2.967	0.00828
2	9384164	9436226	52.062	0.00415
2	9472589	9474838	2.249	0.00034
2	12259282	12275827	16.545	0.00199
2	15295165	15501388	206.223	0.00556
2	15572280	15593980	21.7	0.00118
2	15615165	15659622	44.457	0.00148
2	15669874	15727407	57.533	0.00305
2	15969926	15977182	7.256	0.00583
2	15986622	16069963	83.341	0.00343
2	38032845	38243461	210.616	0.00454
2	47764804	48035083	270.279	0.00663
2	54035937	54324592	288.655	0.00004
2	61550467	61635873	85.406	0.00795
2	71299071	71776351	477.28	0.00839
2	124116571	124145131	28.56	0.00291
2	126246974	126290621	43.647	0.00473
2	131665494	131721152	55.658	0.00737
3	16832499	16837700	5.201	0.00181
3	20159377	20160126	0.749	0.00741
3	24448237	24467773	19.536	0.00354
3	24977815	25554898	577.083	0.00448
3	25676994	25680631	3.637	0.00948
3	41607874	41614308	6.434	0.00858
3	64113863	64730798	616.935	0.00033
3	90868682	90882293	13.611	0.00091
3	91962910	92013991	51.081	0.00967
3	107769928	108798788	1028.86	0.00296
3	111875859	112129268	253.409	0.00787
3	115046533	115095808	49.275	0.00475
3	115239987	115249944	9.957	0.00550
3	115249970	115276450	26.48	0.00986
3	115770965	115815507	44.542	0.00526
3	116914060	116953620	39.56	0.00005

3	117031389	117048679	17.29	0.00360
3	117247361	117265223	17.862	0.00017
3	119279727	119330473	50.746	0.00432
4	2138351	2199511	61.16	0.00041
4	2206365	2216187	9.822	0.00987
4	5810471	5851611	41.14	0.00456
4	19980891	20013647	32.756	0.00854
4	20973492	20983052	9.56	0.00987
4	47216347	47219063	2.716	0.00564
4	91620643	91939683	319.04	0.00803
4	101718332	101799923	81.591	0.00151
4	101812803	102465544	652.741	0.00252
4	103347177	103433024	85.847	0.00119
4	122625713	123218749	593.036	0.00028
4	123341289	123373957	32.668	0.00263
4	123539775	123622691	82.916	0.00001
4	127057126	127067009	9.883	0.00690
4	133549841	133550575	0.734	0.00244
4	133995565	134060886	65.321	0.00509
4	135999225	136007390	8.165	0.00982
5	4553689	4888378	334.689	0.00266
5	4913282	4921777	8.495	0.00014
5	4927436	4930181	2.745	0.00000
5	7603487	7650191	46.704	0.00012
5	16738904	16743822	4.918	0.00028
5	16979466	16990337	10.871	0.00264
5	19304629	19341547	36.918	0.00025
6	579811	603736	23.925	0.00244
6	1465011	1475520	10.509	0.00017
6	3337216	3351860	14.644	0.00826
6	5098454	5132587	34.133	0.00539
6	9738435	9789693	51.258	0.00738
6	11674174	11699949	25.775	0.00036
6	29386349	29423908	37.559	0.00883
6	29423966	29756509	332.543	0.00107
6	37712730	37717184	4.454	0.00001
6	40987810	40988613	0.803	0.00290
6	42950790	42967694	16.904	0.00130
6	43182392	43192488	10.096	0.00389
6	45306071	45388490	82.419	0.00660
6	45459274	45542529	83.255	0.00529
6	45701664	45707272	5.608	0.00022
6	45751882	45752591	0.709	0.00320
6	45756195	45796473	40.278	0.00350
6	51592138	51596210	4.072	0.00042
6	51604050	51629187	25.137	0.00113
6	51700041	51742964	42.923	0.00482
6	52026923	52035675	8.752	0.00205
6	52570843	52653552	82.709	0.00393
6	57876829	57908291	31.462	0.00191
6	58242352	58344858	102.506	0.00202
6	65704821	65792475	87.654	0.00232
6	70112607	70266494	153.887	0.00729
6	93591872	93972164	380.292	0.00979
6	94905207	95108364	203.157	0.00534
6	110819630	110893219	73.589	0.00010
6	110973264	111083881	110.617	0.00004
6	111807819	111840541	32.722	0.00120
6	112211087	112414200	203.113	0.00048
6	119344591	119425433	80.842	0.00822
6	120108969	120240387	131.418	0.00026

7	4229754	4256554	26.8	0.00585
7	5192794	5311834	119.04	0.00691
7	7267361	7280438	13.077	0.00155
7	12710183	12720650	10.467	0.00425
7	24450876	24462521	11.645	0.00209
7	24539249	24554853	15.604	0.00007
7	33782130	33844596	62.466	0.00433
7	41341804	41408349	66.545	0.00904
7	42171806	42246973	75.167	0.00388
7	42292278	42300371	8.093	0.00016
7	42312810	42500766	187.956	0.00348
7	53841084	53960460	119.376	0.00213
7	71348188	71382343	34.155	0.00484
7	86952797	89156139	2203.342	0.00473
7	109120963	109146912	25.949	0.00002
7	120751589	120760316	8.727	0.00127
7	123570354	123630400	60.046	0.00656
7	123635349	123645604	10.255	0.00118
7	126088836	126173972	85.136	0.00023
7	133129185	133138260	9.075	0.00572
7	134752500	134766898	14.398	0.00002
8	3524869	3551803	26.934	0.00812
8	13918360	14249620	331.26	0.00929
9	1875875	1937570	61.695	0.00572
9	2064305	2554472	490.167	0.00704
9	6876946	6878735	1.789	0.00659
9	6948966	7172496	223.53	0.00431
9	9816125	9823717	7.592	0.00096
9	10571882	10573398	1.516	0.00057
9	11365373	11449345	83.972	0.00572
9	12369447	12463039	93.592	0.00234
9	13223263	13229957	6.694	0.00742
9	13239211	13242394	3.183	0.00023
9	13252778	13351778	99	0.00539
9	16415937	16957771	541.834	0.00466
9	25517527	25668201	150.674	0.00120
9	27834045	27849084	15.039	0.00283
9	47066387	47075028	8.641	0.00415
9	47075037	47121374	46.337	0.00305
9	47168086	47169862	1.776	0.00745
9	48653721	48703285	49.564	0.00070
9	61954609	62313591	358.982	0.00116
9	62313602	62547091	233.489	0.00000
9	62884570	62927790	43.22	0.00491
9	114341928	114545773	203.845	0.00434
9	114622621	114661868	39.247	0.00304
9	115080117	115151754	71.637	0.00327
9	121779156	121840874	61.718	0.00804
9	126013113	126056902	43.789	0.00008
9	129046072	129082028	35.956	0.00553
10	10224693	10251448	26.755	0.00968
10	17343586	17499855	156.269	0.00337
10	17557122	18008824	451.702	0.00161
10	27535680	27551401	15.721	0.00018
10	44167037	44184536	17.499	0.00276
10	44187308	44400992	213.684	0.00562
10	60361735	60421119	59.384	0.00645
11	5895223	5906821	11.598	0.00444
11	64162723	64589019	426.296	0.00643
11	65802450	65812120	9.67	0.00490
11	74770026	74833102	63.076	0.00499

11	77170358	77175544	5.186	0.00306
11	77284447	77299461	15.014	0.00515
11	77520432	77555029	34.597	0.00900
11	78640393	78686435	46.042	0.00912
12	1969136	1994959	25.823	0.00015
12	4988141	4999869	11.728	0.00244
12	6572008	6666985	94.977	0.00560
12	6757999	6855354	97.355	0.00950
12	18684436	18735043	50.607	0.00214
12	23354337	23452197	97.86	0.00050
12	25733017	25882930	149.913	0.00573
12	49135309	49144800	9.491	0.00175
12	49167226	49208831	41.605	0.00003
12	56008391	56143161	134.77	0.00624
12	56184047	56243791	59.744	0.00095
13	1867028	2262220	395.192	0.00009
13	2293160	2336151	42.991	0.00556
13	26171654	26185134	13.48	0.00172
13	29085280	29125568	40.288	0.00545
13	55092452	55155469	63.017	0.00266
13	65089920	65110290	20.37	0.00916
13	71490435	72314502	824.067	0.00191
13	114710331	116592826	1882.495	0.00723
13	138480523	138544550	64.027	0.00352
14	1649731	1667863	18.132	0.00893
14	2759910	2776743	16.833	0.00469
14	5793584	5806550	12.966	0.00052
14	12915568	13187066	271.498	0.00509
14	25740698	25782941	42.243	0.00691
14	38679243	38923500	244.257	0.00506
14	41523975	41541693	17.718	0.00120
14	49906323	49955979	49.656	0.00705
14	93068894	93167791	98.897	0.00150
14	93173591	93204472	30.881	0.00146
14	93229628	93276272	46.644	0.00015
14	113780802	113801761	20.959	0.00719
14	113983681	113988010	4.329	0.00016
14	133742974	133753385	10.411	0.00781
14	138447568	138467070	19.502	0.00015
14	138710221	138718925	8.704	0.00101
14	140645464	140733195	87.731	0.00646
14	144871104	144905463	34.359	0.00167
14	146465942	146514707	48.765	0.00475
15	29449648	29474431	24.783	0.00710
15	29491948	29840469	348.521	0.00364
15	117840129	117843877	3.748	0.00248
15	122408220	122459401	51.181	0.00092
15	128814327	128910360	96.033	0.00041
15	131799062	131809806	10.744	0.00848
15	132375384	132379143	3.759	0.00310
15	132395234	132397392	2.158	0.00005
15	132429250	132432852	3.602	0.00292
15	132673826	132676358	2.532	0.00587
16	3133480	3137443	3.963	0.00000
16	15990574	16023339	32.765	0.00949
16	22105156	22766508	661.352	0.00679
16	48640644	48807335	166.691	0.00301
16	72938627	72939832	1.205	0.00001
16	76550105	76552552	2.447	0.00252
17	18060226	18808225	747.999	0.00157
17	34901568	35059721	158.153	0.00972

17	35987184	36030142	42.958	0.00917
17	44042872	44064378	21.506	0.00056
17	53285220	53294286	9.066	0.00203
17	54293991	54315885	21.894	0.00467
17	55232487	55235899	3.412	0.00272
17	64338154	64339140	0.986	0.00351
18	4827505	4903448	75.943	0.00743
18	46278607	46402492	123.885	0.00008
18	51754149	51989062	234.913	0.00503
X	5032591	5076042	43.451	0.00623
X	5076059	5253259	177.2	0.00460