

NRA NORTH WEST 86

MARINE SECTION MONITORING PROGRAMME

ESTUARIES AND COASTAL WATERS

SAMPLING STATIONS AND REQUIREMENTS

Summary for 1994

Marine and Special Projects  
EQ & PC  
December 1993

Report: MSP-93-015

**MARINE SECTION MONITORING PROGRAMME**

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ENVIRONMENT AGENCY



134038

**MARINE SECTION MONITORING PROGRAMME**  
**ESTUARIES AND COASTAL WATERS**  
**SAMPLING STATIONS AND REQUIREMENTS**

Summary for 1994

**CONTAINS THE NEW NOTTINGHAM LABORATORY SAMPLING POINT NUMBERS**

**PART 1: Estuaries Baseline Monitoring Programme**

- Estuaries sampled and frequency
  - Liverpool Bay monthly
  - Manchester Ship Canal monthly
  - Mersey monthly
  - Ribble monthly
  - Duddon quarterly
  - Leven quarterly
  - Lune quarterly
  - Kent quarterly
  - Solway Firth quarterly
  - Wyre quarterly
  - Esk, Mite and Irt quarterly
  - Sampling for PCOs
    - Major estuaries quarterly
    - Minor estuaries yearly

**PART 2: National Coastal Monitoring Programme - Quarterly**

- List of coastal stations
- Map of site locations

**PART 3: Liverpool Bay Grid Survey - Monthly**

- List of stations
- Map of sampled grid

**PART 4: M.P.M.M.G. - Quarterly / Annually**

- List of stations

**PART 5: SPECIAL SURVEYS**

- List of feature reference numbers

**PART 6: ANALYSES SUITES**

- List of suite numbers and their parameters
- List of stations with attached suite numbers

**PART 7: SAMPLER ID**

PART 1:

Estuaries Baseline Monitoring Programme

\*\*\* = Baseline stations  
S.P.N. = Sampling Point Number for Nottingham Laboratory  
N.G.R. = National Grid Reference  
F.R.N. = Feature Reference Number

LIVERPOOL BAY SURVEY

STATION	S.P.N.
3. Mersey estuary at Rock lighthouse	88002831
4. Mersey estuary at Crosby Ship	88002887
6. Liverpool Bay at Fairway buoy	88002891
8. Liverpool Bay at Decca co-ordinates C12 D44	88002892
*& 9. Liverpool Bay at Decca co-ordinates C15 D40	88002893
10. Liverpool Bay at Decca co-ordinates C17 D36 surface sample	88002895
% 10B. Liverpool Bay at Decca co-ordinates C17 D36 bottom sample	88002894
*! 12. Liverpool Bay at Decca co-ordinates D22 C46	88002896
*! 14. Liverpool Bay at Decca co-ordinates D5 C36	88002897

Sampled: ! = January to April      % = June to October  
 & = May to December            \* = no metals

ANALYSES: Sanitary, nutrients, soluble and total metals

DESCRIPTION	N.G.R.	F.R.N.
3. Mersey estuary at Rock lighthouse	SJ 318 952	69803953
4. Mersey estuary at Crosby Ship	SD 273 018	69804152
6. Liverpool Bay at Fairway buoy	SD 166 033	69804155A
8. Liverpool Bay at Decca co-ordinates C12 D44	SD 053 029	69804157A
9. Liverpool Bay at Decca co-ordinates C15 D40	SD 002 028	69804157B
10. Liverpool Bay at Decca co-ordinates C17 D36 surface sample	SC 964 026	69804157CS
10B. Liverpool Bay at Decca co-ordinates C17 D36 bottom sample	SC 964 026	69804157CB
12. Liverpool Bay at Decca co-ordinates D22 C46	SC 890 040	69804159A
14. Liverpool Bay at Decca co-ordinates D5 C36	SC 790 038	69804161A

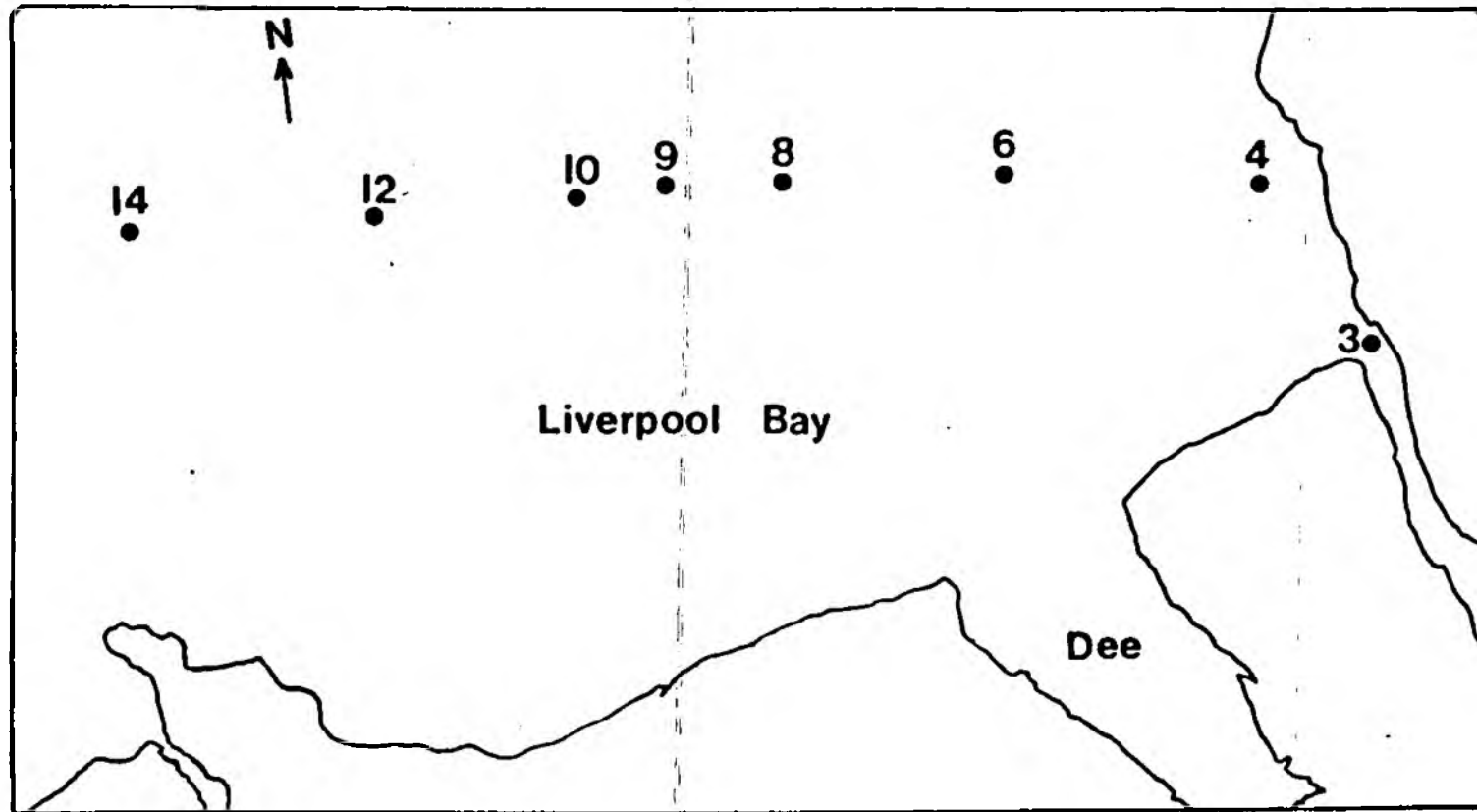


Figure 1: Routine sampling stations in Liverpool Bay.

M.S.C. SURVEY

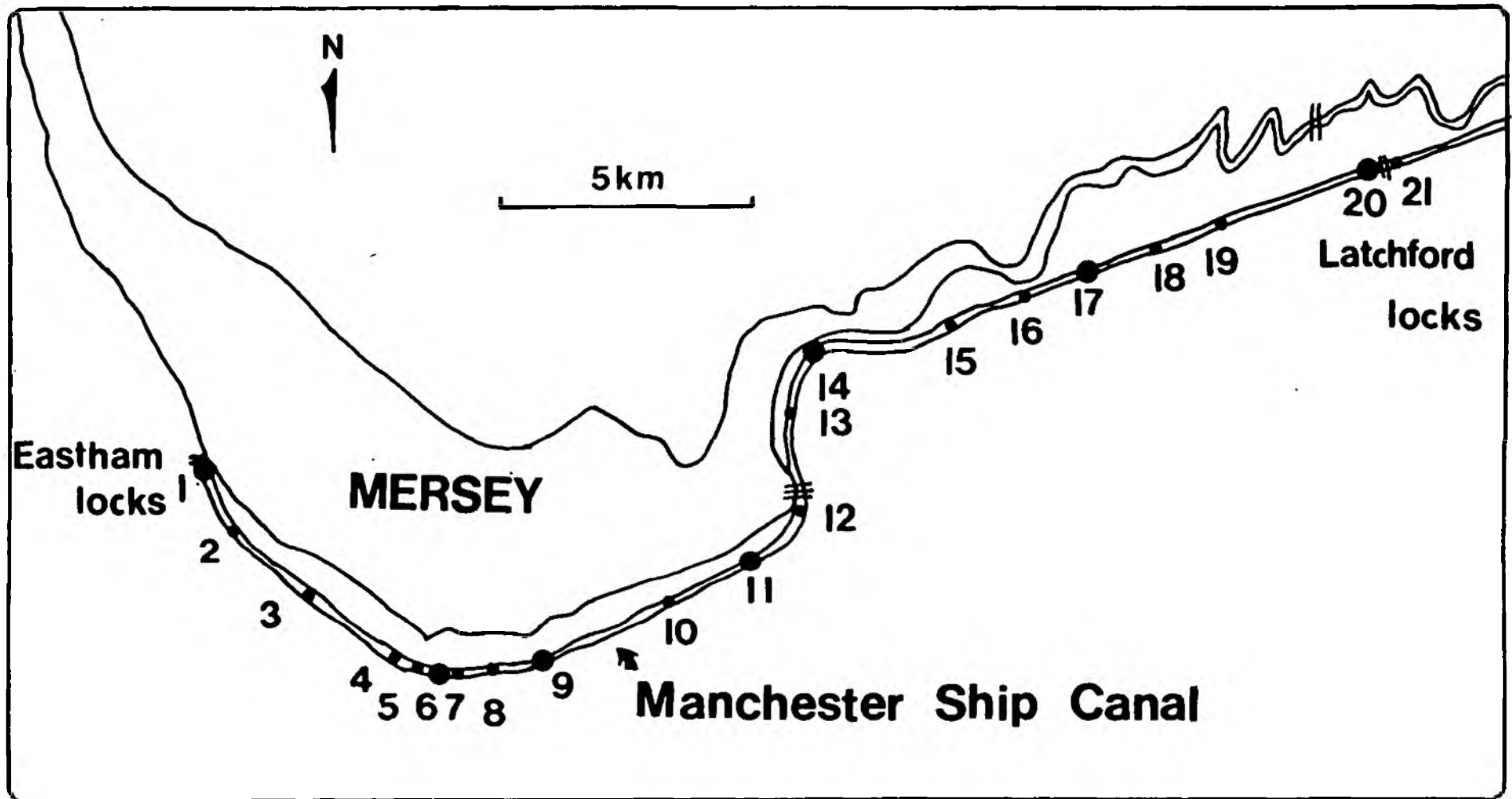
STATION	SECTION N° (x 100)*	S.P.N.
*** 1. Manchester Ship Canal at Eastham locks	(15)	88002799
2. Manchester Ship Canal 1 mile above Eastham	(55)	88002798
3. Manchester Ship Canal Low Wharf	(105)	88002797
4. Manchester Ship Canal at Ellesmere Port	(155)	88002796
5. Manchester Ship Canal Stuart Wharf 3.5 miles above Eastham	(185)	88002795
*** 6. Manchester Ship Canal Stanlow Wharf 4 miles above Eastham	(205)	88002794
7. Manchester Ship Canal at Stanlow Point	(240)	88002792
8. Manchester Ship Canal Ince Oil Berth 5 miles above Eastham	(265)	88002791
*** 9. Manchester Ship Canal Ince High Cutting 6 miles above Eastham	(315)	88002790
10. Manchester Ship Canal at CEGB Ince Intake 7 miles above Eastham	(375)	88002789
*** 11. Manchester Ship Canal at Frodsham Marshes	(450)	88002787
12. Manchester Ship Canal at Weaver Sluices	(525)	88002784
13. Manchester Ship Canal Weston Point Dock 11 miles above Eastham	(580)	88002783
*** 14. Manchester Ship Canal Runcorn Docks 12 miles above Eastham	(635)	88002782
15. Manchester Ship Canal below Runcorn ETW 14 miles above Eastham	(735)	88002780
16. Manchester Ship Canal at Randles Sluices	(795)	88002779
*** 17. Manchester Ship Canal Keckwick 16 miles above Eastham	(845)	88002778
18. Manchester Ship Canal d/s Acton Grange ETW 17 miles above Eastham	(895)	88002777
19. Manchester Ship Canal u/s Acton Grange ETW 18 miles above Eastham	(950)	88002776
*** 20. Manchester Ship Canal at Latchford Locks	(1075)	88002773
21. Manchester Ship Canal u/s Latchford Locks		88002774

\* distance in feet from Eastham

.../...

DESCRIPTION	N.G.R.	F.R.N.
1. Manchester Ship Canal at Eastham locks	SJ 370 809	69803870
2. Manchester Ship Canal 1 <sup>st</sup> mile post	SJ 380 795	69803869
3. Manchester Ship Canal Low Wharf	SJ 390 789	69803865
4. Manchester Ship Canal at Ellesmere Port	SJ 405 775	69803860
5. Manchester Ship Canal Stuart Wharf	SJ 412 770	69803859
6. Manchester Ship Canal Stanlow Wharf	SJ 416 770	69803858
7. Manchester Ship Canal at Stanlow Point	SJ 425 769	69803850
8. Manchester Ship Canal Ince Oil Berth	SJ 434 769	69803849
9. Manchester Ship Canal Ince High Cutting	SJ 450 773	69803847
10. Manchester Ship Canal at CEGB Ince Intake	SJ 463 775	69803846
11. Manchester Ship Canal at Frodsham Marshes	SJ 485 785	69803830
12. Manchester Ship Canal at Weaver Sluices	SJ 500 803	69803265
13. Manchester Ship Canal Weston Point Dock	SJ 493 817	69803264
14. Manchester Ship Canal Runcorn Docks	SJ 504 832	69803263
15. Manchester Ship Canal below Runcorn ETW	SJ 533 835	69803259
16. Manchester Ship Canal at Randles Sluices	SJ 552 844	69803250
17. Manchester Ship Canal Keckwick	SJ 562 847	69803249
18. Manchester Ship Canal d/s Acton Grange	SJ 575 852	69803248
19. Manchester Ship Canal u/s Acton Grange	SJ 594 858	69803247
20. Manchester Ship Canal at Latchford Locks	SJ 639 874	69803240
21. Manchester Ship Canal u/s Latchford Locks	SJ 639 874	69803240A





**Figure 1:** Location of sampling sites in the Manchester Ship Canal (descriptions in Appendix 1).

● Extra analyses

MERSEY ESTUARY SURVEY

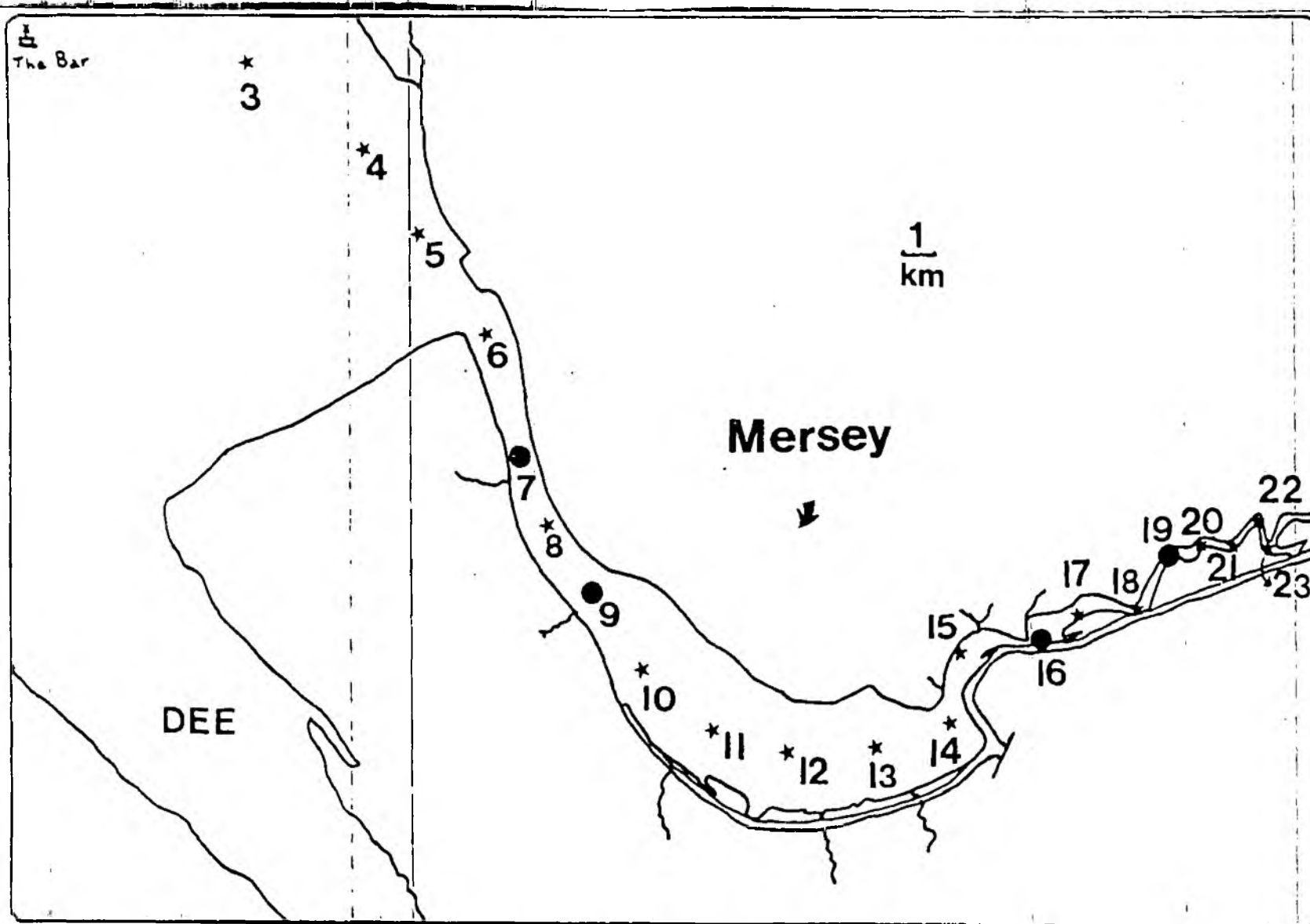
STATION		S.P.N.
	3. Mersey estuary at buoy C1	88002889
	4. Mersey estuary at buoy C15	88002886
	5. Mersey estuary at buoy C21	88002837
	6. River Mersey at New Brighton	88002829
***	7. Mersey estuary at Seacombe Ferry	88002822
	8. Mersey estuary at Pluckington bank	88002816
***	9. Mersey estuary at buoy E1	88002811
	10. Mersey estuary at Eastham Ferry	88002804
	11. Mersey estuary at Mount Manisty	88002770
	12. Mersey estuary at Stanlow Point	88002769
	13. Mersey estuary at Oglet Point	88002766
%	14. Mersey estuary at Hale Head	88002762
%	15. Mersey estuary at Woodyard Widnes	88002758
***	16. Mersey estuary at Runcorn Old Lock	88002722
	17. Mersey estuary at ICI Wigg	88002712
	18. Mersey estuary at Randles Sluices	88002711
***	19. Mersey estuary at Fiddlers Ferry	88002710
	20. Mersey estuary d/s of Sankey Brook	88002709
	21. Mersey estuary at Baxter's Bridge	88002641
!	22. Mersey estuary at Monks Hall	88002640
	23. Mersey estuary at Walton rail bridge	88002638

% Carbon tetrachloride and chloroform, 1,2-Dichloroethane, tetrachloroethylene, trichloroethylene, dissolved metals (Hg, Cd)

! dissolved metals (Ni, Zn, Cr, Pb, Cu), Boron

.../...

	DESCRIPTION	N.G.R.	R.F.N.
	3. Mersey estuary at buoy C1	SD 231 041	69804153
	4. Mersey estuary at buoy C15	SD 269 018	69804151
	5. Mersey estuary at buoy C21	SJ 296 980	69803958
	6. River Mersey at New Brighton	SJ 315 952	69803952
***	7. Mersey estuary at Seacombe Ferry	SJ 327 908	69803950
	8. Mersey estuary at Pluckington bank	SJ 336 875	69803912
***	9. Mersey estuary at buoy E1	SJ 357 856	69803885
	10. Mersey estuary at Eastham Ferry	SJ 363 819	69803875
	11. Mersey estuary at Mount Manisty	SJ 401 808	69803228
	12. Mersey estuary at Stanlow Point	SJ 432 797	69803088
	13. Mersey estuary at Oglet Poin	SJ 450 798	69803084
	14. Mersey estuary at Hale Head	SJ 486 810	69803075
	15. Mersey estuary at Woodyard Widnes	SJ 501 837	69803065
***	16. Mersey estuary at Runcorn Old Lock	SJ 520 839	69802932
	17. Mersey estuary at ICI Wigg	SJ 538 851	69802878
	18. Mersey estuary at Randles Sluices	SJ 551 844	69802860
***	19. Mersey estuary at Fiddlers Ferry	SJ 564 867	69802850
	20. Mersey estuary d/s of Sankey Brook	SJ 575 870	69802842
	21. Mersey estuary at Baxter's Bridge	SJ 585 867	69802584
	22. Mersey estuary at Monks Hall	SJ 592 875	69802580
	23. Mersey estuary at Walton rail bridge	SJ 598 866	69802578



**Figure 1:** Location of sampling sites in the Mersey estuary (descriptions in Appendix 1).

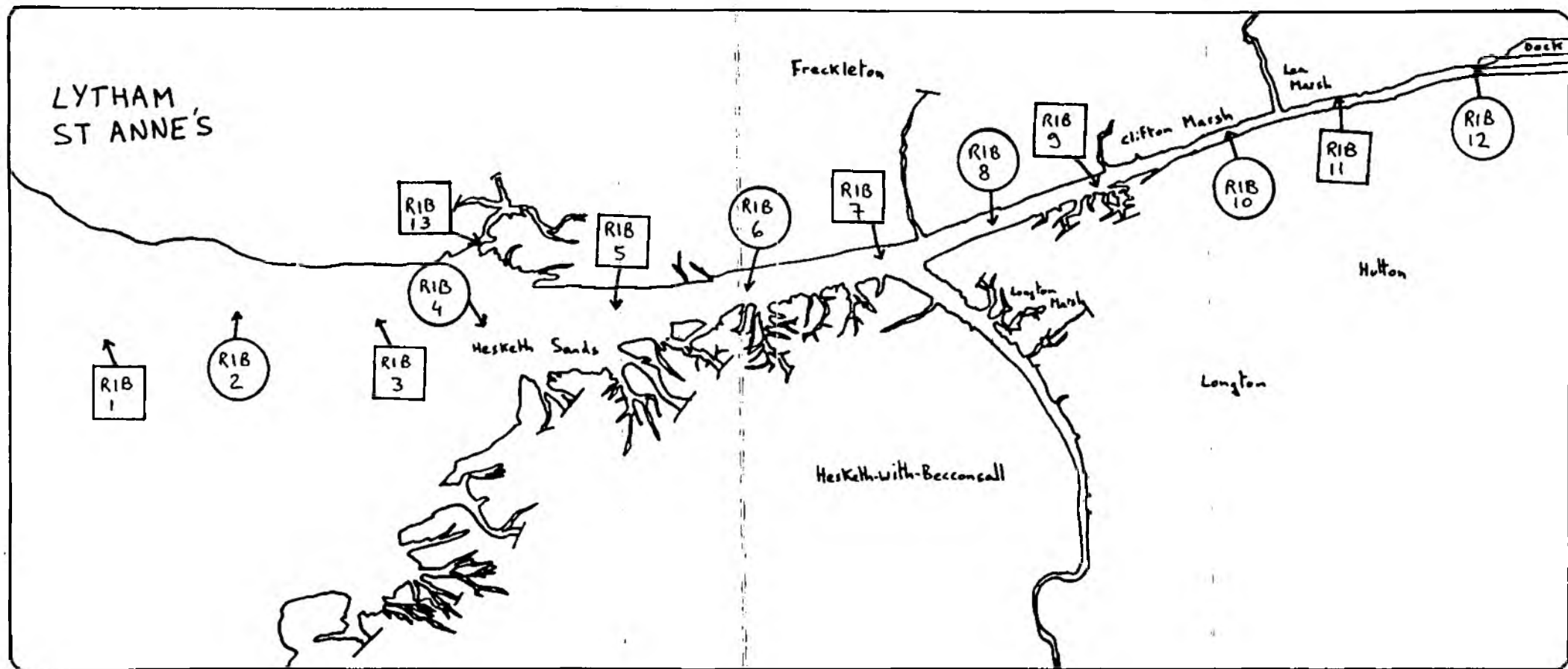
● Baseline monitoring stations

RIBBLE SURVEY

STATION	S.P.N.
*** 1. Ribble estuary at the 11 <sup>th</sup> Milepost	88003595
2. Ribble estuary at the 10 <sup>th</sup> Milepost	88003594
*** 3. Ribble estuary at the 9 <sup>th</sup> Milepost	88003591
4. Ribble estuary at the 8 <sup>th</sup> Milepost	88003588
*** 5. Ribble estuary at the 7 <sup>th</sup> Milepost	88003586
6. Ribble estuary at the 6 <sup>th</sup> Milepost	88003584
◆ *** 7. Ribble estuary at the 5 <sup>th</sup> Milepost	88003582
8. Ribble estuary at the 4 <sup>th</sup> Milepost	88003579
*** 9. Ribble estuary at the 3 <sup>rd</sup> Milepost	88003578
10. Ribble estuary at the 2 <sup>nd</sup> Milepost	88003577
◆ *** 11. Ribble estuary at the 1 <sup>st</sup> Milepost	88003566
12. Ribble estuary at Bullnose	88003563
◆ 13. Main drain at Lytham Creek	88003587

- ◆ Sampled 12 times/year for pH & dissolved metals (Cd,Cr,Cu,Pb,Ni,Zn)
- ◆ Sampled 12 times/year for pH & dissolved metals (Cr,Cu,Pb,Ni,Zn)
- ◆ Main drain sampled once a year

DESCRIPTION	N.G.R.	F.R.N.
*** 1. Ribble estuary at the 11 <sup>th</sup> Milepost	SD 335 259	71806375
2. Ribble estuary at the 10 <sup>th</sup> Milepost	SD 350 263	71806374
*** 3. Ribble estuary at the 9 <sup>th</sup> Milepost	SD 368 263	71806373
4. Ribble estuary at the 8 <sup>th</sup> Milepost	SD 382 262	71806356
*** 5. Ribble estuary at the 7 <sup>th</sup> Milepost	SD 398 264	71806351
6. Ribble estuary at the 6 <sup>th</sup> Milepost	SD 415 265	71806345
*** 7. Ribble estuary at the 5 <sup>th</sup> Milepost	SD 433 270	71805612
8. Ribble estuary at the 4 <sup>th</sup> Milepost	SD 445 274	71805596
*** 9. Ribble estuary at the 3 <sup>rd</sup> Milepost	SD 458 279	71805595
10. Ribble estuary at the 2 <sup>nd</sup> Milepost	SD 475 285	71805593
*** 11. Ribble estuary at the 1 <sup>st</sup> Milepost	SD 488 289	71805513
12. Ribble estuary at Bullnose	SD 507 293	71805507
13. Main drain at Lytham Creek	SD 381 272	71806352



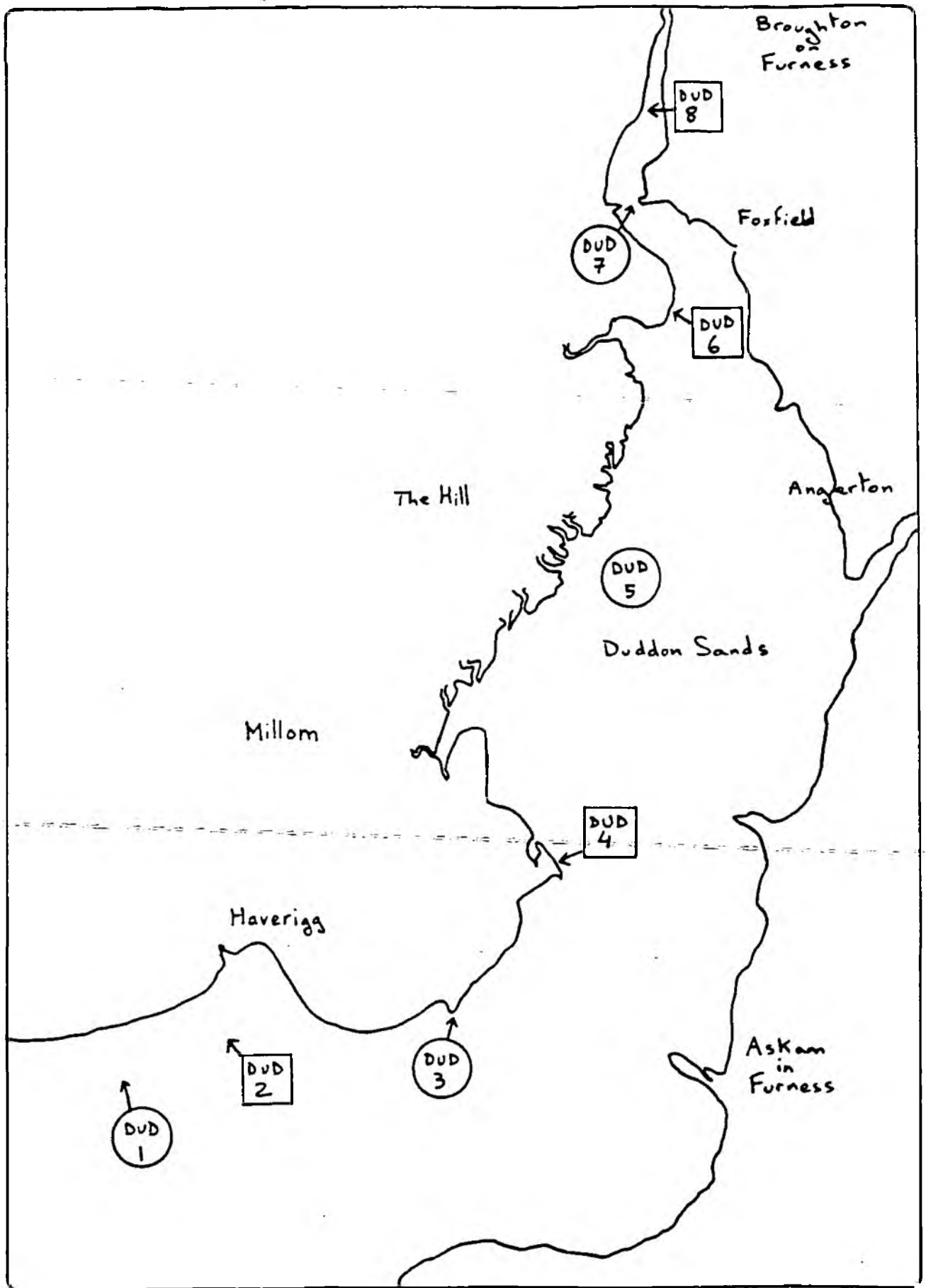
**Figure 1:** Schematic representation of the Ribble estuary, showing the sampling sites.

□ Baseline monitoring stations

DUDDON SURVEY

STATION	LATITUDE	LONGITUDE	S.P.N.
1.	54 10.17	03 17.75	88004998
*** 2.	54 11.71	03 17.08	88004997
3.	54 11.24	03 14.21	88004993
*** 4.	54 12.27	03 14.28	88004988
5.	54 13.21	03 13.16	88004975
*** 6.	54 14.99	03 13.32	88004970
7.	54 15.57	03 13.74	88004967
*** 8.	54 16.14	03 13.55	88004966

DESCRIPTION	N.G.R.	F.R.N.
1. Duddon estuary at former outfall from Haverigg prison	SD 154 775	74808870D
2. Duddon estuary at Haverigg	SD 162 785	74808870B
3. Duddon estuary off Hodbarrow point	SD 193 778	74808861K
4. Duddon estuary at Millom pier	SD 193 795	74808850
5. Duddon estuary off Burnfield farm	SD 205 812	74808825
6. Duddon estuary at Low Shaw	SD 204 845	74808812
7. Duddon estuary at Foxfield railway bridge	SD 200 856	74808799
8. Duddon estuary upstream Foxfield railway bridge	SD 202 866	74808798



**Figure 1:** Schematic representation of the Duddon estuary, showing the sampling sites.

□ = Baseline monitoring stations

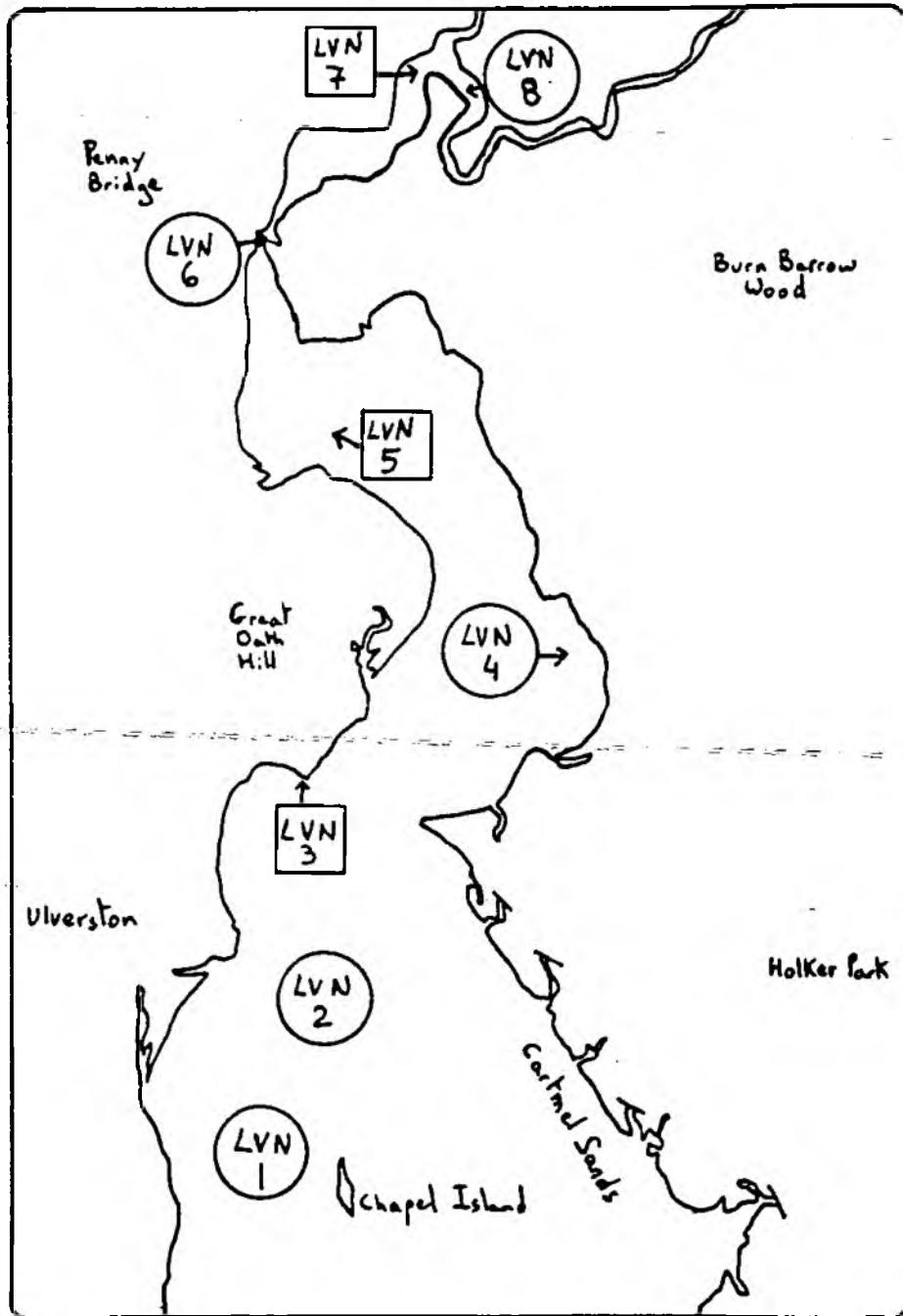


LEVEN SURVEY

	STATION	LATITUDE	LONGITUDE	S.P.N.
!	1.	54 10.56	03 02.51	88004602
	2.	54 11.36	03 03.09	88004600
***	3.	54 11.96	03 02.61	88004599
	4.	54 12.47	03 01.13	88004598
***	5.	54 13.19	03 02.38	88004597
	6.	54 13.88	03 03.07	88004594
***	7.	54 14.59	03 02.09	88004569
	8.	54 14.51	03 01.65	88004564

! Dissolved Cu, Cr, Pb, Ni, Zn

	DESCRIPTION	N.G.R.	F.R.N.
1.	River Leven upstream of Carter pool (north of Chapel island)	SD 320 761	73808568
2.	R Leven (upstream Glaxo) at Canal Foot	SD 314 776	73808567
3.	Leven at the Leven viaduct	SD 319 787	73808565
4.	Leven near Low Frith	SD 336 796	73808564
5.	Leven near Nab Point	SD 322 810	73808563
6.	River Leven at Greenodd	SD 315 825	73808550
7.	Leven downstream Rusland pool	SD 326 836	73808482
8.	Leven upstream Rusland pool	SD 330 834	73808452



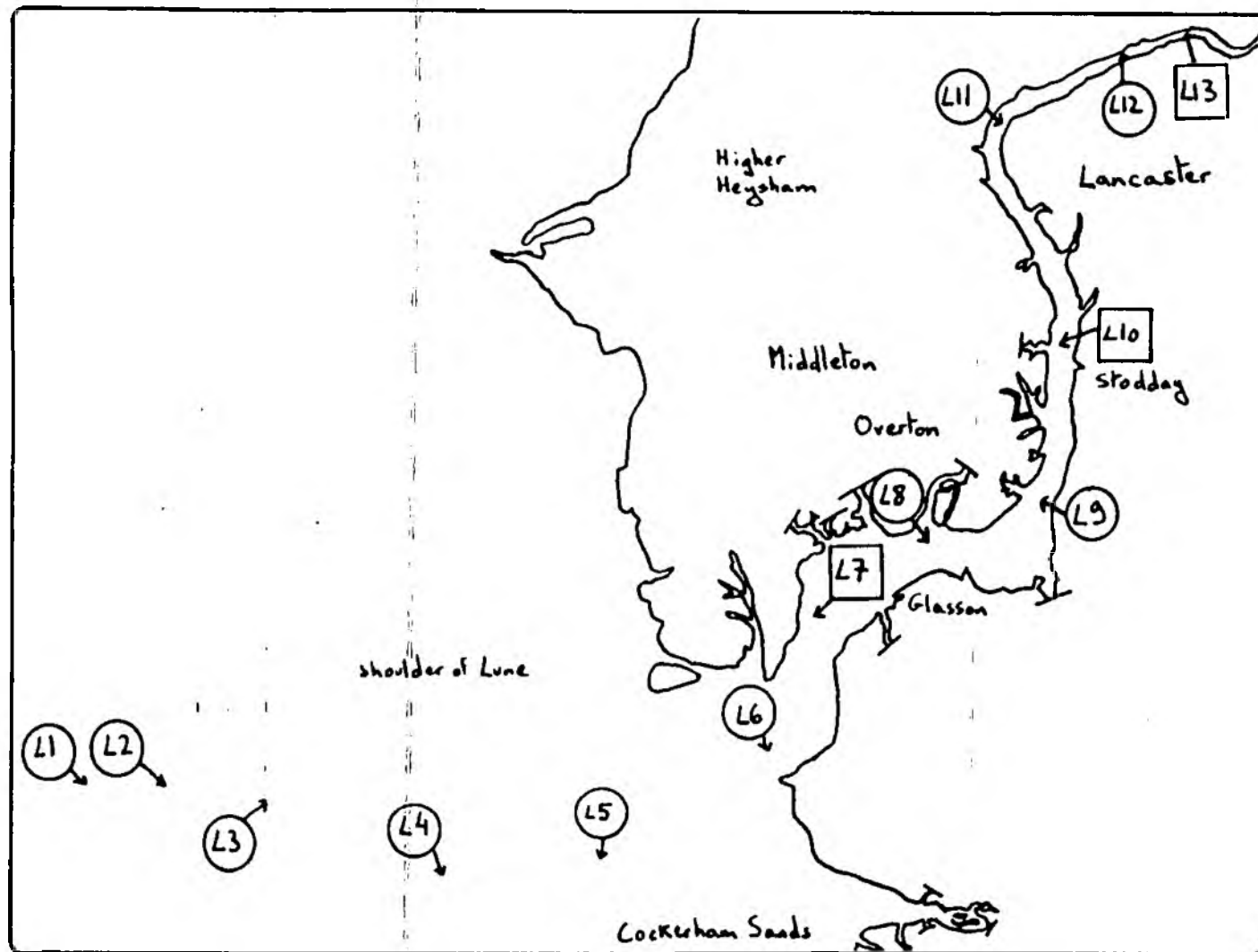
**Figure 1:** Schematic representation of the Leven estuary, showing the sampling sites.

□ = Baseline monitoring stations

LUNE SURVEY

STATION	S.P.N.
1. Lune number 1 buoy	88004105
2. Lune halfway between Lune number 1 and Lune number 3 buoys	88004107
3. Lune number 3 buoy	88004108
4. Lune SB buoy	88004109
5. Lune estuary at Broadfleet(L5 buoy)	88004104
6. Lune estuary Plover Scar	88004079
*** 7. Lune estuary at Sunderland Point	88004078
8. Lune estuary Glasson	88004077
9. Lune upstream cottage	88004040
*** 10. Lune estuary 100 upstream Stodday outfall	88004042
11. Lune estuary at Golden Ball Inn	88004038
12. Lune at Quay	88004033
*** 13. Lune at railway bridge	88004032

DESCRIPTION	N.G.R.	F.R.N.
1. Lune number 1 buoy	SD 344 539	72807767
2. Lune halfway between Lune number 1 and Lune number 3 buoys	SD 355 540	72807769
3. Lune number 3 buoy	SD 368 534	72807770
4. Lune SB buoy	SD 387 529	72807771
5. Lune estuary at Broadfleet (i.e. L5 buoy)	SD 405 538	72807763
6. Lune estuary Plover Scar	SD 422 544	72807598
7. Lune estuary at Sunderland Point	SD 429 560	72807597
8. Lune estuary Glasson	SD 443 565	72807595
9. Lune upstream cottage	SD 454 570	72807506A
10. Lune estuary 100 upstream Stodday outfall	SD 457 588	72807506U
11. Lune estuary at Golden Ball Inn	SD 449 615	72807503
12. Lune at Quay	SD 462 621	72807498
13. Lune at railway bridge	SD 471 624	72807497



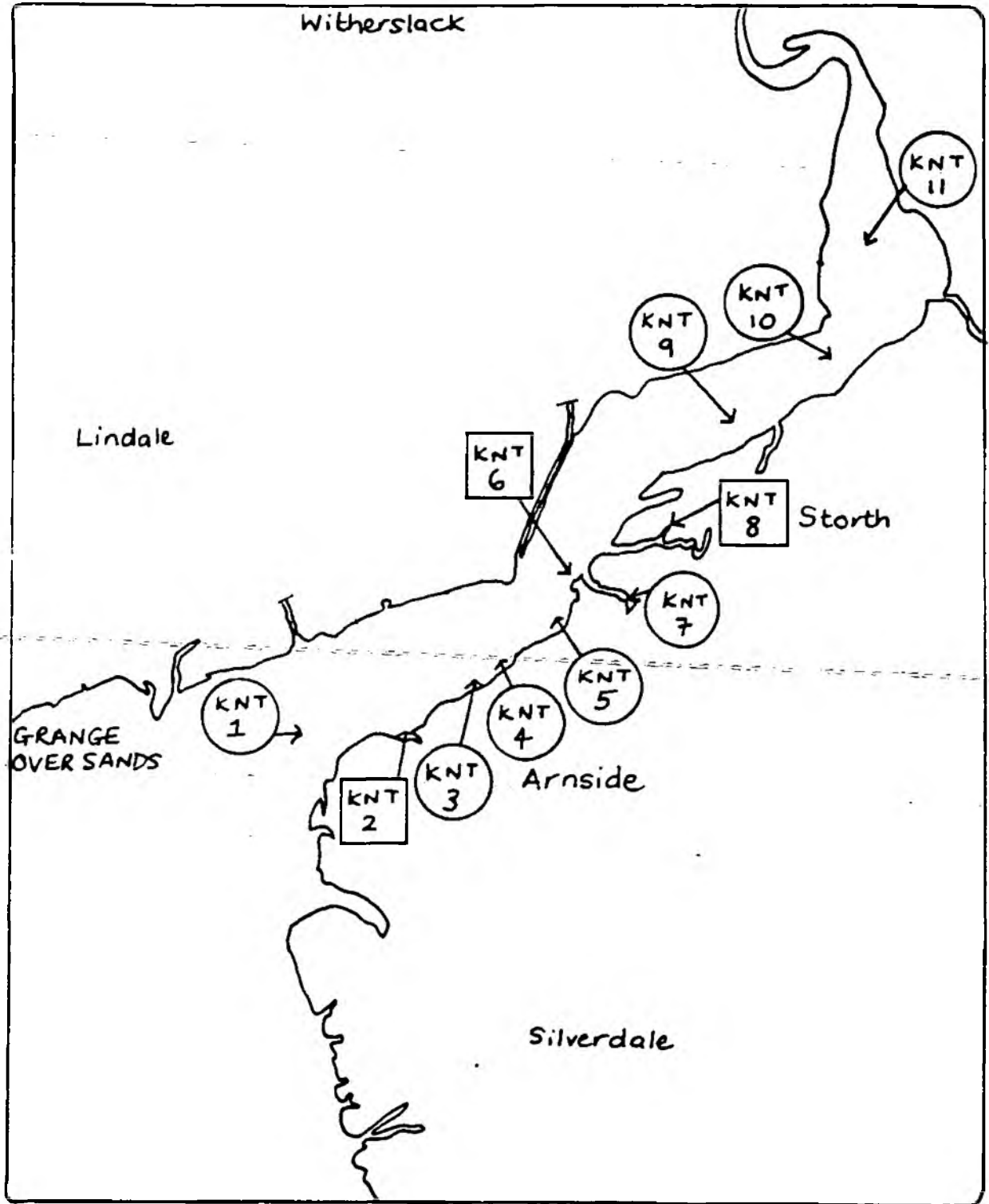
**Figure 1:** Schematic representation of the Lune estuary, showing the sampling sites.

□ = Baseline monitoring stations

KENT SURVEY

STATION	LATITUDE	LONGITUDE	S.P.N.
1.	54 11.99	02 51.88	88004454
*** 2.	54 11.68	02 51.33	88004453
3.	54 11.81	02 50.89	88004452
4.	54 11.96	02 50.59	88004451
5.	54 12.09	02 50.32	88004450
*** 6.	54 12.33	02 50.01	88004449
7.	54 12.26	02 49.56	88004447
*** 8.	54 12.58	02 49.33	88004446
9.	54 12.09	02 50.32	88004442
10.	54 12.33	02 50.01	88004441
11.	54 12.26	02 49.56	88004405

DESCRIPTION	N.G.R.	F.R.N.
1. Kent estuary upstream R. Winster	SD 436 786	73808108
2. Kent estuary at New Barns	SD 442 780	73808107
3. Kent estuary at Grubbins Wood	SD 447 782	73808106
4. Kent estuary at Ash Meadow	SD 450 785	73808105
5. Kent estuary at Arnside pier	SD 454 789	73808104
6. Kent estuary at the Kent viaduct	SD 456 792	73808103
7. Kent Estuary behind Arnside train station	SD 461 791	73808098
8. Kent estuary at Storth	SD 464 797	73808095
9. Kent estuary downstream Sanside	SD 470 805	73808087
10. Kent estuary at Sandside	SD 478 810	73808085
11. Kent estuary upstream river Bela	SD 480 820	73807975



**Figure 1:** Schematic representation of the Kent estuary, showing the sampling sites.

□ = Baseline monitoring stations

SOLWAY SURVEY

	STATION	LATITUDE	LONGITUDE	S.P.N.
***	1.	54 57.69	03 14.13	88006494
	2.	54 57.96	03 10.63	88006493
	3.	54 57.69	03 09.06	88006491
	4.	54 58.08	03 07.40	88006490
	5.	54 56.11	03 07.12	88006489
	6.	54 56.41	03 09.34	88006492
***	7.	54 57.37	03 13.93	88006495

ESK SURVEY

***	1.	Esk (border) estuary railway bridge downstream Metal bridge		88006484
***	2.	Esk (border) estuary between Gretna and Sarkfoot point		88006487
***	3.	Esk (border) estuary at Redkirk point		88006488

EDEN SURVEY

***	1.	Eden near Cargohill		88006432
***	2.	Eden between Castletown House and Rockcliffe		88006431
***	3.	River Eden at Sandsfield		88006433

.../...

**SOLWAY**

	DESCRIPTION	N.G.R.	F.R.N.
1.	Solway Firth between Seafield and Herdhill Scar	NY 209 637	77809870
2.	Solway Firth between Dornockbrow and Torduff point	NY 246 641	77809849
3.	Solway Firth at Torduff point	NY 263 636	77809842
4.	Esk (border) estuary near Browhouse	NY 281 643	77809839
5.	Solway Firth between Easton and Boustead Hill	NY 283 606	77809838B
6.	Solway Firth near Lowtown House	NY 260 612	77809845
7.	Solway Firth at Herdhill Scar	NY 211 631	77809871

**ESK**

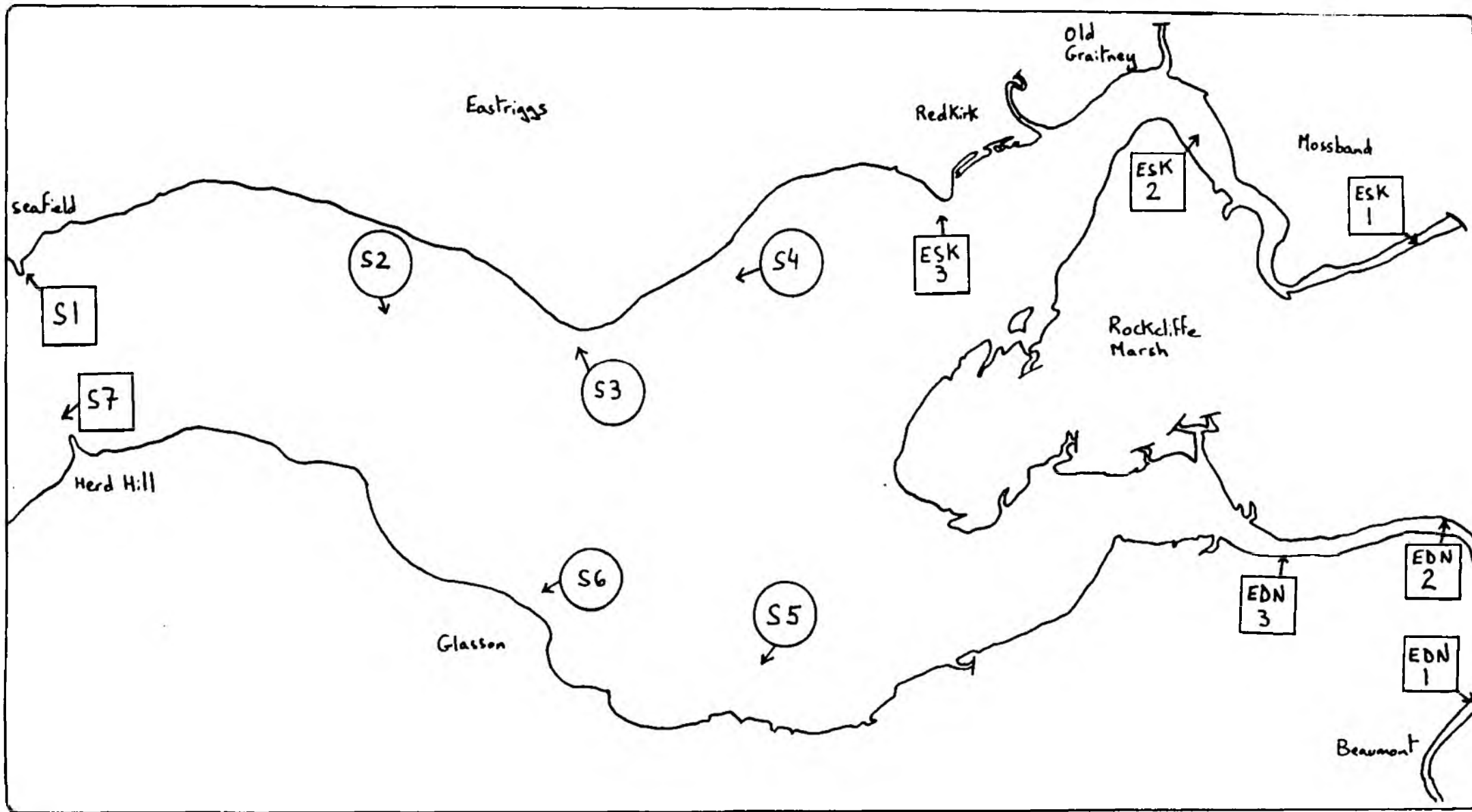
1.	Esk (border) estuary railway bridge downstream Metal bridge	NY 350 647	77809830A
2.	Esk (border) estuary between Gretna and Sarkfoot point	NY 327 656	77809837D
3.	Esk (border) estuary at Redkirk point	NY 302 648	77809838A

**EDEN**

1.	Eden near Cargohill	NY 356 600	76809740B
2.	Eden between Castletown House and Rockcliffe	NY 353 619	76809740A
3.	River Eden at Sandsfield	NY 336 616	76809741

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**Figure 1:** Schematic representation of the Solway Firth, including the Esk and the Eden estuaries, showing the sampling sites.

□ = Baseline monitoring stations

WAVER SURVEY

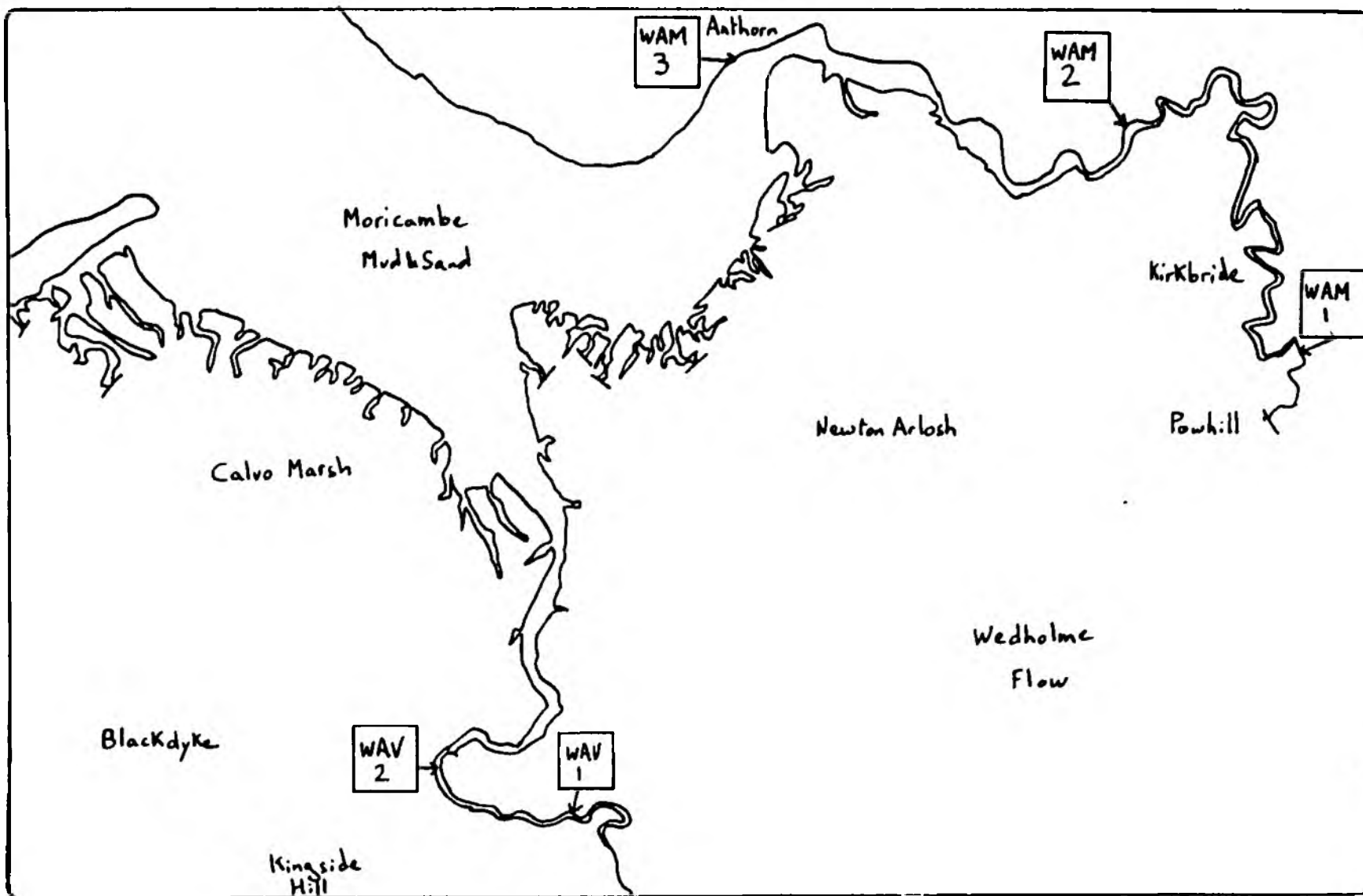
STATION	S.P.N.
*** 1. Waver estuary at the railway cutting	88005857
*** 2. Waver estuary at Winding Banks	88005858

DESCRIPTION	N.G.R.	F.R.N.
1. Waver estuary at the railway cutting	NY 181 517	75809231
2. Waver estuary at Winding Banks	NY 169 523	75809232

WAMPOOL SURVEY

STATION	S.P.N.
*** 1. Wampool at Haythes	88005880
*** 2. Wampool estuary at Whitrigg bridge	88005882
*** 3. Wampool estuary at Anthorn	88005883

DESCRIPTION	N.G.R.	F.R.N.
1. Wampool at Haythes	NY 244 557	75809300
2. Wampool estuary at Whitrigg bridge	NY 228 576	75809310D
3. Wampool estuary at Anthorn	NY 193 580	75809311



**Figure 2:** Schematic representation of the Waver and the Wampool estuaries, showing the sampling sites.

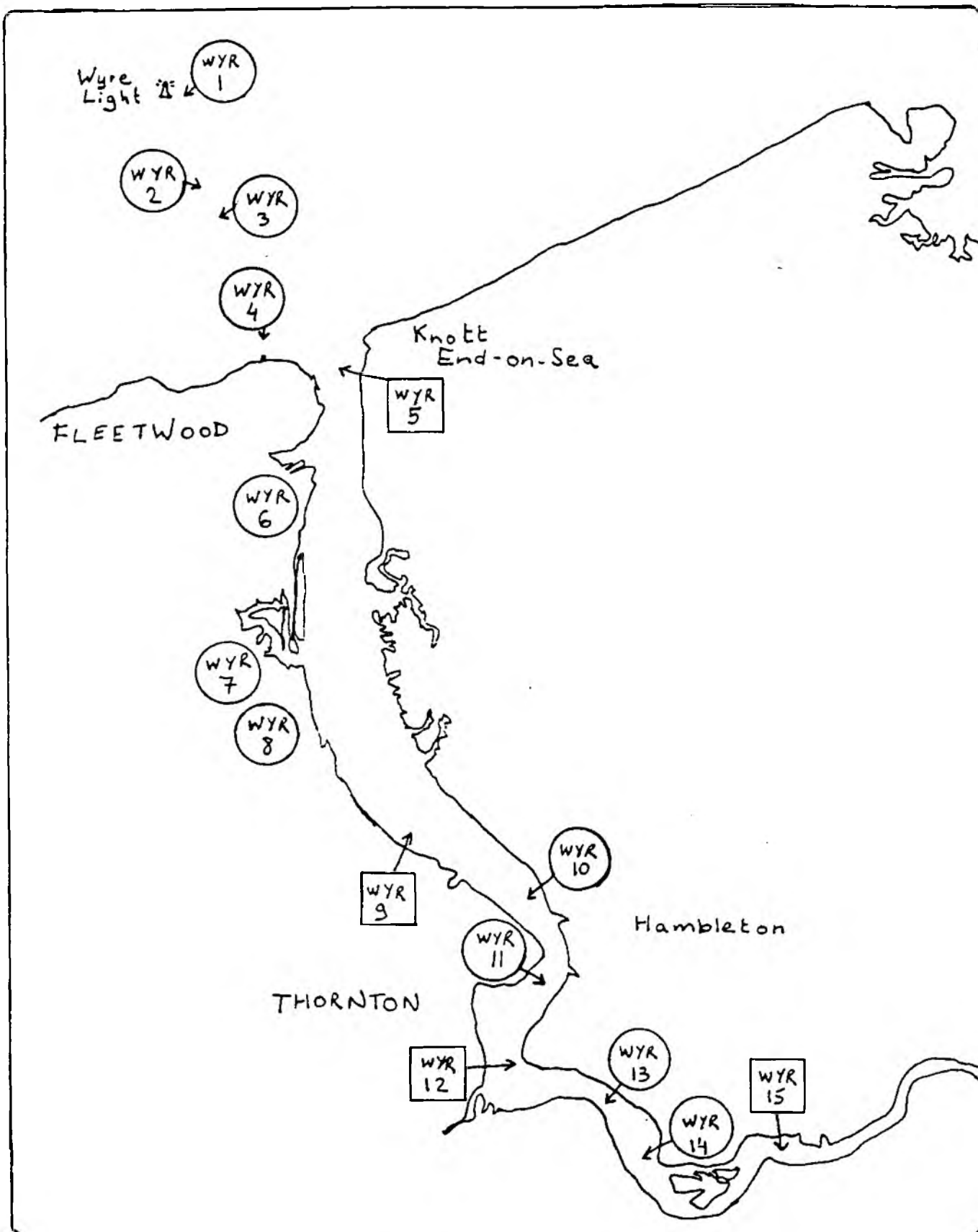
□ = Baseline monitoring stations

WYRE SURVEY

STATION	S.P.N.
1. Wyre estuary at Wyre light	88003938
2. Wyre number 7 buoy	88003937
3. Wyre number 9 buoy	88003936
4. Wyre number 16 buoy	88003935
*** 5. Wyre estuary at Fleetwood	88003933
& 6. Wyre at power station	88003930
7. Wyre lagoon discharge	88003929
8. Wyre ICI sea water intake	88003925
*** & 9. Wyre at last ICI building	88003920
10. Wyre at power lines	88003907
11. Wyre estuary at Hambleton bottleneck	88003899
*** 12. Wyre downstream Shard bridge	88003887
13. Wyre estuary at Shard bridge	88003886
14. Wyre estuary near Mains Hall	88003885
*** 15. Wyre estuary at Windy Harbour	88003884

& = Sampled twelve times a year 1,2 dichloroethane and dissolved metals (Hg, Cu, Cr, Pb, Ni, Zn)

DESCRIPTION	N.G.R.	F.R.N.
1. Wyre estuary at Wyre light	SD 328 513	72806987
2. Wyre number 7 buoy	SD 329 504	72806985
3. Wyre number 9 buoy	SD 331 499	72806984
4. Wyre number 16 buoy	SD 336 488	72806983
5. Wyre estuary at Fleetwood	SD 341 485	72806978
6. Wyre at power station	SD 340 468	72806973
7. Wyre lagoon discharge	SD 340 457	72806972
8. Wyre ICI sea water intake	SD 342 447	72806966
9. Wyre at last ICI building	SD 348 438	72806961
10. Wyre at power lines	SD 362 430	72806954
11. Wyre estuary at Hambleton bottleneck	SD 365 421	72806930
12. Wyre downstream Shard bridge	SD 361 412	72806861
13. Wyre estuary at Shard bridge	SD 369 411	72806860
14. Wyre estuary near Mains Hall	SD 374 403	72806859
15. Wyre estuary at Windy Harbour	SD 389 404	72806858



**Figure 1:** Schematic representation of the Wyre estuary, showing the sampling sites.

□ = Baseline monitoring stations

ESK MITE AND IRT SURVEYS

ESK	STATION	S.P.N.
***	1. River Esk at Muncaster bridge	88005049
***	2. Esk estuary at railway viaduct	88005053
***	3. River Esk at Ravenglass d/s Ravenglass STW u/s conf. with River Irt	88005052
***	4. Esk estuary at Drigg Point	88005054

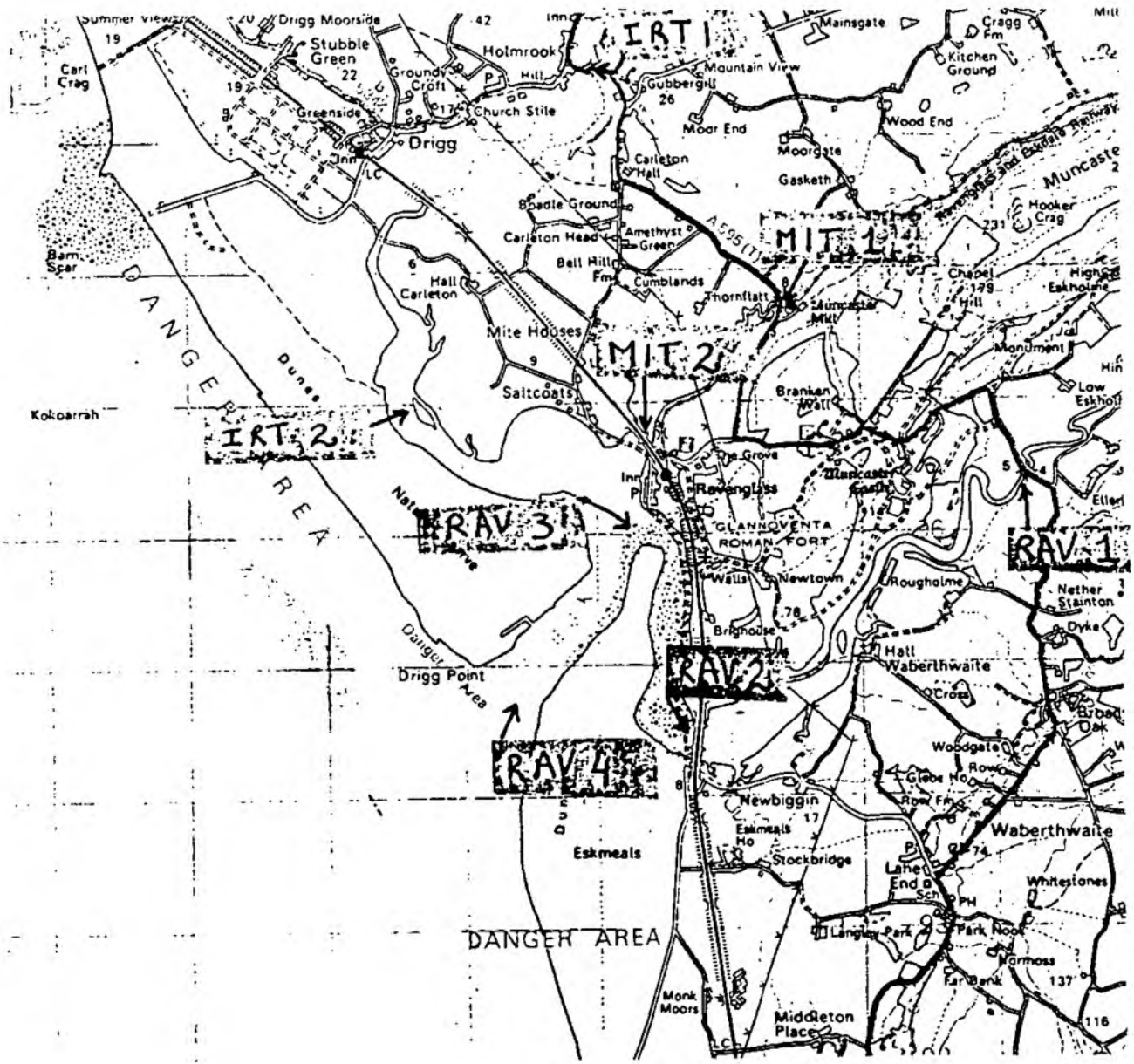
DESCRIPTION	N.G.R.	F.R.N.
1. River Esk at Muncaster bridge	SD 112 964	74808890
2. Esk estuary at railway viaduct	SD 087 945	74808896D
3. River Esk at Ravenglass d/s Ravenglass STW u/s conf. with River Irt	SD 084 961	74808895
4. Esk estuary at Drigg Point	SD 075 950	74808896G

MITE	STATION	S.P.N.
***	1. River Mite at Muncaster Mill bridge	88005058
***	2. River Mite near viaduct Ravenglass	88005059

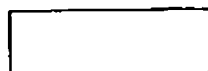
DESCRIPTION	N.G.R.	F.R.N.
1. River Mite at Muncaster Mill bridge	SD 094 977	74808900
2. River Mite nr viaduct Ravenglass	SD 084 967	74808902

IRT	STATION	S.P.N.
***	1. Irt estuary upstream Saltcoats	88005098
***	2. River Irt at Holmrook	88005090

DESCRIPTION	N.G.R.	F.R.N.
1. Irt estuary upstream Saltcoats	SD 066 968	74808930Y
2. River Irt at Holmrook	SD 080 995	74808930



**Figure 1:** Location of sampling sites in the Esk, the Mite and the Irt estuaries (descriptions in Appendix 1)



Baseline monitoring stations

MAJOR ESTUARIES - sampled by PCO

STATION	S.P.N.
1. Walney Channel - Jubilee bridge	88004884
2. Calder - Calder Hall	88005129
3. Ehen u/s River Calder	88005191
4. Ellen	
a. At end of sea wall	88005819
b. At last road bridge	88005817
c. By new houses opposite marina	88005818
5. Derwent	
a. At A597 road bridge	88005741
b. At end of harbour wall	88005733

DESCRIPTION	N.G.R.	F.R.N.
1. Walney Channel - Jubilee bridge	SD 187 687	74808670
2. Calder - Calder Hall	NY 025 027	74808950
3. Ehen u/s River Calder	NY 024 028	74809019
4. Ellen		
a. At end of sea wall	NY 027 368	75809170M
b. At last road bridge	NY 034 365	75809170A
c. By new houses opposite marina	NY 033 363	75809170B
5. Derwent		
a. At A597 road bridge	NX 999 294	75809111
b. At end of harbour wall	NX 983 297	75809114





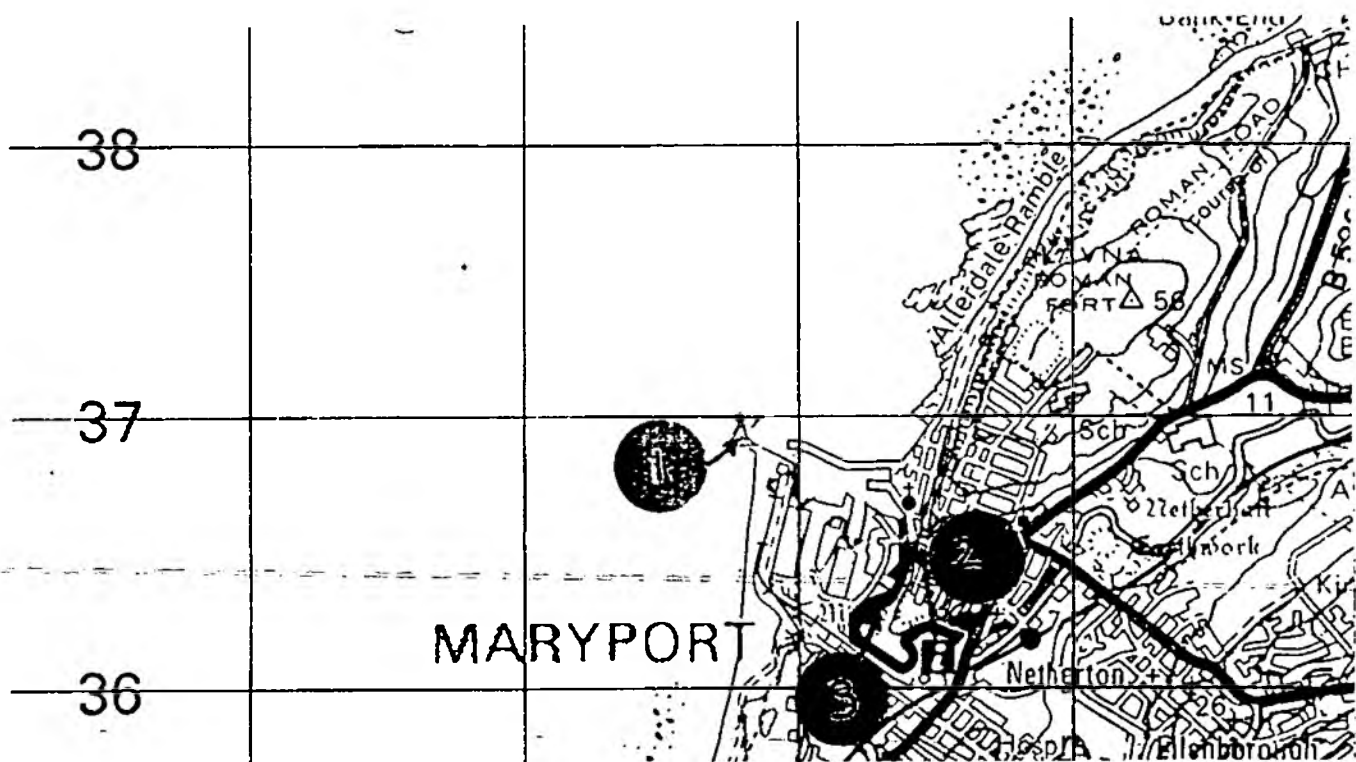


Figure 2: Location of sampling sites on the Ellen

1. At end of sea wall
2. At last road bridge
3. By new houses opposite marina

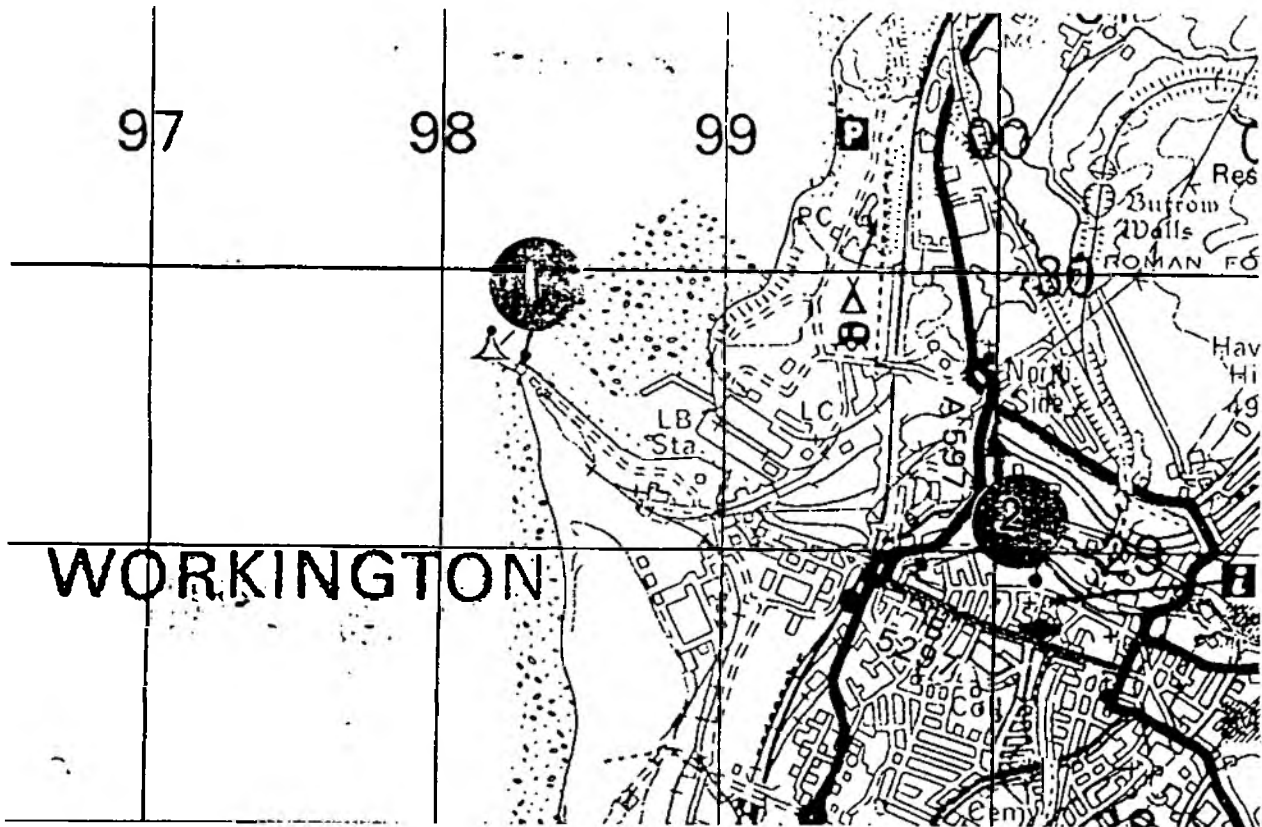


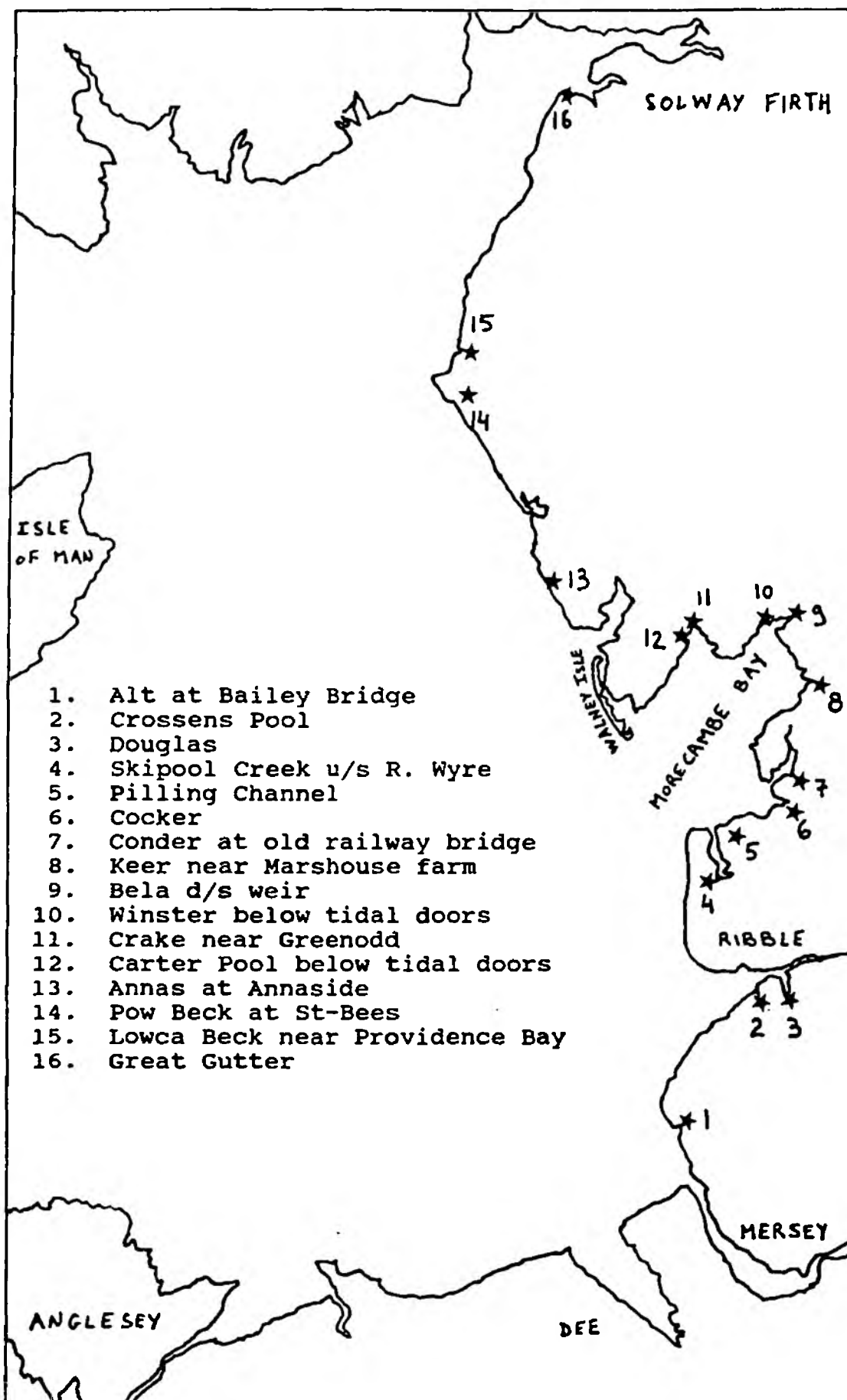
Figure 3: Location of sampling sites on the Derwent

1. At end of harbour wall
2. At A597 road bridge

MINOR ESTUARIES - sampled by PCO

STATION	S.P.N.
1. Alt at Bailey Bridge	88002881
2. Crossens Pool	88003222
3. Douglas	88003133
4. Skipool Creek u/s R. Wyre	88003888
5. Pilling Channel	88004099
6. Cocker	88004088
7. Conder at old railway bridge	88004076
8. Keer near Marshouse farm	88004485
9. Bela d/s weir	88004440
10. Winster below tidal doors	88004465
11. Crake near Greenodd	88004592
12. Carter Pool below tidal doors	88004607
13. Annas at Annaside	88005012
14. Pow Beck at St-Bees	88005199
15. Lowca Beck near Providence Bay	88005252
16. Great Gutter	88005890

DESCRIPTION	N.G.R.	F.R.N.
1. Alt at Bailey Bridge	SD 296 041	69804133
2. Crossens Pool	SD 372 221	70806495
3. Douglas	SD 551 730	70805857
4. Skipool Creek u/s R. Wyre	SD 357 410	72806865
5. Pilling Channel	SD 414 479	72807752
6. Cocker	SD 452 512	72807660
7. Conder at old railway bridge	SD 456 560	72807593
8. Keer near Marshouse farm	SD 482 705	73808233
9. Bela d/s weir	SD 487 815	73808082
10. Winster below tidal doors	SD 431 791	73808148
11. Crake near Greenodd	SD 315 825	73808537
12. Carter Pool below tidal doors	SD 307 767	73808591
13. Annas at Annaside	SD 090 867	74808880
14. Pow Beck at St-Bees	NX 969 119	74809022M
15. Lowca Beck near Providence Bay	NX 981 212	74809026
16. Great Gutter	NY 132 561	75809319



**Figure 1:** Location of all minor estuaries, sampled by pollution control (PCOs)

**PART 2: National Coastal Monitoring Programme - Quarterly**

<b>SAMPLING SITES</b>	<b>F.R.N.</b>	<b>S.P.N.</b>
COASTAL SURVEY NRA-XXX: SITE SLA 1	92808000	88007085
COASTAL SURVEY NRA-XXX: SITE SLA 2	92808020	88007086
COASTAL SURVEY NRA-XXX: SITE SLA 3	92808040	88007087
COASTAL SURVEY NRA-XXX: SITE SLA 4	92808060	88007088
COASTAL SURVEY NRA-XXX: SITE SLA 5	92808100	88007089
COASTAL SURVEY NRA-XXX: SITE SLA 6	92808120	88007090
COASTAL SURVEY NRA-XXX: SITE SLA 7	92808140	88007091
COASTAL SURVEY NRA-XXX: SITE SLA 8	92808160	88007092
COASTAL SURVEY NRA-XXX: SITE SLA 9	92808180	88007093
COASTAL SURVEY NRA-XXX: SITE SLA 10	92808200	88007094
COASTAL SURVEY NRA-XXX: SITE SLA 11	92808220	88007095
COASTAL SURVEY NRA-XXX: SITE SLA 15	92808300	88007096
COASTAL SURVEY NRA-XXX: SITE SLA 16	92808320	88007097
COASTAL SURVEY NRA-XXX: SITE SLA 20	92808400	88007098
COASTAL SURVEY NRA-XXX: SITE SLA 21	92808420	88007099
COASTAL SURVEY NRA-XXX: SITE SLA 25	92808500	88007100
COASTAL SURVEY NRA-XXX: SITE SLA 26	92808520	88007101
COASTAL SURVEY NRA-XXX: SITE SLA 30	92808600	88007102
COASTAL SURVEY NRA-XXX: SITE SLA 31	92808620	88007103
COASTAL SURVEY NRA-XXX: SITE SLA 35	92808700	88007104
COASTAL SURVEY NRA-XXX: SITE SLA 36	92808720	88007105
COASTAL SURVEY NRA-XXX: SITE SLA 40	92808800	88007106
COASTAL SURVEY NRA-XXX: SITE SLA 41	92808820	88007107
COASTAL SURVEY NRA-XXX: SITE SLA 45 & SLB 1 & SLC 1	92807300	88007108
COASTAL SURVEY NRA-XXX: SITE SLB 2	92807320	88007109
COASTAL SURVEY NRA-XXX: SITE SLB 3	92807340	88007110
COASTAL SURVEY NRA-181 SOLWAY BUOY: SITE SLB 5	92807400	88007111
COASTAL SURVEY NRA-XXX: SITE SLB 6	92807420	88007112
COASTAL SURVEY NRA-XXX: SITE SLB 7	92807440	88007113
COASTAL SURVEY NRA-XXX: SITE SLB 8	92807460	88007114
COASTAL SURVEY NRA-XXX: SITE SLB 9	92807480	88007115
COASTAL SURVEY NRA-182 MIDDLE BUOY: SITE SLB 10	92807500	88007116
COASTAL SURVEY NRA-XXX: SITE SLB 11	92807520	88007117
COASTAL SURVEY NRA-XXX: SITE SLB 12	92807540	88007118
COASTAL SURVEY NRA-183 BALCARRY: SITE SLB 15	92807600	88007119
COASTAL SURVEY NRA-XXX: SITE SLB 16	92807620	88007120
COASTAL SURVEY NRA-XXX: SITE SLB 17	92807640	88007121
COASTAL SURVEY NRA-XXX: SITE SLB 18	92807660	88007122
COASTAL SURVEY NRA-XXX: SITE SLB 19	92807680	88007123
COASTAL SURVEY NRA-184 ABBEY HEAD: SITE SLB 20	92807700	88007124
COASTAL SURVEY NRA-XXX: SITE SLB 21	92807720	88007125
COASTAL SURVEY NRA-XXX: SITE SLB 22	92807740	88007126
COASTAL SURVEY NRA-XXX: SITE SLB 23	92807760	88007127
COASTAL SURVEY NRA-XXX: SITE SLB 24	92807780	88007128
COASTAL SURVEY NRA-185 MEGGERLAND: SITE SLB 25	92807800	88007129
COASTAL SURVEY NRA-XXX: SITE SLB 26	92807820	88007130

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COASTAL SURVEY NRA-XXX: SITE SLB 27	92807840	88007131
COASTAL SURVEY NRA-XXX: SITE SLB 28	92807860	88007132
COASTAL SURVEY NRA-XXX: SITE SLB 29	92807880	88007133
COASTAL SURVEY NRA-186 ST NINIANS: SITE SLB 30	92807900	88007134
COASTAL SURVEY NRA-XXX: SITE SLC 2	92807240	88007135
COASTAL SURVEY NRA-XXX: SITE SLC 3	92807220	88007136
COASTAL SURVEY NRA-180 WORKINGTON: SITE SLC 5	92807200	88007137
COASTAL SURVEY NRA-XXX: SITE SLC 6	92807160	88007138
COASTAL SURVEY NRA-XXX: SITE SLC 7	92807140	88007139
COASTAL SURVEY NRA-XXX: SITE SLC 8	92807120	88007140
COASTAL SURVEY NRA-179 WHITEHAVEN: SITE SLC 10	92807100	88007141
COASTAL SURVEY NRA-XXX: SITE SLC 11	92807060	88007142
COASTAL SURVEY NRA-XXX: SITE SLC 12	92807040	88007143
COASTAL SURVEY NRA-XXX: SITE SLC 13	92807020	88007144
COASTAL SURVEY NRA-178 CALDER HALL: SITE SLC 15	92807000	88007145
COASTAL SURVEY NRA-XXX: SITE SLC 16	92806960	88007146
COASTAL SURVEY NRA-XXX: SITE SLC 17	92806940	88007147
COASTAL SURVEY NRA-XXX: SITE SLC 18	92806920	88007148
COASTAL SURVEY NRA-177 SELKER: SITE SLC 20	92806900	88007149
COASTAL SURVEY NRA-XXX: SITE SLC 21	92806860	88007150
COASTAL SURVEY NRA-XXX: SITE SLC 22	92806840	88007151
COASTAL SURVEY NRA-XXX: SITE SLC 23	92806820	88007152
COASTAL SURVEY NRA-176 DUDDON: SITE SLC 25	92806800	88007153
COASTAL SURVEY NRA-XXX: SITE SLC 26	92806740	88007154
COASTAL SURVEY NRA-XXX: SITE SLC 27	92806720	88007155
COASTAL SURVEY NRA-175 HILPSFORD: SITE SLC 30	92806700	88007156
COASTAL SURVEY NRA-XXX: SITE SLC 31	92806660	88007157
COASTAL SURVEY NRA-XXX: SITE SLC 32	92806640	88007158
COASTAL SURVEY NRA-XXX: SITE SLC 33	92806620	88007159
COASTAL SURVEY NRA-174 KING SCAR: SITE SLC 35	92806600	88007160
COASTAL SURVEY NRA-XXX: SITE SLC 36	92806540	88007161
COASTAL SURVEY NRA-XXX: SITE SLC 37	92806520	88007162
COASTAL SURVEY NRA-173 BLACKPOOL: SITE SLC 40	92806500	88007163
COASTAL SURVEY NRA-XXX: SITE SLC 41	92806460	88007164
COASTAL SURVEY NRA-XXX: SITE SLC 42	92806440	88007165
COASTAL SURVEY NRA-XXX: SITE SLC 43	92806420	88007166
COASTAL SURVEY NRA-172 GUT : SITE SLC 45	92806400	88007167
COASTAL SURVEY NRA-XXX: SITE SLC 46	92806360	88007168
COASTAL SURVEY NRA-XXX: SITE SLC 47	92806340	88007169
COASTAL SURVEY NRA-XXX: SITE SLC 48	92806320	88007170
COASTAL SURVEY NRA-171 FORMBY POINT: SITE SLC 50	92806300	88007171
COASTAL SURVEY NRA-170 N WIRRAL: SITE SLC 55 & WLA 1	92806200	88007172
COASTAL SURVEY NRA-169 HE 1: SITE WLA 5	92806100	88007173
COASTAL SURVEY NRA-XXX: SITE WLA 6	92806060	88007174
COASTAL SURVEY NRA-XXX: SITE WLA 7	92806040	88007175
COASTAL SURVEY NRA-XXX: SITE WLA 8	92806020	88007176
COASTAL SURVEY NRA-168 WELSH CHANNEL: SITE WLA 10	92806000	88007177
COASTAL SURVEY NRA-XXX: SITE WLA 11	92805920	88007178
COASTAL SURVEY NRA-167 CHESTER FLAT: SITE WLA 15	92805900	88007179
COASTAL SURVEY NRA-XXX: SITE WLA 16	92805860	88007180
COASTAL SURVEY NRA-XXX: SITE WLA 17	92805840	88007181
COASTAL SURVEY NRA-XXX: SITE WLA 18	92805820	88007182
COASTAL SURVEY NRA-166 LLANDDULAS: SITE WLA 20	92805800	88007183

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COASTAL SURVEY NRA-XXX: SITE WLA 21	92805760	88007184
COASTAL SURVEY NRA-XXX: SITE WLA 22	92805740	88007185
COASTAL SURVEY NRA-XXX: SITE WLA 23	92805720	88007186
COASTAL SURVEY NRA-165 ORME: SITE WLA 25	92805700	88007187
COASTAL SURVEY NRA-XXX: SITE WLA 26	92805660	88007188
COASTAL SURVEY NRA-XXX: SITE WLA 27	92805640	88007189
COASTAL SURVEY NRA-XXX: SITE WLA 28	92805620	88007190
COASTAL SURVEY NRA-164 RED WHARF: SITE WLA 30	92805600	88007191
COASTAL SURVEY NRA-XXX: SITE WLA 31	92805540	88007192
COASTAL SURVEY NRA-XXX: SITE WLA 32	92805520	88007193
COASTAL SURVEY NRA-XXX: SITE WLA 35	92805500	88007194
COASTAL SURVEY NRA-XXX: SITE WLA 36	92805440	88007195
COASTAL SURVEY NRA-XXX: SITE WLA 37	92805420	88007196
COASTAL SURVEY NRA-163 MIDDLE MOUSE: SITE WLA 40	92805400	88007197
COASTAL SURVEY NRA-XXX: SITE WLA 41	92805380	88007198
COASTAL SURVEY NRA-XXX: SITE WLA 42	92805360	88007199
COASTAL SURVEY NRA-XXX: SITE WLA 43	92805340	88007200
COASTAL SURVEY NRA-XXX: SITE WLA 44	92805320	88007201
COASTAL SURVEY NRA-162 HOLYHEAD: SITE WLA 45 & WLB 1	92805300	88007202
COASTAL SURVEY NRA-XXX: SITE WLB 2	92805260	88007203
COASTAL SURVEY NRA-XXX: SITE WLB 3	92805240	88007204
COASTAL SURVEY NRA-XXX: SITE WLB 4	92805220	88007205
COASTAL SURVEY NRA-161 PENRHOS: SITE WLB 5	92805200	88007206
COASTAL SURVEY NRA-XXX: SITE WLB 6	92805160	88007207
COASTAL SURVEY NRA-XXX: SITE WLB 7	92805140	88007208
COASTAL SURVEY NRA-XXX: SITE WLB 8	92805120	88007209
COASTAL SURVEY NRA-160 ABERFERAW: SITE WLB10	92805100	88007210
COASTAL SURVEY NRA-XXX: SITE WLB 11	92805060	88007211
COASTAL SURVEY NRA-XXX: SITE WLB 12	92805040	88007212
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COASTAL SURVEY NRA-159 DYLAN: SITE WLB 15	92805000	88007214
COASTAL SURVEY NRA-XXX: SITE WLB 16	92804960	88007215
COASTAL SURVEY NRA-XXX: SITE WLB 17	92804940	88007216
COASTAL SURVEY NRA-XXX: SITE WLB 18	92804920	88007217
COASTAL SURVEY NRA-158 DINUAEN: SITE WLB 20	92804900	88007218
COASTAL SURVEY NRA-XXX: SITE WLB 21	92804840	88007219
COASTAL SURVEY NRA-XXX: SITE WLB 22	92804820	88007220
COASTAL SURVEY NRA-157 PORTH YSGADEN: SITE WLB 25	92804800	88007221
COASTAL SURVEY NRA-XXX: SITE WLB 26	92804760	88007222
COASTAL SURVEY NRA-XXX: SITE WLB 27	92804740	88007223
COASTAL SURVEY NRA-XXX: SITE WLB 28	92804720	88007224
COASTAL SURVEY NRA-156 BARDSEY: SITE WLB 30	92804700	88007225
COASTAL SURVEY NRA-XXX: SITE WLB 31	92804640	88007226
COASTAL SURVEY NRA-XXX: SITE WLB 32	92804620	88007227
COASTAL SURVEY NRA-155 PORTH CEIRIAD: SITE WLB 35	92804600	88007228
COASTAL SURVEY NRA-XXX: SITE WLB 36	92804560	88007229
COASTAL SURVEY NRA-XXX: SITE WLB 37	92804540	88007230
COASTAL SURVEY NRA-XXX: SITE WLB 38	92804520	88007231
COASTAL SURVEY NRA-154 PWLLHELI: SITE WLB 40 & WLC 1	92804500	88007232
COASTAL SURVEY NRA-XXX: SITE WLC 2	92804460	88007233
COASTAL SURVEY NRA-XXX: SITE WLC 3	92804440	88007234
COASTAL SURVEY NRA-XXX: SITE WLC 4	92804420	88007235

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COASTAL SURVEY NRA-153 SHELL: SITE WLC 5	92804400	88007236
COASTAL SURVEY NRA-XXX: SITE WLC 6	92804360	88007237
COASTAL SURVEY NRA-XXX: SITE WLC 7	92804340	88007238
COASTAL SURVEY NRA-XXX: SITE WLC 8	92804320	88007239
COASTAL SURVEY NRA-152 BANMOUTH: SITE WLC 10	92804300	88007240
COASTAL SURVEY NRA-XXX: SITE WLC 11	92804260	88007241
COASTAL SURVEY NRA-XXX: SITE WLC 12	92804240	88007242
COASTAL SURVEY NRA-XXX: SITE WLC 13	92804220	88007243
COASTAL SURVEY NRA-151 PEN-BWCH POINT: SITE WLC 15	92804200	88007244
COASTAL SURVEY NRA-XXX: SITE WLC 16	92804140	88007245
COASTAL SURVEY NRA-XXX: SITE WLC 17	92804120	88007246
COASTAL SURVEY NRA-150 ABERDOVEY: SITE WLC 20	92804100	88007247
COASTAL SURVEY NRA-XXX: SITE WLC 21	92804060	88007248
COASTAL SURVEY NRA-XXX: SITE WLC 22	92804040	88007249
COASTAL SURVEY NRA-XXX: SITE WLC 23	92804020	88007250
COASTAL SURVEY NRA-149 ABERYSTWYTH: SITE WLC 25	92804000	88007251
COASTAL SURVEY NRA-XXX: SITE WLC 26	92803940	88007252
COASTAL SURVEY NRA-XXX: SITE WLC 27	92803920	88007253
COASTAL SURVEY NRA-148 PEN PIGYN: SITE WLC 30	92803900	88007254
COASTAL SURVEY NRA-XXX: SITE WLC 31	92803860	88007255
COASTAL SURVEY NRA-XXX: SITE WLC 32	92803840	88007256
COASTAL SURVEY NRA-XXX: SITE WLC 33	92803820	88007257
COASTAL SURVEY NRA-147 NEWQUAY HEAD: SITE WLC 35	92803800	88007258
COASTAL SURVEY NRA-XXX: SITE WLC 36	92803740	88007259
COASTAL SURVEY NRA-XXX: SITE WLC 37	92803720	88007260
COASTAL SURVEY NRA-146 PENLY-BADELL: SITE WLC 40	92803700	88007261
COASTAL SURVEY NRA-XXX: SITE WLC 41	92803660	88007262
COASTAL SURVEY NRA-XXX: SITE WLC 42	92803640	88007263
COASTAL SURVEY NRA-XXX: SITE WLC 43	92803620	88007264
COASTAL SURVEY NRA-145 CARDIGAN: SITE WLC 45	92803600	88007265
COASTAL SURVEY NRA-XXX: SITE WLC 46	92803540	88007266
COASTAL SURVEY NRA-XXX: SITE WLC 47	92803520	88007267
COASTAL SURVEY NRA-144 PWLL-COCH: SITE WLC 50	92803500	88007268
COASTAL SURVEY NRA-XXX: SITE WLC 51	92803440	88007269
COASTAL SURVEY NRA-XXX: SITE WLC 52	92803420	88007270
COASTAL SURVEY NRA-143 FISHGUARD: SITE WLC 55 & WLD 1	92803400	88007271
COASTAL SURVEY NRA-XXX: SITE WLD 2	92803320	88007272
COASTAL SURVEY NRA-142 STRUMBLE HEAD: SITE WLD 5	92803300	88007273
COASTAL SURVEY NRA-XXX: SITE WLD 6	92803260	88007274
COASTAL SURVEY NRA-XXX: SITE WLD 7	92803240	88007275
COASTAL SURVEY NRA-XXX: SITE WLD 8	92803220	88007276
COASTAL SURVEY NRA-141 ABEREIDDY: SITE WLD 10	92803200	88007277
COASTAL SURVEY NRA-XXX: SITE WLD 11	92803180	88007278
COASTAL SURVEY NRA-XXX: SITE WLD 12	92803160	88007279
COASTAL SURVEY NRA-XXX: SITE WLD 13	92803140	88007280
COASTAL SURVEY NRA-XXX: SITE WLD 14	92803120	88007281
COASTAL SURVEY NRA-140 S BISHOP: SITE WLD 15	92803100	88007282
COASTAL SURVEY NRA-XXX: SITE WLD 16	92803060	88007283
COASTAL SURVEY NRA-XXX: SITE WLD17	92803040	88007284
COASTAL SURVEY NRA-XXX: SITE WLD 18	92803020	88007285
COASTAL SURVEY NRA-139 SKOMER: SITE WLD 20	92803000	88007286
COASTAL SURVEY NRA-XXX: SITE WLD 21	92802940	88007287

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COASTAL SURVEY NRA-XXX: SITE WLD 22	92802920	88007288
COASTAL SURVEY NRA-138 ST. ANNS: SITE WLD 25	92802900	88007289
COASTAL SURVEY NRA-XXX: SITE WLD 26	92802820	88007290
COASTAL SURVEY NRA-137 TURBOT BANK: SITE WLD 30	92802800	88007291
COASTAL SURVEY NRA-136B ST. GOVANS (OFF): SITE WLE 1	92802700	88007292
COASTAL SURVEY NRA-136A ST. GOVANS: SITE WLE 5	92802600	88007293
COASTAL SURVEY NRA-135B OLD CASTLE HD (OFF): SITE WLE 10	92802500	88007294
COASTAL SURVEY NRA-135A OLD CASTLE HD(IN): SITE WLE 15	92802400	88007295
COASTAL SURVEY NRA-134 CALSEY ISLAND: SITE WLE 20	92802300	88007296
COASTAL SURVEY NRA-133 CARMARTHEN: SITE WLE 25	92802200	88007297
COASTAL SURVEY NRA-132 BURRY PORT: SITE WLE 30	92802100	88007298
COASTAL SURVEY NRA-131 LLANELLI: SITE WLE 35	92802000	88007299
COASTAL SURVEY NRA-130 WORMS HEAD: SITE WLE 40	92801900	88007300
COASTAL SURVEY NRA-129 OXWICH: SITE WLE 45	92801800	88007301
COASTAL SURVEY NRA-128 MUMBLES: SITE WLE 50	92801700	88007302
COASTAL SURVEY NRA-127 PORT TALBOT: SITE WLE 55	92801600	88007303
COASTAL SURVEY NRA-126 KENFIG: SITE WLE 60	92801500	88007304
COASTAL SURVEY NRA-125 PORTHCAWL: SITE WLE 65	92801400	88007305
COASTAL SURVEY NRA-124 NAST POINT: SITE WLE 70	92801300	88007306
COASTAL SURVEY NRA-123 ABERTHAW: SITE WLE 75	92801200	88007347
COASTAL SURVEY NRA-122 LAVERNOCK: SITE WLE 80	92801100	88007348
COASTAL SURVEY NRA-121 CARDIFF ROAD: SITE WLE 85	92801000	88007349
COASTAL SURVEY NRA-120 NEWPORT DEEP: SITE WLE 90	92800900	88007307
COASTAL SURVEY NRA-119 NO. 1 BEACON: SITE WLE 95	92800800	88007308

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NATIONAL COASTAL MONITORING PROGRAMME

LOCATION OF STATIONS

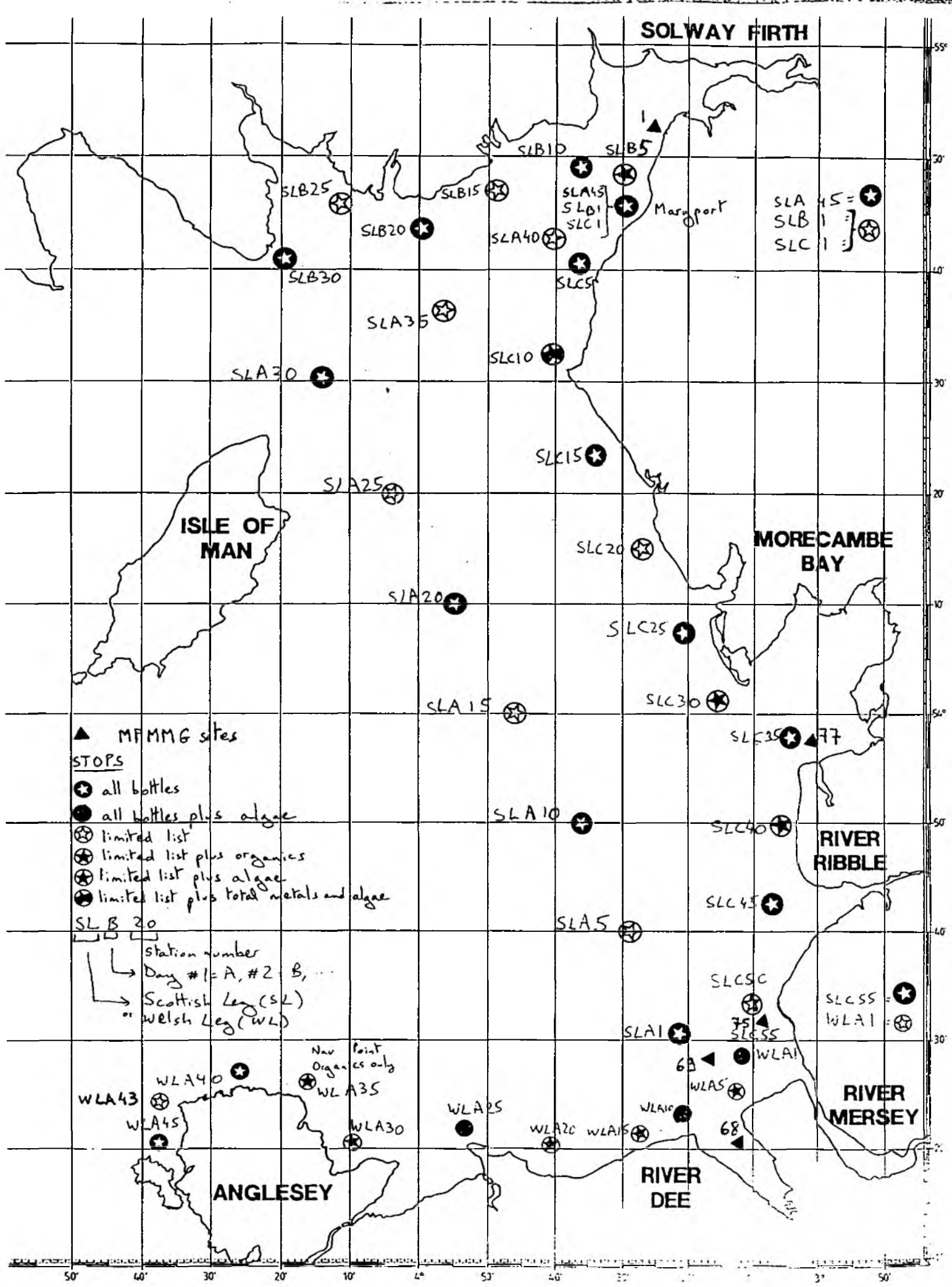
a. Burrow Head to the Mersey

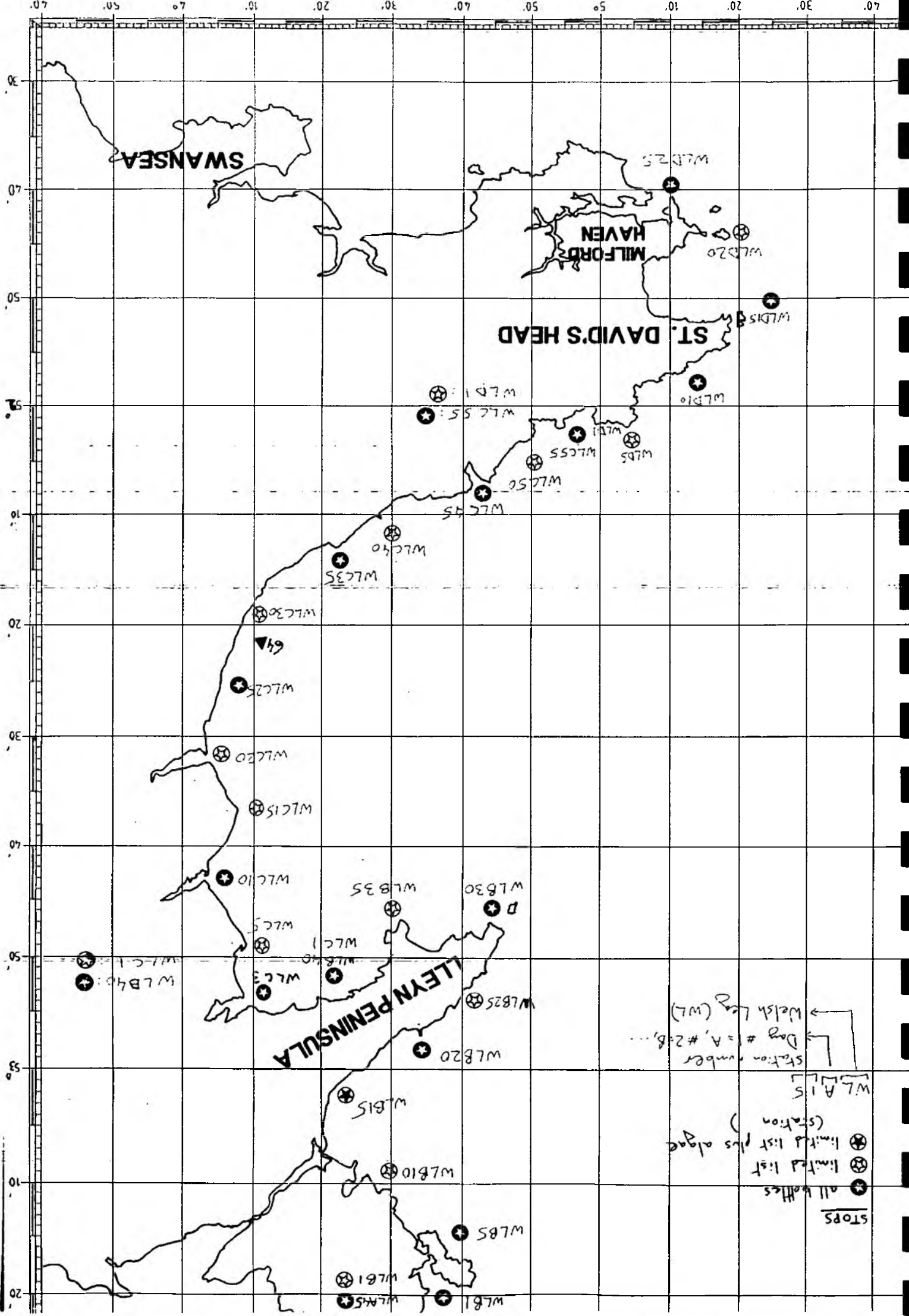
Sampling sites	Latitude north	Longitude west
SLA 1	53 31.67	3 14.74
5	53 39.82	3 22.99
10	53 49.99	3 31.47
15	54 00.00	3 38.68
20	54 10.00	3 46.96
25	54 20.00	3 55.00
30	54 30.00	4 02.80
35	54 33.47	3 53.84
40	54 38.18	3 42.43
45	54 43.66	3 32.34
SLB 1	54 43.23	3 31.16
5	54 46.79	3 30.00
10	54 48.21	3 34.63
15	54 48.14	3 49.32
20	54 44.96	4 00.12
25	54 46.79	4 12.22
30	54 41.95	4 19.39
35	54 43.03	3 33.68
SLC 1	54 43.21	3 31.53
5	54 39.88	3 35.90
10	54 32.03	3 39.53
15	54 24.00	3 35.05
20	54 16.02	3 28.05
25	54 08.00	3 21.25
30	54 02.00	3 15.90
35	53 56.90	3 04.50
40	53 50.00	3 05.90
45	53 42.00	3 07.74
50	53 34.00	3 09.64
55	53 27.04	3 10.89

.../...

b. Mersey to Milford Haven

Sampling sites		Latitude north	Longitude west
WLA	1	53 26.97	3 10.77
	5	53 25.03	3 13.06
	10	53 22.00	3 19.99
	15	53 21.55	3 27.42
	20	53 19.96	3 40.00
	25	53 21.48	3 51.98
	30	53 20.03	4 09.99
	35	53 25.57	4 17.17
	40	53 26.67	4 25.04
	45	53 20.32	4 37.00
WLB	1	53 20.34	4 37.08
	5	53 15.49	4 39.58
	10	53 10.00	4 30.01
	15	53 02.48	4 22.00
	20	52 57.00	4 34.10
	25	52 52.98	4 42.51
	30	52 46.12	4 44.90
	35	52 47.04	4 28.96
	40	52 52.50	4 22.50
WLC	1	52 52.50	4 22.50
	5	52 49.49	4 10.33
	10	52 42.98	4 05.02
	15	52 36.00	4 09.97
	20	52 31.98	4 05.52
	25	52 24.54	4 06.50
	30	52 18.93	4 10.02
	35	52 13.50	4 22.07
	40	52 11.44	4 29.97
	45	52 08.50	4 42.59
	50	52 05.16	4 50.02
55	52 01.98	4 56.96	
WLD	1	52 02.02	4 57.11
	5	52 02.50	5 04.30
	10	51 58.33	5 15.23
	15	51 50.00	5 25.00
	20	51 43.39	5 19.69
	25	51 40.25	5 10.48



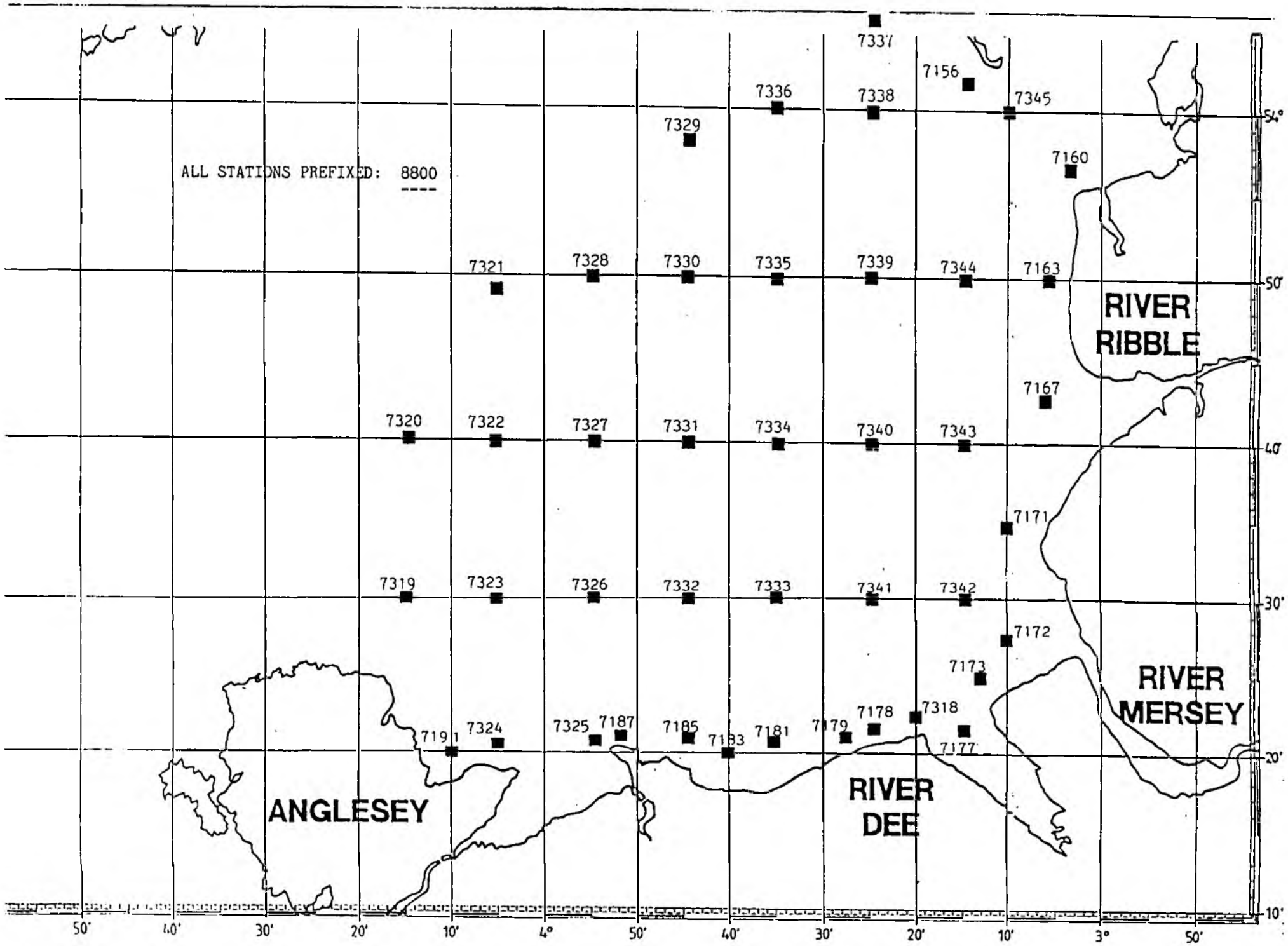


WLB15  
 (station)  
 limited list plus along  
 limited list  
 all hollers  
 STOPS

Station number  
 Day # = A, #28, ...  
 Welsh Lyr (WL)

**PART 3: Liverpool Bay Grid Survey - Monthly**

SAMPLING SITES	F.R.N.	S.P.N.
LIVERPOOL BAY GRID SURVEY: 53° 23' 00 N & 03° 20' 00 W	92801001	88007318
LIVERPOOL BAY GRID SURVEY: 53° 30' 00 N & 04° 15' 00 W	92801010	88007319
LIVERPOOL BAY GRID SURVEY: 53° 40' 00 N & 04° 15' 00 W	92801020	88007320
LIVERPOOL BAY GRID SURVEY: 53° 49' 00 N & 04° 05' 00 W	92801030	88007321
LIVERPOOL BAY GRID SURVEY: 53° 40' 00 N & 04° 05' 00 W	92801040	88007322
LIVERPOOL BAY GRID SURVEY: 53° 30' 00 N & 04° 05' 00 W	92801050	88007323
LIVERPOOL BAY GRID SURVEY: 53° 21' 00 N & 04° 05' 00 W	92801060	88007324
LIVERPOOL BAY GRID SURVEY: 53° 22' 00 N & 03° 55' 00 W	92801070	88007325
LIVERPOOL BAY GRID SURVEY: 53° 30' 00 N & 03° 55' 00 W	92801080	88007326
LIVERPOOL BAY GRID SURVEY: 53° 40' 00 N & 03° 55' 00 W	92801090	88007327
LIVERPOOL BAY GRID SURVEY: 53° 50' 00 N & 03° 55' 00 W	92801101	88007328
LIVERPOOL BAY GRID SURVEY: 53° 58' 00 N & 03° 45' 00 W	92801110	88007329
LIVERPOOL BAY GRID SURVEY: 53° 50' 00 N & 03° 45' 00 W	92801120	88007330
LIVERPOOL BAY GRID SURVEY: 53° 40' 00 N & 03° 45' 00 W	92801130	88007331
LIVERPOOL BAY GRID SURVEY: 53° 30' 00 N & 03° 45' 00 W	92801140	88007332
LIVERPOOL BAY GRID SURVEY: 53° 30' 00 N & 03° 35' 00 W	92801150	88007333
LIVERPOOL BAY GRID SURVEY: 53° 40' 00 N & 03° 35' 00 W	92801160	88007334
LIVERPOOL BAY GRID SURVEY: 53° 50' 00 N & 03° 35' 00 W	92801170	88007335
LIVERPOOL BAY GRID SURVEY: 54° 02' 00 N & 03° 35' 00 W	92801180	88007336
LIVERPOOL BAY GRID SURVEY: 54° 06' 00 N & 03° 25' 00 W	92801190	88007337
LIVERPOOL BAY GRID SURVEY: 54° 00' 00 N & 03° 25' 00 W	92801201	88007338
LIVERPOOL BAY GRID SURVEY: 53° 50' 00 N & 03° 25' 00 W	92801210	88007339
LIVERPOOL BAY GRID SURVEY: 53° 40' 00 N & 03° 25' 00 W	92801220	88007340
LIVERPOOL BAY GRID SURVEY: 53° 30' 00 N & 03° 25' 00 W	92801230	88007341
LIVERPOOL BAY GRID SURVEY: 53° 30' 00 N & 03° 15' 00 W	92801240	88007342
LIVERPOOL BAY GRID SURVEY: 53° 40' 00 N & 03° 15' 00 W	92801250	88007343
LIVERPOOL BAY GRID SURVEY: 53° 50' 00 N & 03° 15' 00 W	92801260	88007344
LIVERPOOL BAY GRID SURVEY: 54° 00' 00 N & 03° 10' 00 W	92801270	88007345





PART 4: M.P.M.M.G. - Annually / Quarterly

<u>SAMPLING SITES</u>	<u>F.R.N.</u>	<u>S.P.N.</u>
M.P.M.M.G. - INTERMEDIATE SOLWAY SITE 1: SOLWAY	92808101	88007309
M.P.M.M.G. - INTERMEDIATE WELSH SITE 65: CARDIGAN BAY	92803922	88007310
M.P.M.M.G. - ESTUARIAL WELSH SITE 67: HAWARDEN BRIDGE	92806006	88007311
M.P.M.M.G. - ESTUARIAL WELSH SITE 68: U/S FLINT	92806004	88007312
M.P.M.M.G. - ESTUARIAL WELSH SITE 69: BUOY NO. 2	92806002	88007313
M.P.M.M.G. - INTERMEDIATE NORTH WEST SITE 70: BURBO BIGHT	92808002	88007314
M.P.M.M.G. - INTERMEDIATE NORTH WEST SITE 78: OFF LUNE/WYRE	92806602	88007315

PART 5: SPECIAL CODES - on request

<u>SAMPLING SITES</u>	<u>F.R.N.</u>	<u>S.P.N.</u>
MISC-COAST SPECIAL SURVEYS	92809991	88007316
MISC-ESTUARY SPECIAL SURVEYS	92809992	88007317

PART 6: ANALYSES SUITES

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo Chloride	mg/l CaCO <sub>3</sub>	0162
Nitrate - filtered - as N	mg/l Cl	0172
Nitrite - filtered - as N	mg/l N	9853
Ammonia - filtered - as N	mg/l N	9854
Orthophosphate - filtered - as P	mg/l N	9855
Silicate - filtered - as SiO <sub>2</sub>	mg/l P	9856
Salinity by bench salinometer	mg/l SiO <sub>2</sub>	9857
Lead (dissolved)	psu	1198
Mercury (dissolved)	µg/l Pb	0052
Mercury	µg/l Hg	0103
Cadmium (dissolved)	µg/l Hg	0105
Boron	µg/l Cd	0106
Aldrin	mg/l	0283
HCH alpha	µg/l	0483
HCH beta	µg/l	0487
HCH gamma	µg/l	0491
Dieldrin	µg/l	0499
Endosulphan	µg/l	0511
DDT o,p'	µg/l	0519
DDE p,p'	µg/l	0539
DDT p,p'	µg/l	0551
TDE p,p'	µg/l	0555
Endrin	µg/l	0559
Hexachlorobenzene	µg/l	0562
DDE o,p'	µg/l	0576
Chlorophyll a	µg/l	0581
Phaeophytin	µg/l	0947
Pentachlorophenol	µg/l	0950
Copper (dissolved)	µg/l	1085
Zinc (dissolved)	µg/l Cu	7213
Arsenic (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l As	7354
Nickel (dissolved)	µg/l Cr	7373
Chloroform	µg/l Ni	7427
Atrazine	µg/l	9524
Simazine	µg/l	9632
Carbon tetrachloride	µg/l	9633
Hexachlorobutadiene	µg/l	9643
PCB CON28	µg/l	9705
PCB CON52	µg/l	9768
PCB CON101	µg/l	9769
PCB CON118	µg/l	9770
PCB CON138	µg/l	9771
PCB CON153	µg/l	9772
PCB CON180	µg/l	9773
PCB total congeners	µg/l	9774
Tetrachloroethylene	µg/l	9807
Trichloroethylene	µg/l	9706
Dichloroethane 1,2	µg/l	9707
Trichlorobenzene	µg/l	9712
Trifluralin	µg/l	9713
	µg/l	9714

pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo Chloride	mg/l CaCO <sub>3</sub>	0162
	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved) - low level	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Arsenic (dissolved)	µg/l As	7354
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Lead (total)	µg/l Pb	0050
Mercury (total) - low level	µg/l Hg	0105
Cadmium (total)	µg/l Cd	0108
Copper (total)	µg/l Cu	7215
Zinc (total)	µg/l Zn	7245
Chromium (total)	µg/l Cr	7375
Nickel (total)	µg/l Ni	7429

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Lead (dissolved)	µg/l Pb	0052
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate --filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Dichloroethane 1,2	µg/l	9712
Chloroform	µg/l	9524
Lead (dissolved)	µg/l Pb	0052
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Mercury (dissolved)	µg/l Hg	0103

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Dichloroethane 1,2	µg/l	9712
Lead (dissolved)	µg/l Pb	0052
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Mercury (dissolved)	µg/l Hg	0103

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo Chloride	mg/l CaCO <sub>3</sub>	0162
	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Lead (dissolved)	µg/l Pb	0052
Lead (total)	µg/l Pb	0050
Mercury (dissolved)	µg/l Hg	0103
Mercury	µg/l Hg	0105
Cadmium (dissolved)	µg/l Cd	0106
Boron	mg/l	0283
Aldrin	µg/l	0483
HCH alpha	µg/l	0487
HCH beta	µg/l	0491
HCH gamma	µg/l	0499
Dieldrin	µg/l	0511
Endosulphan	µg/l	0519
DDT o,p'	µg/l	0539
DDE p,p'	µg/l	0551
DDT p,p'	µg/l	0555
TDE p,p'	µg/l	0559
Endrin	µg/l	0562
Hexachlorobenzene	µg/l	0576
DDE o,p'	µg/l	0581
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Pentachlorophenol	µg/l	1085
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Arsenic (dissolved)	µg/l As	7354
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Vanadium	µg/l	7768
Chloroform	µg/l	9524
Atrazine	µg/l	9632
Simazine	µg/l	9633
Carbon tetrachloride	µg/l	9643
Hexachlorobutadiene	µg/l	9705
PCB CON28	µg/l	9768
PCB CON52	µg/l	9769
PCB CON101	µg/l	9770
PCB CON118	µg/l	9771
PCB CON138	µg/l	9772
PCB CON153	µg/l	9773
PCB CON180	µg/l	9774
PCB total congeners	µg/l	9807
Tetrachloroethylene	µg/l	9706
Trichloroethylene	µg/l	9707
Dichloroethane 1,2	µg/l	9712
Trichlorobenzene	µg/l	9713
Trifluralin	µg/l	9714
Di-tri alkyl lead	µg/l	9916

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Di-tri alkyl lead	µg/l	9916

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Chloroform	µg/l	9524
Carbon tetrachloride	µg/l	9643
Tetrachloroethylene	µg/l	9706
Trichloroethylene	µg/l	9707
Dichloroethane 1,2	µg/l	9712
Trichlorobenzene	µg/l	9713
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Boron	mg/l	0283
Lead (dissolved)	µg/l Pb	0052
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427

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pH at 20°C		0061
Temperature	°C (Field)	0076
Conductivity at 25°C	µS/cm	0077
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
BOD 5 day (ATU)	mg/l	0085
Suspended Solids Total	mg/l	0135
Alkalinity to mo	mg/l CaCO <sub>3</sub>	0162
Chloride	mg/l Cl	0172
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427

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pH at 20°C		0061
Temperature	°C (Field)	0076
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
Suspended Solids Total	mg/l	0135
Suspended Solids Ash	mg/l	0143
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Arsenic (dissolved)	µg/l As	7354
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Aldrin	µg/l	0483
HCH alpha	µg/l	0487
HCH beta	µg/l	0491
HCH gamma	µg/l	0499
Dieldrin	µg/l	0511
DDT o,p'	µg/l	0539
DDE p,p'	µg/l	0551
DDT p,p'	µg/l	0555
TDE p,p'	µg/l	0559
Endrin	µg/l	0562
Hexachlorobenzene	µg/l	0576
Pentachlorophenol	µg/l	1085
Chloroform	µg/l	9524
Atrazine	µg/l	9632
Simazine	µg/l	9633
Carbon tetrachloride	µg/l	9643
Hexachlorobutadiene	µg/l	9705
PCB CON28	µg/l	9768
PCB CON52	µg/l	9769
PCB CON101	µg/l	9770
PCB CON118	µg/l	9771
PCB CON138	µg/l	9772
PCB CON153	µg/l	9773
PCB CON180	µg/l	9774
PCB total congeners	µg/l	9807
Tetrachloroethylene	µg/l	9706
Trichloroethylene	µg/l	9707
Dichloroethane 1,2	µg/l	9712
Trichlorobenzene	µg/l	9713

pH at 20°C		0061
Temperature	°C (Field)	0076
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
Suspended Solids Total	mg/l	0135
Suspended Solids Ash	mg/l	0143
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Arsenic (dissolved)	µg/l As	7354
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Lead (total)	µg/l Pb	0050
Mercury (total)	µg/l Hg	0105
Cadmium (total)	µg/l Cd	0108
Copper (total)	µg/l Cu	7215
Zinc (total)	µg/l Zn	7245
Arsenic (total)	µg/l As	7356
Chromium (total)	µg/l Cr	7375
Nickel (total)	µg/l Ni	7429



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pH at 20°C		0061
Temperature	°C (Field)	0076
Suspended Solids Total	mg/l	0135
Suspended Solids Ash	mg/l	0143
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198

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pH at 20°C		0061
Temperature	°C (Field)	0076
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
Suspended Solids Total	mg/l	0135
Suspended Solids Ash	mg/l	0143
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Arsenic (dissolved)	µg/l As	7354
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427

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pH at 20°C		0061
Temperature	°C (Field)	0076
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
Suspended Solids Total	mg/l	0135
Suspended Solids Ash	mg/l	0143
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Salinity by bench salinometer	psu	1198
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Arsenic (dissolved)	µg/l As	7354
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Lead (total)	µg/l Pb	0050
Mercury (total)	µg/l Hg	0105
Cadmium (total)	µg/l Cd	0108
Copper (total)	µg/l Cu	7215
Zinc (total)	µg/l Zn	7245
Arsenic (total)	µg/l As	7356
Chromium (total)	µg/l Cr	7375
Nickel (total)	µg/l Ni	7429
Aldrin	µg/l	0483
HCH alpha	µg/l	0487
HCH beta	µg/l	0491
HCH gamma	µg/l	0499
Dieldrin	µg/l	0511
DDT o,p'	µg/l	0539
DDE p,p'	µg/l	0551
DDT p,p'	µg/l	0555
TDE p,p'	µg/l	0559
Endrin	µg/l	0562
Hexachlorobenzene	µg/l	0576
Pentachlorophenol	µg/l	1085
Chloroform	µg/l	9524
Atrazine	µg/l	9632
Simazine	µg/l	9633
Carbon tetrachloride	µg/l	9643
Hexachlorobutadiene	µg/l	9705
PCB CON28	µg/l	9768
PCB CON52	µg/l	9769
PCB CON101	µg/l	9770
PCB CON118	µg/l	9771
PCB CON138	µg/l	9772
PCB CON153	µg/l	9773
PCB CON180	µg/l	9774
PCB total congeners	µg/l	9807
Tetrachloroethylene	µg/l	9706
Trichloroethylene	µg/l	9707
Dichloroethane 1,2	µg/l	9712
Trichlorobenzene	µg/l	9713

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Temperature	°C (Field)	0076
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
Suspended Solids Total	mg/l	0135
Total organic carbon	mg/l	0099
Dissolved organic carbon	mg/l	0301
Secchi depth (field)	m	9981
Salinity by bench salinometer	psu	1198
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Tributyl tin	µg/l	9719
HCH alpha	µg/l	0487
HCH gamma	µg/l	0499
Hexachlorobenzene	µg/l	0576
Pentachlorophenol	µg/l	1085

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Temperature	°C (Field)	0076
Dissolved Oxygen	% saturation	0081
Dissolved Oxygen	mg/l	0082
Suspended Solids Total	mg/l	0135
Total organic carbon	mg/l	0099
Dissolved organic carbon	mg/l	0301
Secchi depth (field)	m	9981
Salinity by bench salinometer	psu	1198
Nitrate - filtered - as N	mg/l N	9853
Nitrite - filtered - as N	mg/l N	9854
Ammonia - filtered - as N	mg/l N	9855
Orthophosphate - filtered - as P	mg/l P	9856
Silicate - filtered - as SiO <sub>2</sub>	mg/l SiO <sub>2</sub>	9857
Chlorophyll a	µg/l	0947
Phaeophytin	µg/l	0950
Lead (dissolved)	µg/l Pb	0052
Mercury (dissolved)	µg/l Hg	0103
Cadmium (dissolved)	µg/l Cd	0106
Copper (dissolved)	µg/l Cu	7213
Zinc (dissolved)	µg/l Zn	7243
Chromium (dissolved)	µg/l Cr	7373
Nickel (dissolved)	µg/l Ni	7427
Tributyl tin	µg/l	9719
HCH alpha	µg/l	0487
HCH gamma	µg/l	0499
Hexachlorobenzene	µg/l	0576
Pentachlorophenol	µg/l	1085
Chloroform	µg/l	9524
Carbon tetrachloride	µg/l	9643
Hexachlorobutadiene	µg/l	9705

## Total surficial sediments

Total analysis of <2000  $\mu\text{m}$  fraction of sediment

Aluminium (dry weight)	mg/kg	0288
Mercury (dry weight)	$\mu\text{g}/\text{kg}$	9443
Cadmium (dry weight)	$\mu\text{g}/\text{kg}$	9444
Copper (dry weight)	mg/kg	0216
Lead (dry weight)	mg/kg	0392
Nickel (dry weight)	mg/kg	0430
Zinc (dry weight)	mg/kg	0246
Arsenic (dry weight)	mg/kg	0357
Chromium (dry weight)	mg/kg	0376
Tributyl tin (dry weight)	$\mu\text{g}/\text{kg}$	9719
PCB CON28 (dry weight)	$\mu\text{g}/\text{kg}$	9972
PCB CON52 (dry weight)	$\mu\text{g}/\text{kg}$	9973
PCB CON101 (dry weight)	$\mu\text{g}/\text{kg}$	9974
PCB CON105 (dry weight)	$\mu\text{g}/\text{kg}$	9975
PCB CON118 (dry weight)	$\mu\text{g}/\text{kg}$	9979
PCB CON128 (dry weight)	$\mu\text{g}/\text{kg}$	9980
PCB CON138 (dry weight)	$\mu\text{g}/\text{kg}$	9982
PCB CON153 (dry weight)	$\mu\text{g}/\text{kg}$	9962
PCB CON156 (dry weight)	$\mu\text{g}/\text{kg}$	9964
PCB CON170 (dry weight)	$\mu\text{g}/\text{kg}$	9965
PCB CON180 (dry weight)	$\mu\text{g}/\text{kg}$	9971
Aldrin (dry weight)	$\mu\text{g}/\text{kg}$	0484
Dieldrin (dry weight)	$\mu\text{g}/\text{kg}$	0512
Endrin (dry weight)	$\mu\text{g}/\text{kg}$	0568
Hexachlorobenzene (dry weight)	$\mu\text{g}/\text{kg}$	9759
DDE p,p' (dry weight)	$\mu\text{g}/\text{kg}$	0552
DDT p,p' (dry weight)	$\mu\text{g}/\text{kg}$	0556
TDE p,p' (dry weight)	$\mu\text{g}/\text{kg}$	0560
Polycyclic aromatic hydrocarbons:		
naphtalene (dry weight)	$\mu\text{g}/\text{kg}$	9445
phenanthrene (dry weight)	$\mu\text{g}/\text{kg}$	9987
anthracene (dry weight)	$\mu\text{g}/\text{kg}$	9994
fluoranthene (dry weight)	$\mu\text{g}/\text{kg}$	0737
pyrene (dry weight)	$\mu\text{g}/\text{kg}$	9995
benz-(a)-anthracene (dry weight)	$\mu\text{g}/\text{kg}$	0603
ttriphenylene (dry weight)	$\mu\text{g}/\text{kg}$	9432
benzo-(a)-pyrene (dry weight)	$\mu\text{g}/\text{kg}$	9433
benzo-(e)-pyrene (dry weight)	$\mu\text{g}/\text{kg}$	9434
benzo-(ghi)-perylene (dry weight)	$\mu\text{g}/\text{kg}$	0715
Perylene (dry weight)	$\mu\text{g}/\text{kg}$	9435
Indeno-(1,2,3-cd)-pyrene (dry we.)	$\mu\text{g}/\text{kg}$	0747
Naphtalenes-C1's (dry weight)	$\mu\text{g}/\text{kg}$	9436
Naphtalenes-C2 (dry weight)	$\mu\text{g}/\text{kg}$	9437
Phenanthrenes-C1's (dry weight)	$\mu\text{g}/\text{kg}$	9438
Phenanthrenes-C2's (dry weight)	$\mu\text{g}/\text{kg}$	9439
Dibenzothiophene (dry weight)	$\mu\text{g}/\text{kg}$	9440
Dibenzothiophene-C1's (dry weight)	$\mu\text{g}/\text{kg}$	9441
Dibenzothiophene-C2's (dry weight)	$\mu\text{g}/\text{kg}$	9442

## Total surficial sediments

Total analysis of <2000  $\mu\text{m}$  fraction of sediment

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Aluminium (dry weight)	mg/kg	0288
Mercury (dry weight)	$\mu\text{g}/\text{kg}$	9443
Cadmium (dry weight)	$\mu\text{g}/\text{kg}$	9444
Copper (dry weight)	mg/kg	0216
Lead (dry weight)	mg/kg	0392
Nickel (dry weight)	mg/kg	0430
Zinc (dry weight)	mg/kg	0246
Arsenic (dry weight)	mg/kg	0357
Chromium (dry weight)	mg/kg	0376
Tributyl tin (dry weight)	$\mu\text{g}/\text{kg}$	9719
PCB CON28 (dry weight)	$\mu\text{g}/\text{kg}$	9972
PCB CON52 (dry weight)	$\mu\text{g}/\text{kg}$	9973
PCB CON101 (dry weight)	$\mu\text{g}/\text{kg}$	9974
PCB CON105 (dry weight)	$\mu\text{g}/\text{kg}$	9975
PCB CON118(dry weight)	$\mu\text{g}/\text{kg}$	9979
PCB CON128 (dry weight)	$\mu\text{g}/\text{kg}$	9980
PCB CON138 (dry weight)	$\mu\text{g}/\text{kg}$	9982
PCB CON153 (dry weight)	$\mu\text{g}/\text{kg}$	9962
PCB CON156 (dry weight)	$\mu\text{g}/\text{kg}$	9964
PCB CON170 (dry weight)	$\mu\text{g}/\text{kg}$	9965
PCB CON180 (dry weight)	$\mu\text{g}/\text{kg}$	9971
Hexachlorobenzene (dry weight)	$\mu\text{g}/\text{kg}$	9759
DDE p,p' (dry weight)	$\mu\text{g}/\text{kg}$	0552
DDT p,p' (dry weight)	$\mu\text{g}/\text{kg}$	0556
TDE p,p' (dry weight)	$\mu\text{g}/\text{kg}$	0560
Polycyclic aromatic hydrocarbons:		
naphtalene (dry weight)	$\mu\text{g}/\text{kg}$	9445
phenanthrene (dry weight)	$\mu\text{g}/\text{kg}$	9987
anthracene (dry weight)	$\mu\text{g}/\text{kg}$	9994
fluoranthene (dry weight)	$\mu\text{g}/\text{kg}$	0737
pyrene (dry weight)	$\mu\text{g}/\text{kg}$	9995
benz-(a)-anthracene (dry weight)	$\mu\text{g}/\text{kg}$	0603
ttriphenylene (dry weight)	$\mu\text{g}/\text{kg}$	9432
benzo-(a)-pyrene (dry weight)	$\mu\text{g}/\text{kg}$	9433
benzo-(e)-pyrene (dry weight)	$\mu\text{g}/\text{kg}$	9434
benzo-(ghi)-perylene (dry weight)	$\mu\text{g}/\text{kg}$	0715
Perylene (dry weight)	$\mu\text{g}/\text{kg}$	9435
Indeno-(1,2,3-cd)-pyrene (dry we.)	$\mu\text{g}/\text{kg}$	0747
Naphtalenes-C1's (dry weight)	$\mu\text{g}/\text{kg}$	9436
Naphtalenes-C2 (dry weight)	$\mu\text{g}/\text{kg}$	9437
Phenanthrenes-C1's (dry weight)	$\mu\text{g}/\text{kg}$	9438
Phenanthrenes-C2's (dry weight)	$\mu\text{g}/\text{kg}$	9439
Dibenzothiophene (dry weight)	$\mu\text{g}/\text{kg}$	9440
Dibenzothiophene-C1's (dry weight)	$\mu\text{g}/\text{kg}$	9441
Dibenzothiophene-C2's (dry weight)	$\mu\text{g}/\text{kg}$	9442

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LIVERPOOL BAY SURVEY

SAMPLER ID = 102  
 DEFAULT SUITE = 000

DEFAULT = \*

	STATION	S.P.N.	SUITE	
	3	88002831	545	*
	4	88002887	545	*
	6	88002891	545	*
	8	88002892	545	*
*&	9	88002893	319	*
	10	88002895	545	*
%	10B	88002894	545	*
*!	12	88002896	319	*
*!	14	88002897	319	*

Sampled: ! = January to April  
 & = May to December

% = June to October  
 \* = no metals



M.S.C. SURVEY

SAMPLER ID = 101  
 DEFAULT SUITE = 000

DEFAULT = \*

	STATION & DISTANCE	S.P.N.	SUITE	
***	1. (15)	88002799	317	*
	2. (55)	88002798	316	*
	3. (105)	88002797	316	*
	4. (155)	88002796	316	*
	5. (185)	88002795	316	*
***	6. (205)	88002794	317	*
	7. (240)	88002792	316	*
	8. (265)	88002791	316	*
***	9. (315)	88002790	317	*
	10. (375)	88002789	316	*
***	11. (450)	88002787	317	*
	12. (525)	88002784	316	*
	13. (580)	88002783	316	*
***	14. (635)	88002782	317	*
	15. (735)	88002780	316	*
	16. (795)	88002779	316	*
***	17. (845)	88002778	317	*
	18. (895)	88002777	316	*
	19. (950)	88002776	316	*
***	20. (1075)	88002773	317	*
	21.	88002774	316	*

MERSEY SURVEY

SAMPLER ID = 100  
 DEFAULT SUITE = 000

DEFAULT = \*

	STATION	S.P.N.	SUITE	
	3	88002889	539	*
	4	88002886	539	*
	5	88002837	539	*
	6	88002829	539	*
***	7	88002822	317	*
	8	88002816	539	*
***	9	88002811	317	*
	10	88002804	539	*
	11	88002770	539	*
	12	88002769	539	*
	13	88002766	539	*
%	14	88002762	549	*
%	15	88002758	549	*
***	16	88002722	317	*
	17	88002712	539	*
	18	88002711	539	*
***	19	88002710	317	*
	20	88002709	539	*
	21	88002641	539	*
!	22	88002640	318	*
	23	88002638	539	*

% Carbon tetrachloride and chloroform,  
 1,2-Dichloroethane, tetrachloroethylene,  
 trichloroethylene, dissolved metals (Hg, Cd)

! dissolved metals (Ni, Zn, Cr, Pb, Cu), Boron

RIBBLE SURVEY

SAMPLER ID = 103  
DEFAULT SUITE = 000

DEFAULT = \*

	STATION	S.P.N.	SUITE	
***	1	88003595	540	*
	2	88003594	539	*
***	3	88003591	540	*
	4	88003588	539	*
***	5	88003586	540	*
	6	88003584	539	*
***	7	88003582	540	*
	8	88003579	539	*
***	9	88003578	540	*
	10	88003577	539	*
***	11	88003566	540	*
	12	88003563	539	*
◆	13	88003587	540	*

◆ Main drain sampled once a year

DUDDON SURVEY

SAMPLER ID = 108  
DEFAULT SUITE = 000

DEFAULT = \*

	STATION	S.P.N.	SUITE	
	1	88004998	539	*
***	2	88004997	540	*
	3	88004993	539	*
***	4	88004988	540	*
	5	88004975	539	*
***	6	88004970	540	*
	7	88004967	539	*
***	8	88004966	540	*

LEVEN SURVEY

SAMPLER ID = 107  
DEFAULT SUITE = 000

	STATION	S.P.N.	SUITE	DEFAULT = *
!	1	88004602	548	*
	2	88004600	539	*
***	3	88004599	540	*
	4	88004598	539	*
***	5	88004597	540	*
	6	88004594	539	*
***	7	88004569	540	*
	8	88004564	539	*

! Dissolved Cu, Cr, Pb, Ni, Zn

LUNE SURVEY

SAMPLER ID = 105  
DEFAULT SUITE = 000

DEFAULT = \*

STATION	S.P.N.	SUITE	
1	88004105	539	*
2	88004107	539	*
3	88004108	539	*
4	88004109	539	*
5	88004104	539	*
6	88004079	539	*
*** 7	88004078	540	*
8	88004077	539	*
9	88004040	539	*
*** 10	88004042	540	*
11	88004038	539	*
12	88004033	539	*
*** 13	88004032	540	*

KENT SURVEY

SAMPLER ID = 106  
DEFAULT SUITE = 000

DEFAULT = \*

	STATION	S.P.N.	SUITE	
	1	88004454	539	*
***	2	88004453	540	*
	3	88004452	539	*
	4	88004451	539	*
	5	88004450	539	*
***	6	88004449	540	*
	7	88004447	539	*
***	8	88004446	540	*
	9	88004442	539	*
	10	88004441	539	*
	11	88004405	539	*

SOLWAY SURVEY

SAMPLER ID = 116  
DEFAULT SUITE = 000

	STATION	S.P.N.	DEFAULT = *	SUITE
***	1.	88006494	540	*
	2.	88006493	539	*
	3.	88006491	539	*
	4.	88006490	539	*
	5.	88006489	539	*
	6.	88006492	539	*
***	7.	88006495	540	*

ESK

SAMPLER ID = 115  
DEFAULT SUITE = 000

***	1	88006484	540	*
***	2	88006487	540	*
***	3	88006488	540	*

EDEN

SAMPLER ID = 114  
DEFAULT SUITE = 000

***	1	88006432	540	*
***	2	88006431	540	*
***	3	88006433	540	*

WAVER

SAMPLER ID = 112  
DEFAULT SUITE = 000

***	1	88005857	540	
***	2	88005858	540	*

WAMPOOL SURVEY

SAMPLER ID = 113  
DEFAULT SUITE = 000

***	1	88005880	540	
***	2	88005882	540	*
***	3	88005883	540	*



WYRE SURVEY

SAMPLER ID = 104  
 DEFAULT SUITE = 000

		DEFAULT = *	
STATION	S.P.N.	SUITE	
1	88003938	539	*
2	88003937	539	*
3	88003936	539	*
4	88003935	539	*
***	5	88003933	540 *
&	6	88003930	550 * !
	7	88003929	539 *
	8	88003925	539 *
*** &	9	88003920	540 * !
	10	88003907	539 *
	11	88003899	539 *
***	12	88003887	540 *
	13	88003886	539 *
	14	88003885	539 *
***	15	88003884	540 *

& = Sampled twelve times a year 1,2 dichloroethane and dissolved metals (Hg, Cu, Cr, Pb, Ni, Zn)

! use SUITE = 315 when sampling only stations 6 and 9

ESK MITE AND IRT SURVEYS

ESK

SAMPLER ID = 109  
DEFAULT SUITE = 000

	STATION	S.P.N.	DEFAULT = *
***	1	88005049	540 *
***	2	88005053	540 *
***	3	88005052	540 *
***	4	88005054	540 *

MITE

SAMPLER ID = 110  
DEFAULT SUITE = 000

***	1	88005058	540 *
***	2	88005059	540 *

IRT

SAMPLER ID = 111  
DEFAULT SUITE = 000

***	1	88005098	540 *
***	2	88005090	540 *

MAJOR ESTUARIES

DEFAULT SUITE = 000

DEFAULT = \*

STATION	S.P.N.	SUITE	
1. Walney Channel - Jubilee bridge	88004884	320	*
2. Calder - Calder Hall	88005129	320	*
3. Ehen u/s River Calder	88005191	320	*
4. Ellen			
a. At end of sea wall	88005819	320	*
b. At last road bridge	88005817	320	*
c. By new houses opposite marina	88005818	320	*
5. Derwent			
a. At A597 road bridge	88005741	320	*
b. At end of harbour wall	88005733	320	*

MINOR ESTUARIES

DEFAULT SUITE = 000

DEFAULT = \*

STATION	S.P.N.	SUITE
1. Alt at Bailey Bridge	88002881	320 *
2. Crossens Pool	88003222	320 *
3. Douglas	88003133	320 *
4. Skipool Creek u/s R. Wyre	88003888	320 *
5. Pilling Channel	88004099	320 *
6. Cocker	88004088	320 *
7. Conder at old railway bridge	88004076	320 *
8. Keer near Marshouse farm	88004485	320 *
9. Bela d/s weir	88004440	320 *
10. Winster below tidal doors	88004465	320 *
11. Crake near Greenodd	88004592	320 *
12. Carter Pool below tidal doors	88004607	320 *
13. Annas at Annaside	88005012	320 *
14. Pow Beck at St-Bees	88005199	320 *
15. Lowca Beck near Providence Bay	88005252	320 *
16. Great Gutter	88005890	320 *

DEFAULT = \*

SAMPLING SITES	S.P.N.	SUITE
COASTAL SURVEY NRA-XXX: SITE SLA 1	88007085	544 *
COASTAL SURVEY NRA-XXX: SITE SLA 2	88007086	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 3	88007087	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 4	88007088	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 5	88007089	541 *
COASTAL SURVEY NRA-XXX: SITE SLA 6	88007090	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 7	88007091	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 8	88007092	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 9	88007093	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 10	88007094	544 *
COASTAL SURVEY NRA-XXX: SITE SLA 11	88007095	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 15	88007096	541 *
COASTAL SURVEY NRA-XXX: SITE SLA 16	88007097	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 20	88007098	544 *
COASTAL SURVEY NRA-XXX: SITE SLA 21	88007099	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 25	88007100	541 *
COASTAL SURVEY NRA-XXX: SITE SLA 26	88007101	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 30	88007102	544 *
COASTAL SURVEY NRA-XXX: SITE SLA 31	88007103	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 35	88007104	541 *
COASTAL SURVEY NRA-XXX: SITE SLA 36	88007105	321 *
COASTAL SURVEY NRA-XXX: SITE SLA 40	88007106	541 *
COASTAL SURVEY NRA-XXX: SITE SLA 41	88007107	321 *
! COASTAL SURVEY NRA-XXX: SITE SLA 45 & SLB 1 & SLC 1	88007108	544 *
COASTAL SURVEY NRA-XXX: SITE SLB 2	88007109	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 3	88007110	321 *
COASTAL SURVEY NRA-181 SOLWAY BUOY: SITE SLB 5	88007111	541 *
COASTAL SURVEY NRA-XXX: SITE SLB 6	88007112	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 7	88007113	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 8	88007114	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 9	88007115	321 *
COASTAL SURVEY NRA-182 MIDDLE BUOY: SITE SLB 10	88007116	544 *
COASTAL SURVEY NRA-XXX: SITE SLB 11	88007117	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 12	88007118	321 *
COASTAL SURVEY NRA-183 BALCARRY: SITE SLB 15	88007119	541 *
COASTAL SURVEY NRA-XXX: SITE SLB 16	88007120	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 17	88007121	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 18	88007122	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 19	88007123	321 *
COASTAL SURVEY NRA-184 ABBEY HEAD: SITE SLB 20	88007124	544 *
COASTAL SURVEY NRA-XXX: SITE SLB 21	88007125	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 22	88007126	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 23	88007127	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 24	88007128	321 *
COASTAL SURVEY NRA-185 MEGGERLAND: SITE SLB 25	88007129	541 *
COASTAL SURVEY NRA-XXX: SITE SLB 26	88007130	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 27	88007131	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 28	88007132	321 *
COASTAL SURVEY NRA-XXX: SITE SLB 29	88007133	321 *

! SUITE = 541 for limited number of analyses

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COASTAL SURVEY NRA-186 ST NINIANS: SITE SLB 30	88007134	544 *
COASTAL SURVEY NRA-XXX: SITE SLC 2	88007135	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 3	88007136	321 *
COASTAL SURVEY NRA-180 WORKINGTON: SITE SLC 5	88007137	544 *
COASTAL SURVEY NRA-XXX: SITE SLC 6	88007138	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 7	88007139	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 8	88007140	321 *
COASTAL SURVEY NRA-179 WHITEHAVEN: SITE SLC 10	88007141	543 *
COASTAL SURVEY NRA-XXX: SITE SLC 11	88007142	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 12	88007143	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 13	88007144	321 *
COASTAL SURVEY NRA-178 CALDER HALL: SITE SLC 15	88007145	544 *
COASTAL SURVEY NRA-XXX: SITE SLC 16	88007146	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 17	88007147	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 18	88007148	321 *
COASTAL SURVEY NRA-177 SELKER: SITE SLC 20	88007149	541 *
COASTAL SURVEY NRA-XXX: SITE SLC 21	88007150	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 22	88007151	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 23	88007152	321 *
COASTAL SURVEY NRA-176 DUDDON: SITE SLC 25	88007153	544 *
COASTAL SURVEY NRA-XXX: SITE SLC 26	88007154	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 27	88007155	321 *
COASTAL SURVEY NRA-175 HILPSFORD: SITE SLC 30	88007156	541 *
COASTAL SURVEY NRA-XXX: SITE SLC 31	88007157	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 32	88007158	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 33	88007159	321 *
COASTAL SURVEY NRA-174 KING SCAR: SITE SLC 35	88007160	544 *
COASTAL SURVEY NRA-XXX: SITE SLC 36	88007161	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 37	88007162	321 *
COASTAL SURVEY NRA-173 BLACKPOOL: SITE SLC 40	88007163	541 *
COASTAL SURVEY NRA-XXX: SITE SLC 41	88007164	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 42	88007165	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 43	88007166	321 *
COASTAL SURVEY NRA-172 GUT : SITE SLC 45	88007167	544 *
COASTAL SURVEY NRA-XXX: SITE SLC 46	88007168	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 47	88007169	321 *
COASTAL SURVEY NRA-XXX: SITE SLC 48	88007170	321 *
COASTAL SURVEY NRA-171 FORMBY POINT: SITE SLC 50	88007171	541 *
COASTAL SURVEY NRA-170 N WIRRAL: SITE SLC 55 & WLA 1	88007172	544 * !
COASTAL SURVEY NRA-169 HE 1: SITE WLA 5	88007173	542 *
COASTAL SURVEY NRA-XXX: SITE WLA 6	88007174	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 7	88007175	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 8	88007176	321 *
COASTAL SURVEY NRA-168 WELSH CHANNEL: SITE WLA 10	88007177	544 *
COASTAL SURVEY NRA-XXX: SITE WLA 11	88007178	321 *
COASTAL SURVEY NRA-167 CHESTER FLAT: SITE WLA 15	88007179	542 *
COASTAL SURVEY NRA-XXX: SITE WLA 16	88007180	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 17	88007181	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 18	88007182	321 *
COASTAL SURVEY NRA-166 LLANDDULAS: SITE WLA 20	88007183	542 *
COASTAL SURVEY NRA-XXX: SITE WLA 21	88007184	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 22	88007185	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 23	88007186	321 *

! SUITE = 541 for limited number of analyses

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COASTAL SURVEY NRA-165 ORME: SITE WLA 25	88007187	544 *
COASTAL SURVEY NRA-XXX: SITE WLA 26	88007188	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 27	88007189	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 28	88007190	321 *
COASTAL SURVEY NRA-164 RED WHARF: SITE WLA 30	88007191	541 *
COASTAL SURVEY NRA-XXX: SITE WLA 31	88007192	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 32	88007193	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 35	88007194	542 *
COASTAL SURVEY NRA-XXX: SITE WLA 36	88007195	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 37	88007196	321 *
COASTAL SURVEY NRA-163 MIDDLE MOUSE: SITE WLA 40	88007197	544 *
COASTAL SURVEY NRA-XXX: SITE WLA 41	88007198	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 42	88007199	321 *
COASTAL SURVEY NRA-XXX: SITE WLA 43	88007200	541 *
COASTAL SURVEY NRA-XXX: SITE WLA 44	88007201	321 *
COASTAL SURVEY NRA-162 HOLYHEAD: SITE WLA 45 & WLB 1	88007202	544 *
COASTAL SURVEY NRA-XXX: SITE WLB 2	88007203	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 3	88007204	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 4	88007205	321 *
COASTAL SURVEY NRA-161 PENRHOS: SITE WLB 5	88007206	544 *
COASTAL SURVEY NRA-XXX: SITE WLB 6	88007207	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 7	88007208	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 8	88007209	321 *
COASTAL SURVEY NRA-160 ABERFERAW: SITE WLB10	88007210	541 *
COASTAL SURVEY NRA-XXX: SITE WLB 11	88007211	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 12	88007212	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 13	88007213	321 *
COASTAL SURVEY NRA-159 DYLAN: SITE WLB 15	88007214	541 *
COASTAL SURVEY NRA-XXX: SITE WLB 16	88007215	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 17	88007216	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 18	88007217	321 *
COASTAL SURVEY NRA-158 DINUAEN: SITE WLB 20	88007218	544 *
COASTAL SURVEY NRA-XXX: SITE WLB 21	88007219	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 22	88007220	321 *
COASTAL SURVEY NRA-157 PORTH YSGADEN: SITE WLB 25	88007221	541 *
COASTAL SURVEY NRA-XXX: SITE WLB 26	88007222	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 27	88007223	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 28	88007224	321 *
COASTAL SURVEY NRA-156 BARDSEY: SITE WLB 30	88007225	544 *
COASTAL SURVEY NRA-XXX: SITE WLB 31	88007226	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 32	88007227	321 *
COASTAL SURVEY NRA-155 PORTH CEIRIAD: SITE WLB 35	88007228	541 *
COASTAL SURVEY NRA-XXX: SITE WLB 36	88007229	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 37	88007230	321 *
COASTAL SURVEY NRA-XXX: SITE WLB 38	88007231	321 *
COASTAL SURVEY NRA-154 PWLLHELI: SITE WLB 40 & WLC 1	88007232	544 *
COASTAL SURVEY NRA-XXX: SITE WLC 2	88007233	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 3	88007234	544 *
COASTAL SURVEY NRA-XXX: SITE WLC 4	88007235	321 *
COASTAL SURVEY NRA-153 SHELL: SITE WLC 5	88007236	541 *
COASTAL SURVEY NRA-XXX: SITE WLC 6	88007237	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 7	88007238	321 *

! SUITE = 541 for limited number of analyses

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COASTAL SURVEY NRA-XXX: SITE WLC 8	88007239	321 *
COASTAL SURVEY NRA-152 BANMOUTH: SITE WLC 10	88007240	544 *
COASTAL SURVEY NRA-XXX: SITE WLC 11	88007241	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 12	88007242	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 13	88007243	321 *
COASTAL SURVEY NRA-151 PEN-BWCH POINT: SITE WLC 15	88007244	541 *
COASTAL SURVEY NRA-XXX: SITE WLC 16	88007245	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 17	88007246	321 *
COASTAL SURVEY NRA-150 ABERDOVEY: SITE WLC 20	88007247	541 *
COASTAL SURVEY NRA-XXX: SITE WLC 21	88007248	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 22	88007249	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 23	88007250	321 *
COASTAL SURVEY NRA-149 ABERYSTWYTH: SITE WLC 25	88007251	544 *
COASTAL SURVEY NRA-XXX: SITE WLC 26	88007252	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 27	88007253	321 *
COASTAL SURVEY NRA-148 PEN PIGYN: SITE WLC 30	88007254	541 *
COASTAL SURVEY NRA-XXX: SITE WLC 31	88007255	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 32	88007256	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 33	88007257	321 *
COASTAL SURVEY NRA-147 NEWQUAY HEAD: SITE WLC 35	88007258	544 *
COASTAL SURVEY NRA-XXX: SITE WLC 36	88007259	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 37	88007260	321 *
COASTAL SURVEY NRA-146 PENLY-BADELL: SITE WLC 40	88007261	541 *
COASTAL SURVEY NRA-XXX: SITE WLC 41	88007262	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 42	88007263	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 43	88007264	321 *
COASTAL SURVEY NRA-145 CARDIGAN: SITE WLC 45	88007265	544 *
COASTAL SURVEY NRA-XXX: SITE WLC 46	88007266	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 47	88007267	321 *
COASTAL SURVEY NRA-144 PWLL-COCH: SITE WLC- 50	88007268	541 *
COASTAL SURVEY NRA-XXX: SITE WLC 51	88007269	321 *
COASTAL SURVEY NRA-XXX: SITE WLC 52	88007270	321 *
COASTAL SURVEY NRA-143 FISHGUARD: SITE WLC 55 & WLD 1	88007271	544 * !
COASTAL SURVEY NRA-XXX: SITE WLD 2	88007272	321 *
COASTAL SURVEY NRA-142 STRUMBLE HEAD: SITE WLD 5	88007273	541 *
COASTAL SURVEY NRA-XXX: SITE WLD 6	88007274	321 *
COASTAL SURVEY NRA-XXX: SITE WLD 7	88007275	321 *
COASTAL SURVEY NRA-XXX: SITE WLD 8	88007276	321 *
COASTAL SURVEY NRA-141 ABEREIDDY: SITE WLD 10	88007277	544 *
COASTAL SURVEY NRA-XXX: SITE WLD 11	88007278	321 *
COASTAL SURVEY NRA-XXX: SITE WLD 12	88007279	321 *
COASTAL SURVEY NRA-XXX: SITE WLD 13	88007280	321 *
COASTAL SURVEY NRA-XXX: SITE WLD 14	88007281	321 *
COASTAL SURVEY NRA-140 S BISHOP: SITE WLD 15	88007282	544 *
COASTAL SURVEY NRA-XXX: SITE WLD 16	88007283	321 *
COASTAL SURVEY NRA-XXX: SITE WLD17	88007284	321 *
COASTAL SURVEY NRA-XXX: SITE WLD 18	88007285	321 *
COASTAL SURVEY NRA-139 SKOMER: SITE WLD 20	88007286	541 *
COASTAL SURVEY NRA-XXX: SITE WLD 21	88007287	321 *
COASTAL SURVEY NRA-XXX: SITE WLD 22	88007288	321 *
COASTAL SURVEY NRA-138 ST. ANNS: SITE WLD 25	88007289	544 *
COASTAL SURVEY NRA-XXX: SITE WLD 26	88007290	321 *

! SUITE = 541 for limited number of analyses

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COASTAL SURVEY NRA-137 TURBOT BANK: SITE WLD 30	88007291	544 *
COASTAL SURVEY NRA-136B ST. GOVANS (OFF):		
SITE WLE 1	88007292	541 *
COASTAL SURVEY NRA-136A ST. GOVANS: SITE WLE 5	88007293	544 *
COASTAL SURVEY NRA-135B OLD CASTLE HD (OFF):		
SITE WLE 10	88007294	541 *
COASTAL SURVEY NRA-135A OLD CASTLE HD(IN):		
SITE WLE 15	88007295	541 *
COASTAL SURVEY NRA-134 CALSEY ISLAND: SITE		
WLE 20	88007296	541 *
COASTAL SURVEY NRA-133 CARMARTHEN: SITE WLE 25	88007297	541 *
COASTAL SURVEY NRA-132 BURRY PORT: SITE WLE 30	88007298	544 *
COASTAL SURVEY NRA-131 LLANELLI: SITE WLE 35	88007299	541 *
COASTAL SURVEY NRA-130 WORMS HEAD: SITE WLE 40	88007300	544 *
COASTAL SURVEY NRA-129 OXWICH: SITE WLE 45	88007301	541 *
COASTAL SURVEY NRA-128 MUMBLES: SITE WLE 50	88007302	544 *
COASTAL SURVEY NRA-127 PORT TALBOT: SITE WLE 55	88007303	541 *
COASTAL SURVEY NRA-126 KENFIG: SITE WLE 60	88007304	544 *
COASTAL SURVEY NRA-125 PORTHCAWL: SITE WLE 65	88007305	544 *
COASTAL SURVEY NRA-124 NAST POINT: SITE WLE 70	88007306	541 *
COASTAL SURVEY NRA-123 ABERTHAW: SITE WLE 75	88007347	544 *
COASTAL SURVEY NRA-122 LAVERNOCK: SITE WLE 80	88007348	541 *
COASTAL SURVEY NRA-121 CARDIFF ROAD: SITE WLE 85	88007349	541 *
COASTAL SURVEY NRA-120 NEWPORT DEEP: SITE WLE 90	88007307	544 *
COASTAL SURVEY NRA-119 NO. 1 BEACON: SITE WLE 95	88007308	544 *

DEFAULT = \*

SAMPLING SITES	S.P.N.	SUITE
M.P.M.M.G. - INTERMEDIATE SOLWAY SITE 1: SOLWAY	88007309	546 *
M.P.M.M.G. - INTERMEDIATE WELSH SITE 65:		
CARDIGAN BAY	88007310	546 *
M.P.M.M.G. - ESTUARIAL WELSH SITE 67: HAWARDEN		
BRIDGE	88007311	547 *
M.P.M.M.G. - ESTUARIAL WELSH SITE 68: U/S FLINT	88007312	547 *
M.P.M.M.G. - ESTUARIAL WELSH SITE 69: BUOY NO. 2	88007313	547 *
M.P.M.M.G. - INTERMEDIATE NORTH WEST SITE 70:		
BURBO BIGHT	88007314	546 *
M.P.M.M.G. - INTERMEDIATE NORTH WEST SITE 78:		
OFF LUNE/WYRE	88007315	546 *

PART 7:    **SAMPLER ID**

**MARINE AND SPECIAL PROJECTS**

<u>SURVEY</u>	<u>CODES</u>
TM	100
MSC	101
LB	102
RIB	103
WYR	104
LUN	105
KNT	106
LVN	107
DUD	108
RAV	109
MIT	110
IRT	111
WAV	112
WAM	113
EDN	114
ESK	115
SOL	116
SLA	117
SLB	118
SLC	119
WLA	120
WLB	121
WLC	122
WLD	123
MPM	124
MW	125
JAM	126
KS	127
PDJ	128
CA	129
EF	130
IZG	131
CJ	132
AWW	133
HW	134
BF	135
MH	136
F	137
RS	138
R	139
E	140
P	141