GMT plase

Sampling gear: GEOTRACES carousel=GT-C; CLIVAR rosette=CL-R; 30L GOFlo=30-G; Mercury GOFlo=Hg-G; UoT's Ex-Niskins=Ex-N



| Event No. | Stn | Date (GMT) |  |  | Lat deg. <br> (N) |  | Lon deg. (W) |  | Min./max. sample depth (m) | Event description Gear/Cast \# | Samples taken (diss./ part./ unfilt.) | Comment types of studies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 024 | B4TS | 06/4/08 | 18:15 | 18:40 | $31^{\circ}$ | 46.97 | $64^{\circ}$ | 5.31 | 400 m | $C L-R$ | None | eTDTest New Termin failed/spiladat |
| 025 | Temp BATS | $66 / 15 / 08$ | 2:09 | 3:15 | $32^{\circ}$ | 7.91 | $64^{\circ}$ | 22.84 | 1000 m | $C L-R$ | None | GDD test "Ext:"s spuiked at 372 m |
| 026 | Temp Bats | $06 / 15108$ | $\left\{\begin{array}{l} 2: 48 \\ 3: 15 \end{array}\right.$ | $4: 15$ | $32^{\circ}$ | 07.91 |  | 22.84 | 1000 m | $G T-C$ | $\begin{aligned} & u \text { filt } \\ & \mathrm{O}_{2}+\mathrm{sal}^{2}+\mathrm{Cul} \end{aligned}$ | Calubiatior of sensors |
| 627 | Teap BATS | $06 / 15108$ | 12:18 | $13: 31$ | $32^{\circ}$ | 7.93 |  | 23.7 | 300 m | $G T-C$ | c | 4 |
| 028 | $\begin{aligned} & \text { Temp } \\ & \text { BAT'S } \end{aligned}$ | 6/15/08 | 13:38 | $14: 36$ | $32^{\circ}$ | 7.9 | $64^{\circ}$ | 23.8 | 150 m | GT-C | - | い |
| 029 | Temp <br> BATS | $6 / 15 / 88$ | $21: 04$ | $21: 59$ | $31^{\circ}$ | 46,12 | $64^{\circ}$ | 5.13 | $\begin{aligned} & 1500 \mathrm{~m} \\ & 150 \mathrm{~m} \end{aligned}$ | $C L-R$ | filter. | $\begin{aligned} & C T D \text { Test } \\ & \text { Filed } \end{aligned}$ |
| $\begin{aligned} & 030 \\ & \text { \$239 } \end{aligned}$ | BATS | $61 / 5108$ | 22.30 | $23: 25$ | $31^{\circ}$ | 46.48 |  | 5.35 | 500 m | $G T-C$ | $\begin{aligned} & \text { Test } \\ & \text { A-Team." } \end{aligned}$ | filtered samples |
| 031 | BATS | 6/15/88 | 0141 |  | $31^{\circ}$ | 46,41 | $64^{\circ}$ | 05.73 | 3500 m | UAFV | Diss TE |  |
| 032 | BATS | $6116 / 08$ | 05:00 | 06:58 | $31^{\circ}$ | $175,5$ | $64^{\circ}$ | 05.02 | 1000 m | $M T_{V}$ | DISS TE | profile |
| 033 | BATS | $06110 / 09$ | 611:20 | 12:30 | $31^{\circ}$ | 45.5 | $64^{\circ}$ | 05.02 | 1050 m | CL-R | 150 m diss. | CTD Test w/ NewCT Test passed! |
| 034 | BATS | $06 / 16 / 08$ | $12: 45$ |  | $31^{\circ}$ | 45.5 | $64^{\circ}$ | 05.d2 | $10$ | Geor |  |  |
| 035 | BAF | 06/16/08 | $19: 28$ | $20: 14$ |  | 46.65 | $64^{\circ}$ | $04,29$ | $+25 \mathrm{~m}$ 1000 m | $C L-R$ | $\begin{aligned} & 125-120 \mathrm{~m} \end{aligned}$ | Filter CTD Test. |
| 036 | $B A B$ | $6 / 16108 ?$ | $22: 30$ | 00.24 |  | 46.01 | $64^{\circ}$ | $04.96$ | $2000 \mathrm{~m}$ | $G T-C$ | $\begin{aligned} & \text { filteed } \\ & T \in I \end{aligned}$ | flush'B-Team" |
| 037 | BATS | $6 / 17 \mathrm{d7}$ | 0180 |  | $31^{\circ}$ | 46.07 | $64^{\circ}$ | 04.90 | 4000 | UAFV | Diss. TE | TE profile. |


| $\begin{array}{\|c\|} \hline \text { Event } \\ \text { No. } \end{array}$ | Stn | $\begin{array}{\|c\|} \hline \text { Date } \\ \text { (GMT) } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Start } \\ \text { time } \\ \text { (GMT) } \end{array}$ | $\begin{aligned} & \text { End } \\ & \text { time } \\ & \text { (GMT) } \end{aligned}$ | $\begin{array}{c\|} \hline \text { Lat } \\ \text { deg. } \\ \text { (N) } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Lat } \\ \text { minute } \\ \text { (dd.dd) } \end{array}$ | $\begin{aligned} & \text { Lon } \\ & \text { deg. } \\ & \text { (W) } \end{aligned}$ | $\begin{gathered} \text { Lon } \\ \text { minute } \\ \text { (dd.dd) } \end{gathered}$ | Min./max. sample depth (m) | Event <br> description <br> Gear/Cast \# | Samples <br> taken (diss./ <br> part./ unfilt.) | $\begin{aligned} & \text { Comment - } \\ & \text { types of studies } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138 | BATS | 06/17/08 | $\frac{11=35}{10 \cdot \frac{5}{6}}$ | $12: 20$ | $31^{\circ}$ | 46.00 | $64^{\circ}$ | S.eo | 1000 m | $C L-R$ | $\begin{aligned} & 12 \times 120 \mathrm{~m} \\ & \text { filt } \end{aligned}$ | Cfotest <br> Particle filtrationte |
| 039 | BATS | 06/17/00 | 21:23 | $22: 14$ | $31^{\circ}$ | $44.48$ | $64$ | 04.05 | 1000 m | $C L-R$ |  |  |
| 040 | BATS | $6 / 17 / 08$ | 2330 | 9:00 | $31^{\circ}$ | 45.89 | $64^{\circ}$ | 04,96 | 1400 | UAF ${ }_{V}$ | DISSTE |  |
| 041 | BAIS | 6/88/08 | $15=20$ | 16:20 | $31^{\circ}$ | 45.98 | $64^{\circ}$ | 04.81 | 1000 m | CL-R | filters | particle expsimats R.Scerrell |
|  | TS | 6/18108 | 8:37 | $\begin{aligned} & 04 / 20.08 \\ & 06: 31 \end{aligned}$ | $31^{\circ}$ |  |  | 4.62 | 4200 m | $G T-C$ | Filteredt unfiltud | Proctice fall depth profile |
| 0403 | ATS | 6/18/08 | 11.00 | 14:00 | $31^{\circ}$ | $46$ | $64^{\circ}$ | 5 | 2000 m | MITE | $\begin{gathered} \text { Filtered } \\ \text { TE } \end{gathered}$ | dupth profile |
| 043 | BATS | $6 / 19$ | $11=50$ | 12:50 | $31^{\circ} 4$ | $.09$ | $64^{\circ}$ | 05.04 | 1000 m | $C L-R$ | Filteredparticles |  |
| 044 | ATS | ${ }^{6} 19108$ | 12:50 | $\begin{aligned} & 6 / 20108 \\ & 1: 30 \end{aligned}$ | $31^{\circ}$ | 46.09 | $64^{\circ}$ | 05,04 | 4500 m | $G T-C$ | none | Respool winch |
| 445 | BATS | 4/20108 | $10: 42$ | 12:60 | $31^{\circ}$ | . 01 | $64^{\circ}$ | 05.12 | 4540 |  | unfilt. | fill Sofe Tank |
| 086 | BATS | $\$ 20 / 08$ | $12: 15$ | 13005 | $31^{\circ} 4$ | 45.73 | $64^{\circ}$ | 0579 | $130 / 1000 \mathrm{~m}$ | $C L-R$ | filters | Particle experiment R. Shemell |
| $48$ | BATS | 6/20/08 | 18:00 | 18:40 | $31^{\circ}$ | 46,38 | $64^{\circ}$ | 05,71 | ${ }^{130 /} 000 \mathrm{~m}$ | $C L-R$ | 500 m fit Te lootopes | $\begin{aligned} & \text { Samphes (filters) } \\ & \text { fac Seth) } \end{aligned}$ |
|  | BAT | $6 / 20 \%$ | $4: 60$ | 16.06 | $31^{\circ}$ | 46.38 | $64^{\circ}$ | 5.71 | 2000 m | GT-C | ufilt. | fillsafe Tane |
| $48$ | BAT | 4120108 | $19: 28$ | $21: 28$ | $31^{\circ}$ | 45.1 | $64^{\circ}$ | 65.3 | 2000 m | QT-C | unfilt. | fillsafe Tank |
|  |  |  |  |  | $31^{\circ}$ | 45.01 | $64^{\circ}$ | 05.3 | $130 /$ | Cl | Gilters | particle experiment R.Sharell |


| Event No. | Stn | Date (GMT) | Start time (GMT) | End time (GMT) | Lat deg. (N) | Lat minute (dd.dd) | Lon deg. (W) | Lon minute (dd.dd) | Min./max. sample depth (m) | Event description Gear/Cast \# | Samples taken (diss./ part./ unfilt.) | Comment types of studies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 051 | BATS | 06/20/08 | 2345 | 0145 | $31^{\circ}$ | 45.94 | $6^{\circ}$ | 05.20 | 2000 | GT-C | unfilt. | Fill SAfe tauks |
| 052 | Bats | $6 / 21 / 08$ | 0200 | 07:15 | $31^{\circ}$ | 45.78 | 64 | 6.27 | $\begin{aligned} & 2400- \\ & 4000 \end{aligned}$ | $M T$ Mv | Diss | profile - deepest samps |
| 053 | BATS | $6 / 21108$ | $11: 10$ | $12: 05$ | $31^{\circ}$ | 46.00 | $64^{\circ}$ | 05,00 | 1000 | $C Q-R$ | $\begin{aligned} & \text { TSM } \\ & 1000 \mathrm{~m} \end{aligned}$ |  |
| 054 | BATS | $6 / 21 / 08$ | 1200 | 1400 | $31^{\circ}$ | 45.70 | $64$ | 05.42 | 30 to 2000 | GT-C | Filt | fill SAfe tanks; zn spec. |
| 055 | BATS | $121108$ | 1553 |  | $3$ | 46.29 | $\begin{array}{r} 0 \\ 64 \end{array}$ | 04.43 | $\begin{aligned} & 0 \text { to } \\ & 4200 \end{aligned}$ | $G T-C$ | unfilt/ filt | Deep Hg cast |
| 056 | BATS | $6 / 21 / 08$ | $21: 15$ | $21: 32$ | $31^{\circ}$ | 45,75 | $64^{\circ}$ | 04,76 | 200 | $C L-R$ |  |  |
| 057 | $B A T S$ | $4 / 21108$ | $22: 00$ | $\begin{aligned} & 622 \\ & 2: 45 \end{aligned}$ | $31^{\circ}$ | 5,75 | $64^{\circ}$ | 04.76 | 4200 m | $G T-C$ |  | $\begin{aligned} & \text { ABORTED } \\ & \text { wotope cast } \end{aligned}$ |
| 058 | BATS | $6 / 22 / 08$ |  |  | $31^{\circ}$ | $46.02$ |  | $04,84$ | $\begin{aligned} & 1250 \mathrm{~m} \\ & 20 \end{aligned}$ | $C L-R$ |  |  |
| 059 | OAT | $6122108$ | $15: 15$ | $16: 50$ |  | $45.49$ | $64^{\circ}$ | $5.25$ | $2010 \mathrm{~m}$ | $G T C$ | fict unfilt. | Re-fillsafe Tank |
| 060 | BATS | $6 / 22 \operatorname{los}$ | $16: 45$ |  | $31^{\circ}$ | $46.05$ | $64^{\circ}$ | 05.24 | $200 \mathrm{~m}$ | $C L-R$ | Fill | Fill Go Flas let saak overngit |
| 061 | BATS | $6 / 22 / 108$ | $22: 30$ | $\begin{aligned} & 623108 \\ & 155: 20 \end{aligned}$ | $31^{\circ}$ | $46.08$ | $64^{\circ}$ | 04.98 | $3500 \mathrm{~m}$ | GT-C | Filt/unfilt | isotope cast |
| 662 | BAO | $6 / 23160$ | $11: 40$ | $12: 50$ |  | $45.97$ | $641^{\circ}$ | 05.10 | 800 m | $G T-C$ | filtluafilt | Concentation Hydrocast - 800 m |
| 063 | BATS | $6 / 23 / 08$ | $13: 35$ | $13: 50$ | $31^{\circ}$ | $46.17$ |  | 05.13 | $\begin{aligned} & 200 \\ & 50 \mathrm{~m} \end{aligned}$ | $C L-R$ | $\begin{aligned} & \text { filter } \\ & \text { tutest } \end{aligned}$ | test passed!! |
| 064 | BATS | $6 / 23 / 08$ | $7: 35$ |  | $31^{\circ}$ | $44.55$ | $64^{\circ}$ | $07,28$ | 1000 m | $C l-R$ | $\mathrm{Hg}$ |  |


| Event No. | Stn | $\begin{aligned} & \text { Date } \\ & \text { (GMT) } \end{aligned}$ | $\begin{gathered} \text { Start } \\ \text { time } \\ (\mathrm{GMT}) \end{gathered}$ | $\begin{gathered} \text { End } \\ \text { time } \\ (\mathrm{GMT}) \end{gathered}$ | Lat deg. <br> (N) | Lat minute (dd.dd) | $\begin{aligned} & \text { Lon } \\ & \text { deg. } \\ & \text { (W) } \end{aligned}$ | Lon minute (dd.dd) | Min./max. sample depth (m) | Event <br> description <br> Gear/Cast \# | Samples <br> taken (diss./ <br> part./ unfilt.) | Comment types of studies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 065 | BATS | 6/23/08 | $21: 40$ | $22: 33$ | $31^{\circ}$ | 45.998 | $64^{\circ}$ | 05,0 | 1000 m | $C-R$ | - |  |
| 066 | BATS | $6 / 23108$ | $23: 30$ | $\begin{aligned} & 6124 \\ & 400 \end{aligned}$ | $3 i^{\circ}$ | 45.997 |  | 0.502 | 2000 m | $G T-C$ | unfilt | Safe tank fill $\pm 7$ |
| 667 | BATS | $6 / 24108$ | $12: 18$ | 16.33 | $31^{\circ}$ | 45.99 |  | 5.09 | 4000 m | GT-C | Filt/ unfilt | Dupconcuitration cast - |
| 068 | BATS | $6 / 24 / 08$ | $16: 48$ | $17-31$ | $31^{\circ}$ | $46,82$ | $64^{\circ}$ | 0566 | 750 m | $C L-R$ | filter |  |
| 069 | BATS | $6 / 25 / 08$ | $11: 44$ | $12: 32$ | $31^{\circ}$ | 46039 | $64^{\circ}$ | 05.018 | 1020 m | $C L-R$ |  |  |
| 070 | B ATS | 6/25/08 | $14: 10$ | $16.100 ?$ | $31^{\circ}$ | $45.60$ | $64^{\circ}$ | 04.72 | 800 m | $G T-C$ | $\begin{aligned} & \text { Filti } \\ & \text { unfilt } \end{aligned}$ | Rendo Shallow cast Event \#62 |
| 071 | BATS | $6 / 25108$ | $21=00$ | $21: 55$ | $31^{\circ}$ | $\begin{aligned} & 45,86 \\ & 48 . \end{aligned}$ | $64^{\circ}$ | 05.024 | 1020 m | $C L-R$ | filter |  |
| 072 | BATS | 6/26/08 | : 30 | $15: 03$ | $31^{\circ}$ | 45.90 | $64^{\circ}$ | $05.15^{\prime}$ | 4000 m | $G T-R$ | filtered | Wu Fe isotope profile |
| 673 |  |  |  |  | - |  | - |  |  | Geof |  |  |
| 674 | hix | $\begin{aligned} & 6 / 29 / 08 \\ & 6 / 30105 \end{aligned}$ | $\begin{aligned} & 21: 30 \\ & 00: 20 \end{aligned}$ | $\begin{aligned} & 23.45 \\ & 01.30 \end{aligned}$ | $31^{\circ}$ | 46 | 640 | 5 | 1000 m | Mul-v | test 30 min 1 punip. | Cable spooling Bishop |
| 075 | BATS | $6 / 30108$ | $7: 22$ |  | $31^{\circ}$ | 45.87 | $64^{\circ}$ | 5.413 | 4000 m | $G T_{0}-C$ | filter | Hydocast |
| 76 | BATS | $6 / 30108$ | $15: 19$ | $15: 40$ | $31^{\circ}$ | $46.10$ | $64^{\circ}$ | $04.64$ | $\frac{\text { Surface }}{800 \mathrm{~m}}$ | $\text { Kno } R$ | unfit. Wafer | phosphate 18 Nitrate ${ }^{5} N^{18}$ |
| $27$ | BATS | $61.30 / 008$ | 16:22 | 1800 | $31^{\circ}$ | $46,24$ | $64^{\circ}$ | $04,89$ | surface 2000 m | KnoR | DISS + Partic | Nd iso foges |
| $078$ | BATS | $6130108$ | $1880$ | $1815$ | $31^{\circ}$ | $46.5378$ |  | $05.22$ | surface | Ships seewater intale | Diss Ra Th, Ac sites | Ra intercal tank |


|  | Stm | ( $\begin{gathered}\text { Date } \\ \text { (GMT) }\end{gathered}$ |  | $\begin{gathered} \text { End } \\ \text { (ind } \\ \text { (GMT) } \end{gathered}$ | $\begin{array}{\|c} \text { Lat } \\ \text { cag } \\ \text { (N) } \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|} \hline \text { (ind }) \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|c\|c\|} \hline \text { cog. } \\ \left(\begin{array}{c} 4 \end{array}\right. \\ \hline \end{array}$ |  |  | Evevent <br> desarion <br> Gearcastast$\|$ | $\begin{array}{\|c} \text { Samples } \\ \text { taken (diss./ } \\ \text { part// unfil.) } \end{array}$ | Comment - types of studies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 |  | On30 | 2040 |  | 3 | 46.88 | 64 | dY, 52 | 30/900 | MazVFsob | Part |  |
|  | n | Joul | $\begin{aligned} & 2245 \\ & 0315 \end{aligned}$ |  | $3311^{\circ}$ | $\begin{aligned} & 46.62 \\ & 46.82 \end{aligned}$ | $64^{\circ}$ | 06.28 09.65 | 30/900 | $\begin{aligned} & \text { Muvis } \\ & \text { STHRTS. } \end{aligned}$ | top |  |
| 080 |  | " | 2300 | 030 | 31 | 46.62 | $64^{\circ}$ | Q6.46 |  | $\begin{aligned} & \mathrm{Ra} \text { tank } \\ & 2 \end{aligned}$ |  |  |
|  | n | " | 0730 | 1000 | 31 | 5.78 | 4 |  |  | Kno R | Oissolved) <br> Part ion | $\begin{aligned} & \text { utrient } \begin{array}{l} \text { ototer } \\ \text { find } \end{array} \end{aligned}$ |
| 082 | 1 | 11 | $\begin{aligned} & 1105 \\ & 08: 45 \end{aligned}$ | $13.30$ |  | . 92 | 64 | 64\% | elo | Mclere | Panticle | Matit |
|  | BAI | 刊108 | 1350 |  | 31 | t. 21 |  | $\begin{aligned} & 05.48 \\ & 05.48 \\ & 0.2 \end{aligned}$ | 2001 m |  | Unfilt/ <br> filt | $\begin{aligned} & \text { Gllsafe } \\ & \text { Tank } \end{aligned}$ |
| 084 | Bats | 11 | 1400 | 1700 | 31 | 4S.22 |  | 0199 | surf. |  |  |  |
| 085 | $B^{4 h^{5}}$ | 11 | 17.1 | 0:18 | $3 i^{\circ}$ | 4630 | 64 | 540 | 100 m | $\begin{aligned} & \text { Mcane } \\ & \text { shallask } \end{aligned}$ | Partich |  |
| 086 |  | 1 | 1630 | 1800 |  | 45.07 |  | 04.84 | Surf | $\begin{aligned} & \text { shr's so } \\ & \text { intake } \end{aligned}$ |  |  |
| 98 | " | 1 | 20:00 | 20:30 | $3{ }^{\circ}$ | $\frac{46.00}{14}$ | $64^{\circ}$ | 05.37 | $\frac{s u c t}{800}$ | $\mathrm{K} \sim \mathrm{R}$ | filt. $\mathrm{H}_{2} \mathrm{O}$ | $\mathrm{Na}_{3}$ isorpes |
| $\begin{aligned} & 088 \\ & 08 \\ & \hline \end{aligned}$ | $B A$ | $7,1$ | 105 | $22: 18$ | $31^{\circ}$ | 45.4 |  | \$4.46 | 2080 | GTC | filt | $\operatorname{Tank} \# 2$ |
|  | bats | 7 (llos | 22:42 |  | 31 | 45,33 | 4 | 04.78 | 2000 | Hinor | DISSt partic | BATS DEEP Thorlum cas |
| 90 | Bat | 71 | 3: 5 |  | 31 | $45$ |  |  |  | $\begin{aligned} & \text { mclane } \\ & \text { cant B } \end{aligned}$ | Particle | maiti |
|  |  |  |  |  |  |  |  |  | 2000 |  | filt | $43$ |



| Event No. | Stn | Date (GMT) | Start time (GMT) |  | Lat deg. (N) |  | Lon deg. (W) |  | Min./max. sample depth (m) | Event <br> description <br> Gear/Cast \# | Samples taken (diss./ part./ unfilt.) | Comment types of studies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 104 | H.ATS | $7 / 3 / 08$ | $13.66$ |  | $31^{\circ}$ | 45.58 | $64^{\circ}$ | 04.58 | $500 / 200$ | $\operatorname{HnoR} I^{0}$ | $\begin{aligned} & \text { Isotopes } \\ & \mathrm{NO}_{3} \mathrm{po}_{4}^{-} \mathrm{P} \end{aligned}$ |  |
| $105$ | U | II | 1600 | $1630$ | - | 4 | - | 11 | surf | Ratank |  | Plas afe exp. |
| $106$ | 11 | $U$ | $1700$ | $1730$ | - | 9 | - | 11 | suf | 1 |  | ll |
| 107 | 1) | 1) | $16.46$ |  | - | 11 | - | 11 |  | Mclane Rosette | 1 | Q-Maits |
| 108 | 11 | 746108 | $00: 15$ | 0019 | $31^{\circ}$ | 45.32 | $64^{\circ}$ | 03.90 | 20 M | KnoR | $N d$ |  |
| 109 | BATS | $714108$ | 0035 |  | $31^{\circ}$ | 45.326 | $64^{\circ}$ | 03.986 | 2000 m | $G T-C$ | filtered | $\begin{aligned} & \text { tank Lill } \\ & \text { (dup2) } \# 1 \end{aligned}$ |
| 110 | 11 | 4 | 0515 |  | $31^{\circ}$ | 44.748 | $64^{\circ}$ | 02.568 | 2000 | $G T-C$ | -4- | $\begin{aligned} & \text { tok foll } \\ & \text { (coup2) \#22 } \end{aligned}$ |
| $1 / 1$ |  |  | 0550 0840 |  |  | 44.77 |  | 03.975 | $50 / 900$ | $\begin{gathered} \text { MULVES } \\ \text { START } \end{gathered}$ | PART | $C T D$ MUL START |
| $\psi$ |  |  |  |  |  |  | 0 |  |  |  | 碞 |  |
| 112 | TSATS | $7 / 4 / 108$ | 1540 |  | $31^{\circ}$ | 4S.515 | $64^{\circ}$ | 04.099 | 2000 | GT-C | fittered | $\begin{aligned} & \text { tak fill } \\ & (\text { deep } 2) \# 3 \end{aligned}$ |
| 113 | BAD | $714 \text { los }$ |  |  | - |  | - |  | $2000$ | $\begin{aligned} & \text { mclane } \\ & \text { Reseate } \end{aligned}$ | Partivte | K.maiti |
| 114 | BAB |  | $323 i$ | $2345$ | $31^{\circ}$ | $44.38$ | $64^{\circ}$ | $04.4$ | $1400$ | kor | $\begin{aligned} & \text { Isotapes } \\ & \mathrm{No}_{3} \mathrm{pO}_{y} \mathrm{~S} \end{aligned}$ | I wanna mai-tai |
| 115 | BATS | $7 / 4108$ | $2350$ | 0120 | $31^{\circ}$ | $44.411$ | $64^{\circ}$ | 04.710 | 2000 | $G T-C$ | filtend | $\begin{aligned} & \operatorname{tank} \text { fill } \\ & (\operatorname{dup} 2) 1 \neq 4 \end{aligned}$ |
| 116 | BATS | $7 / 4 / 08$ | $10: 30$ | $01: 15$ | $31^{\circ}$ | 44.61 | $64^{\circ}$ | 05.56 | 200 | silter tat Mila | panticle | K.Moit |


| $\begin{array}{\|c\|} \hline \text { Event } \\ \text { No. } \end{array}$ | Stn | $\begin{array}{\|c\|} \hline \text { Date } \\ \text { (GMT) } \end{array}$ | $\begin{gathered} \hline \text { Start } \\ \text { time } \\ \text { (GMT) } \end{gathered}$ | $\begin{array}{c\|} \hline \text { End } \\ \text { time } \\ \text { (GMT) } \end{array}$ | $\begin{array}{\|c} \hline \text { Lat } \\ \text { deg. } \\ \text { (N) } \end{array}$ | $\begin{gathered} \text { Lat } \\ \text { minute } \\ \text { (dd.dd) } \end{gathered}$ | $\begin{aligned} & \text { Lon } \\ & \text { deg. } \\ & \text { (W) } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Lon } \\ \text { minute } \\ \text { (dd.dd) } \end{array}$ | $\begin{gathered} \text { Min./max. } \\ \text { sample } \\ \text { depth }(m) \end{gathered}$ | Event <br> description <br> Gear/Cast \# | Samples taken (diss./ part./ unfilt.) | Comment types of studies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 117 | BATS | $1 / 5108$ | 1:32 | $8: 32$ | $31^{3}$ | $\begin{aligned} & 44.6 \\ & 4.6 \end{aligned}$ | $\begin{aligned} & 64^{\circ} \\ & 6 \end{aligned}$ | 3.2 | 1000 | GT-C | Filtwed | Sherell exp |
| $118$ | BAB | $1 / 5108$ | 6:00 | $11: 40$ | $3 i^{\circ}$ | 45.56 | $64^{\circ}$ | 39 | 2000 | Mclave | partice | fercant |
| 119 | BATS | 715108 | 1515 |  | $31^{\circ}$ | 44500 | $64^{\circ}$ | 03.509 | 4000 | GT-C | fither | aup barliu prokile |
| 120 | BATS | $715108$ | 1625 |  | - |  | - |  |  | Mulufs 4 | Filter | Biskep/Char |
| $\checkmark$ |  | $\begin{aligned} & \text { START } \\ & \text { STOP } \\ & \text { END } \end{aligned}$ | $\begin{aligned} & 2125 \\ & 0155 \\ & 0345 \end{aligned}$ |  | $\begin{aligned} & 31^{\circ} \\ & 31^{\circ} \end{aligned}$ | $\begin{aligned} & 44.357 \\ & 43.926 \end{aligned}$ | $\begin{gathered} 64^{\circ} \\ 64 \end{gathered}$ | $\begin{aligned} & 03.505 \\ & 06.222 \end{aligned}$ |  | MuLUFS 53 OFE END |  |  |
| 121 | BATS | $76108$ | 03:07 |  | $31^{\circ}$ | 44.02 | $64^{\circ}$ | 07.02 | 2000 | Nd Cast molane | Particle | $\text { K. Maiti } \& S$ |
| 122 | BATS | $7 / 6108$ | $9: 25$ |  | $31^{\circ}$ | 24.4 | $64^{\circ}$ | 09.5 | 2000 | GT-C | Filter | Rob filta expeumet |
| 18 | - | H08 |  |  | - |  | - |  |  |  |  |  |
| 123 | BATS | 7/6/08 | 9:30 |  | $31^{\circ}$ | 4禹 | $64^{\circ}$ | 95 | 800 | Mclane on cuive | patsticle | cen |
| 124 | $A T B$ | $+1608$ | $6 \mathrm{mp}_{6} 19$ |  | $31^{\circ}$ | $43.90$ | $60^{\circ}$ | 10,30 | 20 | Knok | DCSS <br> partic | Thorium Neoduncum |
| 125 | BAB | $7 / 4000$ | $20.59$ |  |  | 11 | $10^{\circ}$ | 11 |  | malcoe | pritle | Pasticles K. Marti |
| 124 | BATS | $7 / 7108$ | $6.54$ |  | $31^{\circ}$ | 44.7 | $64^{\circ}$ | 14.7 | 2000 | $G T-C$ | unfilt | Patialtank fill |
| $127$ | shelf | $7\|a\| 08$ | 12:00 |  | - |  | - |  |  | GT-C |  |  |
| $X X$ | BAIS | $715108$ | btw.inoon | and | - |  | - |  |  | Geot | $\begin{aligned} & \text { dissolved } \\ & \text { Th/Hf } \end{aligned}$ | both Sate tauks |


| Event No. | Stn | Date (GMT) | Start time (GMT) | End time (GMT) | Lat deg. (N) | Lat minute (dd.dd) | Lon deg. (W) | Lon minute (dd.dd) | Min./max. sample depth (m) | Event description Gear/Cast \# | Samples taken (diss./ part./ unfilt.) | Comment types of studies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 128 | SLOPE | $719 / 08$ | 1440 |  | $37^{\circ}$ | $0.866^{\prime}$ | $74^{\circ}$ | $25.025^{\circ}$ | 1000 | GT-C | difs | hydrocastt |
| $129$ | slore | $719100$ | $1524$ |  |  | 11 |  | 1) | 1000 | melane Profile |  | Pasticudate |
| 130 | SLOPE | -7/3/08 | $22: 10$ |  | 0 |  | 0 |  |  | $M W L V$ | $\begin{aligned} & \text { paplos } \\ & \text { portico } \end{aligned}$ | $\begin{aligned} & \text { Bishup } \\ & \text { et al } \end{aligned}$ |
|  |  | $\begin{aligned} & 719105 \\ & 710 / 08 \\ & 7 / 10 / 06 \end{aligned}$ | $\begin{aligned} & 23.42 \\ & 03.42 \\ & 03.50 \end{aligned}$ |  | $37^{\circ}$ | 01.918 | $74^{\circ}$ | 24.32 | $23 / 900$ | MULES | $\begin{aligned} & \text { SIARI } \\ & \text { SION } \end{aligned}$ |  |
| 131 | SLOPE | $7 / 10108$ | 0630 | 0. | $37^{\circ}$ | 02.002 | $74^{\circ}$ | 23.875 | 1000 | $G T$ |  |  |
| 132 | Slope | $7 / 10 / 08$ | 1745 | 0815 | $37^{\circ}$ | 01.676 |  | 23.882 | $632$ | $K_{n_{0}} R^{M 4}$ | Th Cdiss./part. <br> Phosphate $\delta^{18} 0$ | $\angle D E O$ |
| $133$ | tope | $7 / k / C s$ | 8.17 |  |  | 1) | $17$ | )) | $\begin{aligned} & \max \\ & 80 m \end{aligned}$ | nclane Rosette |  | kNaiti |
| $134$ | Slope | $7 / 10 / 08$ | $2: 30$ |  | $37^{\circ}$ | 02.101 | $74^{\circ}$ | 24,022 | $\begin{array}{ccc} C h l \\ 0 & 1400 \mathrm{max} \\ 0 \end{array}$ | $K_{n o} R$ | Nutruent soctopes | $\begin{aligned} & \text { Colman/Mc llvin } \\ & \text { Brzezinsti: } \end{aligned}$ |
| $135$ | $\operatorname{sio} \theta$ | $7110108$ | $3.42$ |  |  | 1) |  | 11 | 80 m | molame Rosette | Tarticulate | K.Mlaiti |
| $136$ | $\operatorname{slog}$ | $71,4,8$ | $17: 30$ |  | $\bigcirc$ |  | $\bigcirc$ |  |  | बो-C | Partialote Dismetalsodn | ufs Scerrel |
| $\begin{array}{r} 137 \\ +52 \\ \hline \end{array}$ | slope <br> सCOP/E | $\frac{710108}{7146}$ |  |  | $37^{\circ}$ | 02.0 | $74^{\circ}$ | 23.87 | 1004 | Knor | Nd east To 100 M | LDED |
| $128$ | Slope | $7 / 10 / 08$ | $\begin{aligned} & 20.00 \\ & 23: 30 \end{aligned}$ |  | $37$ | 01.79 |  | $24 \cdot 12$ | $23 / 900$ | $\text { MinLV = } 6$ | PART | START |
| $\downarrow$ |  | $711108$ | $\begin{aligned} & 03: 30 \\ & 0: 30 \end{aligned}$ |  | 370 | 00.98 | $-4{ }^{\circ}$ | $24.69$ |  | ひ | 以 | GINSK. <br> All Secured. |
|  | stape | $711108$ | $05.08$ |  |  | 1) | $11^{\circ}$ | 11 | 80 m | Melare Resctte | Particulat | K.Maiti |
| Sampling gear: GEOTRACES carousel=GT-C; CLIVAR rosette=CL-R; 30L GOFlo=30-G; Mercury GOFlo=Hg-G; UoT's Ex-Niskins= Geo's fish=GeoF; Rob's fish=SherF-v1/-v2/-v3; MITESS=MITE; MIT-vane=MITv; UAF-vane=UAFv; Knorr rosette= |  |  |  |  |  |  |  |  |  |  |  |  |
| $140$ | Shupe | $7 / 11 / 08$ | 07:00 |  | 11 | 11 |  |  | $80 \mathrm{w}$ | miclae | Recasl | kMait |



