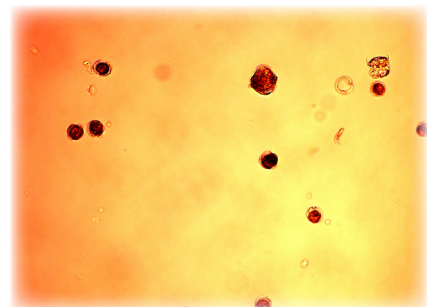


AV@ubY' bgrfi a Ybhg'MJY'X'G[b]UWbh<56'8UHJ'

G'WYbh]g'g' UFY' XYd'cn]b['g]Y' YFU' X]ZZYfYbh' AV@ubY']bgrfi a Ybhg' hc' V@'YVh' X]j Yfg' j]Yk g' cZ' \Ufa Z' U[U' V'cca' 'fk56k'XUHJ'



Alexandrium Cells in a Sample
Photo courtesy of Kerry Norton, WHOI

6fi W' ?YUZYfz' ?Yffm Bcfhcbz' UbX' ch\Yf' fYgU'FWYfg' Z'ca' 8f' 8cb' 5bXYfgcb' @UVz' K ccXg' <c'Y' CWUbc[fUd\]W' bgr]h' h]cb' fK <C# \Uj Y' V@'UVcfUYX' k]h' 8f' 7]bXm D]_g'U' b' cZ' I !AUgg' 8Ufha ci h' g]bW' &\$\$(' i g]b[' AV@ubY' D\ntcd'Ub' hcb' GJa d'Yfg'fDDG'UbX'GYX]a Ybh'HFUdghc' ghi Xnth\Y'X]g'f]Vi h]cbz'fUbgdcf'f'UbX' XY'j] Yfm cZ' h\Y' hcl]WX]bcU[U'Y'UH' Alexandrium fundyense' V'cca g'h\Uh' Wli g'f'YX'h]Y"

b' &\$%- žg]b[b]UWbh<56'XUHJ'k YFY' V@'YVh'X' i g]b[' AV@ubY' gJa d'Yfg'

Xi f]b[' U' fYX' h]XY' V'cca' 'k]h']b' h\Y' ; CACCG'Vi cmbYh'k cf_]b' h\Y' ; i' Z'cZ' AU]bY' H\YDDG'V@'YVh'X'5'YI UbX]f]i a' W'g'Z'ca' 'k]h']b' h\Y' fYX' h]XY' V'cca' UbX' ' GYX]a Ybh' HFUdghc' V@'YVh'X' U' 'Uf[Y' Ua ci bh' cZ' 5'YI UbX]f]i a' V'grhg' XYd'cg]h'X' X'ck bgrfYUa']b' h\Y' V@'UghJ' 'U'ck 'Uh'h\Y'YbX'cZ'h\Y'V'cca' " G'hi Xn]b[' a]X]g'fYUa' ' UbX' YbX' cZ' V'cca' V'grhg'V@'bh'f]Vi h\Y' hc' U' [fYUHYf' i bXYfg]UbX]b[' cZ'h\Y'XYj Y'cda Ybh'cZ' X]bcU[U'Y'UH' V'grhg' UbX' h\Y' V@'UghJ' W'ffYbh'U'ck"

Hcl]W' U[UY' Wli bck' VY' YI Ua]bYX' Uh' h\Y' [Ybca]W' Y]Y' i g]b[' U'bYk' AV@ubY']bgrfi a Ybh' h\Y' 9bj]f'c'ba YbhU' GJa d'Y' DfcW'ggcf' f'P'DE' " ?YUZYf' UbX' 8f' 8cb' 5bXYfgcb' UFY' i g]b[' Ub' 9GD' Zcf' U' ^c]bh' K <C# 9bj]f'c'ba YbhU' D'f'chYV]cb' 5[YbW'h' f'P'D5k' d'fc'YVh']b' h\Y' ; i' Z' cZ' AU]bY' " H\]g[Ybca]W'g'hi Xmdfcj]XYg'Ubch\Yf' d'Yfgd'V]V]Y' Y' cb' fYX' h]XY' V'cca g' Vm]XYbh]Zn]b[UbX'V@'i bh]b[5'YI UbX]f]i a' W'g' "

H\Y' 9GD' DDG' UbX' GYX]a Ybh'HFUdghc' k]' U' VY' i gYX']b' V@'bh]bi YX' fYX' h]XY' ghi X]Yg']b' &\$%&

Photos from the Deck

K Ubh' U' bYk' AV@ubY' h'g']fh3 J]g]h' a WubY'UVg'V@'a' UbX'g'YbX' i g'U'd\chc' "



Photo: Mike Gregg, APL-UW

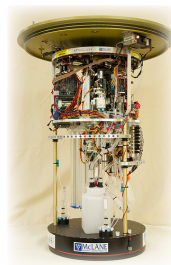
MMP, Monterey Submarine Canyon



D\chc' "F]W' ?f]g\UY'Xz'K <C#

Steel Buoy, Beaufort Sea

AV@ubY' 5bbci bWg'BYK' GJa d'Yf' 5j U]UW]]hm



K YUFY' d'YUg'YX' hc' Ubbci bW' h\Y' Uj U]UW]]hm'cZ'UbYk' gJa d'Yfz' h\Y' 9bj]f'c'ba YbhU' GJa d'Y' DfcW'ggcf' f'P'DE' " K cf_]b[' k]h' 'ci' f' dUf'bh'Yfg' Uh' Acbh'YfYm' 6Um' FYg'U'FW' ' bgr]h' h'Y' UbX' Gdm] 'Ugg' " 6]cg'W'f]m' AV@ubY'f]g' U'f'g' 9GD' k U'g'g']dd'YX' hc' 8f' 8cb' 5bXYfgcb' Uh'K' ccXg' <c'Y' CWUbc[fUd\]W' bgr]h' h]cb']b' >i' bY"

H\Y' 9GD' V@'YVh'g' UbX' UbU'mmYg'k Uh'Yf' gJa d'Yg' in situ' i g]b[' a c'YVW' Uf' d'fc'VYg' h\Uh']XYbh]Zma']W'ccf[Ub]ga g'UbX' h\Y]f' [YbY' d'fc'Xi V'grhg' : cf' a cFY']bZ'ca Uh]cb' g'Y' mclanelabs.com"

BYk' #HD'GYbgcf' b'hY[fU]cb

H\Y' #D']g'bck']bhY[fU]YX' k]h' h\Y' H'Y'Xn'by' F8=8cdd' Yf' JY' c'W'f'miGYbgcf' f'BJ' G' UbX' K' Yh'UVg'HF]d' Yh'g'Ybgcf' " H\Y' 8J'G' a YUg' fYg' h\Y' j' Y' c'V]m'icZ' CWUbc' W'ffYbhg' " H\Y'K' Yh'UVghf]d' Yhia YUg' fYg' ' k Uj Y'Yb[h'g'cZ'cdh]W' VUW'g'W'HY' " H\Y' GUh' Ubh]W' G' B5'b]f'fU]Y' g'Ybgcf' UbX' F6F' V@'b'Xi V]j]]hm'Y'a d'Yf'U' h' FY' XYd'h' " c[[Yf' f'7H8E' UFY' U'gc' bck']bhY[fU]YX' k]h' d'fc'U'Yf' U'fa k UFY' UbX' Y'V'f'cb]V]g'



Photo: Andrew Bowie, University of Tasmania

WTS-LV, Tasman Sea

