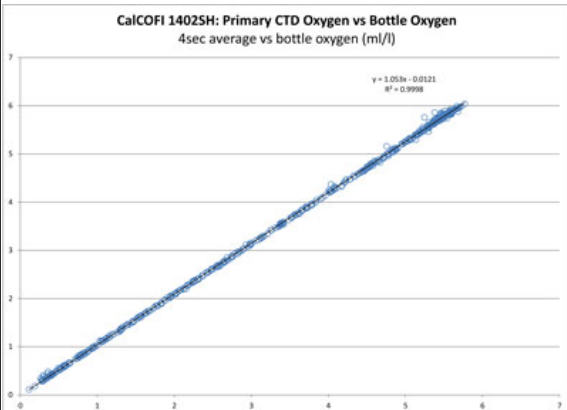
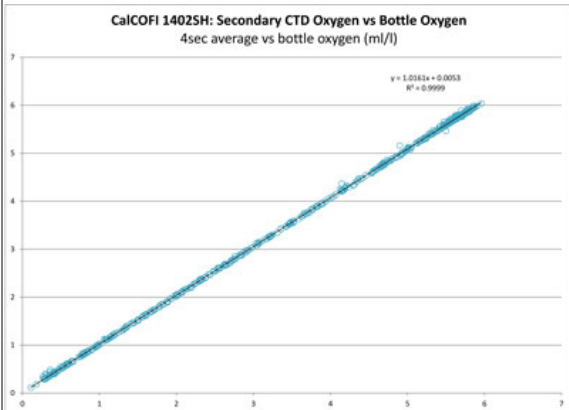
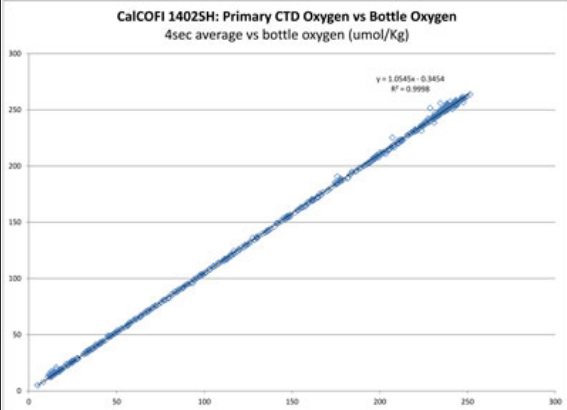
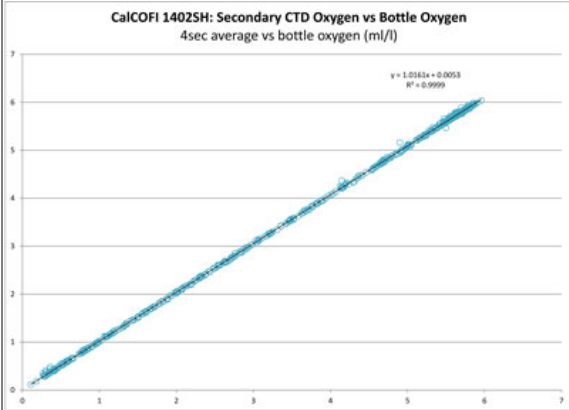
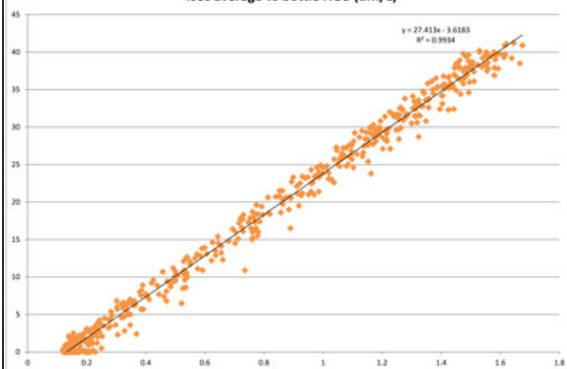


1402SH CTD Processing Summary (/cruises/2014-cruises/calcofi-1402sh/1402sh-ctd-processing-notes.html)

Parent Category: 2014 Cruises (/cruises/2014-cruises.html)  
Category: CalCOFI 1402SH (/cruises/2014-cruises/calcofi-1402sh.html)  
Last Updated: 10 March 2017

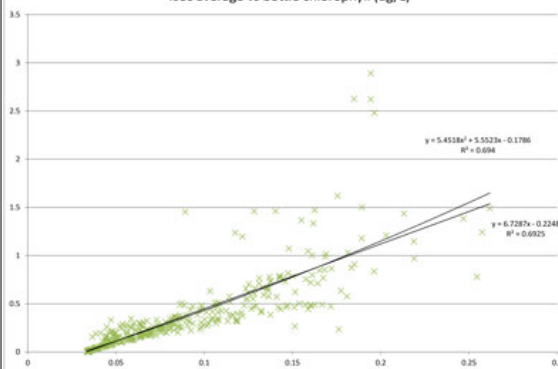
CTD Processing Summary CalCOFI 1402SH CTD Data			
Download 1402SH CTD raw cast files zipped (http://cappuccino.ucsd.edu/downloads/2014/20-1402SH_CTDcast.zip)		Download 1402SH FinalQC CTD + bottle data (http://cappuccino.ucsd.edu/downloads/2014/20-1402SH_CTDFinalQC.zip)	
<b>General CTD Notes</b> - data acquisition notes, logistics, processing - see below			
CTD sensor corrections derived by comparing 4 secs of CTD sensor data (prior to bottle closure) to bottle samples			
Dual T, S, & O2	Primary Sensor	Secondary Sensor	
Salinity offset (bottle - CTD salinity; > 350m only; Seabird SBE4)	-0.0011	-0.0004	
Oxygen ml/L (dual Seabird SBE43)	y = 1.053x - 0.0121 R <sup>2</sup> = 0.9998	y = 1.0161x + 0.0053 R <sup>2</sup> = 0.9999	
Oxygen umol/Kg (dual Seabird SBE43)	y = 1.0545x - 0.3454 R <sup>2</sup> = 0.9998	y = 1.0176x + 0.4011 R <sup>2</sup> = 0.9999	
Single sensors			
Nitrate - ISUS 4sec ave voltage vs Bottle Nitrate (Satlantic MBARI-ISUS v2)	y = 27.413x - 3.6183 R <sup>2</sup> = 0.9934		
Fluorometer - polynomial & linear regressions	y = 6.7287x - 0.2248 R <sup>2</sup> = 0.6925	y = 5.4518x <sup>2</sup> + 5.5523x - 0.1786 R <sup>2</sup> = 0.6940	
			
(http://www.calcofi.org/downloads/cruise_data/2014/1402SH/1402SH_Ox1MLvsOxB.jpg)		(http://www.calcofi.org/downloads/cruise_data/2014/1402SH/1402SH_Ox2MLvsOxB.jpg)	
			
(http://www.calcofi.org/downloads/cruise_data/2014/1402SH/1402SH_Ox1UMvsOxB.jpg)		(http://www.calcofi.org/downloads/cruise_data/2014/1402SH/1402SH_Ox2MLvsOxB.jpg)	

CalCOFI 1402SH: ISUS Voltage vs Bottle NO3  
4sec average vs bottle NO3 (uM/L)



([http://www.calcofi.org/downloads/cruise\\_data/2014/1402SH/1402SH\\_ISUSVsNO3.jpg](http://www.calcofi.org/downloads/cruise_data/2014/1402SH/1402SH_ISUSVsNO3.jpg))

CalCOFI 1402SH: Fluorometer Voltage vs Bottle Chl-a  
4sec average vs bottle chlorophyll (ug/L)



([http://www.calcofi.org/downloads/cruise\\_data/2014/1402SH/1402SH\\_FIVvsChla.jpg](http://www.calcofi.org/downloads/cruise_data/2014/1402SH/1402SH_FIVvsChla.jpg))

## General notes:

NOAA RV Bell M. Shimada had severe engine problems that required the ship return to San Diego for repairs after completing 36 stations. Unfortunately, the length of repairs put the remainder of the cruise out of the winter cruise target date window. No other ships were available - SIO RV New Horizon was in dry dock.

These are from the final bottle data comparisons.

### Cast Notes:

Cast 000 - Sound velocity acoustics calibration cast in San Diego Bay, 10m; pr sensor offset applied post-cast -0.150

Cast 002 - no ISUS data, no battery? Shallow SCCOOS station

Cast 003 - ISUS data looks bad, battery? Shallow SCCOOS station

Cast 005 - Bottle #17 mistrip, no closure

Cast 007 - artificial (caused by winch wire jerk) chl spike at 20m

Cast 008 - Eventlog lost gps at depth, CTDatDepth event position may be bad; gps data in CTD data files should be fine

Cast 013 - lots of ship roll

Cast 015 - bottle #11 tripped early; extra marker at 11, skipped marker at 12, corrected post-cast

Cast 016 - CTD yo-yo'd on upcast between 125 & 140, 125m bottle tripped then CTD was lower to get forgotten 140m bottle

Cast 019 - bottle #23 no closure, winch communications issues slowed the cast

Cast 020 - extra surface bottle tripped for test case

Cast 023 - (Superbowl Sunday!)

Cast 024 - raining, fairly calm

Cast 026 - file named incorrectly, corrected post-cast

Cast 027 - no nav file created

Cast 034 - two markers/one bottle at terminal depth; missed tripping 5m bottle (cast depth <75m)

Cast 035 - Santa Monica Basin, bottle tripped first before CTDatDepth event logged because of close proximity to the bottom.

Cast 036 - last cast, ship engine problem required return to San Diego.

14Mar2015