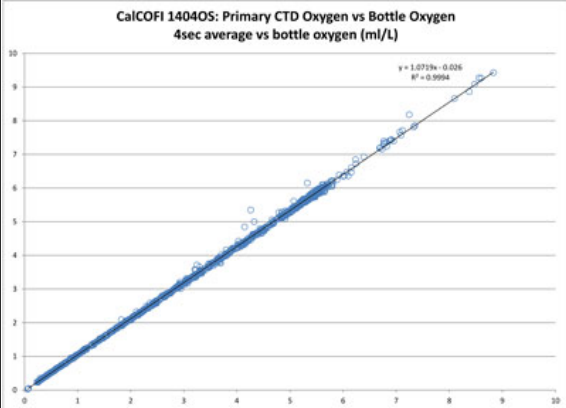
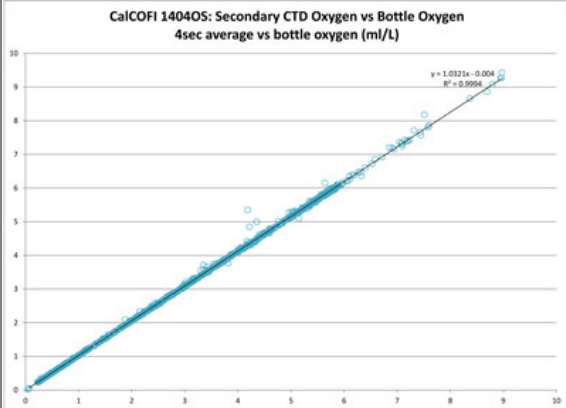
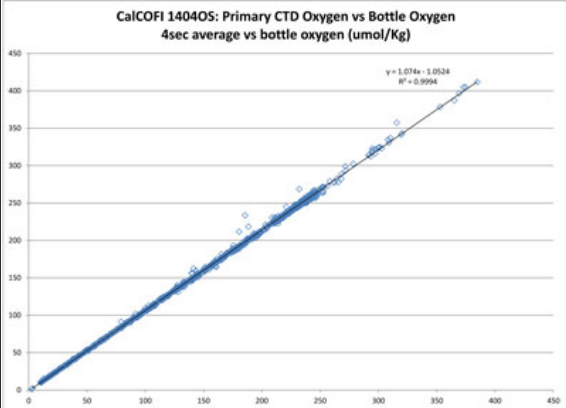
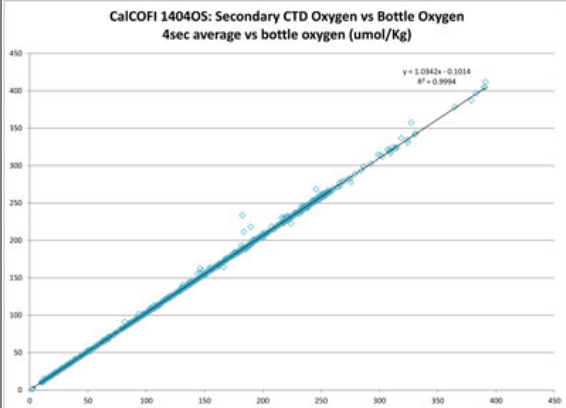
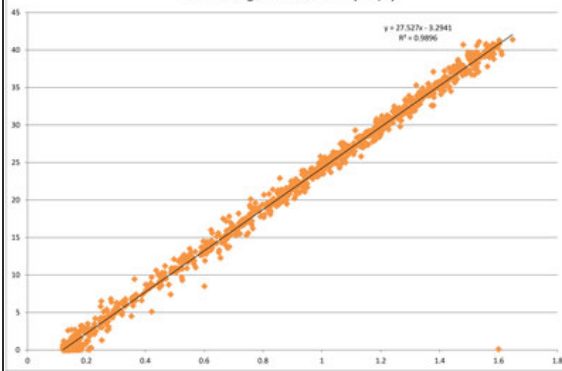


Written by SIO-CalCOFI
Parent Category: 2014 Cruises (/cruises/2014-cruises.html)
Category: CalCOFI 1404OS (/cruises/2014-cruises/calcofi-1404os.html)
📅 Last Updated: 10 March 2017

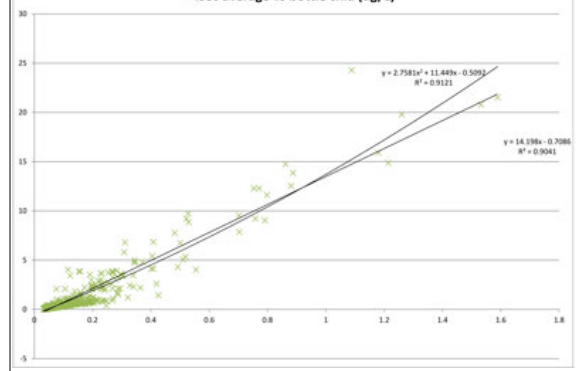
CTD Processing Summary CalCOFI 1404OS CTD Final Data		
Download 1404OS CTD raw cast files zipped (http://cappuccino.ucsd.edu/downloads/2014/20-1404OS_CTDcast.zip)		Download 1404OS FinalQC CTD + bottle data (http://cappuccino.ucsd.edu/downloads/2014/20-1404OS_CTDFinalQC.zip)
General CTD Notes - data acquisition 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)	0.0003	0.0021
Oxygen ml/L (dual Seabird SBE43)	$y = 1.0719x - 0.026$ $R^2 = 0.9994$	$y = 1.0321x - 0.004$ $R^2 = 0.9994$
Oxygen umoles/Kg (dual Seabird SBE43)	$y = 1.074x - 1.0524$ $R^2 = 0.9994$	$y = 1.0342x - 0.1014$ $R^2 = 0.9994$
Single sensors	Linear	Polynomial
Nitrate - ISUS 4sec ave voltage vs Bottle Nitrate (Satlantic MBARI-ISUS v2)	$y = 27.527x - 3.2941$ $R^2 = 0.9965$	
Fluorometer - linear & polynomial regressions	$y = 14.198x - 0.7086$ $R^2 = 0.9041$	$y = 2.7581x^2 + 11.449x - 0.5092$ $R^2 = 0.9121$
		
http://www.calcofi.org/downloads/cruise_data/2014/1404OS/1404OS_Ox1MLvsOxB.jpg		http://www.calcofi.org/downloads/cruise_data/2014/1404OS/1404OS_Ox1MLvsOxB.jpg
		
http://www.calcofi.org/downloads/cruise_data/2014/1404OS/1404OS_Ox1UMvsOxB.jpg		http://www.calcofi.org/downloads/cruise_data/2014/1404OS/1404OS_Ox2UMvsOxB.jpg

CalCOFI 1404OS: ISUS Voltage vs Bottle Nitrate
4sec average vs bottle NO3 (uM/L)



(http://www.calcofi.org/downloads/cruise_data/2014/1404OS/1404OS_ISUSVvsNO3.jpg)

CalCOFI 1404OS: Fluorometer Voltage vs Bottle Chl-a
4sec average vs bottle chl-a (ug/L)



(http://www.calcofi.org/downloads/cruise_data/2014/1404OS/1404OS_FIVvsChla.jpg)

General notes: These are cast & final CTD Processing Notes from 1404OS cruise

CalCOFI 1404OS General Cast Notes: This cruise occupied 70 stations: 61 standard, & 9 SCCOOS. The station schedule was done normally with one exception, sta 87.50. Sta 87.50 was missed earlier in the cruise so it was occupied on the way home 17 Apr 2014. The CTD winch failed after the third station, Camp Pendleton SCCOOS 91.7 26.4 and required a return to port for repair. This resulted in a station work delay from 0044 30 Mar 2014 to 1625 01 Apr 2014 (PST); between stations 91.7 26.4 & 93.28. Although the watches & ship were operating on Daylight Savings Time, all data acquired and logged were recorded as PST.

CalCOFI 1404OS was on RV Ocean Starr. Termination of the two conductor coax conductive wire was done by JRW using the 4-pin pigtail.

CTD configuration was standard: Seabird 911+ with dual T, C, O2, & pumps; Wetlabs C-Star 25cm transmissometer; Biospherical QSP200L PAR; Datasonics/Benthos Altimeter; WET Labs ECO-AFL/FL; Seabird pH; Satlantic ISUS v2 & battery. Please refer to the xmlcon files or cruise prospectus for additional info.

Cast Notes:

Cast 03 - 04: CTD winch brokedown and require repair; returned to San Diego for two days.

Cast 08 - bottle 10 tripped prematurely; pH sensor not uncapped so pH data bad.

Cast 10 - substantial ship roll in moderate seas; bottle 19 was opened at surface so CTD was sent back down to 10m & bottle 22 tripped

Cast 11 - bottle 13 (70m) bottle valve sheared off during retrieval, no seawater collected.

Cast 16 - bottle 2 mistripped, bad O2 draw temperature indicated

Cast 18 - bottles 06, 13 & 16 lids did not close properly; bottles 13 & 16 replaced post-cast; #6 will be monitored for repeat problem

Cast 21 - moderate seas, windy

Cast 23 - double trip at 85m bottles 12 & 13 so an extra marker was done at 74m bottle 14; bottle 13 labeled mistrip - salt only since duplicate

Cast 24 - trigger #1 replaced since sticking - O2 draw temp too high; switched to a larger trolley shackle

Cast 29 - sta named 90.0 29.0 - should be 90.0 27.7 > fixed in files

Cast 30 - calm evening

Cast 33 - files named incorrectly and corrected: 140~~2~~033 >>> 140~~4~~033

Cast 35 - Santa Monica Basin station PRODO cast to 750m, no terminal bottle tripped since LTER needed a 10m bottle & 23 needed for prodo

Cast 36 - calm, cold foggy; ~2nm for desired position due to Naval Operation

Cast 37 - CTD yo-yo'd from 171 to 131 to 141 due to winch miscommunication

Cast 42 - CTD yo-yo'd from 230 to 200 to 210 due to winch miscommunication, radio static

Cast 44 - bottle #1 mistrip, lanyard on the right - should be on the left, less friction.

Cast 46 - restarted since 1st cast's bottles between 3-11 were missing confirmation; 2nd cast bottle 17 was a mistrip duplicate at 43m

Cast 47 - restarted downcast since data acquisition was not started, CTD was returned to surface and cast restarted

Cast 48 - winch could only go down at 30m/min & recover at 20m/min then was unable to lift the CTD out of the water; ~14mins of surface data was acquired before the acquisition was shutdown during delayed recovery. Hydraulics repaired before the next cast without any significant station delay.

Cast 51 - file misnamed 52 > fixed in files

Cast 69 - rough, sunny afternoon

File notes:

Seasoft-generated asc-hdr files were not renamed to YY-YYYYLLSSSS_###d or u.asc & .hdr. Voltages were not relabeled. This practice makes it difficult to reprocess the CTD if necessary.

Mislabeled found and corrected:

Sta 29 mislabeled 90.0 29.0, corrected to 90.0 27.7

Sta 33 files were mislabeled 1402 instead of 1404; corrected

Sta 51 mislabeled 52; files corrected

12Feb2015