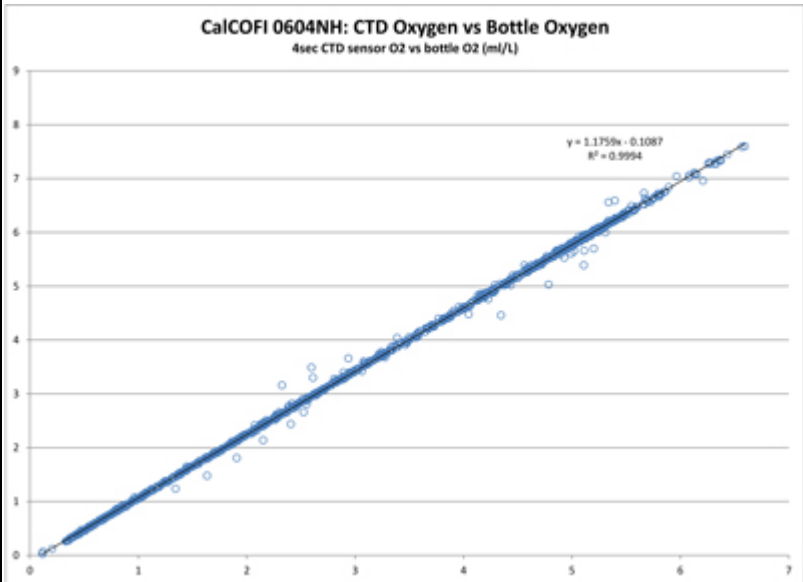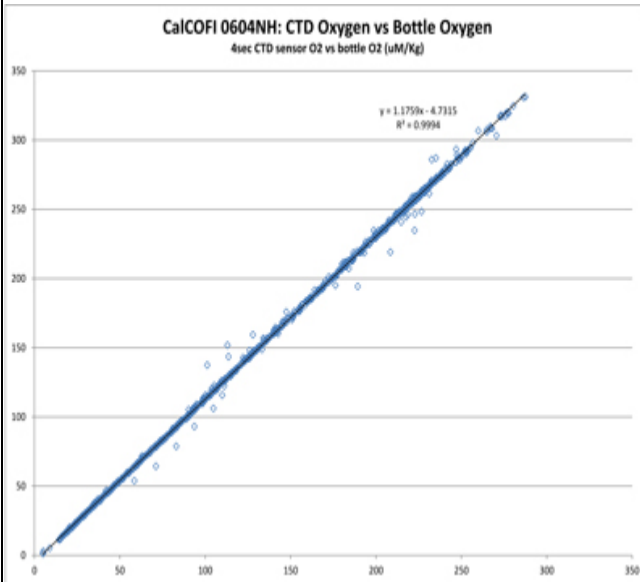# 0604NH CTD Processing Summary

Parent Category: Older Cruises (/cruises/older-cruises.html)

Category: 2006 Cruises (/cruises/older-cruises/184-2006-cruises.html)

🗓 Last Updated: 01 March 2019

CTD Processing Summary CalCOFI 0604NH CTD Final Data (reprocessed/reformatted 03/2019)		
Download 0604NH CTD raw cast files zipped (http://cappuccino.ucsd.edu/downloads /2006/20-0604NH_CTDCast.zip)		Download 0604NH FinalQC CTD + bottle data (http://cappuccino.ucsd.edu/downloads /2006/20-0604NH_CTDFinalQC.zip)
General CTD Notes - data acquisition cast notes, logistics, processing notes are listed below		
CTD sensor corrections derived by comparing 4 secs of CTD sensor data (prior to bottle closure) to bottle samples		
Dual T & S	Primary Sensor	Secondary Sensor
Temperature, dual SBE3	No offset or correction	No offset or correction
Salinity offset (bottle - CTD salinity; > 350m only; Seabird SBE4; fliers excluded)	-0.0051	-0.0057
Single sensors - note only one CTD O2 sensor	ml/L	uM/Kg
Oxygen (ml/L & uM/Kg; single Seabird SBE43)	$y = 1.1759x - 0.1087$ $R^2 = 0.9994$	$y = 1.1759x - 4.7315$ $R^2 = 0.9994$
Satlantic MBARI-ISUS (SN#111 v2) deployed	$y = 27.268x - 9.1806$ $R^2 = 0.9982$	
Seapoint Fluorometer - linear & polynomial regressions	$y = 4.3969x - 0.233$ $R^2 = 0.7658$	$y = 1.3938x2 + 2.6874x - 0.054$ $R^2 = 0.8021$

(http://cappuccino.ucsd.edu/downloads/2006/0604NH /0604NH_Ox1MLvsOxBML.jpg)

(http://cappuccino.ucsd.edu/downloads /2006/0604NH/0604NH_Ox1UMvsOxBUM.jpg)

(http://cappuccino.ucsd.edu/downloads/2006/0604NH /0604NH_ISUSVvsNO3.jpg)

(http://cappuccino.ucsd.edu/downloads /2006/0604NH/0604NH_FIVvsChla.jpg)

General notes: Station Pattern & Cruise Track

CalCOFI 0604NH • 01 - 18 April 2006 • SIO RV New Horizon • San Diego to San Diego

Cruise and CTD Data Processing Notes

CalCOFI 0604NH on SIO RV New Horizon successfully occupied all 75 of 75 scheduled stations - 66 standard stations & 9 SCCOOS 20m stations. Acoustic calbration was not performed in San Diego Bay so day 1's primary productivity experiment was performed on the 1st station 93.3 26.7..

Seabird 911+ configuration:
Primary Temperature (#1324), Conductivity (#2206), and O2 sensor (#680), pumped (#55060); Secondary Temperature (#1049), Conductivity (#722) pumped (#52236); Wetlabs (CST-490DR) 25cm transmissometer (mislabeled Chelsea/Seatech in con; new M & B calculated during 2019 reprocessing); Seapoint chlorophyll fluorometer (SCF2483 @10x); Benthos/Datasonics Altimeter (#46604); MBARI-ISUS v2 (#111) Nitrate sensor; remote PAR (#4544), surface PAR (SN 6369).
(Freq0=T0; Freq1=C0; Freq2=Pr; Freq3=T1; Freq4=C1; V0=Trans; V1=Fl; V2=ISUS; V3=open; V4=O21; V5=open; V6=Altimeter; V7-Remote PAR)

Voltage	Sensor
V0	Trans
V1	Fluor
V2	ISUS
V3	
V4	O2
V5	
V6	Altimeter
V7	Remote PAR

CalCOFI 0604NH CTD Data Processing & Console Ops Notes

Removed salt fliers on both primary & secondary comparisons. Removed O2 fliers on regression plots.

A deep CTD casts to ~770m was NOT performed at sta 86.7 40.0 Cast 036 Santa Monica Basin this cruise - normal 515m cast.

Only one O2 sensor was deployed and a SBE11v1 Deck Unit - requiring Align-CTD offset of secondary conductivity (0.073sec) was used.

General Notes: We started data acquisition AFTER deploying and 2 minutes @10m soak. Loopedit was not applied to any cast.

CTD Setup:

Transmissometer important note:
V0 - Tr (CST490DR), new M & B were calculated from the min/max voltages in air from 8 deck tests.
Min voltage = 0.0598, Max voltage changed but highest (Deck071) was 4.8596

M = 19.02946434
B = -1.137961967

M & B in the individual .con files were from last cruise so a new .con file (0604_NewTrMB2019.xmlcon) was used on all stations since no sensors were changed during the cruise.

V1 - Seapoint Fluorometer set at 10x

V2 - ISUS Nitrate Sensor, battery powered
V3 - open
V4 - SBE43 Oxygen Sensor (only one deployed pre-2009)
V5 - open
V6 - Benthos/Datasonic Altimeter
V7 - PAR
V15 - SPAR
Sensors: T1 - SN1324; T2 - SN1049; C1 - SN2206; C2 - SN722; O2 - SN680; PAR - 4544; SPAR - SN6369

Quality Coded Casts:
No data codes were added although some ISUS data were missing due to power failures.
Casts 001 had questionable ISUS data according to the ISUS V vs Bottle NO3 regression but station estimate may be okay, cruise estimate may be questionable
Casts 007, 041, 068, 069, 070, 071, 072: no ISUS data
Cast 010: cfg loaded was set for table-driven cast so the cast was stopped during ascent and restarted. Cast 010 & 010B upcast asc files were merged before generating CTD+bottle data csvs
Cast 014: cast was stopped during ascent and restarted. Cast 014 & 014B upcast asc files were merged before generating CTD+bottle data csvs
Cast 057: shallow cast was redone

JRW 03/01/2019