

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2013-55

DATE:

From: July 2, 2013

to: July 9, 2013

VESSEL:

Vector

PROJECT(S):

Aquaculture Environmental Studies

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

Rosette Setup:

Number of bottles: 24
Manufacturer: 105
Volume of bottles (litres): 10L

Winches:

1. Make: Swan Model: 329 Serial #: 1483 Used for: entire cruise (CTD)
2. Make: _____ Model: _____ Serial #: _____ Used for: _____
3. Make: _____ Model: _____ Serial #: _____ Used for: _____

Comments on performance during cruise (comments should also be reflected in the post-cruise report):

Salinometer:

Make: _____ Model: _____ Serial Number: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

Oxygen Kit(s):

Make: _____ Model: _____ Kit Number: _____
Make: _____ Model: _____ Kit Number: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

Thermosalinograph System (SBE21):

Program: _____ Version: _____
Sampling interval (seconds): _____
Fluorometer sensor serial number: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

ADCP Setup:

Computer time zone: _____ User Exits: Name: _____ Exit points: _____
Sampling interval (sec): _____ Name: _____ Exit points: _____
Bin Length: (2^x): _____ Name: _____ Exit points: _____
Pulse Length: _____ Work File: _____
Buffer (bytes): _____
Gyro Offset: _____

Comments on performance during cruise (comments should also be reflected in the post-cruise report):

CTD Test Cast Information

Test Cast along side?

Yes ☐ No ☒

Comments

Test Cast in Saanich Inlet or other location?

Yes ☒ No ☐

Comments all good

CTD pressure reading on deck (db), before cast: _____ after cast: _____

Pumps working?

Yes ☒ (0011) No ☐ (0010)

Secondary Temp – Primary Temp:

(Average from the mixed region) _____

Secondary Salinity – Primary Salinity:

(Average from the mixed region) _____

Additional Comments:

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Month <u>July</u>				Year <u>2013</u>			Ship <u>CCGS Vector</u>				Cruise ID <u>2013-85</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
03	Mal 1	16:26	BE	ROS		1	49° 58.207	124° 41.128	22				KS	✓	Did not archive
		16:28	BO				49° 58.207	124° 41.129		20					Redo → event #6
		16:29	EN				49° 58.207	124° 41.129							
03	Mal 2	16:41	BE	ROS	US	2	49° 58.254	124° 40.96	22		1-5	5	KS	✓	
		16:42	BO				49° 58.252	124° 40.96		21					
		16:47	EN				49° 58.25	124° 40.95							
03	Mal 4	17:16	BE	ROS		3	49° 58.35	124° 41.24	27				KS	✓	
		17:17	BO				49° 58.35	124° 41.24		25					
		17:17	EN				49° 58.35	124° 41.24							
03	Mal 5	17:27	BE	ROS	US	4	49° 58.37	124° 41.16	23.5		6-10	5	KS	✓	
		17:29	BO				49° 58.37	124° 41.16		23					
		17:34	EN				49° 58.37	124° 41.16							
03	Mal 6	17:53	BE	ROS		5	49° 58.49	124° 40.89	25				KS	✓	
		17:54	BO				49° 58.49	124° 40.89		22					
		17:55	EN				49° 58.49	124° 40.89							

Cast Type:

BOT = Bottle cast, no CTD
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USW = Sea Water Loop

MOR = Mooring
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 DRF = Drifter

Bottle Firing Method:

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Transmissometer to be cleaned before each cast, do not use Ammonia products

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This page is for any notes or observations

Weather
calm, sunny, warm

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Month <u>July</u>			Year <u>2013</u>				Ship <u>Vector</u>				Cruise ID <u>2013-55</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
03	MAL 1	18:05	BE	ROS		6	49° 58.20	124° 41.11	22				KS/RP/AB	✓	
		18:06	BO				49° 58.20	124° 41.11		1920					
		18:07	EN				49° 58.20	124° 41.11							
03	MAL 1	19:20	BE	GRAB		7	49° 58.211	124° 41.125	22						
03	MAL 2	19:14	BE	GRAB		8	49° 58.259	124° 40.954	24						
03	MAL 4	19:51	BE	GRAB		9	49° 58.351	124° 41.246	29						1st attempt = large rock
03	MAL 5	20:08	BE	GRAB		10	49° 58.374	124° 41.165	25						
03	MAL 6	20:42	BE	GRAB		11	49° 58.481	124° 40.879	26						Time approximate
03	MAL 2	21:20	EN	CORE		12	49° 58.259	124° 40.954	24						4 attempts - no core Time approximate
03	MAL 5	21:40	EN	CORE		13	49° 58.374	124° 41.165	25						1 attempt
03	MAL 8	21:50	EN	CORE		14	49° 58.750	124° 41.306	41						1 attempt
03	MAL 11	22:10	EN	CORE		15									1 attempt
03	MAL 12	22:26	BE	ROS		16	49° 59.08	124° 41.38	39				KS/AB/DM		30 m off station
		22:29	BO				49° 59.08	124° 41.38		37					log boom in the
		22:30	EN				49° 59.08	124° 41.38							way.

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Month July				Year 2013			Ship Vector		Cruise ID 2013-55						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
03	Mal 11	22:44	BE	ROS	US	17	49° 58.95	124° 41.57	46		11-18	8	KS/RP/DM	✓	
		22:47	BO				49° 58.95	124° 41.57		44					
		22:55	EN				49° 58.96	124° 41.57							
03	Mal 10	23:23	BE	ROS		18	49° 58.93	124° 41.83	35				KS/RP/DM	✓	
		23:25	BO				49° 58.93	124° 41.83		33					
		23:27	EN				49° 58.93	124° 41.83							
03	Mal 7	23:45	BE	ROS		19	49° 58.73	124° 41.34	43						
		23:48	BO				49° 58.74	124° 41.34		39					
		23:50	EN				49° 58.74	124° 41.34							- Altimeter was not clear on depth dropped 3m off bottom
03	Mal 8	00:38	BE	ROS	US	20	49° 58.75	124° 41.30	42		19-26	8	KS/RP/DM	✓	
		00:39	BO				49° 58.75	124° 41.31		39					
		00:47	EN				49° 58.75	124° 41.30							
03	Mal 9	01:12	BE	ROS		21	49° 58.81	124° 41.21	35				KS/RP/DM	✓	
		01:14	BO				49° 58.81	124° 41.21		32					
		01:15	EN				49° 58.81	124° 41.21							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
03	MAL09	01:20	BO	GRAB		22	49° 58.808	124° 41.207	36						
03	MAL08	1:40		GRAB		23	49° 58.755	124° 41.302	41						GRAB + SIEVE GRAB
03	MAL10			GRAB		24	49 58.928	124 41.815	36						
03	MAL11			GRAB		25	49 58.955	124 41.581	46						
03	MAL11			GRAB		26	49 58.955	124 41.581	46						
03	MAL12			GRAB		27	49 59.078	124 41.392	40						
03	MAL7			GRAB		28	49 58.742	124 41.361	42.6						
04	Mal 13	14:11	BE	ROS		29	49° 59.309	124° 42.25	34				KS/AB/DM	✓	Calm, sunny, warm
		14:12	BO				49° 59.31	124° 42.25		32.					
		14:13	EN				49° 59.31	124° 42.25							
04	Mal 14	14:27	BE	ROS	US	30	49° 59.32	124° 41.94	53		27-36	10	KS/AB/DM/RP/TS	✓	Fired two bottles
		14:29	BO				49° 59.32	124° 41.93		51					(5,6) @ 40 due to
		14:39	EN				49° 59.33	124° 41.95							shallower water than
															expected.
04	Mal 15	15:04	BE	ROS		31	49° 59.49	124° 41.75	30				KS/AB/	✓	
		15:05	BO				49° 59.49	124° 41.75		27					about 1 meter from
		15:05	EN				49° 59.49	124° 41.75							bottom

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							Latitude	Longitude							
04	MAL 16	15:21	BE	ROS		32	49° 59.60	124° 42.73	39				KS/AB/DM	✓	
		15:22	BO				49° 59.60	124° 42.73		37					
		15:23	EN				49° 59.60	124° 42.72							
04	MAL 17	15:34	BE	ROS	US	33	49° 59.72	124° 42.51	66		37-46	10	KS/AB/DM/RP	✓	
		15:37	BO				49° 59.72	124° 42.50		64					
		15:47	EN				49° 59.73	124° 42.50							
04	MAL 18	16:14	BE	ROS		34	49° 59.79	124° 42.29	52				KS/AB/DM	✓	
		16:16	BO				49° 59.79	124° 42.29		50					
		16:17	EN				49° 59.79	124° 42.29							
04	MAL 13	16:25	BE	GRAB		35	49° 59.788	124° 42.279	52.9						
04	MAL 17	16:45	EN	GRAB		36	49° 59.782	124° 42.414	60						
04	MAL 17	17:00	BE	GRAB		37	49° 59.781	124° 42.419	60						SIEVE GRAB, 2 Attempts
04	MAL 16	17:19	EN	GRAB		38	49° 59.593	124° 42.744	30.6						
04	MAL 15	17:37	EN	GRAB		39	49° 59.487	124° 41.750	28.5						
04	MAL 14	17:50	EN	GRAB		40	49° 59.326	124° 41.962	54.5						
04	MAL 14	18:05	EN	GRAB		41	49° 59.326	124° 41.962	54.5						SIEVE GRAB
04	MAL 13	18:16	EN	GRAB		42	49° 59.314	124° 42.232	39.8						

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
04	Mal 19	19:46	BE	ROS		43	50° 0.26	124° 43.13	29				KS/RP/DM	✓	
		19:47	BO				50° 0.26	124° 43.13		26					
		19:48	EN				50° 0.26	124° 43.13							
04	Mal 20	20:05	BE	ROS	US	44	50° 0.29	124° 42.80	73		47-56	10	KS/RP/DM	✓	
		20:08	BO				50° 0.28	124° 42.80		71					
		20:19	EN				50° 0.29	124° 42.81							
04	Mal 21	20:53	BE	ROS		45	50° 0.43	124° 42.38	61				KS/RP/DM	✓	
		20:56	BO				50° 0.43	124° 42.38		59					
		20:58	EN				50° 0.43	124° 42.37							
04	Mal 24	21:16	BE	ROS		46	50° 1.20	124° 42.88	51				KS/RP/DM	✓	
		21:17	BO				50° 1.20	124° 42.88		50					
		21:19	EN				50° 1.20	124° 42.87							
04	Mal 23	21:35	BE	ROS	US	47	50° 1.07	124° 43.28	91		57-67	11	KS/RP/DM	✓	-4 m off bottom.
		21:38	BO				50° 1.07	124° 43.29		89					
		21:51	EN				50° 1.08	124° 43.28							

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DAILY SCIENCE LOG				Ocean Sciences Division, Institute of Oceanography					Cruise ID						
Month July				Year 2013			Ship Vector			2013-55					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
04	MAL 22	22:19	BE	ROS		48	50° 1.01	124° 43.47	70				KS/DM/AB	✓	-Depth kept increasing
		22:21	BO				50° 1.01	124° 43.47		68					Stopped about 4m
		22:23	EN				50° 1.01	124° 43.48							short.
04	MAL 23	23:00		CORE		49	50° 1.07	124° 43.28	91						Multiple attempts
04	MAL 20	23:20		CORE		50	50° 00.279	124° 42.792	75						Time not recorded
04	MAL 20	23:39		GRAB		51	50° 00.279	124° 42.792	75						Multiple attempts
04	MAL 20	24:50		GRAB		52	50° 00.288	124° 42.799	77						Time not recorded
04	MAL 20	25:00		GRAB		53	50° 00.286	124° 42.806	77						3 Attempts, grab did not trigger
04	MAL 22	25:24		GRAB		54	50° 01.019	124° 43.453	74						Sieve grab
04	MAL 23	25:46		GRAB		55	50° 01.031	124° 43.299	93						3 attempts!
04	MAL 23	26:03		GRAB		56	"	"	93						SIEVE
04	MAL 24	26:18		GRAB		57	50° 01.195	124° 42.894	54						
05	MAL 27	14:06	BE	ROS		58	50° 2.19	121° 43.21	37				KS	✓	Calm, sunny, warm
		14:07	BO				50° 2.19	124° 43.21		35					
		14:08	EN				50° 2.19	124° 43.21							
05	MAL 26	14:19	BE	ROS	US	59	50° 1.97	124° 43.79	80		68-77	10	KS/DM/AB	✓	
		14:22	BO				50° 1.96	124° 43.80		78					
		14:31	EN				50° 1.96	124° 43.77							

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							Latitude	Longitude							
05	MAL25	15:02	BE	ROS		60	50° 1.76	124° 44.33	55				KS/DH/RP	AB ✓	
		15:04	BO				50° 1.76	124° 44.33		53					
		15:05	EN				50° 1.76	124° 44.33							
05	MAL25	15:10		GRAB		61	50° 01.761	124° 44.333	50						
05	MAL26	15:32		GRAB		62	50° 01.952	124° 43.771	81						
05	MAL27	15:50		GRAB		63	50° 02.187	124° 43.214	27						
05	MAL26	16:19		CORE		64	50° 01.962	124° 43.799	81						
05	MAL28	17:34	BE	ROS		65	50° 2.09	124° 44.64	49						
		17:35	BO				50° 2.09	124° 44.64		47			KS/RP	✓	
		17:36	EN				50° 2.09	124° 44.64							
05	MAL29	17:53	BE	ROS		66	50° 2.23	124° 44.93	38				KS/RP	✓	
		17:54	BO				50° 2.23	124° 44.93		36					
		17:55	EN				50° 2.23	124° 44.93							

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							Latitude	Longitude							
05	Mal 30	18:05	BE	ROS		67	50° 2.36	124° 45.19	31				KS/RP/DM	✓	
		18:06	BO				50° 2.36	124° 45.19		30					
		18:07	EN				50° 2.36	124° 45.19							
05	Mal 39	18:18	BE	ROS	US	68	50° 2.35	124° 45.82	63		78-87	10	KS/RP/DM/AB	✓	
		18:21	BO				50° 2.35	124° 45.83		61					
		18:30	EN				50° 2.34	124° 45.84							
05	Mal 32	19:20	BE	ROS		69	50° 2.14	124° 45.53	51				KS/RP/AB	✓	
		19:22	BO				50° 2.13	124° 45.53		48					
		19:24	EN				50° 2.14	124° 45.53							
05	Mal 31	19:40	BE	ROS		70	50° 2.17	124° 45.28	48				KS		Started @ 1m lower than normal at surface.
		19:44	BO				50° 2.18	124° 45.27		46					
		19:44	EN				50° 2.19	124° 45.27							
05	Mal 33	19:58	BE	ROS	US	71	50° 1.94	124° 45.22	53		88-96	9	AB/DM/RP/MES		
		20:00	BO				50° 1.94	124° 45.22		51					
		20:09	EN				50° 1.94	124° 45.21							

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Transmissometer to be cleaned before each cast, do not use Ammonia products

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Version: 16 April 2010

Notes:

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Cruise ID 2013-55

Month July				Year 2013		Ship Vector											
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned			
							Latitude	Longitude									
05	Mal 34	20:34	BE	ROS		72	50° 1.77	124° 45.02	50				KS/AB/DM/RP	✓			
		20:36	BO				50° 1.77	124° 45.02		48							
		20:37	EN				50° 1.77	124° 45.02									
05	Mal 35	20:48	BE	ROS	US	73	50° 1.63	124° 44.87	47		97-104	8	KS/AB/DM/RP	✓			
		20:49	BO				50° 1.63	124° 44.87		45							
		20:58	EN				50° 1.63	124° 44.87									
05	Mal 36	21:21	BE	ROS		74	50° 1.53	124° 44.67	48				KS/AB/DM/RP	✓			
		21:22	BO				50° 1.53	124° 44.67		46							
		21:23	EN				50° 1.53	124° 44.67									
05	Mal 37	21:34	BE	ROS	US	75	50° 1.36	124° 44.47	30		105-111	7	KS/AB/DM/RP	✓			
		21:36	BO				50° 1.36	124° 44.47		28							
		21:42	EN				50° 1.36	124° 44.47									
05	Mal 38	22:03	BE	ROS		76	50° 1.20	124° 44.31	26				KS/AB/DM/RP	✓			
		22:04	BO				50° 1.20	124° 44.31		24							
		22:05	EN				50° 1.20	124° 44.31									
05	MAL38	22:12		GRAB		77	50° 1.202	124° 44.314	26								
05	MAL37	22:22		GRAB		78	50° 1.353	124° 44.473	32								
05	MAL36	22:41		GRAB		79	50° 1.528	124° 44.676	40								
05	MAL35	22:50		GRAB		80	50° 1.630	124° 44.882	43								

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Bottle Firing Method: Time Code: Deployment Time:

Transmissometer to be cleaned before each cast, do not use Ammonia products

Cast Type:
 BOT = Bottle cast, no CTD
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 DRF = Drifter

Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Time Code:
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Notes:

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Month July				Year 2013			Ship Vector			Cruise ID 2013-55					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
05	MAL34	23:09		GRAB		81	50° 1.757	124° 45.021	51						
05	MAL33	23:20		GRAB		82	50° 1.929	124° 45.209	56						
05	MAL32	23:54		GRAB		83	50° 2.125	124° 45.536	54						
06	Mal 40	01:04	BE	ROS	US	84	50° 2.72	124° 46.26	69		112-121	10	KS/AB/DM	RP ✓	
		01:08	BO				50° 2.73	124° 46.27		67					
		01:17	EN				50° 2.72	124° 46.27							
06	Mal 43	01:43	BE	ROS.		85	50° 3.46	124° 47.05							
		01:44	BO				50° 3.47	124° 47.06	26				KS/AB/DM	RP ✓	
		01:45	EN				50° 3.47	124° 47.06		24					
06	Mal 45	02:01	BE	ROS	US	86	50° 3.90	124° 48.14	70		122-131	10	KS/AB/DM	RP ✓	
		02:04	BO				50° 3.90	124° 48.14		68					
		02:15	EN				50° 3.90	124° 48.14							- Seavase decided →
06	MAL39	2:45		GRAB		87	50° 2.356	124° 45.817	66						
06	MAL31	3:21		GRAB		88	50° 2.195	124° 45.278	32						
06	Mal 34	14:17	BE	ROS		89	50° 1.76	124° 45.02	51				KS.	✓	- Program worked fine.
		14:18	BO				50° 1.76	124° 45.02		49					
		14:20	EN				50° 1.76	124° 45.02							+ We are running →

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To fire all bottles on its own after we reached the 5 m bottle. Entire screen flashed every time a bottle was fired. When attempting to access the real-time control drop down menu, it kept closing. I managed to turn the pump off using ctrl + F2. Stopping data acquisition was ok. Rebooted system. I believe it was a Windows issue. The surface bottle was skipped since we don't know where it fired. Deck crew stated that they were all closed before they had a visual of the rosele on its way from 5-0. Quickly tested program while rosele on deck and seemed ok.

a series of casts here @ Mal 34 every half hour on the xx:00 and xx:30 from about 07:17 pdt. to _____ Costs \$9 to _____

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Month July				Year 2013			Ship Vector		Cruise ID 2013-55						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
06	Mal 34	14:29	BE	ROS		90	50° 1.76	124° 45.02	50				KS.	✓	
		14:31	BO				50° 1.76	124° 45.02		48					
		14:32	EN				50° 1.76	124° 45.02							
10	06	Mal 34	14:50	BE	ROS	91	50° 1.76	124° 45.02	50				KS/DM/TS	✓	
		14:51	BO				50° 1.77	124° 45.02		48					
		14:53	EN				50° 1.77	124° 45.02							
2	06	Mal 34	15:10	BE	ROS	92	50° 1.77	124° 45.02	50		132-139	8	KS/DM/TS	✓	
		15:11	BO				50° 1.77	124° 45.02		48					
		15:19	EN				50° 1.77	124° 45.01							
6	06	Mal 34	15:36	BE	ROS	93	50° 1.77	124° 45.02	50				KS/DM/TS	✓	
		15:38	BO				50° 1.77	124° 45.02		48					
		15:39	EN				50° 1.77	124° 45.02							
12	06	Mal 34	16:01	BE	ROS	94	50° 1.77	124° 45.02	50				KS/DM/TS	SP ✓	
		16:02	BO				50° 1.77	124° 45.02		48					
		16:04	EN				50° 1.77	124° 45.02							
6	06	Mal 34	16:28	BE	ROS	95	50° 1.77	124° 45.02	50		140-147	8	KS/DM/TS	SP ✓	
		16:29	BO				50° 1.77	124° 45.02		48					
		16:37	EN				50° 1.78	124° 45.02							

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Bottle Firing Method:

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Month <u>July</u>				Year <u>2013</u>			Ship <u>Vector</u>				Cruise ID <u>2013-55</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
12	06	Mal 34	17:01	BE	ROS	96	50° 1.78	124° 45.02	50		/	/	KS/DM/RP	✓	
			17:02	BO			50° 1.77	124° 45.02		48					
			17:03	EN			50° 1.77	124° 45.02							
6	06	Mal 34	17:30	BE	ROS	97	50° 1.78	124° 45.02	50		148-155	8	KS/DM/RP	✓	
			17:31	BO			50° 1.78	124° 45.02		48					
			17:39	EN			50° 1.78	124° 45.04							
12	06	Mal 34	18:02	BE	ROS	98	50° 1.77	124° 45.04	47		/	/	KS/DM/RP	✓	
			18:03	BO			50° 1.77	124° 45.04		45					
			18:04	EN			50° 1.77	124° 45.04							
6	06	Mal 34	18:25	BE	ROS	99	50° 1.77	124° 45.03	49		/	/	KS/DM/RP	✓	- Broke for lunch @ 11:30. Rosette @ noon.
			18:26	BO			50° 1.77	124° 45.03		47					
			18:27	EN			50° 1.77	124° 45.03							
12	06	Mal 34	19:00	BE	ROS	100	50° 1.77	124° 45.04	47		156-163	8	KS/DM/SP	✓	- bial was left on pH meter. Oops!
			19:01	BO			50° 1.77	124° 45.05		45					
			19:09	EN			50° 1.77	124° 45.04							
6	06	Mal 34	19:33	BE	ROS	101	50° 1.76	124° 45.01	48		/	/	KS/DM/SP/RP	✓	
			19:34	BO			50° 1.77	124° 45.01		45					
			19:36	EN			50° 1.77	124° 45.01							

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Transmissometer to be cleaned before each cast, do not use Ammonia products

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Month <u>July</u>				Year <u>2013</u>			Ship <u>Vecor</u>				Cruise ID <u>2013-55</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
06	Mal 34	20:01	BE	ROS	US	102	50° 1.77	124° 45.02	49		164-171	8	KS/DM/RP	✓	
		20:02	BO				50° 1.77	124° 45.02		47					
		20:10	EN				50° 1.77	124° 45.02							
06	Mal 34	20:32	BE	ROS		103	50° 1.77	124° 45.01	49				KS/DM/RP	✓	
		20:33	BO				50° 1.77	124° 45.01		47					
		20:34	EN				50° 1.77	124° 45.01							
06	Mal 34	21:02	BE	ROS	US	104	50° 1.77	124° 45.01	50		181-188	8	KS/DM/RP/SP	✓	
		21:03	BO				50° 1.77	124° 45.01		48					
		21:11	EN				50° 1.77	124° 45.02							
06	Mal 34	21:36	BE	ROS		105	50° 1.77	124° 45.01	50				KS/DM/RP	✓	- Latitude Field from NMEA Data was
		21:38	BO				50° 1.77	124° 45.01		48					
		21:39	EN				50° 1.77	124° 45.01							
06	Mal 34	22:00	BE	ROS	US	106	50° 1.77	124° 45.01	50		189-196	8	KS/DM/RP/SP	✓	
		22:02	BO				50° 1.77	124° 45.02		48					
		22:10	EN				50° 1.77	124° 45.01							
07	Mal 34	00:31	BE	ROS	US	107	50° 1.78	124° 45.03	54		197-204	8	KS/DM/RP	✓	- Collecting ^{only} chlorophyll and Nut Samples for Terr.
		00:34	BO				50° 1.78	124° 45.03		52					
		00:41	EN				50° 1.78	124° 45.02							

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blank. Brought roselle back onboard from surface and restarted system. All was well after Seasave restarted.

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Month July				Year 2013			Ship Vector		Cruise ID 2013-55						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
07	Mal 55	01:32	BE	ROS	US	108	50° 3.43	124° 43.10	68		205-214	10	KS/DM/RP/SP	✓	3 m off bottom, Altimeter unclear
		01:34	BO				50° 3.43	124° 43.10		65					
		01:44	EN				50° 3.42	124° 43.10							
07	GH18	14:22	BE	ROS	US	109	50° 5.91	124° 59.92	25		215-220	6	KS/AB/DM/RP	✓	Gorge Harbour, Cortez Island. Warm, sunny, calm
		14:23	BO				50° 5.91	124° 59.93		23					
		14:29	EN				50° 5.90	124° 59.92							
07	GH16	14:47	BE	ROS		110	50° 5.66	124° 59.50	21						
		14:47	BO				50° 5.66	124° 59.50		22			KS/RP/AB	✓	Header info shows GH18 and not GH16.
		14:48	EN				50° 5.66	124° 59.50							My mistake.
07	GH15	15:00	BE	ROS	US	111	50° 5.50	124° 59.94	21		221-226	6	KS/AB/RP/DM	✓	
		15:00	BO				50° 5.50	124° 59.94		19					
		15:06	EN				50° 5.50	124° 59.95							
07	GH14	15:29	BE	ROS		112	50° 5.48	125° 0.30	16				KS/AB/RP/DM	✓	
		15:29	BO				50° 5.48	125° 0.30		14					
		15:30	EN				50° 5.48	125° 0.30							
07	GH13	15:43	BE	ROS	US	113	50 5.56	125 0.76	38		227-233	7	KS/AB/RP/DM	✓	
		15:44	BO				50 5.55	125 0.76		36					
		15:52	EN				50 5.55	125 0.77							

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Month July				Year 2013			Ship Vector			Cruise ID 2013-55					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
07	GH12	16:12	BE	ROS		114	50° 5.77	125° 0.86	36		/	/	KS/AB/RP/DM	✓	
		16:13	BO				50° 5.77	125° 0.86		34					
		16:14	EN				50° 5.77	125° 0.86							
07	GH11	16:27	BE	ROS	US	115	50° 5.90	125° 0.52	29		234-240	7	KS/AB/RP/DM	✓	-strong bump in DO trace. →
		16:27	BO				50° 5.90	125° 0.52		27					
		16:34	EN				50° 5.90	125° 0.52							
07	GH11	16:40	EN	GRAB		116	50° 05.90	125° 0.52	29						
07	GH12	16:50		GRAB		117	50 05.90	125° 00.52	35						SIEVE
07	GH12	17:05		GRAB		118	50 05.771	125° 00.843	35						
07	GH13	17:31		GRAB		119	50° 05.556	125° 00.763	34						
07	GH13	17:45		GRAB		120	50° 05.556	125° 00.763	34						SIEVE
07	GH14	17:56		GRAB		121	50° 05.484	125° 00.288	25						
07	GH15	18:05		GRAB		122	50 05.503	124° 59.970	19						
07	GH15	18:20		GRAB		123	50 05.503	124° 59.970	19						SIEVE
07	GH17	19:23		GRAB		124	50 05.911	124 59.905	23						
07	GH18			GRAB		125			23						SIEVE
07	GH10	21:45	BE	ROS		126	50° 4.87	125° 0.79	39		/	/	KS/RP/AB	✓	
		21:46	BO				50° 4.87	125° 0.79		37					
		21:47	EN				50° 4.87	125° 0.79							

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from 27 to 23 m. Perhaps something blocked flow?

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Month <u>July</u>				Year <u>2013</u>			Ship <u>Vector</u>			Cruise ID <u>2013-55</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
07	GH09	22:13	BE	ROS		127	50° 4.87	125° 1.88	59				KS/AB/DM/RP	✓	- Reverted can file back to
		22:15	BO				50° 4.87	125° 1.87		57					"585 June 2013 Vector"
		22:17	EN				50° 4.87	125° 1.87							from '2013-55-0110.'
07	GH08	22:33	BE	ROS	US	128	50° 4.400	125° 0.85	79		241-250	10	KS/AB/DM/RP/SP	✓	
		22:36	BO				50° 4.40	125° 0.85		77					
		22:47	EN				50° 4.40	125° 0.86							
07	GH07	23:11	BE	ROS		129	50° 3.90	125° 0.67	88				KS/AB/DM/RP	✓	
		23:14	BO				50° 3.90	125° 0.67		86					
		23:17	EN				50° 3.90	125° 0.67							
07	GH06	23:36	BE	ROS	US	130	50° 3.23	125° 0.72	96		251-261	11	KS/AB/DM/RP	✓	~1m off bottom
		23:38	BO				50° 3.23	125° 0.72		95					
		23:46	EN				50° 3.23	125° 0.72							
08	GH05	14:10	BE	ROS		131	50° 2.26	125° 1.00	78				KS/DM	✓	- Sounders (bridge, lab) both showed - ~75-
		14:14	BO				50° 2.26	125° 1.00		75					
		14:16	EN				50° 2.26	125° 1.01							
08	GH04	14:32	BE	ROS	US	132	50° 1.22	125° 1.81	87		262-271	10	KS/DM	✓	- Altimeter worked well this cast.
		14:35	BO				50° 1.22	125° 1.82		85					
		14:44	EN				50° 1.24	125° 1.80							

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Bottle Firing Method:

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 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

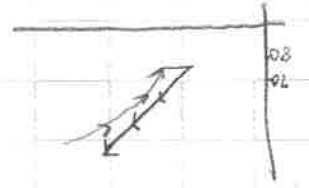
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78 m depth. All meter showed 16 m to bottom when @ 75 m. Last yr's depth @ GH05 was 75 so I stopped there and brought back to surface. All meter here is odd. I cleaned bottom surface of altimeter with a Kimwipe and lens



cleaner. It was a bit gunky. All Niskin vents were open when brought on board. We are redoing the resell cast here @ GH04. New cast # = 133 on next pg.

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Month July				Year 2013			Ship Vector				Cruise ID 2013-55				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
08	GH04	14:55	BE	ROS	US	133	50° 1.23	125° 1.79	86		262-271	10	KS/DM/SP	✓	Altimeter still ok.
		14:58	BO				50° 1.23	125° 1.78		84					Didn't fire 5m bot on
		15:08	FN				50° 1.24	125° 1.79							upcast before going to
08	GH03	16:01	BE	ROS		134	49° 58.65	124° 59.12	160				KS/DM/SP	✓	surface. Went back
		16:04	BO				49° 58.64	124° 59.12		155					down to 5 to fire.
		16:07	FN				49° 58.64	124° 59.12							
08	GH03			GRAB		135	49° 58.624	124° 59.135	161						
08	GH02	17:48	BE	ROS	US	136	49° 59.62	125° 3.53	230		272-287	16	KS/DM/SP	✓	Tide line went by
		17:52	BO				49° 59.62	125° 3.50		228					ship as rosette was
		18:10	FN				49° 59.62	125° 3.47							@ 40-0 m
08	GH02	18:15		GRAB		137	49° 59.62	125° 3.46	231						
08	GH02	19:19		GRAB		138	49° 59.62	125° 3.46	231						
															for a few minutes
08	GH01	19:53	BE	ROS		139	50° 1.59	125° 5.96	272				KS/RP	✓	- Stopped @ 100m
		20:05	BO				50° 1.58	125° 5.96		270					due to large disc-
		20:10	FN				50° 1.59	125° 5.95							separates in sound-

Transmissometer to be cleaned before each cast, do not use Ammonia products

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Bottle Firing Method:

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Notes:

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depths between bridge and lb (~275-lab vs. 110-bridge) @ 100 m altimeter is not showing a bottom. Went down @ 0.5 m/s until 2 m off bottom (272 m). Bridge sounder was inaccurate.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>July</u>				Year <u>2013</u>			Ship <u>Vector</u>			Cruise ID <u>2013-55</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<u>08</u>	<u>GH01</u>			<u>GRAB</u>		<u>140</u>	<u>50° 01.584</u>	<u>125° 05.948</u>	<u>275</u>						<u>some sediment →</u>
<u>08</u>	<u>GH19</u>	<u>21:12</u>	<u>BE</u>	<u>ROS</u>		<u>141</u>	<u>50° 5.66</u>	<u>125° 2.89</u>	<u>43</u>				<u>KS/DH/AB/RP</u>	☒	
		<u>21:13</u>	<u>BO</u>				<u>50° 5.66</u>	<u>125° 2.89</u>		<u>41</u>					
		<u>21:15</u>	<u>FN</u>				<u>50° 5.66</u>	<u>125° 2.89</u>							
<u>08</u>	<u>GH20</u>	<u>21:29</u>	<u>BE</u>	<u>ROS</u>	<u>US</u>	<u>142</u>	<u>50° 5.75</u>	<u>125° 3.45</u>	<u>92</u>		<u>288-298</u>	<u>11</u>	<u>KS/DH/AB/RP</u>	☒	
		<u>21:33</u>	<u>BO</u>				<u>50° 5.75</u>	<u>125° 3.45</u>		<u>90</u>					
		<u>21:44</u>	<u>FN</u>				<u>50° 5.74</u>	<u>125° 3.45</u>							
<u>08</u>	<u>GH21</u>	<u>22:12</u>	<u>BE</u>	<u>ROS</u>		<u>143</u>	<u>50° 5.82</u>	<u>125° 4.13</u>	<u>164</u>				<u>KS/AB</u>	☒	<u>1m/s ↓</u>
		<u>22:14</u>	<u>BO</u>				<u>50° 5.82</u>	<u>125° 4.13</u>		<u>162</u>					
		<u>22:18</u>	<u>FN</u>				<u>50° 5.82</u>	<u>125° 4.13</u>							
<u>08</u>	<u>GH21</u>	<u>22:20</u>		<u>GRAB</u>		<u>144</u>	<u>50° 5.816</u>	<u>125° 04.136</u>	<u>166.5</u>						
<u>08</u>	<u>GH20</u>	<u>22:40</u>		<u>GRAB</u>		<u>145</u>	<u>50° 05.756</u>	<u>125° 03.448</u>	<u>92.5</u>						
<u>08</u>	<u>GH20</u>	<u>22:00</u>		<u>GRAB</u>		<u>146</u>	<u>50° 05.756</u>	<u>125° 03.448</u>	<u>92.5</u>						<u>sieve</u>
<u>08</u>	<u>GH19</u>	<u>23:12</u>		<u>GRAB</u>		<u>147</u>	<u>50° 05.677</u>	<u>125° 02.895</u>	<u>43</u>						
<u>08</u>	<u>GH10</u>	<u>24:35</u>		<u>GRAB</u>		<u>148</u>	<u>50° 04.869</u>	<u>125° 00.802</u>	<u>40</u>						
<u>08</u>	<u>GH09</u>	<u>24:54</u>		<u>GRAB</u>		<u>149</u>	<u>50° 04.875</u>	<u>125° 01.881</u>	<u>60</u>						

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Notes:

washed into water from sewer just prior to the old being put into water.

DAILY SCIENCE LOG

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