

DAILY LOG BOOK

MISSION
NUMBER

2008-12

DATE:

From: MAR 1/08 to: MAR 24/08

VESSEL:

F. V. VIKING STORM

PROJECT:

Hi SEAS SALMON - TRUDEL

INSTITUTE OF OCEAN SCIENCES
OCEAN SCIENCES AND PRODUCTIVITY DIVISION
SIDNEY, BC, CANADA

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAR.				Year 2008			Ship VIKING STORM				Cruise ID 200812				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
Mar 1	W.16GSA	17:49	BE	Bongo		001	49 57.9 N	125 05.2 W		150m					
	Shoals	17:55	EN				49 57.9	125 05.2							
		18:02	BE	CTD		002	49 58.0 N	125 05.2 W		150m					T: S:
		18:08	EN				49 58.0	125 05.2							
		18:20	BE	Tow		003	49 57.5 N	125 05.0		Surf.					
		18:50	EN				49.55.1	125 04.0							
Mar 1	GSO2	18:17	BE	Tow		004	49.54.0	125.03.2		15fa					
		18:47	EN				49.52.1	125.01.4							
	GSO3	20:19	BE	CTD		005	49.48.3	124.57.8		60m					
		20:21	EN				49.48.2	124.57.9							
		20:25	BE	Bongo		006	49.48.2	124.57.8		60m					
		20:27	EN				49.48.2	124.57.7							
Mar 1		20:37	BE	Tow		007	49.48.9	124.56.9		Surf					
		21:07	EN				49.46.7	124.83.7							
	GSO4	21:42	BE	Tow		008	49.44.8	124.50.2		24fa					
		22:12	EN				42.9	48.0							
	GSO5	22:37	BE	Bongo		009	49 43.6	124 45.7		150m					
		22:43	EN				43.6	45.6							

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

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

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>MAR</i>				Year <i>2008</i>				Ship <i>VIKING STORM</i>				Cruise ID <i>200812</i>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>MAR 1</i>		<i>22:48</i>	<i>BE</i>	<i>CTD</i>		<i>010</i>	<i>49 43.6</i>	<i>124 45.6</i>		<i>150m</i>					
		<i>22:53</i>	<i>EN</i>				<i>49 43.6</i>	<i>124 45.5</i>							
		<i>23:04</i>	<i>BE</i>	<i>TOW</i>		<i>011</i>	<i>49 44.1</i>	<i>124 44.9</i>		<i>15m</i>					
		<i>23:34</i>	<i>EN</i>				<i>49 46.1</i>	<i>124 42.9</i>							
	<i>GS06</i>		<i>BE</i>	<i>TOW</i>		<i>012</i>	<i>49 46.1</i>	<i>124 42.0</i>		<i>Surf.</i>					
			<i>EN</i>				<i>49 47.3</i>	<i>124 39.8</i>							
<i>MAR 2</i>	<i>GS07</i>	<i>00:34</i>	<i>BE</i>	<i>CTD</i>		<i>013</i>	<i>49 43.7</i>	<i>124 39.8</i>		<i>150m</i>					
		<i>00:41</i>	<i>EN</i>				<i>49 43.7</i>	<i>124 39.8</i>							
		<i>00:44</i>	<i>BE</i>	<i>Bong.</i>		<i>014</i>	<i>49 43.7</i>	<i>124 39.7</i>		<i>150m</i>					
		<i>00:49</i>	<i>EN</i>				<i>49 43.7</i>	<i>124 39.7</i>							
		<i>00:58</i>	<i>BE</i>	<i>Tow</i>		<i>015</i>	<i>49 43.4</i>	<i>124 40.2</i>		<i>Surf.</i>					
		<i>01:28</i>	<i>EN</i>				<i>49 42.0</i>	<i>124 43.6</i>							
	<i>GS08</i>	<i>01:57</i>	<i>BE</i>	<i>TOW</i>		<i>016</i>	<i>49 41.7</i>	<i>124 45.7</i>		<i>15m</i>					
			<i>EN</i>				<i>49 44.0</i>	<i>124 45.5</i>							
	<i>GS09</i>	<i>14:59</i>	<i>BE</i>	<i>BONG.</i>		<i>017</i>	<i>49 49.5</i>	<i>124 34.0</i>		<i>150m</i>					
		<i>15:05</i>	<i>EN</i>				<i>49 49.5</i>	<i>124 34.0</i>							
		<i>15:10</i>	<i>BE</i>	<i>CTD</i>		<i>018</i>	<i>49 49.5</i>	<i>124 34.0</i>		<i>150</i>					
		<i>15:16</i>	<i>EN</i>				<i>49 49.5</i>	<i>124 34.0</i>							

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USW = sea water loop

MOR = mooring
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bottle firing method:

US = up/stop
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DN = down/no stop

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

Daily_log_book.doc

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>MAR</i>				Year <i>2008</i>			Ship <i>Viking Storm</i>				Cruise ID <i>200812</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mar 2</i>	<i>GS09</i>	<i>15:42</i>	<i>BE</i>	<i>TOW</i>		<i>019</i>	<i>49 48.3</i>	<i>124 34.0</i>		<i>Surf</i>					
		<i>16:12</i>	<i>EN</i>				<i>49 46.4</i>	<i>124 31.7</i>							
	<i>GS10</i>	<i>16:28</i>	<i>BE</i>	<i>Tow</i>		<i>020</i>	<i>49 45.9</i>	<i>124 30.4</i>		<i>15m.</i>					
		<i>16:58</i>	<i>En</i>				<i>49 45.0</i>	<i>124 27.0</i>							
<i>Mar 2</i>	<i>GS11</i>	<i>17:59</i>	<i>Be</i>	<i>CTD</i>		<i>021</i>	<i>49 43.3</i>	<i>124 15.3</i>		<i>150m</i>					
		<i>18:05</i>	<i>En</i>				<i>49 43.4</i>	<i>124 15.3</i>							
		<i>18:08</i>	<i>Be</i>	<i>Bongo</i>		<i>022</i>	<i>49 43.4</i>	<i>124 15.3</i>		<i>150m</i>					
		<i>18:14</i>	<i>En</i>				<i>49 43.3</i>	<i>124 15.3</i>							
		<i>18:22</i>	<i>Be</i>	<i>Tow</i>		<i>023</i>	<i>49 43.0</i>	<i>124 15.9</i>		<i>Surf.</i>					
		<i>18:52</i>	<i>En</i>				<i>49 41.3</i>	<i>124 19.0</i>							
<i>Mar 2</i>	<i>GS12</i>	<i>19:11</i>	<i>Be</i>	<i>Tow</i>		<i>024</i>	<i>49 40.2</i>	<i>124 18.8</i>		<i>Surf.</i>					
		<i>19:40</i>	<i>En</i>				<i>49 38.1</i>	<i>124 16.8</i>							
	<i>GS13</i>	<i>20:35</i>	<i>Be</i>	<i>Bongo</i>		<i>025</i>	<i>49 36.5</i>	<i>124 05.7</i>		<i>150</i>					
		<i>20:41</i>	<i>En</i>				<i>49 36.5</i>	<i>124 05.7</i>							
		<i>20:46</i>	<i>BE</i>	<i>CTD</i>		<i>026</i>	<i>49 36.6</i>	<i>124 05.7</i>		<i>150</i>					
		<i>20:51</i>	<i>En</i>				<i>49 36.6</i>	<i>124 05.6</i>							
		<i>21:00</i>	<i>BE</i>	<i>Tow</i>		<i>027</i>	<i>49 36.1</i>	<i>124 05.5</i>		<i>15m.</i>					
		<i>21:30</i>	<i>En</i>				<i>49 34.0</i>	<i>124 04.6</i>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>MARCH</i>				Year <i>2008</i>			Ship <i>CV. Viking Storm</i>			Cruise ID <i>2008-12</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
<i>Mar 2</i>	<i>GS14</i>	<i>2216</i>	<i>BE</i>	<i>Tow</i>		<i>028</i>	<i>49.30.0</i>	<i>124 03.6</i>		<i>70m</i>					
		<i>2246</i>	<i>EN</i>				<i>49.28.0</i>	<i>124 03.0</i>							
<i>Mar 2</i>	<i>GS15</i>	<i>2340</i>	<i>BE</i>	<i>CTD</i>		<i>029</i>	<i>49 22.7</i>	<i>124 00.0</i>		<i>150m</i>					
		<i>2346</i>					<i>49 22.7</i>	<i>124 00.0</i>							
		<i>2349</i>		<i>Bongo</i>		<i>030</i>	<i>49 22.7</i>	<i>124 00.0</i>		<i>150m</i>					
		<i>2354</i>					<i>49 22.7</i>	<i>124 00.0</i>							
		<i>00.05</i>		<i>Tow</i>		<i>031</i>	<i>49 22.1</i>	<i>123 59.7</i>		<i>15m</i>					
		<i>0035</i>					<i>49 19.8</i>	<i>123 58.5</i>							
<i>MAR 3</i>	<i>GS16</i>	<i>0057</i>		<i>Tow</i>		<i>032</i>	<i>49 18.4</i>	<i>123 57.7</i>		<i>15m</i>					
		<i>0127</i>					<i>49 16.3</i>	<i>123 56.6</i>							
<i>Mar 3</i>	<i>GS17</i>	<i>1503</i>		<i>Bongo</i>		<i>033</i>	<i>49 12.1</i>	<i>123 46.0</i>		<i>150m</i>					
		<i>1509</i>					<i>49 12.1</i>	<i>123 46.2</i>							
		<i>1514</i>		<i>CTD</i>		<i>034</i>	<i>49 12.2</i>	<i>123 46.2</i>		<i>150m</i>					
		<i>1519</i>					<i>49 12.2</i>	<i>123 46.2</i>							
		<i>1529</i>		<i>Tow</i>		<i>035</i>	<i>49.12.2</i>	<i>123 45.4</i>		<i>Surf.</i>					
		<i>1559</i>					<i>49 11.5</i>	<i>123 42.5</i>							
<i>Mar 3</i>	<i>GS18</i>	<i>1629</i>		<i>Tow</i>		<i>036</i>	<i>49 10.6</i>	<i>123 39.2</i>		<i>15m</i>					
		<i>1659</i>					<i>09.6</i>	<i>36.7</i>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>MARCH</i>				Year <i>2008</i>			Ship <i>CFV. Victoria</i>				Cruise ID <i>2008-12</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mar 3</i>	<i>GS19</i>	<i>17:34</i>		<i>CTD</i>		<i>037</i>	<i>49 07.0</i>	<i>123 36.5</i>		<i>150</i>					
		<i>17:38</i>					<i>49 07.1</i>	<i>123 36.4</i>							
		<i>17:40</i>		<i>Buoy</i>		<i>038</i>	<i>49 07.1</i>	<i>123 36.3</i>		<i>150</i>					
		<i>17:46</i>					<i>49 07.2</i>	<i>123 36.2</i>							
		<i>17:54</i>		<i>Tow</i>		<i>039</i>	<i>49 06.9</i>	<i>123 36.1</i>		<i>Surf</i>					
		<i>17:24</i>					<i>49 05.0</i>	<i>123 34.8</i>							
<i>Mar 3</i>	<i>GS20</i>	<i>18:43</i>		<i>Tow</i>		<i>040</i>	<i>49 04.3</i>	<i>123 33.4</i>		<i>160m</i>					
		<i>19:13</i>					<i>49 04.0</i>	<i>123 30.9</i>							
<i>Mar 3</i>	<i>GS21</i>	<i>20:03</i>		<i>Buoy</i>		<i>041</i>	<i>48 59.8</i>	<i>123 31.9</i>		<i>70m</i>					
		<i>20:06</i>					<i>48 59.8</i>	<i>123 31.9</i>							
		<i>20:10</i>		<i>CTD</i>		<i>042</i>	<i>48 59.9</i>	<i>123 31.9</i>		<i>70m</i>					
		<i>20:13</i>					<i>48 59.9</i>	<i>123 31.8</i>							
		<i>20:22</i>		<i>Tow</i>		<i>043</i>	<i>48 59.7</i>	<i>123 31.3</i>		<i>Surf</i>					
		<i>20:52</i>					<i>48 58.2</i>	<i>123 28.5</i>							
	<i>GS22</i>	<i>21:12</i>		<i>Tow</i>		<i>044</i>	<i>48 57.3</i>	<i>123 27.2</i>		<i>15m</i>					
		<i>21:42</i>					<i>56.0</i>	<i>24.0</i>							

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Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>			Year <i>2008</i>			Ship <i>CFV Virginia Storm</i>			Cruise ID <i>2008-12</i>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mar 3</i>	<i>ES23</i>	<i>22:05</i>		<i>BONGO</i>		<i>045</i>	<i>48 56.1</i>	<i>123 21.1</i>		<i>150</i>					
		<i>22:12</i>					<i>48 56.2</i>	<i>123 21.1</i>							
		<i>22:16</i>		<i>CTD</i>		<i>046</i>	<i>48 56.2</i>	<i>123 21.1</i>		<i>150</i>					
		<i>22:22</i>					<i>48 56.3</i>	<i>123 21.0</i>							
		<i>22:45</i>		<i>Tow</i>		<i>047</i>	<i>48 56.0</i>	<i>123 18.8</i>		<i>15m</i>					
		<i>23:15</i>					<i>48 56.2</i>	<i>123 15.0</i>							
<i>Mar 3</i>	<i>GS24</i>	<i>23:33</i>		<i>Tow</i>		<i>048</i>	<i>48 55.5</i>	<i>123 13.9</i>		<i>Surf.</i>					
		<i>00:03</i>					<i>48 53.0</i>	<i>123 13.0</i>							
<i>Mar 5</i>	<i>PS01</i>	<i>14:44</i>		<i>BONGO</i>		<i>049</i>	<i>47 35.1</i>	<i>122 25.8</i>		<i>150m</i>					<i>T: 7.69 S: 29.10</i>
		<i>14:50</i>					<i>47 35.1</i>	<i>122 25.8</i>							
		<i>14:54</i>		<i>CTD</i>		<i>050</i>	<i>47 35.2</i>	<i>122 25.9</i>		<i>150</i>					
		<i>15:00</i>					<i>47 35.2</i>	<i>122 26.0</i>							
		<i>15:11</i>		<i>Tow</i>		<i>051</i>	<i>47 34.6</i>	<i>122 26.7</i>		<i>Surf.</i>					
		<i>15:31</i>					<i>33.4</i>	<i>25.0</i>							
	<i>PS02</i>	<i>18:32</i>		<i>Bongo</i>		<i>052</i>	<i>47 29.1</i>	<i>122 23.7</i>		<i>150</i>					
		<i>18:38</i>					<i>29.0</i>	<i>23.7</i>							
		<i>18:43</i>		<i>CTD</i>		<i>053</i>	<i>47 28.9</i>	<i>122 23.7</i>		<i>150</i>					<i>T: 7.86 S: 28.70</i>
		<i>18:49</i>					<i>47 28.9</i>	<i>122 23.7</i>							

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Daily_log_book.doc

2008-12

old common Maclean
- just nests
Hawin chl.

Chl. all Doug Anderson

← 1st sh with good can file

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>USV Virginia Sperm.</i>			Cruise ID <i>2008-12</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mon</i> <i>5</i>	<i>PS03</i>	<i>19:52</i>		<i>Bongo</i>		<i>54</i>	<i>47 22.3</i>	<i>122 20.7</i>		<i>150</i>					
		<i>19:59</i>					<i>22.2</i>	<i>20.8</i>							
		<i>20:03</i>		<i>CTD</i>		<i>55</i>	<i>47 22.2</i>	<i>122 20.7</i>		<i>150</i>					<i>T: 7.92 S: 28.92</i>
		<i>20:09</i>					<i>22.</i>	<i>20.</i>							
	<i>PS04</i>	<i>20:37</i>		<i>Bongo</i>		<i>56</i>	<i>47 21.7</i>	<i>122 25.6</i>		<i>150</i>					
		<i>20:42</i>					<i>21.7</i>	<i>25.6</i>							
		<i>20:48</i>		<i>CTD</i>		<i>57</i>	<i>47 21.6</i>	<i>122 25.7</i>		<i>150</i>					<i>T: 8.00 S: 28.76</i>
		<i>20:54</i>					<i>21.6</i>	<i>25.7</i>							
	<i>PS05</i>	<i>21:39</i>		<i>Bongo</i>		<i>58</i>	<i>47 20.9</i>	<i>122 32.6</i>		<i>80</i>					
		<i>21:43</i>					<i>20.9</i>	<i>32.5</i>							
		<i>21:47</i>		<i>CTD</i>		<i>59</i>	<i>47 20.9</i>	<i>122 32.5</i>		<i>70</i>					<i>T: 7.71 S: 29.36</i>
		<i>21:50</i>					<i>20.9</i>	<i>32.5</i>							
		<i>22:24</i>		<i>Tow</i>		<i>60</i>	<i>47 23.8</i>	<i>122 32.0</i>		<i>Surf</i>					
		<i>22:44</i>					<i>22.3</i>	<i>32.2</i>							
	<i>PS06</i>	<i>23:02</i>		<i>Tow</i>		<i>61</i>	<i>47 24.0</i>	<i>122 32.1</i>		<i>15m</i>					
		<i>23:32</i>					<i>24.9</i>	<i>31.7</i>							
	<i>PS07</i>	<i>23:51</i>		<i>Tow</i>		<i>62</i>	<i>47 26.3</i>	<i>122 31.5</i>		<i>100m</i>					
		<i>00:21</i>					<i>28.6</i>	<i>30.5</i>							

Cast type:

BOT = bottle cast, no CTD
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USW = sea water loop

MOR = mooring
 NET = net haul
 DRF = drifter

bottle firing method:

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 UN = up/no stop
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Time Code

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>CGV Viking Storm</i>			Cruise ID <i>2008-R</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mar 6</i>	<i>PS07</i>	<i>0041</i>		<i>Bongo</i>		<i>63</i>	<i>47 28.9</i>	<i>122 30.3</i>		<i>90 m</i>					
		<i>0045</i>					<i>28.9</i>	<i>30.3</i>							
		<i>0051</i>		<i>CTD</i>		<i>64</i>	<i>47 28.9</i>	<i>122 30.3</i>		<i>85m</i>					<i>T: 7.70 S: 29.28</i>
		<i>0054</i>					<i>28.9</i>	<i>30.3</i>							
	<i>PS08</i>	<i>0103</i>		<i>Tow</i>		<i>65</i>	<i>47 29.2</i>	<i>122 30.0</i>		<i>Surf</i>					
		<i>0123</i>					<i>31.0</i>	<i>28.8</i>							
	<i>PS09</i>	<i>1547</i>		<i>Bongo</i>		<i>66</i>	<i>47 41.9</i>	<i>122 25.5</i>		<i>120</i>					
		<i>1552</i>					<i>42.0</i>	<i>25.5</i>							
		<i>1555</i>		<i>CTD</i>		<i>67</i>	<i>47 42.0</i>	<i>122 25.4</i>		<i>100</i>					<i>T: 7.70 S: 28.28</i>
		<i>16:00</i>					<i>42.0</i>	<i>25.4</i>							
		<i>16:10</i>		<i>Tow</i>		<i>68</i>	<i>47 42.6</i>	<i>122 25.3</i>		<i>Surf</i>					
		<i>1630</i>					<i>44.3</i>	<i>25.1</i>							
	<i>PS10</i>	<i>1656</i>		<i>Tow</i>		<i>69</i>	<i>47 47.2</i>	<i>122 25.3</i>		<i>15m</i>					
		<i>1716</i>					<i>48.7</i>	<i>25.4</i>							
	<i>PS11</i>	<i>1759</i>		<i>Bongo</i>		<i>70</i>	<i>47 53.9</i>	<i>122 27.4</i>		<i>135</i>					
		<i>1804</i>					<i>53.9</i>	<i>27.5</i>							
		<i>1809</i>		<i>CTD</i>		<i>71</i>	<i>47 54.0</i>	<i>122 27.5</i>		<i>135</i>					<i>T: 7.90 S: 27.38</i>
		<i>1814</i>					<i>54.1</i>	<i>27.5</i>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>MARCH</u>				Year <u>2008</u>			Ship <u>CGV Marine Survey</u>			Cruise ID <u>2008-12</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<u>Mar 6</u>	<u>PS 11</u>	<u>18 22</u>		<u>Tow</u>		<u>72</u>	<u>47 54.5</u>	<u>122 27.8</u>		<u>Surf</u>					
		<u>18 42</u>					<u>56</u>	<u>28.7</u>							
	<u>PS 12</u>	<u>18 02</u>		<u>Tow</u>		<u>73</u>	<u>47 55.9</u>	<u>122 28.6</u>		<u>15m</u>					
		<u>19 22</u>					<u>54.3</u>	<u>27.9</u>							
	<u>PS 13</u>	<u>20 37</u>		<u>Bongo</u>		<u>74</u>	<u>47 57.7</u>	<u>122 37.8</u>		<u>50</u>					
		<u>20 39</u>					<u>57.7</u>	<u>37.7</u>							
		<u>20 43</u>		<u>CTD</u>		<u>75</u>	<u>47 57.6</u>	<u>122 37.6</u>		<u>50</u>					<u>T: 7.88 S: 29.55</u>
		<u>20 45</u>					<u>57.6</u>	<u>37.6</u>							
		<u>20 53</u>		<u>Tow</u>		<u>76</u>	<u>47 58.9</u>	<u>122 37.9</u>		<u>SURF</u>					
		<u>21 13</u>					<u>59.3</u>	<u>38.8</u>							
	<u>PS 14</u>	<u>21 49</u>		<u>Tow</u>		<u>77</u>	<u>48 02.2</u>	<u>122 37.1</u>		<u>30m</u>					
		<u>22 09</u>					<u>03.3</u>	<u>37.28</u>							
		<u>22 24</u>		<u>Bongo</u>		<u>78</u>	<u>48 03.6</u>	<u>122 37.2</u>		<u>135</u>					
		<u>22 29</u>					<u>03.7</u>	<u>37.2</u>							
		<u>22 33</u>		<u>CTD</u>		<u>79</u>	<u>48 03.7</u>	<u>122 37.2</u>		<u>135</u>					<u>T: 7.76 S: 29.65</u>
		<u>22 38</u>					<u>03.7</u>	<u>37.1</u>							
	<u>PS 15</u>	<u>22 46</u>		<u>Tow</u>		<u>80</u>	<u>48 04.1</u>	<u>122 37.2</u>		<u>Surf</u>					
		<u>22 06</u>					<u>05.7</u>	<u>38.3</u>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>			Year <i>2008</i>			Ship <i>CFV. Viking Storm</i>			Cruise ID <i>2008-12</i>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mon 7</i>	<i>G525</i>	<i>1450</i>		<i>Bongo</i>		<i>81</i>	<i>48 51.1</i>	<i>123 24.9</i>		<i>65</i>					
		<i>1454</i>					<i>51.1</i>	<i>24.9</i>							
		<i>1500</i>		<i>CTD</i>		<i>82</i>	<i>48 51.1</i>	<i>123 25.0</i>		<i>85</i>					<i>T: 7.30 S: 29.27</i>
		<i>1503</i>					<i>51.1</i>	<i>25.0</i>							
		<i>1513</i>		<i>Tow</i>		<i>83</i>	<i>48 51.6</i>	<i>123 25.5</i>		<i>Surf.</i>					
		<i>1543</i>					<i>53.5</i>	<i>27.3</i>							
	<i>G526</i>	<i>1610</i>		<i>Tow</i>		<i>84</i>	<i>48 55.1</i>	<i>123 29.8</i>		<i>Surf.</i>					
		<i>1640</i>					<i>56.6</i>	<i>37.8</i>							
	<i>G527</i>	<i>1736</i>		<i>Bongo</i>		<i>85</i>	<i>48 54.3</i>	<i>123 36.5</i>		<i>115</i>					
		<i>1741</i>					<i>54.3</i>	<i>36.5</i>							
		<i>1746</i>		<i>CTD</i>		<i>86</i>	<i>48 54.3</i>	<i>123 36.4</i>		<i>115</i>					<i>T: 7.58 S: 28.44</i>
		<i>1750</i>					<i>54.3</i>	<i>36.4</i>							
	<i>G528</i>	<i>1801</i>		<i>Tow</i>		<i>87</i>	<i>48 53.5</i>	<i>123 36.4</i>		<i>30 m</i>					
		<i>1831</i>					<i>51.3</i>	<i>35.6</i>							
	<i>G528</i>	<i>1853</i>		<i>Tow</i>		<i>88</i>	<i>48 51.4</i>	<i>123 35.1</i>		<i>160 m.</i>					
		<i>1913</i>					<i>52.5</i>	<i>35.6</i>							
	<i>G529</i>	<i>1949</i>		<i>Tow</i>		<i>89</i>	<i>48 55.1</i>	<i>123 38.9</i>		<i>Surf.</i>					
		<i>2019</i>					<i>57.1</i>	<i>41.5</i>							

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DAILY LOG

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INSTITUTE OF OCEAN SCIENCES

Month <u>MARCH</u>				Year <u>2008</u>				Ship <u>CGV Victoria</u>			Cruise ID <u>2008-12</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<u>Mar 7</u>	<u>GS30</u>	<u>2036</u>		<u>Bongo</u>		<u>90</u>	<u>48 56.5</u>	<u>123 42.9</u>		<u>55</u>					
		<u>2038</u>					<u>56.5</u>	<u>42.9</u>							
		<u>2042</u>		<u>CTD</u>		<u>91</u>	<u>48 56.5</u>	<u>123 43.0</u>		<u>60</u>					<u>T: 7.44 S: 28.56</u>
		<u>2044</u>					<u>56.5</u>	<u>43.0</u>							
		<u>2052</u>		<u>Tow</u>		<u>92</u>	<u>48 57.0</u>	<u>123 43.3</u>		<u>15m</u>					
		<u>2122</u>					<u>59.3</u>	<u>44.1</u>							
	<u>GS31</u>	<u>22:04</u>		<u>Tow</u>		<u>93</u>	<u>49 03.6</u>	<u>123 40.3</u>		<u>15m</u>					
		<u>22:34</u>					<u>05.7</u>	<u>41.9</u>							
	<u>GS32</u>	<u>22:53</u>		<u>BONGO</u>		<u>94</u>	<u>49 05.0</u>	<u>123 43.8</u>		<u>25m</u>					
		<u>22:54</u>					<u>05</u>	<u>43</u>							
		<u>22:58</u>		<u>CTD</u>		<u>95</u>	<u>49 05.0</u>	<u>123 43.8</u>		<u>30m</u>					<u>T: 7.67 S: 28.74</u>
		<u>23:00</u>					<u>05</u>	<u>43.8</u>							
		<u>23:07</u>		<u>Tow</u>		<u>96</u>	<u>49 05.2</u>	<u>123 44.4</u>		<u>Surf.</u>					
		<u>23:27</u>					<u>06.5</u>	<u>46.2</u>							
	<u>GS33</u>	<u>23:54</u>		<u>Bongo</u>		<u>97</u>	<u>49 08.6</u>	<u>123 49.9</u>		<u>55</u>					
		<u>23:57</u>					<u>08.6</u>	<u>49.9</u>							
<u>Mar 8</u>	<u>GS33</u>	<u>0001</u>		<u>CTD</u>		<u>98</u>	<u>49 08.6</u>	<u>123 50.0</u>		<u>55</u>					<u>T: 7.92 S: 29.21</u>
		<u>0003</u>					<u>08.6</u>	<u>50.0</u>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>March</u>				Year <u>2008</u>			Ship <u>GOV. Victoria Storm</u>			Cruise ID <u>2008-12</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<u>Mar 8</u>		<u>0012</u>		<u>Tow</u>		<u>99</u>	<u>49 08.8</u>	<u>123 50.6</u>		<u>15m</u>					
		<u>0042</u>					<u>10.7</u>	<u>53.4</u>							
	<u>GS34</u>	<u>0059</u>		<u>Tow</u>		<u>100</u>	<u>49 11.4</u>	<u>123 53.7</u>		<u>15m</u>					
		<u>0129</u>					<u>13.9</u>	<u>53.8</u>							
<u>Mar 9</u>	<u>GS35</u>	<u>1450</u>		<u>Bongo</u>		<u>101</u>	<u>49 14.7</u>	<u>123 39.5</u>		<u>150</u>					
		<u>1456</u>					<u>14.7</u>	<u>39.6</u>							
		<u>1501</u>		<u>CTD</u>		<u>102</u>	<u>49 14.7</u>	<u>123 39.6</u>		<u>150</u>					<u>T: 7.30 S: 28.34</u>
		<u>1507</u>					<u>14.8</u>	<u>39.7</u>							
		<u>1516</u>		<u>Tow</u>		<u>103</u>	<u>49 15.3</u>	<u>123 39.0</u>		<u>Surf.</u>					
		<u>1546</u>					<u>15.6</u>	<u>38.3</u>							
	<u>GS36</u>	<u>1607</u>		<u>Tow</u>		<u>104</u>	<u>49 16.2</u>	<u>123 33.1</u>		<u>15m</u>					
		<u>1637</u>					<u>17.0</u>	<u>29.7</u>							
	<u>GS37</u>	<u>1701</u>		<u>Bongo</u>		<u>105</u>	<u>49 17.5</u>	<u>123 26.8</u>		<u>135</u>					
		<u>1706</u>					<u>17.4</u>	<u>26.8</u>							
		<u>1710</u>		<u>CTD</u>		<u>106</u>	<u>49 17.4</u>	<u>123 26.8</u>		<u>135</u>					<u>T: 7.55 S: 23.98</u>
		<u>1715</u>					<u>17.4</u>	<u>26.9</u>							
		<u>1726</u>		<u>Tow</u>		<u>107</u>	<u>49 17.0</u>	<u>123 25.7</u>		<u>45m</u>					
		<u>1756</u>					<u>16.2</u>	<u>22.4</u>							

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DAILY LOG

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INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>CGC Viking Seaman</i>			Cruise ID <i>2008-12</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mar 9</i>	<i>GS38</i>	<i>1819</i>		<i>Tow</i>		<i>108</i>	<i>49 15.1</i>	<i>123 22.8</i>		<i>15m</i>					
		<i>1849</i>					<i>13</i>	<i>25.2</i>							
	<i>GS39</i>	<i>1912</i>		<i>Bongo</i>		<i>109</i>	<i>49 12.7</i>	<i>123 28.0</i>		<i>150</i>					
		<i>1918</i>					<i>12.6</i>	<i>27.9</i>							
		<i>1922</i>		<i>CTD</i>		<i>110</i>	<i>49 12.6</i>	<i>123 27.9</i>		<i>150</i>					<i>T: 7.36 S: 29.39</i>
		<i>1928</i>					<i>12.6</i>	<i>28.0</i>							
		<i>1936</i>		<i>Tow</i>		<i>111</i>	<i>49 12.3</i>	<i>123 28.6</i>		<i>Surf</i>					
		<i>2006</i>					<i>11.6</i>	<i>32.4</i>							
	<i>GS40</i>	<i>2030</i>		<i>Tow</i>		<i>112</i>	<i>49 10.0</i>	<i>123 31.9</i>		<i>30m</i>					
		<i>2000</i>					<i>07.6</i>	<i>30.2</i>							
	<i>GS41</i>	<i>2125</i>		<i>Bongo</i>		<i>113</i>	<i>49 06.1</i>	<i>123 27.8</i>		<i>150</i>					
		<i>2130</i>					<i>06.2</i>	<i>27.7</i>							<i>T: 7.34 S: 28.21</i>
		<i>2134</i>		<i>CTD</i>		<i>114</i>	<i>49 06.2</i>	<i>123 27.7</i>		<i>150</i>					
		<i>2140</i>					<i>06.2</i>	<i>27.6</i>							
		<i>2149</i>		<i>Tow</i>		<i>115</i>	<i>49 06.5</i>	<i>123 26.9</i>		<i>15m</i>					
		<i>2219</i>					<i>08.4</i>	<i>24.5</i>							
	<i>GS42</i>	<i>2306</i>		<i>Tow</i>		<i>116</i>	<i>49 12.3</i>	<i>123 18.3</i>		<i>Surf</i>					
		<i>2336</i>					<i>14.5</i>	<i>17.7</i>							

Cast type:

BOT = bottle cast, no CTD
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DRF = drifter

bottle firing method:
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Time Code

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

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>March</u>				Year <u>2008</u>			Ship <u>CGC. Virginia Swann</u>		Cruise ID <u>2008-12</u>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<u>Mar 10</u>	<u>GS43</u>	<u>0004</u>		<u>Bongo</u>		<u>117</u>	<u>49 12.0</u>	<u>123 18.3</u>		<u>85</u>					
		<u>0007</u>					<u>12.0</u>	<u>18.2</u>							
		<u>0011</u>		<u>CTD</u>		<u>118</u>	<u>49 12.0</u>	<u>123 18.2</u>		<u>85</u>					<u>T: 7.42 S: 20.64</u>
		<u>0014</u>					<u>12.0</u>	<u>18.2</u>							
		<u>0024</u>		<u>Tow</u>		<u>119</u>	<u>49 11.4</u>	<u>123 18.3</u>		<u>15m</u>					
		<u>0044</u>					<u>10.0</u>	<u>18.6</u>							
<u>Mar 10</u>	<u>GS44</u>	<u>1506</u>		<u>Bongo</u>		<u>120</u>	<u>48 43.1</u>	<u>123 31.2</u>		<u>45</u>					
		<u>1507</u>					<u>43.1</u>	<u>31.2</u>							<u>T: 7.48 S: 28.78</u>
		<u>1512</u>		<u>CTD</u>		<u>121</u>	<u>48 43.1</u>	<u>123 31.2</u>		<u>45</u>					
		<u>1514</u>					<u>43.2</u>	<u>31.2</u>							
		<u>1522</u>		<u>Tow</u>		<u>122</u>	<u>48 43.4</u>	<u>123 31.8</u>		<u>Surf.</u>					
		<u>1552</u>					<u>44.6</u>	<u>34.8</u>							
	<u>GS45</u>	<u>16:16</u>		<u>Tow</u>		<u>123</u>	<u>48 43.2</u>	<u>123 32.4</u>		<u>Surf.</u>					
		<u>16:46</u>					<u>41.0</u>	<u>31.3</u>							
	<u>GS46</u>	<u>1713</u>		<u>Bongo</u>		<u>124</u>	<u>48 42.2</u>	<u>123 28.2</u>		<u>50</u>					
		<u>1715</u>					<u>42.2</u>	<u>28.2</u>							
		<u>1719</u>		<u>CTD</u>		<u>125</u>	<u>48 42.2</u>	<u>123 28.2</u>		<u>50</u>					<u>T: 7.51 S: 28.84</u>
		<u>1721</u>					<u>42.2</u>	<u>28.2</u>							

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Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>March</u>				Year <u>2008</u>			Ship <u>CGC. Virginia Green</u>			Cruise ID <u>2008-12</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<u>10</u>		<u>1743</u>		<u>Tow</u>		<u>126</u>	<u>48 42.7</u>	<u>123 27.9</u>		<u>15m</u>					
		<u>1813</u>					<u>43.8</u>	<u>24.5</u>							
	<u>G547</u>	<u>1901</u>		<u>Tow</u>		<u>127</u>	<u>48 43.4</u>	<u>123 20.6</u>		<u>Surf.</u>					
		<u>1931</u>					<u>41.7</u>	<u>18.2</u>							
	<u>G548</u>	<u>1956</u>		<u>Bongo</u>		<u>128</u>	<u>48 39.7</u>	<u>123 15.4</u>		<u>150</u>					
		<u>2002</u>					<u>39.6</u>	<u>15.5</u>							
		<u>2006</u>		<u>CTD</u>		<u>129</u>	<u>48 39.4</u>	<u>123 15.4</u>		<u>180</u>					<u>T: 7.41 S: 30.44</u>
		<u>2012</u>					<u>39.2</u>	<u>15.4</u>							
		<u>2023</u>		<u>Tow</u>		<u>130</u>	<u>48 38.0</u>	<u>123 15.0</u>		<u>15m</u>					
		<u>2053</u>					<u>35.0</u>	<u>14.0</u>							
	<u>G549</u>	<u>2126</u>		<u>Tow</u>		<u>131</u>	<u>48 31.7</u>	<u>123 14.9</u>		<u>18m</u>					
		<u>2156</u>					<u>29.7</u>	<u>14.2</u>							
	<u>G550</u>	<u>2239</u>		<u>Bongo</u>		<u>132</u>	<u>48 26.1</u>	<u>123 09.3</u>		<u>65</u>					
		<u>2242</u>					<u>26.1</u>	<u>09.3</u>							
		<u>2246</u>		<u>CTD</u>		<u>133</u>	<u>48 26.1</u>	<u>123 09.2</u>		<u>65</u>					<u>T: 7.42 S: 30.72</u>
		<u>2249</u>					<u>26.2</u>	<u>09.2</u>							
		<u>2255</u>		<u>Tow</u>		<u>134</u>	<u>48 25.9</u>	<u>123 09.4</u>		<u>Surf.</u>					
		<u>2325</u>					<u>24.6</u>	<u>10.0</u>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>			Year <i>2008</i>			Ship <i>USV. Viking Seaman</i>			Cruise ID <i>2008-12</i>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mar 10</i>	<i>G551</i>	<i>23:59</i>				<i>135</i>	<i>48 22.9</i>	<i>123 11.5</i>		<i>30m</i>					
		<i>00:29</i>					<i>22.3</i>	<i>12.8</i>							
<i>Mar 11</i>	<i>JFO1</i>	<i>14:44</i>	<i>BE</i>	<i>BONGO</i>		<i>136</i>	<i>48 22 27</i>	<i>123 25 47</i>	<i>55</i>	<i>65m</i>					
		<i>1446</i>	<i>BE</i>				<i>48 22 27</i>	<i>123 25 41</i>							
		<i>1450</i>	<i>BE</i>	<i>CTD</i>		<i>137</i>	<i>48 22 28</i>	<i>123 25 42</i>	<i>55</i>	<i>65m</i>					<i>T: 7.46 S: 30.89</i>
		<i>1453</i>	<i>BE</i>				<i>48 22 28</i>	<i>123 25 39</i>							
		<i>15:02</i>	<i>BE</i>	<i>Tow</i>		<i>138</i>	<i>48 21 81</i>	<i>123 25 86</i>		<i>68</i>			<i>Tow AT</i>		<i>SURFACE</i>
		<i>15:32</i>	<i>BE</i>				<i>48 19 22</i>	<i>123 28 56</i>							
<i>Mar 11</i>	<i>JFO2</i>	<i>16:06</i>	<i>BE</i>	<i>BONGO</i>		<i>139</i>	<i>48 17 45</i>	<i>123 24 32</i>	<i>105</i>	<i>115</i>					
		<i>16:10</i>	<i>BE</i>				<i>48 17 48</i>	<i>123 24 194</i>							
		<i>16:14</i>	<i>BE</i>	<i>CTD</i>		<i>140</i>	<i>48 17 50</i>	<i>123 24 09</i>	<i>105</i>	<i>119</i>					<i>T: 7.41 S: 31.93</i>
		<i>16:19</i>	<i>BE</i>				<i>48 17 53</i>	<i>123 23 98</i>							
		<i>16:28</i>	<i>BE</i>	<i>Tow</i>		<i>141</i>	<i>48 17 80</i>	<i>123 23 20</i>		<i>116</i>			<i>Tow AT</i>		<i>15m DEPTH</i>
		<i>16:58</i>	<i>BE</i>				<i>48 19 30</i>	<i>123 21 51</i>							

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DAILY LOG

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INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2004</i>			Ship <i>CGC. Viking</i>				Cruise ID <i>2008-12</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>Mon</i>	<i>JFO3</i>	<i>17:17</i>	<i>BE</i>	<i>CTD</i>		<i>142</i>	<i>48 20 05</i>	<i>123 20.96</i>	<i>35</i>	<i>48</i>					
		<i>17:18</i>	<i>EN</i>				<i>48 20 02</i>	<i>123 21 02</i>							
		<i>17:23</i>	<i>BE</i>	<i>CTD</i>		<i>143</i>	<i>48 19.98</i>	<i>123 21.13</i>	<i>35</i>	<i>48</i>					<i>T: 7.45 S: 30.98</i>
		<i>17:24</i>	<i>EN</i>				<i>48 19 97</i>	<i>123 21.17</i>							
		<i>17:38</i>	<i>BE</i>	<i>Tow</i>		<i>144</i>	<i>48 19.49</i>	<i>123 22.45</i>	<i>67</i>				<i>Tow AT</i>		<i>SURFACE</i>
		<i>18:08</i>	<i>EN</i>				<i>48 16 97</i>	<i>123 24 61</i>							
<i>Mon</i>	<i>JFO4</i>	<i>19:27</i>	<i>BE</i>	<i>CTD</i>		<i>145</i>	<i>48 17.51</i>	<i>123 39 32</i>	<i>160</i>	<i>150</i>					<i>T: 7.44 S: 31.63</i>
		<i>19:33</i>	<i>EN</i>				<i>48 17 55</i>	<i>123 39 31</i>							
		<i>19:41</i>	<i>BE</i>	<i>Tow</i>		<i>146</i>	<i>48 17 40</i>	<i>123 39 86</i>	<i>160</i>				<i>Tow AT</i>		<i>SURFACE</i>
		<i>20:11</i>	<i>EN</i>				<i>48 18 37</i>	<i>123 43 06</i>							
<i>Mon</i>	<i>JFO5</i>	<i>22:55</i>	<i>BE</i>	<i>CTD</i>		<i>147</i>	<i>48 23 79</i>	<i>124 5.32</i>	<i>82</i>	<i>75</i>					<i>T: 7.48 S: 31.70</i>
		<i>22:58</i>	<i>EN</i>				<i>48 23.80</i>	<i>124 5 27</i>							
		<i>23:06</i>	<i>BE</i>	<i>Tow</i>		<i>148</i>	<i>48 23 60</i>	<i>124 4.60</i>	<i>81</i>				<i>Tow AT</i>		<i>SURFACE</i>
		<i>23:36</i>	<i>EN</i>				<i>48 22 45</i>	<i>124 00.22</i>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>		Year <i>2008</i>		Ship <i>CGV Virginia Slocum</i>		Cruise ID <i>2008-12</i>									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>MAR 12</i>	<i>JFO6</i>	<i>1:03</i>	<i>BE</i>	<i>CTD</i>		<i>149</i>	<i>48 25.00</i>	<i>124 9.76</i>	<i>105</i>	<i>95</i>					<i>T: 7.44 S: 31.57</i>
		<i>1:08</i>	<i>BE</i>				<i>48 24.56</i>	<i>124 9.64</i>							
		<i>1:39</i>	<i>BE</i>	<i>TOW</i>		<i>150</i>	<i>48 24.58</i>	<i>124 10.21</i>			<i>Tow</i>	<i>AT</i>		<i>SURFACE</i>	
		<i>2:09</i>	<i>BE</i>				<i>48 26.26</i>	<i>124 16.22</i>							
<i>MAR 12</i>	<i>JFO1</i>	<i>14:35</i>	<i>BE</i>	<i>Bottle</i>		<i>151</i>	<i>48 57.77</i>	<i>125 6.77</i>	<i>91</i>	<i>80</i>					
		<i>14:38</i>	<i>BE</i>				<i>48 57.76</i>	<i>125 6.83</i>							
		<i>14:42</i>	<i>BE</i>	<i>CTD</i>		<i>152</i>	<i>48 57.76</i>	<i>125 6.88</i>		<i>80</i>					<i>T: 7.38 S: 26.23</i>
		<i>14:45</i>	<i>BE</i>				<i>48 57.76</i>	<i>125 6.94</i>							
		<i>14:56</i>	<i>BE</i>	<i>TOW</i>		<i>153</i>	<i>48 57.86</i>	<i>125 6.98</i>		<i>80</i>	<i>Tow</i>	<i>AT</i>		<i>SURFACE</i>	
		<i>15:26</i>	<i>BE</i>				<i>48 56.01</i>	<i>125 9.14</i>		<i>83</i>					
<i>12</i>	<i>JVI02</i>	<i>15:46</i>	<i>BE</i>	<i>Bottle</i>		<i>154</i>	<i>48 54.9</i>	<i>125 12.0</i>	<i>94</i>	<i>85</i>					
		<i>15:51</i>	<i>BE</i>				<i>48 54.8</i>	<i>125 12.1</i>							
		<i>15:53</i>	<i>BE</i>	<i>CTD</i>		<i>155</i>	<i>48 54.83</i>	<i>125 12.14</i>	<i>93</i>	<i>85</i>					<i>T: 7.64 S: 27.73</i>
		<i>15:58</i>	<i>BE</i>				<i>48 54.81</i>	<i>125 12.21</i>							
		<i>16:05</i>	<i>BE</i>	<i>TOW</i>		<i>156</i>	<i>48 54.44</i>	<i>125 12.52</i>	<i>92</i>		<i>Tow</i>	<i>AT</i>		<i>SURFACE</i>	
		<i>16:35</i>	<i>BE</i>				<i>48 52.53</i>	<i>125 14.79</i>	<i>88</i>						

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>			Year <i>2008</i>			Ship <i>CV. Nimitz</i>			Cruise ID <i>2008-12</i>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
12	IUI03	1700	BE	Bongo		157	48 50.3	125 15.9	95	85					
		1705	BN				48 50.3	125 16.0							
		1710	BE	CTD		158	48 50.23	125 16.09	95	85					T: 7.60 S: 28.36
		1713	BN				48 50.22	125 16.14							
		1722	BE	Tow		159	48 49.78	125 16.38	88						SURFACE Tow.
		1752	BN				48 49.46	125 17.40							
12	VIO1	18:41	BE	Bongo		160	48 45 41	125 25 87	101	90					
		18:45	BN				48 45 41	125 25 95							
		18:49	BE	CTD		161	48 45 42	125 26.03		90					T: 7.49 S: 30.31
		18:52	BN				48 45 44	125 26.09							
		18:59	BE	Tow		162	48 45 17	125 26 69	104						SURFACE Tow.
		19:29	BN				48 43 95	125 29 72	123						
12	VIO2	20:16	BE	Bongo		163	48 40 69	125 35 49	162	150					
		20:22	BN				48 40.80	125 35.71							
		20:27	BE	CTD		164	48 40.87	125 35.82	143	130					T: 7.55 S: 31.17
		20:31	BN				48 40 92	125 35 90							
		20:37	BE	Tow		165	48 40 71	125 36 27	125						SURFACE Tow
		21:04	BN				48 39.08	125 38 27							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	VI03	00:28	BE	TOW		168	49 00.88	126 7.53	62						SURFACE Tow
		00:58	EN				49 03.18	126 05.66	53						
		01:09	BE	BOMBO		166	49 03.64	126 5.513	50	40					
		01:10	EN				03.7	05.5							
		01:14	BE	CTD		167	49 03.7	126 05.5	40						T: 7.74 S: 29.61
		01:15	EN				03.7	126 05.6							
13	VI04	01:30	BE	TOW		171	49 4.53	126 3.92	51						SURFACE Tow
		02:00	EN				49 4.85	126 00.63							
		02:12	BE	BOMBO		169	49 06.1	126 00.2	30						
		02:14	EN				06.1	00.2							
		02:17	BE	CTD		170	49 06.1	126 00.2	30						T: 7.70 S: 29.62
		02:18	EN				49 06.1	126 00.2							
13	EP01	14:37	BE	BOMBO		172	49 20.69	126 33.80	43	30					
		14:39	EN				49 20.69	126 33.82							
		14:43	BE	CTD		173	49 20.69	126 33.87	43	30					T: 7.22 S: 30.00
		14:44	EN				49 20.69	126 33.88							
		14:50	BE	TOW		174	49 20.26	126 34.45	50						SURFACE Tow
		15:24	EN				49 18.40	126 37.13							

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
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Time Code

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

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>Mar.</i>				Year <i>2008</i>			Ship <i>CGC Heike Swan</i>				Cruise ID <i>2008-12</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	EP02	15:42	BE	BONCO		175	49 18.63	126 36.97	92	80					
		15:46	BE				49 18.66	126 37.02							
		15:50	BE	CTD		176	49 18.66	126 37.07	91	80					T: 7.38 S: 30.23
		15:53	BE				49 18.65	126 37.13							
		16:01	BE	Tow		177	49 18.33	126 37.57							
		16:31	BE				49 17.08	126 40.70							
13	EP03	16:41	BE	BONCO		178	49 17.1	126 41.2	110	100					
		16:46	BE				49 17.14	126 41.32							
		16:49	BE	CTD		179	49 17.17	126 41.37	111	100					T: 7.44 S: 31.15
		16:53	BE				49 17.22	126 41.43							
		17:00	BE	Tow		180	49 16.96	126 41.87	112						
		17:30	BE				49 15.19	126 44.23							
13	EP04	17:42	BE	BONCO		181	49 15.0	126 45.1	115	105					
		17:45	BE				49 15.0	126 45.1							
		17:50	BE	CTD		182	49 15.0	126 45.1	114	105					T: 7.50 S: 31.53
		17:54	BE				49 15.0	126 45.1							
		18:02	BE	Tow		183	49 14.66	126 45.49							
		18:30	BE				49 13.28	126 48.43		134					

Cast type:

BOT = bottle cast, no CTD
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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>CGV Viking Storm</i>			Cruise ID <i>2008-12</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	EP05	19:08	BE	Bottle		184	49 12 67	126 50 63	142	130					
		19:12	BE				49 12 73	126 50 70							
		19:15	BE	CTD		185	49 12 77	126 50 74	141	130					T: 7.54 S: 31.37
		19:20	BE				49 12 80	126 50 81							
		19:24	BE	Tow		186	49 12 54	126 51 13	144						
		19:57	BE				49 10 43	126 52 89	163						
13	EP06	20:14	BE	Bottle		187	49 10 42	126 54 49	185	150					
		20:22	BE				49 10 58	126 54 53							
		20:26	BE	CTD		188	49 10 67	126 54 54	183	150					T: 7.53 S: 31.42
		20:32	BE				49 10 75	126 54 58							
		20:39	BE	Tow		189	49 10 56	126 54 91							
		21:09	BE				49 9 08	126 56 83							
13	EP07	21:32	BE	Bottle		190	49 7 95	126 58 95	478	150					T: 7.54 S: 31.23
		21:38	BE				49 7 99	126 59 03							
		21:45	BE	CTD		191	49 8 125	126 59 67	461	400		2			DEEP CAST
		22:04	BE				49 8 26	126 59 26							BOT 400 FOR SAC
		22:15	BE	Tow		192	49 8 07	126 59 71							BOT 100 FOR SAL/CHL/MOS
		22:45	BE				49 6 63	127 1 78							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>CFV Marion Stuenkel</i>				Cruise ID <i>2008-12</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
14	VI05	1:00	BE	Bottle		193	49 23.85	126 49.93	100	90					
		1:05	EN				49 23.88	126 49.94							
		1:09	BE	CTD		194	49 23.94	126 49.91	100	90					T: 7.56 S: 31.25
		1:13	EN				49 24.00	126 49.90							
		1:20	BE	Tow		195	49 24.36	126 49.68	96						
		1:50	RE				49 26.00	126 48.76	75						
14	IVIO4	14:44	BE	Bottle		196	49 40.08	126 9.49	360	150					
		14:51	EN				49 40.09	126 9.46							
		14:54	BE	CTD		197	49 40.09	126 9.48	360	150					T: 6.25 S: 13.03
		15:00	EN				49 40.10	126 9.52							
		15:07	BE	Tow		198	49 40.04	126 10.13	363						
		15:37	RE				49 39.32	126 13.57							
14	IVIO5	15:58	BE	Bottle		199	49 38.78	126 16.55	297	150					
		16:05	EN				49 38.79	126 16.67							
		16:07	BE	CTD		200	49 38.79	126 16.72	286	150					T: 6.98 S: 15.92
		16:13	EN				49 38.70	126 16.84							
		16:22	BE	Tow		201	49 38.70	126 17.92							
		16:52	EN				49 38.69	126 21.47							

Cast type:

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>CTD. Viking Seac.</i>			Cruise ID <i>2008-12</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
14	IV106	17:08	BE	Bottle		202	49 39 61	126 23 19	133	120					
		17:13	EN				49 39 60	126 23 24							
		17:17	BE	CTD		203	49 39 61	126 23 26		120					T: 6.53 S: 15.44
		17:22	EN				49 39 61	126 23 29							
		17:29	BE	Tow		204	49 38 53	126 23 92							
		17:59	EN				49 38 91	126 27 62							
14	IV107	18:39	BE	Bottle		205	49 38 12	126 29 56	131	120					
		18:45	EN				49 38 06	126 29 64							
		18:49	BE	CTD		206	49 38 03	126 29 67	113	105					T: 7.49 S: 26.53
		18:53	EN				49 38 00	126 29 71							
		19:00	BE	Tow		207	49 37 65	126 30 09	161						
		19:30	EN				49 35 78	126 32 56	119						
14	IV108	20:00	BE	Bottle		208	49 35 22	126 34 78	42	30					
		20:01	EN				49 35 21	126 34 79							
		20:06	BE	CTD		209	49 35 19	126 34 81	42	30					T: 7.51 S: 28.63
		20:07	EN				49 35 19	126 34 81							
		20:14	BE	Tow		210	49 34 98	126 35 28	42						
		20:44	EN				49 33 01	126 37 41	60						

Cast type:

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>CGC Viking Storm</i>				Cruise ID <i>2008-12</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
14	IVL09	20:23	BE	Bongo		211	49 36.43	126 35.86	119	110					
		21:28	EN				49 36.44	126 35.88							
		21:30	BE	CTD		212	49 36.44	126 35.89	122	110					T: 7.87 S: 25.19
		21:36	EN				49 36.43	126 35.87							
		21:42	BE	Tow		213	49 36.77	126 35.89							
		22:12	EN				49 39.1	126 36.0							
14	IVL10	22:26	BE	Bongo		214	49 40.1	126 36.1		130					
		22:32	EN				49 40.2	126 36.1							
		22:36	BE	CTD		215	49 40.2	126 36.1		120					T: 7.98 S: 24.77
		22:40	EN				49 40.3	126 36.1							
		22:47	BE	Tow		216	49 40.53	126 35.55	116						
		23:17	EN				49 41.49	126 32.00							
15	IVL11	00:22	BE	Bongo		217	49 47.24	126 38.86							
		00:27	EN				49 47.28	126 38.83	127	115					
		00:31	BE	CTD		218	49 47.30	126 38.82	126	115					T: 7.83 S: 17.42
		00:36	EN				49 47.33	126 38.83							
		00:43	BE	Tow		219	49 47.74	126 39.00							
		01:13	EN				49 50.25	126 39.62							

Cast type:

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>			Ship <i>USV Healy</i>			Cruise ID <i>2008-12</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	IVI12	01:32	BE	Bongo		220	49 51.46	126 39.76	195	150					
		01:38	EN				49 51 49	126 39.72		15					
		01:42	BE	CTD		221	49 51 48	126 39.74	195	150					T: 8.08 S: 24.94
		01:47	EN				49 51 49	126 39.76							
		01:55	BE	Tow		222	49 51 90	126 39.71							
		02:25	EN				49 54 23	126 39.32							
15	IVI13	14:53	BE	Bongo		223	49 51 54	126 44 32	204	150					
		14:59	EN				49 51 58	126 44.34							
		15:03	BE	CTD		224	49 51 57	126 44 35	198	150					T: 7.92 S: 25.30
		15:09	EN				49 51 57	126 44 36							
		15:17	BE	Tow		225	49 51 75	126 44.87							
		15:47	EN				49 53 24	126 47 08							
15	IVI14	15:56	BE	Bongo		226	49 54.00	126 47.2	203	150					
		16:03	EN				49 53 98	126 47.19							
		16:06	BE	CTD		227	49 53 98	126 47 18	214	150					T: 7.99 S: 26.31
		16:12	EN				49 53 96	126 47 18							
		16:18	BE	Tow		228	49 54 33	126 47 34	218						
		16:48	EN				49 56 43	126 48 50	200						

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>March</u>				Year <u>2008</u>			Ship <u>CAV Viking Seam</u>		Cruise ID <u>2008-12</u>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	IUI 15	1732	BE	Bongo		229	49 52.4	126 50.2	232	150					
		1739	EN				49 50.27	126 50.28							
		1742	BE	CTD		230	49 52.39	126 50.29	279	150					T: 8.11 S: 26.11
		1749	EN				49 52.4	126 50.3							
		1803	BE	Tow		231	49 52.14	126 50.99							
		1833	EN				49 51.55	126 54.60							
14	IUI 16	1906	BE	Bongo		232	49 55.1	126 55.7	280	150					
		1912	EN				49 55.0	126 55.8							
		1916	BE	CTD		233	49 54.98	126 55.77	280	150					T: 8.37 S: 25.15
		1922	EN				49 54.92	126 55.71							
		1929	BE	Tow		234	49 54.55	126 55.81		Surf.					
		1959	EN				49 52.18	126 55.32							
15	IUI 17	2013	BE	Bongo		235	49 51.4	126 55.7		150					
		2017	EN				49 51.3	126 55.7							
		2024	BE	CTD		236	49 51.2	126 55.7		150					T: 7.54 S: 22.61
		2029	EN				49 51.2	126 55.8							
		2037	BE	Tow		237	49 51.1	126 56.4		Surf.					
		2107					49 50.2	126 59.81							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>March</i>				Year <i>2008</i>				Ship <i>CGV Viking Storm</i>				Cruise ID <i>2008-12</i>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
16	IUI18	0029	BE	BOMBP		238	49 59.7	127 13.1	186	150					
16		0036	BE				49 59.57	127 13.17							T: 8.01 S: 23.13
16		0039	BE	CTD		239	49 59.48	127 13.21		150					1.8 km EBB. Tide.
16		0046	BE				49 59.35	127 13.27							
16		23:47	BE	Tow.		240	49 58.30	127 15.95	79	Surf					
16		00:17	BE				49 59.60	127 13.35							
16	IUI19	01:51	BE	BOMBP		241	50 03.9	127 15.3	187	150					
		01:57	BE				50 03.84	127 15.28							
		02:00	BE	CTD		242	50 03.77	127 15.29	187	150					T: 7.97 S: 26.71
		02:06	BE				50 03.65	127 15.27							
		01:12	BE	Tow.		243	50 1.84	127 14.17	203	Surf					
		01:42	BE				50 3.70	127 15.42							
16	IUI20	14:31	BE	BOMBP		244	50 24.14	127 29.23	121	110					
		14:36	BE				50 24.12	127 29.24							
		14:40	BE	CTD		245	50 24.21	127 29.28	122	110					T: 7.60 S: 27.84
		14:44	BE				50 24.25	127 29.32							
		14:55	BE	Tow		246	50 24.26	127 29.30	122						
		15:25	BE				50 26.35	127 31.24							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>MARCH</i>				Year <i>2008</i>			Ship <i>CFV</i>				Cruise ID				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
16	IVI 21	15:32	BE	Bongo		247	50 27.14	127 31.82	190	150.					
		15:43	BE				50 27.19	127 31.89							
		15:46	BE	CTD		248	50 27 21	127 31.89	190	150.					T: 7.33 S: 28.75
		15:52	BE				50 27 26	127 31.94							
		16:00	BE	Tow		249	50 27 64	127 32 30							
		16:30	BE				50 29 72	127 34 40							
16	IVI 22	17:37	BE	Bongo		250	50 34 94	127 28.86	63	50					
		17:39	BE				50 34 94	127 28 85							
		17:44	BE	CTD		251	50 34 93	127 28 85	63	50					T: 7.73 S: 24.14
		17:46	BE				50 34 93	127 28 85							
		17:57	BE	Tow		252	50 34.81	127 29.81	63						
		18:27	BE				50 33.92	127 33.38	121						
16	IVI 23	18:35	BE	Bong.		253	50 33.9	127 33.8	127	115					
		18:40	BE				50 33.96	127 33.85							
		18:44		CTD		254	50 33.98	127 33.90	127	115.					T: 7.23 S: 20.98
		18:48					50 33 98	127 33.96							
		18:54		Tow		255	50 34 26	127 34.53							
		19:27					50 35.38	127 37.74		169					

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DAILY LOG

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>MARCH</i>				Year <i>2008</i>			Ship <i>CV. Viking Storm</i>				Cruise ID <i>2008-12</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
16	IVL27	23:19	02	Bongo		262	50 37.38	127 53 48	59	50					
16		23:21	02				50 37 39	127 53 51							
16		23:25	02	CTD		263	50 37 41	127 53 58	54	50					T: 7.94 S: 26.41
16		23:27	02				50 37 41	127 53 63							
16		23:28	02	Tow		264	50 37 68	127 54 44	53						
17		00:05	02				50 38 44	127 57 86							
17	IVL28	14:30	02	Bongo		265	50 29 93	127 34 96	167	150					
		14:37	02				50 29 93	127 34 97							
		14:41	02	CTD		266	50 29 94	127 34 96		150					T: 7.37 S: 28.75
		14:47	02				50 29 96	127 34 97							
		14:54	02	Tow		267	50 30 18	127 35 43							
		15:29	02				50 31 72	127 38 24							
17	IVL29	15:44	02	Bongo		268	50 31 37	127 40 38	118	110					
		15:47	02				50 31 39	127 40 38							
		15:51	02	CTD		269	50 31 42	127 40 40	109	100					T: 7.50 S: 29.15
		15:53	02				50 31 42	127 40 42							
		16:01	02	Tow		270	50 31 18	127 40 87	125						
		16:31	02				50 29 54	127 43 87							

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
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NET = net haul
DRF = drifter

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US = up/stop
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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
16	IWI 30	16:44	BE	Bongo		271	50 30 13	127 44 81	90	80					
		16:48	RM				50 30 13	127 44.89							
		16:54	BE	CTD		272	50 30 13	127 44.98	87	80					T: 7.33 S: 28.80
		16:57	RM				50 30 13	127 45 02							
		17:03	BE	Tow		273	50 29 96	127 45 59							
		17:33	RM				50 28 42	127 48 51							
17	IWI 31	17:50	BE	Bongo		274	50 28 87	127 50 08	142	130					
		17:56	RM				50 28 89	127 50 10							
		17:59	BE	CTD		275	50 28 89	127 50 11	151	140					T: 7.43 S: 29.12
		18:05	RM				50 28 90	127 50.16							
		18:12	BE	Tow		276	50 28 96	127 50 23	178						
		18:42	RM				50 28 13	127 54 67							
17	IWI 32	18:58	BE	Bongo		277	50 28 05	127 57 16	171	150					
		19:05	RM				50 28 01	127 57 28							
		19:09	BE	CTD		278	50 27 99	127 57 34	157	140					T: 7.54 S: 29.11
		19:16	RM				50 27 97	127 57 40							
		19:21	BE	Tow		279	50 27 55	127 57 52	120						
		19:51	RM				50 25 29	127 57 27	101						

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
17	IVI 33	20:13	BE	Bongo		280	50.2506	128 00.19	166	150.					
		20:19	EN				50.2504	128 00.31							
		20:23	BE	CTD		281	50.2503	128 00.40	150	130					T: 7.48 S: 30.61
		20:28	EN				50.2503	128 00.51							
		20:38	BE	Tow		282	50.2478	128 1.27	150.						
		21:08	EN				50.2382	128 4.31	72						
17	UIO6	21:31	BE	Bongo		283	50.2271	128 5.07	77	65.					
		21:35	EN				50.2277	128 5.08							
		21:39	BE	CTD		284	50.2285	128 5.10	76	65.					T: 7.46 S: 31.26
		21:41	EN				50.2290	128 5.13							
		21:44	BE	Tow		285	50.2266	128 5.03	77						
		22:20	EN				50.2078	128 4.76	74.						
17	UIO7	22:41	BE	Bongo		286	50.1943	128 4.622	84.	70					
		22:44	EN				50.1948	128 4.51							
		22:47	BE	CTD		287	50.1952	128 4.58							T: 7.47 S: 31.40
		22:50	EN				50.1953	128 4.55							
		22:52	BE	Tow		288	50.1924	128 4.53	81						
		23:27	EN				50.1740	128 4.51							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
17	V108	23:45	1/2	Tow		289	50 17.82	128 4.44			Tow	@	15m.		
18		00:15	1/2				50 20 60	128 4.50							
18	V109	14:45	1/2	Bottle		290	50 25 34	128 7.87	71	60					
		14:48	1/2				50 25 38	128 7.87							
		14:52	1/2	CTD		291	50 25 38	128 7.93	67	60					T: 7.37 S: 31.48
		14:55	1/2				50 25 42	128 7.93							
		15:03	1/2	Tow		292	50 25 46	128 8.43	60						
		15:33	1/2				50 27 32	128 11.25							
18	V110	15:57	1/2	CTD		293	50 28 59	128 13.75	68	60					T: 7.25 S: 31.35
		16:00	1/2				50 28 60	128 13.82							
		16:07	1/2	Tow		294	50 28 87	128 14.43	68						
		16:37	1/2				50 30 70	128 16.66	56						
18	V111	17:23	1/2	CTD		295	50 34 53	128 21.14	77	65					T: 7.26 S: 31.36
		17:26	1/2				50 34 59	128 21.15							
		17:32	1/2	Tow		296	50 34 93	128 21.46							
		18:02	1/2				50 37 21	128 22.91							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
18	V612	18:29	BE	CTD		297	50 38.94	128 25 01	68	55					T: 7.25 S: 31.32
		18:30	BE				50 39 02	128 25 07							
		18:37	BE	Tow		298	50 33 39	128 25 35	68						
		19:07	BE				50 41 73	128 26 87	69						
							WE. RICKER								
19	T08	14:23	BE	CTD		299	CANCELLED - NO PUMPS					1	4.7		BOT @ 10m - SAL/CAL/NURS
			BO						01	911					T: S:
			EN												
		1428	BE	NET	1428	300			1000 +	150					BONGO
		1459	BE	Tow		301	50 42.78	129 27.23							TRAWL
19	T07	1642	BE	CTD		302	50° 49.52	129° 13.06	91		SBE 25				BOT @ 10m - SAL/CAL/NURS
			BO				50° 49.53	129° 13.05		80					T: 7.21 S: 31.99
			EN				50° 49.54	129° 13.03							
		1651	BE	NET		303	50° 49.62	129° 12.95		80					BONGO
		1706	BE	TRAWL		304	50 50 348	129 11.41							TRAWL

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	T 06	1827	BC	CTD		305	50° 55.91	129° 00.93	59			1	H.M.		BOT @ 10m - SAL/CAL/NUTS
		1828	BO				50° 55.91	129° 00.89		50					T: 7.26 S: 32.07
		1831	CH				50° 55.89	129° 00.81							
		1836	BC	NET		306	50° 55.97	129° 00.72		50					BONGO
		18:54	BC	TRAWL		307	50 56.49	128 58.16							TRAWL
19	T 05	2003	BC	CTD		308	50° 59.67	128° 52.26	63			1			BOT @ 10m - SAL/CAL/NUTS
		2005	BO				50° 59.64	128° 52.25		55					T: 7.28 S: 31.89
		2007	CH				50° 59.59	128° 52.22							
		2012	BC	NET		309	50° 59.63	128° 52.22		50					BONGO
		20:31	BC	TRAWL		310	51 00.60	128 51.15							TRAWL
19	T 04	2147	BC	CTD		311	51° 04.48	128° 44.32	60			1			BOT @ 10m - SAL/CAL/NUTS
		2148	BO				51° 04.47	128° 44.33		50					T: 7.30 S: 31.71
		2150	CH				51° 04.44	128° 44.36							
		2156	BC	NET		312	51° 04.36	128° 44.32		50					BONGO
		22:12	BC	TRAWL		313	51 04.74	128 43.68							TRAWL

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INSTITUTE OF OCEAN SCIENCES

Month				Year			Ship				Cruise ID				
MARCH				2008			W. E. RICKER				2008-12				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	IBC 02	1549	BE	CTD		323	51° 33.92	127° 52.46	207			1	H.M.		BOT@10m - SAL/CAL/HUTS
		1552	BO				51° 33.91	127° 52.38		195					T: 6.34 S: 29.66
		1556	EN				51° 33.90	127° 52.36							
		1601	BE	NET		324	51° 33.90	127° 52.34		150					BONGO
		1618	BE	TRAWL		325	51° 34.18	127° 52.57							TRAWL
20	IBC 03	1727	BE	CTD		326	51° 41.07	127° 55.75	326			1			BOT@10m - SAL/CAL/HUTS
		1731	BO				51° 41.07	127° 55.76		250					T: 6.46 S: 30.21
		1735	EN				51° 41.07	127° 55.73							
		1739	BE	NET		327	51° 41.08	127° 55.73		150					BONGO
		1857	BE	TRAWL		328	51° 41.27	127° 55.96							TRAWL
20	IBC 04	1907	BE	CTD		329	51° 47.36	127° 56.56	333			1			BOT@10m - SAL/CAL/HUTS
		1911	BO				51° 47.38	127° 56.52		250					T: 6.41 S: 30.45
		1915	EN				51° 47.40	127° 56.50							
		1921	BE	NET		330	51° 47.51	127° 56.47		150					BONGO
		1940	BE	TRAWL		331	51° 47.89	127° 56.72							TRAWL

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	IBC05	2036	BE	CTD		332	51° 52.32	127° 56.65	310			1	H.M.		BOTE 10m - SAL/CHL/NUTS
		2040	BO				51° 52.36	127° 56.61		250					T: 6.46 S: 30.29
		2045	EN				51° 52.39	127° 56.56							
		2049	BE	NET		333	51° 52.43	127° 56.50		150					BONGO
		2106	BE	TRAWL		334	51 53 15	127 56 53.							TRAWL
20	IBC 06	2213	BG	CTD		335	51° 59.19	127° 56.10	437			1			BOTE 10m - SAL/CHL/NUTS
		2217	BO				51° 59.18	127° 56.09		250					T: 6.46 S: 30.37
		2221	EN				51° 59.18	127° 56.08							
		2225	BE	NET		336	51° 59.19	127° 56.01		150					BONGO
		2242	BE	TRAWL		337	51 59 69	127 55 188							TRAWL
20	IBC 07	2346	BG	CTD		338	52° 05.72	127° 54.69	377			1			BOTE 10m - SAL/CHL/NUTS
		2350	BO				52° 05.72	127° 54.71		250					T: 6.19 S: 27.87
		2355	EN				52° 05.72	127° 54.75							
21		0000	BG	NET		339	52° 05.67	127° 54.99		150					BONGO
		0047	BG	TRAWL		340	52 06 20	127 54.52							TRAWL

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							Latitude	Longitude							
21	IBC 08	1405	BG	CTD		341	52° 13.39	128° 07.95	206			1	H.M.		BOTE 10m. SAL/CAL/NTS
		1409	BO				52° 13.40	128° 07.95		190					T: 6.39 S: 29.30
		1414	EN				52° 13.40	128° 07.92							
		1416	BE	NET		342	52° 13.40	128° 07.91		150					BONGO
		1435	BE	TRAWL		343	52 13 46	128 08 41							TRAWL
21	IBC 09	1536	BG	CTD		344	52° 16.98	128° 14.11	320			1			BOTE 10m. - SAL/CAL/NTS
		1541	BO				52° 17.00	128° 14.16		250					T: 5.70 S: 21.52
		1547	EN				52° 17.01	128° 14.16							
		1550	BE	NET		345	52° 17.02	128° 14.14		150					BONGO
		1608	BE	TRAWL		346	52 17 20	128 14.00.							TRAWL
21	IBC 10	1739	BG	CTD		347	52° 14.80	128° 17.51	376			1			BOTE 10m. SAL/CAL/NTS
		1744	BO				52° 14.79	128° 17.46		250					T: 6.19 S: 29.13
		1749	EN				52° 14.80	128° 17.48							
		1754	BE	NET		348	52° 14.80	128° 17.49		150					BONGO
		1813	BE	TRAWL		349	52 14 90	128 18 11							TRAWL

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							Latitude	Longitude							
21	IBC 11	1933	BE	CTD		350	52° 15. 41	128° 27. 04	135			1	H.M.		BOT 10m. SAL/calc/NUTS
		1936	BO				52° 15. 44	128° 26. 96		125					T: 6.60 S: 30.98
		1939	EN				52° 15. 46	128° 26. 92							
		1942	BE	NET		351	52° 15. 52	128° 26. 87	200	150					BONGO
		2000	BE	TRAWL		352	52 15 68	128 27 94							TRAWL
21	IBC 12	2100	BE	CTD		353	52° 18. 72	128° 32. 77	320			1			BOT 10m. SAL/calc/NUTS
		2105	BO				52° 18. 81	128° 32. 63		250					T: 6.63 S: 31.11
		2109	EN				52° 18. 98	128° 32. 51							
		2117	BE	NET		354	52° 19. 12	128° 32. 39		150					BONGO
		2134	BE	TRAWL		355	52 20 01	128 32 55							TRAWL
21	IBC 13	2233	BE	CTD		356	52° 24. 61	128° 29. 60	321			1			BOT 10m. SAL/calc/NUTS
		2237	BO				52° 24. 63	128° 29. 54		250					T: 6.31 S: 30.05
		2242	EN				52° 24. 59	128° 29. 55							
		2247	BE	NET		357	52° 24. 68	128° 29. 47		150					BONGO
		2304	BE	TRAWL		358	52 25 36	128 28 92							TRAWL

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

Daily_log_book.doc

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>MARCH</u>				Year <u>2008</u>			Ship <u>W.E. RICKER</u>				Cruise ID <u>2008-12</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	IBC 14	1409	BE	CTD		359	51° 40.65	127° 17.54	151			1	H.M.		BOT @ 10m - SAL/CAL/NOTS
		1412	BO				51° 40.69	127° 17.49		140					T: 7.40 S: 29.02
		1416	EN				51° 40.70	127° 17.49							
		1419	BE	NET		360	51° 40.73	127° 17.49		140					BONGO
		1439	BE	TRAWL		361	51° 40.70	127° 18.26							TRAWL
22	IBC 15	1535	BE	CTD		362	51° 39.01	127° 26.56	294			1			BOT @ 10m - SAL/CAL/NOTS
		1540	BO				51° 38.96	127° 26.61		250					T: 6.83 S: 25.73
		1545	EN				51° 39.01	127° 26.61							
		1549	BE	NET		363	51° 39.03	127° 26.76		150					
		1605	BE	TRAWL		364	51° 38.70	127° 28.07							
22	IBC 16	1658	BE	CTD		365	51° 36.43	127° 31.71	310			1			BOT @ 10m - SAL/CAL/NOTS
		1703	BO				51° 36.52	127° 31.71		250					T: 6.70 S: 25.40
		1708	EN				51° 36.59	127° 31.69							
		1712	BE	NET		366	51° 36.64	127° 31.74		150					BONGO
		1729	BE	TRAWL		367	51° 36.17	127° 31.85							TRAWL

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
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DE = deployment time
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Month MARCH				Year 2008			Ship W.E. RICKER				Cruise ID 2008-12				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	IBC 17	1857	BC	CTD		368	51° 30.75	127° 33.76	306			1	H.M.		BOT@10m - SAL/CHL/HUTS
		1901	BO				51° 30.74	127° 33.75		250					T: 6.74 S: 28.64
		1905	EN				51° 30.71	127° 33.76							
		1910	BC	NET		369	51° 30.75	127° 33.81		150					BONGO
		1929	BE	TRAWL		370	51° 30.01	127° 34.73							TRAWL
22	IBC 18	2014	BC	CTD		371	51° 27.40	127° 37.08	288			1			BOT@10m - SAL/CHL/HUTS
		2018	BO				51° 27.42	127° 37.10		250					T: 6.76 S: 30.35
		2022	EN				51° 27.46	127° 37.08							
		2027	BC	NET		372	51° 27.56	127° 37.10		150					BONGO
		2044	BE	TRAWL		373	51° 27.32	127° 37.22							TRAWL
22	IBC 19	2132	BC	CTD		374	51° 26.01	127° 41.49	320			1			BOT@10m - SAL/CHL/HUTS
		2136	BO				51° 26.03	127° 41.39		250					T: 6.70 S: 30.58
		2141	EN				51° 26.04	127° 41.27							
		21	BE	NET		375	51° 26.04	127° 41.27		150	CANCELLED				BONGO
		21:54	BE	TRAWL		376	51° 26.21	127° 42.59							TRAWL

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