

AUTOSAL ANALYSIS LOGSHEET

23°C.

9:35am

Cruise ID: <u>Frosti 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): _____
Autosal Model: <u>8400B WP.</u>	Serial Number: <u>68572.</u>	<u>25 Nov 2014</u>
Initial Standby Value: <u>24 + 5964</u>	Ratio After Standardization: <u>24 + 5956</u>	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: <u>5964</u> Rs: <u>5.33</u>	K ₁₅ VALUE: <u>0.99981</u>
	After: <u>5956</u>	Batch #: <u>P152</u>
	Notes: <u>New Rs: 5.20</u>	Batch Date: <u>May 5/13</u>
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>23</u> °C
		Room Temperature: <u>22.5</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
1	Kug01	1	1.78613	1.78614		
2		2	1.68552	1.68556		
3		3	1.66242	1.6624		
6	Agk02	1	1.81281	1.81281		48
7		2	1.74402	1.74403		
8		3	1.66433	1.66433		
11	Agk01	1	1.82568	1.82570		4 f
14		4	1.74272	1.74274		
15		5	1.63786	1.63786		
17	Kug02	1	1.87226	1.87226		4 f
18		2	1.86591	1.86592		
19		3	1.84025	1.84026		
* 19		3	1.84086	1.84087		salty rim
20		4	1.79368	1.79368		
23		7	1.76574	1.76573		
24		8	1.74859	1.74859		
25		9	1.70128	1.70127		
26		10	1.69764	1.69769	1.69771	salty edge
27	Kug03	1	1.95909	1.95910		4 f
28		2	1.90330	1.90330		
29		3	1.89188	1.89189		
30		4	1.87959	1.87964	61	
31	Kug03	1	1.87362	1.87367	67	4 f salty R
32		2	1.86295	1.86297		
33		3	1.85512	1.85513		Final Standby Value: 10:30am
* 33		3	1.85580	1.85581	1.85581	5956

Notes: <u>(26)</u>

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

10:30 am

Cruise ID: <u>FROST 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>25 Nov 2014</u>
Autosal Model: _____	Serial Number: <u>Save</u>	
Initial Standby Value: <u>5956</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____	K ₁₅ VALUE: <u>0.999</u>
	After: <u>Save</u>	Batch #: <u>Save</u>
	Notes: _____	Batch Date: _____
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>23</u> °C
		Room Temperature: <u>23.2</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
34	Kug03	4	1.83423	1.83428	32	salty rim
35		5	1.79723	1.79724		
36		6	1.79735	1.79739	1.797349	?
39		9	1.75986	1.75988		salty rim
40		10	1.73900	1.73902		
41		11	1.62035	1.62037		
42		12	1.62100	1.62101		
43	Kug04	1	1.99096	1.99102	1.99106	45
44		2	1.98917	1.98919		
45		3	1.95854	1.95850	1.95852	
46		4	1.90573	1.90573		
47		5	1.89127	1.89128		
48		6	1.88065	1.88067		
49	Kug04	1	1.86735	1.86731		45
50		2	1.85821	1.85822		
51		3	1.84077	1.84078		
52		4	1.81721	1.81722		
53		6	1.81687	1.81690		
* 53		5	1.81641	1.81643		
55		7	1.79491	1.79491		
57		9	1.76594	1.76597		
58		10	1.74610	1.74611		
59		11	1.69142	1.69142		
60		12	1.66211	1.66212		
						Final Standby Value: <u>11:25</u>
						<u>5956</u>

Notes: (24)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

11:25 am

Cruise ID: <u>FROSTI 2014-56</u>		Cast/Station Name: _____		Analysis Date (dd mmm yyyy): <u>25</u> _____ _____	
Autosal Model: _____		Serial Number: <u>68572</u>			
Initial Standby Value: <u>5956</u>		Ratio After Standardization: <u>5</u>			
Cell Standardization (Daily)	Standardization Values:		Standard Info.		Bath Temperature: <u>24</u> °C
Conductivity must be ± 0.00001 compared to Standard 	Before: _____		K ₁₅ VALUE: 0.999		Sample Temperature: <u>23</u> °C
	After: <u>Sale</u>		Batch #: <u>Sale</u>		Room Temperature: <u>23.4</u> °C
	Notes: _____		Batch Date: _____		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
61	Kug05	1	1.99287	1.99292	1.99292	48
62		2	1.98750	1.98752		flack!!
63		3	1.95994	1.95995		
64		4	1.90707	1.90711	1.90711	
65		5	1.89678	1.89677		
66		6	1.87722	1.87723		
67	Kug05	1	1.86212	1.86213		48
68		2	1.85576	1.85577		
69		3	1.84365	1.84368		leaking
* 69		3	1.84462	1.84463		
70		4	1.82299	1.82300		
73		7	1.77599	1.77600		
75		9	1.74415	1.74416		
76		10	1.71620	1.71626	1.71629	
77		11	1.65876	1.65879		leaking
78		12	1.65794	1.65795		
79	Kug05 a	1	1.99273	1.99280	1.99280	48 leaking
80		2	1.98757	1.98755		
82		4	1.96313	1.96314		leaking
83		5	1.90178	1.90177		
85		7	1.86621	1.86622		
86		8	1.80741	1.80742		
88		10	1.75490	1.75495	1.75492	
* 88		10	1.75483	1.75483		
89		11	1.71893	1.71897	1.71898	Final Standby Value:
90		12	1.69805	1.69810	1.69806	<u>5955</u>

Notes: (26)

AUTOSAL ANALYSIS LOGSHEET

12:25 pm

Cruise ID: <u>FROST 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>25 Nov 2014</u>
Autosal Model: _____	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5955</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____	K ₁₅ VALUE: <u>0.999</u>
	After: <u>same</u>	Batch #: <u>same</u>
	Notes: _____	Batch Date: _____
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>23</u> °C
		Room Temperature: <u>23.4</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
91	KU004 a	1	1.98988	1.98992	1.989.91	
95		5	1.90397	1.90396		
99		9	1.81381	1.81382		
103	BNK01	1	1.85244	1.85247		4 f
106		4	1.79029	1.79030		
107		5	1.76488	1.76490		
108		6	1.73677	1.73677		
109		7	1.72602	1.72601		
110		8	1.72030	1.72032		
* 110		8	1.72034	1.72032		
112	BNK02	1	1.98432	1.98434		4 f
113		2	1.98164	1.98166		
114		3	1.95006	1.95007		
115		4	1.91502	1.91503		
* 115		4	1.91512	1.91512		
116		5	1.90415	1.90417		
117		6	1.88630	1.88634	1.88633	
118	BNK02	1	1.87146	1.87144		4 f
119		2	1.86602	1.86602		
120		3	1.85200	1.85200		
123		6	1.83256	1.83255		
124		7	1.80536	1.80539	1.80537	
125		8	1.78372	1.78375		
126		9	1.75323	1.75324		
* 126		9	1.75354	1.75353		
127		10	1.72656	1.72661	1.72662	Final Standby Value: <u>5955</u>

Notes: <u>(26)</u>

Institute of Ocean Sciences, Ocean Sciences Division

1:55 pm

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
128	BNK02	11	1.71970	1.71970		
130	BNK03	1	1.99107	1.99127	1.99125	4 S
131		2	1.96513	1.96518	1.96513	
132		3	1.90296	1.90298		
133	*	4	1.88024	1.88025		
134	BNK03	1	1.86256	1.86262	1.86263	4 S
135		2	1.85209	1.85212	1.85209	
136		3	1.83037	1.83037		
139		6	1.77920	1.77921		
140		7	1.76100	1.76102		
141		8	1.75433	1.75434		
* 142	??	9	1.74612	1.74613		
143.		10	1.67408	1.67410	1.67410	
144	↓	11	1.64338	1.64341	1.64341	
146	BNK 04	1	1.99009	1.99017	1.99016	4 S
147		2	1.98743	1.98751	1.98746	
148		3	1.96227	1.96228		
149		4	1.92272	1.92272		
149		4	1.96234	1.96234		what !! 148 + 149d see same
150		5	1.90538	1.90540		
151		6	1.88590	1.88588		
151	↓	6	1.88562	1.88557	1.88555	
						Final Standby Value:
						5955

Version: 10 March 2008

(6)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

2:45 pm

Cruise ID: <u>Frosti 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>25 Nov 2014</u>
Autosal Model: _____	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5956</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard 	Before: _____	K ₁₅ VALUE: <u>0.999</u>
	After: <u>Same</u>	Batch #: <u>Same</u>
	Notes: _____	Batch Date: _____
	Bath Temperature: <u>24</u> °C	Sample Temperature: <u>23.2</u> °C
	Room Temperature: <u>23.5</u> °C	Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
152	BNK04	1	1.86860	1.86862		4 8
153		2	1.85871	1.85878	1.85874	
154		3	1.84251	1.84250		
155		4	1.81620	1.81678		
158		7	1.78464	1.78468	1.78466	
159		8	1.76460	1.76462		
160		9	1.73935	1.73933		
* 160		9	1.73911	1.73912		
161		10	1.72610	1.72613		
162		11	1.72329	1.72329		
164	BNK05	1	1.97923	1.97926	1.97924	4 8
165		2	1.96558	1.96558		
166		3	1.92977	1.92978		
* 166		3	1.92882	1.92882		
167		4	1.90565	1.90565		
168		5	1.88128	1.88129		
169	BNK05	1	1.86123	1.86124		4 8
170		2	1.84927	1.84927		
171		3	1.83116	1.83116		
* 171		3	1.83078	1.83079		
172		4	1.78562	1.78563		
175		7	1.76519	1.76519		
176		8	1.75442	1.75442		
177		9	1.74832	1.74832		
178		-	1.68383	1.68383		Final Standby Value:
179		-	1.66162	1.66161		<u>5955</u>

Notes: DONE TIME LAB TEMP ZERO
3:45 pm 23.6°C 0.00001

(26)

AUTOSAL ANALYSIS LOGSHEET

10:20 am

Cruise ID: <u>Frost 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>26 Nov 2014</u>
Autosal Model: <u>8400 B.</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5956</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard 	Before: <u>5956</u> After: <u>5946</u> Notes: <u>Rs = 8.10</u>	K ₁₅ VALUE: <u>0.99984</u> Batch #: <u>P156</u> Batch Date: <u>July 23, 2016</u>
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>22.5</u> °C Room Temperature: <u>22.5</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
181	BNK06	1	1.84010	1.84010		
184		4	1.79757	1.79748	1.79758	
185		5	1.76770	1.76756	1.76756	
* 185		5	1.76790	1.76783	1.76772	
186		6	1.76003	1.76004		
187		7	1.72814	1.72815		
188		8	1.71880	1.71881		
190	BNK07	1	1.94913	1.94912		4 S. S.R.
191		2	1.92435	1.92433		S.R.
192		3	1.90433	1.90435		
193		4	1.88662	1.88663		
194	BNK07	1	1.87166	1.87165		4 S
195		2	1.86435	1.86435		
198		5	1.85291	1.85289		
199		6	1.82701	1.82700		
200		7	1.79678	1.79675		
201		8	1.77435	1.77431	1.77429	S.R.
202		9	1.75210	1.75205	1.75200	leaking
* 202		9	1.75284	1.75285		
203		10	1.72525	1.72526		
204		11	1.67748	1.67749		
206	BNKHC3	1	1.98867	1.98868		4 S leaking
207		2	1.93137	1.93137		
208		3	1.90296	1.90299	1.90303	
209		4	1.88768	1.88770		Final Standby Value:
210		5	1.86455	1.86459	1.86458	<u>5946</u>

Notes: <u>(26)</u> <u>11:20 am</u>

AUTOSAL ANALYSIS LOGSHEET

11:20am

Cruise ID: <u>FROSTI 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>26 Nov 2014</u>
Autosal Model: _____	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5946</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____	K ₁₅ VALUE: <u>0.999</u>
	After: <u>Same</u>	Batch #: <u>Same</u>
	Notes: _____	Batch Date: _____
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>23.2</u> °C
		Room Temperature: <u>23.5</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
211	BNKHC3	6	1.84415	1.84415		
212		7	1.82030	1.82031		
* 212		7	1.82011	1.82010		
213		8	1.80052	1.80051		
214		9	1.77382	1.77383		leaking
215		10	1.74552	1.74552		
216		11	1.70679	1.70680		
217		12	1.69799	1.69804	1.69806	
218	NTC 01	1	1.99254	1.99255		4 f S.R.
219		2	1.98887	1.98888		
220		3	1.96518	1.96518		
221		4	1.92103	1.92104		
222		5	1.90459	1.90459	59-34-59	something in - Jumping around
223		6	1.88610	1.88611		
224	NTC 01	1	1.87487	1.87488		4 f
225		2	1.86444	1.86444		leaking
226		3	1.85087	1.85088		
229		6	1.82869	1.82867		
230		7	1.80815	1.80816		
231		8	1.78737	1.78736		
* 231		8	1.78719	1.78719		
232		9	1.73313	1.73315		
233		10	1.72652	1.72656	1.72654	
234		11	1.72699	1.72698		
						Final Standby Value: <u>5946</u>

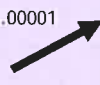
Notes: (24) 12:25 pm

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

1:55 pm

Cruise ID: <u>FROST 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>26 Nov 2014</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5946</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard 	Before: _____ After: <u>Same</u> Notes: _____	K ₁₅ VALUE: <u>0.999</u> Batch #: <u>Same</u> Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>23.0</u> °C Room Temperature: <u>24.0</u> °C Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
293	FRK05	1	1.97981	1.97980		4 S
294		2	1.93009	1.93008		S.R.
295		3	1.90503	1.90502		
296		4	1.89317	1.89319		
297	FRK05	1	1.87615	1.87617		4 S
* 297		1	1.87613	1.87614		
298		2	1.86676	1.86677		
301		5	1.85396	1.85397		
302		6	1.83475	1.83475		
303		7	1.80697	1.80696		
304		8	1.77835	1.77835		
305		9	1.74399	1.74401		
306		10	1.72164	1.72165		
307		11	1.72177	1.72178		
308	FRK06	1	1.94334	1.94333		4 S
309		2	1.92818	1.92817		
310		3	1.90499	1.90500		
312	FRK06	1	1.89846	1.89846		4 S
313		2	1.88502	1.88500		
314		3	1.87464	1.87463		
315		4	1.86325	1.86325		
* 315		4	1.86337	1.86337		
316		5	1.85217	1.85218		
317		6	1.81840	1.81842		Salton Rim
320		9	1.78415	1.78417		Final Standby Value:
321		10	1.75504	1.75504		<u>5946</u>

Notes: <u>26</u> <u>2:30pm</u>

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

2:45 pm

Cruise ID: <u>FROST1-2014-56</u>		Cast/Station Name: _____		Analysis Date (dd mmm yyyy): _____	
Autosal Model: <u>8400B</u>		Serial Number: <u>68572</u>		<u>26</u> <u>Nov</u> <u>2014</u>	
Initial Standby Value: <u>5946.</u>		Ratio After Standardization: _____			
Cell Standardization (Daily)		Standardization Values:		Standard Info.	
Conductivity must be ± 0.00001 compared to Standard 	Before: _____		K ₁₅ VALUE: <u>0.999</u>		Bath Temperature: <u>24</u> °C
	After: <u>Same</u>		Batch #: <u>Same</u>		Sample Temperature: <u>23.0</u> °C
	Notes: _____		Batch Date: _____		Room Temperature: <u>24.0</u> °C
				Analyst: <u>MS</u>	

[illegible]

Notes:

3:35 pm

need to enter in spreadsheet - #1's / Nisk / Stations, not in Mike file.

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

Cruise ID: FROST1 2014-56 Cast/Station Name: _____ Analysis Date (dd|mmm|yyyy): 26 NOV 2014

Autosal Model: 8400B Serial Number: 68572

Initial Standby Value: 5946 Ratio After Standardization: _____

Cell Standardization (Daily) Standardization Values: Standard Info. Bath Temperature: 24 °C

Conductivity must be ± 0.00001 compared to Standard Before: _____ K₁₅ VALUE: 0.999 Sample Temperature: 23.2 °C

After: Same Batch #: Same Room Temperature: 24.2 °C

Notes: _____ Batch Date: _____ Analyst: MS

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
352	BPT-4	1	1.89393	1.89395		45
353		2	1.88381	1.88389	1.83891	
354		3	1.86250	1.86250		
355		4	1.84362	1.84364		
359		8	1.79570	1.79570		
360		9	1.79071	1.79072		No insert
361		10	1.72219	1.72220		NO insert
363	BPT-3	1	1.91577	1.91578		45
364		2	1.91278	1.91278		
365		3	1.90908	1.90910		
366		4	1.89745	1.89746		
367	BPT-3	1	1.88063	1.88064		45
368		2	1.87514	1.87513		
369		3	1.86149	1.86151		
370		4	1.84244	1.84246		
373		7	1.81903	1.81904		
374		8	1.80046	1.80047		
375		9	1.78917	1.78918		
376		10	1.76625	1.76625		
377		11	1.76650	1.76650		
378	BPT 02	1	1.89216	1.89220	1.89226	45 + raveling
379		2	1.88917	1.88916		
						Final Standby Value: <u>5946</u>

Notes: (22) 4:20 PM Zero: 0.00000

AUTOSAL ANALYSIS LOGSHEET

3:10 pm

Cruise ID: <u>FROST 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>27 NOV 2014</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5932</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____ After: <u>Same</u> Notes: _____	K ₁₅ VALUE: <u>0.999</u> Batch #: <u>Same</u> Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>23.5</u> °C Room Temperature: <u>24.2</u> °C Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
414	CPY 01	1	1.85067	1.85067		45
415		2	1.82652	1.82652		
418		5	1.80803	1.80804		
419		6	1.77674	1.77674		
420		7	1.77152	1.77152		
422	CPY 02	1	1.87791	1.87790		
423		2	1.87265	1.87266		
424		3	1.86698	1.86698		
425		4	1.85796	1.85796		
426		5	1.84018	1.84020	1.84022	
427		6	1.82600	1.82601		
430		9	1.80597	1.80598		
431		10	1.74676	1.74681	1.74680	
432		11	1.71653	1.71654		
434	CPY 03	1	1.97008	1.97008		45
435		2	1.94212	1.94210		
436		3	1.90323	1.90323		
437		4	1.89556	1.89555		
438		5	1.88130	1.88130		
439	CPY 03	1	1.87012	1.87013		45
440		2	1.85259	1.85262		
443		5	1.80984	1.80985		
444		6	1.78523	1.78525		
445		7	1.76288	1.76288		1.71842
446		8	1.71831	1.71834	1.71839	Final Standby Value:
447		9	1.71811	1.71811		<u>5932</u>

Notes: <u>(26) 3:55 pm</u>

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

3:55 pm

Cruise ID: _____		Cast/Station Name: _____		Analysis Date (dd mmm yyyy): <u>27</u> <u>Nov</u> <u>2014</u>	
Autosal Model: <u>8400B</u>		Serial Number: _____			
Initial Standby Value: <u>5932</u>		Ratio After Standardization: _____			
Cell Standardization (Daily)		Standardization Values:		Standard Info.	
Conductivity must be ± 0.00001 compared to Standard 	Before: _____		K ₁₅ VALUE: <u>0.999</u>		Bath Temperature: <u>24</u> °C
	After: <u>same</u>		Batch #: <u>same</u>		Sample Temperature: <u>23.2</u> °C
	Notes: _____		Batch Date: _____		Room Temperature: <u>24.2</u> °C
				Analyst: <u>MS</u>	

[illegible]

Notes:

4:35 pm

AUTOSAL ANALYSIS LOGSHEET

4:35 pm

Cruise ID: <u>FROST1 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>27 Nov 2014</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5932</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____	K ₁₅ VALUE: <u>0.999</u>
	After: <u>Same</u>	Batch #: <u>Same</u>
	Notes: _____	Batch Date: _____
		Bath Temperature: <u>24</u> °C
		Sample Temperature: _____ °C
		Room Temperature: <u>24.1</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
471	MNT-2	1	1.87715	1.87715		
472		2	1.86916	1.86917		
473		3	1.74155	1.74155		
476		6	1.83127	1.83126		
477		7	1.79105	1.79106		
478		8	1.69762	1.69764		
479		9	1.61074	1.61074		
480		10	1.57638	1.57639		
482	MNT-3	1	1.92120	1.92121		4 S
483		2	1.90580	1.90580		
484		3	1.89494	1.89495		
485		4	1.88694	1.88695		
486	MNT-3	1	1.87989	1.87989		4 S
487		2	1.87162	1.87162		
488		3	1.86175	1.86176		
489		4	1.85188	1.85188		
492		7	1.80327	1.80328		
493		8	1.77240	1.77239		
494		9	1.68739	1.68738		
495		10	1.60667	1.60667		
497	MNT-4	1	1.87390	1.87389		4 S
498		2	1.86465	1.86465		
499		3	1.84637	1.84637		
502		6	1.83384	1.83385		
503		7	1.80589	1.80590		Final Standby Value:
504		8	1.77466	1.77466		<u>5932</u>
505		9	1.72011	1.72010		
506		10	1.64593	1.64594		
508	MNT-5	1	1.92411	1.92411		4 S 5:27 pm

AUTOSAL ANALYSIS LOGSHEET

11:55 am

Cruise ID: <u>2014-56</u>	Cast/Station Name: <u>FROST1</u>	Analysis Date (dd mmm yyyy): <u>19 12 2014</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>Arctic 24 + 6044</u>	
Initial Standby Value: <u>6044</u>	Ratio After Standardization: <u> </u>	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: <u> </u>	K ₁₅ VALUE: <u>0.999 84</u>
	After: <u> </u>	Batch #: <u>P156</u>
	Notes: <u> </u>	Batch Date: <u>July 23, 2016</u>
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>22.8</u> °C
		Room Temperature: <u>23.2</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
509	MNT-5	2	1.90758	1.90757		
510		3	1.90065	1.90069		
511		4	1.89020	1.89021		
512	MNT-5	1	1.88631	1.88631		
513		2	1.86885	1.86885		
514		3	1.84264	1.84262		
517		6	1.80344	1.80342		
518		7	1.77074	1.77075		
519		8	1.69159	1.69161		
520		9	1.59968	1.59968		
521		10	1.58286	1.582986		
523	WLK-1	1	1.89009	1.89009		4 f.
524		2	1.87001	1.87000		
525		3	1.84160	1.84139		
528		6	1.81288	1.812		
529		7	1.79658	1.79657		
530		8	1.78351	1.78351		
531		9	1.76358	1.76356		
532		10	1.66299	1.66299		
533		11	1.63982	1.63981		
535	WLK-2	1	1.83791	1.83790		4 f.
538		4	1.83672	1.83670		
539		5	1.79979	1.79979		
540		6	1.76854	1.76854		12:45
						Final Standby Value:

Notes: 24

AUTOSAL ANALYSIS LOGSHEET

12:45

Cruise ID: <u>2014-56</u>	Cast/Station Name: <u>FROST</u>	Analysis Date (dd mmm yyyy): <u>19 12 2014</u>
Autosal Model: _____	Serial Number: _____	
Initial Standby Value: <u>6044</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____ After: _____ Notes: _____	K ₁₅ VALUE: <u>0.999 84</u> Batch #: <u>P156</u> Batch Date: <u>July 23/16</u>
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>23.5</u> °C Room Temperature: <u>24.1</u> °C Analyst: <u>M.S</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
541	WLK-2	7	1.65680	1.65681		
542		8	1.62170	1.62170		
543	↓	9	1.62034	1.62034		
545	WLK-5	1	1.80473	1.80478	1.80480	48
548	↓	4	1.75388	1.75388		
549	↓	5	1.75354	1.75354		
550	↓	6	1.61393	1.61392		
551	↓	7	1.60615	1.60614		
558	ALX-1	1	1.87425	1.87424		48
559	↓	2	1.85915	1.85913		
560	↓	3	1.85028	1.85029		
563	↓	6	1.82079	1.82080		
564	↓	7	1.79459	1.79460		
565	↓	8	1.78141	1.78142		
566	↓	9	1.62957	1.62958		
567	↓	10	1.62608	1.62607		
569	ALX-2	1	1.91465	1.91470	1.91460	48
570	↓	2	1.90428	1.90430		
571	↓	3	1.89487	1.89488		
572	↓	4	1.88488	1.88487		
573	ALX-2	1	1.88029	1.88027		
574	↓	2	1.86558	1.86556		
575	↓	3	1.85274	1.85270		
578	↓	6	1.83613	1.83615		1:33pm
						Final Standby Value:

Notes: 24
 Run Standard as sample = 1.000007 = 35.0003 Salinity
 Run Calibration Calculation

AUTOSAL ANALYSIS LOGSHEET

1:10 pm

Cruise ID: <u>2014-56</u>	Cast/Station Name: <u>FROST1</u>	Analysis Date (dd mmm yyyy): <u>22 12 2014</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>Arctic 69086</u>	
Initial Standby Value: <u>6054</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____	K ₁₅ VALUE: 0.999 <u>84</u>
	After: _____	Batch #: <u>P156</u>
	Notes: _____	Batch Date: <u>J-23-16</u>
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>22.3</u> °C
		Room Temperature: <u>22.6</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
579	ALX-2	7	1.79973	1.79988	1.79988	
580		8	1.77742	1.77741		
581		9	1.63826	1.63840	1.63830	
582		10	1.61702	1.61700		leaking
584	ALX-3	1	1.79855	1.79856		45
587		4	1.75064	1.75064		
588		5	1.65875	1.65874		
589		6	1.63762	1.63761		
590		7	1.63255	1.63254		
592	PWS-1	1	1.89613	1.89611		
593		2	1.86405	1.86406		
594		3	1.85158	1.85157		
595		4	1.82944	1.82945		
596	ALX-4	5	1.80320	1.80321	1.80321	
597		6	1.78704	1.78704		
598		7	1.80320	1.80321		
599		8	1.78704	1.78704		
600		9	1.76535	1.76533		
601		10	1.62980	1.62981		
602		11	1.54867	1.54868		
604	AMN+1	1	1.98384	1.98389	1.98384	45
605		2	1.97820	1.97821		
606		3	1.92096	1.92093		
607		4	1.90395	1.90396		
608		5	1.89915	1.89915		
609		6	1.89124	1.89124		
						Final Standby Value: <u>24 + 6054</u>

Notes:

(24)

1:50 pm

steady as a rock!!

(2)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

158 pm

Cruise ID: <u>FROST 2014-56</u>		Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>22 12 2014</u>
Autosal Model: <u>8400B</u>		Serial Number: <u>Arctic 69086</u>	
Initial Standby Value: <u>6054</u>		Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.	Bath Temperature: <u>24</u> °C
Conductivity must be ± 0.00001	Before: _____	K ₁₅ VALUE: <u>0.999</u> <u>84</u>	Sample Temperature: <u>21.5</u> °C
compared to Standard	After: _____	Batch #: <u>P 156</u>	Room Temperature: <u>23.3</u> °C
	Notes: _____	Batch Date: <u>July 23-16</u>	Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
610	AMN-1	1	1.88461	1.88461		48
611		2	1.87696	1.87695		
612		3	1.86786	1.86787		
615		6	1.85962	1.85963		
616		7	1.83616	1.83615		
617		8	1.80160	1.80164	1.80162	
618		9	1.70543	1.70542		
619		10	1.68773	1.68771		
621	AMN-2	1	1.98787	1.98787		48
622		2	1.98578	1.98578		
623		3	1.97314	1.97315		
624		4	1.94291	1.94292		
625		5	1.91930	1.91930		
626		6	1.90555	1.90556		
627		7	1.88900	1.8899		
628	AMN-2	1	1.88473	1.88475		48
629		2	1.87862	1.87861		
630		3	1.86357	1.86358		
634		7	1.85577	1.85578		
635		8	1.82572	1.82572		leaking
636		9	1.77266	1.77266		
637		10	1.73912	1.73912		
638		11	1.73896	1.73896		
						Final Standby Value: <u>6053</u>

Notes:

(23)

2:45 pm

solid as a rock !!

③

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

3 pm.

Cruise ID: <u>FROST1 2014-56</u>		Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>22 12 2014</u>
Autosal Model: _____		Serial Number: <u>Arctic 69086</u>	
Initial Standby Value: <u>6054</u>		Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.	Bath Temperature: <u>24</u> °C
Conductivity must be ± 0.00001 compared to Standard	Before: _____ After: _____ Notes: _____	K ₁₅ VALUE: 0.999 <u>84</u> Batch #: <u>P156</u> Batch Date: <u>J-23-16</u>	Sample Temperature: <u>21.7</u> °C Room Temperature: <u>23.2</u> °C Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
640	DOL-5	1	1.89445	1.89447		
641	↓	2	1.88915	1.88914		
642	DOL-5	1	1.88200	1.88200		45
643	↓	2	1.87632	1.87634		
644	↓	3	1.86496	1.86497		
645	↓	4	1.86302	1.86302		
646	↓	5	1.85676	1.85676		
647	↓	6	1.82789	1.82789		
650	↓	9	1.80660	1.80660		
651	↓	10	1.80146	1.80143		
652	↓	11	1.80111	1.80113		
654	DOL-4	1	1.98739	1.98755	1.98757	45
655	↓	2	1.98584	1.98586		
656	↓	3	1.97489	1.97489		
657	↓	4	1.95750	1.95750		
658	↓	5	1.93555	1.93556		
659	↓	6	1.91648	1.91655	1.91654	
660	↓	7	1.90176	1.90176		
661	↓	8	1.87305	1.87304		
673	DOL-3	1	1.98862	1.98861		
674	↓	2	1.98508	1.98507		
675	↓	3	1.96694	1.96694		
676	↓	4	1.92045	1.92046		
677	↓	5	1.90338	1.90341		
						Final Standby Value: <u>6053</u>

Notes: 28
3:45 pm.
Smooth as silk!!!

4-

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

4:05 pm

Cruise ID: <u>FROST1 2014-56</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>22 12 2014</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>69086 Arctic</u>	
Initial Standby Value: <u>6053</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____	K ₁₅ VALUE: <u>0.999 84</u>
	After: _____	Batch #: <u>P156</u>
	Notes: _____	Batch Date: <u>July 23-16</u>
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>22.0</u> °C
		Room Temperature: <u>23.4</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
678	DOL-3	6	1.88517	1.88517		
679	↓	7	1.87194	1.87193		
691	DOL-2	1	1.97988	1.97988		45.
692		2	1.91876	1.91879		
693		3	1.90450	1.90450		
694		4	1.89635	1.89630	1.89633	
695		5	1.89810	1.89810		no insert
696	↓	6	1.88023	1.88028	1.88028	
708	DOL-1	1	1.88115	1.88117		45.
709		2	1.87374	1.87374		
710		3	1.86605	1.86605		leaking
711		4	1.84132	1.84133		
712		5	1.82192	1.82193		
715		8	1.80179	1.80179		
716		9	1.74169	1.74168		
717		10	1.73206	1.73208		
718		11	1.73180	1.73181		
719	↓	12	1.73213	1.73210		
Standard			1.99988	0.99994		
P156 - 0.99984			1.99981	0.999905		
- (1.99968)				0.99984		23.3 °C
				0.000065		
						Final Standby Value: <u>6053 @ 4:40 pm</u>

Notes: 15 4:40 pm Lab Temp 23.4 °C