

① **AUTOSAL ANALYSIS LOGSHEET**

111

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>18 Nov 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>24+6033</u>	Ratio After Standardization: <u>1.99984 = 24+6033</u>	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____ After: <u>No adjustments</u> Notes: _____	K ₁₅ VALUE: 0.999 <u>8 to 7</u> Batch #: <u>P161</u> Batch Date: <u>May 3, 2020</u>
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>21</u> °C Room Temperature: <u>22.8</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
1	NP01	1	1.93428	1.93447	49	
2		2	1.92177	1.92177		
3		3	1.88994	1.88995		
4		4	1.87761	1.87760		
* 4		4	1.87759	1.87760		
5		5	1.87702	1.87703		
6		6	1.86932	1.86932		
7		7	1.86896	1.86895		
8	NP02	1	1.96832	1.96833		
9		2	1.96321	1.96322		
10		3	1.95449	1.95450		
11		4	1.94891	1.94891		
12		5	1.94613	1.94615		
13		6	1.94543	1.94543		
14		7	1.93807	1.93807		
15		8	1.90800	1.90800		
27		20	1.86238	1.86238		
* 27		20	1.86241	1.86241		
28		21	1.86256	1.86254		
29		22	1.86313	1.86314		
30		23	1.86364	1.86364		
31	NP03	1	1.96764	1.96764		4f.
32		2	1.96214	1.96214		
33		3	1.95055	1.95055		
34		4	1.94421	1.94421		
* 34		4	1.94433	1.94430		Final Standby Value: _____

Notes: _____

② **AUTOSAL ANALYSIS LOGSHEET**

12:20

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>NOV 18 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>24+6033</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: 0.999 <u>87</u> Batch #: <u>P161</u> Batch Date: <u>May 3, 2020</u>
		Bath Temperature: <u>24.</u> °C Sample Temperature: <u>21.</u> °C Room Temperature: <u>22.7.</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
35	NP03	5	1.94309	1.94309		
36		6	1.94130	1.94128		
37		7	1.93585	1.93584		
38		8	1.90785	1.90785		
39		9	1.88619	1.88617		
40		10	1.86783	1.86785		
41		11	1.86659	1.86660		
42		12	1.86231	1.86232		
44		14	1.86226	1.86227		
45	NP04	1	1.96781	1.96781		45
46		2	1.96192	1.96193		
47		3	1.95276	1.95278		
48		4	1.94683	1.94684		
49		5	1.94404	1.94403		
50		6	1.94286	1.94285		
51		7	1.93174	1.93175		
52		8	1.88985	1.88985		
53		9	1.87430	1.87429		
54		10	1.86803	1.86804		
55		11	1.86672	1.86672		
56		12	1.86479	1.86479		
57		13	1.86239	1.86240		
57		13	1.86239	1.86239		
58		14	1.86033	1.86033		
						Final Standby Value: _____

Notes: _____

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AUTOSAL ANALYSIS LOGSHEET

1:25

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):	
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	<u>NOV</u> <u>18</u> <u>2019</u>	
Initial Standby Value: <u>24+6033</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: _____	K ₁₅ VALUE: <u>0.999</u>	Sample Temperature: <u>21</u> °C
	After: _____	Batch #: _____	Room Temperature: <u>22</u> °C
	Notes: _____	Batch Date: _____	Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
59	NP05	1	1.96759	1.96761		48
60		2	1.96271	1.96270		
61		3	1.95362	1.95364		
61		3	1.95353	1.95353		
62		4	1.94701	1.94703		
63		5	1.94121	1.94121		
64		6	1.93921	1.93920		
65		7	1.93262	1.93261		
66		8	1.87156	1.87155		
67		9	1.86608	1.86609		
68		10	1.86620	1.86621		
69		11	1.86368	1.86369		
70		12	1.86247	1.86247		
71		13	1.86273	1.86274		
72		14	1.86286	1.86286		
74	NP06	1	1.96704	1.96703		48
75		2	1.96132	1.96132		
76		3	1.95217	1.95215		
77		4	1.94269	1.94270		
78		5	1.93682	1.93681		
79		6	1.93323	1.93322		
80		7	1.91774	1.91774		
81		8	1.87202	1.87203		
82		9	1.86804	1.86802		
82		9	1.86800	1.86800		Final Standby Value:

Notes: _____

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AUTOSAL ANALYSIS LOGSHEET

239 pm

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):	
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	<u>NOV 18 2019</u>	
Initial Standby Value: <u>6033</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: _____	K ₁₅ VALUE: <u>0.999</u>	Sample Temperature: <u>21</u> °C
	After: _____	Batch #: _____	Room Temperature: <u>22.7</u> °C
	Notes: _____	Batch Date: _____	Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
83	NP06	10	186590	186591		
84		11	186503	186502		
85		12	186355	186356		
86		13	186305	186305		
87	↓	15	186318	186318		
88	NP07	1	197846	197847		4f
89		2	197449	197449		
90		3	196797	196798		
91		4	196313	196312		
91		4	196315	196313		
92		5	195414	195415		
93		6	194569	194569		
94		7	193686	193688		
95		8	193223	193221		
96		9	191836	191836		
97		10	187732	187730		
98		11	187317	187317		
99		12	187134	187134		
100		13	186944	186944		
102		15	186569	186567		
103		16	186592	186594		
104	↓	17	186585	186584		
105	NP08	1	196837	196838		4f
106	↓	2	196457	196456		
						Final Standby Value: _____

Notes: _____

⑤

AUTOSAL ANALYSIS LOGSHEET

3:25 pm

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	<u>NOV</u> <u>18</u> <u>2019</u>
Initial Standby Value: <u>6033</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: _____	K ₁₅ VALUE: <u>0.999</u>	Sample Temperature: <u>21.5</u> °C
	After: _____	Batch #: _____	Room Temperature: <u>22.5</u> °C
	Notes: _____	Batch Date: _____	Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
107	NP08	3	1.95675	1.95673		
108		4	1.94995	1.94995		
109		5	1.94288	1.94289		
110		6	1.93753	1.93752		
111		7	1.92961	1.92961		
112		8	1.89286	1.89285		
113		9	1.87807	1.87808		
114		10	1.87402	1.87402		
115		11	1.87052	1.87052		
116		12	1.86846	1.86847		
117		13	1.86771	1.86772		
118		15	1.86800	1.86800		
118		15	1.86807	1.86807		
119	NP09	1	1.96856	1.96857		481
120		2	1.96378	1.96381	1.96382	
121		3	1.95562	1.95564		flicker
122		4	1.94972	1.94973		"
123		5	1.94464	1.94463		"
124		6	1.94190	1.94191		
125		7	1.93884	1.93884		
126		8	1.91533	1.91534		flicker
127		9	1.88826	1.88826		
128		10	1.87182	1.87186	1.87184	
128		10	1.87187	1.87186		
						Final Standby Value: _____

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

910

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>Nov 19 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>24+6033</u>	Standby Bath After Standardization: <u>24+6027</u>	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard 	Before: <u>1.999730</u> After: <u>1.999740</u>	K ₁₅ VALUE: <u>0.999 87</u> Batch #: <u>P161</u> Batch Date: <u>May 3/2020</u>
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>21</u> °C Room Temperature: <u>22.0</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
149	NP11	3	1.95812	1.95811		
150		4	1.95209	1.95211		
151		5	1.94679	1.94679		
152		6	1.94394	1.94395		
153		7	1.93715	1.93716		
154		8	1.89499	1.89500		
155		9	1.87729	1.87728		
155		9	1.87710	1.87711		
156		10	1.87426	1.87425		
157		11	1.87274	1.87273		
158		12	1.87142	1.87145	1.87145	
159		13	1.86951	1.86951		
161		15	1.86953	1.86955		
162	NP12	1	1.96592	1.96591		4fl
163		2	1.96096	1.96096		
*163		2	1.96096	1.96096		
164		3	1.95466	1.95466		Slidker
165		4	1.94774	1.94772		
166		5	1.94310	1.94310		
167		6	1.94041	1.94040		
168		7	1.93530	1.93529		
169		8	1.90451	1.90450		
170		9	1.88293	1.88292		
171		10	1.86997	1.86999		
						Final Standby Value:

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

10:am

②

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	<u>NOV 19 2019</u>
Initial Standby Value: <u>24+6027</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</u> Batch #: _____ Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>21.2</u> °C Room Temperature: <u>22.4</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
172	NP12	11	1.86685	1.86685		
173		12	1.86317	1.86318		
174		13	1.85800	1.85802		
176		15	1.85553	1.85553		
177	SLIP-1	1	1.86063	1.86062		4 fl
179		3	1.85952	1.85952		
181		5	1.85702	1.85703		
181		5	1.85701	1.85702		
183		7	1.85588	1.85588		
185		9	1.85462	1.85462		
187		11	1.85493	1.85492		
192	SLIP-2	1	1.86275	1.86275		4 fl
194		3	1.86280	1.86280		
196		5	1.86195	1.86195		
198		7	1.85986	1.85992	1.85992	
200		9	1.86045	1.86046		
202		11	1.85724	1.85723		
204		13	1.85874	1.85874		
211	SLIP-3	1	1.85516	1.85516		4 fl
213		3	1.85498	1.85498		
215		5	1.85484	1.85484		
217		7	1.85244	1.85243		
219		9	1.85208	1.85209		flicker
221		11	1.85054	1.85054		"
						Final Standby Value: _____

Notes: Break 10:45 - to -

AUTOSAL ANALYSIS LOGSHEET

11:30 am

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Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	<u>Nov 19 2019</u>
Initial Standby Value: <u>24+6026</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</u> Batch #: _____ Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: _____ °C Room Temperature: <u>22.7</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
226	SLIP-5	1	1.85119	1.85119		4 fl
228		3	1.85112	1.85113		
230		5	1.85091	1.85091		
232		7	1.85042	1.85042		flicker
234		9	1.84900	1.84900		
236		11	1.84454	1.84454		
241	SLIP-4	1	1.86653	1.86653		4 fl
243		3	1.86327	1.86326		
243		3	1.86330	1.86329		
245		5	1.85440	1.85440		
247		7	1.85295	1.85294		
249		9	1.84922	1.84921		
251		11	1.84911	1.84911		
265	BCL-6a	1	1.89706	1.89706		4 fl - flicker
267		3	1.89706	1.89705		
269		5	1.89724	1.89724		
272		8	1.88278	1.88276		
273		9	1.85646	1.85646		
276	BCL-6c	1	1.89851	1.89851		4 fl
278		3	1.89856	1.89855		
280		5	1.89857	1.89858		
282		7	1.89844	1.89844		
282		7	1.89842	1.89842		
284		9	1.89806	1.89812	1.89815	
						Final Standby Value:

Notes: _____

④

AUTOSAL ANALYSIS LOGSHEET

12:44 pm

Cruise ID: <u>2018-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>NOV 19 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	

Initial Standby Value: 24+6026 Ratio After Standardization: _____

Cell Standardization (Daily) Conductivity must be ± 0.00001 compared to Standard	Standardization Values:	Standard Info.	Bath Temperature: <u>24</u> °C
	Before: _____	K ₁₅ VALUE: <u>0.999</u>	Sample Temperature: <u>21.2</u> °C
	After: _____	Batch #: _____	Room Temperature: <u>22.4</u> °C
	Notes: _____	Batch Date: _____	Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
287	UTBS-5	1	1.89641	1.89643	1.89646	4 fl
289	↓	3	1.89640	1.89640		
291	↓	5	1.89640	1.89640		
293	↓	7	1.89629	1.89631		
295	↓	9	1.89529	1.89529		
299	UTBS-2	1	1.89656	1.89659	1.89657	4 fl
301	↓	3	1.89656	1.89657		
303	↓	5	1.89654	1.89655		
305	↓	7	1.89660	1.89660		
307	↓	9	1.88250	1.88250		flicker
311	UTBS-2a	1	1.87011	1.87012		4 fl
313	↓	3	1.87016	1.87017		
315	↓	5	1.87055	1.87055		
317	↓	7	1.87202	1.87203		
321	UTBS-1	1	1.89791	1.89790		4 fl
321	↓	1	1.89760	1.89757	1.89759	flicker
323	↓	3	1.89778	1.89779		
325	↓	5	1.89770	1.89777	1.89780	flicker
327	↓	7	1.89771	1.89771		
329	↓	9	1.87578	1.87579		
344	UTBS-4	1	1.89829	1.89838	1.89839	4 fl flicker
346	↓	3	1.89835	1.89834		flicker
348	↓	5	1.89821	1.89821		
350	↓	7	1.89818	1.89818		
						Final Standby Value: _____

Notes: Lunch 10 pm

AUTOSAL ANALYSIS LOGSHEET

1:30 pm

5

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>NOV 19 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>24+6026</u>	Ratio After Standardization: <u> </u>	

Cell Standardization (Daily) Conductivity must be ± 0.00001 compared to Standard	Standardization Values: Before: _____ After: _____ Notes: _____	Standard Info. K ₁₅ VALUE: 0.999 _____ Batch #: _____ Batch Date: _____	Bath Temperature: <u>24.</u> °C Sample Temperature: <u>21.4</u> °C Room Temperature: <u>22.6.</u> °C Analyst: <u>Mary Steel</u>
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Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
352	UTBS-4	9	1.89603	1.89604		4 fl
354	BRS-2	1	1.86005	1.86004		4 fl
356	↓	3	1.85945	1.85946		
358	↓	5	1.85842	1.85841		
360	↓	7	1.85736	1.85736		
362	↓	9	1.86119	1.86118		
362	↓	9	1.86116	1.86114		
364	BRS-3	1	1.87295	1.87296		4 fl
366	↓	3	1.87266	1.87264		
368	↓	5	1.87248	1.87247		
370	↓	7	1.87232	1.87232		
372	↓	9	1.86290	1.86290		
374	BRS-4	1	1.88240	1.88240		4 fl
376	↓	3	1.88241	1.88240		
376	↓	3	1.88235	1.88234		
378	↓	5	1.87906	1.87905		
380	↓	7	1.87501	1.87500		
382	↓	9	1.87301	1.87301		
386	UTN-1	1	1.86333	1.86333		4 fl
388	↓	3	1.86403	1.86406	1.86407	
390	↓	5	1.85910	1.85912		
392	↓	7	1.85733	1.85732		
394	UTN-2	1	1.88931	1.88932		4 fl
396	↓	3	1.88948	1.88949		
						Final Standby Value: _____

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

3:10

⑦

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>Nov 19 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>24+6027</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: 0.999 _____ Batch #: _____ Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>21.3</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
465	SEC-8	7	1.76348	1.76348		
468	SEC-7	1	1.80746	1.80746		4f1
470	↓	3	1.80494	1.80494		
472	↓	5	1.79992	1.79992		
474	↓	7	1.79619	1.79618		
476	↓	9	1.79329	1.79328		
480	SEC-6	1	1.84720	1.84720		4f
482	↓	3	1.84530	1.84530		
484	↓	5	1.83449	1.83447		
486	↓	7	1.82712	1.82712		
488	↓	9	1.82088	1.82087		
492	SEC-5	1	1.85669	1.85669		4f
492	↓	1	1.85673	1.85672		
494	↓	3	1.85539	1.85539		
496	↓	5	1.85507	1.85507		
498	↓	7	1.85325	1.85325		
500	↓	9	1.84155	1.84155		
516	SEC-4	1	1.87166	1.87167		4f1
518	↓	3	1.87039	1.87039		
520	↓	5	1.86804	1.86806		
522	↓	7	1.86692	1.86690		
524	↓	9	1.86508	1.86509		
528	SEC-3	1	1.88261	1.88262		4f1
530	↓	3	1.88333	1.88334		
						Final Standby Value: <u>6027 @ 4:02 pm</u>

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

9:10am

Cruise ID: 2019-78 Cast/Station Name: SWL Analysis Date (dd | mmm | yyyy): NOV | 20 | 2019
 Autosal Model: 8400B Serial Number: 68572
 Initial Standby Value: 24 + 6027 Ratio After Standardization: same

Cell Standardization (Daily) Conductivity must be ± 0.00001 compared to Standard	Standardization Values: Before: _____ After: <u>no adjust</u> Notes: <u>memo</u>	Standard Info. K ₁₅ VALUE: 0.999 <u>87</u> Batch #: <u>P161</u> Batch Date: <u>May 3, 2020</u>	Bath Temperature: <u>24</u> °C Sample Temperature: <u>21.0</u> °C Room Temperature: <u>22.3</u> °C Analyst: <u>Mary Steel</u>
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Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
532	SEC-3	5	1.87742	1.87742		4 f1
534	↓	7	1.87418	1.87419		
534	↓	7	1.87423	1.87422		
536	↓	9	1.86362	1.86362		
538	↓	11	1.85112	1.85112		
544	SEC-2	1	1.88739	1.88739		4 f1
546	↓	3	1.88308	1.88309		
548	↓	5	1.87736	1.87735		
550	↓	7	1.87196	1.87196		
552	↓	9	1.86220	1.86219		
557	SEC-1	1	1.88931	1.88932		4 f1
559	↓	3	1.89040	1.89041		
561	↓	5	1.88660	1.88662		
563	↓	7	1.88184	1.88184		
565	↓	9	1.87219	1.87219		
570	UTN-7	1	1.89226	1.89226		4 f1
572	↓	3	1.89211	1.89211		
574	↓	5	1.89023	1.89023		
576	↓	7	1.89196	1.89197		
578	↓	9	1.88899	1.88899		
578	↓	9	1.89196	1.89196		
580	↓	11	1.85215	1.85215		
583	DB04.6n	1	1.86296	1.86297		4 f1
585	↓	3	1.86340	1.86340		
						Final Standby Value: _____

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

10/05

Cruise ID: 2019-78 Cast/Station Name: SWL Analysis Date (dd | mmm | yyyy): NOV | 20 | 2019
 Autosal Model: 8400B Serial Number: 68572
 Initial Standby Value: 24 + 6027 Ratio After Standardization: _____

Cell Standardization (Daily) Conductivity must be ± 0.00001 compared to Standard	Standardization Values:	Standard Info.	Bath Temperature: <u>24</u> °C
	Before: _____	K ₁₅ VALUE: 0.999	Sample Temperature: <u>21.0</u> °C
	After: <u>same</u>	Batch #: <u>same</u>	Room Temperature: <u>22.1</u> °C
	Notes: _____	Batch Date: _____	Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
587	DB04.6n	5	1.84499	1.84500		
589	↓	7	1.78803	1.78802		
* 589	↓	7	1.78418	1.78419		
591	↓	9	1.72487	1.72486		
596	DB04.5n	1	1.86684	1.86685		4 fl
598	↓	3	1.86697	1.86697		
600	↓	5	1.83574	1.83574		
602	↓	7	1.80656	1.80653	1.80685	slicker
604	↓	9	1.70684	1.70684		
609	DB04.4n	1	1.86750	1.86752		4 fl
611	↓	3	1.86722	1.86723		
613	↓	5	1.83556	1.83557		
615	↓	7	1.81085	1.81084		
617	↓	9	1.72177	1.72176		
* 617	↓	9	1.72152	1.72152		
633	DB04.3n	1	1.84448	1.84447		4 fl
635	↓	3	1.85451	1.85451		
637	↓	5	1.83648	1.83648		
639	↓	7	1.81797	1.81801	1.81803	
641	↓	9	1.72297	1.72297		
647	DB04.2n	2	1.85805	1.85809	1.85809	4 fl
648	↓	3	1.84984	1.84983		
648	↓	3	1.84841	1.84841		
650	↓	5	1.83507	1.83507		
						Final Standby Value: _____


Notes: _____

 break @ 10:55

AUTOSAL ANALYSIS LOGSHEET

11:25 am

Cruise ID: 2019-78 Cast/Station Name: SWL Analysis Date (dd | mmm | yyyy): Nov | 20 | 2019
 Autosal Model: 8400B Serial Number: 68572
 Initial Standby Value: 24 + 6027 Ratio After Standardization: _____

Cell Standardization (Daily) Conductivity must be ± 0.00001 compared to Standard 	Standardization Values: Before: _____ After: _____ Notes: _____	Standard Info. K ₁₅ VALUE: 0.999 _____ Batch #: _____ Batch Date: _____	Bath Temperature: <u>24</u> °C Sample Temperature: <u>21.4</u> °C Room Temperature: <u>22.5</u> °C Analyst: <u>Mary Steel</u>
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Sample	Station Name	Depth / Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
652	DB04.2n	7	1.82236	1.82236		4f.
654		9	1.73651	1.73652		
659	DB04.1n	1	1.85925	1.85926		4f.
661	↓	3	1.85768	1.85768		
667	↓	3	1.85786	1.85786		
663	↓	5	1.83710	1.83711		
665	↓	7	1.81945	1.81945		
667	↓	9	1.74438	1.74436		
672	Barc-10	1	1.85400	1.85400		4f.
674	↓	3	1.84802	1.84800		
676	↓	5	1.83664	1.83666		
678	↓	7	1.83144	1.83144		
680	↓	9	1.82122	1.82122		
682	↓	11	1.73177	1.73177		
685	Barc-9	1	1.85693	1.85694		4f all sample
687	↓	3	1.85168	1.85169		#'s for Barc-9
*687	↓	3	1.85168	1.85168		were changed
689	↓	5	1.83754	1.83754		by ascending
691	↓	7	1.82720	1.82720		
693	↓	9	1.81363	1.81364		
695	↓	11	1.74074	1.74076		
700	Barc-8	1	1.86091	1.86092		4f
702	↓	3	1.84497	1.84496		
704	↓	5	1.83784	1.83783		
						Final Standby Value: _____

Notes: _____

④

AUTOSAL ANALYSIS LOGSHEET

12:10 pm

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>NOV 20 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>108572</u>	
Initial Standby Value: <u>24 + 6027</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: 0.999 _____ Batch #: _____ Batch Date: _____
		Bath Temperature: <u>24.</u> °C Sample Temperature: <u>21.3</u> °C Room Temperature: <u>22.4</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
706	Barc-8	7	1.82639	1.82640		
708		9	1.80674	1.80675		
710		11	1.74185	1.74189	1.74193	
715	Barc-7	1	1.86582	1.86582		4f.
717		3	1.84647	1.84649		
719		5	1.83840	1.83840		
<hr/>						
721		7	1.83106	1.83105		
723		9	1.81341	1.81342		
* 723		9	1.81383	1.81383		
725		11	1.78628	1.78627		
730	Barc-6	1	1.86275	1.86276		4f1
732		3	1.85970	1.85969		
734		5	1.84574	1.84574		
736		7	1.83793	1.83793		
738		9	1.83352	1.83359	1.83359	
740		11	1.81003	1.81003		
742		13	1.79205	1.79205		
747	Barc-5	1	1.85270	1.85270		4f1.
749		3	1.85280	1.85280		
* 749		3	1.85273	1.85274		
751		5	1.85254	1.85254		• Jumping all around ↳ water overflow
753		7	1.82897	1.82897		
755		9	1.79857	1.79858		
756		10	1.76457	1.76458		
						Final Standby Value: _____

Notes: _____

5 AUTOSAL ANALYSIS LOGSHEET

1:10 pm

Cruise ID: <u>2019-78</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>NOV 20 2019</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>24+6027</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: _____	Batch #: _____
	Notes: _____	Batch Date: _____
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>21.3</u> °C
		Room Temperature: <u>22.2</u> °C
		Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
758	Barc-5	12	1.85287	1.85287		
771	Barc-4	1	1.84890	1.84891		
773		3	1.84891	1.84891		
775		5	1.84813	1.84813		
777		7	1.84409	1.84408		
779		9	1.83758	1.83759		
781		11	1.83437	1.83436		
783		13	1.80544	1.80545		
786		16	1.78573	1.78572		
788	Barc-3	1	1.83404	1.83404		4 f1.
790		3	1.83403	1.83405		
792		5	1.83234	1.83234		
794		7	1.82709	1.82710		
796		9	1.81976	1.81977		
798		11	1.81687	1.81686		
800		13	1.80959	1.80960		
800		13	1.80961	1.80961		
803	Barc-2	1	1.81481	1.81481		4 f1.
805		3	1.81482	1.81481		
807		5	1.81460	1.81461		
809		7	1.81453	1.81453		
811		9	1.81348	1.81349		
813		11	1.81092	1.81092		
						Final Standby Value: _____

Notes: 752 Barc-5 - 6 | 1.84895 | 1.84895 was open leaking

752
SAL
BarC-5
301
2019-78
Bot 6

(6) AUTOSAL ANALYSIS LOGSHEET

1:55 pm

Cruise ID: 2019-78 Cast/Station Name: SWL Analysis Date (dd | mmm | yyyy): NOV | 20 | 2019
 Autosal Model: 8400B Serial Number: 68572
 Initial Standby Value: 24+6027 Ratio After Standardization: _____

Cell Standardization (Daily) Conductivity must be ± 0.00001 compared to Standard	Standardization Values:	Standard Info.	Bath Temperature: <u>24</u> °C
	Before: _____	K ₁₅ VALUE: <u>0.999</u>	Sample Temperature: <u>21.1</u> °C
	After: _____	Batch #: _____	Room Temperature: <u>22.5</u> °C
	Notes: _____	Batch Date: _____	Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
818	Barc-1	1	1.81157	1.81158		4 fl.
820		3	1.81158	1.81158		
820		3	1.81153	1.81153		
822		5	1.81082	1.81081		
824		7	1.80974	1.80975		
826		9	1.80971	1.80960	1.80954	
4 flushed B4 Loops						
LOOP 1	2019-78		1.84948	1.84948		July 4
LOOP 2	"		1.86517	1.86517		" 7
LOOP 3	"		1.87432	1.87432		" 9
LOOP 4	"		1.89665	1.89663		" 15
LOOP 5	"		1.87552	1.87553		" 16 cool
LOOP 6	"		1.84351	1.84352		" 18 42
LOOP 7	"		1.74788	1.74787		" 18 60
LOOP 8	"		1.71229	1.71229		" 20
4 flushed B4 HM LOOPS						
LOOP 9	HM	Sample 1	1.60001	1.60000		Oct 4 2019-90
LOOP 10	HM	Sample 2	1.84480	1.84488	1.84491	Oct 9 2019-90

Salt H₂O calculated from paper salt
 value 27.2706
 31.9682

Loop 1 2019-78 SWL 4 Jul 19 SALT	LOOP 13 2019-78 SWL 7 Jul 19 SALT LOOP 2	LOOP 3 25 24 2019-78 SWL 9 Jul 2019 0923:44	Loop 4 50 2019-78 SWL July 15 11:08 UTC	Loop 5 2019-78 SALT 16 Jul 19	Loop 6 42 2019-78 SWL 18 Jul 19 08:50:04	LOOP 7 60 2019-78 SALT 19 July 0708	Loop 8 67 2019-78 SALT 20 July 0708
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Final Standby Value: 6027

Notes: Loop 2 2019-90 SWL Sample 1 4 Oct 2019 14:07 Loop 1 2019-90 SWL Sample 2 9 Oct 2019 14:20