*Event numbers 385, 386, 392, 393, 394, 395, 396, and 408 had the station names edited to remove the "ROS" portion of the name

DAILY SCIENCE LOG

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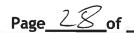
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Month	August			Year	2020			Ship JP Tully	27.		Cı	ruise I	D: 2020		50
Event Number	Station Name	Day	Time	Time	Cast	Firing		Information	Bottom	Max	Sample	# of	Watch	Trans.	Comments
		11 5	(UTC)	Code	Туре	Method	Latitude	Longitude	Depth	Pressure	Numbers	Bottles	Keepers	Cleaned	1
270	GLCSD6C		5:54	BE	ROS		51 54.830		145				CH		
		05	5:58	Bo			54.830	38,170	145	142					5 mas
			06:01	EN			54.830	38.180							
349	acsin	05	0642	BE	ROS	/	51 54.648	128 35.080	132		1	/	CH	1	
<u>.</u>	DOC 4		0645	DO			54 650	33.100		128					Tral
			0649	EN			54,653	33,130							
350	LOOP	05	0708		Loop		51 52.498	128 33.320	112		5350	1	CM		
351-				RE	Ras	/		128 16.110	and the second se		5 50	1	CH		
e de como			0841	30	1	-	45.840	16.090		137			- ST		5.1
			0843	EN			45.840	16.090	6.7.	())		_			5 was
352	GLOF	CES.	0911	BE	Ros	1		128 20.170	146			- 7	011	10	
		02	0915				44.770	20,150	L	142	->		CH		Smas
			0918	EN			44.160	20,140	140	174		_			Jras
353	GE 06	225		BE	ROS		1		1.15				0		
112	0 - 00	OS	0946		ROD		51 43 80	128 54.51	148				CW		
			0949	BO			43,80	24.49		144		_			
				GN			43.77	24,470		· · · ·					
3521	GIOS	05	1019	BE	ROS		51 42,20	128 28,39	1-178		/	/	Cw		oxygen trace is
			10 22	BO			42.18	2=6-36		144					"interestive"
			1025	EN			42.16	22.36							
CTD = ROS =								D = Bottom Time of Cast		rment Time nger Release er Mooring Tin	Time		eaned before Vater Propert		t, do not use Ammonia pro 105 WaterProperties.ca Version: 16 April 2010

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Month	August			Year	2020			Ship JP Tully			C	ruise I	D: 2020		ge01
Event	Station	Day	Time	Time	Cast	Firing		Information	Bottom	Max	Sample	# of	Watch	Trans.	Comments
Number	Name		(UTC)	Code	Туре	Method	Latitude	Longitude	Depth	Pressure	Numbers	Bottles	Keepers	Cleaned	
355	6104	05	1100	RE	Ros		51 40.980	128 34.060	125		Non-sector and the sector and the sector and the		CUD		FL trace sinularia
			1103	BO			40.95	34.040		121					- 15 - 02 655 Messury
			11 00	J.N)			40, 940	34.010							
356	GT03	65	1128	BE	ROS		51 4/0.380	12-836.92	36				Cw	~	transtrace is class
			130	BU			40.35	36.89		31					an the battom.
			1131	EN			40.33	36.88							
357	GIOL	05	1158	BÉ	NET		5139,291	128 40.604	37			/	cw/TF		
			1159	60			51 39.286			27					
			1159	EN		0	51 39.284								
358	6102	05	1211	BE	ROS		5139.220		39				a	1	39m)
			TLZ	BO			39.210	40.300		34				\	VIm Juaie
	1		12 H	EN			39.20	40.360							
59	6101	05	1250	BE	ROS	/	51 37.450	128 46,400	40		/	/	СИ	V	
			1253	BO			37.420	48.380	41	35					
			1255	EN			37.400	46. 380							
60	COOK BANK	06		RE	MOR										
361	BIL	05	2017	VE	ROS	/	5182.944	128°12,166	146			1	10	1	
			2021	BO			51°22.908	126°12.128		142					
			2024	EN			61°22916	126-12.115							
CTD = C	ottle cast, no TD without R losette plus C ish Set	osette	USW = Se MOR = Mo NET = Pla DRF = Dr	ankton Net H		tie Firing M US = Up / S UN = Up / N DN = Down	top BE lo stop BC	= Beginning Time of Cast) = Bottom Time of Cast		ment Time nger Release Tiu r Mooring Time	me		eaned before later Properti		, σο not use Ammonia products IOS WaterProperties.ca _ Version: 16 April 2010

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Month	August			Year	2020			Ship JP Tully			C	ruise I	D: 2020)-069	
Event Number	Station Name	Day	Time (UTC)	Time Code	Cast Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Numbers	# of Bottles	Watch Keepers	Trans.	Comments
62	CPEI	05	2322	EN	NET		51°60,000		149		Mullibers	Dotties	Recpers	Cicaned	
63	CPEI	65	2328	BE	RUS		51°00,000		1				L.M		
			2334	BO			50°59,990	127 50,090		143					
			2338	EN			50° 59.970	127050.070							
64	acs4	0.6	0215	BE	Ras	/	50 46.760	127 24.290	407		/	/	CH	~	
			0223	Bo			46,730	24,290	422	419					6 mas
			231	EN			46.720								
65	UCS3	06		BE	Ros	/	50 43.760		212			/	CH	V	
			0337	BO			43.770	15.110	212	210					That
1			0341	EN			43.790	15.120							
66	QCS6	06	0507	BE	ROS			126 57.020	198				w	~	
			0511	BO			42.040		198	195					5 malr
			0515	EN.			42.040	57.030				_			20101
F	LOOP	06	0520	BE	Lasp		50 41.967	126 56.932	198		5367	_	TF		5367 Loup 2 XCHL IX Sal
8	QSCI	06	0615	BE	ROS		5040.109	121,46.367					Cw		
			0619	BO			40.130	46.342	157	154		_			5 mab
			0622	EN			40.140	46.318							
		1													
CTD = 0	Bottle cast, no TD without R Rosette plus C	osette	USW = Se MOR = Mo NET = Pla DRF = Dri	oring Inkton Net I		ttie Firing M US = Up / S UN = Up / N DN = Down	Stop BE No stop BC	= Beginning Time of Cast = Bottom Time of Cast		ment Time nger Release Ti r Mooring Time	īme		eaned betor		t, αο not use Ammonia produc 105 WaterProperties.ca

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Month	August			Year	2020			Ship JP Tully			Cr	uise I	D: 2020	0-069	
Event Number	Station Name	Day	Time (UTC)	Time Code	Cast Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
69	CPEI	07	0/100	BE	ROS		50 59,950	127 49.990	152				SP		
			0103	BO			59,950			147			~ 1		
			6105	EW			59.960	50.000							
370	CC 7	9	0232	BE	Res	/	51 10.434	128 0.530	101		/	/	CY	1	Swell Can't
			0236	BO			10.428	0.586	101	97					start at Im.
			0238	EN			10.429	0.624							
371	666	07	0309	BE	ROS	6	51 10.595	127 57.227	132			/	CH	/	
			0313	Bo			10,597	57.226	132	128				-	Fras
2			03/6	EN	-		10,558	57.296						\$	forget to stop arch
372	CC 5	07		BE	205		51 10.606	127 54.157	121		/		H	V	+ stop pump.
			0352	Bo			10.602	54,180	120	116					5 mas
373	CC 4		0355		Ras		10,606	54, 194	1 - 4						
		07	0426	BE	ROS		51.10.550		104				CM		5 mas.
_			0433	BUEN			10.530	51.150	101	100) Kas
374	CC 3	07	0	BE	RAS		51 16,530		93		/	/	CM	/	lost connect
			0514	BO			10,540			89			/	har	point way
				EN											through cast
CTD =	Bottle cast, no CTD without F Rosette plus C Fish Set	losette	MOR = Mor	ankton Net I	Haul	ttle Firing M US = Up / S UN = Up / N DN = Down es:	Stop BE No stop BC	E = Beginning Time of CastD = Bottom Time of Cast		yment Time enger Release Ti er Mooring Time	īme		eaned befor /ater Propert		t, do not use Ammonia products <i>IOS</i> WaterProperties.ca _ Version: 16 April 2010

Soto Sal Elit legt surface Sol d Japan Flation low - 73 ~ 5 29 CC7 CC6 CCS

EVENT 374 - returned to rurface. turned deck unit off. whitdown Seasance restarted.

(4)

over wrote her file.

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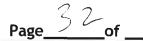
	August			Year	2020			Ship JP Tully			Cr	uise I	D: 2020		geOr
Event Number	Station	Day	Time	Time	Cast	Firing		Information	Bottom	Max	Sample	# of	Watch	Trans.	Comments
	Name		(UTC)	Code	Туре	Method	Latitude	Longitude	Depth	Pressure	Numbers	Bottles	Keepers	Cleaned	
375	CCL	07	0552	BE	Ros		51 10,500					/	CH	1	
			0555	BO			10.570	49.050	72	66					
			0557	EN			10,580	49.050							
76	CC1	07	0617	ßE	Ros	/	51 10,5-77	127 48.131	13		/	/	CH	~	
			0619	Bo	· ·		10.583	48,138	33	27					Swab
			0621	EN			10,589								
371	LUOP	07	0627	BE	LOOP		51 10.558		33	12000	5377		Cur/FT		
378	JS1	08	0138	BE	ROS	/	5033.060		456			/	L.M	~	
			0147	BO			33.070			456					
			0154	EN			33.100								
379	3505	80	0353	BG	ROS		50 29,960	12622.50	365				Cw	~	
			0400	RU			29990	02.570	362	361			CW		Smel
			0407	EN			30.040	23 580	000				Ì		
380	5380	08	0641	BE	LOOP		50.23.998	125.56.047	le u	-	5380*		CWT	E.	J58.5 uns conceller due to current x2 che + 1 x sal
381	CHPI	58	0'854	BE	ROS		5020760	12525.960	308				Cw		1.5kt current
			0900	30			20.7-60	2	308	322		$\overline{)}$	Citr		5 mab altimotes
C.I.	Lig II		0906	EN			20.750	25-90	Sourcher			2 10			ondu aprimote
				1.1										L+ h	alabelled 5830
				2. 1									- rug	N. D	erenado os do
CTD = 0	Bottle cast, no CTD without R Rosette plus C Fish Set	osette	USW = Se MOR = Mo NET = Pla DRF = Dr	ooring ankton Net I		US = Up / S US = Up / S UN = Up / N DN = Down	top BE lo stop BC	= Beginning Time of Cast D = Bottom Time of Cast		ment Time nger Release Ti r Mooring Time	ime		eaned betore		, do not use Ammonia products OS WaterProperties.ca Version: 16 April 2010

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Month	August			Year	2020			Ship JP Tully			Cru	lise I	D: 2020		
Event Number	Station Name	Day	Time (UTC)	Time Code	Cast Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
262	16	8	1156	BES	ROS	05	4957.601	12508,899	150		1230-1240	11	Cw)	Langer	
			1159	BO			57.596	08.902	150	146					Somal
	QU-39		1213	ÉN			50 57-60	68.910	269						
383	QU-39	8	1338	BE	NET	-	49-01.839		269						
	17-		1346				01.870	05,581		250		-	cw/		benjo VNH
384	#	A.	1350	EN			01.889	05.601					CH'		9
384	2Y-39	8	14/03	BE	ROS	抵	50 1,922	12.5 5,647	269			-	SP	1	
			1408	BO			1.931	5.651		265					
001	ONI WY	~	1412	EN	11		1.932	5.656							
365	R8514	4		KE	NET										
				160											
346	ROSH	4	1557	EN	ROS	115	49° 53.060	124° 59.720	313			17	AA	-/	
200	NYJI	-0	1602	BO	194U	-M-J	53.110	59.750	510	311		15	EU_		
			1619	EN			53.140	59.700	-	JIC		-			changed vent forcing ofter cas
387	BOGN	OK	1725	1 Elv	GRAB		49 50,219		336				DS		worden venetering over cas
88		08	1740	BE	ROS	VS	49 49,934	124 52.218	336				50		
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			1747	BU	/		49.915	32,232		3.33	1256-1271				
			1605	EN			49,790	\$2,231			1				
CTD = ROS =	Bottle cast, no CTD without R Rosette plus C Fish Set	osette	USW = Se MOR = Mo NET = Pla DRF = Dr	ooring ankton Net I	Haul	US = Up / S UN = Up / N UN = Up / N DN = Down	Stop BE No stop BC	E = Beginning Time of Cast D = Bottom Time of Cast		ment Time nger Release T r Mooring Tim	Time		Vater Propert		t, do not use Ammonia products 205 WaterProperties.ca _ Version: 16 April 2010

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Month	August			Year	2020			Ship JP Tully	-		Crı	lise I	<b>D:</b> 2020	0-069	
Event Number	Station Name	Day	Time (UTC)	Time	Cast	Firing		Information	Bottom	Max	Sample	# of	Watch	Trans.	Comments
389	(	8		Code	Type	Method	Latitude	Longitude	Depth	Pressure	Numbers	Bottles	Keepers	Cleaned	
V	SOGN		1839	DE	MOR		49049.915	124052.204	336						
390	Worm Ajat	08	1955	86	ROS		49043.990	124046.550	269				LM	$\checkmark$	
			2001	80			44.000	46.540		267					
			2006	EN			44.010	46.540							
391	NorthApp	08	2047	DE	MOR		490 49.912	1240 46510	266			النتي ا			
392	ROS12	08	2234	EN	NET	1	490 -13.490	124040,977	349						
393	Rosiz	08	2246	BE	ROS	US	49043,580	124040.950	350		1272-1287	16	LM		
			2255	30			43.560	40.980		348					
			2314	GIV			43,540	41.000							2
3941	Ros 9	09	0656	BE	Ros.	65	49035540	124038.310	167		12.88-17.98		L,M		
			0059	BO			35,550			162					
			0109	EN			35,550		J.M.						
395	RUSM	09	0.115	BO!	GRAB		49° 3555	124038.340	167			1			
396	Ros6	09	0226	B.E.	Ros	US	49 30.740	124 27.830	192		1299-1309	11	CH		Not som utere
			0232	BO			30,740	27,830	192	188				2	Sottle 5 tripped.
			0248		×		30,740	27.770		700					Must here fre plan
397-	CPF2	09	0326	BE	NGT		49 28.125	124 29.889	320				cwlcH		
	MIN.	01	· · · · · · · · · · · · · · · · · · ·	BÓ	IN SI		1	10 II 01 0 I	500	2.0			CUICE		som uce b.
			0335				28,195	29.819		310					
	Bottle cast, no		UJYU	010		ttle Firing M	28.234	29,796							

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Month	August			Year	2020			Ship JP Tully			Cru	lise I	<b>D:</b> 2020	0-069	
Event Number	Station Name	Day	Time (UTC)	Time Code	Cast Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
398	3	09	0442	BE	Ras	US	49 26, 590				1316-1324	15	M		
			0445	-			26.600	20.210	322						
			0511	EN	P		26.580	20.210							
399	2	09	0610	BE	R05	US	4924.120	124 09 310	277		1325-1339	15	au	~	
		1	0616	BO			24.110		277	273.5					
			0634	EN			24.07	9.33							
400	24	09	0731	BE	NET			124 05.905	423				CWICH		Dengo UNH
				BO			30, 193			410					
VS 0		-	0750	EN			30. 198			· · · · · · · · · · · · · · · · · · ·	-				
401	24	09		BE	ROS		47 30.215		423				CM	V	
			0810	BG			30.211	5.934		421					5 mah
11.0		1 -	0818	~	115-		30.212								
402	CPFI	04	0918		NET	-	49 21.908		239				CWCH		HUNDORION
			0925	BO			21.905				230				
403	CPP1.		0929		0 - C		21.920	1	0.110				0/1		
105	Chri		0939		ROS		49 21.990		243	24.			CM	V	
							21.980	04.910	2:13	240					5 mas.
			0930	EN			21,970	04,900				•			
CTD = 0 ROS =	BOT = Bottle cast, no CTD MOR = Mooring   CTD = CTD without Rosette NET = Plankton Net Haul   ROS = Rosette plus CTD DRF = Drifter					US = Up / S UN = Up / N DN = Down es:	Stop BR No stop BC	E = Beginning Time of Cast O = Bottom Time of Cast		rment Time nger Release ⁻ er Mooring Tim	Time		eaned befor Vater Propert		t, do not use Ammonia prov 105 WaterProperties.ca Version: 16 April 2010

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Month	August			Year	2020			Ship JP Tully			Cru	ise I	<b>D:</b> 2020		3601
Event Number	Station Name	Day	Time (UTC)	Time Code	Cast Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
104	5404	09	100%		Loop	-	4921,483		- Deptil	Tressure	5404	Dotties	CW	Cleaned	hast of the boops
405	27	09	1108	BE	Ros	US	49 19.000		347		1340-1355	16	CH	1	100 0 102 0 mp
			11/6	80			19.000		347	344					6 mab
	GE01	09	1138	EN			19,036	48.066							
406	237		1225	BE	NET		49 14.967	123 44, 860	398						
			1237	Ba			419.14.995	123 44,872	i.	390					
			1244	EN			49 15.008	123 44, 886	19 A		1356-1372	-17-	-EH-		
107	GEOI	09	1343	BE	Res	US	49 15.000	123 44. 890	399		1356-1372	17	CM	J	
			1351	Do			14.989	44. 879	329	397					4 mas
10.744			1414	EN			14:982	*							
108	R0539	09	152	BE	ROS	US	49009,700	123033.120	377		1373-1388	16	L.M	1	
			1529	30			09,720	33.020		374					
			1548	EN			09,780	33.090							
107	GSC	09	1652	0E	Ros	5	4911.550	123° 20.770	189				05		
			1658	Bo			11.540	123°20.780		185					
			1702	EN			11-570	123020.790							
410	GGC	09	1704	EN	MOR	~	49011.568		189			~			189 m
411	GSS	09	1831	EN	MOR		4838.862	123024.302	242						24/21
CTD = ROS =	t iype:   USW = Sea water Loop     BOT = Bottle cast, no CTD   MOR = Mooring     CTD = CTD without Rosette   NET = Plankton Net Haul     ROS = Rosette plus CTD   DRF = Drifter     SET = Fish Set							O = Bottom Time of Cast		rment Time nger Release ⁻ er Mooring Tim	Time		eaned before		on ot use Ammonia products OS WaterProperties.ca Version: 16 April 2010

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Month	August			Year	2020			Ship JP Tully			Cru	uise I	<b>D:</b> 2020	)-069	
Event	Station	Day	Time	Time	Cast	Firing		Information	Bottom	Max	Sample	# of	Watch	Trans.	Comments
Number	Name		(UTC)	Code	Туре	Method	Latitude	Longitude	Depth	Pressure	Numbers	Bottles	Keepers	Cleaned	
412	655	09	1836	BE	ROS		48°58.880	123°24.330	242				L.M	$\checkmark$	
			1842	BO			°58.870	°24.330		240					
			1847	EN			\$58.870	024.330							donel
												1			
	CTD without R Rosette plus C	losette	USW = Se MOR = MO NET = Pla DRF = Dri	ooring ankton Net I	Haul	ttle Firing M US = Up / S UN = Up / N DN = Down es:	top BE lo stop BC	= Beginning Time of Cast = Bottom Time of Cast		ment Time nger Release Ti r Mooring Time	me				, do not use Ammonia products OS WaterProperties.ca Version: 16 April 2010