CRN

DAILY LOG

INSTITUTE OF OCEAN SCIENCES

OCEAN PHYSICS

DATE 24 June - 8 July 1993

VESSEL CSS Vector

PROJECT Tx Currents Drifter + CTD
Study in Juan de Fuca Str.
Book 1 of 2.

Area: Juan de Fuca / Georgia Year: 1993 Cruise: 9307 Agency: Tides + Currents

	Date (Z)	Stn ID	Depth (m)	Ship Time Start	Ship Time Stop	Lat	Long	CTD Conseq #	CTD Time	CTD Depth	
1	24 June	JG48	187	2204	?	48-51.39	123-11.03	001	2208	183	reset @ 2228Z CTD System time set to PDT!!
2	24 June	JG47	128	2235	2243	48-53.97	123-08.49	003	2239	120	conseq #2 miscast, system error!
3	24 June	JG46	117	2303	2307	48 56.49	123 06.17	004	2304	115	no GPS fix
4	24 June	JG52	29m	2350	2352	48 57.84	122 56.18	005	2351	25m	
5	25 June	JG51	135m	0015	0023	48 54.88	122 59.52	006	0017	128	
6	25 June	JG 50	203 m	0050	0100	48-51.76	123-03.61	007	0051	196	
7	25 June	JG49	188	0119	?	48 49.32	123 06.24	008	0121	183	drifted into shallower water
8	25 June	JF16	225	0206	0216	48 47.58	122 58.87	009	0207	200	flood 3.5 knots.
9	25 June	JG57	115	0243		48 45.45	122 58 39	010	0245	110	
10	25 June	JG58	64	0209		48 45.97	123 00.98	011	0211	50	
11	25 JUNE	JF 15	200	0220	0233	48 46.72	123 02,25	012	0225	188	
12	25 JUNE	JG59	155	~0401	0411	48 44.05	123 08.06	013	0405	138	
13	25 JUNE	JG 60	330	0433	0454	48 43 00	123 14.07	014	0441	315	
14	25 JUNE	JF86	75	0405	0415	48 41.76	123 17.05	015	0412	70	
15	25 JUNE	JF87	294	0422	0450	48 41.62	123 15.98	016	0441	285	Had to retape CTD cable for more slack, before cast
16	25 JUNE	JF 88	220	0457	0528	48 41.42	123 14.83	017	0520	200	had noisy readings, unable to isolate
17	25 JUNE	JG 61	249	0554	0610	48 37.75	123 13.38	018	0559	240	
18	25 June	JG 62	304	0742	0756	48-33.86	123-12.91	019	0744	300	Noisy press near 225 m
19	25 June	JG 63	289	0832		48-28.97	123-9.14	020			CTD failed → noisy
20	25 June	JF05							0158		No go - CTD still bad

Stations before 65 book filled & in Outlook

DAILY LOG TIDES & CURRENTS — OCEAN PHYSICS — INSTITUTE OF OCEAN SCIENCES

YEAR 1993	MONTH JUNE	TIME ZONE Z	SHIP VECTOR	CRUISE 9307	PAGE 1 OF 21

DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	CTD DEPTH	NOTES
24	JG48	187	2204 / ?	48 51.39 / 123°11.03	001	2208							183	CTD system time set to PST !! ← reset @ 2228Z
24	JG47	128	2235 / 2243	48°53.07 / 123°08.49	003	2239							120	Consay #2 miscast, system error
24	JG46	117	2303 / 2307	48°56.49 / 123°06.17	004	2304							115	No GPS fix.
24	JG52	29	2350 / 2352	48°57.84 / 122°56.18	005	2351							25	
25	JG51	135	0015 / 0023	48°54.88 / 122°59.52	006	0017							128	
25	JG50	203	0050 / 0100	48°51.76 / 123°03.61	007	0051							196	
25	JG49	188	0119 / ?	48°49.32 / 123°06.24	008	0121							183	Drifted into shallower waters
25	JF16	225	0206 / 0216	48°47.58 / 122°58.87	009	0207							200	Flood 3.5 knots
25	JG57	115	0243 / ?	48°45.45 / 122°58.39	010	0245							110	
25	JG58	64	0209 / ?	48°45.97 / 123°00.98	011	3 0211							50	
25	JF15	200	0220 / 0233	48°46.72 / 123°02.25	012	3 0225							188	
25	JG59	155	~0401 / 0411	48°44.05 / 123°08.06	013	0405							133	

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25	JG60	330	0439 0454	48°43.00 123°14.07	014	0441							315	
25	JF86	75	0405 0415	48°41.76 123°17.05	015	5 0412							70	
25	JF87	294	0422 0450	48°41.62 123°15.98	016	5 0441							285	Had to retape CTD cable for more slack. Before cast had noisy rdgs. Unable to isolate.
25	JF88	220	0457 0528	48°41.42 123°14.85	017	6 0520							200	
25	JG61	240	0454 0610	48°37.75 123°13.38	018	6 0559							240	
25	JG62	304	0742 0756	48°33.86 123°12.91	019	0744							300	Noisy press near 225 m
25	JG63	289	0832 –	48°28.97 123°09.14	020	—								CTD FAILED - NOISY!
26	JF05				–								0158	No Go! CTD still bad.
26	JG69	94	0427	48 22.88 123 17.96	021	421							85	Yeah! Works. loose icicles in Guillline.
26	JG68	102	0450 0457	48 19.43 123 13.77	022	0453							97	
26	JG67	137	0526 0534	48 15.58 123°10.35	023	0527							132	
26	JG66	102	0600 0607	48°12. 123°06	024	0602							95	

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26	JG65	166	0640 0649	48 14.44 122 59.60	025	0643							160	
26	JF06	38	0743 0748	48 09.58 122 48.96	026	0745	—	—	—			—	30	
26	JF07	71	0824 0830	48 12.36 122 47.13	027	0825							64	
26	JF08	70	0906 0914	48 18.28 122 48.10	028	0908							65	
26	JF09	80	1026 1032	48 26.22 122 42.08	029	1031							75	
"	JF09	80	1032 1050	48 26.03 122 42.30	030	1039		1042					66	CTD cal sal. cast
"	JG56	81	1106 1112	48 26.50 122 44.39	031	1107							74	
26	JF10	45	1126 1130	48 26.70 122 46.74	032	1128							40	
26	JF11	108	1219 1225	48 29.85 122 56.93	033	1222							100	
26	JG64	148	1303 1312	48 23.02 123 02.60	034	1305							143	
26	JF12	225	1340 1346	48 26.94 123 05.00	035	1344							220	
26	JG63	311	1424 1437	48 29.01 123 09.08	036	1427							292	May have touched bottom

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DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	CTD Depth	NOTES
26	JF85	140	1453 1500	48 28.59 123 11.01	037	1454							110	Drifting into shallower water to S.
26	JF84	28	1510 1515	48°27.93 123°13.21	038	1513							25	
26	JF83	32	1528 1532	48°27.17 123°15.47	039	1530							26	
26	JF01	44	1642 1646	48° 24.02 123° 26.42	040	1643							41	
26	JF02	93	1711 1717	48° 20.60 123 26.07	041	1713							90	
26	JF03	137	1750 1757	48°17.21 123°25.54	042	1752							135	Dropped drifter #1 at this loc'n
26	JF04	175	1846 1854	48 13.66 123 25.53	043	1849								"Dropped" drifter #3 at this loc'n.
26	JF05	113	1918 1925	48° 11.02 123° 24.85	044	1921							111	
26	JG72	159	2057 2106	48° 19.02 123° 43.15	045	2100							156	
26	JG71	177	2129 2137	48° 15.41 123° 43.18	046	2131							174	
26	JG70	137	2202 2209	48° 12.15 123° 43.37	047	2204							131	
27	JG73	122	0018 0025	48 21.97 124 00.65	048	0020							115	

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27	JG74	190	0049	48° 18.54	049	0052	—	—					185	
				124° 04.06										
27	JG75	170	0125	48° 15.25	050	0127	—	—					168	
				124° 06.96										
27	JG76	180	0353	48° 25.02	051	0356	—	—						
			0403	124° 35.81										
27	JG77	232	0424	48° 27.88	052	0427	—	—					225	
			0436	124° 32.89										
27	JG78	102	0502	48° 31.27	053	0504	—	—					97	
			0510	124° 30.17										
27	JG75	170	2322	48 15.40	054	2325	—	—					170	low W swell, calm
			2330	124 07.26										
28	JG74	188	0000	48 18.74	055	0001	—	—					180	low W swell
			0007	124 03.81										
28	JG73	120	0031	48° 22.00	056	0034	—	—					116	lite chop W'ly swell
			0039	124 00.71										
28	JG72	157	0150	48° 19.00	057	0151	—	—					150	
			0158	123 42.87										
28	JG71	175	0219	48 15.48	058	0220	—	—					170	
			0228	123 43.11										
28	JG70	139	0251	48 12.14	059	0254	—	—					131	
			0300	123 43.21										
28	JF05	113	0408	48° 11.03	060	0410	—	—					108	
			0416	123° 24.79										

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28	JF04	130	0446	48°13.42 123°25.11	061	0441							126	Drifter #40 deployed @ location.
28	JF03	139	0523 0531	48°17.11 123°25.59	062	0526							135	Drifter #35 deployed at this loc'n
28	JF02	92	0555 0605	48°20.60 123°26.40	063	0600							89	
28	JF01	47	0628	48°23.87 123°26.46	064	0631							43	
28	JG69	101	0720 0726	48°22.88 123°18.18	065	0722							95	
28	JG68	104	0757 0804	48°19.26 123°14.41	066	0758							100	
28	JG67	135	0837 0845	48°15.64 123°10.33	067	0839							130	Note: Actual depth & posn. not entered!
28	JG66	99	0925 0930	48°12.15 123°06.03	068	0926							96	
28	JG65	165	1013 1021	48°14.56 122°59.09	069	1014							166	Depth 170m at end of cast
28	JF08	70	1125 1133	48 18.29 122 48.08	070	1127							65	
28	JF09	79	1235 1236	48 26.17 122 42.07	071	1236							75	
28	JG56	80	1256 1303	48 26.54 122 44.45	072	1257							75	

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28	JF10	46	1320 1325	48 26.74 122 46.80	073	1322	—						40	
28	JG55	73	1419 1423	48 33.05 122 45.13	074	1420							70	
28	JG54	86	1508 1518	48 39.01 122 43.19	075	1511							80	
28	JF19	60	1558 1603	48 44.75 122 44.99	076	1600							56	
28	JF18	110	1620 1625	48°44.26 122°46.95	077	1622							105	
28	JG53	166	1650 1659	48°46.67 122 51.82	078	1652							161	
28	JG50	220	1749 1758	48°51.78 123°03.38	079	1751							210	
28	JG49	190	1843 1854	48°49.42 123°06.14	080	1846							186	
28	JF16	228	1947 1953	48°47.59 122°58.82	081	1949							238	
28	JF17	106	2018 2024	48°46.73 122°56.23	082	2020							93	
28	JF14	168	2100 2108	48° 43.32 122° 57.99	083	2102							167	CTD System clock reset after cast (~ 1 min slow)
28	JG57	110	2207 2214	48° 45.67 122°58.51	084	2210							105	

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28	JG58	98	2229 2235	48° 46.04 123° 00.98	085	2231	—	—					91	
28	JF15	199	2247 2255	48° 46.69 123° 02.55	086	2249	—	—					195	
28	JG59	159	2320 2328	48 43.90 123 07.91	087	2322	—	—					152	
28	JG60	329	2357 0017	48 42.96 123 14.12	088	2359			2	Salinity reads at bottle trip	32.152 ±0.005			Fall rate indicates a screen stuck at 0.53m/s.
29	JF86	75	0032 0100	48° 41.72 123° 16.97	089	0033	—	—					74	Blocked CTD!! @ end of Cast → appears ok, wire looks ok too
29	JF87	296	0110 0136	48° 41.60 123° 16.08	090	0117	—	—	3	Salinity reads at bottle trip	32.040 ±0.005		286	Sal read 0.0 at first lowered to 10 m then up again @268 m (32.040 ±0.005)
29	JF 88	239	0149 0160	48 41.40 123 14.76	091	0150								
29	JG61	247	0227 0238	48 37.72 123 13.50	092	0229							245	
29	JG62	292	0302 0317	48° 33.92 123° 12.83	093	0306							283	
29	JG63	270	0402 0416	48° 29.02 123° 9.35	094	0406							257	
29	JG64	150	0458 0508	48° 22.98 123° 2.66	095	0502							145	
29	JG65	164	0605 0616	48° 14.45 122° 59.32	096	0608							150	

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29	JG66	93	0646 0652	48°12.15 123°05.86	097	0647							90	
29	JG67	133	0722 0729	48°15.62 123°09.92	098	0723							130	
29	JG68	101	0803 0809	48°19.48 123°13.97	099	0805							95	
29	JG69	106	0858 0905	48°22.82 123°18.28	100	0900							105	
29	JF01	44	0952 0956	48°23.95 123°26.56	101	0953							40	
29	JF02	93	1031 1037	48°20.55 123°26.11	102	1033							91	
29	JF03	150	1122 1131	48°16.94 123°25.81	103	1123							138	
29	JF04	132	1157 1204	48°13.27 123°25.69	104	1200							130	
29	JF05	117	1226 1237	48°11.16 123°25.31	105	1230							115	
29	JG70	133	1347 1355	48°12.00 123°43.80	106	1349							130	
29	JG71	179	1429 1436	48°15.54 123°42.90	108	1430							175	skipped consec # 107
29	JG72	154	1502 1512	48°19.02 123°43.25	109	1506							145	GPS reading out on lat. 4mins less, GPS logging had stopped with error.

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30	JG76	190	0037 0047	48°25.20 124°35.74	110	0040							187	
30	JG77	134	0111 0128	48° 28.04 124° 33.10	111	0113		0120	4				130	Salinity at bottle trip 33.898 ± 0.002
30	JG78	97	0153	48° 124°	112	0155							95	
30	JG73	122	0358 0407	48°22.03 124°00.79	113	0401							118	
30	JG74	190	0433 0439	48° 18.74 124° 4.02	114	0435							184	
30	JG75	172	0506 0517	48° 15.31 124°07.03	115	0511							167	
30	JG70	135	0656 0704	48°12.18 123°43.31	116	0658							135	
30	JG71	179	0729 0737	48° 15.48 123° 43.10	117	0731							176	
30	JG72	161	0801 0808	48° 18.92 123° 43.12	118	0803							156	CTD system clock ~30 sec slow
30	JF05	113	1025 1030	48° 11.02 123°24.89	119	1026							111	
30	JF04	132	1050 1056	48° 13.47 123° 25.40	120	1051							130	
30	JF03	150	1150 1157	48° 17.06 123° 25.79	121	1152							135	

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30	JF02	91	1228 1234	48° 20.55 123° 26.30	122	1230							90	Drifter 22 nearby.
30	JF01	42	1300 1305	48° 24.09 123° 26.25	123	1302							39	
30	JG69	102	1342 1349	48° 22.85 123° 17.98	124	1344							100	
30	JG68	104	1420 1426	48° 19.30 123° 14.48	125	1422								
30	JG67	131	1458 1508	48° 15.81 123° 10.23	126	1503							125	
30	JG66	94	1545	48° 12.13 123° 6.00	127	1551							90	
01	JF05	111	0335 0344	48° 10.93 123° 24.70	128	0340							111	
01	JF04	135	0412	48 13.47 123 25 43	129	0407							130	
01	JF03	145	0432	48 16.90 123 25.73	130	0435							141	
01	JF01	44	0603 0608	48° 23.99 123 26.6	131	0605							42	
01	JF02	95	0631	48 20.48 123 26.37	132	0634							90	
01	JG69	108	0737 0745	48° 22.86 123° 18.02	133	0739							105	

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01	JG68	104	0818 0826	48° 19.42 123° 14.30	134	0820							100	Wind W 12 kt
01	JG67	135	0902 0909	48° 15.69 123° 10.16	135	0904							131	
01	JG64	152	1010 1018	48° 22.94 123° 02.55	136	1012							149	Wind W 17 kt System clock 1 min slow
01	JF12	225	1048 1057	48° 27.06 123° 04.98	137	1049							219	Sys. clock reset before cast Wind W 17 kt
01	JG63	288	1124 1145	48° 28.96 123° 09.19	138	1128		5					269	Wind SW at 12 Salinity 32.573 ± 0.003
01	JG75	161	2102 2110	48° 15.25 124° 07.07	139	2105			At	bottle	trip		150	Break off to get drifter #33
01	JG74	193	2227 2235	48° 18.62 124° 03.81	140	2230							190	
01	JG73	125	2314 2321	48° 21.87 124° 00.68	141	2316							121	
02	JG72	161	0029 0037	48° 19.03 123° 43.08	142	0030							153	
02	JG71	180	0100 0112	48° 15.45 123° 43.14	143	0104							175	
02	JG70	139	0135 0146	48° 12.16 123° 43.68	144	0141							135	
02	JF05	118	0408 0415	48° 11.15 123° 24.97	145	0411							113	

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DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	CTD DEPTH(M)	NOTES
02	JF04	132	0430 0439	48°13.44 123°25.42	146	0434							128	
02	JF03	140	0501 0510	48°17.08 123°25.35	147	0504							135	
02	JF02	93	0559 0544	48°20.71 123°25.30	148	0540							90	
02	JF01	42	0612	48°24.05 12326.48	149	0613							42	
02	JG69	100	0652 0658	48°22.92 123°18.00	150	0654							95	
02	JG68	102	0728 0735	48°19.47 123°13.78	151	0730							95	Wind W 25 kt p = 0.1 @ surface
02	JG67	128	0804 0810	48°15.85 123°09.96	152	0805							126	p = 0.5 @ surface
02	JG66	105	0839 0844	48°12.20 123°06.17	153	0840							101	p = 0.5 @ surface
02	JG65	172	0938 0947	48°14.57 122°59.27	154	0940							170	Wind W 23 kt p = 0.1 @ surface
02	JG64	154	1101 1111	48°22.83 123°02.69	155	1103							150	p = 1.0 @ surface Suspect touch on bottom
02	JF12	220	1145 1156	48°26.89 123°05.12	156	1149							216	
02	JG63	293	1219	48°28.87 123°09.13	157	1222			#6(?)	dropped	250m		285	Salinity reading 31.545 1233:00 - bottle trip ±0.01

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DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	CTD depth (m)	NOTES
02	JF85	129	1254 1301	48° 28.53 123° 11.05	158	1256							85	Carried quickly into shoaler water
02	JF84	55	1313 1316	48° 27.88 123° 13.29	159	1315							45	
02	JF83	33	1330 1333	48° 27.17 123° 15.45	160	1331							25	
03	JF01	42	0428	48°24.04 123 26.56	161	0423							37	
03	JF02	95	0501 0511	48 20.39 123 26.28	162	0505							91	
03	JF03	146	0532 0542	48 16.90 123 25.81	163	0535							140	
03	JF04	130	0602 0612	48 13.36 123 25.39	164	0605							120	
03	JF05	111	0626 0635	48°10.94 123 24.59	165	0629							105	
03	JG66	99	0800 0808	48° 12.16 123° 05.93	166	0803							95	P= 1.0 @ surface
03	JG67	135	0839 0847	48° 15.69 123° 10.22	167	0841							130	wind W 30kt
03	JG68	101	0920 0926	48° 19.45 123° 14.05	168	0921							95	
03	JG69	95	1005 1013	48° 22.89 123° 17.95	169	1008							86	

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DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	CTD depth (dbar)	NOTES
03	JF05	113	2204 2212	48° 11.00 123° 24.64	170	2207							108	p= 1.9 @ surface in swell
03	JF04	129	2300 2307	48° 13.67 123° 24.77	171	2302							124	
03	JF03	133	2349 2359	48 17.50 123 24.17	172	2353							125	
04	JF02	91	0052 0100	48° 20.81 123° 26.15	173	0056							80	
04	JF01	43	0148 0151	48 23.93 123 26.29	174	0150							38	
04	JG69	94	0524 0537	48° 22.90 123° 18.20	175	0528							95	Water depth went to 109m.
04	JG68	102	0606 0615	48° 19.30 123° 14.07	176	0610							97	
04	JG67	137	0644 0651	48° 15.52 123° 10.53	177	0646							132	
04	JG66	99	0724 0732	48° 12.19 123° 06.08	178	0727							97	Wind W 27 kt
04	JG65	137	0812 0829	48° 13.99 122° 58.97	179	0816		#7					130	cal. bottle @ 7= 91 db T= 8.764 ± 0.003 S = 32.374 ± 0.003
04	JF06	40	0927 0932	48° 09.55 122° 48.79	180	0928							35	CR = 0.80260 ± 0.00002
04	JF07	82	0958 1004	48° 12.23 122° 47.06	181	1000							75	

CRN

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OCEAN PHYSICS

DATE 24 June - 8 July 1993

VESSEL CSS Vector

PROJECT Tides & Currents Drifter & CTD Study in Juan de Fuca Strait

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04	JF08	71	1051	48° 18.33 122° 48.08	182	1052							65	
04	JF09	75	1159 1204	48 26.17 122 41.98	183	1201							68	sfc sal 30.1
04	JG56	82	1217 1224	48 26.53 122 44.40	184	1221							76	30.3 T=10.8 } surface
04	JF10	48	1237 1243	48 26.84 122 46.76	185	1241							44	30.3 10.8 } surface
04	JF11	111	1336 1341	48 24.71 122 56.97	186	1337							106	30.43 10.72 } surface
04	JG64	148	1408 1426	48 22.89 123 2.74	187	1413			8			sal sample 8	135	SN6533 M 8.61 A 15.5 SN6451 M 8.54 A 15.75 30.8 Sal & T at 135m 10.6 5 min soak + 1 min for messenger
04	JF12	215	1456 1508	48 26.81 123 5.03	188	1501							210	Drifter #33 put out @ this location.
04	JG63	260	1550 1600	48 28.60 123 9.27	189	1553							186	moved over shoal
04	JF85	140	1616 1623	48 28.64 123 11.63	190	1619							95	shoaling during cast.
04	JF84	45	1638 1641	48° 27.83 123° 13.34	191	1639							45	
04	JF83	29	1657/54 1658	48 27.24 123 15.46	192	1656							22	bottom coming up fast hence 22 m probe depth
04	JF13	37	1944 1949	48 33.69 123 18.22	193	1946							35	

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DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	CTD Depth (press) dbar	NOTES
04	JG62	296	2029 2042	48° 33.98 123° 12.89	194	2031							287	
04	JG61	248	2111 2121	48° 37.80 123° 13.52	195	2112							240	Surface T = 10.90 S = 29.49 P = 1.1
04	JF88	245	2155 2208	48° 41.43 123° 15.06	196	2157		Flood current strong!					352	Surface P = 1.2 T = 10.87 S = 29.67 drift into deeper water
04	JF87	296	2217 2227	48° 41.69 123° 15.98	197	2218							290	Surface P = 0.7 T = 10.72 S = 29.77
04	JF86	79	2238 2243	48° 41.78 123° 17.05	198	2239							81	Surface P = 0.6 T = 11.31 S = 29.00
04	JG60	328	2259 2311	48° 43.12 123 13.97	199	2303							275	P = 0.5 T = 10.9 S = 29.3 depth of bottom was 283 at end of CTD cast.
04	JG59	161	2330 2338	48 44.06 123 7.87	200	2333				Note Hit F2 when CTD brought aboard, not at end of cast			150	P = 0.8 T = 10.58 S = 29.91
05	JF14	170	0049 0057	48 43.37 122 57.85	201	0052								P = 1.3 T = 11.3 S = 28.9 Thin fresh surface layer about 1m thick
05	JG57	106	0110 0116	48 45.51 122 58.66	202	0112								P = 1.2 T = 10.85 S = 29.57
05	JG58	53	0127	48 45.93 123 00.94	203									P = 0.9 T = 10.60 S = 29.81
05	JG58	130	0143 0151	48 46.08 123 01.02	204	0145							120	P = 0.7 T = 10.74 S = 29.73 Repeated stn in deeper water.
05	JF15	195	0206 0215	48 46.71 123 2.36	205	0208							190	P 0.5 T 10.85 S 29.74

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05	JG49	190	0252 0302	48 49.40 123 06.24	206	0256							180	P=0.4 S=20.60 T=16.0
05	JF16	216	0332 0341	48°47.56 122°58.82	207	0334							211	P = 0.8 S = 29.38 T = 14.22
05	JF17	93	0401 0411	48°46.55 122°56.38	208	0403							76	P = 0.7 S = 29.48 T = 10.78 Bottom coming up fast
05	JG53	167	0430 0439	48°46.7 122°51.8	209	0433							161	P = 0.4 S = 29.405 T = 11.075
05	JF18	110	0506 0516	48°44.25 122°46.79	210	0512							103	P = 0.3 S = 29.40 T = 11.04
05	JF19	65	0526 0533	48°44.82 122°45.05	211	0529							64	P = 0.1 T = 10.87 S = 29.77 Getting deeper.
05	JG54	91	0615	48 38.88 122 43.45	212	0616							85	P 0.5 T 10.7 S 29.83
05	JG55	62	0723 0732	48° 33.08 122° 44.97	213	0728							61	P_s = 0.3 T_s = 10.85 S_s = 30.07
05	JG56	82	0842 0848	48°26.55 122°44.55	214	0843							77	P_s = 0.3 T_s = 10.91 S_s = 30.09 Wind N 2kt
05	JG64	150	1025 1033	48°22.94 123°02.50	215	1027							146	P_s = 0.7 T_s = 10.49 S_s = 30.95 Wind W 24 kt
05	JG68	100	1255	48 19.33 123 14.22	216	1258					P=0.1 T=10.36 S = 30.87		92	System Clock 50 sec slow reset prior to next stn
05	JF03	137	1711	48°16.98 123°25.77	217	1714							133	P 1.4 T 10.29 S 31.16

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DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	CTD DEPTH (press) dbar	Surface readings NOTES
05	JG72	157	1950 2000	48° 19.06 123° 43.10	218	1953							147	P = 3.0 T = 10.42 S = 31.28
05	JG71	183	2037 2046	48° 15.66 123° 43.06	219	2040							180	P = 0.9 T = 11.11 S = 30.86
05	JG70	142	2113 2125	48° 12.28 123° 43.51	220	2118							139	P = 1.3 T = 10.86 S = 30.90
06	JG73	122	0513 0523	48° 21.90 124° 0.52	221	0517							116	P = 0.7 T = 10.12 S = 31.7
06	JG74	190	0611 0622	48° 18.84 124° 4.22	222	0614							185	P = 0.1 T = 10.64 S = 31.612
06	JG75	172	0653 0700	48° 15.27 124° 07.02	223	0654							170	P = 0.5 T = 10.92 S = 31.63
06	JG76	172	0913 0919	48° 24.94 124° 35.62	224	0916							170	P = 1.0 T = 11.00 S = 31.50 2 to 3 m steep swell
06	JG77	236	1009 1031	48° 27.90 124° 32.94	225	1015	T = 6.595 ±0.001 S = 33.871 ±0.001 C_v = 0.79189 ±0.00001				Bottle #9		230	P = 0.4 T = 12.10 S = 31.25 Sal. sample @ 200 dbar
06	JG78	106	1102 1111	48° 31.22 124° 30.29	226	1105							99	P = 1.0 T = 11.16 S = 31.53
06	JF01	42	1912 1921	48° 24.02 123° 26.37	227	1919							41	P = −0.2 T = 10.60 ±0.005 S = 30.97 ±0.01
(*) 06	JF02	91	2019 2024	48° 20.56 123° 26.16	228	2021							87	P = 1.7 T = 10.27 S = 31.13 Header wrong! contains JF01 info (*)
06	JF03	144	2101 2109	48° 17.08 123° 25.69	229	2103							140	P = 1.2 T = 11.20 S = 30.81

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06	JF04	126	2148 2156	48° 13.39 123° 24.87	230	2151							123	P = 1.0 T = 11.7 S = 30.5 System clock ~1½ min slow, reset after stn
06	JF05	115	2215 2221	48° 11.20 123° 24.62	231	2217							112	P = 0.9 T = 11.0 S = 30.8
06	JG66	93	2227 2236	48 12.20 123 06.18	232	2231							90	P = 1.7 T = 10.6 S = 31.4
07	JG67	132	0007	48 15.72 123 10.48	233	0009			10			10	125	P = 0.7 T = 11.2 S = 30.5 Sat 175 m for sample {31.84, 31.85} within 2 min @ 175 m
07	JG68	100	0056 0109	48 19.46 123 13.85	234	0105							92	P = 0.7 T = 11.7 S = 30.6
07	JG69	106	1158 0205	48 22.79 123 17.86	235	0200							100	P = 0.8 T = 10.28 S = 30.82
07	JF83	32	0331	48°27.20 123°15.48	236	0332							26	P = 1.0 T = 11.09 S = 30.11
07	JF84	32	0348 0355	48°27.94 123°13.26	237	0351							51	P = 0.4 T = 10.05 S = 31.14 got deeper
07	JF85	153	0413 0421	48° 28.68 123 11.03	238	0415							138	P = 0.9 T = 10.12 S = 30.87
07	JG63	292	0432 0447	48°29.10 123°9.20	239	0438							271	P = 0.1 T = 10.54 S = 30.47 bottom shoaling.
07	JF05	117	0728 0732	48° 11.18 123° 25.00	240	0730							116	P = 0.5 T = 10.26 S = 31.28
07	JF04	133	0811 0818	48° 13.84 123° 25.55	241	0813							128	P = 0.3 T = 10.83 S = 30.74

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07	JF03	141	0858 0905	48° 17.02 123° 25.68	242	0900							146	P = 0.3 T = 10.65 S = 31.09
07	JF02	93	1007 1014	48° 20.65 123° 26.10	243	1010							90	P = 0.5 T = 10.98 S = 30.98
07	JF01	44	1048 1052	48° 24.00 123° 26.57	244	1050							40	P = 0.4 T = 10.33 S = 31.11
07	JG70	136	1538 1548	48° 12.11 123° 43.05	245	1542							133	P = 0.5 T = 9.85 S = 31.62
07	JG71	175	1612 1626	48° 15.53 123° 43.05	246	1616							175	P = 0.2 T = 9.98 S = 31.51 Bottle sample @ 170m T = 6.827 S = 33.783
07	JG72	160	1649 1659	48° 18.92 123° 43.19	247	1652							155	P = 0.4 T = 10.15 S = 31.35