

DAILY LOG BOOK

MISSION
NUMBER

2005-25

DATE:

From: September 12 to: September 18, 2005

VESSEL:

CCG Vector

PROJECT:

Strait of Georgia / Juan de Fuca Survey

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

Captain: Brian Pennell First Officer: Mark Messer
Second Officer: Steve Senulich Third Officer:

Mission Participants / Agencies: OSD / DFO

Scientific Personnel:		Party Chief:		Angelica Pena	
Name	Watch	Cabin	Name	Watch	Cabin
Melanie Quenneville	8-12				
Lizette Beauchemin	4-8				
Valerie Foreland	12-4				
Hugh MacLean	4-8				
Dave Timothy	12-4				
Marty Dave Lear	8-12				

[illegible]

Data logging computer:

Data acquisition program: _____

CTD deck unit make: SEALED model: 11 serial number: 0508

Primary CTD

Make: Seabird model: 918US serial number: 04143

Primary temperature serial number: 4484

Primary conductivity serial number: 3038

Secondary temperature serial number: 2106

Secondary conductivity serial number: 1729

Transmissometer: Wetlabs Model: CST-102 s/n: 498 DR

Fluorometer: Model Seapoint Cable gain: 10x s/n: 2356 P, S or NO pump? P, S

Oxygen sensor: Seabird Model: SBE-43 s/n: 0766 P, S or NO pump? P, S

PAR sensor: Model: CSP200-L48 s/n: 4565

Other sensors: Benthos Altimeter s/n: _____ P, S or NO pump? P, S

Other sensors: Surface Par sensor s/n: _____ P, S or NO pump? P, S

Other sensors: _____ s/n: _____ P, S or NO pump? P, S

Other sensors: _____ s/n: _____ P, S or NO pump? P, S

Secondary CTD

Make: _____ model: _____ serial number: _____

Primary temperature serial number: _____

Primary conductivity serial number: _____

Secondary temperature serial number: _____

Secondary conductivity serial number: _____

Transmissometer: _____ **Model:** _____ **s/n:** _____

Fluorometer: **Model** _____ **Cable gain:** _____ **s/n:** _____ **P, S or NO pump?** _____

Oxygen sensor: _____ **Model:** _____ **s/n:** _____ **P, S or NO pump?** _____

PAR sensor: _____ **Model:** _____ **s/n:** _____

Other sensors: _____ **s/n:** _____ **P, S or NO pump?** _____

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CTD calibration bottle location (height above CTD in metres):

Rosette Setup:

Number of bottles: 24
Manufacturer: OCEAN TEST
Volume of Bottles (litres): 10

Winches:

1. Make: SWAN Model: 329 Serial #: 1307 used for:
2. Make: _____ Model: _____ Serial #: _____ used for:
3. Make: _____ Model: _____ Serial #: _____ used for:

Comments on performance during cruise:

Salinometer:

Make: _____ Model: _____ Serial #: _____
Comments on performance during cruise:

Oxygen Kit # 2

Comments on performance of kit and chemicals:

Thermosalinograph System:

Program: _____ Version: _____
Sampling interval (seconds): _____
Fluorometer sensor serial number: _____

Comments on performance during cruise:

ADCP Setup:

Computer time zone: _____
Sampling interval (seconds): _____
Bin Length (2^x): _____
Pulse Length: _____
Buffer (bytes): _____
Gyro Offset: _____
User Exits: Name: _____ Exit Points: _____
Name: _____ Exit Points: _____
Name: _____ Exit Points: _____
Work File: _____

Comments:

CTD Test Cast Information

Test Cast at IOS Jetty? (optional)

yes ☒ no ☐

Comments: (i.e. how did everything work??)

PERFECT

Test cast in Saanich Inlet? (recommended)

yes ☒ no ☐

If no, give reason: _____

Comments: (i.e. how did everything work??)

CTD pressure reading on deck (db): 1.36
(Should be 0.0 db $\pm$ 0.5)

Pumps working?

yes ☒ no ☐

(i.e.. Was the red LED display on the deck unit 0011 and not still 0010?)

Secondary Temp- Primary Temp: -0.027

(Average from the Mixed Region)

Secondary Salinity- Primary Salinity: -0.005

(Average from the Mixed Region)

Additional Comments:

deck depth =

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Month <i>September</i>				Year <i>2005</i>			Ship <i>Vector</i>				Cruise ID <i>2005-25</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
12	SI	1:11	BE	ROS		1	48 39 492	123 30 343	185		1-3	3	<i>High m</i>	✓	
		1:16	BO				48 39 508	123 30 372		175					
		1:21	EN				48 39 516	123 30 397							
13	59	0305	BE	ROS		2	48 37 891	123 14 459	241		4-17	14	<i>TD</i>		
		0310	BO				48 37 934	123 14 426							
			EN				48 38 046	123 14 434							
13	60	422	BE	CTD		3	48 33 868	123 12 776	298						
		429	BO				48 33 810	123 12 698		285					
		437	EN				48 33 734	123 12 652							
	61	512	BE	CTD		4	48 29 160	123 09 196	275						
		520	BO				48 29 040	123 09 146							
		526	EN				48 28 956	123 09 143							
13	103	1149	BE	CTD		5	48 33 021	124 43 062	124				<i>PHM</i>	✓	
		1152	BO				48 33 018	124 43 062		113					
		1155	EN				48 33 624	124 43 048			113				
13	102	1225	BE	ROS		6	48 30 018	124 44 033	254		18-32		<i>PHM</i>	✓	
		1230	BO				48 30 014	124 43 973		245		15	<i>PHM</i>	✓	
		1244	EN				48 30 029	124 43 903							

Cast type:

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

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

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

Time Code

BE = beginning time of cast
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DE = deployment time
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Transmissometer to be cleaned for each cast, do not use Ammonia products

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							Latitude	Longitude							
13	101	13 32	BE	LTD		7	48 25 46.5	124 45 25.9	240						
		13 38	BO				48 25 45.3	124 45 29.6		235	N/A	-			
		13 41	EN				48 25 42.4	124 45 33.7							
13	74	14 32	BE	CTD		8	48 25 10.3	124 35 60.5	186		N/A	-			
		14 36	BO				48 25 08.5	124 35 37.0		175					
		14 39	EN				48 25 07.2	124 35 52.2							
13	75	15 19		ROS		9	48 28 15.8	124 32 75.4	215	225			MD/MQ	✓	ref par pump in shade.
		15 24					48 28 18.5	124 32 68.0							
		15 39					48 28 23.0	124 32 45.4							
13	76	16 41	BE	CTD		10	48 31 38.5	124 29 94.2		85	N/A	-	MD/MQ	✓	
		16 44	BO				48 31 35.7	124 29 91.2	75						
		16 46	EN				48 31 32.6	124 29 85.1							
13	71	18 59	BE	CTD		11	48 22 17.2	123 59.348	109		N/A	-	Valerie	✓	
		19 02	BO				48 22.171	123 59.275							
		19 04	EN				48 22.165	123 59.188							
13	71	19 11	BE	RADIO		12	48 22.153	123 59.089	111		N/A	-	VF/DT	✓	Radiometric cast
		19 16	EN				48 22.139	123 58.790							

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13	72	2036	BE	ROS	UP	13	48 18.602	124 3.702	185		48-61	14	VF/DT	✓	
		2040	BO				48 18.576	124 3.624		175					
		2053	EN				48 18.508	124 3.400							
13	72	2100	BE	RADIO	-	14	48 18.502	124 3.380	174	-	-	-	VF/DT	-	
		2105	EN				48 18.548	124 3.311							
13	73	2140	BE	CTD		15	48 14.989	124 6.745	161	-	-	-	VF/DT	✓	
		2145	BO				48 14.950	124 6.674		150					
		2148	EN				48 14.930	124 6.618							
13	73	2154	BE	RADIO		16	48 14.900	124 6.605	164	-	-	-	VF/DT	-	radiometer
		2200	EN				48 14.936	124 6.550							
13	68	2359	BE	CTD		18	48 12.203	123 42.980	142		-	-	VF/DT	✓	- event # due to radiometer
14		0002	BO				48 12.198	123 42.972		130					cast first.
		0005	EN				48 12.196	123 42.967							
13	68	2345	BE	RADIO		17	48 12.197	123 43.023	142		-	-	VF/DT	-	radiometer - not first
		2356	EN				48 12.215	123 42.974							
14	69	0034	BE	ROS		19	48 15.702	123 43.354	178		62-74	13	VF/DT	✓	
		0038	BO				48 15.744	123 43.429		170					
		0050	EN				48 15.774	123 43.686							

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Cruise ID		2005-25																		
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments					
14	70	137	DE	CTD		20	48 19 114	123 43 091	160											
		140	BO				48 19 163	123 43 154		150										
		144	EN				48 19 224	123 43 196												
14	105	0419	BE	CTD		21	48 11 056	123 18 954	92	92			MD	✓						
		0422	BO				48 11 044	123 18 986		80										
		0424	EN				48 11 035	123 19 01												
14	ADCP	0502	BE	ROS		22	48 14 028	123 18 006	121				MD	✓						
		0505	BO				48 14 040	123 18 072		110			MR							
		516	EN				48 14 029	123 18 226												
14	104	0617	BE	CTD		23	48 20 028	123 18 036	82				MD	✓						
		0619	BO				48 20 034	123 18 044												
		0621	EN				48 20 042	123 18 052												
14	67	0655	BE	CTD	UP	24	48 22.813	123 18.113	105		—	—	VF/DT	✓						
		0656	BO				48 22.820	123 18.121		100										
		0658	EN				48 22.829	123 18.114												
14	66	0738	BE	CTD	UP	25	48 19.301	123 14.076	101		—	—	VF/DT	✓						
		0742	BO				48 19.292	123 14.089												
		0745	EN				48 19.301	123 14.130												

Cast type:
BOT = bottle cast, no CTD

USW = sea water loop
MOR = mooring

bottle firing method:
US = up/stop

Time Code
BE = bottle event

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							Latitude	Longitude																	
14	62	0847	BE	ROS	UP	26	48 22.770	123 2.608	147		86-96	11	VF/DT	✓											
		0851	BO				48 22.746	123 2.611		140															
		0902	EN				48 22.710	123 2.725																	
14	65	1000	BE	ROS	UP	27	48 15.958	123 9.905	123		97-107		VF/DT	✓											
		1004	BO				48 15.995	123 9.931		115															
		1014	EN				48 16.115	123 10.009																	
14	64	1117	BE	CTD	-	28	48 12.844	123 5.731	110		-	-	10/AM	✓											
		1119	BO				48 12.853	123 5.730		98															
		1122	EN				48 12.840	123 5.736																	
14	63	1207	BE	CTD	-	29	48 14.608	122 58.463	154		-	-	70/AM	✓											
		1210	BO				48 14.658	122 58.415		142															
		1214	EN				48 14.689	122 58.406																	
14	54	1417	BE	CTD		30	48 26.600	122 44.394	76				10/AM	✓	pump turned off at bottom										
		1419	BO				48 26.590	122 44.437		69															
		1421	EN				48 "	"																	
14	53	1519	BE	CTD		31	48 33.137	122 44.954	60				MQ/MD	✓											
		1521	BO				48 33.114	122 44.935		50															
		1523	EN				48 33.090	122 44.914																	

Cast type:
BOT = bottle cast, no CTD
CTD = CTD cast

USW = sea water loop
MOR = mooring

bottle firing method:
US = up/stop

Time Code
BE = beginning time of event
DT = duration time of event

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
14	52	1610	BE	CTD		32	48 38.884	122 43.204	80		—				
		1612	BO				48 38.860	122 43.183		70		—		✓	
		1614	EN				48 38.837	122 43.168							
14	51	1727	BE	CTD		33	48 47.1	122 51.877	166		—	—		✓	
		1731	BO				48 47.123	122 51.932		160					
		1734	EN				48 47.142	122 51.994							
	51	1740	BE	RADIO		34	48 47.250	122 52.226	175		—				
		1745	EN				48 47.317	122 52.282							
14	56	18 42	BE	ROS		35	48 46.447	123 1.518	211					✓	- Bottle 1 didn't trip
		18 46	BO				48 46.570	123 1.393		203	108-122	15			- Bottle 15 empty
		1901	EN				48 47.036	123 0.997							
14	56	1905	BE	RADIO		36	48 47.182	123 0.895		172			VF/PT total		
		1908	EN				48 47.361	123 0.843							
14	57	2002	BE	CTD		37	48 43.979	123 8.003	160		—	—		✓	
		2007	BO				48 44.034	123 7.864		150					
		2010	EN				48 44.075	123 7.753							
14	57	2013	BE	RADIO		38	48 44.030	123 7.678	153		—	—		—	
		2022	EN				48 43.972	123 7.418							

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							Latitude	Longitude							
14	58	2107	BE	CTD	-	39	48 43.00	123 14.30	300		-	-	VF/DT	✓	
		2112	BO		-		48 43.294	123 13.982		300					
		2119	EN				48 43.399	123 13.663							
14	58	2121	BE	RADIO		40	48 43.471	123 13.513	350		-	-		-	
		2127	EN				48 43.468	123 13.548							
14	47	2157	BE	RADIO		41	48 49.181	123 06.150	186		-	-		-	
		2201	EN				48 49.152	123 06.135							
14	47	2307	BE	CTD		42	48 49.168	123 6.091	181		-	-	FD	✓	
		2311	BO				48 49.165	123 6.037		175					
		2315	EN				48 49.170	123 5.994							
14	48	2340	BE	CTD		43	48 51.682	123 3.324	228				NA	✓	Temp #140510 to test
		2344	BO				48 51.722	123 3.542		213					
		2349	EN				48 51.704	123 3.702							
15	49	0024	BE	CTD		44	48 55.044	122 59.770	131	131			P	✓	
		0027	BO				48 55.058	122 59.839		120					
		0030	EN				48 55.056	122 59.893							
15	50	0057	BE	CTD		45	48 57.756	122 56.056	30				P	✓	
		0059	BO				48 57.763	122 56.048		20					
		0100	EN				48 57.768	122 56.042							

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15	44	144	BE	CTD		46	48 56 814	123 6 114	124						
		148	BO				48 56 812	123 6 181		171					
		150	EN				48 56 795	123 6 236							
15	45	214	BE	CTD		47	48 53 909	123 8 410	131						
		217	BO				48 53 910	123 8 416		120					
		219	EN				48 53 911	123 8 422							
15	46	242	BE	ROS		48	48 51 380	123 10 700	179		123-138	16	70		
		245	BO				48 51 373	123 10 643		171					
		258	EN				48 51 356	123 10 453							
15	43	439	DE	CTD		49	49 0.239	123 30.022	202				MQ/MD	✓	
		444	BO				49 0.241	123 29 995		190					
		448	EN				49 0.235	123 29 975							
15	42	513	BE	ROS		50	49 01.818	123 26.176	322		139-155		MQ/MD	✓	
		519	BO				49 01.775	123 26 066		310					
		537	EN				49 01.618	123 25.837							
15	41	627	BE	CTD		51	49 03.268	123 22 315	242				MQ/MD	✓	
		632	BO				49 03.271	123 22.298		235					
		636	EN				49 03.277	123 22.304							

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Month SEPTEMBER

Year 2005

Ship VECTOR

Cruise ID 2005-25

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	37	0748	BE	CTD	-	52	49 13.639	123 20.634	211		-	-	VF/DT	✓	
		0755	BO				49 13.700	123 20.558		205					
		0759	EN				49 13.735	123 20.527							
15	38	0832	BE	CTD	-	53	49 11.996	123 26.320	307		-	-		✓	
		0839	BO				49 11.994	123 26.383		300					
		0844	EN				49 12.000	123 26.442	376						
15	39	0924	BE	ROS	UP	54	49 9.762	123 32.999		370	156-173	18		✓	
		0933	BO				49 9.754	123 33.050							
		0953	EN				49 9.788	123 33.107							
15	40	1120	BE	CTD		55	49 8 615	123 36 794	156		-	-	V	✓	
		1124	BO				49 8 618	123 36 775		145			M		
		1127	EN				49 8 635	123 36 769							
15	26	1242	BE	CTD		56	49 14 278	123 50 762	246		-		10	✓	
		1248	BO				49 14 291	123 50 705		243					
		1253	EN				49 14 328	123 50 692							
15	27	1332	BE	ROS		57	49 19 075	123 47 999	346		174-190	17	M	✓	
		1339	BO				49 19 104	123 48 011		335					
		1356	EN				49 19 019	123 48 217							bottle 15 did not fire

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>SEPTEMBER</u>				Year <u>2005</u>			Ship <u>VECTOR</u>				Cruise ID <u>2005-25</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	26	1441	BE	CTD		58	49 24 059	123 45 361	135						
		1445	BO				49 24 049	123 45 390		125					
		1447	EN				49 24 042	123 45 410							
15	24	1623	BE	CTD		59	49 30.284	124 06.068	423				MQ/MD	✓	423 depth bridge 365 depth lab
		1631	BO				49 30 252	124 06.122		410					
		1638	EN				49 30 237	124 06.151							bottle 15 fired @ 410
15	25	1703	BE	CTD		60	49 27.655	124 07.45	292				MQ/MD		
		1708	BO				49 27.631	124 07.460		280					
		1713	EN				49 27.618	124 07.462							
15	25	1719	BE	RADIO		61	49 27.573	124 07.481	292						
		1722	EN				49 27.537	124 07.519							
15	2	1749	BE	ROS		62	49 24 079	124 09 341		275	191-207		MQ/MD	✓	
		1755	BO				49 24 035	124 09 257	265						
		1810	EN				49 23 948	124 09 022							
15	2	1816	BE	RADIO		63	49 23.859	124 08.957							
		1821	EN				49 23.822	124 08.926							
15	1	1852	BE	RADIO		64	49 20.320	124 12.096	250						
		1857	EN				49 20.269	124 12.476					VF/DT		

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							Latitude	Longitude							
15	1	1904	BE	CTD	—	65	49 20.260	124 12.242	233		—	—	11/DT	✓	
		1909	BO				49 20.236	124 12.204		225					
		1914	EN				49 20.216	124 12.175							
15	4	2005	BE	CTD	—	66	49 24.487	124 21.973	348		—	—		✓	
		2012	BO				49 24.401	124 21.875		340					
		2018	EN				49 24.323	124 21.852							
15	4	2022	BE	RADIO	—	67	49 24.265	124 21.840	—		—	—		—	
		2025	EN				49 24.196	124 21.847		—				—	
15	3	2050	BE	ROS	UP	68	49 26.610	124 20.154	320		208-225	18		✓	
		2056	BO				49 26.616	124 20.180		310					
		2114	EN				49 26.604	124 20.334							
15	3	2117	BE	RADIO	—	69	49 26.610	124 20.341	320	—	—	—		—	
		2122	EN				49 26.651	124 20.348						—	
15	7	2222	BE	CTD	—	70	49 34.40	124 24.20	351		—	—		✓	
		2229	BO				49 34.356	124 24.088		340					
		2235	EN				49 34.345	124 24.070							
15	7	2238	BE	RADIO	—	71	49 34.337	124 24.051	350		—	—		—	
		2241	EN				49 34.318	124 23.994						—	

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							Latitude	Longitude							
15	6	2312	BE	RADIO	-	72	49 30.595	124 27 880			-	-			
		2316	EN				49 30 611	124 27 9 54							
15	6	2321	BE	ROS	UP	73	49 30 630	124 28 001	191-		226-238	13	TH	✓	
		2325	BO				49 30 642	124 28 043		185					
		2337	EN				49 30 690	124 28 086							
16	5	0026	BE	CTD		74	49 27 336	124 30 852	315			-	TH	✓	
		0032	BO				49 27 349	124 30 770		305					
		0038	EN				49 27 372	124 30 744							
16	9	1411	BE	ROS		75	49 35 510	124 38 390	169		239-251	13	TH	✓	
		144	BO				49 35 525	124 38 305		160					
		156	EN				49 35 579	124 38 370							
16	8	245	BE	CTD		76	49 39 252	124 32 939	336				TH	✓	
		252	BO				49 39 223	124 32 917		325					
		258	EN				49 39 192	124 32 893							
16	12	345	BE	ROS		77	49 43 578	124 40 781	357		252-268		MD/MD	✓	
		352	BO				49 43 579	124 40 836		340					15 DID NOT Fire
		409	EN				49 43 639	124 40 861							

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							Latitude	Longitude							
16	11	452	BE	CTD		78	49 42.392	124 43.394	301				MD/MQ	✓	
		458	BO				49 42.396	124 43.372		290					
		505	EN				49 42.403	124 43.351							
16	10	531	BE	CTD		79	49 40.712	124 47.294	94				MD/MQ	✓	
		533	BO				49 40.717	124 47.318		85					
		535	EN				49 40.722	124 47.327							
16	15	0704	BE	CTD		80	49 51.617	125 1.586	129				VF/DT	✓	
		0707	BO				49 51.623	125 1.591		120					
		0710	EN				49 51.620	125 1.602							
16	14	0734	BE	ROS		81	49 53.009	124 59.540	314		269-285	17	VF/DT	✓	10 bottle 15 samples short tripping
		0740	BO				49 53.027	124 59.486		305					
		0800	EN				49 53.142	124 59.537							
16	13	0854	BE	CTD		82	49 55.298	124 55.160	240					✓	
		0900	BO				49 55.292	124 55.121		240					
		0905	EN				49 55.279	124 55.075							(altimeter 2.1)
16	21	1042	BE	CTD		83	50 1.984	125 13.554	85					✓	
		1046	BO				50 2.002	125 13.530		80					
		1048	EN				50 2.021	125 13.525							

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16	16	1126	BE	ROS	UP	84	49 57.732	125 8 762	155		286-297	12	///	✓	
		1130	BO				49 57.779	125 8 700		145					
		1141	EN				49 57.822	125 8 809							
16	17	1222	BE	CTD	-	85	49 58.954	125 4 358	264		-	-	///	✓	
		1228	BO				49 58.842	125 4 376		255					
		1233	EN				49 58.814	125 4 382							turn at surface 1.66
16	18	1300	BE	CTD	-	86	49 59.268	124 58 898	146				///	✓	44
		1304	BO				49 59.194	124 58 855		135					
		1307	EN				49 59.174	124 58 823							
16	19	1339	BE	CTD		87	50 1 207	124 52 908	276				///	✓	
		1345	BO				50 1 204	124 52 871		265					5.21
		1358	EN				50 1 195	124 52 837							
16	20	1549	BE	CTD		88	49 47.174	124 32 318		310			MD HQ	✓	pump not on restarted
		1554	BO				49 47.144	124 32.316	300						
		1600	EN				49 47.134	124 32.317							
16	20	1603	BE	RADIS		89	49 47.118	124 32.323	319						
		1607	EN				49 47.094	124 32.332							
							49 47.074	124 32.332							
							49 47.054	124 32.332							

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