

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
042	72° 29' 99" N	168° 30' 13" W	27	A	U	G	19
DEG	MIN	DEG	MIN	DAY	MO	YR	HR
29	99	30	13	27	A	U	15
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 49 m	
PRESS SN	SBE43-Oxy (prime)						
Pri Temp SN	SBE43-Oxy (sec)						
Sec Temp SN	Altimeter						
Pri Cond SN	PAR SN						
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
REMARKS: WUL RYED							
TS6 02: 351 TS6 04: 243 TS6 06: 226							
Bongo: RZA							
Depth		Fosette Notes		Hydro Team-PMEL		Chloro	
No	Desired	Salt	Nut. Bit	O2-Bit/No	HAPP	GFF Vol	5-1000 M
1	30		1/23	291		290	✓
2	40		1/23			290	✓
3	30		1/23			290	✓
4	30		1/23			290	✓
5	23		1/23			290	✓
6	23		1/23			290	✓
7	23		1/23			290	✓
8	10		1/23			290	✓
9	10		1/23			290	✓
10	0		1/23			290	✓
11	0		1/23			290	✓
12	0		1/23			290	✓
Comments							
1							
1							

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.																									
Ocean Starr		OS-19-01		Arctic IERP 2019		S H																									
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB		RH		Pressure		WIND DIRN.		WIND SPD.		BOTTOM DEPTH		STA. NAME/ID											
DEG		MIN		DEG		MIN		DAY		MO		YR		HR		MIN		("C)		(%)		(mb)		(deg)		(kts)		(m)			
043		72°30.03		N		166°48.05		W		28		AUG		19		0020												48		CRAND2	
SBE 9+						Fluor/Turbidity																						MAX. DEPTH = 45 m			
PRESS SN						SBE43-Oxy (prime)																									
Pri Temp SN						SBE43-Oxy (sec)																									
Sec Temp SN						Altimeter																									
Pri Cond SN						PAR SN																									
Sec Cond SN																															
Instrument Notes:																						REMARKS:									
Recorder Initials:																															

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.									
Ocean Starr		OS-19-01		Arctic IERP 2019		Bongo: RZA S H									
CONSC CAST #	DEG	LATITUDE MIN	DEG	LONGITUDE MIN	DAY	MO	YR	TIME (GMT)	DRY BULB	RH	Pressure	WIND DIR/N.	WIND SPD.	BOTTOM DEPTH	STA. NAME/ID
0447230.01				165911.06	28	AUG	19	1500						47	CHAN03
SBE 9+ _____ Fluor/Turbidity _____ SBE43-SN _____ SBE43-Oxy (prime) _____ PRESS SN _____ SBE43-Oxy (sec) _____ Pri Temp SN _____ Altimeter _____ Sec Temp SN _____ PAR SN _____ Pri Cond SN _____ Sec Cond SN _____															
Instrument Notes:															
Recorder Initials:															
WEATHER OBS: _____ REMARKS: _____ TSG 02:365 TSG NOT 255															
MAX DEPTH = 42 m NIS Depth _____ Rosette Notes _____ Hydro Team-PMEL _____ Chloro _____ M _____ Comments _____															
NIS No	Depth	Desired	Salt	Nut.Bt	O2-Btl.No	HAPB	Chloro	GFE Vol	Chloro	Surface	Fluor	Chloro	Fluor	Chloro	Fluor
1	27			x250	x359		V		V			V			
2	27			x251			V		V			V			
3	27			x252			V		V			V			
4	27			x253			V		V			V			
5	27			x254			V		V			V			
6	27			x255			V		V			V			
7	27			x256			V		V			V			
8	27			x257			V		V			V			
9	27			x258			V		V			V			
10	27			x259			V		V			V			
11	27			x260			V		V			V			
12	27			x261			V		V			V			
1	27			x262			V		V			V			
1	27			x263			V		V			V			
1	27			x264			V		V			V			
1	27			x265			V		V			V			
1	27			x266			V		V			V			
1	27			x267			V		V			V			
1	27			x268			V		V			V			
1	27			x269			V		V			V			
1	27			x270			V		V			V			
1	27			x271			V		V			V			
1	27			x272			V		V			V			
1	27			x273			V		V			V			
1	27			x274			V		V			V			
1	27			x275			V		V			V			
1	27			x276			V		V			V			
1	27			x277			V		V			V			
1	27			x278			V		V			V			
1	27			x279			V		V			V			
1	27			x280			V		V			V			
1	27			x281			V		V			V			
1	27			x282			V		V			V			
1	27			x283			V		V			V			
1	27			x284			V		V			V			
1	27			x285			V		V			V			
1	27			x286			V		V			V			
1	27			x287			V		V			V			
1	27			x288			V		V			V			
1	27			x289			V		V			V			
1	27			x290			V		V			V			
1	27			x291			V		V			V			
1	27			x292			V		V			V			
1	27			x293			V		V			V			
1	27			x294			V		V			V			
1	27			x295			V		V			V			
1	27			x296			V		V			V			
1	27			x297			V		V			V			
1	27			x298			V		V			V			
1	27			x299			V		V			V			
1	27			x300			V		V			V			
1	27			x301			V		V			V			
1	27			x302			V		V			V			
1	27			x303			V		V			V			
1	27			x304			V		V			V			
1	27			x305			V		V			V			
1	27			x306			V		V			V			
1	27			x307			V		V			V			
1	27			x308			V		V			V			
1	27			x309			V		V			V			
1	27			x310			V		V			V			
1	27			x311			V		V			V			
1	27			x312			V		V			V			
1	27			x313			V		V			V			
1	27			x314			V		V			V			
1	27			x315			V		V			V			
1	27			x316			V		V			V			
1	27			x317			V		V			V			
1	27			x318			V		V			V			
1	27			x319			V		V			V			
1	27			x320			V		V			V			
1	27			x321			V		V			V			
1	27			x322			V		V			V			
1	27			x323			V		V			V			
1	27			x324			V		V			V			
1	27			x325			V		V			V			
1	27			x326			V		V			V			
1	27			x327			V		V			V			
1	27			x328			V		V			V			
1	27			x329			V		V			V			
1	27			x330			V		V			V			
1	27			x331			V		V			V			
1	27			x332			V		V			V			
1	27			x333			V		V			V			
1	27			x334			V		V			V			
1	27			x335			V		V			V			
1	27			x336			V		V			V			
1	27			x337			V		V			V			
1	27			x338			V		V			V			
1	27			x339			V		V			V			
1	27			x340			V		V			V			
1	27			x341			V		V			V			
1	27			x342			V		V			V			
1	27			x343			V		V			V			
1	27			x344			V		V			V			
1	27			x345			V		V			V			
1	27			x346			V		V			V			
1	27			x347			V		V			V			
1	27			x348			V		V			V			
1	27			x349			V		V			V			
1	27			x350			V		V			V			
1	27			x351			V		V			V			
1	27			x352			V		V			V			
1	27			x353			V		V			V			
1	27			x354			V		V			V			
1	27			x355			V		V			V			
1	27			x356			V		V			V			
1	27			x357			V		V			V			
1	27			x358			V		V			V			
1	27			x359			V		V			V			
1	27			x360			V		V			V			
1	27			x361			V		V			V			
1	27			x362			V		V			V			
1	27			x363			V		V			V			
1	27			x364			V		V			V			
1	27			x365			V		V			V			
1	27			x366											

VESSEL	CHUISE ID	PROJECT & LEG	Bongo:	RZA	STATION NO.
Ocean Starr	OS-19-01	Arctic IERP 2019		S	H
CONSC CAST #					
LATITUDE	DEG	MIN	LONGITUDE	DEG	MIN
045722.9	N	99'	16329.89'	W	28 A U G 1 9
TIME (GMT)					
2310	HR	MIN	DRY BULB	(°C)	RH (%) Pressure (mb) WIND DIRN. (deg) WIND SPD. (kts)
BOTTOM DEPTH (m)					
47					
STA NAME/ID					
CHANOH					
SBE 9+					
PRESS SN	Fluor/Turbidity				
Pri Temp SN	SBEC-Oxy (prime)				
Sec Temp SN	SBEC-Oxy (sec)				
Pri Cond SN	Altimeter				
Sec Cond SN	PAR S/N				
Instrument Notes:					
Recorder Initials:					
No	Depth	Fosette Notes	Hydro Team/PMEI	Chloro	GFF Vol
No	Desired	Salt	Nut Blt	O2-Blt No	HAPB
1	30	X256		290	
2	30	X257		290	
3	30				
4	24	X258			
5	24				
6	24				
7	20	X259		290	
8	10	X260			
9	0				
10	0				
11	0				
12	0	X261 X364 ATD		290	
1	Inline				

[illegible]

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-0		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
048		72°46.11 N		159°38.12 W		30 AUG 19 1506	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 87 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Prt Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Prt Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
No		Desired		Salt Nut Btl O2-Btl No HAPB		Chloro Size fac Flowcyt FlowCAM	
1		48		X273		✓	
2		48					
3		40		X274		✓	
4		32				✓	
5		32		X275		✓	
6		32					
7		20		X276		✓	
8		10				✓	
9		10		X277		✓	
10		0					
11		0		X278 X368		✓	
12		0		A/P			
1		Inline					
Comments							
No							

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
0507306.29		15856.37		31 W		0159	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
0507306.29		15856.37		31 A U G 19		0159	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 300 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS: Foot to tip 11412 @ surface, triggered on 050.1 instead.		TSG 02:372 TSG 00:286	
Prt Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Prt Cond SN		PAR S/N					
Sec Cond SN							
Instrument Notes:				Recorder Initials:			
Nis		Rosette Notes		Hydro Team-PMEL		Chloro	
No		Depth		Salt Nut. Blt O2-Blt No HAPB		GFF Vol	
1		Bot		X228 X287 X371		V	
2		60		X288 X173		V	
3		50		X289		V	
4		40		X290		V	
5		32		X291		V	
6		32				V	
7		32				V	
8		20		X292		V	
9		10		X293		V	
10		10		X294		V	
11		0				V	
12		0				V	
1		Inline				V	

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-0		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
051 72 33.12' N		156 53.63' W		31 AUG 19		1524	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 299 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:		ON deployment NISKIN 7 WAS SMASHED, REMOVED FROM CAROUSEL.	
Pri Temp SN		SBE43-Oxy (sec)		Instrument Notes:		Recorder Initials:	
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
No		Depth		Rosette Notes		Hydro Team-PMEL	
Desired		Salt		Nut.Btl		O2-Btl No	
1		60		x295 x176		HAPB	
2		50		x296		V	
3		40		x297		V	
4		40		x298		V	
5		30		x299		V	
6		20		x300		V	
7		20		x301		V	
8		10		x302		V	
9		10		x303		V	
10		10		x304		V	
11		0		x305		V	
12		0		x306		V	
1		Inline					

[illegible]

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATTITUDE		LONGITUDE		TIME (GMT)	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
0537215.217 N		157°25.048 W		01 SEP 19		0120	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 100 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:				Recorder Initials:			
Nis		Rosette Notes		Hydro Team-PMEL		Chloro	
Depth		Salt		Nut Btl		O2-Btl No	
Desired				HAPB		GFF Vol	
1		60		X310		✓	
2		50		X311		✓	
3		40		X312		✓	
4		40		X313		✓	
5		30		X314		✓	
6		24		X315		✓	
7		24		X41P		✓	
8		24		X41P		✓	
9		10		X41P		✓	
10		10		X41P		✓	
11		0		X316		✓	
12		0		X280		✓	
1		Inline					

[illegible]

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		Bongo: RZA	
DEG MIN		DEG MIN		DAY MO YR		TIME (GMT) DRY BULB RH Pressure WIND DIRN, SPD, WIND BOTOM DEPTH STA. NAME/ID	
055 7100.05' N		159° 17.58' W		02 SEP 19		1940 (°C) (%) (mb) (deg) (kts) (m) 52 CHIRP	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 48 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Pri Temp SN		SBE43-Oxy (sec)		NISKIN #7 REPAIRED & RE-SET.			
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
NIS No		Depth		Rosette Notes		Comments	
Desired		Salt		Nuc. Bat		O2-Bat No	
1 BOT				Y321		HAPB	
2 40				X322		GFF Vol	
3 40						Chloro	
4 30				X323		size of	
5 30						re	
6 30						rho	
7 20				X324		flow	
8 10				X325		flow	
9 10						flow	
10 0				X326		FA	
11 0							
12 0				X187			
1		Inline					

VESSEL <i>Ocean Star</i>		CRUISE ID OS-19-0		PROJECT & LEG Arctic IERP 2019		STATION NO. S H	
CONSC CAST #		LATTITUDE		LONGITUDE		Bongo: RZA	
DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)
056	31	160	47	03	SEP	19	1506
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 40 m	
PRESS SN	SBE43-Oxy (prime)						
Pt Temp SN	SBE43-Oxy (sec)						
Sec Temp SN	Altimeter						
Pt Cond SN	PAR SN						
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
NIS	Depth	Rosette Notes	Hydro Team-PMEL	Anna	Chloro	Chloro	Size for Fluor/Chloro
No	Desired	Salt	Nut. Br	O2-Bit No	HAPB	GFF Vol	Size for Fluor/Chloro
1	BOT		X328	X321		290	✓
2	30		X329			290	✓
3	30						✓
4	30						✓
5	29		X330			290	✓
6	29						✓
7	29						✓
8	20					290	✓
9	10		X331			290	✓
10	10					290	✓
11	0		X332			290	✓
12	0					290	✓
1	Inline						

REMARKS: BOTTLE #8 O-RING DISLODGED,
SAMPLE WAS NOT TAKEN.

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.									
Ocean Starr		OS-19-01		Arctic IERP 2019		Bongo: RZA S H									
CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)	DRY BULB	RH	Pressure	WIND DIRN.	WIND SPD.	BOTTOM DEPTH	STA. NAME/ID
0577059.96			162223.59		03	SEP	19	2108						45	CHK05
SBE 9+ <input type="checkbox"/> Fluor/Turbidity <input type="checkbox"/> WEATHER OBS: <input type="checkbox"/> MAX DEPTH = 40 m PRESS SN <input type="checkbox"/> SBE43-Oxy (prime) <input type="checkbox"/> Pri Temp SN <input type="checkbox"/> SBE43-Oxy (sec) <input type="checkbox"/> Sec Temp SN <input type="checkbox"/> Altimeter <input type="checkbox"/> Pri Cond SN <input type="checkbox"/> PAR SN <input type="checkbox"/> Sec Cond SN <input type="checkbox"/>															
Instrument Notes:															
Recorder Initials:															
NIS No	Depth	Rosette Notes	Hydro Team-PMEL	Chloro	GFF Vol	Chloro	RP	RP	Trans	Fluor	PAR	Comments	NIS No		
1	BOT		x333	290	✓	9L	✓	✓	✓	(FA)		M	1		
2	30		x334	290	✓	9L	✓	✓	✓	(FA)			2		
3	30												3		
4	30											X	4		
5	20		x335	290	✓	9L	✓	✓	✓				3		
6	20												4		
7	10		x336	290		4.5L	✓	✓	✓				7		
8	10												8		
9	10												9		
10	0		x337	290	✓	9L	✓	✓	✓	(FA)			10		
11	0												11		
12	0		x310	3L								X	12		
1		Inline											1		

REMARKS: MUSKIN #8 PATCHED w/ GLASS ZONE,
NO MUSKIN DETECTED
TSG O2: 306 TSG NUT: 338

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR MIN
058	71.00.11	N	163.54.20	04	AUG	19	1511
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 40 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Pri Temp SN		SBE43-Oxy (sec)		TSG 02: 376		TSG 03: 339	
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
No	Desired	Salt	Nit.BI	O2-BI.No	HAPB	GFF Vol	Size trac
1	24		X340	X326		V	V
2	24		X341			V	V
3	24						
4	24						
5	20		X342			V	
6	20						
7	10		X343				
8	10						
9	10					V	
10	0		X344			V	V
11	0						
12	0						
1		Inline					

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.												
Ocean Starr		OS-19-01		Arctic IERP 2019		Bongo: RZA S H												
CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB	RH	Pressure	WIND DIRN.	WIND SPD.	BOTTOM DEPTH	STA. NAME/ID
05971000	07	N	16524.16	W	04	SEP	1	9	2050								40	CHK03
SBE 9+ _____ Fluor/Turbidity _____ PRESS SN _____ SBE43-Oxy (prime) _____ Pri Temp SN _____ SBE43-Oxy (sec) _____ Sec Temp SN _____ Altimeter _____ Pri Cond SN _____ PAR SN _____ Sec Cond SN _____																		
Instrument Notes:																		
Recorder Initials:																		
No	Depth	Rosette Notes	Salt	Nut.BI	O2-BI.No	HAPB	Chloro	GFF Vol	Site fac	PP	ROP	Fluor	Fluor	Fluor	Fluor	Fluor	Fluor	Fluor
1	23			X345			✓					✓						
2	23			X346			✓					✓						
3	23																	
4	23																	
5	10			X347			✓					✓						
6	10						✓					✓						
7	10						✓					✓						
8	10			X348			✓					✓						
9	0						✓					✓						
10	0			X229			✓					✓						
11	0						✓					✓						
12	0			X325			✓					✓						
1		Inline																

REMARKS: NSKIN #8 DID NOT CAPTURE SAMPLE,
BOTTLE COVERED IMMEDIATELY

WEATHER OBS:

MAX. DEPTH = 35 m

[illegible]

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.																									
Ocean Starr		OS-19-01		Arctic IERP 2019		Bongo: RZA S H																									
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB		RH		Pressure		WIND DIRN.		WIND SPD.		BOTTOM DEPTH		STA. NAME/ID											
DEG		MIN		DEG		MIN		DAY		MO		YR		HR		MIN		("C)		(%)		(mb)		(deg)		(kts)		(m)			
06171000.13		N		168°30.24		W		05 SEP		AUG		19		2025														46		CHK01	
SBE 9+				Fluor/Turbidity																								MAX. DEPTH = 42 m			
PRESS SN				SBE43-Oxy (prime)																											
Pri Temp SN				SBE43-Oxy (sec)																											
Sec Temp SN				Altimeter																											
Pri Cond SN				PAR SN																											
Sec Cond SN																															
Instrument Notes:																						REMARKS:									
Recorder Initials:																															

VESSEL Ocean Starr		CRUISE ID OS-19-01		PROJECT & LEG Arctic IERP 2019		STATION NO. S H	
CONSC CAST #		LATITUDE		LONGITUDE		Bongo: RZA	
DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)
062	71°45.25	1	68°29.33	06	SEP	19	1503
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 48 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
No	Desired	Salt	Nit.BrI	O2-BI.No	HAPB	GFF Vol	Chloro
1	BOT		x360	x356			Surface Chlorophyll
2	36		x361				Floures
3	25		x362				Floures
4	25			x3L			Floures
5	25						Floures
6	16		x363				Floures
7	16						Floures
8	16						Floures
9	10		x364				Floures
10	0		x365				Floures
11	0			x3L			Floures
12	0						Floures
1		Inline					Floures

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
0637145.08 N		166°53.47 W		06 SEP 19		2103	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 42 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:		TS6 O ₂ : 286 TS6 NVT: 366	
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
No		Desired		Salt Nit. Bl O2-Bl. No HAPB		Chloro frac PP POP	
1		BOT		x367		✓	
2		30		x368		✓	
3		18		x369		✓	
4		18		x369		✓	
5		18		x369		✓	
6		10		x370		✓	
7		10		x370		✓	
8		10		x370		✓	
9		0		x371		✓	
10		0		x230		✓	
11		0		x230		✓	
12		0		x230		✓	
1		Inline					

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
0647145.31		N 165°18.69		W 073°40.19		1505	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
06 47 14 5 31		16 5 18 69		07 3 19		15 05	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 36 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS: USV IN #7 leaking on recovery			
Pri Temp SN		SBE43-Oxy (sec)		TG 09:35.2		TSG NUT: 372	
Sec Temp SN		Altimeter					
Pri Cond SN		PAR S/N					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
No		Depth		Rosette Notes		Hydro Team-PMEL	
No		Desired		Salt		Nut.Btl	
1		BOT				x373 x355	
2		25				x374	
3		25				x3L	
4		25					
5		20				x375	
6		20					
7		10				x376	
8		10					
9		10				x3L	
10		0				x377	
11		0					
12		0				x3L	
1		Inline					
No		Chloro		Chloro		Fluor	
1		✓		Sizefrac		Fluor	
2		✓		✓		✓	
3		✓		✓		✓	
4		✓		✓		✓	
5		✓		✓		✓	
6		✓		✓		✓	
7		✓		✓		✓	
8		✓		✓		✓	
9		✓		✓		✓	
10		✓		✓		✓	
11		✓		✓		✓	
12		✓		✓		✓	
1		M					
No		Comments					
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
1							

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
06571044.99' N		163°41.68' W		07 SEP AUG 19		2122	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 36 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR S/N					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
Desired		Salt		Nut.Btl		O2-Btl.No	
1 BOT				X378		HAPB	
2 26				X379		GFF Vol	
3 26						Size spec	
4 26						PP	
5 20				X380		POD	
6 20						Fluor	
7 10				X381		FluorAM	
8 10						FA	
9 10						Comments	
10 0				X382		M	
11 0							
12 0				X265			
1		Inline					

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
06 07 14 5.08 N		16 19 59.55 W		08 SEP 19		1505	
SBE #		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 38 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:		42 CALM 05	
Pri Temp SN		SBE43-Oxy (sec)		56 02:289		736 NOT:388	
Sec Temp SN		Altimeter					
Pri Cond SN		PAR S/N					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
Desired		Salt		Nut.Btl O2-Btl No HAPB		GFF Vol	
1 BOT				X383 X277		V	
2 27				X384		V	
3 27				X3L		V	
4 27						V	
5 20				X385		V	
6 20						V	
7 10				X386		V	
8 10						V	
9 10				X3L		V	
10 0				X387		V	
11 0						V	
12 0				X3L		V	
1		Inline					

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
067		71° 45.06' N		160° 24.02' W		08 SEP 19	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
067 45.06		160 24.02		08 SEP 19		20 45	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 43 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:		TSG O ₂ : 346 TSG NT: 394	
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
No		Desired		Salt Nut.Btl O2-Btl No HAPB		GFF Vol	
1		BOT		x231 x389 x353		✓	
2		BOT				✓	
3		30		x390		✓	
4		30				✓	
5		30		x3L		✓	
6		20		x391		✓	
7		20				✓	
8		10		x392		✓	
9		10		x3L		✓	
10		0				✓	
11		0		x393		✓	
12		0		x393L		✓	
1		Inline				✓	

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
06871045.16' N		158°47.87' W		09 SEP 2019		1501	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
068 45 16		158 47 87		09 SEP 19		15 01	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 49 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:		TSG 02:361 TSG NOT: 901	
Pri Temp SN		SBE43-Oxy (sec)		TSG 02:361		TSG NOT: 901	
Sec Temp SN		Altimeter		TSG 02:361		TSG NOT: 901	
Pri Cond SN		PAR SN		TSG 02:361		TSG NOT: 901	
Sec Cond SN				TSG 02:361		TSG NOT: 901	
Instrument Notes:							
Recorder Initials:							
NIS Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
No		Desired		Salt Nut.Bt O2-Bt.No HAPB		GFF Vol	
1 BOT				X395		✓	
2 40				X396		✓	
3 27				X397		✓	
4 27						✓	
5 27				X398		✓	
6 20				X399		✓	
7 20						✓	
8 10				X400		✓	
9 10				X362 X361		✓	
10 0						✓	
11 0						✓	
12 0						✓	
1		Initials					

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
0697145.06 N		157°12.06 W		09 SEP 19		1930	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
06 45		12 06		09 SEP 19		19 30	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 60 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
No		Salt		Nit.Bri		O2-Bil.No	
1		BOT		x402 x292		HAPB	
2		51		x403		V	
3		40		x404		V	
4		32		x405		V	
5		32				V	
6		32				V	
7		20		x406		V	
8		10		x407		V	
9		10				V	
10		0		x408		V	
11		0				V	
12		0				V	
1		Inline				V	

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		Bongo: RZA S H	
CONSC CAST #	DEG	LATITUDE MIN	DEG	LONGITUDE MIN	DAY	MO	YR
070	10	15.16	N	164°05.48	W	AUG	19
SBE 9+	Fluor/Turbidity		TIME (GMT)		DRY BULB	RH	Pressure
PRESS SN	SBE43-Oxy (prime)		HR		(°C)	(%)	(mb)
Pri Temp SN	SBE43-Oxy (sec)		MIN				
Sec Temp SN	Altimeter						
Pri Cond SN	PAR SN						
Sec Cond SN							
Instrument Notes:		WEATHER OBS:		REMARKS:		MAX DEPTH = 32 m	
				TSG 02:291		TSG NOT: 413	
Recorder Initials:							
NIS	Depth	Rosette Notes	Hydro Team-PMEL	Chloro	Chloro	PD	PUP
No	Desired	Salt	Nit.Btl	O2-Btl.No	HAPB	GFF Vol	Size
1	20		x409	x351		V	
2	20		x410			V	
3	20					V	
4	20					V	
5	10		x411			V	
6	10					V	
7	10					V	
8	10					V	
9	0		x412			V	
10	0					V	
11	0					V	
12	0					V	
1		Inline					

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO.	
Ocean Starr		OS-19-01		Arctic IERP 2019		S H	
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	
071		70° 14' 95" N		165° 29' 34" W		10 SEP 19	
DEG MIN		DEG MIN		DAY MO YR		HR MIN	
071 70 14		95 N		165 29 34		10 SEP 19	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX DEPTH = 39 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:		NOISE #7 leaking one valve cracked	
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR SN					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
No		Depth		Rosette Notes		Hydro Team-PMEL	
No		Desired		Salt		Nut. Blt	
1		BOT				x414	
2		30				x415	
3		30				x416	
4		20				x417	
5		20				x418	
6		20				x419	
7		10				x420	
8		10				x421	
9		10				x422	
10		0				x423	
11		0				x424	
12		0				x425	
1		Inline				x426	
Chloro		Chloro		Chloro		Chloro	
GFF Vol		GFF Vol		GFF Vol		GFF Vol	
M		M		M		M	
Comments		Comments		Comments		Comments	
No		No		No		No	

VESSEL Ocean Starr		CRUISE ID OS-19-01		PROJECT & LEG Arctic IERP 2019		STATION NO. S H	
CONSC CAST #		LATITUDE DEG MIN		LONGITUDE DEG MIN		TIME (GMT) HR MIN	
072		70° 14' 90" N		166° 59' 83" W		11 SEP 19	
SBE 9+		Fluor/Turbidity		WEATHER OBS:		MAX. DEPTH = 41 m	
PRESS SN		SBE43-Oxy (prime)		REMARKS:			
Pri Temp SN		SBE43-Oxy (sec)					
Sec Temp SN		Altimeter					
Pri Cond SN		PAR S/N					
Sec Cond SN							
Instrument Notes:							
Recorder Initials:							
Depth		Rosette Notes		Hydro Team-PMEL		Chloro	
Desired		Salt		Nut.Bil		O2-Bil.No	
1 Bot				x419		x359	
2 30				x420			
3 20				x421			
4 20				x422			
5 10				x423			
6 10				x424			
7 10				x425			
8 10				x426			
9 10				x427			
10 0				x428			
11 0				x429			
12 0				x430			
1		Inline					

[illegible]