

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.					
		CONSC CAST #	LATITUDE	TIME (GMT)	31.2°	PRESSURE	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID
	DEG MIN	DEG MIN'	DAY MO YR	DRY BULB ("C)	WET BULB ("C)	(mb)	*	(deg)	(kts)	*	*
	154 14.62 N	166 33.85 W	14 JUN 09	23.09	16.3	1025	25	1136	16	1224	1
SBE 9+											
PRESS SN											
PRI TEMP SN											
SEC TEMP SN											
PRI COND SN											
SEC COND SN											
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Sambrotto	Moran/	Harvey	Diane	Pat/
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL, Frac CHI	DIC/Ak	DOC	O18	Julie	Jared	Optics
1	b ✓	511	1	228				815N	Urea	Part.	Nis
2	1000 ✓		2	100					Prod	DON	No.
3	750 ✓		8								
4	500 ✓	485	4	115							
5	250 ✓		5								
6	200 ✓		6	147							
7	150 ✓		7								
8	100 ✓		8	1111							
9	75 ✓		9								
10	50 ✓		10	121							
11	40 ✓		11								
12	30 ✓		12								

MAX. DEPTH = 1225 m

REMARKS
Test Cast Below CanyonRosette Notes:
14-
15-
16-
17-
18-
19-
20-
21-
22-
23-
24-
25-
26-
27-
28-
29-
30-5 sec 1 day 2
100
103046
33

134.53

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
1/10 2/1

CONSC CAST #	LATITUDE	LONGITUDE				TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID		
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)
SBE 9+				.	N											
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
Nis DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julie							
No.DESIRET notes		SALT	Nut.BH	O2-BH	No.	CHL	Frac CHL	DIC/AIK	DOC	O18	61SN	Urea	Part.	Prod	DON	
1/2	30	✓ 13			13											1
1/2	20	14			14											2
1/3	20	15			15											3
1/4	10	16	N	O	1	R	I	D								4
1/4	20	15														5
1/5	10	17														X
1/6	0	18														6
1/7	0	19														7
1/8																8
1/9																9
1/10																10
1/11																11
1/12																12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
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STATION NO.

2

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE			SEA STATE VISIBILITY		WIND DIRN.		WIN CLOUD(amt)		BOTTO M		STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(°C)	(mb)	•	•	(deg)	(kts)	*	*	(m)
60 25 42.0	39 N	165 41.18 W	15 JUN 09	0844	5.4	.	09	29	1020	94	1120	1010	1010	*	*	*	*	94	4-2
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
02 Tmp Sensor No.																			
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS			
No. DESIRET	notes	SALT	Nut.BII	O2 Blt.No	CHL. Frac CH	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			
1	b	512	16																1
2	75		17																2
3	50		18																3
4	40		19																4
5	30		20																5
6	20		21																6
7	10		22																7
8	0		23																8
9																			9
10																			10
11																			11
12																			12

SBE 9+
FLUOR SN
PRESS SN
SBE43-Oxy (prime)
SBE43-Oxy (sec)
Transmissometer
PAR SN

REMARKS Using K pass (West)

MAX. DEPTH = 90 m

Upper 40m high chl

Rosette Notes:

VESSEL
R/V Knorr
CRUISE ID
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BESTBISIERP Summer'09)

PROJECT & LEG
6N195-10 or 6N195J for PMEL CTD archive

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
3

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE VISIBILITY		WIND DIRN.	WIND SPD.	BOTTO M	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB (°C)	WET BULB (°C)	(mb)	*	(deg)	(kts)	(m)				
	35	42	6.96	N	165	17.86	W	15	JUN	09	1302	6.3	11.07	1120	159	152		
SBE 9+																		
<input type="checkbox"/> PRESS SN																		
<input type="checkbox"/> PRI TEMP SN																		
<input type="checkbox"/> SEC TEMP SN																		
<input type="checkbox"/> PRI COND SN																		
<input type="checkbox"/> SEC COND SN																		
02 Tmp Sensor No.																		
Nis DEPTH																		
No.	DESIRE	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pau	Jared	Optics	Nis	
	notes		SALT	Nut.Btl	O2-Btl.No	CHL. Frac Chl	DIC/Aik	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	152	b	513	24							503							1
2	105	v		25													2	
3	100	v		26													3	
4	75			27													4	
5	59			28		✓1					504						5	
6	40			29		✓2											6	
7	30			30		✓3											7	
8	20			31		✓4											8	
9	10			32		✓5											9	
10	0			33		✓6					505						10	
11																	11	
12																	12	

FLUOR S/N

SBE43-Oxy (prime)

SBE43-Oxy (sec)

Transmissometer

PAR S/N

O2 Tmp Sensor No.

REMARKS

MAX. DEPTH =

C Nuc h= 0 to 30

Rosette Notes:

VESSEL
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PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

19510004
U-44

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		SEA STATE VISIBILITY		WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)			
	4	54	29	.90	N	164	57	23	w	13	10	105.8	10.06	0380487	6114			
SBE 9+																		
PRESS SN										FLUOR SIN								
PRI TEMP SN										SBE43-Oxy (prime)								
SEC TEMP SN										SBE43-Oxy (sec)								
PRI COND SN										Transmissometer								
SEC COND SN										PAR SN								
O2 Temp Sensor No.																		
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No.DESIRE	notes	SALT	Nut.Btl	O2.Btl.No	CHL.	Frac CHI	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	52		✓ 514	34		✓ 60							✓				1	
2	40			35		✓ 5											2	
3	30			36		✓ 4											3	
4	20			37		✓ 3											4	
5	10			38		✓ 2											5	
6	0			39		✓ 1											6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
5

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY		WIND DIRN. SPD.	WIN D CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID				
	DEG	MIN	DEG	MIN					DAY	MO	YR	HR	MIN	*	*				
	5	54	50	.32	N	165	13	573	W	15	JUN	09	19	47	6	.3	110	188	123
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
O2 Tmp Sensor No.																			
FLUOR SN																			
SBE43-Oxy (prime)																			
SBE43-Oxy (sec)																			
Transmissometer																			
PAR SN																			
O2 Tmp Sensor No.																			
REMARKS																			
MAX. DEPTH = 118																			

NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS No.	
No. DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL.Frac	CHL/DIC/AIK	DOC	O18	815N Urea	Part.	Prod	DON	Lomas	Lessard	TH		
1	120	515	40														1
2	100	41															2
3	75	42															3
4	50	43															4
5	40	44															5
6	35	45															6
7	30	46	/														7
8	20	47	/														8
9	15	48	X														9
10	10	49	/														10
11	0	50	/														11
12																	12

Rosette Notes:

✓

chl mark

20 below c max

chl high 0-20

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PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (I.D.)
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STATION NO.
WAP-7 (6)

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			H Hum.		PRESSURE		SEA STATE VISIBILITY		WIND DIRN.		WIN CLOUD(amt)		BOTTO M		STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)		
006 55.05	40 N	164 48.22 W	15 JUN 09	23 18	6.3	86.0	0513	7635	138	101											
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS					
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL, Frac CHL/DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard		TH					
1	86.5	516	51																		1
2	97																				2
3	97																				3
4	97																				4
5	97																				5
6	97																				6
7	76		52																		7
8	50		53																		8
9	40		54																		9
10	30		55																		10
11	19		56																		11
12	19																				12

Rosette Notes:

3 x 50% light 7m
Diane
3rd Nov Mak 19m

VESSEL
R/V Knorr

CRUISE ID
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PROJECT & LEG
BEST/BIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
UAP-7

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		SEA STATE VISIBILITY		WIND DIRN.		WIN D CLOUD(amt)		BOTTO M		STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)
00 05.50	55.40	N	164 48.22	W	15	JUN	09	23	18	11.	11.	1000	*	*	000	000	*	*	000
SBE 9+			FLUOR SN																
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			SBE43-Oxy (sec)																
SEC TEMP SN			Transmissometer																
PRI COND SN			PAR SN																
SEC COND SN			O2 Tmp Senson No.																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pam	Jared	Optics	NIS	MAX. DEPTH =	m	
No DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		
19					/3												1		
16					12												2		
3					57												3		
3					58												4		
3					11												5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Rosette Notes:

all sta bottom bottles
bottle to bottle

VESSEL
R/V Knorr

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BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
UAP-6

7

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			$\frac{\alpha}{\beta}$		PRESSURE		SEA STATE VISIBILITY		WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	(m)
0 0 75 5 18 . 2 2 N	1 6	4 2 3 . 6 7 W	1 6	J U N	0 9	0 2 3 7	1 6 . 2 8 8 .	0 4	3 7 0 6 4	1 3 8	1 1 0 1						
SBE 9+																	
PRESS SN			FLUOR SN							SBE43-Oxy (prime)							
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR SN														
SEC COND SN			O2 Tmp Sensor No.														

Nis DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis
No/DESIRE	notes	SALT	Nut.Bt	O2 Bt/No	CHL, Frac CHL/DIC/Alk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	Bot		517 59						✓		✓					1
2	75		60						✓		✓					2
3	50		61						✓		✓					3
4	40		62						✓		✓					4
5	30		63						✓		✓					5
6	20		64						✓		✓					6
7	10		65						✓		✓					7
8	0		66						✓		✓					8
9																9
10																10
11																11
12																12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
11 APR - 6

(7)

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M	WEATHER TYPE	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN								
0 0 8 5 5	1 9	. 3 0	N	1 6	4	2 2	. 2 6	w	1 6	J U N	0	9	0 4	1 3	6 . 1	1 9 0 .	
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CH	DIC/Aik	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	82m	All	grinded	AT	82	yes											1
2																	2
3																	3
4																	4
5																	5
6																	6
7																	7
8																	8
9																	9
10																	10
11																	11
12																	12
SBE 43-Oxy (prime)																	
SBE43-Oxy (sec)																	
Transmissometer																	
PAR SN																	
O2 Tmp Sensor No.																	
REMARKS																	
All 24 water to filter for live tanks																	
No Sample Taking																	
MAX. DEPTH = 82 m																	

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.													
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)	DRY BULB °C	WET BULB °C	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. SPD. (kts)	CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH (m)	STA. NAME/ID			
		0	0	9	55	31	.30	N	1655	16	68	16	JUN	09	06	17	5.8	0438	050	128	95
SBE 9+									FLUOR S/N												
PRESS SN									SBE43-Oxy (prime)												
PRI TEMP SN									SBE43-Oxy (sec)												
SEC TEMP SN									Transmissometer												
PRI COND SN									PAR S/N												
SEC COND SN									O2 Tmp Sensor No.												
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingard	Julie	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics	NIS			
No DESIRE	notes	SALT	Nut.BII	O2-Btl No	CHL	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.			
1	65																	1			
2	75																	2			
3	50																	3			
4	40																	4			
5	36																	5			
6	26																	6			
7	10																	7			
8	0																	8			
9																		9			
10																		10			
11																		11			
12																		12			

Rosette Notes:

MAX. DEPTH = 92 m

Marry Tally fish

(2)

VESSEL
R/V Knorr

CRUISE ID 6N195-10 or 6N195J (for PMEL CTD
PROJECT & LEG BEST/BStIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archives

STATION NO.

13

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 19510 011) 10												
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN D CLOUD(amt)	TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID		
11	55 57.69 N	163	8.3	33 W	16	JUN	09	13	45	5.9	1.0	101	027083	90						
SBE 9+									FLUOR S/N											
PRESS SN									SBE43-Oxy (prime)											
PRT TEMP SN									SBE43-Oxy (sec)											
SEC TEMP SN									Transmissometer											
PRI COND SN									PAR S/N											
SEC COND SN									O2 Tmp Sensor No.											
NIS DEPTH		Roset.		Hydro Team-PMEL		Weingart		Julie		Sambrotto		Moran/		Harvey		Diane		Pat/		
No.	DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac	CHL/	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	Jared	Optics
1	80	/		83		X														Nis No.
2	50			84		X														1
3	40			7		Leakee?														2
4	30			85		X														3
5	27			86		X														4
6	27																			5
7	27																			6
8	27																			7
9	27																			8
10	24	✓																		9
11	20																			10
12	18																			11
																				12

Rosette Notes:

85

50

40

30

24

18

10

6

0

3

3

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3

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Rosette Notes:

Lesson 2 Oxka at Diane's depths

Rosette Notes

3. Has problems —
 Sally?

Chmax ~ 22 mas m
Do min above this

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
12

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	83%			PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME/ID								
				DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(ks)	*	*	(m)
0	13 56.24	11 N	16 21 8.18	16	09	16	JUN	09	2051	7.4	.	9938	065	117	78					
SBE 9+			FLUOR/SN																	
PRESS SN			SBE43-Oxy (prime)																	
PRI TEMP SN			SBE43-Oxy (sec)																	
SEC TEMP SN			Transmissometer																	
PRI COND SN			PAR SN																	
SEC COND SN			O2 Tmp Sensor No.																	
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS			
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.		
1	80	521	97															1		
2	56		98		/													2		
3	40		99		/													3		
4	30		100		/													4		
5	20		101		/													5		
6	10		102		/													6		
7	0		103		/													7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Touched bottom with rosette

Met bottom

MAX. DEPTH = 75 m

Rosette Notes:

Chlorophyll 21 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBISERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

W3

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	(mb)	* (deg)	WIN DIRN. SPD. (kts)	CLOUD(amt) TYPE	WEATHER M DEPTH	BOTTO M STA. NAME/ID	MAX. DEPTH = 67 m	
	DEG	MIN	DEG	MIN	DAY	MO	YR										
0145637.64	N	16152.85	W	16	JUN	09	2359	7.0	7.0	9938	655	1153					
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	
No. DESIRE	notes	SALT	Nut.Btl	O2 Btl.No	CHL, Frac Chl	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	BOT	522	104														1
2	55		105														2
3	70		106														3
4	30		107														4
5	20		108														5
6	10		109														6
7	0		110														7
8																	8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BISIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

14

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE VISIBILITY		WIND DIRN. SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	•	•	(deg)	(kts)	*	*	(m)
0 1 5 5 6 5 8 . 1 9 N	1 6	1 2 7 . 7 7 W	1 7 J U N 0 9 6 2 5 1	7 . 3	.	5 8	3 8 0 5 2	1 4 4											
SBE 9+			FLUOR S/N																
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			SBE43-Oxy (sec)																
SEC TEMP SN			Transmissometer																
PRI COND SN			PAR S/N																
SEC COND SN			O2 Tmp Sensor No.																
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingartner	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut Btl	O2-Btl No	CHL	Frac CHL	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.	
1	B+T	523	111															1	
2	50		112															2	
3	46		113															3	
4	30		114															4	
5	20		115															5	
6	10		116															6	
7	0		117															7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Rosette Notes:

Chlor MAX 28 m to near bottom

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive				STATION NO.	
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M TYPE	WEATHER STA. NAME/ID
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(kts)	*	*
D 16	57.0	3.32	N	16	102	.63	W	17 JUN 09	05	40	6.9
SBE 9+											
PRESS SN											
PRI TEMP SN											
SEC TEMP SN											
PRI COND SN											
SEC COND SN											
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea
1	B6T	524	118								Part
2	50		119								Prod
3	40		120								DON
4	30		121								
5	20		122								
6	10		123								
7	0		124								
8											
9											
10											
11											
12											

SBE 9+
FLUOR SN
PRESS SN
SBE43-Oxy (prime)
SBE43-Oxy (sec)
Transmissometer
PAR SN
O2 Tmp Sensor No.

REMARKS
MAX. DEPTH = 68 m

Optics
No.
NIS

July 15, 2009

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 6N19510 1Z 16											
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	*	*	(m)
0	17 57 50	.66	N	16 12 0.00	W	7	JUN	09	11	19	7.0	1.98	072	8					
SBE 9+				FLUOR S/N															
PRESS SN				SBE43-Oxy (prime)															
PRI TEMP SN				SBE43-Oxy (sec)															
SEC TEMP SN				Transmissometer															
PRI COND SN				PAR SN															
SEC COND SN				O2 Tmp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard				
1	40			525	125														1
2	30				126	4													2
3	20				127	3													3
4	10				128	2													4
5	7																		5
6	7																		6
7	7																		7
8	7																		8
9	7																		9
10	7																		10
11	7																		11
12	7																		12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BISIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

16

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE			SEA STATE VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO.			
				DRY BULB	WET BULB	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*				
				.	N			.	W	J	U	N	0	9			
										.	.	.					
SBE 9+			FLUOR S/N														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR S/N														
SEC COND SN			O2 Tmp Sensor No.														
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No./DESIRED	notes	SALT	Nut Btl	O2-Btl.No	CHL.	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	7																1
2	7																2
3	7																3
4	7																4
5	0																5
6																	6
7																	7
8																	8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BESTBSIERP Summer'09
Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
6N1951001817

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			90.0%		PRESSURE		WIND DIRN. SPD.	CLOUD(amt) WEATHER	BOTTO M	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	•	•	(deg)	(kts)	*	*	*
18	54	33.6	0N	167	7	17	2009	15	26	6.1	1.9	972	541	196	52				
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	Prod Cast <i>Cast</i>	MAX. DEPTH = 45 m	
No. DESIRED	notes	SALT	Nut. Btl	O2-Btl.No	CHL. Frac	CHL/DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			
1	45	/															✓	1	
2	45	✓															✓	2	
3	47	✓															✓	3	
4	22	✓															✓	4	
5	20	✓															✓	5	
6	15	✓															✓	6	
7	10	✓															✓	7	
8	7	✓															✓	8	
9	43																✓	9	
10	3																✓	10	
11	3																✓	11	
12	3																✓	12	

Rosette Notes:

38 22 15 10 7 3 ↑ 3 3 3

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE			SEA STATE VISIBILITY			WIND DIRN.			WIN D CLOUD(amt)			BOTTO M DEPTH			STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(ks)	*	*	(m)						
		.	N			.																			
SBE 9+																									
PRESS SN																									
PRI TEMP SN																									
SEC TEMP SN																									
PRI COND SN																									
SEC COND SN																									
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS							
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac Chl	DIC/Aik	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH								
13	0			0																					
14	2																								
15	3																								
16	4																								
17	5																								
18	6																								
19	7																								
20	8																								
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									
9																									
10																									
11																									
12																									

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. (17)									
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt)	BOTTO M DEPTH	TYPE WEATHER	NAME/ID				
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(kts)	*	*	(m)
19	57	33.65	N	162	7.5	6W	17	JUN	09	1644	6.0	.	97	75	113	51	CN2
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	
No. DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL., Frac CHL/DIC/Aik	DOC	O18	815N	Urea Part.	Prod	DON	Lomas	Lessard	TH		No.	
1	44	?	526	130				511						1X		1	
2	40	?												2X		2	
3	30	✓												3X		3	
4	28	✓												4X		4	
5	25	✓												5X		5	
6	22	✓												6X		6	
7	22	✓	107	132										7X		7	
8	15	✓												8X		8	
9	10	✓	✓	✓	✓									9X		9	
10	7	✓												10X		10	
11	3	✓												11X		11	
12	0	✓												12X		12	

13 0
Rosette Notes:

b 28 22 15 7 3 0 ✓ 134 (30) f 20 (5-12) 13 0

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

(18)

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE		WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M	WEATHER	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(°C)	(mb)	•	•	(deg)	(kts)	•	•	(m)
0 20 57	16.52	N	162 55	.22	W	17	JUN	09	21	29	6.1	11.9	972.80	60	113	51			
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH =		m
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL, Frac CHL/DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard					
1	48		527	135	009	/													1
2	40		136			/													2
3	30		137			/													3
4	26		138			/													4
5	10		139			/													5
6	6		140	144	75	/													6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

FLUOR SIN
SBE43-Oxy (prime)
SBE43-Oxy (sec)
Transmissometer
PAR SN
O2 Tmp Sensor No.

REMARKS

re-cast at 15 mpm ratio

Some file name

Rosette Notes:

0-
144/175

Chlor MAX = 10 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	87%	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	WEATHER TYPE	BOTTO M	STA. NAME/ID				
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
02	15	53	.37	N	16	46	3	.65	w	18	JUN	09	0239	6.4	-	9738	017142	72
SBE 9+					FLUOR S/N													
PRESS SN					SBE43-Oxy (prime)													
PRI TEMP SN					SBE43-Oxy (sec)													
SEC TEMP SN					Transmissometer													
PRI COND SN					PAR S/N													
SEC COND SN					O2 Tmp Sensor No.													
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	
No DESIRED	notes	SALT	Nut.Bil	O2-Bil.No	CHL.	Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	80T	528	141	166	127													1
2	50		142															2
3	48		143															3
4	30		144															4
5	20		145															5
6	10		146															6
7	0		147	120														7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

Chlor Max=20

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J for PMEL CTD archive

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE (mb)			SEA STATE VISIBILITY			WIND DIRN.			WIN D CLOUD(amt)			BOTTO M DEPTH			STA. NAME/ID			STATION NO.
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	*	(m)						
0225642	32	N	164	36	49	W	18	JUN	09	05	55	6.2	✓	1.	983	80	14	124							75	
SBE 9+																										
PRESS SN																										
PRI TEMP SN																										
SEC TEMP SN																										
PRI COND SN																										
SEC COND SN																										
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS								
No.DESIREd notes		SALT	Nut.Btl	O2Btl.No	CHL	Frac CHL	DIC/Aik	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard										
1	B6T		529	148	112	/																				1
2	50			149		/																				2
3	40			150		/																				3
4	30			151		/																				4
5	20			152		/																				5
6	10			153		/																				6
7	0			154	88/239	/																			7	
8																										8
9																										9
10																										10
11																										11
12																										12

Rosette Notes:

Chlor Max 223 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE DIRN. (deg)	WIND D SPD. (kts)	CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH (m)	STA. NAME/ID	
02	35° 6' 25.69"	N	165° 18.42' W	18 JUN 09	102.4	5.2	100	4208	85	85	85	CN-10	
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto	Moran/ Harvey	Diane	Pat/ Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac CHI/DIC/AIK	DOC	O18	815N Urea	Part. Prod	DON	Lomas	Lessard	TH
1	80	530	01	009	74			515					1
2	50		02			4							2
3	40		03			5		514					3
4	30		04			4							4
5	20		05			3							5
6	10		06			2							6
7	0		07	113	1			517					7
8													8
9													9
10													10
11													11
12													12

REMARKS
 13m ago before CTD / NO need
 for ZODP Water

85
 MAX. DEPTH = 81 m

Rosette Notes:

060 / 074

O₂ down in increase in sub-sweat,
 Flu or max. Not healthy!
 Cmax (peak) ~37
 Lead sh ff

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. CNR12												
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)	DRY BULB	WET BULB	PRESSURE 94.0%	SEA STATE VISIBILITY	WIND DIRN.	WIN D	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID	
									HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	(m)		
2456	81.13N	166	6	34	W	18	JUN	09	1441	4.8	1.0	98.4°C	98.4°C	101	2960	107				
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS					
No.DESIRE	notes	SALT	Nut.BII	O2-BII.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			
1	100																			
2	156																			
3	75																			
4	75																			
5	50																			
6	40																			
7	30																			
8	20																			
9	10																			
10	10																			
11	0																			
12																				

Rosette Notes:

202

75

40

30

20 Cmax ~ 25

3 down 1's
not cross

100

50

40

30

20 Cmax ~ 25

10

9

8

7

6

5

4

3

2

1

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

22

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			92.8%		PRESSURE	SEA STATE	WIND DIRN.	WIN D	BOTTO M	CN 12 STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB (°C)	WET BULB (°C)	(mb)	*	(deg)	(kts)	TYPE WEATHER		
SBE 9+	25	56	7.83	N	166	7.40	W	18	JUN	09	1540	4.9	10.022	265	0986C	
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.		Hydro Team-PMEL			Weingart	Julie	Sambrutto		Moran/	Harvey	Diane	Pat/	Jared	Optics	
No.DESIREL notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CH4	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	NIS No.
1	42															1
2	27															2
3	27															3
4	23															4
5	20															5
6	20															6
7	20															7
8	14															8
9	14															9
10	11															10
11	11															11
12	11															12

MAX. DEPTH = 100 m

PROOF
104

REMARKS

FLUOR/SN

SBE43-Oxy (prime)

SBE43-Oxy (sec)

Transmissometer

PAR SN

O2 Tmp Sensor No.

Rosette Notes:

C mark sharp 23 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE			SEA STATE VISIBILITY		WIND DIRN. SPD. (kts)	CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*		
		.		N		.		W		J	J	0	9			
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No./DESIRE	notes	SALT	Nut.Btl	O2 Btl.No	CHL, Frac CH ₄ DIC/Aik	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	75															1
2	75															2
3	75															3
4	5															4
5	5															5
6	5															6
7	5															7
8	5															8
9	5															9
10	0															10
11	0															11
12	0															12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBISIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * VISIBILITY DIRN. (deg)	WIND SPD. (kts)	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(m)									
026	55	11	.61	N	166	45	.48	w	18	JUN	09	2040	4.7	1.0	0238	200	158	133
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis		
No DESIRED	notes	SALT	Nut.BI	O2-Btl.No	CHL, Frac Chl	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.
1	Bot	531	16	209	196					518								1
2	160		17															2
3	75		18															3
4	50		19															4
5	40		20															5
6	30		21															6
7	20		22															7
8	10		23															8
9	0		24	165	1					520								9
10																		10
11																		11
12																		12

Rosette Notes:

Chlor Max 52

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBISIERP Summer'09
Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive
STATION NO. 24

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR											
02	7	55	33	.38	N	16	7	41	.53	w	19	JUN	0	9	0	10	85.2	MAX. DEPTH = 133 m
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
Nis DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis	
No DESIRED notes		SALT	Nut.Btl	O2 Btl:No	CHL	Frac CHL	DIC/Aik	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	8.5	133	532	25	266													1
2	100																	2
3	75																	3
4	50																	4
5	40																	5
6	30																	6
7	20																	7
8	10																	8
9	0																	9
10																		10
11																		11
12																		12

Rosette Notes:

CH or MAK - 68?

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N19J (for PMEL CTD archive)

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		91%		PRESSURE		SEA STATE		WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME/ID	STATION NO.
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*
0285525.91	N	16803.44	W	19	JUN	09	05	03	5.6	1.	9937	146	188			200	CN-17
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	

Nis DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis
		No.DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard
1	200			533	35		164	50										1
2	160			36														2
3	75			37														3
4	60			38														4
5	50			39														5
6	40			40														6
7	30			41														7
8	25			42														8
9	20			43														9
10	10			44														10
11	0			45	0/6													11
12																		12

Seab. Trap deployed Here

MAX. DEPTH = 196 m

Rosette Notes:

Chlor Max 10-20

High top 20meters

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

26

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M TYPE WEATHER	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(mb)	*	*	(m)				
02955	18.42	N	16824	27	77	W	19	JUN	09	0725	16.0	+	9647	167258			
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No DESIRED	notes	SALT	Nut.Bf	O2-Bu.No	CHL.,Frac CHI	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	BST	534	46	174													1
2	1000		47	202													2
3	500		48	176													3
4	250		49	181													4
5	100		50	193													5
6	75		51	177													6
7	50		52														7
8	40		53														8
9	30		54														9
10	20		55														10
11	10		56														11
12	0		57	199													12

MAX. DEPTH = 1625 m

30 m 200 60 m → Stop

Rosette Notes:

CW10T MAX top 35 m

CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (ID.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 26																	
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE (hPa)	PRESSURE (°C)	SEA STATE VISIBILITY	BOTTO M STA. NAME/ID																
DEG	MIN	DEG	MIN	DAY	MO	HR	WIND DIRN.																
030	55.16.88	N	168 24.07	W	19 JUN 09	023	73.73																
SBE 9+			FLUOR S/N																				
PRESS SN			SBE43-Oxy (prime)																				
PRI TEMP SN			SBE43-Oxy (sec)																				
SEC TEMP SN			Transmissometer																				
PRI COND SN			PAR S/N																				
SEC COND SN			O2 Tmp Sensor No.																				
NIS DEPTH	Roset.	Hydro Team-PMEL			Weingartner	Julie	Sambrotto																
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Moran/	Hanvey	Diane	Pat	Jared	Optics	NIS	
1	6																						
2	6																						
3	6																						
4	6																						
5	6																						
6	6																						
7	6																						
8	6																						
9	6																						
10	6																						
11	6																						
12	6																						

13 - 16 also at 60m

Rosette Notes:

(no 16)

VESSEL	R/V Knorr
CRUISE ID	6N195-10 or 6N195SJ (for PMEL CTD)
PROJECT & LEG	BESTBSSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archives

STATION NO.

78

VESSEL RV Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 27											
		CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE (mb)	WIND DIRN.	WIN D	BOTTO M	STA. NAME/ID							
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	*	*	(m)	
31	55	1.38	N	169.12	.95	W	19	JUN 09	142	15.5	.	94	212	16	2329		
SBE 9+		FLUOR SN															
PRESS SN		SBE43-Oxy (prime)															
PRI TEMP SN		SBE43-Oxy (sec)															
SEC TEMP SN		Transmissometer															
PRI COND SN		PAR SN															
SEC COND SN		O2 Temp Sensor No.															
REMARKS																	
<i>Very little wind & hot much current</i>																	
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingartner	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	
No DESIRE	notes	SALT	Nut BII	O2-BII No	CHL	Frac CHI	DIC/ALK	DOC	O18	Si/SN	Urea	Part.	Prod	DON	Lomas	Lessard	Optics
1	1500	536	58	213													Nis
2	1500	59	59	195													No.
3	1250	61	63	133													
4	1250	61	63	133													
5	1000	63	63	133													
6	1000	63	63	133													
7	750	64	197														
8	500	65	190														
9	250	68	162														
10	200	67	212														
11	150	68	204								X	X	X	X	X	X	
12	75	68									X	X	X	X	X	X	

Rosette Notes:

Rosette Notes:
69 2 at 15000
130° N.W. 10500
No wind 10000
Very little

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST(BSIER)P Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIN D CLOUD(amt)	BOTTO M TYPE	WIND DIRN. SPD.	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	*	*	*	*	
	.	N	.	W	J	U	N	0	9	.	.	.	
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
SBE 9+ PRESS SN PRI TEMP SN SEC TEMP SN PRI COND SN SEC COND SN		FLUOR SN SBE43-Oxy (prime) SBE43-Oxy (sec) Transmissometer PAR SN O2 Tmp Sensor No.		REMARKS		MAX. DEPTH =		m					
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/
No. DESIRED	notes	SALT	Nut. Blt	O2-BI, No	CHL, Frac	CHL/DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	Jared
1	50				70								No.
2	30				68								
3	30				69								
4	20				73								
5	10				74								
6	0				75								
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSEI RP_Summer'09		Ship Designation (ID.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 27					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(deg)	(kts)	*	*	
3255	1.39	N	169 13.02	W	19	JUN	09	1636	5.4	.94	249	13	2829
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/
No DESIRED	notes	SALT	Nut.Btl	O2 Btl.No	CHL.	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod
1	33	33											
2	33	33											
3	33	33											
4	23	23											
5	16	23											
6	16	23											
7	16	16											
8	16	16											
9	15	11											
10	15	11											
11	14	7.5											
12	14	7.5											

Rosette Notes:

~1

32.5

23

23

7

5
33 03

VESSEL	CRUISE ID	PROJECT & LEG	Ship Designation (I.D.)

ESSEL

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.														
CONSC CAST #	LATITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID												
DEG	MIN	DEG	MIN	DAY	MO	HR	MIN	SPD.	DEPTH.	STA. NAME/ID												
33	55	20.35	N	168	26.09	W	20	JUN	090103	5.6												
SBE 9+				FLUOR SN																		
PRESS SN				SBE43-Oxy (prime)																		
PRI TEMP SN				SBE43-Oxy (sec)																		
SEC TEMP SN				Transmissometer																		
PRI COND SN				PAR SN																		
SEC COND SN				O2 Tmp Sensor No.																		
NIS DEPTH		Roset.		Hydro Team-PMEL		Weingart	Julie	Sambrotto		REMARKS												
No. DESIRED	notes	SALT	Nut.BII	O2-BII No	CHL, Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	
1	500			536	76	303																1
2	250			77	226																	2
3	100			78	x 198																	3
4	75			79	10X																	4
5	50			80		1																5
6	40			81		1																6
7	30			82		1																7
8	20			83		1																8
9	11			84		1																9
10	0			-		1																10
11	0			85		1																11
12	0																					12

Rosette Notes:

Chlor max 11m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.			
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIN D	BOTTO M	X-2
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DIRN. (deg)	SPD. (kts)	TYPE WEATHER
03	45	28	.84	N	16	81	11	.27	W	20	JUN 09
							06			5.3	
										9738	235
										117	
										191	
SBE 9+											
PRESS SN											
PRI TEMP SN											
SEC TEMP SN											
PRI COND SN											
SEC COND SN											
Nis DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	Moran/	Harvey	Diane
No DESIRED	notes	SALT	Nut.Btl	O2 Btl.No	CHL, Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Pat.
1	805	537	x242								Jared
2											Optics
3											No.
4											
5											
6											
7											
8											
9											
10											
11											
12											

Rosette Notes:

MAX. DEPTH = 188 m

REMARKS CTD at Sed. Trap recovered
Spot no samples

Depth reading 2x but bottom
Robbie present

CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBESIERP Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 29												
VESSEL R/V Knorr		CONSC CAST #		TIME (GMT)		PRESSURE (°C)		SEA STATE VISIBILITY		WIND DIRN.		WN D CLOUD(amt)		BOTTO M WEATHER		STA. NAME/ID		
DEG	MIN	DEG	MIN	DAY	MO	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
035	55	28.	54	N	16	8	11.	47	47	20	JUN	09	07	15	5.2	1.	9848215148	
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	NIS No.
1	100				86													1
2	70				87													2
3	40				88													3
4	30				89													4
5	18				90													5
6	10				91													6
7	0				92													7
8																		8
9																		9
10																		10
11																		11
12																		12

What samples did Ray take?

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (ID.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.												
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		25.2	PRESSURE	WIN D	BOTTO M	CNN - 8									
	DEG	MIN	DEG	MIN	DAY	MO	DRY BULB (°C)	WET BULB (°C)	SPD. (mb)	SEA STATE • VISIBILITY • DIRN. • (deg)	STA. NAME/ID • (m)									
03	65	6	8.57	N	16	84	11.85	W	20	JUN	09									
0	12	12	5.2		12	12	5.2	1	97	20	30									
SBE 9+					FLUOR S/N															
PRESS SN					SBE43-Oxy (prime)															
PRI TEMP SN					SBE43-Oxy(sec)															
SEC TEMP SN					Transmissometer															
PRI COND SN					PAR SN															
SEC COND SN					O2 Tmp Sensor No.															
NIS DEPTH		Roset.	Hydro Team-PMEL				Weingart	Julie	Remarks											
No. DESIRED	notes	SALT	Nut.BI	O2-BI#	CHL	Frac CHL	DIC/CAK	DOC	O18	615N	462 MAX. DEPTH = 458 m									
1	4188		538	93	(14P)					Urea	Part.	Prod	DON	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS No.
2	250			94										Lomas	Lessard					
3	200			95	(269)															
4	150			96																
5	100			97																
6	175			98																
7	52			99	(219)	6														
8	40			100		5														
9	30			101		4														
10	20			102		3														
11	10			103		2														
12	7																			

Rosette Notes:

✓ 7m b 12 - 23
10 24 = 0

12 b from 7m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.												
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE DRY BULB	SEA STATE WET BULB	WIND DIRN.	BOTTO M STA. NAME/ID										
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
36		.	N	.	W	J	U	N	0	9	
SBE 9+					FLUOR S/N				REMARKS											
PRESS SN					SBE43-Oxy (prime)															
PRI TEMP SN					SBE43-Oxy (sec)															
SEC TEMP SN					Transmissometer															
PRI COND SN					PAR SN															
SEC COND SN					O2 Tmp Sensor No.															
Nis DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julia	Sambrutto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis		
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.Frac	Chi	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.		
1	7																	1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12	0																	12		

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (ID.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 31										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	PRESSURE DRY BULB	PRESSURE WET BULB	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	BOTTO M DEPTH	STA. NAME/ID							
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	*	*	*	*	(m)
37	56	27	.01	N	168	17	26	W20	JUN	09	1623	5.	.	942	157	26	126	
SBE 9+					FLUOR S/N													
PRESS SN					SBE43-Oxy (prime)													
PRI TEMP SN					SBE43-Oxy (sec)													
SEC TEMP SN					Transmissometer													
PRI COND SN					PAR S/N													
SEC COND SN					O2 Tmp Sensor No.													
NIS DEPTH	Roset:	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Hanvey	Diane	Pat/	Jared	Optics	NIS No.	
No DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	
1	123	/		105	(220)													1
2	100			106														2
3	75			107														3
4	50			108														4
5	40			109														5
6	30			110														6
7	20			111														7
8	10			112														8
9	0			539	113	(280)												9
10																		10
11																		11
12																		12

3 off bottom by ulm

MAX. DEPTH = 123 m

low chl.

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (ID.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.	
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		85 %	PRESSURE	STATION NO.
	DEG	MIN	DEG	MIN	DAY	MO	DRY BULB (°C)	WET BULB (°C)	SEA STATE
	38	56	45	.0	7	N	16	752.28	W 20 JUN 09
SBE 9+									
PRESS SN									
PRI TEMP SN									
SEC TEMP SN									
PRI COND SN									
SEC COND SN									
O2 Trip Sensor No.									
No.DESIRE	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	
notes		SALT	Nut.Btl	O2-Btl.No	CHL, Frac CHL/DIC/ALK	DOC	O18	Moran/ Harvey	Diane
1	80T			540	114	205		Lomas	Paw
2	B6T							Lessard	Jared
3	75'				115				Optics
4	75'				116				Nis No.
5	50								
6	50								
7	41				117				
8	41								
9	30								
10	20								
11	10								
12	0								

Rosette Notes:

chlor max = 47%

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO. 32

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO.		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN								CNN-6		
0395645.15N			16752.25W		20	JUN	09	20	10	86%									
SBE 9+										FLUOR S/N									
PRESS SN										SBE43-Oxy (prime)									
PRI TEMP SN										SBE43-Oxy (sec)									
SEC TEMP SN										Transmissometer									
PRI COND SN										PAR S/N									
SEC COND SN										O2 Tmp Sensor No.									
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis			
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	No.		
1	55														✓		1		
2	43																	✓	2
3	36																		3
4	36																		4
5	32																		5
6	32																		6
7	32																		7
8	23																		8
9	23																		9
10	12																		10
11	12																		11
12	5																		12

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09										Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.				
		CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE DIRN.	WIND SPD.	BOTTO M STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)			
39	56	45.1	15° N	67° 2.2' W	20	JUN	09	20	10			
SBE 9+										FLUOR S/N								
PRESS SN										SBE43-Oxy (prime)								
PRI TEMP SN										SBE43-Oxy (sec)								
SEC TEMP SN										Transmissometer								
PRI COND SN										PAR S/N								
SEC COND SN										O2 Tmp Sensor No.								
Nis DEPTH	Roset:	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis
No.DESIRE	notes	SALT	Nut.Btl	O2.Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
13	5																	1
14	0																	2
15	0																	3
16	0	Q1																4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BStERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive						STATION NO.							
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			87°	PRESSURE	SEA STATE	WIND	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(mb)	*	(deg)	(kts)	*	(m)			
6 40 57 03 . 11 N	16 27 27 . 19 W	21 JUN 09	0158	41.6	9738	105088	73												
SBE 9+			FLUOR S/N																
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			SBE43-Oxy (sec)																
SEC TEMP SN			Transmissometer																
PRI COND SN			PAR SN																
SEC COND SN			O2 Tmp Senson No.																
NIS DEPTH	Roset.		Hydro Team-PMEL			Weingart		Julie		Sambrotto		Moran/ Harvey		Diane		Pat/ Jared		Optics No.	
No DESIRED notes	SALT	Nut.Btl	O2 Btl.No.	CHL.	Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			
1	B.T		541	122														1	
2	60			123														2	
3	50			124														3	
4	48		125															4	
5	30		126															5	
6	20		127															6	
7	10		128															7	
8	8		129															8	
9																		9	
10																		10	
11																		11	
12																		12	

Rosette Notes:

Chlor MAX = 22?
O2 Excel spreadsheet indicates
no red max
float 55 on N11 172 on N8.

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

34

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	PRESSURE mb	SEA STATE (deg)	WIND DIRN. (kts)	WIN D CLOUD(amt)	BOTTO M TYPE	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	*	
0 4 15	7 20	.92	N	16 70	2	.72	W	2	JUN 09	02	13	5.3	-	-	-	
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut.BII	O2-BII, No	CHL, Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	B0t	542	130	286						X	X	X				1
2	50		131		1											2
3	40		132		1											3
4	30		133		1											4
5	20		134		1											5
6	10		135		1											6
7	0		136		1											7
8										X	X	X				8
9											X					9
10												X				10
11																11
12																12

Rosette Notes:

Chl max ??

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 35	
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIN D	BOTTO M
DEG	MIN	DEG	MIN	DAY	MO	HR	VISIBILITY DIRN.	SPD. (kts)	STA. NAME/ID (m)
042	57	38.95	N 166	37.67	W 21	JUN 09	0825	4.7	.99
SBE 9+			FLUOR S/N						
PRESS SN			SBE43-Oxy (prime)						
PRI TEMP SN			SBE43-Oxy (sec)						
SEC TEMP SN			Transmissometer						
PRI COND SN			PAR S/N						
SEC COND SN			O2 Tmp Sensor No.						
Nis DEPTH									
Roset.									
Hydro Team-PMEL									
No. DESIRED	notes	SALT	Nut.Blt	O2-Btl.No	CHL, Frac CHl	DIC/AIK	DOC	Weingart	Julie
1	64	543	137						
2	50		138		6				
3	40		139	174	5				
4	30		140		4				
5	20		141		3				
6	10		142	262	2				
7	0		143		1				
8									
9									
10									
11									
12									

REMARKS

STA = 35

MAX. DEPTH = 64 m

3 hour max 20°
not in no decom bubbles

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBISIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

360

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE		WIND DIRN.	WIN D SPD.	BOTTO M	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)
43 57 57 . 10 N	16 13 . 65 W	21 JUN 09	12 05	3.4	. 992	0	11	5							
SBE 9+															
FLUOR S/N _____															
PRESS SN _____															
PRI TEMP SN _____															
SEC TEMP SN _____															
PRI COND SN _____															
SEC COND SN _____															
Nis DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat	Optics
No.DESIRED	notes	SALT	Nut.BI	O2-BI	No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	Nis
1	57		544	144		6									No.
2	40		145	176	5										1
3	30		146	4											2
4	20		147	3											3
5	18														4
6	18														5
7	18														6
8	18														7
9	18														8
10	18														9
11	18														10
12	18														11
															12

REMARKS
MAX. DEPTH = 57 m

L by alshir

Rosette Notes:

10

18

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN								
SBE 9+										FLUOR SN							
PRESS SN										SBE43-Oxy (prime)							
PRT TEMP SN										SBE43-Oxy (sec)							
SEC TEMP SN										Transmissometer							
PRI COND SN										PAR SN							
SEC COND SN										O2 Tmp Sensor No.							
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No. DESIRED	notes	SALT	NUT.BII	O2-BII No	CHL, Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	No.	
1	18															1	
2	18															2	
3	10				1418											3	
4	0				149	181										4	
5																5	
6																6	
7																7	
8																8	
9																9	
10																10	
11																11	
12																12	

Rosette Notes:

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VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

37

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE VISIBILITY		WIND DIRN.		WIND SPD.		BOTTO M DEPTH		STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(°C)	HR	MIN	(mb)	(deg)	(kts)	*	*	(m)	
	44	58	15	.06	N	165	47	85	w	21	JUN	09	15	29	2.3	.	992	0	1308	49
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	MAX. DEPTH = 473 m			
No. DESIRED	notes	SALT	Nut. Blt	O2 Blt. No	CHL.. Frac CHL	DIC/Aik	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard		TH		No.	
1	43			545	150	(163)													1	
2	30				151														2	
3	20				152														3	
4	10				153														4	
5	0				154														5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BIERP_Summer'09	Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive	STATION NO. 38
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CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY		WIND DIRN (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M	STA. NAME/ID							
	DEG	MIN	DEG	MIN			DAY	MO						YR	HR	MIN	(°C)	(°C)	(mb)	(deg)
45584	6.64	N	16642.1	4	W	21	JUN	09	2015	11.4	1.99	36306088	40	X-3						
SBE 9+					FLUOR SN															
PRESS SN					SBE43-Oxy (prime)															
PRI TEMP SN					SBE43-Oxy (sec)															
SEC TEMP SN					Transmissometer															
PRI COND SN					PAR SN															
SEC COND SN					O2 Tmp Sensor No.															
Hydro Team-PMEL										Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pau	Jared	Optics	Nis
No. DESIRED	RoSet.	notes	SALT	Nut.Bil	O2-Bil.No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	
1	Bat		546	155	479							1	3	✓	✓				1	
2	30			156								1	4	✓	✓				2	
3	20				157							1	5	✓	✓				3	
4	10				158							1	6	✓	✓				4	
5	0				159							1	7	✓	✓				5	
6												1	8	✓	✓				6	
7												1	9	✓	✓				7	
8												1	10	✓	✓				8	
9												1	11	✓	✓				9	
10												1	12	✓	✓				10	
11												1	11	✓	✓				11	
12												1	12	✓	✓				12	

Rosette Notes:

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09
Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE (mb)	SEA STATE DIRN.	WIND DIRN.	WIN D SPD.	CLOUD(amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO.		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)	138	
046 58	46.42	N	166 43	.84	W	21	JUN	09	2045	11.3	11.3	0036	288	098	40		
SBE 9+			FLUOR S/N														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR SAN														
SEC COND SN			O2 Trip Sensor No.														
Nis DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis	
No.DESIRE#	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	19																1
2	19																2
3	19																3
4	T1																4
5	11																5
6	11																6
7	9																7
8	7																8
9	7																9
10	7																10
11	4																11
12	4																12

Rosette Notes:

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTIBSIER_P_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

38

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE		WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt)	TYPE	WEATHER	BOTTO M	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR				•	•							
04658	46	42	N	16643	89	W	21	JUN	09	2045
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMELE				Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	MAX. DEPTH =	
No. DESIRED holes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		m
13	2.5																	1	
14	2.5																	2	
15	2.5																	3	
16	2.5																	4	
17	2.5																	5	
18	C																	6	
19	0																	7	
20	8																	8	
9																		9	
10																		10	
11																		11	
12																		12	

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.										
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		96%	PRESSURE	39 NDI									
	DEG	MIN	DEG	MIN	DAY	MO	DRY BULB °C	WET BULB °C	SEA STATE									
					HR	MIN	(mb)	(mb)	VISIBILITY									
							(deg)	(deg)	WIND DIRN. (kts)									
							*	*	WIN D SPD. (kts)									
							*	*	CLOUD(amt) TYPE									
							*	*	WEATHER									
							*	*	BOTTO M DEPTH									
									STA. NAME/ID									
475917.05N	16736.02W	22JUN09	0031	3.0	10.1	0032291	096	39										
SBE 9+			FLUOR S/N															
PRESS SN			SBE43-Oxy (prime)															
PRI TEMP SN			SBE43-Oxy (sec)															
SEC TEMP SN			Transmissometer															
PRI COND SN			PAR S/N															
SEC COND SN			O2 Tmp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PHME				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Bil	O2-Bil No	CHL	Frac CHL	DIC/AIK	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	8.0	547	160	199	/	/	/	/	524									1
2	30																	2
3	20																	3
4	10																	4
5	0																	5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BESTIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

40
NP2

CONSC CAST #	LATITUDE		LONGITUDE					TIME (GMT)			97%			PRESSURE	SEA STATE VISIBILITY	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID	
								DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)
0485963.53N			16753.00W		JUN	09	02	54		22	JUN	09	02	54	2.7	1.9	9933292108	46		
SBE 9+			FLUOR SN																	
PRESS SN			SBE43-Oxy (prime)																	
PRI TEMP SN			SBE43-Oxy (sec)																	
SEC TEMP SN			Transmissometer																	
PRI COND SN			PAR SN																	
SEC COND SN			O2 Tmp Sensor No.																	
NIS DEPTH	Roset.	Hydro Team-PME					Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Bu	O2-Bu.No	CHL	Frac CHL	IDIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard			No.	
1	6.7	548	165		/															1
2	30		166		/															2
3	20		167		/															3
4	10		168	x 195	/															4
5	0		169		/															5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

41

CONSC CAST #	LATITUDE		LONGITUDE					TIME (GMT)	PRESSURE (°C)	SEA STATE DIRN. (deg)	WIND SPD. (kts)	WIN CLOUD(amt) TYPE	BOTTO M STA. NAME/ID	STATION NO.	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	DRY BULB WET BULB (°C) (mb)	*	*	*	*		
049 58 49 . 68 N	168 09 . 35 S		22 JUN 09	0452	2.8				9934288118					46	
SBE 9+			FLUOR S/N												
PRESS S/N			SBE43-Oxy (prime)												
PRI TEMP S/N			SBE43-Oxy (sec)												
SEC TEMP S/N			Transmissometer												
PRI COND S/N			PAR S/N												
SEC COND S/N			O2 Tmp Sensor No.												
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat/	Jared
No. DESIRED	notes	SALT	Nut.BI	O2-BI/No	CHL	Frac CHL	DI/CAIK	DOC	O18	815N	Urea	Part.	Prod	DON	Optics
1	Box				170										Nis
2	30				171	213									No.
3	20				172										
4	10				549	173									
5	0				174										
6															
7															
8															
9															
10															
11															
12															

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

42

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	PRESSURE DRY BULB	WIND WET BULB	SEA STATE HR	VISIBILITY MIN	WIND DIRN. (deg)	WIN SPD. (kts)	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID	STATION NO.			
	DEG	MIN	DEG	MIN														
050	58	35	.77	N	168	25.5	55	W	22	JUN	09	57	11	3.1	-1.0	37330	148	56
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PME				Weingart	Juille	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRE	notes	SALT	Nut.BR	O2-BR	No.	CHL	Frac CHL	DIC/CAIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
1	B+T	53	550	175		/	/											1
2	40		176	133		/												2
3	30			177		/												3
4	20			178		/												4
5	10			179		/												5
6	0			180		/												6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12
SBE 43-Oxy (prime)																MAX. DEPTH = 53		
SBE43-Oxy (sec)																		
Transmissometer																		
PAR S/N																		
O2 Tmp Sensor No.																		

Rosette Notes:

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

43

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			93.8°		PRESSURE	SEA STATE	WIND DIRN.	WIN D SPD.	CLOUD(amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO. 43
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)	
0515821.70	N	16842.11	W	22	JUN	09	69	05	3.5	01	13	321	1168	69	70			
SBE 9+										FLUORS/N								
PRESS SN										SBE43-Oxy (prime)								
PRI TEMP SN										SBE43-Oxy (sec)								
SEC TEMP SN										Transmissometer								
PRI COND SN										PAR S/N								
SEC COND SN										O2 Tmp Sensor No.								
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrutto		Moran	Haney	Diane	Pat	Jared	Optics	Nis		
No.DESIRE!	notes	SALT	Nut.BII	02-BII.No	CHL.	Frac CHL	DIC/Alk	DOC	O18	61SN	Urea	Part	Prod	DON	Lomas	Lessard	TH	No.
1	54	551	181															1
2	50	182	197	6														2
3	30	183		4														3
4	26																	4
5	26																	5
6	26																	6
7	26																	7
8	26																	8
9	26																	9
10	26																	10
11	26																	11
12	26																	12

Rosette Notes:

26 X 12

10

VESSEL
RV Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP Summer'09
Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	(deg)	(kts)	*	*
SBE 9+				.	N				.								
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
Nis DEPTH	Rosel.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis	
No.DESIRED holes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
13	1	26															1
14	2	26															2
15	3	26															3
16	4	20															4
17	5	10															5
18	6	0															6
	7																7
	8																8
	9																9
	10																10
	11																11
	12																12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE (deg)	WIND DIRN. SPD.	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(m)
52	58	7.87	N	16	858	36	W	22	JUN	09	1202	3.3	01	323
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
Nis DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pal/	Optics
No.DESIREHoles		SALT	Nut.Bil	O2-Bil.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	Nis
1	66	✓	552	188				/						1
2	50	✓		189				/						2
3	40	✓		190				/						3
4	30	✓		191				/						4
5	20	✓		192				/						5
6	10	✓		193				/						6
7	0			1	(190)			/						7
8														8
9														9
10														10
11														11
12														12

Rosette Notes:

MAX. DEPTH = 660 m

72

44

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.	
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		90.7%	PRESSURE	
	DEG	MIN	DEG	MIN	DAY	MO	DRY BULB (°C)	WET BULB (°C)	SEA STATE VISIBILITY
53 57 53.94 N	169 14 51 W	20 2 JUN 09	1409	2.8	12	304	178	466	NPT
SBE 9+			FLUOR S/N						
PRESS SN			SBE43-Oxy (prime)						
PRI TEMP SN			SBE43-Oxy (sec)						
SEC TEMP SN			Transmissometer						
PRI COND SN			PAR S/N						
SEC COND SN			O2 Tmp Sensor No.						
Nis DEPTH									
Roset.									
Hydro Team-PMEL									
No.DESIRED notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL/DIC/AIK	DOC	O18	615N	Weingart
1 62 ✓	✓	553	2					X	Juile
2 62 ✓	✓	553	2					X	Sambrotto
3 50 ✓	✓	3						X	Moran/
4 40 ✓	✓	4						X	Harvey
5 30 ✓	✓	5						X	Diane
6 30 ✓	✓	5						X	Pat/Jared
7 30 ✓	✓	5						X	Optics
8 30 ✓	✓	5						X	Nis
9 26 ✓	✓	6/6/1							No.
10 20 ✓	✓	7							
11 20 ✓	✓	7							
12 10 ✓	✓	7							

Rosette Notes:

Bottle of Cman can Jected
C man 26

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.														
CONSC CAST #	LATITUDE DEG MIN	LONGITUDE DEG MIN		DAY	MO	YR	HR	MIN	TIME (GMT) DRY BULB WET BULB (°C) (°C) (mb) * * (deg) PRESSURE SEA STATE VISIBILITY WIND DIRN. WIN D CLOUD(amt) TYPE WEATHER BOTTO M SPD. WEATHER DEPTH STA. NAME/ID	(m)												
		DEG	MIN								DAY	MO	YR	HR	MIN	TIME (GMT) DRY BULB WET BULB (°C) (°C) (mb) * * (deg) PRESSURE SEA STATE VISIBILITY WIND DIRN. WIN D CLOUD(amt) TYPE WEATHER BOTTO M SPD. WEATHER DEPTH STA. NAME/ID						
		.	N	.	W	J	U	N	9													
SBE 9+										FLUOR S/N												
PRESS SN										SBE43-Oxy (prime)												
PRI TEMP SN										SBE43-Oxy (sec)												
SEC TEMP SN										Transmissometer												
PRI COND SN										PAR S/N												
SEC COND SN										O2 Tmp Sensor No.												
Nis DEPTH Roset.						Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics	Nis
No.	DESIRED holes	SALT	Nut.Btl	O2-Btl No	CHL	Frac CHL	DI/CIAIK	DOC	O18	\$15N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.			
1	10	13																	1			
2	10	14																	2			
3	10	13																	3			
4																			4			
5																			5			
6																			6			
7																			7			
8																			8			
9																			9			
10																			10			
11																			11			
12																			12			

Rosette Notes:

VESSEL
RV Knorr

VESSEL	CRUISE ID	PROJECT & LEG
R/V Knorr	6N195-10 or 6N195J (for PMEL-CTD)	BEST/BSSERP_Summer09G

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 46		
CONSC CAST #	LATITUDE DEG MIN	LONGITUDE DEG MIN		TIME (GMT) HR MIN	DRY BULB °C (mb)	WET BULB °C (deg)	PRESSURE * SEA STATE * VISIBILITY	WIN D TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID
		DAY	MO	YR						
0555	5740.11	N	16931.08	W	22 JUN 09	2004	5.5	1.6246306	1.58	70
SBE 9+					FLUOR SIN					
PRESS SN					SBE43-Oxy (prime)					
PRT TEMP SN					SBE43-Oxy (sec)					
SEC TEMP SN					Transmissometer					
PRI COND SN					PAR SN					
SEC COND SN					O2 Tmp Sensor No.					
Hydro Team-PMEL										
NIS DEPTH	Roset.				Weingart	Julie				
No.DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	81SN
1	38F	554	9							Urea
2	60	554	10	212						Part.
3	50				11					Prod
4	40				12					DON
5	30				13					Lomas
6	20				14					Lessard
7	10				15					
8	0				16					
9										
10										
11										
12										

Rosette Notes:

On

Chlor Wk 26 m

REMARKS
3-4 m of bottom
Bottle 1 did not Tr. P.
MAX. DEPTH = 66 m

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

47

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE (mb)		SEA STATE VISIBILITY		WIN DIRN.	WIN D SPD.	BOTTO M DEPTH	STA. NAME/D		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)		
056.572	6.35	N	169.47.56	w	22	JUN	09	21	53	3.6	-1.0	0346	300	186	65		
SBE 9+			FLUORS/N														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR S/N														
SEC COND SN			O2 Tmp Sensor No.														
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Hanvey	Diane	Pat	Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac	Chl/DIC/Aik	DOC	O18	S1SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	BxT	555															1
2	BxT	17															2
3	50		18														3
4	40		19														4
5	30		20														5
6	20		21	224													6
7	10		22														7
8	5		23														8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

Chlor Max
20 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 48										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE (deg)	WIND DIRN.	WIN D SPD	BOTTO M	STA. NAME/ID						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(kts)	(m)						
05	7 57	12.51	N	17	06	11	22	W	23	JUN	09	00	32	3.3	1.	0346294	158	44
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrutto		Moran/	Harvey	Diane	Pau	Jared	Optics	NIS		
No DESIRE	holes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	805				24						✓	531						1
2	30				25	211												2
3	20				26													3
4	10				556	27												4
5	0				28													5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

04/21/11

no chlor max

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (L.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 49										
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	93%	PRESSURE	SEA STATE	WIND	WIN D	BOTTO M	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	DIRN.			
058	56	58	157	N	170	17	1	23	JUN	09	03	19	3.8	-1	0446			
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Haney	Diane	Pam	Jared	Optics	NIS	
No. DESIRED	notes	SALT	Nut.Bil	O2-Bil	No.	CHL, Frac	CHI	DIC/Alk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	60	68	29															1
2	60	55	30	003														2
3	50		31															3
4	40		32															4
5	30		33															5
6	20		34															6
7	19																	7
8	10		35															8
9	0		36															9
10																		10
11																		11
12																		12

Rosette Notes:

Chlor max 21m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

NP-12

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE DIRN.	WIND SPD. DIRN.	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID	STATION NO.		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	(deg)	(kts)	*	*		
059 56 44.74 N	170 32.87 W	23	JUN	09	06	35	41	4.7	1.	64	46	294	198			108	
SBE 9+			FLUOR S/N														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR SN														
SEC COND SN			O2 Tmp Senson No.														
NIS DEPTH	Roset.	Hydro Team-PMEI					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	NIS	
No./DESIRED	notes	SALT	Nut/Btl	O2/Btl/No	CHL.	Frac CHL/DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	Optics	No.
1	BOT	558	37	*226						X		X					1
2	BOT		37														2
3	75		38														3
4	50		39		/					X		X					4
5	40		40		/					X		X					5
6	30		41		/					X		X					6
7	20		42		/					X		X					7
8	10		43	x 198	/					X		X					8
9	8		44		/					X		X					9
10																	10
11																	11
12																	12

Rosette Notes:

Chlor MAX 25 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBESIERP Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 51											
CONSC CAST #	LATITUDE					TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE SEA STATE	VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID		
		DEG	MIN	DEG	MIN													DAY	MO
		060	5630	.91	N	170	47	.94	W	23	JUN	09	0922	41.9	1.6	64	271	117	122
SBE 9+																			
PRESS SN																			
PRT TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Reset:	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No. DESIRED notes		SALT	Nut.BII	O2-BII No	CHL	Frac CHL	DIC/AIK	DOC	O18	S15N	Urea	Part.	Prod	DON	Lomas	Lessard		No.	
1	117	463	45	403				/	/									1	
2	100	46						/	/	533								2	
3	75	42						/	/									3	
4	50	48						/	/	534								4	
5	40	49																5	
6	20																	6	
7	10																	7	
8	10																	8	
9																		9	
10																		10	
11																		11	
12																		12	

REMARKS

15 off ~ Rolling

MAX. DEPTH = m

Rosette Notes:

C max ~ 35

60-12

Rosette Notes:

69.00

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.									
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (%)	SEA STATE VISIBILITY	WIND DIRN.	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID				
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)
61	56	17	.03	N	17	3	0	4	w	23	JUN	09	13	18	5	.2	063
SBE 9+																	130
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	464	Hydro Team-PMEL		Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	MAX. DEPTH = 133 m	
No DESIRED notes	SALT	Nut.Btl	O2-Btl.No	CHL, Frac CHL	DIC/AIK	DOC	O18	S15N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		
1	133			54	143												1
2	100	464	55														2
3	75			56													3
4	50		57		6												4
5	40		58		5												5
6	30		59		4												6
7	20		60		3												7
8	20																8
9	20																9
10	20																10
11	20																11
12	10		61	24	2												12

Rosette Notes:

C

62

1

/ /

Fur
hook
seaweed

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 53											
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE	WIND DIRN.	WIN D SPD.	CLOUD(amt)	BOTTO M	STA. NAME/ID					
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)	
6256	3.20 N	17117.97 W	23 JUN 09	1648	5.6	063	294	14	2780										
SBE 9+		FLUOR S/N																	
PRESS SN		SBE43-Oxy (prime)																	
PRI TEMP SN		SBE43-Oxy (sec)																	
SEC TEMP SN		Transmissometer																	
PRI COND SN		PAR S/N																	
SEC COND SN		O2 Tmp Sensn No.																	
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran	Harvey	Diane	Paul	Jared	Optics	NIS	
No. DESIRED	notes	SALT	Nut.BII	O2-BII	No	CHL	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	2000	465	63	(33)															1
2	2000																		2
3	1500																		3
4	1000																		4
5	1000																		5
6	1000																		6
7	500																		7
8	250																		8
9	200																		9
10	100																		10
11	75																		11
12	50																		12

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.									
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	WIND DIRN.	WIN D	CLOUD(amt)	BOTTO M	WEATHER	STA. NAME/ID			
	DEG MIN	DEG MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PTEL				Weingarth	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis	
No. DESIRED	notes	SALT	Nut.BH	O2-Btl#	No	CHL	Frac CHL	DIC/AIK	DOC	O18	\$1.5N	Urea	Part.	Prod	DON	Lomas	Lessard
1	40			72		5	5										1
14	40																2
15	30			73		4	4	/	/								3
16	30																4
17	20			74		3	3										5
18	20																6
19	10			75		2	2										7
20	10																8
21	0																9
22	0			76		1	1	/	/								10
23	0																11
24	0																12
25	0																13
26	0																14
27	0																15
28	0																16
29	0																17
30	0																18
31	0																19
32	0																20
33	0																21
34	0																22
35	0																23
36	0																24
37	0																25
38	0																26
39	0																27
40	0																28
41	0																29
42	0																30
43	0																31
44	0																32
45	0																33
46	0																34
47	0																35
48	0																36
49	0																37
50	0																38
51	0																39
52	0																40
53	0																41
54	0																42
55	0																43
56	0																44
57	0																45
58	0																46
59	0																47
60	0																48
61	0																49
62	0																50
63	0																51
64	0																52
65	0																53
66	0																54
67	0																55
68	0																56
69	0																57
70	0																58
71	0																59
72	0																60
73	0																61
74	0																62
75	0																63
76	0																64
77	0																65
78	0																66
79	0																67
80	0																68
81	0																69
82	0																70
83	0																71
84	0																72
85	0																73
86	0																74
87	0																75
88	0																76
89	0																77
90	0																78
91	0																79
92	0																80
93	0																81
94	0																82
95	0																83
96	0																84
97	0																85
98	0																86
99	0																87
100	0																88
101	0																89
102	0																90
103	0																91
104	0																92
105	0																93
106	0																94
107	0																95
108	0																96
109	0																97
110	0																98
111	0																99
112	0																100

Rosette Notes:

205

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.	
CONSC CAST #		LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB °C	WET BULB °C	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN. SPD. (kts) *
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	WIN D CLOUD(amt) TYPE WEATHER BOTTO M DEPTH (m)
63	56	3.39	N 171.82.50w	23	JUN	09	1920	5.5	070
SBE 9+									28710692780
PRESS SN									MAX. DEPTH =
PRI TEMP SN									m
SEC TEMP SN									
PRI COND SN									
SEC COND SN									
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	
No. DESIRED	notes	SALT	Nut.BI	O2-BI No	CHL Frac	DIC/AIK	DOC	O18	815N
1	26								Urea
2	26								Part.
3	26								Prod
4	26								DON
5	26								Lomas
6	18								Lessard
7	18								TH
8	18								
9	18								
10	15								
11	15								
12	11								
									No.

Rosette Notes:

111

26
26

18
18

15

11

8

4

0

444

8

9

10

11

12

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09	Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive	STATION NO.																			
				CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB		WET BULB		PRESSURE (°C)		SEA STATE (mb)		WIND DIRN.		WIN D CLOUD(amt)		BOTTO M WEATHER
	DEG	MIN	.	N	DEG	MIN	.	DAY	MO	YR	HR	MIN	.	°C	mb	*	*	(deg)	(kts)	*	*	(m)	
SBE 9+																							
PRESS SN																							
PRI TEMP SN																							
SEC TEMP SN																							
PRI COND SN																							
SEC COND SN																							
NIS DEPTH	Rosel.	Hydro Team-PMEL						Weingarten	Julie	Sambrotto			Moran	Harvey	Diane	Pat	Jared	Optics	NIS	MAX. DEPTH =			
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl	No	CHL	Frac CH	DOC	O18	Si,SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.		m		
13																							
14	8																						
15	2																						
16	4	D																					
17	4	D																					
18	4	D																					
19	4																						
20	4																						
21	0																						
22	0																						
23	0																						
24	0	P																					
25																							

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 53										
CONSC CAST #	LATITUDE	LONGITUDE			TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M DEPTH	STA. NAME/ID							
			DEG	MIN														
64	56	58.74 N	171	15.05 W	24 JUN 09	129	5.5	-	0638	294107	2770							
SBE 9+																		
PRESS SN					FLUOR SN													
PRI TEMP SN					SBE43-Oxy (prime)													
SEC TEMP SN					SBE43-Oxy (sec)													
PRI COND SN					Transmissometer													
SEC COND SN					PAR SN													
O2 Tmp Sensor No.					O2 Tmp Sensor No.													
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	
No DESIRE	holes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	200														X1		1	
2	180														X2		2	
3	75														X3		3	
4	50				P-23										X4		4	
5	40				P-22										X5		5	
6	30				P-24										X6		6	
7	18				P-25										X7		7	
8															X8		8	
9																9		
10																10		
11																11		
12																12		

Rosette Notes:

rosets 50m - 0m

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09							Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive				STATION NO.				
		CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE (°C)	WIND DIRN. (deg)	WIN D CLOUD(amt) TYPE	BOTTO M WEATHER DEPTH	STA. NAME/ID
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(mb)	*	*	(kts)	*	(m)	
0	64	36	58.74	N	171	15.05	W	24	JUN	09	0129	.	.	2770			
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	
No. DESIRED	notes	SALT	Nut.BH	O2-BH	No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard
13	4		9-27														1
14	4																2
15	4																3
16	0		P-28														4
17	0																5
18	0		100														6
	7																7
	8																8
	9																9
	10																10
	11																11
	12																12

Rosette Notes:

REMARKS 24 Section good cont
P-28 20/2

MAX. DEPTH = 210 m

53

119-15

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)				PRESSURE		SEA STATE VISIBILITY		WIND DIRN. SPD.		WIN D CLOUD(amt)		BOTTO M DEPTH		STA. NAME/ID			
					DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
065556.9	56.9	N	17112.6	24	JUN	09	06	42	15.0			1	06	38	31	6128						
SBE 9+			FLUOR SN																			
PRESS SN			SBE43-Oxy (prime)																			
PRI TEMP SN			SBE43-Oxy (sec)																			
SEC TEMP SN			Transmissometer																			
PRI COND SN			PAR SN																			
SEC COND SN			O2 Temp Sensor No.																			
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = 210 m			
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Uessard	TH					
1	200		X16X		X178																	
2	26		P-15																			
3	26																					
4	20				X151																	
5	18		P16																			
6	18																					
7	15		P17																			
8	15																					
9	15																					
10	11		P18																			
11	11																					
12	11																					

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.						
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN. SPD. TYPE	BOTTO M DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(kts)	*	(m)
	66	55	56	.97	N	17	11	2.56	w24	JUN 09	0642	.	.	2830
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
NIS DEPTH	Roset		Hydro Team-PMEL		Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pal/	Jared	Optics
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac Chl	DIC/ALK	DOC	018	615N	Urea	Part.	Prod	DON
13	8			P19										
14	8			P20										
15	4													
16	4													
17	4													
18	0			P21										
19	0													
20	0													
9														
10														
11														
12														

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195, for PMEL CTD archive		STATION NO. 53												
		CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	PRESSURE SEA STATE	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME/ID					
	DEG 16° 55' 53.12"	MIN N	DEG 171° 12.69' W	MIN JUN 09	DAY 240	MO 5.4	HR .06	MIN 32	deg 10	(kts) 2984	m m							
<input type="checkbox"/> SBE 9+			FLUOR S/N															
<input type="checkbox"/> PRESS SN			SBE43-Oxy (prime)															
<input type="checkbox"/> PRI TEMP SN			SBE43-Oxy (sec)															
<input type="checkbox"/> SEC TEMP SN			Transmissometer															
<input type="checkbox"/> PRI COND SN			PAR SN															
<input type="checkbox"/> SEC COND SN			O2 Tmp Sensor No.															
REMARKS								<i>b m go water</i>										
NIS DEPTH	Roset.		Hydro Team-PMEL				Weingartner	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	10																	1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12	✓																	12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

53

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			92.7%		PRESSURE		SEA STATE	VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID
								DRY BULB	WET BULB	(°C)	(°C)								
06 47 55	53.23	N	171 13.11	W	24	JUN	09	13	20	5.4	.	b6	321	11	2982				
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
N IS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Hanvey	Diane	Pat	Jared	Optics	NIS	MAX. DEPTH =		
No DESIRE notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	O18	\$15N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	m	
1 200		468															11T		1
2 150																	12T		2
3 100																	13T		3
4 75		77															+		4
5 50		79	908														5		5
6 40		80															6		6
7 30		81															7		7
8 26		829															8		8
9 26																	9		9
10 18		139															10		10
11 18																	11		11
12 18																	12		12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J (for PMEL CTD archive)

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	(deg)	(kts)	*	(m)
	.		N	.											
SBE 9+															
PRESS SN															
PRI TEMP SN															
SEC TEMP SN															
PRI COND SN															
SEC COND SN															
O2 Tmp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pal	Jared	Optics
No.DESIREd	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas
13															
14	15														
15	11														
16	11														
17	11														
18	8														
19	8														
20	5														
21	4														
22	5														
23	0														
24	0														
12															

Rosette Notes:

P31

P32

P33

P34

P35

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24

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VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.														
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WN D CLOUD(amt)	WIND DIRN.	WIND SPD.	BOTTO M	WEATHER TYPE	DEPTH (m)	STA. NAME/ID							
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	•	•	(deg)	(kts)	*	*	(m)							
6	85	6	10	47	N	170	35	19	w	24	JUN	09	1950	4.3	-	0838	345668	132				
SBE 9+										REMARKS												
										MAX. DEPTH = 109 m												
PRESS SN										FLUOR SN												
PRI TEMP SN										SBE43-Oxy (prime)												
SEC TEMP SN										SBE43-Oxy (sec)												
PRI COND SN										Transmissometer												
SEC COND SN										PAR SN												
O2 Tmp Sensor No.																						
Hydro Team-PMEI										Weingarten												
No.	DEPTH	Roset.	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis
No.	DESIRE	notes														Lomas	Lessard		TH		No.	
1	129		469	82	111																	1
2	100			83																		2
3	75			84																		3
4	50		85		/																	4
5	40		86		/																	5
6	30		87		/																	6
7	20		88		/																	7
8	10		89		/																	8
9	0		90	1H7	/																	9
10																						10
11																						11
12																						12

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09							Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive				STATION NO.						
		CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE DIRN. (deg)	WIND D SPD. (kts)	BOTTO M DEPTH (m)	STA. NAME/ID			
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	*	*	*	*				
6	6	9	56	17	.59	N	6	9	52	.35	W	24	JUN	09	2237	3.8	10837350	078	114
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Optics	NIS			
No. DESIRED	notes	SALT	Nut/Bu	O2-BL#	BLNO	CHL	Frac CHL	DIC/ALK	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	BoT			470	91	*144													1
2	75				92														2
3	50				93		/												3
4	40				94		/												4
5	30				95		/												5
6	20				96		/												6
7	10				97	09	/												7
8	0				98		/												8
9																			9
10																			10
11																			11
12																			12

Rosette Notes:

Same 11 chks at MAX., ~14 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSTIERP Summer-09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 55				
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * * * *	WIN D SPD. DIRN. (kts) (deg)	BOTTO M TYPE WEATHER DEPTH (m)	STA. NAME/ID SB-1	
DEG	MIN	DEG	MIN	DAY MO YR	HR MIN							
070	56	171.51	N	16 952.62	24	JUN 09	2253	.	.	.	114	
SBE 9+												
PRESS SN												
PRI TEMP SN												
SEC TEMP SN												
PRI COND SN												
SEC COND SN												
N DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	
No.DESIREL notes		SALT	Nut.BI	O2-BI.No	CHL	Frac CHL/DIC/ALK	DOC	O18	Urea	Part.	Prod	Harvey
1								815N			DON	Diane
2											Lomas	Pat/
3											Lessard	Jared
4												Optics
5												No.
6												Nis
7												
8												
9												
10												
11												
12												

REMARKS

MAX. DEPTH = 7 m

S meter w/ 1000' - cast 069

SST V1000'

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 56							
		CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID
	DEG MIN	DEG MIN	DAY MO YR	HR	MIN	*	*	*	(deg)	(kts)	*	*	(m)
07	15	62	9.64	N	171	30	.17	w	25	JUN	09	05	168
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
Nis DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane
No DESIRET	notes	SALT	Nut.Bu	O2-BLNO	CHL.	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON
1	B5	471	99	*166									
2	100		100										
3	75		101										
4	50			102	175								
5	40		103										
6	30		104										
7	20		105										
8	10		106										
9	0		107										
10													
11													
12													

Rosette Notes:

Chlor MAX top 10 meters

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 57											
		CONSC CAST #	LATITUDE DEG MIN	LONGITUDE DEG MIN	TIME (GMT)	DRY BULB °C	WET BULB °C	PRESSURE (mb)	SEA STATE * * * (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH (m)	STA. NAME/ID				
		0 42S	63 7183 N	142 16.12 W	25 JUN 09	0755	5.6	.	101	203	486	148					
SBE 9+					FLUOR SN												
PRESS SN					SBE43-Oxy (prime)												
PRI TEMP SN					SBE43-Oxy (sec)												
SEC TEMP SN					Transmissometer												
PRI COND SN					PAR SN												
SEC COND SN					O2 Tmp Sensor No.												
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut.BI	O2-BI.No	CHL	Frac CHL/DIC/AIk	DOC	O18	815N Urea	Part	Prod	DON	Lomas	Lessard	TH	No.	
1	144 ✓	472	108	127					X	X		X					1
2	100 ✓		109														2
3	75 ✓		110														3
4	50 ✓		111						X	X		X					4
5	40 ✓		112						X	X		X					5
6	30 ✓		113														6
7	20 ✓		114						X	X		X					7
8	10 ✓		115						X	X		X					8
9	0 ✓		116						X	X		X					9
10																	10
11																	11
12																	12

Rosette Notes:

No chlore!

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09							Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive			STATION NO.							
		CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIN D TYPE	BOTTO M WEATHER	STA. NAME/ID							
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	*	*	*	*	*							
7	35	64	21.95	N	173	0.8	85	25	JUN	09	1115	16.0	101						
												286	15						
												132							
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	MAX. DEPTH = 108 m			
No. DESIREd	notes	SALT	Nut.Bu	O2-BU.No	CHL.	Frac CHL	DI/CIAK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	Optics	NIS
1	128	/	473	117														1	
2	100	/	72	118														2	
3	75	/	31	119														3	
4	60	/	4	120		6												4	
5	40	/	5	121		5												5	
6	30	/	6	122		4												6	
7	20	/	7	123		3												7	
8	10	/	8	124		2												8	
9	0	/	9	125		1												9	
10																		10	
11																		11	
12																		12	

blocked 10 pump → O2 T₁₅ ↓
 Salinity is back in!
 Sucked something in!
 Oil below ~ 65'; me

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSEI/ER Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 59													
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		SEA STATE VISIBILITY		WIND DIRN.		BOTTO M		STA. NAME/ID					
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)			
7	45	7	0	.18	N	17	32	4.58	W	25	JUN	0	9	14	36	5.6	081	221	1086	C	166
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMELE						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS			
No. DESIRE	notes	SALT	Nut.Bil	O2-Bil.No	CHL.	Frac CHL	DIC/Ak	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard		No.			
1	163			173	126													1			
2	100			127	120													2			
3	175			128														3			
4	50			129		6												4			
5	40			130		5												5			
6	30			131		4															
7	20			132		3												6			
8	10			133		2												7			
9	0			474	134	083	1											8			
10																		9			
11																		10			
12																		11			
																		12			

Rosette Notes:

\$ 163 + 3 = 166

REMARKS

163 + 3 -> 166

MAX. DEPTH = 163 m

10 OK

M is the leader of Sec
down his own set measurement
down seems w/ R/V Knorr group

VESSEL
RV Knorr

CRUISE ID: 6N195-10 or 6N195-1 (for PMEL CTD) PROJECT & LEG: BEST/BSERP Summer 2008

Ship Designation (I.D.)

STATION NO. 600

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSPER_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 53-7												
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)
	75 57 16.75 N	75	57	16	75	17	35	0.39	W	25	JUN 09	1657	4.6	.	072	245	11	1	185	
SBE 9+				FLUOR SN																
PRESS SN				SBE43-Oxy (prime)																
PRI TEMP SN				SBE43-Oxy (sec)																
SEC TEMP SN				Transmissometer																
PRI COND SN				PAR SN																
SEC COND SN				O2 Temp Sensor No.																
Ns DEPTH	Roset.	Hydro Team-PMEL					Weingart	Juile	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics	Nis	MAX. DEPTH = 182 m		
No.DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	Si5N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.	
1	180									X	X		X				X1		1	
2	150									X	X		X						2	
3	150									X	X		X						3	
4	100									X	X		X				X2T		4	
5	100									X	X		X						5	
6	25									X	X		X				X3T		6	
7	75									X	X		X						7	
8	50									X	X		X				X4T		8	
9	40									X	X		X				X5T		9	
10	30									X	X		X				X6		10	
11	20									X	X		X				X7		11	
12	10									X	X		X				X8		12	

30

Rosette Notes:

VESSEL
RV Knorr

CRUISE ID 6N195-10 or 6N195J (for PMEL CTD) **PROJECT & LEG** BEST/BSIERP_Summer09

Ship Designation (I.D.)

STATION NO.

6
C

Rosette Notes:

3.8
3.8
3.8
2.5
2.5
2.5
2.0
2.0
2.0
1.5
1.5
1.5
1.0
1.0
1.0

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer09	Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive	STATION NO.	TIME (GMT)																
					DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	PRESSURE	SEA STATE	WIND D	CLOUD(amt)	BOTTO M
CONSC CAST #	LATITUDE	LONGITUDE												DRY BULB	WET BULB	*	*	DIRN.	TYPE	WEATHER	
		.	N			.		.	W	J	U	N	0	9	.	.					
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMEL												Weingart	Julie	Sambrotto				REMARKS	
No.DESIRE#	notes	SALT	Nut.Bt	O2-Bt#No	CHL	Frac CHL	DIC/Alk	DOC	O18	615N	Urea	Part.	Prod	DON	Moran/ Harvey	Diane	Pat/ Jared	Optics	Nis	MAX. DEPTH =	m
1	40														X X	X X			1		
2	10																		2		
3	5	D																	3		
4	5	D																	4		
5	5	D																	5		
6	5	D																	6		
7	5	D																	7		
8	0	Q1/P7																	8		
9	0	Q2																	9		
10	0																		10		
11	0																		11		
12	0																		12		

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD/BEST/BSIERP Summer'09		PROJECT & LEG PMELECTD/BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. S8-8						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	WIND D	CLOUD(amt)	BOTTO M	STA. NAME/ID		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*		
77	57	43	.54	N	17	33	57	06	W	25	JUN	09	21	
													130	
													5.8	
													05	
													45	
													230	
													158	
													169	
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
NIS DEPTH	Reset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	
No DESIREL	notes	SALT	Nut.Bil	O2-Bil.No	CHL	Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	Jared
1	R5	476	145	x202										Optics
2	150		146											No.
3	75		147											
4	50		148											
5	40		149	*199										
6	30		150											
7	20		151											
8	10		152											
9	0		153											
10														
11														
12														

Rosette Notes:

Chlor MAX ~33 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.									
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	95%	PRESSURE	WIN D CLOUD(amt)	BOTTO M	SB-9								
DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB °C	WET BULB °C	SEA STATE VISIBILITY	WIND DIRN. SPD. (kts)	WEATHER	STA. NAME/ID					
0	78	58	03.13	N	174	02.97	w	26	JUN 09	01/15	5.6						
SBE 9+							FLUOR S/N										
PRESS SN							SBE43-Oxy (prime)										
PRI TEMP SN							SBE43-Oxy (sec)										
SEC TEMP SN							Transmissometer										
PRI COND SN							PAR S/N										
SEC COND SN							O2 Tmp Sensor No.										
Nis DEPTH Roset.		Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/ Harvey	Diane	Pat/Jared					
No DESIREL notes		SALT	Nut.Bil	O2-Bil.No	CHL	Frac Chl/D/Calk	DOC	O18	6.5SN	Urea	Part.	Prod	DON	Lomas	Lessard	Optics	Nis No.
1	80T	137	477		181												1
2	80T		154														2
3	768		155														3
4	75		156	176													4
5	50		157														5
6	40		158														6
7	30		159														7
8	20		160														8
9	20																9
10	15																10
11	15																11
12	10		161														12

Rosette Notes:

Strong Chlor MAX 20m

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 62														
		CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. D SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID						
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	(deg)	(kts)	*	*	*	(m)	
0	7	8	58	0	3.	11	3	N	17	40	2.97	w	26	JUN	0	9	01	15	.	.
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No.DESIRED	notes	SALT	Nut.Bi	O2-Bi#No	CHL	Frac Chl	DIC/AIK	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.		
13	4	10																	1	
14	2	05																	2	
15	3	05																	3	
16	4	0																	4	
17	5	0																	5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09				Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive				STATION NO.										
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID						
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	STA. NAME/ID						
67 9 58	43.01	N	174 45.47	3w26j	JUN	09	06	07	5.7	-1.1	0248	002128	170	S8-10						
SBE 9+			FLUOR S/N																	
PRESS SN			SBE43-Oxy (prime)																	
PRI TEMP SN			SBE43-Oxy (sec)																	
SEC TEMP SN			Transmissometer																	
PRI COND SN			PAR S/N																	
SEC COND SN			O2 Tmp Sensor No.																	
Nis DEPTH				Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis		
No. DESIRED	Reset.	notes	SALT	Nut.BI	O2-BI#	No.	CHL	Frac Chl	DIC/Alk	DOC	O18	Si/SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	B6t		478	163	*179							X	X		X					1
2	150											X	X		X					2
3	75											X	X		X					3
4	50																			4
5	40																			5
6	30																			6
7	20																			7
8	10																			8
9	0																			9
10																				10
11																				11
12																				12

Rosette Notes:

minor chl or max = top 15m

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 64										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)		PRESSURE (mb)	DRY BULB (°C)	WET BULB (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt) TYPE	BOTTO M WEATHER	DEPTH (m)	STA. NAME/ID				
		DEG	MIN	DAY	MO													
080	5825.45N	175	20.50W	26	JUN	09	10	16	5.6	043	3251	1386	1846	S8-11				
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRET	notes	SALT	Nut.Bil	O2-Bil No	CHL	Frac CHL	DIC/Alk	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	182			979	172	1113												1
2	150			173														2
3	100			174														3
4	75			175														4
5	50			176		6												5
6	40			177		5												6
7	30			178		4												7
8	20			179		3												8
9	10			180		2												9
10	7																	10
11	7																	11
12	7																	12

Rosette Notes:

7 m 12

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.											
		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * * * *	WIND DIRN. (deg)	CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID							
CONSC CAST #	LATITUDE	LONGITUDE	DAY	MO	YR	HR	MIN										
			.	N		.	W	J U N 0 9									
SBE 9+		FLUOR S/N															
PRESS SN		SBE43-Oxy (prime)															
PRI TEMP SN		SBE43-Oxy (sec)															
SEC TEMP SN		Transmissometer															
PRI COND SN		PAR S/N															
SEC COND SN		O2 Tmp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis
No. DESIRET	notes	SALT	Nut.Bu	O2-Btl.No	CHL	Frac Chl	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	7																1
2	7																2
3	7																3
4	7																4
5	7																5
6	7																6
7	7																7
8	7																8
9	7																9
10	0							181	174								10
11																	11
12																	12

21

24

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 65	
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)		90.7°	PRESSURE	WIN D CLOUD(amt)	BOTTO M
DEG	MIN	DEG	MIN	DAY	MO	DRY BULB (°C)	WET BULB (°C)	SEA STATE	STA. NAME/ID
81	58	28.55	N	174	19.7	22	6	JUN 09	1525
						5.9	5.9		1073
									3271
									176
									140
SBE 9+						FLUOR S/N			
PRESS SN						SBE43-Oxy (prime)			
PRI TEMP SN						SBE43-Oxy (sec)			
SEC TEMP SN						Transmissometer			
PRI COND SN						PAR S/N			
SEC COND SN						O2 Tmp Sensor No.			
REMARKS									
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	
No. DESIRED	notes	SALT	Nut.Bu	O2-BU:No	CHL	Frac CHL	DIC/ALK	Moran/ Lomas	Harvey/ Lessard
1	130	480	182					Diane	Pat/Jared
2	100		183	197					Optics No.
3	75		184						
4	50		185		5	5			
5	40		186		4	4			
6	20		187		3	3			
7	10		188		2	2			
8	0		189		1	1			
9									
10									
11									
12									

Rosette Notes:

137+3 140

140

140

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSI/ERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.												
		CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	WIN D CLOUD(amt) SEA STATE VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	WEATHER TYPE	BOTTO M DEPTH	STA. NAME/ID				
		8258	13.93 N	17435.42 W	26 JUN 09	1814	16.1	092	41,40 PRESSURE	180	7	MAX. DEPTH = 500 m	PI4-7					
SBE 9+									FLUOR S/N									
PRESS SN									SBE43-Oxy (prime)									
PRI TEMP SN									SBE43-Oxy (sec)									
SEC TEMP SN									Transmissometer									
PRI COND SN									PAR S/N									
SEC COND SN									O2 Trip Sensor No.									
Ns DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis	
No.DESIRE	notes	SALT	Nut.Bi	O2-Bi/No	CHL	Frac Chl	DIC/Alk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	500	481	190	190						X	X		X				1	
2	500																2	
3	250				191					X	X		X				3	
4	250																4	
5	200				192												5	
6	200																6	
7	150																7	
8	100																8	
9	75																9	
10	50																10	
11	40																11	
12	30																12	

Rosette Notes:

(5)

post 191

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (ID.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 66												
CONSC CAST #	LATITUDE	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *(deg)	WIN D SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID
	82 58 13 . 93 N	17 43 S	.42 W	26 JUN 09	18 14											614-7
SBE 9+				FLUOR S/N																
PRESS SN				SBE43-Oxy (prime)																
PRT TEMP SN				SBE43-Oxy (sec)																
SEC TEMP SN				Transmissometer																
PRC COND SN				PAR S/N																
SEC COND SN				O2 Tmp Sensor No.																
Nis DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis		
No.DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DICIAK	DOC	O18	65N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.		
1	20				6												X/6	1		
2	10				7												X/11	2		
3	0																X/12	3		
4	0																	4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 66											
CONSC CAST #	LATITUDE					TIME (GMT)	PRESSURE (°C)	SEA STATE	WIND DIRN.	WIN D CLOUD(amt) TYPE	BOTTO M WEATHER	STA. NAME/ID							
		DEG	MIN	DEG	MIN					*	*								
083581	3.745N	17435	.90	17435	.90	W	26 JUN 09	1917	6.2	.	102	281087	2156						
SBE 9+							FLUOR S/N												
PRESS SN							SBE43-Oxy (prime)												
PRI TEMP SN							SBE43-Oxy (sec)												
SEC TEMP SN							Transmissometer												
PRI COND SN							PAR S/N												
SEC COND SN							O2 Tmp Sensor No.												
Nis DEPTH		Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis			
No.	DESIRE	notes	SALT	Nut/BII	O2-BII No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	23					178													1
2	23																		2
3	23																		3
4	15					19													4
5	15																		5
6	15																		6
7	15																		7
8	12					P10													8
9	12																		9
10	9																		10
11	9					P11													11
12	9																		12

Rosette Notes:

23
23
23
15
15
12
9
6
3
3
3
0
0

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.				
		CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	BOTTO M WEATHER
	DEG MIN	DEG MIN	DAY MO YR	HR MIN	HR MIN	*	*	(deg)	(kts)	STA. NAME/ID
83	58	13.75	N	174 35.9	D	26	J	UN 0 9	19 17	
SBE 9+										
PRESS SN										
PRI TEMP SN										
SEC TEMP SN										
PRI COND SN										
SEC COND SN										
REMARKS										
SBE43-Oxy (prime)										
SBE43-Oxy (sec)										
Transmissometer										
PAR S/N										
O2 Tmp Sensor No.										
Hydro Team-PMELE										
NIS DEPTH	Roset.				Weingart	Julie				
No DESIRET	notes	SALT	Nut.Bu	O2-Bu.No	CHL	Frac Chl	DIC/CAK	DOC	O18	815N
13	9									
14	6				P12					
15	6									
16	6									
17	5	3	D							
18	6	3	D							
19	7	3	D							
20	8	3	D							
21	9									
22	10	D			P43					
23	11	D								
24	12	D								

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 67									
CONSC CAST #	LATITUDE			TIME (GMT)		PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M	STA NAME/ID					
		DEG	MIN	DEG	MIN					(mb)	(°C)	(deg)	(kts)	*	*	*	*
084	5729.82N	175	14.66W	27	JUN	09	00	39	6.8	1034	248	102	3490				
SBE 9+										FLUOR S/N							
PRESS SN										SBE43-Oxy (prime)							
PRI TEMP SN										SBE43-Oxy (sec)							
SEC TEMP SN										Transmissometer							
PRI COND SN										PAR SN							
SEC COND SN										O2 Tmp Sensor No.							
Nis DEPTH		Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis	
No.DESIREd	notes	SALT	Nut.Bu	O2-Bu	BU.NO	CHL	Frac CHL	DIC/TAIK	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard
1	506		482	9	224												TH
2	560																1
3	255		15	243													2
4	250																3
5	260		11														4
6	200																5
7	160		12														6
8	75		13														7
9	50		14														8
10	50		212														9
11	40		15														10
12	40																11
																	12

Rosette Notes:

Chlor MPX ~30m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 4								
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID			
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(mb)	*	*	(deg)	(kts)	*	*	(m)
0	84	57	29	.82	N	175	14	.66	W	27	JUN	09	00	39	.	3490
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL_Frac CHL DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
13	0	40														1
14	0	40														2
15	#	30														3
16	#	30														4
17	#	30														5
18	#	20														6
19	#	10														7
20	#	0														8
21	#	0														9
10																10
11																11
12																12

Rosette Notes:

Chlor MAX 30m

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09										Ship Designation (ID.)		STATION NO. 68				
		CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE (°C)		SEA STATE VISIBILITY		WIND DIRN.	WIN CLOUD(amt)	BOTTO M		
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	(deg)	(kts)	TYPE	WEATHER	STA NAME/ID	REMARKS
		85	57	44.45	N	175	0.88	W	27	JUN	09	0842	6.5	162	249	1247	\$P2034	MAX. DEPTH = 500 m
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	
No. DESIREd notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	018	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	NIS
1	500	483	20	(211)														1
2	250		21															2
3	200		22															3
4	100		23	(162)														4
5	150		24															5
6	75		25															6
7	50		26		5													7
8	40		27															8
9	30		28		4													9
10	20		29		3													10
11	10		30		2													11
12	0		31	603	1													12

Rosette Notes:

2037

13 m CTD

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP, Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

69

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	CLOUD(amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN									
865759	.17	N	17447.2	6W27JUN09	1339	1013.6	96.2%	W	*	*	24315	2693	P14-08
SBE 9+					FLUOR S/N	SBE43-Oxy (prime)							
PRESS SN						SBE43-Oxy (sec)							
PRI TEMP SN						Transmissometer							
SEC TEMP SN						PAR S/N							
PRI COND SN						02 Tmp Sensor No.							
SEC COND SN													

NIS DEPTH Roset:

Hydro Team-PMEL

Weingart

Julie

Sambrotto

Moran/

H Harvey

D Diane

P Pal

J Jared

O Optics

N Nis

No. DESIRE#

notes

SALT

Nut.Btl

O2-Btl.No

CHL

Frac CHL

DIC/AIK

DOC

O18

815N

Urea

Part

Prod

DON

Lomas

Lessard

TH

No.

1

2

3

4

5

6

7

8

9

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VESSEL
RV Knorr

CRUISE ID: 6N195-10 or 6N195J (for PMEL CTD) PROJECT & LEG: BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archives

STATION NO.

1
C

Rosette Notes:

11 11 200
S1 S1 98
51 51 25
61 61 6e
CS CS 001

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD
BEST/BSIERP Summer'09)

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE			SEA STATE			WIND DIRN.			WIN CLOUD(amt)			BOTTO M			STA. NAME/ID		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)								
			.	N			.	W	J	U	N	0	9													
SBE 9+																										
PRESS SN																										
PRI TEMP SN																										
SEC TEMP SN																										
PRI COND SN																										
SEC COND SN																										
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambroto			Moran	Harvey	Diane	Pat	Jared	Optics	NIS	REMARKS						
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl No	CHL	Frac CHI	DI/CAK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH									
13	11																									
14	8				19																					
15	8																									
16	4				20/02																					
17	5																									
18	6																									
19	7	0																								
20	8	0																								
21	9																									
10																										
11																										
12																										

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBISIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 71																	
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(GMT)	DRY BULB	WET BULB	(°C)	(°C)	(mb)	*	*	SEA STATE VISIBILITY	WIND DIRN.	W/N D	CLOUD(amt)	WEATHER TYPE	BOTTO M	STA. NAME/ID
		0	88	58	43.10	N	174	06	.12	W	27	JUN	09	2049	4.5	/	/	/	97%	PRESSURE					914-5
																			SEAS STATE VISIBILITY	WIND DIRN.					
																			W/N D	CLOUD(amt)					
																			WEATHER TYPE						
																			BOTTO M						
																			STA. NAME/ID						
					</																				

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. P14-4											
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		91° DRY BULB	WET BULB	PRESSURE (*°C)	SEA STATE (*°C)	WIND DIRN.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	HR	MIN	(*°C)	(mb)	(deg)	(kts)	*	(m)					
	089	58	57	76	N	173	52	41	W	27	JUN	09	2250	14.8	/	1934	236	118	121
SBE 9+							FLUOR SN				REMARKS								
PRESS SN							SBE43-Oxy (prime)				3 m bottom								
PRI TEMP SN							SBE43-Oxy (sec)												
SEC TEMP SN							Transmissometer												
PRI COND SN							PAR S/N												
SEC COND SN							O2 Tmp Sensor No.												
NIS DEPTH	Roset.		Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Paul	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL/DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.		
1	8.5		486	55						X	X		X				1		
2	100		56							X	X		X				2		
3	75		57							X	X		X				3		
4	50		58	172						X	X		X				4		
5	40		59	155						X	X		X				5		
6	30		60														6		
7	26																7		
8	20		61														8		
9	10		62														9		
10	5																10		
11	5																11		
12	5																12		

Rosette Notes:

Chlor MAX 26

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 72												
		CONSC CAST #	LATITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID					
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)
0	89	58	57.76	N	173	52.41	W	27	JUN	09	2250	4.8	121	
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No.DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
13	5																	
14	5																	
15	0																	
1	63																	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Rosette Notes:

MAX. DEPTH = 119 m

P 2012

(63)
Sampling not begun

72

Rosette Notes:

Small chlor MAX 25m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD archive)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.											
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIN DIRN.	WIND SPD.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(deg)	(kts)	*	*	(m)						
09	15	92	6.99	N	17	32	5.61	W	28	JUN	09	03	36	4.7	+	2033	2100	088	162
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Reset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Paul	Jared	Optics	NIS	STATION NO.
No.DESIRED	notes	SALT	Nut.BII	O2-BII No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	74
1	80	488	72																98 - 2
2	75		73																
3	50		74	*13															
4	40		75																
5	30		76																
6	20		77	*60															
7	10		78																
8	8		79																
9	-																		
10																			
11																			
12																			

Rosette Notes:

no chl or MAX

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 75												
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M TYPE	WEATHER DEPTH	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
	092	59	41	64	N	173	11	30	W	28	JUN	09	05	18	3.3	/	203	1	170	078
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
Nis DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis		
No.DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.		
1	B7		489	80																
2	75			81														1		
3	50			82														2		
4	40			83	222													3		
5	30			84														4		
6	20			85														5		
7	10			86														6		
8	C			87														7		
9																		8		
10																		9		
11																		10		
12																		11		
																		12		

Rosette Notes:

Chwrt May 36 m

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 76			
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * VISIBILITY (deg)	WIN D CLOUD(amt) WIND SPD. DIRN.	BOTTO M TYPE WEATHER DEPTH	STA. NAME/D (m)
093	58 54 . 19 N	172 23 . 09 W	28 JUN 09	114 6	5.6	21	27609	110			
SBE 9+				FLUOR S/N							
PRESS SN				SBE43-Oxy (prime)							
PRI TEMP SN				SBE43-Oxy (sec)							
SEC TEMP SN				Transmissometer							
PRI COND SN				PAR S/N							
SEC COND SN				O2 Trip Sensor No.							
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/Harvey	Diane
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	O18	815N Urea	Pat. Prod
1	35										
2	35										
3	7										
4	7										
5	7										
6	7										
7	7										
8	7										
9	7										
10	7										
11	7										
12	7										

REMARKS
5Q1 - Water for bryozoan

MAX. DEPTH = 35 m

13
14
7

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSI/ER Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 77		
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	9383	PRESSURE				
DEG	MIN	DEG	MIN	DAY	MO	HR	DRY BULB (°C)	WET BULB (°C)	SEA STATE	
9	45	63	83	N	17327.11	w 29 JUN 09	0954	6.6	.	153
SBE 9+							154	178	6	12300
PRESS SN							155	12300	7	
PRT TEMP SN							156	12300	8	
SEC TEMP SN							157	12300	9	
PRI COND SN							158	12300	10	
SEC COND SN							159	12300	11	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/ Harvey
No. DESIRED	notes	SALT	NUT.BR	O2-BR#	NO	CHL	Frac CHL	DIC/IAK	DOC	Diane
1	1500	✓	193	88	274		615N	Urea	Part.	Patu
2	1000	C		89					Prod	Jared
3	750	✓		90	058				DON	Optics
4	500	✓		91						Nis
5	250	✓		92	182					No.
6	100	✓		93						
7	75	✓		94						
8	50	✓		95	6					
9	40	✓		96	5					
10	30	✓		97	4					
11	20	✓		98	3					
12	10			99	2					

Rosette Notes:

> D

750
1500
500
300

45 + cool / 110
10 (126)

MAX. DEPTH = 1500 m

(76 was 5a, 1 am bng)

REMARKS

FLUOR S/N
SBE43-Oxy (prime)
SBE43-Oxy (sec)

Transmissometer
PAR S/N

O2 Tmp Sensor No.

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.												
		CONSC CAST #	LATITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	WN D	WIND DIRN.	WIND SPD.	BOTTO M	STA. NAME/ID					
	DEG MIN	DEG MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
			.	N		.	W	J	J	0	9		.					
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pau/	Jared	Optics	NIS	
No. DESIRE	notes	SALT	Nut.Bil	O2-Bil No	CHL	Frac Chl	DIC/ALK	DOC	O18	Si5N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	10																1	
2																	2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11	Y																11	
12	0	490	100	105													12	

23

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. X3 17										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE (deg)	W/WIN DIRN.	CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	*	*	*	*	(m)						
95	56	54	.21	N	173	11	.75	W	29	JUN	09	1407						
												16.6						
												143						
												151						
												18						
												145						
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Bu	O2-Btl.No	CHL	Frac CHL	DIC/IAK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	135																	1
2	100																	2
3	75																	3
4	50																	4
5	40																	5
6	30																	6
7	20																	7
8	10																	8
9	10																	9
10	0																	10
11																		11
12																		12

Rosette Notes:

VESSEL RV Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 79							
		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE DIRN.	WIN D SPD.	BOTTO M DEPTH	STA. NAME/ID				
CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	HR	MIN	(deg)	(kts)	*	*	(m)
	96	57	9	.4	16	N	172	56	.0	9	16	08	6.4
	9	.4	16	N	172	56	.0	9	16	08	6.4	143	15216
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran	Harvey	Diane
No. DESIRED	notes	SALT	Nut.BII	O2-BII No	CHL	Frac CHL	DOC	O18	SI5N	Urea	Part	Prod	DON
1	b	492	110							✓			X
2	100		111	196						✓			
3	175		112							✓			
4	100												
5	75		112										
6	50		113										
7	40		114										
8	30		115										
9	20		116										
10	10		117										
11	0		118	200									
12			119										

PAR SN
O2 Tmp Sensor No.

REMARKS

MAX. DEPTH = 110 m

Pat

Rosette Notes:

110

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP Summer'09
Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

79

BOTTO
M
STA. NAME/ID

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE SEA STATE VISIBILITY	WIND DIRN. SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTO M DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR										
9757	9.76	N	17256	67	W	29	JUN	09	1704	6.4	1000	14	14716	120			
SBE 9+			FLUOR S/N														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR S/N														
SEC COND SN			O2 Tmp Sensor No.														

REMARKS

7 sec

MAX. DEPTH = 50 m

Nis DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julie	Sambrotto			Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis
		No.DESIRED	notes	SALT	Nut.Bu	O2-BuL.No	CHL	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
1	26			P1															1
2	26																		2
3	26																		3
4	17			P2															4
5	17																		5
6	17			P3															6
7	13																		7
8	13																		8
9	13																		9
10	10			P4															10
11	10																		11
12	10																		12

Rosette Notes:

26

17

13

10

7

3

0

0

0

0

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBISIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.											
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		95%		PRESSURE		SEA STATE		WIN D SPD.		BOTTO M DEPTH		STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB	WET BULB	SEA STATE	VISIBILITY	WIND	CLOUD(amt)	WEATHER	BOTTO	STA. NAME/ID		
98	57	25.15	N	172	40	00	09	JUN 09	1956	16.3	-	1556	1542	08	118				
SBE 9+									FLUOR S/N										
PRESS SN									SBE43-Oxy (prime)										
PRI TEMP SN									SBE43-Oxy (sec)										
SEC TEMP SN									Transmissometer										
PRI COND SN									PAR S/N										
SEC COND SN									O2 Tmp Sensor No.										
Nis DEPTH		Roset.		Hydro Team-PMEL		Weingard Julie		Sambrotto		Moran/ Harvey		Diane		Pat/Jared		Optics		Nis	
No.DESIRE	notes	SALT	Nut.Bil	O2-Bil.No	CHL	Frac CHL	DIC/alk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	T_H	No.	
1	867			493	119													1	
2	1000			120														2	
3	75			121														3	
4	50			122	*016													4	
5	40			123														5	
6	30			124														6	
7	20			125														7	
8	10			126														8	
9	C			127	221													9	
10																		10	
11																		11	
12																		12	

Rosette Notes:

CH105 MAX = 21m - 25m

Bottom cap on BTL 8
may have been closed for cast

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive				STATION NO. 81												
CONSC CAST #	LATITUDE					TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE DIRN.	WIND SPD. DIRN.	WIN D CLOUD(amt) TYPE	WEATHER M DEPTH	BOTTO STA. NAME/ID								
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(deg)	(kts)	*	*								
0	99	57	40	.28	N	17	22	41	39	W	29	JUN	0	92	45	16.7	/	1557	1531	198	103	
SBE 9+																						
PRESS SN																						
PRI TEMP SN																						
SEC TEMP SN																						
PRI COND SN																						
SEC COND SN																						
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS						
No.DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH						
1	B.T																				1	
2																					2	
3	160																				3	
4	75																				4	
5	50																				5	
6	40																				6	
7	30																				7	
8	20																				8	
9	10																				9	
10	5																				10	
11																					11	
12																					12	
FLUOR SN															MAX. DEPTH = 101 m							
SBE43-Oxy (prime)																						
SBE43-Oxy (sec)																						
Transmissometer																						
PAR SN																						
O2 Tmp Senson No.																						

Rosette Notes:

Chlor MAX 30m

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.					
						82					
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		WIN D CLOUD(amt)	BOTTO M TYPE	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)
	100	57.55	59	N	72	08.47	W	30	JUN 09	0032	16.5
SBE 9+											
PRESS SN											
PRT TEMP SN											
SEC TEMP SN											
PRI COND SN											
SEC COND SN											
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrutto		Moran/	Harvey
No. DESIRE	notes	SALT	Nut.BH	O2-BH/No	CHL/Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.
1	BST	495	137	*167							
2	75		138								
3	50		139								
4	48		140								
5	30		142								
6	20		143								
7	10		144								
8	0		145								
9											
10											
11											
12											

Rosette Notes:

Chlor MAX 31m ~ 80%

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD BEST/BSIERP Summer'09)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. S73	
CONSC CAST #	LATITUDE DEG MIN	LONGITUDE DEG MIN	TIME (GMT)		PRESSURE		SEA STATE VISIBILITY	WIND DIRN. SPD.	BOTTO M STA. NAME/ID
			DRY BULB	WET BULB	(°C)	(°C)			
10	58	16.86 N	171.53 W	30 JUN 09	22	16.3	16.5	15.0	22.7
SBE 9+			FLUOR S/N						
PRESS SN			SBE43-Oxy (prime)						
PRT TEMP SN			SBE43-Oxy (sec)						
SEC TEMP SN			Transmissometer						
PRICOND SN			PAR S/N						
SEC COND SN			O2 Tmp Sensor No.						
REMARKS									
MAX. DEPTH = 96 m									
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL/Frac CHL/DIC/AIk	DOC	O18	SISN	Urea Part. Prod DON
1	80	496	146	050				Lomas	Moran/ Harvey Diane Pat/ Jared Optics Nis No.
2	75	147						Lessard	TH
3	50	148							
4	40	149							
5	36	150							
6	30	151							
7	20	152							
8	10	153							
9	0	154							
10									
11									
12									

Rosette Notes:

Chlor mark 35m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 84												
CONSC CAST #	LATITUDE					TIME (GMT)	PRESSURE (mb)	SEA STATE	WIND D SPD.	BOTTO M STA. NAME/ID										
		DEG	MIN	DEG	MIN															
						DAY	MO	HR	MIN	(°C)	(°C)	(deg)	(kts)	*	*	(m)				
102	58	26	.28	N	17	13	7	12	W	30	JUN	09	64	47	5.4	1654	1402	80	96	
SBE 9+										FLUOR S/N										
PRESS SN										SBE43-Oxy (prime)										
PRI TEMP SN										SBE43-Oxy (sec)										
SEC TEMP SN										Transmissometer										
PRI COND SN										PAR SN										
SEC COND SN										O2 Tmp Sensen No.										
Nis DEPTH		Roset.		Hydro Team-PMEL		Weingarten		Julie		Sambrotto		Moran/ Harvey		Diane		Pat/ Jared		Optics		
No.DESIRE	notes	SALT	Nut.BII	O2-BII	NO	CHL	Frac CHL	DIC	CAIK	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Leppard	TH	Nis No.
1	B0T		497			*88														1
2	B6T					155														2
3	75					156														3
4	50					157														4
5	80					158														5
6	30					159														6
7	20					160														7
8	10					161														8
9	0					162	100													9
10																				10
11																				11
12																				12

Rosette Notes:

no chl or MAX

VESSEL F/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 85										
CONSC CAST #	LATITUDE			TIME (GMT)		PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M STA. NAME/ID							
		DEG	MIN	DEG	MIN					(mb)	(deg)	(ks)	(m)					
103	58	41	.74	N	17	12	1.51	W	30	JUN	09	0648	5.2	1745	148178	86		
SBE 9+						FLUOR SIN												
PRESS SN						SBE43-Oxy (prime)												
PRI TEMP SN						SBE43-Oxy (sec)												
SEC TEMP SN						Transmissometer												
PRI COND SN						PAR SN												
SEC COND SN						O2 Tmp Sensor No.												
REMARKS												<i>Page 1 of 2</i>						
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRED notes		SALT	Nut. Btl	O2-Btl No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	80																	1
2	75																	2
3	75																	3
4	75																	4
5	75																	5
6	75																	6
7	75																	7
8	75																	8
9	75																	9
10	75																	10
11	75																	11
12	75																	12

Rosette Notes:

Small Chlor MAX. 37 m

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BEST/ERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 85															
		CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * VISIBILITY	WIND DIRN.	WIN D CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID								
	DEG MIN	DEG MIN	DAY MO YR	HR MIN			*	*	(kts)	*	*	(m)									
10	35 84	17 21.5	10 30 JUN 09	66 48																	
11	35 84	17 21.5	10 30 JUN 09	66 48																	
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
SBE Tmp Sensen No.																					
Nis DEPTH				Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/ Harvey									
No.DESIREd	notes	SALT	Nut.Btl	O2-Btl	CHL	Frac Chl	DIC/Alk	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard	Diane	Pat	Jared	Optics	Nis No.
13	75																				1
14	75																				2
15	75																				3
16	75																				4
17	75																				5
18	75																				6
19	50																				7
20	40																				8
21	30																				9
22	20																				10
23	10																				11
24	0																				12

Rosette Notes:

Surgeon BTL #24
did not fire!

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.											
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	PRESSURE (mb)	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH (m)	STA. NAME/ID							
		DEG	MIN	DEG	MIN														
10	45	58	57	11	N	171	55	.70	W	30	JUN 09	09095815.3							
11	45	58	57	11	N	171	55	.70	W	30	JUN 09	09095815.3							
12	45	58	57	11	N	171	55	.70	W	30	JUN 09	09095815.3							
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/ Harvey	Diane	Pat/ Jared							
No. DESIREd	notes	SALT	Nut.Bil	O2-Bil No	CHL	Frac CHL	IDICA/IAK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	Optics	Nis No.
1	72	✓	499	170	172														1
2	50	✓		171		6													2
3	40	✓		170		5													3
4	30	✓		173		4													4
5	20	✓		174		3													5
6	10			175		2													6
7	8																		7
8	8																		8
9	8																		9
10	8																		10
11	8																		11
12	8																		12

REMARKS

FLUOR S/N

SBE43-Oxy (prime)

SBE43-Oxy (sec)

Transmissometer

PAR S/N

O2 Tmp Sensor No.

MAX DEPTH =

75

m

Pressure problem on ~ 30m
(Phaeocystis clumped pressure
not enough?)

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BStIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 87										
CONSC CAST #	LATITUDE	TIME (GMT)		95.72	PRESSURE	DRY BULB	WET BULB	WIN D SPD.	BOTTO M	X3-8								
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	(deg)	(kts)	STA. NAME/ID								
							MIN	(mb)	*									
10559	12.39	N	7050.05	W	30	JUN	09	1305	5.2									
SBE 9+								173	1321									
PRESS SN								17	17									
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Ak	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	69 ✓	500	177															1
2	50		178	1147	6													2
3	40		179		5													3
4	30		180		4													4
5	20		181		3													5
6	10		182		2													6
7	0		183	111	1													7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

NO

L1 + 69 73

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 88								
CONSC CAST #	LATITUDE					TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * VISIBILITY	WIND DIRN.	WIN D CLOUD(amt) TYPE	WEATHER M	BOTTO M STA. NAME/ID		
		DEG	MIN	DEG	MIN											
16	65.927	18	N	170	34.5	11	W	30	JUN	09	150	9	5.2	1183	1391	
16	65.927	18	N	170	34.5	11	W	30	JUN	09	150	9	5.2	1183	1391	
SBE 9+				FLUOR S/N												
PRESS SN				SBE43-Oxy (prime)												
PRI TEMP SN				SBE43-Oxy (sec)												
SEC TEMP SN				Transmissometer												
PRI COND SN				PAR S/N												
SEC COND SN				O2 Tmp Sensor No.												
NIS DEPTH		Roset.		Hydro Team-PMEL		Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	
No. DESIRED	notes	SALT	Nut.BII	O2-BII.No	CHL	Frac CHL	DIC/ALK	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard
1	64	50	184													
2	50		185		b											
3	40		186	009		s										
4	30		188	187		3										
5	20					4										
6	10		189			2										
7	0		190	120		1										
8																
9																
10																
11																
12																

Rosette Notes:

64 + 4

88

X B-7

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 89											
CONSC CAST #	LATITUDE			TIME (GMT)		PRESSURE (mb)	SEA STATE DIRN.	WIND D SPD.	BOTTO M DEPTH	STA. NAME/ID									
		DEG	MIN	DEG	MIN														
107	59	43.08	N	70	18.64	W	30	JUN	09	1707	4.R	1.17	109	14	62				
SBE 9+				FLUOR S/N															
PRESS SN				SBE43-Oxy (prime)															
PRI TEMP SN				SBE43-Oxy (sec)															
SEC TEMP SN				Transmissometer															
PRI COND SN				PAR SN															
SEC COND SN				O2 Tmp Sensor No.															
NIS DEPTH		Rosat.		Hydro Team-PMEL		Weingartner	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics				
No.	DESIRE	notes	SALT	Nut.Btl	O2-Btl.NC	CHL	Frac Chl	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	Nis
1																			
2	50	/																	
3	40	/																	
4	30	/																	
5	20	/																	
6	10																		
7	10																		
8	10																		
9	0																		
10																			
11																			
12																			

Rosette Notes:

3 at 60

Rosette Notes:

46 94
30 30
24 24
18 18
12 12
9 9
0 0
0 0

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG		SHIP DESIGNATION (I.D.)		STATION NO.											
		BEST/BSIERP_Summer'09		6N195-10 or 6N195J for PMEL CTD archive													
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD (amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN								
		.	N		.	J	U	N	0	9	.	.	.	*	*	*	
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
13	18			P11							X	X	X	X			1
14	18																2
15	18																3
16	12			P12							X						4
17	12																5
18	6																6
19	6																7
20	6																8
21	6																9
22	0																10
23	0																11
24	0																12

Rosette Notes:

Cure EdCart

TRIP

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 90										
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)	95% PRESSURE	PRESSURE	WIND DIRN.	WIN D	BOTTO M	STA. NAME/ DEPTH			
									DRY BULB	WET BULB	SEA STATE VISIBILITY	SPD.	CLOUD(amt)	WEATHER				
1095958.59	N	17002.77	W	30	JUN	09	2030	4.2							X3-5			
SBE 9+									FLUOR SN									
PRESS SN									SBE43-Oxy (prime)									
PRI TEMP SN									SBE43-Oxy (sec)									
SEC TEMP SN									Transmissometer									
PRI COND SN									PAR S/N									
SEC COND SN									O2 Tmp Sensor No.									
REMARKS																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Fog	MAX. DEPTH = 53					
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	Jared	Optics
1	86X	503	198	*127														
2	40				199													
3	30				250													
4	20				201													
5	10				202													
6	0				203													
7																		
8																		
9																		
10																		
11																		
12																		

Chlor MAX 45

Delayed 3m a D. 2000

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 91														
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	WEATHER TYPE	BOTTO M DEPTH	STA. NAME/ID	
1110	60 14.02 N	169	46.96 W	30	JUN	09	22	19	4.0	1.2	20.4	18.1	1013.6	95%	95%	95%	WET BULB	D	CLOUD(amt)	WEATHER TYPE	BOTTO M DEPTH	X6-4 STA. NAME/ID
SBE 9+																						
PRESS SN																						
PRI TEMP SN																						
SEC TEMP SN																						
PRI COND SN																						
SEC COND SN																						
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = 46 m				
No.DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard		TH		No.		
1	36.5	504	204								X	X		X							1	
2	40		205																		2	
3	36		206								X	X									3	
4	20		207																		4	
5	10		208	144							X	X		X							5	
6	0		209								X	X		X							6	
7																					7	
8																					8	
9																					9	
10																					10	
11																					11	
12																					12	

Rosette Notes:

Chlor MAX 40

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 92																	
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	* SEA STATE	PRESSURE	95 %	TIME (GMT)	DRY BULB	WET BULL	WIND DIRN.	WIN D	WIND SPD.	WIND CLOUD(amt)	BOTTO M	STA. NAME/ DEPTH
		11	16	02	9.34	N	16	930	.97	W	01	JUL	09	0036	4.5	-	2137	132	146	46					
SBE 9+																FLUOR SN									
PRESS SN																SBE43-Oxy (prime)									
PRI TEMP SN																SBE43-Oxy (sec)									
SEC TEMP SN																Transmissometer									
PRI COND SN																PAR SN									
SEC COND SN																O2 Tmp Sensor No.									
NIS DEPTH		Roset.		Hydro Team-PMEL		Weingarten		Julie		Sambrotto		Moran/		Harvey		Diane		Pat		Jared		Optics			
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL., Frac CHL	DIC/AIK	DOC	O18	\$15N	Urea	Part.	Prod	DON	Lomas	Lessard		TH								
1	Bot	505	210	*	208																				
2	30																								
3	20																								
4	10																								
5	0																								
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Chlor MAX 40 - 30 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 93																
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	WIN DIRN.	WIND SPD.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ DEPTH
11	26° 44'.6 N	169	15'.7	6	01	JUL	09	02			4.9	—	2137	133	117									
SBE 9+																								
PRESS SN																								
PRI TEMP SN																								
SEC TEMP SN																								
PRI COND SN																								
SEC COND SN																								
REMARKS																								
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julie	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics	MAX. DEPTH = 39						
No DESIRED Notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	S15N	Urea	Part.	Prod	DON	Lomas	Lessard		TH						
1	B-1	506	215	239																				
2	30																							
3	30																							
4	20																							
5	18																							
6	0																							
7																								
8																								
9																								
10																								
11																								
12																								

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSTERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. Q 4															
		CONSC CAST #	LATITUDE	TIME (GMT)	DRY BULB °C	WET BULB °C	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIN D CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/									
		113	60 59.94 N	169 00.02 W	01 JUL 09	0420	5.1	-	2137	137	107	39									
SBE 9+				FLUOR SN																	
PRESS SN				SBE43-Oxy (prime)																	
PRI TEMP SN				SBE43-Oxy (sec)																	
SEC TEMP SN				Transmissometer																	
PRI COND SN				PAR S/N																	
SEC COND SN				O2 Tmp Sensor No.																	
NIS DEPTH	Rosel.	Hydro Team-PMEL				Weingart	Juile	Sambrotto				MAX DEPTH = 36									
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac CHL	DIC/AIK	DOC	O18	SISN	Urea	Part.	Prod	Don	Lomas	Moran/	Harvey	Diane	Pat	Jared	Optics	X3-1
1	36	567	220	112																	
2	20																				
3	10																				
4	0																				
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Chlor MAX 36 m

VESS
RWK

VESSEL
RW Knorr

CRUISE ID
6N195-100

PROJECT & LEG
BEST/BSIEERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO. 95

VESSEL
R/V KnorrCRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSERP_Summer09Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archiveSTATION NO.
96

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB °C	WET BULB °C	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME!	
	DEG	MIN	DEG	MIN	DAY	MO	YR										
11	55	59	54	.08	N	168	35	.93	W	1	JUL	09	1456	44.4	1022	3130	1686°C
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.		Hydro Team-PMEL			Weingart			Sambrotto			Moran/			Harvey		
No.DESIRED	notes	SALT	Nut.BII	O2-BII.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
1	36		509	4													
2	30			5													
3	20			6	003	3	3	1	1								
4	10			7		2	2										
5	0			8		1	1	/	/								
6																	
7																	
8																	
9																	
10																	
11																	
12																	

MAX. DEPTH = 36

c

d

MN-2

Optics

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

97

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE (°C)	VISIBILITY (mb)	WIND DIRN. (deg)	WIN D SPD. (kts)	WIN CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/I	MAX. DEPTH =
					DAY	MO	YR											
116595	3.	96 N	16912.	10 W	1	JUL	09	1703	3.7	223	124	158	6	46				
SBE 9+																		
PRESS SN																		
PRT TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics			
No. DESIREd	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	
1	41		510	9		5					X	X						
2	30		10	TR	4													
3	30																	
4	20																	
5	20																	
6	20																	
7	10																	
8	10																	
9	0																	
10	0																	
11																		
12																		

5 ret!

VESSEL CRUISE ID PROJECT & LEG
R/V Knorr 6N195-10 or 6N195J (for PMEL CTD BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archivee

STATION NO.

46

Rosette Notes:

38
24
21
21
14
14
11
11
888
775
248
222

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSEI/ERP_Summer'09	Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive	STATION NO.																			
				CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)			WET BULB (°C)			PRESSURE (mb)	SEA STATE	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN								*	*	(deg)	(kts)	*	*	(m)
					.	N		.	W	J	U	N	0	9			
SBE 9+																							
PRESS SN																							
PRI TEMP SN																							
SEC TEMP SN																							
PRI COND SN																							
SEC COND SN																							
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pau	Jared	Optics	NIS				
No DESIRET notes		SALT	Nut.Bil	O2 Bil.No	CHL	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.				
13	1	8																					
14	2	5																					
15	3																						
16	4	5																					
17	5	2																					
18	6	2																					
19	7	2	P																				
20	8	2	D																				
21	9	2	D																				
22	10	2	D																				
11																							
12																							

Rosette Notes:

bottom down to Set 2m

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 98						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE	WIND DIRN.	WIN CLOUD(amt)	BOTTO M	M/N -4		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	SPD.	STA. NAME!
118	59	53.96	N	169	41.8	09	W	1	JU	40	1942	4.5	22	13819
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Optics
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.Frac	CH DIC/AIK	DOC	O18	SiSN	Urea	Part.	Prod	DON	Lomas
1	48	✓	511	14	143	6	/	/						
2	40	✓			15	5	/	/						
3	30				16		/	/						
4	20	30												
5	20													
6	10													
7	0													
8														
9														
10														
11														
12														

MAX. DEPTH = 48

48 + 4

2 bottles are saved at max on top port
of C 3

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 99													
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(GMT)	TIME (GMT)	DRY BULB	WET BULB	PRESSURE * * * * * °C (°C) (mb)	SEA STATE * * * * * VISIBILITY (deg)	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/
11	19 59 54 . 16 N	170	23 . 77 W	01	JUL	09	23	23	5	.3	-	91%									
SBE 9+												FLUOR S/N									
PRESS SN												SBE43-Oxy (prime)									
PRI TEMP SN												SBE43-Oxy (sec)									
SEC TEMP SN												Transmissometer									
PRI COND SN												PAR S/N									
SEC COND SN												O2 Tmp Sensor No.									
REMARKS																					
NIS DEPTH	Roset.	Hydro Team-PMEL								Weingarten	Julie	Sambrutto									
No. DESIRED holes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	Diane	Pat/Jared	Optics		
1	bot		5/2	20	219			✓	✓	549	X	X									
2	50			21																	
3	40			22				✓	✓												
4	30			23				✓	✓												
5	40																				
6	30																				
7	20			24																	
8																					
9	10			25																	
10	10																				
11	0			26																	
12	0																				

219 Chlor Max

VESSEL R/V Khorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.				
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE SEA STATE VISIBILITY	WIND DIRN.	WIN CLOUD(amt) TYPE	BOTTO M	STA. NAME!	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	mb	*	(deg)	(kts)	(m)
120	59	55	17	00	02	W	02	139	5.8	2058	130	176
SBE 9+												
PRESS SN												
PRI TEMP SN												
SEC TEMP SN												
PRI COND SN												
SEC COND SN												
REMARKS												
SBE43-Oxy (prime)												
SBE43-Oxy (sec)												
Transmissometer												
PAR SN												
O2 Tmp Sensor No.												
MAX. DEPTH = 66												
NIS DEPTH	Roset.	Hydro Team-PMEL										
No. DESIRED	Notes	SALT	Nut.Bil	O2-Bil.No	CHL	Frac CHL	DIC/AIk	DOC	O18	Weingart	Julie	Sambrotto
1	80	513	27	24	2	✓		✓				
2	80											
3	80				28							
4	80											
5	40				29							
6	40											
7	30				30							
8	30											
9	20				31							
10	20											
11	10				32							
12	10											

242

no need chlorinate

VESSEL
R/V Khorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
160

M11-6

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.		
CONSC CAST #		LATITUDE	LONGITUDE	TIME (GMT)		91°/	PRESSURE			
DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	SEA STATE	
				HR			(°C)	(°C)	VISIBILITY	
12	159 54.00	N	171 35.62	W	02	JUL 09	03 56	6.0	(deg)	
							(mb)	*	(deg)	
								*	(kts)	
								*	*	
SBE 9+									(m)	
PRESS SN										
PRI TEMP SN										
SEC TEMP SN										
PRI COND SN										
SEC COND SN										
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingartner	Remarks page 1 of 2			
No.DESIRE	notes	SALT	Nut.BII	O2-BII.NO	CHL.	Frac CHL	DIC/AIK	DOC	O18	MAX. DEPTH = 67
1	Bst	514	34	269	X	X				
2	60		41							
3	50		35		X	X				
4										
5	50									
6	40		36							
7	40		37		X	X				
8	30									
9	30									
10	30									
11	20		38							
12	20									

NO CHL OR MATT

101

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)

6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

102

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		SEA STATE		WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH (m)	STA. NAME/I
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	
1225954.56 N	17141	.49	49 W	02 JUN	09	06	49	5.8	✓	1957	129206	70			X5
SBE 9+			FLUOR S/N												
PRESS SN			SBE43-Oxy (prime)												
PRI TEMP SN			SBE43-Oxy (sec)												
SEC TEMP SN			Transmissometer												
PRI COND SN			PAR S/N												
SEC COND SN			O2 Tmp Sensor No.												
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Juile	Sambrutto		Moran	Harvey	Diane	Pau	Jared	Optics
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	SI5N	Urea	Part.	Prod	DON	Lomas
1	80	-	42												
2	50	515	43												
3	40		44												
4	30		45												
5	20		46												
6	10		47												
7	0		48	47											
8															
9															
10															
11															
12															

at mooring 09-BS-SA dep 10/11

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 104										
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA. NAME/I						
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(deg)	(kts)	*	*	(m)
124	59	54.02 N	172	47.99 W	2	JUL	0	9	1040	5	.9	18	12	723				
SBE 9+																		
PRESS SN																		
PR TTEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
O2 Tmp Sensor No.		REMARKS																
NIS DEPTH	ROSET.	Hydro Team-PMEL																MAX. DEPTH =
No.	DESIRED	notes	SALT	Nut.BII	O2-BII.No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Weingarten Julie	Sambrotto Part.	Moran/ Prod	Harvey Lomas	Diane Lessard	Pat TH	Optics
1	71		574	56					/	/	548							1
2	50		517	57	220	6			/	/							2	
3	40		58			5			/	/							3	
4	30		59			4			/	/							4	
5	30	D																
6	30																	
7	30																	
8	30																	
9	30																	
10	30																	
11	30																	
12	30																	

10 8

long. w 7
put 2 sec. 10m

10 20 30
30
30
30

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE DIRN.	WIND D SPD.	CLOUD(amt)	TYPE	BOTTO M DEPTH	STA. NAME!		
	DEG	MIN	DEG	MIN												
SBE 9+				.	N											
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset		Hydro Team-PMEL			Weingart	Julie									
No.DESIRED	notes		SALT	Nut.BII	O2-BII.No	CHL	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas
1	30															
2	30															
3	30															
4	20 D															
5	20															
6	10															
7	10 D															
8	10															
9	10															
10	10															
11																
12																

REMARKS

MAX. DEPTH =



5

6

7

62

7

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

105

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH	WEATHER	STA. NAME/ m	
	DEG	MIN	DEG	MIN	DAY	MO	YR											
1255954.13N	17323.68W	209	1420	5.2	163	11920	85											
SBF 9+			FLUOR S/N															
PRESS SN			SBE43-Oxy (prime)															
PRI TEMP SN			SBE43-Oxy (sec)															
SEC TEMP SN			Transmissometer															
PRI COND SN			PAR S/N															
SEC COND SN			O2 Tmp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	
No DESIRED	Notes	SALT	Nut.Btl	O2-Btl No	CHL.	Frac CHL	DIC/AIK	DOC	O18	Urea	Part.	Prod	DON	Lomas	Lessard	TH		
1	82	518	63					/										
2	50		64		6													
3	40		65		5													
4	30		66		4													
5	30	D																
6	20		67		3													
7	20	D																
8	10		68	(217)	2													
9	10	D																
10	10		69		1													
11																		
12																		

Carib 04/11
10031 on board

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO 106						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIN D CLOUD(amt)	WIND DIRN.	BOTTO M	STA. NAME/I		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(mb)	(°C)	(mb)	(deg)	(kts)	
26	59	53.98	N	174	0	11	W	24	09	16.3	5.5	.154	1162086	
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	OCT	O18	Urea	Part.	Prod	Diane	Jared
1	97	519	70	N	0	00	/	/		✓	✓	✓	TH	Optics
2	75													
3	75													
4	50													
5	50													
6	40													
7	40													
8	30													
9	30													
10	20													
11	20													
12	10													

REMARKS
REASON MAX. DEPTH = 96

96
4

No water col. R-2

VESSEL
RV KnorrCRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer09Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archiveSTATION NO.
NWTT/106

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB °C	WET BULB °C	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN CLOUD(amt) TYPE	BOTTO M	STA. NAME!	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	(deg)	(kts)	(m)	
1275954.00	N	17357.98	W	21	JUN	09	17.19	15.4	1011.92	0.4	0	0	0		
SBE 9+															
PRESS SN															
PRI TEMP SN															
SEC TEMP SN															
PRI COND SN															
SEC COND SN															
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	PAU	Jared	Optics
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL-Frac CHL	DIC/AIK	DOC	O18	85SN	Urea	Part.	Prod	DON	Lomas	Lessard
1	416														
2	46														
3	416														
4	30														
5	30														
6	30														
7	24														
8	24														
9	24														
10	18														
11	18														
12	18														

MAX DEPTH = 50

19 Jul Diane did not take water - NO
Peww. in water

46 30 24 18 18 18 18 18 18 18 18 18

PARK
WESSEL

DECK
WESSEL

PROJEKTI & LEG

SHIP DESIGNATION (I.D.)

3110 NO.

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 107											
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	DRY BULB	WET BULB	PRESSURE	SEA STATE	WIND DIRECTION	WIN D CLOUD(amt)	BOTTO M DEPTH	STA. NAME
									*	*	(°C)	(°C)	(mb)	*	(deg)	*	*		
12	28 59.54	22	N	174 36.18	W	02	JUL	09	21	12	5.3	-1.1	1356	117.258				MN12	
SBE 9+				FLUOR S/N														MAX DEPTH = 107	
PRESS SN				SBE43-Oxy (prime)															
PRI TEMP SN				SBE43-Oxy (sec)															
SEC TEMP SN				Transmissometer															
PRI COND SN				PAR S/N															
SEC COND SN				O2 Tmp Sensor No.															
NIS DEPTH		Roset.		Hydro Team-PMEL		Weingart		Julie		Sambrotto		Moran		Harvey		Diane		Pat	
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	Jared	Optics	
1	R5		500	78	172		X	X											
2	75			79															
3	50			80															
4	40			81															
5	30			82															
6	20			83															
7	10			84															
8	0																		
9																			
10																			
11																			
12																			

No clk/scr MAX

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer-09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.										
CONSC CAST #	LATITUDE	TIME (GMT)		PRESSURE DRY BULB		WIND DIRN.		WIN D CLOUD(amt)	BOTTO M DEPTH									
DEG	MIN	DEG	MIN	DAY	MO	HR	MIN	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	STA. NAME!	
129	59	54.	44	N	175	11	.86	W	6	21	JUL	0	9	23	20	5.7	/	
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL		Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/Jared	Optics	MAX. DEPTH = 116				108	
No.DESIRED	notes	SALT	Nut.BH	O2-BH.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	
1	85	X	521	86				X	X		550							MN-13
2	75							X	X									
3	60																	
4	50																	
5	40																	
6	40																	
7	30																	
8	20																	
9	20																	
10	20																	
11	10																	
12	10																	

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09
Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

08

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE (°C)	VISIBILITY (mb)	WIND DIRN. * (deg)	WIN D CLOUD(amt)	BOTTO M DEPTH	STA. NAME/ M	MAX. DEPTH =	116	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	(deg)	(kts)	(m)				
129	59	54.44	N	175	11.86	W	02	JU	09	23	20	.	.			119		
SBE 94																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.		Hydro Team-PMEL		Weingart		Julie		Sambrotto		Moran/		Harvey		Diane		Pat	
No. DESIRED	Notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
3	O																	
4	O																	
5	O																	
6	O																	
7	O																	
8	O																	
9	O																	
10	O																	
11	O																	
12	O																	

REMARKS

page 277

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
109

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID	REMARKS																	
										DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	(deg)	(ks)	*	*	*
1305954.19	N	17548.00	W	03 J U L 0 9 03 / 1 6 . 0	17.06	105	30	8	Rawn	13	05	54	19	03	J U L 0 9	03	1	6	105	30	8	129					
SBE 9+																											
PRESS SN																											
PRI TEMP SN																											
SEC TEMP SN																											
PRI COND SN																											
SEC COND SN																											
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = 126 m										
No. DESIRED	notes	SALT	NUT BII	O2-BII No	CHL	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH										
1	B0	52	95	205			X	X									X1										
2	75	522	96														X2										
3	55		97				X	X								X3											
4	40		98													X4											
5	38		99													X5											
6	20		100													X6											
7	10		101													X7											
8	0		102				X	X								X8											
9																X9											
10																X10											
11																X11											
12																X12											

Rosette Notes:

Chlor WAK 20-30

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBESIERP_Summer09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

111

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE * * °C	SEA STATE * * (deg)	WIND DIRN. SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO.
					DEG	MIN	DAY											
1325953.98	N	17710.62	W	03	JUL	09	837	5.3	954	87238	6C	137	1	MAX. DEPTH = 132 m				
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL..Frac	CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	
1	132	224	111															1
2	100	324	112															2
3	75		113															3
4	50		114															4
5	40		115															5
6	30		116															6
7	20		117															7
8	10		118	2														8
9	0		119	1														9
10																		10
11																		11
12																		12

Rosette Notes:

3 - 3:0
345

The Notes:

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)				PRESSURE		SEA STATE VISIBILITY		WIND DIRN.		WIN D CLOUD(amt) TYPE		BOTTO M WEATHER		STA. NAME/ID	
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	(deg)	(kts)	
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = m	
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	δ1SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	
1	8																1	
2	8																2	
3	8																3	
4	8																4	
5	8																5	
6	8																6	
7	8																7	
8	8																8	
9	8																9	
10	8																10	
11	0																11	
12	0																12	

22
23
24

Rosette Notes:

VESSEL: R/V Knorr **CRUISE ID:** 6N195-10 or 6N195J (for PMEL-CTD) **PROJECT & LEG:** BESt/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO. 113

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE			SEA STATE VISIBILITY		WIND DIRN. SPD.		BOTTO M DEPTH		STA. NAME/ID					
	DEG	MIN	.	N	DEG	MIN	.	W	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
SBE 9+																						
PRESS SN																						
PRI TEMP SN																						
SEC TEMP SN																						
PRI COND SN																						
SEC COND SN																						
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH =	m		
No DESIRED	notes	SALT	Nut.Bil	O2-Bil.No	CHL	Frac CHL	DIC/Alk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.			
1	20	13	125																	1		
2	20	14	135																	2		
3	10	15	136																	3		
4	10	16	136																	4		
5	0	17	127																	5		
6	0	18	127																	6		
7																				7		
8																				8		
9																				9		
10																				10		
11																				11		
12																				12		

Rosette Notes:

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archiveSTATION NO.
113

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE	SEA STATE	WIND DIRN.	WIN D SPD.	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID						
					DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	(mb)	*	*	(deg)	(kts)	*	*	
135 59 53 . 91 N			178 45 . 75 W		3	JUL	09	17	10	5	.3	17.1	17.1	1015.8	1015.8	62	62	10	10	10	10
SBE 9+			FLUOR SN																		
PRESS SN			SBE43-Oxy (prime)																		
PRI TEMP SN			SBE43-Oxy (sec)																		
SEC TEMP SN			Transmissometer																		
PRI COND SN			PAR SN																		
SEC COND SN			O2 Tmp Sensor No.																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = 40 m				
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL, Frac CHL	DIC/AIK	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH					
1 27																	1				
2 23			P														2				
3 23																	3				
4 23																	4				
5 15			PB														5				
6 15																	6				
7 15																	7				
8 12			P9														8				
9 12																	9				
10 12			P10														10				
11 9																	11				
12 9																	12				

Rosette Notes:

207 23 15 12 9 6 3 0 0
 23 15 12 9 6 3 0 0
 23 15 12 9 6 3 0 0
 15 12 9 6 3 0 0
 12 9 6 3 0 0
 9 6 3 0 0
 6 3 0 0
 3 0 0
 3 0 0

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.											
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. CLOUD(amt)	BOTTO M DEPTH	STA. NAME/ID
			.	N			.		W	J	U	L	O	9					
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
N DEPTH	Roset.	Hydro Team-PMEL				Wengant	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis			
No DESIRED	notes	SALT	Nut.Btl	O2-Btl No	CHL	Frac	CHL/DIC/AIK	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH		
1	9	13			211													1	
2	6	14																2	
3	6	15																3	
4	6	16			221P2													4	
5	3	17																5	
6	3	18																6	
7	3	19																7	
8	3	20																8	
9	3	21																9	
10	0	22																10	
11	0	23																11	
12	0	24																12	

Rosette Notes:

13 14 15 16 17 18 19 20 21 22 23 24

Q1 N12

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE • •	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH (m)	STA. NAME/ID	
	DEG 36.5953	MIN 33.97N	DEG 178.11.84W	DAY MO 03 JUL 09	HR 2042	MIN 5.9								
SBE 9+			FLUORS/N											
PRESS SN			SBE43-Oxy (prime)											
PRI TEMP SN			SBE43-Oxy (sec)											
SEC TEMP SN			Transmissometer											
PRI COND SN			PAR SN											
SEC COND SN			O2 Tmp Sensor No.											
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/Jared	Optics
No. DESIRED	notes	SALT	Nut.Bil	O2-Bil.No	CHL. Frac CHL/DIC/AIK	DOC	O18	815N Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	B.T					X		X						1
2	Bot													2
3	75													3
4	75													4
5	50													5
6	40													6
7	30													7
8	30													8
9	20													9
10	20													10
11	20													11
12	10													12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

114

MN-18

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE VISIBILITY		WIND DIRN.	W/ D SPD.	CLOUD(amt)	BOTTO M	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB (°C)	WET BULB (°C)	(mb)	*	(deg)	(kts)	*	(m)	
136	59	53.97	N	178	11.84	W	03	JUL	09	20	42	
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pau	Jared	Optics	NIS
No DESIRED	notes	SALT	Nut. Blt	O2-Bil.No	CHL/Frac CHL	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
13	0								X	X						1
14	0															2
15																3
16																4
17																5
18																6
19																7
20																8
21																9
22																10
23																11
24																12

REMARKS

page 2 of 2

MAX. DEPTH = 136 m

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
115

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amnt)	BOTTO M DEPTH	STA. NAME/ID	MAX. DEPTH = 1558 m	REMARKS		
					DEG	MIN	DAY												
1375953.78 N			17922.81 W	04 J U L 09	03	19	6.7	-	-	9768	170308	2750							
SBE 9+			FLUOR SN																
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			SBE43-Oxy (sec)																
SEC TEMP SN			Transmissometer																
PRI COND SN			PAR SN																
SEC COND SN			O2 Tmp Sensor No.																
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics		
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	81SN	Urea	Part	Prod	DON	Lomas	Lessard	TH	NIS	
1	135				146	133		X	X	562								1	
2	1006				528	147	*213	X	X	563								2	
3	1605																		
4	1000																	3	
5	758				148	174		X	X	564								4	
6	500				149	*193		X	X	565								5	
7	250				150	*202		X	X	566								6	
8	150				151		X	X	X	567								7	
9	100				152		X	X	X	568								8	
10	75				153		X	X	X	569								9	
11	50				154													10	
12	40				155						X	X	570						11
																		12	

Rosette Notes:

Chlor max 20-26m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

115

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)				PRESSURE		SEA STATE VISIBILITY		WIND DIRN.		BOTTO M		STA. NAME/ID			
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	(deg)	(kts)	*	(m)
137	59	53.78 N	179	22.81	179	22.81	03	JUL	09	03	19

SBE 9+	FLUOR SN	REMARKS	MAX. DEPTH =
PRESS SN	SBE43-Oxy (prime)		
PRI TEMP SN	SBE43-Oxy (sec)		
SEC TEMP SN	Transmissometer		
PRI COND SN	PAR SN		
SEC COND SN	O2 Tmp Sensor No.		

NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pav	Jared	Optics	NIS		
No DESIRED	Notes	SALT	Nut. Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
13	a	30						X	X	511							1	
14	a	24															2	
15	a	20															3	
16	a	10															4	
17	b	10															5	
18	b	0															6	
19	c	0															7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD BEST/BIERP_Summer09)		PROJECT & LEG PMELECTD_BEST/BIERP		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH (m)	STA. NAME/ID
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN		*	*		
138	60	8.08N	17836.53W	04	JUL	09	10	09	6.2	044	1742	786	179
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Reset:	Hydro Team-PMEL			Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/Jared	Optics
No DESIRED	notes	SALT	NUT.BR	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod
1	175			529	160								
2	150				161								
3	100				162								
4	75				163								
5	50				164	6							
6	40				165	5							
7	30				166	4							
8	20				167	3							
9	10				168	2							
10	8												
11	8												
12	8												

Rosette Notes:

8 10 bottles

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERRP_Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J (for PMEL CTD archive)

STATION NO.

CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID		
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	
SBE 9+			.	N			.	W	J	U	L	0	9	.	
PRESS SN															
PRI TEMP SN															
SEC TEMP SN															
PRI COND SN															
SEC COND SN															
NIS DEPTH	Roset.	Hydro Team-PMELE				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Optics	
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	Jared	NIS
1	8	13													1
2	8	14													2
3	8	15													3
4	8	16													4
5	8	17													5
6	8	18													6
7	8	19													7
8	0	20	1193	169	1										8
9															9
10															10
11															11
12															12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 117															
CONSC CAST #	LATITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (hPa)	SEA STATE	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M WEATHER														
DEG	MIN	DEG	MIN	DAY	MO	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	*	(m)					
139	59	59	.0	1	N	17	84	7	7	1	W	4	JUL	0	9	13	47	6.2	b6	106	29		148
		SBE 9+																					
		PRESS SN																					
		PRI TEMP SN																					
		SEC TEMP SN																					
		PRI COND SN																					
		SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	Nis	No.							
No. DESIRED	notes	SALT	Nut.Bil	O2-Bil No	CHL, Frac CHL/DIC/AIk	DOC	O18	815N Urea	Part.	Prod	DON	Lomas	Lessard										
1	140			530	57	190																	
2	100			58																			
3	75			59																			
4	50			60		6																	
5	40			61		5																	
6	30			62		4																	
7	20			63		3																	
8	10			64		2																	
9	0			65		1-																	
10																							
11																							
12																							

Rosette Notes:

*Sed trap recovery
hush flume - dep by ROD 94*

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BESTBSIERP_Summer09	Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive	STATION NO. 118
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CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M	STA NAME/ID	DEPTH (m)	
140	59 59.65N	178 47.76W	4 JUL 09	16.1	16.0	96.0	PRESSURE						
SBE 9+							FLUOR S/N						
PRESS SN							SBE43-Oxy (prime)						
PRI TEMP SN							SBE43-Oxy (sec)						
SEC TEMP SN							Transmissometer						
PRI COND SN							PAR S/N						
SEC COND SN							O2 Tmp Sensor No.						
NIS DEPTH	Roset.	Hydro Team-PMEL	Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No.DESIRED	notes	SALT	Nut.BH	O2-Btl.No	CHL. Frac CHL/DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	TH	No.
1	30								Lomas				1
2	22			P14									2
3	22												3
4	22												4
5	22												5
6	12		P15										
7	12												6
8	12												7
9	10		P16										8
10	10												9
11	10		R1										10
12	7		P17										11
													12

REMARKS

Pend at
End Trap Recovery

MAX DEPTH =

42

m

Rosette Notes:

30 22 12 10 7 5 20 at Cross Period (20)

22 12 10 7 5 20 at Cross Period (20)

12 10 7 5 20 at Cross Period (20)

12 10 7 5 20 at Cross Period (20)

12 10 7 5 20 at Cross Period (20)

12 10 7 5 20 at Cross Period (20)

12 10 7 5 20 at Cross Period (20)

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIN D	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID	
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*
		.	N	.	W	J	U	L	0	9	.	.	*	*
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
O2 Tmp Sensor No.														
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac	CH DIC/Aik	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas
1	7													1
13	7													2
14	5													3
15	5													4
16	5													5
17	5													6
18	2	19	3	Rep. bcast										7
19	2	20	3	Rep. bcast										8
20	2	2	2	2										9
21	2	2	2	2										10
22	0	22	0	0										11
23	0	2	0	0										12
24	0	Did	NOT	TRIP										

Rosette Notes:

Rolling ~2m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/SIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 118	
CONSC CAST #		LATITUDE	LONGITUDE	TIME (GMT)	92%	PRESSURE	SEA STATE	WIN D	BOTTO
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	CLOUD(amt)	M
14	15	28.72N	178.65W	04	JUL	09	2106	6.4	5313
14	15	28.72N	178.65W	04	JUL	09	2106	6.4	5313
SBE 9+				FLUOR S/N					
PRESS SN				SBE43-Oxy (prime)					
PRI TEMP SN				SBE43-Oxy (sec)					
SEC TEMP SN				Transmissometer					
PRI COND SN				PAR S/N					
SEC COND SN				O2 Tmp Sensor No.					
NIS DEPTH	Roset.	Hydro Team-PMEL			Weingarten	Julie	Sambrotto	Moran/	Harvey
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL/DIC/AIK	DOC	O18	Diane
1	Box	531	66	*211				815N	Pat
2	150		67					Urea	Jared
3	75		68					Part.	Optics
4	50		69					Prod	No.
5	40		70					DON	
6	30		71					Lomas	
7	20		72					Lessard	
8	10		73						
9	0		74						
10	0								
11									
12									

Rosette Notes:

Chlor MAX 20-30 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 119	
CONSC CAST # <u>58</u>	LATITUDE 59° 9' N	LONGITUDE 177° 56'.05" W	TIME (GMT) 17 JUL 09 0113	DRY BULB (°C) 16.5	PRESSURE (mb) 94%	PRESSURE SEA STATE VISIBILITY	WIND DIRN. DEPTH	BOTTO M STA. NAME/ID X62-15	
DEG MIN	DEG MIN	DAY MO YR HR MIN	(°C) 13.5	(mb) * * * (deg) * * * (kts) * * * (m)	WIND D SPD. TYPE WEATHER DEPTH				
SBE 9+		FLUOR SN							
PRESS SN		SBE43-Oxy (prime)							
PRI TEMP SN		SBE43-Oxy (sec)							
SEC TEMP SN		Transmissometer							
PRI COND SN		PAR SN							
SEC COND SN		O2 Tmp Sensor No.							
NIS DEPTH	Roset.	Hydro Team-PMEL		Weingart	Julie	Sambrotto		Moran/	
No. DESIRED	notes	SALT	Nut.Btl	O2 Btl.No	CHL. Frac CH	DIC/AIK	DOC	Harvey	Diane
1	805						O18	Lumas	Pat/
2	805						815N	Lessard	Jared
3	75								Optics
4	75								No.
5	75								
6	75								
7	75								
8	75								
9	75								
10	75								
11	75								
12	75								

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID				
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	•	•	(deg)	(kts)	•	•	(m)
142	59	59	.95	N	77	56.0	S	05	JUL	09	01	13	
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRED notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DOC	O18	S15N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.	
13	75																1	
14	75																2	
15	75																3	
16	75																4	
17	50																5	
18	40																6	
19	30																7	
20	20																8	
21	20																9	
22	0																10	
23	0																11	
24	0																12	

Rosette Notes:

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MAX. DEPTH = 135 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 120				
CONSC CAST #	LATITUDE DEG MIN	LONGITUDE DEG MIN		TIME (GMT)		PRESSURE (mb)	SEA STATE DIRN.	WIND SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID
		DAY	MO	YR	HR							
143	59 11.09 N	17 70 11.13 W	05 J	JUL	09	0521	6.1	15.57	1892	18	148	X62-14
SBE 9+		FLUOR SN										
PRESS SN		SBE43-Oxy (prime)										
PR1 TEMP SN		SBE43-Oxy (sec)										
SEC TEMP SN		Transmissometer										
PRI COND SN		PAR SN										
SEC COND SN		O2 Tmp Sensor No.										
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane
No. DESIRED	Notes	SALT	Nut.Btl	O2 Btl.No	CHL. Frac CH	DOC	O18	815N	Urea	Part.	Prod	Pat
1	Bot	533	83									Jared
2	100		84	212								Optics
3	75		85									No.
4	50		86									
5	40		87									
6	30		88									
7	20		89									
8	10		90									
9	0		91									
10	0											
11												
12												

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BESTER/P Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE	WIN D	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DIRN.	SPD	TYPE	DEPTH		
144	59	22	.44	N	176	6.75	W	65	JUL	09	0836	5.5		
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pav/Jared	Optics
No.DESIRED	notes	SALT	Nut.Btl	O2 Btl.No	CHL. Frac CHL/DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard
1	133	534	92											1
2	100		93	224										2
3	75		94											3
4	50		95											4
5	40		96											5
6	30		97											6
7	20		98											7
8	20	Mex	er											8
9	10		99											9
10	0		100											10
11														11
12														12

MAX. DEPTH = m

133 + 3

Rosette Notes:

No Chunks
on this line

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBESIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 128						
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIN D CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	DIRN.	SPD.	TYPE	DEPTH	
1	4	45	59	33	38	1	7	5	12	00	5	JUL	09	13125.6
2	1	7	5	12	00	5	JUL	09	13	12	5	5	10	136
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingartner	Julie	Sambrotto		Moran/Harvey	Diane	Pat/Jared	Optics
No. DESIRED	notes	SALT	Nut.Btl	O2 Btl.No	CHL. Frac	CHL/DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	No.
1	50													1
2	50													2
3	50													3
4	20													4
5														5
6														6
7														7
8														8
9														9
10														10
11														11
12														12

REMARKS

MAX. DEPTH =

50 m

Just Chmax water -

NOT Std Cast

13 ✓

Rosette Notes:

Lat 10m Alexei

10 Chmax Eli

2 Chmax Joud

3 Chmax Meghan

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBESIERP Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 122						
CONSC CAST #		LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIN DIRN.	WIND SPD.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(mb)	(°C)	(deg)	(kts)	*	(m)
14	659	33	.80	N	175	11.93	w	5	JUL	09	144	5.6	.	173
SBE 9+														134
PRESS SN														886
PRI TEMP SN														C
SEC TEMP SN														132
PRI COND SN														
SEC COND SN														
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics
No. DESIRED	notes	SALT	Nut.Btl	O2 Btl.No	CHL. Frac	CHL/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	No.
1	127	535	101	226						X	X			1
2	127													2
3	100													3
4	100													4
5	75													5
6	75													6
7	50													7
8	50													8
9	50													9
10	40													10
11	40													11
12	30													12

Rosette Notes:

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)				DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M TYPE	WEATHER	STA. NAME/ID			
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	(deg)	(kts)	*
			.	N	.	W	J	U	L	0	9	.	.	*	*	(m)		
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	30																6	1
2	20				10	7												2
3	20																	3
4	10																	4
5	10																	5
6	0																	6
7	0																	7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 122										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	WIN D	BOTTO M	STA. NAME/ID							
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	WIND DIRN.	SPD. (kts)	CLOUD(amt)	TYPE	WEATHER
14	75	93	33.80	N	175	11.94	W	5	JUL	09	1445	5.6	162	111108	7	MAX. DEPTH =	m	
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	35	v															v	1
2	22	v			P1													2
3	22	v																3
4	22	v																4
5	12	v			P2													5
6	12	v																6
7	12	/																7
8	10	v			P3													8
9	10	v																9
10	10	v																10
11	7				P4													11
12	7																	12

Rosette Notes:

35 22 12 10 7 5 2 0 ✓

✓

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 123													
CONSC CAST #		DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)	DRY BULB	WET BULB	(°C)	(°C)	(mb)	*	*	WIN D	CLOUD(amt)	120	BOTTO M	X30-11
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN				*	*	SEA STATE VISIBILITY	WIND DIRN.	TYPE	WEATHER	STA. NAME/ID	
14	8	60	02	59	N	175	11	85	W	5	JUL	09	1930	4	.9	-	152	083	128	6	145
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran	Harvey	Diane	Pau	Jared	Optics	NIS				
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard		TH			
1	112		536	110	003																
2	75			111																	
3	50			112																	
4	40			113																	
5	30			114																	
6	20			115																	
7	10			116																	
8	0			117																	
9																					
10																					
11																					
12																					

Rosette Notes:

Rosette Notes:

no clear max

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer09	Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive	STATION NO. 125
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CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE		WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/D	
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
1506100.04N	175	12.07w	66	JUL	09	02	07	3.7	-1.1	123	5064	108			97			
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Opics	Nis		
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL, Frac CHL	DIC/Alk	DOC	O18	615N Urea	Part.	Prod	DON	Lomas	Lessard			No.	
1	80.5	538	126														1	
2	75		127	143													2	
3	50		128														3	
4	40		129														4	
5	35		130														5	
6	30		131														6	
7	30	DS															7	
8	20		132														8	
9	20	DS															9	
10	10		133														10	
11	0																11	
12	0		134														12	

Rosette Notes:

Chlor MAX 35 m

BTL 5

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer-09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 126								
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE •	WIND DIRN. SPD.	BOTTO M	STA. NAME/ID			
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	(deg)	(kts)	*	*			
15	1	60	59	.98	N	17	43	0.67	7	W	66	JUL	09			
15	1	60	59	.98	N	17	43	0.67	7	W	66	JUL	09			
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Reset.	Hydro Team-PMEI				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac CH	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	80			539	135											1
2	80															2
3	75			136												3
4	50			137												4
5	40			138												5
6	30			139												6
7	30															7
8	20			140												8
9	20															9
10	10			141												10
11	0			142	-219											11
12	0															12

Rosette Notes:

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

127

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE • SEA STATE DIRN. • VISIBILITY • WIND DIRN. SPD. • TYPE WEATHER BOTTO M DEPTH • STA. NAME/ID	WIN D CLOUD(amt) WEATHER BOTTO M DEPTH • STA. NAME/ID	STATION NO.			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN							
1526059.87	N	17349.15	W	06	JUL	09	05	719	4.2	1.	1136	113068	79			
SBE 9+			FLUOR SN													
PRESS SN			SBE43-Oxy (prime)													
PRI TEMP SN			SBE43-Oxy (sec)													
SEC TEMP SN			Transmissometer													
PRI COND SN			PAR SN													
SEC COND SN			O2 Tmp Sensor No.													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.Frac	CHL/DOC	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	NIS No.
1	85		540	143	242											1
2	50			144												2
3	40			145												3
4	30			146												4
5	30															5
6	28															6
7	20			147												7
8	10			148												8
9	0			149												9
10	0															10
11																11
12																12

Rosette Notes:

Small chm Net 28-

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
128

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	97.0%			PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID						
				DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)		
153 6 1	50.0 8 N	173 18.1 S 2 W	6 J U L 0 9	9	32	3.9	1.1	12	15	115	9	32	3.9	1.1	12	15	86	C	75
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/Jared	Optics	NIS			
No. DESIRED	notes	SALT	Nut. Blt	O2-Blt.No	CHL. Frac	CH DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			
1	165		541	150	669														1
2	50		151																2
3	40		152		2														3
4	30		153		3														4
5	30																		5
6	30		154		4														6
7	30																		7
8	10		155		5														8
9	10																		9
10	0		156		6														10
11	0																		11
12																			12

MAX. DEPTH = 67 m

67 + 3

FLUOR SN

SBE43-Oxy (prime)
SBE43-Oxy (sec)

Transmissometer

PAR SN

O2 Tmp Sensor No.

Rosette Notes:

0 10 20 30

depths

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/SIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 129													
CONSC CAST #	LATITUDE					TIME (GMT)	PRESSURE (mb)	WIND DIRN.	CLOUD(amt) TYPE	WEATHER DEPTH											
		DEG	MIN	DEG	MIN			DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
154	61	0	00	N	172	26	.6	/	JUL	09	12	57	3.5	1.12	1.24	1.10	66				
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
Nis DEPTH	Reset	Hydro Team-PMEL					Weingart	Julie	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics	Nis	MAX. DEPTH =			
No.DESIREd	notes	SALT	Nut.Bil	O2-Btl.No	CHL.	Frac CHL	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.				
1	61	542	157	107	6												1				
2	50	150			5												2				
3	40	D															3				
4	30		159	4													4				
5	20		160	3													5				
6	14	D															6				
7	10	D	161	2													7				
8	8																8				
9	8																9				
10	8																10				
11	8																11				
12	8																12				

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BIERP_Summer'09										Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.									
		CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt)	BOTTO M DEPTH	STA. NAME/ID						
	DEG	MIN	.	N	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	*	(m)	
SBE 9+																							
PRESS SN																							
PRI TEMP SN																							
SEC TEMP SN																							
PRI COND SN																							
SEC COND SN																							
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS							
No DESIRED	notes	SALT	Nut.BII	O2-BII	NO	CHL.	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard		TH				
1	8	13																					1
2	8	14																					2
3	8	15																					3
4	8	16																					4
5	8	17																					5
6	0																						6
7																							7
8																							8
9																							9
10																							10
11																							11
12																							12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J (for PMEL CTD archive)		STATION NO. 130												
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * VISIBILITY DIRN.	WIND DIRN. SPD. (deg) (kts)	WIN D CLOUD(amt) TYPE WEATHER BOTTO M DEPTH STA. NAME/ID					
15	56	1	0	6	7	N	17	45	.2	8	W	6	UL	0	9	151840	10213814	58 + 4	90	MAX. DEPTH = 62 m
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingard	Julie	Sambrotto					Moran/	Harvey	Diane	Pav	Jared	Optics	NIS
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DOC	O18	81SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH			No.	
1	57			543	163	232	42												1	
2	40				164														2	
3	40					5													3	
4	35																		4	
5	30				165		4												5	
6	25																		6	
7	20				166		3												7	
8	10					167													8	
9	10																		9	
10	0					168	102	1											10	
11																			11	
12																			12	

Rosette Notes:

10 25 35 40

Rosette Notes:

at
29
29
19
19
15
15
11
11
28
44
40

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.			
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN D CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID
	DEG MIN . N	DEG MIN . W	DAY MO YR HR MIN			(°C) (°C) (mb)	*	(deg) (kts)	*	*	(m)
SBE 9+											
PRESS SN											
PRI TEMP SN											
SEC TEMP SN											
PRI COND SN											
SEC COND SN											
Ns DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	Moran/	Harvey	Diane
No.DESIREL notes		SALT	Nut.Bil	O2.Bil.No	CHL.	Frac CHL	DOC	O18	815N	Urea	Part.
13		19	13	P2							
14		15	14	P3							
15		15	15	P4							
16		16	16	P5A							
17		17	17								
18		18	18								
19		19	19								
20		20	20								
21		21	21								
22		22	22								
23		23	23								
24		24	24	16							

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 130								
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE	WIND DIRN.	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	•	(deg)	(kts)	•	(m)
157 11	0.00	N	171 45	.33	W	JUL	09	17	38	4.2	102	131	178	6	459	
SBE 9+			FLUOR SN													
PRESS SN			SBE43-Oxy (prime)													
PRI TEMP SN			SBE43-Oxy (sec)													
SEC TEMP SN			Transmissometer													
PRI COND SN			PAR S/N													
SEC COND SN			O2 Tmp Sensor No.													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	35									X	X	X	X			1
2	29															2
3	29															3
4	29															4
5	25															5
6	19									X						6
7	19															7
8	19															8
9	15															9
10	15															10
11	15															11
12	11															12

REMARKS

Proud Cast - 2 (62)

MAX. DEPTH = m

2.9 19 15 11 8 4 0

Rosette Notes:

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD BEST/BSIERP_Summer'09)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195 for PMEL CTD archive		STATION NO. 131			
CONSC CAST #	LATITUDE DEG MIN	LONGITUDE DEG MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt) SPD. TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID
158	61 07 N	171 405 W	6 JUL 09 1953	4.5	103	144	4.5	103	144	60	X32-3
SBE 9+											
PRESS SN											
PRI TEMP SN											
SEC TEMP SN											
PRI COND SN											
SEC COND SN											
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey
No. DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL. Frac CHI	DIC/Alk	DOC	O18	61SN	Urea	Part.
1	53			544	169	220				Prod	DON
2	40				170					Lomas	Lessard
3	30					171					
4	30										
5	20					172					
6	20										
7	10					173					
8	10										
9	0					174					
10	0										
11											
12											

Rosette Notes:

0 0 20 30

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 133									
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	CLOUD(amt) TYPE	BOTTO M DEPTH						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	*	*	(deg)	(kts)	*	*	(m)			
159	61	00	.04	N	170	22.	18	w	06	JUL	09	22	17	4.1			
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No. DESIRE	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL/DIC/AIk	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	Bot				175												1
2	40				545	176	217										2
3	30					177											3
4	30																4
5	20					178											5
6	20																6
7	10					179											7
8	10																8
9	0																9
10	0					180											10
11																	11
12																	12

Rosette Notes:

CH or MAK 45m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID	
	DEG MIN	DEG MIN	DAY MO YR	HR MIN	*	*	*	VISIBILITY (deg)	WIND DIRN. (kts)	TYPE	DEPTH (m)		
160	6152.06	N	16951.94	W	07	JUL 09	0353	5.3	11143138268	Fog	MAX. DEPTH =	45	
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pal/	Jared
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL..Frac CHL	DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	Optics
1	30	=42	546	181		X	X						Nis No.
2	42												1
3	42												2
4	40												3
5	30												4
6	25												5
7	20												6
8	10												7
9	0												8
10	0												9
11													10
12													11
													12

Rosette Notes: 558

Chlor MAX 42

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (ID.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 135						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB °C	WET BULB °C	PRESSURE (mb)	SEA STATE * * * (deg)	WIND DIRN. (kts)	WIN D SPD	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(m)	*	*	*	
162	62	0	0	17	7	90	07	JUL 09	9174.5	112	123	1684	SLN-4	
SBE 9+														
FLUOR SN														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
NIS DEPTH	Roset.	Hydro Team-PMEI				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pav/Jared	Optics
No DESIRED notes	SALT	Nut.Btl	O2-Btl.No	CHL/Frac CHL	DIC/Aik	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard
1	46			193	b									1
2	30			194	s									2
3	30			195	4									3
4	20			196	3									4
5	10			197	1512									5
6	0			198	1									6
7														7
8														8
9														9
10														10
11														11
12														12

Rosette Notes:

S 80 b 0 R 5° on 10
b 10 o n S

VESSEL
R/V Knorr

CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive														
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		SEA STATE		WIND DIRN.		BOTTO M				
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)

1	63	62	5	73	N	171	30	.92	W	7	JUL	09	1	054	4.0	.	102	1121	16	50
SBE 9+										FLUOR S/N										
PRESS SN										SBE43-Oxy (prime)										
PRI TEMP SN										SBE43-Oxy (sec)										
SEC TEMP SN										Transmissometer										
PRI COND SN										PAR S/N										
SEC COND SN										O2 Tmp Sensor No.										
NIS DEPTH	Roset.									Weingart	Julie									
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL..	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Moran/	Harvey	Diane	Pat	Jared
1	416		549	199		6	6	/	/	577										
2	40		200			5	5													
3	35																			
4	35																			
5	35																			
6	35																			
7	35																			
8	35																			
9	35																			
10	35																			
11	35																			
12	35																			

Rosette Notes:

35

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.								
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID				
	DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	(m)				
			.	N	.	W	J	U	L	0	9	.				
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto	Moran	Harvey	Diane	Pat	Jared	Optics	NIS No.	
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
13	30			201		4	4									1
14	20			202		3	3	/								2
15	10			203		2	2									3
16	0			204		1	1	/								4
17	D			178												5
6																6
7																7
8																8
9																9
10																10
11																11
12																12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 137									
CONSC CAST #	LATITUDE	LONGITUDE			TIME (GMT)	PRESSURE 97.5%	SEA STATE VISIBILITY	WIND DIRN.	WIN D	BOTTO M	STA. NAME/ID SLR						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	*	*	*	(m)
164	62	12.04	N	17	53	.43	w	7	JUL 09	1344	3.6	.	10	131	198	6	48
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL. Frac CHL/DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		
1	44		550	609					X		X					1	
2	44		550	205	228	5										2	
3	30			206		4										3	
4	30															4	
5	20			207	3				X		X					5	
6	20															6	
7	10			208	2											7	
8	10																
9	10																
10	0			209	1												
11	0																
12																	

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSTERP Summer09		Ship Designation (ID.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 137					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE (°C)	WIND DIRN	WIN D CLOUD(amt)	BOTTO M	SL-6	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(deg)	(kts)	*	STA. NAME/ID	
1	65	62	12.1	2 N	17	53.3	2 W	7	JUL 09	1527	3.3	103	125
2												108	48
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

Rosette Notes:

29 22 15 11 8 3 vs ch max {Diane 4 0
at 10m}

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/SIERP_Summer'09		Ship Designation (ID.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.								
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE (°C)	WIND DIRN.	WIN D SPD	BOTTO M	STA. NAME/ID				
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(mb)	*	*	(deg)	(kts)	*	*	(m)
	.		.	N				.								
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/Jared	Optics	NIS	
No.DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	
1	11				P ₁₁											1
2	11															2
3	11															3
4	8				P ₁₂											4
5	8															5
6	4				P ₁₃											6
7	4															7
8	0				P ₁₄											8
9	0															9
10																10
11																11
12																12

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSTERP_Summer09	Ship Designation (ID.) 6N195-10 or 6N195J for PMEL CTD archive	STATION NO.										
				138										
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE ("C)	SEA STATE	WIND DIRN.	WIN D	CLOUD(amt)	BOTTO M	STA. NAME/ID		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	SPD.	TYPE	DEPTH			
1666212.09	N	17217.86	W	7	JUL	09	1707	2.9	09	124118	12	SL-7		
SBE 9+		FLUOR SN												
PRESS SN		SBE43-Oxy (prime)												
PRI TEMP SN		SBE43-Oxy (sec)												
SEC TEMP SN		Transmissometer												
PRI COND SN		PAR SN												
SEC COND SN		O2 Tmp Sensor No.												
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Optics
No.DESIREL	notes	SALT	Nut.Btl	O2-Btl.No	CHL.Frac	CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	Jared
1	50	551	210		6	6	/							No.
2	50													
3	10													
4	35	0												
5	30													
6	20	0												
7	20													
8	10	0												
9	10	214	2											
10	0	215	147	1	1	580								
11	0													
12														

Rosette Notes:

10 20 35

VESSEL RV Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/SIERP_Summer'09	Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive	STATION NO. 139
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CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN													DAY	MO
16762	11.95	N	17242.4	W	7	JUL	09	1847	2.8	1.	693	13019	7	57	0	57		
SBE 9+			FLUOR SN															
PRESS SN			SBE43-Oxy (prime)															
PRI TEMP SN			SBE43-Oxy (sec)															
SEC TEMP SN			Transmissometer															
PRI COND SN			PAR SN															
SEC COND SN			O2 Imp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PMEI						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut,Bit	O2-Bit, No	CHL, Frac	CHL DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.
1	56			552216	1106	6			X	X								1
2	54			217	4													2
3	40			218	3				X	X								3
4	30			219	2													4
5	20			220	-													5
6	10																	6
7	0																	7
8	0			221	1													8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

Rosette Notes:

Chloroaromatic = 26

Rosette Notes: 175

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. SL-1										
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	(m)	
1	17	06	21	2.65	N	173	55.90	W	08	JUL	09	60055	63	
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PWEL						Weingard	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CH	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	0										X	X						1
2	0										X	X						2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

13
14

FLUOR S/N
SBE43 Oxy (prime)
SBE43-Oxy (sec)
Transmissometer
PAR S/N

13
14

REMARKS

page - 2

MAX. DEPTH = 60 m

142

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BESTBSIERP_Summer09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.
143

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)			DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M	STA. NAME/D		
			DEG	MIN	DAY												
171621.2	12.12N	17420.50W	08	JUL	09	02	27	3.0	-	-	68	43	138	218	69		
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL			Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis		
No. DESIRED	notes	SALT	NUT.Btl	O2-Btl.No	CHL, Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	86		19			X	X										1
2	50	SS6	20														2
3	40		21			X	X										3
4	30		22			X	X										4
5	30																5
6	20		23			X	X										6
7	20		24			X	X										7
8	10		25	239		X	X										8
9	0																9
10	0																10
11																	11
12																	12

Rosette Notes: 239

Chlor Nut 30.22m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSEIRP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 144										
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	*	*	*	*							
1	72	62	11	1.96	N	174	39.74	W	C8	JUL	09	0444						
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/Jared	Optics	NIS			
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL..Frac CHI	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.
1	Bot							X										1
2	Bot																	2
3	50																	3
4	40																	4
5	30																	5
6	30																	6
7	20																	7
8	20																	8
9	10																	9
10	10																	10
11	0																	11
12	0																	12

Rosette Notes:

12
Chlor Wks 25-28

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

145

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)			98%		PRESSURE DRY BULB (°C)	WET BULB (°C)	(mb)	SEA STATE * * VISIBILITY DIRN. (deg)	WIND WIN D SPD. TYPE WEATHER	CLOUD(amt) CLOUD TYPE WEATHER	BOTTO M DEPTH (m)	STA. NAME/D	
			DEG	MIN	DAY	MO	YR									
173	62 12.00 N	175 09.33 W	08	JUL	09	06	36	3.5	1.0843	144158						
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Reset.	Hydro Team-PMEL						Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	
No. DESIRED	notes	SALT	NUT.BI	O2-Btl.No	CHL.Frac	CHI	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard
1	95	558	33				X	X								
2	50		34	144			X	X								
3	70		35				X	X								
4	30		36				X	X								
5	3.0															
6	20		37													
7	20															
8	10		38				X	X								
9	10															
10	0		39				X	X								
11																
12																

Rosette Notes:

CK111 MAX Sngen to 32m

Rosette Notes:

PLUNSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
147

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE		SEA STATE		WIND DIRN.	WIN D SPD.	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(°C)	(mb)	*	(deg)	(ft/s)	*	(m)	
175 62 11.97 N	175 58.31 W	8	JUL	09	09	09	09	48.29	48.29	29	29	1010	*	0	94	SL-16		
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	
No.DESIRE#	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	87 ✓	4444	47	1111						X	X		X				1	1
2	75 ✓	48								X	X		X				2	2
3	50	49			6	6				X	X		X				3	3
4	40	50			5	5				X	X		X				4	4
5	30	51			4	4				X	X		X				5	5
6	20	52			3	3											6	6
7	10	53	10!	2	2												7	7
8	10																8	8
9	10																9	9
10	8																10	10
11	8																11	11
12	8																12	12

REMARKS

5th Cast

86 + 4

0

MAX. DEPTH = 86 m

Rosette Notes:

10 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP_Summer09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		SEA STATE		WIND DIRN.		WIN D SPD.		CLOUD(amt)		WEATHER		BOTTO M DEPTH		STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)			
SBE 9+					N																	
PRESS SN																						
PRI TEMP SN																						
SEC TEMP SN																						
PRI COND SN																						
SEC COND SN																						
NIS DEPTH	Roset.	Hydro Team-PME						Weingarten	Juile	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS					
No. DESIRED	notes	SALT	Nut.BH	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH					
1	8																					1
2	8																					2
3	8																					3
4	8																					4
5	8																					5
6	8																					6
7	8																					7
8	0	464	54	102)	1	1															
9																						8
10																						9
11																						10
12																						11
13																						12

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 147					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	98.0	PRESSURE	SL-16						
DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	SEA STATE	WIND	WIN D	BOTTO M	
176	42	111	.98	N	175	58.50	W	8	JUL 09	1845	4.5	102	146
1											.		
SBE 94													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL		Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/Jared	Optics	Nis	
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod
1	38			P1									
2	38												
3	38												
4	25			P2									
5	25												
6	25												
7	20			P3									
8	20												
9	20												
10	15			P4									
11	15												
12	15												

Rosette Notes:

38 25 20 15 10 .5 0

(10m)

VESSEL	CRUISE ID	PROJECT & LEG
BW Koor	6N195-10 or 6N195-11 for PMEL CTD	BESTVBSIEP Summer09

VESSEL

Rosette Notes:

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/SIERP_Summer09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

148

CONSC CAST #	LATITUDE		LONGITUDE					TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	* * (deg)	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO.	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN											
174762.12	04	N	174	45.09	W	8	JUL	09	1619	3.7	1123	20217	2	79						
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pav	Jared	Optics	NIS		
No.DESIRE	notes	SALT	Nut.Btl	O2.Btl.No	CHL.Frac	CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.	
1	b																			1
2	50																			2
3	40																			3
4	30																			4
5	20																			5
6	10																			6
7	10	D																		7
8	10	D																		8
9	10																			9
10	10																			10
11	10																			11
12																				12

Rosette Notes:

3 bottles 10m Diane
5 DIC
Please

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 149													
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN.	WIN D (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M (m)	STA. NAME/ID
1	78 62	41	10	174 38	00	09	JUL	09	17	30	3.9	-	133	227	17	6	75	78	70m57		
SBE 9+				FLUOR SN																	
PRESS SN				SBE43-Oxy (prime)																	
PRI TEMP SN				SBE43-Oxy (sec)																	
SEC TEMP SN				Transmissometer																	
PRI COND SN				PAR SN																	
SEC COND SN				O2 Tmp Sensor No.																	
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto						MAX. DEPTH = 5 m					
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Moran/ Harvey	Diane	Pat/Jared	Optics	NIS	
1	15	460 62																		1	
2	50	63	6																	2	
3	40	64	5																	3	
4	30	65	4																	4	
5	20	66	3																	5	
6	10	67	2																	6	
7	0	68	1																	7	
8																				8	
9																				9	
10																				10	
11																				11	
12																				12	

DO 54

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
150

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID	STATION NO.
	DEG	MIN	DEG	MIN	DAY	MO	YR										
1796156.56N	17	422.87W	17	422.87W	8	JUL	09	1851	13.9	.	143	21915	.	74			
SBE 9+			FLUOR SN														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR SN														
SEC COND SN			O2 Tmp Sensor No.														
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Hanvey	Diane	Pat/	Jared	Optics	NIS	
No DESIRED notes		SALT	Nut. Blt	O2-Btl.No	CHL_Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	69	46769	193														1
2	50	70			6												2
3	40	71			5												3
4	30	72			4												4
5	20	73			3												5
6	10	74			2												6
7	0	75			1												7
8																	8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

Rosette Notes:

C 116 - MAX = 24 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSTERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 151										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	PRESSURE 98%	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	WEATHER BOTTO M	STA. NAME/ID								
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)	
180	61.52	2.65	N	7402.52	W	08	JUL	09	2044	3.7	1642	220	188					
SBE 94-																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEI				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis		
No DESIRED	notes	SALT	Nut.BH	O2-BH	No	CHL	Frac	Chi	DIC/AIK	DOC	O18	\$15N	Urea	Part.	Prod	DON	Lomas	Lessard
1	Bx T Bx T	468	76	199			6	6					X	X				
2																		
3	50																	
4	40																	
5	30																	
6	30																	
7	24																	
8	20																	
9	10																	
10	0																	
11																		
12																		

F5
MAX. DEPTH = 68 m

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09	Ship Designation (ID.) 6N195-10 or 6N195J (for PMEL CTD archive)	STATION NO. 152
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CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN CLOUD(amt) TYPE	BOTTO M	STA. NAME/ID						
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(deg)	(kts)	(m)							
181	61	44.	18	N	17	35	1.	47	W	08	JUL	09	2204	3.4					
SBE 9+			FLUOR SN																
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			SBE43-Oxy (sec)																
SEC TEMP SN			Transmissometer																
PRI COND SN			PAR SN																
SEC COND SN			O2 Tmp Sensor No.																
NIS DEPTH	Roset.	Hydro Team-PMEI				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS			
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.
1	B6T																	1	
2	50																	2	
3	40																	3	
4	30																	4	
5	20																	5	
6	10																	6	
7	0																	7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

REMARKS
 F_{of} MAX. DEPTH = 67 m

Rosette Notes:

CHL or Nek = 32 m

Rosette Notes:

Chlor-NAX 23

VESSEL

R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)PROJECT & LEG
BEST/BIERP_Summer'09Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

154

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	BOTTO M DEPTH	STA. NAME/ID	STATION NO. 154																
										DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	*	*
1826	124.84N	17342.05W	09 JUL 09	064904.6	1935253148																					
SBE 9+			FLUOR SN																							
PRESS SN			SBE43-Oxy (prime)																							
PRI TEMP SN			SBE43-Oxy (sec)																							
SEC TEMP SN			Transmissometer																							
PRI COND SN			PAR SN																							
SEC COND SN			O2 Tmp Sensor No.																							
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran	Harvey	Diane	Pav	Jared	Optics	NIS	MAX. DEPTH = 71 m									
No DESIRED notes	SALT	Nu.BN	O2-Btl.No	CHL.	Frac CHL	DIC/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard		TH									
1	85	471	97	109																						
2	Bat																									
3	50																									
4	40																									
5	30																									
6	30																									
7	20																									
8	20																									
9	10																									
10	0																									
11	0																									
12																										

Rosette Notes:

Rosette Notes:

10/23 chlor max 26m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 155												
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID
	1846114.70 N	17342.84 W	09	JUL	09	02	09	47	47	21	2019	21.2	21.2	1008	98%	180	0	70 m	51	
SBE 9+				FLUOR SN																
PRESS SN				SBE43-Oxy (prime)																
PRI TEMP SN				SBE43-Oxy (sec)																
SEC TEMP SN				Transmissometer																
PRI COND SN				PAR SN																
SEC COND SN				O2 Tmp Sensor No.																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	Fog		MAX. DEPTH = 70 m	
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL. Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH					
1	Bot	178	104						10	10									1	
2	50		105						11	11									2	
3	40		106																3	
4	30																		4	
5	30		107						12	12									5	
6	20		108						13	13									6	
7	10		109	193															7	
8			110						14	14									8	
9																			9	
10																			10	
11																			11	
12																			12	

oil sheen on surface at start of cast

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/SIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.											
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN. (kts)	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID						
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(deg)	(kts)	*	*	(m)						
185	6104.59	N	17346.15	W	09	JUL	09	330	4.9	17.	2046217	1168	76						
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis			
No DESIRED notes		SALT	Nu.BN	O2-Btl.No	CHL.	Frac CHL	DIC/Alk	DOC	O18	\$15N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.
1	Bob			173	111													1	
2	50			112	174													2	
3	40			113														3	
4	30			114														4	
5	20			115														5	
6	10			116														6	
7	0			117														7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Chlor MAX 30 m

Rosette Notes:

Chlor map 30

VESSEL

R/V Knorr

CRUISE ID

6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG

BEST/BSIERP_Summer'09

Ship Designation (I.D.)

6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

158

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE		SEA STATE VISIBILITY		WIND DIRN.	WIN D SPD.	CLOUD(amt)	BOTTO M DEPTH	STA. NAME/ID	STATION NO.		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
1876045.54	N	17339.83	W	09	JUL	09	66	20	4.8	-	2136	2301	78					
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.		Hydro Team-PMEL		Wengert		Julie		Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No DESIRED	notes	SALT	Nut.BN	O2-BIN#	CHL	Frac CHL	DIC/AIK	DOC	018	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	80	475	125	211						586								1
2	50		126															2
3	40		127															3
4	30		128															4
5	30																	5
6	20		129															6
7	10		130															7
8	0		131															8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

Chlor MAX 27m

① 8

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	(mb)	* * (deg)	WIND DIRN. (kts)	WIN D SPD.	CLOUD(amt) TYPE	WEATHER M	BOTTO M DEPTH	STA. NAME/ID	STATION NO. 159	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	* * (deg)	WIN D SPD.	CLOUD(amt) TYPE	WEATHER M	BOTTO M DEPTH	STA. NAME/ID
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = 66 m	
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL. Frac CHL/DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			
1	BT		476	132			17	17										
2	50			133	6													
3	40			134			17	17										
4	30			135	4													
5	20			136	3													
6	20	D																
7	10		137	2														
8	0		138	1	18	18												
9																		
10																		
11																		
12																		

VESSEL R/V Knorr								PROJECT & LEG CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.					
CONSC CAST #	LATITUDE	LONGITUDE					TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * * VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR MIN	(°C)	(°C)	(mb)	*	*	*	*	*	(m)	
18	96	025.	27	N	173	35.52	W	09	JUL	09	945	5.0	5.0	232	1931	286°C	
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingartner	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Bil	O2-Bil.No	CHL.	Frac CHL	DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	No.
1	61		477	139	(213)												1
2	50		140		6	6											2
3	40		141		5	5											3
4	30		142		4	4											4
5	20		143		3	3											5
6	10		144		2	2											6
7	0		145		1	1											7
8																	8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

1. Sal odd or ↑
2. O2 sal same ↑
near surface

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

161

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD. (kts)	WIN CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID	MAX. DEPTH =			
					DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)
1906015.37	N	17331.32	W	09	JUL	09	1056	5.0	.	232	203	11		70			
SBE 9+			FLUOR SN														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR SN														
SEC COND SN			O2 Tmp Sensor No.														
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl No	CHL	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	66	478	144	197													1
2	50		147		6												2
3	40		148		5												3
4	33					20	20										4
5																	5
6																	6
7																	7
8																	8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

10 m bcp

Rosette Notes:

VESSEL RV Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 162							
	CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN. (kts)	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M	WEATHER	STA. NAME/ID
		DEG 191	MIN 60	DEG 6.96 N	MIN 173	DAY 19.84 W	MO 9	YR JUL 09	HR 130	MIN 44	**	1.6	232	18910
	SBE 9+				FLUOR SN									
	PRESS SN				SBE43-Oxy (prime)									
	PRI TEMP SN				SBE43-Oxy (sec)									
	SEC TEMP SN				Transmissometer									
	PRI COND SN				PAR SN									
	SEC COND SN				O2 Tmp Sensor No.									
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared
No. DESIRED	notes	SALT	Nut.Bil	O2-Bil.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Par.	Prod	DON
1	67		479	153	162						Lomas	Lessard		TH
2	50			154		6								1
3	40			155		5								2
4	30			156		4								3
5	20			157		3								4
6	10			158		2								5
7	0			159		1								6
8														7
9														8
10														9
11														10
12														11
														12

Rosette Notes:

Offset 8m ↓ a ↑ chwz

ESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

NIS DEPTH

STATION NO.

163

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	9339			PRESSURE (mb)	SEA STATE DIRN.	WIND DIRN.	WIN D SPD. TYPE	CLOUD(amt) WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO.					
				DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	*	*
17260	2.82 N	173 1.58 W	9 JUL 09	14	17	4	6	.	242	207	1084	68							
SBE 9+			FLUOR SN																
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			SBE43-Oxy (sec)																
SEC TEMP SN			Transmissometer																
PRI COND SN			PAR SN																
SEC COND SN			O2 Tmp Sensor No.																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat/Jared	Optics	NIS			
No.DESIRED	notes	SALT	Nut.BH	O2-BH.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		
1	63		160															1	
2	50	120	161	212	5	6												2	
3	40		162															3	
4	30		163		4	4											4		
5	20		164		3	3											5		
6	10		165		2	2											6		
7	0		166		1	1	23	23									7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

REMARKS

MAX. DEPTH = m

63 + 4 (+1)

Rosette Notes:

~2m offset to 9'

Vessel
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP_Summer09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

164

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt) TYPE	WEATHER M	BOTTO DEPTH (m)	STA. NAME/ID	MAX. DEPTH = m								
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN															
1	19	35	95	9.07	N	172	43	27	W	9	JUL	09	41.6	242	200	68	70							
SBE 9+										FLUOR SN							70M42							
PRESS SN										SBE43-Oxy (prime)														
PRI TEMP SN										SBE43-Oxy (sec)														
SEC TEMP SN										Transmissometer														
PRI COND SN										PAR SN														
SEC COND SN										O2 Tmp Sensor No.														
NIS DEPTH	Roset:		Hydro Team-PME		Weingart		Julie		Sambrotto		Moran/		Harvey		Diane		Pat		Jared		Optics		Nis	
No DESIRED	notes	SALT	Nut.Btl	O2Btl.No	CHL.	Frac CHL	DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			No.				
1	164				167																1			
2	50				181	168															2			
3	40				169	224	5													3				
4	30																			4				
5	30																			5				
6	20	D			171	26	3													6				
7	20	D			172	26	4													7				
8	10	D			172	26	5													8				
9	10	D			173	26	6													9				
10	0																			10				
11																				11				
12																				12				

Rosette Notes:

10 20 30

VESSEL	CRUISE ID	PROJECT & LEG	Ship ID
R/V Knorr	6N195-10 or 6N195J (for PMEL CTD)	BESTBSIERP_Summer09	6N19

Designation (I.D.)
5-10 or 6N19J for PMEL CTD archive

STATION NO.

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/SIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD TYPE	CLOUD(amt) WEATHER	BOTTO M DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN						
SBE 9+				.	N				.	FLUOR SN					
PRESS SN										SBE43-Oxy (prime)					
PRI TEMP SN										SBE43-Oxy (sec)					
SEC TEMP SN										Transmissometer					
PRI COND SN										PAR SN					
SEC COND SN										O2 Tmp Sensor No.					
Ns DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambroto		Moran/	Harvey	Diane	Pat	Jared	Optics
No DESIRED notes		SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas
1	10														6
2	0				180	1		28	28						1
3	0														2
4															3
5															4
6															5
7															6
8															7
9															8
10															9
11															10
12															11
															12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N185-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J (for PMEL CTD archive)

STATION NO.

165

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)			PRESSURE			SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN D CLOUD(amt)	TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID						
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)
195	59 54 .31	N 172 25 .31	W	9	JUL	09	17	47	41	24	2	24	2	167	56	1	75				
SBE 94																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PME					Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat	Jared	Optics	NIS					
No. DESIRED	notes	SALT	Nut.Bil	O2-Bil No	CHL	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard					
1	30																			1	
2	29																			2	
3	29																			3	
4	29																			4	
5	19																			5	
6	L9																			6	
7	19																			7	
8	15																			8	
9	15																			9	
10	15																			10	
11	11																			11	
12	11																			12	

Rosette Notes:

29 19 15 11 ✓ 4 0

4/14

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.													
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE * * (deg)	WIN D SPD. TYPE	BOTTO M DEPTH	STA. NAME/ID										
DEG	MIN		DEG	MIN	DAY	MO	YR	HR	DIRN. Wind Dirn.												
	.	N		.	W	J	U	L	0	.											
SBE 9+			FLUOR SN																		
PRESS SN			SBE43-Oxy (prime)																		
PRI TEMP SN			SBE43-Oxy (sec)																		
SEC TEMP SN			Transmissometer																		
PRI COND SN			PAR SN																		
SEC COND SN			O2 Temp Sensor No.																		
NIS DEPTH		Roset.		Hydro Team-PMEL		Weigart/Julie		Sambrotto		MAX. DEPTH =											
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	O18	815N	Urea	Part.	Prod	DON	Moran/	Harvey	Diane	Pau	Jared	Optics	NIS
1	11														Lomas	Lessard	TH			No.	
2	8																			1	
3	8																			2	
4	DS																			3	
5	4																			4	
6	4																			5	
7	4																			6	
8	4																			7	
9	4																			8	
10	0																			9	
11	0																			10	
12	0																			11	
13																				12	
14																					
15																					
16																					
17																					
18																					
19																					
20																					
21																					
22																					
23																					
24																					

Rosette Notes:

Rosette Notes:

Rosette Notes:

Chilean Milk Rat

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 168					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE DIRN.	WIND D SPD. (kts)	CLOUD(amt) TYPE	BOTTO M DEPTH (m)	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	*	*	*	*	
19	85	94	6.86	N	171	27.02	W	09	JUL	09	2141	3.6	
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Optics
No.DESIRED	notes	SALT	Nut.Bu	O2-Bu	CHL Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Alared	No.
1	65				485	195							1
2	55				196								2
3	70				197								3
4	30				198								4
5	20				199								5
6	10				200	74							6
7	0				201								7
8													8
9													9
10													10
11													11
12													12

REMARKS

MAX. DEPTH = 69 m

SBE 9+

FLUOR SN

SBE43-Oxy (prime)

SBE43-Oxy (sec)

Transmissometer

PAR SN

O2 Tmp Sensor No.

VESSEL R/V Khorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 169											
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	% PRESSURE SEA STATE	WIN D SPD. TYPE	WIND DIRN. WEATHER	BOTTO M DEPTH	STA. NAME/ID
	19 59 43.15 N	171	08.37 W	09	JUL	09	22	57	3	4	17.25	37.46	08.08	8	97%			70W37	
SBE 9+				FLUOR SN															
PRESS SN				SBE43-Oxy (prime)															
PRI TEMP SN				SBE43-Oxy (sec)															
SEC TEMP SN				Transmissometer															
PRI COND SN				PAR SN															
SEC COND SN				O2 Tmp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PMEL				Wetinger	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = 68 m		
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	
1	65			202					31	31	X	X						1	
2	50		486	203	58													2	
3	40			204														3	
4	30			205														4	
5	30																	5	
6	20			206														6	
7	10			207														7	
8	0										X	X						8	
9	0										X							9	
10																		10	
11																		11	
12																		12	

Rosette Notes:

Chlor Mx X ~ 12-20

chlor MAX 15-17 m

Rosette Notes:

1

Chlor MAX = 19-32

VESSEL

R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)PROJECT & LEG
BEST/BSIERP_Summer'09Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

172

m

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	W/N SPD. (kts)	CLOUD(amt) TYPE WEATHER	BOTTO M STA. NAME/ID					
					DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN					
2025919.76	N	17039.93	W	10	JUL	09	03	00	3.5	1.	2537	157678	69					
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pau	Jared	Optics	NIS		
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	50				223												1	
2	50	489	224	016													2	
3	476		225														3	
4	30		226														4	
5	20		227														5	
6	10		228														6	
7	0		229														7	
8	0																8	
9																	9	
10																	10	
11																	11	
12																	12	

Rosette Notes:

Ch 100 m 20-25

Rosette Notes:

Temp

71°

Chlor Max 16-17

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 173						
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	91%	PRESSURE	WIND DIRN.	WIND SPD.	BOTTO M	TYPE	SEA STATE	VISIBILITY	DEPTH	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TYPE	SEA STATE	VISIBILITY	DEPTH	STA. NAME/ID	
20	35 9.15	15.62	N	170	22	.66	W	10	JUL	09	0421	3.4	/	
												253714	7078	
												67		
SBE 9+														
PRESS SN														
PRI TEMP SN														
SEC TEMP SN														
PRI COND SN														
SEC COND SN														
MIS DEPTH	ROSET.	Hydro Team-PMEI				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Paul/	
No DESIRED notes		SALT	Nut.Btl	O2-Btl No	CHL	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Jared	Optics
1	30	490	230					36	36					Nis
2	30		231											TH
3	40		232					36	36					1
4	30		233											2
5	20		234											3
6	10		235	200										4
7	0		236											5
8														6
9														7
10														8
11														9
12														10
														11
														12

MAX. DEPTH = 64 m

SBE 9+

FLUOR SN

SBE43-Oxy (prime)

SBE43-Oxy (sec)

Transmissometer

PAR SN

O2 Tmp Sensor No.

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

174

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID	STATION NO.							
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*						
2045906.65	N	17614.30	W	10	JUL	09	05	48	03.5	-1.	2537086088		68						
SBE 9+			FLUOR SN																
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			SBE43-Oxy (sec)																
SEC TEMP SN			Transmissometer																
PRI COND SN			PAR SN																
SEC COND SN			O2 Tmp Senson No.																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pav	Jared	Optics				
No DESIRED	notes	SALT	Nut. Blt	O2-Blt.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		Nis
1	825	491	237	206					1590									1	
2	50		238															2	
3	40		239															3	
4	30		240															4	
5	20		241															5	
6	10		242															6	
7	5		243															7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Rosette Notes:

✓

REMARKS

MAX DEPTH = 64 m

CHL MAX 13-18 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD BEST/BSIERP_Summer'09)

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

175

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID	STATION NO.		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	*	*	*	*	*	*	*	
2055857.65	N	17019.35	W	10	JUL	09	07	10	22.8	1.	2537112088	70					
SBE 9+			FLUOR SN														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR SN														
SEC COND SN			O2 Tmp Sensor No.														
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No DESIRED	notes	SALT	Nut/Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
1	BAT	492	244			39	39										1
2	SD	245	196														2
3	40	246															3
4	30	247															4
5	20	248															5
6	10	249															6
7	0	250															7
8			40	40													8
9																	9
10																	10
11																	11
12																	12

MAX. DEPTH = 67 m

Rosette Notes:

CMLer MAR. 14-22

196

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

176

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D CLOUD(amnt)	TYPE WEATHER	BOTTO M	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(mb)	(deg)	(ks)	*	*	*	*
2065847.00	N	17017.43	W	10	JUL	09	825	35	3.1	252	113	6868	716				
SBE 9+			FLUOR SN														
PRESS SN			SBE43-Oxy (prime)														
PRI TEMP SN			SBE43-Oxy (sec)														
SEC TEMP SN			Transmissometer														
PRI COND SN			PAR SN														
SEC COND SN			O2 Tmp Senson No.														
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No DESIRED notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1 68		493	251	281													1
2 50		252		6	6												2
3 40		253		5	5												3
4 30		254		4	4												4
5 20		255		3	3												5
6 10		256		2	2												6
7 0		257		1	1												7
8																	8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
177

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR											
2075836.62N	17016.20W	10JUL09	941	3.7	1	242	128	5	73									
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	69	4194	258					41	41								1	
2	50	259	136		6			42	42								2	
3	40	260		5													3	
4	30	261		4				43	43								4	
5	20	262		3													5	
6	10	263		2				44	44								6	
7	8																7	
8	8																8	
9	8																9	
10	8																10	
11	8																11	
12	8																12	

Rosette Notes:

10 at 8m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.											
CONSC CAST #	LATITUDE	TIME (GMT)		PRESSURE		SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN D CLOUD(amt) TYPE	BOTTO M DEPTH	STA. NAME/ID									
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
			.		N					.				J	U	L	0	9	
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/Jared	Optics	Nis	MAX. DEPTH =	m		
No DESIRED	notes	SALT	Nut.BII	O2-BII No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	
1	8																	1	
2	8																	2	
3	8																	3	
4	0																	4	
5	0																	5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD/BEST/BSIERP_Summer'09)

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

178

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		PRESSURE	SEA STATE	WIND	CLOUD(amt)	WEATHER						
							DRY BULB	WET BULB	(°C)	(mb)	*	*	DIRN.	SPD.	M	DEPTH	STA. NAME/ID
20	858	26.74 N	17010.95 W	170 J U L 0 9	1232	4.2	232	128	8	75							
SBE 9+					FLUOR SN												
PRESS SN					SBE43-Oxy (prime)												
PRI TEMP SN					SBE43-Oxy (sec)												
SEC TEMP SN					Transmissometer												
PRI COND SN					PAR SN												
SEC COND SN					O2 Tmp Senson No.												
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pav	Jared	Optics	NIS	
No DESIRED notes		SALT	Nut. Blt	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
1	70			495	265	167											1
2	50			265		6											2
3	50																3
4																	4
5																	5
6																	6
7																	7
8																	8
9																	9
10																	10
11	✓																11
12																	12

Rosette Notes:

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIN D SPD. (kts)	BOTTO M DEPTH	STA. NAME/ID	STATION NO.				
										STATION NO.				
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	
	.	N	.						.	.				
				J	U	L	0	9						
SBE 9+		FLUOR SN												
PRESS SN		SBE43-Oxy (prime)												
PRI TEMP SN		SBE43-Oxy (sec)												
SEC TEMP SN		Transmissometer												
PRI COND SN		PAR SN												
SEC COND SN		O2 Tmp Sensor No.												
NIS DEPTH	Roset.	Hydro Team-PMEL		Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pav/	Jared	Optics	NIS	
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON
1														
2	✓													
3	40													
4	40													
5	40													
6	40													
7	30													
8	20													
9	10													
10	0													
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														

Rosette Notes:

VESSEL	CRUISE ID	PROJECT & LEG
PA/VECT	EN10E 10-22 EN10E 14-22 DMEI CTD	BESTBESPP Summary 00

Ship Designation (I.D.)

STATION NO.

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

180

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY			WIND DIRN. (deg)	WIN D CLOUD(amt)	WEATHER TYPE	BOTTO M DEPTH	STA. NAME/ID	
					DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN
21058	8.62N	16954.85W	10 JUL 09	97.42									
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL			Wengert	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics
No. DESIRED	notes	SALT	Nut/Btl	O2-Btl/No	CHL, Frac CHL	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas
1	67	497279											
2	5D	280	232		6								
3	40	281			5								
4	30	282			4								
5	20	283			3								
6	10	284			2								
7	0	285			1								
8													
9													
10													
11													
12													

Rosette Notes:

VESSEL R/V Knorr CRUISE ID 6N195-10 or 6N195J (for PMEL CTD) PROJECT & LEG BEST/BSIERP Summer09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

ESTATE PLANNING

18

Rosette Notes:

Rosette Notes

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J (for PMEL CTD archive)

STATION NO.

181

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	PRESSURE			WIND DIRN. SPD. TYPE	CLOUD(amt) SEA STATE VISIBILITY	WIN D CLOUD TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID										
				DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
21	25° 8'	2.86 N	16° 53' .07 W	10	JUL	09	17	10	4	0	.	222	101	80	6	71					
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS			
No.DESIRED	notes	SALT	Nut.Bil	O2-Bil.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.		
1	46		P1																1		
2	46																		2		
3	46		P2																3		
4	30																		4		
5	30																		5		
6	30																		6		
7	24		P3																7		
8	24																		8		
9	24																		9		
10	18		P4																10		
11	18																		11		
12	18																		12		

REMARKS

dry 38' MAX. DEPTH = 60 m

P20c

Rosette Notes:

46 30 24 18 12

18

10

6 0

466

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BESTBSIERP_Summer'09	Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive	STATION NO. 182
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CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN.	WIN D CLOUD(amt)	WEATHER TYPE	BOTTO M	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	*	*	(deg)	(kts)	*	(m)
2135758.42N	16921	.40	16921	.40	10	JUL	09	1830	4.2	222	109	108	69	70 May	
SBE 9+			FLUOR SN												
PRESS SN			SBE43-Oxy (prime)												
PRI TEMP SN			SBE43-Oxy (sec)												
SEC TEMP SN			Transmissometer												
PRI COND SN			PAR SN												
SEC COND SN			O2 Tmp Sensor No.												
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingarten	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics
No.DESIRED	notes	SALT	Nut.Btl	O2.Btl.No	CHL.	Frac CHI	DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	No.
1	65			499293											
2	50			294 [242]	6	6									1
3	40			295	5	5									2
4	40														3
5	30			29/0	4	4									4
6	30														5
7	20			297	3	3									6
8	10			298	2	2									7
9	0			299	1	1									8
10	0														9
11															10
12															11
															12

Rosette Notes:

0 30 40

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

183

CONSC CAST #									TIME (GMT)		PRESSURE												
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)				
21	45	57	54	59	N	169	3.73	W	10	JUL	09	1950	4.1	10.1	222	106	58	7	71				
SBE 9+																							
PRESS SN																							
PRI TEMP SN																							
SEC TEMP SN																							
PRI COND SN																							
SEC COND SN																							
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julia	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis					
No DESIRED	notes	SALT	NUT.BII	O2-BII No	CHL	Frac CHL	DIC/AIK	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.				
1	66		500	300				50	50	592									1				
2	50			301															2				
3	40			302															3				
4	30			303							51	51							4				
5	20			304															5				
6	10			305	69														6				
7	0		306																7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

Rosette Notes:

T M B

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

184

70M22
STA. NAME/ID

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE	SEA STATE	WIND DIRN. (deg)	WIN D CLOUD(amt)	BOTTO M	WEATHER	STA. NAME/ID					
								DRY BULB	WET BULB	(°C)	(°C)	(mb)	*	*					
2	15	57	50	.91	N	16	85	11	20	W	10	JUL	09	22	10	4.9	1.	2133100078	71
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS			
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	\$15N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		
1	85		501	307	143													1	
2	SD		308															2	
3	40		309															3	
4	30		310															4	
5	20		311															5	
6	10		312															6	
7	5		313															7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

REMARKS

Fog

MAX. DEPTH = 68 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

185

CONSC CAST #									TIME (GMT)		98 %		PRESSURE		SEA STATE		WIND		WIN D CLOUD(amt)		BOTTO M	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	VISIBILITY	DIRN.	SPD.	TYPE	WEATHER	STA. NAME/ID		
21	6	57	43	.74	N	16	85	1	.71	W	10	JUL	09	23	1	5.4	21	26	097	058	69	
SBE 9+																						
PRESS SN																						
PRI TEMP SN																						
SEC TEMP SN																						
PRI COND SN																						
SEC COND SN																						
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	Nis				
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.			
1	Bat																					
2	50																					
3	40																					
4	30																					
5	20																					
6	10																					
7	0																					
8	0																					
9																						
10																						
11																						
12																						

Rosette Notes:

Chlor MAX = 20

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 186									
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	AIR % PRESSURE	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M DEPTH	STA. NAME/ID					
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN (°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)	
21	1757.37	37.65	N	16849.57	W	11	JUL	09	004	5.5	-	2127	0930	68	69		
SBE 9+				FLUOR SN													
PRESS SN				SBE43-Oxy (prime)													
PRI TEMP SN				SBE43-Oxy (sec)													
SEC TEMP SN				Transmissometer													
PRI COND SN				PAR SN													
SEC COND SN				O2 Tmp Sensor No.													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	NIS	
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
1	505	503	321														1
2	500	322	217														2
3	40	323															3
4	30	324															4
5	20	325															5
6	10	326															6
7	0	327															7
8																	8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

Chlor Max 14m

VESSEL
R/V Knorr
CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09
Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive
STATION NO.
187

CONSC CAST #	LATITUDE							TIME (GMT)			PRESSURE			SEA STATE			WIND			WIN D			CLOUD(amt)			BOTTO M			STA. NAME/ID		
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	TYPE	WEATHER	DEPTH	(m)	DEPTH	STA. NAME/ID					
2	18 57.31	18	57.31	38	N	168	36.8	0	W	11	JUL	09	01	23	5.8	1.	2022	098058		70											
SBE 9+																															
PRESS SN																															
PRI TEMP SN																															
SEC TEMP SN																															
PRI COND SN																															
SEC COND SN																															
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingarten			Julie			Sambrotto			Moran/			Harvey			Diane			Pat/			Optics			
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard			TH												
1	B07																														
2	50		304	329	220																										
3	40		330																												
4	30		331																												
5	20		332																												
6	10		333																												
7	0		334																												
8																															
9																															
10																															
11																															
12																															

Rosette Notes:

5/55 220

chlor WAK 18 + Bottom

VESSEL
RV Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO. 188

CONSC CAST #	LATITUDE	LONGITUDE				TIME (GMT)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WN D SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID						
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
2	19 57 30.05	N 168 18.30	1	JUL	09	6	24	1	5.5	-	1922	0986	88							
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PME						Weingard	Julie	Sambrotto						Diane	Pat	Jared	Optics	Nis
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIk	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard		TH		No.
1	BST		505	335																1
2	50		336																	2
3	40		1																	3
4	30		2																	4
5	20		3																	5
6	10		4	226																6
7	0		5																	7
8																				8
9																				9
10																				10
11																				11
12																				12

Rosette Notes:

Chlor max 17

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/SIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J (for PMEL CTD archive)		STATION NO.										
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE DIRN.	WIN D SPD. TYPE	BOTTO M WEATHER	STA. NAME/ID							
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)
22	057	30.00	N	167	59.09	W	11	JUL	09	C436	05.3	-	192	2131	058	71		
SBE 9+				FLUOR SN														
PRESS SN				SBE43-Oxy (prime)														
PRI TEMP SN				SBE43-Oxy (sec)														
SEC TEMP SN				Transmissometer														
PRI COND SN				PAR SN														
SEC COND SN				O2 Tmp Sensor No.														
NIS DEPTH	Roset.	Hydro Team-PMEI				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pau	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL_Frac	CHL/DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	
1	Bx	506	6														1	
2	50		7														2	
3	40		8														3	
4	30		9														4	
5	20		10														5	
6	10		11	219													6	
7	0		12														7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Rosette Notes:

ckbar max = 27

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
191

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)			98%	PRESSURE	SEA STATE VISIBILITY	WIND DIRN.	WIN D CLOUD(amt)	BOTTO M WEATHER	STA. NAME/ID								
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*
222572	9.99 N	16720.77 W	11	JUL	09	07	30	5.0	-	.	192217	088	70	70	15	70	15	70	15	70
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingard	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	MAX. DEPTH = 68 m			
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH				
1	B61	508	20	167			62	62												1
2	50		21																	2
3	40		22																	3
4	30		23																	4
5	20		24																	5
6	10		25																	6
7	0		26																	7
8																				8
9																				9
10																				10
11																				11
12																				12

Rosette Notes:

Chlor M8K 28-30

5

ESSEL

CRUISE ID

Ship Designation (I.D.)

5

Rosette Notes:

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 193						
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (°C)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	BOTTO M	DEPTH	STA. NAME/ID
22 45 25.40 N	166 48.38 W	11 JUL 09 0935											
SBE 9+			FLUOR S/N										
PRESS SN			SBE43-Oxy (prime)										
PRI TEMP SN			SBE43-Oxy (sec)										
SEC TEMP SN			Transmissometer										
PRI COND SN			PAR S/N										
SEC COND SN		O2 Tmp Sensor No.											
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten Julie	Sambrotto	Moran/ Harvey	Diane	Pat/Jared	Optics	NIS	
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL, Frac CH DIC/AIk	DOC	O18	815N Urea Part.	Prod	DON	Lomas Lessard	TH	
1	67		510	34									1
2	50		35	155	6								2
3	40		36	16									3
4	30		37	4									4
5	20		38	3									5
6	10		39	2									6
7	0		40	1									7
8													8
9													9
10													10
11													11
12													12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBSIERP_Summer09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
194

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID		
	DEG	MIN	DEG	MIN														
2255726.58N	16631.35W	11	JUL	09	1042											70		
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEI						Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	
No. DESIRED	notes	SALT	Nut.Btl	O2 Btl.No	CHL.	Frac CHL	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	NIS
1	66	511	41	205														1
2	50	42			6	6												2
3	40	43			5	5												3
4	30	44			4	4												4
5	20	45			3	3												5
6	10	46			2	2												6
7	0	47			1	1												7
8																		8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

Rosette Notes:

VESSEL RV Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO. 195													
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D	BOTTO M	STA. NAME/ID									
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	*	*	*	*				
22	65	19	.12	N	16	6	19	.6	1	W	11	JUL	09	11	57	.	.	1	70	70	70
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingard	Julie	Sambrotto				Moran/	Harvey	Diane	Pat	Jared	Optics	NIS			
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard		TH		No.	
1	65	512	48								67	67									1
2	50		49	086	6																2
3	40		50		5																3
4	30		51		4						68	68									4
5	20		52		3																5
6	10		53		2																6
7	0		54		1						6A	6A									7
8																					8
9																					9
10																					10
11																					11
12																					12

REMARKS

See ver down no w X

FDS

MAX. DEPTH =

60.5

m

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BESTBESIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO. 197

CONSC CAST #	LATITUDE	LONGITUDE				TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	98.2%	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIN D SPD. (kts)	CLOUD (amt)	WEATHER	BOTTO M	STA. NAME/ID
			DEG	MIN	DAY	MO	YR	HR	MIN										
22857	15.69 N	16544.83 W	1	JUL	09	1435	4	.3	.	191	195	78	70						
SBE 9+																			
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
NIS DEPTH	Roset.	Hydro Team-PMEI					Weingart	Julie	Sambrotto			Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS	
No. DESIRED	notes	SALT	Nut.Btl	O2Btl.No	CHL.	Frac CHI	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	
1	65	514	62																1
2	50	63	100	6	6	70	70												2
3	40	64		5	5														3
4	30	65	4	4	72	72													4
5	20	66	3	3	73	73													5
6	10	67	2	2															6
7	0	68	1	74	74														7
8																			8
9																			9
10																			10
11																			11
12																			12

Rosette Notes:

+ clou 20 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (ID.)
6N195-10 or 6N195J (for PMEL CTD archive)

STATION NO.

198

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)			PRESSURE			SEA STATE VISIBILITY		WIND DIRN.	WIN D CLOUD(amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID	
					DEG	MIN	DEG	MIN	DAY	MO	YR	DRY BULB	WET BULB	(°C)	(°C)	(mb)	•	(m)
22957	6.48	N	16536.82	W	11	JUL	09	15	49	41	6	19	19	41.6	19.1	1017.8	•	71
SBE 9+			FLUOR S/N															
PRESS SN			SBE43-Oxy (prime)															
PRI TEMP SN			SBE43-Oxy (sec)															
SEC TEMP SN			Transmissometer															
PRI COND SN			PAR S/N															
SEC COND SN			O2 Tmp Sensor No.															
NIS DEPTH	Roset.	Hydro Team-PME				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat	Jared	Optics	Nis		
No.DESIRED	notes	SALT	Nut.BII	O2-BII.No	CHL, Frac CHL	DIC/AIk	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.	
1	67	55	69														1	
2	50	70		6													2	
3	40	71		5													3	
4	30	72		4													4	
5	20	73		3													5	
6	10	74	151	2													6	
7	0	75															7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Rosette Notes:

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBESIERP_Summer09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 70M05													
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE • •	VISIBILITY (deg)	WIND DIRN.	WIN D SPD	CLOUD(amt) TYPE	WEATHER BOTTO M	STA. NAME/ID
23	25	6	54	.55	N	16	44	9	.99	W	11 J U L 0 9	1951	6.8	.	191	148	2	73			
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran	Harvey	Diane	Pav	Jared	Optics	NIS	MAX. DEPTH = 70m				
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH				
1	68		518	90	147				78	78											
2	50			91																	1
3	40			92																	2
4	30			93																	3
5	30																				4
6	28																				5
7	20																				6
8	10																				7
9	0																				8
10	0																				9
11																					10
12																					11
																					12

Rosette Notes:

0 25 30

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.
202

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	PRESSURE SEA STATE	VISIBILITY	WIND DIRN.	WIN SPD.	BOTTO M	CLOUD(amt)	WEATHER	DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN																			
2335650.93N	16434.36W	11	JUL	09	2107	7.7	-	1922	1115	128	19.8	19.2	1012	98%	PRESSURE	WIND	WIN	BOTTO	CLOUD(amt)	WEATHER	DEPTH	STA. NAME/ID	
SBE 9+			FLUOR SN																				
PRESS SN			SBE43-Oxy (prime)																				
PRI TEMP SN			SBE43-Oxy (sec)																				
SEC TEMP SN			Transmissometer																				
PRI COND SN			PAR SN																				
SEC COND SN			O2 Tmp Sensor No.																				
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran	Harvey	Diane	Pat/Jared	Optics	NIS								
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL,Frac CHL	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard									
1	85	519	97	106																			
2	50		98																				
3	40		99																				
4	30		100																				
5	20		101																				
6	10		102																				
7	0		103																				
8																							
9																							
10																							
11																							
12																							

Rosette Notes:

106

Chlor MAX 22 m

Rosette Notes:

009

TMB

chlor MAX 23m

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)	PROJECT & LEG BEST/BSIERP_Summer'09										Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO.		
		CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE • •	WIND DIRN. (deg)	WIN SPD. (kts)	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH
		DEG MIN	DEG MIN	DAY MO	YR HR MIN											
23456	49.91	N	16418.70	W	11	JUL	09	22	14	8.0	7.1	1926	140	104	72	70M03
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL_Frac CHL/ALK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	80	520	104			80	80									1
2	50	105														2
3	40	106														3
4	30	107			81	81										4
5	20	108														5
6	10	109	09													6
7	0	110														7
8																8
9																9
10																10
11																11
12																12

REMARKS
MAX. DEPTH = 69 m

SBE 9+

FLUOR SN

SBE43-Oxy (prime)

SBE43-Oxy (sec)

Transmissometer

VESSEL R/V Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 70M02					
	CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN. SPD. (kts)	CLOUD(amt) TYPE WEATHER	BOTTO M DEPTH	STA. NAME/ID
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN				
23	55	65	2.56	N	164	03.2.3	W	11	JUL 09	2325	7.5	/
23	55	65	2.56	N	164	03.2.3	W	11	JUL 09	1922	144	098
SBE 9+												
PRESS SN												
PRI TEMP SN												
SEC TEMP SN												
PRI COND SN												
SEC COND SN												
Hydro Team-PME												
NIS DEPTH	Roset.						Weingard	Julie				
No.DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL Frac CHL	DIC/CAIK	DOC	O18	815N	Urea	Part.	
1	RoT	521	111									
2	50		112									
3	50		113									
4	30		114									
5	20		115									
6	10		116	120								
7	0		117									
8												
9												
10												
11												
12												

Rosette Notes: 120

Chlor MAX 30 at Bottom

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD BEST/BSIERP_Summer'09)

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
206

CN-8

STA. NAME/ID

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)		98%		PRESSURE (mb)	SEA STATE • VISIBILITY • DIRN. • (deg)	WIND SPD. • (kts) • (m)	CLOUD(amt) TYPE WEATHER BOTTO M DEPTH • (m)	STA. NAME/ID							
							HR	MIN												
23	7	56	42.	34	N	16	43	0.52	W	12	JUL	09	0238	8.5	—	1928	69	1094	73	
SBE 9+																				
PRESS SN																				
PRI TEMP SN																				
SEC TEMP SN																				
PRI COND SN																				
SEC COND SN																				
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS				
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH			
1	30					523	1											1		
2	50						2											2		
3	40						3											3		
4	30						4											4		
5	20						5											5		
6	10						6											6		
7	0						7											7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Rosette Notes:

CN101 MAX = 22 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.
207

MAX DEPTH = 73 m

CONSC CAST #	LATITUDE							TIME (GMT)		PRESSURE		SEA STATE VISIBILITY		WIND DIRN.		WIN CLOUD(amt)		BOTTO M DEPTH		STA. NAME/ID	
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
23856	33.81	N	1645	41	24	09	JUL	09	C	42.3	8.9	/	18	28	106	104	/	77			
SBE 9+																					
PRESS SN																					
PRI TEMP SN																					
SEC TEMP SN																					
PRI COND SN																					
SEC COND SN																					
O2 Tmp Sensor No.																					
NIS DEPTH	ROSET.	Hydro Team-PMEL						Weingartner	Julie	Sambrotto		Moran/	Harvey	Diane	Pav	Jared	Optics	NIS			
No. DESIRED	notes	SALT	NUT.BII	O2-BII.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.		
1	B/T	524	8																1		
2	50		9																2		
3	40		10																3		
4	30		11																4		
5	20		12																5		
6	10		13																6		
7	—		—																7		
8	0		14																8		
9																			9		
10																			10		
11																			11		
12																			12		

Rosette Notes:

chlor max 25m & bottom

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 208					
CONSC CAST #	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN D CLOUD(amt)	BOTTO M DEPTH	STA. NAME/ID	
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(deg)	(kts)	*	*	
23	95	25	.30	N	165	17.98	W	12	JUL	09	06112	8.9	+
												17	28
												14	08
												3	84
SBE 9+													
PRESS SN													
PRI TEMP SN													
SEC TEMP SN													
PRI COND SN													
SEC COND SN													
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	Moran/	Harvey	Diane	Pat/	Jared
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL	DOC	O18	815N Urea	Part.	Prod	DON	Optics
1	Bat	525	15										No.
2	50		16										1
3	40		17										2
4	30		18										3
5	20		19										4
6	10		20										5
7	0												6
8			21										7
9													8
10													9
11													10
12													11
													12

CHL MAX ~ 40m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BESTBSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J (for PMEL CTD archive)

STATION NO.
209

CN-11

CONSC CAST #	LATITUDE	TIME (GMT)			PRESSURE			SEA STATE			WIN D	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID			
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	•	•	(deg)	(kts)	*
24056	16.72 N	16541	.9	16541	.9	12	JUL	09	0802	9.3	11.1	10.1	1016	113	123	113	123	93
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL					Weingarten	Julie	Sambrotto			Moran/	Harvey	Diane	Pau/	Jared	Optics	NIS
No. DESIRED	notes	SALT	INUT.Btl	O2Btl.No	CHL.	Frac CHL	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.
1	88		526	22														1
2	75			23														2
3	50			24														3
4	40			25														4
5	30			26														5
6	20			27														6
7	10			28														7
8	0			29														8
9																		9
10																		10
11																		11
12																		12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195.J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195.J for PMEL CTD archive

STATION NO.

210

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	97.3%			PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	CLOUD(amt) TYPE	WEATHER	BOTTO M DEPTH	STA. NAME/ID				
				DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(deg)	(kts)	*
24	15 6	8. 18 N 166 6. 02 W	12 JUL 09	95	4	9	.2	.	.	16	2	17	11	11	11	11	
SBE 9+																	
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingartner	Julie	Sambrotto	Moran	Harvey	Diane	Pau	Jared	Optics	NIS		
No. DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL/Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	106	527	30														1
2	75		31														2
3	50		32		6												3
4	40		33		5												4
5	30		34		4												5
6	20		35		3												6
7	10		36		2												7
8	0		37		1												8
9																	9
10																	10
11																	11
12																	12

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)

PROJECT & LEG
BEST/BSTERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.

211

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	(mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	WIN D CLOUD(amt)	WEATHER BOTTO M DEPTH	STA. NAME/ID	MAX. DEPTH = 127 m		
	DEG MIN	DEG MIN	DAY	MO	YR											
242555	59.63	N	16630.15	W	12 JUL 09	1142	8.1	.	14	159163	127					
SBE 9+																
PRESS SN																
PRI TEMP SN																
SEC TEMP SN																
PRI COND SN																
SEC COND SN																
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran/	Harvey	Diane	Pat/	Jared	Optics	NIS
No. DESIRED	notes	SALT	Nut.Bil	O2 Bil.No	CHL/Frac CHL/DIC/AIk	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	124	528	38													1
2	100		39													2
3	75		40													3
4	50		41	N	6											4
5	40		42		58											5
6	30		43		4											6
7	20		44		3											7
8	10		45		2											8
9	0		46		1											9
10																10
11																11
12																12

Rosette Notes:

20° S al jelly on \ near
sweat - cleaned, but f

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BESTBSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive		STATION NO.	
CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIN D CLOUD(amt)	BOTTO M WEATHER
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	*	DIRN. SPD.
24	35	55	51.08	N	166	54.45	W	12	JUL 09
									133
									140
									186
									134
SBE 9+									
PRESS SN									
PRI TEMP SN									
SEC TEMP SN									
PRI COND SN									
SEC COND SN									
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingart	Julie	Sambrotto	
No DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18
1	129	529	47						615N
2	100		48						Urea
3	75		49						Part.
4	50		50	N	6				Prod
5	40		51		5				DON
6	30		52		4				
7	20		53		3				
8	10		54		2				
9	0		55		1				
10									
11									
12									

Rosette Notes:

Cloud MAX. DEPTH = 129 m

Server down -

WY ~ 40 min later 129 + 71

REMARKS

98.1% CN-14

138 M STA. NAME/ID

Bottom

Wind D Speed

Cloud Type

Weather Depth

Cloud

Max. Depth = 129 m

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		Ship Designation (I.D.) 6N195-10 or 6N19J for PMEL CTD archive		STATION NO. 213														
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	WIN DIRN.	WIND SPD.	CLOUD(amt)	WEATHER	BOTTO M DEPTH	STA. NAME/ID
244	55 42.30 N	167	18.20 W	12	JUL	09	1530	7.6	.	123	152	2086	47								CN-15	
SBE 9+		FLUOR/SN		SBE43 Oxy (prime)																		
PRESS SN		SBE43-Oxy (sec)		Transmissometer																		
PRI TEMP SN		PAR SN		O2 Tmp Sensor No.																		
SEC TEMP SN																						
PRI COND SN																						
SEC COND SN																						
Nis DEPTH		Hydro Team-PMEL		Weingart		Julie		Sambrotto		Moran/		Harvey		Diane		Paul/		Jared		Optics		
No. DESIRED	Roset.	notes	SALT	Nut.Bil	O2-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	615N	Urea	Part.	Prod	DON	Lomas	Lessard	TH		No.	Nis	
1	130		530	56																	1	
2	100		57																		2	
3	75		58																		3	
4	50		59	1	6																4	
5	40		60		5																5	
6	30		61		4																6	
7	20		62		3																7	
8	10		63		2																8	
9	0		64		1																9	
10																					10	
11																					11	
12																					12	

Rosette Notes:

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP Summer'09

Ship Designation (I.D.)
6N195-10 or 6N195J for PMEL CTD archive

STATION NO.
214

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	98.2%			PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIN D SPD.	CLOUD(amt) TYPE	WEATHER M	BOTTO M DEPTH	STA. NAME/ID					
				DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)			
245553	33.48	N 16742.0	4 W 12 JUL 09	1727	7	.5	104	141	141	141	SB	SB	SB	CN-16					
SBE 9+			FLUOR S/N																
PRESS S/N			SBE43 Oxy (prime)																
PRI TEMP S/N			SBE43 Oxy (sec)																
SEC TEMP S/N			Transmissometer																
PRI COND S/N			PAR S/N																
SEC COND S/N			O2 Tmp Senson No.																
Hydro Team-PMEL			Weingart	Julie	Sambrotto			Moran	Harvey	Diane	Pav	Jared	Optics	Nis					
No. DESIRED	Roset.	notes	SALT	Nut.BH	O2-BH.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.
1	131		531	65															1
2	100		66																2
3	75		67																3
4	50		68																4
5	40		69																5
6	30		70																6
7	20		71																7
8	10		72																8
9	0		73																9
10																			10
11																			11
12																			12

Rosette Notes:

Rosette Notes:

VESSEL R/V Knorr		CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)				PROJECT & LEG BEST/BSIERP_Summer'09				Ship Designation (I.D.) 6N195-10 or 6N195J for PMEL CTD archive				STATION NO.							
CONSC CAST #	LATITUDE	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	DRY BULB	WET BULB	PRESSURE 96.42	SEA STATE	WIND DIRN.	WIN D	CLOUD(amt)	WEATHER	BOTTO M	STA. NAME/ID
									*	*	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)		
24	165526	.01	N	168	359	W	12	JUL	09	1920	7.9	.	084	134238	6	200					
SBE 9+				FLUOR S/N																	
PRESS SN				SBE43-Oxy (prime)																	
PRI TEMP SN				SBE43-Oxy (sec)																	
SEC TEMP SN				Transmissometer																	
PRI COND SN				PAR S/N																	
SEC COND SN				O2 Tmp Sensor No.																	
NIS DEPTH	Floset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto				Moran/	Harvey	Diane	Pav	Jared	Optics	NIS			
No. DESIRED	notes	SALT	Nut.BH	O2-Bit.No	CHL.	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH				
1	196	532	74																1		
2	150	75																	2		
3	100	76																	3		
4	75	77																	4		
5	50	78	1	6															5		
6	40	79		5															6		
7	30	80	4																7		
8	20	81	3																8		
9	10	82	2																9		
10	0	82	1																10		
11																			11		
12																			12		

Mucky!

Rosette Notes:

12 did not trap

VESSEL RV Knorr	CRUISE ID 6N195-10 or 6N195J (for PMEL CTD)		PROJECT & LEG BEST/BSIERP_Summer'09		TIME (GMT)		PRESSURE	SEA STATE	WIND	CLOUD(amt)	WEATHER	STATION NO.														
							DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	(m)	NAME/ID				
							24	47	55	18	.90	N	168	25	.09	W	12	JUL	09	2136	8.0	/	0757	136267	11710	216
SBE 9+																										
PRESS SN																										
PRI TEMP SN																										
SEC TEMP SN																										
PRI COND SN																										
SEC COND SN																										
NIS DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Julia	Sambrotto		Moran	Harvey	Diane	Pat	Jared	Optics	NIS								
No. DESIRED	notes	SALT	NUT.BR	O2-BR	No.	CHL	Frac CHL	DIC/Aik	DOC	O18	61SN	Urea	Part.	Prod	DON	Lomas	Lessard	TH	No.							
1	80	533	84					X											1							
2	1000		85																2							
3	500		86					X											3							
4	250		87					X											4							
5	160		88																5							
6	75		89																6							
7	50		90																7							
8	40		91																8							
9	30		92																9							
10	20		93					X											10							
11	10		94																11							
12	0																		12							

Route west to 87°15' N 155° So just to catch up

MAX. DEPTH = 1516 m

MAX. DEPTH = 1516 m

VESSEL
R/V Knorr

CRUISE ID
6N195-10 or 6N195J (for PMEL CTD)
PROJECT & LEG
BEST/BSIERP_Summer'09

Ship Designation (I.D.)
6N195-10 or 6N19J for PMEL CTD archive

STATION NO.

217

CN-19

STA. NAME/ID

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)				PRESSURE		SEA STATE VISIBILITY		WIND DIRN.	WIN D SPD.	CLOUD(amt)	TYPE	BOTTO M	DEPTH	MAX. DEPTH = 1526 m	STATION NO.
			DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)
24855	10.13N	16848.83W	13	JUL	09	00	41	9	.0	1	04	45	15	1258	2020			217
SBE 9+																		
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
NIS DEPTH	Roset.	Hydro Team-PMEL				Weingarten	Julie	Sambrotto		Moran	Harvey	Diane	Pav	Jared	Optics	NIS	REMARKS Last cast of the CTD: SE.	
No.DESIRE	notes	SALT	NUT.BI	O2-BI	NO	CHL	Frac CHL	DIC/AIK	DOC	O18	815N	Urea	Part.	Prod	DON	Lomas	Lessard	TH
1	Bx	534	95															1
2	1000		96															2
3	500		97															3
4	250		98															4
5	100		99															5
6	75		100															6
7	50		101															7
8	40		102															8
9	30		103															9
10	20		104															10
11	10		105															11
12	0		106															12

Rosette Notes:

Chlor MAX 30-40 m