

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP Spring'09
 Shap Designation (I.D.) 1H0902
 STATION NO. #1

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	SEC	DEG	MIN	SEC													DAY	MO	YR	HR
001	57	54	16 N	169	19	02 W	05	A	P	R	0	9	03	02	-5.6			10	102	26	0066	NP7

REMARKS: File name 60161hex
 MAX DEPTH = 61 m

SBE 9+ 039
 PRESS SN 03012
 PRI TEMP SN 2841
 SEC TEMP SN 2824
 PRI COND SN 2575
 SEC COND SN 2619

FLUOR S/N 088234
 SBE43-Oxy (prime) 0458
 SBE43-Oxy (sec) NONE
 Transducer CST-390 DA
 PAR S/N 70115
 O2 Temp Sensor No.

NIS	DEPTH	Rosette	Hydro Team PMAEL						Wielgartner		Jule		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrn	NIS
			DESIRED	notes	SALT	O2 Bl/No	CHL	Frac CHL	DIC/AK	DOC	NUTS	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	
1	61		F/1	127/224						003		X	X		X	P1				X	1
2	50		F/2													P2				X	2
3	40											X	X		X	P2				X	3
4	30											X	X		X	P2				X	4
5	20														X	P3				X	5
6	10									002		X	X		X	P3				X	6
7	0									001		X	X		X	P4				X	7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring09 SHIP DESIGNATION (I.D.) 1H0902 STATION NO. 2

CONSC CAST # 00258 DEG MIN 02.28 N DEG MIN 16913.68 W DAY MO YR 05 APR 09 TIME (GMT) HR MIN 0913-1.9 DRY BULB (°C) WET BULB (°C) PRESSURE (mb) * SEA STATE * VISIBILITY * WIND DIRN. (deg) 121 WIND SPD. (kts) 22 CLOUD (amt) * TYPE * WEATHER * BOTTOM DEPTH (m) STA. NAME/ID NPG.5

REMARKS File name ~~00258~~.max
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE4-3-Oxy (prime) _____
 PRI TEMP SN _____ SBE4-3-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

NIS	DEPTH	Rosette	Hydro Team-PMEL					Weingartner	Julie	Sambrotto			Moran/	Harvey	Carn/	Moran	Katrin	NIS
			SALT	02-BI.No	CHL.	Frac CHL.	DIC/AIK			DOC	NUTS	018						
1	466		F/3	132/228	TB1												X	1
2	50				TB2												X	2
3	46				TB3												X	3
4	30				TB4												X	4
5	20				TB4												X	5
6	10				TB5												X	6
7	0				TB6												X	7
8																		8
9																		9
10																		10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 SHIP DESIGNATION (I.D.) 1H0902 STATION NO. 2

CONSC CAST # DEG MIN LATITUDE DEG MIN LONGITUDE TIME (GMT) DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN. WIND SPD. CLOUD (amt) WEATHER BOTTOM DEPTH STA. NAME/ID

435803.24N 14944.50W 05 APR 09 1001-1.6 . . . 11227 * * * * * 68 N94.5

SBE 9+ FLUOR S/N SBE43-Oxy (prime) SBE43-Oxy (sec) TRANSMITTER PAR S/N O2 Temp Sensor No.

REMARKS: For Ethanol separator - no kill
File name: 435803.hex
Labrador

MAX DEPTH = m

NIS	DEPTH	ROSET.	SALT	Hydro Team-PMEL				Weininger				Sambrotto				Moran/		Harvey		Carriv/		Moran		Katrin		NIS
				DES. NO.	NOTES	O2-BI.NO.	CHL	Frac CHL	D/C/ALK	DOC	NUTS	018	415N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.				
1	26																								1	
2	26																									2
3																										3
4																										4
5																										5
6																										6
7																										7
8																										8
9																										9
10																										10
11																										11
12																										12

ICE LOG: Surface Ice Conditions or proximity to ice edge
Rosette Notes:

VESSEL USCG Healy PROJECT & LEG BEST/BIERP_Spring 09 SHIP DESIGNATION (I.D.) 110902 STATION NO. 3

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
64458	1	24	1	24	4	5	A	1	23	-0.2	.	05	*	*	149	11	*	*	*	69	St 3

REMARKS: 43341.hex
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmitter _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Rosette	Hydro Team-PNEL						Weingartner		Sanbroto			Moran/	Hanvey	Carin/	Moran	Katrin	NIS		
			DESIRED	notes	SALT	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	NUTS	018	015N	Urea	Part.	Prod	DON	Lomas		Lessard	Sher
1	~60		F/S	155	TB1	TB1	151		14												1
2	50		F/6						17												2
3	40				TB2	TB2	151		18												3
4	30				TB3	TB3	151		19												4
5	20				TB4	TB4	151		20												5
6	10				TB5	TB5	151		21												6
7	0				TB6	TB6	151		22												7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 3

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
00558	10	09	N	169	05	56	W	05	A	09	13	40	4.0	.	04	.	.	131	18	.	.	74	ST 03

REMARKS
 SBE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Temp Sensor No.
 Shear Cast
 05302-hex
 1 Fern may bottle

No.	DESIRED	notes	SALT	O2-Bt./No	Hydro Team-PMEL				Wiegarter	Julie	Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	No.
					CHL.	Frac CHL.	DIC/AIK	DOC			NUTS	Prod	DON						
1	10																		1
2	10																		2
3	10																		3
4	10																		4
5	10									23									5
6	10																		6
7	15																		7
8	16																		8
9	10																		9
10	10																		10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP Spring 09
 Ship Designation (I.D.) H10902
 STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
458	11.39 N	149.475 W	45	APR 09	1611	0.9	.	02	*	*	135	22	*	*	70	STD3

REMARKS
 SBE 9+ _____ FLOOR S/N _____
 PRESS SN _____ SBE43-Oxy (pHme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

No.	DEPTH	Rosette notes	Hydro Team-PMEL				Weingartner	Julie	Sambrotto			Moran/	Harvey	Carn/	Moran	Katr	No.
			SALT	O2-Btl/No	CHL	Fac CHL			DIC/AIK	DOC	NUTS						
1	25									X							1
2	23									X	X						2
3	15									X	X						3
4	12									X	X						4
5	9									X	X						5
6	6									X	X						6
7	3									X	X						7
8	0									X	X						8
9																	9
10																	10
11																	11
12																	12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP_Spring'09
 Shp Designation (I.D.) 140902
 STATION NO. *5/FCE/Process 1*

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
00758	16	08	N	169	04	06	APR	09	18	10	1.7	99			160	18				69	003

SBE 9+ 58 16.02
 FLUX S/N 159 45.80
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.
 REMARKS *8285*
 MAX. DEPTH = m

No.	DEPTH DESIRED	Roset.	SALT	O2-Btl.No	Hydro Team-PNEL				Wetgarnet	Julie	Sambrotto			Moran/	Harvey	Carrin/	Moran	Karin	No.
					CHL.	Frac CHL.	DIC/AIK	DOC			NUTS	O18	Urea						
1	64																		1
2	50			145/149	1	1													2
3	40		F/7		2	2													3
4	30		F/8		3	3													4
5	20				4	4													5
6	10				5	5													6
7	0				6	6													7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERE_Spring'09
 Ship Designation (I.D.): H10902
 STATION NO.: 4/BCI

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
008	58	37	24	N	06	A	P	09	08	35	1.4	.				142	16			60	BCI

REMARKS: Lessard

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 Temp Sensor No. _____

No.	DEPT#	Roset.	SALT	02-RT/NO	Hydro Team-PMEL				Weighted	Julie	Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	No.
					CHL.	Frac CHL.	DIC/AIK	DOC			NUTS	018	δ15N						
1	23																		1
2	15																		2
3	12																		3
4	10																		4
5	6																		5
6	6																		6
7	6																		7
8	6																		8
9	6																		9
10	6																		10
11	3	Lessard																	11
12	0																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) H10902 STATION/MO 5/MW

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
009	59	54	03 N	167	59	06	A	P	09	23	33	1.2		03			170	15				28	MW

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. _____

REMARKS _____
MAX. DEPTH = 26 m

NIS	DEPTH	Roset.	Hydro Team-PMEL					Weigarter		Sanbroto			Moran/	Harvey	Carru/	Moran	Katrn	NIS			
			DESIRED	notes	SALT	O2-BI/No	CHL	Frac CHL	DIC/AIK	DOC	NLTS	018	015N	Urea	Part.	Prod	DCN		Lomas	Lessard	Sierf
1	26			1	1	✓	✓	39	007			X	X		X	X					1
2	26		F/9	218/009	2	2	✓	✓	40							X	X				2
3	10				3	3	✓	✓	41	008						X					3
4	0				4	4	✓	✓	42	009		X	X			X					4
5																					5
6																					6
7																					7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIEP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 0/MN2

CONSC CAST # 0105954.44 N 16835.80 W 07 APR 09 0342 - 0.0 . . . 06 . . . 26214 . . . 41 MN2

DEG MIN DEG MIN DAY MO YR HR MIN DRY BULB (°C) WET BULB (°C) PRESSURE (mb) SEA STATE VISIBILITY WIND DIRN (deg) WIND SPD. (kts) CLOUD (amt) TYPE WEATHER BOTTOM DEPTH (m) STA. NAME/ID

REMARKS
 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 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wetgarnet		Sambrotto			Moran/Harvey			Carri/Moran		NIS			
			NO. DESIRED	notes	SALT	O2-BU NO	CHL	FRAC CHL	DIC/AIK	DOC	NUTS	O18	015N	Urea	Part.	Prod	DON	Lomas		Lessard	Sher	Moran
1	35								✓	43	610						✓					1
2	30			206708					✓	44							✓					2
3	20								✓	45							✓					3
4	10								✓	46	011						✓					4
5	0								✓	47	112						✓					5
6																						6
7																						7
8																						8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring/09
 Ship Designation (I.D.): 1H0902
 STATION NO: *2113*

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * *	VISIBILITY * * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER TYPE * *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
01159	53	97	169	11	07	A	09	07	36	-3	9	.	09			196	14			46	MN3

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ 02 Trip Sensor No. _____
 Hydro Team-PMEL
 Weigartner: 018
 Jule: 315N
 Urea Part: _____ Prod: _____
 DON: _____
 Moran/Lomas: _____
 Harvey/Lessard: _____
 Carin/Sner: _____
 Moran/Th: _____
 Katrin: _____
 MAX DEPTH = _____ m

No.	DEPTHD	Roset.	SALT	02-BLNG	CHL	Frac CHL	DIC/AIK	DOC	NUTS	Wiegartner	Jule	Sambrotto			DON	Moran/Lomas	Harvey/Lessard	Carin/Sner	Moran/Th	Katrin	No.
												Part	Prod	Prod							
1	bot	4/c		159/125	T81	✓	✓	✓	48												1
2	46		F/1/D			✓	✓	✓	49												2
3	30		F/11		T82	✓	✓	✓	50												3
4	20				T83	✓	✓	✓	51												4
5	10				T84	✓	✓	✓	52												5
6	6				T85	✓	✓	✓													6
7	0				G161																7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP-Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 2

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt) *	WEATHER TYPE *	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	SEC	DEG	MIN	SEC													HR	MIN	SEC	WIND DIRN (deg)	WIND SPD. (kts)
01259	54	32	N	169	47	75	W	07	A	P	R	0	9	12	28	-	4	3	11	185	20	52	MNY

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

NIS	DEPTH DESIRED	Rosett.	SALT	Hydro Team-PWEL					Weingartner 018	Julie 015N	Sambrotto			Moran/ Lomas	Harvey Lessard	Cann/ Sherr	Moran Th	Katrin	NIS
				02-Btl.No	CHL	Frac CHL	DIC/AIK	DOC			NUTS	Part.	Prod						
1	10	BT	F12	088	167	181	✓	✓	53	X									1
2	20	HO	F13		TR2				54										2
3	30				TR3				55										3
4	40				TR4		✓	✓	56										4
5	50				TR5				57	14									5
6	60	G			TR6		✓	✓	58	15									6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

NOT
FILTERED

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring09 Ship Designation (I.D.) 1H0902 STATION NO. 9/MNH.5

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
Φ1359	56.	14 N	169	59.59 W	ΦZ	A	P	R	0	9	1436	4.2	.	09	167	23				56	MNH.5

REMARKS: nutreats not filtered
 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 Temp Sensor No.

No	DEPTH DESIRED	notes	SALT	Nut Btl	O2-Btl/No	Hydro Team-PMEL				Weingartner 018	Julie 015N	Sanbroto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Katrin	N/s No
						CHL	Frac CHL	DIC/AIK	DOC			Prod	DON							
1	bot		F/4 F/15	59	058						X							X		1
2	40			60							X							X		2
3	30			61							X							X		3
4	20			62							X							X		4
5	10			63							X							X		5
6	10			64							X							X		6
7	0			64							X							X		7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 11H0902
 STATION NO: 9/14/05

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
01459	56	31	N 16957	10	W	27	APR	09	14	27	-3.5	.	08	*	*	175	17	*	*	*	55	MN4.5

REMARKS: MAX. DEPTH = m

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (grime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

No	DEPTH	Roset. notes	Hydro Team-PMEL						Wetgarnet		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	Nfs	
			SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DC/Alk	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr		Th
1	29			65											✓					1
2	19			66											✓					2
3	15			67											✓					3
4	11			68											✓					4
5	8			69											✓					5
6	4			70											✓					6
7	0			71											✓					7
8																				8
9																				9
10																				10
11																				11
12																				12

O-rings stuck in top of Disk in

Top not completely sealed

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) 110902 STATION NO. MN4.5

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																			
<u>1559</u>	<u>56</u>	<u>25</u>	<u>N</u>	<u>16947</u>	<u>62</u>	<u>W</u>	<u>08</u>	<u>A</u>	<u>P</u>	<u>R</u>	<u>0</u>	<u>9</u>											
											<u>-5.7</u>		<u>11</u>			<u>250</u>	<u>25</u>				<u>\$3</u>	<u>MN4.5</u>	

SBE 9+ _____ FLUOR S/N _____
 PARS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS No.	DEPTH DESIRED	notes	SALT	NUT.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	O18	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Katrn	NIS No.
												Urea Part.	Prod	DON						
	<u>46</u>			<u>1</u>		<u>1</u>	<u>1</u>													<u>1</u>
	<u>40</u>			<u>2</u>		<u>2</u>	<u>2</u>													<u>2</u>
	<u>30</u>			<u>3</u>	<u>(20/198)</u>	<u>3</u>	<u>3</u>													<u>3</u>
	<u>20</u>			<u>4</u>		<u>4</u>	<u>4</u>													<u>4</u>
	<u>10</u>			<u>5</u>		<u>5</u>	<u>5</u>													<u>5</u>
	<u>0</u>			<u>6</u>		<u>6</u>	<u>6</u>													<u>6</u>
																				<u>7</u>
																				<u>8</u>
																				<u>9</u>
																				<u>10</u>
																				<u>11</u>
																				<u>12</u>

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes: 711 record

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (LD.) H10902 STATION NO. 1P

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN											
0165953.73 N	170	23.	99 W	08	A	P	09	11	14	-7.	1			12			26	022			62	MNS

REMARKS: 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 Temp Sensor No. _____

MAX DEPTH = _____ m

Std Cond minus Temp + SIC at 10M

NIS	DEPTH	Roset.	SALT	Hydro Team-PMEL				Weingartner	Julie	Sambrotto				Moran/	Harvey	Garth/	Moran	Katrin	NIS
				Mur. Bri	O2-Bri.No	CHL	Frac CHL			DIC/AIK	DOC	018	61SN						
1	bt		F16	7	121/200	1													1
2	50		F17	8															2
3	46			9															3
4	36			10															4
5	20			11															5
6	10			12															6
7	16																		7
8	16																		8
9	110																		9
10	10																		10
11	0	quaker		13															11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

*Not
filled*

*O2 206 changed to 226 bottle number
was mis-read/recorded*

leaking (gushing)

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) H10902 STATION NO. MNS

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
0175954	12	N	17023	39	W	08	A	P	09	1331	-7.4		13			250	17			62	MNS

REMARKS: Stem / Cabin / Kabin
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE 43-Oxy (prme) _____
 PRI TEMP SN _____ SBE 43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingarten	Jule	Sambrotto			Moran/ Lomas	Harvey Lessaard	Carrn/ Sheer	Moran Th	Karrn	NIS	
			DESIRED	notes	SALT	NUTRBI	O2-Btl No	CHL.			Frac CHL.	DIC/Alk	DOC							018
1	10																			1
2	10																			2
3	10																			3
4	10	Warm																		4
5	10	Warm	9																	5
6	10	Warm																		6
7	10	Warm																		7
8	10	Warm																		8
9	10	Warm																		9
10	10	Warm																		10
11	10	Warm																		11
12	10	Warm																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Station Designation (I.D.) H0902
 STATION NO. MNS

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																
185954.72	N	17020.87	W	08	APR	09	1559-10.2	13	276	16	MNS							62	10	MNS

REMARKS
 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 Temp Sensor No.

NIS	DEPTH	DESRED	notes	SALT	NUCBRI	O2-Btl.No	Hydro Team-PMEL				Wetganner		Sambroto			Moran/	Harvey	Carrn/	Moran	Katrn	NIS
							CHL	Frac CHL	DIC/AIK	DOC	O18	01SN	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	
1	bot				15/4/11															1	
2	24				16/9/10															2	
3	17				17/9/10															3	
4	13				18/9/10															4	
5	16				19/9/10															5	
6	7				20/9/10															6	
7	3				21/9/10															7	
8	Φ				22/9/10															8	
9	Φ																			9	
10																				10	
11																				11	
12																				12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCGC Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring09
 Shp Designation (I.D.) 1H0902
 STATION NO. 110 / MNS

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
019	59	52.75	N	170	32.37	W	08	A	P	R	0	9	21	23	-6.8	.	14	27	508	64	MNS

REMARKS
 SBE 9+ FLUOR S/N
 SBE4-3-Oxy (prime)
 SBE4-3-Oxy (sec)
 SBE4-3-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Temp Sensor No.

No.	DEPTH	ROSET.	SALT	NUT.BI	O2-BI/NO	Hydro Team-PMEL				Weigartner		Sambrotto			Moran/	Harvey	Cariv/	Moran	Katrin	No.
						CHL	Frac CHL	DIC/ALK	DOC	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th			
1	60			23																1
2	50			24		1	1	✓	✓											2
3	40			25		2	2	✓	✓											3
4	30			26	198/126	3	3	✓	✓											4
5	20			27		4	4	✓	✓											5
6	10			28		5	5	✓	✓	022										6
7	0			29		6	6	✓	✓	023										7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 71 MNC6

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
020	59	54	.67 N	171	03	.63 W	09	A	P	09	0023	-4.2			12			342	06				70	MNC6

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

NIS No	DEPTH	Roset. notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	Weingartner 018	Julie δ15N	Sambrotto			Moran/ Lomas	Harvey Lessard	Carn/ Sherr	Moran Th	Katrn	NIS No
												Urea Part.	Prod	DON						
1	65			30				✓	✓	024		X	X							1
2	60																			2
3	50			31	003/058	1														3
4	40			32		2		✓	✓									X		4
5	30			33		3						X	X							5
6	20			34		4														6
7	10			35		5				025										7
8	0			36		6		✓	✓	026		X	X					X		8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 31/MNC7

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC														HR
21	59	54	.05N	171	35	.74W	09	42	7	4	6								69	MNC7

REMARKS
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (grime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team: PMEL						Weigartner/Julie		Sambrotto			Moran/	Harvey	Carru/	Moran	Katrin	NIS	
			DESIGED	notes	SALT	Nut.Btl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas		Lessard
1	67					37														1
2	60					38														2
3	30					39		13/654	1											3
4	40					40		2												4
5	30					41		3												5
6	20					42		4												6
7	10					43		5												7
8	0					44		6												8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 14

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
02259	54	35	N	172	10	67	W	APR	09	11	18	-6.5			04			051	16			72	MNS

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	SALT	Nur.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	018	Julie		Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Sheer	Moran Th	Karrn	NIS	
											615N	Urea	Part.	Prod	DON							
1	bot		F23	4/5	182/050			A	A	30									X		1	
2	60		F/24	4/4		TB1	FBI														2	
3	50			4/7																	3	
4	40			4/8		TB2	FB2														4	
5	30			4/9		TB3	FB3	B	B												5	
6	25			5/0		TB4	FB4														6	
7	10			5/1		TB5	FB5			31											7	
8	6																				8	
9	6																				9	
10	6																				10	
11	6																				11	
12	0			52		TB6	FB6	C	C	32											X	12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring09
 Ship Designation (I.D.) 110902
 STATION NO. 5

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
23	59	54	172 47.37 N	71	49	W	A	P	R	09	1501	-8.0	03	03			52	25			72	M09

REMARKS
 SBE 9+ FLUOR S/N
 SBE43-Oxy (primo)
 SBE43-Oxy (sec)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.

NIS	DEPTH	Roset.	Hydro Team-PMEL										Weingarten		Sambrotto			Moran/	Harvey	Cannv/	Moran	Katrin	NIS	
			DESIRED	notes	SALT	Nut.Bri	O2-Bri.No	CHL.	Frac CHL.	DIC/AIK	DOC	O18	δ15N	Urea	Part	Prod	DON	Lomas	Lessard	Snett	Th	No.		
1	bot		B1	53	178/60				✓															1
2	60		B2	54					✓															2
3	50			55		1			✓															3
4	40			56		2			✓															4
5	30			57		3			✓															5
6	25			58		4			✓															6
7	10			59		5			✓															7
8	10																							8
9	0																							9
10																								10
11																								11
12																								12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIEAP_Spring 09
 Ship Designation (I.D.): 110902
 STATION NO. 5

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
0245954	54	48	N	17248	29	09	APR	09	16	17	-8.5			03			043	23				79	M49

REMARKS: Pad cast
 MAX DEPTH =

No.	DEPTHD	notes	SALT	Nut:Btl	O2-Btl No	Hydro Team-PMEL		Wengartner		Sambrotto		Moran/		Harvey		Carrn/		Moran	Katrin	No.	
						CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard				Sherr
1	69			61																	1
2	29			62							X										2
3	19			63							X										3
4	15			64							X										4
5	11			65							X										5
6	8			66							X										6
7	4			67							X										7
8	0			68							X										8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID HI 0902 PROJECT & LEG BEST/BSERP_Spring09 SHIP DESIGNATION (I.D.) 140902 STATION NO. 16

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
42559	53	91	N	173	24	29	W	09	19	24	-9	7		04			43	515			86	MN10

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset	Hydro Team-PMEL										Weingartner		Sambrotto			Moran/	Harvey	Carin/	Moran	Karin	NIS	
			No.	DESIRED	notes	SALT	NUT BTI	O2-BI/NO	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th		No.
1	~80			69							✓													1
2	60				15/24																			2
3	50			70		1				1														3
4	40			71		2				2														4
5	30			72		3				3														5
6	20			73		4				4														6
7	10			74		5				5														7
8	0			75		6				6														8
9																								9
10																								10
11																								11
12																								12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
CRUISE ID: HI 0902

PROJECT & LEG: BEST/BSIEBP Spring '09

Ship Designation (I.D.): 110902

STATION NO.: 17/MN11

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC																		
0265953	53	60	N	173	58	69	W	09	A	P	R	09	23	04	9.5	.	.	008	23	.	.	.	101	MN11

REMARKS:

MAX DEPTH =

NS	DEPTH	Roset	Hydro Team-PMEL										Weingarten						Sambrotto						Moran/		Harvey		Carrn/		Moran		Katrn									
			No. DESIRED	notes	SALT	Nut:Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/Alk	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.										
	1	97	B/3	76	127			-	-	39		V				V					V																					
	2	75		83*				/	/			V				V					V																					
	3	50	B/4	77				/	/			V				V					V																					
	4	40	B/5	78				/	/			V				V					V																					
	5	30		79				/	/			V				V					V																					
	6	20		80				/	/			V				V					V																					
	7	10		81	205			/	/			V				V					V																					
	8	0		82				/	/			V				V					V																					

ICE LOG: Surface ice conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO. 18/MN12

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
02759	54	04	N 17436.72	W	10	A	P	09	04	59	-8.3	.	07	*	*	340	20	*	*	*	113	MN12

REMARKS: Bottle 3: top not sealed.

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE-43-Oxy (prim) _____
 PRI TEMP SN _____ SBE-43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Roset. notes	SALT	NUTRIT	O2-Rt/No	Hydro Team-PMEI				Weingartner/Julie				Sambrotto				Moran/Lomas	Harvey/Lessard	Cann/Sher	Moran/Th	Katrin	NIS
						CHL	Frac CHL	DIC/ALK	DOC	O18	d15N	Urea	Part.	Prod	DON	Moran/Lomas	Harvey/Lessard	Cann/Sher	Moran/Th	Katrin			
1	109		816	871																			1
2	100		817	85	102																		2
3	75		818	86	Leaker																		3
4	50			87																			4
5	40			88																			5
6	30		819	89																			6
7	20			90	229																		7
8	10			91																			8
9	0			92																			9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP_Spring09 SHIP Designation (I.D.) H10902 STATION NO. 19/MN13

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
0285953	94	N	17512.11	W	10	A	P	09	09	26	-11.1			110			336	15				120	MN13

SBE 9+ _____ FLOOR 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. _____
 Hydro Team-PMEL _____
 Weingartner _____
 Jufie _____
 Sambrotto _____
 Moran/ _____
 Lomas _____
 Harvey _____
 Lessard _____
 Carriv/ _____
 Sher _____
 Moran _____
 Katrin _____
 No. _____

NIS	DEPTH	Roset.	SALT	NUT BTI	O2-BI.No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Harvey	Carriv/	Moran	Katrin	NIS
1	005	115	810	93	132/228			A	A	045											1
2	100		811	94				B	g												2
3	20			95				C	c												3
4	40			96				D	D												4
5	40			97				E	E												5
6	30			98				TB3													6
7	20			99				TB4	F	F											7
8	10			100				TB5													8
9	0			101				TB6	G	G											9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & UFG BEST/BSIERP_Spring09 Ship Designation (I.D.) 1H0902 STATION NO.

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
02959	52	46	N	175	12	68	09	A	09	11	22	11.1			12			330	26				120	MN13

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trnp Sensor No. _____

REMARKS _____
 MAX. DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PWEL						Weingarten		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	NIS		
			notes	SALT	NUT BT	O2-BTL NO	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard		Sher	Th
1	~60ft				102													X		1	
2	100				103													X		2	
3	80				104													X		3	
4	65				105													X		4	
5	45				106													X		5	
6	30				107													X		6	
7	15				108													X		7	
8	6																			8	
9	6																			9	
10	6																			10	
11	6																			11	
12	0				109															X	12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H1 0902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb) + .	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
Φ3459	52.	04 N	175	15.38 W	10	A	P	09	13	45	-11.5	.	10	.	.	330	18	.	.	12Φ	MN13

SBE 9+ PRESS SN _____ FLUOR S/N _____
 SBE43-Oxy (prine) _____
 SBE43-Oxy (sec) _____
 PAR S/N _____
 SEC TEMP SN _____
 TRANSMISSOMETER _____
 O2 Tmp Serson No. _____
 REMARKS *Ride, 10m bottles looking*

NIS	DEPTH	Roset.	Hydro Team-PMEL							Winganger/ Julie	a15N	Urea	Sambrotto		Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran	Katrn	Ns	
			DESIRE	notes	SALT	Nut.Bt	O2-Btl.No	CHL.	Frac CHL.				DIC/AIK	DOC							018
1	115																				1
2	96																				2
3	60																				3
4	30																				4
5	10						11Φ												X		5
6	10																				6
7	10																				7
8	10																				8
9	10																				9
10	10																				10
11	10																				11
12	0																				12

ICE LOG: Surface Ice Conditions or Proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.:

CONSC CAST # 3159
 DEG 52.35 N
 LONGITUDE DEG 17512.54 W
 DAY 14
 MO APR
 YR 09
 TIME (GMT) 1608
 HR 12
 MIN 9
 DRY BULB (°C)
 WET BULB (°C)
 PRESSURE (mb) 11
 SEA STATE
 VISIBILITY
 WIND DIRN (deg) 345
 WIND SPD (kts) 16
 CLOUD (amt)
 TYPE WEATHER
 BOTTOM DEPTH (m) 124
 STA. NAME/ID MN13

SSE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.
 REMARKS: Ship flushed surface for ice when it'd at 3m coming up - reads

No.	DEPTH	DESIDRD notes	Hydro Team-PWEL						Wetgermel Julie		Sambrotto			Moran/	Harvey	Cariv/	Moran	Katn	Ns
			SALT	Nat:Br	O2-Br/No	CHL	Frac CHL	DIC/AK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	
1	bot																		1
2	7d																		2
3	5d																		3
4	26																		4
5	17																		5
6	13																		6
7	15																		7
8	10																		8
9	4																		9
10	3																		10
11	2																		11
12	1																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): 140902
 STATION NO.:

CONSC CAST # 3259
 DEG 52.18 N
 LONGITUDE 7512.56 W
 DAY 14
 MO APR
 YR 09
 TIME (GMT) 1644
 HR 13.3
 DRY BULB (°C)
 WET BULB (°C)
 PRESSURE (mb) 12
 SEA STATE
 VISIBILITY
 WIND DIRN. (deg) 358
 WIND SPD. (kts) 13
 CLOUD (amt)
 TYPE
 WEATHER
 BOTTOM DEPTH (m) 124
 STA. NAME/ID M113

SBE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.
 REMARKS: *Good*
 MAX DEPTH = m

NIS	DEPTH	Rosett.	Hydro Team-PWEL					Wiegarter	Julie	Sambrotto				Moran/ Lomas	Harvey Lessard	Carlin/ Sherr	Moran Th	Katrin	NIS
			No.	DESIRED	notes	SALT	Nut.Btl			O2-Btl.No	CHL	Frac CHL	DIC/AIK						
1	129			111					✓	X	X			X					1
2	70			112				✓	X	X				X					2
3	50			113					✓	X	X			X					3
4	29			114						X	X			X					4
5	19			115						X	X			X					5
6	15			116						X	X			X					6
7	11			117						X	X			X					7
8	11			118						X	X			X					8
9	8			119						X	X			X					9
10	4			120						X	X			X					10
11	φ			120						X	X			X					11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring09 Ship Designation (I.D.) H10902 STATION NO. 19

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	SEC	DEG	MIN	SEC													DAY	MO
3359	51	97	N	175	13	49	W	14	A	P	09	17	47	-13	0	12	344	18	124	MN13

REMARKS: bottle 2 - no spring

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 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL										Weingartner/Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	NIS
			DES	NOTES	SALT	NUT.BRI	O2-BTL.No	CHL.	Frac CHL.	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	No.	
1	20																					1	
2																						2	
3	20																					3	
4	26																					4	
5	26																					5	
6	26																					6	
7	26																					7	
8	20																				✓	8	
9	20																				✓	9	
10	20																				✓	10	
11	20																				✓	11	
12	20																					12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP Spring 09
 Ship Designation (I.D.): 110902
 STATION NO: 20/MNYE

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (Kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC																		
2345954	20	N		17548	32	W	11	A	P	R	0	9	0006	-12.4		14			335	22			130	MNYE

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ I02 Trip Sensor No. _____

REMARKS: _____

MAX DEPTH = _____ m

NIS	DEPTH	Roset. notes	Hydro Team-PMEL						Wingardner			Julie			Sambrotto			Moran/ Lomas	Harvey/ Lessard	Carr/ Sherr	Moran/ Th	NIS		
			NO	DESIRED	SALT	NUT BR	O2-BR/No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON						Moran/ Lomas	Harvey/ Lessard
1	127			121				1	1	48														1
2	100			122	✓145																			2
3	75			123				✓	1															3
4	50			124				1																4
5	40			125				2	2															5
6	30			126	✓155			3	3															6
7	20			127				4	4															7
8	10			128				5	5															8
9	0			129				6	6															9
10																								10
11																								11
12																								12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 216N15

CONSC		LATTITUDE		LONGITUDE		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(kts)	*	*	(m)	
03559	54	.60	N	12623	03	W	11	APR	09	0331	-11.9			15			140	MW15

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 Temp Sensor No. _____
 REMARKS _____
 MAX. DEPTH = _____ m

No	DEPTH	Roset. notes	SALT	Nut.Btl	O2-Btl/No	Hydro Team-PMEL		Weingartner/Julie		Sambrotto			Moran/	Harvey	Garrn/	Moran	Katrin	No
						CHL	Frac CHL	DIC/Alk	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	
1	137			130														1
2	125			131	✓149													2
3	100			132														3
4	75			135														4
5	50			2														5
6	40			3	✓206													6
7	30			4														7
8	20			5														8
9	10			6														9
10	0			7														10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 SHIP Designation (I.D.) 110902 STATION NO. 22

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
03659	53.96	N	17659.58	W	11	A	P	0	9	0814	-12.8	.	17	.	3	49	14	.	.	.	136	MN/6

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (pHme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL										Weigarter		Sambrotto			Moran/		Harvey		Carrn/		Moran		NIS
			DESIRED	notes	SALT	Nut Btl	O2-BTLNO	CHL	Frac CHL	DIC/ALK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	Katrin	No.			
1	~130		812	8	218				A	A	54										X	1				
2	166		813	9					B	B											X	2				
3	75			10																	X	3				
4	50			11																	X	4				
5	40			12																	X	5				
6	30			13																	X	6				
7	20			14																	X	7				
8	10			15							55										X	8				
9	0			16							56										X	9				
10																						10				
11																						11				
12																						12				

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring 09
 Smp Designation (I.D.) 1H0902
 STATION NO. 23

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
03759	53.	18 N	177	36.	11	A	20	9	13	20	-12.8	.	19	*	*	346	15	*	*	*	138	M112

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prmw) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

REMARKS _____

MAX. DEPTH = _____ m

No.	DEPTH DESIRED	Roset.	notes	SALT	NUT.BT	O2-BTL NO	CHL.	Frac CHL.	DIC/AIK	DOC	O18	Wingartner Julie	015N	Urea	Sambrotto			DON	Moran/ Lomas	Harvey Lessard	Carm/ Sherr	Moran Th	Katrin	Nis No.	
															Part.	Prod	Don								
1	432			814	17	159			A	A	057														1
2	100		leaker B/S		18				B	B															2
3	75				19				C	C															3
4	50				20				D	D															4
5	40				21				E	E															5
6	30				22																				6
7	20				23				E	F															7
8	10				24						058														8
9	0				25				B	G	059														9
10																									10
11																									11
12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) I10902
 STATION NO. 214

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN													
385954	32	N		17811	51	W	11	APR	09	17	13	-12	4			24		004	16				144	MU18

REMARKS
 SBE 9+ _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 O2 Temp Sensor No. _____

NIS No.	DEPTH DESIRED	Rosett. notes	SALT	NAT. BH	O2-BU. No	CHL	Frac CHL	DIC/AIK	DOC	Wiegand/Julie O18	015N	Sambroto			Moran/ Lomas	Harvey/ Lessard	Carli/ Sherr	Moran/ Th	Karin	NIS No.
												Urea	Part.	Prod						
1	138		816	26	488	1				60	X	X	X	X						1
2	125		B/H	27							X	X	X	X						2
3	100			28							X	X	X	X						3
4	75			29							X	X	X	X						4
5	50			30							X	X	X	X						5
6	40			31							X	X	X	X						6
7	30			32																7
8	20			33																8
9	10			34																9
10	10			35																10
11	0			36																11
12	0			36																12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes: TB6 - not sure if it was taken from the correct bottle

VESSEL USCG Healy
 CRUISE ID HI 0902
 PROJECT & LEG BEST/BISEp Spring 09
 Shp Designation (I.D.) 1H0902
 STATION NO. 25

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	SEC	DEG	MIN	SEC													DAY	MO	YR
439	59	54	.10	N	178	53	.90	W	12	A	P	R	0	9	0727	-9	.6	21	6508	490	MW19

REMARKS
 SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 O2 Trip Sensor No. _____

No	DEPTH DESIRED	notes	SALT	Nat. Bil	O2-Bil. No	CHL.	Frac. CHL	DIC/AIK	DOC	Walgarten/Julie	O18	δ15N	Sambrotto			Moran/Lomas	Harvey/Lessard	Carrin/Sher	Moran/Kathn	No
													Urea	Part.	Prod					
1	473		37-469						1	1	43		X	X					X	1
2	400		38-146						2	2			X	X					X	2
3	350		39-084						3	3			X	X					X	3
4	253		40-064						4	4			X	X					X	4
5	150		41-200						5	5			X	X					X	5
6	100		42-074						6	6			X	X					X	6
7	60		43-153						7	7			X	X					X	7
8	40		44-86						8	8			X	X					X	8
9	30		45-75						9	9			X	X					X	9
10	20		46-5						10	10			X	X					X	10
11	10		47-5						11	11	73		X	X					X	11
12	0		48-5						12	12	74		X	X					X	12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP Spring'09 Shp Designation (I.D.) H10902 STATION NO. 25

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
4405954	59	54	178	54	12	A	09	08	58	-9.5	.	.	22	*	*	47	00	*	*	*	388	MN19

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS *Lead and*
 MAX. DEPTH = _____ m

No	DEPTD	notes	SALT	NAT. BI	Hydro Team-PMEL					DOC	Weingartner / Julie	018	015N	Urea	Sambrotto			Moran / Lomas	Harvey / Lessard	Carrin / Sher	Moran / Th	Katin	No
					O2-BL	NO	CHL	Frac CHL	DIC/AIK						Prod	DON							
1	7																					1	
2	7																					2	
3	7																					3	
4	7																					4	
5	7																					5	
6	7																					6	
7																						7	
8																						8	
9																						9	
10																						10	
11																						11	
12																						12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIEP-Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 25

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
042	59	54	33 N	178	54	40 W	1620	-10.7		22			95	07			395	MW/19

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PRT TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transducer
 PRT COND SN PAR S/N
 SEC COND SN Q2 Temp Sensor No.

REMARKS: *PROD Cast*

MAX DEPTH = _____ m

NIS	DEPTH DESIRED	Roset. notes	SALT	Hydro Team-PNEL					Wiegarter 018	Jule 015N	Sambrotto			Moran/ Lomas	Harvey/ Lessard	Cann/ Sherr	Moran Th	Katr No
				NAT:BTI	O2-BTLNO	CHL	Frac CHL	DIC/AIK			DOC	Prod	DON					
1	33			Q14							✓							1
2	21			Q11							✓							2
3	17			Q12							✓							3
4	13			Q13							✓							4
5	9			Q14							✓							5
6	4			Q15							✓							6
7	Φ																	7
8	Φ			Q16							✓							8
9																		9
10																		10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge
niskin 7-leaker

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO. 26

CONSC CAST # 0435953.88 N
 LATITUDE DEG MIN 79 25.83 W
 LONGITUDE DEG MIN DAY MO YR HR MIN 12 APR 09 23 04 -6.9
 TIME (GMT) DRY BULB WET BULB PRESSURE (mb) SEA STATE VISIBILITY WIND DIRN (deg) WIND SPD (kts) CLOUD (amt) TYPE WEATHER BOTTOM DEPTH (m) STA. NAME/ID
 22 75 12 2733 MN26

REMARKS: SBE 9+
 PRESS SN
 PPI TEMP SN
 SEC TEMP SN
 PPI COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transducer
 PAR S/N
 O2 Temp Sensor No.

No	DEPTH DESIRED	Roset. notes	SALT	Hydro Team-TMEL				Wiegarter		Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	No
				Nut.BR	O2-BRLNO	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	
1	2723			50	175															1
2	2500		311	51	072															2
3	2000		ND92690017																	3
4	1750		813	52	068															4
5	1500			53	136															5
6	1200			54	143															6
7	1000			55	167															7
8	900			56	121															8
9	750			57	226															9
10	500			58	120															10
11	400			59	003															11
12	300			60	058															12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes: Niskin 3. Bad Socket

VESSEL USCGC Healy
 CRUISE ID HI 0902
 PROJECT & LEG BEST/BSERP Spring 09
 Ship Designation (I.D.) 110902
 STATION No. 26 / MN 20

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	SEC	DEG	MIN	SEC														HR	MIN	SEC	*	*
04459	53	05	N	179	26	27	W	13	A	P	R	0	9	01	34	-	6	8	22	80	13	2	730	MN 20

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (p/line) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

No.	DEPTH DESIRED	Roset. notes	SALT	NUC.BI	O2-BI.No	Hydro Team-PWEL			DOC	Wengert 018	Julie 015N	Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Sher	Moran Th	Katr n	No.
						CHL.	Frac CHL.	DIC/AIK				Prod	DON	✓						
1	300			61	182				-			X	X							1
2	250			62	113				-											2
3	200			63					-											3
4	150			64					-											4
5	100			65					-			X	X							5
6	75			66					-											6
7	50			67A					-											7
8	40			68A					-			X	X							8
9	30			69					-											9
10	20			70					-			X	X							10
11	10			71					-											11
12	0			72					-			X	X							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 26 / MS 24

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
245	59	54	64 N	179	26	13	W	13	A	P	09	08	42	-7.9	28	*	65	16	*	*	*	2694	MND20

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 Temp Sensor No. _____
 REMARKS *Lots of Euphausiids*
decard
 MAX DEPTH = _____ m

No.	DESIGD	notes	SALT	Nut.BtI	Hydro Team-PMEL					DOC	Wengartner		Julie			Sambrotto			Moran/	Harvey	Cann/	Moran	Katrin	No.
					O2-BtI/No	CHL.	Frac CHL.	DIC/AIK	018		015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th					
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

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 27/MN-SL2

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN											
4466029	35	N	179	12	13	APR	09	16	32	-12.3		24			76	5			1600	MNSL2

SBE 9+ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

No	DEPT#	notes	SALT	NUTRI	02-8:1:No	Hydro Team-PWEL		CHL	Frac CHL	DIC/AIK	DOC	DOC	018	Julie	Urea	Part.	Sambroto		DON	Moran/ Lomas	Harvey Lessard	Carrin/ Sherr	Moran Th	Karin	No	
						CHL	Prod																			
1	51		823 824 825	Q10/23																						1
2	33		823 824 825	Q11/24																						2
3	27			Q12/25																						3
4	26			Q13/26																						4
5	13			Q14/27																						5
6	7			Q15/28																						6
7	Φ																									7
8	Φ			Q16/29																						8
9																										9
10																										10
11																										11
12																										12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 110902
 STATION NO. 28

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
04261	41.	79 N	176	59.	17 W	14	A	P	09	1055	-10.6		31			311	5			117	MASH 3

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE 43-Oxy (prme) _____
 PRI TEMP SN _____ SBE 43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS For Study - lessard
 No salts taken before bottles were dumped

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingartner			Julie			Sambrotto			Moran/	Harvey	Cahn/	Moran	Katrin	NIS
			DESIRED	notes	SALT	Nut.BRI	O2-BRI.No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sheer	Th	No.	
1	7																						1
2	7																						2
3	7																						3
4	7																						4
5	7																						5
6	7																						6
7																							7
8																							8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): 110902
 STATION NO.: 029

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
4861	46	09	00	176	47	68	13	25	11	5	31		097	09			113	IS3
																	113	NSL4

REMARKS: This was a 15m depth water line depth
 from gunner down to 15m
 Had 3 Navy low R at bottom

No.	DEPTH DESIRED	notes	SALT	NUT BTI	O2-BTI/NO	CHL.	Frac CHL.	DIC/AIK	DOC	Weigarten		Sanbroto			Moran/ Lomas	Harvey Lessard	Cariv/ Sherr	Moran Th	Katrin	No.
										Julie δ15N	Urea Part	Prod	DON	Moran/ Lomas	Harvey Lessard	Cariv/ Sherr	Moran Th	Katrin		
1	60		B1	80	-069													X		1
2	75		B2	81														X		2
3	75			82														X		3
4	150			83	-196	TB1												X		4
5	40			84		TB2												X		5
6	30			85		TB3												X		6
7	20			86		TB4												X		7
8	10			87		TB5												X		8
9	0			88		TB6												X		9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP Spring'09 STATION NO. 629

CONSC CAST # 6496146.65 N 17447.33 W 14 APR 09 1429-11.7 . 31 29542

DEG MIN DEG MIN DAY MO YR HR MIN TIME (GMT) DRY BULB (°C) WET BULB (°C) PRESSURE (mb) SEA STATE VISIBILITY WIND DIRN. (deg) WIND SPD. (kts) CLOUD (amt) WEATHER TYPE BOTTOM DEPTH (m) STA. NAME/ID 113MNSLH

SBE 9+ FLUOR S/N SBE43-Oxy (prime) SBE43-Oxy (sec) Transmissometer PAR S/N

SEC COND SN O2 Tmp Sensor No.

REMARKS Snow cast

MAX DEPTH = m

NIS	DEPTH	ROSET	Hydro Team-PMEL						Weigartner		Sambrotto			Moran/	Harvey	Carrn/	Moran	Karrn	NIS		
			NO	DESIRED	NOTES	SALT	NUT.BH	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON		Lomas	Lessard
1	15																				1
2																					2
3																					3
4																					4
5																					5
6																					6
7					89																7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 029

CONSC CAST # 0506146.23 N
 LATITUDE 17647.35 W
 DEG MIN DEG MIN DAY MO YR HR MIN
 14 APR 09 1632-12.1
 TIME (GMT) DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN. WIND SPD. CLOUD (amt) TYPE WEATHER
 32 * * 30011 * * *
 (°C) (°C) (mb) (deg) (kts) (m)
 114
 BOTTOM DEPTH STA. NAME/ID
 114 m NSL4

REMARKS
 Prod Cast
 MAX DEPTH = m

NIS	DEPTH	Roset. notes	Hydro Team-PMEL					Weingartner	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Shear	Moran Th	Karrn	NIS
			SALT	MUT.BRI	O2-BI.NO	CHL.	FRAC CHL.			DIC/AIK	DOC	OT 8						
1	505			905 ⁰¹⁰						X		X						1
2	46			910 ⁰¹⁰						X		X						2
3	30			920 ⁰¹⁰														3
4	24			930 ⁰¹⁰														4
5	18			940 ⁰¹⁰						X		X						5
6	12			950 ⁰¹⁰														6
7	6			960 ⁰¹⁰														7
8	Φ			970 ⁰¹⁰						X		X						8
9																		9
10																		10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 29/PAN-5L4

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * *	VISIBILITY * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER * * *	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	SEC	DEG	MIN	SEC													DAY	MO	YR	HR
516146	85	N		17648	64	W	15	APR	09	0219	5.6			32			219	11			117	MNSL4

REMARKS
 SBE 9+ FLUOR S/N
 PRESS SN SBE 43-Oxy (prime)
 PRI TEMP SN SBE 43-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRI COND SN PAR S/N
 SEC COND SN Q2 Temp Senson No.

No.	DESIDED	notes	SALT	Nut/Bt	O2-Bt/No	Hydro Team-PMEL						Wet/gartner	Jule	Sambrotto						Moran/	Harvey	Carrn/	Moran	Karrn	NIS	
						CHL	Frac CHL	DOC/AIK	DOC	O18	015N			Urea	Part.	Prod	DON	Lomas	Lessard							Sherr
1	105		B/3	98	074							83														1
2	75			99																						2
3	60		B/4	100																						3
4	50			101																						4
5	40			101																						5
6	30			102																						6
7	20			103	200																					7
8	10		B/6	101																						8
9	0			105																						9
10																										10
11																										11
12																										12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Ice Station 3

MAX. DEPTH = m

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO.: 230/SL14

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC																	
05262	13	17	N	175	56	91	W	15	A	2005	11	09	08		34			204	48			92	SL14

REMARKS: *collected lessard/Hydno*

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE4-3-Oxy (prime) _____
 PRI TEMP SN _____ SBE4-3-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										Weingartner	Julie	Sambrotto			Moran/	Harvey	Cariv/	Moran	Katrin	NIS		
			DESIRED	notes	SALT	Nut:Btl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	O18			d15N	Urea	Part.							Prod	DON
1	25		B7	106	153			A	1	086															1
2	26			107			B	2																	2
3	28			108			C	3																	3
4	40			109			D	4																	4
5	30			110			E	5																	5
6	20		B8	110			E	5																	6
7	19			112						087															7
8	9																								8
9	9																								9
10	9																								10
11	9																								11
12	0			113	086	786		G	5	088															12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes: *111 not sampled*

VESSEL		CRUISE ID		PROJECT & LEG		Ship Designation (I.D.)		STATION NO.													
USCG Healy		H10902		BRST/BSERP_Spring'09		1H0902		31													
CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN														DAY	MO	YR	HR
05362	13	44	N	17533	26	W	15	A	P	R	0	9	14	46	15	.2	.29	196	06	.87	5413
SBE 9+ _____ FLUOR S/N _____ PRESS SN _____ SBE43-Oxy (prine) _____ PRI TEMP SN _____ SBE43-Oxy (sec) _____ SEC TEMP SN _____ Transmitter _____ PRI COND SN _____ PAR S/N _____ SEC COND SN _____ I02 Trip Sesson No. _____																					
REMARKS _____																					
MAX. DEPTH = _____ m																					
Hydro Team-PMEL																					
No.	DEPTH	DEPT H	Roset.	SALT	Nut Btl	O2-Btl/No	CHL.	Frac CHL.	DIC/ALK	DOC	018	Julie	Sambrotto			Moran/	Harvey	Cariv/	Moran	Katrin	Nis
			notes									δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.
1	Bot	80			114	106			A	A	089										1
2	70			B 9	115		TB1	FC1													2
3	46			B10	115		TB2	FC2	A	B											3
4	30				117		TB3	FC3													4
5	20				118		TB4	FC4													5
6	10			B11	119		TB5	FC5			090										6
7	0				120		TB6	FC6	A	C	091										7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

rough

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (LD.) 1H0902
 STATION NO. 32/SL12

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
054621	17	58	N	175	08	44	W	15	A	P	R	09	20	58	-7.6		28		197	7			79	SL12

REMARKS
 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 Temp Sensor No.

NIS	DEPTH	Roset.	SALT	Hydro Team-PMEL						Wengartner	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carn/ Shear	Moran Th	Katrn	NIS					
				Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AK	DOC			O18	δ15N	Urea							Part.	Prod	DON		
1	75	1		121	136							92	X	X	X							X		1	
2	50			122		1							X	X	X								X	2	
3	40			123		2																	X	3	
4	30		B/12	124		3							X	X	X								X	4	
5	20		B/13	125	012	4																	X	5	
6	20		B/14																					✓	6
7	10			126		5						93											X	7	
8	0			127		6						94		X									X	8	
9																								9	
10																								10	
11																								11	
12																								12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP Spring'09
 Ship Designation (I.D.): H10902
 STATION NO.: 33/SL11

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
05562	11	09 N	174	39 W	16	APR	09	02	47	-7.4			31			280	2				73	SL11

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmittometer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NS	DEPTH	Roset	Hydro Team-PMEL						Weingarten/Julie		Sambrotto			Moran/	Harvey	Carr/	Moran	Karin	NS		
			No.	DESIRD	notes	SALT	NUC:BR	O2-BR:No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON		Lomas	Lessard
1	64			128	068		1	1	1	1											1
2	50			9/6 129			2	2													2
3	40			9/16 130			3	3	1	1											3
4	30			9/17 131			4	4													4
5	20			132/143			5	5													5
6	10			133			6	6	1	1											6
7	0			134																	7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 34 / 5L10

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIR. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN													
056	62	09	.42	N	173	59	.67	W	16	A	P	09	49	-8.7			35		320	11			65	5L10

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (grime) _____
 PFI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PFI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PN&L						Wetgarnet	July	Sambrotto				Moran/ Lomas	Harvey Lessard	Carr/ Sherr	Moran Th	Katr	NIS			
			DESRED	notes	SALT	Nut.BI	O2-BI/No	CHL			Frac CHL	DIC/AIK	DOC	018							015N	Urea	Part.
1	B ₁	60	B ₁₈	135	224	T _{B6}		A	A	95		X	X		X								1
2	40			136		T _{B5}		B	B			X	X		X								2
3	30		B ₁₉	137		T _{B4}		C	C			X	X		X								3
4	20			138		T _{B3}		D	D			X	X		X								4
5	10		B ₂₀	139		T _{B2}		E	E	96													5
6	10																						6
7	10																						7
8	10																						8
9	10																						9
10	10																						10
11	10																						11
12	0			140		T _{B1}		F	F	97		X	X		X								12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 35 / 5109

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
0576265	62	39	N	173	16	58	16	03	9.1	35			319	48			62	Ice Station 4
							16	APR	09									5109

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 Temp Sensor No. _____

NIS NO	DEPTH DESIRED	Roset. notes	Hydro Team-PMEL						Wengartner		Julie			Sambroto			Moran/ Lomas	Harvey Lessard	Carin/ Sherr	Moran Th	NIS No		
			SALT	MU/BU	O2-BU/No	CHL	Frac CHL	DIC/AIK	DOC	O18	01SN	Urea	Part.	Prod	DON								
1	6ft		B21	141	132	T81	-	-	98														
2	46			142		T82																	
3	36		B22	143		T83																	
4	26			144		T84																	
5	16		B23	145		T85																	
6	10		Kator						99														
7	6			146		T86			100														
8																							
9			B24																				
10																							
11																							
12																							

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

* B24 Salinity Taken 4/16/09 at 1445 Calvin Filstead SeaWatch Center

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 351549

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
05862	04	.42	N 17316.49	W 16	A	P	R	09	15	11	-7.3			35			323	15			61	549

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 Temp Sensor No. _____
 REMARKS *Shew / Ashjian cast cast 55*
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingartner		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrn	NIS			
			DESIG	notes	SALT	Nut.Btl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas		Lessard	Sherr	Th
1	10		F1	✓																		1
2	10		FZ																			2
3	10																					3
4	10																					4
5	10																					5
6	10																					6
7	10																					7
8	10																					8
9	10																					9
10	10																					10
11	10																					11
12	10																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/RBIERP_Spring'09
 Ship Designation (I.D.): I10902
 STATION NO.: 35/519

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRRN	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	* * *		(m)	
0596243	62	43	N	173	16	35	16	33	-5.9	.	35	*	317	14	* * *		64	5109

REMARKS: *Prod*

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBEA3-Oxy (prime) _____
 PPI TEMP SN _____ SBEA3-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PPI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wiegarter	Julia	Sambrotto			Moran/ Lomas	Harvey Lessard	Carn/ Sherr	Moran Th	Katin	NIS
			DESIRED	notes	SALT	NUR:BI	O2-BTLNO	CHL.			Frac CHL.	DIC/AIK	DOC						
1	33		F3	48									✓			✓			1
2	21			149									✓			✓			2
3	17			156									✓			✓			3
4	13			151									✓			✓			4
5	9			152									✓			✓			5
6	4		F4	153									✓			✓			6
7	3			154									✓			✓			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring09
 Shtp Designation (I.D.): 1H0902
 STATION NO.: 351519

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
06061	58	68	N	173	14	68	W	17	A	P	R	09	0139	-4.1	.	.	36	*	*	307	14	59	519

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (p/ume) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

REMARKS _____

MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PWEL							Weingartner		Sambrotto			Moran/	Harvey	Carlv/	Moran	Katrin	NIS		
			No.	DESIRED	notes	SALT	Nut.Bt	O2-Bt.No	CHL	Frac CHL	DIC/AIK	DOC	018	019N	Urea	Part.	Prod	DON	Lomas		Lessard	Sher
1	56			155																		1
2	50			F/5	156	224	1															2
3	40			F/6	157		2															3
4	30				158		3															4
5	20				159	145	4															5
6	10				160		5															6
7	0				1		6															7
8																						8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO 361 Sled

CONSC CAST # 0616202.56 N
 LATITUDE 72 37.48 W
 DEGREE MIN DEGREE MIN DAY MO YR HR MIN
 17 APR 09 0640-3.5
 TIME (GMT) DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN. WIND SPD. CLOUD (amt) TYPE WEATHER
 35 * * (deg) (kts) * * * *
 30014
 BOTTOM DEPTH STA. NAME/ID
 55 Sled

REMARKS
 SBE 9+ FLUOR S/N
 SBE-43-Oxy (prime)
 SBE-43-Oxy (sec)
 SEC TEMP SN Transmission
 PRI COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

NIS	DEPTH	Roset. notes	Hydro Team-PMEL						Weingartner		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	NIS
			SALT	NUT/Btl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	
1	51			2		1	1	1	1										1
2	40			3	155	2	2	2	1		X	X		X					2
3	30			4		3	3	3	1		X	X		X					3
4	20			5		4	4	4	1		X	X		X					4
5	10			6	228	5	5	5	1										5
6	10			7		6	6	6	1		X	X		X					6
7	0																		7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERR Spring 09
 Ship Designation (I.D.): H10902
 STATION NO: 371507

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID						
	DEG	MIN	SEC	DEG	MIN	SEC													DAY	MO	YR	HR	MIN	
06261	59	74	N	171	53	94	W	17	A	P	09	11	25	-3	8	.	33	.	300	14	.	.	59	SL07

REMARKS: Standard - Cast 1A below

SBE 9+ _____ FLOOR 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. _____

MAX. DEPTH = _____ m

No.	DEPTHD DESIREDD	Roset. notes	SALT	Nut:Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	O18	Julie δ15N	Urea	Sambrotto			Moran/ Lomas	Harvey Lessard	Gartu/ Sherr	Moran Th	Moran Alexa	NIS No.
													Part.	Prod	DON						
1	49		F7	-8	204	TR1		A	A	-109											1
2	40			-9		TR2															2
3	30			-10		TR3		B	B												3
4	20			-11		TR4															4
5	20																				5
6	10		F8	12		TR5															6
7	0			-13	204	TR6		C	C	-141											7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Ship Designation (I.D.) H10902
 STATION NO. 39

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																			
0636156	81	N	17113	74	W	17	A	15	27	09	4	1	32			314	11					53	SLG

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 Temp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

No.	DEPTH DESIRED	Roset. notes	SALT	Nut Btl	O2-Btl/No	CHL	Frac CHL	DIC/Alk	DOC	018	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Cariv/ Sherr	Moran Th	Katrin	No.
												Urea	Part.	Prod						
1	MG		F9	14	198	T01		T												1
2	40			15		T02														2
3	30		FID	16		T03		3												3
4	20			17		T04		4												4
5	20		Alexei																	5
6	10		F11	18		T05		6												6
7	10		Katrin																	7
8	0			19	049	T06		8												8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Katrin at ID
 Alexei at 30

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP Spring 09 Ship Designation (I.D.) 1H0902 STATION NO. 40/SL05

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
64	61	53	82 N	17	03	2.62 W	17	A	09	20	23	-4.2			31			29	3/5			49	SL05

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. _____

REMARKS _____

MAX DEPTH = _____ m

N/S	DEPTH	Roset.	Hydro Team-PWEL							Weigarned		Jule			Sambrotto			Moran/	Harvey	Cann/	Moran	Katrn	N/S
			No. DESIRED	notes	SALT	Nutr/BtI	O2-BtI/No	CHL	Frac CHL	DIC/AIK	DOC	O18	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.	
	1	44		F/12	20		1	1	/	/	117	X	X		X								1
	2	40			21	159	2	2															2
	3	30			22		3	3	/	/													3
	4	20		F/13	23		4	4			118	X	X		X								4
	5	10			24	165	5	5															5
	6	0			25		6	6	/	/	119	X	X		X								6
	7																						7
	8																						8
	9																						9
	10																						10
	11																						11
	12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID HI 0902
 PROJECT & LFG BEST/BSIERP_Spring 09
 Ship Designation (I.D.) 1H0902
 STATION NO. 41/5L04

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) *	WEATHER TYPE *	BOTTOM DEPTH (m)	STA. NAME/ID							
	DEG	MIN	DEG	MIN	DAY																			
6561	51	24	N	169	50	71	18	A	P	R	0	9	08	20	-2.7	.	29	*	284	13	*	*	45	5L04

SAE 9+ _____
 FLUOR S/N _____
 PRAESS SN _____
 SBE43-Oxy (pome) _____
 PRI TEMP SN _____
 SBE43-Oxy (sec) _____
 SEC TEMP SN _____
 Transmissometer _____
 PAR S/N _____
 SEC COND SN _____
 O2 Temp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL					Wiegarter		Julie		Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	NIS
			DESRED	notes	SALT	NUC Btl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	O18	o15N	Urea	Part.	Prod	DON	Lomas	Lessard	
1	41				F/14	26		1												1
2	30				F/15	21		088	2											2
3	20					28		175	3											3
4	10					29		4												4
5	0					30		5												5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Shp Designation (I.D.) 1H0902
 STATION NO. 42 / 5603

CONSC CAST #	DEG	MIN	LONGITUDE DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
6661	48	32	169	11	18	A	09	03	30	-3.4			28			293	14				40	SLC03

REMARKS
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Rosette notes	SALT	NAT. BTI	Hydro Team-PMEL				Wiegarter	Julie	Sambrotto			Moran/	Harvey	Carn/	Moran	Katrin	NIS
					O2-BTL/NO	CHL	Frac CHL	DIC/AIK			DOC	O18	δ15N						
1	36		F/10	31		1													1
2	30			32	196	2													2
3	20			33		3													3
4	10		F/17	34	069	4				124									4
5	0			35		5				123									5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
CRUISE ID HI0902
PROJECT & LEG BEST/BSIERP_Spring'09
Ship Designation (I.D.) 1H0902
STATION NO 43/SLO2

CONSC CAST # 67
DEG 67 MIN 44.95 N
LONGITUDE DEG 168 MIN 29.43 W
DAY 18 MO APR YR 09
TIME (GMT) 0800
DRY BULB -3.3 (C)
WET BULB (C)
PRESSURE 26 (mb)
SEA STATE * *
VISIBILITY * *
WIND DIRN. 33 (deg)
WIND SPD. 12 (kts)
CLOUD (amt) * *
TYPE * *
WEATHER
BOTTOM DEPTH (m) 35
STA. NAME/ID Logable 440 SLO2

SBE 9+
PRESS SN
PR1 TEMP SN
SEC TEMP SN
PR1 COND SN
SEC COND SN
FLUOR S/N
SBE43-Oxy (prme)
SBE43-Oxy (sec)
Transmissometer
PAR S/N
02 Trip Sensor No.
REMARKS
MAX. DEPTH = m

NIS	DEPTH	Roset.	Hydro Team-PMEL							Wingarten	Julie	Sambrotto			Moran/	Harvey	Carru/	Moran	Karin	NIS
			No	DESIRED	notes	SALT	Nuc. Br	02-BL No	CHL			Frac CHL	DIC/AIK	DOC						
	1	29	F18	36	084	TB1	1	1	196											1
	2	20		37		TB2	2	2												2
	3	10	F19	38		TB3	3	3	127											3
	4	10	Alexe1																	4
	5	0		39		TB4	4	5	128											5
	6																			6
	7																			7
	8																			8
	9																			9
	10																			10
	11																			11
	12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H1 0902
 PROJECT & LEG BEST/BSERP Spring 09
 Ship Designation (I.D.) 1H0902
 STATION NO. 45

CONSC CAST #	LATITUDE	LONGITUDE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DRN (deg)	WIND SPD (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
6861	42.05 N	16745.21 W	18 APR 09 1352	-5.4		25			335	3			28	SLI

REMARKS
 SBE 9+ FLUOR S/N
 PRESS SN SBE#3-Oxy (prime)
 PRI TEMP SN SBE#3-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRI COND SN PAR S/N
 SEC COND SN Q2 Temp Sensor No.

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wenigarter	Julie	Sambrotto			Moran/ Lomas	Harvey	Carrin/ Sherr	Moran	Karin	NIS
			DESRED	notes	SALT	Nut:BI	O2-BI.No	OIL			Frac OIL	DIC/AIK	DOC						
1	23		F20	40	074	701-F91-A	-A		129							X		1	
2	10			41		TRZ TRZB	-B		130							X		2	
3	10																X	3	
4	10																	4	
5	0		F21	42	200	TR3-EH3C	C		131							X		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 45

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY													MO
0696141.82N			16744.54W		18	APR	09	1451	-5.4			24			334	PT	28	SL1

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE-43-Oxy (prime) _____
 PRI TEMP SN _____ SBE-43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wengertser	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carlin/ Shear	Moran Th	Karin	NIS
			DESIRIED	notes	SALT	Nut/Btl	O2-Btl No	CHL.			Frac CHL.	DIC/AIK	DOC						
1	10	1	F22																1
2		2																	2
3		3																	3
4		4																	4
5		5			43														5
6		6																	6
7		7																	7
8		8																	8
9		9																	9
10		10																	10
11		11																	11
12		12																	12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP_Spring'09 SHIP Designation (I.D.) H0902 STATION NO. 45

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
47461	41	41	42	N	16	7	43	9	15	09	-6.5		25			347	11			27	S441

REMARKS: MAX. DEPTH = m

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (grime)
 PRI TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transmittometer
 PRI COND SN PAR S/N
 SEC COND SN IO2 Trip Sensor No.

NIS	DEPTH	Roset:	Hydro T earn-PMEL						Weingartner	Julie	Sanbroto			Moran/	Harvey	Carru/	Moran	Katrin	NIS		
			DESIRED	notes	SALT	Nut Bt	O2-Bt/No	CHL			Frac CHL	DOC/AIK	DOC							018	615N
1	22			44/10/10																	1
2	19			45/10/11																	2
3	15			46/10/12																	3
4	11			47/10/13																	4
5	8			48/10/14																	5
6	4			49/10/15																	6
7				50/10/16																	7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 45/5601

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
4216	16	38	86	N	16	7	48	00	W	18	A	P	09	23	14	-4	7	.	24	*	326	7	*	*	26	5601

REMARKS
 MAX DEPTH = m

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 Temp Sensor No. _____

No.	DEPT	ROSET	Hydro Team-PMEL					Weigartner		Sambrotto			Moran/	Harvey	Carri/	Moran	Katrin	No.		
			SALT	Nut:BI	O2-Btl/No	CHL	Frac CHL	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr		Th	
1	23			S1		1														1
2	20			S2	086	2														2
3	10			S3	106	3														3
4	0			S4		4														4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): H10902
 STATION NO.: 046

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
72	68	49	85 N	167	28	19	APR	09	10	32	-8.7			29			01509				25	2-101

REMARKS: _____
 MAX DEPTH = _____ m

FLUOR S/N: _____
 SBE43-Oxy (prime): _____
 SBE43-Oxy (sec): _____
 SBE43-Oxy (sec): _____
 Transmissometer: _____
 PAR S/N: _____
 O2 Trip Sensor No.: _____

No	DESIRED	notes	SALT	Nut:Btl	O2-Btl/No	Hydro T team-PMEL		DOC	Weingartner		Sambrotto			Moran/	Harvey	Cartu/	Moran	Katrin	Nls
						CHL	Frac CHL		DIC/Aik	Julie	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	
1	ID								018	015N									1
2	ID		A1																2
3	ID																		3
4	ID																		4
5	ID																		5
6	ID																		6
7	ID																		7
8	ID																		8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): H10902
 STATION NO.: 471W1

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN												
0736035	87	N	147	24	19	09	1626	-8.1							24	25 W1

REMARKS: _____
 MAX DEPTH = _____ m

SBE 9+ _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 PRESS SN _____
 SBE43-Oxy (sec) _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 TRANSMISSOMETER _____
 PRI COND SN _____
 PAR S/N _____
 SEC COND SN _____
 O2 Trip Sensor No. _____

NIS	DEPTH DESIRED	Roset. notes	SALT	NUC.Btl	O2-Btl.No	Hydro Team-PMEL		CHL.	Frac CHL.	DIC/AIK	DOC	Weingartner		Sambrotto			Moran/Lomas		Harvey		Carlin/Sher		Moran Th	Katrin	NIS	
						018	015N					Urea	Part.	Prod	DON	Lomas	Lessard	Sher								
1	05	23		-55	072			TR1				132														1
2	10			-56				TR2				133														2
3	10		AZ																							3
4	0			-57	068			TR3				134														4
5																										5
6																										6
7																										7
8																										8
9																										9
10																										10
11																										11
12																										12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 5185 pipette on NW Ch 2

Rosette Notes:

VESSEL		CRUISE ID		PROJECT & LEG		Ship Designation (I.D.)		STATION NO.														
USCG Healy		H10902		BEST/BSIERP_Spring'09		110902		48/42														
CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN		DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)			
074	60	30	.43 N	167	59.92 W	19	A	P	0	9	20	55	-7.6	.	.	26	.	.	57	7	29	w2
SBE 9+	FLUOR S/N										REMARKS											
PRESS SN	SBE43-Oxy (prime)										MAX DEPTH =											
PRI TEMP SN	SBE43-Oxy (sec)																					
SEC TEMP SN	Transmissometer																					
PRI COND SN	PAR S/N																					
SEC COND SN	02 Temp Sensor No.																					
No.	DEPTH	Roset.	SALT	Nut Btl	O2-Btl/No	CHL	Frac CHL	DIC/Alk	DOC	018	Julie	Urea	Part.	Prod	DON	Moran/Lomas	Harvey/Lessard	Carr/Sher	Moran	Katrin	NIS	
	DESIRED	notes								Wiegarter	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th			No.	
1	26			58		1	1			135	X	X		X							1	
2	23			59						136			X								2	
3	20			60	✓/67	2	2			137											3	
4	15			61						138	X	X	X	X							4	
5	12			A/3	62								X								5	
6	10			Did not close/trip																	6	
7	9			63		3	3			139		X	X								7	
8	6			64								X	X								8	
9	3			65	✓/21							X	X	X	X						9	
10	0			66		4	4			140		X	X	X	X						10	
11	0																				11	
12																					12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 49/W3

CONSC CAST # 0756023.72N 16838.86W 20 APR 09 0030-5.11

DEG MIN DEG MIN DAY MO YR HR MIN TIME (GMT) DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN. WIND SPD. CLOUD (amt) TYPE WEATHER BOTTOM DEPTH STA. NAME/ID

0756023.72N 16838.86W 20 APR 09 0030-5.11 26 105 6 36 W3

SBE 9+ FLUOR S/N _____ SBE43-Oxy (prime) _____ SBE43-Oxy (sec) _____

PRESS SN _____ SBE43-Oxy (sec) _____ Transmissometer _____

PRI TEMP SN _____ Transmissometer _____ PAR S/N _____

SEC TEMP SN _____ PAR S/N _____

PRI COND SN _____ O2 Temp Sensor No. _____

SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS _____

MAX DEPTH = _____ m

No	DESIGD	notes	SALT	Hydro Team-PMEL				Weingartner		Sambrotto			Moran/	Harvey	Carlu/	Moran	Katrin	NIS
				Nut:RH	O2:RH/No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	
1	32			67			1											1
2	30			68	226		2											2
3	20			69			3											3
4	10			70	120		4											4
5	0			71			5											5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIENP Spring'09
 Ship Designation (I.D.) H10902
 STATION NO. 54/15P1

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * *	VISIBILITY * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER * * *	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY													MO
8765927	27	26 N	167	48	63 W	20	09	10	40	-6.8		28			191	05	38	54/15P1

REMARKS *cast deep 33*
All-Lead
 MAX DEPTH = 38 m

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE-43-Oxy (prime) _____
 PRI TEMP SN _____ SBE-43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Roset.	SALT	Hydro Team-PMEL				Wingartner/Julie				Sambrotto				Moran/Lomas		Harvey/Lessard		Carrn/Sher		Moran/Katrin	
				DESIRED	NOTES	NUTR1	O2-Btl	No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	NIS
1	33		A+	72	058	781		A	A	146												1	
2	30			73		782		B	B													2	
3	20			74		783		C	C	147												3	
4	16		AS	75		783																4	
5	10																					5	
6	10																					6	
7	10																					7	
8	10																					8	
9	10																					9	
10	10																					10	
11	Φ																					11	
12																						12	

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 561091

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID			
2759	27	44	N	167	47	18	W	26	A	P	R	0	9	14	35	-	6	7	28	38	NP1

REMARKS: _____
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prima) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

No.	DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	Hydro Team-PWEL				Wetgarnet				Sambrotto				Moran/		Harvey		Carrn/		Moran	Karrn	NIS	
						CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Shefr	Th	No.							
1	10	1																									1
2	2	2	AL6																								2
3	3	3																									3
4	4	4																									4
5	5	5																									5
6	6	6																									6
7	7	7																									7
8	8	8																									8
9	9	9																									9
10	10	10																									10
11	11	11																									11
12	12	12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Station Designation (I.D.) 1H0902
 STATION NO. 50/NP1

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
07859	27	12	N	167	48	W	20	APR	09	16	04	-6.1			28			150	03			38	NP1

REMARKS
 PROD + STORM
 MAX DEPTH =

NIS	DEPTH	Roset. notes	SALT	Hydro Team-PMEL					Wiegarter		Jule		Sambroto			Moran/	Harvey	Carth/	Moran	Katrn	NIS		
				Nut.Bri	O2-BRI/NO	CHL.	Frac CHL.	DIC/ALK	DOC	O18	O15N	Urea	Part.	Prod	DON	Lomas	Lessard	Shear	Th				
1	29												✓	✓	✓	✓	✓	✓	✓	✓	✓		1
2	19												✓	✓	✓	✓	✓	✓	✓	✓	✓		2
3	19												✓	✓	✓	✓	✓	✓	✓	✓	✓		3
4	15		A7										✓	✓	✓	✓	✓	✓	✓	✓	✓		4
5	11												✓	✓	✓	✓	✓	✓	✓	✓	✓		5
6	8												✓	✓	✓	✓	✓	✓	✓	✓	✓		6
7	4												✓	✓	✓	✓	✓	✓	✓	✓	✓		7
8	0												✓	✓	✓	✓	✓	✓	✓	✓	✓		8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): H10902
 STATION NO.: 50 / Npel

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRNL (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
4795	1	27	74 N	167	52	21	APR	09	02	17	-2.6			26			137	17			37	MPD1

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE 43-Oxy (prime) _____
 PRI TEMP SN _____ SBE 43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS: _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL							Weingartner	Julie	Sambrotto			Moran/	Harvey	Carriv/	Moran	Katrn	NIS		
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL.			DIC/ALK	DOC	018							δ15N	Urea
1	35			1																		1
2	30			2	050	2																2
3	20			3		3																3
4	10			4	178	4																4
5	0			5	175	5																5
6																						6
7																						7
8																						8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 51/WP02

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * *	VISIBILITY * * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER * * *	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	SEC	DEG	MIN	SEC													HR	MIN	SEC	+	+
080	5	40	3.00	N	167	53.36	W	21	A	P	R	0	9	05	55	-3.5		24	13	7	20	43	WP02

REMARKS
 SBE 9+ FLUOR S/N
 PRESS SN SBE-43-Oxy (prime)
 PRI TEMP SN SBE-43-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRI COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

No.	DEPT#	DESIRED	notes	SALT	NUT.BRI	O2-BRI.No	Hydro Team-PMEL			Wetgater	Jule	Sambrotto			Moran/ Lomas	Harvey Lessaard	Carin/ Sier	Moran Th	Karin	NIS No.
							CHL	Frac CHL	DIC/AIK			DOC	018	01SN						
1	38	✓		AQ	6	7	127	2	2	1	1	151								1
2	30	✓			8	8	127	3	3	3	3	152	✓	✓						2
3	20	✓			9	9	113	4	4	4	4	153	✓	✓						3
4	10	✓			10	10		5	5	5	5		✓	✓						4
5	0	✓																		5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) H0902 STATION NO. 52/NP3

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	SEC	DEG	MIN	SEC													HR	MIN	SEC	+
0815849	58	49	.86	N	168	09	.36	W	21	A	P	R	0	9	0813-3	.4	.	24	1111	22	45	NP03

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wiegarter	Julie	Sambrotto				Moran/ Lomas	Harvey Lessard	Carri/ Sherr	Moran Th	Karrn	NIS
			DESIR	notes	SALT	Nut.Bri	O2-Bri.No	CHL.			Frac CHL.	DIC/Alk	DOC	018						
1	41		A9	11	67	TR1	A	A	154											1
2	30			12		TR2	B	B												2
3	20			13		TR3														3
4	10			14		TR4	C	C	155											4
5	10																			5
6	0			15	121	TR5	D	D	152											6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP Spring 09
 Ship Designation (I.D.) 110902
 STATION NO. 52/NP3

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	SEC	DEG	MIN	SEC													DAY	MO
0825856	56	51	N	168	49	41	W	21	A	P	09	09	09	22	-3.6				12619	43 NP3

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. _____

REMARKS
 Leonard Boat
 MAX DEPTH = _____ m

No.	DESIGD	notes	SALT	Nut Rtl	O2-Rtl No	Hydro Team-PMEL				Weingartner				Sambrotto				Moran/	Harvey	Cariv/	Moran	Katrin	Nls
						CHL	Frac CHL	DOC/Aik	DOC	018	01SN	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	No.			
1	10																						1
2	10																						2
3	10																						3
4	10																						4
5	10																						5
6	10																						6
7	10																						7
8	10																						8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 531024

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)	
0835836	51	N	16826	47	W	21	12	29	-2.4		21		115	30			55	MPO4

REMARKS
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

MS	DEPTH	Roset.	Hydro Team-PMEL						Wetgarnet	Julie	Sambrotto			Moran/	Harvey	Carrn/	Moran	Katin	MS
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL			Frac CHL	D/C/AIK	DOC						
1	65	51		17	058	TR1	A	A	157										1
2	40			18		TR2													2
3	30		A-11	19		TR3													3
4	20			20		TR4	B	R											4
5	10			21		TR5			158										5
6	0			22	003	TR6	C	C	159										6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 SHIP DESIGNATION (I.D.) 1H0902 STATION NO 54/1095

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
08458	21	75	N	168	42	16	W	21	APR	09	1723	-0.4		14			131	31				67	N95

REMARKS: All + Prod

SBE 9+ _____ FLLOR S/N _____
 PRESS SN _____ SBE43-Oxy (grime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	ROSET.	Hydro Train-PMEL										Weigandt		Julie			Sanbroto			Moran/	Harvey	Cartn/	Moran	Katrn	NIS
			DESIRED	notes	SALT	Nut.BU	O2-BU/No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.				
1	bt	41	A12	23	151	T81	FC1	A	A	162	✓	✓	✓	✓	✓	✓					X				1	
2	no			24		T82	FC2	B	B		✓	✓	✓	✓	✓	✓					X				2	
3	WD					T83	FC3	C	C		✓	✓	✓	✓	✓	✓					X				3	
4	30			25		T84	FC4				✓	✓	✓	✓	✓	✓					X				4	
5	25			26		T85	FC5	D	D	163		✓	✓	✓	✓	✓					X				5	
6	20			27		T86	FC6	E	E	164	✓	✓	✓	✓	✓	✓					X				6	
7	20											✓	✓	✓	✓	✓									7	
8	10											✓	✓	✓	✓	✓									8	
9	16											✓	✓	✓	✓	✓									9	
10	5											✓	✓	✓	✓	✓									10	
11	0											✓	✓	✓	✓	✓									11	
12	0											✓	✓	✓	✓	✓									12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) H10902
 STATION NO. *58 / WP06*

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
085	58	08	50 N	168	58	48	21	APR	09	23	30	0.6	.	07	*	*	123	35	*	*	*	70	WP06

REMARKS
 SBE 9+ _____ FILLOR 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 Temp Sensor No. _____

NIS	DEPTH	DESIRED	Roset. notes	Hydro Team-PMEL					Weigmann/Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Karrn	NIS				
				SALT	MUL BH	O2-BIL No	CHL	Frac CHL	DIC/AK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard		Sher	Th	Karrn	
1	66				31						✓	165											1
2	60				32	226					✓												2
3	50				33			1															3
4	40				34			2			✓												4
5	30				35			3															5
6	20				36	182		4															6
7	10				37			5				166											7
8	0				38			6			✓	167											8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:
 106197
 300
 86

VESSEL USCG Healy
 CRUISE ID HI 0902
 PROJECT & LEG BEST/BSERP_Spring 09
 Ship Designation (I.D.) 1H0902
 STATION NO. 56 / WP07

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	SEC	DEG	MIN	SEC																
0865	75	4	.87	N	69	14	.28	W	22	A	P	R	0	9	0254	1.8	.	04	159	32	070	WP07

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. _____

REMARKS _____
 MAX DEPTH = _____ m

No.	DEPT H	notes	SALT	Nut/Btl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	O18	a15N	Sambrotto				Moran/ Lomas	Harvey Lessard	Carriv/ Sherr	Moran Th	Karin	Ns
												Urea	Part.	Prod	DON						
1	63			38				/	/	160		X	X	X							1
2	50		A/13	39	120	1		/	/												2
3	40			40		2		/	/			X	X	X							3
4	30			41		3		/	/			X	X	X							4
5	20			42	26	4		/	/												5
6	10			43		5		/	/	169											6
7	0			44		6		/	/	170		X	X	X							7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP Spring 09
 Ship Designation (I.D.) 1H0902
 STATION NO. 57/P108

CONSC CAST # 0875740.61N
 DEG MIN
 LATITUDE 16726.03
 DEG MIN
 LONGITUDE W 22
 DAY MO YR
 APR 09
 TIME (GMT) HR MIN
 0638+1.8
 DRY BULB (°C)
 WET BULB (°C)
 PRESSURE (mb) 09
 SEA STATE *
 VISIBILITY *
 WIND DIRN (deg) 174
 WIND SPD. (kts) 20
 CLOUD (amt) *
 TYPE *
 WEATHER *
 BOTTOM DEPTH (m) 68
 STA. NAME/ID NP08

SBE 9+ FILLOR 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 Temp Sensor No.

REMARKS

MAX DEPTH = m

No	DEPT	DESIRE	notes	SALT	Nut. Bl	O2-Btl. No	Hydro Team-PMEL		Frac CHL	DIC/AIK	DOC	Walgarnet		Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Karrn	Nls No.
							CHL	CHL				Urea	Part.	Prod	DON							
1	65				45					/	/	171										1
2	50				46	208	1															2
3	40			A14	47		2	2		/	/											3
4	30				48		3	3														4
5	20				49	196	4	4														5
6	10				50		5	5														6
7	0				51		6	6		/	/	172										7
8												173										8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP_Spring09 Ship Designation (I.D.) 1H0902 STATION NO. 56/NP9

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN		DEG	MIN														DAY	MO	YR	HR
48857	26	99	N	169	46	73	W	22	A	P	R	0	9	09	39	6.5	.	12	143	15	66	NP9

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 Temp Sensor No. _____

REMARKS _____

MAX DEPTH = _____ m

No	DEPTH Desired	notes	SALT	Nut/Btl	O2-Btl/No	CHL	Frac CHL	DIC/Aik	DOC	O18	δ15N	Sambrotto			DON	Moran/ Lomas	Harvey Lassard	Carlin/ Sherr	Moran Th	Katrln	Ns
												Urea	Part.	Prod							
1	62		A16	52	069	TR1		A		-124									X		1
2	40			53		FC2		B	B										X		2
3	30	Sensory				FC2															3
4	20			54		FC4		C	C										X		4
5	10			55		FC5		D	D	-125									X		5
6	0			56	175	FC6		E	E	-126									X		6
7																					7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 58/N09

CONSC CAST # 08957 DEG 28.25 N LONGITUDE 16947.30 W DAY 22 APR 09 TIME (GMT) 1033 DRY BULB -0.6 WET BULB . . . PRESSURE 102 SEA STATE * * VISIBILITY 16213 WIND DIRN. (deg) 162 WIND SPD. (kts) 13 CLOUD (amt) * * WEATHER * * BOTTOM DEPTH (m) 82 STA. NAME/ID N09

SBE 9+ FLUOR S/N _____ SBE43-Oxy (prime) _____ SBE43-Oxy (sec) _____ SEC TEMP SN _____ Transmissometer _____ PRI COND SN _____ PAR S/N _____ SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS: Less and Cool

NIS	DEPTH	Roset.	Hydro Team-PMEL					Weigartner		Sambrotto			Moran/	Harvey	Carrn/	Moran	Karin	NIS	
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DOC	018	015N	Urea	Part.	Prod	DON	Lomas		Lessard
1	9.7		A16																1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge
Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP - Spring'09 Ship Designation (I.D.) H10902 STATION NO. 58/1599

CONSC CAST # 6965726.43N 6944.73W 22 APR 09 1519 0.8 . 13 14619 66 1099

DEG MIN DEG MIN DAY MO YR HR MIN TIME (GMT) DRY BULB (°C) WET BULB (°C) PRESSURE (mb) SEA STATE VISIBILITY WIND DIRN. (deg) WIND SPD. (kts) CLOUD (amt) TYPE WEATHER BOTTOM DEPTH (m) STA. NAME/ID

SBE 9+ FLUOR S/N
 PRESS SN SBE 43-Oxy (prima)
 PRI TEMP SN SBE 43-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRI COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

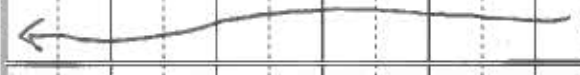
REMARKS Shear Cast

MAX DEPTH = m

NIS	DEPTH	Roset.	Hydro Team-PMEI					Wengartner/Julie		Sambroto			Moran/Lomas	Harvey/Lessard	Carrn/Sherf	Moran/Tn	Karin	NIS	
			DESIR	notes	SALT	NuLBl	O2-Btl.No	CHL.	Frac CHL.	DIC/Alk	DOC	018	01SN	Urea	Part.	Prod	DON		Lomas
1	10																		1
2																			2
3																			3
4																			4
5																			5
6						57													6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:



VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP - Spring '09 Ship Designation (I.D.) I10902 STATION NO. 58/NP9

CONSC CAST #	LATITUDE		LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	SEC				HR	MIN											
4915726	26	81 N	169	44	53 W	22	A	09	16	45	-4.2	.	13			150	48			67	NP9

REMARKS Pad Cast
 SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PRI TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transducer
 PRI COND SN PAR S/N
 SEC COND SN Q2 Temp Sensor No.

NIS	DEPTH	Roset.	Hydro Team-P&L						Weingarten	Jule	Sambrotto				Moran/ Lomas	Harvey	Carriv/ Sherr	Moran	Katin	NIS
			No.	DESIRED	notes	SALT	Nut.Btl	O2-Btl.No			CHL.	Frac CHL.	DIC/AK	DOC						
1	bot		AB	58								X	X		X					1
2	38			59								X	X		X					2
3	25			60								X	X		X					3
4	20			61								X	X		X					4
5	15			62								X	X		X					5
6	10			63								X	X		X					6
7	5			64								X	X		X					7
8	0			65								X	X		X					8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP-Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 59/0910

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
09257	19	32 N	169	54 W	22	A	09	18	54	1854	1.0	0	13			161	15				59	0910

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PII TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transmissionmeter
 PII COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

REMARKS: larger (20m) loose blocks - slip cleaned opening with port wash

No.	DEPT#	notes	SALT	NAT.Btl	OZ-BU.No	Hydro Team-PMEL			DOC	O18	Julie	Sambrotto			Moran/Lomas	Harvey/Lessard	Cantiv/Sher	Moran/Th	Kath	No.
						CHL	Frac CHL	DIC/AK				Part	Prod	DON						
1	54			66	088	781		A	A	177										1
2	40			67		782		B	B											2
3	30			68		783														3
4	20			69		784														4
5	16			70		785				178										5
6	0			71	041	786		C	C	179										6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) H10902
 STATION NO. 60/Sed. Trap #1

CONSC CAST #	LATITUDE		LONGITUDE				TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO												
093561	S.	97 N	171	09.50	W	23	A	P	09	04	22	5.3		12	185	16		14200141

REMARKS Sediment Trap #1

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____

FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 Q2 Temp Sensor No. _____

MAX DEPTH = _____ m

No.	DEPTH DESIRED	Roset. notes	SALT	Hydro Team -FMEL				Wetgarden		Sambrotto				Moran/		Harvey		Carrn/		Moran	Katin	No.
				Nut.BH	O2-BH/No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th			
1	140			72																✓		1
2	125			73	064															✓		2
3	100			74																✓		3
4	75			75																✓		4
5	60			76																✓		5
6	50			77		1														✓		6
7	40			78		2														✓		7
8	30			79	074	3														✓		8
9	25			80																✓		9
10	20			81		4														✓		10
11	10			82		5														✓		11
12	0			83		6														✓		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

W
W

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 61/NP15

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																		
0945603	03	37 N	171	17	23	A	09	07	13	0713	3.3	.	12	.		190	22	.	.		2760	NP15

REMARKS: *Deep cast*
 SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PAR S/N _____
 SEC COND SN _____
 O2 Trp Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 O2 Trp Sensor No. _____

No.	DEPTH DESIRED	Roset. notes	SALT	NAT.BRI	02-BRI.No	CHL.	FRAC CHL.	DIC/AIK	DOC	Wiegand 018	Jule 015N	Sambrotto			DON	Moran/ Lomas	Harvey Lessard	Cann/ Sherr	Moran Th	Katr n	No.
												Part.	Prod								
1	2750		A19	84	200			X	X	A1807	✓	✓	✓	✓							1
2	2500		A20	85	106			X	X	1814	✓	✓	✓	✓							2
3	2000		A21	86	075			X	X	1824	✓	✓	✓	✓							3
4	1750		A22	87	079			X	X	1834	✓	✓	✓	✓							4
5	1500		A22	88	086					1834	✓	✓	✓	✓							5
6	1250		A24	89	135						✓	✓	✓	✓							6
7	1000	Leaker		90	011			X	X	1844	✓	✓	✓	✓							7
8	900			91	068			X	X		✓	✓	✓	✓							8
9	750			92	080			X	X		✓	✓	✓	✓							9
10	500			93	143			X	X	1854	✓	✓	✓	✓							10
11	400			94	219						✓	✓	✓	✓							11
12	300			95	222						✓	✓	✓	✓							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO.

CONSC CAST # 0955601
 DEG MIN 01.08 N
 LONGITUDE DEG MIN 171.62 W
 DAY MO YR 23 APR 09
 TIME (GMT) HR MIN 0943
 DRY BULB (°C) 3.0
 WET BULB (°C) .
 PRESSURE (mb) 13
 SEA STATE * *
 VISIBILITY * *
 WIND DIRN. (deg) 199
 WIND SPD. (kts) 23
 CLOUD (amt) * * * *
 WEATHER TYPE * * * *
 BOTTOM DEPTH 2816 (m)
 STA. NAME/ID NPI5

REMARKS
 Leonard + Sambrotto

No.	DEPTH	DESIRED	notes	SALT	Nuc.Bt	Hydro Team-PWEL					Wiegarter	Jule	Sambrotto			Moran/	Harvey	Carlin/	Moran	Katrin	No.
						OZ-BU.NO	CHL.	Frac CHL.	DIC/AIK	DOC			O18	δ15N	Urea						
1	66			87	-96																1
2	43				-97																2
3	34				-98																3
4	25				-99																4
5	18				-100																5
6	18																				6
7	18																				7
8	18																				8
9	18																				9
10	14																				10
11	18																				11
12	9																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 61 / NP15

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN						TIME (GMT)	(°C)	(°C)	(mb)	* * *	(deg)	(kts)	* * *	* * *	(m)		
09656	03.	17N	171	18.	14	W	23	A	P	09	1053	3.1	.	14	* * *	224	26	* * *	*	2254	NP15

REMARKS
 Shallow cor

SBE 9+ _____
 PRESS SN _____
 PRT TEMP SN _____
 SEC TEMP SN _____
 PRT COND SN _____
 SEC COND SN _____
 02 Temp Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL				Wingard		Santibroto			Moran/	Harvey	Carrin/	Moran	Karin	NIS				
			NO. DESIRED	notes	SALT	Nutr Btl	02-Btl.No	CHL.	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod		DON	Lomas	Lessard	Sherr
1	400		BZ	102	1100			X	X												1
2	300			103	1163			X	X												2
3	250			104	1166																3
4	200			105	1172																4
5	150			106	1111			X	X												5
6	100			107	1120																6
7	50			108				X	X												7
8	40			109	1147			X	X												8
9	30			110																	9
10	20			111																	10
11	10			112																	11
12	0			113	1113			X	X												12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 62/Sed. Trap

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * *	VISIBILITY * * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY												
0975620	76	N	171	01.22	W 23	23	13	3.8	21	* * *	20	11	17	* * *	130	NP13.5	

REMARKS: Sediment trap recovery

FLUOR S/N: _____
 SBE#3-Oxy (prime): _____
 SBE#3-Oxy (sec): _____
 Transmissometer: _____
 PAR S/N: _____
 O2 Trp Sensor No.: _____

MAX. DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PNEL					Weingarten, Julie	Sambrotto			Moran/ Lomas	Harvey/ Lessard	Carriv/ Sher	Moran/ Th	Katrin	NIS
			No.	DESIRED	notes	SALT	NUTR:BI		O2-BTLNO	CHL.	Frac CHL.						
1	125			119													1
2	100			115	113	✓											2
3	75			116													3
4	50			117		1											4
5	40			118		2											5
6	30			119		3											6
7	20			120	127	4											7
8	10			121		5											8
9	0			122		6											9
10																	10
11																	11
12																	12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

rec.

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 63/NP/14

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
09856	17	46 N	17103	11 W	24	A	09	20	13	4.2		20			192	25				140	NP/14

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PPI TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transducer
 PPI COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

REMARKS

NIS	DEPTH	Rosette notes	Hydro Team-PMEL						Wetgauge	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carin/ Sherr	Moran Th	Kahn	NIS
			SALT	NUT.BI	O2-BI.No	CHL	Frac CHL	DIC/AIK			DOC	O18	Urea						
1	130			123				1											1
2	125			124	50														2
3	100			125															3
4	75			126	178														4
5	50			127				1											5
6	40			128				2											6
7	30			129				3											7
8	20			130				4											8
9	10			131				5											9
10	0			132				6											10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): H10902
 STATION NO.: 64/NP13

CONSC CAST #	DEG LATITUDE MIN	DEG LONGITUDE MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
0995630	44	7048	24	APR	09	02	55	3.1	.	20	*	*	193	22	*	*	*	125	NP13

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Trip Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingartner		Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	NIS		
			No.	DESIRED	notes	SALT	Nut Bt	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	d15N	Urea	Part.	Prod	DON		Lomas	Lessard
1	117			133	167	✓															1
2	100			134																	2
3	75			135																	3
4	50			136		1															4
5	40			137		2															5
6	30			138		3															6
7	20			139	121	✓	4														7
8	10			140		5															8
9	0			141		6															9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): 1H0902
 STATION NO: 65 / NP/2

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN											
1005643	73	N	17031	46	24	APR	09	0543	2.6	.	20	*	*	192	23	*	*		112	NP/2

SE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 O2 Trip Sensor No.
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 REMARKS
 MAX DEPTH = m

No.	DEPTH	DESIRED	notes	SALT	NUTRIT	Hydro Team-PNEL		CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Sambrotto			Moran/	Harvey	Carin/	Moran	Katin	No.
						02-BL/NO	CHL								Prod	DON	Lomas						
1	105			B/3	142							199		V	V	V							1
2	100			B/3	143									V	V	V							2
3	75			B/4	143									V	V	V							3
4	50				144																		4
5	40				145																		5
6	30				146									V	V	V							6
7	20				147									V	V	V							7
8	10				148									V	V	V							8
9	0				149									V	V	V							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 SHIP Designation (I.D.) 1H0902 STATION NO. 66/0911

CONSC CAST # 1015658.26 N 178 16.64 W 24 APR 09 9 48
 DEG MIN DEG MIN DAY MO YR HR MIN
 LATTITUDE LONGITUDE
 TIME (GMT) DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN. WIND SPD. CLOUD (amt) TYPE WEATHER
 (°C) (°C) (mb) * * (deg) (kts) * * * *
 75 BOTTOM DEPTH STA. NAME/ID
 (m) 75 NP11
 MAX. DEPTH = m

SBE 9+ FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 PAR S/N _____
 SEC TEMP SN _____
 PPI TEMP SN _____
 PPI COND SN _____
 SEC COND SN _____
 02 Trip Season No. _____

NIS	DEPTH	Roset.	Hydro Team-FWEL						Wingarten/Julie		Sambrotto			Moran/Lomas	Harvey/Lessard	Carlin/Sher	Moran/Th	Katrin	NIS	
			No.	DESIRED	notes	SALT	Nur.Btl	O2-BTL NO	CHL.	Frac CHL.	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON		
1	14	27 28	BS																	1
2	14																			2
3	14																			3
4	14																			4
5	14																			5
6	14																			6
7	14																			7
8	14																			8
9	14																			9
10	14																			10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring 09
 Ship Designation (I.D.): 110902
 STATION NO: 26/NP11

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN		DEG	MIN														HR
1025658.63 N				17416.85 W			24	APR	09	1204			1.7			18		72	NP11

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS: _____
 MAX. DEPTH = _____ m

No	DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/Alk	DOC	O18	δ15N	Urea	Sanbroto			Moran/ Lomas	Harvey Lassard	Carrn/ Sheff	Moran Th	Katrn	Nls No.
													Part.	Prod	DON						
1	60t	67	816	156	206			A	A	202										1	
2	60			151																2	
3	50			152		TR1		B	B											3	
4	40			153		TR2														4	
5	30			154		TR3		C	C											5	
6	20			155		TR4														6	
7	10			156		TR5		D	D	203										7	
8	C		B1	157	182	TR6		E	E	204									X	8	
9																				9	
10																				10	
11																				11	
12																				12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID HI 0902 PROJECT & LEG BEST/BSERP Spring 09 SHIP DESIGNATION (I.D.) HI0902 STATION NO. 6610911

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
103	56	58	47 N	170	16	40	W	24	A	P	09	1438	1.4	15	*	*	154	22	*	*	*	73	NSP11

REMARKS: Shear Cast

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 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL										Wingarten		Lufe		Sanbroto			Moran/	Harvey	Garrn/	Moran	Katrin	NIS
			DESIRED	notes	SALT	NUT Btl	O2-Btl No	CHL	Frac CHL	DIC/Aik	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	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

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP_Spring'09
 Snp Designation (I.D.) 110902
 STATION NO. 66/NP11

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
1045658	36	N	17016	16	W	24	16	07	1.8		15		17	29			73	NP11

REMARKS
 Prod Cast
 waves - GW + SW bottles ~ same depth

No.	DEPTH DESIRED	Roset. notes	SALT	Nut Btl	O2-Btl/No	CHL.	Frac CHL.	DIC/Alk	DOC	O18	δ15N	Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Karrin	Nls No.
												Urea	Part.	Prod						
1	62			159								X	X	X						1
2	46			160								X	X	X						2
3	30		BB	1								X	X	X						3
4	24			2								X	X	X						4
5	18			3								X	X	X						5
6	12			4								X	X	X						6
7	6			5								X	X	X						7
8	0			6								X	X	X						8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BISEEP_Spring09
 Snp Designation (I.D.): 1H0902
 STATION NO. 67/OP-1

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY														
10557	42	02 N	167	15	91 W	24	APR	09	22	24	0.6	.	12	.	154	28	.	72	OP-1

REMARKS: Open water with occasional ice chunks.
 less than 1% cover.

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingartner/Julie			Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	NIS	
			No	DESIRED	notes	SALT	Nut Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/Aik	DOC	018	615N	Urea	Part.	Prod	DON	Lomas		Lessard
1	65			7																	1
2	50			8	151	1															2
3	40			9		2															3
4	30			10		3															4
5	20			11		4															5
6	10			12	226	5															6
7	0			13		6															7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERP_Spring09
 Shp Designation (I.D.): 1H0902
 STATION NO.: 69/BL1

CONSC CAST #	10659	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID

SBE 9+ _____
 FLUOR S/N _____
 SBE43-Oxy (ptime) _____
 PRESS SN _____
 SBE43-Oxy (sec) _____
 PRI TEMP SN _____
 Transmissionmeter _____
 SEC TEMP SN _____
 PAR S/N _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Trip Sensor No. _____
 REMARKS: *later - add Shear*
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	SALT	Nut Bt	O2-BLNG	CHL	Frac CHL	DIC/Alk	DOC	Weingarten		Sambrotto		Moran/Lomas	Harvey/lessard	Carlin/Sher	Moran Th	Kation	NIS
										018	015N	Urea Part.	Prod						
1	7																		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) H10902 STATION NO. 69/BL1

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
1475932			17511.35			26	A	09	1	43	0803	9.8		87			014	15			133	BL1

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 Temp Sensor No. _____

NS	DEPTH	Roset	Hydro Team-PMEL						Wetgarter	Jule	Sambrotto			Moran/ Lomas	Harvey/ Lessard	Carrn/ Sherr	Moran/ Katrin	NS					
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL			Frac CHL	D/C/Alk	DOC						018	015N	Urea	Part.	Prod
1	128		F2	Q1/2							X	X		X									1
2	100			Q11/3							X	X		X									2
3	75			Q12/4							X	X		X									3
4	50			F Q13/5							X	X		X									4
5	46			F Q14/6							X	X		X									5
6	38			F Q15/4							X	X		X									6
7	24			F Q16/8							X	X		X									7
8	18			F Q17/9							X	X		X									8
9	12			F S2/10							X	X		X									9
10	10			F S3/11							X	X		X									10
11	6			F S4/12							X	X		X									11
12	0										X	X		X									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCGC Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERP - Spring'09
 SHIP DESIGNATION (I.D.): 1H0902
 STATION NO.: Process Sta 69

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1	0859	34.11	N	17511.77	W	26	APR	09	17	45	45	1745	8.8	.	88			153	11				131	B21

REMARKS: _____
 MAX DEPTH = _____ m

SEC 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____

FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 02 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PNEL							Wiergartel		Sambotto			Moran/	Harvey	Carin/	Moran	Katrin	NIS					
			DESIGD	notes	SALT	Nat:BI	02-BI.No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard		Sherr	Th			
1	bot				13																				1
2	110				14																				2
3	90				15																				3
4	70				16																				4
5	50				17	F																			5
6	40				18	F																			6
7	30				19	F																			7
8	20				20	F																			8
9	20				-																				9
10	10				21	F																			10
11	0				22	F																			11
12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy CRUISE ID HI0902 PROJECT & LFG BEST/BSIERP_Spring 09 Ship Designation (I.D.) 1H0902 STATION NO. 70/BL2

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
1095930			17505	16	26	A	09	22	20		0.5		91	*	*	130	13	*	*	130	BL2

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						Weingarten	Julie	Sambrotto			Moran/	Harvey	Carrin/	Moran	Katin	NIS		
			DESIRED	notes	SALT	NUT.Btl	O2-Btl.No	CHL			Frac CHL	DIC/AIK	DOC							018	015N
1	126		F/4	23																	1
2	120		F/3	24	208																2
3	75			25																	3
4	50			26		1															4
5	40			27		2															5
6	30			28		3															6
7	20			29	120	4															7
8	10			30		5															8
9	0			31		6															9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring 09
 Ship Designation (I.D.) 110902
 STATION NO. 71/PN13

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
1105954	26	N	17512.15	W	27	A	09	06	53	0.5	0.5	92	72	132	12	123	MN13				

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS: _____
 MAX DEPTH = _____ m

NS	DEPTH	Roset:	Hydro Team-PMEL						Weigand		Sambrotto			Moran/	Harvey	Cariv	Moran	Karin	Nis	
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	018	δ15N	Urea	Part.	Prod	DON	Lomas		Lessard
1	115			32																1
2	100			33																2
3	75																			3
4	50			34			TR1													4
5	40			35			2													5
6	30			36			3													6
7	20		fhcd	37		145/219	4													7
8	10			38		268/163	5													8
9	0			39			6													9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL		CRUISE ID		PROJECT & LEG		Ship Designation (I.D.)		STATION NO.												
USCG Healy		H10902		BEST/BSERP_Spring'09		1H0902		72 / 8L3												
CONSC	LATITUDE	LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
CAST #	DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)						
1115	917.38 N	17412.37 W	27 APR 09	0619	0.6	.	95			135	6			120	8L3					
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.																			
REMARKS																				
MAX DEPTH = m																				
Ns	DEPTH	Roset.	Hydro Team-PMEL				Weighted	Julie	Sambrotto			Moran/	Harvey	Canin/	Moran	Katrin	Ns			
No.	DESIRED	notes	SALT	NUT.BI	O2-BILNG	CHL.	Frac CHL.	DIC/AIK	DOC	O18	Δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.
1	114			1																1
2	100			2	1074															2
3	75			3																3
4	50			4																4
5	40			5																5
6	30			6		114														6
7	20			7																7
8	10			8																8
9	0			9																9
10				10																10
11				11																11
12				12																12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 PROJECT & LEG BEST/BIERP_Spring 09
 STATION NO. 731/BL4

CRUISE ID H10902
 Ship Designation (I.O.) 110902

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
1125932	59	N	175	1.62	27	A	09	09	39	-0.2	.	.	97	.	.	350	48	.	.	.	128	Proress Station
																						844

REMARKS: Heavy Flare ~ 5
 MAX DEPTH = m

SEC COND SN _____
 PRI COND SN _____
 SEC TEMP SN _____
 PRI TEMP SN _____
 SEC COND SN _____
 PRI COND SN _____
 O2 Trip Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PNEL						Wiegarter		Sambrotto			Moran/	Harvey	Carrin/	Moran	Katrin	NIS		
			NO. DESIRED	notes	SALT	NUTRI	O2-BLI/NO	CHL	FAC CHL	DIC/AIK	DOC	O18	015N	Urea	Part	Prod	DON	Lomas		Lessard	Sherr
1	124		F5	10	172															x	1
2	100			11																x	2
3	75			12																x	3
4	50			13																x	4
5	40			14																x	5
6	30			15																x	6
7	25			16																x	7
8	10			17																x	8
9	0			18																x	9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring09 SHIP Designation (I.D.) H10902 STATION NO. 73/BLH

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
1135932		94	N	125	42	27	APR	09	1037	-0.4	.	98	*	*	330	09	*	*	*		129	BLH

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmitter _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 Hydro Team-PMEL _____
 Weingartner _____ Julie _____
 Sambrotto _____
 Moran/ Lomas _____ Harvey Lessard _____
 Carriv/ Sier _____
 Moran Th _____
 Katrin _____
 No. _____
 MAX DEPTH = _____ m

REMARKS: Used Fluoro - 5
Evaluating Labrador coast

NO	DEPTH	ROSETTE	SALT	NUTRI	O2-BILNO	CHL	Frac CHL	DIC/ALK	DOC	018	015N	Urea Part.	Prod	DON	Lomas	Lessard	Sier	Th	No.
1	6																		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge
Rosette Notes:

VESSEL: USCGC Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP-Spring'09
 Ship Designation (I.D.): H10902
 STATION NO.: 73/844

CONSC CAST # 1145932.42 N
 LATITUDE: DEG 1145932.42 N
 LONGITUDE: DEG 17504.64 W
 DAY 27 APR 09
 TIME (GMT) 1455-1.8
 DRY BULB (C) 01
 WET BULB (C) 01
 PRESSURE (mb) 01
 SEA STATE * *
 VISIBILITY * *
 WIND DIRN. (deg) 325
 WIND SPD. (kts) 13
 CLOUD (amt) * *
 WEATHER TYPE * *
 BOTTOM DEPTH (m) 128
 STA. NAME/ID 844

REMARKS: Sherr Cast
 Underway Flows = ~ 5.5
 MAX. DEPTH = m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingarten/Julie		Sambrotto			Moran/Lomas	Harvey/Lessard	Carin/Sher	Moran/Katrin	NIS	
			No. DESIRED	notes	SALT	Nut:Br	O2-Btl.No	CHL.	Frac CHL.	DIC/AIK	DOC	018	015N	Urea Part.	Prod	DON	Lomas		Lessard
1	6																		1
2																			2
3				19															3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERP Spring 09
 Ship Designation (I.D.): H10902
 STATION NO. 73/824

CONSC CAST # 1158932.18 N
 LATITUDE DEG MIN
 LONGITUDE DEG MIN
 17543.54 W
 DAY MO YR 27 APR 09
 TIME (GMT) HR MIN 1604-2.1
 DRY BULB (°C) °C
 WET BULB (°C) °C
 PRESSURE (mb) * * 02
 SEA STATE * *
 VISIBILITY * *
 WIND DIRN. (deg) (deg) 325
 WIND SPD. (kts) (kts) 15
 CLOUD (amt) * * * *
 WEATHER TYPE * * * *
 BOTTOM DEPTH (m) (m) 129
 STA. NAME/ID BLY

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prme) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 02 Trip Season No. _____
 REMARKS _____
 MAX. DEPTH = _____ m

NIS	DEPTH	Roset.	SALT	Hydro Team-PMEL				Wingarten		Sambrotto				Moran/	Harvey	Cann/	Moran	Katrin	NIS
				No.	DESIRED	notes	NUT Bt	O2-Btl.No	CHL.	Frac CHL.	DIC/Aik	DOC	018	015N	Urea	Part.	Prod	DON	
1	bot	125	F8	20						X	X	X	X	X					1
2	100			21															2
3	75			22						X	X	X	X	X					3
4	38			23						X	X	X	X	X					4
5	25			24															5
6	20			25						X	X	X	X	X					6
7	15			26						X	X	X	X	X					7
8	10			27						X	X	X	X	X					8
9	5			28						X	X	X	X	X					9
10	φ			29						X	X	X	X	X					10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Sfp Designation (I.D.) H10902
 STATION NO. 74/BL5

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
116	5	9	32.62 N	1	7	50	27	A	09	23	08	-0.3			06			345	6				133	BL5

REMARKS
 SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Trip Sensor No. _____
 FLUOR S/N _____
 SBE4-3-Oxy (prime) _____
 SBE4-3-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PNEL										Weingaert		Julie		Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	NIS	
			No	DESIRED	notes	SALT	Nut/Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	No.			
	1	126																								1
	2	100				2		113	✓																	2
	3	75				3																				3
	4	50				4				1																4
	5	40				5				2																5
	6	30				6				3																6
	7	20				7				4																7
	8	10				8				5																8
	9	0				9				6																9
	10																									10
	11																									11
	12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP-Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 75/BL6

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
11759	42	28	N	7501	64	W	28	A	P	09	0036	-1.0	06	*	*	18	4	*	*	126	BL6

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PWEL						Wingarten/Julie		Sambrotto			Moran/Lomas	Harvey/Lessard	Carin/Sherr	Moran/Th	Katrin	NIS	
			No.	DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON		
1	119			10																1
2	100			11	178	✓														2
3	75			12																3
4	50			13	f	1														4
5	40			14	f	2														5
6	30			15	f	3														6
7	20			16	f	4														7
8	10			17	f	5	127	✓												8
9	0			18	f	6														9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCGC Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): H10902
 STATION NO. 76/BL7

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1185	15	35	N	174	54	37	W	28	A	09	0201	-3.1	.	06	*	*	55	5	*	*	*	115	BL7

REMARKS: _____
 MAX. DEPTH = _____ m

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 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PNGL						Weigarten		Sambrotto			Moran/		Harvey		Carru/		Moran		NIS	
			No.	DESIRED	notes	SALT	Nut Btl	O2-Btl No	CHL	Frac CHL	DIC/Aik	DOC	O18	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr		Th
1	112			F/9	19																		1
2	100			F/10	20		0034																2
3	75				21																		3
4	50				22			1															4
5	40				23	F		2															5
6	30				24	F		3															6
7	20				25	F		4															7
8	10				26	F	167	5															8
9	0				27	F		6															9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): H10902
 STATION NO.: 77/BL8

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1196000	66	N	174	45	28	APR	09	03	32	-2.7	.	07	*	*	95	3	*	*	111	BL8

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PAR COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wingarten		Sambrotto			Moran/	Harvey	Carin/	Moran	Katin	NIS		
			No.	DESID	notes	SALT	NUT Bl	O2-B/LNO	CHL	Frac CHL	DIC/AIK	DOC	O18	015N	Urea	Part.	Prod	DON		Lomas	Lessard
1	105			28																	1
2	100			29	121	V															2
3	75			30	A																3
4	50			31	A		1														4
5	40			32	F		2														5
6	30			33	F	058	3														6
7	20			34	F		4														7
8	10			35	F		5														8
9	0			36	F		6														9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP Spring09
 Ship Designation (I.D.) H10902
 STATION NO. 78/BL9

CONSC CAST # 1206009.91 N
 LATITUDE DEG MIN
 LONGITUDE DEG MIN
 TIME (GMT) 0501
 DRY BULB (°C) -3.0
 WET BULB (°C) .
 PRESSURE (mb) 12
 SEA STATE *
 VISIBILITY *
 WIND DIRN. (deg) 85
 WIND SPD. (kts) 8
 CLOUD (amt) *
 TYPE *
 WEATHER *
 BOTTOM DEPTH (m) 107
 STA. NAME/ID BL9

FLUOR S/N
 SBE4-3-Oxy (prme)
 SBE4-3-Oxy (sec)
 Transmissionmeter
 PAR S/N
 O2 Trip Sensor No.
 REMARKS
 MAX DEPTH = m

NIS	DEPTH	Rosett.	Hydro Team-PMEL				Weigarten				Sambrotto				Moran/	Harvey	Carlin/	Moran	Katrin	NIS		
			No.	DESIRED	notes	SALT	NUT BTI	O2-BTI No	CHL.	Frac CHL	DIC/AIK	DOC	O18	WISN	Urea	Part.	Prod	DCN	Lomas		Lessard	Sherr
1	101			37	222							X	X		X							1
2	75			38									X	X		X						2
3	50			39									X	X		X						3
4	40			40																		4
5	30			41																		5
6	20			42																		6
7	10			43	(82)								X	X		X						7
8	0			44									X	X		X						8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring/09
 Ship Designation (I.D.): 1-H0902
 STATION NO.: 79/BL10

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN																					
121	60	19.13	N	174	30.49	W	28	A	P	R	0	9	06	25	-2.7			12		103	7			103	BL10

SBE 9+ _____
 PRESS SN _____
 PRT TEMP SN _____
 SEC TEMP SN _____
 PRT COND SN _____
 SEC COND SN _____
 O2 Temp Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (online) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____

REMARKS: Open water
 Ice 2 miles ahead - broken & dispersed on this transect.

NIS	DEPTH	Rosel. notes	Hydro Team-PMEL						Wingarten/Julie																
			SALT	Nutr.BI	O2-BI/NO	OHL	Frac CHL	DOC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Moran/Lomas	Harvey/Lessard	Carrn/Sherf	Moran/Th	Katin					
1	97			45	151	4																			
2	75			46																					
3	50			47	206	1	1	1	1																
4	40			48		2	2	2	2																
5	30			49		3	3	3	3																
6	20			50		4	4	4	4																
7	10			51		5	5	5	5																
8	0			52		6	6	6	6																
9																									
10																									
11																									
12																									

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP Spring 09 SHIP DESIGNATION (I.D.) 110902 STATION NO. 80/BL11

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	SEC	DEG	MIN	SEC														DAY	MO	YR
1226028	28	45	N	174	22	66	W	28	APR	09	08	07	-2	0	12			119	07		96	BL11

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmitter _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

REMARKS
 First time in KP on this section
 Broken floes around with open water
 between. Ice re-emerged (7)

N/S	DEPTH	Roset.	SALT	Nut.Brd	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	Weingartner	Julie	Sambrotto			Moran/	Harvey	Carrin/	Moran	Kathn	N/S
												Part.	Prod	DON						
1	91		F11	53	196					018										1
2	75			54																2
3	50			55																3
4	40			56																4
5	30			57																5
6	20			58																6
7	10			59																7
8	10			Alexei																8
9	0			- find a bit early																9
10	0			CD 120 TB6																10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 81/8L12

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN													
123	64	37	.55	N	174	14	.44	W	28	A	P	09	10	16	-1	.3							91	8L12

REMARKS
MAX. DEPTH = _____ m

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE-4-3-Oxy (prims) _____
 PRI TEMP SN _____ SBE-4-3-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Roset.	SALT	Nutr:Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	Weingartner		Sambrotto			Moran/ Lomas	Harvey Lessard	Carin/ Sheir	Moran Th	Karin	NIS
										018	Julie	Part.	Prod	DON	Lomas	Sheir	Th	Karin		
1	285			41	107															1
2	60			62																2
3	50			63																3
4	45			64																4
5	36			65																5
6	26			66																6
7	10			67																7
8	0			68	111															8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID 1H0902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 824 BL13

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
12460	41	61	174	11	28	A	09	11	29	-1	46		170	*	*	091	02	*	*		89	BL13

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. _____

No	DEPTH DESIRED	Roset. notes	SALT	Nut Btl	O2-Btl/No	CHL.	Frac CHL.	DIC/ALK	DOC	DOC	Weingartner										No.		
											Julie	Sambrotto	Moran/ Lomas	Harvey Lessard	Carrin/ Sherr	Moran Th	Karrin						
1	04		F12	69	208																		1
2	60			70																			2
3	50	Rooster		71																			3
4	46			72																			4
5	35																						5
6	22																						6
7	15																						7
8	0																						8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

REMARKS As bottles being found, large piece of ice approaching. Last 4 bottles not found. 2TD recovered from a nearby fate!

MAX DEPTH = m

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP Spring'09
 Ship Designation (LD.): H0902
 STATION NO: 89/ICE3

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1256	048	77N	17423	02	W	28	APR	09	20	36	-11.0	0	.	07	*	*	87	12	*	*	90	ICE3

SBE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 O2 Trip Sensor No.
 FLUOR S/N
 SBE4-3-Oxy (prime)
 SBE4-3-Oxy (sec)
 Transmissometer
 PAR S/N
 Hydro Team-PMEL
 Weingartner
 Julie
 Sambrotto
 Moran/
 Harvey
 Carin/
 Moran
 Katrin
 NIS

No	DEPTH DESIRED	Roset. notes	SALT	Nut Btl	O2-Btl/No	CHL	Frac CHL	DIC/Alk	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	No.
1	84			73	198					211										1
2	75			74		1														2
3	50			75		2														3
4	40			76		3														4
5	30			77		4														5
6	20			78	22b	5														6
7	10			79		6														7
8	0			80						212										8
9										213										9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring09
 Ship Designation (I.D.) 140902
 STATION NO. 84/BL14

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
12659	35	91	N	17448	28	W	29	A	P	R	09	0726	-1.2	.	.	03	140	8	*	*	*	122	BL14

REMARKS
 SBE 9+ FLUOR S/N
 SBE43-Oxy (prma)
 SBE43-Oxy (sec)
 Transmission
 PAR S/N
 O2 Trip Sensor No.

No.	DEPTH	DESIRED	notes	SALT	Nut:Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	Weingartner		Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	No.
											018	Julie	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	119			F13	1	219															1
2	100				2																2
3	75				3																3
4	50				4		TR1														4
5	40				5		TR2														5
6	30				6		TR3														6
7	20				7		TR4														7
8	10				8		TR5														8
9	0				9		TR6														9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO: 85/BL15

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																		
12759	32.7	Φ N	175	Φ W	45	W	29	A	P	R	0	9	09	27	-	Φ	3	*	*	*	134	8/115

REMARKS: SBE 9+ FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.

No.	DEPT#	DESIRED	notes	SALT	Nut Btl	O2-Btl/No	CHL.	Frac CHL.	DIC/Alk	DOC	Weigartner 018	Julie δ15N	Urea	Sambrotto			Moran/ Lomas	Harvey Lessard	Carm/ Sherr	Moran Th	Katrin	No.
														Part.	Prod	DON						
1	127			F14	10	172																1
2	108				11																	2
3	75				12																	3
4	50				13F																	4
5	40				14F																	5
6	30				15F																	6
7	20				16F																	7
8	10				17F																	8
9	10				Alexei																	9
10	0				18F	242	136	F8L														10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 851815

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
12859	32	94	N	175	05	17	W	29	APR	09	1101	-0.7	.	03	*	*	0914	08	*	*		129	8215

REMARKS: *Lossard Cast*

MAX DEPTH = m

FLUOR S/N _____
 SBE4-3-Oxy (prme) _____
 SBE4-3-Oxy (sec) _____
 SBE4-3-Oxy (sec) _____
 Transmission _____
 PAR S/N _____
 O2 Temp Sensor No. _____

No.	DEPTH DESIRED	Roset. notes	SALT	Nuc Btl	Hydro Team-PMEL				Wiegartner	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carrin/ Sheer	Moran Th	Karrin	NIS No.					
					O2-Btl.No.	CHL.	Frac CHL.	DIC/Alk			DOC	018	δ15N							Urea	Part.	Prod	DON	
1	5																							
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 85/13L15

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
129	59	33	44 N	175	45	45	W	29	APR	09	12	42	-1.3				43					133	8215

SBE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Temp Sensor No.
 REMARKS
 Repositioned
 Watergate lifted then spot better than last cast after double mts

No	DEPTD	notes	SALT	Nut:Btl	O2-Btl No	Hydro Team: PMEL				Wengartner				Sambrotto				Moran/ Lomas		Harvey		Carin/ Sherr		Moran/ Katrin		No.	
						CHL	Frac CHL	DIC/Alk	DOC	O18	015N	Urea	Part.	Prod	DON	Lomas	Harvey	Carin/ Sherr	Moran/ Th	Katrin							
1	bot			19																							1
2	100			20																							2
3	75			21																							3
4	50			22																							4
5	46			23																							5
6	30			24																							6
7	20		FIS	25																							7
8	16			24																							8
9	0			27																							9
10																											10
11																											11
12																											12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO 85/BL15

CONC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
13059	34	49	N	17505	74	W	29	APR	09	1557	-1.6	.	43	*	*	094	12	*	*	*	*	130	85/BL15

REMARKS: Pudd Cast
 MAX DEPTH = m

SBE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN

FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Temp Sensor No.

No	DEPTH	Roset. notes	SALT	Nut. Bri	O2-Bri/No	CHL.	Frac CHL.	DIC/AIK	DOC	O18	Wengartner		Sambrotto			Moran/ Lomas	Harvey Lessard	Carri/ Sherr	Moran Th	Karin	Nis	
											Julie	Urea	Part.	Prod	DON							
1	bst		Fl6	28/a10							✓	X	X	X	X						1	
2	70			29/a11							✓	X	X	X	X						2	
3	38			F30/a12							✓	X	X	X	X						3	
4	25			F31/a13							✓	X	X	X	X						4	
5	20			F32/a14							✓	X	X	X	X						5	
6	15			F33/a15							✓	X	X	X	X						6	
7	10			F34/a16							✓	X	X	X	X						7	
8	5			F35/a17							✓	X	X	X	X						8	
9	0			F36/a18							✓	X	X	X	X						9	
10																					10	
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID: HI0902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 85/BL15

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
1315935	04	N	175	07	52	W	29	A	P	R	0	9	17	05	-1	.6	.	03	*	*	083	04	*	*	132	BL15

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 02 Temp Sensor No. _____
 FLUOR S/N _____
 SBE4-3-Oxy (prime) _____
 SBE4-3-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset	Hydro Team-PMEL										Weingartner		Julie		Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	NIS
			DESIRED	notes	SALT	Nut:Btl	02-Btl:No	CHL	Frac CHL	DIC/Alk	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th			No.	
1	5				47																				1
2																									2
3																									3
4																									4
5																									5
6																									6
7																									7
8																									8
9																									9
10																									10
11																									11
12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP_Spring 09 Ship Designation (I.D.) 1H0902 STATION NO. 86/BL16

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID								
	DEG	MIN	DEG	MIN	DAY														MO	YR	HR	MIN	SEC			
13259	38	14 N	174	48	99	W	29	A	P	R	0	9	21	16	-	1.3	.	01	*	*	*	*	*	*	122	BL16

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 Temp Sensor No. _____

No.	DEPTH DESIRED	Roset. notes	SALT	Nut Btl	O2-Btl/No	Hydro Team-PMEL			Weingartner 018	Julie 015N	Sambrotto			Moran/ Lomas	Harvey Lassard	Carlu/ Sher	Moran Th	Katrin	Nls No.
						CHL	Frac CHL	DIC/Alk			DOC	Prod	DON						
1	117		F18	38															1
2	100			39	220	✓													2
3	75			46			1	1											3
4	50			41 F															4
5	40			42 F			2	2											5
6	30			43 F			3	3											6
7	20			44 F			4	4											7
8	10			45 F	239	✓	5	5											8
9	0		F19	46 F			6	6											9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring09
 Ship Designation (I.D.): H10902
 STATION NO.: 87/BL17

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN											
1335940	40	43 N	17443	81	29	APR	09	22	29	-1.3		00			32	11			120	BL17

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 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingartner		Sanbroto				Moran/	Harvey	Carin/	Moran	Karin	NIS
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL.	D/C/AIK	DOC	018	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	
1	115			47																1
2	100			48	069															2
3	75			49																3
4	50			50			1													4
5	40			51 F			2													5
6	20			52 F			3													6
7	20			53 F	080		4													7
8	10			54 F			5													8
9	0			55 F			6													9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSEBP_Spring_09 SHIP Designation (I.D.) 1H0902 STATION NO. 88/BL18

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
134574	5	70	N	174	27	00	W	3	APR	09	0000	-0.9			00			27	10			114	

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 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weigartner		Sambrutto			Moran/	Harvey	Carriv/	Moran	Katrin	NIS				
			DESIR	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas		Lessard	Sherr	Th	
1	107			S6								X	X		X								1
2	100			S7	2324																		2
3	75			S8									X	X	X								3
4	50			S9A									X	X	X								4
5	40			G0A									X	X	X								5
6	30			G1A																			6
7	20			G2A																			7
8	10			G3A0864									X	X	X								8
9	0			G9A									X	X	X								9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring 09 Ship Designation (I.D.) 1H0902 STATION NO. 89/BL19

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	SEC	DEG	MIN	SEC														DAY	MO	YR	HR
13	55	48	.31	N	174	18.50	W	30	A	P	09	0055	0.8	.	99	*	*	57	11	*	*	109	BL19

SBE 9+ _____ FLUOR S/N _____
 PHESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NO	DEPTH DESIRED	Roset. notes	SALT	Nut.Btl	O2-Btl/No	Hydro Team-PWEL		DOC	Weingartner		Sambrotto			Moran/		Harvey		Carriv/		Moran Th	Katrin	NIS No.
						CHL	Frac CHL		DIC/Alk	018	01SN	Urea	Part.	Prod	DON	Lomas	Lessard	Sherf				
1	105			65	1554																	1
2	75			66																		2
3	50			67																		3
4	30			68																		4
5	20			69																		5
6	10			70																		6
7	0			71	2654																	7
8																						8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 90/BL26

CONSC CAST #	LATITUDE		LONGITUDE				TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO													YR	HR
13659	31	56	N	175	07	76	W	34	A	P	R	0	9	07	25	1	2	1	132	BL26

REMARKS: High S'war, low DO2
 a8
 Mounds in the T-bar. They showed considerable
 in 04/10/09. It may be a big dip. Station
 CTD BTL file & values - iBottle download
 values

NS	DEPT H	Roset	Hydro Team-PMEL							Weingartner	Julie	Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	NS
			No.	DESIRED	notes	SALT	Nut:Rt	O2-B/LNO	CHL			Frac CHL	DIC/AK	DOC						
1	129		F2D	72	144															1
2	160			73																2
3	75	Value open		74																3
4	50			75																4
5	40			74																5
6	30			77																6
7	20			78																7
8	10			79																8
9	0			80																9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

- top didn't seat properly -
 cap

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERRP_Spring09 Ship Designation (I.D.) 110902 STATION NO 901824

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID				
13759	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	+	+	(deg)	(kts)	+	+	(m)	

SBE 9+ FLUOR S/N
 PNESS SN SBE43-Oxy (prine)
 PRT TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRT COND SN PAR S/N
 SEC COND SN O2 Trip Sensor No.

Rosette: _____
 Hydro Team-PMEL _____
 Weininger _____
 Julie _____
 Sambrotto _____
 Moran/ _____
 Lomas _____
 Harvey _____
 Carrin/ _____
 Sherr _____
 Moran _____
 Katrin _____

No.	DEPT H	notes	SALT	NUT.BI	O2-B/LNO	CHL.	Frac CHL.	DIC/ALK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Moran/	Harvey	Carrin/	Moran	Katrin	No.
1	20																				1
2	5.5																				2
3																					3
4																					4
5																					5
6																					6
7																					7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERP Spring 09
 Ship Designation (I.D.): 1H0902
 STATION NO: 96/BL25

CONSC CAST # 1385932
 DEG MIN 20 N
 LONGITUDE DEG MIN 175 07 . 18 W
 DAY MO YR 30 APR 09
 TIME (GMT) HR MIN 14 15
 DRY BULB (°C) 1.2
 WET BULB (°C) .
 PRESSURE (mb) 03
 SEA STATE *
 VISIBILITY *
 WIND DIRN. (deg) 141
 WIND SPD. (kts) 2
 CLOUD (amt) *
 TYPE *
 WEATHER *
 BOTTOM DEPTH (m) 132
 STA. NAME/ID BL25

SBE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 O2 Temp Sensor No.
 FLUOR S/N
 SBE43-Oxy (g/mne)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N

REMARKS: Lessard cast looking for high Chlor awater value to sample

NIS	DEPTH	Roset:	Hydro Team-PMEL					Wingtiner	Julia	Samorotto			Moran/	Harvey	Carlin/	Moran	Katrin	NIS	
			DESIRED	notes	SALT	Nut:Bt	O2-Btl/No			CHL	Frac CHL	DIC/ALK							DOC
1	4																		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BISEEP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 90/BL24

CONSC CAST # 13959
 DEG 32.77 N
 LONGITUDE DEG 17508.61 W
 DAY 30
 MO APR
 YR 09
 TIME (GMT) 1421-1.7
 DRY BULB (°C) 03
 WET BULB (°C) .
 PRESSURE (mb) * .
 SEA STATE * .
 VISIBILITY * .
 WIND DIRN. (deg) 85
 WIND SPD. (kts) 7
 CLOUD (amt) * * * .
 TYPE * * * .
 WEATHER * * * .
 BOTTOM DEPTH (m) 133
 STA. NAME/ID BL24

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. _____

REMARKS: Slow Cast

MAX DEPTH = _____ m

NSI	DEPTH	Roset:	Hydro Team-PMEL						Weigarter		Sambrotto			Moran/	Harvey	Carin/	Moran	Katin	NSI	
			DESIRED	notes	SALT	Nut:Bi	O2-Btl:No	CHL	Frac CHL	DOC/Alk	DOC	018	015N	Urea	Part.	Prod	DON	Lomas		Lessard
	1	10																		1
	2	4	F21																	2
	3																			3
	4																			4
	5																			5
	6																			6
	7																			7
	8						81													8
	9																			9
	10																			10
	11																			11
	12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

imperfect seal

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 9C/0124

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN													DAY	MO
1405932	35	N	17507	81	W30	A	P	R	0	9	15	41	-	1.	04	08818	130	BL24

REMARKS
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE 43-Oxy (primo) _____
 PRI TEMP SN _____ SBE 43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

NIS	DEPTH	Roset.	SALT	Nur. Bl	O2-Btl No	CHL	Frac CHL	DIC/Alk	DOC	Weingarten	Jufie	Sambrotto				Moran/ Lomas	Harvey Lessard	Carin/ Sherr	Moran Th	Karin	NIS
												Urea	Part.	Prod	DON						
1	126			82								X	X		X						1
2	80		F22	83								X	X		X						2
3	38			84F								X	X		X						3
4	25			85F								X	X		X						4
5	20			86F								X	X		X						5
6	15			87F								X	X		X						6
7	10			88F								X	X		X						7
8	5			89F								X	X		X						8
9	0			90F								X	X		X						9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: HI0902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): 110902
 STATION NO: 91/MV145

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)				
14157	55	23	176	07	20	30	A	09	23	49	-0.6			07			71	19			138	MV14.5

REMARKS: _____
 MAX DEPTH = _____ m

SBE 9+ _____
 PRESS SN _____
 SBE43-Oxy (prine) _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 SBE43-Oxy (sec) _____
 Transmission _____
 PRI COND SN _____
 PAR S/N _____
 SEC COND SN _____
 O2 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL					Weingartner		Sambrotto			Moran/		Moran	Katrin	NIS					
			DESIRID	notes	SALT	Nut.Btl	O2-BtlNo	CHL	Frac CHL	DIC/Alk	DOC	018	015N	Urea				Part.	Prod	DON	Lomas	Harvey
1	132			93																		1
2	100			94	155																	2
3	50			95			1	1														3
4	40			96			2	2														4
5	30			97			3	3														5
6	20			98	165		4	4														6
7	10			99			5	5														7
8	4														X							8
9	4														X							9
10	4														X							10
11	6																					11
12	0																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

top seal did not seal right
 low

VESSEL USCG Healy
 CRUISE ID HI10902
 PROJECT & LEG BEST/BIERP_Spring 09
 Ship Designation (I.D.) 1H0902
 STATION NO. 092 / MNSL5

CONSC CAST # 1426133.01 N
 LATITUDE DEG MIN
 LONGITUDE DEG MIN
 MAY
 TIME (GMT) 1645-1.4
 DRY BULB (°C)
 WET BULB (°C)
 PRESSURE (mb) 11
 SEA STATE *
 VISIBILITY *
 WIND DIRN. (deg) 114
 WIND SPD. (kts) 12
 CLOUD (amt) *
 TYPE *
 WEATHER *
 BOTTOM DEPTH (m)
 STA. NAME/ID MNSL5
 MAX DEPTH =

SBE 9+ FLUOR S/N
 SBE43-Dry (prine)
 SBE43-Dry (sec)
 SBE43-Dry (sec)
 Transmission
 PAR S/N
 O2 Temp Sensor No.
 REMARKS Std / Prod

NIS	DEPTH	Roset. notes	Hydro Team-PMEL						Weingartner		Jule		Sanbroto			Moran/	Harvey	Carriv/	Moran	Katrin	NIS
			DESIRED	SALT	Nut.Btl	O2-Btl:No	CHL	Frac CHL	DIC/ALK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	
1	66	✓			701	088/44					X	V		X						1	
2	50				703						X	X		X						2	
3	38				705/011						X	X		X						3	
4	30				701						V									4	
5	25				705/012						X			X						5	
6	20				706/013						X			X						6	
7	15				707/014						X			X						7	
8	10				708/015						X			X						8	
9	5				709/016						X			X						9	
10	0				710/017						X			X						10	
11	0										X			X						11	
12																				12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Back to 15
 All Bils

VESSEL: USCGC Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP Spring '09
 Ship Designation (I.D.): 110902
 STATION NO.: 92/MN-SLS

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	Ice Station STA. NAME/ID	
143	01	34	79	N	1	32	W	02	MAY	09	00	16	0.5			15						72	MN-SLS

REMARKS: _____
 MAX. DEPTH = _____ m

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.	SALT	Nut. Bit	O2-Btl/No	Hydro Team-PMEL		DOC	Weingartner O18	Julie 015N	Sambrotto			Moran/ Lomas	Harvey Lessard	Carlin/ Sherr	Moran Th	Katrin	NIS
						CHL	Frac CHL				DIC/ALK	Prod	DON						
1	69		F/23	111					214										1
2	50		P/24	112			1												2
3	40			113			2												3
4	30			114			3												4
5	20			115			4												5
6	10			116			5		215										6
7	0			117			6		216										7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Benthic NIRVANA I

VESSEL USCG Healy		CRUISE ID H10902		PROJECT & LEG BEST/BIERP_Spring09		Ship Designation (I.D.) H10902		STATION NO. 931144																											
CONSC CAST #		LATITUDE		LONGITUDE		TIME (GMT)		DRY BULB		WET BULB		PRESSURE		SEA STATE		VISIBILITY		WIND DIRN		WIND SPD.		CLOUD (amt)		TYPE		WEATHER		BOTTOM DEPTH		STA. NAME/ID					
144162		14.96 N		17230.85 W		02 MAY 09		0924		1.7		.18		10612		58		BN1										BN1							
SBE 9+		FLUOR S/N		SBE43-Oxy (g/mole)		SBE43-Oxy (sec)		Transmissometer		PAR S/N		O2 Temp Sensor No.		REMARKS		MAX DEPTH =																			
PRESS SN		SBE43-Oxy (g/mole)		SBE43-Oxy (sec)		Transmissometer		PAR S/N		O2 Temp Sensor No.																									
PRI TEMP SN		SBE43-Oxy (g/mole)		SBE43-Oxy (sec)		Transmissometer		PAR S/N		O2 Temp Sensor No.																									
SEC TEMP SN		SBE43-Oxy (g/mole)		SBE43-Oxy (sec)		Transmissometer		PAR S/N		O2 Temp Sensor No.																									
PRI COND SN		SBE43-Oxy (g/mole)		SBE43-Oxy (sec)		Transmissometer		PAR S/N		O2 Temp Sensor No.																									
SEC COND SN		SBE43-Oxy (g/mole)		SBE43-Oxy (sec)		Transmissometer		PAR S/N		O2 Temp Sensor No.																									
NIS		Roset.		Hydro Team-PMEL		Weingartner		Julie		Sambrotto		Moran/		Harvey		Carroll		Moran		Katr		NIS													
NO. DESIRED		notes		SALT		Nut.BU		O2-BU/LNO		CHL.		Frac CHL.		DIC/AIK		DOC		O18		Urea		Prod		DON		Lomas		Lessard		Sherr		Th		No.	
1		52				118		109/147		TB1		FB1																						1	
2		40				119				TB2		FB2																				2			
3		30				120				TB3		FB3																				3			
4		20				121				TB4		FB4																				4			
5		10				122				TB5		FB5																				5			
6		10				123				TB6		FB6																				6			
7		0																														7			
8																																8			
9																																9			
10																																10			
11																																11			
12																																12			

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 93/BN1

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
145	62	15.500	N 17232.60W	02	30	02	MAY	09	06	08	-3.6	.	.	19	*	*	083	14	*	*	*	59	BN1

REMARKS: _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL										Weingartner		Julie		Sambroto			Moran/	Harvey	Cariv/	Moran	Katrin	NIS	
			DESIR	notes	SALT	Nut.Bt	O2-Btl/No	CHL	Frac CHL	DIC/ALK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Shear	Th					
1	10	10																								10
9	9	9	A2 →																							9
11	11	11																								11

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL		CRUISE ID		PROJECT & LEG		Ship Designation (I.D.)		STATION NO.													
USCG Healy		H10902		BEST/BSERP_Spring'09		1H0902															
CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)			
146	62	15.13 N	172	31.72 W	02	MAY	09	15	31	-3.5			19					57	BNI		
SBE 9+ _____ FLUOR S/N _____ PRESS SN _____ SBE43-Dry (prime) _____ PRI TEMP SN _____ SBE43-Dry (sec) _____ SEC TEMP SN _____ Transmissometer _____ PRI COND SN _____ PAR S/N _____ SEC COND SN _____ I2 Temp Sensor No. _____																					
Hydro Team-PWEL Well-garner Julie Sambrotto Moran/ Lomas Harvey Lessard Carlu/ Sherr Moran Th Katrin No.																					
No.	DEPTH	Roset	SALT	Nut: Btl	O2-Rt: NO	CHL	Frac CHL	DIC/ALK	DOC	O18	015N	Urea	Part.	Prod	DON	Lomas	Harvey	Carlu/ Sherr	Moran Th	Katrin	No.
1	52			125/a14							X		X								1
2	33			120/a11							X		X								2
3	21			124/a12							X		X								3
4	17			128/a13							X		X								4
5	13			129/a14							X		X								5
6	9			130/a15							X		X								6
7	4		A3	131/a16							X		X								7
8	Φ			132/a17							X		X								8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

MAX DEPTH = m

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BIERP_Spring09
 Ship Designation (I.D.) H0902
 STATION NO.

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																		
14762	17	44 N	17236	14	03	MAY	09	01	54	+1.2											58	BN/

REMARKS
 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 _____ IO2 Temp Sensor No. _____

No.	DEPTHD	notes	SALT	Nut BU	O2-Rtd.No	CHL	Frac CHL	DIC/Alk	DOC	O18	a15N	Sambrotto				Moran/	Harvey	Cartu/	Moran	Katrin	No.
												Urea	Part.	Prod	DON						
1	53		A.4	133.4		1				217											1
2	50			134.4		2															2
3	46			135.4		3															3
4	30			136.4		4															4
5	20			137.4	112/002	5															5
6	10		A.5	138.4		6				218											6
7	0			139.4						219											7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSEBP_Spring 09
 Ship Designation (I.D.): 1H0902
 STATION NO. 94/SL7

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (Kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN												
14861	59	65	N	171	55	51	03	MAY	09	06	46	-0.4	.	18	.	.	13	11	.	.	.	59	SL7

REMARKS: Small bottles on all chl.

SSE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN

FLUOR S/N
 SSE43-Oxy (prime)
 SSE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.

MAX DEPTH = m

No.	DEPTH DESIRED	Roset. notes	SALT	Nut.Bt	O2-Bt.No	Hydro Team-PMEL		DOC	Wengartner		Sambrotto		Moran/ Lomas	Harvey Lessard	Carlv/ Sherr	Moran Th	Katrin	No.
						CHL	Frac CHL		DIC/AIK	018	015N	Urea	Part.	Prod	DON			
1	51			140 f		Small 1	?	Small										1
2	40			149 f		2	2											2
3	30			142 f		3	3											3
4	20			143 f		4	4											4
5	10		Alp	144 f	228/616	5	5											5
6	0			145 f		6	6											6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 SHIP DESIGNATION (I.D.): 140902
 STATION NO.: 95/548

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC													
14962	03	48	N	172	38	07	W	03	MA	09	1057	-3.4	.	18	.	012	12	54	548

REMARKS: *Sta Leonard*
Very spiky sal. on upcast near surface: 38-37

NIS	DEPTH	DESIRED	Roset. notes	SALT	Nut.BH	O2-BTL No	CHL	Frac CHL	DIC/ALK	DOC	Weingartner		Sambrotto			Moran/	Harvey	Carrin/	Moran	Katrin	NIS
											018	019	Urea Part.	Prod	DON	Lomas	Lessard	Sherr	Th		
1	Bot	57			148A		SA 1														1
2	40				147A		SA 2														2
3	30				148B		SA 3														3
4	20				149A		SA 4														4
5	10				150A		SA 5														5
6	7																				6
7	7																				7
8	7																				8
9	7																				9
10	7																				10
11	7																				11
12	7																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 096/549

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																		
1506203	49	N	17317	33	W	MAY	09	0000	11	3			16	*	*	271	06	*	*		60	SL09

REMARKS
 SBE 9+ _____ FLOOR 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 Temp Sensor No. _____

No	DEPTH DESIRED	Roset. notes	SALT	Nutr. Btl	O2-Btl No	CHL.	Frac CHL.	DIC/AIK	DOC	O18	Weigmanner		Sambrotto			Moran/	Harvey	Carrn/	Moran	Karrin	NIS
											Julie	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.	
1	56									222	X	X									1
2	50																				2
3	40																				3
4	30										X	X									4
5	20																				5
6	10									223											6
7	0									224	X	X									7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Assume
 NOX
 Bathys
 152-158
 deep - 5ft

Ice Station

MAX DEPTH =

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 097 / SL10

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
15116208	69	N	17358	42	04	MAY	09	03	33	-0.1			15			253	6			63	SL10

SSE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 O2 Temp Sensor No. _____
 REMARKS _____
 MAX. DEPTH = _____ m

No.	DEPTH DEG	Roset.	notes	SALT	Hydro Team-PWELL						Wiegarter 018	Lule 013N	Sambrotto			Moran/ Lomas	Harvey/ Lessard	Carru/ Sherr	Moran Th	Katrin	No.
					NUTR	OC-BR/NO	CHL	Frac CHL	DIC/AIK	DOC			Urea	Part.	Prod						
1	60				159.2	167/226	1													1	
2	50				160.4		1													2	
3	40		1		1.4		2													3	
4	30				2.4		3													4	
5	20				3.4		4													5	
6	10				4.4		5													6	
7	0				5.4		6													7	
8																				8	
9																				9	
10																				10	
11																				11	
12																				12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIEP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 98/SL12

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * *	VISIBILITY * * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN		DEG	MIN													
15262	11	19	N	175	09	W	17	28	3	2	15			29	0		80	80/SL12

SBE 9+ _____
 PRESS SN _____
 P01 TEMP SN _____
 SEC TEMP SN _____
 P01 COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingartner, Julie		Sambrotto			Moran/	Harvey	Carrin/	Moran	Katrin	NIS		
			No.	DESIRED	notes	SALT	Nuc.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON		Lomas	Lessard
1	75			6																X	1
2	50			7																X	2
3	40			8																X	3
4	30			9																X	4
5	20			10																X	5
6	10			11																X	6
7	0			12																X	7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP Spring 09 STATION NO. 98/SL12

Snip Designation (I.D.) 1H0902

CONSC CAST # 1536211.42N 17509.04W DAY 04 MO MAY 09 YR 1015-3.4

DEG MIN DEG MIN DAY MO YR HR MIN TIME (GMT) DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN. WIND SPD. CLOUD (amt) TYPE WEATHER BOTTOM DEPTH STA. NAME/ID

SBE 9+ FLUOR S/N SBE43-Oxy (prime) SBE43-Oxy (sec) Transmissometer PAR S/N O2 Trip Sensor No.

NIS	DEPTH	ROSET.	Hydro Team-PMEL						Weigartner	Jule	Sambrotto			Moran/	Harvey	Carlin/	Moran	Katri	NIS
			DESRED	notes	SALT	Nut.Bt	O2-Bt.No	CHL			Frac CHL	DIC/AIK	DOC						
1	10																		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11			A9																11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring 09
 Ship Designation (I.D.) 1140902
 STATION NO. 98/SL12

CONSC CAST #	DEG 154	MIN 42	LATITUDE	DEG 175	MIN 07	LONGITUDE	DAY 04	MO MAY	YR 09	HR 14	MIN 25	TIME (GMT)	DRY BULB 2.6	WET BULB	PRESSURE 14	SEA STATE	VISIBILITY	WIND DIRN. 285	WIND SPD. 6.7	CLOUD (amt)	WEATHER	BOTTOM DEPTH 80	STA. NAME/ID SL12

SBE 9+ _____ FILLER 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 Temp Sensor No. _____

REMARKS _____
 MAX. DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL										Weingartner		Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	NIS	
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	No.				
	1	10																								1
	2																									2
	3																								X	3
	4																									4
	5																									5
	6																									6
	7																									7
	8																									8
	9																									9
	10																									10
	11																									11
	12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID HI 0902
 PROJECT & LEG BEST/RSERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 98/SL12

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC	HR	MIN										
1	55	62	10.82 N	175	07	02 W	04	15	34	-2	7	13		287	04		79	SL12

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

No.	DEPTH DESIRED	Roset. notes	SALT	Hydro Team-PWEL					Wetgauer		Sambrotto				Moran/ Lomas	Harvey Lessard	Carin/ Sherr	Moran Th	Katrin	No.
				NUT Btl	O2-Btl No	CHL	Frac CHL	DIC/Alk	DOC	O18	δ15N	Urea	Part.	Prod	DON					
1	bot			14 / 10																1
2	38			15 / 11																2
3	25			16 / 12																3
4	20			17 / 13																4
5	15			18 / 14																5
6	10			19 / 15																6
7	5		A1 φ	20 / 16																7
8	φ			21 / 17																8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BIERP Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 120/70MS8

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * *	VISIBILITY * * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER TYPE * * *	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC													DAY
15662	11	28	N	174	44	13	04	MAY	09	22	09	-1.6						7270MS8	7270MS8

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 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

No.	DEPTH	Roset.	notes	Hydro Team-PMEL						Weigandert 018	Julie 013N	Sambrotto			Moran/ Lomas	Harvey Lessard	Carru/ Sherr	Moran Th	Katr No.
				SALT	NUL BRI	O2-BL NO	CHL	Frac CHL	DIC/AIK			DOC	Urea	Part.					
1	69			A/11	22	143/108		1				X	X	X					1
2	50				23			1											2
3	40			A/12	24			2				X	X	X					3
4	30				25			3											4
5	20				26			4											5
6	10				27			5											6
7	0				28			6				X	X	X					7
8																			8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: IH0902
 PROJECT & LEG: BEST/BIERP_Spring'09
 SHIP Designation (I.D.): 1H0902
 STATION NO.: 101/70MS7

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER TYPE * * *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
1576201	72	N	17439	86	W	05	MAY	09	0009	-0.5	14	299	9				7476MS7	

REMARKS: _____
 MAX DEPTH = _____ m

SSE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____

FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 O2 Temp Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL							Wiegarter Julie	Sambrotto			Moran/ Lomas	Harvey/ Lessard	Carrin/ Sherr	Moran Th	Katrin	NIS
			No.	DESRD	notes	SALT	Nat.Btl	O2-Btl.No	CHL.		Frac.CHL.	DIC/AIK	DOC						
1	72			29						✓	✓	228							1
2	60			30															2
3	50			31				1											3
4	40			32				2											4
5	30			33				3											5
6	20			34				4											6
7	16			35		OSP		5											7
8	0			36		220		6											8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERP_Spring'09
 SHIP Designation (I.D.): H10902
 STATION NO.: 162/761456

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
158	61	56.69	N	174	21.91	W	05	MAY	09	01	48	-0.6			14			293	08			73	761456

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Trip Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmitter _____
 PAR S/N _____
 REMARKS _____
 MAX DEPTH = _____ m

NS	DEPTH	Roset.	Hydro Team-PWEL						Weingartner/Julie		Sambrotto			Moran/Lomas	Harvey/Lessard	Carrin/Sher	Moran/Katin	NS					
			No.	DESIRED	notes	SALT	Nct:Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	d15N	Urea	Part	Prod		DON	Lomas	Lessard	Sher	Th
1	69			37		239	172	✓			231												1
2	60			38																			2
3	50			39				1	1														3
4	40			40				2	2														4
5	30			41				3	3														5
6	20			42				4	4														6
7	10			43				5	5		232												7
8	0			44				6	6		233												8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H1 0902 PROJECT & LEG BEST/BSIERP-Spring 09 SHIP Designation (I.D.) 1140902 STATION NO. 103/201455

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
15961	51.80	N	17406.71	W	05	MAY	09	03	20	-1.0			14			321	07				7270	1455

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS No.	DEPTH DESIRED	Rosett. notes	Hydro Team-PMEL						Weingartner		Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	NIS No.
			SALT	Nut Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DCN	Lomas	Lessard	Sherr	Th		
1	68			45					-												1
2	60			46																	2
3	50			47			1														3
4	40			48			2														4
5	30			49			3														5
6	20			50			4														6
7	10			51		069/232	5			235											7
8	0			52			6			236											8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge
Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO: 104/20454

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	DEG	MIN																						
160	61	43	54	N	17	35	1	00	05	M	A	Y	09	05	42	-2.0		14			299	7			727	0454

SBE 9+ FLUOR S/N _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 O2 Trip Sensor No. _____
 REMARKS: _____
 MAX DEPTH = _____ m

NIS	DEPTH DESIRED	Rosette notes	SALT	Nut:BrI	O2-BrI.No	CHL	Frac CHL	DIC/ALK	DOC	Weight/gram	O18	Julie δ15N	Urea	Sambrotto			Moran/ Lomas	Harvey Lessard	Cann/ Sherr	Moran Th	Katrin	NIS
														Part.	Prod	DON						
1	60		A/13	S3	086/205					237												1
2	60		A/14	S4																		2
3	90			S5		1	1															3
4	90			S6		2	2															4
5	30			S7		3	3															5
6	20			S8		4	4															6
7	10			S9		5	5			238												7
8	0			S6		6	6			239												8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIFRP_Spring'09
 Smp Designation (I.D.): 1H0902
 STATION NO. 105/20MS3

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID										
161	61	33	57	N	17	3	4	2	45	W	05	M	A	Y	0	9	07	47	-2.3			14	*	*	315	10	*	*	23	7370MS3

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PRT TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transducer
 PRT COND SN PAR S/N
 SEC COND SN O2 Trp Sensor No.

REMARKS: _____

MAX DEPTH = _____ m

NIS	DEPTH	Rosette notes	SALT	NUTR	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	Weighted	Julie	Sambrotto			Moran/	Harvey	Carin/	Moran	Katin	NIS
												Part	Prod	DON						
1	69			61	059/113			1	1	240										1
2	50		A15	62		TB1														2
3	46			63		TB2														3
4	36			64		TB3														4
5	26			65		TB4														5
6	16			66		TB5				241										6
7	9			67		TB6		7	7	242										7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSEPP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 106 FCOM52

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC													
16261	24	74	N	173	44	14	05	M	A	09	31	-2.7						75	ZOM52

REMARKS: MAX DEPTH = _____ m

SBE 9+ _____
 PRESS SN _____
 PPI TEMP SN _____
 SEC TEMP SN _____
 PPI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 O2 Temp Sensor No. _____

NIS No	DEPTH DESIRED	Roset. notes	SALT	N/BT	O2-B/LNO	CHL	Frac CHL	DIC/AIK	DOC	Weingarten		Sambrotto			Moran/	Harvey	Carn/	Moran	Katrn	NIS No.
										O18	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	bot			68						243										1
2	50			69		781														2
3	46			70		782														3
4	30			71		783														4
5	26			72		784														5
6	10			73		785				244										6
7	0			74		786				245										7
8	0			74		786														8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 110902 STATION NO. 147/24M51

CONSC CAST #	DEG	LATITUDE	DEG	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
16361	15.41	N	17344.38	W	05	M	A	Y	09	1152	-2.7	.	14	*	*	304	7	*	*	*	75	7674M51

REMARKS
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

No.	DEPTHD	Roset.	SALT	Hydro Team-PMEL				Weigartner/Julie				Sambrotto				Moran/	Harvey	Carrn/	Moran	Katrn	No.		
				notes	Nut.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/Alk	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th			
1	71			75	222/152					A	A												1
2	50			76						TR1	B	#											2
3	40			77						TR2													3
4	35			78						TR3	C	C											4
5	25			79						TR4													5
6	10			80						TR5	D	D											6
7	0			81						TR6	E	E											7
8																							8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 STATION NO. 168/70M5φ

SHIP DESIGNATION (I.D.) 110902

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1646	104	05	173	49	81	W	09	14	23	-3.1			14			33	01φ				81	70M5φ

REMARKS: up & down cast very different. Do not use downcast file only. No #11 taken due to doubt about time. #11 taken in water in a hurry. 55

MAX DEPTH = m

NIS	DEPTH	ROSETTE	HYDRO T-EAM-PMEL										WETZINGER		SAMPROCTO				MORAN		NIS		
			DES	NOTES	SALT	NUR.BIT	O2-BIT/NO	CHL	FAC CHL	DIC/ALK	DOC	01B	015N	UREA	PART	PROD	DON	LOMAS	HARVEY	CARRU		MORAN	KATRIN
1	24			82	058																		1
2	50			83	121																		2
3	46			84																			3
4	30			85																			4
5	26			86																			5
6	15			87																			6
7	0			NO BOTTLE SAVED																			7
8																							8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 110902
 STATION NO. 108/74M54

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRNL (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	SEC	DEG	MIN	SEC														HR	MIN
16561	63.	97	N	173	49.	67	W	05	M	A	Y	09	14	36	-	3.	1	14	335	10	7870M54

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Temp Sensor No. _____

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

REMARKS: *no samples*
No bottles used. CTD aged down full
to get better seawater

MAX DEPTH = _____ m

No	DEPTD	notes	SALT	Nur. Bit	O2-Bit/No	CHL.	Frac CHL.	DIC/Alk	DOC	O18	δ15N	Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Katrin	No.
												Hydro Team-PMEL	Wiegartner Julie	Part.						
1																				1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSEBP Spring'09
 Ship Designation (I.D.) IHO902
 STATION NO. 129/20M49

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN																
166	60	54	.52	N	173	49	.13	W	45	M	A	Y	0	9	1837	-3	.5			15		318	6			79	5270M49

REMARKS Following a bout ice station STD/psrad

SBE 9+ FLUOR S/N
 PRESS SN SBEF43-Oxy (prime)
 PRT TEMP SN SBEF43-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRT COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

NIS	DEPTH	DESID	notes	SALT	NUTRIT	O2-BL/NO	CHL	Frac CHL	DIC/AIK	DOC	Walgamer/Julie		Sambrotto			Moran/	Harvey	Carn/	Moran	Kath	NIS
											O18	012N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	77				88	196/206			A	A	251		X	X							1
2	50				89		TB1	FB1													2
3	40				90		TB2	FB2													3
4	33				91		TB3	FB3					X	X							4
5	21				92		TB4	FB4													5
6	17				93																6
7	13				94																7
8	10				95		TB5	FB5			252										8
9	9				96								X	X							9
10	4				97																10
11	4																				11
12	4										253										12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Heavy ice, some melt pools -
 Rosette Notes: 0-ring stuck -
 TBC FBC B R

VESSEL USCG Healy CRUISE ID HT0902 PROJECT & LEG BEST/BSERP_Spring09 Ship Designation (I.D.) 1H0902 STATION NO. 110/70M48

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
167	60	43	66	N	05	MAY	09	21	13	-3.0		15			304	8				747	0M48

SBE 9+ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Rosett notes	Hydro Team PMEL							Wiegarter/Julie	61SN	Urea	Sambrotto			Moran/Lomas	Harvey/Lessard	Carru/Sner	Moran/Th	Katin	NIS
			SALT	Nut/BI	O2-BI/NO	CHL	Frac CHL	DIC/AIK	DOC				Prod	DON							
1	67		99						254											1	
2	60		100	151/120																2	
3	50		101		1															3	
4	40		102		2															4	
5	30		103		3															5	
6	20		104		4															6	
7	10		105		5				255											7	
8	0		106		6				256											8	
9																				9	
10																				10	
11																				11	
12																				12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (LD.): H10902
 STATION NO. 111/70447

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC													
16860	34	.28	N	73	38	.50	05	MAY	09	23	06	-2.3	.	15	*	28	5	6	6870M47

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (pinne) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX. DEPTH = _____ m

No.	DEPT#	Roset.	SALT	Nut. BH	O2-Btl.No	Hydro Team-PNEL			W. ingertank	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Katrln	NIS No.
						CHL	Frac CHL	DIC/AK			DOC	018	01SN						
1	65		A/19	102															1
2	60		A/18	108															2
3	59			109		1	1												3
4	40			110		2	2												4
5	30			111		3	3												5
6	20			112		4	4												6
7	10			113		5	5		258										7
8	0			114		6	6		259										8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) I10902 STATION NO. 112/20446

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
169	6	025	70 N	173	35	78 W	06	M	A	Y	09	0108	-1.6		15			299	5			68	20446

REMARKS
 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 Temp Sensor No.

No	DESIDED	notes	SALT	Nut.Btl	O2-Btl.No	Hydro Team-PMEL						Wetgarnet	Julie	Sambrotto						Moran/	Harvey	Carrn/	Moran	Karrn	No
						CHL	Frac CHL	DIC/ALK	DOC	OTB	δ15N			Urea	Part.	Prod	DON	Lomas	Lessard						
1	62			115								260													1
2	60			116																					2
3	50			117			1																		3
4	40			118			2																		4
5	30			119			3																		5
6	20			120			4																		6
7	10			121	112/009		5					261													7
8	0			122			6					262													8
9																									9
10																									10
11																									11
12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 110902
 STATION NO. 113/26145

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
12060	15	47	N	173	30	06	M	09	03	09	-1.7			15			317	5				707	26145

REMARKS
 SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Temp Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (prme) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____

No.	DEPTH DESIRED	notes	SALT	Nut:Btl	O2-Btl.No	Hydro Team-PMEL			Weingartner			Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	No.
						CHL	Frac CHL	DIC/Aik	DOC	O18	d15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	65			123																1
2	60			124	178/06															2
3	50			125		1	1													3
4	40			126		2	2													4
5	30			127		3	3													5
6	20			128		4	4													6
7	10			129		5	5													7
8	0			130		6	6													8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring 09
 Ship Designation (I.D.): 110902
 STATION NO.: 115/8221

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
17259	27	35 N	74	04	34	W	06	M	10	46	-1.7	16			33	05				115	8221

REMARKS: No ice at all
 High Fluor values - 18

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PPT TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transmissionmeter
 PPT COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

NIS No	DEPTH DESIRED	Roset. notes	SALT	Nutr Btl	O2-Btl No	OIL	Frac OIL	DIC/AIK	DOC	Wiegarter		Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katin	NIS No
										018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th			
1	110			139	11/142																	1
2	75		A19	140																		2
3	50			141																		3
4	40			142																		4
5	30			143																		5
6	20			144																		6
7	10		A20	145																		7
8	3																					8
9	3																					9
10	3																					10
11	3																					11
12	0			146	178																	12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Smp Designation (I.D.) 1H0902 STATION NO. 115 B221

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1735925.99			174	04.54	W	06	MAY	09	1450	-0.8	.	15	*	*	311	4	*	*	*	115	B221

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS _____
 MAX. DEPTH = _____ m

No.	DEPTH DESIRED	Roset. notes	SALT	Nut.Rtl	O2-Rtl.No	Hydro Team-PMEL				Weingartner Julie		Sambrotto			Moran/	Harvey	Carin/	Moran	Karin	N's
						CHL.	Frac CHL.	DIC/AIK	DOC	O18	d15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	15																			1
2	15			147																2
3	15																			3
4	15																			4
5	3																			5
6	3																			6
7	3																			7
8	3			148																8
9	3																			9
10	3																			10
11	3																			11
12	3																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 110902 STATION NO. 115 / BL21

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																		
17459	25.	94 N	174	03.84 W	06	MAY	09	15	11	-0.9			116								117	
																					115	BL21

REMARKS: *Drugg Fluor = 11.4, Ga = 11.3*

SEC 9+ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

No.	DESIRED	notes	SALT	Nut.Bri	O2-Bri.No	CHL.	Frac CHL.	DC/Alk	DOC	Weigantier 018	Julie		Sambrotto			Moran/ Lomas	Harvey Lessard	Carin/ Sherr	Moran Th	No.
											δ15N	Urea	Part.	Prod	DON					
1	116			149/0							α	β	α							1
2	75			150/0							α	α	α							2
3	33			151/0							α	α	α							3
4	21			152/0							α	α	α							4
5	17			153/0							α	α	α							5
6	13			154/0							α	α	α							6
7	9			155/0							α	α	α							7
8	4			156/0							α	α	α							8
9	φ			157/0							α	α	α							9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIFRP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 116/BL15

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN				HR	MIN													
1755932	07	N	7508	57	W	06	MAY	09	21	28	0.4			16							133	BL15

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBEF3-Oxy (prime) _____
 PRT TEMP SN _____ SBEF3-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trp Sensor No. _____

NIS	DEPTH DESIRED	Rosette notes	Hydro Team-PWEL						Weigartner/Julie		Sambrotto			Moran/	Harvey	Carriv/	Moran	Katrn	NIS	
			SALT	NutBtl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher		Th
1	128			158																1
2	100			159	127/28															2
3	75			160																3
4	60			1																4
5	50			2																5
6	40			3																6
7	30			4																7
8	20			5																8
9	10			6																9
10	0			7																10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: HT10902
 PROJECT & LEG: BEST/BSIERP Spring 09
 Ship Designation (I.D.): 1H0902
 STATION NO. 117/BL21

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * *	VISIBILITY * * *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) * * *	WEATHER TYPE * * *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN											
17659	26	08	174	04	07	MAY	09	02	29	0.0	.	16	*	*	210	4	*	*	115	BL21

SEC 9+ FLUOR S/N _____
 PRESS SN _____ SBEA3-Oxy (prime)
 PPI TEMP SN _____ SBEA3-Oxy (sec)
 SEC TEMP SN _____ Transmissometer
 PPI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS: _____
 MAX DEPTH = _____ m

NIS No.	DEPTH DESRED	Rosette notes	SALT	NULBtl	O2-Btl.No	Hydro Team-PMEL		Wiegarter Jule	Urea	Sambrotto			Moran/ Lomas	Harvey Lessard	Carlin/ Sherr	Moran Th	Katrin	NIS No.
						CHL	Frac CHL			DIC/AIK	DOC	Prod						
1	110			8														1
2	100			9	113/0601													2
3	75			10														3
4	60			11														4
5	50			12														5
6	40			13														6
7	30			14														7
8	20			15														8
9	10			16														9
10	0			17														10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 118 / 20M44

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
1776006	15	N	17319	18	W	07	M	AY	09	1043	-0.8		17	20	101			76M44

REMARKS
 Lt's & back ice - 70% ice
 Repeat Station for hydrographic line
 constant track

SBE 9+ _____
 PRESS SN _____
 PRT TEMP SN _____
 SEC TEMP SN _____
 PRT COND SN _____
 SEC COND SN _____

FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 O2 Temp Sensor No. _____

MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team P-MEL								Wetgarden	Julie	Sambroto			Moran/ Lomas	Harvey Lessard	Cann/ Sherr	Moran Th	Karin	NIS
			No.	DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL			DIC/AIK	DOC	O18						
1	bot	-	A1	18	22	2074														1	
2	50			19																2	
3	40			20																3	
4	30			21																4	
5	20			22																5	
6	10			23																6	
7	7																			7	
8	7																			8	
9	7																			9	
10	φ			24																10	
11																				11	
12																				12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CAUSE ID H10902
 PROJECT & LEG BEST/BIERP Spring 09
 Ship Designation (I.D.) 1H0902
 STATION NO. 119 / 20M 43

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN																
1	78	60	52.74	N	173	00	58	W	07	M	A	Y	0	9	1	233	-2.5			17		*	*			68	20M 43

REMARKS
 large pancakes, ~ 60%
 wa clear at surface
 Collier, saltier on bottom ST Matt's Polynesian influence?

NIS	DEPTH DESIRED	Roset.	SALT	Hydro Team-PWEL						Wainwright	Julie	Sambrotto				Moran/ Lomas	Harvey Lessard	Carriv/ Shier	Moran Th	Kathn	NIS								
				NAT.BRI	O2-BR.LNO	CHL.	Frac CHL.	DIC/AIK	DOC			O18	015N	Urea	Part.							Prod	DON						
1	63			25																									1
2	50			26																									2
3	40			27																									3
4	30			28																									4
5	20			29																									5
6	10			30																									6
7	0			31																									7
8																													8
9																													9
10																													10
11																													11
12																													12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/RSIEMP_Spring'09
 SHIP DESIGNATION (I.D.) 1H0902
 STATION NO. 120/28M42

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC													HR
17959	59	59	13 N	172	44	54 W	07	MA	14	48	-2.6							67	120/28M42

REMARKS ~ 10m dia water porcupines
 ~ 50% ice cover
 Shear cast

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PRT TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRT COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

NIS	DEPTH	Rosette notes	Hydro Team-PMEL							Wiegarter/Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrn	NIS
			SALT	Nutr.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ13N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	10	10																	1	
2	10	10																	2	
3	10	10																	3	
4	10	10																	4	
5	10	10																	5	
6	10	10																	6	
7	10	10																	7	
8	10	10																	8	
9	10	10																	9	
10	10	10																	10	
11	10	10																	11	
12	10	10																	12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CLAUSE ID: H10902
 PROJECT & LEG: BEST/RSIEEP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 20/30M42

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN																					
1	84	59	59	45	N	17	24	14	21	W	67	M	A	Y	0	9	15	35	-2	.5	.17	133	6	7φ	7070M42

REMARKS: large pancakes, ~10m diameter
 ~75% of ice coverage
 Prod cast

SE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN

FLUOR S/N
 SEEA3-Oxy (ptime)
 SEEA3-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trp Sensor No.

MAX DEPTH = m

NIS	DEPTH DESIRED	Roset. notes	SALT	NUTRIT	O2-BRLNO	CHL.	Frac CHL.	DIC/AIK	DOC	Waingarner O18	Julie δ15N	Sambrotto				Moran/ Lomas	Harvey Lessard	Cann/ Sherr	Moran Th	Katin	NIS	
												Urea	Part.	Prod	DON							
1	~65		A22	33/8								α	α			α						1
2	50		A28	34/8																		2
3	38			35/12								α	α	α		α						3
4	25			36/13												α						4
5	20			37/14												α						5
6	15			38/15												α						6
7	10			39/16												α						7
8	5			40/17												α						8
9	0			41/18												α						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: HT 0902
 PROJECT & LEG: BEST/BSSEFP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 120 / ZOM42

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC																		
18159	59	59	.78	N	172	43	.51	W	07	M	A	Y	09	16	27	-2	.7	.	17				68	ZOM42

REMARKS: STD 275% ice cover, patches, largest 175m diameter
 MAX DEPTH = m

SBE 9+ _____
 PRESS SN _____
 PRT TEMP SN _____
 SEC TEMP SN _____
 PRT COND SN _____
 SEC COND SN _____
 O2 Temp Sensor No. _____

FLUOR S/N _____
 SBE43-Oxy (prme) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____

NIS	DEPTH	DESID	notes	SALT	NUTRI	O2-BLNO	CHL	Frac CHL	DIC/AIK	DOC	Weight	O18	Jule	Urea	Sambrotto			Moran/ Lomas	Harvey	Carrn/ Sher	Moran	Katr	NIS	
															Prod	DON								
1	63			A24	42	165/239					272										L	X	1	
2	50				43		TB1															X	2	
3	40				44		TB2															X	3	
4	30				45		TB3															X	4	
5	20				46		TB4															o	7	5
6	10				47		TB5				273											X	X	6
7	Ø				48		TB6				274											X	X	7
8																								8
9																								9
10																								10
11																								11
12																								12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIEP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO: 121 / 70M41

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC																	
1	82	59	54	172	26	27	W	07	MA	09	18	23	-2.7		17			77	?			76	7570M41

REMARKS: broken pancake ice, largest chunks ~25m
 ~75% ice cover

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prme) _____
 PII TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PII COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trp Sensor No. _____

No	DEPTH DESIRED	Roset. notes	SALT	Hydro Team-TWEL						Wengartner		Sambrotto			Moran/	Harvey	Carri/	Moran	Katin	No.	
				Nur.Btl	OZ-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr			Th
1	70			49					/		275										1
2	56			50		1			/												2
3	40			51		2			/												3
4	30			52		3			/												4
5	20			53		4			/												5
6	10			54		5			/		276										6
7	5			55	121/206	6			/		277										7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H1 0902 PROJECT & LEG BEST/BSERP_Spring/09 Shp Designation (I.D.) 1H0902 STATION NO. 70 0446 1122

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	SEC	DEG	MIN	SEC														DAY	MO	YR
18359	50	24	N	17204	48	W	07	M	A	Y	09	2028	-2.3					19			74	70M40

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PAR COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

NIS	DEPTH	Roset.	Hydro Team-PMEL										Weigand	Julie	Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	NIS		
			DESIRED	notes	SALT	NUT.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18			δ15N	Urea	Part.							Prod	DCN
1	70			56											278										1
2	60			57	116/36																				2
3	50			58			1																		3
4	40			59			2																		4
5	30			60			3																		5
6	20			61			4																		6
7	10			62			5								279										7
8	0			63			6								280										8
9																									9
10																									10
11																									11
12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP-Spring 09
 Shp Designation (I.D.) 1H0902
 STATION NO. 123/201439

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
184	59	50.39	N	71	51.28	W	07	MAY	09	21	54	-1.4		14			150	3				727	01439

REMARKS
 SBE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Temp Sensor No.

NIS	DEPTH	Roset	Hydro Team-PMEL						Wingarten-Julia		Sambrotto			Moran/	Harvey	Cann/	Moran	Katrin	NIS				
			No.	DESRD	notes	SALT	Nut.Bt	O2-BIL.No	CHL.	Frac.CHL.	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON		Lomas	Lessard	Sher	Th
1	69		B1	64						✓	281												1
2	60		B2	65																			2
3	50		B3	66				1															3
4	40		B4	67				2															4
5	30			68				3															5
6	20			69				4															6
7	10			70	200/60			5			282												7
8	0			71				6		✓	283												8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): H10902
 STATION NO: 124 / 70M38

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
1	85	59	46.46 N	71	26	80 W	08	MAY	09	00	11	-2.5			20			164	10			74	70M38

REMARKS: _____
 MAX. DEPTH = _____ m

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____

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

O2 Trip Sensor No. _____

NIS	DEPTH	Roset. notes	Hydro Team-PMEL					Weigartner		Sambrotto			Moran/	Harvey	Carin/	Moran	Katrin	NIS							
			SALT	Nut Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard		Sherr	Th					
1	68			72							X	X												1	
2	60			73		50/221																			2
3	50			74			1																		3
4	40			75			2						X	X											4
5	30			76			3																		5
6	20			77			4																		6
7	10			78			5																		7
8	0			79			6						X	X	X										8
9																									9
10																									10
11																									11
12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID HI 0902
 PROJECT & LEG BEST/RSIFRP_Spring 09
 Ship Designation (I.D.) 1H0902
 STATION NO. 125/76137

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
1865942	87	N	17108	18	08	MAY	09	0149	-2.0		20				163	8				76701437	

SBE 9+ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trp Satson No. _____

REMARKS
 Downcast & upcast difference betws
 explanatory if upcast
 Kete: very calm conditions.

No	DEPTH DESIRED	Rosett notes	SALT	Nul.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/AIK	DOC	Wiegarter 018	Julie 015N	Urea	Part.	Prod	DON	Moran/ Lomas	Harvey Lessard	Cann/ Sherr	Moran Th	Katron	No.
1	68			80						287											1
2	60			81																	2
3	50			82		1															3
4	40			83		2															4
5	30			84		3															5
6	20			85		4															6
7	10			86	167/206	5				288											7
8	0			87		6				289											8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring09
 Ship Designation (I.D.): 1H0902
 STATION NO. 26/201436

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC													
18758	35	73	N	170	54	74	08	M	09	03	29	1.8	21	195	8			727	201436

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. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wiegarter	Julie	Sambrotto				Moran/ Lomas	Harvey/ Lessard	Carin/ Sherr	Moran Th	Katrin	NIS
			No.	DESIRED	notes	SALT	Nut Btl	O2-Btl.No			CHL	Frac CHL	DC/AIK	DOC						
1	67			88					290-										1	
2	60			89	503/102														2	
3	50			90		1													3	
4	40			91		2													4	
5	30			92		3													5	
6	20			93		4													6	
7	10			94		5			291.										7	
8	0			95		6			292.										8	
9																			9	
10																			10	
11																			11	
12																			12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO: 127/20M35

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
188	59	26	18 N	70	53	94	W	08	M	A	Y	09	05	07	-2.1	.	21	.	180	7	.	.	73	20M35

REMARKS: Fluorescence down vs. depth. Impassible to explain.

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____

FLUOR S/N _____
 SBE43-Oxy (prine) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 O2 Trip Sensor No. _____

MAX DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL										Wiegarter		Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrin	NIS
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/Aik	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.			
1	68			296				1																	1
2	60			297																					2
3	50			298				2																	3
4	40			299				3																	4
5	30			300				4																	5
6	20			301				5																	6
7	10			302				6																	7
8	0			303				6																	8
9																									9
10																									10
11																									11
12																									12

ICE LOG: Surface ice conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H110902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 128/70M34

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN, (deg)	WIND SPD, (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC				HR	MIN											
189	59	20	.08	170	38	.68	08	MAY	09	06	31	-2.6	.	22	.	180	6	.	.	.	73	70M34

REMARKS
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Roset.	SALT	Nut.Btl	O2-Btl/No	Hydro Team-PMEL		Wet/annet	Julie	Sambrotto				Moran/ Lomas	Harvey/ Lessard	Carrn/ Shear	Moran Th	Katrin	NIS
						CHL	Frac CHL			DIC/Alk	DOC	018	015N						
1	66			104					296										1
2	60			105															2
3	50			106		1	1												3
4	40			109		2	2												4
5	30			105		3	3												5
6	20			109		4	4												6
7	10			110	29/29	5	5		297										7
8	0			111		6	6		298										8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO. 129/10M33

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPO. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC																		
19059	14	73	N	170	24	79	08	MAY	09	08	22	22	138	1									6870M33	129/10M33

REMARKS: *Pause in ice, 25m max chunk alone for 180° ice cover*

SEC 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____

FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 O2 Trip Sensor No. _____

NIS No	DEPTH DESIRED	Rosette notes	SALT	NUTRIT	O2-BTL No	CHL	Frac CHL	DIC/Alk	DOC	O18	Wengartner		Sambrotto			Moran/	Harvey	Carin/	Moran	Katin	NIS No
											Julie	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	64			112	069/232			1	1	-299											1
2	50			113		781															2
3	40			114		782		2	2	300											3
4	30			115		783															4
5	20			116		784															5
6	10			117		785															6
7	0			118		786		3	3	301											7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: HT10902
 PROJECT & LEG: BEST/BSENR_Spring 09
 Ship Designation (I.D.): 1140902
 STATION NO.: 1301 75M32

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN						(C)	(C)	(mb)	*	(deg)	(kts)	*	*	(m)			
19159	06	47 N	170	14.92 W	08	MAY	09	09	34	-2.6	.	23				138	1			70	68701932

REMARKS: Porcellos ~ 30m east
 1 ca over ~ 70%
 MAX DEPTH = m

No	DEPT#	DESIRED	notes	SALT	NULBtl	O2-Btl/No	CHL	Frac CHL	DIC/AIK	DOC	O18	61SN	Urea	Part.	Prod	DON	Moran/	Harvey	Carrn/	Moran	Katrin	No.
1	63			B5	119						302											1
2	50			B6	120																	2
3	46			B4	121																	3
4	36			B8	122																	4
5	26				123																	5
6	16				124						303											6
7	0				125						304											7
8																						8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 131/20M31

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
19258	56	92	170	19	08	MAY	09	11	32	-2	.5	23			159	3				73	131/20M31

SE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SFE43-Oxy (prime) _____
 PRI TEMP SN _____ SFE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

REMARKS: Purchases, largest ~ 30m across
 Ice cover ~ 85%
 Flush worked at start of cast

MAX DEPTH = _____ m

NS	DEPTH	Roset.	Hydro Team-FMEL				Wingerner				Sambrotto				Moran/		Harvey		Cariv/		Moran		NS
			No.	DESIRED	notes	SALT	Nut:BTI	O2-BTLNo	CHL	Frac CHL	DIC/AK	DOC	O18	015N	Urea	Part.	Prod	DON	Lornas	Lessard	Sher	Th	
1	65				126		486/155		1		305											1	
2	50				127																	2	
3	40				128																	3	
4	30				129																	4	
5	25				130																	5	
6	10				131																	6	
7	φ				132																	7	
8																						8	
9																						9	
10																						10	
11																						11	
12																						12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSEMP_Spring 09 SHIP Designation (I.D.) 1H0902 STATION NO 132 / 70M30

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
19358	4	40	N	17017	48	W	08	MAY	09	1329	-2.3			24	*	*	191	08				74	70M30

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____
 O2 Trip Sensor No. _____

REMARKS: Same ice percentages ~ 20% ice coverage

MAX DEPTH = _____ m

NIS	DEPTH DESIRED	Roset. notes	Hydro Team-PMEL										Wiegman/Julie		Sambrotto			Moran/	Harvey	Carriv/	Moran	Katrin	NIS	
			SALT	Nutr Btl	O2-Btl/No	CHL	Frac CHL	DIC/Aik	DOC	O18	015N	Urea	Part	Prod	DON	Lomas	Lessard	Sher	Th					
1	67			133			TB1	FC1																1
2	50			134			TB1	FC1																2
3	40			135			TB2	FC2																3
4	30			136			TB3	FC3																4
5	20			137			TB4	FC4																5
6	10			138			TB5	FC5																6
7	0			139			TB2/	FC4																7
8							TB5	FC5																8
9																								9
10																								10
11																								11
12																								12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Shp Designation (I.D.) 1140902 STATION NO. 133/70M29

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC																		
1045837	47	N	17	16	44	W	08	MAY	09	15	02	-2.2	24	24	24	6	5	75	7376M29					

SBE 9+ PRESS SN _____ SBE43-Oxy (prme) _____ FLOOR S/N _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS: Noise within 1 mile
 MAX DEPTH = _____ m

NIS	DEPTH DESIRED	Roset. notes	SALT	Nut.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/Alk	DOC	O18	O15N	Sambrotto			Moran/ Lomas	Harvey/ Lessard	Carlin/ Sherr	Moran Th	Katrn	NIS
												Urea	Part.	Prod						
1	68			140	181/242					311										1
2	50			141		TB1														2
3	40			142		TB2														3
4	30			143		TB3														4
5	20			144		TB4														5
6	10			145		TB5				312										6
7	0			146		TB6				313										7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: HI 0902
 PROJECT & LEG: BEST/BSIERP Spring'09
 Shp Designation (I.D.): 1H0902
 STATION NO: 134/7ΦW 28

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	SEC	DEG	MIN	SEC													HR	MIN			
19558	26	79	N	17Φ	11	27	W	Φ8	M	A	Y	0	9	16	27	-	2	Φ	25	229	1	76	7375M28

SEC 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (pHme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

REMARKS: No ice

MAX DEPTH = _____ m

No	DEPTH DESIRED	Roset. notes	SALT	NUT.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/AIK	DOC	Weininger/Julie		Sambrotto			Moran/	Harvey	Carlin/	Moran	Katin	Nis No.
										O1B	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sher	Th	
1	68			147						319	α	α	α							1
2	49			148																2
3	39			149																3
4	29			150																4
5	19			151																5
6	19			152																6
7	90			153																7
8	Φ			154																8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIFRP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO: 105 / 20M27

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
1965817.05N		17005.51W			08	MAY	09	12	03	-1.7		26			244	3				75	

SEC 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Trip Sensor No. _____
 FLUOR S/N _____
 SEA3-Oxy (prime) _____
 SEA3-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 REMARKS: No ice
 MAX. DEPTH = _____ m

No.	DEPTHD DESIRED	Roset.	SALT	NUC Btl	Hydro Team-PHEL		Wiegarter-Jule		Sambrotto			Moran/	Harvey	Carlin/	Moran	Katrin	No.
					O2-Btl/NO	CHL	Frac CHL	D/C/A/K	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	
1	68		155		193/79												1
2	50		156			781	-1										2
3	40		157			782											3
4	36		158			783											4
5	26		159			784											5
6	10		166			785	1			318							6
7	0		161			786	-1			319							7
8																	8
9																	9
10																	10
11																	11
12																	12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO: 136740M26

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC																		
19758	08	08	00	169	55	09	09	09	19	18	11	2	26					143	1				71	72740M26

SEC 9+ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (pr/ine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sanson No. _____

REMARKS: _____

MAX DEPTH = _____ m

No	DEPTH DESIRED	Rosette notes	SALT	NUTRIT	O2-BR/No	CHL	Frac CHL	DIC/ALK	DOC	Weingartner/Julie		Sambrotto			Moran/	Harvey	Carin/	Moran	Karin	No.
										018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	07			2						320										1
2	50			3		1														2
3	40			4		2														3
4	30			5		3														4
5	26			6		4														5
6	10			7		5				321										6
7	0			8		6				322										7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID HI 0902
 PROJECT & LEG BEST/BSERP_Spring 09
 Ship Designation (I.D.) 140902
 STATION NO. 137/70M25

CONSC CAST # 1385802.50
 DEG MIN
 LATITUDE 16940.20
 DEG MIN
 LONGITUDE 08 MAY 09
 DAY MO YR
 TIME (GMT) 2036-1.3
 HR MIN
 DRY BULB (°C) .3
 WET BULB (°C) .
 PRESSURE (mb) 27
 SEA STATE *
 VISIBILITY *
 WIND DIRN. (deg) 69
 WIND SPD. (kts) 4
 CLOUD (amt) *
 TYPE *
 WEATHER *
 BOTTOM DEPTH (m) 727
 STA. NAME/ID 0M25

SE 9+
 PRESS SN
 PRI TEMP SN
 SEC TEMP SN
 PRI COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.
 REMARKS
 MAX. DEPTH = m

No.	DEPTH DESIRED	Roset. notes	SALT	Nuc.Btl	O2-Btl.No	Hydro Team-PMEL		Wetgarnet-Jule		Sambrotto			Moran/	Harvey	Carlin/	Moran	Katrn	Nis
						CHL.	Frac CHL.	DIC/ALK	DOC	O18	d15N	Urea	Part.	Prod	DON	Lomas	Lessard	
1	65			9					323									1
2	60			10	197/190													2
3	50			11		1	1											3
4	40			12		2	2											4
5	30			13		3	3											5
6	20			14		4	4											6
7	10			15		5	5		324									7
8	0			16		6	6		325									8
9																		9
10																		10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 110902
 STATION NO. 138/20124

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1995757		56	N	169	21		08	MAY	09	23	29	09			29			79	4				68	20124

SBE 9+ _____ FLOUK S/N _____
 PRESS SN _____ SBE43-Dry (online) _____
 PRI TEMP SN _____ SBE43-Dry (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

No.	DEPT#	ROSET.	notes	SALT	NUT.BIT	O2-BIT/NO	CHL	Frac CHL	DIC/ALK	DOC	O18	δ15N	Sambrotto			DON	Moran/ Lomas	Harvey/ Lessard	Carin/ Sherr	Moran/ Th	Katrin	Nis
													Part.	Prod								
1	63				17						326											1
2	60				18																	2
3	50				19																	3
4	40				20																	4
5	30				21																	5
6	20				22																	6
7	10				23	145/133					327											7
8	0				24						328											8
9																						9
10																						10
11																						11
12																						12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 139/70425

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID							
	DEG	MIN	SEC	DEG	MIN	SEC	DAY	MO	YR													HR	MIN					
200	57	54	.28	N	169	03	.83	W	09	M	A	Y	0	9	00	52	-0.8	.	29	*	*	126	3					7170425

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 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

No	DEPTHD	Roset. notes	SALT	Nur.Bid	O2-Bid.No	Hydro Team-PMEL			Wet/garnet 018	Julie 015N	Sambrotto			Moran/ Lomas	Harvey Lessard	Carlin/ Sherr	Moran Th	Karin	Nls No.
						CHL	Frac CHL	DIC/Alk			DOC	Part.	Prod						
1	64			25															1
2	60			26	162/412														2
3	50			27		1													3
4	40			28		2													4
5	30			29		3													5
6	20			30		4													6
7	10			31		5													7
8	0			32		6													8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

top cap O-ring not fully seated

329.0

330.0

331.0

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 110902 STATION NO. 40 / 761122

CONSC CAST #	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
2015750	168	53	54	W	09	MAY	09	03	25	-1.2	.	30	.	.	229	2	.	.	.	7270M	22

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prme) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset. notes	Hydro Team-PMEL						Weingartner		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrn	NIS		
			SALT	NUT:BTI	O2-BTL:No	CHL	Frac CHL	DIC/AIK	DOC	O18	d15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr		Th	Katrn
1	68			33																	1
2	60			34																	2
3	50			35			1	1													3
4	40			36			2	2													4
5	30			37			3	3													5
6	20			38			4	4													6
7	10			39	150/211		5	5		333.											7
8	0			40			6	6		334.											8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions br proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 41/70N21

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
20	25	7	78 N	1	68	50	11	W	09	MA	09	04	24	-0.7			30	310	2				7020M21	7020M21

SBE 9+ _____ FILLON 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 Temp Sensor No. _____
 REMARKS _____
 MAX. DEPTH = _____ m

No.	DEPTH DESIRED	Rosette notes	SALT	Nut. Bit	Hydro Team-PMEL				Walgarten-Julia				Sambrotto				Moran/	Harvey	Cann/	Moran	Katrn	No.		
					O2-Bit/No	CHL.	Frac CHL.	DIC/AIK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th					
1	60			41							335													1
2	60			42																				2
3	50			43		1	1																	3
4	40			44		2	2																	4
5	30			45		3	3																	5
6	20			46		4	4																	6
7	10			47		5	5				336													7
8	0			48		6	6				337													8
9																								9
10																								10
11																								11
12																								12

ICE LOG: Surface Ice Conditions or proximity to ice edge
Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 110902
 STATION NO. 142/201 20

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
203	57	37	.84	N	168	48	.99	0552	0.8	.	30	*	285	00	*	*	737	01420

SBE 9+ _____ FLOOR 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 Temp Sensor No. _____

REMARKS _____
 MAX. DEPTH = _____ m.

No.	DEPTH DESIRED	notes	SALT	Nutr:BI	O2-BI:No	CHL	Frac CHL	DIC/Alk	DOC	Weisgartner		Sanbroto			Moran/ Lomas	Harvey Lessard	Cariv/ Sherr	Moran Th	Katrin	No.
										018	015N	Urea	Part.	Prod	DON	Lessard	Sherr	Th	Katrin	
1	67			49						338										1
2	60			50																2
3	50			51		1														3
4	40			52		2														4
5	30			53		3														5
6	20			54		4														6
7	10			55		5				339										7
8	0			56		6				340										8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL		CRUISE ID		PROJECT & LEG		Ship Designation (I.D.)		STATION NO.												
USCG Healy		H10902		BEST/BSERP_Spring'09		1H0902		143/20M19												
CONC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN													DAY	MO	YR	HR
2045731.33N			16836.36W	09	MAY	09	0706	0.8								7170M19				
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 _____ I02 Temp Sensor No. _____																				
Hydro Team-PMEL Weingarten Julie Sambrotto Moran/ Harvey Lessard Carrn/ Moran Katrin																				
NIS	DEPTH	Roset.	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Aik	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Harvey	Carrn/ Sheir	Moran Th	NIS
1	67									341										1
2	60																			2
3	50																			3
4	40																			4
5	30																			5
6	20																			6
7	10																			7
8	0																			8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Should be not bottles
57(1) to 64(8)

REMARKS

MAX DEPTH =

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) 110902 STATION NO. 144 / ZSM 18

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID									
	DEG	MIN	DEG	MIN																										
2	φ	55.731	18	N	16	18	24	W	φ	9	M	A	Y	0	9	φ	8	23	-	1	1	31	0	19	φ	5	7	37	DM	18

SBE 9+ PRESS SN _____ SBE#3-Oxy (prime) _____ FLOOR S/N _____
 PIR TEMP SN _____ SBE#3-Oxy (sec) _____ SBE#3-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PIR COND SN _____ PAR S/N _____
 SEC COND SN _____ Q2 Temp Sensor No. _____

REMARKS Ice penetrates, longest ~ 5m across ~ 25% cover
 Flush at beginning of cast

No.	DEPTD	notes	SALT	MLBtl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	O18	δ15N	Sambroto			DON	Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Katrin	No.
												Part	Prod	Th							
1	67		29	45						344											1
2	50		210	64																	2
3	40		211	67																	3
4	30		212	68																	4
5	26			69																	5
6	10			70																	6
7	D			71																	7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 145 / 70M17

CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY													MO
20657	29	99	N	167	59	33	W	09	M	09	14	24	0.6	31	14	2	73	70M17

REMARKS: Ice - pancake, max ~25m coverage ~30-50%
 Fluor - 2.2 UATY
 SBE 9+ _____
 PRESS SN _____
 PPT TEMP SN _____
 SEC TEMP SN _____
 PPT COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 O2 Temp Sensor No. _____
 MAX DEPTH = _____ m

NIS No.	DEPTH DESIRED	Roset. notes	SALT	MLT.BRI	O2-BRI.No	Hydro Team-PMEL			Weighted	Jule	Urea	Sambrotto			Moran/Lomas	Harvey/Lessard	Carr/Sher	Moran Th	Katrn	NIS No.
						CHL	Frac CHL	DIC/AIK				DOC	O18	015N						
1	69			72					1											1
2	65			73																2
3	56			74																3
4	46			75																4
5	36			76																5
6	28			77																6
7	10			78																7
8	0			79																8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP Spring'09
 Ship Designation (I.D.): H10902
 STATION NO.:

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
24757	30	02	N	16739	57	W	1210-2.3			31	*		323	4	*		74	7270M16

SBE 9+ _____ FLOOR 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 Temp Sensor No. _____
 REMARKS: _____
 MAX DEPTH = _____ m

No	DEPTHD	notes	SALT	Nuc.Btl	O2-Btl.No	CHL	Frac CHL	DIC/ALK	DOC	Weigman	Julie	Sambroto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Karrn	No
												Part.	Prod	DON						
1	67			80						35φ										1
2	66			81		7181														2
3	65			82																3
4	64			83		7182														4
5	35			84		7183														5
6	20			85		7184														6
7	10			86		7185				351										7
8	6			87		7186				352										8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
patches, max 35m, ~85% coverage

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 110902 STATION NO. 49 / 20M15

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC												
20857	29	.89	N	167	20	.84	1405	-2.0		31			342	4			74	20M15

SBE 9+ _____ FLOOR 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 Temp Sensor No. _____

REMARKS: Under Flow = 2.8

MAX DEPTH = _____

No	DEPTH DESIRED	notes	SALT	NUT.BI	O2-Btl.No	CHL.	Frac Chl.	DIC/AIK	DOC	Weigartner/Julie		Sambrotto			Moran/	Harvey	Carrn/	Moran	Katrn	No.
										O18	d15N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	67			88				✓		353										1
2	60			89																2
3	50			90		T81														3
4	40			91		T82		✓												4
5	30			92		T83														5
6	20			93		T84														6
7	10			94		T85				354										7
8	0			95		T86		✓		355										8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 panicles, some overland, max size ~ 35m
 ice coverage ~ 90%

Rosette Notes:

VESSEL		CRUISE ID		PROJECT & LEG		Ship Designation (I.D.)		STATION NO.												
USCG Healy		H10902		BEST/BSERP_Spring'09		1H0902		148/70M14												
CONSC CAST #	LATITUDE		LONGITUDE			TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR												HR	MIN
24957	31.27	N	167	41.94	W	09	MAY	09	15	48	-1.9	.	.	31	.	.	34	49	73	7170M14
REMARKS																				
MAX. DEPTH =																				
SBE 9+ _____ FLUOR S/N _____																				
PRESS SN _____ SBE43-Dry (prime) _____																				
PRI TEMP SN _____ SBE43-Dry (sec) _____																				
SEC TEMP SN _____ Transmissometer _____																				
PRI COND SN _____ PAR S/N _____																				
SEC COND SN _____ O2 Trip Sensor No. _____																				
NIS	DEPTH	Roset.	Hydro Team-PMEL					Weingarten	Julie	Sambrotto			Moran/ Lomas	Harvey Lessard	Carriv/ Sherr	Moran Th	Katrin	NIS		
			DESIRED	notes	SALT	Nut.BH	O2-Btl.No			CHL	Frac CHL	DIC/AIK							DOC	018
1	66		96/						356	V	V	V	V	V	V			1		
2	50		97/															2		
3	40		98/															3		
4	33		99/	9/10														4		
5	30		99/															5		
6	21		100/	11/9														6		
7	17		102/	12/10														7		
8	13		101/	13/9														8		
9	10		101/	14/9					357									9		
10	9		102/	15/9														10		
11	4		102/	16/9					358	V	V	V	V	V	V			11		
12	0																	12		

ICE LOG: Surface Ice Conditions or proximity to ice edge - No ice, nearest ice ~7 miles SW

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO: 149 / 70M13

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN				HR	MIN												
21457	26	12 N	166	49 W	09	MAY	09	17	01	2.1		32			33	2				72	70M13

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRT TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRT COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS: _____
 MAX DEPTH = _____ m

No.	DEPTH DESIRED	Roset. notes	SALT	NUTRI	O2-BIL.No	CHL	FRAC CHL	DIC/AIK	DOC	Weingartner		Sambrotto			Moran/	Harvey	Carriv/	Moran	Katrin	No.
										018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	65			103				✓	✓	359										1
2	60			104																2
3	50			105																3
4	40			106																4
5	30			107																5
6	25			108																6
7	20			109																7
8	10			110																8
9	0			111																9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

clearly max

VESSEL: USCG Healy
 CRUISE ID: 1H0902
 PROJECT & LEG: BEST/BIERP Spring'09
 SHIP DESIGNATION (I.D.): 1H0902
 STATION NO.: 15670M12

CONSC CAST # 211
 DEG 57 26.52 N
 LONGITUDE DEG 166 31.47 W
 DAY 09
 MO MAY
 YR 09
 TIME (GMT) 18 17 -1
 DRY BULB (°C) 8
 WET BULB (°C) .
 PRESSURE (mb) 32
 SEA STATE * *
 VISIBILITY * *
 WIND DIRN. (deg) 356
 WIND SPD. (kts) 8
 CLOUD (amt) * * * *
 TYPE WEATHER * * * *
 BOTTOM DEPTH (m) 72
 STA. NAME/ID 15670M12

SE 9+
 PRESS SN
 PRT TEMP SN
 SEC TEMP SN
 PRT COND SN
 SEC COND SN
 FLUOR S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 02 Temp Sensor No.
 REMARKS
 MAX. DEPTH = m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Wingard	Julie	Sambrotto				Moran/ Lomas	Harvey Lessard	Cariv/ Sherr	Moran Th	Karin	NIS
			NO. DESIRED	notes	SALT	Nat. Br	02-BU. No	CHL.			Frac CHL.	DIC/AK	DOC	018						
1	65			112																1
2	60			113																2
3	50			114																3
4	40			115																4
5	30			116																5
6	20			117																6
7	10			118																7
8	10																			8
9	0			119																9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge - No ice

Rosette Notes:

— lanyard replaced —
 no leaks

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP_Spring'09 Ship Designation (I.D.) H10902 STATION NO. 153/20409

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID									
DEG	MIN	SEC	DEG	MIN	SEC	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)									
2145	715	.58	N	165	45	.47	W	09	M	A	Y	09	22	29	-1	.4			33	*	351	9					7170409	

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

No.	DEPTH	Rosette notes	SALT	Nut Btl	Hydro Team-PMEL		Weingarten		Julie		Sambrotto		Moran/	Harvey	Cartn/	Moran	Katrin	No.
					O2-Btl/No	CHL	Frac CHL	DIC/ALK	DOC	O18	δ15N	Urea	Part.	Prod	DON	Lomas	Lessard	
1	65																	1
2	60																	2
3	50					1												3
4	40					2												4
5	30					3												5
6	20					4												6
7	10					5												7
8	0					6												8
9																		9
10																		10
11																		11
12																		12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Assume notes 136(1) to 143(8)

MAX. DEPTH = m

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERP Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 154/20108

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
21557	06	53	N	16536	76	10	M	A	09	00	28	-0.4	.	33	*	*	327	7	*	*	*	72	70108

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Temp Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 SBE43-Oxy (sec) _____
 Transducer _____
 PAR S/N _____
 REMARKS _____
 MAX DEPTH = _____ m

NS	DEPTH	Roset.	Hydro Team-PMEL					Wagner/Julia		Sambrotto			Moran/	Harvey	Carin/	Moran	Katin	NS					
			No.	DESIRED	notes	SALT	Nat:Btl	O2-Btl:No	CHL.	Frac CHL.	DIC/Aik	DOC	O18	δ15N	Urea	Part.	Prod		DON	Lomas	Lessard	Sherr	Th
1	65			144							324												1
2	60			145																			2
3	50			146																			3
4	40			147																			4
5	30			148																			5
6	20			149																			6
7	10			150							375												7
8	0			151							326												8
9																							9
10																							10
11																							11
12																							12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP_Spring 09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 155/20107

CONSC CAST #	LATITUDE			LONGITUDE			DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	SEC	DEG	MIN	SEC																	
2165659	69			16522	79		10	M	A	Y	09	0216	-6.8		33			333	8			7470107	155/20107

REMARKS: *gulf of*

SBE 9+ FLUOR S/N
 PRESS SN SBE43-Oxy (prime)
 PRT TEMP SN SBE43-Oxy (sec)
 SEC TEMP SN Transmissometer
 PRT COND SN PAR S/N
 SEC COND SN O2 Temp Sensor No.

MAX DEPTH = m

NIS No.	DEPTH DESIRED	Rosette notes	SALT	NUC Btl	O2-Btl No	CHL.	Frac CHL.	DIC/AIK	DOC	O18	O15N	Sambrotto			DON	Moran/Lomas	Harvey/Lessard	Carrin/Sher	Moran/Th	Katin	NIS No.
												Hydro Team-PANEL	W/gauges	Lidie							
1	67		8/13	152						377											1
2	60		8/14	153																	2
3	50		8/15	154																	3
4	40			155																	4
5	30			156																	5
6	20			157																	6
7	10			158																	7
8	0			159																	8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSERP-Spring'09 Ship Designation (I.D.) H10902 STATION NO. 156/20406

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	TIME (GMT)	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
21756	51	54	N	165	07	22	W	10	M	A	Y	09	04	22	-1	2	32		350	8			77	20406

REMARKS
 SBE 9+ FILLER S/N
 SBE43-Oxy (prime)
 SBE43-Oxy (sec)
 SBE43-Oxy (sec)
 Transmissometer
 PAR S/N
 O2 Trip Sensor No.
 Hydro Team-PNEL
 Weingarten, Julie
 Sambrotto
 Moran/ Lomas
 Harvey Lessard
 Carrin/ Sherr
 Moran Th
 Katrin
 MAX DEPTH = m

NO	DESIRED	notes	SALT	NUT Btl	O2-Btl/No	CHL	Frac CHL	DIC/Aik	DOC	O18	δ15N	Urea	Part.	Prod	DON	Moran/ Lomas	Harvey Lessard	Carrin/ Sherr	Moran Th	Katrin	N/S
1	70			160						280			X		X						1
2	60			2									X								2
3	50			3		1	1														3
4	40			4		2	2														4
5	30			5		3	3						X		X						5
6	20			6		4	4														6
7	10			7		5	5			381											7
8	0			8		leaker							X								8
9	0			9		leaker				382			X		X						9
10				10																	10
11				11																	11
12				12																	12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSERP_Spring09
 Ship Designation (I.D.) H10902
 STATION NO. 157/2005

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/I.D.
2185654	54	.58	16449	.57	10 M A Y 09	06	07	11.8	32		350	11			7270	05

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prine) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Trip Sensor No. _____

REMARKS _____
 MAX. DEPTH = _____ m

NIS	DEPTH	Roset.	Hydro Team-PMEL						Weingartner	Julie	Sambrotto			Moran/ Lomas	Harvey Lillard	Cairn/ Sier	Moran Th	Karin	NIS
			DESIRED	notes	SALT	Nut Btl	O2-Btl.No	CHL			Frac CHL	DIC/AIK	DOC						
1	68			8															1
2	60			9															2
3	50			10															3
4	40			11															4
5	30			12															5
6	20			13															6
7	10			14															7
8	0			15															8
9	0			Leaker															9
10				6															10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BIERP Spring 09
 Ship Designation (I.D.): 1H0902
 STATION NO: 159 / 74M03

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
22	05	64	164 18.66 N	18	06	14	MAY	09	09	01	-1.4			32			356	03				76	74M03

REMARKS: jellyfish conversion
 MAX DEPTH = m

No.	DEPTH DESIRED	Roset notes	SALT	NUTRI	O2-RLNO	CHL	Frac CHL	DIC/ALK	DOC	Weingartner		Sambrotto			Moran/		Carin/	Moran	Katrin	No.
										018	015N	Urea	Part.	Prod	DON	Lomas				
1	68			24						389										1
2	50			25																2
3	46			26																3
4	30			27																4
5	10			28																5
6	10			29						390										6
7	0			30						391										7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 No ice

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring 09
 SHIP Designation (I.D.): 110902
 STATION NO: 1281 36 MB2

CONSC	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
2215650.52N	164	04.12	W	10	AM	09	11	15	-1.2	32		32			356	08				75	7374MB2

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prism) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ I02 Trip Sensor No. _____
 REMARKS: _____
 MAX DEPTH = _____ m

NIS	DEPTH	Roset. notes	SALT	Nut. Bl	Hydro Team-PMEL				Weingartner		Sambrotto				Moran/	Harvey	Cariv/	Moran	Katrin	NIS
					O2-B/LNO	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Shear	Th	
1	69			31					✓	✓										1
2	50			32																2
3	40			33																3
4	30			34																4
5	20			35																5
6	10			36						393										6
7	0			37					✓	✓										7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: HI 0902
 PROJECT & LEG: BEST/BSERP Spring 09
 Snp Designation (I.D.): 1H0902
 STATION NO.: 141

CONSC CAST # 2225647.16 N 16357.44 W 14 MAY 09 1241-1.2
 LATITUDE: DEG MIN
 LONGITUDE: DEG MIN
 DAY MO YR HR MIN
 TIME (GMT) DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN WIND SPD CLOUD (amt) TYPE WEATHER
 32 343 3
 BOTTOM DEPTH STA. NAME/ID
 76 74750MΦ1

REMARKS: possible problems with SZ
 instrument on upcast
 Transmission upcast plagued with jelly fish
 STD dropped with transmission error cast
 Broad, unpaired casts 221+222, SZ salt from SL at end of 221

No.	DEPTH	notes	SALT	NUT.BU	O2-BTLNO	CHL	Frac-CHL	DIC/AIK	DOC	O18	δ15N	Sambrotto			DON	Moran/	Harvey	Carrn/	Moran	Katrln	No.
												Urea	Part.	Prod							
1	69		B16	38				1	1	395											1
2	56		B7	39				2	2												2
3	40		B18	46																	3
4	30		B19	41				4	4												4
5	20			42				5													5
6	10			43				6	4	396											6
7	2			44				7	7	392											7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

Jelly fish
 west
 likely

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSERP Spring 09
 Ship Designation (I.D.): 140902
 STATION NO.: 62/CN3

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	SEC	DEG	MIN	SEC													DAY	MO	YR	HR	MIN
22357	38	32	N	163	16	74	W	10	M	A	Y	09	18	11	-1	4		32	35	6	16	49	CN3

SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 O2 Trip Sensor No. _____
 FLUOR S/N _____
 SBE43-Oxy (prme) _____
 SBE43-Oxy (sec) _____
 Transmissometer _____
 PAR S/N _____
 REMARKS _____
 MAX DEPTH = _____ m

NIS No.	DEPTH DESIRED	Rosette notes	SALT	Nut Bt	O2-Btl. No	CHL	Frac CHL	DIC/AIK	DOC	Weingartner 018	Julie 015N	Sanbroto			Moran/ Lomas	Harvey Lessard	Carin/ Sherr	Moran Th	Katrin	NIS No.
												Urea Part.	Prod	DON						
1	4M			1																1
2	30			2																2
3	20			3																3
4	10			4																4
5	0			5																5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring09 Ship Designation (I.D.) H10902 STATION NO. 163/CID4

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
2245723.02		N	16332.17	W		14MAY09				20	18	-0.5			32			358	13				55	CID4

REMARKS: _____
 SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prme) _____
 SBE43-Oxy (sec) _____
 Transmission _____
 PAR S/N _____
 O2 Temp Sensor No. _____
 MAX. DEPTH = _____ m

NIS	DEPTH	Rosett	Hydro Team-PMEL										Wiegarter		Julie		Sambrotto			Moran/	Harvey	Carm/	Moran	Katrin	NIS	
			No.	DESIRED	notes	SALT	Nut.Bt	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	No.			
1	49																									1
2	40																									2
3	30																									3
4	20																									4
5	10																									5
6	0																									6
7																										7
8																										8
9																										9
10																										10
11																										11
12																										12

ICE LOG: Surface Ice Conditions or proximity to ice edge
 Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) H10902 STATION NO. 164 / C105

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
2255707	35	N	16348	17	10	MAY	09	22	11	-0.8			33		33	350	9			66	C105

SBE 9+ _____ FLUOR S/N _____
 #PRESS SN _____ SBE43-Dry (online) _____
 PRI TEMP SN _____ SBE43-Dry (sec) _____
 SEC TEMP SN _____ Transmissionmeter _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

No	DESIRED	notes	SALT	Nut. Bri	O2-Bri.No	Hydro Team-PMEL				Wet/garment	Julie	Sambrotto				Moran/ Lomas	Harvey Lessard	Carth/ Sherr	Moran Th	Katrn	NIS
						CHL.	Frac CHL.	DIC/Alk	DOC			OTB	015N	Urea	Part.						
1	61			12																	1
2	50			13																	2
3	40			14																	3
4	30			15																	4
5	20			16																	5
6	10			17																	6
7	0			18																	7
8																					8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 165/CHK07

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
2265654	59	20 N	164	02	14	MAY	09	23	51	-0.5			32	*	*	346	8	*	*	71	CN07

REMARKS
 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 Temp Sensor No.

No	DESIDED	notes	SALT	Nut:Btl	O2-Btl/No	CHL	Frac CHL	DIC/Alk	DOC	O18	δ15N	Sambrotto			DON	Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Katrn	NIS
												Weight	Julie	Part.							
1	65			19																	1
2	60			20																	2
3	50			21																	3
4	40			22																	4
5	30			23																	5
6	20			24																	6
7	10			25																	7
8	0			26																	8
9																					9
10																					10
11																					11
12																					12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy CRUISE ID H10902 PROJECT & LEG BEST/BSIERP_Spring'09 Ship Designation (I.D.) 1H0902 STATION NO. 166/CN08

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)			DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID								
	DEG	MIN	SEC	DEG	MIN	SEC	DAY	MO	YR												HR	MIN						
2275642	2	32	N	164	30	74	W	11	M	A	Y	0	9	0158	-0.1				32	*	*	352	9				73	CN08

REMARKS
 SBE 9+ _____ FLOOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

No	DETHD	notes	SALT	Nwt.Bu	O2-Btl.No	Hydro Team-PMEL			Wingartner	Julie	Sambroto			Moran/ Lomas	Harvey Lessard	Carrn/ Sherr	Moran Th	Katr	Nis
						CHL	Frac CHL	DIC/AIK			DOC	O18	Urea						
1	70			27															1
2	60			28															2
3	50			29															3
4	40			30															4
5	30			31															5
6	20			32															6
7	10			33															7
8	0			34															8
9																			9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (LD.): H10902
 STATION NO.: 62/CNO9

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN																			
228	56	33.87	N	164	54	05	W	11	M	A	Y	09	03	47	-0.4	.	31	.	23	12	.	78	CNO9

REMARKS: _____
 MAX DEPTH = _____ m

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prme) _____
 PPL TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 PPL COND SN _____ PAA S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____

NIS	DEPTH	Rosett	Hydro Team-PMEL										Wiegman	Julie	Sambrotto				Moran/	Harvey	Carin/	Moran	Kathn	NIS	
			DESIRED	notes	SALT	Nur.Btl	O2-Btl.No	CHL.	Frac CHL.	DIC/Aik	DOC	O18			δ15N	Urea	Part.	Prod							DON
1	73			35																					1
2	60			36																					2
3	50			37																					3
4	40			38																					4
5	30			39																					5
6	20			40																					6
7	10			41																					7
8	0			42																					8
9																									9
10																									10
11																									11
12																									12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H1 0902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 1H0902
 STATION NO.: 168/CN10

CONSC CAST #	DEG	MIN	LONGITUDE	DEG	MIN	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
229	56	25.49	N	165	51.7	76	W	11	M	A	Y	09	05	48	-0.9				31			25	11		84	CN10

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS: _____
 MAX DEPTH = _____ m

No.	DEPT	notes	SALT	Nut Btl	O2-Btl/No	Hydro Team-PWEL				DOC	Weingartner/Julie		Sanbroto			Moran/Lomas	Harvey/Lessard	Cann/Sherf	Moran/Katrin	No.
						CHL	Frac CHL	D/C/AIK	CHL		018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherf	
1	80			43																1
2	70			44																2
3	60			45																3
4	50			46																4
5	40			47																5
6	30			48																6
7	20			49																7
8	10			50																8
9	0			51																9
10																				10
11																				11
12																				12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/RSERP_Spring'09
 Ship Designation (I.D.) 110902
 STATION NO. 169 / CW11

CONSC CAST #	LATITUDE		LONGITUDE		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN													DAY
2305	61	6.87	N	165	11.59	W	11	MAY	09	0745	-1.0	30	30	30	4	93	CW11

REMARKS High wavy flux ~ 10
 CTD nozzle covered with tentacles
 Secondary Salinity Bad (partly 0.15 -
 not affected up to 100m station)

No	DEPTH Desired	Roset.	notes	SALT	Nut/BtI	Hydro Team-PMEL				Weingartner				Sambrotto				Moran/		Moran/	Katrin	No.		
						02-BtI/No	CHL	Frac CHL	DIC/ALK	DOC	018	01SN	Urea	Part	Prod	DON	Lomas	Lossard	Shear				Th	
1	80		PMEL SALT 290	52																				1
2	75		SALT PARTS BROWN	53																				2
3	50		BROWN	54																				3
4	46			55																				4
5	30			56																				5
6	20			57																				6
7	16			58																				7
8	0		PMEL 303	59																				8
9																								9
10																								10
11																								11
12																								12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Ship Designation (I.D.) 1H0902
 STATION NO. 170/CD12

CONSC CAST #	LATITUDE		LONGITUDE		DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN (deg)	WIND SPD (kts)	CLOUD (amt)	WEATHER TYPE	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN																	
23156	48	46	166	06	13	W	11	M	A	Y	09	09	51	-1	4	3	4	11	4	110	CD12

REMARKS: Salt 2 jellyfished at bottom of cast
 MAX DEPTH =

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 Temp Sensor No. _____

NIS	DEPTH	Roset	Hydro Team-PMEL										Weininger/Julie		Sambrotto			Moran/Lomas	Harvey/Lessard	Cann/Sherf	Moran/Th	NIS
			DESIRED	notes	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/AIK	DOC	018	015N	Urea	Part.	Prod	DON	Lomas	Lessard	Sherf	Th	
1	105	✓		60																	1	
2	75			61																	2	
3	55			62																	3	
4	40			63																	4	
5	35			64																	5	
6	29			65																	6	
7	19			66																	7	
8	φ			67																	8	
9																					9	
10																					10	
11																					11	
12																					12	

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL: USCG Healy
 CRUISE ID: H10902
 PROJECT & LEG: BEST/BSIERP_Spring'09
 Ship Designation (I.D.): 110902
 STATION NO: 171/CD13

CONSC CAST #	LATITUDE			LONGITUDE			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	SEC	DEG	MIN	SEC	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(kts)	*	*	(m)	
23255	59	47	N	166	36	74	W	11	M	A	Y	09	12	15	-05	7				129	CD13
																				128	CD13

SBE 9+ _____ FLOOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____ SBE43-Oxy (sec) _____
 SEC TEMP SN _____ Transmitter _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____ O2 Temp Sensor No. _____
 REMARKS _____
 MAX DEPTH = _____ m

No.	DEPT H	notes	SALT	NUT Btl	O2-Btl No	Hydro Team-PMEL		DOC	Weingarten		Sanbroto			Moran/	Harvey	Carrn/	Moran	Katrn	Nls
						CHL	Frac CHL		DIC/AIK	Julie	Urea	Part.	Prod	DON	Lomas	Lessard	Sherr	Th	
1	123			68															1
2	160			69															2
3	75	peaks		70															3
4	50			71															4
5	40			72															5
6	30			73															6
7	20			74															7
8	10			25															8
9	0			76															9
10																			10
11																			11
12																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes:

VESSEL USCG Healy
 CRUISE ID H10902
 PROJECT & LEG BEST/BSIERP_Spring'09
 Snp Designation (I.D.) 110902
 STATION NO. 192/0014

CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DAY	MO	YR	HR	MIN	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
233555	1	22	N	16653	92	W	11	MAY	09	1356	0	5	28					63	4			143	0014

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE-43-Oxy (prime) _____
 P90 TEMP SN _____ SBE-43-Oxy (sec) _____
 SEC TEMP SN _____ Transmissometer _____
 P90 COND SN _____ PAR S/N _____
 SEC COND SN _____ 02 Temp Sensor No. _____

REMARKS _____
 MAX DEPTH = _____ m

NIS	DEPTH	Rosett.	SALT	Nut.Btl	O2-Btl.No	CHL	Frac CHL	DIC/Alk	DOC	018	015N	Sambrotto			Moran/	Harvey	Carri/	Moran	Katrin	NIS
												Urea	Part.	Prod	Lomas	Lessard	Sier	Th	No.	
1	130			77																1
2	100			78																2
3	80			79																3
4	60			80																4
5	50			81																5
6	40			82																6
7	30			83																7
8	20			84																8
9	10			85																9
10	0			86																10
11	0																			11
12	0																			12

ICE LOG: Surface Ice Conditions or proximity to ice edge

Rosette Notes: