

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name									
FV Northwest Explorer		INWE11		GOA-IERP-UJT July 2011		SEAB									
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
061	29.628 N	135.12181 W	07 11	315				*	*			*	*	132	
SBE 9+ _____ FLUOR S/N _____ PRESS SN _____ SBE43-Oxy (prime) _____ PRI TEMP SN _____ SEC TEMP SN _____ Transmissometer _____ PRI COND SN _____ PAR S/N _____ SEC COND SN _____															
AKST Date and Time = _____ MAX. DEPTH = _____ m															
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristian Shake	Strom/Fredrickson	Comments	NIS No.								
1	100	X	Sal Btl # _____ Nut Btl # _____ O ₂ -Btl # _____ DIC/ALK _____ DOC _____	Ch. # _____ Phyto Btl # _____ MZ Bottle # _____			1								
2	50	X				chl filters left out on counter/in	2								
3	40	X				(myobids) Re	3								
4	30	X				~ 45 min. 1st station.	4								
5	20	X				1st day is nts-50'	5								
6	10	X					6								
Bucket	B						B								

SST=

SSSal=

Sound
Speed
A-Lol

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer		INWELL		GOA-ERP-UTL July 2011		SEAS										
CONSECUTIVE CAST # (ICD#)	LATITUDE	LONGITUDE	DATE (GMT)	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	
802	56 26 26 N	135 19 55 W	07 11 11	07 11 11				X	X			X	X	125	SEAS	
REMARKS																
SBE 9+ _____ FLUOR S/N _____																
PRESS SN _____ SBE43-Oxy (prime) _____																
PRI TEMP SN _____																
SEC TEMP SN _____																
PRI COND SN _____																
PAR S/N _____																
SEC COND SN _____																
AKST Date and Time = 1 1																
MAX. DEPTH = m																
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shaker	Strom/Fredrickson	Comments										NIS No.
1	100		B													1
2	50		9		7d											2
3	40		10		8d											3
4	30		11		9d											4
5	20		12		10d											5
6	10		13		11d											6
Bucket	B		14		12d											8

SST =

SSSal =

re-do

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name													
FV Northwest Explorer		1NWE11		GOA-IERP-UTL July 2011		SEA 12													
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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
003	56	23.788	N	135	26	575	W	03	07	11	11							174	SEA 10
SBE 9+ _____ FLUOR S/N _____ PRESS SN _____ SBE43-Oxy (prime) _____ PRI TEMP SN _____ SEC TEMP SN _____ PAR COND SN _____ SEC COND SN _____ AKST Date and Time = _____ REMARKS _____ MAX. DEPTH = _____ m																			
Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristan Spaker?		Strom/Fredrickson			Comments			NIS No.			
		Sat Br #	Nut Br #	O ₂ Br #	DIC/ALK	DOC	Chl. Br #	Phyto Br #	MZ Bottle #										
1	100		15				13d		12x	From CTD 00 only						1			
2	50		16				14d		11x							2			
3	40		17				15d		10x							3			
4	30		18				17d		9.7							4			
5	20		19				18d									5			
6	10		20													6			
Bucket	0		21													B			

only heavy sample used on this cast
 only heavy sample used on this cast

SST=

SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name													
FV Northwest Explorer		INVE11		GOA-IERP-UTL July 2011		SEA 28													
CONSECUTIVE CAST # (CTD#)	DEG	LATITUDE		DEG	LONGITUDE		DATE (GMT)	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
605	50	18	49.1 N	135	41.388 W	03	07	11				*	*			*	*	1113	
AKST Date and Time = 1 1																			
REMARKS																			
SBE 9+ _____																			
PRESS SN _____																			
PRI TEMP SN _____																			
SEC TEMP SN _____																			
PAR S/N _____																			
FLUOR S/N _____																			
SBE43-Oxy (prime) _____																			
Transmissometer _____																			
SEC COND SN _____																			
MAX. DEPTH = _____ m																			
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PWEL		Kristian Spake		Strom/Fredrickson			Comments		NIS No.						
		Sal Bt #	Nut Bt #	O ₂ Bt #	DIC/Alk	DOC	Chl. Bt #	Phyto Bt #	MZ Bottle #										
1	100		74	22				19d		16+			1						
2	50			23				19d					2						
3	40	X		21				20d					3						
4	30			25				21d		15+			4						
5	20			20				22d		14+			5						
6	10			27				23d	4	13+			6						
Bucket	0			28				24d					8						

SST=

SSSBI=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name											
FV Northwest Explorer		INWEL1		GOA-IERP-UTL July 2011		SEB											
CONSECUTIVE CAST # (CD#)	LATITUDE		LONGITUDE		DATE (GMT)	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	MIN								
60656	37	58	135	20	536	W	04	07	11					X	X	X	
AKST Date and Time = 1 1																	
REMARKS																	
MAX. DEPTH = m																	
SBE 9+	FLUOR S/N		SBE43-Oxy (prime)														
PRESS SN	SBE43-Oxy (prime)		Transmissometer														
PRI TEMP SN	PAR S/N																
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristian Shake		Strom/Fredrickson		Comments		NIS No.					
1		Sal BH #	Nut BH #	O ₂ BH #	DIC/Alk	DOC	Chl. Bt #	Phyto Bt #	MZ Bottle #			1					
2												2					
3												3					
4												4					
5												5					
6												6					
Bucket												B					

SST =
SSSal =
CTD. profile only

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name												
FV Northwest Explorer		NW11		GOA-ERP-UTL July 2011		SEAS												
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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
60756	35	131	135	28.576	04	07	11				*	*			*	*	113	SEAS
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN										
AKST Date and Time = 1 1																		
SBE 9+	FLUOR S/N		SBE43-Oxy (prime)		REMARKS		MAX. DEPTH =		m									
PRESS SN	SBE43-Oxy (prime)		Transmissometer		PAR S/N													
PRI TEMP SN	PAR S/N																	
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristan Shake		Strom/Fredrickson		Comments		NIS No.						
1		Sal Btl #	Nur Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #			1						
2												2						
3												3						
4												4						
5												5						
6												6						
Bucket												8						

SST =
SSSal =
CTD profile only

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name									
FV Northwest Explorer		INW 11		GOA-ERP-UTL July 2011		SEB 10									
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
00850	37.384 N	135.35.986 W	04 07 11	11				*	*			*	*		SEB 10
AKST Date and Time = 11															
SBE 9+	FLUOR S/N	REMARKS	MAX. DEPTH = m												
PRESS SN	SBE43-Oxy (prime)														
PRI TEMP SN	Transmissometer														
SEC TEMP SN	PAR S/N														
PRI COND SN															
SEC COND SN															
Miskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristian Shake		Strom/Fredrickson			Comments		NIS No.		
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #						
1	10		75											1	
2	10													2	
3	10													3	
4														4	
5														5	
6														6	
Bucket														B	

SST =

SSSAI =

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer		NWELL		GOA-IERP-UTL July 2011		SCB28										
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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	
001	N	W	1 1	1 1				*	*			*	*			
AKST Date and Time = 1 1																
SBE 9+	FLUOR S/N	REMARKS	MAX. DEPTH = m													
PRESS SN	SBE43-Oxy (prime)															
PRI TEMP SN	Transmissometer															
SEC TEMP SN	PAR S/N															
PRI COND SN																
SEC COND SN																
Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristian Shake		Strom/Fredrickson			Comments			NIS No.
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #							
1															1	
2															2	
3															3	
4															4	
5															5	
6															6	
Bucket															B	

Ald not sample SCB 28 - how much

SST =

SSSal =

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name															
FV Northwest Explorer		NW0611		GOA-ERP-UTL July 2011		SEC 2															
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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
009	56	46.89	N	135	31	267	W	05	07			X	X			X	X				SEC 0
REMARKS																					
SBE 9+ _____ FLUOR S/N _____																					
PRESS SN _____ SBEA3-Oxy (prime) _____																					
PRI TEMP SN _____																					
SEC TEMP SN _____																					
PAR S/N _____																					
SEC COND SN _____																					
AKST Date and Time = 1 1 1																					
MAX. DEPTH = m																					
Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments				Nis No.				
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	chl. Btl #	Phyco Btl #	MZ bottle #												
1	50		29				25d													1	
2	40		30				20d													2	
3	30		31				20d													3	
4	20		32				27d													4	
5	10		33				28d													5	
6	10		34				29d													6	
Bucket			35				30d													B	

SST = _____ SSSal = _____

Last station for today, weather too rough.

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name											
FV Northwest Explorer		GOA-IERP-UJT July 2011		SECS													
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRLN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
010	86	93.933	N	135.37.103	W	06	07	1.1	1.1								
REMARKS																	
AKST Date and Time = 1 1																	
MAX. DEPTH = m																	
SBE 9+	FLUOR S/N		SBE43-Oxy (prime)		Transducer		PAR S/N		REMARKS								
PRESS SN																	
PRI TEMP SN																	
SEC TEMP SN																	
PRI COND SN																	
SEC COND SN																	
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments			NIS No.		
1	100			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #					1	
2	90				37				31d							2	
3	40				38				32d							3	
4	30				39				33d							4	
5	20				40				34d							5	
6	10				41				35d							6	
Bucket	2				42				36d							8	

SST=

SSSa=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer		GOA-IERP-UTL July 2011		SEC 1B												
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
611	56 41.428 N	135 44.808 W	06 07 11 11	11 11				X	X			X	X	X		
SBE 9+ _____ FLUOR S/N _____ PRESS SN _____ SBE43-Oxy (prime) _____ PRI TEMP SN _____ SEC TEMP SN _____ Transducer _____ PRI COND SN _____ PAR S/N _____ SEC COND SN _____																
AKST Date and Time = _____ MAX DEPTH = _____ m																
Niskin No.	DEPTH DESIRED	Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	CHI. Btl #	Phyto Btl #	MZ Bottle #	Comments						
1	100	76	43													
2	50		44				37d									
3	45		45				38d									
4	30		46				39d									
5	20		47				40d									
6	10		48				41d									
Bucket			49				42d									B

SST=

SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer		NWEL		GOA-IERP-UJT July 2011		SEC 28										
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
01256	36.457 N	136 0.09 W	11 11	11 11				X	X			X	X	X		
SBE 9+ _____ FLUOR S/N _____ PRESS SN _____ SBE43-Oxy (prime) _____ PRI TEMP SN _____ SEC TEMP SN _____ Transmissometer _____ PRI COND SN _____ PAR S/N _____ SEC COND SN _____																
AKST Date and Time = _____ REMARKS _____ MAX. DEPTH = _____ m																
Niskin No.	DEPTH DESIRED	Rosette Notes	Sal Btl #	Hydro Team-PMEL Nut Btl #	O ₂ Btl #	Kristan Shake DIC/AIK	DOC	Strom/Fredrickson Chl. Btl #	Phyto Btl #	MZ Bottle #	Comments	NIS No.				
1	106			50								1				
2	50			51				43d				2				
3	40			52				44d				3				
4	30			53				45d				4				
5	10			54				46d				5				
6	20			55				47d				6				
Bucket	2			56				48d				8				

Computer display indicated bottles didn't fill.
 Filled manually w/ deck unit - all bottles filled.

SST=

SSSal=

VESSEL: FV Northwest Explorer CRUISE ID: NUBEL1 PROJECT & LEG: GOA-ERP-UTL July 2011 STATION NO. or alt. name: 5005

CONSECUTIVE CAST # (CTD#)	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	
015	50	52.817	N				18	07	11							*	*				*	*		

AKST Date and Time = 1 1 1
 SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 Transmissometer _____
 PAR S/N _____

Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristian Shake		Strom/Fredrickson			Comments	NIS No.
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #					
1														1
2														2
3														3
4														4
5														5
6														6
Bucket														8

SST = _____ SSSal = _____

profile only

MAX. DEPTH = _____ m

VESSEL: FV Northwest Explorer
 CRUISE ID: INWELL
 PROJECT & LEG: GOA-IERP-UTL July 2011
 STATION NO. or alt. name: 500

CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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											
016	50	55.309	135	36.010	07	1	1	1	1			*	*			*	*	90	SEDB

AKST Date and Time = 1 1 1
 SBE 9+ _____
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 Transmissometer _____
 PAR S/N _____
 REMARKS: MAX. DEPTH = 80 m

Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	Nis No.
			Sal Bt #	Nut Bt #	O ₂ Bt #	D/C/Alk	DOC	Chl. Bt #	Phyto Bt #	MZ Bottle #		
1											profile only	1
2											knitile computer	2
3											knitile!	3
4											download data for	4
5											SEN line from	5
6											CPD dirty	6
Bucket												B

SST= _____
 SSSal= _____

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name												
FV Northwest Explorer		NW211		GOA-ERP-UTL July 2011		SEE 20												
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)	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
01756	51	521	136	17.803	W 07	11				*	*				*	*		SEE 20
DEG	MIN	MIN	DEG	MIN	DAY	MO	HR	MIN										
AKST Date and Time = 1 1																		
SBE 9+	FLUOR S/N	REMARKS																
PRI TEMP SN	SBE43-Oxy (prime)	MAX. DEPTH = 1990 m																
SEC TEMP SN	Transmissometer																	
PRI COND SN	PAR S/N																	
SEC COND SN																		
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shake	Strom/Fredrickson	Comments	NIS No.											
1	100		Sal Btl # 78 Nut Btl # 57 O ₂ Btl #	DIC/Aik DOC	Chl. # Phyto Btl # MZ Bottle #		1											
2	50					ETD Finally working again after retransmission	2											
3	40						3											
4	30						4											
5	20						5											
6	10						6											
Bucket							8											

SST= SSSal= SAT Sample deep

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer		NW11		GOA-IERP-UTL July 2011		52E10										
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
01856	59.179 N	186.2201 W	07 1 1	07 1 1				*	*			*	*	*		52E10
SBE 9+ _____ FLUOR S/N _____ PRESS SN _____ SBE43-Oxy (prime) _____ PRI TEMP SN _____ SEC TEMP SN _____ Transmissometer _____ PRI COND SN _____ PAR S/N _____ SEC COND SN _____																
AKST Date and Time = 1 1																
REMARKS _____ MAX DEPTH = 121 m																
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristian Shake		Strom/Fredrickson		Comments		NIS No.				
1	100			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl#	Phyto Btl #	MZ Bottle #	1				
2	50				65				55d			2				
3	40				66				56d			3				
4	30				67				57d			4				
5	20				68				58d			5				
6	10				69				59d			6				
Bucket					70				60d			B				

SST= _____ SSSal= _____

121

VESSEL: FV Northwest Explorer
 CRUISE ID: MW11
 PROJECT & LEG: GOA-FERP-UTL July 2011
 STATION NO. or alt. name: SEE 7.5

CONSECUTIVE CAST # (CTD#)	LATITUDE			LONGITUDE			DATE (GMT)		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	MO	DAY	HR	MIN												
01957	0	40	N	135	58	W	07	1	1					X	X			X	X	X		SEE 7.5

AKST Date and Time = 1 1 1
 REMARKS: MAX. DEPTH = 95 m

SBE 9+
 PRESS SN _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PRI COND SN _____
 SEC COND SN _____
 FLUOR S/N _____
 SBE43-Oxy (prime) _____
 Transmissometer _____
 PAR S/N _____

Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	Nis No.
		Salt Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl#	Phyto Btl #	MZ Bottle #				
1	85		H										1
2	50		H										2
3	40		H										3
4	30		H										4
5	20		H										5
6	10		H										6
Bucket			H										B

SST = _____
 SSSal = _____

8:07

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name													
FV Northwest Explorer		INWELL		GOA-ERP-U7L July 2011		SEP 2.5													
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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	MIN		*	*			*	*			
02053	11	349	135	509	16	6	7	11	11	1	X	X			X	X	X	1760	SEP2.5
AKST Date and Time = 1 1 1																			
REMARKS																			
MAX. DEPTH = m																			
SBE 9+			FLUOR S/N		REMARKS														
PRESS SN			SBE43-Oxy (prime)																
PRI TEMP SN			Transmissometer																
SEC TEMP SN			PAR S/N																
PRI COND SN																			
SEC COND SN																			
Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments			NIS No.			
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #										
1	10 m		79													1			
2																2			
3																3			
4																4			
5																5			
6																6			
Bucket																B			

SST=

SSSa=

Soil Sample Surface

VESSEL: FV Northwest Explorer
 PROJECT & LEG: GOA-ERP-UTL July 2011
 STATION NO. or alt. name: 5021

CONSECUTIVE CAST # (CTD#): 5021
 DEPT: 152
 LATITUDE: 10.466 N
 LONGITUDE: 136.3488 W
 DATE (GMT): 11/11
 TIME (GMT): 11:11
 AKST Date and Time = 11/11

REMARKS: MAX. DEPTH = m

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

Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	NIS No.
			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyco Btl #	MZ Bottle #		
1												1
2												2
3												3
4												4
5												5
6												6
Bucket												8

SST=
 SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name												
FV Northwest Explorer		INWELL		GOA-IERP-UTL July 2011		SEP 10												
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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
01253	9.050 N		136.11265 W		1 1		1 1				X	X			X X X			SEP10
SBE 9+	FLUOR S/N		AKST Date and Time =		1 1													
PRESS SN	SBE43-Oxy (prime)		REMARKS															
PRI TEMP SN	Transmissometer		MAX. DEPTH =															
SEC TEMP SN	PAR S/N																	
PRI COND SN																		
SEC COND SN																		
Miskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shake	Strom/Fredrickson	Comments		NIS No.										
			Sal Btl #	Nut Btl #	O ₂ Btl #	DI/C/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #								
1																		
2																		
3																		
4																		
5																		
6																		
Bucket																		

SS1 =

SS3a1 =

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name															
FV Northwest Explorer				GOA-ERP-UTL July 2011		SEP 20															
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE		DATE (GMT)		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		
61357	3.149 N	13629.910 W		07 1.1		1.1					*	*			*	*	*		SEP 20		
AKST Date and Time = 1 1																					
REMARKS																					
MAX. DEPTH = m																					
SBE 9+	FLUOR S/N		SBE43-Oxy (prime)		Transducer		PAR S/N		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		
PRI TEMP SN	SEC TEMP SN		PRI COND SN		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		SEC COND SN		
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristan Shake		Strom/Fredrickson		Comments		NIS No.									
1	100			SA						bottle didn't fire		1									
2												2									
3												3									
4												4									
5												5									
6												6									
Bucket												B									

SST =
SSSa =
Salt sample deep.

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name											
FV Northwest Explorer		NW611		GOA-IERP-UTL July 2011		SE620											
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE		DATE (GMT)	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
024	57 11.986 N	136 35.767 W		07 11	11				*	*			*	*	*		SE620
REMARKS																	
AKST Date and Time = 1 1																	
MAX. DEPTH = m																	
SBE 9+	FLUOR S/N	REMARKS															
PRESS SN	SBE43-Oxy (prime)																
PRI TEMP SN	Transmissometer																
SEC TEMP SN	PAR S/N																
PRI COND SN																	
SEC COND SN																	
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shake	Strom/Fredrickson	Comments	NIS No.										
			Sal Bt #	Nut Bt #	O ₂ Bt #	DIC/Alk	DOC	Chl Bt #	Phyto Bt #	MZ Bottle #							
1	100		80	78													
2	50			79				67 d		17 X							
3	40			80				68 d									
4	30			81				69 d		18 X							
5	20			82				70 d		19 X							
6	10			83				71 d		20 X							
Bucket				84				72 d									

SST= SSSal= Salt Sample.

VESSEL: FV Northwest Explorer CRUISE ID: INW611 PROJECT & LEG: GOA-ERP-UTL July 2011 STATION NO. or alt. name: SCG 10

CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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											
025	53	10.970 N	176	70	07	11	07	1.1	1.1			*	*			*	*	475	SCG 10

AKST Date and Time = 1 1 1
 REMARKS
 MAX. DEPTH = m

Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	NIS No.
			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #		
1	100			85								1
2	50			86								2
3	40			87								3
4	30			88								4
5	20			89								5
6	10			90								6
Bucket				91								B

SST = SSSal =

VESSEL: FV Northwest Explorer CRUISE ID: INW211 PROJECT & LEG: GOA-ERP-UTL July 2011 STATION NO. or alt. name: 5665

CONSECUTIVE CAST # (CTD#)	LATITUDE			LONGITUDE			DATE (GMT)			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	MO	YR	HR	MIN															
076	57	19	46	N	136	2	10	W	11	07	11													172	5665

AKST Date and Time = 1 1 1

REMARKS

MAX. DEPTH = m

SBE 9+ _____ FLUOR S/N _____

PRESS SN _____ SBEF3-Oxy (prime) _____

PRI TEMP SN _____

SEC TEMP SN _____

PRI COND SN _____

SEC COND SN _____

PAR S/N _____

Transmissometer _____

Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	NIS No.
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Aik	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #					
1	100		92											1
2	50		93							79 d				2
3	40		94							80 d				3
4	30		95							81 d				4
5	20		96							82 d				5
6	10		97							83 d				6
Bucket	2		98							84 d				B

SST=

SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer				GOA-IERP-UTL July 2011		SEGA 2										
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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	
017	57 21.880 N	136 4.357 W	07 11	11				*	*			*	*	101	SEGA 2	
AKST Date and Time = 1 1																
REMARKS																
MAX. DEPTH = m																
SBE 9+	FLUOR S/N		ROSETTE NOTES													
PRESS SN	SBE43-Oxy (primary)		HYDRO TEAM-PM/EL													
PRI TEMP SN	Transmissometer		KRISTAN SHAKE													
SEC TEMP SN	PAR S/N		STROM/FREDRICKSON													
PRI COND SN			COMMENTS													
SEC COND SN																
Niskin No.	DEPTH DESIRED	SAL BH #	NUT BH #	O ₂ BH #	DIC/ALK	DOC	CHL. BH #	PHYCO BH #	MZ BOTTLE #							NIS No.
1	50	99	100				85 d		29 x							1
2	40		101				86 d									2
3	30		102				87 d		30 x							3
4	20		103				88 d		31 x							4
5	10	81	104				89 d	8 x	32 x							5
6	0		105				90 d									6
Bucket																B

SST =
SSSal =
Salt Sample.

VESSEL: FV Northwest Explorer CRUISE ID: INWCE1 PROJECT & LEG: GOA-ERP-UTL July 2011 STATION NO. or alt. name: SEH8

CONSECUTIVE CAST # (CTD#)	LATITUDE			LONGITUDE			DATE (GMT)		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	MO	DAY	HR	MIN												
018	57	30	750 N	136	13	170 W	12	67	1	1				*	*			*	*	*	70	SEH8

AKST Date and Time = 1 1 1

REMARKS

MAX. DEPTH = m

SBE 9+ _____ FLUOR S/N _____

PRESS SN _____ SBE43-Oxy (prime) _____

PRI TEMP SN _____

SEC TEMP SN _____ Transmissometer _____

PRI COND SN _____ PAR S/N _____

SEC COND SN _____

Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	Nis No.
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #					
1														1
2														2
3														3
4														4
5														5
6														6
Bucket														B

SST= SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name													
FV Northwest Explorer		INW 61A		GOA-IERP-UTL July 2011		SEHS													
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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	
629	51° 28.25' N	134° 21.67' W	12	07	1	1	1				X	X			X	X	162	SEHS	
SBE 9+		FLUOR S/N		AKST Date and Time =		1 1		REMARKS		MAX. DEPTH =		m							
PRESS SN		SBE43-Oxy (prime)																	
PRI TEMP SN		Transmissometer																	
SEC TEMP SN		PAR S/N																	
PRI COND SN																			
SEC COND SN																			
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristan Shake		Strom/Fredrickson		Comments		Nis No.							
1	1			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Aik	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #	1							
2	2											2							
3	3											3							
4	4											4							
5	5											5							
6	6											6							
	Bucket											B							

SST=

SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name																
FV Northwest Explorer		NWCEM		GOA-IERP-UTL July 2011		SEH 1b																
CONSECUTIVE CAST # (CTD#)	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	
620	54	25	345	N	13	10	07	10	W	1	1	1	X	X	X	X	X	X	X	X	405	
AKST Date and Time = 1 1																						
REMARKS																						
MAX. DEPTH = m																						
SBE 9+	FLUOR S/N																					
PRESS SN	SBE43-Oxy (prime)																					
PRI TEMP SN	Transmissometer																					
SEC TEMP SN	PAR S/N																					
PRI COND SN																						
SEC COND SN																						
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PM/EL	Kristan Shake	Strom/Fredrickson	Comments		NIS No.														
1	100M							1														
2	100M		82					2														
3								3														
4								4														
5								5														
6								6														
Bucket								B														

SST = SSSal = Salt sample

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name									
FV Northwest Explorer		INWELL		GOA-IERP-UTL July 2011		SEH 20									
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)	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	
021	57	201.954	136.44	678W	1 1	1 1			X		X	X	1724	SEH20	
AKST Date and Time = 1 1															
SBE 9+	FLUOR S/N		REMARKS		MAX. DEPTH = m										
PRESS SN	SBE43-Oxy (prime)														
PRI TEMP SN	Transmissometer														
SEC TEMP SN	PAR S/N														
PRI COND SN															
SEC COND SN															
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristian Shake		Strom/Fredrickson		Comments					NIS No.
1		Sai Btl #	Nut Btl #	O ₂ Btl #	D/C/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #						1
2															2
3															3
4															4
5															5
6															6
Bucket															B

SST =

SSSal =

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer		INWF11		GOA-IERP-UTL July 2011		SET 20										
CONSECUTIVE	LATITUDE	LONGITUDE	DATE (GMT)	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
032	57 29.834 N	130 58.641 W	13 07 11	1 1				*	*			*	*	*	1795	SET 20
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)					
REMARKS																
SBE 9+ _____ FLUOR S/N _____																
PRESS SN _____ SBE43-Oxy (prime) _____																
PRI TEMP SN _____																
SEC TEMP SN _____ Transmissometer _____																
PRI COND SN _____ PAR S/N _____																
SEC COND SN _____																
AKST Date and Time = 1 1																
MAX. DEPTH = m																
Niskin No.	DEPTH DESIRED	Rosette Notes	Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #	Comments	NIS No.				
1	100			107				91d				1				
2	50			108				92d				2				
3	40			109				93d				3				
4	30			110				94d				4				
5	20			111				95d				5				
6	10			112				96d				6				
Bucket												8				

SST = _____ SSSal = _____

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name									
FV Northwest Explorer		NW11		GOA-IERP-UJL July 2011		SEIS									
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
034	51 51.20 N	136 29.68 W	07 1 1	13				X	X			X		162	SEIS
REMARKS															
SBE 9+ _____ FLUOR S/N _____															
PRESS SN _____ SBE43-Oxy (ptime) _____															
PRI TEMP SN _____															
SEC TEMP SN _____ Transmissometer _____															
PRI COND SN _____ PAR S/N _____															
SEC COND SN _____															
AKST Date and Time = 1 1															
MAX. DEPTH = _____ m															
Niskin No.	DEPTH DESIRED	Rosette Notes	Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/ALK	DOC	Chl. Btl #	Phyto Btl #	MZ bottle #	Comments	Nis No.			
1	100			120								1			
2	50			121				103 d				2			
3	40			122				104 d				3			
4	30			123				105 d				4			
5	10			124				106 d				5			
6	10			125				107 d				6			
Bucket				126				108 d				B			

SST=

SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer		NWELL		GOA-IERP-UJL July 2011		SETR										
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
635	57	39.108 N	18	21	11	07	1.1	1.1								SETR
AKST Date and Time = 1 1 1																
SBE 9+	FLUOR S/N	REMARKS														
PRESS SN	SBE43-Oxy (prime)															
PRI TEMP SN	Transmissometer															
SEC TEMP SN	PAR S/N															
PRI COND SN																
SEC COND SN																
Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments		N/S No.	
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #							
1	70		127												1	
2	58		128			109d									2	
3	40		129			110d									3	
4	30		130			111d									4	
5	20		131			112d									5	
6	10		132			113d									6	
Bucket			133			114d									B	

SST =

SSSal =

MAX. DEPTH = m

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer				GOA-IERP-UJT July 2011		5230										
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
030	59 48.536 N	136 30.644 W	14 07	11				X	X			X	X	X	84	
AKST Date and Time = 1 1																
REMARKS																
MAX. DEPTH = m																
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shake	Strom/Fredrickson	Comments	NIS No.									
1	10		84				1									
2	10						2									
3							3									
4							4									
5							5									
6							6									
Bucket								8								

SST=

SSSal=

Salt Sample @ 100 m

VESSEL: FV Northwest Explorer CRUISE ID: PROJECT & LEG: GOA-IERP-UTI July 2011 STATION NO. or alt. name: 5625

CONSECUTIVE CAST # (CTD#)	LATITUDE			LONGITUDE			DATE (GMT)		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	MIN				*	*			*	*		
037	57			46	30		18	08	19	07	11			X	X			X	X	9	

AKST Date and Time = 1 1
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____
 SEC TEMP SN _____ Transducer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____

REMARKS: _____
 MAX. DEPTH = _____ m

Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	NIS No.
			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #		
1	1											1
2												2
3												3
4												4
5												5
6												6
Bucket												B

SST= _____ SSSal= _____

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name											
FV Northwest Explorer		INWEV		GOA-ERP-UTL July 2011		50910											
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE		DATE (GMT)	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
038	57 43.84 N	170 46.42 W		11 01	11 11				X	X			X	X	X	690	
REMARKS																	
SBE 9+ _____ FLUOR S/N _____ MAX. DEPTH = _____ m																	
PRESS SN _____ SBF43-Oxy (ptime) _____																	
PRI TEMP SN _____																	
SEC TEMP SN _____ Transmissometer _____																	
PRI COND SN _____ PAR S/N _____																	
SEC COND SN _____																	
AKST Date and Time = 11 11																	
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shake	Strom/Fredrickson	Comments		NIS No.									
1			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #							1
2																	2
3																	3
4																	4
5																	5
6																	6
Bucket																	B

SST =

SSSal =

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name	
FV Northwest Explorer				GOA-IERP-UTL July 2011		SST 2A	
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)
089	38.736N	137.260W	1 1	1 1			X X
DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C)	(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 _____ MAX. DEPTH = _____ m							
PRESS SN _____ SBE43-Oxy (prime) _____							
PRI TEMP SN _____							
SEC TEMP SN _____ Transducer _____							
PRI COND SN _____ PAR S/N _____							
SEC COND SN _____							
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristian Shake	Strom/Fredrickson	Comments	NIS No.
1	10						1
2	10						2
3							3
4							4
5							5
6							6
Bucket							B

Salt Sample @ 10m

SST =

SSSal =

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name												
FV Northwest Explorer				GOA-IERP-UJTL July 2011		SEK 20												
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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
04057	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN		*	*			*	*	450	SEK 20
		47.639 N		137.11578 W	15	07	11											
AKST Date and Time = 1 1																		
REMARKS																		
MAX DEPTH = m																		
SBE 9+	FLUOR S/N		SBE43-Oxy (prime)		Transmissometer		PAR S/N											
PRESS SN																		
PRI TEMP SN																		
SEC TEMP SN																		
PRI COND SN																		
SEC COND SN																		
Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments			NIS No.			
1	100			Sat Btl #	Nut Btl #	O ₂ Btl #	DI/C/ALK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #				1			
2	50				134				115d		33				2			
3	40				136				116d						3			
4	30				137				117d		34				4			
5	20				138				118d		35				5			
6	10				139				119d	12	36				6			
Bucket	0				140				120d						B			

SST =

SSS₀₁ =

VESSEL: FV Northwest Explorer
 CRUISE ID: MW11
 PROJECT & LEG: GOA-IERP-UTL July 2011
 STATION NO. or alt. name: SEV10

CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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	MO	YR	HR	MIN												
041	57	52.47	156	5.34	15	07	1	1												

AKST Date and Time = 1 1 1
 REMARKS: MAX. DEPTH = m

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____

Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL			Kristian Shake		Strom/Fredrickson			Comments	NIS No.
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #				
1	30		141										1
2	60		142										2
3	40		143										3
4	30		144										4
5	70		145										5
6	10		146										6
Bucket	Ø		147										8

SST = _____ SSSal = _____

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name									
FV Northwest Explorer		NWELL		GOA-ERP-UTL July 2011		SEAS									
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
04252	51° 40' N	136° 44' 52" W	13	07	11	11	11	X	X			X	X	153	SEAS
REMARKS															
SBE 9+ PRESS SN _____ FLUOR S/N _____															
SBE43-Oxy (prime) _____															
SEC TEMP SN _____ Transmissometer _____															
PAR S/N _____															
SEC COND SN _____															
AKST Date and Time = 1 1 1															
MAX. DEPTH = _____ m															
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Krisan Shake	Strom/Fredrickson	Comments	NIS No.								
1	150		Sal Btl # 86 Nut Btl # 148 O ₂ Btl # _____ DIC/Alk _____ DOC _____ Chl. Btl # _____ Phyto Btl # _____ MZ Bottle # _____			re-do, b-MES	1								
2	50		149			diverted for	2								
3	40		150			diverted for	3								
4	30		151				4								
5	20		152				5								
6	10		153				6								
Bucket			154				8								

SST= _____ SSSal= _____ Salt Sample @ 100m

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name														
FV Northwest Explorer		NW611		GOA-ERP-UTL July 2011		5628														
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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	
043	57	57.375	N	130	29	308	15	07	1	1	X	X			X	X	X	100	5628	
SBE 9+		FLUOR S/N		SBE43-Oxy (prime)		Transmissometer		PAR S/N		REMARKS										
PRESS SN		SBE43-Oxy (prime)		Transmissometer		PAR S/N		MAX. DEPTH = 70 m												
PRI TEMP SN		SBE43-Oxy (prime)		Transmissometer		PAR S/N														
SEC TEMP SN		SBE43-Oxy (prime)		Transmissometer		PAR S/N														
PRI COND SN		SBE43-Oxy (prime)		Transmissometer		PAR S/N														
SEC COND SN		SBE43-Oxy (prime)		Transmissometer		PAR S/N														
Miskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL		Kristian Shake		Strom/Fredrickson		Comments										
		Sal Bt #	Nut Bt #	O ₂ Bt #	DIC/AIK	DOC	Chl. Bt #	Phyto Bt #	MZ Bottle #											
1	100		155																	
2	50		156				1331		45											
3	40		157				1341													
4	30		158				1351		46											
5	20		159				1361	9	47											
6	10		160				1371													
Bucket	Ø		161				1381		48											

SST =

SSSal =

VESSEL: FV Northwest Explorer CRUISE ID: INWELL PROJECT & LEG: GOA-IERP-UJTL July 2011 STATION NO. or alt. name: 5620

CONSECUTIVE CAST # (CTD#)	LATITUDE			LONGITUDE			DATE (GMT)		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	MO	YR	HR	MIN													
04458	6	14	0	156	48	09	16	67	11	11				X	X			X	X	X		179	5620

AKST Date and Time = 1 1 1
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____
 SEC TEMP SN _____
 PAR COND SN _____
 SEC COND SN _____
 PAR S/N _____
 TRANSMISSOMETER _____

REMARKS

MAX DEPTH = m

Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL				Kristen Shake		Strom/Fredrickson			Comments	Nis No.
			Sal Btl #	Nut Btl #	O ₂ Btl #	D/C/Alk	DOC	Chl. Btl #	Phyco Btl #	MZ Bottle #			
1	10m		87										1
2													2
3													3
4													4
5													5
6													6
Bucket													8

SST =

SSSal =

Salt Sample @ 10m

VESSEL: FV Northwest Explorer CRUISE ID: PROJECT & LEG: GOA-IERP-UTL July 2011 STATION NO. or alt. name: **SELS**

CONSECUTIVE CAST # (CTD#)	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	
64558		31.354	N 136 56.182			10	07	11	1	1				*	*			*	*	*	*	05	SELS

AKST Date and Time = 1 1 1

REMARKS

MAX. DEPTH = 00 m

SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____

Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	Nis No.
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #					
1														1
2														2
3														3
4														4
5														5
6														6
Bucket														B

SST= SSSal=

VESSEL: EV Northwest Explorer CRUISE ID: INVE 11 PROJECT & LEG: GOA-IERP-UTL July 2011 STATION NO. or alt. name: 56210

CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIR/N. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR												
64658	1	400 N	137	4 222 W	16	07	11	11				*	*			*	*	*	808	56210

AKST Date and Time = 11 11
 SBE 9+ _____ FLUOR S/N _____
 PRESS SN _____ SBE43-Oxy (prime) _____
 PRI TEMP SN _____
 SEC TEMP SN _____ Transmissometer _____
 PRI COND SN _____ PAR S/N _____
 SEC COND SN _____

Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-P/VEL			Kristan Shake		Strom/Fredrickson			Comments	NIS No.
			Sal Bt #	Nur Bt #	O ₂ Bt #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #		
1												1
2												2
3												3
4												4
5												5
6												6
Bucket												8

REMARKS: _____
 MAX. DEPTH = 150 m
 SST = _____ SSSal = _____

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name													
FV Northwest Explorer		MARELL		GOA-IERP-UJTL July 2011		SEEL 20													
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
047	51° 50' 54" N	121° 10' 58" W	16	07	11	11					X	X			X	X	X		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(kts)	*	*	(m)	
AKST Date and Time = 11 11																			
REMARKS																			
MAX. DEPTH = m																			
SBE 9+	FLUOR S/N		SBE43-Oxy (prime)		Transducer		PAR S/N												
PRESS SN																			
PRI TEMP SN																			
SEC TEMP SN																			
PRI COND SN																			
SEC COND SN																			
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PWEL	Kristan Shake	Strom/Fredrickson	Comments													
			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #									
1	100m		698																
2																			
3																			
4																			
5																			
6																			
Bucket																			

SST=

SSSal=

Salt sample @ 100m

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name									
FV Northwest Explorer		INWELL		GOA-IERP-UTL July 2011		SEM20									
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE	DATE (GMT)	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
046	58	137 29.416 W	17 07	11.1				*	*			*	*	157	SEM20
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN							
AKST Date and Time = 11 1															
SBE 9+	FLUOR S/N	REMARKS	MAX. DEPTH = m												
PRESS SN	SBE43-Oxy (prime)														
PRI TEMP SN	Transducer														
SEC TEMP SN	PAR S/N														
PRI COND SN															
SEC COND SN															
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shake	Strom/Fredrickson	Comments	NIS No.								
1	100		167	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #	1							
2	50		163		139d			2							
3	40		164		140d			3							
4	30		165		141d			4							
5	20		166		142d			5							
6	10		167		143d			6							
Bucket	0		168		144d			8							

SST=

SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name													
FV Northwest Explorer		MWE1		GOA-IERP-UTL July 2011		56 W10													
CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)		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
049	58	10	342N	137	12.970W	14	07	1	1		*	*			*	*	*	123	SEW10
ANST Date and Time = 1 1																			
REMARKS																			
SBE 9+ _____ FLUOR S/N _____																			
PRESS SN _____ SBE43-Oxy (prime) _____																			
PRI TEMP SN _____																			
SEC TEMP SN _____ Transmissometer _____																			
PRI COND SN _____ PAR S/N _____																			
SEC COND SN _____																			
Niskin No.	DEPTH DESIRED	Rosette Notes			Hydro Team-PWEL			Kistler Shake		Strom/Fredrickson			Comments			NIS No.			
1	100				Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/AIK	DOC	Chl Btl #	Phyto Btl #	MZ Bottle #						1	
2	50					170				145 d								2	
3	40					171				146 d								3	
4	30					172				147 d								4	
5	20					173				148 d								5	
6	10					174				149 d								6	
Bucket	Ø					175				150 d								8	

SST=

SSSal=

MAX. DEPTH = m

VESSEL: FV Northwest Explorer CRUISE ID: PROJECT & LEG: GOA-IERP-UJT, July 2011 STATION NO. or alt. name: SEM5

CONSECUTIVE CAST # (CTD#)	LATITUDE		LONGITUDE		DATE (GMT)			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												
050	50	12.623 N	137	4.871 W	17	07	11	11													SEM5
AKST Date and Time = 1 1 1																					

REMARKS: MAX. DEPTH = m

SBE 9+ FLUOR S/N

PRESS SN SBE43-Oxy (prime)

PRI TEMP SN Transmissometer

SEC TEMP SN PAR S/N

PRI COND SN

SEC COND SN

Niskin No.	DEPTH DESIRED	Rosette Notes		Hydro Team-PMEL			Kristan Shake		Strom/Fredrickson			Comments	Nis No.
		Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/ALK	DOC	chl. Btl #	Phyto Btl #	MZ bottle #				
1	100		196										1
2	50		197										2
3	40		198										3
4	30		199										4
5	20		180										5
6	10		89	181									6
	Bucket		132										8

SST= SSSal=

VESSEL		CRUISE ID		PROJECT & LEG		STATION NO. or alt. name										
FV Northwest Explorer				GOA-ERP-UTL July 2011		SEM 0										
CONSECUTIVE CAST # (CTD#)	LATITUDE	LONGITUDE		DATE (GMT)	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
051	58 15.018 N	130 56.893 W	17	07	1 1				*	*			*	*	1571	SEM 0
REMARKS																
SBE 9+ _____ FLUOR S/N _____ MAX. DEPTH = _____ m																
PRESS SN _____ SBE43-Oxy (prime) _____																
PRI TEMP SN _____ Transmissometer _____																
SEC TEMP SN _____ PAR S/N _____																
PRI COND SN _____																
SEC COND SN _____																
AKST Date and Time = _____																
Niskin No.	DEPTH DESIRED	Rosette Notes	Hydro Team-PMEL	Kristan Shake	Strom/Fredrickson	Comments		NIS No.								
			Sal Btl #	Nut Btl #	O ₂ Btl #	DIC/Alk	DOC	Chl. Btl #	Phyto Btl #	MZ Bottle #						
1	160			183				157 d								1
2	50			184				158 d								2
3	40			185				159 d								3
4	30			186				160 d								4
5	20			187				161 d								5
6	10			188				162 d								6
Bucket				189												8

SST=

SSSa=