

Appendix B

Field Forms, Field Notes, Field Photos, and Chain of Custody Forms

Field Forms

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: Reach 2

Date: 8/21/23

Field Crew Initials: CC, TD, AV

Collection Method: crab trap

Target Species: graceful crab, Dungeness crab

COLLECTION TIME	CC SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1221	LDW23-R2-DC001 LDW23-R2-DC001	102	248.0	Trap 10
1040	LDW23-R2-DC002	114	187.2	Trawl 3 ♂
	LDW23-R2-DC003	118	196.2	♂ missing left leg.
	LDW23-R2-DC004	106	146.2	♂
	LDW23-R2-DC005	106	586.5	♂
	LDW23-R2-DC006	181	758.5	♂
	LDW23-R2-DC007	170	656.5	♂
0930	LDW23-R2-DC008	129	268.0	Trawl 1 ♂
1155	LDW23-R2-DC009	118	181.1	Trawl 5 ♂ missing left leg.
	LDW23-R2-DC010	97	107.6	♂
	LDW23-R2-DC011	183	767.0	♂
1450	LDW23-R2-DC012	166	619.5	Trawl 9 ♂
	LDW23-R2-DC013	115	162.3	♂ missing R leg.
	LDW23-R2-DC014	114	162.3	♂
	LDW23-R2-DC015	160	116.7	♂ missing L leg & L claw; R claw broken
	LDW23-R2-DC016 TO			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			

[Signature]
08.21.23

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2A

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
0930	LDW23- RZA-SS001	129	27.1	Trawl 1
↓	LDW23- RZA-SS002	122	29.3	↓
	LDW23- RZA-SS003	110	17.5	
	LDW23- RZA-SS004	107	14.9	
	LDW23- RZA-SS005	93	10.9	
	LDW23- RZA-SS006	109	15.9	
	LDW23- RZA-SS007	115	19.6	
↓	LDW23- RZA-SS008	96	10.5	↓
1008	LDW23- RZA-SS009	129	28.6	Trawl 2
↓	LDW23- RZA-SS010	117	20.4	↓
1040	LDW23- RZA-SS011	115	20.9	Trawl 3
↓	LDW23- RZA-SS012	136	35.9	↓
	LDW23- RZA-SS013	124	25.0	
	LDW23- RZA-SS-014	120	25.3	
	LDW23- RZA-SS015	128	29.3	
	LDW23- RZA-SS016	120	24.7	
	LDW23- RZA-SS017	119	25.9	
	LDW23- RZA-SS018	97	11.9	
	LDW23- RZA-SS019	113	17.9	
↓	LDW23- RZA-SS020	112	19.5	↓

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: ZA

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1040	LDW23- R2A-SS021	119	21.4	Trawl 3
	LDW23- R2A-SS022	116	17.7	
	LDW23- R2A-SS023	120	21.6	
	LDW23- R2A-SS024	110	21.1	
	LDW23- R2A-SS025	103	14.5	
	LDW23- R2A-SS026	126	21.2	
	LDW23- R2A-SS027	122	23.3	
	LDW23- R2A-SS028	104	15.3	
	LDW23- R2A-SS029	94	10.3	
	LDW23- R2A-SS030	107	10.7	
1125	LDW23- R2A-SS031	105	17.2	Trawl 4
	LDW23- R2A-SS032	106	14.2	
	LDW23- R2A-SS033	114	21.6	
	LDW23- R2A-SS034	123	24.3	
	LDW23- R2A-SS035	112	18.4	
	LDW23- R2A-SS036	111	16.8	
	LDW23- R2A-SS037	114	19.7	
1155	LDW23- R2A-SS038	105	14.9	Trawl 5
	LDW23- R2A-SS039	122	21.6	
	LDW23- R2A-SS040	116	17.6	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2A

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1155	LDW23- R2A-SS041	105	12.4	Trawl 5
↓	LDW23- R2A-SS042	98	12.1	↓
↓	LDW23- R2A-SS043	123	19.6	↓
↓	LDW23- R2A-SS044	109	20.2	↓
↓	LDW23- R2A-SS045	108	19.3	↓
↓	LDW23- R2A-SS046	115	19.9	↓
↓	LDW23- R2A-SS047	109	17.2	↓
↓	LDW23- R2A-SS048	105	16.3	↓
↓	LDW23- R2A-SS049	107	16.2	↓
↓	LDW23- R2A-SS050	101	13.8	↓
↓	LDW23- R2A-SS051	110	19.1	↓
↓	LDW23- R2A-SS052	114	18.5	↓
↓	LDW23- R2A-SS053	112	20.1	↓
1238	LDW23- R2A-SS054	109	18.2	Trawl 6
↓	LDW23- R2A-SS055	113	22.7	↓
↓	LDW23- R2A-SS056	112	17.5	↓
1450	LDW23- R2A-SS057	120	21.5	Trawl 9
↓	LDW23- R2A-SS058	135	34.7	↓
↓	LDW23- R2A-SS059	130	28.0	↓
↓	LDW23- R2A-SS060	122	23.3	↓

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2B

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID NO.	LENGTH (mm)	WEIGHT (g)	COMMENTS
13:10	LDW23- R2B-SS061	110	17.1	Trawl 7
	LDW23- R2B-SS062	117 21.4 20	20.3	
	LDW23- R2B-SS063	119	21.9	
	LDW23- R2B-SS064	104	14.8	
	LDW23- R2B-SS065	108	12.3	
	LDW23- R2B-SS066	108	16.4	
	LDW23- R2B-SS067	112	18.2	
	LDW23- R2B-SS068	103	15.9	
	LDW23- R2B-SS069	96	11.1	
	LDW23- R2B-SS070	111	16.9	
	LDW23- R2B-SS071	101	15.9	
	LDW23- R2B-SS072	109	17.8	
	LDW23- R2B-SS073	106	14.8	
	LDW23- R2B-SS074	110	15.4	
	LDW23- R2B-SS075	111	12.3	
	LDW23- R2B-SS076	108	12.3	
	LDW23- R2B-SS077	110	17.8	
	LDW23- R2B-SS078	100	13.2	
	LDW23- R2B-SS079	102	15.8	
	LDW23- R2B-SS080	120	19.0	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2B

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID NO.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1310	LDW23- R2B-SS081	104	15.9	Trawl F
	LDW23- R2B-SS082	101	12.7	
	LDW23- R2B-SS083	104	14.2	
	LDW23- R2B-SS084	98	11.0	
	LDW23- R2B-SS085	96	11.2	
	LDW23- R2B-SS086	109	15.4	
	LDW23- R2B-SS087	100	11.5	
	LDW23- R2B-SS088	128	24.3	
	LDW23- R2B-SS089	100	11.1	
	LDW23- R2B-SS090	95	10.3	
	LDW23- R2B-SS091	102	15.9	
	LDW23- R2B-SS092	101	13.3	
	LDW23- R2B-SS093	107	16.3	
	LDW23- R2B-SS094	97	10.8	
	LDW23- R2B-SS095	128	25.6	
	LDW23- R2B-SS096	105	16.8	
	LDW23- R2B-SS097	108	17.4	
	LDW23- R2B-SS098	102	12.7	
	LDW23- R2B-SS099	91	9.5	
	LDW23- R2B-SS100	101	11.8	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2B

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID NO.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1310	LDW23- R2B-SS101	96	11.0	Trawl 7
	LDW23- R2B-SS102	111	18.1	
	LDW23- R2B-SS103	91	9.2	
	LDW23- R2B-SS104	92	8.7	
	LDW23- R2B-SS105	96	12.1	
	LDW23- R2B-SS106	101	13.7	
	LDW23- R2B-SS107	97	12.8	
	LDW23- R2B-SS108	96	12.1	
	LDW23- R2B-SS109	111	18.9	
	LDW23- R2B-SS110	98	11.3	
	LDW23- R2B-SS111	104	15.5	
	LDW23- R2B-SS112	106	14.2	
	LDW23- R2B-SS113	92	10.3	
	LDW23- R2B-SS114	105	16.0	
	LDW23- R2B-SS115	95	11.5	
	LDW23- R2B-SS116	90	10.3	
	LDW23- R2B-SS117	98	12.7	
	LDW23- R2B-SS118	102	11.9	
	LDW23- R2B-SS119	95	11.2	
	LDW23- R2B-SS120	106	13.3	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID NO.	LENGTH (mm)	WEIGHT (g)		COMMENTS
0930	LDW23-RZ-ES001	245	146.9	I	Trawl 1
↓	LDW23-RZ-ES002	265	180.3	I	↓
1125	LDW23-RZ-ES003	358	458.5	F	Trawl 4
↓	LDW23-RZ-ES004	206	58.9	I	↓
1155	LDW23-RZ-ES005	407	553.0	F	Trawl 5
↓	LDW23-RZ-ES006	295	309.5	F	↓
↓	LDW23-RZ-ES007	292	221.5	F	Trawl 6 ↓
1310	LDW23-RZ-ES008	265	182.3	I	Trawl 7
	LDW23-RZ-ES009	290	211.5	I	
	LDW23-RZ-ES010	200	84.5	I	
	LDW23-RZ-ES011	206	89.0	I	
	LDW23-RZ-ES012	220	96.0	I	
	LDW23-RZ-ES013	221	121.6	I	
	LDW23-RZ-ES014	221	109.7	I	
	LDW23-RZ-ES015	210	100.9	I	
	LDW23-RZ-ES016	229	124.2	F	
	LDW23-RZ-ES017	200	82.4	I	
	LDW23-RZ-ES018	200	73.2	I	
	LDW23-RZ-ES019	200	73.6	I	
	✓	LDW23-RZ-ES020	251	152.7	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1310	LDW23- R2-ES021	273	223.5	Trawl 7 I
	LDW23- R2-ES022	214	101.3	I
	LDW23- R2-ES023	258	192.0	F
	LDW23- R2-ES024	205	93.6	I
	LDW23- R2-ES025	202	87.5	I
	LDW23- R2-ES026	200	81.3	I
✓	LDW23- R2-ES027	306	174.5	I
1402	LDW23- R2-ES028	202	85.4	F Trawl 8
	LDW23- R2-ES029	228	117.8	I
	LDW23- R2-ES030	277	203.5	F
	LDW23- R2-ES031	230	116.1	I
	LDW23- R2-ES032	204	79.7	I
	LDW23- R2-ES033	224	114.0	I
	LDW23- R2-ES034	200	75.8	I
	LDW23- R2-ES035	205	81.9	I
	LDW23- R2-ES036	219	111.5	F
	LDW23- R2-ES037	210	105.9	I
	LDW23- R2-ES038	220	102.3	I
	LDW23- R2-ES039	236	129.6	I
	LDW23- R2-ES040	211	92.1	I

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

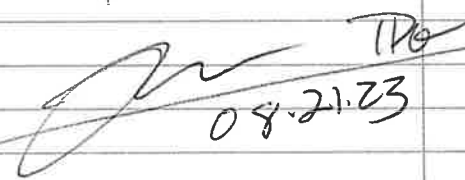
Date: 08-21-23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1402	LDW23- R2-ES041	202	86.9	I Trawl 8
↓	LDW23- R2-ES042	230	129.6	I ↓
	LDW23- R2-ES043	220	107.9	F ↓
	LDW23- R2-ES044	226	121.9	I ↓
	LDW23- R2-ES045	210	82.4	I ↓
	LDW23- R2-ES046	296	248.5	F ↓
↓	LDW23- R2-ES047	211	92.9	I ↓
1040	LDW23- R2-GC001	90	97.0	Trawl 13 ♂ missing R. claw, L leg
↓	LDW23- R2-GC002	94	134.9	♂ ↓
1155	LDW23- R2-GC003	92 92	156.2	Trawl 15 ♂
↓	LDW23- R2-GC004	99	177.6	♂
	LDW23- R2-GC005	103	181.5	♂ missing R leg
	LDW23- R2-GC006	95	126.4	♂ missing L claw
↓	LDW23- R2-GC007	91	117.2	♂ missing R claw.
1238	LDW23- R2-GC008	101	170.0	Trawl 16 ♂
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			


 TD
 08-21-23

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1A

Date: 08.22.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1259	LDW23- RIA-SS121	128	25.7	Trawl 11
	LDW23- RIA-SS122	110	16.9	
	LDW23- RIA-SS123	104	17.8	
	LDW23- RIA-SS124	119	24.4	
	LDW23- RIA-SS125	114	20.2	
	LDW23- RIA-SS126	114	20.1	
	LDW23- RIA-SS127	125	25.6	
	LDW23- RIA-SS128	100	14.8	
	LDW23- RIA-SS129	123	21.6	
	LDW23- RIA-SS130	94	10.5	
	LDW23- RIA-SS131	111	17.7	
	LDW23- RIA-SS132	105	13.1	
	LDW23- RIA-SS133	94	9.6	
	LDW23- RIA-SS134	95	10.7	
	LDW23- RIA-SS135	91	10.1	
	LDW23- RIA-SS136	100	13.5	
	LDW23- RIA-SS137	99	10.7	
1404	LDW23- RIA-SS138	119	21.7	Trawl 16
	LDW23- RIA-SS139	118	21.4	
	LDW23- RIA-SS140	93	10.5	

2

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1A / 1 FOR ES

Date: 08.22.13

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1406	LDW23- RIA-SS141	103	11.8	Trawl 16
↓	LDW23- RIA-SS142	96	9.8	↓
1448	LDW23- RIA-SS143	139	35.7	Trawl 17
↓	LDW23- RIA-SS144	92	12.0	↓
↓	LDW23- RIA-SS145	94	9.8	↓
↓	LDW23- RIA-SS146	95	11.4	↓
1521	LDW23- RIA-SS147	98	11.9	Trawl 18
↓	LDW23- RIA-SS148	104	14.8	↓
↓	LDW23- RIA-SS149	110	18.6	↓
↓	LDW23- RIA-SS150	97	12.0	↓
↓	LDW23- RIA-SS151	93	9.7	↓
↓	LDW23- RIA-SS152	98	11.4	↓
↓	LDW23- RIA-SS153	110	18.9	↓
↓	LDW23- RIA-SS154	93	10.1	↓
↓	LDW23- RIA-SS155	121	21.8	↓
↓	LDW23- RIA-SS156	92	11.0	↓
1259	LDW23- RI-ES071	262	173.7	Trawl 14 I
↓	LDW23- RI-ES072	224	126.8	↓ I
↓	LDW23- RI-ES073	236	125.7	↓ I
↓	LDW23- RI-ES074	208	87.8	↓ I

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: |

Date: 08.22.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1259	LDW23- RI-ES075	322	229.5	Trawl 14 F
↓	LDW23- RI-ES076	311	346.5	↓ F
	LDW23- RI-ES077	220	99.8	↓ I
1406	LDW23- RI-ES078	267	186.6	Trawl 16 I
↓	LDW23- RI-ES079	370	487.0	↓ F
	LDW23- RI-ES080	253	111.5	↓ I
	LDW23- RI-ES081	202	83.4	↓ I
	LDW23- RI-ES082	228	87.4	↓ I
↓	LDW23- RI-ES083	271	178.8	↓ I
1448	LDW23- RI-ES084	388	565.0	Trawl 17 F
↓	LDW23- RI-ES085	330	356.5	↓ F
↓	LDW23- RI-ES086	338	337.5	↓ I
1521	LDW23- RI-ES087	371	505.5	Trawl 18 I
↓	LDW23- RI-ES088	246	147.4	↓ I
↓	LDW23- RI-ES089	356	423.0	↓ F
1406	LDW23- RI-GC022	110	220.0	Trawl 16 ♂
↓	LDW23- RI-GC023	90	118.3	↓ ♂
	LDW23- RI-GC024	97	142.4	↓ ♂
↓	LDW23- RI-GC025	97	149.2	↓ ♂
1521	LDW23- RI-GC026	112	235.0	Trawl 18 ♂ missing 1 claw

4

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1 / 2

Date: 08.22.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1521	LDW23- R1-GL027	94	165.7	Trawl 18 ♂
1121	LDW23- R2-GL028	92	133.1	Trawl 12
1033	LDW23- R2-ES048	266	172.1	Trawl 11 I
↓	LDW23- R2-ES049	274	203.5	↓ I
↓	LDW23- R2-ES050	294	241.0	↓ F
↓	LDW23- R2-ES051	254	146.6	↓ F
1121	LDW23- R2-ES052	229	108.9	Trawl 12 I
↓	LDW23- R2-ES053	325	337.5	↓ I
↓	LDW23- R2-ES054	208	92.2	↓ I
↓	LDW23- R2-ES055	300	254.5	↓ F
1130	LDW23- R2-ES056	248	143.3	Trawl 13 I
↓	LDW23- R2-ES057	221	119.1	↓ F
↓	LDW23- R2-ES058	256	191.3	↓ I
↓	LDW23- R2-ES059	249	144.7	↓ I
↓	LDW23- R2-ES060	250	152.4	↓ I
↓	LDW23- R2-ES061	239	98.1	↓ F
↓	LDW23- R2-ES062	357	416.5	↓ F
↓	LDW23- R2-ES063	257	170.7	↓ I
↓	LDW23- R2-ES064	220	106.5	↓ I
↓	LDW23- R2-ES065	269	183.4	↓ I

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: Reach 2

Date: 8/22/23

Field Crew Initials: KM, RC

Collection Method: crab trap

Target Species: graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1120	LDW23- R2- DC016	170	609.0	CT28
1133	LDW23- R2- GC009	92	122.1	CT29
↓	LDW23- R2- GC010	102	177.5	↓
↓	LDW23- R2- GC011	101	180.0	↓
↓	LDW23- R2- GC012	104	205.8	↓
1145	LDW23- R2- GC013	101	188.5	CT30
↓	LDW23- R2- DC017	161	105.4 547.5	↓
1220	LDW23- R2- GC014	94	153.0	CT33
1355	LDW23- R2- GC015	103	204.1	CT37
1404	LDW23- R2- DC018	182	739.0	CT36
1413	LDW23- R2- GC016	97	169.5	CT38
1416	LDW23- R2- DC019	152	429.0	CT38 CT39
↓	LDW23- R2- DC020	147	379.0	CT38 CT39
↓	LDW23- R2- GC017	99	166.7	CT39, cracked carapace
1447	LDW23- R2- GC018	97	152.2	CT42, missing right claw
↓	LDW23- R2- GC019	102	194.5	↓
↓	LDW23- R2- DC021	181	747.0	↓
1457	LDW23- R2- GC020	92	127.7	CT43, missing right claw
↓	LDW23- R2- GC021	95	149.6	↓, missing right claw
	LDW23-			

MM 8/22/23

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2/1A

Date: 08-23-23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS	
1456	LDW23- R2- E6670	221	91.7	Trawl 27 I	
0830	LDW23- R1- E5090	204	77.5	Trawl 19 I	
1043	LDW23- R1- E5091	302	203.5	Trawl 21 I	
↓	LDW23- R1- E5092	216	92.3	I	
	LDW23- R1- E5093	257	165.5	F	
	LDW23- R1- E5094	278	158.2	I	
	LDW23- R1- E5095	265	189.8	I	
	LDW23- R1- E5096	223	99.8	I	
	1124	LDW23- R1- E5097	215	92.5	Trawl 22 I
	LDW23- R1- E5098	201	73.3	I	
	LDW23- R1- E5099	245	129.4	F	
	LDW23- R1- E5100	246	138.5	I	
	LDW23- R1- E5101	284	182.2	F	
LDW23- R1- E5102	246	137.3	I		
LDW23- R1- E5103	304	241.5	F		
LDW23- R1- E5104	274	170.2	I		
LDW23- R1- E5105	267	173.3	I		
LDW23- R1- E5106	220	99.3	I		
LDW23- R1- E5107	215	93.2	I		
↓	LDW23- R1- E5108	202	72.3	I	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1

Date: 10/23/23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1124	LDW23-RI-ES109	207	82.6	Trawl 22 I
↓	LDW23-RI-ES110	252	152.2	I
	LDW23-RI-ES111	228	100.7 107.7	I
	LDW23-RI-ES112	305	253.5	I
	LDW23-RI-ES113	260	72.2	I
	LDW23-RI-ES114	395	619.5	F
	LDW23-RI-ES115	225	99.9	I
1210	LDW23-RI-ES116	229	116.6	Trawl 23 F
1253	LDW23-RI-ES117	359	441.0	Trawl 24 F
↓	LDW23-RI-ES118	258	153.8	F
	LDW23-RI-ES119	330	300.0	F
	LDW23-RI-ES120	291	212.5	I
	LDW23-RI-ES121	212	92.8	I
	LDW23-RI-ES122	210	87.2	I
	LDW23-RI-ES123	256	143.3	F
1332	LDW23-RI-ES124	295	230.5	Trawl 25 F
↓	LDW23-RI-ES125	310	307.5	F
	LDW23-RI-ES126	299	268.5	F
	LDW23-RI-ES127	332	325.5	F
	LDW23-RI-ES128	298	215.5	F

TARGET SPECIES TALLY FORM

3

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1/1A

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1332	LDW23-RI-ES129	226	103.1	Trawl 25 I
↓	LDW23-RI-ES130	206	79.7	↓ I
↓	LDW23-RI-ES131	226	108.4	↓ I
1414	LDW23-RI-ES132	360	388.5	Trawl 26 F
↓	LDW23-RI-ES133	330	322.0	↓ F
↓	LDW23-RI-ES134	257	144.6	↓ I
↓	LDW23-RI-ES135	246	128.4	↓ I
↓	LDW23-RI-ES136	276	194.6	↓ I
↓	LDW23-RI-ES137	245	118.3	↓ I
↓	LDW23-RI-ES138	257	154.7	↓ F
↓	LDW23-RI-ES139	224	103.4	↓ I
↓	LDW23-RI-ES140	241	133.1	↓ I
1043	LDW23-RIA-SS157	126	23.1	Trawl 21
↓	LDW23-RIA-SS158	131	26.8	↓
↓	LDW23-RIA-SS159	120	20.8	↓
↓	LDW23-RIA-SS160	103	15.6	↓
↓	LDW23-RIA-SS161	114	17.9	↓
↓	LDW23-RIA-SS162	110	16.8	↓
↓	LDW23-RIA-SS163	112	17.5	↓
↓	LDW23-RIA-SS164	165	14.3	↓

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1A/1B

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1043	LDW23- RIA-SS165	97	11.1	Trawl 21
↓	LDW23- RIA-SS166	93	10.5	↓
	LDW23- RIA-SS167	92	10.3	
	LDW23- RIA-SS168	97	10.8	
	LDW23- RIA-SS169	95	10.1	
	LDW23- RIA-SS170	95	10.7	
	LDW23- RIA-SS171	90	10.3	
	LDW23- RIA-SS172	110	20.8	
	LDW23- RIA-SS173	116	20.9	
	LDW23- RIA-SS174	101	17.3	
	LDW23- RIA-SS175	99	13.5	
	LDW23- RIA-SS176	96	12.9	
	LDW23- RIA-SS177	91	9.9	
	LDW23- RIA-SS178	125	23.8	
	LDW23- RIA-SS179	93	10.3	
	↓	LDW23- RIA-SS180	93	
1124	LDW23- RIB-SS181	124	26.3	Trawl 22
↓	LDW23- RIB-SS182	135	28.0	↓
	LDW23- RIB-SS183	114	22.1	
	LDW23- RIB-SS184	108	14.5	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1B

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1124	LDW23- RIB-SS185	118	21.3	Trawl 22
	LDW23- RIB-SS186	119	26.4	
	LDW23- RIB-SS187	95	10.5	
	LDW23- RIB-SS188	106	14.2	
	LDW23- RIB-SS189	110	15.9	
	LDW23- RIB-SS 189 190	108	14.5	
	LDW23- RIB-SS191	107	17.1	
	LDW23- RIB-SS192	113	18.5	
	LDW23- RIB-SS193	101	12.8	
	LDW23- RIB-SS194	94	11.5	
	LDW23- RIB-SS195	99	10.7	
	LDW23- RIB-SS196	100	11.6	
	LDW23- RIB-SS197	98	12.2	
	LDW23- RIB-SS198	104	15.0	
	LDW23- RIB-SS199	117	18.7	
	LDW23- RIB-SS200	104	12.7	
	LDW23- RIB-SS201	99	12.8	
	LDW23- RIB-SS202	98	12.7	
	LDW23- RIB-SS203	118	20.5	
	LDW23- RIB-SS204	97	11.6	

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1B

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID NO.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1124	LDW23- RIB-SS205	87	9.3	Trawl 22
↓	LDW23- RIB-SS206	90	9.7	↓
↓	LDW23- RIB-SS207	107	14.7	↓
↓	LDW23- RIB-SS208	108	16.8	↓
1218	LDW23- RIB-SS209	113	21.4	Trawl 23
↓	LDW23- RIB-SS210	130	29.1	↓
↓	LDW23- RIB-SS211	120	24.4	↓
↓	LDW23- RIB-SS212	125	22.3	↓
↓	LDW23- RIB-SS213	111	17.7	↓
↓	LDW23- RIB-SS214	116	22.9	↓
↓	LDW23- RIB-SS215	109	16.0	↓
1253	LDW23- RIB-SS216	135	32.5	Trawl 24
↓	LDW23- RIB-SS217	120	24.0	↓
↓	LDW23- RIB-SS218	120	22.3	↓
↓	LDW23- RIB-SS219	131	28.6	↓
↓	LDW23- RIB-SS220	127	28.2	↓
↓	LDW23- RIB-SS221	111	19.0	↓
↓	LDW23- RIB-SS222	110	22.3	↓
↓	LDW23- RIB-SS223	114	22.1	↓
↓	LDW23- RIB-SS224	111	19.3	↓

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1B/1

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1253	LDW23- RIB-SS225	119	20.5	Trawl 24
	LDW23- RIB-SS226	106	13.8	
	LDW23- RIB-SS227	108	15.7	
	LDW23- RIB-SS228	112	19.0	
	LDW23- RIB-SS229	96	11.9	
	LDW23- RIB-SS230	94	10.2	
	LDW23- RIB-SS231	94	10.7	
	LDW23- RIB-SS232	90	10.6	
	LDW23- RIB-SS233	107	13.0	
	LDW23- RIB-SS234	99	11.5	
	LDW23- RIB-SS235	88	9.5	
	LDW23- RIB-SS236	107	13.9	
	LDW23- RIB-SS237	99	10.4	
	LDW23- RIB-SS238	91	10.9	
	LDW23- RIB-SS239	105	16.1	
↓	LDW23- RIB-SS240	95	11.8	↓
0830	LDW23- RI-GC051	101	189.9	Trawl 19 ♂
↓	LDW23- RI-GC052	100	152.9	↓ ♂ missing L. claw, L leg damaged.
1011	LDW23- RI-GC053	105	194.4	Trawl 20 ♂
1043	LDW23- RI-GC054	92	130.1	Trawl 21 ♂

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: Reach 1

Date: 8/23/23

Field Crew Initials: KM, RC

Collection Method: crab trap

Target Species: graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1133	LDW23- R1- DC022	207	1011	CT45
L	LDW23- R1- DC023	156	470.9	L
1143	LDW23- R1- GC029	92	120.2	CT46, missing left claw
1247	LDW23- R1- GC030	98	183.4	CT53, barnacles on legs
	LDW23- R1- GC031	102	207.8	
	LDW23- R1- GC032	98	161.5	barnacles on legs + carapace
	LDW23- R1- GC033	99	121.5	barnacles on legs
	LDW23- R1- GC034	110	141.5	barnacles on legs
1254	LDW23- R1- GC035	108	246.0	CT54, barnacles on legs, small crack on carapace
	LDW23- R1- GC036	105	220.0	
	LDW23- R1- GC037	105	209.7	barnacles on claws
1303	LDW23- R1- GC038	98	162.8	CT55, missing 1 leg (right)
	LDW23- R1- GC039	101	177.8	
	LDW23- R1- GC040	100	144.7	missing right claw
	LDW23- R1- GC041	92	149.7	
	LDW23- R1- GC042	102	170.3	
1444	LDW23- R1- GC043	90	135.6	CT59, missing 1 right leg
L	LDW23- R1- GC044	98	152.5	L, missing 1 right leg
1457	LDW23- R1- GC045	98	173.7	CT61
1508	LDW23- R1- GC046	98	177.3	CT63, barnacles on claws

cracked carapace
small crack on carapace

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.24.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

Target Species: English sole, shiner surfperch, graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
0850	LDW23-R2-DC0A1	122	240.0	Trawl 28 ♂
1339	LDW23-R2-DC0A2	154	493.5	Trawl 35 ♂
0850	LDW23-R2-GC078	101	168.3	Trawl 28 ♂
1002	LDW23-R2-GC079	101	172.6	Trawl 30 ♂
↓	LDW23-R2-GC080	90	112.5	↓ ♂
↓	LDW23-R2-GC081	92	120.7	↓ ♂
1136	LDW23-R2-GC082	90	108.6	Trawl 32 ♂
↓	LDW23-R2-GC083	105	184.8	↓ ♂
↓	LDW23-R2-GC084	94	116.3	↓ ♂ missing L claw and 1 L leg.
1302	LDW23-R2-GC085	103	154.5	Trawl 34 ♂ missing L claw
↓	LDW23-R2-GC086	92	121.4	♂
1414	LDW23-R2-GC087	109	204.5	Trawl 36 ♂
1459	LDW23-R2-GC088	95	142.8	Trawl 37 ♂
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			

[Signature]
 TD
 08.24.23

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: Reach 1

Date: 8/24/23

Field Crew Initials: KM, LVB

Collection Method: crab trap

Target Species: graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1231	LDW23- R1- ET ^{km} GC067	90 ^{km} 90	133.4	CT75
↓	LDW23- R1-GC068	96	170.3	↓ ^{km} ET
1240	LDW23- R1-GC069	102	200.5	CT76
↓	LDW23- R1-GC070	103 ^{km} 110	288.0	↓, cracked carapace, barnacles
↓	LDW23- R1-GC071	98	175.3	↓, barnacles
1245	LDW23- R1-GC072	101	182.6	CT77
↓	LDW23- R1-GC073	95	156.9	↓
↓	LDW23- R1-GC074	108	243.5	↓
↓	LDW23- R1-GC075	104	201.0	↓
↓	LDW23- R1-GC076	97	168.9	↓, barnacles
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			
	LDW23-			

km 8/24/23

TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: Reach 2

Date: 8/27/23

Field Crew Initials: KM, LVB

Collection Method: crab trap

Target Species: graceful crab, Dungeness crab

COLLECTION TIME	SPECIMEN ID No.	LENGTH (mm)	WEIGHT (g)	COMMENTS
1111	LDW23- R2-DC024	155	482.8	CT67
1117	LDW23- R2-DC025	169	619.5	CT68
1123	LDW23- R2-DC026	177	638.0	CT69, small right claw
L	LDW23- R2-DC027	147	417.5	L
L	LDW23- R2-GC063	101	189.3	L
1128	LDW23- R2-DC028	189	893.5	CT70
1139	LDW23- R2-DC029	188	892.0	CT71
L	LDW23- R2-DC030	185	796.5	L
L	LDW23- R2-DC031	169	648.0	L
1144	LDW23- R2-DC032	160	576.5	CT72, missing right claw
L	LDW23- R2-GC064	95	123.4	L, missing both claws + 1 leg on each side, lots of burrhead
1156	LDW23- R2-GC065	102	209.6	CT73
1200	LDW23- R2-DC033	186	827.5	CT74
L	LDW23- R2-DC034	184	820.5	L
L	LDW23- R2-DC035	187	907.5	L
L	LDW23- R2-GC066	110	219.0	L
x 1358	LDW23- R2-DC036	165	586.5	CT78
1402	LDW23- R2-DC037	182	687.0	CT79
1409	LDW23- R2-DC038	191	896.5	CT80
L	LDW23- R2-DC039	154	452.5	L

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: ZA

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
0930	staghorn sculpin	8	Trawl 1
0930	snake pickle back	6	
0930	starry flounder	1	
0930	English sole	45	< 20 cm
↓	shrimp - Crangon	7	
	swiner surfperch	28	< 8 cm
	Rock sole	1	
	graceful grass	12	
	crabs	1	♀
	cockles - unid.	2	
	snails - unid.	3	
	moon snail	1	
	Pandalus - dock shrimp	1	
	Anemone - Metridium	2	
1008	Longfin smelt	2	
↓	starry flounder	1	
	graceful crab	1	
	snail - unid. Crangon	1	
	P. herring	2	
	snake pickle back	1	

Trawl 1
ZA
↓
Trawl 2
ZA

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2A

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1008	Swamp - dock (Pandalus)	6	
↓	Shiner surfperch.	21	
	pile perch	1	
1024-1040	Anemone- metridium	78	
↓	Starry flounder	5	
	English sole	1	< 20 cm
	moon snail	1	
	graceful	1	
	pile perch	6	
	staghorn sculpin	2	
	Rock sole	1	
	Tomcod	1	
	long-fin smelt	1	
	P. henry	1	
	swamp - Umid Coarson	3	
	snake picklebake	7	
	b. crab	1	♀
	shiner surfperch	6	
	1125	jelly fish	1
	graceful wabs	2	

Trawl 2
↓
2A

Trawl 3
↓
2A

Trawl 4
↓
2A

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: ZA

Date: 08-21-27

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1125 ↓	snale pickleback	2	
	shiner surf perch	42	< 8 cm.
	rudibranch - Armina	1	
	staghorn sud pin	3	
	snail - unid.	1	
	starry flounder	1	
	shrimp - unid. Crangon	2	
	P. herring	2	
	G. sole	2	< 20 cm.
	1155 ↓	snale pickleback	11
rudibranch - Armina		1	
starry flounder		7	
snail - unid.		8	
shrimp - unid. Crangon		12	
tomcod		1	
Pile perch		2	
Mussels - unid Mytilus		15	
English sole		5	
D. crab		4	< 9 cm 4♀
Gracful crabs	10	< 9 cm	

Trawl 14
ZA
↓
Trawl 15
ZA
↓

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2B / 2A

Date: 08.21.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1310	nudi brand - urid	3	3
↓	shrimp or Crangon	28	
1402	shiner surf perch	1303	300+200+300+300+30+30+66+23+30+2
↓	starry flounder	16	8+1+1+1+5
↓	long fin smelt	111	10+10+10+10+10+10+10+10+10+10+1
↓	tom cod	5	4+1
↓	snake prickleback	1	1
↓	English sole	109	< 20cm - 10+20+25+10+44
↓	Staghorn sculpin	41	13+1+1+2+17+1+5+1
↓	Mussel - Mytilus	1	1
↓	P. herring	2	11
↓	pile perch	1	1
↓	Shrimp - urid Crangon	67	20+44+3
1450	Tom cod	1	1
↓	snake prickleback	2	
↓	shiner surf perch	146	15+104+2+50+3+2+10
↓	staghorn sculpin	36	
↓	D. Crab	1	< 9cm
↓	pile perch	2	2
↓	starry flounder	1	

2B Trawl 7
↓
Trawl 8
2B
↓
2A Trawl 9
2A
↓

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2A

Date: 082123

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1450	snail, uid	2	
↓	polychaete - uid	1	
	shrimp, uid Cranga	1	
	English sole	3	
	Gracful crab	3	< 9 cm
770 082123			

trawl 9
2A
↓

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.22.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
0940	Pile perch	4	
	Shiner surfperch	195	192 +
	snake prickleback	7	
	starry flounder	2	
	tomcod	4	
	P. herring	5	
	longfin smelt	2	
	Graceful crab	2	< 9 cm
	Anemone-Metridium	2	
	English sole	3	< 20 cm
	snail-unid.	5	
	Shrimp-unid Crayon	6	
1033	Shiner surfperch	926	44 + 30 + 6 + 50 + 95 + 1 + 700
	longfin smelt	15	
	starry flounder	14	
	snake prickleback	5	
	pile perch	2	
	tomcod	1	
	staghorn sculpin	4	
English sole	28	< 20 cm	

|||

||||

Trawl 10
R2

Trawl 11
R2

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2/1A

Date: 08.22.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1150	shiner surf perch	752	300+250+2
	Staghorn swilpin	15	
	P. herring	3	
	longfin smelt	41	41
	tomcod	2	
	shrimp-uid. Crangon	22	22
1259	Uddibranch-uid.	5	
	Tomcod	6	
	P. herring	3	
	longfin smelt	1	41
	Graceful crabs	2	2
	sand sole	3	3
	shiner surf perch	30	30
	Snake prickleback	8	8
	shrimps uid. - Crangon	15	15
	Kelp crabs	4	4
	English sole	1	20
1335	cockle-uid	2	
	Graceful crabs	6	<9 cm
	D crabs	1	♀1

Trawl 13
R2
↓

Trawl 14
R1A
↓

Trawl 15
R1A
↓

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: ~~4~~ 1A

Date: 08.22.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1335	Nudibranch - unid.	3	III
	Arenaria - Metridium	3	III
	Snake prickleback	2	
	Staghorn sculpin	2	
	Sandsole	7	
	Shrimp - unid Crangon	7	
	Longfin smelt	6	
	Shiner surfperch	5	< 8 cm
1406	Sculpin (staghorn)	9	HT III
	Rock sole	1	I
	Sea star - Pisaster sp.	1	I
	English sole	1	< 20 I
	Loche - unid	1	I
	Snake prickleback	3	III
	Gracful crabs	5	< 9 cm HT
	Shiner surfperch	72	< 8 cm
	Tomcod	2	
	Longfin smelt	7	
	Shrimp - unid Crangon	5	
	P. herring	2	

Trawl 15
RIA

Trawl 16
RIA

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1A

Date: 08.22.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1440	Staghorn sculpin	4	IIII
	Snake pickleback	2	II
	Starry flounder	4	IIII
	Sea star - Pisaster sp.	1	I
	Nudibranch - unid.	3	III
	English sole	1	<20 I
	Shiner surfperch	73	73
	Anemone - metridia	3	III
	Kelp crab	3	III
	Graceful crab	2	<9cm II
	P. herring	1	I
	Longfin smelt	6	6
	Rock sole	1	I
1521	snake pickleback	30	IIII + 24 + 1
	Sea star - Pisaster sp.	2	II
	Sand sole	5	IIII
	Rock sole	9	IIII IIII
	Kelp crabs	1	I
	Longfin smelt	96	39 + 57 + 10
	English sole	2	<20cm II

Trawl 17
riA

Trawl 18
riA



NON-TARGET SPECIES TALLY FORM

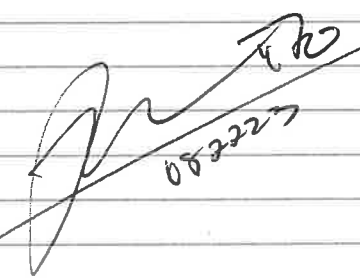
Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1A

Date: 08.27.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1521	starry flounder	1	1
↓	Shrimp unid Coarcton	109	27 + 36 + 46
	Staghorn sculpin	8	
	Anelone - Metridium	3	
	Graceful crabs	3	CG
	Tomcod	9	
	P. herring	1	
	Nudi brachi - unid.	2	
	D. crab < 9cm	1	
			

Trawl 1 FS
↓

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1A

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
0830	Staghorn sculpin	14	
	Red rock crab	5	
	Rock sole	5	
	graceful crabs <9cm	16	
	Shrimp - unid Crangon	44	29+2+9+4
	Anemone - Metridium sp.	1	
	shiner surf perch <8cm	3	
	English sole <20cm	1	
	Snake pricklesback	2	
	Red crescent gunnel	1	
	tomcod	1	
	1011	Staghorn sculpin	7
Rock sole		1	
Nudibranch - unad		6	
shrimp - unid Crangon		46	46
Anemone - Metridium		1	
snake pricklesback		2	
Red rock crabs		2	2
Graceful crabs <9		6	
Shiner surf perch <8	8		

Trawl 19
1A
Trawl 20
1A

(2)

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1A / 1B

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1043	kelp crabs shiner snapper < 8	40	
	longfin smelt	31	+ 28
	Snake prickleback	37	
	Staghorn sculpin	10	
	Rock sole	7	
	Graceful crab < 9	4	
	Mud branch - unid	1	
	Shrimp - unid.	9	7 + 2
	Kelp crabs	5	
	English sole < 20	16	
	Starry flounder	1	
	Tomcod	7	
	P. herring	1	
	Sea star - Pisaster sp.	1	
	1124	Starry flounder	20
Graceful crab < 9		12	
E. sole < 20		7	
Kelp crab		1	
Staghorn sculpin		20	19 + 1
	Red rock crab	1	

Trawl 21

130
1A
~~1305~~
Trawl 21
1A

Trawl 22
1B

13

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1B

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1124 ↓	P. herring	4	
	Shrimp - unid Crangon	45	+ 37
	Sea star - Pisaster	3	
	snake prickleback	5	5
	Shiner surf perch < 8	26	25 + 1
	Longfin smelt	39	39
	Anemone - Metridium	2	
	Mussel - Mytilus	1	
	Nudibranch - unid	14	
	1218 ↓	Crescent gunnel	1
Pike perch		2	
Anemone - reticulatum		3	
Staghorn sculpin		8	8
nudibranch - unid		3	
P. herring		4	4
Beautiful crab < 9 cm		3	
Sea Pen - unid		1	
English sole < 20		3	
Shiner surf perch < 8		63	63
Longfin smelt	29	15 + 14	

Trawl 22
1B

Trawl 23
1B

4

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1B / 1 (startling)

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1218	tomcod	5	
↓	longfin smelt snail, void	1 1	
	codde - void	1	
1253	Nudibranch - void	9	
	longfin smelt	51	+ 12 + 36
	Aneomoe - Metridium	19	
	Starry flounder	3	
	Graceful crab < 9	5	
	Shiner surfscud < 8	39	39
	Starry flounder English sole < 20	4	
	Rock sole	3	
	Sea Pen - void	1	
	tomcod	2	
	P herring	7	
	Staghorn sculpin	10	
	Snake pikeback	5	
	Pile perch	1	
	Shrimp - void. Crayfish	9	9
	snail - void	1	
1332	<hr/>		

Trawl 23
1B
↓
Trawl 24
1B
↓
Trawl 25
1

5

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: i

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1332	Urdibranch - Uroid	3	
	Shiner sutfrech	47	45 2+1+1
	Tomcod	2	
	graceful crabs < 9	9	
	starry flounder	3	
	sea star - Pisaster	2	
	English sole < 20	4	
	Rock sole	1	
	Shrimp - Uroid. Crangon	9	9
	anemone - Metridium	2	
	Kelp crab	2	
	staghorn sculpin	2	
	Snake prickler	29	28+1
	longfin smelt	53	53
	1416	longfin smelt	53
1416	Red rock crab	1	
	E. sole	7	
	starry flounder	4	
	Rock sole	6	
	P. heningy.	4	

Trawl 25

Trawl 26

6

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 1 (2 lat 1456)

Date: 08.23.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1416	shiner surfperch	132	39+32+60+1
	snake prickleback	7	7
	staghorn sculpin	6	4+2
	sea stars - Pisaster	2	2
	shrimp - Unid Crangon	23	2+2+19
	graceful crabs < 9	3	
1456	English sole	4	ill
	Starry flounder	1	1
	staghorn sculpin	2	11
	snake prickleback	1	1
	Amenone Metridium	1	1
	Pile perch	1	1
	Tomcod	1	1
	Shiner surfperch	60	60

Trawl 26
1
↓
Trawl 27
2
↓

7

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: Reach 1

Date: 8/23/23

Field Crew Initials: KM, RC

Collection Method: crab trap

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1202	graceful crab	1	CT48, male, < 9 cm
1209	graceful crab	1	CT49, female, < 9 cm
1254	graceful crab	1	CT54, male, < 9 cm
1303	red rock crab	1	CT55, male
↓	graceful crab	1	CT55, female, < 9 cm
1444	graceful crab	1	CT59, female
↓	crescent gunnel	1	CT59
1502	red rock crab	1	CT62, male
1508	graceful crab	1	CT63, female, < 9 cm
1515	red rock crab	2	CT64, 1 male, 1 female
1521	graceful crab	2	CT65, females, 1 gravid
↓	red rock crab	1	↓, male
1525	red rock crab	2	male; CT66
Continued 8/23/23			

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.24.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
0850 ↓	English sole	4	4
	starry flounder	17	17
	snake prickleback	1	1
	staghorn sculpin	1	1
	shiner surfperch	16	16
	shrimp-uid. Crangon	9	4+5
0924 ↓	P. herring.	7	7
	shiner surfperch.	92	10+3+19+30+30
	Pile perch	1	1
	Gracful crab < 9cm.	2	11
	Staghorn sculpin	3	11
	starry flounder	3	11
	tanuod	2	11
	longfin smelt.	3	3
	English sole	1	1
	snake prickleback	1	1
	shrimp-uid Crangon	7	3+2+2
	Anemone- Metridium	1	1
	1002 ↓	P. herring	13
pile perch		3	11

Trawl 28
R2

Trawl 29
R2

Trawl 30
R2

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.24.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1002	starry flounder	105	105
	tomcod	2	II
	English sole	10	IIII II
	trayhorn sculpin	20	IIIIIIIIIIIIIIII
	shiner surfperch	611	140+200+185+27+23+35+1
	D crab	1	1 female > 9
	shore crab - Hemigrapsus sp.	1	I
	snake pickleback	3	III
	swamp vnid Crangon	21	IIIIIIIIIIIIIIII
	crescent gunnel	3	III
	snail-uid	3	III
	lockie - uid.	2	I
	1049	snake pickleback	12
pile perch		4	IIII
starry flounder		14	IIIIIIIIIIIIII
set point swamp crescent gunnel		1	I
English sole		3	III
gracful crab < 9 cm		1	I
P. heming		5	IIII
snail-uid		1	I

Trawl 30
R2

Trawl 31
R2

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.24.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS	
1049	staghorn sculpin	5		
↓	shiner surfperch	592	100+165+200+42+43+23+19	
	longfin smelt	1		
	tomcod	1		
	shrimp-uid.	3		
1136	snake pickleback	9		
↓	shiner surfperch	115	30+12+2+32+10+17+2	
	pile perch	1		
	tomcod	4		
	P. hemisq	7		
	Gracful crab <9cm	3		
	staghorn sculpin	2		
	longfin smelt	2		
	starry flounder	13	13	
	English sole	14	14	
	shrimp - unidentified Crayons	18		
	1220	English sole	5	
	↓	starry flounder	10	
		pile pile perch	3	
snake pickleback		2		

Trawl 31
R2
↓
Trawl 32
R2
↓
Trawl 33
R2
↓

12
+ 4
+ 7
31

4

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.24.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1220	Shiner surfperch	101	60+27+33+56+3+12
	Tomcod	1	
	P. herring	5	
	longfin smelt	3	
	staghorn sculpin	2	
	snail - void	9	
	shrimp void Crangon	3	
1302	English sole	64	+53 +5
	Starry flounder	25	+21
	Staghorn Staghorn sculpin	11	
	Arenaria - Metridium	2	
	Graceful $\leq 9cm$	5	
	Pile perch	2	
	Tomcod	3	
	Snake pricklebark	14	
	P. herring	7	
	longfin smelt	9	
	shiner surfperch	76	43+26+7
	Shrimp void Crangon	21	10+2+9
1339	Shiner surfperch	20	27+1

Trawl 33
R2

Trawl 34
R2

Trawl 35
R2

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: 2

Date: 08.24.23

Field Crew Initials: AV, CC, TD

Collection Method: trawl net

COLLECTION TIME	SPECIES	COUNT	COMMENTS
1339	Pile perch	1	I
	P. herring	2	II
	Starry flounder	2	II
	English sole	2	II
	Tomcod	1	I
	staghorn sculpin	1	I
	snake pricklesback	1	I
	crescent gunnel	1	I
	shrimp-uid Crangon	3	3
	D. crab	4	
1414	P. le perch	2	
	tomcod	3	III
	P. herring	2	II
	longfin smelt	2	II
	staghorn sculpin	3	III
	shiner surfperch	119	
	English sole	2	
	starry flounder	13	
	snake pricklesbacks	12	
	shrimp-uid. Crangon	1	

Trawl 35
R2

Trawl 36
R2

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: *Reach 2*

Date: *8/24/23*

Field Crew Initials: *KM, LVB*

Collection Method: crab trap

COLLECTION TIME	SPECIES	COUNT	COMMENTS
<i>1358</i>	<i>graceful crab</i>	<i>1</i>	<i>CT78, male, < 9cm</i>
<i>1422</i>	<i>dungeness crab</i>	<i>1</i>	<i>CT82, male (reached limit^{up} for DC in Reach 2)</i>
<i>1542</i>	<i>dungeness crab</i>	<i>1</i>	<i>CT86, male (reached limit)</i>
<i>1549</i>	<i>dungeness crab</i>	<i>1</i>	<i>CT87, male (reached limit)</i>
<i>Katree 8/24/23</i>			

NON-TARGET SPECIES TALLY FORM

Project Name: AOC4 Task 1305 Periodic monitoring

Location: *Reach 2*

Date: *8/25/23*

Field Crew Initials: *KM, RC*

Collection Method: crab trap

COLLECTION TIME	SPECIES	COUNT	COMMENTS
<i>1134</i>	<i>graculi crab</i>	<i>1</i>	<i>female, <9cm, CT100</i>
<i>1140</i>	<i>dungeness crab</i>	<i>1</i>	<i>male, CT102</i>
<i>None</i> <i>8/25/23</i>			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 06.04.23 Start/Stop Time: 1230/1310
 Weather: 60s, sunny Clam Area ID: C 01
 Crew: TD, AV, JH, DC Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1230	LDW23-C 01 -CL001	35	
2 1230	LDW23-C 01 -CL002	34	
3 1235	LDW23-C 01 -CL003	42	
4 1235	LDW23-C 01 -CL004	25	
5 1240	LDW23-C 01 -CL005	30	
6 1240	LDW23-C 01 -CL006	26	
7 1245	LDW23-C 01 -CL007	33	
8 1246	LDW23-C 01 -CL008	27	
9 1247	LDW23-C 01 -CL009	30	
10 1257	LDW23-C 01 -CL010	27	
11 1254	LDW23-C 01 -CL011	26	
12 1301	LDW23-C 01 -CL012	24	
13 1257	LDW23-C 01 -CL013	30	
14 1301	LDW23-C 01 -CL014	33	
15 1300	LDW23-C 01 -CL015	30	
16 1305	LDW23-C 01 -CL016	29	
17 1310	LDW23-C 01 -CL017	33	
18 1316	LDW23-C 01 -CL018	34	
19 1311	LDW23-C 01 -CL019	27	
20 1317	LDW23-C 01 -CL020	39	
21 1310	LDW23-C 01 -CL021	24	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 06.04.23 Start/Stop Time: 0930 - 1115
 Weather: sunny, 60S Clam Area ID: C02
 Crew: SP, EC, LVB, DW Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 0945	LDW23-C 02 -CL001	20	
2 0950	LDW23-C 02 -CL002	28	
3 0930	LDW23-C 02 -CL003	21	
4 1105	LDW23-C 02 -CL004	40	
5 1020	LDW23-C 02 -CL005	37	
6 0955	LDW23-C 02 -CL006	21	
7 1055	LDW23-C 02 -CL007	30	
8 1015	LDW23-C 02 -CL008	25	
9 1033	LDW23-C 02 -CL009	32	
10 1112	LDW23-C 02 -CL010	36	
11 0945	LDW23-C 02 -CL011	35	
12 1030	LDW23-C 02 -CL012	29	
13 1059	LDW23-C 02 -CL013	35	
14 1050	LDW23-C 02 -CL014	32	
15 1040	LDW23-C 02 -CL015	31	
16 1047	LDW23-C 02 -CL016	25	
17 1115	LDW23-C 02 -CL017	33	
18 1020	LDW23-C 02 -CL018	30	
19 1000	LDW23-C 02 -CL019	28	
20 1108	LDW23-C 02 -CL020	29	
21 1037	LDW23-C 02 -CL021	31	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 06.04.23 Start/Stop Time: 0930/1112
 Weather: 60's, sunny Clam Area ID: C03
 Crew: TD, AV, JH, DC, JB Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 0957	LDW23-C 03 -CL001	27	
2 0948	LDW23-C 03 -CL002	20	
3 0937	LDW23-C 03 -CL003	23	
4 0952	LDW23-C 03 -CL004	22 ⁵ 24	
5 1003	LDW23-C 03 -CL005	26	
6 1103	LDW23-C 03 -CL006	28	
7 1112	LDW23-C 03 -CL007	25	
8 1088	LDW23-C 03 -CL008	24	
9 1030	LDW23-C 03 -CL009	34	
10 1013	LDW23-C 03 -CL010	26	
11 1022	LDW23-C 03 -CL011	30	
12 1034	LDW23-C 03 -CL012	21	
13 0944	LDW23-C 03 -CL013	21	
14 1031	LDW23-C 03 -CL014	25	
15 1033	LDW23-C 03 -CL015	29	
16 1057	LDW23-C 03 -CL016	28	
17 1107	LDW23-C 03 -CL017	35	
18 1031	LDW23-C 03 -CL018	29	
19 1045	LDW23-C 03 -CL019	22	
20 1045	LDW23-C 03 -CL020	27	
21 1045	LDW23-C 03 -CL021	26	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 6.6.2023 Start/Stop Time: 1205 - 1330
 Weather: Sunny, 60c Clam Area ID: C04
 Crew: SR, CC, LVB, JC, KK Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1220	LDW23-C 04 -CL001	24	South side of inlet
2 1220	LDW23-C 04 -CL002	27	South side of inlet
3 1230	LDW23-C 04 -CL003	29	South side of inlet.
4 1241	LDW23-C 04 -CL004	30	
5 1244	LDW23-C 04 -CL005	26	
6 1301	LDW23-C 04 -CL006	32	
7 1245	LDW23-C 04 -CL007	25	
8 1255	LDW23-C 04 -CL008	27	
9 1238	LDW23-C 04 -CL009	30	
10 1250	LDW23-C 04 -CL010	26	
11 1256	LDW23-C 04 -CL011	29	
12 1308	LDW23-C 04 -CL012	32	
13 1318	LDW23-C 04 -CL013	39	
14 1300	LDW23-C 04 -CL014	34	
15 1306	LDW23-C 04 -CL015	30	
16 1317	LDW23-C 04 -CL016	25	
17 1320	LDW23-C 04 -CL017	30	
18 1324	LDW23-C 04 -CL018	21	
19 1330	LDW23-C 04 -CL019	29	
20 1332	LDW23-C 04 -CL020	30	
21 1325	LDW23-C 04 -CL021	34	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 6.5.2023 Start/Stop Time: 1410 - 1450
 Weather: Sunny, 60s Clam Area ID: C05
 Crew: SR, CC, LVB, EH, JC Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1435	LDW23-C 05 -CL001	21	-
2 1445	LDW23-C 05 -CL002	32	-
3 1417	LDW23-C 05 -CL003	26	-
4 1428	LDW23-C 05 -CL004	30	-
5 1434	LDW23-C 05 -CL005	24	-
6 1443	LDW23-C 05 -CL006	28	-
7 1435	LDW23-C 05 -CL007	28	-
8 1448	LDW23-C 05 -CL008	36	-
9 1441	LDW23-C 05 -CL009	30	-
10 1440	LDW23-C 05 -CL010	21	-
11 1434	LDW23-C 05 -CL011	21	-
12 1436	LDW23-C 05 -CL012	25	-
13 1434	LDW23-C 05 -CL013	25	-
14 1431	LDW23-C 05 -CL014	26	-
15 1429	LDW23-C 05 -CL015	22	-
16 1426	LDW23-C 05 -CL016	28	-
17 1424	LDW23-C 05 -CL017	32	-
18 1427	LDW23-C 05 -CL018	23	-
19 1422	LDW23-C 05 -CL019	25	-
20 1420	LDW23-C 05 -CL020	30	-
21 1415	LDW23-C 05 -CL021	29	-
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 6.6.2023 Start/Stop Time: 1045 - 1140
 Weather: Sunny, 60s Clam Area ID: C06
 Crew: SP, CC, LUB, JC, KK Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1045	LDW23-C 06 -CL001	24	
2 1050	LDW23-C 06 -CL002	25	
3 1050	LDW23-C 06 -CL003	28	
4 1055	LDW23-C 06 -CL004	34	
5 1100	LDW23-C 06 -CL005	31	
6 1050	LDW23-C 06 -CL006	33	
7 1110	LDW23-C 06 -CL007	29	
8 1100	LDW23-C 06 -CL008	32	
9 1055	LDW23-C 06 -CL009	31	
10 1115	LDW23-C 06 -CL010	29	
11 1104	LDW23-C 06 -CL011	28	
12 1130	LDW23-C 06 -CL012	32	
13 1111	LDW23-C 06 -CL013	24	
14 1115	LDW23-C 06 -CL014	35	under eastbound lanes
15 1130	LDW23-C 06 -CL015	30	
16 1136	LDW23-C 06 -CL016	37	under eastbound lanes near piling
17 1121	LDW23-C 06 -CL017	36	
18 1126	LDW23-C 06 -CL018	26	
19 1125	LDW23-C 06 -CL019	35	
20 1140	LDW23-C 06 -CL020	26	
21 1132	LDW23-C 06 -CL021	27	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 06.06.23 Start/Stop Time: 1050/1310
 Weather: 60-70's, sunny Clam Area ID: C07
 Crew: TD, AV, AZ, DC Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1	LDW23-C -CL001		No clams found. some small (dime-size) Myas found in upper Zincus near water line
2	LDW23-C -CL002		
3	LDW23-C -CL003		
4	LDW23-C -CL004		
5	LDW23-C -CL005		
6	LDW23-C -CL006		
7	LDW23-C -CL007		
8	LDW23-C -CL008		
9	LDW23-C -CL009		
10	LDW23-C -CL010		
11	LDW23-C -CL011		
12	LDW23-C -CL012		
13	LDW23-C -CL013		
14	LDW23-C -CL014		
15	LDW23-C -CL015		
16	LDW23-C -CL016		
17	LDW23-C -CL017		
18	LDW23-C -CL018		
19	LDW23-C -CL019		
20	LDW23-C -CL020		
21	LDW23-C -CL021		
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 6-5-2023 Start/Stop Time: 1010 - 1110
 Weather: sunny, 60s Clam Area ID: C08
 Crew: SR, CC, LVB, EH, JC Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1010	LDW23-C 08 -CL001	32 -	
2 1010	LDW23-C 08 -CL002	38 -	
3 1015	LDW23-C 08 -CL003	30 -	
4 1030	LDW23-C 08 -CL004	30 -	
5 1043	LDW23-C 08 -CL005	33 -	
6 1048	LDW23-C 08 -CL006	24 -	
7 1055	LDW23-C 08 -CL007	43 -	
8 1108	LDW23-C 08 -CL008	32 -	
9 1100	LDW23-C 08 -CL009	31 -	
10 1105	LDW23-C 08 -CL010	33 -	
11 1025	LDW23-C 08 -CL011	28 -	
12 1015	LDW23-C 08 -CL012	40 -	
13 1030	LDW23-C 08 -CL013	23 -	
14 1108	LDW23-C 08 -CL014	22 -	
15 1035	LDW23-C 08 -CL015	32 -	
16 1035	LDW23-C 08 -CL016	25 -	
17 1035	LDW23-C 08 -CL017	27 -	
18 1052	LDW23-C 08 -CL018	26 -	
19 1052	LDW23-C 08 -CL019	31 -	
20 1100	LDW23-C 08 -CL020	28 -	
21 1108	LDW23-C 08 -CL021	31 -	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 06.05.23 / 06.06.23 Start/Stop Time: 1000/1300 to 1315-1405
 Weather: 60s, sunny Clam Area ID: C09
 Crew: TD, AV, JH, DC Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1010	LDW23-C09 -CL001	30	06.05.23 } N end of C09 area
2 1034	LDW23-C09 -CL002	24	
3 1015	LDW23-C09 -CL003	31	
4 1107	LDW23-C09 -CL004	33	
5 1019	LDW23-C09 -CL005	32	
6 1230	LDW23-C09 -CL006	35	S end of C09 area
7 1231	LDW23-C09 -CL007	35	
8 1237	LDW23-C09 -CL008	27	
9 1247	LDW23-C09 -CL009	27	
10 1257	LDW23-C09 -CL010	31	
11 1258 1300	LDW23-C09 -CL011	32	↓
12 1317	LDW23-C09 -CL012	36	06.06.23 } N end of C09 area
13 1323	LDW23-C09 -CL013	22	
14 1323	LDW23-C09 -CL014	24	
15 1336	LDW23-C09 -CL015	29	
16 1337	LDW23-C09 -CL016	24	
17 1352	LDW23-C09 -CL017	24	S end of C09 area
18 1358	LDW23-C09 -CL018	31	
19 1358	LDW23-C09 -CL019	22	
20 1358	LDW23-C09 -CL020	31	
21 1402	LDW23-C09 -CL021	39	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 6-5-2023 Start/Stop Time: 1225 - 1335
 Weather: Sunny, 60s Clam Area ID: C10
 Crew: SR, CC, LVB, EH, JC Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1255	LDW23-C 10 -CL001	31 -	
2 1228	LDW23-C 10 -CL002	35 -	
3 1302	LDW23-C 10 -CL003	37 -	
4 1305	LDW23-C 10 -CL004	31 -	
5 1235	LDW23-C 10 -CL005	28 -	
6 1228	LDW23-C 10 -CL006	29 -	
7 1250	LDW23-C 10 -CL007	32 -	
8 1309	LDW23-C 10 -CL008	33 -	
9 1314	LDW23-C 10 -CL009	37 -	
10 1243	LDW23-C 10 -CL010	22 -	
11 1318	LDW23-C 10 -CL011	32 -	
12 1308	LDW23-C 10 -CL012	29 -	
13 1300	LDW23-C 10 -CL013	31 -	
14 1320	LDW23-C 10 -CL014	26 -	
15 1313	LDW23-C 10 -CL015	37 -	
16 1320	LDW23-C 10 -CL016	36 -	
17 1330	LDW23-C 10 -CL017	30 -	
18 1328	LDW23-C 10 -CL018	29 -	
19 1333	LDW23-C 10 -CL019	29 -	
20 1325	LDW23-C 10 -CL020	30 -	
21 1325	LDW23-C 10 -CL021	35 -	
22			
23			
24			
25			

CLAM COLLECTION FORM

Project Name: LDW 2023 Periodic monitoring Task No.: Task 1305 (Project #: 180065-02.04)
 Date: 06.04.23 / 6.5.2023 Start/Stop Time: 1150-1320 / 1145-1205
 Weather: Sunny, 60s Clam Area ID: C11
 Crew: (SR) Sunny, 60s SR, CC, LVB, DW, JC Target number: 21 (16 minimum + 5)

Time	Clam ID	Width (mm)	Comment
1 1220	LDW23-C 11 -CL001	33	6.4.23
2 1155	LDW23-C 11 -CL002	31	6.4.23
3 1234	LDW23-C 11 -CL003	34	6.4.23
4 1252	LDW23-C 11 -CL004	38	6.4.23
5 1227	LDW23-C 11 -CL005	27	6.4.23
6 1155	LDW23-C 11 -CL006	38	6.4.23
7 1320	LDW23-C 11 -CL007	25	6.4.23
8 1220	LDW23-C 11 -CL008	35	6.4.23
9 1215	LDW23-C 11 -CL009	33	6.4.23
10 1245	LDW23-C 11 -CL010	31	6.4.23
11 1320	LDW23-C 11 -CL011	31	6.4.23
12 1150	LDW23-C 11 -CL012	35	Mon (6.5.23)
13 1153	LDW23-C 11 -CL013	29	Mon (6.5.23)
14 1155	LDW23-C 11 -CL014	35	6.4.23
15 1150	LDW23-C 11 -CL015	31	Mon (6.5.23)
16 1154	LDW23-C 11 -CL016	40	Mon (6.5.23)
17 1228	LDW23-C 11 -CL017	38	6.4.23
18 1155	LDW23-C 11 -CL018	31	Mon (6.5.23)
19 1210	LDW23-C 11 -CL019	31	6.4.23
20 1205	LDW23-C 11 -CL020	26	Mon (6.5.23)
21 1203	LDW23-C 11 -CL021	35	Mon (6.5.23)
22			
23			
24			
25			

Field Notes

² 06.04.23

TDo

- 0745 Arrive at Harbor Island Marina, TDo & A Vandervort.
sunny 55°, prep supplies and paperwork.
- 0810 Kyle Sanders arrive. (Coastal)
- 0815 Suzanne Replinger } wwd.
Claire Christensen }
- Linda Vate - Brattstrom } Cleaning.
Jim Hensley }
Debra Williston - KC. }
- Jordan Cooper }
James Brown } Steel
Dana Chandler }
- crew arrives. Load boat.
- 0845 Health & Safety tailgate meeting.
- 0855 Prep. kits for teams.
- 0915 Depart marina.
- 0930 Start at C03 } Team 2
- 1112 Completed at C03 }
Clams collected from depth ~ 4 inch to 1 ft (depth of shovel)
Habitat range from mostly silt w/sand to sand w/silt.
Higher elevation on beach (above of higher abundance at south end. Spotty elsewhere

06.04.23

TDo ³

- lots of debris - wood, bricks.
- 1230 Start at C01 } Team 2
- 1318 Completed at C01, collected 21 Clams collected from 4" depth to depth of shovel (~ 1 ft)
Habitat mostly sand (med-fine) w/some silt (trace). Collected along waterline to mid-high elevation below rip rap area.
Scattered debris (wood, rocks).
- 0925 Disembark boat at C02 - Team 1
- 0930 Begin clamming at C02
- 1115 Finish clamming at C02. All 21 clams collected.
Clams abundant throughout area. Generally ~ 4 to 6" to top of clams. Located at higher elevations where sediment firmer. Mix of sand/silt. Mya not present in softer substrate towards low tide line.
- 1130 depart C02 and head to C11. - Team 1
- 1150 arrive at C11; begin clamming - Team 1
- 1320 finish clamming at C11. Collected 14 of 21 target clams - tide rose too high to continue; will return to finish collection.
- 1330 Boat pick-up. Depart C11.

Rite in the Rain

4 6.4.2023

S. Replinger

CO1 area description: Area split by outfall. To north of outfall, clams generally lower elevation (below -2ft MLW), lots of gravel and debris. Shells difficult to see among debris and many seeps. Clams about 10" to top of clam (some shallower. Sand/silt. To south of culvert, clams present at higher elevations. Sand/silt. Clams somewhat shallower (6-8" to top of clam)

1400 Pick up Team 2 at CO1.

1415 Return to manna. Offload supplies.

1520 Depart manna. End of field day.

~~S. Replinger
6.4.2023~~

06.05.

TID 5

0845 Arrive at ITI marina.

TID, A. Vandewort (LWD)

0850 K. Sanders (Gravity) arrives
load supplies, prep. eqpt.

0900 S. Replinger, C. Christensen (LWD)
L. Vate-Bratstrom (CW), Erika
Hoffman (EPA) arrive.

0915 J. Hearsay (CW), J. Cooper &
D. Chandler (Steel) arrive.

60's, sunny.

0930 Lab courier arrives to pick
up samples.

0930 H/S briefing, depart marina.

1000 Begin clamming at CO1 - Team 2

1300 End clamming at CO1, collect 11 ^(TD, AV, JH, DC)

Beach is predominantly seeps.
Lots of rip up along entire
stretch. Very soft silt in

most places. Clams found
predominantly at either end
of beach area in sandy
substrate. Clams in top 6"-8"

1000 Arrive at CO8. - Team 1 (SR, CC, LVB, EH)

1010 Begin clamming at CO8. ^{SC}

1110 Finish clamming at CO8. All 21 clams
collected *start in the rain*

6 6.5.2023

S. Replinger

C08 description: Clams abundant except in seep/wet areas. Mostly around 0 ft MLLW, some higher/lower elevations. Clams about 6-8" below surface (to top of clam), 10" at deepest. Sand/silt, some gravel and glass/brick fragments, also some woody debris.

1120 Depart C08.

1145 Arrive at C11 to finish clam collection.

~~1150~~ Begin clamming.

1205 Finish clamming at C11 - collect remaining 7 clams (total of 21 collected from this beach).

1225 Start clamming at C10 (begin at South end).

1320 Team 2 joins clamming effort at C10.

1335 Finish at C10. All 21 clams collected.

C10 description: Clams present throughout beach except in areas w seeps. Silt/sand mix to South, much sandier to N at T117/Dunsmuir People's Park Area. Clams now present in restoration area. Generally ~6-8" to top of clam. Clams mostly around 0 to -1 ft MLLW (approx).

1345 Depart C10. Both teams head to C05.

1410 Begin clamming at C05 (both teams).

1450 Finish clamming at C05. All 21 clams collected.

6.5.2023

S. Replinger 7

C05 description: Most clams found in central part of area (adjacent to Simson Tug structure). Western part of area was rocky - no shams observed. Eastern end of area was softer substrate - few shams and only small (<20 mm clams found). Sand/silt mix. Some woody debris, lots of cobble/gravel. Shams between rocks/debris. Clams at ~0 ft MLLW, approx 6-8" to top of clam. from surface.

1530 Arrive Harbor Island Manna. Prep supplies for next day.

1630 Depart manna. End of sampling day.

S. Replinger
6.5.2023

8 06.06.23

TDD

- 0920 Arrive at H.I. marina,
TDD, A. Vandenberg (CW)
60's, Sonus.
- 0930 Lab courier arrives, take
yesterday's samples.
- 0940 S. Reptinger, C. Christensen (CW)
arrive.
- 0945 A. Zacak (CW) arrives
- 0950 K. Kerns (USACE), Jordan
Cooper & Dana Chandler (Stell)
arrive.
- 0955 K. Sanders (Gravity) & L.
Vale-Brattstrom (CW) arrive.
- 1000 Prep supplies/paperwork, H/S bind.
- 1015 Depart marina.
- 1050 Collection begins at CO7 - Team 2
(TD, AV, AZ, DL)
- 1310 Collection effort end - no clams
Cobble and large gravel, rip rap
cap material. Some areas of
deposition, but shallow, lots of
worms. Some juvenile (nickel to-
dime size *Mya* found in upper
2" of sediment, but only near
water line of channel in slip 4)
during low tide below - 2 ft elev.

06.06.23

TDD 9

- 1315 Begin/resume effort at CO9
- 1405 Complete CO9 (Collected 10,
5 from each end of beach area)
Mostly in sandy substrate, Top
8" to 12" in sediment/sand.
- 1045 Arrive at CO6; begin clamming.
(Team 1 - SR, CC, LVB, KK, JC)
- 1140 Finish at CO6. All 21 clams collected.
CO6: Sediment mix of silt/sand.
Wood debris scattered throughout. Cobbles/
rocks along waterline (at ~0 ft mllw).
All clams collected to south of "creek."
Most clams > 0 ft mllw, some closer to
waterline. Generally 6-10" to top of
clam. Clams very abundant.
- 1150 Depart CO6. Head to CO4 (Glacier).
- 1205 Arrive at CO4 and begin clamming.
Start at upstream side (south side).
- 1330 Finish at CO4. All 21 clams collected.
South bank - mostly rocky/gravel. Few shells
observed. Collected 3 clams in one pocket
of silt/sand.
No clams in inner most area - lots of seeps
and gravel.
Clams abundant on north side/outer area.

Return to the Rain
→

6.6.2023

S Replinger

COA continued... Some gravel/cobble/
woody debris. Sand/silt mix. No shells
observed in softer unconsolidated sed.
in center of triangle. Clams generally
away from waterline (well above 0ft
MLW). 6-10" to top of clams.

1405 Depart COA.

1420 Pick up Team 2 at COA. Head to
Harbor Island Marina.

1500 Arrive at marina. Offload supplies.

1600 Depart marina. End of field day
and end of clamming effort.

S. Replinger
6.6.2023

8.3.2023

S. Replinger

0915 Arrive at 1st Ave S boat ramp. Prep for
passive sampler deployment.

0920 Meet Granby vessel.

Crew: S. Replinger } (Winward)

T. Do

Rachel Crowley (Clearways)

Ed Sloan } (Granby)

Kyle Sanders

Weather: sunny, 70s

0940 Depart boat ramp. Head upstream
to deploy passive samplers at South
Park Bridge (PS1). H&S briefing.1005 Arrive at PS1. Prep frames, tide elev. $\approx +2.5$ 1010 Prep frame 1. Trip blank 1 ^{ft}

1015 Add samplers 1-5 (H10)

1025 Deploy frame 1

1030 Prep frame 2

1035 Add samplers 6-9 + probe

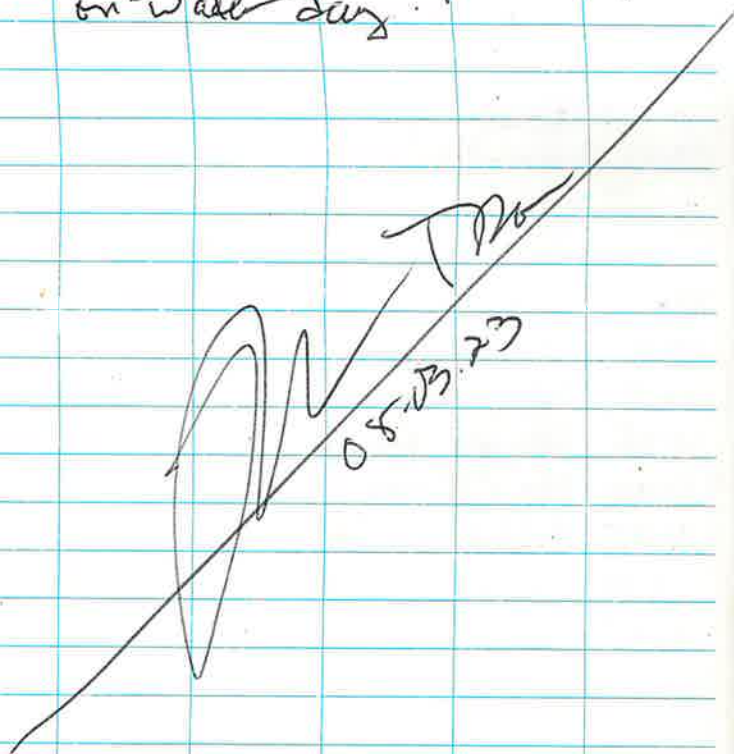
1045 Deploy frame 2

1047 Depart PS1 - tide elev. $\approx +1.0$ ft1100 Motor down to Linage Logistics
(PS2) to deploy passive
samplers.1140 Arrive at PS2. Prep frames, tide elev.
 ≈ -1.0 ft at the time

08.03.23

TDO

- 1145 Prep frame 1, Trip blank #120
 1155 Deploy frame 1 w samples 11-15
 1200 Prep frame 2 + probe.
 1205 Add. sampler 1b-K
 1215 Deploy frame 2, tide elev ~
 -2.0 ft.
 1235 Back at boat ramp. End of
 on-water day.



08.21.23

TDO 13

- 0715 Arrive at Bell Harbor Marina
 TDO, A. Vandewort. Offload
 supplies. 70s, overcast to sunny, snaky
 0730 Meet up w/ Debra Williston (KA)
 and Eric Hoffman (GPH),
 Eric loss & Kristy Kull (UWAFH)
 0745 Linda Vate-Brattstrom &
 Charlie Eaton arrives. Prep.
 0800 H/S briefing.
 0815 Depart marina. Transit to
 UW Reach 2
 0915 Arrive in Reach 2, prep for
 Trawling.
 0925 Trawl #1 in 2A
 0930 End trawl #1 2ES 0SS
 1DC
 1000 Trawl #2 in ~~2A~~ 2A
 1000 End trawl #2 2SS
 1026 Trawl #3, in 2A.
 1040 End trawl #3 20SS, 6DC, 2GL.
 1110 Trawl #4, in 2A.
 1125 End trawl #4, 7SS, 2ES
 1143 Trawl #5, in 2A
 1155 End trawl #5, 10SS, 3ES
 3DC, 5GL
 1223 Trawl #6 in 2A
 1238 End trawl #6, 1GL, 3SS

08-21-23

TD

- 1246 Move to subreach 2B
 1258 Trawl #7, in 2B
 1310 End trawl #7 60 SS, 20 ES
 1349 Trawl #8, in 2B
 1402 End trawl #8. 20 ES
 1430 Head back to 2A.
 1435 Trawl #9 in 2A.
 1450 End trawl 9, 4 DC, 4 SS
 1504 Head back to marina.
 1555 Back at marina. Prep to process catch. D Williston & E. Hoffman depart, Claire C. arrives.
 2000 Complete processing. Clean up. Off-load samples. End of on-water day.

[Signature]
 TD
 08-21-23

08-22-23

TD

- 0730 Arrive at Bit Marina
 TD, A Vandervort Hi SD's, pthly cloudy. Meet up w/ E. Loss (UWPHU), load supplies.
 0745 R. Kull (UWPHU) and C. Christensen arrive.
 0755 L. Vatz-Brattstrom (CW arrives)
 0815 N. Mass (AQ) arrives, H&S briefing
 0820 Depart, head to site.
 0910 In Area 2
 0916 Trawl #10 in 2
 0940 End trawl 10, no keepers
 1002 Trawl #11 in 2
 1033 End trawl 11, 4 ES
 1107 Trawl #12 in 2
 1121 End trawl 12, 8^{4 to} ES, 1 GC
 1141 Trawl #13 in 2
 1150 Trawl 13 end, 14 ES
 1215 Head ~~up~~ down to reach 1.
 1238 Trawl 14 in 1A.
 1259 End trawl 14, 17 SS, 7 ES
 1323 Trawl 15 in 1A.
 1335 End trawl 15, ~~0~~ (hole in codend)

Rite in the Rain

16 08.22.23

TDO

- 1357 Trawl 16 in 1A.
 1406 End trawl 16, ~~4~~ 5 GC, 5 SS, 6 ES
 1425 Trawl 17 in 1A.
 1448 End trawl 17, 3 ES, 4 SS
 1508 Trawl 18 in 1A
 1521 End trawl, (get hung up): 10 SS, 2 GC, 3 ES
 1550 Head back to marina.
 1615 Arrive at marina. Set up for processing
 1625 Begin processing.
 1830 End processing. Clean up.
 1845 Depart marina. End of on-water day.

TDO
 08.22.23

08.23.23

TDO 17

- 0715 Arrive at Bit Marina 50's, overcast.
 TDO & A-Vandewort. Load supplies onto boat.
 0720 Meet up w/ E. Loss (OWFHL)
 0740 C. Christensen arrives, K. Will (LWOPH) arrives.
 0745 Kristen Kerns (USACE) arrives.
 0750 Linda Vate-Brattstrom (Civ) arrives
 0755 H&S briefing.
 0800 Depart marina. Head to Reach 1.
 0824 Begin Trawl 19 in 1A.
 0830 End trawl 19, 0 ES, 2 GC
 (Big tractor tire in net).
 1005 Begin Trawl 20 in 1A
 1011 End trawl 20, 1 GC
 1032 Begin Trawl 21 in 1A
 1043 End trawl 21 ~~2~~ 2 SS, 2 GC, 6 ES
 1116 Begin Trawl 22 in 1B
 1124 End trawl 22 ~~20~~ 20 SS, 5 GC, 19 ES
 1207 Begin Trawl 23 in 1B
 1218 End trawl 23 7 SS, 1 GC, 1 ES
 1241 Begin Trawl 24, in 1B
 1253 End trawl 24 25 SS, 7 ES
 1319 Begin Trawl 25, in 1B
 1332 End trawl 25 8 ES, 1 GC

Return on the Rain

08.22.23

TDD

- 1353 Begin trawl 26 in R1
 1416 End trawl 26 9 ES
 1430 Head upriver to R2.
 1446 Trawl 27, in R2
 1456 End trawl 27 LES
 1505 Head back to marina.
 1600 At marina, set up processing, K. Keans leaves.
 1610 Begin processing.
 1930 End processing. Clean up
 1945 Depart marina. End of on-water field day. All fish caught. (Only crabs remain).

~~TDD
 08.22.23~~

05.22.23

TDD 19

- 0725 Arrive at BH Marina.
 A. Vandewort, TDD, load supplies.
 60s, pthly cloudy.
 0730 Meet up w/ E. Loss & K. Kull (WFHL)
 0740 Rachel Crowley (CW) arrives
 0745 Claire Christensen (CW) arrives
 0755 Nina Maas (AG) arrives, H&S briefing
 0800 Depart marina. Head to R2
 0840 Begin trawl 28 in R2 (mostly 2A)
 0850 End trawl 28, 1 DC, 1 GC
 0906 Begin trawl 29 in R2 (mostly 2A)
 0924 End trawl 29, \emptyset
 0939 Begin trawl 30 in R2 (mostly 2A)
 1002 End trawl 30, 3 GC
 1051 Begin trawl 31 in R2 (mostly 2A)
 1049 End trawl, \emptyset
 1111 Begin trawl 32, in R2 (mostly 2A)
 1136 End trawl 32, 3 GC
 1155 Begin trawl 33, in R2 (mostly 2A)
 1220 End trawl 33, \emptyset
 1234 Begin trawl 34 in R2 (mostly 2A)
 1302 End trawl 34 2 GC
 1326 Begin trawl 35, in R2 (mostly 2A)
 1339 End trawl, 1 DC

08.24.23

T120

- 1352 Begin trawl 36 in R2 (mostly 2A)
 1414 End trawl, 1GL
 1434 Begin trawl 37 in R2 (mostly 2A)
 1459 End trawl 37. 1GL
 1555 ~~#~~ Trawling effort completed. Head back to marina.
 1610 Back at marina. Prep to process samples.
 1635 Complete processing. Clean up offload supplies and samples to demob.
 1645 Depart marina. End of on-water field day.

~~08.24.23~~
 T120

09.05.2023

S. Replinger

- 0810 Arrive at Harbor Island Marina Prep for sampling.
 Weather: overcast, 60s
- 0830 meet crew. Conduct Health & Safety Mtg.
 S. Replinger } Winkers
 A. Vandorret }
 Shawn Hinz (Granty)
 Linda Vate Brattstrom (Cleanways)
- 0835 Depart marina. Head to retrieve passive samplers at South Park Bridge (PS1) and Linerage Logistics (PS2).
- 0900 Arrive at PS1. Retrieve 1st frame. Open trap blank.
 All passive samplers present. (reps 01-05).
 0915 Retrieve 2nd passive sampler frame.
 Rep 6 was detached on top side - archive.
 Reps 07-09 ok.
 YSI 599501-02.
- 0920 Close trap blank and depart PS1.
- 0930 Arrive at PS2. Tide too high to retrieve samplers. Head to Harbor Island Marina to offload/clean frames from PS1.
- 0945 Arrive at marina. Clean equipment.
- 1020 Depart marina. Head to PS2.
 Wait for tide to drop.
- 1205 Retrieve 1st frame at PS2. Open trap blank.
 Reps 16-19 on frame - all ok.
 YSI 13M101806

Rite in the Rain.

22 9.5.2023

S. Replinger

1220 Retrieve 2nd frame at PS2.

Reps 11-15. All ok.

1230 Close trap blank and depart PS2.

Head to Harbor Island Manna.

1245 Arrive at Harbor Island Manna. Clean
equipment and process supplies.

1255 Shawn Hinz (Granty) departs.

1305 Depart Harbor Island Manna.

End of field day.

~~S. Replinger
9.5.2023~~

23

8/21/23 AOC4 Crab Sampling ^{C.} Christensen

0735 arrive at South Park Marina

Weather: 57°F, cloudy, smoke,
calm, warming to mid 70s

Crew: Claire Christensen Grace
Ed Sloan, Granty Hinz,
Larry LeSew, Granty Granty

0800 mobilized gear onto boat & bait the traps

0840 conduct Health & Safety

0850 depart marina and head to
Reach 2

0910 deploy crab trap 1 (CT01)
122° 1277266.50, 190578.64

0912 deploy crab trap 2 (CT02)
1276923.80, 190333.07

0918 deploy crab trap 3 (CT03)
1276758.19, 191667.55

0922 deploy crab trap 4 (CT04)
1277133.28, 192804.17

0926 deploy crab trap 5 (CT05)
1276463.64, 192862.20

0931 deploy crab trap 6 (CT06)
1275866.13, 194555.79

Ret in the Rain.

8/21/23 AOC4 Crab Sampling C. Christensen

- 0937 deploy crab trap 7 (CT07)
1275522.46, 195640.21
- 0943 deploy crab trap 8 (CT08)
1274325.33, 196702.63
- 0946 deploy crab trap 9 (CT09)
1273890.73, 197153.35
- 0950 deploy crab trap 10 (CT10)
1272956.59, 197986.28
- 0955 deploy crab trap 11 (CT11)
1273008.39, 198151.88
- 1009 retrieve trap 4 to relocate it out
of slip 6. Caught one 3 in bullfish,
removed from trap & released.
- 1013 redeploy trap 4 outside of slip 6.
1276563.10, 192351.76
noted as "crabpot 4.1" in boat
coordinates.
- 1015 Head to South Park Marina
to wait while traps soak
- 1028 arrive at South Park Marina
- 1120 depart South Park Marina towards
crab trap 1
- 1138 retrieve trap 1; redeploy
trap 1 empty. (CT12)

8/21/23 AOC4 Crab Sampling C. Christensen

- 1140 retrieve trap 2; redeploy (CT13)
trap 2 empty. removed fish
hook caught in mesh.
- 1146 retrieve trap 3; redeploy (CT14)
trap 3 empty.
- 1149 retrieve trap 4; redeploy. (CT15)
empty.
- 1152 retrieve trap 5; redeploy. (CT16)
empty
- 1157 retrieve trap 6; redeploy. empty. (CT17)
- 1201 retrieve trap 7; redeploy. empty. (CT18)
opened cat food cans further. (CT19)
- 1209 retrieve trap 8; redeploy. empty.
- 1213 retrieve trap 9; redeploy. (CT20)
caught 2 ^{DC} etc, too small. male. (CT21)
- 1221 retrieve trap 10, redeploy ^{1 male} of size.
- 1226 retrieve trap 11; redeploy. empty.
- 1230 Head back to South Park Marina (CT22)
to let traps soak a second time.
- 1400 leave South Park Marina towards
trap 1.
- 1409 retrieve trap 1. empty (CT22)
- 1412 retrieve trap 2. empty (CT23)
- 1417 retrieve trap 3. empty (CT24)

8/21/23 AOC4 Crab Sampling C. Christensen

- 1419 retrieve trap 4. empty. (CT15)
 1423 retrieve trap 5. one DC male, too small, missing right claw. (CT16)
 1427 retrieve trap 6. empty. (CT17)
 1431 retrieve trap 7. empty (CT18)
 1438 retrieve trap 8. empty. (CT19)
 1442 retrieve trap 9. empty. (CT20)
 1447 retrieve trap 10. empty! (CT21)
 1448 retrieve trap 11. empty. (CT22)
 1458 Handed off crab to trawl boat.
 1500 Head back to SPM.
 1505 Demobilize and depart SPM

~~K. McPeck~~

~~8/21/23~~

K. McPeck

8/22/23

- 0715 Arrive SPM
 weather: 60, partly cloudy
 crew: Ed Sloan } Crusty
 Grace Hira }
 Rachel Crowley - Clearway
 Kitz McPeck - Windward
- 0730 Mobilize gear, bait traps
 0800 H+S meeting
 0830 Depart marina, head to upstream portion of Reach 2
- 0845 deploy ^{km}CT23 (CT=crab trap)
 1276822.03, 190613.77
- 0848 deploy CT24
 1276701.71, 191008.35
- 0850 deploy CT25
 1276592.20, 191526.13
- 0854 deploy CT26
 1276434.16, 192946.99
- 0858 deploy CT27
 1276071.59, 193640.44
- 0903 deploy CT28
 1276035.83, 194704.58
- 0907 deploy CT29
 12765665.93, 195768.81
- 0912 deploy CT30
 1274464.90, 196815.07

Return to Rain.

8 K. McPeck

8/22/23

- 0917 deploy CT31
1273970.09, 197317.30
- 0919 deploy CT32
~~0919~~ ~~1273712.50~~, 197547.15
- 0921 deploy CT33; line short - buoy underwater
1273169.87, 197793.71
- 0925 head to SPM to wait for traps to soak
- 0935 Arrive SPM
- 1045 Depart SPM to retrieve traps
- 1100 retrieve CT23 - empty
- 1103 retrieve CT24 - empty
- 1106 retrieve CT25 - empty
- 1111 retrieve CT26 - empty
- 1115 retrieve CT27 - empty
- 1120 retrieve CT28 - 1 male Dungeness (DC)
- 1124 deploy CT34
1276082.14, 194572.52
- 1125 deploy CT35
1276038.40, 194698.80
- 1127 deploy CT36
1276011.72, 194827.65
- 1133 retrieve CT29 - 4 crabs (GC) - males
- 1136 deploy CT37
1275742.50, 195658.33
- 1139 deploy CT38
1275665.70, 195754.47

K. McPeck

8/22/23

- 1140 Deploy CT39
1275545.44, 195862.79
- 1145 retrieve CT30 - 1 DC, 1 GC (male)
- 1150 deploy CT40
1274448.95, 196811.97
- 1213 retrieve CT31 - empty
- 1216 retrieve CT32 - empty
- 1220 retrieve CT33 - 1 GC male
- 1225 deploy CT41
12783083.56, 197779.83
- 1227 deploy CT42
1272961.73, 197934.05
- 1228 deploy CT43
1272890.02, 198005.55
- 1235 deploy CT44
1274365.49, 196921.69
- 1240 process crabs and return to SPM
while traps soak
- 1345 Depart SPM to retrieve traps
- 1355 retrieve CT37^{km} - 1 GC male
- 1359 retrieve CT34 - empty
- 1401 retrieve CT35 - 1 GC female (fossed back)
- 1404 retrieve CT36 - 1 DC male
- 1413 retrieve CT38 - 1 GC male
- 1416 retrieve CT39 - 2 DC, 1 GC (all males)
- 1426 retrieve CT40 - empty
- Rite in the Rain*

¹⁰ K. McPeak

8/22/23

- 1445 retrieve CT41 - empty
1447 retrieve CT42 - 1 DC, 2 GC (all males)
1457 retrieve CT43 - 2 GC (males)
1504 retrieve CT44 - empty
1510 return to SPM
1518 arrive SPM, demobilize
1525 head to Reach 1 to meet trawling
boat
1545 transfer samples to trawling crew,
head back to SPM
1620 depart SPM

~~K. McPeak
8/22/23~~

K. McPeak

8/23/23¹¹

- 0700 Arrive SPM, meet crew, prep for
sampling + bait traps
Weather: 60, cloudy
Crew: K. McPeak - Windward
R. Crowley - Clearway
G. Hanz } Gravity
E. Sloan }
0745 HRS meeting
0815 Depart SPM, head to Reach 1
0827 deploy CT45
1272353.44, 198552.05
0832 deploy CT46
1271814.21, 199027.51
0837 deploy CT47
1270904.04, 200032.18
0840 deploy CT48
1270469.86, 200426.75
0846 deploy CT49
1269436.87, 201481.75
0851 deploy CT50
1269152.19, 202374.21
0855 deploy CT51
1268714.23, 203584.70
0858 deploy CT52
12684^{km}343.32, 204721.96

Rite in the Rain

12 K. McPock

8/23/23

- 0902 deploy CT53
1268078.44, 205764.56
- 0908 deploy CT54
1267238.76, 208012.93
- 0911 deploy CT55
1266953.65, 209013.27
- 0914 head to Harbor Island Marina while
traps soak
- 1105 depart marina to retrieve traps
- 1133 retrieve CT45 - 2 OC (males)
- 1136 deploy CT56
1272361.19, 198551.12
- 1143 retrieve CT46 - 1 GC (male)
- 1144 deploy CT57
1271812.12, 199034.16
- 1154 retrieve CT47 - empty
- 1159 ~~retrieve CT48~~ ^{km} deploy CT58
1270982.67, ~~1270982.67~~ ^{km} 200294.28
- 1202 retrieve CT^{km} 48 - 1 GC male - < 9 cm.
tossed back
- 1204 deploy CT59
1270463.38, 200442.39
- 1209 retrieve CT49 - 1 GC female - tossed back
- 1215 deploy CT60
1269809.43, 201054.09
- 1220 retrieve CT50 - empty

K. McPock

8/23/23¹³

- 1223 deploy CT61
1268825.28, 202404.61
- 1228 retrieve CT51 - empty
- 1231 deploy CT62
1268708.78, 203934.61
- 1236 retrieve CT52 - empty
- 1243 retrieve CT53 - 5 GC (all males)
- 1247 deploy CT63
1268086.89, 205743.78
- 1254 retrieve CT54 - 4 GC (males); 12.9 cm
tossed back
- 1256 deploy CT64
1267241.40, 208006.54
- 1303 retrieve CT55 - 1 red rock crab (tossed
back), 6 GC (5 males, 1 female -
tossed back)
- 1312 deploy CT65
1266947.91, 209049.51
- 1315 deploy CT66
1266279.95, 209889.73
- 1335 meet trawling boat to get larger scale
- 1340 return to Harbor Island Marina
- 1407 depart marina to retrieve traps
- 1431 retrieve CT56 - empty
- 1436 retrieve CT57 - empty
- 1440 retrieve CT58 - empty
- 1444 retrieve CT59 - 3 GC (2 male, 1 female
tossed back)

14 K. McPeck

8/23/23

- 1452 retrieve CT60 - empty
 1457 retrieve CT61 - 1 GC male
 1502 retrieve CT62 - 1 red rock crab -
 tossed back
 1508 retrieve CT63 - 4 GC (3 male, 1 female)
 1515 retrieve CT64 - 2 red rock crabs -
 tossed back
 1521 retrieve CT65 - 4 GC (2 female, 2
 male), 1 red rock crab (tossed back)
 1525 retrieve CT66 - 2 red rock crabs
 (tossed back)
 1535 transfer samples to trawling boat
 1540 depart Reach 1, head to SPM
 1605 arrive SPM, unload boat
 1620 depart marina

~~Wanna
 8/23/23~~

K. McPeck

8/24/23 15

- 0705 Arrive South Park Marina, meet crew
 Weather: 60, Sunny
 Crew: K. McPeck - Windward
 E. Sloan } Gravity
 G. Hinz }
 L. Vate Brattstrom - Cleerway
 0720 Load boat, bait traps, prep for
 crabbing
 0745 H+S mating
 0811 Depart SPM to set traps in Reach 2 (R2)
 0819 deploy CT67 (R2)
 1276028.02, 194689.43
 0821 deploy CT68 (R2)
 12765999.59, 194801.87
 0826 deploy CT69 (R2)
 1275745.27, 195645.70
 0827 deploy CT70 (R2)
 1275473.28, 195758.46
 0833 deploy CT71 (R2)
 1274452.71, 196821.42
 0836 deploy CT72 (R2)
 1274434.30, 196867.40
 0841 deploy CT73 (R2)
 1273034.96, 197856.56
 0844 deploy CT74 (R2)
 1272939.76, 197961.00

Return to Rain

16 K. McPoeck

8/24/23

- 0845 Head to Reach 1 to deploy remaining
3 traps
- 0907 deploy CT75 (R1)
1268074.12, 205808.42
- 0912^{km}4 deploy CT76 (R1)
1267252.69, 207992.46
- 0918 deploy CT77 (R1)
1266952.81, 209079.17
- 0920 Depart Reach 1 for Elliot Bay Marina
to fuel boat
- 0945 Arrive Elliot Bay Marina
- 1015 Depart marina for R2 to pull traps
- 1111 retrieve CT67 (R2) - 1 DC (male)
- 1114 deploy CT78 (R2)
1276073.35, 194588.47
- 1117 retrieve CT68 (R2) - 1 DC (male)
- 1119 deploy CT79 (R2)
1275992.60, 194801.68
- 1123 retrieve CT69 (R2) - 1 GC, 2 DC (males)
- 1125 deploy CT80 (R2)
1275744.60, 195644.11
- 1128 retrieve CT70 (R2) - 1 DC (male)
- 1130 deploy CT81 (R2)
1275675.35, 195767.62
- 1139 retrieve CT71 (R2) - 3 DC (males)

K. McPoeck

8/24/23¹⁷

- 1142 deploy CT82 (R2)
1274446.22, 196821.85
- 1144 retrieve CT72 - 1 DC, 1 GC (males)
- 1146 deploy CT83 (R2)
1274414.18, 196874.77
- 1156 retrieve CT73 - 1 GC (male)
- 1158 deploy CT84 (R2)
1273056.18, 197845.81
- 1200 retrieve ~~CT85~~^{km} CT74 - 1 GC, 3 DC
(all males)
- 1203 deploy CT85 (R2)
1272936.74, 197957.92
- 1231 retrieve CT75 (R1) - 4 GC (1 female
+ 1 male < 9cm tossed back)
- 1240 retrieve CT76 (R1) - 3 male GC,
1 female GC + 2 rd rock crabs tossed
back
- 1245 retrieve CT77 (R1) - 2 rd rock crabs
tossed back, 5 GC (males)
- 1249 head to Reach 2 to deploy remaining
traps
- 1308 deploy CT86 (R2)
1272953.63, ~~19779.46~~^{km} 197979.46
- 1312 deploy CT87 (R2)
1274319.97, 196917.86

Rite in the Rain.

18 K. McPeck

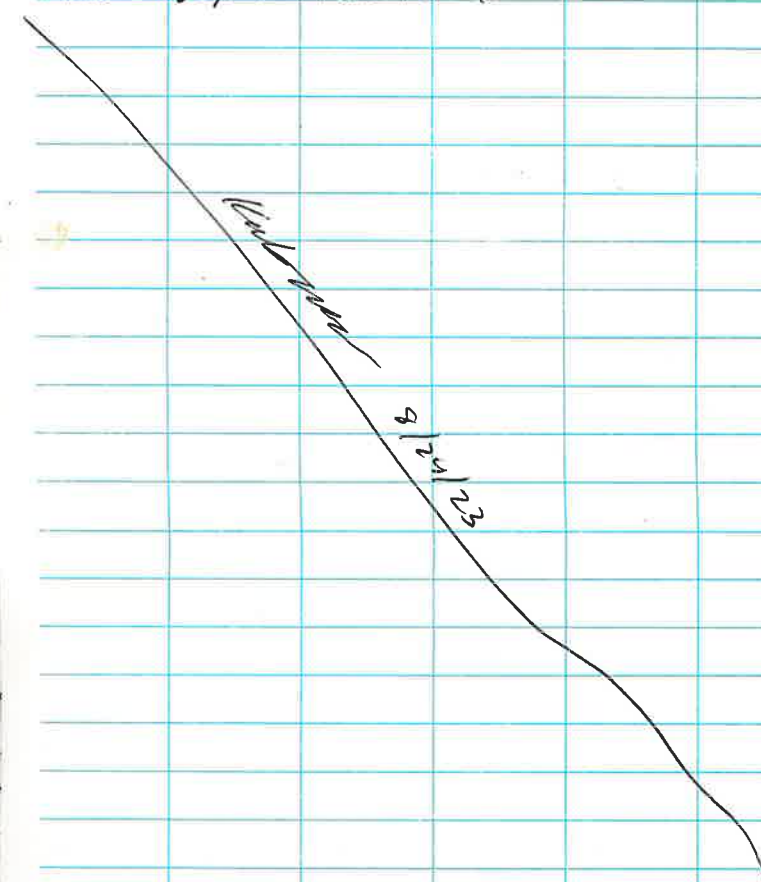
8/24/23

- 1316 deploy CT88 (R2)
1275610.41, 195800.13
- 1318 return to SPM for restroom break
- 1322 arrive SPM
- 1349 depart SPM to retrieve traps
- 1358 retrieve CT78 (R2) - 1 DC, 1 GC (male)
GC < 9cm - tossed back
- 1402 retrieve CT79 (R2) - 1 DC (male)
- 1409 retrieve CT80 (R2) - 2 DC (male)
- 1412 retrieve CT81 (R2) - 1 DC (male)
- 1422 retrieve CT82 (R2) - 1 DC (male) -
tossed back (reached DC limit
for Reach 2)
- 1426 retrieve CT83 (R2) - empty
- 1436 retrieve CT84 (R2) - empty
- 1439 retrieve CT85 (R2) - empty
- 1542 retrieve CT86 (R2) - 1 DC (male) -
tossed back
- 1549 retrieve CT87 (R2) - 1 DC (male) -
tossed back
- 1555 retrieve CT88 (R2) - 1 GC (male)
- 1600 return to SPM
- 1604 deploy CT89 (R2)
1274702.90, 196375.42
- 1606 deploy CT90 (R2)
1274710.78, 196368.39

K. McPeck

8/24/23

- 1608 deploy CT91 (R2)
1274716.49, 196362.51
(last 3 traps deployed for overnight
soak next to boat at SPM)
- 1610 unred boat
- ~~1615~~¹⁶²⁰ depart SPM for lab



20 K. McPeck

8/25/23

- 0715 Arrive SPM, meet crew
 Weather: 60, partly cloudy
 Crew: K. McPeck - Windward
 R. Crowley - Clearway
 E. Sloan } Cranty
 G. Hinz }
- 0725 Load boat, bait crab traps
 0740 retrieve CT89, CT90, and CT91
 (traps that soaked overnight next
 to boat) - all empty
- 0750 H+S meeting
 0800 Depart SPM to deploy traps in Reach 2
 0812 Deploy CT92
 1277152.56, 190497.23
- 0825 Deploy CT93
^{km} ~~0825~~ ~~dep~~ 1276053.91, 194632.05
- 0827 Deploy CT94
 1276007.84, 194717.04
- 0828 Deploy CT95
 1275984.37, 194809.49
- 0830 Deploy CT96
 1275758.79, 195607.18
- 0832 Deploy CT97
 1275678.79, 195712.38
- 0839 Deploy CT98
 1274406.77, 196898.38

K. McPeck

8/25/23²¹

- 0840 Deploy CT99
 1274425.45, 196839.71
- 0842 Deploy CT100
 1274347.72, 196683.42
- 0844 Deploy CT101
^{km} ~~0844~~ 1273954.41, 197073.82
- 0849 Deploy CT102
 1272936.21, 197950.99
- 0850 return to SPM to wait for traps to soak
 1048 Depart SPM to retrieve traps in Reach 2
- 1101 retrieve CT92 - empty
 1112 retrieve CT93 - empty
 1113 retrieve CT94 - 1 GC (male)
 1117 retrieve CT95 - empty
 1121 retrieve CT96 - 1 GC (male)
 1124 retrieve CT97 - empty
 1130 retrieve CT98 - empty
 1132 retrieve CT99 - empty
 1134 retrieve CT100 - 1 GC (female, < 9 cm) -
 tossed back
- 1136 ~~retrieve~~ ^{retrieve} CT101 - empty
- 1140 retrieve CT102 - 1 DC (male) - tossed
 back
- 1144 Deploy CT103
 1272841.74, 197938.24

Rite in the Rain

22 K. McPeck

8/25/23

- 1146 deploy CT104
1272953.46, 197810.55
- 1148 deploy CT105
1273239.96, 197666.57
- 1150 deploy CT106
1273784.81, 197512.72
- 1154 deploy CT107
1274451.96, 196929.49
- 1155 deploy CT108
- ~~1155~~ deploy CT108 1274441.79, 196876.86
- 1156 deploy CT109
1274444.70, 196825.89
- 1200 deploy CT110
1275552.38, 195822.12
- 1202 deploy CT111
1275629.39, 195818.19
- 1203 deploy CT112
1275705.26, 195747.20
- 1204 deploy CT113
1275700.18, 195649.85
- 1206 return to SPM while traps soak
- 1430 depart SPM to pull traps
- 1442 retrieve CT103 - empty
- 1443 retrieve CT104 - empty
- 1445 retrieve CT105 - empty
- 1448 retrieve CT106 - empty

K. McPeck

8/25/23²³

- 1451 retrieve CT107 - empty
- 1453 retrieve CT108 - empty
- 1455 retrieve CT109 - empty
- 1500 retrieve CT110 - empty
- 1502 retrieve CT111 - empty
- 1504 retrieve CT112 - empty
- 1507 retrieve CT113 - empty
- 1510 return to SPM
- 1515 arrive SPM, unload boat
- 1540 Depart SPM for lab

~~1540~~
8/25/23

Field Photos

Field Photos

FISH AND CRAB TISSUE COLLECTION AND PROCESSING



Figure 1. R/V Kittiwake conducting trawling operations



Figure 2. Field crew conducting trawling operations during periodic monitoring



Figure 3. Field crew sorting catch after retrieval of trawl



Figure 4. Crab traps used during periodic monitoring effort

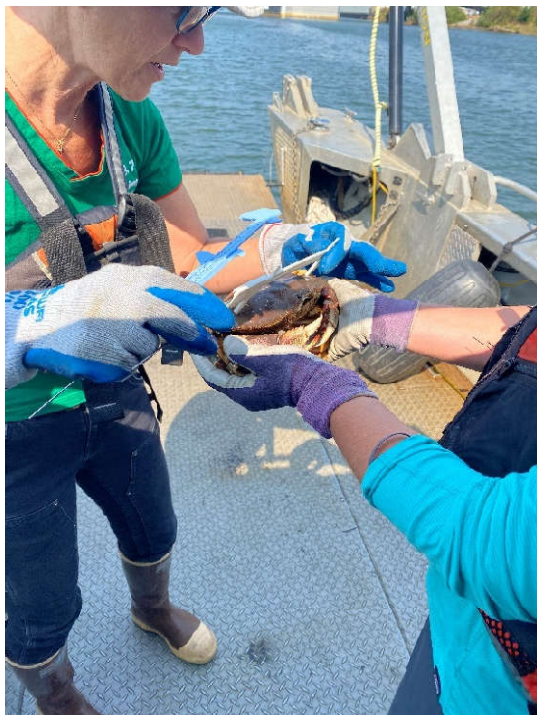


Figure 5. Measuring crab size during field effort

CLAM TISSUE COLLECTION AND PROCESSING

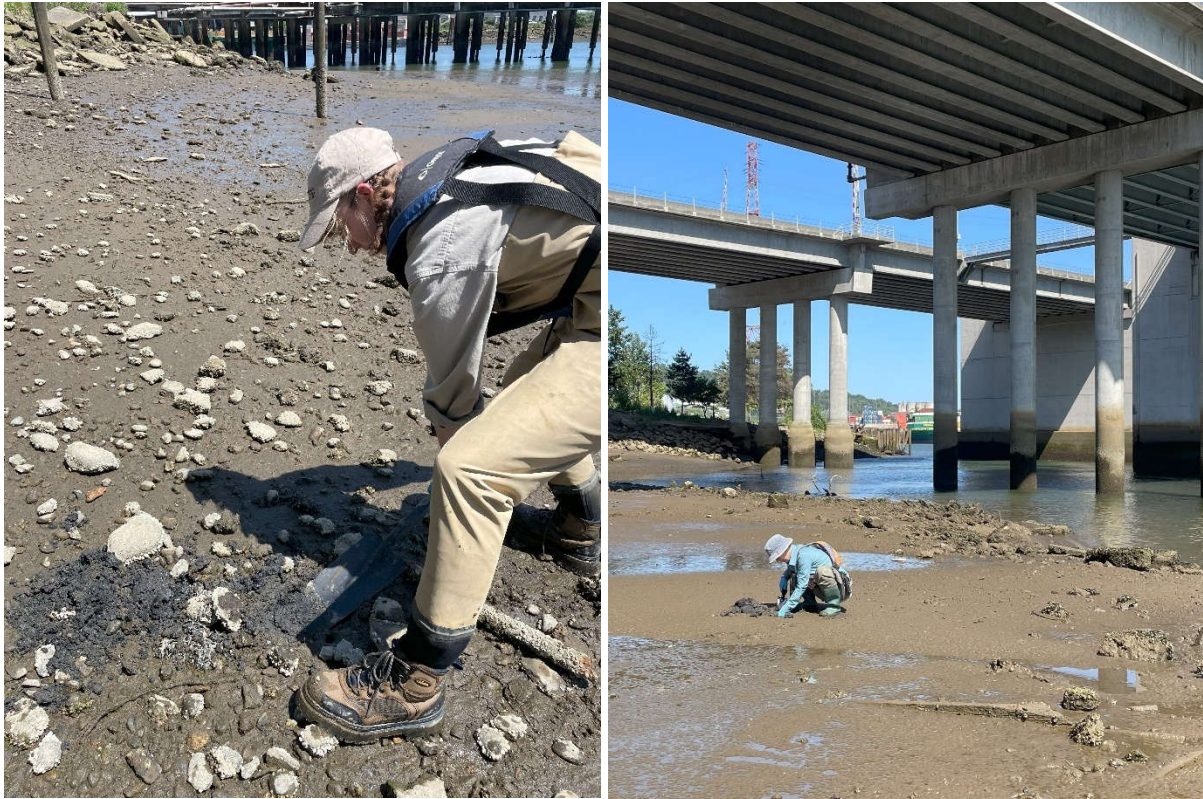


Figure 6. Examples of clam tissue collection during periodic monitoring field work



Figure 7. Using calipers to measure clam size during field effort



Figure 8. Close-up of Eastern softshell clam (*Mya arenaria*)

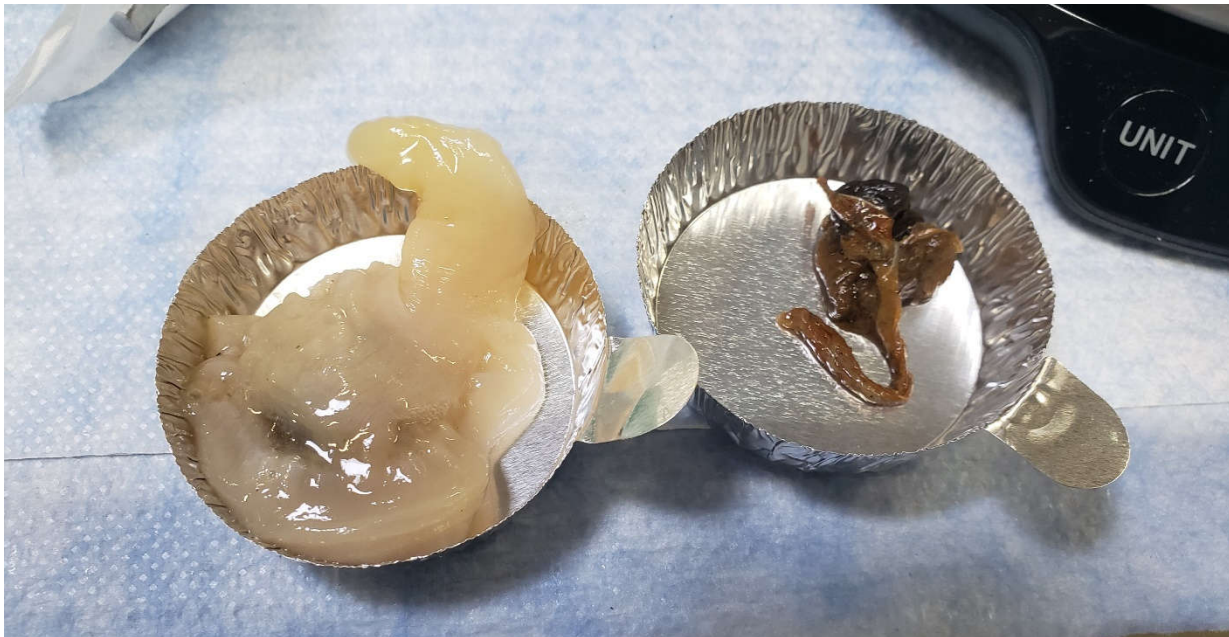


Figure 9. Clam dissection for inorganic arsenic samples (whole body without siphon skin shown on left; siphon skin shown on right)

PASSIVE SAMPLER DEPLOYMENT AND RETRIEVAL



Figure 10. Preparation of passive sampler frames and deployment



Figure 11. Retrieval of passive sampler frames



Figure 12. Close-up of passive sampler in mesh bag following retrieval



Figure 13. Passive sampler deployment location PS1 at RM 3.3E (South Park Bridge)



Figure 14. Passive sampler deployment location PS2 at RM 1.9W (Lineage Logistics)

Chain of Custody Forms

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 4185

1 of 6

Project/Client Name: Accy Task 1305 Periodic Maturing Ship to: ARL Shipping Date: 06.05.23
 Project Number: 180067.02104 Attn: Sue Vanderaff Airbill Number: _____
 Contact Name: Anara Vanderaff Shipper: Courier Turnaround requested: SLD
 Sampled By: Windward Form filled out by: C. Christensen

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (Jar tag number(s))
					Hold Time	Positive Instruction			
6/4/23	1230	10023-C01-C1001	1	tissue	X				
	1230	" -C1002							
	1235	" -C1003							
	1235	" -C1004							
	1240	" -C1005							
	1240	" -C1006							
	1245	" -C1007							
	1246	" -C1008							
	1247	" -C1009							
	1257	" -C1010							
	1254	" -C1011							
	1301	" -C1012							
		Total Number of Containers	12						

1) Released by: Anara Vanderaff Print name: _____
 Signature: Anara Vanderaff Signature: _____
 Company: Windward Company: _____
 Date/Time: 6/5/23 0920 Date/Time: _____

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

Purchase Order / Statement of Work # _____

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



CHAIN-OF-CUSTODY/TEST REQUEST FORM

2 of 6

No 4180

Project/Client Name: AOC4 Task 1305 Periodic Monitoring Ship to: ARL
 Project Number: 180067.02.04 Attn: Sue Quinlan Shipping Date: 06.05.23
 Contact Name: Anna Vandewort Shipper: carrier Airbill Number: _____
 Sampled By: Windward Form filled out by: C. Christensen Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions (Jar tag number(s))
					1	2	3	4	5	
6/4/23	1257	LDW23-CO1-CL013	1	tissue						
	1301	" -CL014	1							
	1300	" -CL015	1							
	1305	" CL016	1							
	1310	" CL017	1							
	1316	" CL018	1							
	1311	" CL019	1							
	1317	" CL020	1							
	1318	" CL021	1							
	0945	LDW23-CO2-CL001								
	0950	" CL002								
	0930	" CL003								
		Total Number of Containers	17							

1) Released by: _____
 Print name: Anna Vandewort
 Signature: [Signature]
 Company: Windward
 Date/Time: 6/5/23 0930

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 West Market Street
200 1st Ave W, Suite 500
Seattle, WA 98119
206.378.1364



* Distribution: White copies accompany shipment; yellow retained by consignee.

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 4181

3 of 6

Project/Client Name: Acc4Task 1305 Periodic Monitoring Ship to: ARL Shipping Date: 06.05.23
 Project Number: 180607.02.04 Attn: Sue Ann-hod Airbill Number: _____
 Contact Name: Angela Vanderhoff Shipper: courier Turnaround requested: std
 Sampled By: Windward Form filled out by: C. Christensen

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)	Comments / Instructions (Jar tag number(s))
6/4/23	1105	LDW23-602-CO2-CL004	1	tissue	Hold-fore	
	1020	LDW23-CO2-CL005				
	0955	" CL006				
	1055	" CL007				
	1015	" CL008				
	1033	" CL009				
	1112	" CL010				
	0945	" CL011				
	1030	" CL012				
	1059	" CL013				
	1050	" CL014				
	1040	" CL015				
		Total Number of Containers	12			

1) Released by: _____ 2) Rec'd by: _____
 Print name: _____ Print name: _____
 Signature: _____ Signature: _____
 Company: _____ Company: _____
 Date/Time: _____ Date/Time: _____

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____

* Distribution: White copies accompany shipment; yellow retained by consignee.

**200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364**



CHAIN-OF-CUSTODY/TEST REQUEST FORM

4 of 6

No 4179

Project/Client Name: ARL Task 1305 Periodic Monitoring Ship to: ARL
 Project Number: 1800107.02.04 Attn: Sue Anninod Shipping Date: 06.05.23
 Contact Name: Amyra Vandevort Shipper: Carrier Airbill Number: _____
 Sampled By: Windward Form filled out by: C Christensen Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions (Jar tag number(s))
					Hold + Release	Pending	Conduct	Instruction			
1047		LDW23-C02-CL016	1	Tissue	X						
1115		" - CL017	1								
1020		" CL018	1								
1000		" CL019	1								
1108		" CL020	1								
1037		" CL021	1								
0957		LDW23-C03-CL001	1								
0948		" - CL002	1								
0937		" CL003	1								
0952		" CL004	1								
1003		" CL005	1								
1103		" CL006	1								
Total Number of Containers			17								

1) Released by: Amyra Vandevort Date/Time: 06/05/23 09:20
 Print name: Amyra Vandevort Company: Windward
 Signature: Amyra Vandevort
 Company: Windward
 Date/Time: 06/05/23 09:20

2) Rec'd by: _____ Date/Time: _____
 Print name: _____ Company: _____
 Signature: _____
 Company: _____
 Date/Time: _____

* Distribution: White copies accompany shipment; yellow retained by consignee.

Windward environmental LLC

**200 1st Ave W, Suite 500
Seattle, WA 98119
206.378.1364**

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:	
Condition upon receipt:	Time of receipt:	
Cooler temperature:	Received by:	

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No. 4177

5 of 6

Project/Client Name: AOC4 Task 1305 Periodic Monitoring Ship to: ARL
 Project Number: 180067.02.04 Attn: Sue Dunbar Shipping Date: 06.05.23
 Contact Name: Amara Vanderhoff Shipper: COPIER Airbill Number: _____
 Sampled By: Windward Form filled out by: Christensen Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions (Jar tag number(s))
					Hold Time	Residuals	Corrosion	Instructions			
6/14/23	1057	LDW23-103-1010	1	TISSUQ	X						
	1107	"									
	1031	"									
	1045	"									
	1045	"									
	1045	"									
	1112	LDW23-103-1007									
	1055	"									
	1030	"									
	1013	"									
	1022	"									
	1036	"									
Total Number of Containers											

Purchase Order / Statement of Work # _____

1) Released by: _____
 Print name: Amara Vanderhoff
 Signature: [Signature]
 Company: Windward
 Date/Time: 6/15/23 09:10

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

**200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364**



CHAIN-OF-CUSTODY/TEST REQUEST FORM

6 of 6

3497

Project/Client Name: A004 Periodic Monitoring Task 1305 Ship to: ARL
 Project Number: 180067.02.04 Attn: Sue Duvall Shipping Date: 06.05.23
 Contact Name: Amara Vandervort Shipper: courier Airbill Number: _____
 Sampled By: Windward Form filled out by: C. Christensen Turnaround requested: Std.

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions (Jar tag number(s))
					Hold (for pending analysis)	Test(s)	
6/19/23	0944	LDW23-C03-C013	1	ISSUE		X	
	1031	" C014					
	1033	" C015					
	1057	" C016					
	1107	" C017					
	1031	" C018					
	1045	" C019					
	1045	" C020					
	1045	" C021					
Total Number of Containers					9		

1) Released by: _____
 Print name: Amara Vandervort
 Signature: [Signature]
 Company: Windward
 Date/Time: 6/15/23 0940

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: AR LLC
 Date/Time: 6/23/23 9:20

Purchase Order / Statement of Work # _____

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



CHAIN-OF-CUSTODY/TEST REQUEST FORM

No. 4160

1 of 7

Project/Client Name: AOCY Periodic Monitoring Task 1305 Ship to: ARL
 Project Number: 180067.02.04 Attn: Sue Donahoe Shipping Date: 060623
 Contact Name: Amara Vanderort Shipper: Couner Airbill Number: _____
 Sampled By: Windwald Form filled out by: Christensen Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions [Jar tag number(s)]
					Hold time	Pendina	Composite	INSKUDW	
6-5-23	1435	LDW23-C05-C1001	1	ISSUE	X				
	1445	"							
	1417	"							
	1428	"							
	1434	"							
	1443	"							
	1435	"							
	1448	"							
	1441	"							
	1440	"							
	1434	"							
	1436	"							
		Total Number of Containers	12						

1) Released by: _____ 2) Rec'd by: _____
 Print name: Amara Vanderort Print name: _____
 Signature: A Vanderort Signature: _____
 Company: Windward Company: _____
 Date/Time: 6/6/23 0935 Date/Time: _____

Purchase Order / Statement of Work # ARJ-030173-ADCA-ARLJ

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



CHAIN-OF-CUSTODY/TEST REQUEST FORM

2 of 7 3500

Project/Client Name: AD14 Task Box Periodic monitoring Ship to: ARL
 Project Number: 1900107-02-DA Attn: Sue Dornikoff Shipping Date: 06/06/23
 Contact Name: A Vandenberg Shipper: owner Airbill Number: ---
 Sampled By: Windward Form filled out by: C. Christensen Turnaround requested: STB

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (jar tag number(s))
					1) Released by:	2) Rec'd by:	Print name:	Company:	
6-5-23	1434	LDW23-C05-C013	1	tissue	HTA Area				
	1431	" " " " C014							
	1429	" " " " C015							
	1426	" " " " C016							
	1424	" " " " C017							
	1427	" " " " C018							
	1422	" " " " C019							
	1420	" " " " C020							
	1415	" " " " C021							
	1010	LDW23-C03-C001							
	1010	" " " " C002							
	1015	" " " " C003							
Total Number of Containers						12	Purchase Order / Statement of Work # APS-030123-ADCA-ARLJ		

1) Released by: Anna Vandenberg 2) Rec'd by: Matthew Per
 Print name: Anna Vandenberg Company: ARL LLC
 Signature: [Signature] Date/Time: 06/06/23 0935
 Company: Windward Date/Time: 06/06/23 0935

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



3 of 7

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 4173

Project/Client Name: Accy Task 1305 Periodic Monitoring Ship to: ARL
 Project Number: 180067.02.04 Attn: Sue Vandervoort Shipping Date: 060623
 Contact Name: Amara Vandervoort Shipper: courier Airbill Number: _____
 Sampled By: Windward Form filled out by: C. Christensen Turnaround requested: SLD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions [jar tag number(s)]
					Holder/Freezer	Composited	Instructed		
6-5-23	1030	LDW23-C08-CL004	1	issue	X				
	1043	"							
	1048	"							
	1055	"							
	1108	"							
	1100	"							
	1105	"							
	1025 1025	"							
	1015	"							
	1030	"							
	1109	"							
	1035	"							
		Total Number of Containers	12						

1) Released by: Amara Vandervoort Signature: [Signature] Company: Windward Date/Time: 06/06/23 0935

2) Released by: [Signature] Signature: _____ Company: AR LLC Date/Time: 06/06/23 0935

2) Rec'd by: _____ Signature: _____ Company: _____ Date/Time: _____

Print name: _____ Signature: _____ Company: _____ Date/Time: _____

Company: _____ Signature: _____ Company: _____ Date/Time: _____

2) Rec'd by: _____ Signature: _____ Company: _____ Date/Time: _____

Purchase Order / Statement of Work # APS-030123-AD04 ARLJ

* Distribution: White copies accompany shipment; yellow retained by consignee.

200 1st Ave W, Suite 500
Seattle, WA 98119
206.378.1364



To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No. 4174

4 of 7

Project/Client Name: AOC4 Task 1305 Periodic Monitoring Ship to: ARL
 Project Number: 180067.02.04 Attn: Sue Quigley Shipping Date: 060623
 Contact Name: Amya Vandenberg Shipper: Courier Airbill Number: _____
 Sampled By: Wardward Form filled out by: C. Christensen Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions (jar tag number(s))
					Holdfast	Pendunc	Composite	Instanc		
6-5-23	1035	LDW23-C08-C1016	1	tissue	X					
	1035	" C1017								
	1052	" C1018								
	1052	" C1019								
	1100	" C1020								
	1109	" C1021								
	1255	LDW23-C10-C1001								
	1228	" C1002								
	1302	" C1003								
	1305	" C1004								
	1235	" C1005								
	1228	" C1006								
Total Number of Containers			17							

1) Released by: _____
 Print name: Amya Vandenberg
 Signature: [Signature]
 Company: Windward
 Date/Time: 6/6/23 0035

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: AR LLC
 Date/Time: 06/06/23 0935

Purchase Order / Statement of Work # AP5-030123-AOC4-ARLJ

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

**200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364**



CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 4175

5 of 7

Project/Client Name: ACC4 Task 1305 Periodic Monitoring Ship to: ARL
 Project Number: 180067.02.04 Attn: Sue Dunham Shipping Date: 060623
 Contact Name: Anna Vandorff Shipper: Covier Airbill Number: _____
 Sampled By: Windward Form filled out by: C. Christensen Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)	Comments / Instructions [Jar tag number(s)]
060523	1250	LDW23-C10-C1007	1	tissue	X	
	1309	" C1008				
	1314	" C1009				
	1243	" C1010				
	1318	" C1011				
	1308	" C1012				
	1300	" C1013				
	1320	" C1014				
	1313	" C1015				
	1320	" C1016				
	1330	" C1017				
	1328	" C1018				
		Total Number of Containers	12			

1) Released by: Anna Vandorff Print name: _____ Signature: _____ Company: Windward Date/Time: 06.06.23/0935
 2) Rec'd by: Matthew Per Print name: _____ Signature: _____ Company: ARL LLC Date/Time: 06/06/23 0935
 Purchase Order / Statement of Work # APS-030123-ARL-ARLJ

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



CHAIN-OF-CUSTODY/TEST REQUEST FORM

6 of 7 3499

Project/Client Name: Accy Task 1305 Periodic Monitoring Ship to: ARL
 Project Number: 180067022.04 Attn: Sue Quinlan Shipping Date: 060623
 Contact Name: Amara Vandenberg Shipper: Carver Airbill Number: _____
 Sampled By: Windward Form filled out by: C Christensen Turnaround requested: Std.

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (Jar tag number(s))
					Hold (over)	Pendana	Compositional	Instruct	
6-5-23	1325	LDW23-040-11019	1	tissue	X				
	1325	" " C1020							
	1325	" " C1021							
6-4-23	1220	LDW23-011-11001							
	1155	" " C1002							
	1234	" " C1003							
	1252	" " C1004							
	1227	" " C1005							
	1155	" " C1006							
	1320	" " C1007							
	1220	" " C1008							
	1215	" " C1009							
Total Number of Containers			12		Purchase Order / Statement of Work # <u>API-030123-ADCA-ARLJ</u>				

1) Released by: Amara Vandenberg Signature: Amara Vandenberg Company: Windward Date/Time: 6/6/23 0935
 2) Released by: _____ Signature: _____ Company: _____ Date/Time: _____
 2) Rec'd by: _____ Signature: _____ Company: _____ Date/Time: _____

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

**200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364**



* Distribution: White copies accompany shipment; yellow retained by consignor.

7 of 7

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 4172

Project/Client Name: AUC4 Periodic Monitoring Task 1305
 Project Number: 180067-02.04
 Contact Name: Annara Vandervort
 Sampled By: Dward

Ship to: ARL
 Attn: Sve Ounnad
 Shipper: courier
 Form filled out by: C. Christensen
 Shipping Date: 060623
 Airbill Number: _____
 Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)	Comments / Instructions (Jar tag number(s))
6/14/23	1245	LOW23-C11-C1010	1	tissue	X	
6/14/23	1320	" C1011				
6/15/23	1150	" C1012				
6/15/23	1153	" C1013				
6/14/23	1155	" C1014				
6/15/23	1150	" C1015 EA				
6/15/23	1154	" C1016				
6/14/23	1228	" C1017				
6/15/23	1155	" C1018				
6/14/23	1210	" C1019				
6/15/23	1205	" C1020				
6/15/23	1203	" C1021				
		Total Number of Containers	12			

Purchase Order / Statement of Work # APJ-030123-ADCA-ARLI

1) Released by: _____
 Print name: Annara Vandervort
 Signature: [Signature]
 Company: Windward
 Date/Time: 06.06.23/0935

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



CHAIN-OF-CUSTODY/TEST REQUEST FORM

1 of 6

No 4171

Project/Client Name: ADCA TASY 1305 periodic monitoring Ship to: ARL
 Project Number: 180067-02.04 Attn: SVE DUNNIBOD Shipping Date: 060723
 Contact Name: A. Vandervort Shipper: courier Airbill Number: _____
 Sampled By: Windward Form filled out by: C Christensen Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions [jar tag number(s)]
					1) Released by:	2) Rec'd by:	
6/15/23	1010	CDW23 09-C001	1	tissue	High P14H	X	
	1034	" C1002					
	1015	" C1003					
	1107	" C1004					
	1019	" C1005					
	1230	" C1006					
	1231	" C1007					
	1237	" C1008					
	1247	" C1009					
	1257	" C1010					
	1258	" C1011					
6/16/23	1317	" C1012					
Total Number of Containers					12	Purchase Order / Statement of Work # <u>APS-03D123-ADCA-ARLJ</u>	

1) Released by: _____ 2) Rec'd by: _____
 Print name: Angela Vandervort Print name: _____
 Signature: [Signature] Signature: _____
 Company: Windward Company: _____
 Date/Time: 060723/1027 Date/Time: _____

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

**200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364**



* Distribution: White copies accompany shipment; yellow retained by signor.

CHAIN-OF-CUSTODY/TEST REQUEST FORM

2 of 6

3453

Project/Client Name: AD04 Task 1305 Periodic monitoring Ship to: ARL Shipping Date: 060723
 Project Number: 190017-01.04 Attn: Sue Dammhor Airbill Number: ---
 Contact Name: A Vandervort Shipper: Courier Turnaround requested: std
 Sampled By: Windward Form filled out by: _____

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (jar tag number(s))
					Hold Time	Leaking	Composite	Other	
6/6/23	1323	LDW23-09-CL013	1	tissue	X				
	1323	"							
	1336	"							
	1337	"							
	1352	"							
	1355	"							
	1358	"							
	1358	"							
	1402	"							
	1220	LDW23-09-CL001							
	1220	"							
	1230	"							
		Total Number of Containers	<u>12</u>						

Purchase Order / Statement of Work # APJ-030123-AD04-ARLJ

1) Released by: <u>Amya Vandervort</u>	2) Released by: _____
Print name: <u>Amya Vandervort</u>	Print name: _____
Signature: <u>[Signature]</u>	Signature: _____
Company: <u>Windward</u>	Company: _____
Date/Time: <u>060723/1027</u>	Date/Time: _____

* Distribution: White copies accompany shipment; yellow retained by consignee.

**200 1st Ave W, Suite 500
Seattle, WA 98119
206.378.1364**



To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

3 of 10

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3452

Project/Client Name: ADCA TANK BODS PERIODIC MONITORING
 Project Number: 190067-02.04
 Contact Name: A Vandeword
 Sampled By: Windward

Ship to: ARL
 Attn: Bruce Dunnington
 Shipper: Courier
 Form filled out by: C Christensen

Shipping Date: 060723
 Airbill Number: _____
 Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions (Jar tag numbers)
					Hold over / Releasing	Composite	
10/16/23	1241	LDW23-204-CL004	1	TISSUE	X		
	1244	"					
	1301	"					
	1245	"					
	1255	"					
	1238	"					
	1250	"					
	1256	"					
	1308	"					
	1318	"					
	1200	"					
	1306	"					
		Total Number of Containers	<u>7</u>				

Purchase Order / Statement of Work # AP5-030173-ADCA-ARLJ

1) Released by: _____
 Print name: _____
 Signature: Alexis Vandeword
 Company: Windward

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____

Date/Time: 060723/1027 Date/Time: _____

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



4 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

110 3496

Project/Client Name: ADCH TASK 1305 Periodic monitoring Ship to: ARL
 Project Number: 180067-02.04 Attn: SUE DOWNHARD Shipping Date: 06.07.23
 Contact Name: A. Vandenberg Shipper: COURE Airbill Number: _____
 Sampled By: Windward Form filled out by: C. Christensen Turnaround requested: Std.

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (Jar tag number(s))
					1	2	3	4	
6/10/23	1317	LDW23-C04-C1016	1	HSALE	X				
	1320	"							
	1324	"							
	1330	"							
	1332	"							
	1325	"							
	1045	LDW23-C06-C1001							
	1050	"							
	1050	"							
	1055	"							
	1100	"							
	1150	"							
		Total Number of Containers	11						

1) Released by: _____ 2) Rec'd by: _____
 Print name: Matt Jones Print name: _____
 Signature: [Signature] Signature: _____
 Company: Windward Company: _____
 Date/Time: 06/07/23 1027 Date/Time: _____

Purchase Order / Statement of Work # APJ-030123-ADCA-ARLJ

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364



CHAIN-OF-CUSTODY/TEST REQUEST FORM

No. 4176

5 of 6

Project/Client Name: ADCA TASK 130X Periodic Monitoring Ship to: ACL Shipping Date: 06.07.23
 Project Number: 190067-02 04 Attn: SAM TAZUWIKHO Airbill Number: _____
 Contact Name: A Vandervort Shipper: COVIER Turnaround requested: std
 Sampled By: Windward Form filled out by: C Christensen

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions [Jar tag number(s)]
					Hold frozen (check box)	Composite (check box)	
6/6/23	1050	LDW23-C06-C1006	1	TISSUE	X		
	1110	" C1007					
	1100	" C1008					
	1055	" C1009					
	1115	" C1010					
	1104	" C1011					
	1130	" C1012					
	1111	" C1013					
	1115	" C1014					
	1130	" C1015					
	1136	" C1016					
	1121	" C1017					
Total Number of Containers			12				

Purchase Order / Statement of Work # APS-0360173-ADX4-ARLJ

1) Released by: _____
 Print name: _____
 Signature: _____
 Company: WINDWARD

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____

Date/Time: 06/07/23 1027

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

200 1st Ave W, Suite 500
Seattle, WA 98119
206.378.1364



* Distribution: White copies accompany shipment; yellow retained by consignee.

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L2368070

Project/Client Name: AOC4 Task 1305 Periodic Monitoring
 Project Number: 180067.02.04
 Contact Name: Amara Vandervort
 Sampled By: Windward

Ship to: Alpha Analytical No. AOC4PM-FC01
 Attn: Liz Porta Shipping Date: 11/15/23
 Shipper: UPS Airbill Number: _____
 Form filled out by: AV Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Homogenization	Test(s) Requested (check test(s) required)						Comments / Instructions [Composite/Bag ID]
01 8/22/2023	12:59	LDW23-R1A-SSWB-comp1	1	tissue	X							15 specimen per whole-body composite
02 8/22/2023	12:59	LDW23-R1A-SSWB-comp2	1	tissue	X							15 specimen per whole-body composite
03 8/22/2023	12:59	LDW23-R1A-SSWB-comp3	1	tissue	X							15 specimen per whole-body composite
04 8/23/2023	11:24	LDW23-R1B-SSWB-comp1	1	tissue	X							15 specimen per whole-body composite
05 8/23/2023	11:24	LDW23-R1B-SSWB-comp2	1	tissue	X							15 specimen per whole-body composite
06 8/23/2023	11:24	LDW23-R1B-SSWB-comp3	1	tissue	X							15 specimen per whole-body composite
07 8/21/2023	9:30	LDW23-R2A-SSWB-comp1	1	tissue	X							15 specimen per whole-body composite
08 8/21/2023	9:30	LDW23-R2A-SSWB-comp2	1	tissue	X							15 specimen per whole-body composite
09 8/21/2023	9:30	LDW23-R2A-SSWB-comp3	1	tissue	X							15 specimen per whole-body composite
10 8/21/2023	13:10	LDW23-R2B-SSWB-comp1	1	tissue	X							15 specimen per whole-body composite
11 8/21/2023	13:10	LDW23-R2B-SSWB-comp2	1	tissue	X							15 specimen per whole-body composite
12 8/21/2023	13:10	LDW23-R2B-SSWB-comp3	1	tissue	X							15 specimen per whole-body composite

Total Number of Containers 12

Purchase Order / Statement of Work # APJ-030123-AOC4 - ALPHA

1) Released by: Print name: Amara Vandervort Signature: <i>Amara Vandervort</i> Company: Windward Environmental Date/Time: 11/14/23 1453	1) Rec'd by: <i>Matthew Pardo</i> Company: ARLLC Date/Time: 11/14/23 1453	2) Released by: <i>Matthew Pardo</i> Print name: Matthew Pardo Signature: <i>Matthew Pardo</i> Company: ARLLC Date/Time: 11/15/23 1115	2) Rec'd by: <i>[Signature]</i> Company: Alpha Date/Time: 11/16/23 09:33
--	---	--	--

* Distribution: White copies accompany shipment; yellow retained by consignor.



200 1st Ave W
 Suite 500
 Seattle, WA 98119
 Tel: (206) 378-1364
 Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt: 11/16/23	Laboratory W.O. #:
Condition upon receipt:	Time of receipt: 09:33
Cooler temperature:	Received by: <i>[Signature]</i>

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L2368072

Project/Client Name: **AOC4 Task 1305 Periodic Monitoring**
 Project Number: **180067.02.04**
 Contact Name: **Amara Vandervort**
 Sampled By: **Windward**

Ship to: **Alpha Analytical** No. **AOC4PM-FC01**
 Attn: **Liz Porta** Shipping Date: **11/15/23**
 Shipper: **UPS** Airbill Number: _____
 Form filled out by: **AV** Turnaround requested: **std**

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions [Composite/Bag ID]
					Dissection and homogenization						
01 8/22/2023	12:59	LDW23-R1-ESFL-comp1	1	tissue	X						10 specimen for file and remainder composites
02 8/22/2023	12:59	LDW23-R1-ESRM-comp1	1	tissue	X						10 specimen for file and remainder composites
03 8/22/2023	14:06	LDW23-R1-ESFL-comp2	1	tissue	X						10 specimen for file and remainder composites
04 8/22/2023	14:06	LDW23-R1-ESRM-comp2	1	tissue	X						10 specimen for file and remainder composites
05 8/22/2023	12:59	LDW23-R1-ESFL-comp3	1	tissue	X						10 specimen for file and remainder composites
06 8/22/2023	12:59	LDW23-R1-ESRM-comp3	1	tissue	X						10 specimen for file and remainder composites
07 8/22/2023	12:59	LDW23-R1-ESFL-comp4	1	tissue	X						10 specimen for file and remainder composites
08 8/22/2023	12:59	LDW23-R1-ESRM-comp4	1	tissue	X						10 specimen for file and remainder composites
09 8/22/2023	12:59	LDW23-R1-ESFL-comp5	1	tissue	X						10 specimen for file and remainder composites
10 8/22/2023	12:59	LDW23-R1-ESRM-comp5	1	tissue	X						10 specimen for file and remainder composites
11 8/22/2023	14:06	LDW23-R1-ESFL-comp6	1	tissue	X						10 specimen for file and remainder composites
12 8/22/2023	14:06	LDW23-R1-ESRM-comp6	1	tissue	X						10 specimen for file and remainder composites

Total Number of Containers 12 Purchase Order / Statement of Work # APJ-030123-AOC4 - ALPHA

1) Released by: Print name: Amara Vandervort Signature: <i>Amara Vandervort</i> Company: Windward Environmental Date/Time: 11/14/23 1453	1) Rec'd by: <i>Matthew Penno</i> Company: <i>ARLLC</i> Date/Time: <i>11/14/23 1453</i>	2) Released by: <i>Matthew Penno</i> Print name: Matthew Penno Signature: <i>Matthew Penno</i> Company: <i>ARLLC</i> Date/Time: <i>11/15/23 1115</i>	2) Rec'd by: <i>[Signature]</i> Company: <i>Alpha</i> Date/Time: <i>11/16/23 0933</i>
--	---	--	---

* Distribution: White copies accompany shipment; yellow retained by consignee.



200 1st Ave W
 Suite 500
 Seattle, WA 98119
 Tel: (206) 378-1364
 Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt: <i>11/16/23</i>	Laboratory W.O. #:
Condition upon receipt:	Time of receipt: <i>0933</i>
Cooler temperature:	Received by: <i>[Signature]</i>

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L2368072

Project/Client Name: AOC4 Task 1305 Periodic Monitoring
 Project Number: 180067.02.04
 Contact Name: Amara Vandervort
 Sampled By: Windward

Ship to: Alpha Analytical No. AOC4PM-FC01
 Attn: Liz Porta Shipping Date: 11/15/23
 Shipper: UPS Airbill Number: _____
 Form filled out by: AV Turnaround requested: std

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

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions [Composite/Bag ID]
					Dissection and homogenization						
8/21/2023	13:10	LDW23-R2-ESFL-comp1	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	13:10	LDW23-R2-ESRM-comp1	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	9:30	LDW23-R2-ESFL-comp2	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	9:30	LDW23-R2-ESRM-comp2	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	11:55	LDW23-R2-ESFL-comp3	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	11:55	LDW23-R2-ESRM-comp3	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	9:30	LDW23-R2-ESFL-comp4	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	9:30	LDW23-R2-ESRM-comp4	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	11:25	LDW23-R2-ESFL-comp5	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	11:25	LDW23-R2-ESRM-comp5	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	11:55	LDW23-R2-ESFL-comp6	1	tissue	X						10 specimen for file and remainder composites
8/21/2023	11:55	LDW23-R2-ESRM-comp6	1	tissue	X						10 specimen for file and remainder composites
Total Number of Containers			Purchase Order / Statement of Work # APJ-030123-AOC4 - ALPHA								

1) Released by: Print name: Amara Vandervort Signature: <i>Amara Vandervort</i> Company: Windward Environmental Date/Time: 11/14/23 1453	1) Rec'd by: <i>Matthew Pinn</i> Company: <i>ARLLC</i> Date/Time: 11/14/23 1453	2) Released by: Print name: <i>Matthew Pinn</i> Signature: <i>Matthew Pinn</i> Company: <i>ARLLC</i> Date/Time: 11/15/23 1115	2) Rec'd by: <i>[Signature]</i> Company: <i>Alpha</i> Date/Time: 11/16/23 0933
--	---	---	--

* Distribution: White copies accompany shipment; yellow retained by consignee.



200 1st Ave W
 Suite 500
 Seattle, WA 98119
 Tel: (206) 378-1364
 Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt: 11/16/23	Laboratory W.O. #:
Condition upon receipt:	Time of receipt: 0933
Cooler temperature:	Received by: <i>[Signature]</i>

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L2368074

Project/Client Name: AOC4 Task 1305 Periodic Monitoring
 Project Number: 180067.02.04
 Contact Name: Amara Vandervort
 Sampled By: Windward

Ship to: Alpha Analytical No. AOC4PM-FC01
 Attn: Liz Porta Shipping Date: 11/15/23
 Shipper: UPS Airbill Number: _____
 Form filled out by: AV Turnaround requested: std

01
02
03
04
05
06
07
08
09
10
11
12

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Dissection and homogenization	Test(s) Requested (check test(s) required)						Comments / Instructions [Composite/Bag ID]
8/22/2023	14:06	LDW23-R1-GCEM-comp1	1	tissue	X							Edible meat #
8/23/2023	11:24	LDW23-R1-GCEM-comp2	1	tissue	X							7 specimen for meat and remainder composites
8/22/2023	14:06	LDW23-R1-GCHP-comp1	1	tissue	X							Edible meat
8/22/2023	14:06	LDW23-R1-GCEM-comp3	1	tissue	X							7 specimen for meat and remainder composites
8/23/2023	12:47	LDW23-R1-GCEM-comp4	1	tissue	X							14 specimen for meat and remainder composites
8/22/2023	14:06	LDW23-R1-GCHP-comp2	1	tissue	X							Hepato
8/23/2023	8:30	LDW23-R1-GCEM-comp5	1	tissue	X							Edible meat
8/22/2023	14:06	LDW23-R1-GCEM-comp6	1	tissue	X							7 specimen for meat and remainder composites
8/22/2023	11:21	LDW23-R2-GCEM-comp1	1	tissue	X							Edible meat
8/21/2023	10:40	LDW23-R2-GCEM-comp2	1	tissue	X							14 specimen for meat and remainder composites
8/21/2023	10:40	LDW23-R2-GCHP-comp1	1	tissue	X							Hepato
Total Number of Containers			12	Purchase Order / Statement of Work # APJ-030123-AOC4 - ALPHA								

1) Released by:
 Print name: Amara Vandervort
 Signature: *Amara Vandervort*
 Company: Windward Environmental
 Date/Time: 11/14/23 1453

1) Rec'd by: *Matthew Parau*
 Company: *ARUC*
 Date/Time: 11/14/23 1453

2) Released by: *Matthew Parau*
 Print name: Matthew Parau
 Signature: *Matthew Parau*
 Company: *ARUC*
 Date/Time: 11/15/23 1115

2) Rec'd by: *[Signature]*
 Company: *Alpha*
 Date/Time: 11/16/23 0933

* Distribution: White copies accompany shipment; yellow retained by consignor.



200 1st Ave W
 Suite 500
 Seattle, WA 98119
 Tel: (206) 378-1364
 Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt: 11/16/23	Laboratory W.O. #:
Condition upon receipt:	Time of receipt: 0933
Cooler temperature:	Received by: <i>[Signature]</i>

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L2368074

Project/Client Name: AOC4 Task 1305 Periodic Monitoring
 Project Number: 180067.02.04
 Contact Name: Amara Vandervort
 Sampled By: Windward

Ship to: Alpha Analytical No. AOC4PM-FC01
 Attn: Liz Porta Shipping Date: 11/15/23
 Shipper: UPS Airbill Number: _____
 Form filled out by: AV Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Dissection and homogenization	Test(s) Requested (check test(s) required)						Comments / Instructions [Composite/Bag ID]
13 8/21/2023	11:55	LDW23-R2-GCEM-comp3	1	tissue	X							7 specimen for filet and remainder composites <i>edible meat</i>
14 8/21/2023	11:55	LDW23-R2-GCEM-comp4	1	tissue	X							6 specimen for filet and remainder composites <i>edible meat</i>
15 8/21/2023	11:55	LDW23-R2-GCHP-comp2	1	tissue	X							13 specimen for filet and remainder composites <i>hepato</i>
16 8/21/2023	10:40	LDW23-R2-GCEM-comp5	1	tissue	X							7 specimen for filet and remainder composites <i>edible meat</i>
17 8/22/2023	11:33	LDW23-R2-GCEM-comp6	1	tissue	X							6 specimen for filet and remainder composites <i>edible meat</i>
18 8/21/2023	10:40	LDW23-R2-GCHP-comp3	1	tissue	X							13 specimen for filet and remainder composites <i>hepato</i>
19 8/21/2023	10:40	LDW23-R2-DCEM-comp1	1	tissue	X							5 specimen for filet and remainder composites <i>edible meat</i>
20 8/21/2023	11:55	LDW23-R2-DCEM-comp2	1	tissue	X							5 specimen for filet and remainder composites <i>edible meat</i>
21 8/21/2023	10:40	LDW23-R2-DCHP-comp1	1	tissue	X							10 specimen for filet and remainder composites <i>hepato</i>
22 8/22/2023	11:45	LDW23-R2-DCEM-comp3	1	tissue	X							5 specimen for filet and remainder composites <i>edible meat</i>
23 8/21/2023	10:40	LDW23-R2-DCEM-comp4	1	tissue	X							5 specimen for filet and remainder composites <i>edible meat</i>
24 8/21/2023	10:40	LDW23-R2-DCHP-comp2	1	tissue	X							10 specimen for filet and remainder composites <i>hepato</i>
Total Number of Containers			12	Purchase Order / Statement of Work # APJ-030123-AOC4 - ALPHA								

1) Released by: Print name: Amara Vandervort Signature: <i>Amara Vandervort</i> Company: Windward Environmental Date/Time: 11/14/23 1453	1) Rec'd by: <i>Matthew Pauer</i> Company: <i>ARLU</i> Date/Time: 11/14/23 1453	2) Released by: <i>Matthew Pauer</i> Print name: Matthew Pauer Signature: <i>Matthew Pauer</i> Company: <i>ARLU</i> Date/Time: 11/15/23 1115	2) Rec'd by: <i>[Signature]</i> Company: <i>Alpha</i> Date/Time: 11/16/23 0933
--	---	--	--

* Distribution: White copies accompany shipment; yellow retained by consignior.



200 1st Ave W
 Suite 500
 Seattle, WA 98119
 Tel: (206) 378-1364
 Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt: 11/16/23	Laboratory W.O. #:
Condition upon receipt:	Time of receipt: 09:33
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: AOC4 Periodic Monitoring Task 1305 Ship to: SGS Axys Analytical No. AOC4PM-PS01
 Project Number: 180067.02.04 Attn: Georgina Brooks Shipping Date: 9/6/23
 Contact Name: Amara Vandervort Shipper: FedEx Airbill Number: _____
 Sampled By: Windward Form filled out by: A. Vandervort Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions [Composite/Bag ID]
					PCB Congeners	Archive					
9/5/23	0900	LDW23-PS1-01	1	PES	-	X					
9/5/23	0900	LDW23-PS1-02	1	PES	X	-					
9/5/23	0900	LDW23-PS1-03	1	PES	-	X					
9/5/23	0900	LDW23-PS1-04	1	PES	X	-					
9/5/23	0900	LDW23-PS1-05	1	PES	X	-					
9/5/23	0915	LDW23-PS1-06	1	PES	-	X					
9/5/23	0915	LDW23-PS1-07	1	PES	X	-					
9/5/23	0915	LDW23-PS1-08	1	PES	X	-					
9/5/23	0915	LDW23-PS1-09	1	PES	-	X					
9/5/23	0915	LDW23-PS1-TB	1	PES	X	-					
9/5/23	1220	LDW23-PS2-01	1	PES	X	-					
9/5/23	1220	LDW23-PS2-02	1	PES	X	-					
Total Number of Containers			12	Purchase Order / Statement of Work # APJ-030123-AOC4-SGS							
1) Released by: Print name: Amara Vandervort Signature: <i>Amara Vandervort</i> Company: Windward Environmental LLC Date/Time: 9/6/23 1220			1) Rec'd by: Company: Date/Time:		2) Released by: Print name: Signature: Company: Date/Time:			2) Rec'd by: Company: Date/Time:			

* Distribution: White copies accompany shipment; yellow retained by consignor.




200 First Ave W
Suite 500
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: AOC4 Periodic Monitoring Task 1305	Ship to: SGS Axys Analytical	No. AOC4PM-PS01
Project Number: 180067.02.04	Attn: Georgina Brooks	Shipping Date: 9/6/23
Contact Name: Amara Vandervort	Shipper: FedEx	Airbill Number: _____
Sampled By: Windward	Form filled out by: A. Vandervort	Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions [Composite/Bag ID]
					PCB Congeners	Archive					
9/05/23	1220	LDW23-PS2-03	1	PES	-	X					
9/05/23	1220	LDW23-PS2-04	1	PES	-	X					
9/05/23	1220	LDW23-PS2-05	1	PES	X	-					
9/05/23	1205	LDW23-PS2-06	1	PES	-	X					
9/05/23	1205	LDW23-PS2-07	1	PES	-	X					
9/05/23	1205	LDW23-PS2-08	1	PES	X	-					
9/05/23	1205	LDW23-PS2-09	1	PES	X	-					
9/05/23	1220	LDW23-PS2-TB	1	PES	X	-					
Total Number of Containers			8	Purchase Order / Statement of Work # APJ-030123-AOC4-SGS							
1) Released by: Print name: Amara Vandervort			1) Rec'd by:		2) Released by:			2) Rec'd by:			
Signature: 			Company:		Print name:			Company:			
Company: Windward Environmental LLC			Date/Time:		Signature:			Date/Time:			
Date/Time: 9/6/23 1220					Company:						

* Distribution: White copies accompany shipment; yellow retained by consignor.



200 First Ave W
Suite 500
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by: