

Aug. 13/13

Krill mass for each ~~trial~~<sup>ca</sup> / extraction (Small Krill)

Extraction <del>ca</del> Trial #	Empty beaker + spatula (g)	Starting krill mass (g)	Dirty beaker + spatula (g)	Krill mass extracted (g)
1	163.27	300.12	166.47	296.42
2	163.26	303.60	165.31	301.55
3	163.21	303.35	166.55	300.01
4	163.26	303.82	169.66	297.42
5	163.25	303.08	168.08	298.25
6	163.28	303.09	168.52	297.85
7	163.27	302.93	168.12	298.00
8	163.27	302.78	166.86	299.19
9	163.26	303.06	167.92	298.40
10	163.21	302.90	168.03	298.08
11	163.24	302.95	167.27	298.92
12	163.24	303.27	167.97	298.54
13	163.27	303.33	166.17	300.43
14	163.33	304.06	167.45	299.94
15	163.23	302.82	166.53	299.52
16	163.26	302.90	167.94	298.22
17	163.26	302.70	165.94	300.02
18	163.36	302.33	165.81	299.88
19	163.35	302.93	166.46	299.82
20	163.18	302.57	168.97	296.78
21	163.24	302.73	167.34	298.63
22	163.26	301.32	169.07	295.51

## Krill mass for each extraction (Small krill) con't

Extraction #	Empty beaker + spatula (g)	Starting krill mass (g)	Dirty beaker + spatula (g)	Krill mass extracted (g)
23	163.30	302.06	167.83	297.53
24	163.26	302.78	168.05	297.99
25	163.24	302.66	168.79	297.11
26	163.31	301.48	167.60	297.19
27	163.26	303.33	166.75	299.84
28	163.28	302.25	167.49	298.04
29	163.22	303.03	168.50	297.75
30	163.25	302.28	166.94	298.59
31	163.27	302.61	167.11	298.77
32	163.38	301.72	167.19	297.91
33	163.30	302.80	167.20	298.90
34	163.33	301.39	168.42	296.30
35	163.18	302.63	170.72	295.09
36	163.25	303.23	168.77	297.71
37	163.24	302.89	167.08	300.05
38	163.25	303.16	168.42	297.99
39	163.23	303.01	167.91	298.33
40	163.25	302.66	167.22	298.69

## Extraction #1:

- Ground krill in Waring Blender in cold room @ 4°C.
- Weighed ~300g blended krill into clean beaker and transferred into large flask with a spatula. Weighed empty beaker + spatula before adding krill and weighed dirty beaker + spatula after transferring krill to flask. Subtracted "empty beaker + spatula" weight from "dirty beaker + spatula" weight, then subtracted resultant wt. from starting krill mass to obtain krill mass extracted.
- Added 1800 ml cold acetone (kept on ice) to krill in flask and swirled on ice for 20 min. Left flask on ice for a total of 2 hrs.
- Filtered krill + acetone under vacuum (partial) through Whatman #1 filter paper into side arm flask, <sup>rinsed</sup> and <sup>ca</sup> ~~ca~~ original flask w/ 600 ml cold acetone, filtered, and
- ~~Transferred filtered~~ <sup>ca</sup> let completely drip through. Retained extracted krill solids (let vent in fumehood, put in bags and froze).
- Transferred ~~filtered~~ <sup>ca</sup> krill filtrate to 3L round bottom flask and evaporated acetone under vacuum in a rotary evaporator. Water bath of rotorap was maintained @ 38°C.
- Sample was transferred to 250 ml separatory funnel and ~~refrigerated~~ <sup>ca</sup> refrigerated for 1 hr.
- Drained water out of sep funnel and discarded. Oil was collected in test tube and refrigerated.

Extraction #2:

- Followed procedures outlined in Extraction #1

Extraction #3:

- Followed procedures outlined in Extraction #1

Extraction #4:

- Followed procedures outlined in Extraction #1

Extraction #5

- Followed procedures outlined in Extraction #1

Aug. 14/13

Extraction #6

- Followed procedures outlined in Extraction #1

Extraction #7

- Followed procedures outlined in Extraction #1

Extraction #8

- Followed procedures outlined in Extraction #1

Extraction #9

- Followed procedures outlined in Extraction #1

Extraction #10

- Followed procedures outlined in Extraction #1

Extraction #11

- Followed procedures outlined in Extraction #1

Extraction #12

- Followed procedures <sup>ca</sup> ~~out line~~ outlined in Extraction #1

Extraction #13

- Followed procedures outlined in Extraction #1

Aug. 15/13

Extraction #14

- Followed ~~proced~~ <sup>ca</sup> procedures outlined in Extraction #1

Extraction #15

- Followed procedures outlined in Extraction #1

Extraction #16

- Followed procedures outlined in Extraction #1

Extraction #17

- Followed procedures outlined in Extraction #1

Extraction #18

- Followed procedures outlined in Extraction #1

Extraction #19

- Followed procedures outlined in Extraction #1

Extraction #20

- Followed procedures outlined in Extraction #1

Extraction #21

- Followed procedures outlined in Extraction #1

Extraction #22

- Followed procedures outlined in Extraction #1

Aug. 16/13

Extractions #23-36

- Followed procedures outlined in Extraction #1

Aug. 17/13

Extractions #37-40

- Followed procedures outlined in Extraction #1
- Removed water from refrigerated oil aliquots by centrifugation for 10 min @ 4°C. Pooled oil and refrigerated.
- Started extractions for second drill type (Bigkill)

## krill mass for each extraction (Big Krill)

Extraction #	Empty beaker + spatula (g)	Starting krill mass (g)	Dirty beaker + spatula (g)	krill mass extracted (g)
1	163.24	301.80	167.88	297.16
2	163.29	303.42	168.93	297.78
3	163.27	302.00	167.18	298.09
4	163.28	302.97	166.61	299.64
5	163.31	302.83	166.93	299.21
6	163.32	302.65	167.41	298.56
7	163.32	<del>302.69</del> <sup>301.69</sup>	166.54	298.47
8	163.27	302.50	167.31	298.46
9	163.29	303.33	167.20	299.42
10	163.22	303.35	165.49	301.08
11	163.36	303.23	165.19	301.40
12	163.24	302.75	165.27	300.72
13	163.25	303.35	165.51	301.09
14	163.21	302.66	167.28	298.59
15	163.26	302.04	165.38	299.92
16	163.22	302.84	165.73	300.33
17	163.23	303.22	167.78	298.67
18	163.24	302.74	166.75	299.23
19	163.22	301.57	166.18	298.61
20	163.25	302.89	166.08	300.06

## Extractions #1-12

- Followed procedures outlined in Extraction #1 for small krill

Aug. 18/13

## Extractions #13-20

- Followed procedures outlined in Extraction #1 for small krill.
- Removed water from refrigerated oil samples by ~~centrifug~~ centrifugation for 10 min @ 4°C. Pooled oil and ~~refrigerated~~ refrigerated.

Aug. 19/13

- Performed heat treatments <sup>con</sup> on both krill oil types
- 60°C → 25 mL aliquots of both krill oils <sup>(in 40 mL tubes)</sup> were immersed in a 60°C water bath and when the oil ~~reac~~ reached 60°C it was held there for 5 min. Nitrogen was blown onto the surface of the oils during heating.
- 125°C → 25 mL aliquots of both krill oils <sup>(in 40 mL tubes)</sup> were immersed in a 125°C oil bath and when the oil reached 125°C it was held there for 15 min. Nitrogen was blown onto the surface of the oils during heating.
- Remaining oil of each type was untreated and kept refrigerated.



- Each of the 6 x 25 mL sample types were divided as requested into 2 x 7 mL + 1 x 5 mL aliquots in test tubes. Tubes stored @ -30°C.
- All ~~remain~~<sup>CG</sup> remaining oil of each sample type was retained by the lab.

Aug. 20/13

- Samples were prepared for shipping on dry ice
- Packaged samples were picked up by courier ~5pm.

Sept. 7/13

Krill mass for each extraction (Re-prep Big krill)

Extraction #	Empty beaker + spatula (g)	Starting krill mass (g)	Dirty beaker + spatula (g)	Krill mass extracted
1	188.78	302.51	191.67	299.62
2	188.84	302.55	193.15	298.24
3	188.76	302.51	192.07	299.20
4	199.85	303.32	202.99	300.18
5	190.34	303.99	192.90	301.43
6	<sup>198.31</sup> <del>192.62</del>	302.86	202.37	298.80
7	190.26	302.16	192.99	299.43
8	190.34	304.06	196.08	298.32
9	190.30	302.89	194.65	298.54

Sept. 7/13

Extractions #1-6

- Followed procedures outlined in Extraction #1 for small krill on Aug. 13/13 (pg. 3)

Sept. 8/13

Extractions #7-9

- Followed procedures outlined in Extraction #1 for small krill on Aug. 13/13 (pg. 3)

Sept. 8/13

- Performed heat treatments on krill oil at  $60^{\circ}\text{C}$  and  $125^{\circ}\text{C}$  as outlined on Aug 19/13 (pg. 8), the only difference being that only one type of krill oil (big krill) was treated. Remaining oil was untreated and refrigerated. The heat treated and untreated oil were aliquoted into test tubes as described on pg. 8. Tubes were stored @  $-30^{\circ}\text{C}$  until shipping.

Sept. 9/13

- Samples were prepared for shipping on dry ice and picked up by courier.





