

## Batch #31 - 5 Feb 2023

## A2 AnOtter Bodged Bitter v2 - 3.9%

## Ordinary Bitter

Brewer: The Thirsty Otter

Type: All Grain

IBU : 33 (Tinseth)  
 BU/GU : 0.88  
 Colour : 13 EBC  
 Carbonation : 1.8 CO2-vol

Pre-Boil Gravity : 1.017  
 Original Gravity : 1.036  
 Total Gravity : 1.037  
 Final Gravity : 1.007

## Fermentables (263 g)

173 g - Maris Otter Malt 6 EBC (65.7%)  
 ^ Lot # 2500001777621  
 ^ Brouwmaatje (NL) BM-BL.051.513.2/1  
 45 g - Pils 3.5 EBC (17.1%)  
 ^ Lot # 20210710  
 ^ Brouwmaatje (NL) 051.002.4  
 15 g - Chateau Crystal 150 EBC (5.7%)  
 ^ Lot # 2500005818412  
 ^ Brouwmaatje (NL) BM-BL. 051.619.25/1  
 12 g - 10 min - Boil - Brown Sugar, Light 15....  
 9 g - Flaked Maize 3 EBC (3.5%)  
 ^ Lot # 211407666045  
 ^ Brouwmaatje (NL) BM-BL.051.158.4/1  
 9 g - Wheat Malt 5.5 EBC (3.5%)  
 ^ Lot # 20210909  
 ^ Brouwmaatje (NL) 051.125.3  
 4 g - Bottling - Sugar, Table (Sucrose) 2 EBC  
 ^ Albert Heijn (NL)

## Hops (5.8 g)

30 min - 1.2 g - Bramling Cross (Whole) - 5%...  
 ^ Lot # 20220903  
 ^ Home grown by The Thirsty Otter  
 30 min - 1.2 g - East Kent Goldings - 5.4% (1...  
 ^ Hopeye (GB) HE-50G-HOPS-EASTKENTGOLDINGS (5...  
 15 min - 1.2 g - Bramling Cross (Whole) - 5%...  
 ^ Lot # 20220903  
 ^ Home grown by The Thirsty Otter  
 15 min - 1.2 g - East Kent Goldings - 5.4% (7...  
 ^ Hopeye (GB) HE-50G-HOPS-EASTKENTGOLDINGS (5...

## Hop Stand

20 min hopstand @ 80 °C  
 20 min - 1 g - East Kent Goldings - 5.4% (1 IBU)  
 ^ Hopeye (GB) HE-50G-HOPS-EASTKENTGOLDINGS (5...

## Miscellaneous

Mash - 0.062 g - Baking Soda (NaHCO3)  
 ^ Lot # 41190621/3  
 ^ Brouwstore (NL) 003.106.2  
 Mash - 0.148 g - Calcium Chloride (CaCl2) 33...  
 ^ Lot # 115038  
 ^ Brouwstore (NL) 055.035.0  
 Mash - 0.165 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 0.253 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 0.33 g - Gypsum (CaSO4)

## 02 PET Bottle 1.5L (60min) (rev 4)

Batch Size : 1.2 L  
 Boil Size : 3.68 L  
 Post-Boil Vol : 1.87 L

Mash Water : 0.75 L  
 Sparge Water : 3.17 L  
 Boil Time : 60 min  
 Total Water : 3.92 L



13 EBC

Brewhouse Efficiency: 52.7%  
 Mash Efficiency: 79.1%

## Mash Profile

01 One Step Mash (75 min)  
 72.2 °C - Strike Temp  
 66 °C - 75 min - Temperature

## Fermentation Profile

01 Ale + DR + Conditioning  
 18 °C - 10 days - Primary  
 21 °C - 4 days - Diacetyl rest  
 18 °C - 14 days - Carbonation  
 18 °C - 28 days - Conditioning

## Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
 Ca 117 Mg 32 Na 101 Cl 161 SO 340

SO/Cl ratio: 2.1

Mash pH: 4.85

Sparge pH: 6

## Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity: 1.044

Fermenter Top-Up:

Fermenter Volume: 1.2

Final Gravity: 1.007

Bottling Volume: 0.66

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## Recipe Notes

Target: ABV = 4.2 %, IBU = 28, EBC = 7, OG = 1.036, FG = 1.004.

## Batch Notes

04-02-2023 11:00 Milled the malt @ 1.40 mm gap.

### Brew day

05-02-2023 15:42 Added 0.99 grams EKG pellet hops @ 84 C.

05-02-2023 19:30 SG = 1.040 @ 35.6 C --> SG = 1.044 @ 20C.

### Day 0 in fermentation

06-02-2023 07:41 17.1 C.

06-02-2023 10:00 17.7 C.

06-02-2023 12:00 18.0 C.

06-02-2023 17:00 18.5 C.

06-02-2023 21:00 17.9 C.

### Day 1 in fermentation

07-02-2023 00:00 17.3 C.

07-02-2023 04:00 16.9 C.

07-02-2023 07:45 17.0 C.

07-02-2023 11:45 17.3 C.

07-02-2023 16:00 17.4 C.

07-02-2023 17:45 17.4 C.

07-02-2023 20:00 17.7 C.

07-02-2023 22:00 17.7 C.

### Day 2 in fermentation

08-02-2023 19:23 16.9 C.

### Day 3 in fermentation

09-02-2023 06:30 17.4 C.

09-02-2023 17:15 17.0 C.

09-02-2023 20:00 16.8 C.

### Day 4 in fermentation

10-02-2023 07:30 17.3 C.

10-02-2023 17:30 17.7 C.

### Day 5 in fermentation

11-02-2023 08:00 18.4 C.

11-02-2023 17:15 17.1 C.

11-02-2023 22:00 18.4 C.

### Day 6 in fermentation

12-02-2023 09:00 18.4 C.

12-02-2023 16:00 17.5 C.

12-02-2023 22:00 17.6 C.

### Day 7 in fermentation

13-02-2023 09:00 18.4 C.

13-02-2023 13:00 17.0 C.

13-02-2023 18:00 17.7 C.

### Day 8 in fermentation

14-02-2023 08:00 17.0 C.

14-02-2023 17:30 18.4 C.

14-02-2023 22:30 16.9 C.

### Day 9 in fermentation

15-02-2023 18:00 18.3 C.

15-02-2023 23:00 16.9 C.

### Day 10 in fermentation

16-02-2023 00:00 17.9 C.

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## Batch Notes

16-02-2023 04:00 17.8 C.  
16-02-2023 08:00 20.0 C.  
16-02-2023 12:00 18.8 C.  
16-02-2023 16:00 20.4 C.  
16-02-2023 20:00 20.2 C.

### Day 11 in fermentation

17-02-2023 08:00 20.3 C.  
17-02-2023 19:00 19.4 C.  
17-02-2023 22:30 20.3 C.

### Day 12 in fermentation

18-02-2023 10:00 18.9 C.  
18-02-2023 17:00 20.4 C.

### Day 13 in fermentation

19-02-2023 00:00 20.0 C.  
19-02-2023 04:00 20.3 C.  
19-02-2023 08:00 19.5 C.  
19-02-2023 12:00 18.9 C.  
19-02-2023 13:30 15.7 C, SG = 1.007, pH = 4.29.

### Day 0 in conditioning

19-02-2023 18:00 Moved bottles into the brew fridge.  
19-02-2023 20:00 18.0 C.

### Day 1 in conditioning

20-02-2023 00:00 17.6 C.  
20-02-2023 04:00 18.2 C.  
20-02-2023 08:00 17.5 C.  
20-02-2023 12:00 18.5 C.  
20-02-2023 16:00 17.5 C.  
20-02-2023 20:00 18.4 C.

### Day 2 in conditioning

21-02-2023 00:00 17.7 C.  
21-02-2023 04:00 18.1 C.  
21-02-2023 08:00 17.9 C.  
21-02-2023 12:00 17.6 C.  
21-02-2023 16:00 18.5 C.  
21-02-2023 20:00 17.5 C.

### Day 3 in conditioning

22-02-2023 00:00 18.5 C.  
22-02-2023 04:00 17.5 C.  
22-02-2023 08:00 18.5 C.  
22-02-2023 12:00 17.4 C.  
22-02-2023 16:00 18.5 C.  
22-02-2023 20:00 17.4 C.

### Day 4 in conditioning

23-02-2023 00:00 18.3 C.  
23-02-2023 04:00 17.6 C.  
23-02-2023 08:00 18.1 C.  
23-02-2023 12:00 18.0 C.  
23-02-2023 16:00 17.4 C.  
23-02-2023 20:00 18.3 C.

### Day 5 in conditioning

24-02-2023 00:00 17.5 C.  
24-02-2023 04:00 18.3 C.  
24-02-2023 08:00 17.3 C.  
24-02-2023 12:00 18.2 C.  
24-02-2023 16:00 17.4 C.  
24-02-2023 20:00 18.4 C.

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## Batch Notes

### Day 6 in conditioning

25-02-2023 00:00 17.5 C.  
25-02-2023 04:00 18.3 C.  
25-02-2023 08:00 17.5 C.  
25-02-2023 12:00 18.1 C.  
25-02-2023 16:00 17.5 C.  
25-02-2023 20:00 18.5 C.

### Day 7 in conditioning

26-02-2023 00:00 17.5 C.  
26-02-2023 04:00 18.1 C.  
26-02-2023 08:00 17.4 C.  
26-02-2023 12:00 17.5 C.  
26-02-2023 16:00 18.5 C.  
26-02-2023 20:00 17.5 C.

### Day 8 in conditioning

27-02-2023 00:00 18.5 C.  
27-02-2023 04:00 17.5 C.  
27-02-2023 08:00 18.1 C.  
27-02-2023 12:00 17.9 C.  
27-02-2023 16:00 17.9 C.  
27-02-2023 20:00 17.5 C.

### Day 9 in conditioning

28-02-2023 00:00 17.9 C.  
28-02-2023 04:00 17.5 C.  
28-02-2023 08:00 17.6 C.  
28-02-2023 12:00 18.5 C.  
28-02-2023 16:00 17.7 C.  
28-02-2023 20:00 17.9 C.

### Day 10 in conditioning

01-03-2023 00:00 18.0 C.  
01-03-2023 04:00 17.9 C.  
01-03-2023 08:00 17.4 C.  
01-03-2023 12:00 17.9 C.  
01-03-2023 16:00 17.5 C.  
01-03-2023 20:00 18.3 C.

### Day 11 in conditioning

02-03-2023 00:00 17.3 C.  
02-03-2023 04:00 18.2 C.  
02-03-2023 08:00 17.4 C.  
02-03-2023 12:00 17.8 C.  
02-03-2023 16:00 17.7 C.  
02-03-2023 20:00 18.4 C.

### Day 12 in conditioning

03-03-2023 00:00 17.4 C.  
03-03-2023 04:00 18.2 C.  
03-03-2023 08:00 17.4 C.  
03-03-2023 12:00 18.1 C.  
03-03-2023 16:00 17.5 C.  
03-03-2023 20:00 18.5 C.

### Day 13 in conditioning

04-03-2023 00:00 17.5 C.  
04-03-2023 04:00 17.8 C.  
04-03-2023 08:00 18.0 C.  
04-03-2023 12:00 17.4 C.  
04-03-2023 16:00 18.5 C.  
04-03-2023 20:00 17.5 C.

### Day 14 in conditioning

05-03-2023 00:00 18.5 C.

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## Batch Notes

05-03-2023 04:00 17.4 C.  
05-03-2023 08:00 18.5 C.  
05-03-2023 12:00 17.4 C.  
05-03-2023 16:00 18.1 C.  
05-03-2023 20:00 17.8 C.

### Day 15 in conditioning

06-03-2023 00:00 17.5 C.  
06-03-2023 04:00 17.8 C.  
06-03-2023 08:00 17.5 C.  
06-03-2023 12:00 17.7 C.  
06-03-2023 16:00 17.7 C.  
06-03-2023 20:00 18.0 C.

### Day 16 in conditioning

07-03-2023 00:00 17.5 C.  
07-03-2023 04:00 18.1 C.  
07-03-2023 08:00 17.4 C.  
07-03-2023 12:00 18.0 C.  
07-03-2023 16:00 17.5 C.  
07-03-2023 20:00 18.1 C.

### Day 17 in conditioning

08-03-2023 00:00 17.4 C.  
08-03-2023 04:00 17.8 C.  
08-03-2023 08:00 18.5 C.  
08-03-2023 12:00 17.3 C.  
08-03-2023 16:00 18.0 C.  
08-03-2023 20:00 17.3 C.

### Day 18 in conditioning

09-03-2023 00:00 17.5 C.  
09-03-2023 04:00 18.3 C.  
09-03-2023 08:00 17.3 C.  
09-03-2023 12:00 17.6 C.  
09-03-2023 16:00 18.4 C.  
09-03-2023 20:00 17.3 C.

### Day 19 in conditioning

10-03-2023 00:00 17.8 C.  
10-03-2023 04:00 18.5 C.  
10-03-2023 08:00 17.3 C.  
10-03-2023 12:00 18.0 C.  
10-03-2023 16:00 17.6 C.  
10-03-2023 20:00 17.2 C.

### Day 20 in conditioning

11-03-2023 00:00 17.9 C.  
11-03-2023 04:00 18.4 C.  
11-03-2023 08:00 17.3 C.  
11-03-2023 12:00 17.3 C.  
11-03-2023 16:00 17.5 C.  
11-03-2023 20:00 17.7 C.

### Day 21 in conditioning

12-03-2023 00:00 17.5 C.  
12-03-2023 04:00 17.6 C.  
12-03-2023 08:00 17.5 C.  
12-03-2023 12:00 17.8 C.  
12-03-2023 16:00 17.6 C.  
12-03-2023 20:00 18.2 C.

### Day 22 in conditioning

13-03-2023 00:00 17.9 C.  
13-03-2023 04:00 17.8 C.  
13-03-2023 08:00 18.5 C.

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## Batch Notes

13-03-2023 12:00 17.6 C.  
13-03-2023 16:00 18.0 C.  
13-03-2023 20:00 18.5 C.

### Day 23 in conditioning

14-03-2023 00:00 17.6 C.  
14-03-2023 04:00 18.4 C.  
14-03-2023 08:00 17.9 C.  
14-03-2023 12:00 17.9 C.  
14-03-2023 16:00 18.3 C.  
14-03-2023 20:00 17.5 C.

### Day 24 in conditioning

15-03-2023 00:00 18.1 C.  
15-03-2023 04:00 18.3 C.  
15-03-2023 08:00 18.3 C.  
15-03-2023 12:00 17.7 C.  
15-03-2023 16:00 18.0 C.  
15-03-2023 20:00 18.4 C.

### Day 25 in conditioning

16-03-2023 00:00 17.5 C.  
16-03-2023 04:00 18.1 C.  
16-03-2023 08:00 18.5 C.  
16-03-2023 12:00 17.5 C.  
16-03-2023 16:00 18.1 C.  
16-03-2023 20:00 18.0 C.

### Day 26 in conditioning

17-03-2023 00:00 17.7 C.  
17-03-2023 04:00 18.4 C.  
17-03-2023 08:00 17.7 C.  
17-03-2023 12:00 18.0 C.  
17-03-2023 16:00 18.5 C.  
17-03-2023 20:00 17.9 C.

### Day 27 in conditioning

18-03-2023 00:00 17.5 C.  
18-03-2023 04:00 18.3 C.  
18-03-2023 08:00 18.2 C.  
18-03-2023 12:00 17.5 C.  
18-03-2023 16:00 18.2 C.  
18-03-2023 20:00 18.5 C.

### Day 28 in conditioning

19-03-2023 00:00 18.2 C.  
19-03-2023 04:00 17.8 C.  
19-03-2023 08:00 18.5 C.  
19-03-2023 12:00 17.9 C.  
19-03-2023 16:00 17.5 C.  
19-03-2023 20:00 18.0 C.

### Day 29 in conditioning

20-03-2023 00:00 18.3 C.  
20-03-2023 04:00 17.5 C.  
20-03-2023 08:00 18.2 C.  
20-03-2023 12:00 17.8 C.  
20-03-2023 16:00 17.7 C.  
20-03-2023 20:00 18.3 C.

### Day 30 in conditioning

21-03-2023 00:00 18.1 C.  
21-03-2023 04:00 17.5 C.  
21-03-2023 08:00 18.4 C.  
21-03-2023 12:00 17.9 C.  
21-03-2023 16:00 17.8 C.

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## Batch Notes

21-03-2023 20:00 18.5 C.

### Day 31 in conditioning

22-03-2023 00:00 18.0 C.

22-03-2023 04:00 17.7 C.

22-03-2023 08:00 18.4 C.

22-03-2023 12:00 18.1 C.

22-03-2023 16:00 17.5 C.

22-03-2023 20:00 18.3 C.

### Day 32 in conditioning

23-03-2023 00:00 18.3 C.

23-03-2023 04:00 17.6 C.

23-03-2023 08:00 18.1 C.

23-03-2023 12:00 18.4 C.

23-03-2023 16:00 18.0 C.

23-03-2023 20:00 17.9 C.

### Day 33 in conditioning

24-03-2023 00:00 17.5 C.

24-03-2023 04:00 18.1 C.

24-03-2023 08:00 18.6 C.

24-03-2023 12:00 17.7 C.

24-03-2023 16:00 17.5 C.

24-03-2023 20:00 17.8 C.

### Day 34 in conditioning

25-03-2023 00:00 18.4 C.

25-03-2023 04:00 18.2 C.

25-03-2023 08:00 17.8 C.

25-03-2023 12:00 18.4 C.

25-03-2023 16:00 18.3 C.

25-03-2023 20:00 17.7 C.

### Day 35 in conditioning

26-03-2023 00:00 17.8 C.

26-03-2023 04:00 18.0 C.

26-03-2023 08:00 18.5 C.

26-03-2023 12:00 17.6 C.

26-03-2023 16:00 17.9 C.

26-03-2023 20:00 18.5 C.

### Day 36 in conditioning

27-03-2023 00:00 17.8 C.

27-03-2023 04:00 17.7 C.

27-03-2023 08:00 18.0 C.

27-03-2023 12:00 18.4 C.

27-03-2023 16:00 18.0 C.

27-03-2023 20:00 17.7 C.

### Day 37 in conditioning

28-03-2023 00:00 18.2 C.

28-03-2023 04:15 18.5 C.

28-03-2023 08:00 18.5 C.

28-03-2023 12:00 18.2 C.

28-03-2023 16:00 17.5 C.

28-03-2023 20:00 17.8 C.

### Day 38 in conditioning

29-03-2023 00:00 18.4 C.

29-03-2023 04:00 18.1 C.

29-03-2023 08:00 17.5 C.

29-03-2023 12:00 17.9 C.

29-03-2023 16:00 18.5 C.

29-03-2023 20:00 18.1 C.

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## Batch Notes

## Day 39 in conditioning

30-03-2023 00:00 17.6 C.  
 30-03-2023 03:00 17.6 C.  
 30-03-2023 08:00 18.5 C.  
 30-03-2023 12:00 17.8 C.  
 30-03-2023 16:00 17.6 C.  
 30-03-2023 20:00 17.7 C.

## Day 40 in conditioning

31-03-2023 00:00 17.6 C.  
 31-03-2023 04:00 18.3 C.  
 31-03-2023 08:00 18.4 C.  
 31-03-2023 12:00 17.9 C.  
 31-03-2023 16:00 17.5 C.  
 31-03-2023 20:00 18.2 C.

## Day 41 in conditioning

01-04-2023 00:00 18.5 C.  
 01-04-2023 04:00 18.1 C.  
 01-04-2023 08:00 17.5 C.  
 01-04-2023 12:00 18.5 C.  
 01-04-2023 16:00 18.1 C.  
 01-04-2023 20:00 17.7 C.

## Day 42 in conditioning

02-04-2023 00:00 17.8 C.  
 02-04-2023 04:00 18.5 C.  
 02-04-2023 08:00 17.7 C.  
 02-04-2023 12:00 17.8 C.  
 02-04-2023 16:00 18.4 C.  
 02-04-2023 20:00 18.0 C.

## Extra Measured Values

Strike Water Temperature	71.6
Strike Water pH	5.93
Sparge Water Temperature	72
Sparge Water pH	6
Pitch Temperature	17.1

## Batch Log

5 February 2023	Brew Date
5 February 2023 10:00	Status: Brewing
6 February 2023 07:30	SV = 18.0 C.
6 February 2023 07:41	Pitched 1.00 grams of yeast.
6 February 2023	Fermentation Start
15 February 2023 23:00	SV = 19.0 C.
16 February 2023 08:00	SV = 20.0 C.
19 February 2023 13:30	Filled 2 Steinie bottles (33cl).
19 February 2023	Bottling Date



# Batch #31 - 5 Feb 2023

Batch Log	
19 February 2023 21:41	SV = 18.5 C.
2 April 2023 23:59	Status: Completed