BREWSHEET v3.4 (2014-12-14)

user input
calculated

Brew			
Name:	Soul Stripper IPA		
Brew Date:	2017 August 12	Collected (gal):	5.50
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2017 September 24	Kegged/Bottled (gal):	5.00
Estimated		**Actual**	
ABV (%):	6.9%	ABV (%):	6.4%
OG (SG):	1.068	OG (SG):	1.063
FG (SG):	1.016	FG (SG):	1.014
IBU:	65.1	IBU:	68.4
SRM:	10.5	SRM:	10.5
IBU/Gravity Ratio:	0.95	IBU/Gravity Ratio:	1.09

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	13.00	1.036	0.060	2.0	87.26%
Caramel/Crystal 75L	0.90	1.034	0.004	75.0	6.02%
Red Wheat	1.00	1.039	0.005	1.5	6.71%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Centennial	L	1.00	90	10.8%	26.8	9.09%
Cascade	P	1.00	30	6.6%	13.5	9.09%
Centennial	L	0.75	30	10.8%	14.4	6.82%
Cascade	P	0.50	5	6.6%	1.8	4.55%
Columbus	P	1.25	5	12.9%	8.6	11.36%
Cascade	P	2.00	0	6.6%	0.0	18.18%
Columbus	P	1.00	0	12.9%	0.0	9.09%
Cascade	P	1.00	dry	6.6%	0.0	9.09%
Citra	P	1.50	dry	12.9%	0.0	13.64%
Simcoe	P	1.00	dry	13.0%	0.0	9.09%

Design Notes

Batch Variables and Calculations	
Batch Size (gal):	5.50
Grain Temperature (F):	87
Total Grain Weight (lbs):	14.90
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	152
Strike Water (gal):	6.52
Strike Temperature (F):	166
Mash Ratio (qts/lb):	1.75
Grain Absorption (gal):	1.86
Mash Volume (gal):	7.72
Mash-out Temperature (F):	168
Estimated First Runnings (gal):	4.52
First Runnings (gal):	4.12
First Runnings Gravity (Brix):	17.10
First Runnings Gravity (SG):	1.066
Sparge	
Desired Sparge Temperature (F):	168
Sparge Water (gal):	4.05
Sparge Water Temperature (F):	172
Estimated Second Runnings (gal):	4.52
Second Runnings (gal):	4.00
Second Runnings Gravity (Brix):	8.00
Second Runnings Gravity (SG):	1.031
Estimated Preboil Volume (gal):	9.04
Estimated Preboil Gravity (Brix):	12.62
Preboil Volume (gal):	8.12
Preboil Gravity (Brix):	12.20
Preboil Gravity (SG):	1.047
Extraction Efficiency (%):	72%
Boil	
Boil Time (min):	90
Estimated Evaporation Loss (gal):	2.41
Hop Absorption (gal):	0.32
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	0.99
Actual Evaporation Loss (gal):	1.49
Original Gravity (Brix):	16.21
Batch Size Efficiency (%):	64%
Actual Efficiency (%):	64%
Fermentation	
Primary Fermentation (days):	14
Primary Fermentation Temperature (F):	62
Gravity After Primary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Secondary Fermentation (days):	4
Secondary Fermentation Temperature (F):	70
Gravity After Secondary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Tertiary Fermentation (days):	3
Tertiary Fermentation Temperature (F):	32
Final Gravity (SG):	1.014
Temperature of Reading (F):	43
Corrected SG:	1.014
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	208
12 oz. Bottles Required:	51
Carbonation	
Bottling Temperature (F):	
Volumes of CO2:	1.90
Priming Sugar (oz):	
DME (oz):	
Forced Carbonation (lbs):	

System Variables	
Brewhouse Efficiency (%):	70%
Volume in Hoses (gal):	0.22
Volume in Wort Chiller (gal):	0.19
Volume in HERMS Coil (gal):	0.25
Mash/Lauter Tun Deadspace (gal):	0.14
Strike to Sparge Volume Ratio (%):	50%
Trub Loss (gal):	0.16
FWH IBU Factor (%):	10%
Strike Temperature Factor (F):	7
Sparge Temperature Factor (F):	4
Estimated Evaporation Rate (gal/hr):	1.61
Leaf Hop Absorption Ratio (qts/oz):	0.40
Pellet Hop Absorption Ratio (qts/ oz):	0.10
Cooling Losses (%):	4%
Hydrometer Correction (SG):	0.001

BJCP Style Guidelines	
Style:	American IPA
Code:	14B
OG:	1.056-1.075
FG:	1.010-1.018
IBU:	40.0-70.0
SRM:	6.0-15.0
ABV:	5.5-7.5%
CO2:	1.5-2.3

Yeast Strain	
Yeast Strain:	White Labs WLP001 (California Ale)
Type:	California Ale
Attenuation (%):	73-80%
Actual Attenuation (%):	77%
Fermentation Temp (F):	68-73F
Flocculation:	medium

Required Amounts	
Cell Count (billions):	259
Vials (White Labs/Wyeast):	
Dry Yeast (g):	13.0

Yeast Starter/Slurry	
Vials (White Labs/Wyeast):	
Date Yeast Produced:	
Yeast Viability (%):	
Yeast Growth Rate:	
Yeast Innoculation Rate (million/ml):	
Starter Volume Required (ml);	
DME Required (oz):	
Yeast slurry concentration (billion/ml):	2.5
Non-yeast Percentage (%):	20%
Yeast Slurry Required (ml):	

User Variables	

Batch Scaling				
Desired OG:		Total Weight (lbs):		
Batch Size (gal):		Total Bill:		
Brewhouse Efficiency (%):				
Grain	**Pounds**	**Potential**	**Color**	**% Bill**

Poundage		
Goal (lbs):	13.00	
Amount (lbs | oz.f_oz):	2	7.19
Amount (lbs | oz.f_oz):	2	13.01
Amount (lbs | oz.f_oz):	2	11.63
Amount (lbs | oz.f_oz):	2	1.76
Amount (lbs | oz.f_oz):	2	3.84
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
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Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Needed (lbs | oz.f_oz):	0	10.57

Hydrometer Correction		
SG:	1.060	
Temperature (F):	76	
Corrected SG:	1.063	

Gravity Calculator			
Brix:	13.60	16.21	
Specific Gravity:	1.053	1.063	
Degrees Plato:	12.98	15.33	

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	

Brewing Notes

8/12: mashed-in at 160F; cooled to 155F in ~3 min; cooled to 152F in ~10 min.
Increased boil to 90 min for OG; 90 min hops were originally 60 min hops.
9/24: kegged; aroma and flavor are perfect; citrus with hints of malt in the back; bitterness is great; finish is dry and smooth!
1.0065 SG @42=7.4% ABV.
9/29: So, this was actually FIGment dry hopped. NOT Soul Stripper!
Actual batch is not dry hopped and is 1.014 SG @43=6.4% ABV
Aroma and flavor are Soul Stripper, but muted. Maybe I should dry hop in the keg?
10/23: dry hopped in the keg (in a sanitized mesh bag).