

## LAMPIRAN

### 1.1 Perhitungan

#### 1.1.1 Perhitungan Berat Adsorben (Bentonit)

Perbandingan Minyak Jahe : Adsorben = 1 : 4

Volume Minyak Jahe = 20 ml

$$\begin{aligned}\text{Volume Adsorben} &= \frac{1}{4} \times 20 \text{ ml} \\ &= 5 \text{ ml}\end{aligned}$$

Berat Adsorben :

$$\rho = \frac{m}{v}$$

$$0,86 = \frac{m}{5}$$

$$m = 4,3 \text{ gram}$$

### 1.2 Foto



Gambar.5 Adsorpsi pada 40 °C

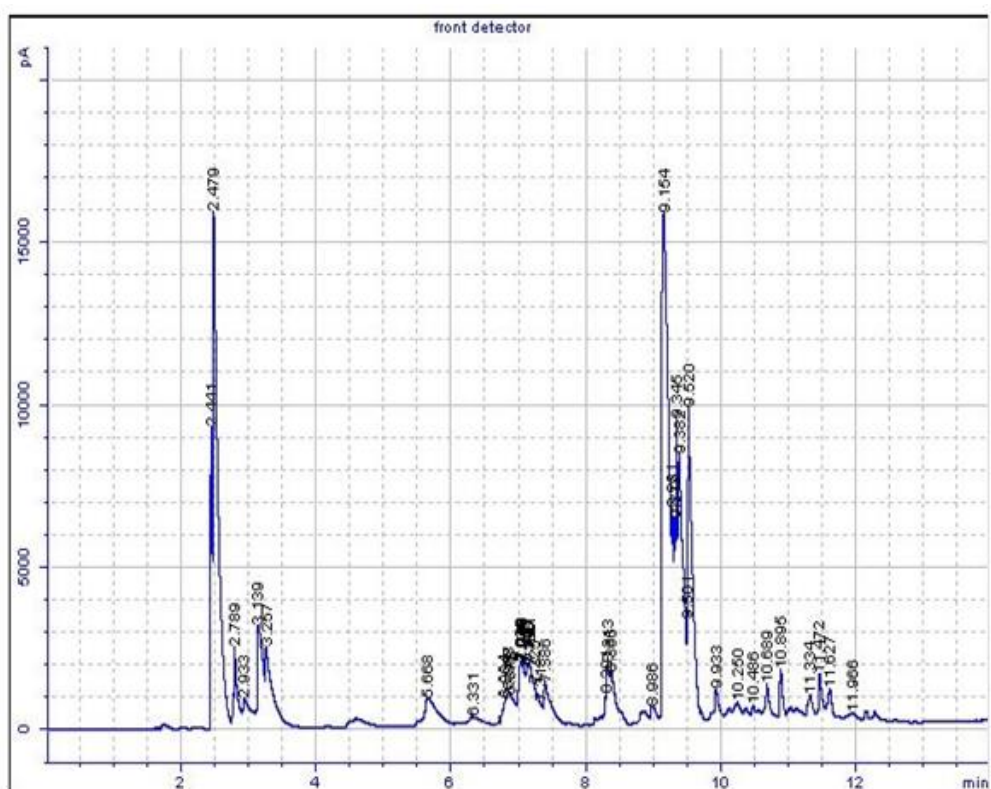


Gambar.6 Adsorpsi pada 60°C

### 1.3 Analisa GC Minyak Jahe Sampel

#### Agilent Certity QA/QC Report

Sample name:	*Reprocessed: --Standar Minyak Jahe
Sample note:	vasel -9
Submission time:	Monday, July 13, 2015 12:09:48 PM
Operator:	
Injection date:	Monday, July 13, 2015 12:29:55 PM
GC Description:	GC1 - SN: CN10713006
Signal description:	FID1 A, front detector
Method:	Atsiri / minyak terbang
Method last saved:	Tuesday, July 14, 2015 11:17:27 AM



## Area Percent Report

Calibration last saved:	Tuesday, April 28, 2015 2:06:02 PM
Multiplier:	1.0000
Dilution:	1.0000
Sample amount:	0.0000 µL
Sample type:	Sample
Sampling source:	Manual

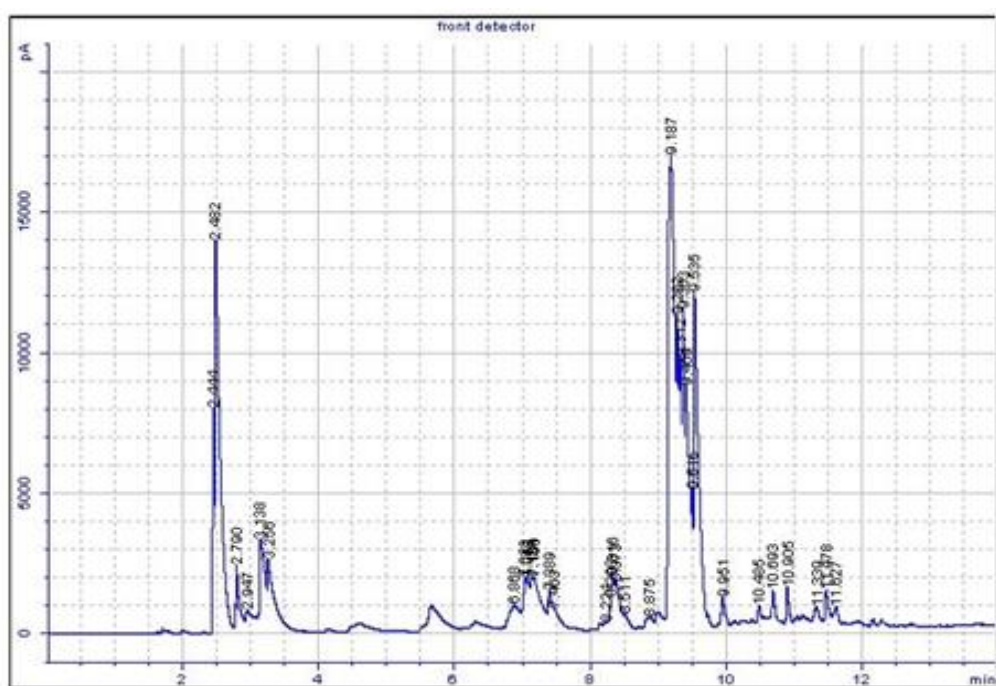
Signal	Retention Time [min]	Type	Width	Area [pA*s]	Area %
1	2.441	BV S	0.022	13594.03614	3.02162
1	2.479	VV S	0.067	81322.05389	18.07587
1	2.789	VV S	0.037	6545.70278	1.45495
1	2.933	VB S	0.071	2264.59553	0.50336
1	3.139	VV S	0.066	14426.04241	3.20655
1	3.257	VB S	0.103	13183.41872	2.93035
1	5.668	BB	0.115	8039.33442	1.78694
1	6.331	BB	0.105	1638.13992	0.36412
1	6.804	BV	0.038	2449.61391	0.54449
1	6.837	VV	0.026	2064.90468	0.45898
1	6.848	VV	0.023	1345.01437	0.29896
1	6.872	VV	0.048	3585.04906	0.79687
1	7.019	VV	0.033	4592.74664	1.02085
1	7.030	VV	0.008	1065.59115	0.23685
1	7.045	VV	0.008	1060.67191	0.23576
1	7.050	VV	0.028	4383.30263	0.97430
1	7.121	VV	0.023	3327.12020	0.73954
1	7.140	VV	0.009	1196.42049	0.26593
1	7.151	VV	0.015	2188.26089	0.48640
1	7.165	VV	0.036	5302.21982	1.17855
1	7.225	VV	0.067	4878.37351	1.08434
1	7.318	VV	0.027	1421.05287	0.31586
1	7.386	VB	0.084	8207.07011	1.82423
1	8.291	VV	0.021	1154.75992	0.25667
1	8.313	VV S	0.030	3856.90394	0.85729
1	8.366	VV S	0.055	6185.66657	1.37492
1	8.986	BV	0.057	1583.52842	0.35198
1	9.154	VV S	0.078	10195.443265	22.66194
1	9.281	VV S	0.028	10963.77592	2.43698
1	9.313	VV S	0.022	9909.75790	2.20269
1	9.345	VV S	0.031	17053.55700	3.79058
1	9.382	VV S	0.060	39251.75721	8.72469
1	9.501	VV S	0.013	2873.37209	0.63868
1	9.520	VB S	0.054	42765.47267	9.50570
1	9.933	VB	0.048	3386.68421	0.75278
1	10.250	VV	0.074	2534.00262	0.56325
1	10.486	VV	0.037	1017.96607	0.22627
1	10.689	VV	0.052	3889.69036	0.86458
1	10.895	VV	0.036	4317.35684	0.95964
1	11.334	VV	0.051	2397.77830	0.53297
1	11.472	PB	0.035	3022.96176	0.67193
1	11.627	BP	0.043	2374.98661	0.52790
1	11.966	BP	0.096	1317.66113	0.29288

#### **1.4 Analisa GC Minyak Jahe Hasil Adsorpsi (10 Menit, 40 °C)**

### 1.5 Analisa GC Minyak Jahe Hasil Adsorpsi (30 Menit, 60 Rpm)

#### Agilent Certity QA/QC Report

Sample name:	*Reprocessed: --30 Menit 60 Rpm
Sample note:	vasel -6
Submission time:	Monday, July 13, 2015 11:20:42 AM
Operator:	
Injection date:	Monday, July 13, 2015 11:38:13 AM
GC Description:	GC1 - SN: CN10713006
Signal description:	FID1 A, front detector
Method:	Atsiri / minyak terbang
Method last saved:	Tuesday, July 14, 2015 11:15:27 AM



## Area Percent Report

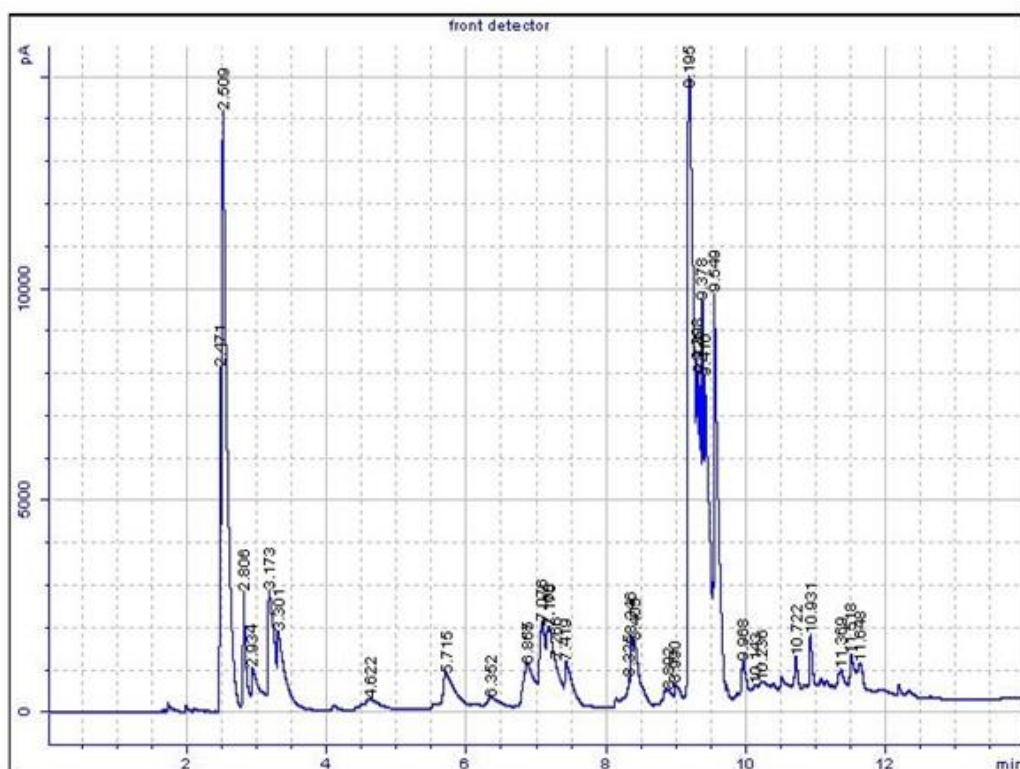
Calibration last saved:	Tuesday, April 28, 2015 2:06:02 PM
Multiplier:	1.0000
Dilution:	1.0000
Sample amount:	0.0000 µL
Sample type:	Sample
Sampling source:	Manual

Signal	Retention Time [min]	Type	Width	Area [pA*s]	Area %
1	2.444	BV S	0.022	11459.62098	2.36663
1	2.482	VV S	0.087	72878.14918	15.05073
1	2.790	VV S	0.037	6209.36647	1.28235
1	2.947	VB S	0.062	1446.76412	0.29878
1	3.138	VV S	0.066	15026.37413	3.10323
1	3.256	VB S	0.102	13532.37341	2.79469
1	6.868	BV	0.117	8547.78354	1.76528
1	7.033	VV	0.038	5674.79874	1.17195
1	7.059	VV	0.027	3994.13631	0.82487
1	7.127	VV	0.017	2442.89909	0.50451
1	7.134	VV	0.010	1391.49943	0.28737
1	7.153	VV	0.011	1575.73768	0.32542
1	7.160	VV	0.083	13012.09538	2.68725
1	7.389	VV	0.051	5492.04378	1.13421
1	7.463	VB	0.062	3687.95387	0.76163
1	8.224	VV	0.049	1149.65756	0.23743
1	8.293	VV	0.025	1930.23304	0.39863
1	8.316	VV S	0.030	4669.16753	0.96427
1	8.373	VV S	0.095	9624.25665	1.98759
1	8.511	VB S	0.073	2233.30299	0.46122
1	8.875	VV	0.080	1757.10941	0.36288
1	9.187	BV S	0.113	111859.25198	23.10107
1	9.282	VV S	0.023	19570.22483	4.04162
1	9.312	VV S	0.033	24514.68228	5.06275
1	9.363	VV S	0.038	25324.26983	5.22994
1	9.409	VV S	0.075	37983.74570	7.84437
1	9.515	VV S	0.015	4959.98939	1.02433
1	9.535	VB S	0.056	54183.42106	11.18991
1	9.951	VB	0.049	3938.19394	0.81331
1	10.485	VV	0.038	1506.63155	0.31115
1	10.600	BP	0.030	2017.01007	0.41707
1	11.339	VP	0.052	2189.77363	0.45223
1	11.478	VB	0.037	2848.62846	0.58830
1	11.627	BP	0.041	1498.24542	0.30942

## 1.6 Analisa GC Minyak Jahe Hasil Adsorpsi (10Menit, 120 Rpm)

### Agilent Certity QA/QC Report

Sample name:	*Reprocessed: --10 Menit 120 Rpm
Sample note:	vasel -1
Submission time:	Monday, July 13, 2015 10:00:12 AM
Operator:	
Injection date:	Monday, July 13, 2015 10:06:01 AM
GC Description:	GC1 - SN: CN10713006
Signal description:	FID1 A, front detector
Method:	Atsiri / minyak terbang
Method last saved:	Tuesday, July 14, 2015 11:10:08 AM





## Area Percent Report

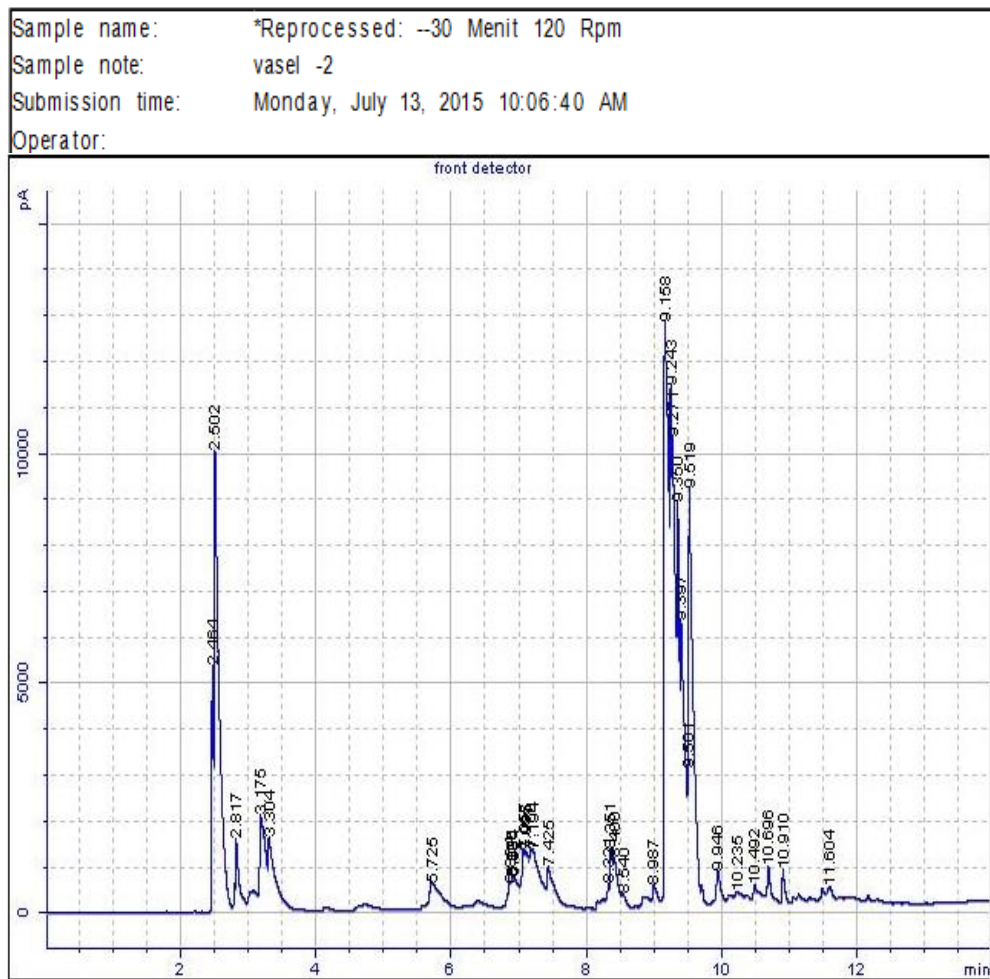
Calibration last saved:	Tuesday, April 28, 2015 2:06:02 PM
Multiplier:	1.0000
Dilution:	1.0000
Sample amount:	0.0000 µL
Sample type:	Sample
Sampling source:	Manual

Signal	Retention		Type	Width	Area [pA*s]	Area %
	Time [min]					
1	2.471		PV S	0.022	11897.45663	2.72233
1	2.509		VV S	0.081	69066.12027	15.80346
1	2.806		VV S	0.041	6575.70812	1.50463
1	2.934		VV S	0.081	3751.27464	0.85835
1	3.173		PV S	0.068	13081.40255	2.99324
1	3.301		VB S	0.111	10548.88331	2.41376
1	4.622		BB	0.183	4019.88050	0.91981
1	5.715		PP	0.144	9604.01137	2.19755
1	6.352		PB	0.110	1807.03750	0.41348
1	6.857		BV	0.044	3725.78697	0.85252
1	6.865		VV	0.076	6383.79037	1.46072
1	7.076		VV	0.067	10872.76445	2.48787
1	7.160		VV	0.024	3616.82342	0.82759
1	7.175		VV	0.051	8137.89639	1.86208
1	7.266		VV	0.059	5295.56998	1.21171
1	7.419		VB	0.091	7600.97769	1.73923
1	8.325		VV	0.032	1697.58519	0.38844
1	8.346		VV S	0.033	4433.40239	1.01443
1	8.405		VB S	0.101	9188.52946	2.10249
1	8.892		VV	0.065	1630.23340	0.37302
1	8.990		VV	0.071	2441.22651	0.55859
1	9.195		VV S	0.101	89412.01107	20.45893
1	9.298		VV S	0.028	13275.03680	3.03755
1	9.325		VV S	0.042	19545.61912	4.47236
1	9.378		VV S	0.032	17942.81926	4.10561
1	9.416		VV S	0.077	35243.10176	8.06420
1	9.549		VV S	0.077	44384.35747	10.15587
1	9.968		VV	0.057	3815.14611	0.87297
1	10.143		VV	0.060	1032.70785	0.23630
1	10.236		VV	0.094	2159.91590	0.49422
1	10.722		BP	0.038	1940.54452	0.44403
1	10.931		VV	0.036	3432.99495	0.78553
1	11.369		VV	0.054	2180.76708	0.49900
1	11.518		VV	0.055	3650.61939	0.83532
1	11.648		VV	0.066	3639.70120	0.83282



### 1.7 Analisa GC Minyak Jahe Hasil Adsorpsi (30Menit, 120 Rpm)

#### Agilent Certity QA/QC Report



## Area Percent Report

Calibration last saved:	Tuesday, April 28, 2015 2:06:02 PM
Multiplier:	1.0000
Dilution:	1.0000
Sample amount:	0.0000 µL
Sample type:	Sample
Sampling source:	Manual

Signal	Retention Time [min]	Type	Width [min]	Area [pA*s]	Area %
1	2.464	BV S	0.024	8331.11726	2.32216
1	2.502	VV S	0.086	51597.97836	14.38205
1	2.817	VV S	0.075	9181.41093	2.55916
1	3.175	VV S	0.096	11793.17846	3.28715
1	3.304	VB S	0.110	10185.19057	2.83895
1	5.725	BB	0.144	6962.45583	1.94067
1	6.864	BV	0.034	1468.00505	0.40918
1	6.895	VV	0.024	1144.06078	0.31889
1	6.904	VV	0.060	3275.69490	0.91304
1	7.057	VV	0.044	4405.62226	1.22799
1	7.095	VV	0.039	3700.12523	1.03135
1	7.168	VV	0.021	2052.44343	0.57208
1	7.194	VV	0.089	9228.91429	2.57240
1	7.425	VB	0.087	5850.49969	1.63073
1	8.321	VV	0.032	1305.51174	0.36389
1	8.351	VV	0.035	3242.77106	0.90387
1	8.400	VV	0.060	5456.94732	1.52103
1	8.540	VP	0.048	1205.72453	0.33608
1	8.987	PP	0.051	1345.78628	0.37511
1	9.158	VV S	0.055	57387.64320	15.99582
1	9.243	VV S	0.029	19368.03624	5.39851
1	9.271	VV S	0.057	34777.48741	9.69363
1	9.350	VV S	0.042	21997.22014	6.13135
1	9.397	VV S	0.073	26667.01260	7.43297
1	9.501	VV S	0.016	2807.25894	0.78248
1	9.519	VB S	0.076	41280.09542	11.50612
1	9.946	VV	0.054	3229.90698	0.90028
1	10.235	VV	0.099	2145.46256	0.59801
1	10.492	VV	0.046	1487.72692	0.41468
1	10.696	BB	0.049	2895.51872	0.80708
1	10.910	BB	0.033	1674.26171	0.46667
1	11.604	VV	0.054	1315.37526	0.36664

Zingiberene