

### CERTIFICATE OF ANALYSIS

exp.date 02.2026

<b>SAMPLE NAME</b>		MC1B23	
<b>FORM</b>		Oil	
<b>CUSTOMER NAME</b>		Main Camp Natural Extracts Pty Ltd	
<b>CERTIFICATION DATE</b>		13 February 2023	
<b>CUSTOMER REFERENCE</b>		MC1B23	
<b>ARL JOB #</b>	A230256	<b>LAB REF. #</b>	ARL2300833
<b>ANALYSIS</b>	FULL CoA - ISO-BP		

TEST	ISO 4730:2017(E)** SPECIFICATION	RESULTS	TEST METHOD
Appearance	Clear, mobile without visible water	Conforms	ARL-TM266-5
Colour	Colourless to pale yellow	Conforms	
Odour	Characteristic	Conforms	
Relative Density @ 20°C	0.885 – 0.906	0.897	ISO279
Refractive Index @ 20°C	1.475 – 1.482	1.478	ISO280
Optical Rotation @ 20°C	+7° - +12°	+9.60°	ISO592
Miscibility in 85% ethanol	< 2 volumes	0.6	ISO875

TEST	ISO 4730:2017(E)** SPECIFICATION	RESULTS	TEST METHOD
	Area %		
$\alpha$ -pinene	1.0 – 4.0	2.2	ARL-TM101-4*
sabinene	tr – 3.5	0.2	
$\alpha$ -terpinene	6.0 – 12.0	8.4	
limonene	0.5 – 1.5	0.9	
p-cymene	0.5 – 8.0	3.4	
1,8-cineole	tr – 10.0	2.9	
$\gamma$ -terpinene	14.0 – 28.0	19.1	
terpinolene	1.5 – 5.0	3.2	
terpinen-4-ol	35.0 – 48.0	42.5	
$\alpha$ -terpineol	2.0 – 5.0	2.9	
aromadendrene	0.2 – 3.0	1.4	
ledene	0.1 – 3.0	1.1	
$\delta$ -cadinene	0.2 – 3.0	1.2	
globulol	tr – 1.0	0.3	
viridiflorol	tr – 1.0	0.2	

\* Assay by GC (FID detection –area percent report)

\*\* ISO4730:2017(E)-Essential Oil of Melaleuca, terpinen-4-ol type (Tea Tree Oil)

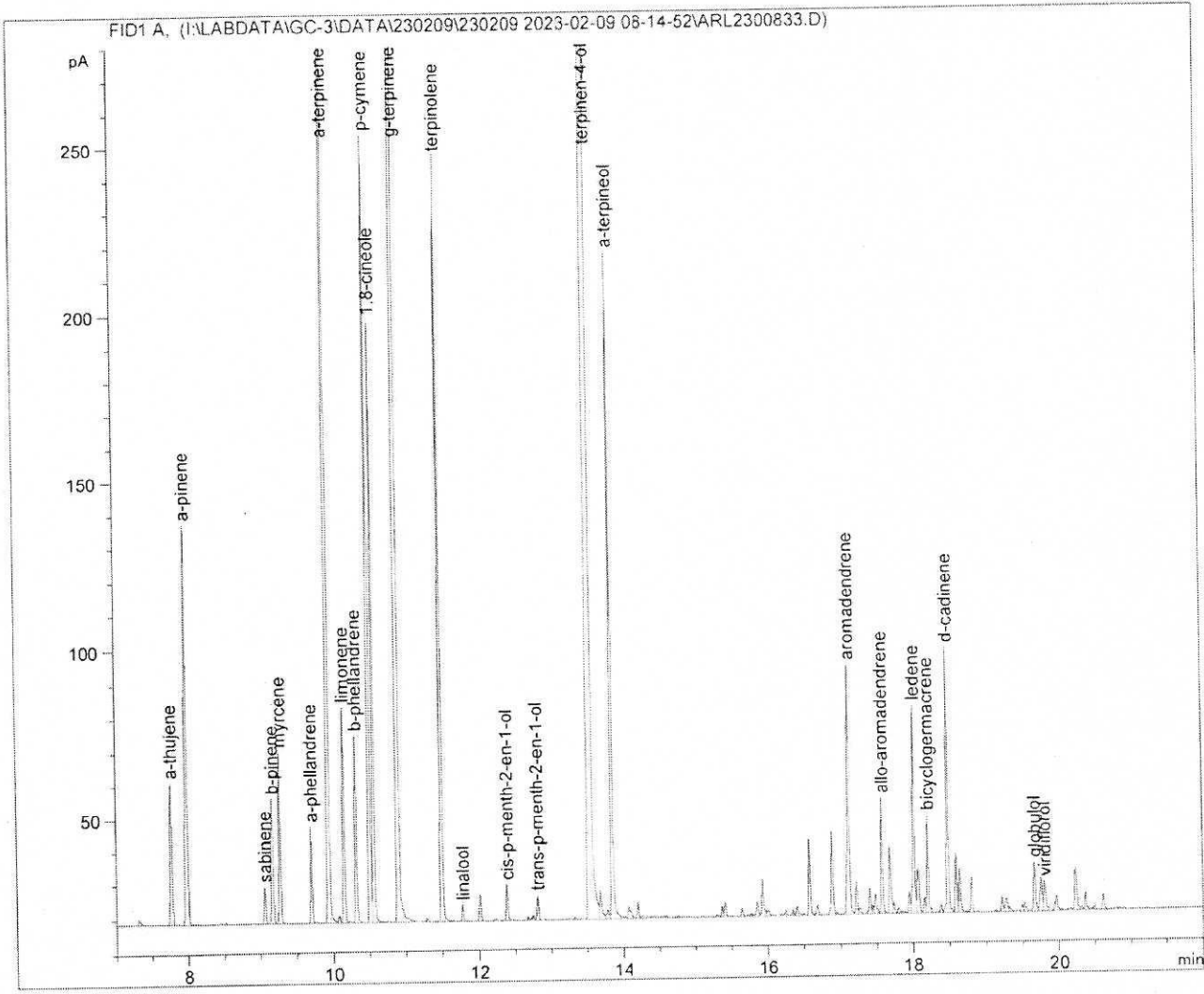


QC AUTHORISED

```

=====
Acq. Operator   : RB                               Seq. Line :    4
Acq. Instrument : GC-3                           Location  : Vial 3
Injection Date  : 9/02/2023 11:57:34 AM          Inj       :    1
                                                    Inj Volume: 1.000 µl

Acq. Method     : C:\DATA_GC-3\DATA\230209\230209 2023-02-09 08-14-52\EO BASEMETHOD 2020.M
Last changed    : 23/09/2022 1:57:15 PM by RB
Analysis Method : W:\ARL\ANALYTICAL\USER\ESSENTIAL OILS\...ANALYSIS METHODS 2021\GC3 ANALYSIS
                : METHODS 2020\TTO.M
Last changed    : 1/02/2023 7:45:31 AM
Method Info     : Method to analyse essential oils
=====
  
```



=====  
 Area Percent Report  
 =====

```

Sorted By       : Signal
Calib. Data Modified : 1/02/2023 7:45:01 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```



Signal 1: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	7.316	BV	0.0310	3.88318	0.0401	?
2	7.769	BB	0.0265	71.16205	0.7343	a-thujene
3	7.983	BB	0.0281	214.96286	2.2182	a-pinene
4	8.516	VV	0.0280	1.14827	0.0118	?
5	9.069	BB	0.0244	16.29540	0.1682	sabinene
6	9.175	BB	0.0259	62.20459	0.6419	b-pinene
7	9.280	BB	0.0219	72.44340	0.7475	myrcene
8	9.713	BV	0.0228	41.63453	0.4296	a-phellandrene
9	9.951	VV	0.0224	816.15594	8.4219	a-terpinene
10	10.089	VV	0.0270	4.15354	0.0429	?
11	10.157	VV	0.0224	90.85831	0.9376	limonene
12	10.324	VV	0.0220	79.43875	0.8197	b-phellandrene
13	10.513	VV	0.0224	331.14520	3.4171	p-cymene
14	10.572	VV	0.0248	281.16638	2.9014	1,8-cineole
15	10.911	VB	0.0233	1850.02563	19.0904	g-terpinene
16	11.295	BB	0.0230	1.46843	0.0152	?
17	11.501	BB	0.0211	306.51959	3.1630	terpinolene
18	11.781	VB	0.0215	6.39760	0.0660	linalool
19	12.023	VB	0.0233	11.98485	0.1237	?
20	12.238	BB	0.0217	1.02106	0.0105	?
21	12.394	BV	0.0227	15.43415	0.1593	cis-p-menth-2-en-1-ol
22	12.687	BV	0.0220	1.46883	0.0152	?
23	12.728	VV	0.0190	9.31171e-1	9.609e-3	?
24	12.758	VV	0.0201	1.78390	0.0184	?
25	12.820	VV	0.0235	10.55944	0.1090	trans-p-menth-2-en-1-ol
26	13.332	VV	0.0270	9.49018e-1	9.793e-3	?
27	13.567	VV	0.0289	4117.93652	42.4930	terpinen-4-ol
28	13.689	VV	0.0293	17.06051	0.1760	?
29	13.789	VV	0.0314	5.93230	0.0612	?
30	13.856	VV	0.0227	284.67422	2.9376	a-terpineol
31	14.075	VV	0.0413	10.33721	0.1067	?
32	14.207	VV	0.0234	6.75793	0.0697	?
33	14.266	VV	0.0429	1.83330	0.0189	?
34	14.384	VV	0.0278	1.07105	0.0111	?
35	14.609	VV	0.0255	1.13104	0.0117	?
36	14.769	VV	0.0438	2.04536	0.0211	?
37	15.308	VV	0.0335	1.52330	0.0157	?
38	15.374	VV	0.0211	4.22107	0.0436	?
39	15.418	VV	0.0254	6.92371	0.0714	?
40	15.650	VV	0.0240	3.73991	0.0386	?
41	15.773	VV	0.0251	1.49443	0.0154	?
42	15.809	VV	0.0234	8.35408e-1	8.621e-3	?
43	15.853	VV	0.0268	7.61116	0.0785	?
44	15.934	VV	0.0267	19.45270	0.2007	?
45	16.001	VV	0.0341	4.11994	0.0425	?
46	16.259	VV	0.0284	3.10897	0.0321	?
47	16.358	VV	0.0232	2.44831	0.0253	?
48	16.410	VV	0.0312	5.41081	0.0558	?
49	16.583	VV	0.0241	35.85163	0.3700	?
50	16.693	VV	0.0322	5.42958	0.0560	?
51	16.896	VV	0.0237	39.72047	0.4099	?

Sample Name: TTO MC1B23

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
52	16.958	VV	0.0321	1.45020	0.0150	?
53	17.126	VV	0.0267	135.07368	1.3938	aromadendrene
54	17.226	VV	0.0241	14.95086	0.1543	?
55	17.272	VV	0.0266	3.54939	0.0366	?
56	17.412	VV	0.0251	12.53337	0.1293	?
57	17.456	VV	0.0198	3.05628	0.0315	?
58	17.488	VV	0.0274	10.61278	0.1095	?
59	17.578	VV	0.0231	50.98333	0.5261	allo-aromadendrene
60	17.688	VV	0.0274	35.63877	0.3678	?
61	17.741	VV	0.0260	5.44804	0.0562	?
62	17.811	VV	0.0231	2.67067	0.0276	?
63	17.865	VV	0.0367	1.72347	0.0178	?
64	17.961	VV	0.0241	9.60166	0.0991	?
65	18.026	VV	0.0250	102.17578	1.0544	ledene
66	18.081	VV	0.0310	26.68644	0.2754	?
67	18.166	VV	0.0229	6.81898	0.0704	?
68	18.211	VV	0.0243	46.32015	0.4780	bicyclogermacrene
69	18.393	VV	0.0248	3.64807	0.0376	?
70	18.484	VV	0.0235	118.71543	1.2250	d-cadinene
71	18.596	VV	0.0229	26.31011	0.2715	?
72	18.646	VV	0.0264	21.88199	0.2258	?
73	18.805	VV	0.0237	16.25785	0.1678	?
74	19.138	VV	0.0240	8.07150e-1	8.329e-3	?
75	19.222	VV	0.0237	6.95401	0.0718	?
76	19.283	VV	0.0371	8.88542	0.0917	?
77	19.328	VV	0.0297	2.68287	0.0277	?
78	19.500	VV	0.0245	2.92918	0.0302	?
79	19.541	VV	0.0289	5.06955	0.0523	?
80	19.674	VV	0.0252	24.22838	0.2500	globulol
81	19.763	VV	0.0317	19.71356	0.2034	?
82	19.813	VV	0.0256	14.68218	0.1515	viridiflorol
83	19.863	VV	0.0336	2.27438	0.0235	?
84	19.971	VV	0.0406	11.41188	0.1178	?
85	20.230	VV	0.0359	27.67123	0.2855	?
86	20.309	VV	0.0280	1.41992	0.0147	?
87	20.368	VV	0.0264	9.00292	0.0929	?
88	20.455	VV	0.0304	1.04638	0.0108	?
89	20.499	VV	0.0250	1.70364	0.0176	?
90	20.614	VV	0.0275	8.41050	0.0868	?

Totals : 9690.86738

\*\*\* End of Report \*\*\*