

CERTIFICATE OF ANALYSIS

SAMPLE NAME		Palmarosa oil ORGANIC	
FORM		Oil	
CUSTOMER NAME		Buckley & Phillips Aromatics	
CERTIFICATION DATE		21 May 2019	
CUSTOMER REFERENCE		DAMA 11-04-2019	
ARL JOB #	A190995	LAB REF. #	ARL1902602
ANALYSIS	GCFID - Area%	METHOD	ARL-TM101

TEST	RESULTS	TEST METHOD
	Area %	
myrcene	0.13	ARL-TM10 1-3*
limonene	0.16	
cis- β -ocimene	0.33	
trans- β -ocimene	1.16	
linalool	2.21	
nerol	0.16	
geraniol	81.94	
geranial	0.58	
geranyl formate	0.13	
geranyl acetate	7.55	
β -caryophyllene	1.51	
geranyl iso-butyrate	0.11	
nerolidol	0.22	
caryophyllene oxide	0.21	
trans trans farnesol	0.99	
citronellyl hexanoate	1.01	
trans trans farnesyl acetate	0.11	
geranyl hexanoate	0.23	

* Assay by GC (FID detection -area percent report)



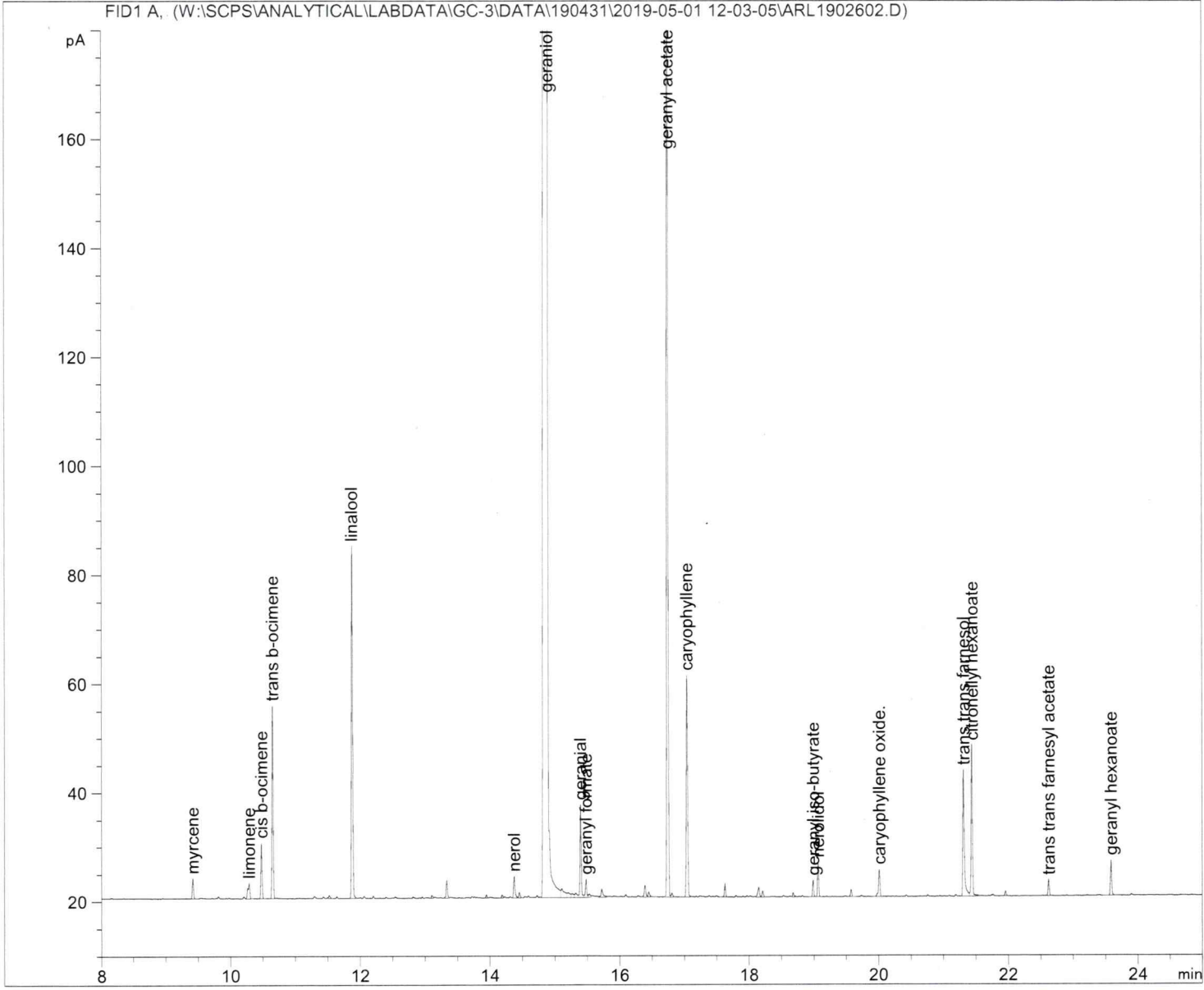
Ms Anastasia Whitehall
LABORATORY ASSISTANT



Ashley Dowell
MANAGER - ARL

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Acq. Operator   : Ana & Jeanette               Seq. Line : 14
Acq. Instrument : GC-3                       Location  : Vial 14
Injection Date  : 1/05/2019 9:09:10 PM       Inj       : 1
                                              Inj Volume: 1.000 µl
Acq. Method     : C:\DATA\GC-3\DATA\190431\2019-05-01 12-03-05\PALMAROSA.M
Last changed    : 1/05/2019 11:58:12 AM by Ana & Regan
Analysis Method : W:\SCPS\ANALYTICAL\LABDATA\GC-3\METHODS\PALMAROSA.M
Last changed    : 16/05/2019 2:29:43 PM
Method Info     : Method to analyse essential oils
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Area Percent Report

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Sorted By       : Signal
Calib. Data Modified : 16/05/2019 2:18:24 PM
Multiplier:     : 1.0000
Dilution:       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
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YLP
 16/5/19

Signal 1: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	9.414	BB	0.0216	5.07067	0.1326	myrcene
2	10.287	VB	0.0294	6.03708	0.1579	limonene
3	10.476	BB	0.0197	12.79609	0.3346	cis b-ocimene
4	10.649	BV	0.0201	44.41475	1.1614	trans b-ocimene
5	11.875	BV	0.0208	84.56650	2.2112	linalool
6	14.372	VV	0.0237	6.17866	0.1616	nerol
7	14.886	VV	0.0388	3133.60571	81.9372	geraniol
8	15.394	VB	0.0203	22.29434	0.5830	geranial
9	15.478	BV	0.0229	5.07708	0.1328	geranyl formate
10	16.744	BV	0.0206	288.76004	7.5505	geranyl acetate
11	17.039	VB	0.0226	57.74794	1.5100	caryophyllene
12	18.991	VV	0.0215	4.19615	0.1097	geranyl iso-butyrate
13	19.072	VV	0.0209	8.38017	0.2191	nerolidol
14	20.013	VV	0.0246	7.91231	0.2069	caryophyllene oxide.
15	21.314	VV	0.0246	38.01182	0.9939	trans trans farnesol
16	21.443	VB	0.0218	38.66530	1.0110	citronellyl hexanoate
17	22.628	VB	0.0220	4.16540	0.1089	trans trans farnesyl acetate
18	23.588	VV	0.0207	8.72085	0.2280	geranyl hexanoate

Totals : 3776.60085 98.7502

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*** End of Report ***

BLS
16/5/19