

Appendix 7-3

Laboratory Results



CERTIFICATE OF ANALYSIS

Client : Michael Watson
 McCarthy Keville & O'Sullivan
 Block 1, GFSC
 Moneenageisha Rd
 Galway

Report No. : 374573
 Date of Receipt : 23/10/2018
 Start Date of Analysis : 23/10/2018
 Date of Report : 31/10/2018
 Order Number :
 Sample taken by : Client

Lab No	Sample Description	Test	Ref.	Result	Units
905683	water	BOD	I, R	<1	mg/l
		Suspended Solids	I, R	<2	mg/l
		COD	I, R	<10	mg/l
		pH	I, R	8.5	pH Units
		Nitrate as N	I, R	<0.1	mg/l
		Nitrate as NO3	I, R	<0.44	mg/l
		Copper, dissolved	I, R	1	ug/l
		Lead, dissolved	I, R	<0.5	ug/l
		Chromium, dissolved	I, R	0.9	ug/l
		Nickel, dissolved	I, R	1	ug/l
		Cadmium, dissolved	I, R	<0.5	ug/l
		Arsenic, dissolved	I, R	0.8	ug/l
		Selenium, dissolved	I, R	1	ug/l
		Zinc, dissolved	I, R	<5	ug/l
		Boron, dissolved	I, R	15	ug/l
		PRO Water (C5-C12) by GC-FID	I, R	<10	ug/l
		BTEX (Benzene, Toluene, Ethylbenzene, m,p- & o-Xylene)	I, R	<10	ug/l
		Beryllium, dissolved	I, R	<0.5	ug/l
		Vanadium, dissolved	R	6	ug/l
		TPH CWG (Aliphatic, Aromatic Fragmentation & Carbon Banding)	I, R	**See Below	
		Aliphatics nC8-nC10	I, R	<10	ug/l
		Aliphatics >nC10-nC12	I, R	<10	ug/l
		Aliphatics >nC12-nC16	I, R	<6	ug/l
		Aliphatics >nC16-nC21	I, R	<6	ug/l
		Aliphatics >nC21-nC35	I, R	<21	ug/l
		Aliphatics >nC35-nC44	I, R	<12	ug/l
		Total Aliphatics C8-C44	I, R	<65	ug/l
		Total Aromatics C8-C44	I, R	<68	ug/l
		Aromatics eC8-eC10	R	<16	ug/l
		Aromatics >eC10-eC12	I, R	<20	ug/l
		Aromatics >eC12-eC16	I, R	<8	ug/l
		Aromatics >eC16-eC21	I, R	<8	ug/l
		Aromatics >eC21-eC35	I, R	<20	ug/l
		Aromatics >eC35-eC44	I, R	<12	ug/l
Total Aliphatics and Aromatics C8-C44	I, R	<133	ug/l		



Approved by:

Barbara Lee

Barbara Lee
 Environmental
 Scientist



See below for test specifications and accreditation status.
 This report only relates to items tested and shall not be reproduced but in full with the permission of CLS.

In-House Test	Specification	17025	GMP/FDA*	ISO**
BOD	CLS 12	Yes	No	Yes
Suspended Solids	CLS 13	Yes	No	Yes
COD	CLS 52	Yes	No	Yes
pH	CLS 26	Yes	No	Yes
Nitrate as N	Konelab CLS 39	Yes	No	Yes
Nitrate as NO3	Konelab CLS 39	Yes	No	Yes
Copper, dissolved	ICP-MS CLS 129	Yes	No	Yes
Lead, dissolved	ICP-MS CLS129	Yes	No	Yes
Chromium, dissolved	ICP-MS CLS 129	Yes	No	Yes
Nickel, dissolved	ICP-MS CLS129	Yes	No	Yes
Cadmium, dissolved	ICP-MS CLS129	Yes	No	Yes
Arsenic, dissolved	ICP-MS CLS129	Yes	No	Yes
Selenium, dissolved	ICP-MS CLS129	Yes	No	Yes
Zinc, dissolved	ICP-MS CLS 129	Yes	No	Yes
Boron, dissolved	ICP-MS CLS129	Yes	No	Yes
PRO Water (C5-C12) by GC-FID	CLS 148	Yes	No	Yes
BTEX (Benzene, Toluene, Ethylbenzene, m,p- & o-Xylene)	CLS 148	Yes	No	Yes
Beryllium, dissolved	ICP-MS CLS129	Yes	No	Yes
Vanadium, dissolved	ICP-MS CLS 129	No	No	Yes
TPH CWG (Aliphatic, Aromatic Fragmentation & Carbon Banding)	CLS 196 GC-GC-FID	Yes	No	Yes
Aliphatics nC8-nC10	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aliphatics >nC10-nC12	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aliphatics >nC12-nC16	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aliphatics >nC16-nC21	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aliphatics >nC21-nC35	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aliphatics >nC35-nC44	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Total Aliphatics C8-C44	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Total Aromatics C8-C44	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aromatics eC8-eC10	CLS 196 (Not accredited in water but accredited in sandy soils)	No	No	Yes
Aromatics >eC10-eC12	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aromatics >eC12-eC16	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aromatics >eC16-eC21	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aromatics >eC21-eC35	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Aromatics >eC35-eC44	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes
Total Aliphatics and Aromatics C8-C44	CLS 196 (Accredited analysis in potable waters, surface waters & sandy soils.)	Yes	No	Yes

*Analysis carried out in a GMP approved, FDA inspected facility (MedPharma site only).

**Laboratory Analysis, Sampling and Food Safety Monitoring are all ISO 9001 certified (Rosmuc site only).

Lab No	Sample ID	Sample Condition on Receipt	Sampling Date
905683	water	Good condition	23/10/2018