



City Analysts Limited, Pigeon House Road, Ringsend, Dublin 4.

Tel: (01) 613 6003 Fax: (01) 613 6008

Email:

reports@cityanalysts.ie

www.cityanalysts.ie

#### **Customer**

Pascal Rooney
Irish Water
Water Service
Monaghan County Council
Monaghan
Monaghan

### **Certificate Of Analysis**

**Job Number:** 16-20059

Issue Number: 2

Report Date: 15 September 2016

Reason for re-issuing report: Report Amended

Site: Drum PWS PO Number: 51125947

Date Samples Received: 11/08/2016

Please find attached the results for the samples received at our laboratory on 11/08/2016.

Should you have any queries regarding the report or require any further services, we would be happy to discuss your requirements. For additional information about the company please log-on to our website at the above address.

Thank you for choosing City Analysts Limited. We look forward to assisting you again.

Authorised By: Callin Chum Authorised Date:

Caitlin Quinn
Deputy Quality Manager

Notes:

Results relate only to the items tested.

Information on methods of analysis and performance characteristics is available on request.

Any opinions or interpretations indicated are outside the scope of our INAB accreditation.

This test report shall not be reproduced except in full or with written approval of City Analysts Limited.

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15 September 2016





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**Customer** 

Monaghan

Site: Drum PWS

Date of Sampling: 11/08/2016 Sample Description: Barbara Stewart; Main St Drum Sample Type: Treated Date Sample Received: 11/08/2016

Lab Reference Number: 328926

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
S/S1016#	17/08/2016	1,2-Dichloroethane	< 0.50	ug/l	<= 3.00
D/D3001#	15/08/2016	Aluminium, Total	< 5.00	ug/l	<= 200.00
D/D3000#	12/08/2016	Ammonia as NH4	0.078	mg/l	<= 0.300
*U	-	Antimony	< 0.33	ug/l	<= 5.00
*U	-	Arsenic	0.27	ug/l	<= 10.00
S/S#	17/08/2016	Benzene	< 0.50	ug/l	<= 1.00
D/D3001#	18/08/2016	Boron	< 50.00	ug/l	<= 1000.00
U	-	Bromate as BrO3	< 0.30	ug/l	<= 10.00
U	-	Metaldehyde	< 0.01	ug/l	-
D/D3001#	15/08/2016	Cadmium	0.53	ug/l	<= 5.00
D/D3006	11/08/2016	Chlorine, Free	0.110	mg/l	-
D/D3000#	12/08/2016	Chloride	46.963	mg/l	<= 250.000
D/D3001#	15/08/2016	Chromium	3.49	ug/l	<= 50.00
D/D3010#	23/08/2016	Colour Apparent	< 5.00	Hazen	-
D/D3011#	11/08/2016	Conductivity @ 20 ℃	330.0	uS/cm @20℃	<= 2500.0
D/D3001#	19/08/2016	Copper	36.12	ug/l	<= 2000.00
*U	-	Cyanide, Total	< 1.70	ug/l	<= 50.00
*	-	Cypermethrin	< 0.01	ug/l	-

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Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
*	-	Epichlorohydrin	< 0.10	ug/l	<= 0.10
*U	-	Acrylamide	< 0.013	ug/l	<= 0.100
D/D3015#	18/08/2016	Fluoride	0.1	mg/l	<= 0.9
*U	-	Glyphosate	< 0.01	ug/l	-
D/D3001#	15/08/2016	Iron	16.40	ug/l	<= 200.00
D/D3001#	15/08/2016	Lead	3.62	ug/l	<= 10.00
D/D3001#	15/08/2016	Manganese	1.88	ug/l	<= 50.00
*U	-	Mercury	< 0.06	ug/l	<= 1.00
D/D3000#	12/08/2016	Nitrite as N02	< 0.066	mg/l	<= 0.500
D/D3000#	12/08/2016	Nitrate as N03	< 8.900	mg/l	<= 50.000
D/D3001#	15/08/2016	Nickel	3.36	ug/l	<= 20.00
D/	19/08/2016	Odour	0	N/A	-
D/	19/08/2016	Taste (Nature)	0	N/A	-
D/D1041#	11/08/2016	PH	7.69	pH Unit	6.50 - 9.50
*U	-	Selenium	< 0.16	ug/l	<= 10.00
D/D3001#	17/08/2016	Sodium	30.172	mg/l	<= 200.000
D/D3000#	12/08/2016	Sulphate	33.980	mg/l	<= 250.000
S/S1016#	17/08/2016	Tetrachloroethene	< 0.60	ug/l	<= 10.00

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Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
S/S3224#	18/08/2016	Total Organic Carbon	1.990	mg/l	NAC & ATC
S/S#	17/08/2016	Trichloroethene	< 0.60	ug/l	<= 10.00
D/D3054#	19/08/2016	Turbidity	0.77	NTU	NAC & ATC
*U	-	Vinyl Chloride	< 0.50	ug/l	<= 0.10
*	-	Pesticides Total	0.03	ug/l	<= 0.50
D/D1214#	11/08/2016	Clostridium perfringens	< 1	cfu/100ml	<= 0
D/D1201#	11/08/2016	Coliforms	< 1.0	MPN/100ml	<= 0.0
D/D1201#	11/08/2016	E.coli	< 1.0	MPN/100ml	<= 0.0
D/D3200	11/08/2016	Faecal Enterococci	< 1.0	MPN/100ml	<= 0.0
D/D1208#	11/08/2016	TVC @ 22 ℃	6	cfu/ml	NAC
Acid Herbicide	es				
*U	-	Propyzamide	< 0.01	ug/l	<= 0.10
*U	-	2,4 D	< 0.01	ug/l	<= 0.10
*U	-	Bentazone	< 0.01	ug/l	<= 0.10
*U	-	Bromoxynil	< 0.01	ug/l	<= 0.10
*U	-	Clopyralid	< 0.01	ug/l	<= 0.10
*U	-	Dicamba	< 0.02	ug/l	<= 0.10
*U	-	Dichlorprop	< 0.01	ug/l	<= 0.10

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Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
*U	-	MCPA	0.02	ug/l	<= 0.10
*U	-	МСРВ	< 0.01	ug/l	<= 0.10
*U	-	Mecoprop (Total)	< 0.01	ug/l	<= 0.10
*U	-	Tricloypr	< 0.01	ug/l	<= 0.10
*	-	2,3,6 TBA	< 0.02	ug/l	-
*U	-	Benazolin	< 0.01	ug/l	<= 0.10
*U	-	Fenoprop	< 0.01	ug/l	<= 0.10
*U	-	Picloram	< 0.01	ug/l	<= 0.10
OCP					
*U	-	Dieldrin	< 0.01	ug/l	<= 0.03
*U	-	p,p'-DDT	< 0.01	ug/l	<= 0.10
*U	-	Aldrin	< 0.01	ug/l	<= 0.03
*U	-	Alpha BHC	< 0.01	ug/l	<= 0.10
*U	-	Beta BHC	< 0.01	ug/l	<= 0.10
*U	-	Gamma BHC	< 0.01	ug/l	<= 0.10
*U	-	Chlorothalonil	< 0.01	ug/l	<= 0.10
*U	-	Dichlobenil	< 0.01	ug/l	<= 0.10
*U	-	Alpha-Endosulphan	< 0.01	ug/l	<= 0.10

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Site: Drum PWS

Date of Sampling: 11/08/2016 Sample Description: Barbara Stewart; Main St Drum Sample Type: Treated Date Sample Received: 11/08/2016

Lab Reference Number: 328926

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)		
*U	-	Endosulphan-beta	< 0.02	ug/l	<= 0.10		
*U	-	Endrin	< 0.01	ug/l	<= 0.10		
*U	-	Hexachlorobenzene	< 0.01	ug/l	<= 0.10		
*U	-	Heptachlor	< 0.01	ug/l	<= 0.03		
*U	-	Heptachlor Epoxide	< 0.01	ug/l	<= 0.03		
*U	-	Isodrin	< 0.01	ug/l	<= 0.10		
*U	-	Alachlor	< 0.01	ug/l	<= 0.03		
*U	-	Heptachlor-endo-epoxide	< 0.01	ug/l	<= 0.10		
*U	-	Heptachlor-exo-epoxide	< 0.01	ug/l	-		
OPP							
*U	-	Chlorfenvinphos	< 0.01	ug/l	<= 0.10		
*U	-	Diazinon	< 0.01	ug/l	<= 0.10		
*U	-	Dichlorvos	< 0.01	ug/l	<= 0.10		
*U	-	Dimethoate	< 0.01	ug/l	<= 0.10		
*U	-	Malathion	< 0.01	ug/l	<= 0.10		
*U	-	Propetamphos	< 0.01	ug/l	<= 0.10		
PAH EPA Suit	PAH EPA Suite (6 Constituents)						
*U	-	Fluoranthene	< 0.01	ug/l	-		

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Monaghan County Council Monaghan Monaghan

Site: Drum PWS

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Lab Reference Number: 328926

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
*U	-	Benzo(b)fluoranthene	< 0.01	ug/l	-
*U	-	Benzo(k)fluoranthene	< 0.01	ug/l	-
*U	-	Benzo(a)pyrene	< 0.01	ug/l	-
*U	-	Benzo(ghi)perylene	< 0.01	ug/l	-
*U	-	Ideno (123cd) pyrene	< 0.01	ug/l	-
*U	-	Anthracene	< 0.01	ug/l	-
*U	-	Total PAH	< 0.01	ug/l	<= 0.10
THM					
S/S1016#	17/08/2016	Chloroform	50.37	ug/l	-
S/S1016#	17/08/2016	Bromodichloromethane	19.58	ug/l	-
S/S1016#	17/08/2016	Chlorodibromomethane	5.16	ug/l	-
S/S1016#	17/08/2016	Bromoform	< 0.90	ug/l	-
S/S1016#	17/08/2016	Total THM	75.39	ug/l	<= 100.00
Triazines					
*U	-	Atrazine	< 0.01	ug/l	<= 0.10
*U	-	Prometryn	< 0.01	ug/l	-
*U	-	Propazine	< 0.01	ug/l	<= 0.10
*U	-	Simazine	< 0.01	ug/l	<= 0.10

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Site: Drum PWS

Date of Sampling: 11/08/2016 Sample Description: Barbara Stewart; Main St Drum Sample Type: Treated Date Sample Received: 11/08/2016

Lab Reference Number: 328926

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
*U	-	Terbutryn	< 0.01	ug/l	<= 0.10
*U	-	Trietazine	< 0.01	ug/l	<= 0.10
*U	-	Fenpropimorph	< 0.01	ug/l	<= 0.10
*U	-	Pendimethalin	< 0.01	ug/l	<= 0.10
*U	-	Pirimicarb	< 0.01	ug/l	<= 0.10
Urons and Car	nazoles				
*U	-	Chlorotoluron	< 0.01	ug/l	<= 0.10
*U	-	Diuron	< 0.01	ug/l	<= 0.10
*U	-	Isoproturon	< 0.01	ug/l	<= 0.10
*U	-	Linuron	< 0.01	ug/l	<= 0.10
*U	-	Monuron	< 0.01	ug/l	<= 0.10
*U	-	Methabenzthiazuron	< 0.01	ug/l	<= 0.10
*U	-	Metamitron	< 0.01	ug/l	<= 0.10
*U	-	Prothioconazole	< 0.01	ug/l	<= 0.10
*U	-	Tebuconazole	< 0.01	ug/l	<= 0.10
*U	-	Tebuthiuron	< 0.01	ug/l	<= 0.10
*U	-	Epoxiconazole	< 0.01	ug/l	<= 0.10
*U	-	Carbetamide	< 0.01	ug/l	<= 0.10

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Monaghan

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Drum PWS Site:

Date of Sampling: 11/08/2016 Sample Description: Barbara Stewart; Main St Drum Sample Type: Treated Date Sample Received: 11/08/2016

Lab Reference Number:

328926

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
*U	-	Carbofuran	< 0.01	ug/l	<= 0.10
*U	-	Propiconazole	< 0.01	ug/l	<= 0.10

### Comments

E256028, N317550

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NAC & ATC - No abnormal change and acceptable to customers.

TVC - Total viable count

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