

Industrial Chemistry Expertise

16015 Lomond Shores West Kendall, NY 14476 USA Phone +1 (585) 727-2825 Email info@counterpartschemistry.com

29 May 2021

202105 Contaminants Report 29May2021

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National Primary Drinking Water Contaminants Results Summary

Prepared for: David Weaver

Date: 29 May 2021

14 Brightford Heights Rd

Rochester, New York 14534 Phone (585) 576-4672

RE: Project 202105

Hello David,

Per request the following is a tabulated summary of analytical results on three samples of separate production lots of HyONUS, Inc. Water product. The Water product (HyON Water) lot numbers of production material tested were 2021501, 2021502, and 2021503, and these production lots were submitted and received for testing on April 27th, 2021.

For ease of comparison of the analytical results with US EPA enforceable standards, tabulated alongside the analytical results for each lot of Water product are the US EPA Maximum Contaminant Level (MCL) values for the contaminants tested. These values were taken from the current US EPA publication EPA 816-F-09-004, which was downloaded from the US EPA website and confirmed to be the current public document on May 21 st, 2021.

The analytical testing was performed by Pace Analytical Services, Melville, NY, as specified and reported in Pace Project Number 70170711, dated May 14th, 2021. That project report is herein included and incorporated by reference and accompanies the email this this results summary was sent in on May 28th, 2021. The report was also jointly and simultaneously received by HyONUS Inc. and Counterparts Chemistry LLC on May 14th, 2021. This current report 202105 merely combines Water sample-specific results from 70170711 and presents them alongside US EPA MCL data, for the purpose of illustrating compliance with said EPA data and limits.

Any workorder or analysis qualifiers present in the Pace project 70170711 report for the three Water samples are listed in this summary as a column after the result units. These specific qualifiers are defined by Pace in the project report as follows. Please refer to the Pace project 70170711 report for further details.

WORKORDER QUALIFIERS

[1] NO₂/NO₃, 180.1 Turbidity, SimPlate, Total Coliform- Sample was received outside the recognized method holding time; client notified and approved.

[2] The volatile containers contained headspace. See Sample Condition Upon Receipt Form for details.



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ANALYTE QUALIFIERS

H1: Analysis conducted outside the EPA method holding time.

H2: Extraction or preparation conducted outside EPA method holding time.

H3: Sample was received or analysis requested beyond the recognized method holding time.

H6: Analysis initiated outside of the 15 minute EPA required holding time.

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

List of National Primary Drinking Water Contaminants Not Tested For - Applies to all Three Lots

Acrylamide Asbestos (Fibers >10 μm) Chromium (total) *Cryptosporidium* Epichlorohydrin Ethylene dibromide *Giardia lamblia* Glyphosate Thallium Viruses (Enteric)



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Results for HyQN Water Lot 2108501

Contaminant	Result	Units	Qualifiers	(µg/L) US EPA MCL
Alachlor	<0.20	μg/L	H2	2
Alpha/Photon Emitters	<0.496 (MDC)	pCi/L		15 pCi/L
Antimony	< 0.40	μg/L	/	6
Arsenic	<1.0	μg/L		10
Atrazine	<0.10	μg/L		3
Barium	<2.0	μg/L		2000
Benzene	<0.5	μg/L		5
Benzo(a)pyrene (PAHs)	< 0.020	μg/L		0.2
Beryllium	< 0.30	μg/L		4
Beta Photon Emitters	<0.273 (MDC)	pCi/L		15 pCi/L
Bromate	<10	μg/L		10
Cadmium	<1.0	μg/L		5
Carbofuran	<2.0	μg/L		40
Carbon Tetrachloride	< 0.50	μg/L		5
Chloramines (as Cl2)	<0.10	mg/L	H6, N2	4 mg/L
Chlordane	<0.20	μg/L	H2	2
Chlorine (as Cl2)	<0.10	mg/L	H6, N2	4 mg/L
Chlorine (as ClO2)	<0.20	mg/L	H6	0.8 mg/L
Chlorite	<20.0	μg/L	H1	1000
Chlorobenzene	<0.50	μg/L		100
Copper	<2.0	μg/L		1300
Cyanide (as free cyanide)	<10.0	μg/L		200
2,4-D	<0.10	μg/L		70
Dalapon	<0.70	μg/L		200
1,2-Dibromo-3- chloropropane (DBCP)	<0.50	μg/L		0.2
o-Dichlorobenzene	< 0.50	μg/L		600
p-Dichlorobenzene	< 0.50	μg/L		75
1,2-Dichloroethane	< 0.50	μg/L		5
1,1-Dichloroethylene	< 0.50	μg/L		7
cis-1,2-Dichloroethylene	< 0.50	μg/L		70
trans-1,2-Dichloroethylene	< 0.50	μg/L		100
Dichloromethane	<0.50	μg/L		5
1,2-Dichloropropane	<0.50	μg/L		5
Di(2-ethylhexyl)adipate	<0.60	μg/L		400



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Results for HyQN Water Lot 2108501 (continued)

Contaminant	Result	Units	Qualifiers	(μg/L) US EPA MCL
Di(2-ethylhexyl)phthalate	<0.60	μg/L		6
Dinoseb	<0.20	μg/L		7
Dioxin (2,3,7,8-TCDD)	<5.0	pg/L		30 pg/L
Diquat	<0.40	μg/L		20
Endothall	<9.0	μg/L	M1	100
Endrin	< 0.010	μg/L	H2, L2	2
Ethylbenzene	<0.50	μg/L		700
Fecal Coliforms and E. Coli	Absent	N/A	H3	Present
Fluoride	<0.1	mg/L		4 mg/L
Haloacetic acids (HAA 5)	<2.0	μg/L		60
Heptachlor	< 0.025	μg/L	H2, L2	0.4
Heptachlor epoxide	< 0.020	μg/L	H2, L2	0.2
Heterotropic plate count (HPC)	<2.0	MPN/mL	H3	500 CFU/mL
Hexachlorobenzene	<0.10	μg/L	H2	1
Hexachlorocyclopentadiene	<0.10	µg/L	H2	50
Lead	<1.0	μg/L		15
Legionella	<0.4, None Isolated	CFU/mL		Present
Lindane	< 0.020	μg/L	H2, L2	0.2
Mercury (inorganic)	<0.2	μg/L		2
Methoxychlor	<0.10	µg/L	H2, L2	40
Nitrate (measured as N)	< 0.050	mg/L		10 mg/L
Nitrite (measured as N)	<0.050	mg/L	H1	1 mg/L
Oxamyl (Vydate)	<2.0	μg/L		200
Pentachlorophenol	< 0.040	μg/L		1
Picloram	< 0.10	μg/L		500
Polychlorinated biphenyls (PCBs)	<0.40	μg/L	H2	0.5
Radium 226 and Radium 228 (combined)	<0.507, 0.980	pCi/L		15 pCi/L
Selenium	<2.0	μg/L		50
Simazine	< 0.070	μg/L		4
Styrene	< 0.50	μg/L		100
Tetrachloroethylene	<0.50	μg/L		5
Toluene	0.68	μg/L		1000



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Results for HyON Water Lot 2108501 (continued)

Contaminant	Result	Units	Qualifiers	(mg/L) US EPA MCL
Total Coliforms	Absent	N/A	H3	Present
Total Trihalomethanes (TTHMs)	<0.50	μg/L		80
Toxaphene	<1.0	μg/L	H12	3
2,4,5-TP (Silvex)	<0.13	μg/L		50
1,2,4-Trichlorobenzene	<0.50	μg/L		70
1,1,1-Trichloroethane	<0.50	μg/L		200
1,1,2-Trichloroethane	<0.50	μg/L		5
Trichloroethylene	<0.50	μg/L		5
Turbidity	<1.0	NTU		1.0 NTU
Uranium	<0.262	μg/L		30
Vinyl chloride	<0.50	μg/L		2
Xylenes (total)	<0.50	μg/L		10000



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Results for HyQN Water Lot 2108502

Contaminant	Result	Units	Qualifiers	(mg/L) US EPA MCL
Alachlor	<0.20	μg/L	H2	2
Alpha/Photon Emitters	<0.548 (MDC)	pCi/L		15 pCi/L
Antimony	< 0.40	μg/L		6
Arsenic	<1.0	μg/L		10
Atrazine	< 0.10	μg/L		3
Barium	<2.0	μg/L		2000
Benzene	<0.5	μg/L		5
Benzo(a)pyrene (PAHs)	< 0.020	μg/L		0.2
Beryllium	< 0.30	μg/L		4
Beta Photon Emitters	<2.64 (MDC)	pCi/L		15 pCi/L
Bromate	<10	μg/L		10
Cadmium	<1.0	μg/L		5
Carbofuran	<2.0	μg/L		40
Carbon Tetrachloride	< 0.50	μg/L		5
Chloramines (as Cl2)	< 0.10	mg/L	H6, N2	4 mg/L
Chlordane	< 0.20	μg/L	H2	2
Chlorine (as Cl ₂)	< 0.10	mg/L	H6, N2	4 mg/L
Chlorine (as ClO ₂)	< 0.20	mg/L	H6	0.8 mg/L
Chlorite	<20.0	μg/L	H1	1000
Chlorobenzene	< 0.50	μg/L		100
Copper	<2.0	μg/L		1300
Cyanide (as free cyanide)	<10.0	μg/L		200
2,4-D	< 0.10	μg/L		70
Dalapon	<0.70	μg/L		200
1,2-Dibromo-3- chloropropane (DBCP)	<0.50	μg/L		0.2
o-Dichlorobenzene	< 0.50	μg/L		600
p-Dichlorobenzene	< 0.50	μg/L		75
1,2-Dichloroethane	< 0.50	μg/L		5
1,1-Dichloroethylene	< 0.50	μg/L		7
cis-1,2-Dichloroethylene	< 0.50	μg/L		70
trans-1,2-Dichloroethylene	< 0.50	μg/L		100
Dichloromethane	<0.50	μg/L		5
1,2-Dichloropropane	< 0.50	μg/L		5
Di(2-ethylhexyl)adipate	<0.60	μg/L		400



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Results for HyON Water Lot 2108502 (continued).

Contaminant	Result	Units	Qualifiers	(mg/L) US EPA MCL
Di(2-ethylhexyl)phthalate	<0.60	μg/L		6
Dinoseb	<0.20	μg/L		7
Dioxin (2,3,7,8-TCDD)	<5.0	pg/L		30 pg/L
Diquat	< 0.40	μg/L		20
Endothall	<9.0	μg/L	M1	100
Endrin	< 0.010	μg/L	H2, L2	2
Ethylbenzene	<0.50	μg/L		700
Fecal Coliforms and E. Coli	Absent	N/A	H3	Present
Fluoride	<0.1	mg/L		4 mg/L
Haloacetic acids (HAA 5)	<2.0	μg/L		60
Heptachlor	<0.025	µg/L	H2, L2	0.4
Heptachlor epoxide	<0.020	μg/L	H2, L2	0.2
Heterotropic plate count (HPC)	<2.0	MPN/mL	НЗ	500 CFU/mL
Hexachlorobenzene	<0.10	μg/L	H2	1
Hexachlorocyclopentadiene	<0.10	μg/L	H2	50
Lead	<1.0	μg/L		15
Legionella	<0.4, None Isolated	CFU/mL		Present
Lindane	<0.020	μg/L	H2, L2	0.2
Mercury (inorganic)	<0.2	μg/L		2
Methoxychlor	<0.10	μg/L	H2, L2	40
Nitrate (measured as N)	<0.050	mg/L		10 mg/L
Nitrite (measured as N)	<0.050	mg/L	H1	1 mg/L
Oxamyl (Vydate)	<2.0	μg/L		200
Pentachlorophenol	< 0.040	μg/L		1
Picloram	<0.10	μg/L		500
Polychlorinated biphenyls (PCBs)	<0.40	μg/L	H2	0.5
Radium 226 and Radium 228 (combined)	<0.175, <0.661	pCi/L		15 pCi/L
Selenium	<2.0	μg/L		50
Simazine	< 0.070	μg/L	L1	4
Styrene	<0.50	μg/L		100
Tetrachloroethylene	< 0.50	µg/L		5
Toluene	1.2	μg/L		1000



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Results for HyON Water Lot 2108502 (continued)

Contaminant	Result	Units	Qualifiers	(mg/L) US EPA MCL
Total Coliforms	Absent	N/A	H3	Present
Total Trihalomethanes (TTHMs)	<0.50	µg/L		80
Toxaphene	<1.0	μg/L	H2	3
2,4,5-TP (Silvex)	<0.13	μg/L		50
1,2,4-Trichlorobenzene	<0.50	μg/L		70
1,1,1-Trichloroethane	<0.50	μg/L		200
1,1,2-Trichloroethane	<0.50	μg/L		5
Trichloroethylene	<0.50	μg/L		5
Turbidity	<1.0	NTU		1.0 NTU
Uranium	< 0.262	μg/L		30
Vinyl chloride	<0.50	μg/L		2
Xylenes (total)	<0.50	μg/L		10000



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Results for HyO NWater Lot 2108503

Contaminant	Result	Units	Qualifiers	(mg/L) US EPA MCL
Alachlor	<0.20	μg/L	H2	2
Alpha/Photon Emitters	<0.626 (MDC)	pCi/L		15 pCi/L
Antimony	<0.40	μg/L		6
Arsenic	<1.0	μg/L		10
Atrazine	<0.10	μg/L		3
Barium	<2.0	μg/L		2000
Benzene	<0.5	μg/L		5
Benzo(a)pyrene (PAHs)	<0.020	μg/L		0.2
Beryllium	< 0.30	μg/L		4
Beta Photon Emitters	<2.00 (MDC)	pCi/L		15 pCi/L
Bromate	<10	μg/L		10
Cadmium	<1.0	μg/L		5
Carbofuran	<2.0	μg/L		40
Carbon Tetrachloride	<0.50	μg/L		5
Chloramines (as Cl2)	<0.10	mg/L	H6, N2	4 mg/L
Chlordane	<0.20	μg/L	H2	2
Chlorine (as Cl2)	<0.10	mg/L	H6, N2	4 mg/L
Chlorine (as ClO ₂)	<0.20	mg/L	H6	0.8 mg/L
Chlorite	<20.0	μg/L	H1	1000
Chlorobenzene	< 0.50	μg/L		100
Copper	<2.0	μg/L		1300
Cyanide (as free cyanide)	<10.0	μg/L		200
2,4-D	< 0.10	μg/L		70
Dalapon	<0.70	μg/L		200
1,2-Dibromo-3- chloropropane (DBCP)	<0.50	μg/L		0.2
o-Dichlorobenzene	<0.50	μg/L		600
p-Dichlorobenzene	<0.50	μg/L		75
1,2-Dichloroethane	<0.50	μg/L		5
1,1-Dichloroethylene	<0.50	μg/L		7
cis-1,2-Dichloroethylene	<0.50	μg/L		70
trans-1,2-Dichloroethylene	<0.50	μg/L		100
Dichloromethane	<0.50	μg/L		5
1,2-Dichloropropane	<0.50	μg/L		5
Di(2-ethylhexyl)adipate	<0.60	μg/L		400



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Results for HyQN Water Lot 2108503 (continued)

Contaminant	Result	Units	Qualifiers	(mg/L) US EPA MCL
Di(2-ethylhexyl)phthalate	<0.60	μg/L		6
Dinoseb	<0.20	μg/L		7
Dioxin (2,3,7,8-TCDD)	<5.0	pg/L		30 pg/L
Diquat	<0.40	μg/L		20
Endothall	<9.0	μg/L	M1	100
Endrin	<0.010	μg/L	H2, L2	2
Ethylbenzene	<0.50	μg/L		700
Fecal Coliforms and E. Coli	Absent	N/A	H3	Present
Fluoride	<0.1	mg/L		4 mg/L
Haloacetic acids (HAA 5)	<2.0	μg/L		60
Heptachlor	<0.025	μg/L	H2, L2	0.4
Heptachlor epoxide	<0.020	μg/L	H2, L2	0.2
Heterotropic plate count (HPC)	<2.0	MPN/mL	H3	500 CFU/mL
Hexachlorobenzene	<0.10	μg/L	H2	1
Hexachlorocyclopentadiene	<0.10	μg/L	H2	50
Lead	<1.0	μg/L		15
Legionella	<0.4, None Isolated	CFU/mL		Present
Lindane	<0.020	μg/L	H2, L2	0.2
Mercury (inorganic)	<0.2	μg/L		2
Methoxychlor	<0.10	μg/L	H2, L2	40
Nitrate (measured as N)	<0.050	mg/L		10 mg/L
Nitrite (measured as N)	<0.050	mg/L	H1	1 mg/L
Oxamyl (Vydate)	<2.0	μg/L		200
Pentachlorophenol	<0.040	μg/L		1
Picloram	<0.10	μg/L		500
Polychlorinated biphenyls (PCBs)	<0.40	μg/L	H2	0.5
Radium 226 and Radium 228 (combined)	<0.729, <0.574	pCi/L		15 pCi/L
Selenium	<2.0	μg/L		50
Simazine	<0.070	μg/L	L1	4
Styrene	<0.50	μg/L		100
Tetrachloroethylene	<0.50	μg/L		5
Toluene	0.69	μg/L		1000



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Results for HyQN Water Lot 2108503 (continued)

Contaminant	Result	Units	Qualifiers	(mg/L) US EPA MCL
Total Coliforms	Absent	N/A	H3	Present
Total Trihalomethanes (TTHMs)	<0.50	μg/L		80
Toxaphene	<1.0	μg/L	H2	3
2,4,5-TP (Silvex)	<0.13	μg/L		50
1,2,4-Trichlorobenzene	<0.50	μg/L		70
1,1,1-Trichloroethane	<0.50	μg/L		200
1,1,2-Trichloroethane	<0.50	μg/L		5
Trichloroethylene	<0.50	μg/L		5
Turbidity	<1.0	NTU		1.0 NTU
Uranium	<0.262	μg/L		30
Vinyl chloride	<0.50	μg/L		2
Xylenes (total)	<0.50	μg/L		10000



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Summary

Comparison of the reported analysis values to the EPA MCLs reveals no instances where a potential contaminant was observed at or above the MCL (Maximum Contaminant Level). This result was observed for all three separate production lots 2108501, 2108502, and 2108503 of provided water samples (product name HyON Water).

For the analytes and organisms tested, which includes all primary contaminants except for the ten noted on page 3 of this report, the three production lots of water satisfy EPA National Primary Drinking Water Regulation MCL value requirements. The vast majority of potential contaminants were below reporting limits or absent, and in no specific case did any primary contaminant approach the US EPA national MCL value.

David, please let me know if there are any questions, or if additional information is required.

Best Regards, - Jack !

Jack Fox, PhD Technical Director