

OHA - Drinking Water Program – Turbidity Monitoring Report Form County: Clackamas

Conventional or Direct Filtration

System Name: CLACKAMAS RIVER WATER - CLACKAMAS ID #: 4100187 WTP: WTP-A Month/Year: 3/2021

| DAY | 2 AM [NTU] | 6 AM [NTU] | 10 AM [NTU] | 2 PM [NTU] | 6 PM [NTU] | 10 PM [NTU] | Highest Reading of the Day ¹ [NTU] |
|-----|------------|------------|-------------|------------|------------|-------------|---|
| 1 | off | off | 0.02 | 0.02 | off | off | 0.05 |
| 2 | off | off | 0.02 | 0.02 | off | off | 0.05 |
| 3 | off | off | 0.02 | 0.03 | off | off | 0.05 |
| 4 | off | off | 0.03 | 0.02 | off | off | 0.04 |
| 5 | off | off | 0.02 | 0.02 | 0.02 | 0.02 | 0.05 |
| 6 | off | off | off | 0.02 | 0.02 | off | 0.06 |
| 7 | off | off | 0.02 | 0.02 | off | off | 0.04 |
| 8 | off | off | 0.02 | 0.02 | off | off | 0.04 |
| 9 | off | off | 0.02 | 0.02 | off | off | 0.04 |
| 10 | off | off | 0.02 | 0.02 | off | off | 0.04 |
| 11 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 12 | off | off | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 13 | off | off | off | 0.02 | 0.02 | off | 0.02 |
| 14 | off | 0.02 | 0.02 | off | off | off | 0.02 |
| 15 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 16 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 17 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 18 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 19 | off | off | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 20 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 21 | off | 0.02 | 0.02 | off | off | off | 0.02 |
| 22 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 23 | off | off | 0.02 | 0.02 | off | off | 0.02 |
| 24 | off | off | 0.02 | 0.02 | off | off | 0.06 |
| 25 | off | off | 0.02 | 0.02 | off | off | 0.03 |
| 26 | off | off | 0.02 | 0.02 | 0.02 | 0.02 | 0.06 |
| 27 | off | off | off | 0.02 | 0.02 | off | 0.04 |
| 28 | off | 0.03 | 0.02 | off | off | off | 0.05 |
| 29 | off | off | 0.02 | 0.02 | off | off | 0.06 |
| 30 | off | off | 0.02 | 0.02 | off | off | 0.04 |
| 31 | off | off | 0.03 | 0.02 | off | off | 0.04 |

Conventional or Direct Filtration

Monthly Summary (Answer Yes or No)

95% of the 4-hour turbidity readings \leq 0.3 NTU? ☒ Yes / No
 All the 4-hour turbidity readings \leq 1 NTU? ☒ Yes / No
 All turbidity readings < IFE² triggers? ☒ Yes / No²

CT's met everyday? (see back)
☒ Yes / No

All Cl₂ residuals at entry point \geq 0.2 mg/l?
☒ Yes / No

Notes:

PRINTED NAME:

Rob Cummings

SIGNATURE:

PHONE #: (503) 722-9247

DATE:

4-4-21

CERT #:

5017

¹ Including continuous turbidity data, if applicable, for optimization recording purposes. Compliance values in columns "12 AM" through "8 PM" may not correspond to continuous readings' maximum.

² IFE = Indirect Filtration Effluent (OAR 333-061-0040(1)(e)(B&C))

| | Pre-Chlorination Segment | | | | | | | | | Post-Chlorination Segment | | | | | | | | | | Total | |
|-------------|--|-------------------------------|------------------------|-----------------|----------|------------|---------------------|-------------------------------|---|---|--------------------------------|-------------------------|------------------|-----------|-------------|---------------------|--------------------------------|--|---|--|----------------------|
| Date / Time | Minimum free chlorine residual after pre-chlorination (C) ³ | Peak hourly demand flow (Pre) | Contact time (Pre) (T) | Actual CT (Pre) | pH (Pre) | temp (Pre) | Required CT (Total) | Actual CT / Required CT (Pre) | Percent log inactivation achieved (Pre) | Minimum free chlorine residual after post-chlorination (C) ³ | Peak hourly demand flow (Post) | Contact Time (Post) (T) | Actual CT (Post) | pH (Post) | temp (Post) | Required CT (Total) | Actual CT / Required CT (Post) | Percent log inactivation achieved (Post) | Actual CT / Required CT Sum of Pre and Post | Total percent of require log inactivation achieved | CT Met? ³ |
| | [ppm or mg/L] | [GPM] | [minutes] | C X T | | [° C] | formula | | | [ppm or mg/L] | [GPM] | [minutes] | C X T | | [° C] | formula | | | | | Yes / No |
| 1/ 10:00 | 0.80 | 10548 | 33.5 | 26.8 | 7.01 | 7.4 | 44.9 | 0.6 | 59.7 | 0.89 | 11437 | 66.5 | 59.2 | 7.66 | 6.60 | 60.4 | 1.0 | 98.0 | 1.58 | 157.7 | yes |
| 2/ 14:00 | 0.80 | 11243 | 37.1 | 29.7 | 7.13 | 8.2 | 44.4 | 0.7 | 66.8 | 0.87 | 11069 | 65.7 | 57.2 | 7.60 | 6.80 | 58.2 | 1.0 | 98.3 | 1.65 | 165.1 | yes |
| 3/ 11:00 | 0.72 | 11979 | 36.7 | 26.5 | 7.08 | 7.7 | 44.7 | 0.6 | 59.3 | 0.86 | 10819 | 62.3 | 53.6 | 7.60 | 6.80 | 58.1 | 0.9 | 92.2 | 1.51 | 151.5 | yes |
| 4/ 13:00 | 0.77 | 11548 | 37.0 | 28.5 | 7.11 | 8.2 | 44.0 | 0.6 | 64.8 | 0.88 | 11284 | 58.2 | 51.2 | 7.61 | 6.90 | 57.9 | 0.9 | 88.5 | 1.53 | 153.3 | yes |
| 5/ 09:00 | 0.91 | 9888 | 38.8 | 35.3 | 7.10 | 7.8 | 45.7 | 0.8 | 77.2 | 0.93 | 8861 | 76.0 | 70.7 | 7.59 | 7.30 | 56.4 | 1.3 | 125.3 | 2.03 | 202.5 | yes |
| 6/ 10:00 | 0.91 | 9458 | 39.7 | 36.1 | 7.09 | 7.8 | 45.5 | 0.8 | 79.3 | 0.96 | 10722 | 69.6 | 66.8 | 7.59 | 6.90 | 58.2 | 1.1 | 114.9 | 1.94 | 194.2 | yes |
| 7/ 12:00 | 0.86 | 8270 | 41.6 | 35.8 | 7.14 | 7.8 | 46.1 | 0.8 | 77.6 | 0.87 | 7631 | 92.0 | 80.0 | 7.61 | 6.90 | 58.0 | 1.4 | 138.1 | 2.16 | 215.7 | yes |
| 8/ 15:00 | 0.79 | 7979 | 42.1 | 33.3 | 7.19 | 8.3 | 45.0 | 0.7 | 73.9 | 0.87 | 10486 | 60.5 | 52.6 | 7.62 | 7.00 | 57.8 | 0.9 | 91.1 | 1.65 | 164.9 | yes |
| 9/ 12:00 | 0.70 | 8861 | 38.0 | 26.6 | 7.15 | 8.0 | 44.8 | 0.6 | 59.3 | 0.86 | 8736 | 78.8 | 67.8 | 7.61 | 6.90 | 57.9 | 1.2 | 117.0 | 1.76 | 176.4 | yes |
| 10/ 15:00 | 0.80 | 10958 | 35.2 | 28.2 | 7.20 | 8.6 | 44.4 | 0.6 | 63.5 | 0.85 | 11249 | 55.8 | 47.4 | 7.62 | 7.30 | 56.5 | 0.8 | 83.9 | 1.47 | 147.4 | yes |
| 11/ 13:00 | 0.75 | 8701 | 37.7 | 28.3 | 7.18 | 8.2 | 45.0 | 0.6 | 62.9 | 0.86 | 9062 | 76.7 | 66.0 | 7.62 | 6.80 | 58.5 | 1.1 | 112.7 | 1.76 | 175.6 | yes |
| 12/ 17:00 | 0.85 | 11805 | 36.4 | 30.9 | 7.32 | 9.8 | 43.0 | 0.7 | 72.0 | 0.85 | 11083 | 59.2 | 50.3 | 7.60 | 8.30 | 52.4 | 1.0 | 96.0 | 1.68 | 167.9 | yes |
| 13/ 15:00 | 0.84 | 8604 | 38.8 | 32.6 | 7.30 | 9.3 | 44.1 | 0.7 | 74.0 | 0.85 | 11347 | 64.9 | 55.2 | 7.62 | 7.60 | 55.4 | 1.0 | 99.6 | 1.74 | 173.6 | yes |
| 14/ 10:00 | 0.86 | 8708 | 43.1 | 37.1 | 7.11 | 7.9 | 45.3 | 0.8 | 81.8 | 0.88 | 7770 | 89.1 | 78.4 | 7.59 | 7.10 | 56.8 | 1.4 | 137.9 | 2.20 | 219.7 | yes |
| 15/ 13:00 | 0.80 | 8416 | 37.1 | 29.7 | 7.23 | 7.7 | 47.6 | 0.6 | 62.4 | 0.85 | 11409 | 57.8 | 49.1 | 7.63 | 6.60 | 59.5 | 0.8 | 82.6 | 1.45 | 145.0 | yes |
| 16/ 14:00 | 0.65 | 8777 | 42.9 | 27.9 | 7.22 | 7.8 | 46.3 | 0.6 | 60.2 | 0.85 | 9013 | 79.9 | 67.9 | 7.64 | 6.40 | 60.5 | 1.1 | 112.3 | 1.73 | 172.5 | yes |
| 17/ 15:00 | 0.66 | 9805 | 40.3 | 26.6 | 7.35 | 8.6 | 46.0 | 0.6 | 57.8 | 0.86 | 11152 | 59.0 | 50.7 | 7.62 | 7.10 | 57.3 | 0.9 | 88.5 | 1.46 | 146.3 | yes |
| 18/ 15:00 | 0.89 | 11597 | 32.4 | 28.8 | 7.37 | 8.7 | 47.3 | 0.6 | 61.0 | 0.85 | 13965 | 48.3 | 41.1 | 7.62 | 7.40 | 56.1 | 0.7 | 73.2 | 1.34 | 134.2 | yes |
| 19/ 11:00 | 0.81 | 11444 | 34.2 | 27.7 | 7.14 | 7.9 | 45.5 | 0.6 | 60.8 | 0.85 | 11548 | 58.7 | 49.9 | 7.60 | 6.90 | 57.6 | 0.9 | 86.6 | 1.47 | 147.4 | yes |
| 20/ 10:00 | 0.90 | 11381 | 32.2 | 29.0 | 7.12 | 8.2 | 44.8 | 0.6 | 64.7 | 0.90 | 13826 | 49.7 | 44.7 | 7.61 | 7.30 | 56.6 | 0.8 | 79.0 | 1.44 | 143.7 | yes |
| 21/ 07:00 | 0.86 | 8034 | 42.2 | 36.3 | 7.15 | 8.2 | 45.0 | 0.8 | 80.6 | 0.87 | 10451 | 67.7 | 58.9 | 7.57 | 7.90 | 53.4 | 1.1 | 110.3 | 1.91 | 190.8 | yes |
| 22/ 13:00 | 0.63 | 9124 | 33.6 | 21.2 | 7.18 | 8.5 | 43.5 | 0.5 | 48.7 | 0.86 | 9506 | 67.8 | 58.3 | 7.62 | 7.40 | 56.2 | 1.0 | 103.8 | 1.52 | 152.5 | yes |
| 23/ 15:00 | 0.66 | 8652 | 39.6 | 26.1 | 7.26 | 9.1 | 43.1 | 0.6 | 60.6 | 0.88 | 11743 | 58.4 | 51.4 | 7.63 | 7.60 | 55.8 | 0.9 | 92.2 | 1.53 | 152.8 | yes |
| 24/ 09:00 | 0.90 | 11062 | 32.7 | 29.4 | 7.12 | 8.2 | 44.8 | 0.7 | 65.7 | 0.90 | 11736 | 63.2 | 56.9 | 7.59 | 7.90 | 54.0 | 1.1 | 105.4 | 1.71 | 171.1 | yes |
| 25/ 13:00 | 0.82 | 11090 | 34.1 | 28.0 | 6.96 | 8.4 | 41.4 | 0.7 | 67.5 | 0.88 | 12041 | 56.0 | 49.3 | 7.63 | 7.40 | 56.5 | 0.9 | 87.2 | 2.01 | 154.7 | yes |
| 26/ 18:00 | 0.82 | 10937 | 34.6 | 28.4 | 7.13 | 9.7 | 40.4 | 0.7 | 70.3 | 0.87 | 9069 | 74.3 | 64.6 | 7.59 | 8.50 | 51.7 | 1.3 | 125.1 | 1.95 | 195.4 | yes |
| 27/ 18:00 | 0.78 | 9381 | 38.6 | 30.1 | 7.06 | 10.5 | 37.2 | 0.8 | 80.9 | 0.89 | 9874 | 68.0 | 60.5 | 7.56 | 8.70 | 50.6 | 1.2 | 119.7 | 2.01 | 200.6 | yes |
| 28/ 08:00 | 0.81 | 8805 | 41.2 | 33.4 | 6.87 | 8.9 | 38.8 | 0.9 | 86.0 | 0.93 | 7791 | 91.7 | 85.3 | 7.56 | 9.40 | 48.5 | 1.8 | 175.9 | 2.62 | 261.9 | yes |
| 29/11:00 | 0.82 | 9583 | 39.8 | 32.6 | 6.84 | 8.1 | 40.5 | 0.8 | 80.6 | 0.85 | 9333 | 79.3 | 67.4 | 7.55 | 7.40 | 54.6 | 1.2 | 123.4 | 2.04 | 204.0 | yes |
| 30/ 15:00 | 0.56 | 9881 | 39.5 | 22.1 | 7.03 | 9.4 | 38.6 | 0.6 | 57.3 | 0.87 | 10270 | 66.0 | 57.4 | 7.59 | 7.80 | 54.2 | 1.1 | 106.0 | 1.63 | 163.3 | yes |
| 31/12:00 | 0.67 | 10923 | 35.0 | 23.5 | 6.98 | 8.6 | 40.5 | 0.6 | 57.9 | 0.90 | 11763 | 53.3 | 48.0 | 7.58 | 7.20 | 56.4 | 0.9 | 85.1 | 1.43 | 143.0 | yes |