

# Drinking Water- Atrazine Detection

A drinking water facility in the Midwest United States recently evaluated Modern Water’s RaPID Assay Atrazine test kit on their incoming and finished water over a 6-day period.

The in-house results generated using the RaPID Assay kit were compared to an external 3rd party laboratory using gas chromatography coupled with mass spectrometry (GC/MS) Method 525.2: Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry to detect atrazine in the same samples. The test results are presented in Table 1.



Table 1 - Atrazine Comparison – Modern Water Rapid Assay Kit v. External Laboratory

DAY TESTED	04/09/2018	04/10/2018	04/11/2018	04/12/2018	04/13/2018	04/09/2018	AVERAGE	EXTERNAL LAB
4/9-Incoming	0.335	0.2318	0.355				0.31	0.3
4/9-Finished	0.125	0.09508	0.1018				0.11	0.1
4/10-Incoming		0.3175	0.474				0.40	0.2
4/10-Finished		0.08984	0.1222				0.11	0.1
4/11-Incoming			0.2949	0.6015	0.4175		0.44	0.2
4/11-Finished			0.08286	0.767	0.08782		0.09	0.1
4/12-Incoming				0.5261	0.3393		0.43	0.3
4/12-Finished				0.1143	0.1216		0.12	0.1
4/13-Incoming					0.3149	0.3948	0.35	0.3
4/13-Finished					0.1242	0.08564	0.10	0.1

## Notes:

- All results are in parts per billion (ppb)
- Finished water result of 0.767 on 4/12/2018 (for 4/11/2018 finished water sample) attributed to human error. This calculation was not used for the calculation of average test results.
- Reported lower detection limit for GC/MS is 0.1 ppb.
- Lower detection limit for the RaPID assay test kit is also 0.1 ppb.

## Conclusion

RaPID Assay test kit results correlate well with external laboratory results using gas chromatography / mass spectrometry methods.

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