State of fluid: Waste water pond derived from a combination of Dairy Farm and Agricultural processing facility for milk-based products.

Client Expectations (Issues): Chemical and Biological oxygen demand known as COD and BOD – also known as the number of bacteria present in the fluid, was needing to be reduced so the waste water could be reused.

* Removal of bacteria and resulting odor.
* Removal of the bacteria of up to 50% would result in the ability to irrigate with the water over their existing crops and fields.

Process: Single pass through the arc unit at a full 125 gallons per minute directly into a frac tank for testing purposes. However, discharge to their existing secondary pond was the long-term answer. After producing a full tank full of single run sample water, the client had samples taken and tested by a 3rd party for full processing.

Results: The results indicated an 83% reduction in BOD and COD through a single pass, odor was non-detectible by the human nose. The reduction of 83% surpassed all expectations and actually was sufficient enough to not just reuse the water for irrigation but also met the standards for direct introduction back to public waterways.

It is believed by MWCI (supported by complimentary tests) that a small reduction in the flow rate down to 110 Gallons per minute would have achieved a much higher reduction percentage of BOD and COD likely in excess of 98% plus.

A screenshot of a computer

Description automatically generated