City of Bayard Wastewater Treatment Plant

July 2020

07-01-2020: Turned the #1 #2 and #3 drying beds.

07-02-2020: Plant staff swapped the #1 UV unit to the #2 UV unit. The #1 unit had 1556hrs on it. The E-coli test came in at TNTC. Dement electric came down to the plant and worked on the exhaust fan on the UV building roof and chased down a ground wire for the influent wet well level indicator. Contractor came down and inspected the reclamation storage tank.

07-03-2020: Plant staff were called out by the plant alarm for the headworks at 11:47pm, Plant staff found the power cable to the headworks bar screen had broken the wires in the power cable causing the unit to go BO. Plant staff spliced the wires together to get the unit operational.

07-06-2020: Plant staff started to tear down the #1 UV unit. Plant staff found that a high voltage wire for the lamps had melted and arced out melting the lamp harness and lamp wires. The arcing had melted the stainless spacers for the wiper motor and had burn marks coming out of the wiper motor itself. Dement electric came down to the plant to survey the wires and told plant staff the wire harness would have to be pulled all the way to the UV cabinet. Dement electric also put a temporary power cable on the headworks to get it running until a machine cable that is UV resistant can be located.

07-07-2020: Plant staff turned the #1 and #2 drying beds and pulled the sludge out of the #3 drying bed.

07-08-2020: Plant staff checked the fire extinguishers and eyewash stations. City maintenance repaired the 4" water main that was leaking in the plant yard.

07-09-2020: Plant staff pulled the sludge out of the #1 and #2 drying beds and added it to the sludge stockpile.

07-12-2020: Plant staff called out to the plant for a power failure alarm.

07-13-2020: Dement electric came down to the plant and found the fan on the lab building burnt out and the HMI module for the effluent pump panel burnt out.

07-14-2020: Plant staff rebuilt the #3 drying bed, and changed out light bulbs in some of the yard lights and the lights on the digesters.

07-15-2020: Plant staff started to look for the leak on the 1" potable water line going to the reclamation plant. Started to dewater the #1 digester.

07-16-2020: Plant staff found and repaired the 1" potable water line going to the reclamation plant. #1 digester didn't dewater turned the air back on.

07-17-2020: Plant staff dumped the #2 digester to the #3 drying bed. Turned the water back on in the 1" water line going to the reclamation plant. Plant staff went and picked up salt for the chlorine generation station and filled the bulk diesel tank.

07-20-2020: Plant staff rebuilt the #1 drying bed and changed out the barrel of de-sulph-a-nator at the North Hurley lift station.

07-21-2020: Shut down the #1 digester to see if it would dewater. Plant staff turned the #3 drying bed. Plant staff started to change out the chlorine pump in the reclamation plant. Plant staff were called out to the plant after hours for a power failure alarm.

07-22-2020: Plant staff put a bug on the rope in the influent lift station to combat the build up of the pillow in the aerated grit chamber. Plant staff worked on the chlorine pump installation in the reclamation plant. Plant staff replaced the burnt out GFI on the emergency generator and replaced the air filters on the case backhoe. Plant staff also put bait traps in the equipment to try and stop the rodents from eating all of the equipment's wiring harnesses. Plant staff called out after hours for generator power failure alarm.

07-23-2020: Humphreys came down to the plant and vacced out all of the grit channels and the top of the North Hurley lift station. Plant staff turned the #3 drying bed.

07-24-2020: Dumped the #1 digester to the #1 drying bed. Plant staff moved a polymer barrel into the ras/was room to replace the barrel that ran out during the pour. Plant staff changed out the greasezilla barrel at the North Hurley lift station.

07-25-2020: Plant staff called out for a clarifier bar screen alarm.

07-26-2020: Plant staff called out to the North Hurley lift station for a high-level alarm.

07-27-2020: Plant staff worked on the chlorine system in the reclamation plant.

07-28-2020: The wastewater treatment plant suffered two power bumps that took the plant down, the first one occurred at 9:05am. The second one occurred at 9:08am. When these power bumps occur and take down the plant systems, one of the systems that is greatly affected is the UV system. The lamps are shut off and restarted which decreases the life of the lamps dramatically. Plant staff worked on the chlorine system in the reclamation plant and dewatered the #2 digester.

07-29-2020: Plant staff rebuilt a washwater pump scavenging usable parts from a couple of junk pumps for body parts and using new internals. The pumps that the plant uses for the washwater system are no longer being made. There will be internal parts for a few years but the pump manufacturers are telling people that they need to upgrade their systems. The price for a new skid this year was around 7,000 dollars. This didn't include the installation charge because a contractor would have to be found to install the new skid. The treatment plant has two washwater pumps that will need to be updated in the near future. Plant staff worked on the reclamation plant A/C and ran some water to the rec plant filter basins to start clearing out the stagnant water that is in the line from the distribution box to the rec plant, Turned the #1 and #3 drying beds.

07-30-2020: Cummins Rocky Mountain came down to the plant to service the emergency generators and to repair a faulty block heater that was melting the gfi unit in the generator cabinet. This faulty block heater would call plant staff out for a power failure alarm. The technician also found the control panel membranes had started to peel away from the transfer switch panels and recommended that they be replaced. The technician was given the okay to replace the membranes which would then allow him to test the circuit boards to make sure that no water had gotten into them and shorted them out. At the present time the control panel membranes will not function to let anyone work them. The technician also found the generator next to the headworks will need to have its radiator replaced next year. The Hydrogen sulfide gas that is present in the plant has started to corroded it to the point it is starting to disintegrate. Plant staff hauled sludge to the Silver City landfill and installed the grating in the reclamation plant.

07-31-2020: Cummins Rocky Mountain came out to load test the emergency generators.