

OPERATIONS REPORT – NEVADA DIVISION

August 2020 Report to the City of Nevada

Water Treatment Plant Operations & Maintenance

OUR MISSION

We partner with communities to deliver the finest water and wastewater services available at a competitive price. We are committed to keeping water safe and clean while serving people and taking care of communities with improved technical operations, careful management and financial oversight, and ensured regulatory compliance.

**Alliance Water
Resources, Inc.**

**206 S. Keene St.
Columbia, MO
65201**

(573)874-8080

1. Gathered and tested samples for Langelier Index
2. Monthly facility inspections (facility maintenance staff)
3. Processed special bacteria tests in laboratory
4. Cleaned Scrubber #1
5. Cleaned Scrubber #2
6. Replaced 12” fiberglass blind flange on RO feed line due to a leak. Stainless steel blind flange was used in place of fiberglass as adequate torque on bolts could not be achieved.
7. Installed new de-gasifier blower assembly and put on line
8. Off loaded weekly deliveries of chemicals for the treatment process
9. Worked with contractor to repair leak in south meter vault (WTP piping and valve project) repair was covered by warranty
10. Updated SDS records
11. Performed draw downs on deep wells #3 & #4
12. Exercised standby-power generators per schedule
13. Performed routine maintenance on blowers
14. Deep cleaning of acid room
15. Cleaned and disinfected all PPE
16. Performed cross section on deep wells #3 & #4
17. Installed new version of Antero on WTP computers (maintenance program)
18. Completed monthly 4-log reports
19. Changed out acid and caustic filters
20. Exercised all valves in the high service pump room
21. Changed out all 5-micron filter cartridges in all three pots.
22. Readied equipment and reviewed new Cl2 safety program. Contacted NRMC for scheduling of physicals and protocol to complete these.
23. Participated in the Evergy generator peak demand run by running generators at the WTP Facility.
24. Replaced tube in caustic peristaltic pump (old one had ruptured)
25. Acid cleaned and changed out fluids in Cl-17 unit.
26. Flushed eye wash stations and emergency shower stations
27. Evacuated accumulated water from chemical tank containment area
28. Relayed Covid-19 information to staff on an ongoing basis, posted notices as needed.
29. Regular cleaning and disinfection of hard surfaces and areas frequented by staff including vehicles, lab equipment, lab counters, shared key boards, phones, tools, control knobs, switches etc.
30. Completed draw downs on all deep wells



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31. Prepped RO units for element change out in September by removing rusted bolts and replacing with new stainless-steel bolts.
32. Changed out acid and caustic filters.
33. Mowed and weed-eated WTP grounds

Waste Water Treatment Plant Operations & Maintenance

1. Submitted monthly DMR to DNR
2. Started sampling for COVID in wastewater program for MDNR
3. Completed RACO alarm system checks at all pump stations
4. Completed monthly and weekly influent and effluent testing
5. Completed monthly facility inspections (facility maintenance)
6. Cleaned PS #2 Wet Well
7. Cleaned PS #4 Wet Well
8. Weekly e-coli testing (being performed in house with new equipment)
9. Performed quarterly sludge sampling
10. Land applied biosolids
11. Continued review and work on Permit renewal (currently on hold by MDNR)
12. Cross check sampling for 3M facility.
13. Quarterly sludge sampling
14. Exercised all stand-by power generators
15. Quarterly stream sampling
16. Installed vendor repaired gear box and motor for bar screen auger/compactor
17. Continued Covid-19 cleaning and disinfection of facilities on a regular basis
18. Participated in the Evergy generator peak demand run by running generators at the WWTP Facility.
19. Worked with ICS to replace lightning damaged relays in the bar screen auger/compactor control panel
20. Pulled damaged #1 pump form PS #4 for repair.
21. Completed quarterly stream sampling
22. Solicited vendors for repair quotes for PS #4 damaged pump.
23. Assisted collection crew with shut down of PS #2 (CCTV work on north interceptor line).
24. Mowed, weed-eated, and sprayed at WWTP facilities
25. Mowed, weed eated, and sprayed at PS #2 and #3
26. Relayed covid-19 info to staff on an ongoing basis and posted all related policies.



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Waste Water Collection / Water Distribution

1. Weekly grinder pump station checks / clean floats
2. Weekly inspection on wells and towers
3. Cleaned and or root sawed 4,842' of sewer line
4. CCTV inspection of 3,240' of sanitary sewer line
5. Replace 46' of defective sewer line at 1509 W. Allison
6. On-going Inspections of City installed sewer line project (Wight St.)
7. Assisted city staff with installation of new pump on old jet truck
8. Experimented with pulley configurations to get proper PSI on old jet truck success was achieved after third try
9. CCTV inspection on sewer lines in the vicinity of Indiana street, generated map with findings and forwarded to CM.
10. Staff attended virtual training session sponsored by MDNR (CEU)
11. Performed inspection of sewer disconnect for 8 demoed properties
12. Assisted WTP with the installation of De-gasifier blower
13. Rebuilt two leaking hydraulic cylinders on case back hoe
14. Pulled and removed clog from Pecan Factory grinder pump (two different occasions)
15. Went to Joplin to pick up repaired Vac-Con Truck
16. Assisted code enforcement with sewer locations on 3 different occasions
17. Ordered blue tooth meter reading devices for NRMC meters
18. Fabricated 1" pressure testing device
19. Sent out monthly backflow notices and record maintenance
20. Repaired service line at 135 E. Allison
21. Replaced leaking service line at 605 Wight
22. Continued training of new hires (meter routes etc.).
23. Replaced leaking service line at 715 S. Clay
24. New hire OSHA 10 training
25. Mowed and sprayed at wells and towers
26. Added millings and grade parking area at Field Office Building
27. Changed out defective meter pit at 1204 N. Elizabeth
28. Repaired water main break at 4th and Douglas (8" PVC split)
29. Changed out defective meter pit at 803 W. Walnut
30. Developed spread sheet for service line replacements (Lead & Copper Rule)
31. Dirt work, seed, and straw at 1402 W. Walnut
32. Dirt work, seed, and straw at 710 W. Adams
33. Dirt work, seed, and straw at 520 N. Hoffman



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34. Dirt work, seed, and straw at 1525 W. Hickory
35. Dirt work, seed, and straw at 605 W. Wight
36. Dirt work, seed, and straw at 715 S. Clay
37. Dirt work, seed and straw at 1510 W. Walnut
38. Exercised valves on south side of system
39. Raised fire hydrant on S. Spring Street
40. Performed deep cleaning on all well houses and pits
41. Monthly meter reads.
42. Relayed covid-19 info to staff and posted any and all information related to the subject.
43. Continued cleaning and disinfection of shop, vehicles, key boards, vehicles, tools, and etc. to limit possible exposure to covid-19.

Recommendations

1. Change language of City code Sec. 40-4 and 40-11 to minimize possible liability. Responsibility should be from the water main to the first point of shut off, whether it is a corporate shut off (curb stop) or inside the meter box.
2. Review demolition permit procedures and implement changes to allow for water and sewer utilities to be disconnected properly prior to demolition commencing.



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WATER TREATMENT PLANT PERFORMANCE

4 Log Sampling

Parameter	Monthly Average
pH	8.79
Temperature	20.6
Lowest Cl ₂ residual	1.6

Bacteriological Results

Date	Results (<u>A</u>bsent or <u>P</u>resent)
08/03/20	A
08/17/20	A

Flow Totals (Million Gallons per Day)

Meter	Average Daily Flow	Total Monthly Flow
Feed	0.852 MGD	26.401 MG
Product	0.576 MGD	17.875 MG
Blend	0.257 MGD	7.982 MG
Brine	0.208 MGD	6.453 MG
Distribution	0.849 MGD	26.316 MG

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WASTE WATER TREATMENT PLANT PERFORMANCE

NPDES Effluent Limits

Parameter	Monthly Average	Permit Limit
pH	7.1 min. and 7.4 max.	6.5 - 9.0
TSS	3.0 mg/L	20 mg/L
BOD ₅	2.0 mg/L	20 mg/L
NH ₃ -N	< .10 mg/L	1.40 mg/L
E. coli	10#/100mL	206 #/100mL
Oil & Grease	< 5.0 mg/L	10 mg/L

Flow Totals (Million Gallons per Day)

Average Daily Flow / Design Flow	Total Monthly Flow	Year to Date Total Flow
1.33 MGD / 2.0 MGD	41.301 MG	613.021 MG

Biosolids

	Report Period	Year to Date
Quantity Applied	August 25.8 tons applied	94.6 tons
Acres Applied	39.5 acres	132.5 acres



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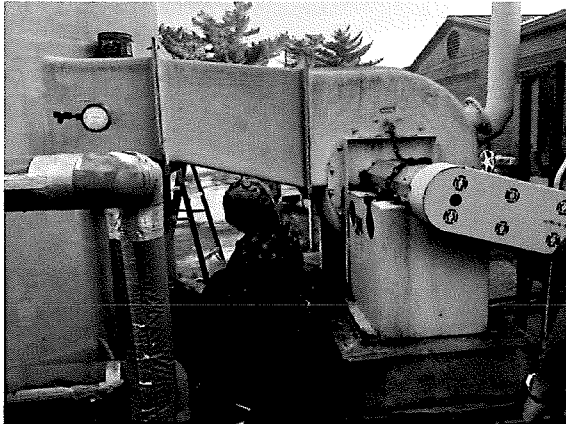
August 2020 Customer Service Work Orders

Action	Completed This Period	Completed Year to Date
Connect	45	287
Disconnect	45	283
Cut Off	0	6
Meter Info	171	1,157
Meter Change	15	57
OCC Change	66	345
Reinstate	26	140
Service Change	0	0
Miscellaneous	9	79

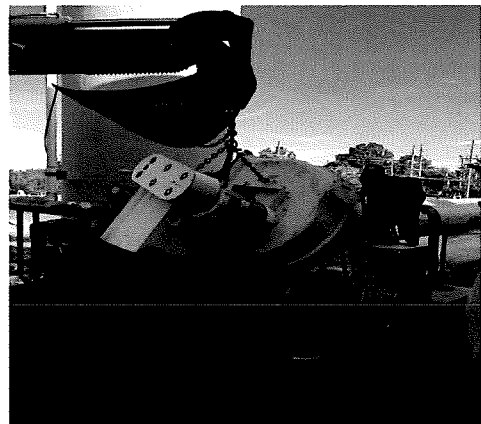
TOTALS	377	2,258
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Utility Locates	128	894
Back Flow Notices	14	271
Valve Exercised	15	100
Sewer Cleaning	3,240'	13,993'
Sewer Root Saw	1,602'	5,728'
Sewer CCTV	3,240'	7,063'

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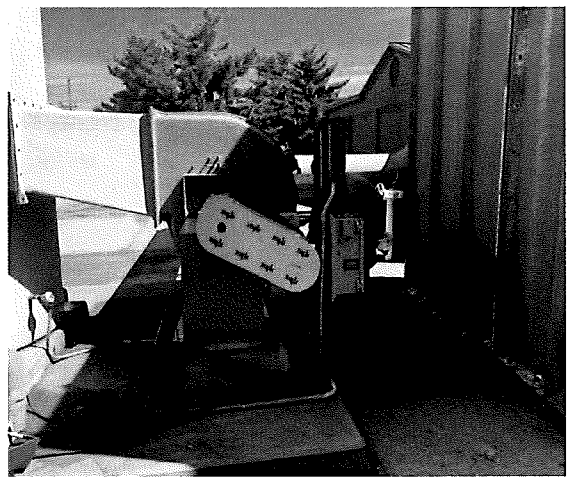
WTP staff preparing old de-gasifier for removal



Blower being removed with back-hoe



Staff preparing to set new blower assembly



New blower assembly set and in service

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Making repair on ruptured water main



Setting camera for CCTV Inspection