

INSPECTION REPORT

Inspection Entry Date/Time	06/26/2024 09:35 AM (MT)	Announced: No
Inspection Exit Date/Time	06/26/2024 03:50 PM (MT)	Access: Granted
Weather		
Media	Water	
Statute(s)/Program(s)	Clean Water Act, NPDES, WWTP	
Type of Inspection	Compliance Evaluation Inspection (CEI)	
Permittee Name	Albuquerque Bernalillo Water Utility Authority (ABCWUA)	
Facility or Site Name	City of Albuquerque, Southside Water Reclamation Plant	
Facility/Site Physical Address	4201 2nd Street, SW	
City, State, Zip Code	Albuquerque, NM 87105	
County/Borough/Parish	Bernalillo County	
Facility GPS Coordinates	35.0177, -106.6661	
Mailing Address (If different)		
City, State, Zip Code		
FRS ID	110000567075	
Permit Number(s)	NM0022250	
SIC and/or NAICS	4952	

Regulatory Representatives Participating in Inspection:

Title	Name	Organization
Lead Inspector/Engineer	Amy Andrews	EPA Region 6
Complex Facilities Specialist	Mingcheng Ren	NMED-SWQB
Compliance & Enforcement Supervisor/Inspector	Nafis Fuad	NMED-SWQB

Lead Inspector:

Amy Andrews	 AMY ANDREWS c=US, o=U.S. Government, ou=Environmental Protection Agency, cn=AMY ANDREWS, 0.9.2342.19200300.100.1.1=68001003655888 2024.08.22 11:55:40 -06'00'		[Date]
	EPA REGION 6	andrews.amy@epa.gov	(214) 907-0638

Supervisor Review:

Roberto Bernier	 Digitally signed by ROBERTO BERNIER Date: 2024.08.23 10:08:51 -05'00'		[Date]
	EPA REGION 6	bernier.roberto@epa.gov	(214) 665-8376

SECTION I – INTRODUCTION

Site Entry and Inspection Objectives

EPA Region 6 Lead Inspector, Amy Andrews, and officials from the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) listed in the Attendees Table below, arrived at the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) Southside Water Reclamation Plant (the “Site” or “Facility”), located at 4201 2nd Street, SW, Albuquerque, NM 87105, at 09:35 AM (MT) on 06/26/2024 for an unannounced inspection. EPA Lead Inspector presented her credentials to the attendees listed in the table below and informed them that this was an EPA inspection to determine compliance as authorized by Clean Water Act (CWA) Section 308 and implementing regulations.

This report is based on information supplied by Albuquerque City Of Southside Water Reclamation Plant representatives, direct observations made by the EPA REGION 6 inspector, records and reports maintained by the permittee and other information including: photographs taken by EPA REGION 6 inspector(s), physical evidence collected by the EPA REGION 6 inspector(s), measurements taken by EPA REGION 6 inspector(s), verbal or written statements made by information supplied by Facility representatives during or subsequent to the on-site Inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the EPA inspector by Facility representatives during or subsequent to the on-site Inspection. In addition, information gathered prior to or subsequent to the Inspection from a review of EPA, State, and/or public records may be included in this report.

Attendees

Organization	Attendee Name	Title	Present in Opening Conf.	Present in Closing Conf.
EPA Region 6	Amy Andrews	Lead Inspector	Yes	Yes
NMED-SWQB	Mingcheng Ren	Complex Facilities Specialist	Yes	Yes
NMED-SWQB	Nafis Fuad	Compliance & Enforcement Supervisor/Inspector	No	Yes
ABCWUA	Danielle Shuryn	Compliance Division Manager	Yes	No
ABCWUA	Merat Zarreii	NPDES Program Manager	Yes	Yes
ABCWUA	Greg Larson	Chief Engineer SWRP	Yes	Yes
ABCWUA	Kenneth Lipe	Superintendent of Operations	Yes	No
ABCWUA	Jared Ram	Maintenance Supervisor	Yes	No
ABCWUA	Stan Allred	Chief Operations Officer	Yes	No
ABCWUA	Meghan McDonnell	QA Manager (Laboratory)	Yes	Yes
ABCWUA	Anthony Keryte	Water Quality Specialist	No	No

Photo(s)

1. [Photo 16](#) – Sign-In Sheet

Facility/Site Description

The ABCWUA wastewater treatment plant [called the Southwest Water Reclamation Plant (SWRP)] is classified as a major municipal discharger with a design flow of 76 million gallons per day (MGD) and an actual average flow of approximately 50 MGD. The population served by the ABCWUA SWRP is around 660,000 people and includes areas within the city limits of Albuquerque, parts of Tijeras Canyon, and a portion of Rio Rancho. There are several unincorporated portions of Albuquerque that are not served by the ABCWUA SWRP and are still on individual domestic septic systems. The wastewater discharge flows to the Rio Grande River in water quality Segment Number 20.6.4.105 NMAC. The designated uses for this segment of the river are irrigation, marginal warmwater aquatic life, livestock watering, public water supply, wildlife habitat and primary contact.

The facility is a conventional activated sludge process that uses methane gas from the digester in a "Cogen" Power Plant. Influent flows to the headworks (called the Preliminary Treatment Facility), which includes five mechanical bar screens and four conical tray grit removal separators. Grit is hauled to the Cerro Colorado Landfill on the west side of the city. After the Preliminary Treatment Facility, the flow goes through the influent meter and to a splitter box that sends it to the clarifiers. The plant has eight primary clarifiers (four large and four small). Wastewater is pumped from the primary clarifiers to 14 aeration basins; usually 10 basins are in service at a time. Each basin contains 3 anoxic zones followed by 2 swing zones 3 oxic zones, 1 dissolved oxygen control zone and a recycle pump. The anoxic zones are equipped with 1 vertical shaft mixer and the swing zone is equipped with two shaft mixers. The oxic zones are aerated by 12 centrifugal 500 horsepower blowers. Four, are in the north blower building and eight are in the south blower building. Flow then goes to the 12 final clarifiers, and through the pre-Ultraviolet (UV) screens (screens have 2-millimeter mesh). The WWTP utilizes Ultra-violet light to disinfect the treated effluent prior to discharging to Outfall 001, and a small percentage of the effluent is sent to storage for reuse. In 2018 the discharge channel after the UV banks was covered with diamond plate to prevent algae buildup and outside contamination (i.e., from birds). Biosolids are sent to the Soil Amendment Facility where they are composted and sold to the public or land applied.

Facility/Site Information

EPA REGION 6 lead inspector confirmed the following facility information:

Who is your responsible official?	Danielle Shurn is head of the Compliance Division; Mark Sanchez is the Executive Officer
WWTP Design Capacity & Average Daily Flow	Design flow 76 MGD, Average 45-50MGD.
Does the WWTP share or receive wastes with another WWTP either within or outside of the city?	Not currently, however, the long-range plan (document available: 100 Year Plan) is to add small satellite WWTPs and reduce the load to this plant. The first one will be a 5MGD plant planned for the West Mesa.
WWTP Customers Served	population of 659,736 people
What is your operation schedule (days of operation, # shifts/day, # operators/shift, coverage overnight, weekends & emergencies), and is staffing sufficient for proper operation?	Operation hours are four, 12-hour shifts, Sunday to Wednesday and Wednesday to Saturday. Each shift includes at least one supervisor, and four or five operators. Facility personnel confirm that the plant has enough operators to run operations properly.

Do you have a backup electrical power source? Does it turn on automatically? What portion of the plant does the backup power operate?	6 Backup generators are located all over plant, can probably run plant for about 24 hours without having to be refueled. Co-gen facility currently going through rehab to add air filters and fix electrical by end of 2024. Once rehab is done, co-gen will be able to fully power plant if needed.
What sort of failure alarm does the plant have?	SCADA control room operated 24/7 by Level 4 WW operators on 12 hr shifts (two operators per shift). SCADA alarms only in control room, no callout to phones, but staffed constantly. Can control most but not all of plant from control room.
Are there any plans for renovation or additional equipment to allow for increased wastewater flow?	Renovations will not increase flow rates
Is there currently any portion of the treatment train that is non-operational?	South Aeration Basins 1 and 2 Rehab – Replace aeration diffusers and general rehab of existing basin components. Secondary Digester 6 Cover Replacement
What other construction or rehabilitation projects are taking place or planned for the near future?	SWRP Distributed Control System Hardware Replacement – Replace Supervisory Control and Data Acquisition (SCADA) system ABB Process Communication Unit cabinets with Allen-Bradley Programmable Logic Controllers.
What is your overflow/emergency capacity (overflow basins, holding tanks, redundancy) and do you have sufficient spare parts?	Overflow/emergency capacity built in with redundancy and current flows are below design capacity
What percentage of your flow do you attribute to Inflow/Infiltration?	Facility personnel report that this plant has no measurable I/I, the flows to this plant are VERY consistent from day to day, even during the rainy season.
How many Industrial Users discharge to your collection system?	The ABCWUA's EPA-approved Pretreatment Program has 66 Significant Industrial Users, with around half of those SIUs subject to categorical standards.
How do you manage your biosolids?	Sludge is processed in anerobic digesters prior to centrifuging and trucking to the Soils Amendment Facility, located on the West Mesa, west of the City. Approximately 70% of the biosolids are land applied, and the other 30% are composted and sold to the public.

SECTION II – OBSERVATIONS

Location: Collection System, Headworks and Influent Flow Meter

Observation #: AA2-OB-001

Date: 06/26/2024

Weather:

- Collections personnel conduct Quarterly readiness testing and monthly startup testing on lift stations.
- The headworks is called the Preliminary Treatment Facility, which takes flow from four primary interceptors (three from the east side of the city, 1 from the west side).
- The 1/4" Huber bar screen is fine enough to catch "cockroaches."
- The influent flow meter is an electromagnetic meter on a closed 72-inch pipe. There is no primary flow meter.
- The influent sample location is called "TP-2.38" in documentation.
- At the time of the inspection there was no thermometer present in the influent autosampler. The autosampler was actively collecting influent samples for five-day carbonaceous biochemical oxygen demand (CBOD) and total suspended solids (TSS) to be used in the percent removal calculations as required by the NPDES permit.

Photo(s)

1. [Photo 1](#)
2. [Photo 2](#)
3. [Photo 3](#)
4. [Photo 4](#)
5. [Photo 5](#)

Location: Primary Clarifiers

Observation #: AA2-OB-002

Date: 06/26/2024

Weather:

There are eight primary clarifiers (four large and four small).

- Current maintenance/redundancy
- North (large) primary clarifiers are 1.6MGD each. Currently using three of four; one large clarifier is empty and ready for additional flows, if needed.
- The four smaller clarifiers are offline for rehab – two of them are being converted to covered clarifiers, the other two are being converted to EQ basins (engineers determined they don't need the clarifier capacity to meet the 76MGD design flow).
- Primary clarifiers 1 through 4 are the small clarifiers which were originally built in the 1960s. The bottoms of these clarifiers are below the groundwater table. There are groundwater extraction wells present with pressure relief valves that open when the groundwater gets too high and pump the groundwater into the (currently empty) clarifiers. This groundwater is then sent into the process flow at the plant.
- Ferric chloride is used for odor control.
- Clarifiers and most process flow lines are covered with airtight covers to reduce odors. There is an air maintenance program to manage odors from inside the line covers and covered clarifiers.

Photo(s)

1. [Photo 6](#)
2. [Photo 7](#)

Location: Aeration Basins		
Observation #: AA2-OB-005	Date: 06/26/2024	Weather:
There are 14 aeration basins (2.29MGD each), 10 are currently in use. South process basins 1 and 2 are currently offline for rehab (empty) and process basins 7 and 8 (the two southern-most basins) are in holding for redundancy. These basins are held with the water just above the piping and membranes, and the air is just barely on to keep the membranes working.		
Photo(s)		
1. Photo 8		

Location: Final Clarifiers		
Observation #: AA2-OB-006	Date: 06/26/2024	Weather:
There are 12 final clarifiers. Three of the four North final clarifiers are online, four of the eight South final clarifiers are online. All are functional and ready if needed, but don't currently need the capacity. The final clarifiers are manually cleaned about twice a week.		

Location: Ultraviolet Disinfection		
Observation #: AA2-OB-007	Date: 06/26/2024	Weather:
The Pre-UV filter removes algae and fruit stickers prior to flow reaching the UV building. The UV-T meter measures the clarity of the effluent prior to UV treatment – a reading above 70% is great, the UV system is designed for 65%. During the inspection, the reading was at 70.2%. The UV building contains six banks, each with eight modules and 29 bulbs per module. Effluent leaving the UV building was visually clear at the time of the inspection.		

Location: Effluent Flow Meters and Outfall		
Observation #: AA2-OB-008	Date: 08/21/2024	Weather:
Effluent flow meters are two 60-inch Palmer Bowlus flow meters that each carry half of the effluent flow to the outfall. Outfall 001 has signage to indicate that the flow is from the wastewater treatment plant but does not specifically warn against swimming in or drinking the water.		
Photo(s)		
1. Photo 12		
2. Photo 13		

Location: Effluent Sample Building and Sample Collection		
Observation #: AA2-OB-003	Date: 06/26/2024	Weather:
Effluent samples are collected from the Sampling Building, located near the Outfall. Autosamplers are located inside the air-conditioned building. Escherichia coli (E. coli) is collected from the hatch outside the building, at the top of the stairs. - pH is collected as a continuous measurement from inside the Sampling Building. - The effluent sample location is called "TP-2.7" in documentation. - Some operators are "authorized samplers" who collect compliance samplers; all authorized samplers are operators (hereafter referred to as "samplers"). - Samplers submit an order for sample bottles at the in-house laboratory. The in-house laboratory distributes all bottles (including those that will go to an external laboratory) to the samplers for sample collection, except for autosampler carboys. Samplers collect samples into the proper bottle for each type of analysis and label them in the field. - All Chain of Custody (COC) documents are in electronic form in the field, samplers carry a computer to enter all COC data (software is LabVantage). - Autosampler carboys are washed with liquinox and water by operators, not lab personnel. - Eurofins Laboratory is providing non-preserved bottles for mercury samples and preserving upon arrival at their lab. - The in-house lab adds preservatives at sample receiving for all analyses run in-house. - At the time of the inspection there was no thermometer present in any of the effluent autosamplers. These autosamplers were actively collecting compliance samples at the time of the inspection.		
Photo(s) Photo 9 Photo 10 Photo 11		

Location: Laboratory		
Observation #: AA2-OB-004	Date: 06/26/2024	Weather:
Observations of the ABCWUA in-house Water Quality Laboratory include the following: - Samplers bring samples to the in-house laboratory, where they relinquish samples at a sample receiving. Samplers do not enter the laboratory past the sample receiving room, only authorized samplers have access to the sample receiving room. - There are eight lab analysts, two sample receiving techs, and two supervisors working in the lab. - The lab is accredited by the American Association for Laboratory Accreditation (A2LA) for most permit-required pollutants, including: CBOD5, TSS, E coli., DO, total dissolved solids (TDS), chloride, sulfate, total arsenic, total inorganic nitrogen, total ammonia, total phosphorus, and total nitrogen. The inspection for the accreditation occurred the week before this inspection, and the most recent accreditation certificate was received as signed on 07/12/2024. - Samples collected for pollutants that cannot be analysed by the in-house lab (including total mercury, and Polychlorinated biphenyls [PCBs]) are sent to Eurofins Laboratory in Albuquerque. - Whole Effluent Toxicity samples are sent to COVE Environmental in Stillwater, OK. - All samples that go to external labs are packed up by the in-house lab analysts and shipped via courier. - Finished samples get dumped down sink. The lab floor drains and sinks go to "acid pit" including chemical storage room. - Certain samples are stored for three months after analysis, in case of the need for re-analysis.		

- E. coli analysis is by IDEXXX Quantitray.
- Nitric acid should not be stored next to incompatible chemicals such as hydrochloric acid or other organic chemicals due to potential for spontaneous, exothermic reactions (including explosions).
- Laboratory protocol includes typing out labels for every reagent, including the opened-on date. Most liquid reagents are only good for one year after opening, and the expiration dates must be recalculated based on the earlier of either the manufacturer's printed expiration date, or one year from the opened-on date. Several of the reagents in the laboratory were missing the re-calculated expiration date. Reagents that the manufacturer certifies to last more than one year after opening must have this documentation from the manufacturer.
- Laboratory sample results data is managed in Hach WIMSTM Data Management Software

Photo(s)

1. [Photo 14](#)
2. [Photo 15](#)

SECTION III – RECORDS REVIEW

Records may not be in sequential order.

Record: Sludge Sampling Report		AOC: No
Ref #: AA2-RR-009	Reviewed By: Amy Andrews	Reviewed Date: 08/21/2024
2023 Annual Sludge Report, including bench sheets and Client Reports.		

Record: Flow Meter Logs		AOC: Yes
Ref #: AA2-RR-008	Reviewed By: Amy Andrews	Reviewed Date: 08/21/2024
The SWRP utilizes a Magnetic flow meter for influent flow measurement. Magnetic Flow meters are calibrated upon manufacturing and cannot be calibrated in the field. The SWRP Utilizes Two Parshall Flumes for the Effluent. Each is equipped with a Hydro Ranger dual Ultrasonic Transducers level transmitter. SWRP Staff follows manufacturer's recommendation for Confirmation and calibration procedures. The Flume undergoes two Confirmation/Calibration events per year. If the confirmation procedure detected more than ½ inch differential between each ultrasonic sensor at a single Flume, then Calibration will be performed.		

Record: Other - Pollution Prevention Program		AOC: No
Ref #: AA2-RR-007	Reviewed By: Amy Andrews	Reviewed Date: 08/16/2024
The Pollution Prevention Program is an NPDES NM0022250 Permit Requirement in Part I.E. ABCWUA submitted the Pollution Prevention Program as part of the Submission of Annual Requirements Report on 11/30/2020 to EPA's Tung Nguyen in the NPDES Permitting Section of EPA Region 6.		

Record: Overflow/Bypass/Upset Reports or Notifications		AOC: No
Ref #: AA2-RR-006	Reviewed By: Amy Andrews	Reviewed Date: 08/02/2024
5-day reports were reviewed for four sanitary sewer overflows were reported between 01/01/2024 to 05/31/2024. The total volume spilled was estimated to be 1,230 gallons, and none of the spilled flowed to the river.		

Record: Facility SOPs		AOC: No
Ref #: AA2-RR-005	Reviewed By: Amy Andrews	Reviewed Date: 08/01/2024
20140903 Monthly 2.7 sampling SOP (TDS, Chloride) - SOP 23XX Autosampler Thermometers - Draft version to be finalized in reference to AOC noted in this report. - SOP-CWA 2000 Revision 07 SWRP Daily TP2.7 Afternoon (Ecoli) - SOP-CWA 2004 Revision 06 SWRP Daily TP2.7 Morning(TSS, CBOD)		

Record: Personnel Training		AOC: No
Ref #: AA2-RR-004	Reviewed By: Amy Andrews	Reviewed Date: 07/11/2024
Demonstration of Capability Certification Statements for nine Laboratory Analysts.		

Record: Laboratory SOPs		AOC: No
Ref #: AA2-RR-003	Reviewed By: Amy Andrews	Reviewed Date: 07/11/2024
- SOP 101 rev 20 Sample Receiving - SOP 205 rev 23 Anions by Ion Chromatography - SOP 206 rev 21 Biochemical Oxygen Demand - SOP 213 rev 14 Ammonia as Nitrogen by ISE - SOP 224 Rev 14 Total Chlorine by DPD - SOP 225 rev 10 Total Dissolved Solids - SOP 227 rev 12 Total Suspended Solids and Total Volatile Suspended Solids - SOP 304 rev 17 Fecal Coliform, Total Coliform, and E Coli by Colilert - SOP 305 rev 10 Fecal Coliform by MPN		

Record: Whole Effluent Toxicity (WET) testing		AOC: No
Ref #: AA2-RR-002	Reviewed By: Amy Andrews	Reviewed Date: 07/19/2024
- WET Test Report from samples collected 01/28, 01/30, and 02/01/2024; and - WET Test Report from samples collected 04/07, 04/09, and 04/11/2024 - All tests were valid and did not induce toxicity.		

Record: DMR Reports		AOC: Yes
Ref #: AA2-RR-001	Reviewed By: Amy Andrews	Reviewed Date: 07/18/2024
Reviewed signed copies of DMR reports for March, April, and May 2024 as well as documents used to build these reports - Chain of Custody documents, laboratory bench sheets, Client Reports and Excel data extracted from Hach WIMS database. Sampling documents indicate that every sample collection time is recorded at exactly the ten- and five-minute marks (i.e., 7:50am instead of 7:51am). Therefore, it appears that an approximate time is recorded, which is not an accurate representation of the data and analysis of the samples.		

SECTION IV – SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

No sampling was conducted.

SECTION V - AREA OF CONCERN

Area(s) of Concern may not be in sequential order. The presentation of Area(s) of Concern does not constitute a formal compliance determination or violation.

AOC Reference #: AA2-OB-008	Location: Effluent Flow Meters and Outfall
Regulation and/or Permit Requirement NM0022250 III.B.3.a - PROPER OPERATION AND MAINTENANCE a. <i>The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.</i>	
AOC: Outfall 001 has signage to indicate that the flow is from the wastewater treatment plant but does not specifically warn against swimming in or drinking the water.	
Additional Notes: Signage is required to keep the public safe.	

AOC Reference #: AA2-OB-004	Location: Laboratory
Regulation and/or Permit Requirement NM0022250 III.B.3.a. - PROPER OPERATION AND MAINTENANCE a. <i>The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control...</i>	
AOC: Nitric acid should not be stored next to incompatible chemicals such as hydrochloric acid or other organic chemicals due to potential for spontaneous, exothermic reactions (including explosions).	
Additional Notes: Safety hazard	

AOC Reference #: AA2-OB-001
AOC Reference #: AA2-OB-003
Regulation and/or Permit Requirement NM0022250 III.C.5.a. - MONITORING AND RECORDS; MONITORING PROCEDURES a. <i>Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.</i>
AOC: At the time of the inspection there were no thermometers present in the influent or effluent autosamplers. The autosamplers were actively collecting compliance samples, and evidence could not be provided to show that samples were maintained at less than 6 degrees Celsius during composite sample collection.
Additional Notes: Facility personnel stated that all thermometers had been removed that day for the once-per-year, required thermometer comparison with NIST standard thermometer.

AOC Reference #: AA2-OB-004	Location: Laboratory
Regulation and/or Permit Requirement NM0022250 III.C.5.a. - MONITORING AND RECORDS; MONITORING PROCEDURES a. <i>Monitoring must be conducted according to test procedures approved under 40 CFR Part 136...</i>	
AOC: Most liquid reagents are only good for one year after opening, and the expiration dates must be recalculated based on the earlier of either the manufacturer's printed expiration date, or one year from the opened-on date. Several of the reagents in the laboratory were missing the re-calculated expiration date.	
Additional Notes: Expired reagents must be disposed of properly.	

AOC Reference #: AA2-RR-001	Records Review: DMR Reports
Regulation and/or Permit Requirement NM0022250 III.C.5.a. - MONITORING AND RECORDS; MONITORING PROCEDURES a. <i>Monitoring must be conducted according to test procedures approved under 40 CFR Part 136...</i>	
AOC: Sampling documents indicate that every sample collection time is recorded at exactly the ten- and five-minute marks (i.e., 7:50am instead of 7:51am). Therefore, it appears that an approximate time is recorded, which is not an accurate representation of the data and analysis of the samples.	
Additional Notes: Sample collection times must be recorded at the exact minute the sample is collected.	

AOC Reference #: AA2-RR-008	Records Review: Flow Meter Logs
Regulation and/or Permit Requirement NM0022250 III.C.6. - MONITORING AND RECORDS; FLOW MEASUREMENTS <i>Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.</i>	
AOC: The Flume undergoes two Confirmation/Calibration events per year.	
Additional Notes: Secondary flow meters must be confirmed monthly to be within 10% of primary flow meters.	

SECTION VI – CLOSING CONFERENCE AND FOLLOW UP

Closing Conference

The EPA REGION 6 Lead Inspector held a closing conference with Facility personnel at 03:50 PM (MT) on 06/26/2024 for the inspection. During the closing conference, EPA REGION 6 Lead Inspector discussed the observations and Area(s) of Concern identified during the inspection. Observations and Area(s) of Concern have not yet been evaluated for a formal compliance determination.

Follow Up

The following items were requested by the inspector at the time of the inspection.

- Submitted and signed DMRs for the dates March 2024 to May 2024, as well as the full monthly tables of all regulated pollutants as well as the Client Reports for the requested pollutants (TSS, COD, E coli., TDS, and Chloride) and the following related documents: - Chain of Custody documents for these incoming samples to the laboratory - Bench sheets and all recorded data (records of monitoring) for the Client Reports requested above. - All calibration reports for instrumentation used in analysis. - Meters, mass balances, etc. - Temperature records for all equipment and instrumentation used in analysis. - Incubators, refrigerators used for storage, ovens, etc. - All National Institute of Standards and Technology (NIST) calibration certificates for laboratory instrumentation used in the analysis of regulated pollutants. - Influent and effluent flow measurements from March 2024 to May 2024 - Calibration records for influent and effluent flow meters - Laboratory Quality Control and Quality Assurance records from March 2024 to May 2024

1. Preliminary batch testing for disposable sampling and analysis equipment. For example, pre-weighed filters for TSS analysis, Colilert trays for E. coli testing
2. Blank testing of glassware or other equipment and instrumentation to ensure proper preparation, for example cleaning or sterilization.
6. Certifications and/or training documents for all technicians who perform analysis or sample preparation for regulated pollutants.
7. All standard operating procedures for the analysis, sample gathering, sample preparation, sample disposal, equipment and instrument preparation, and calibration of equipment for the analysis of regulated pollutants.
8. Excursion, Overflow or Bypass Summary Reports (if any)
9. Latest Sludge DMR with metals, pathogens and vector report
 1. Sludge sampling results
10. Pollution Prevention Program documents, as required by your NPDES Permit

All requested documents were submitted by permittee via GoAnywhere Managed File Transfer Service on 07/09/2024. Laboratory accreditation documentation was requested and received via email on 8/20/2024.

SECTION VII – LIST OF APPENDICES

1. Photo Log
2. A2LA Laboratory Accreditation for Water Quality Laboratory – ABCWUA
3. Facility Process Flow Diagrams

Appendix 1
Photograph Log

APPENDIX 1: PHOTO LOG



Photo 1			IMG-20240626105357535793201.jpg
06/26/2024 10:53 AM (MT)	No CBI	No PII	Photographer: Amy Andrews
Collection System, Headworks and Influent Flow Meter			35.02063848, -106.66335781
View of headworks, showing all process flow lines covered for odor control.			



Photo 2			IMG-20240626105459545999882.jpg
06/26/2024 10:54 AM (MT)	No CBI	No PII	Photographer: Amy Andrews
Collection System, Headworks and Influent Flow Meter			35.02096413, -106.66324313
Influent autosamplers missing thermometers.			



Photo 3			IMG-2024062610555555595013.jpg
06/26/2024 10:55 AM (MT)	No CBI	No PII	Photographer: Amy Andrews
Collection System, Headworks and Influent Flow Meter			35.02096413, -106.66324313
Influent autosampler missing thermometer.			



Photo 4			IMG-20240626105620562082773.jpg
06/26/2024 10:56 AM (MT)	No CBI	No PII	Photographer: Amy Andrews
Collection System, Headworks and Influent Flow Meter			35.0205776, -106.66334389
Influent autosampler missing thermometer.			



Photo 5			IMG-2024062611035735790288.jpg
06/26/2024 11:03 AM (MT)	No CBI	No PII	Photographer: Amy Andrews
Collection System, Headworks and Influent Flow Meter			35.02044902, -106.6633856
Influent flow electromagnetic flow meter on 72-inch closed pipe.			



Photo 6			DSCN2430.JPG
06/26/2024 11:17 AM	No CBI	No PII	Photographer: Amy Andrews
Primary Clarifiers			[Geographic Coordinates]
Clarifiers are covered and piping is used to control fugitive odors.			



Photo 7			DSCN2431.JPG
06/26/2024 11:19 AM	No CBI	No PII	Photographer: Amy Andrews
Primary Clarifiers			[Geographic Coordinates]
Primary Clarifier 1, empty for rehabilitation, except for groundwater from under the older clarifiers.			

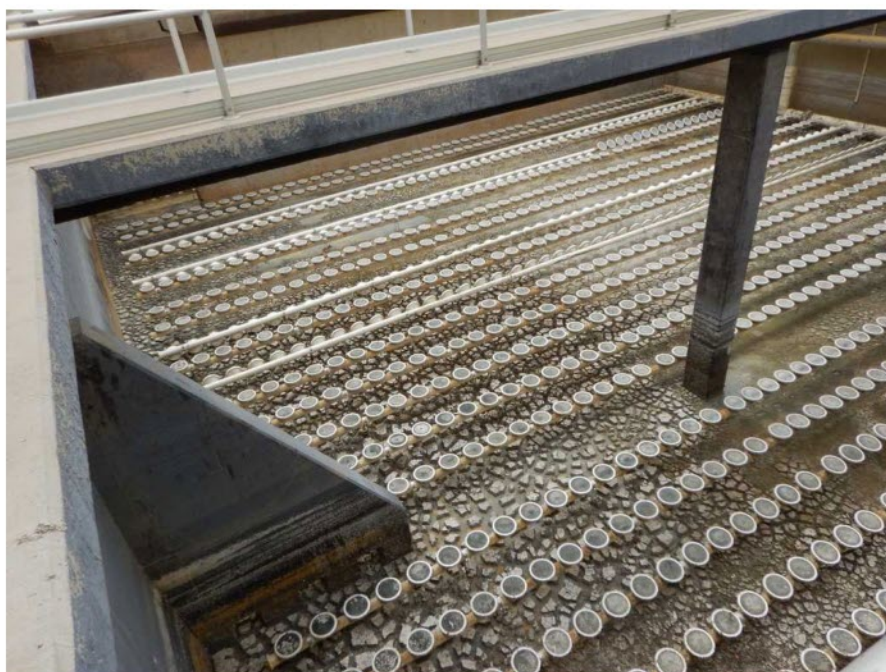


Photo 8			DSCN2437.JPG
06/26/2024 11:37 AM	No CBI	No PII	Photographer: Amy Andrews
Aeration Basins			[Geographic Coordinates]
Aeration basin has been drained for rehab.			



Photo 9			DSCN2455.JPG
06/26/2024 12:10 PM	No CBI	No PII	Photographer: Amy Andrews
Effluent Sample Building and Sample Collection			[Geographic Coordinates]
Continuous pH meter.			



Photo 10			DSCN2457.JPG
06/26/2024 12:13 PM	No CBI	No PII	Photographer: Amy Andrews
Effluent Sample Building and Sample Collection			[Geographic Coordinates]
Effluent autosampler missing thermometer.			



Photo 11			DSCN2460.JPG
06/26/2024 12:17 PM	No CBI	No PII	Photographer: Amy Andrews
Effluent Sample Building and Sample Collection			[Geographic Coordinates]
Effluent auto samplers missing thermometers.			



Photo 12			DSCN2462.JPG
06/26/2024 12:22 PM	No CBI	No PII	Photographer: Amy Andrews
Effluent Flow Meters and Outfall			[Geographic Coordinates]
Sign present at Outfall 001.			



Photo 13			DSCN2465.JPG
06/26/2024 12:23 PM	No CBI	No PII	Photographer: Amy Andrews
Effluent Flow Meters and Outfall			[Geographic Coordinates]
No sign visible from this side of Outfall 001.			



Photo 14			IMG-20240626143039303970769.jpg
06/26/2024 02:30 PM (MT)	No CBI	No PII	Photographer: Amy Andrews
Laboratory			35.02159159, -106.66287804
Nitric acid stored next to hydrochloric acid.			



Photo 15			IMG-20240626152334233464059.jpg
06/26/2024 03:23 PM (MT)	No CBI	No PII	Photographer: Amy Andrews
Laboratory			35.02158766, -106.66282308
Laboratory reagent storage.			

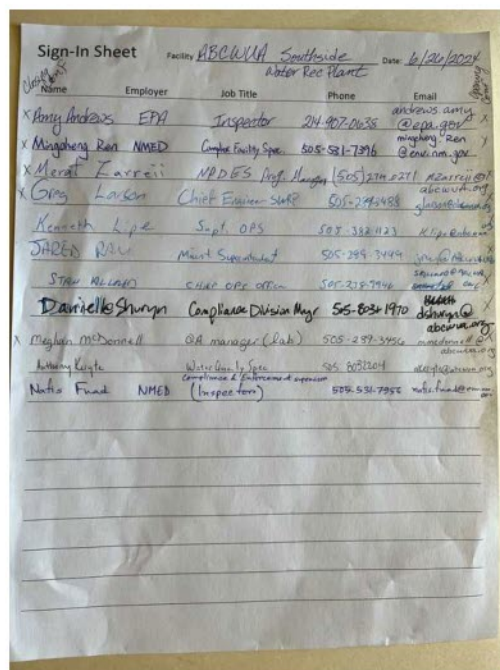


Photo 16			IMG_0021.jpg
8/21/2024 11:42 AM (MT)	No CBI	No PII	Photographer: Amy Andrews
[Location/Area]			[Geographic Coordinates]
Sign-In Sheet for participants of the inspection.			

Appendix 2

A2LA Laboratory Accreditation for Water Quality Laboratory

ABCWUA



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

WATER QUALITY LABORATORY
ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY
4201 Second Street SW
Albuquerque, NM 87105
Meghan McDonnell Phone: 505 289 3456

ENVIRONMENTAL

Valid To: July 31, 2026

Certificate Number: 0699.01

In recognition of the successful completion of the A2LA evaluation process, (including an assessment of the laboratory's compliance with the TNI 2016 NELAC Standard), accreditation is granted to this laboratory to perform recognized EPA methods using the following testing technologies and in the analyte categories identified below:

Testing Technologies

Inductively coupled plasma-optical emission spectrometry (ICP-OES), ICP-MS, Ion Chromatography, Microbiology, Misc. - Electronic Probes (pH, F⁻, O₂), Oxygen Demand, Spectrophotometry (Visible), Spectrophotometry (Automated), Titrimetry, Total Organic Carbon

<u>Parameter/Analyte</u>	<u>Potable Water</u>	<u>Nonpotable Water</u>	<u>Biosolids</u>
<u>Metals</u>			
Aluminum	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Antimony	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Arsenic	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Barium	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Beryllium	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Boron	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Cadmium	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Calcium	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Chromium	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Cobalt	-----	EPA 200.7 (1994)	-----
Copper	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Iron	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Lead	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Magnesium	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Manganese	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Mercury	-----	SM 3112 B-2011	-----
Molybdenum	-----	EPA 200.7 (1994)	-----
Nickel	EPA 200.7 (1994)	EPA 200.7 (1994)	-----

<u>Parameter/Analyte</u>	<u>Potable Water</u>	<u>Nonpotable Water</u>	<u>Biosolids</u>
Potassium	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Selenium	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Silicon	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Silver	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Sodium	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Thallium	EPA 200.8 (1994)	EPA 200.8 (1994)	-----
Vanadium	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Zinc	EPA 200.7 (1994)	EPA 200.7 (1994)	-----
Metals Prep	EPA 200.7 / 200.8 (1994)	EPA 200.7 / 200.8 (1994)	-----
Hardness	SM 2340 B-2011	SM 2340 B-2011	-----
<u>Nutrients</u>			
Ammonia (as N)	-----	SM 4500-NH3 D-2011	-----
Nitrate (as N)	SM 4110 B-2011	SM 4110 B-2011	-----
Nitrite (as N)	SM 4110 B-2011	SM 4110 B-2011	-----
Orthophosphate (as P)	SM 4110 B-2011	SM 4110 B-2011	-----
Total Organic Carbon (TOC)	SM 5310 C-2011	-----	-----
Total Phosphorus	SM 4500-P E-2011	SM 4500-P E-2011	-----
<u>Demands</u>			
Biochemical Oxygen Demand (BOD)	-----	SM 5210 B-2016	-----
Chemical Oxygen Demand (COD)	-----	SM 5220 D-2011	-----
Dissolved Oxygen	-----	ASTM D888-12e1-2013C	-----
<u>Wet Chemistry</u>			
Alkalinity as CaCO ₃	SM 2320 B-2011	SM 2320 B-2011	-----
Chloride	SM 4110 B-2011	SM 4110 B-2011	-----
Chlorine Residual	-----	SM 4500 Cl, G-2011	-----
Fluoride	SM 4500 F, C-2011	SM 4500 F, C-2011	-----
pH	SM 4500 H ⁺ , B-2011	SM 4500 H ⁺ , B-2011	-----
Specific Conductance	SM 2510 B-2011	SM 2510 B-2011	-----
Sulfate	SM 4110 B-2011	SM 4110 B-2011	-----
Total Dissolved Solids	SM 2540 C-2015	SM 2540 C-2015	-----
Total Solids	-----	SM 2540 G-2015	SM 2540 G-2015
Total Suspended Solids (TSS)	-----	SM 2540 D-2015	-----
Turbidity	SM 2130 B-2011	SM 2130 B-2011	-----
<u>Microbiology</u>			
Fecal Coliform	-----	SM 9223 B-2016	SM 9221 E-2014
Total Coliform / <i>Escherichia coli</i>	SM 9223 B-2016	SM 9223 B-2016	-----



Accredited Laboratory

A2LA has accredited

WATER QUALITY LABORATORY, ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

Albuquerque, NM

for technical competence in the field of

Environmental Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of A2LA R206 – *Specific Requirements – Environmental Testing Laboratory Accreditation Program*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 12th day of July 2024.

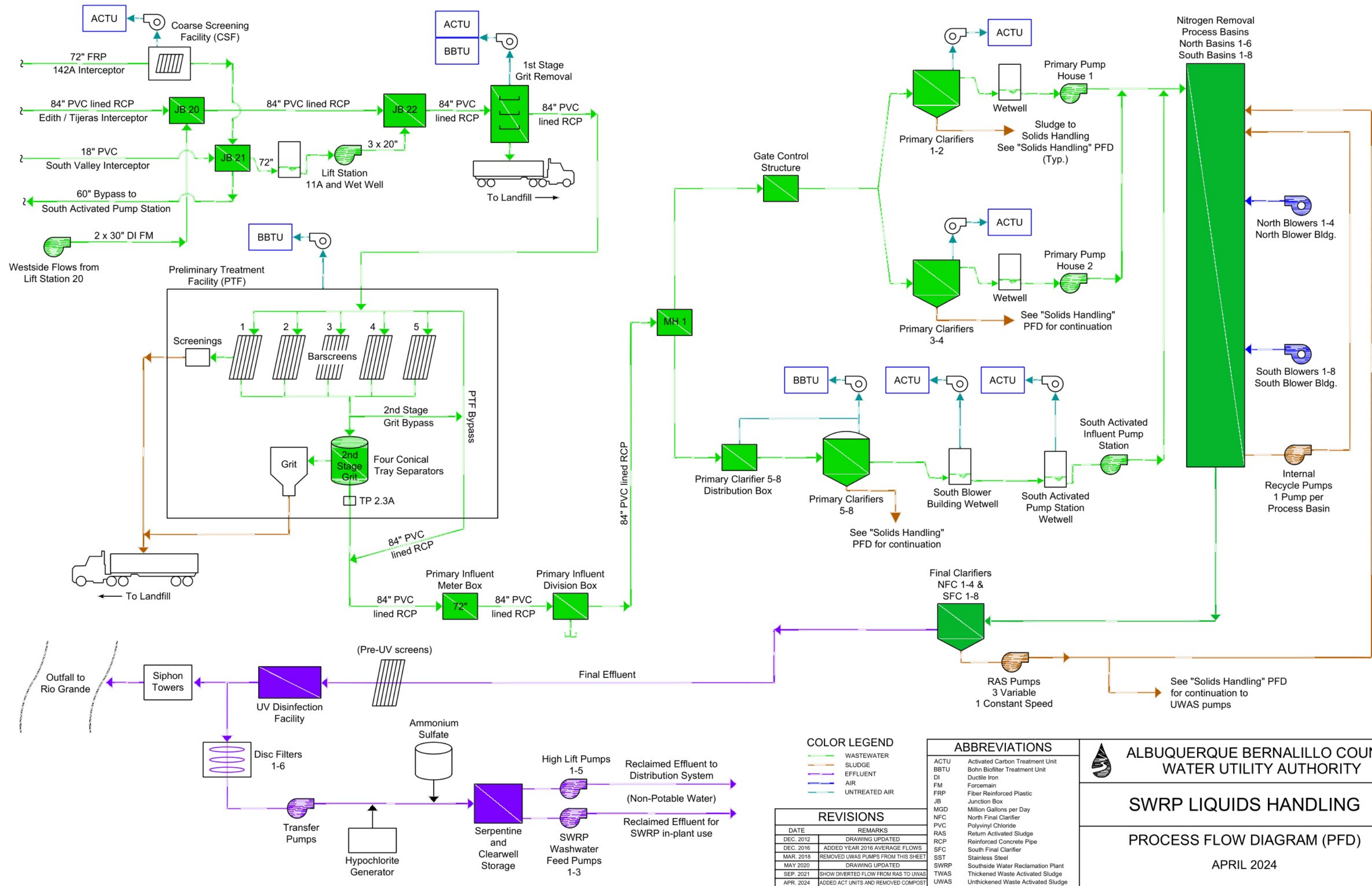
A blue ink signature of Mr. Trace McInturff, written in a cursive style.

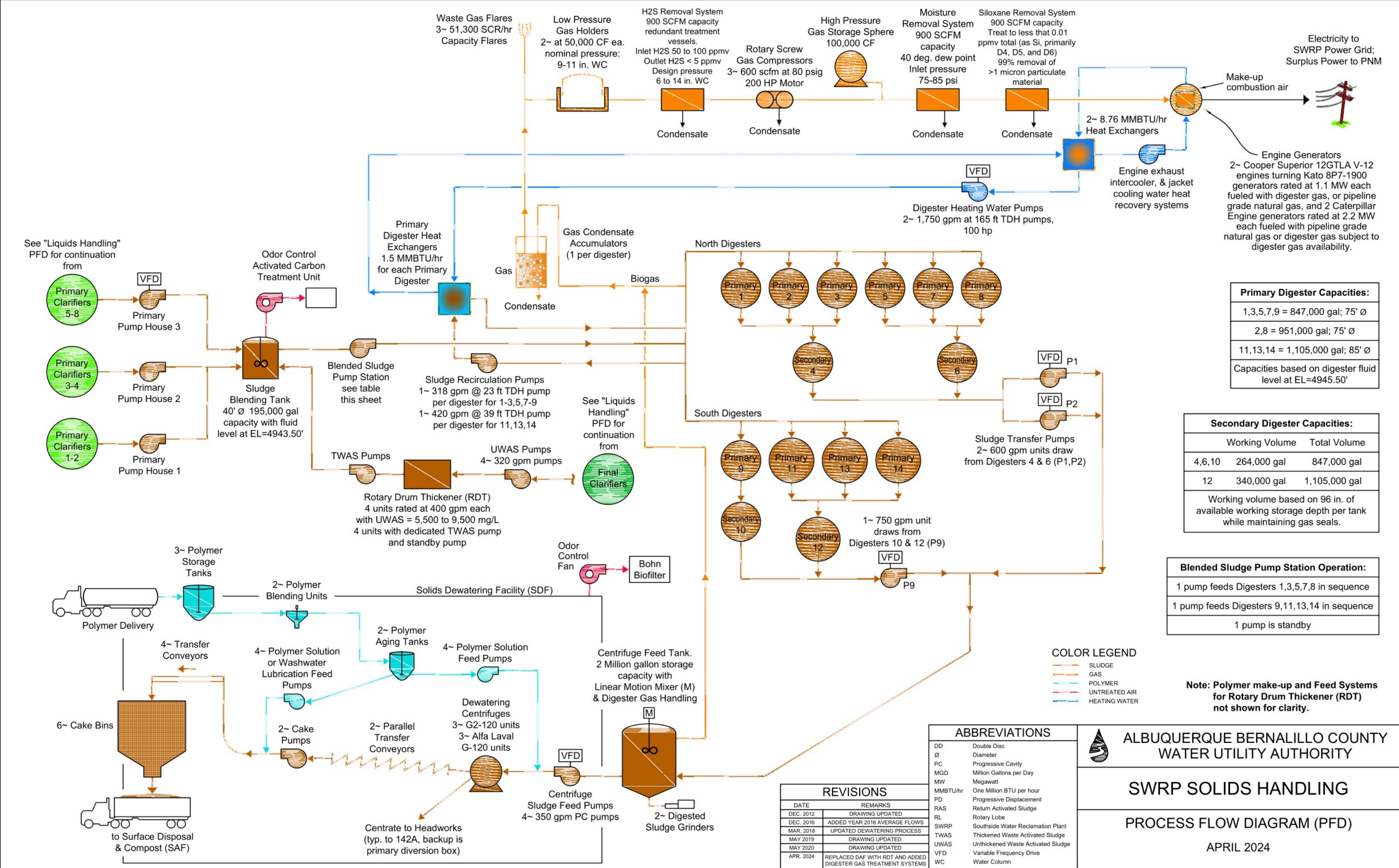
Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 699.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Environmental Scope of Accreditation.

Appendix 3

Facility Process Flow Diagrams





Primary Digester Capacities:

1,3,5,7,9 = 847,000 gal; 75' Ø
2,8 = 951,000 gal; 75' Ø
11,13,14 = 1,105,000 gal; 85' Ø
Capacities based on digester fluid level at EL=4945.50'

Secondary Digester Capacities:

	Working Volume	Total Volume
4,6,10	264,000 gal	847,000 gal
12	340,000 gal	1,105,000 gal
Working volume based on 96 in. of available working storage depth per tank while maintaining gas seals.		

Blended Sludge Pump Station Operation:

1 pump feeds Digesters 1,3,5,7,8 in sequence
1 pump feeds Digesters 9,11,13,14 in sequence
1 pump is standby

Note: Polymer make-up and Feed Systems for Rotary Drum Thickener (RDT) not shown for clarity.

ABBREVIATIONS

DD	Double Disc
Ø	Diameter
PC	Progressive Cavity
MGD	Million Gallons per Day
MW	Megawatt
MMBTU/hr	One Million BTU per hour
PD	Progressive Displacement
RAS	Return Activated Sludge
RL	Rotary Lobe
SWRP	Southside Water Reclamation Plant
TWAS	Thickened Waste Activated Sludge
UWAS	Unthickened Waste Activated Sludge
VFD	Variable Frequency Drive
WC	Water Column

REVISIONS

DATE	REMARKS
DEC. 2012	DRAWING UPDATED
DEC. 2016	ADDED YEAR 2016 AVERAGE FLOWS
MAR. 2018	UPDATED DEWATERING PROCESS
MAY 2019	DRAWING UPDATED
MAY 2020	DRAWING UPDATED
APR. 2024	REPLACED DAF WITH RDT AND ADDED DIGESTER GAS TREATMENT SYSTEMS



**ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY**

SWRP SOLIDS HANDLING

PROCESS FLOW DIAGRAM (PFD)

APRIL 2024