

ONLINE TRAINING/WEBINAR SPEAKER INFO, BIO & TOPIC ABSTRACT

Please provide the following information and email to support@nwmoa.com.

If you are presenting on multiple topics during this event, please fill out one form for each topic.

Name: Bob Kimball Suffix: P.E., BCEE Job Title: Vice President

(i.e.: Ph.D., P.E., Jr.)

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☑ Checking this Box confirms that I agree to be videoed and recorded for the duration of the Online Training/Webinar.

1. Speaker Biography (please provide one paragraph – 150 words or less)

Bob is a chemical engineer with 31 years of experience working for a variety of industrial clients throughout North America. Bob currently serves as the Industrial Process Water Lead for Wood and is responsible for business development, technical support and execution of water management and treatment projects for industrial clients in the mining, oil and gas and power generation sectors. Bob is the project manager for the design, construction and operation of the Berkeley Pit Pilot Discharge System Polishing Facility for Wood.

- **2.** *Topic Title* (please provide the topic title for your presentation) Berkeley Pit Polishing Plant
- **3.** *Topic Abstract* (please provide a minimum of 250 words for your presentation and describe how it relates to membrane technology)

The former Berkeley Pit mine site is located in a historic mining district used for mining and metal processing. Mining in the area began in 1863. The site includes multiple vertical shafts and horizontal workings, a large pit lake containing acidic, metal-rich water, seeps and a large tailings impoundment. The site currently has a complex water management plan with numerous water inputs, sinks and net water gains in the circuit. The new Water Treatment Polishing Plant reduces the volume of water in the system, reducing or eliminating net water gains. The project includes the design and construction of a water treatment system to allow treated water meeting applicable water quality criteria to be discharged offsite, reducing the volume of water in the system. The selected technology includes chemical addition, multimedia filtration and reverse osmosis polishing.



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- **4. Polling Questions** (please provide up to 5 questions you might ask the audience, relative to your topic, which you would like to engage with them on. Questions are multiple choice. A right or wrong answer is not required. If you do provide a question with only 1 correct answer, please indicate which answer is correct.. Provide 3 answers to choose from.)
 - 1. Q. What is the source water to the polishing plant?
 - A 1 Berkeley Pit Water
 - A 2 Horseshoe Bend Seepage
 - A 3 Tailings Pond Return Water
 - 2. Q. What is the maximum discharge rate?
 - A 1 5 MGD
 - A 2 7 MGD
 - A 3 10 MGD
 - 3. Q. What is the purpose of removing aluminum?
 - A 1 Meet aluminum discharge limits
 - A 2 Prevent RO membrane fouling
 - A 3 Meet toxicity limits in stream
 - 4. Q. What filtration mode is used for aluminum removal?
 - A 1 Single Stage
 - A 2 Two Stage
 - A 3 Split Single Stage
 - 5. Q. How often do the RO systems operate?
 - A 1 All of the time
 - A 2 None of the time
 - A 3 Only when needed to meet instream standards