Eastern PA Coalition for Abandoned Mine Reclamation

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November 2024 Progress Report

Highlights:

- EPCAMR staff georeferenced, mosaicked & digitized mine maps for the **DEP MSI** MMG program. Continue QA/QC of **HU**'s Southern Anthracite Mosaic work.
- EPCAMR Management staff participated in weekly **PA AML Campaign** calls; hosted an **EPCAMR Board Meeting & EPCAMR/WPCAMR Joint Visioning Session** in State College
- Sampled Askam AMD Treatment System, upstream & downstream on **Nanticoke Cr.** for **EC**; 3 AMD TS, upstream, downstream in **Loyalsock Creek Watershed** for **LCWA & SCD.**
- Updated www.TreatMineWater.com and www.EPCAMR.org; administered GobbaDaPile local domain, G Suite for Nonprofits, and social media sites.

Education, Outreach and Admin.:

- On vacation the first week of November but returned to participate in a Shamokin Watershed tour with attendees from the Susquehanna Symposium at Bucknell University. Stayed after the tour to field investigate a potential stream loss point on the North Branch of Shamokin Creek below the Richards Shaft discharge with Tom Clark of Kleinfelder and Chuck Cravotta of CGC.
- Prepared a proposal to sample Loyalsock Creek in 24'-25' but waiting to send until I am able to finish 23-24 season monitoring report.
- EPCAMR Management staff participated in weekly PA AML Campaign Calls.
- Continued writing the Loyalsock Creek Sampling Report for 2023-2024. [LCWA]
- Processed an iron oxide order and baked Anthracite Red for another order.
- Provided images to our AmeriCorps, Morgan Romanowski, for EPCAMR brochure, business cards, and iron oxide recovery pamphlets. Vacuumed office and emptied waste baskets.
- Reconciled the PayPal account with the 2024 AMR Conference Registration database and transferred funds to the EPCAMR Checking account to cover a check that will be written for half the cost of the bill from the venue, Ramada Conference Center in State College. WPCAMR has paid the other half. The remainder will go into the AMR Conference restricted fund.
- Reviewed Datashed Proposal and Frackville Statistics for the Morea Mine Pool Project from Frank Sindaco with the intention to propose the Datashed work at the upcoming EPCAMR Board Meeting and Joint Visioning Session with WPCAMR.
- Prepared minutes, agenda, and treasurer's report for the abbreviated 4th Quarter EPCAMR Board Meeting tomorrow. I wasn't able to prepare a 2025 Proposed Budget in the given time. That will need to be taken care of in a future board meeting.
- EPCAMR staff hosted an abbreviated EPCAMR Board Meeting from 8:30-9:15 at the Penn Stater in State College. A handful of board members were able to attend, but we did get a quorum of 7 with participants on Zoom. Took notes and ran Zoom for the EPCAMR/WPCAMR Joint Visioning Session that followed. I wasn't able to participate much in the actual discussions, however.

- Scanned EPCAMR 990's and uploaded to Candid GuideStar to obtain 2024 Platinum Transparency Status. Also updated financial statements, program metrics and added the newly updated EPCAMR brochure designed by EPCAMR AmeriCorps.
- Researched potential historic mine subsidence under Baber Cemetery in Pottsville for former EPCAMR President, Ed Wytovich. The Salem Vein is the closest underground mined vein to the surface at about 550 feet below the area of concern at the intersection of 14th and West Market streets. Researched a set of maps in the OSM Anthracite Folios (S-10DD) and concluded that it could have been a trough or area-wide subsidence. Sent along the illustrated poster from the MSI program to explain. Interesting tidbit... This cross-section lists coal veins that are above the Faust (#21). Most stratigraphic columns stop at Faust, but on a few I have seen them numbered up to# 22 and #23. This cross-section gives them names Salem, South Salem, Brewery, and Leader bottom to top. The Leader Vein might be the Brewery Leader because it was common practice in the Southern Field to call a small vein above another a "leader" vein. This might actually be the most complete number of veins I have seen on a cross-section in the southern field with 21 veins. It's only missing the Lykens Valley Veins and a few in the Llewellyn formation below the Buck which were not mined in the area.

Technical Assistance:

- Worked on the first Saturday of November to upload AMR conf videos from my computer to YouTube and updated presentations page on the treatminewater.com website with video links and ones from WPCAMR's YouTube. Need to upload ones from Steve's computer.
- Sampled Loyalsock Upstream, Downstream, & in/out of 3 treatment systems (Connell B Vein, Connell C Vein and Gutten Drift) with Steve and Frank. [LCWA]. We hadn't received the Swoffer Flow probe back from repairs so we took the AquaCalc Pro flow meter and attempted to take flows with mixed results. Took an hour to learn how to use it and some fidgeting to get it working. It worked at Connell B Vein Tunnel, but then the pigmy meter stopped communicating with the computer. It was able to show velocity at the Gutten Drift. Used a bucket or tub at the other discharges to calculate flow. Could not get the meter to work on the Loyalsock Creek. The pigmy meter is not consistently communicating with the computer.
- Downloaded data from transducers in the Nanticoke Watershed. Processed Truesdale Borehole and Nanticoke Headwaters data for USGS. Earth Conservancy was looking to move the dye probe potentially since the Askam Borehole was not running for a few days. Based on best educated guess and knowing that the mine pools are connected South Wilkes-Barre Boreholes would be the best place to potentially move it. [EC]
- Georeferenced Office of Surface Mining Reclamation and Enforcement (OSMRE) Anthracite Folios for Richards Shaft and Sioux Collieries. Added geo-tagged photos taken during field investigation to try to determine veins where Richards Shaft discharge emanates and flow loss in North Branch Shamokin Creek disappears.
- Researched purchasing another flow meter. Followed up with Kelly Stocklin, new head of Swoffer instruments, who we had sent the flow meter to have the button pad replaced back on October 17th. Last communication on October 28th mentioned "We received it and are working on it. It should be finished tomorrow and sent out at the latest by Wednesday." That following Wednesday would have been October 30th which would have put the meter here at the latest November 6th (a week later). I waited another week to see if the package was just delayed by the delivery service. This correspondence does not give us confidence in Swoffer Instruments going forward. Other options like a SonTek FlowTracker2 come well recommended but cost ~$10k. The OTT MFPro used by DEP BAMR costs ~$7k. The HACH FH950 including the wading rod cost ~$9K and a new AquaCalc Pro Plus Kit (pigmy meter, computer, and wading rod) costs ~$6.5K. We have a Swoffer 3000-14 Flowmeter / datalogger and 4.7 ft. Top Set wading Rod and it is currently listed as $2,843, but Kelly said he would be raising the price. Checked on eBay and found a used AquaCalc Pro Plus listed for $2,250. I was able to negotiate it down to $1,200 because the posting mentioned that it does not connect to a computer via USB. With this purchase we are looking to refurbish our existing AquaCalc setup and get it working as a backup flow meter.

- Picked up where I left off on QA/QC for Southern Field Mosaics. Found OSMA_FOLIO_100_S-3-K already georeferenced instead of NMMR 008655-01 for Rahn showing Skidmore vein. Asked Patrick to SID NMMRs 8267, 8268, and 8269 in Greenwood and 8868 in Rahn collieries. Marked area where Harrisburg University (HU) missed digitizing the W. Skidmore gangway starting at 24,000W going west on Tamaqua Southside (they used OSMA_FOLIO_100_S-4-G_10, but NMMR 8855 is clearer). [MSI]
- Checked Shawnese's Bi-Weekly Work folder on the Google Drive and downloaded a zip file. Things different from the last download 09/09/24 were:
  - 20240813_digi_wilkes-barre_west_dep_mmg_gdb (1).gdb which was corrupted when I attempted to open it in ArcGIS Pro. I changed it to 20240813(1)_digi_wilkes-barre_west_dep_mmg_gdb.gdb and renamed all the files inside to remove the " (1)" appendage and was able to open it. The name indicates it's a geodatabase from 8/13/24 which contained 128 Entry Point Openings (EPO) last mod. 6/24/24, then 30,511 Coal Elevation Points (CEP) mod. 10/18/24, and 331 Digitized Mine Areas (DMA) mod. 6/24/24. Last modified is an attribute you can read in ArcGIS Catalog.
  - 20240109_digi_wilkes-barre_west_dep_mmg_gdb.gdb which was already in my folder. I changed it to 20240109(1)_digi_wilkes-barre_west_dep_mmg_gdb.gdb. The name indicates it is a geodatabase from 1/9/24 which contained the same 128 Mine Entry Point Openings (EPO) mod. 6/24/24, less 30,505 Coal Elevation Points (CEP) mod. 6/24/24, and the same 331 Digitized Mine Areas (DMA) mod. 6/24/24.
  - Default.gdb which was empty.
  - Several Timesheets ranging from 6/1/24 to 11/02/24 showing she is billing a majority of her time to the MSI program.
  - KIDNEY_exportfeaturesDMA.shp, KIDNEY_exportfeatures.shp, KIDNEY_exportfeatures(1).shp, KIDNEY_exportfeatures (1).shp, HILLMAN_exportfeaturesDMA.shp, HILLMAN_exportfeatures.shp, HILLMAN_exportfeatures (1).shp, and STANTON_exportfeatures.shp. None of which I can read in ArcGIS because a shapefile consists of at least 3 files (".shp", ".shx", and ".dbf"). This is basic GIS knowledge and Shawnese has been told to submit all of these in the past.

  Conclusion: If these are the most recent work products in 20240813_digi_wilkes-barre_west_dep_mmg_gdb (1).gdb, my analysis shows only 6 CEPs from Stanton Vein were added since 6/24/24. This is not good progress for the hours spent. Also, 1,846 are missing elevations and 4,285 are missing source attributes. So they are not complete records. [MSI]
- Continued to QA/QC the Southern Field Mosaics. HU missed digitizing the Skidmore vein on BMSA_1920-001 near Little Schuylkill River. The map is off 50ft from surface map in a heavily faulted and folded area which could have caused confusion. See the x-section in OSM Folio S-4F for details. Checked NMMR Newkirk for Buck, Seven Foot and Skidmore maps, but no luck. What's already in the mosaics are the best for that area except for Mary D Section. Asked Patrick to SID NMMR 8421-01 to 09. [MSI]
- Sampled Askam Treatment System and upstream/downstream points in the Nanticoke Creek Watershed. [EC] Also spot-checked Askam, South Wilkes-Barre, and Susquehanna Airshaft discharges for fluorescein dye with USGS Cyclops probe.
- Download and georeference EPCAMR_008267-01 thru 05 and EPCAMR_008268-01 thru 05 NMMRs converted to SID for the Greenwood Colliery. Didn't geo EPCAMR_008269. [MSI]

[ ] - Denotes funding source where applicable.