

LAC Minerals – Richmond Hill Mine
Annual Report to the Lawrence County Commission
Conditional Use Permit Nos. 116, 125 and 202
July 27, 2021

Reclamation Acreage Overview

Total Released Acres	265.94
Total Remaining Affected Acres	75.09
Un-reclaimed Acres (for water treatment)	71.41
Reclaimed Affected Acres	0.35
Acreage to be reclaimed in short-term	3.33

Complaints

No formal complaints were received in 2020

Technical Revisions

No Technical Revisions to LAC’s Mining Permit were submitted or approved in 2020.

2020 Activities

- Installation of Avian Protection Devices
- Continued Water Management and Treatment
- Continued Monitoring Activities

Avian Protection Devices

- LAC contracted with Black Hills Energy to install avian protection on power pole transformer equipment and wires
- Avian Protection Devices were installed on 8 power poles with transformers across the property

Water Management and Treatment

Leach Pads and Ponds

- Biological Water Treatment Plant Operations - Se Treatment
- Operated Biological WTP with RO discharging 11.4 million gallons
- Operated Biological WTP independently over winter months during 2020 discharging 7.9 million gallons
- Approximately 13.6 million gallons of water stored in treatment ponds (06/30)

- Leach pad effluent flows averaged approximately 31.8 gpm in 2020. LP effluent flows in 2020 were lower than 2019 flows as precipitation was lower in 2020, resulting in lower infiltration rates (precipitation was 21.65 inches in 2020 and 36.39 inches in 2019)

Spruce Gulch - Reclaimed Site of Waste Rock Disposal Facility

- Water treatment - pH adjustment with sodium hydroxide (caustic soda) as needed
- Nearby South Gulch water is pumped to Spruce Gulch Treatment Pond for treatment

Monitoring Activities

Pit Impoundment and Leach Pad Monitoring

- The 2020 Pit Backfill Monitoring/Capping System Monitoring continues to indicate that the cap is functioning to and better than design expectations
- The leach pad capping system continues to perform well limiting infiltration

Sitewide Monitoring Results

Water Quality Monitoring

- Water Quality at the site is generally stable or improving
- Cleopatra Creek water quality monitoring confirms there are no impacts from the Richmond Hill Mine
- Monitoring is continuing and site-specific performance criteria were developed in consultation with DENR to ensure continued protection of the environment in post-closure.

2021 Plans

- Continue RO and Biological Water Treatment
- Continue Monitoring Activities