Corporate Environmental Affairs

September 24, 2018

Oklahoma Water Resources Board
3800 N. Classen
Oklahoma City, OK 73118
(405) 530-8800

Consumptive Water Use Report – Quarter 2, 2018
Mine L.E.-1565 – Unimin Corporation – Roff Facility

Dear Sir or Madam:

Enclosed please find Unimin’s consumptive water use report for the second quarter of 2018. As noted on the attached worksheet, the plant remains below our allocated equal proportionate share.

If you have any questions or require any additional information, please contact myself or Jim Bonsall at (580) 456-7772.

Respectfully,

David Caldwell
QC Supervisor

Attachments
CC  Plant
     IRO
Consumptive Use of Pitwater Worksheet Quarter 2

Pit Groundwater Volume

1. Total volume of water pumped from the producing mine pit(s) 438,486,540
2. Volume of precipitation that falls onto the surface of water in the producing mine pit(s) 33,071,623
3. Portion of total precipitation that flows over the land surfaces that drains into the mine pit water
4. Other non-pit waters pumped from the producing mine pit 0
5. Add lines 2 through 4 33,071,623
6. Pit Groundwater Volume (Line 1 - Line 5) 405,414,917

Amount (gallons)

Defined Elements of Consumptive Use

7. Volume of pit water that is driven off (by drying) the mined material transported off the mine site 3,078,156
8. Volume of pit water that is carried away with the mined material transported off the mine site (shipped) 0
9. Volume of pit water that evaporates from the producing mine pit, process water ponds, and lined ponds (excluding structures used for augmentation) 557,767
10. Volume of pit water that is used for other beneficial uses off the mine site (outfall discharge) 765,190,400
11. Defined Elements of Consumptive Use of Pit Groundwater (add Lines 7 through 10) 768,828,323

Amount (gallons)

Pit Groundwater Balance

12. Total groundwater from pit 0
13. Groundwater Augmentation (Volume of pit groundwater returned to the groundwater basin or sub-basin) 0
14. Stream Augmentation (Volume of pit groundwater discharged to a definite stream, during flow conditions that are less than or equal to 50% exceedance of median historic flows) 765,190,400
15. Precipitation & Run-off (Volume of precipitation and surface run-off into a recharge pit or holding pond used for augmentation) 0
16. Additional Discharge (Volume of pit groundwater discharged to a definite stream, not meeting stream augmentation credit criteria) 0
17. Recycled Pit Groundwater (Volume of pit groundwater returned to a mine pit or holding basin not included on lines 7 through 10) 405,414,917
18. Other Non-Consumptive Losses (including pit groundwater returned to the land surface from which surface run-off flows into a mine pit, and other losses not included in lines 7 through 10) 0
19. Add lines 13 through 18 1,170,606,317
20. Other Consumptive Use (adjusted) Line 12 minus 19 -765,190,400
21. Total Reported Consumptive Use Of Pit 8,435,923

Amount (gallons)

Facility's Equal Proportionate Share (EPS) 62,693,815

Enter Values in Yellow

Area of Pit: 115 (acres) Rainfall: 10.5 (inches)

Tons Mixed: 257,026 % Moisture 5.0

ASHRAE Evaporation Model

At: 95
B: 37.4

V: 5 (m/hr)
Par: 0.59 (in-ag)
Nc: 970.4 (in-ag)

Evap Area: 10 (acres)

CREDS

Total Reported Consumptive Use Of Pit

8,435,923

at 0.2 acre-feet for 0.62 acres