



Corporate Environmental Affairs

September 29, 2016

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

**RE: Consumptive Water Use Report – Quarter 2, 2016
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 2016. 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 Don Russell at (580) 456-7772.

Respectfully,

A handwritten signature in black ink, appearing to read "R. Amiri Alexander".

R. Amiri Alexander
Quality Control / Mine Supervisor

Attachments

CC: Plant
IRO

Consumptive Use of Pitwater Worksheet - Quarter 2 2016

Enter Values in Yellow

| Pit Groundwater Volume | | Area of Pit: | Rainfall: |
|------------------------|--|--------------|-----------|
| Amount | (gallons) | 88 | 15.03 |
| | | (acres) | (inches) |
| 1 | Total volume of water pumped from the producing mine pit(s) | | |
| 2 | Volume of precipitation that falls onto the surface of water in the producing mining pit(s) | | |
| 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 | | |
| 5 | Add lines 2 through 4 | | |
| 6 | Pit Groundwater Volume (Line 1 - Line 5) | | |

Defined Elements of Consumptive Use

| Amount | (gallons) | Tons Mined: | % Moisture |
|--------|--|-------------|------------|
| | | 299,382 | 5.0 |
| 7 | Volume of pit water that is driven off (by drying) the mined material transported off the mine site | | |
| 8 | Volume of pit water that is carried away with the mined material transported off the mining site (shipped) | | |
| 9 | Volume of pit water that evaporates from the producing mine pit, process water ponds, and lined ponds (excluding structures used for augmentation) | | |
| 10 | Volume of pit water that is used for other beneficial uses off the mine site (Outfall Discharge) | | |
| 11 | Defined Elements of Consumptive Use of Pit Groundwater (Add Lines 7 through 10) | | |

Pit Groundwater Balance

| Amount | (gallons) | ASHRAE Evaporation Model | A: | B: | V: | Pwr: | Pa: | Hv: | Evap Area: |
|--------|---|--------------------------|---------|---------|---------|---------|---------|----------|------------|
| | | | 95 | 37.4 | 5 | 0.69 | 0.522 | 970.4 | 10 |
| | | | (in/Hr) | (in-Hg) | (in-Hg) | (in-Hg) | (in-Hg) | (Btu/lb) | (acres) |
| 12 | Starting groundwater deficit (line 11) | | | | | | | | |
| 13 | Groundwater Augmentation (Volume of pit groundwater returned to the groundwater base or sub basin) | | | | | | | | |
| 14 | Stream Augmentation (Volume of pit groundwater discharged to a definite stream, during flow conditions that are less than or equal to 50% exceedance or median historic flows. | | | | | | | | |
| 15 | Precipitation & Run-off (Volume of precipitation and surface run-off into a recharge pit or holding pond used for augmentation) | | | | | | | | |
| 16 | Additional Discharge (Volume of pit groundwater discharged to a definite stream, not meeting stream augmentation credit criteria) | | | | | | | | |
| 17 | Recycled Pit Groundwater (Volume of pit groundwater returned to a mine pit or holding basin not included on lines 7 through 10) | | | | | | | | |
| 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) | | | | | | | | |
| 19 | Add lines 13 through 18 | | | | | | | | |
| 20 | Other Consumptive Use (adjusted) Line 12 minus 19 | | | | | | | | |

CREDITS

| Amount | (gallons) | at | 0.2 | acres | for | 982 | acres |
|--------|---|------------|-----|-------|-----|-----|-------|
| 21 | Total Reported Consumptive Use Of Pit (Add Line 11 and Line 20) | 4,143,181 | | | | | |
| | Facility's Equal Proportionate Share (EPS) | 62,693,815 | | | | | |
| | Total Reported Consumptive Use Of Pit | | | | | | |

