

EXHIBIT 15

November 8, 2021 Seepage
Calculation Email

From: [Jennifer Schonlau](#)
To: [Michelle Griffin](#)
Subject: Seepage Calculation
Date: Monday, November 8, 2021 4:55:00 PM

Hi Michelle,

Please see information below from NewFields regarding the seepage calculation in the EDR. Let me know if you have any questions.

Thank you!

The 74 gpm seepage calculation estimate was a preliminary estimate completed in June 2019 to conservatively size the CTFS reclaim pond to provide flexibility during operations not closure. This was before Piteau performed the infiltration modeling. The calculation is based on the assumption that the difference of water content between native ore in the pit and the CTFS stack would seep out from the facility in just 109 years. In reality it will take thousands or millions of years to reach the original moisture content with the low permeability tailings material. The seepage water volume at 74gpm for 7 days is 746,900 gallons or 3% of the total storage capacity of the pond at freeboard. If we use the latest Piteau modeled infiltration rate of 0.02 gpm then the seepage water volume after 7 days is 700 gallons or 0.003% of the total storage capacity of the pond at freeboard.

The calculation for the seepage calculation is below.

Thacker Pass
10-Year Clay Tailings Filter Stack Average Seepage Rate

| Description | Value | Unit | Comment |
|---|----------------|------------|---|
| Initial Tailings moisture content (wet basis) | 32.9% | % | Mw/(Mw+Ms) |
| Initial Tailings moisture content (dry basis) | 49.1 | % | Mw/(Ms) |
| Final Tailings moisture content (wet basis) | 16 | % | ore natural moisture content (worst case) |
| Final Tailings moisture content (dry basis) | 19.0 | % | calc |
| Approximate tailings dry density | 70 | lbs/ft3 | Estimated from lab compaction curves |
| Approximate tailings wet density | 104.3 | lbs/ft3 | calc |
| Approximate tailings wet density | 1.41 | tons/cy | calc |
| 10-year CTFS volume | 75,000,000 | CY | From volume calculation based on LNC production |
| 10-year CTFS volume | 2,025,000,000 | ft3 | calc |
| Total Wet Tailings Tonnes for first 10 years | 94,735,472 | wet tonnes | Provided by LNC |
| Total Mass of Dry Solids | 63,552,290 | dry tonnes | Provided by LNC |
| Total Mass of Water in CTFS | 31,183,182 | tonnes | calc |
| Estimated Mass of Residual Water in CTFS | 15,157,676 | tonnes | calc |
| Estimated Mass of Seepage Water that will drain away to reach Steady State moisture content | 16,025,506 | tonnes | calc |
| Estimated Mass of Seepage Water that will drain away to reach Steady State moisture content | 35,320,216,282 | lbs | calc |
| Estimated Mass of Seepage Water that will drain away to reach Steady State moisture content | 566,029,107 | ft3 | calc |
| Estimated Mass of Seepage Water that will drain away to reach Steady State moisture content | 4,233,897,721 | gallons | calc |
| Area of 10-year CTFS | 18,000,000 | ft2 | Approximate 10-year pad area |
| Average Height of CTFS | 113 | ft | Volume of pad divided by the area |
| Permeability of CTFS | 0.000001 | cm/sec | NewFields Lab Testing |
| Time for water to travel average height of heap | 57,150,000 | minutes | calc |
| Estimated average seepage flow rate | 74 | gpm | calc |

Completed by Matt Haley on June 26, 2019

Input

Output

The calculation for the Reclaim Pond #1 sizing is below:

Thacker Pass
Clay Tailings Filter Stack
Reclaim Pond #1 Sizing

| Process Solution Storage Requirement | | |
|---|---------|---------|
| Average Underdrain Flow Rate due to Seepage | 74 | gpm |
| Average Underdrain Flow Rate due to Seepage | 106,700 | gal/day |

| | | |
|---|----------------|------------|
| Required Draindown Storage Time | 7 | days |
| Total Process Solution Storage Requirement | 746,900 | gal |

| Precipitation Inputs | | |
|--|------|----|
| Design Storm, P - 100 year/24 hour storm | 2.48 | in |

| Phase 1 - Stormwater Runoff Estimate - 100 year/24 hour storm | | | | | | |
|---|----------------------------|--------------|--------------|--|-------------------------------------|---|
| Pad Area Description | Area, A (ft ²) | Curve Number | S Value (in) | Initial Abstraction, I _a (in) | Runoff, Q (in) | Runoff (gal) |
| | | | 1000/CN-10 | 0.2 x S | $Q = (P - I_a)^2 / ((P - I_a) + S)$ | $Q_{gal} = Q \times A \times 7.4805/12$ |
| Filtered Tailings Area ¹ | 14,000,000 | 94 | 0.64 | 0.13 | 1.85 | 16,147,820 |
| Exposed Liner | 4,000,000 | 100 | 0.00 | 0.00 | 2.48 | 6,183,880 |
| Direct Precipitation on Pond | 250,000 | - | - | - | 2.48 | 386,500 |
| Total Stormwater Runoff | | | | | | 22,718,200 |

| | | |
|--|-------------------|------------|
| Required Pond Capacity at Freeboard | 23,465,100 | gal |
|--|-------------------|------------|