Profiling Extractives and Metals in a TMP Pulp Mill
# TMP Extractives and Metals

TMP Pulp extractives
mg/od. g

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Chips</td>
<td>10.0</td>
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<tr>
<td>Primary Refiner</td>
<td>11.3</td>
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<tr>
<td>Secondary Refiner</td>
<td>11.5</td>
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<tr>
<td>Quench Tank</td>
<td>15.5</td>
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<tr>
<td>Pri. Screen accepts</td>
<td>13.9</td>
</tr>
<tr>
<td>Pri. Screen rejects</td>
<td>7.6</td>
</tr>
<tr>
<td>Rej. Screen feed</td>
<td>6.5</td>
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<tr>
<td>Rej. Screen accepts</td>
<td>9.3</td>
</tr>
<tr>
<td>TMP post refiner</td>
<td>16.6</td>
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<tr>
<td>GWD silo</td>
<td>13.9</td>
</tr>
<tr>
<td>Y Bleached pulp</td>
<td>14.2</td>
</tr>
<tr>
<td>PY Bleached pulp</td>
<td>3.1</td>
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<tr>
<td>PM Headbox</td>
<td>12.7</td>
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TMP Extractives and Metals

TMP Filtrate Extractives
mg/ml

<table>
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<tr>
<th>Filter Type</th>
<th>Value</th>
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<tbody>
<tr>
<td>Disk filter</td>
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<tr>
<td>Cloudy ww</td>
<td>0.87</td>
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<td>PM tray</td>
<td>0.16</td>
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</tbody>
</table>
TMP Extractives and Metals

TMP Pulp Extractives

Pulp Extractives

- Fatty Acids
- Resin Acids
- Alkanol
- Monoglycerol
- Sterol
- Unknown

mg/od g

Chips 1o Refiner 2o Refiner Quench Tank 1o Screen accepts Rej. Screen rejects Rej. Screen feed TMP post refiner Y Bleached pulp PY Bleached pulp GWD silo PM Headbox

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TMP Extractives and Metals

TMP Filtrate Extractives

Filtrate Extractives

mg/od g

Fatty Acids
Resin Acids
Alkanol
Monoglycerol
Sterol
Unknown

Impco disk filter
Cloudy WW Sample
#25 PM tray

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TMP Extractives and Metals
TMP Metal Ion Content

![Graph showing TMP metal ion content in various processes.]

- Ca
- Na

Chips, 1o Refiner, 2o Refiner, Quench Tank, 1o Screen accepts, 1o Screen rejects, Rej. Screen feed, Rej. Screen accepts, TMP post refiner, Y Bleached pulp, PY Bleached pulp, GWD silo, PM Headbox
TMP Extractives and Metals

TMP Metal Ion Content

- Chps 1o Refine
- Chi 2o Refiner
- Quench Tank
- 1o Screen accepts
- Rej. Screen rejects
- 1o Screen feed
- TMP post refiner
- Y Bleached pulp
- PY Bleached pulp
- GWD silo
- PM Headbox

mg/kg

Mg
Mn

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Observations

• Little to no reduction in pulp extractives through refining and screening.
• Significant accumulations in some filtrates.
• P bleaching/washing produces significant extractive reduction.